

A close-up photograph of industrial metal fittings and pipes. The image shows several hexagonal metal components, likely made of stainless steel, connected to pipes. The lighting is dramatic, highlighting the metallic surfaces and creating strong shadows. The background is blurred, showing more industrial equipment. A red banner is overlaid on the top right of the image, containing the company logo and name.

**HANSA FLEX**

Connection Technology



## Hose Replacement Service – 24h hour rapid response

Our 280 service vans from the hydraulic emergency service are always just a call away. Whether on the construction site, during the harvest or in industrial applications: in case of a machine failure the job is carried out on site – and around the clock.

Tel. 24/7: 0800 77 12345 (Int. +49 421 9897 7690)



## Industrial Service – maintain and optimise

Your machines must be running, around the clock. Preventative maintenance of the HANSA-FLEX Industrial Services helps you to save money and guarantees maximum machine uptime. We will advise you from the selection of the right hydraulic components to the optimisation of your plant and machinery.

[www.hansa-flex.com/en/industrial\\_service](http://www.hansa-flex.com/en/industrial_service)



## Power Unit Construction – engineering from the specialist

Units are the heart of any hydraulic system. In order to produce a state of the art power unit a high degree of engineering skill is required. The HANSA-FLEX power unit construction offers all services as a single source: from planning, design to installation and commissioning at the customer site.

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## Online Shop – 24/7 convenient shopping

In our online shop you will find the same variety and quality of products that our customers have been used to for over 50 years: from hydraulic hoses and hose fittings to couplings, ball valves and cylinders – “everything from a single source.”

[www.hansa-flex.com/en/shop](http://www.hansa-flex.com/en/shop)



## X-CODE – hose management

Our customer portal My.HANSA-FLEX offers the perfect solution for preventative maintenance. Users can see the technical data of a hose line at a glance: Manufacturing date, period of use, proposed replacement date, as well as machine and location. Thus, inspection and maintenance intervals can be planned well ahead.

[www.hansa-flex.com/en/hose\\_line\\_management](http://www.hansa-flex.com/en/hose_line_management)













## HANSA-FLEX – always close to our customers

Through our tight-knit network of branches we are always close to our customers. At each of our 400 locations we offer the complete range of hydraulics: from the standard replacement of a hose line to powerful hydraulic cylinders – personal, fast and reliable.

[www.hansa-flex.com/en/subsidiaries](http://www.hansa-flex.com/en/subsidiaries)

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# 1. Pipe fittings ISO 8434-1

## French series (straight)



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# 1. Pipe fittings ISO 8434-1

## Weld fittings



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## 3. Adapters



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## 4. Flanges

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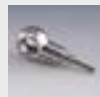
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Measuring couplings  
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Measuring couplings  
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## 6. Measuring equipment

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## 8. Accessories and Tools

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Pipe bending and  
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Pipe cutting equipment  
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Pipe deburrers  
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Pre-assembly sockets  
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# Products

## Hydraulic hoses



Hose lines in all nominal diameters and for every field of application

## Pipelines



Precision pipes conforming to DIN EN 10305, deliverable as single items or in series

## Fittings production



Comprehensive range of fittings in stock, custom designs at very short notice

## Fittings



On hand in many different dimensions and shapes; available in both steel and stainless steel

## Adapters



Wide range of adapters for optimum flow conditions

## High pressure flanges



Many designs in all standard alloys permanently in stock

## Measuring systems



Extensive range of measuring systems for fluid technology

## Mounting technology



Deliverable materials: Polypropylene, polyamide, solid rubber and aluminium

## Bellows & expansion joints



Comprehensive warehouse inventory – fast delivery

## Industrial hoses



Hoses, nipples, couplings for industrial applications in many sectors

## Preformed hoses



Many standard sizes ex warehouse, custom designs for all geometries

## Hydraulic cylinders



Many variants available in standard inventory, custom designs at short notice

## Hydraulic components



More than 4,500 components available from stock – supply of ready-to-install groups

## Plant construction



Innovative solutions in hydraulic drive and control technology

## Services

### Couplings



Available immediately from stock: couplings for every conceivable purpose

### Metal & PTFE hoses



Special hose lines for solid, liquid and gaseous media

### Seals



Over 8,000 sealing systems in stock, custom designs available at short notice

### Rapid hydraulics service



Full-service mobile rapid hydraulics service – contactable at no charge, any time

### Cylinder repair



Manufacturer-independent repair of cylinders, pumps, motors and valves

### Kitting



Ready-to-install, pre-assembled sets – individually adapted to the customer's needs

### Technical consulting



Individual solutions tuned precisely to the needs of our customers

### Fluid service



Professional consulting and oil care, provision of filter systems and elements

### Workshop containers



Mobile workshop containers for extreme application areas

### Kanban



All types permanently in stock – structured inventory maintained at customer's site.

### Engineering & Project planning



Planning for entire hydraulic systems – all from a single source

### Industrial assembly



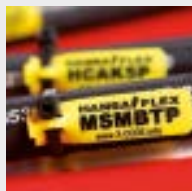
Scheduled activities to avoid unscheduled stoppages

### Plant-in-plant production



Production facility at the customer's site – perfect synchronisation, rapid response times

### Hose codes



Replacement parts procurement without delay with X-CODE – unique, fast

### Customer training



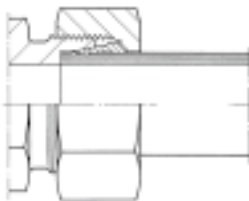
Wide-ranging seminar programme on all aspects of fluid technology, also conducted at customer's site



# Technical information

# TECHNICAL INFORMATION ON PIPE FITTINGS

## 1. DESIGN AND FUNCTION OF CUTTING RING THREADED CONNECTORS



The cutting ring threaded connectors manufactured by HANSA-FLEX have been used successfully in practical applications for many years.

These important components in our line of hydraulic connecting equipment are standardised according to DIN EN ISO 8434-1 and DIN 2353, and their geometrical shape serves to seal hydraulic pipes and fittings easily, reliably and safely.

They can be fitted either into the screwed joint or into specially made devices. In either case the cutting ring and its edges are moved axially as the union nut is tightened.

As the cutting ring moves along a precisely defined assembly path, its cutting edges are forced into the surface of the hydraulic pipe.

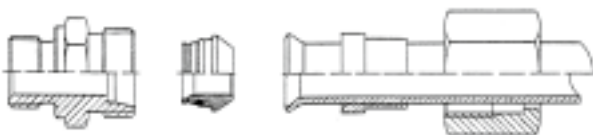
A specially shaped limit ridge prevents overtightening, the pipe material that is raised in front of the edges is cold-hardened.

The outer surfaces of the cutting ring transfer the active forces evenly over the entire sealing cone of the fitting; the internal contour is shaped so that the cutting ring is wedged between the union nut and the screwed joint and serves as a spring-loaded element.

This spring effect damps vibrations and increases the resistance of the fitting to alternating bending loads and surge pressures.

When the assembly instructions are followed, repeat fittings can be carried out safely and reliably. Cutting rings with elastomer seal work according to the same functional principle, but they are furnished with additional elastomer seals to increase operating reliability further still.

## 2. DESIGN AND FUNCTION OF FLARE FITTINGS



HANSA-FLEX flare fittings were originally developed for high pressure applications and are used widely in locations that are exposed to strong vibrations.

Of course, they can be fitted on the standard threaded connectors, the end of the pipe just has to be provided with a standardised 37° flare cone in preparation for fitting.

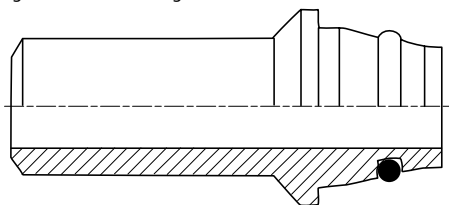
The entire fitting consists of the threaded connector, the spacer ring with O-ring seal, the pressure ring and the union nut.

### 3. DESIGN AND FUNCTION OF THREADED WELD NIPPLES

HANSA-FLEX threaded weld nipples provide another option for connecting standardised hydraulic pipes and threaded connectors:

The sealing cone is fitted with an O-ring and is shaped so as to fit precisely inside the mating part of the threaded connector.

However, the O-ring must be removed before welding, and any stray welding material must be removed from the O-ring groove and the fitting hole.



### 4. GENERAL NOTES

All of the pipe fittings listed in our catalogue are manufactured in conformance with DIN 2353 or DIN EN ISO 8434-1 and are intended for applications in hydraulic connection equipment.

The HANSA-FLEX pipe fitting product line includes a large number of fitting types that surpass the requirements of this standard. In these special forms, e.g., pipe fittings with spring-back tolerances, the connector dimensions have been adapted to the pertinent standard, so that they can be replaced at any time.

All fittings are designed to withstand the operating pressures specified in the standards, in some cases the requirements of the standard are exceeded.

However, in order to function properly our fittings must have been assembled in strict compliance with the assembly instructions supplied by us.

### 5. MATERIALS

HANSA-FLEX cutting ring fittings are manufactured from cold-drawn or forged materials and conform to the technical conditions of delivery of pipe fittings according to DIN 3859-1 and the requirements of ISO 8434-1.

	Component	Identification	Material	Standard
Steel	Straight screw-in fittings	11SMnPb30+C	1.0718+C	DIN EN 10277-3
	Connecting and reducing fittings			
	Bulkhead fittings			
	Screw-in sockets			
	Union nuts			
	Flange fittings			
	Hollow screws			
	Angle, T and L screw-in fittings	11SMnPb30+C	1.0718+C	DIN EN 10277-3
	Banjo fittings			
	Soldered sockets			
Welded sockets	S355J2G3	1.0570	DIN EN 10250-2	
Cutting rings	According to selection of manufacturer			
Stainless steel	Bar stock	X2CrNiMo17-12-2	1.4404	EN 10088-2
		X 6 CrNiMoTi 17-12-2	1.4571	EN 10088-2
	Forged blank	X2CrNiMo17-12-2	1.4404	EN 10088-2
		X 6 CrNiMoTi 17-12-2	1.4571	EN 10088-2
Brass	CuZn35Ni2	2.0540	DIN 17660 DIN EN ISO 17672	

## 6. SURFACE PROTECTION

The surfaces of steel fitting bodies, union nuts and cutting rings are protected from corrosion as standard with a CrVI-free zinc-nickel coating conforming to DIN EN 15205.

The surfaces of HANSA-FLEX welded sockets are phosphated and oiled.

## 7. STANDARDISATION

### Fittings

HANSA-FLEX pipe fittings are components for use in hydraulic connection equipment and are standardised in accordance with DIN 2353 and DIN EN ISO 8434-1. Their standard designations are often also used in ordering documentation. The following list shows a selection of the various designations:

<b>HANSA-FLEX Identification</b>	<b>Designation according to standard</b>
XVM NW...HL	Pipe fitting ISO 8434-1 – SDSC – L...xM... – B
XVM NW...HS	Pipe fitting ISO 8434-1 – SDSC – S...xM... – B
XVR NW...HL	Pipe fitting ISO 8434-1 – SDSC – L...xG... – B
XVR NW...HS	Pipe fitting ISO 8434-1 – SDSC – S...xG... – B
XVM NW...HL ED	Pipe fitting ISO 8434-1 – SDSC – L...xM... – E
XVM NW...HS ED	Pipe fitting ISO 8434-1 – SDSC – S...xM... – E
XVR NW...HL ED	Pipe fitting ISO 8434-1 – SDSC – L...xG... – E
XVR NW...HS ED	Pipe fitting ISO 8434-1 – SDSC – S...xG... – E
XV NW...HL	Pipe fitting ISO 8434-1 – SC – L... –
XV NW...HS	Pipe fitting ISO 8434-1 – SC – S... –
XWM NW...HL	Fitting DIN 2353 – HL...B – St
XWM NW...HS	Fitting DIN 2353 – HS...B – St
XWR NW...HL	Fitting DIN 2353 – JL...B – St
XWR NW...HS	Fitting DIN 2353 – JS...B – St
XW NW...HL	Pipe fitting ISO 8434-1 – EC – L... –
XW NW...HS	Pipe fitting ISO 8434-1 – EC – S... –
XTM NW...HL	Fitting DIN 2353 – OL...B – St

<b>HANSA-FLEX Identification</b>	<b>Designation according to standard</b>
XTM NW...HS	Fitting DIN 2353 – OS...B – St
XTR NW...HL	Fitting DIN 2353 – PL...B – St
XTR NW...HS	Fitting DIN 2353 – PS...B – St
XT NW...HL	Pipe fitting ISO 8434-1 – SDTC – L... – B
XT NW...HS	Pipe fitting ISO 8434-1 – SDTC – S... – B
XSA NW...HS	Pipe fitting ISO 8434-1 – WDSC – S... – B
XSA NW...HL	Pipe fitting ISO 8434-1 – WDSC – L... – B
XSV NW...HS	Pipe fitting ISO 8434-1 – BHC – S... – B
XSV NW...HL	Pipe fitting ISO 8434-1 – BHC – L... – B
XSW NW...HS	Pipe fitting ISO 8434-1 – BHEC – S... – B
XSW NW...HL	Pipe fitting ISO 8434-1 – BHEC – L... – B
XSE NW...HS	Pipe fitting ISO 8434-1 – WDSC – S... – B
XSE NW...HL	Pipe fitting ISO 8434-1 – WDSC – L... – B
UEM NW...L	Pipe fitting ISO 8434-1 – N – L... – B
UEM NW...S	Pipe fitting ISO 8434-1 – N – S... – B
SR D...	Pipe fitting ISO 8434-1 – CR – L... – B
SR D...	Pipe fitting ISO 8434-1 – CR – S... – B



**Applicable standards for pipe fittings:**

Technical conditions of delivery	DIN 3859-1
Assembly instructions	DIN 3859-2
Test specification	DIN 3859-3
DIN fittings (24°)	DIN 2353
	DIN EN ISO 8434-1
Flare fittings (37°)	DIN EN ISO 8434-2
ORFS fittings	DIN EN ISO 8434-3
Pipe connection side (connector)	DIN 3861
	DIN EN ISO 8434-1
Seamless precision steel pipes	EN 10305-4
Metric cyl. screw-in pins and holes:	DIN 3852-1, DIN 3852-11
	DIN EN ISO 6149-1
	DIN EN ISO 6149-3
Imperial cyl. screw-in pins and holes	DIN 3852-1, DIN 3852-11
	ISO 1179
Conical screw-in pins and holes with	
NPT thread	ANSI/ASME B1.20.1-1983
Cyl. screw-in pins and holes with UN and/or UNF thread	Conforming to ISO/DIS 11926-1/SAE J514; with UN/UNF thread 2A/2B conforming to ANSI B1.1/ISO725
Metric fine threads	DIN 13, T5-T7
Imperial threads	DIN EN ISO 228-1

8. OPERATING TEMPERATURES OF 24° CUTTING RING FITTINGS

Material	Pressure reductions for permissible operating temperatures [ °C]				
	-40 °C	+20 °C	+50 °C	+100 °C	+120 °C
Steel					
	0%				
Stainless steel	-60 °C	+20 °C	+50 °C	+100 °C	+200 °C
	0%		4%	11%	20%
NBR	-30 °C	+100 °C			
	0%				
FPM	-15 °C	+200 °C			
	0%				

Source: DIN 3859-1, DIN 3771-3, ISO 8434-1

**EXAMPLE:**

Stainless steel fitting

Pressure: 400 bar

Temperature: 200 °C

→ Pressure reduction of 20% → Pressure reduction of 80 bar (400x20%)

→ Fitting pressure = 400 – 80 = 320 bar

9. OPERATING PRESSURES OF 24° CUTTING RING FITTINGS

The HANSA-FLEX range of fittings is divided into three series according to pressure level and application:

- LL: very light series
- L: light series
- S: heavy duty series

Information about fittings often includes the nominal pressure, designated PN. The nominal pressure, PN, is merely an index that serves as an identifier or designator for a part or system. The PN designation is used internationally.

With this indication of the PN nominal pressure, HANSA-FLEX cutting ring fittings offer a quad-ruple safety factor. Flare fittings conforming to ISO 8434-2 also have a safety factor of 4.

It should be noted that this safety factor is contingent on error-free assembly and correct routing of the pipeline system.

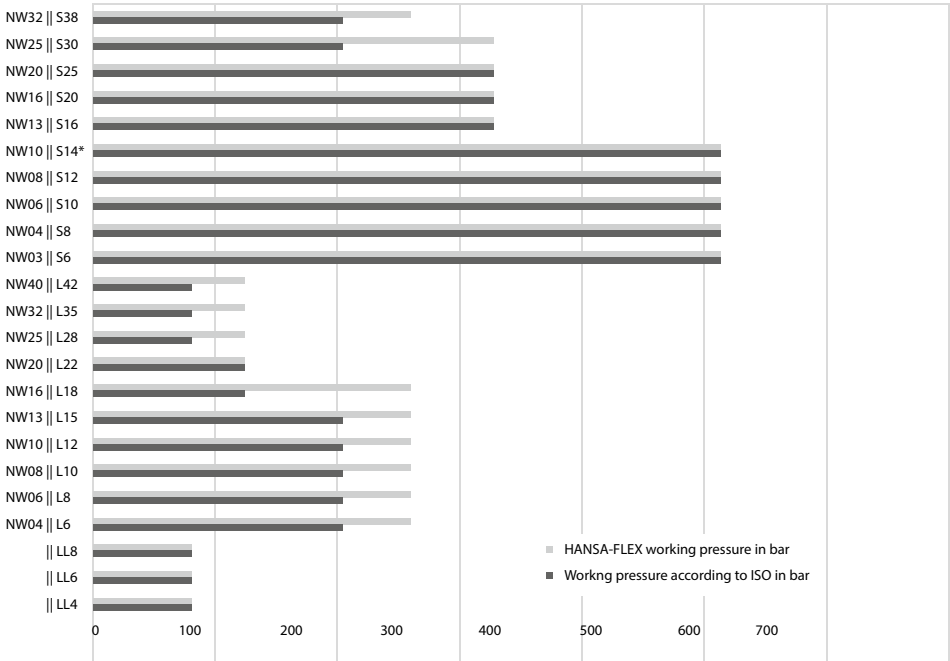
However, HANSA-FLEX cutting ring fittings are designed in such a way that the pressure values required according to DIN EN ISO 8434-1 are exceeded. The pressure ranges indicated are based on the connector shape. The various screw-in shapes should be noted, deviations may occur under certain circumstances.

Please direct enquiries to the Application Technology department.



### MAX. OPERATING PRESSURES OF 24° CUTTING RING FITTINGS

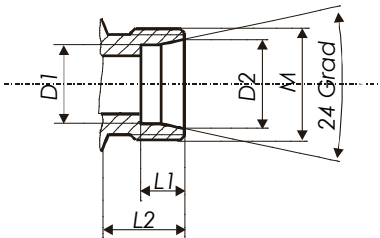
Nominal width || Series



\*) is no longer standardised

### 10. PIPE-SIDE CONNECTION OF CUTTING RING FITTINGS

The pipe-side connection of HANSA-FLEX cutting ring fittings is standardised according to DIN 3861, hole shape W and DIN EN ISO 8434-1, and it is thus guaranteed that it can also be replaced with metric fittings for hydraulic hose lines:



T

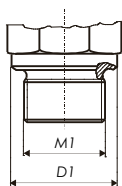
Series	External pipe diameter	Nominal pressure PN in bar	M	L1	L2	D1	D2
LL	4	100	M8x1	4	8	4	5
LL	5	100	M10x1	5.5	8	5	6.5
LL	6	100	M10x1	5.5	8	6	7.5
LL	8	100	M12x1	5.5	9	8	9.5
L	6	315	M12x1.5	7	10	6	8.1
L	8	315	M14x1.5	7	10	8	10.1
L	10	315	M16x1.5	7	11	10	12.3
L	12	315	M18x1.5	7	11	12	14.3
L	15	315	M22x1.5	7	12	15	17.3
L	18	315	M26x1.5	7.5	12	18	20.3
L	22	160	M30x2	7.5	14	22	24.3
L	28	160	M35x2	7.5	14	28	30.3

Series	External pipe diameter	Nominal pressure PN in bar	M	L1	L2	D1	D2
L	35	160	M45x2	10.5	16	35.3	38
L	42	160	M52x2	11	16	42.3	45
S	6	630	M14x1.5	7	12	6	8.1
S	8	630	M16x1.5	7	12	8	10.1
S	10	630	M18x1.5	7.5	12	10	12.3
S	12	630	M20x1.5	7.5	12	12	14.3
S*	14	630	M22x1.5	8	14	14	16.3
S	16	400	M24x1.5	8.5	14	16	18.3
S	20	400	M30x2	10.5	16	20	22.9
S	25	400	M36x2	12	18	25	27.9
S	30	400	M42x2	13.5	20	30	33
S	38	315	M52x2	16	22	38.3	41

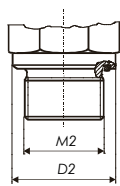
\*) Size 145 is **no longer** standardised and is not approved by Germanischer Lloyd

### 11. SCREW-IN PINS AND HOLES FOR HANSA-FLEX CUTTING RING FITTINGS

HANSA-FLEX cutting ring fittings are available with a wide range of standardised screw-in threads, enabling them to be used for an enormous variety of applications.



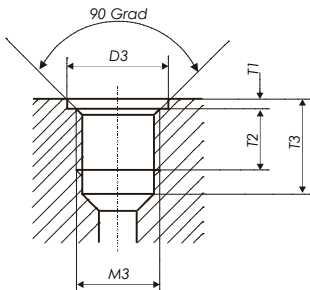
DIN 3852 Part 1 Form B and ISO 9974-3  
Sealing by sealing edge



Form E and ISO 9974-2  
Sealing by elastomer seal

series	External pipe diameter	M1/M2	M3	D1	D2	T1	T2	T3	D3
LL	4	M8x1	M8x1	12	-	1	8	13.5	13
LL	6	M10x1	M10x1	14	13.9	1	8	13.5	15
LL	8	M10x1	M10x1	14	13.9	1	8	13.5	15
L	6	M10x1	M10x1	14	13.9	1	8	13.5	15
L	8	M12x1.5	M12x1.5	17	16.9	1.5	12	18.5	18
L	10	M14x1.5	M14x1.5	19	18.9	1.5	14	18.5	20
L	12	M16x1.5	M16x1.5	21	21.9	1.5	12	18.5	23
L	15	M18x1.5	M18x1.5	23	23.9	2	12	18.5	25
L	18	M22x1.5	M22x1.5	27	26.9	2.5	14	20.5	28
L	22	M26x1.5	M26x1.5	31	31.9	2.5	16	22.5	33
L	28	M33x2	M33x2	39	39.9	2.5	18	26	41
L	35	M42x2	M42x2	49	49.9	2.5	20	28	51

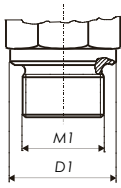
a) **Metric** screw-in pins and holes according to DIN 3852 Part 1, Form B, and DIN 9974-2 Form E with the associated screw-in hole form X



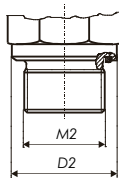
*Screw-in hole according to ISO 9974-1 and DIN 3852 Part 1, Form X for screw-in pins Form A, B, and E*

series	External pipe diameter	M1/M2	M3	D1	D2	T1	T2	T3	D3
L	42	M48x2	M48x2	55	54.9	2.5	22	30	56
S	6	M12x1.5	M12x1.5	17	16.9	1.5	12	18.5	18
S	8	M14x1.5	M14x1.5	19	18.9	1.5	12	18.5	20
S	10	M16x1.5	M16x1.5	21	21.9	1.5	12	18.5	23
S	12	M18x1.5	M18x1.5	23	23.9	2	12	18.5	25
S	14	M20x1.5	M20x1.5	25	25.9	2	14	20.5	27
S	16	M22x1.5	M22x1.5	27	26.9	2.5	14	20.5	28
S	20	M27x2	M27x2	32	31.9	2.5	16	24	33
S	25	M33x2	M33x2	39	39.9	2.5	18	26	41
S	30	M42x2	M42x2	49	49.9	2.5	20	28	51
S	38	M48x2	M48x2	55	54.9	2.5	22	30	56

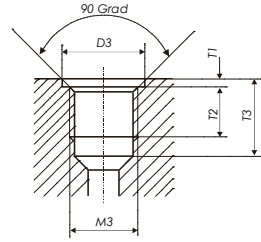
b) **Imperial** screw-in pins and holes according to DIN 3852 Part 2, Form B, and DIN 1179-2 Form E with the associated screw-in hole form X



DIN 3852 Part 2 Form B  
and ISO 1179-4  
Sealing by sealing edge



ISO 1179-2 Form E  
Sealing by elastomer seal

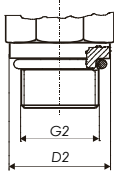


Screw-in hole according to ISO 9974-1  
and DIN 3852 Part 2, Form X  
for screw-in pins Form A, B, and E

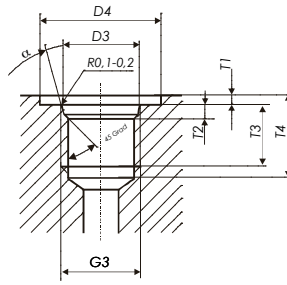
Series	External pipe diameter	G1/G2	G3	D1	D2	T1	T2	T3	D3
LL	4	G 1/8"A	G 1/8"	14	13.9	1	8	13	15
LL	6	G 1/8"A	G 1/8"	14	13.9	1	8	13	15
LL	8	G 1/8"A	G 1/8"	14	13.9	1	8	13	15
L	6	G 1/8"A	G 1/8"	14	13.9	1	8	13	15
L	8	G 1/4"A	G 1/4"	18	18.9	1.5	12	18.5	20
L	10	G 1/4"A	G 1/4"	18	18.9	1.5	12	18.5	20
L	12	G 3/8"A	G 3/8"	22	21.9	2	12	18.5	23
L	15	G 1/2"A	G 1/2"	26	26.9	2.5	14	22	28
L	18	G 1/2"A	G 1/2"	26	26.9	2.5	14	22	29
L	22	G 3/4"A	G 3/4"	32	31.9	2.5	16	24	33
L	28	G 1"A	G 1"	39	39.9	2.5	18	27	41
L	35	G 1 1/4"A	G 1 1/4"	49	49.9	2.5	20	29	51

Series	External pipe diameter	G1/G2	G3	D1	D2	T1	T2	T3	D3
L	42	G 1 1/2"A	G 1 1/2"	55	54.9	2.5	22	31	56
S	6	G 1/4"A	G 1/4"	18	18.9	1.5	12	18.5	20
S	8	G 1/4"A	G 1/4"	18	18.9	1.5	12	18.5	20
S	10	G 3/8"A	G 3/8"	22	21.9	2	12	18.5	23
S	12	G 3/8"A	G 3/8"	22	21.9	2	12	18.5	23
S	14	G 1/2"A	G 1/2"	26	26.9	2.5	14	22	28
S	16	G 1/2"A	G 1/2"	26	26.9	2.5	14	22	28
S	20	G 3/4"A	G 3/4"	32	31.9	2.5	16	24	33
S	25	G 1"A	G 1"	39	39.9	2.5	18	27	41
S	30	G 1 1/4"A	G 1 1/4"	49	49.9	2.5	20	29	51
S	38	G 1 1/2"A	G 1 1/2"	55	54.9	2.5	22	31	56

c) Screw-in pins and holes for pipe fittings with cylindrical US threaded connections conforming to ISO 11926-2/3



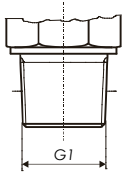
Screw-in pin with UN-UNF-2A thread and O-ring seal conforming to ISO 11926-2 and -3



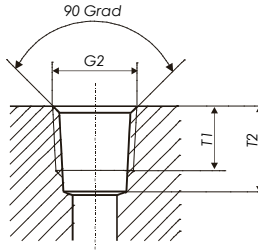
Screw-in hole with UN/UNF 2B thread for O-ring seal conforming to ISO 11926-1

Series	External pipe diameter	G1/G2	D2	D3	D4	T1	T2	T3	T4	$\alpha$	O-ring
L	6, 8, 10	7/16"-20 UNF	16	12.4	21	1.6	2.4	11.5	14	12°	8.92 x 1.83
L	8	1/2"-20 UNF	17	14	23	1.6	2.4	11.5	14	12°	10.52 x 1.83
L	6, 10, 12	9/16"-18 UNF	17.6	15.6	25	1.6	2.5	12.7	15.5	12°	11.89 x 1.98
L	12, 15, 18	3/4"-16 UNF	22.3	20.6	30	2.4	2.5	14.3	17.5	15°	16.36 x 2.2
L	12, 18, 22	7/8"-14 UNF	25.5	23.9	34	2.4	2.5	16.7	20	15°	19.18 x 2.46
L	22, 28	1 1/16"-12 UN	31.9	29.2	41	2.4	3.3	19	23	15°	23.47 x 2.95
L	22, 28, 35	1 5/16"-12 UN	38.2	35.5	49	3.2	3.3	19	23	15°	29.74 x 2.95
L	35, 42	1 5/8"-12 UN	48	43.5	58	3.2	3.3	19	23	15°	37.47 x 3
L	42	1 7/8"-12 UN	55	49.8	65	3.2	3.3	19	23	15°	43.69 x 3
S	6, 8	7/16"-20 UNF	16	12.4	21	1.6	2.4	11.5	14	15°	8.92 x 1.83
S	6	1/2"-20 UNF	17	14	23	1.6	2.4	11.5	14	15°	10.52 x 1.83
S	10, 12	9/16"-18 UNF	17.6	15.6	25	1.6	2.5	12.7	15.5	15°	11.89 x 1.98
S	12, 14	3/4"-16 UNF	22.3	20.6	30	2.4	2.5	14.3	17.5	15°	16.36 x 2.2
S	16, 20	3/4"-16 UNF	22.3	20.6	30	2.4	2.5	14.3	17.5	15°	16.36 x 2.2
S	16, 20	7/8"-14 UNF	25.5	23.9	34	2.4	2.5	16.7	20	15°	19.18 x 2.46
S	20, 25	1 1/16"-12 UN	31.9	29.2	41	2.4	3.3	19	23	15°	23.47 x 2.95
S	25, 30	1 5/16"-12 UN	38.2	35.5	49	3.2	3.3	19	23	15°	29.74 x 2.95
S	30, 38	1 5/8"-12 UN	48	43.5	58	3.2	3.3	19	23	15°	37.47 x 3
S	38	1 7/8"-12 UN	55	49.8	65	3.2	3.3	19	23	15°	43.69 x 3

d) Screw-in pins and holes for pipe fittings with NPT thread conforming to ANSI/ASME B1.20.1-1983



Screw-in pin with NPT screw-in thread conforming to ANSI/ASME B1.20.1-1983



Screw-in hole for NPT thread conforming to ANSI/ASME B1.20.1-1983

Series	External pipe diameter	G1/G2	T1	T2
L	6	1/8"-27 NPT	6.9	11.6
L	8	1/4"-18 NPT	10	16.4
L	10	1/4"-18 NPT	10	16.4
L	12	3/8"-18 NPT	10.3	17.4
L	15	1/2"-14 NPT	13.6	22.6
L	18	1/2"-14 NPT	13.6	22.6
L	22	3/4"-14 NPT	14.1	23.1
L	28	1"-11.5 NPT	16.8	27.8
L	35	1 1/4"-11.5 NPT	17.3	28.3
L	42	1 1/2"-11.5 NPT	17.3	28.3

Series	External pipe diameter	G1/G2	T1	T2
S	6	1/4"-18 NPT	10	16.4
S	8	1/4"-18 NPT	10	16.4
S	10	3/8"-18 NPT	10.3	17.4
S	12	3/8"-18 NPT	10.3	17.4
S	14	1/2"-14 NPT	13.6	22.6
S	16	1/2"-14 NPT	13.6	22.6
S	20	3/4"-14 NPT	14.1	23.1
S	25	1"-11.5 NPT	16.8	27.8
S	30	1 1/4"-11.5 NPT	17.3	28.3
S	38	1 1/2"-11.5 NPT	17.3	28.3



## 12. TIGHTENING TORQUES FOR SCREW-IN PINS IN HANSA-FLEX CUTTING RING FITTINGS

The following list of tightening torques applies for steel fittings with zinc-nickel coated screw-in pins for locking screws and banjo couplings, all with HANSA-FLEX CrVI-free surface and a mating part manufactured from the same material.

Tightening torques for stainless steel fittings and for fittings with UN/UNF threads available upon request.

In order to achieve an optimum seal, conical screw-in threads must be provided with an additional sealing means, e.g., Teflon tape.

**NOTE:** The torque values apply only for the test.  
The tightening torques during assembly depend on a large number of factors, including lubrication, coating and surface treatment. Please consult the manufacturer.

Series	Thread	Tightening torque in Nm ISO 1179-2 Form E (ED soft seal)	Tightening torque in Nm ISO 1179-4 Form B (metal sealing edge)	Tightening torque in Nm ISO 1179-3 Form G, H (O-ring chamber ring)	Tightening torque in Nm for screw plugs	Tightening torque in Nm for banjo fittings
L	G 1/8"	20	20	25	12	25
L	G 1/4"	50	40	50	18	40
L	G 3/8"	80	80	80	40	80
L	G 1/2"	100	150	105	75	120
L	G 3/4"	200	200	220	110	180
L	G 1"	380	380	370	190	300
L	G 1 1/4"	500	600	500	240	300
L	G 1 1/2"	600	700	600	300	600

S	G 1/8"				12	25
S	G 1/4"	60	60		18	40
S	G 3/8"	90	100		40	80
S	G 1/2"	130	170		75	120
S	G 3/4"	200	320		110	180
S	G 1"	380	380		190	300
S	G 1 1/4"	500	600		240	300
S	G 1 1/2"	600	800		300	600

Series	Thread	Tightening torque in Nm ISO 9974-2 Form E (ED soft seal)	Tightening torque in Nm ISO 9974-3 Form B (metal sealing edge)	Tightening torque in Nm for screw plugs	Tightening torque in Nm for banjo fittings
L	M10x1	20	20	12	25
L	M12x1,5	30	30	18	30
L	M14x1,5	50	50	20	50
L	M16x1,5	60	70	35	60
L	M18x1,5	80	90	50	70
L	M22,1,5	140	150	70	130
L	M26x1,5	200	210	85	140
L	M33x2	380	380	150	280
L	M42x2	500	550	280	280
L	M48x2	600	700	350	500

S	M10x1			12	25
S	M12x1,5	45	45	18	30
S	M14x1,5	60	60	20	50
S	M16x1,5	80	90	35	60
S	M18x1,5	100	120	50	70
S	M20x1,5	140	170	60	110
S	M22x1,5	150	190	70	130
S	M26x1,5			85	140
S	M27x2	200	320	100	150
S	M33x2	380	450	150	280
S	M42x2	500	600	280	280
S	M48x2	600	800	350	500

### 13. DETERMINATION OF PRESSURE LOSS IN PIPELINES

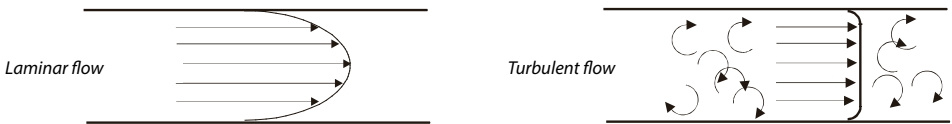
The pressure losses that inevitably occur in pipeline systems can be recorded either by measuring equipment or by calculation.

Determination of these losses precisely by calculation is associated with considerable effort, but at this point we are reproducing a few simple equations that can be used to determine approximate pressure losses in straight pipelines and fittings.

The pressure losses and flow resistance in a line system are dependent on the internal diameter of the pipe, the flow velocity and the properties of the hydraulic oil (density and viscosity).

Pressure losses are caused by "fluid friction", i.e., the friction between the oil and the pipe walls, and the internal friction within the fluid.

Above a certain velocity, the laminar flow of the oil becomes a turbulent flow. Turbulent flows lead to greater heat generation in the system, with consequential losses of pressure and performance.



The behaviour of the flow is also characterised by the Reynolds number  $Re$ .

If this  $Re$  number exceeds a given value, the laminar oil flow becomes a turbulent flow.

In pipelines, laminar flow is most desirable. Turbulent flow occurs most often in valves, couplings and ball valves.

The pressure losses in straight pipelines can be determined approximately with the aid of the following equations:

$$\Delta p = \lambda \times \frac{l \times \rho \times v^2 \times 10}{d \times 2} \quad \text{in bar}$$

$\Delta p$  = Pressure loss in a straight pipeline (laminar or turbulent flow) in bar

$\lambda$  = Pipe friction index

$\rho$  = Density of the hydraulic oil in  $\text{kg/dm}^3$ ,  $\rho = 0.89 \text{ kg/dm}^3 = 890 \text{ kg/m}^3$

$l$  = Line length in metres  $m$

$v$  = Flow velocity of the oil in the line in  $m/s$

$d$  = Internal diameter of the line in  $mm$

$\nu$  = Kinematic viscosity in  $\text{cSt}$  or  $\text{mm}^2/s$

$Q$  = Fluid stream in the line in  $l/min$

Pipe friction number for laminar flow,  $Re < 2320$

$$\lambda_{lam.} = 64/Re$$

Pipe friction number for turbulent flow,  $Re \geq 2320$

$$\lambda_{turb.} = \frac{0.316}{\sqrt[4]{Re}}$$

Reynolds number

$$Re = \frac{V \times d}{\nu} \times 10^3$$

Flow velocity

$$V = \frac{Q}{6 \times d^2 \times \frac{\pi}{4}} \times 10^2$$

#### Example:

For a straight pipeline having  $l = 1$  m and internal diameter  $d = 25$  mm. The flow volume  $Q$  is 150 l/min and the flow velocity of the oil is 5 m/s. A standard hydraulic oil HLP 46 is used, having a kinematic viscosity of

$\nu = 46 \text{ mm}^2/\text{s} = 46 \text{ cSt}$  and a density of  $0.89 \text{ kg}/\text{dm}^3$

Calculate the pressure loss occurring over the total length of 1 m.

#### Solution:

1. Determination of Reynolds number  $Re$ :

$$Re = \frac{V \times d}{\nu} \times 10^3 = \frac{5 \text{ m/s} \times 25 \text{ mm}}{46 \text{ mm}^2/\text{s}} \times 10^3 = 2713$$

In this case, the Reynolds number is greater than 2320, so turbulent flow conditions exist.

2. Determination of the pipe friction number for turbulent flow

$$\lambda_{turb.} = \frac{0.316}{\sqrt[4]{Re}} = \frac{0.316}{\sqrt[4]{2713}} = 0.0437$$

3. Calculation of pressure loss over the total length

$$\Delta p = \lambda \times \frac{l \times \rho \times V^2 \times 10}{d \times 2} = 0.0437 \times \frac{1 \text{ m} \times 0.89 \text{ kg}/\text{dm}^3 \times \left(5 \text{ m/s}\right)^2 \times 10}{2 \times 25 \text{ mm}} = 0.194 \text{ bar}$$

However, it should be noted that these equations are only valid for straight pipeline sections. But a pipeline system consists of straight and angled sections, also fittings and other products from the inventory of hydraulic connection technology.

Therefore, the pressure losses in the individual elements must be determined separately, either by calculation or measurement, and finally added together to yield the total loss.

For the purpose of determining approximate pressure losses in individual components a drag coefficient  $\xi$  is assumed

The pressure loss in a component can be determined according to the following equation:

$$\Delta p = \xi \times \rho \times \frac{1}{2} v^2$$

$\Delta p$  = Pressure loss in the component in bar

$\xi$  = Drag coefficient (no unit)

$\rho$  = Density of the hydraulic oil in  $\text{kg}/\text{dm}^3$ ,  $\rho = 0.89 \text{ kg}/\text{dm}^3 = 890 \text{ kg}/\text{m}^3$

$v$  = Flow velocity of the oil in the line in  $\text{m}/\text{s}$

It should be noted that the pressure losses can be affected by many other factors occurring in the components represented, and these calculations only allow of an approximate determination.

Therefore, in important situations, tests should be carried out on a test bench.

## ASSEMBLY INSTRUCTIONS, CUTTING RING / COMPRESSION FITTING



Hydraulic lines are capable of causing serious personal injury and environmental damage, but this danger is very often underestimated in practice. Incorrect assembly or improper use of threaded connectors, pipes, and accessories can compromise the product's functional reliability, causing it to fail and possibly pose a threat to people and equipment. In extreme cases, violently spraying oil and ruptured lines can even cause fatal injuries.

We therefore recommend most strongly that these assembly instructions be strictly followed!



Machinery manufacturers and operators must also fulfil additional obligations. They are responsible for:

- ensuring that pipelines and threaded connections are used in compliance with the respective specifications
- guaranteeing scheduled monitoring and systematic inspections by authorised personnel with the appropriate qualification and knowledge of hose line equipment
- detecting and eliminating defects

This active assumption of responsibility is enshrined in the legal framework. Based on the principles of industrial safety, the equipment and product safety act, the machine and pressure device directive and the ordinance on industrial safety and health, tasks are specified further and set out in procedural regulations for those concerned.

This guide supplements the pertinent standards, guidelines and regulations. It reflects the current state of the art. No claims are made regarding completeness.



**Note:** All tools and materials must be checked before each assembly procedure to ensure that they are good condition.

**CONTENT**

**ASSEMBLING A STEEL CUTTING RING**

1. Full cutting ring assembly in hardened assembly stud
2. Full cutting ring assembly in screw sleeve
3. Pre-assembly in assembly stud or screw sleeve
4. Finishing assembly of manufacturer-assembled threaded connectors in screw sleeve

**ASSEMBLING 24° SEALING CONE SCREW-ON FITTINGS (AOL/AOS)**

5. Assembly of HANSA-FLEX 24° sealing cone screw-on fittings

**ASSEMBLING STAINLESS STEEL CUTTING RING (VA)**

6. Pre-assembly in hardened assembly stud
7. Finishing assembly of manufacturer-assembled stainless steel screw sleeves

**SUPPORT BUSHES**

8. Selecting the correct support bushes

**SRWD..VI SOFT SEAL**

9. Assembling the SRWD..VI soft seal

For complete cutting ring assembly in an assembly stud, always use assembly studs that have a corresponding depth dimension T!



	T mm ± 0,05		T mm ± 0,05
VOM NW04 HL	7,00	VOM NW03 HS	7,00
VOM NW06 HL	7,00	VOM NW04 HS	7,00
VOM NW08 HL	7,00	VOM NW06 HS	7,50
VOM NW10 HL	7,00	VOM NW08 HS	7,50
VOM NW13 HL	7,00	VOM NW10 HS	8,00
VOM NW16 HL	7,50	VOM NW13 HS	8,50
VOM NW20 HL	7,50	VOM NW16 HS	10,50
VOM NW25 HL	7,50	VOM NW20 HS	12,00
VOM NW32 HL	10,50	VOM NW25 HS	13,50
VOM NW40 HL	11,00	VOM NW32 HS	16,00

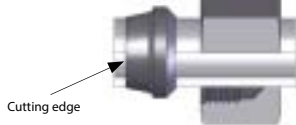
The tolerances for the LL series are the same as the tolerances for the L series

- Pipes must be cut to size at right angles  $\pm 0.5^\circ$  before all pipe fitting operations. Pipe cutters or angle grinders may not be used for this.
- Lightly deburr the insides and outsides of pipes.
- After deburring, clean the pipes.
- Use support bushes for thin-walled pipes.
- Markings (position of the nut) make it easier to determine the number of turns for path-dependent assembly.
- If necessary, use appropriate spanner extensions.

## 1. FULL CUTTING RING ASSEMBLY IN HARDENED ASSEMBLY STUD (VOMNW...)

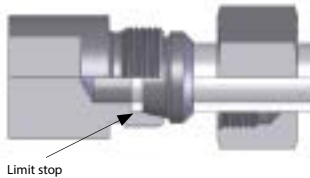
**INTRODUCTION** • This instruction describes the complete assembly of a cutting ring (SRD) on the pipe in an assembly stud (VOMNW...). This is not pre-assembly!

**PREPARATION** • Lightly lubricate the thread and cone of the assembly stud and the thread of the union nut.

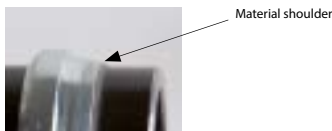


• Slide the union nut and cutting ring onto the pipe, making sure that the cutting ring is in the correct position; the cutting edges of the cutting ring must face towards the end of the pipe, otherwise assembly will be incorrect.

**CUTTING RING ASSEMBLY** • Tighten the union nut until the force required to turn it\* increases noticeably; at the same time, push the pipe firmly against the limit stop in the assembly stud, otherwise the pipe will not be cut properly. The pipe must not be allowed to turn during assembly.  
• Tighten union nut 1 1/2 turns with a spanner.



**INSPECTION** • Disassemble the pipe or threaded connection and check that a clearly visible shoulder of cut material is present in front of the first (front) cutting edge. At this point, the cutting ring may be allowed to rotate, but must not move axially.



**RE-ASSEMBLY** • Oil the threads of the union nut and the screw sleeve. Thread the union nut onto the screw fitting until the force required to turn it\* increases noticeably. Turn the union nut of the threaded connection or pipe not more than 1/4 turn further with the spanner (tighten / tighten fully).

**The cones of the assembly studs are subject to normal wear and must be checked at regular intervals with taper gauges.**

\*Definition of "noticeably increased force":

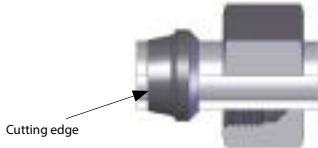
Tighten the union nut until the point at which it becomes noticeably more difficult to turn the union nut. At this point, for example, minor damage on the thread caused by the union nut getting caught must be overcome.

With sealing cone screw-on fittings with O-ring (AOL / AOS), the pre-stressing of the O-ring must be bridged and the sealing cone must lie metallically flush against the cone of the HL/HS connector.

## 2. FULL CUTTING RING ASSEMBLY IN SCREW SLEEVE

**INTRODUCTION** • This instruction describes the complete assembly of a cutting ring (SRD) on the pipe in a screw sleeve. This is not pre-assembly!

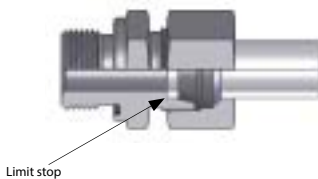
**PREPARATION** • Lightly oil the cone of the screw sleeve and the thread of the union nut.



• Slide the union nut and cutting ring onto the pipe, making sure that the cutting ring is in the correct position; the cutting edges of the cutting ring must face towards the end of the pipe, otherwise assembly will be incorrect.

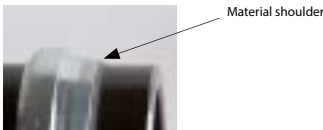
**CUTTING RING ASSEMBLY**

- Tighten the union nut until the force required to turn it\* increases noticeably; at the same time, push the pipe firmly against the limit stop in the assembly stud, otherwise the pipe will not be cut properly. The pipe must not be allowed to turn during assembly.
- Tighten union nut 1½ turns with a spanner. Brace the screw sleeve with a spanner.



**INSPECTION**

- Disassemble the pipe and check that a clearly visible shoulder of cut material is present in front of the first (front) cutting edge. At this point, the cutting ring may be allowed to rotate, but must not move axially.



**RE-ASSEMBLY**

- Oil the thread of the union nut, the cutting ring and the screw sleeve thread. Thread the union nut onto the screw fitting until the force required to turn it\* increases noticeably. Turn the union nut of the threaded connection or pipe not more than 1/4 turn further with the spanner (tighten / tighten fully).

**Each screw sleeve must be used only once to assemble a cutting ring on the pipe; using the same sleeve again may impair its function. For pipes with a diameter greater than 30 mm we recommend assembling in a bench vice.**

\* Definition of "noticeably increased force":

Tighten the union nut until the point at which it becomes noticeably more difficult to turn the union nut. At this point, for example, minor damage on the thread caused by the union nut getting caught must be overcome.

With sealing cone screw-on fittings with O-ring (AOL / AOS), the pre-stressing of the O-ring must be bridged and the sealing cone must lie metallicly flush against the cone of the HL/HS connector.

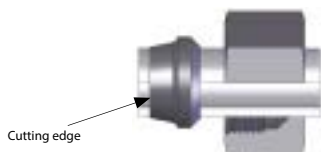


### 3. PRE-ASSEMBLY IN ASSEMBLY STUD OR SCREW SLEEVE

**INTRODUCTION** • This instruction describes the pre-assembly of a cutting ring (SRD) on the pipe in a pipe screw sleeve or assembly stud.

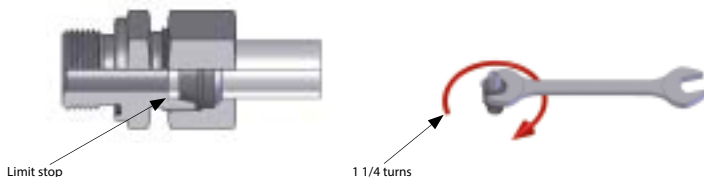
**PREPARATION**

- Lightly oil the cone of the screw sleeve and the thread of the union nut.
- Slide the union nut and cutting ring onto the pipe, making sure that the cutting ring is in the correct position; the cutting edges of the cutting ring must face towards the end of the pipe, otherwise assembly will be incorrect.



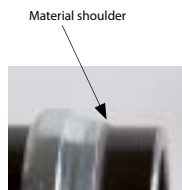
**CUTTING RING ASSEMBLY**

- Tighten the union nut until the force required to turn it\* increases noticeably; at the same time, push the pipe firmly against the limit stop in the screw sleeve, otherwise the pipe will not be cut properly. The pipe must not be allowed to turn during assembly.
- Tighten union nut 1/4 turn with a spanner. Brace the screw sleeve with a spanner.



**INSPECTION**

- Disassemble the pipe and check that a clearly visible shoulder of cut material is present in front of the first (front) cutting edge. In this case, the cutting ring may be allowed to rotate, but must not move axially.



\* Definition of "noticeably increased force":

Tighten the union nut until the point at which it becomes noticeably more difficult to turn the union nut. At this point, for example, minor damage on the thread caused by the union nut getting caught must be overcome.

With sealing cone screw-on fittings with O-ring (AOL / AOS), the pre-stressing of the O-ring must be bridged and the sealing cone must lie metallically flush against the cone of the HL/HS connector.

#### 4. FINISHING ASSEMBLY OF MANUFACTURER-ASSEMBLED THREADED CONNECTORS IN SCREW SLEEVE

- In these threaded connections, the cutting ring has been pre-assembled by the manufacturer.
- Check that the cutting ring is positioned and seated correctly, and that the shoulder of cut material is present.
- Oil the thread of the union nut, the cutting ring and the screw sleeve thread.
- Tighten the union nut until the force required to turn it increases noticeably\*.
- Tighten union nut 1/4 turns, bracing the screw sleeve with a spanner.

**We recommend switching to HANSA-FLEX 24° sealing cone screw-on fittings.**



#### 5. ASSEMBLING 24° SEALING CONE SCREW-ON FITTINGS (AOL/AOS)

- Lightly oil the cone of the screw sleeve and the thread of the union nut.
- Place screw fitting (sealing cone) evenly on the threaded connection.
- Thread the union nut of the sealing cone screw-on fitting onto the screw fitting until the force required to turn it\* increases noticeably.
- Turn the union nut of the sealing cone screw-on fitting or pipe not more than 1/4 turn further with the spanner (tighten / tighten fully).

**\* Definition of "noticeably increased force":**

Tighten the union nut until the point at which it becomes noticeably more difficult to turn the union nut. At this point, for example, minor damage on the thread caused by the union nut getting caught must be overcome.

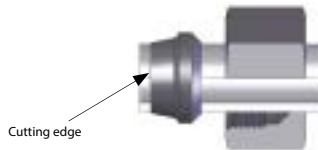
With sealing cone screw-on fittings with O-ring (AOL / AOS), the pre-stressing of the O-ring must be bridged and the sealing cone must lie metallurgically flush against the cone of the HL/HS connector.

## 6. ASSEMBLY IN HARDENED ASSEMBLY STUD (VOMNW...) STAINLESS STEEL

**INTRODUCTION** • This instruction describes the pre-assembly of a cutting ring (SRD...VA) on the stainless steel pipe in the assembly stud and the finishing assembly of the cutting ring in the screw sleeve.

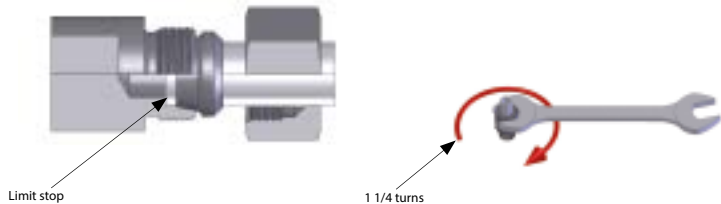
**PREPARATION**

- Grease the thread and cone of the assembly stud and the thread of the union nut with HANSA-FLEX fitting grease.
- Slide the union nut and cutting ring onto the pipe, making sure that the cutting ring is in the correct position; the cutting edges of the cutting ring must face towards the end of the pipe, otherwise assembly will be incorrect.



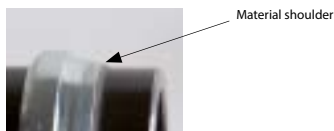
**CUTTING RING ASSEMBLY**

- Tighten the union nut until the force required to turn it\* increases noticeably; at the same time, push the pipe firmly against the limit stop in the assembly stud, otherwise the pipe will not be cut properly.
- Tighten union nut 1/4 turn with a spanner.



**INSPECTION**

- Disassemble the pipe or threaded connection and check that a clearly visible shoulder of cut material is present in front of the first (front) cutting edge. In this case, the cutting ring may be allowed to rotate, but must not move axially.



**FINISHING ASSEMBLY**

- Grease the threads of the union nut and the screw sleeve with HANSA-FLEX assembly grease. Thread the union nut onto the screw fitting until the force required to turn it\* increases noticeably. Continue turning union nut about 1/2 turn with the spanner.



RE-ASSEMBLY

- Grease the threads of the union nut and the screw sleeve with HANSA-FLEX assembly grease. Thread the union nut onto the screw fitting until the force required to turn it\* increases noticeably. Turn the union nut of the threaded connection or pipe about 1/4 of a turn further with the spanner (tighten / tighten fully).

**The cones of the assembly studs are subject to normal wear and must be checked at regular intervals with taper gauges. Each screw sleeve must be used only once for finishing assembly on the pipe; using the same sleeve again may impair its function.**

**It is not permitted to carry out pre-assembly in the screw sleeve!**

\* Definition of "noticeably increased force":

Tighten the union nut until the point at which it becomes noticeably more difficult to turn the union nut. At this point, for example, minor damage on the thread caused by the union nut getting caught must be overcome.

With sealing cone screw-on fittings with O-ring (AOL / AOS), the pre-stressing of the O-ring must be bridged and the sealing cone must lie metallically flush against the cone of the HL/HS connector.

**7. FINISHING ASSEMBLY OF MANUFACTURER-ASSEMBLED STAINLESS STEEL  
THREADED CONNECTORS IN SCREW SLEEVE**

- In these threaded connections, the cutting ring has been pre-assembled by the manufacturer.
- Check that the cutting ring is positioned and seated correctly, and that the shoulder of cut material is present.
- Grease the thread of the union nut, the cutting ring and the thread of the screw sleeve with HANSA-FLEX assembly grease.
- Tighten the union nut until the force required to turn it increases noticeably\*.
- Tighten union nut about 1/2 turn, bracing the screw sleeve with a spanner.

**We recommend switching to HANSA-FLEX sealing cone screw-on fittings.**



\* Definition of "noticeably increased force":

Tighten the union nut until the point at which it becomes noticeably more difficult to turn the union nut. At this point, for example, minor damage on the thread caused by the union nut getting caught must be overcome.

With sealing cone screw-on fittings with O-ring (AOL / AOS), the pre-stressing of the O-ring must be bridged and the sealing cone must lie metallically flush against the cone of the HL/HS connector.

### 8. CORRECT SELECTION OF SUPPORT BUSHES FOR THIN-WALLED PIPES MADE FROM STEEL AND STAINLESS STEEL

HANSA-FLEX designation      VSH..ID  
   VSH..IDVA

Wall thickness (mm)	4	5	6	8	10	12	14	15	16	18	20	22	25	28	30	35	38	42	Pipe diameter (mm)
3																			
2,5																			
2																			
1,5																			
1																			
0,75																			

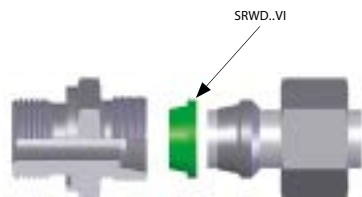
	= Use support bushes
	= Use support bushes for vibrations, oscillations and if the connection is loosened frequently (harsh operating conditions)

**Support bushes must be inserted in the pipe before the cutting ring is assembled in all cases. It is not permitted to assemble the support bushes later!**



## 9. ASSEMBLING THE SRWD..VI SOFT SEAL

- **The SRWD..VI soft seal cannot be assembled unless the cutting ring has already been assembled correctly.**
- Disassemble the pipe and check that a clearly visible shoulder of cut material is present in front of the first (front) cutting edge.
- Slide the SRWD..VI soft seal over the cutting ring.
- Thread the union nut onto the screw fitting until the force required to turn it\* increases noticeably.



- Fully assembled cutting ring:** Turn the union nut of the threaded connection or pipe about 30° to 60° further with the spanner (tighten / tighten fully).
  - Pre-assembled cutting ring:** Turn the union nut of the threaded connection or pipe 1/4 turn further with the spanner on pre-assembled cutting rings.
- We recommend replacing the SRWD..VI soft seal whenever the connection is disassembled and re-assembled.



\* Definition of "noticeably increased force":

Tighten the union nut until the point at which it becomes noticeably more difficult to turn the union nut. At this point, for example, minor damage on the thread caused by the union nut getting caught must be overcome.

With sealing cone screw-on fittings with O-ring (AOL / AOS), the pre-stressing of the O-ring must be bridged and the sealing cone must lie metallically flush against the cone of the HL/HS connector.



**Any other tightening path on the cutting rings and pipe fittings reduces the pressure load capacity and service life of the connections and threaded connections. As a result, the cutting ring will slip off and leaks will occur!**





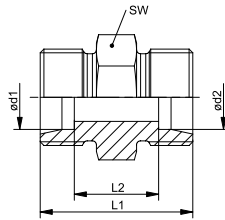
## Pipe fittings ISO 8434-1



<b>Straight</b>		<b>Flare coupling parts 37°</b>	
Connecting fittings	52	Flare coupling 37°, complete	194
Glands sealing cone	54	Union nuts	195
Reducing fittings	62	Pressure rings	197
Tube end fitting not pre-mounted	70	Support rings for metric pipes	198
Tube end fitting pre-assembled	78	Support rings for imperial pipes	199
Screw-in fittings	83	Spacer rings	200
Bulkhead fittings	99	<b>Flare coupling parts 10°</b>	
Screw-on fittings	102	Flare coupling 10°, complete	201
Reducing adapters	105	Union nuts	202
<b>Angle 45°</b>		Clamping rings	203
Glands sealing cone	112	Flare cone 10°	204
Adjustable direction fittings	118	<b>Caps</b>	
<b>Angle 90°</b>		Slug with union nut	205
Connecting fittings	122	Slug without union nut	206
Glands sealing cone	123	Blanking socket	207
Tube end fitting not pre-mounted	128	Blanking screws, with hexagon socket	208
Tube end fitting pre-assembled	129	Blanking screws, with hexagon socket	215
Screw-in fittings	130	<b>Rotary fittings (straight)</b>	
Adjustable direction fittings	135	Fittings (ball bearing)	218
Bulkhead fittings	140	Screw-in connections (ball bearing)	220
<b>T shaped</b>		Screw-on connections (ball bearing)	224
Connecting fittings	141	Bulkhead connectors (ball bearing)	225
Glands sealing cone	142	Screw-in connections (friction bearing)	227
Reducing fittings	143	<b>Rotary fittings (angle 90°)</b>	
Tube end fitting not pre-mounted	145	Fittings (ball bearing)	232
Tube end fitting pre-assembled	146	Screw-in connections (ball bearing)	234
Screw-in fittings	147	Bulkhead connectors (ball bearing)	236
Adjustable direction fittings	152	Fittings (friction bearing)	237
<b>L shaped</b>		Screw-in connections (friction bearing)	239
Glands sealing cone	157	<b>Banjo fittings</b>	
Tube end fitting not pre-mounted	158	Angle 90°	244
Tube end fitting pre-assembled	159	T shaped	250
Screw-in fittings	160	Accessories	258
Adjustable direction screw-in fittings	165	<b>Non-return valves and Shuttle valves</b>	
<b>Cross-shaped</b>		Screw-in connections (direction of flow from screw-in pin)	260
Fittings	170	Screw-in connections (direction of flow to screw-in pin)	267
<b>French series (straight)</b>		Connectors	274
Screw-on fittings	171	Shuttle valves	279
Screw-in fittings	172	Accessories	280
Fittings	174	<b>Soldered connections</b>	
Bulkhead fittings	175	Soldered connections (straight)	284
<b>French series (angle 90°)</b>		Soldered connections (angle 90°)	290
Screw-in fittings	176	<b>Individual parts</b>	
Fittings	178	Union nuts	292
Adjustable direction fittings	179	Cutting rings	293
<b>French series (T shaped)</b>		Cutting ring with O-ring	294
Screw-in fittings	180	Soft seals	295
Fittings	181	Function nuts	297
<b>French series (cross-shaped)</b>		Reinforcing sleeves for thin walled/soft pipes	298
Fittings	182	Counter nuts for bulkhead fittings	299
<b>French series (individual parts)</b>		Double conical rings	300
Caps	183	<b>Fitting accessories</b>	
Individual parts	185	Fitting lubricants and sprays	301
<b>Weld fittings</b>		Adhesives and sealants	303
Weld-on fittings (straight)	187	Technical sprays	305
Weld-on fittings (angle 90°)	189		
Welded on sealing cone (straight)	190		
Bulkhead socket weld fittings (straight)	193		

## XV

## Fitting



**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Fitting  
**Construction:** straight  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	L1 mm	L2 mm	SW mm
XV 04 LL	LL	PN 100	4	4	20	12,0	9
XV 05 LL	LL	PN 100	5	5	20	9,0	11
XV 06 LL 04	LL	PN 100	6	4	20	10,5	11
XV 06 LL	LL	PN 100	6	6	20	9,0	11
XV 08 LL 04	LL	PN 100	8	4	22	12,5	12
XV 08 LL 06	LL	PN 100	8	6	22	11,0	12
XV 08 LL	LL	PN 100	8	8	23	12,0	12
XV 10 LL	LL	PN 100	10	10	23	12,0	14
XV 12 LL	LL	PN 100	12	12	23	11,0	17
XV NW 04 HL	L	PN 315	6	6	24	10,0	12
XV NW 06 HL 04	L	PN 315	8	6	25	11,0	14
XV NW 06 HL	L	PN 315	8	8	25	11,0	14
XV NW 08 HL 04	L	PN 315	10	6	26	12,0	17
XV NW 08 HL 06	L	PN 315	10	8	26	12,0	17
XV NW 08 HL	L	PN 315	10	10	27	13,0	17
XV NW 10 HL 04	L	PN 315	12	6	27	13,0	19
XV NW 10 HL 06	L	PN 315	12	8	27	13,0	19
XV NW 10 HL 08	L	PN 315	12	10	28	14,0	19
XV NW 10 HL	L	PN 315	12	12	28	14,0	19
XV NW 13 HL 04	L	PN 315	15	6	28	14,0	24
XV NW 13 HL 06	L	PN 315	15	8	28	14,0	24
XV NW 13 HL 08	L	PN 315	15	10	29	15,0	24
XV NW 13 HL 10	L	PN 315	15	12	29	15,0	24
XV NW 13 HL	L	PN 315	15	15	30	16,0	24
XV NW 16 HL 04	L	PN 315	18	6	29	14,5	27
XV NW 16 HL 06	L	PN 315	18	8	29	14,5	27
XV NW 16 HL 08	L	PN 315	18	10	30	15,5	27
XV NW 16 HL 10	L	PN 315	18	12	30	15,5	27
XV NW 16 HL 13	L	PN 315	18	15	31	16,5	27
XV NW 16 HL	L	PN 315	18	18	31	16,0	27
XV NW 20 HL 06	L	PN 160	22	8	31	16,5	32
XV NW 20 HL 08	L	PN 160	22	10	32	17,5	32
XV NW 20 HL 10	L	PN 160	22	12	32	17,5	32
XV NW 20 HL 13	L	PN 160	22	15	33	18,5	32
XV NW 20 HL 16	L	PN 160	22	18	33	18,0	32
XV NW 20 HL	L	PN 160	22	22	35	20,0	32
XV NW 25 HL 06	L	PN 160	28	8	33	18,5	41
XV NW 25 HL 08	L	PN 160	28	10	34	19,5	41
XV NW 25 HL 10	L	PN 160	28	12	34	19,5	41
XV NW 25 HL 13	L	PN 160	28	15	35	20,5	41

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

(Continued)

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	L1 mm	L2 mm	SW mm
XV NW 25 HL 16	L	PN 160	28	18	35	20,0	41
XV NW 25 HL 16 27	L	PN 160	28	18	37	22,0	41
XV NW 25 HL 20	L	PN 160	28	22	37	22,0	41
XV NW 25 HL	L	PN 160	28	28	36	21,0	41
XV NW 32 HL 20	L	PN 160	35	22	39	21,0	46
XV NW 32 HL 25	L	PN 160	35	28	39	21,0	46
XV NW 32 HL	L	PN 160	35	35	41	20,0	46
XV NW 40 HL 25	L	PN 160	42	28	41	22,5	55
XV NW 40 HL 32	L	PN 160	42	35	43	21,5	55
XV NW 40 HL	L	PN 160	42	42	66	21,0	55
XV NW 16 HL 13 HS	L/S	PN 315	18	16	33	17,0	27
XV NW 03 HS	S	PN 630	6	6	30	16,0	14
XV NW 04 HS 03	S	PN 630	8	6	32	18,0	17
XV NW 04 HS	S	PN 630	8	8	32	18,0	17
XV NW 06 HS 03	S	PN 630	10	6	32	17,5	19
XV NW 06 HS 04	S	PN 630	10	8	32	17,5	19
XV NW 06 HS	S	PN 630	10	10	32	17,0	19
XV NW 08 HS 03	S	PN 630	12	6	34	19,5	22
XV NW 08 HS 04	S	PN 630	12	8	34	19,5	22
XV NW 08 HS 06	S	PN 630	12	10	34	19,0	22
XV NW 08 HS	S	PN 630	12	12	34	19,0	22
XV NW 10 HS 03	S	PN 630	14	6	36	21,0	24
XV NW 10 HS 04	S	PN 630	14	8	36	21,0	24
XV NW 10 HS 06	S	PN 630	14	10	36	20,5	24
XV NW 10 HS 08	S	PN 630	14	12	36	20,5	24
XV NW 10 HS	S	PN 630	14	14	38	22,0	24
XV NW 13 HS 03	S	PN 400	16	6	36	20,5	27
XV NW 13 HS 04	S	PN 400	16	8	36	20,5	27
XV NW 13 HS 06	S	PN 400	16	10	36	20,0	27
XV NW 13 HS 08	S	PN 400	16	12	36	20,0	27
XV NW 13 HS 10	S	PN 400	16	14	38	21,5	27
XV NW 13 HS	S	PN 400	16	16	38	21,0	27
XV NW 16 HS 06	S	PN 400	20	10	40	22,0	32
XV NW 16 HS 08	S	PN 400	20	12	40	22,0	32
XV NW 16 HS 10	S	PN 400	20	14	42	23,5	32
XV NW 16 HS 13	S	PN 400	20	16	42	23,0	32
XV NW 16 HS	S	PN 400	20	20	44	23,0	32
XV NW 20 HS 13	S	PN 400	25	16	46	25,5	41
XV NW 20 HS 16	S	PN 400	25	20	48	25,5	41
XV NW 20 HS	S	PN 400	25	25	50	26,0	41
XV NW 25 HS 13	S	PN 400	30	16	48	26,0	46
XV NW 25 HS 16	S	PN 400	30	20	50	26,0	46
XV NW 25 HS 20	S	PN 400	30	25	52	26,5	46
XV NW 25 HS	S	PN 400	30	30	54	27,0	46
XV NW 32 HS 13	S	PN 315	38	16	53	28,5	55
XV NW 32 HS 20	S	PN 315	38	25	57	29,0	55
XV NW 32 HS 25	S	PN 315	38	30	59	29,5	55
XV NW 32 HS	S	PN 315	38	38	61	29,0	55
XV NW 13 HS 13 HL	S/L	PN 400	16	15	36	20,5	27
XV NW 16 HS 13 HL	S/L	PN 400	20	15	40	22,5	32
XV NW 16 HS 16 HL	S/L	PN 400	20	18	40	22,0	32
XV NW 20 HS 20 HL	S/L	PN 400	25	22	46	26,5	41

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

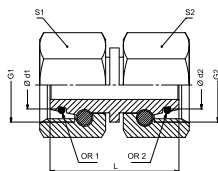
**Product versions:**

XV VA - Fitting, Stainless steel

V-LL / V-HL / V-HS - Fitting, Steel

## DMO

## Fitting, double nut



<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	metric nut thread
<b>Sealing form 2:</b>	24° outer cone with O-ring
<b>Design:</b>	Fitting, double nuts
<b>Construction:</b>	straight
<b>Standard:</b>	DIN 2353, ISO 8434-1
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L mm	S1	S2	OR1	OR2
DMO NW 04 L	L	PN 315	6	6	M 12 x 1.5	M 12 x 1.5	32,0	14	14	4.0 x 1.5	4.0 x 1.5
DMO NW 04 L 06	L	PN 315	6	8	M 12 x 1.5	M 14 x 1.5	32,0	14	17	4.0 x 1.5	6.0 x 1.5
DMO NW 04 L 08	L	PN 315	6	10	M 12 x 1.5	M 16 x 1.5	33,0	14	19	4.0 x 1.5	7.5 x 1.5
DMO NW 04 L 10	L	PN 315	6	12	M 12 x 1.5	M 18 x 1.5	33,0	14	22	4.0 x 1.5	9.0 x 1.5
DMO NW 06 L	L	PN 315	8	8	M 14 x 1.5	M 14 x 1.5	32,0	17	17	6.0 x 1.5	6.0 x 1.5
DMO NW 06 L 08	L	PN 315	8	10	M 14 x 1.5	M 16 x 1.5	33,0	17	19	6.0 x 1.5	7.5 x 1.5
DMO NW 06 L 10	L	PN 315	8	12	M 14 x 1.5	M 18 x 1.5	33,0	17	22	6.0 x 1.5	9.0 x 1.5
DMO NW 06 L 13	L	PN 315	8	15	M 14 x 1.5	M 22 x 1.5	34,5	17	27	6.0 x 1.5	12.0 x 2.0
DMO NW 06 L 16	L	PN 315	8	18	M 14 x 1.5	M 26 x 1.5	36,0	17	32	6.0 x 1.5	15.0 x 2.0
DMO NW 08 L	L	PN 315	10	10	M 16 x 1.5	M 16 x 1.5	34,0	19	19	7.5 x 1.5	7.5 x 1.5
DMO NW 08 L 10	L	PN 315	10	12	M 16 x 1.5	M 18 x 1.5	33,0	19	22	7.5 x 1.5	9.0 x 1.5
DMO NW 08 L 13	L	PN 315	10	15	M 16 x 1.5	M 22 x 1.5	38,0	19	27	7.5 x 1.5	12.0 x 2.0
DMO NW 08 L 16	L	PN 315	10	18	M 16 x 1.5	M 26 x 1.5	36,0	19	32	7.5 x 1.5	15.0 x 2.0
DMO NW 10 L	L	PN 315	12	12	M 18 x 1.5	M 18 x 1.5	34,5	22	22	9.0 x 1.5	9.0 x 1.5
DMO NW 10 L 13	L	PN 315	12	15	M 18 x 1.5	M 22 x 1.5	38,0	22	27	9.0 x 1.5	12.0 x 2.0
DMO NW 10 L 16	L	PN 315	12	18	M 18 x 1.5	M 26 x 1.5	36,0	22	32	9.0 x 1.5	15.0 x 2.0
DMO NW 10 L 20	L	PN 160	12	22	M 18 x 1.5	M 30 x 2	40,0	22	36	9.0 x 1.5	20.0 x 2.0
DMO NW 13 L	L	PN 315	15	15	M 22 x 1.5	M 22 x 1.5	37,0	27	27	12.0 x 2.0	12.0 x 2.0
DMO NW 13 L 16	L	PN 315	15	18	M 22 x 1.5	M 26 x 1.5	36,0	27	32	12.0 x 2.0	15.0 x 2.0
DMO NW 13 L 20	L	PN 160	15	22	M 22 x 1.5	M 30 x 2	42,0	27	36	12.0 x 2.0	20.0 x 2.0
DMO NW 13 L 25	L	PN 160	15	28	M 22 x 1.5	M 36 x 2	46,0	27	41	12.0 x 2.0	26.0 x 2.0
DMO NW 16 L	L	PN 315	18	18	M 26 x 1.5	M 26 x 1.5	38,5	32	32	15.0 x 2.0	15.0 x 2.0
DMO NW 16 L 20	L	PN 160	18	22	M 26 x 1.5	M 30 x 2	42,0	32	36	15.0 x 2.0	20.0 x 2.0
DMO NW 16 L 25	L	PN 160	18	28	M 26 x 1.5	M 36 x 2	46,0	32	41	15.0 x 2.0	26.0 x 2.0
DMO NW 16 L 32	L	PN 160	18	35	M 26 x 1.5	M 45 x 2	45,0	32	50	15.0 x 2.0	32.0 x 2.5
DMO NW 20 L	L	PN 160	22	22	M 30 x 2	M 30 x 2	42,5	36	36	20.0 x 2.0	20.0 x 2.0
DMO NW 20 L 25	L	PN 160	22	28	M 30 x 2	M 36 x 2	46,0	36	41	20.0 x 2.0	26.0 x 2.0
DMO NW 20 L 32	L	PN 160	22	35	M 30 x 2	M 45 x 2	48,0	36	50	20.0 x 2.0	32.0 x 2.5
DMO NW 20 L 40	L	PN 160	22	42	M 30 x 2	M 52 x 2	47,5	36	60	20.0 x 2.0	38.0 x 2.5
DMO NW 25 L	L	PN 160	28	28	M 36 x 2	M 36 x 2	44,5	41	41	26.0 x 2.0	26.0 x 2.0
DMO NW 25 L 32	L	PN 160	28	35	M 36 x 2	M 45 x 2	48,0	41	50	26.0 x 2.0	32.0 x 2.5
DMO NW 25 L 40	L	PN 160	28	42	M 36 x 2	M 52 x 2	52,0	41	60	26.0 x 2.0	38.0 x 2.5
DMO NW 32 L	L	PN 160	35	35	M 45 x 2	M 45 x 2	51,0	50	50	32.0 x 2.5	32.0 x 2.5
DMO NW 32 L 40	L	PN 160	35	42	M 45 x 2	M 52 x 2	51,5	50	60	32.0 x 2.5	38.0 x 2.5
DMO NW 40 L	L	PN 160	42	42	M 52 x 2	M 52 x 2	52,0	60	60	38.0 x 2.5	38.0 x 2.5
DMO NW 04 L 03 S	L/S	PN 315	6	6	M 12 x 1.5	M 14 x 1.5	33,5	14	17	4.0 x 1.5	4.0 x 1.5
DMO NW 04 L 04 S	L/S	PN 315	6	8	M 12 x 1.5	M 16 x 1.5	33,0	14	19	4.0 x 1.5	6.0 x 1.5
DMO NW 04 L 06 S	L/S	PN 315	6	10	M 12 x 1.5	M 18 x 1.5	35,5	14	22	4.0 x 1.5	7.5 x 1.5
DMO NW 04 L 08 S	L/S	PN 315	6	12	M 12 x 1.5	M 20 x 1.5	38,0	14	24	4.0 x 1.5	9.0 x 1.5
DMO NW 06 L 03 S	L/S	PN 315	8	6	M 14 x 1.5	M 14 x 1.5	32,0	17	17	6.0 x 1.5	4.0 x 1.5

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**DMO**

(Continued)

Fitting, double nut

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L mm	S1	S2	OR1	OR2
DMO NW 06 L 04 S	L/S	PN 315	8	8	M 14 x 1.5	M 16 x 1.5	33,0	17	19	6,0 x 1.5	6,0 x 1.5
DMO NW 06 L 06 S	L/S	PN 315	8	10	M 14 x 1.5	M 18 x 1.5	33,0	17	22	6,0 x 1.5	7,5 x 1.5
DMO NW 06 L 08 S	L/S	PN 315	8	12	M 14 x 1.5	M 20 x 1.5	36,0	17	24	6,0 x 1.5	9,0 x 1.5
DMO NW 06 L 13 S	L/S	PN 315	8	16	M 14 x 1.5	M 24 x 1.5	39,0	17	30	6,0 x 1.5	12,0 x 2,0
DMO NW 08 L 03 S	L/S	PN 315	10	6	M 16 x 1.5	M 14 x 1.5	33,0	19	17	7,5 x 1.5	4,0 x 1.5
DMO NW 08 L 04 S	L/S	PN 315	10	8	M 16 x 1.5	M 16 x 1.5	33,0	19	19	7,5 x 1.5	6,0 x 1.5
DMO NW 08 L 06 S	L/S	PN 315	10	10	M 16 x 1.5	M 18 x 1.5	33,0	19	22	7,5 x 1.5	7,5 x 1.5
DMO NW 08 L 08 S	L/S	PN 315	10	12	M 16 x 1.5	M 20 x 1.5	36,0	19	24	7,5 x 1.5	9,0 x 1.5
DMO NW 08 L 10 S	L/S	PN 315	10	14	M 16 x 1.5	M 22 x 1.5	39,0	19	27	7,5 x 1.5	10,0 x 2,0
DMO NW 08 L 13 S	L/S	PN 315	10	16	M 16 x 1.5	M 24 x 1.5	39,0	19	30	7,5 x 1.5	12,0 x 2,0
DMO NW 10 L 06 S	L/S	PN 315	12	10	M 18 x 1.5	M 18 x 1.5	33,0	22	22	9,0 x 1.5	7,5 x 1.5
DMO NW 10 L 08 S	L/S	PN 315	12	12	M 18 x 1.5	M 20 x 1.5	36,0	22	24	9,0 x 1.5	9,0 x 1.5
DMO NW 10 L 10 S	L/S	PN 315	12	14	M 18 x 1.5	M 22 x 1.5	39,0	22	27	9,0 x 1.5	10,0 x 2,0
DMO NW 10 L 13 S	L/S	PN 315	12	16	M 18 x 1.5	M 24 x 1.5	39,0	22	30	9,0 x 1.5	12,0 x 2,0
DMO NW 10 L 16 S	L/S	PN 315	12	20	M 18 x 1.5	M 30 x 2	36,0	22	36	9,0 x 1.5	16,3 x 2,4
DMO NW 13 L 06 S	L/S	PN 315	15	10	M 22 x 1.5	M 18 x 1.5	38,0	27	22	12,0 x 2,0	7,5 x 1.5
DMO NW 13 L 08 S	L/S	PN 315	15	12	M 22 x 1.5	M 20 x 1.5	38,0	27	24	12,0 x 2,0	9,0 x 1.5
DMO NW 13 L 10 S	L/S	PN 315	15	14	M 22 x 1.5	M 22 x 1.5	38,0	27	27	12,0 x 2,0	10,0 x 2,0
DMO NW 13 L 13 S	L/S	PN 315	15	16	M 22 x 1.5	M 24 x 1.5	39,0	27	30	12,0 x 2,0	12,0 x 2,0
DMO NW 13 L 16 S	L/S	PN 315	15	20	M 22 x 1.5	M 30 x 2	44,0	27	36	12,0 x 2,0	16,3 x 2,4
DMO NW 13 L 20 S	L/S	PN 315	15	25	M 22 x 1.5	M 36 x 2	47,5	27	46	12,0 x 2,0	20,3 x 2,4
DMO NW 16 L 08 S	L/S	PN 315	18	12	M 26 x 1.5	M 20 x 1.5	38,0	32	24	15,0 x 2,0	9,0 x 1.5
DMO NW 16 L 10 S	L/S	PN 315	18	14	M 26 x 1.5	M 22 x 1.5	41,0	32	27	15,0 x 2,0	10,0 x 2,0
DMO NW 16 L 13 S	L/S	PN 315	18	16	M 26 x 1.5	M 24 x 1.5	39,0	32	30	15,0 x 2,0	12,0 x 2,0
DMO NW 16 L 16 S	L/S	PN 315	18	20	M 26 x 1.5	M 30 x 2	44,0	32	36	15,0 x 2,0	16,3 x 2,4
DMO NW 16 L 20 S	L/S	PN 315	18	25	M 26 x 1.5	M 36 x 2	48,0	32	46	15,0 x 2,0	20,3 x 2,4
DMO NW 16 L 25 S	L/S	PN 315	18	30	M 26 x 1.5	M 42 x 2	50,0	32	50	15,0 x 2,0	25,3 x 2,4
DMO NW 20 L 13 S	L/S	PN 160	22	16	M 30 x 2	M 24 x 1.5	42,0	36	30	20,0 x 2,0	12,0 x 2,0
DMO NW 20 L 16 S	L/S	PN 160	22	20	M 30 x 2	M 30 x 2	44,0	36	36	20,0 x 2,0	16,3 x 2,4
DMO NW 20 L 20 S	L/S	PN 160	22	25	M 30 x 2	M 36 x 2	46,0	36	46	20,0 x 2,0	20,3 x 2,4
DMO NW 20 L 25 S	L/S	PN 160	22	30	M 30 x 2	M 42 x 2	52,0	36	50	20,0 x 2,0	25,3 x 2,4
DMO NW 20 L 32 S	L/S	PN 160	22	38	M 30 x 2	M 52 x 2	52,0	36	60	20,0 x 2,0	33,3 x 2,4
DMO NW 25 L 13 S	L/S	PN 160	28	16	M 36 x 2	M 24 x 1.5	46,0	41	30	26,0 x 2,0	12,0 x 2,0
DMO NW 25 L 16 S	L/S	PN 160	28	20	M 36 x 2	M 30 x 2	46,0	41	36	26,0 x 2,0	16,3 x 2,4
DMO NW 25 L 20 S	L/S	PN 160	28	25	M 36 x 2	M 36 x 2	46,0	41	46	26,0 x 2,0	20,3 x 2,4
DMO NW 25 L 25 S	L/S	PN 160	28	30	M 36 x 2	M 42 x 2	52,0	41	50	26,0 x 2,0	25,3 x 2,4
DMO NW 25 L 32 S	L/S	PN 160	28	38	M 36 x 2	M 52 x 2	51,0	41	60	26,0 x 2,0	33,3 x 2,4
DMO NW 32 L 16 S	L/S	PN 160	35	20	M 45 x 2	M 30 x 2	48,0	50	36	32,0 x 2,5	16,3 x 2,4
DMO NW 32 L 20 S	L/S	PN 160	35	25	M 45 x 2	M 36 x 2	48,0	50	46	32,0 x 2,5	20,3 x 2,4
DMO NW 32 L 25 S	L/S	PN 160	35	30	M 45 x 2	M 42 x 2	52,0	50	50	32,0 x 2,5	25,3 x 2,4
DMO NW 32 L 32 S	L/S	PN 160	35	38	M 45 x 2	M 52 x 2	52,0	50	60	32,0 x 2,5	33,3 x 2,4
DMO NW 40 L 25 S	L/S	PN 160	42	30	M 52 x 2	M 42 x 2	52,0	60	50	38,0 x 2,5	25,3 x 2,4
DMO NW 40 L 32 S	L/S	PN 160	42	38	M 52 x 2	M 52 x 2	52,0	60	60	38,0 x 2,5	33,3 x 2,4
DMO NW 03 S	S	PN 630	6	6	M 14 x 1.5	M 14 x 1.5	35,0	17	17	4,0 x 1.5	4,0 x 1.5
DMO NW 03 S 04	S	PN 630	6	8	M 14 x 1.5	M 16 x 1.5	33,0	17	19	4,0 x 1.5	6,0 x 1.5
DMO NW 03 S 06	S	PN 630	6	10	M 14 x 1.5	M 18 x 1.5	32,0	17	22	4,0 x 1.5	7,5 x 1.5
DMO NW 03 S 08	S	PN 630	6	12	M 14 x 1.5	M 20 x 1.5	37,5	17	24	4,0 x 1.5	9,0 x 1.5
DMO NW 04 S	S	PN 630	8	8	M 16 x 1.5	M 16 x 1.5	35,0	19	19	6,0 x 1.5	6,0 x 1.5
DMO NW 04 S 06	S	PN 630	8	10	M 16 x 1.5	M 18 x 1.5	33,0	19	22	6,0 x 1.5	7,5 x 1.5
DMO NW 04 S 08	S	PN 630	8	12	M 16 x 1.5	M 20 x 1.5	36,0	19	24	6,0 x 1.5	9,0 x 1.5
DMO NW 06 S	S	PN 630	10	10	M 18 x 1.5	M 18 x 1.5	39,0	22	22	7,5 x 1.5	7,5 x 1.5
DMO NW 06 S 08	S	PN 630	10	12	M 18 x 1.5	M 20 x 1.5	36,0	22	24	7,5 x 1.5	9,0 x 1.5
DMO NW 06 S 10	S	PN 630	10	14	M 18 x 1.5	M 22 x 1.5	39,0	22	27	7,5 x 1.5	10,0 x 2,0
DMO NW 06 S 13	S	PN 400	10	16	M 18 x 1.5	M 24 x 1.5	39,0	22	30	7,5 x 1.5	12,0 x 2,0
DMO NW 08 S	S	PN 630	12	12	M 20 x 1.5	M 20 x 1.5	40,0	24	24	9,0 x 1.5	9,0 x 1.5
DMO NW 08 S 10	S	PN 630	12	14	M 20 x 1.5	M 22 x 1.5	39,0	24	27	9,0 x 1.5	10,0 x 2,0
DMO NW 08 S 13	S	PN 400	12	16	M 20 x 1.5	M 24 x 1.5	39,0	24	30	9,0 x 1.5	12,0 x 2,0
DMO NW 08 S 16	S	PN 400	12	20	M 20 x 1.5	M 30 x 2	39,0	24	36	9,0 x 1.5	16,3 x 2,4
DMO NW 10 S	S	PN 630	14	14	M 22 x 1.5	M 22 x 1.5	43,0	27	27	10,0 x 2,0	10,0 x 2,0

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**DMO****Fitting, double nut****(Continued)**

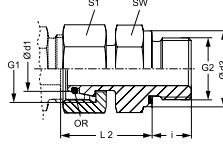
Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L mm	S1	S2	OR1	OR2
DMO NW 10 S 13	S	PN 400	14	16	M 22 x 1.5	M 24 x 1.5	39,0	27	30	10.0 x 2.0	12.0 x 2.0
DMO NW 10 S 16	S	PN 400	14	20	M 22 x 1.5	M 30 x 2	44,0	27	36	10.0 x 2.0	16.3 x 2.4
DMO NW 13 S	S	PN 400	16	16	M 24 x 1.5	M 24 x 1.5	44,0	30	30	12.0 x 2.0	12.0 x 2.0
DMO NW 13 S 16	S	PN 400	16	20	M 24 x 1.5	M 30 x 2	44,0	30	36	12.0 x 2.0	16.3 x 2.4
DMO NW 13 S 20	S	PN 400	16	25	M 24 x 1.5	M 36 x 2	46,0	30	46	12.0 x 2.0	20.3 x 2.4
DMO NW 13 S 25	S	PN 400	16	30	M 24 x 1.5	M 42 x 2	52,0	30	50	12.0 x 2.0	25.3 x 2.4
DMO NW 16 S	S	PN 400	20	20	M 30 x 2	M 30 x 2	53,5	36	36	16.3 x 2.4	16.3 x 2.4
DMO NW 16 S 20	S	PN 400	20	25	M 30 x 2	M 36 x 2	46,0	36	46	16.3 x 2.4	20.3 x 2.4
DMO NW 16 S 25	S	PN 400	20	30	M 30 x 2	M 42 x 2	52,0	36	50	16.3 x 2.4	25.3 x 2.4
DMO NW 16 S 32	S	PN 315	20	38	M 30 x 2	M 52 x 2	52,0	36	60	16.3 x 2.4	33.3 x 2.4
DMO NW 20 S	S	PN 400	25	25	M 36 x 2	M 36 x 2	57,5	46	46	20.3 x 2.4	20.3 x 2.4
DMO NW 20 S 25	S	PN 400	25	30	M 36 x 2	M 42 x 2	52,0	46	50	20.3 x 2.4	25.3 x 2.4
DMO NW 20 S 32	S	PN 315	25	38	M 36 x 2	M 52 x 2	52,0	46	60	20.3 x 2.4	33.3 x 2.4
DMO NW 25 S	S	PN 400	30	30	M 42 x 2	M 42 x 2	60,5	50	50	25.3 x 2.4	25.3 x 2.4
DMO NW 25 S 32	S	PN 315	30	38	M 42 x 2	M 52 x 2	52,0	50	60	25.3 x 2.4	33.3 x 2.4
DMO NW 32 S	S	PN 315	38	38	M 52 x 2	M 52 x 2	65,5	60	60	33.3 x 2.4	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**Product versions:****DMO VA** - Fitting, double nut, Stainless steel

**AOVM ED****Screw-in fitting**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Connection 2:** metric nut thread  
**Sealing form 2:** Shape E  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	G1	G2	Ø d3 mm	i mm	L2 mm	SW mm	S1	OR
AOVM NW 04 L ED	L	PN 315	6	M 12 x 1.5	M 10 x 1	13,9	8	24,5	14	14	4.0 x 1.5
AOVM NW 06 L ED	L	PN 315	8	M 14 x 1.5	M 12 x 1.5	16,9	12	26,5	17	17	6.0 x 1.5
AOVM NW 08 L ED	L	PN 315	10	M 16 x 1.5	M 14 x 1.5	18,9	12	27,5	19	19	7.5 x 1.5
AOVM NW 10 L ED	L	PN 315	12	M 18 x 1.5	M 16 x 1.5	21,9	12	30,5	22	22	9.0 x 1.5
AOVM NW 13 L ED	L	PN 315	15	M 22 x 1.5	M 18 x 1.5	23,9	12	31,5	24	27	12.0 x 2.0
AOVM NW 16 L ED	L	PN 315	18	M 26 x 1.5	M 22 x 1.5	26,9	14	31,5	27	32	15.0 x 2.0
AOVM NW 20 L ED	L	PN 160	22	M 30 x 2	M 26 x 1.5	31,9	16	32,5	32	36	20.0 x 2.0
AOVM NW 25 L ED	L	PN 160	28	M 36 x 2	M 33 x 2	39,9	18	35,0	41	41	26.0 x 2.0
AOVM NW 32 L ED	L	PN 160	35	M 45 x 2	M 42 x 2	49,9	20	42,5	50	50	32.0 x 2.5
AOVM NW 40 L ED	L	PN 160	42	M 52 x 2	M 48 x 2	54,9	22	46,5	55	60	38.0 x 2.5
AOVM NW 03 S ED	S	PN 630	6	M 14 x 1.5	M 12 x 1.5	16,9	12	27,0	17	17	4.0 x 1.5
AOVM NW 04 S ED	S	PN 630	8	M 16 x 1.5	M 14 x 1.5	18,9	12	29,5	19	19	6.0 x 1.5
AOVM NW 06 S ED	S	PN 630	10	M 18 x 1.5	M 16 x 1.5	21,9	12	32,0	22	22	7.5 x 1.5
AOVM NW 08 S ED	S	PN 630	12	M 20 x 1.5	M 18 x 1.5	23,9	12	34,0	24	24	9.0 x 1.5
AOVM NW 10 S ED	S	PN 630	14	M 22 x 1.5	M 20 x 1.5	25,9	14	36,5	27	27	10.0 x 2.0
AOVM NW 13 S ED	S	PN 400	16	M 24 x 1.5	M 22 x 1.5	26,9	14	37,0	27	30	12.0 x 2.0
AOVM NW 16 S ED	S	PN 400	20	M 30 x 2	M 27 x 2	31,9	16	43,0	32	36	16.3 x 2.4
AOVM NW 20 S ED	S	PN 400	25	M 36 x 2	M 33 x 2	39,9	18	48,0	41	46	20.3 x 2.4
AOVM NW 25 S ED	S	PN 400	30	M 42 x 2	M 42 x 2	49,9	20	51,0	50	50	25.3 x 2.4
AOVM NW 32 S ED	S	PN 315	38	M 52 x 2	M 48 x 2	54,9	22	60,0	55	60	33.3 x 2.4

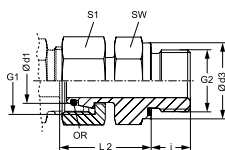
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**Product versions:**

**AOVM ED VA** - Screw-in fitting, Stainless steel

**Spare parts:**

**WD** - Soft seal for ED fittings

**AOVR ED****Screw-in fitting**

<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	BSP cylindrical external threads
<b>Sealing form 2:</b>	Shape E
<b>Design:</b>	Screw-in fitting
<b>Construction:</b>	straight
<b>Standard:</b>	DIN 2353, ISO 8434-1
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	G1	G2	Ø d3 mm	i mm	L2 mm	SW mm	S1	OR
AOVR NW 04 L ED	L	PN 315	6	M 12 x 1.5	G 1/8" -28	13,9	8	24,5	14	14	4.0 x 1.5
AOVR NW 06 L ED	L	PN 315	8	M 14 x 1.5	G 1/4" -19	18,9	12	29,5	19	17	6.0 x 1.5
AOVR NW 08 L ED	L	PN 315	10	M 16 x 1.5	G 1/4" -19	18,9	12	27,5	19	19	7.5 x 1.5
AOVR NW 10 L 1/4 ED	L	PN 315	12	M 18 x 1.5	G 1/4" -19	18,9	12	30,0	19	22	9.0 x 1.5
AOVR NW 10 L 1/2 ED	L	PN 315	12	M 18 x 1.5	G 1/2" -14	26,9	14	34,0	27	22	9.0 x 1.5
AOVR NW 10 L ED	L	PN 315	12	M 18 x 1.5	G 3/8" -19	21,9	12	34,0	22	22	9.0 x 1.5
AOVR NW 13 L ED	L	PN 315	15	M 22 x 1.5	G 1/2" -14	26,9	14	32,0	27	27	12.0 x 2.0
AOVR NW 16 L ED	L	PN 315	18	M 26 x 1.5	G 1/2" -14	26,9	14	31,5	27	32	15.0 x 2.0
AOVR NW 20 L ED	L	PN 160	22	M 30 x 2	G 3/4" -14	31,9	16	32,5	32	36	20.0 x 2.0
AOVR NW 25 L ED	L	PN 160	28	M 36 x 2	G 1" -11	39,9	18	35,0	41	41	26.0 x 2.0
AOVR NW 32 L ED	L	PN 160	35	M 45 x 2	G 1.1/4" -11	49,9	20	42,5	50	50	32.0 x 2.5
AOVR NW 40 L ED	L	PN 160	42	M 52 x 2	G 1.1/2" -11	54,9	22	46,5	55	60	38.0 x 2.5
AOVR NW 03 S ED	S	PN 630	6	M 14 x 1.5	G 1/4" -19	18,9	12	27,0	19	17	4.0 x 1.5
AOVR NW 04 S ED	S	PN 630	8	M 16 x 1.5	G 1/4" -19	18,9	12	29,5	19	19	6.0 x 1.5
AOVR NW 06 S ED	S	PN 630	10	M 18 x 1.5	G 3/8" -19	21,9	12	32,0	22	22	7.5 x 1.5
AOVR NW 08 S 1/2 ED	S	PN 630	12	M 20 x 1.5	G 1/2" -14	26,9	14	35,0	27	24	9.0 x 1.5
AOVR NW 08 S ED	S	PN 630	12	M 20 x 1.5	G 3/8" -19	21,9	12	34,0	22	24	9.0 x 1.5
AOVR NW 10 S ED	S	PN 630	14	M 22 x 1.5	G 1/2" -14	26,9	14	36,5	27	27	10.0 x 2.0
AOVR NW 13 S ED	S	PN 400	16	M 24 x 1.5	G 1/2" -14	26,9	14	37,0	27	30	12.0 x 2.0
AOVR NW 16 S ED	S	PN 400	20	M 30 x 2	G 3/4" -14	31,9	16	43,0	32	36	16.3 x 2.4
AOVR NW 20 S ED	S	PN 400	25	M 36 x 2	G 1" -11	39,9	18	48,0	41	46	20.3 x 2.4
AOVR NW 25 S ED	S	PN 400	30	M 42 x 2	G 1.1/4" -11	49,9	20	51,0	50	50	25.3 x 2.4
AOVR NW 32 S ED	S	PN 315	38	M 52 x 2	G 1.1/2" -11	54,9	22	60,0	55	60	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**Product versions:**

**AOVR ED VA** - Screw-in fitting, Stainless steel

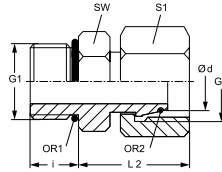
**Spare parts:**

**WD** - Soft seal for ED fittings



**AOVR O****Screw-in fitting**

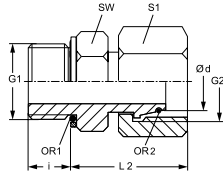
**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2:** metric nut thread  
**Sealing form 2:** 24° outer cone with O-ring  
**Design:** Screw-in fitting  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d mm	G1	G2	i mm	L2 mm	SW mm	S1	OR1	OR2
AOVR O NW 03 S	S	PN 630	6	G 1/4" -19	M 14 x 1.5	12	26,0	19	17	9.30 x 2.30	4.0 x 1.5
AOVR O NW 04 S	S	PN 630	8	G 1/4" -19	M 16 x 1.5	12	28,0	19	19	11.30 x 2.30	6.0 x 1.5
AOVR O NW 06 S	S	PN 630	10	G 3/8" -19	M 18 x 1.5	12	30,5	22	22	13.30 x 2.30	7.5 x 1.5
AOVR O NW 08 S	S	PN 630	12	G 3/8" -19	M 20 x 1.5	12	32,5	22	24	15.30 x 2.30	9.0 x 1.5
AOVR O NW 10 S	S	PN 630	14	G 1/2" -14	M 22 x 1.5	14	36,0	27	27	17.86 x 2.62	10.0 x 2.0
AOVR O NW 13 S	S	PN 400	16	G 1/2" -14	M 24 x 1.5	14	36,5	27	30	12.00 x 2.00	12.0 x 2.0
AOVR O NW 16 S	S	PN 400	20	G 3/4" -14	M 30 x 2	16	40,5	32	36	23.50 x 3.00	16.3 x 2.4
AOVR O NW 20 S	S	PN 400	25	G 1" -11	M 36 x 2	18	46,0	41	46	29.50 x 3.00	20.3 x 2.4
AOVR O NW 25 S	S	PN 250	30	G 1.1/4" -11	M 42 x 2	20	48,0	50	50	38.00 x 3.00	25.3 x 2.4
AOVR O NW 32 S	S	PN 250	38	G 1.1/2" -11	M 52 x 2	22	55,0	55	55	44.04 x 3.53	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d = External pipe diameter

**AOVR OK****Screw-in fitting**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2:** metric nut thread  
**Sealing form 2:** 24° outer cone with O-ring  
**Design:** Screw-in fitting  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

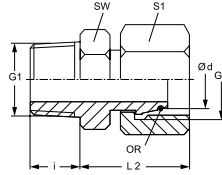
Identification	Series	Working pressure bar	Ø d mm	G1	G2	i mm	L2 mm	SW mm	S1	OR1	OR2
AOVR OK NW 03 S	S	PN 630	6	G 1/4" -19	M 14 x 1.5	10,5	27,5	19	17	9.30 x 2.30	4.0 x 1.5
AOVR OK NW 04 S	S	PN 630	8	G 1/4" -19	M 16 x 1.5	10,5	29,5	19	19	11.30 x 2.30	6.0 x 1.5
AOVR OK NW 06 S	S	PN 630	10	G 3/8" -19	M 18 x 1.5	10,5	32,0	22	22	13.30 x 2.30	7.5 x 1.5
AOVR OK NW 08 S	S	PN 630	12	G 3/8" -19	M 20 x 1.5	10,5	34,0	22	24	15.30 x 2.30	9.0 x 1.5
AOVR OK NW 10 S	S	PN 630	14	G 1/2" -14	M 22 x 1.5	12,0	38,0	27	27	17.86 x 2.62	10.0 x 2.0
AOVR OK NW 13 S	S	PN 400	16	G 1/2" -14	M 24 x 1.5	12,0	38,5	27	30	12.00 x 2.00	12.0 x 2.0
AOVR OK NW 16 S	S	PN 400	20	G 3/4" -14	M 30 x 2	14,0	42,5	32	36	23.50 x 3.00	16.3 x 2.4
AOVR OK NW 20 S	S	PN 400	25	G 1" -11	M 36 x 2	15,5	48,5	41	46	29.50 x 3.00	20.3 x 2.4
AOVR OK NW 25 S	S	PN 250	30	G 1.1/4" -11	M 42 x 2	17,5	50,5	50	50	38.00 x 3.00	25.3 x 2.4
AOVR OK NW 32 S	S	PN 250	38	G 1.1/2" -11	M 52 x 2	19,5	57,5	55	60	44.04 x 3.53	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d = External pipe diameter

AOVN

## Screw-in fitting

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** metric nut thread  
**Sealing form 2:** 24° outer cone with O-ring  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised



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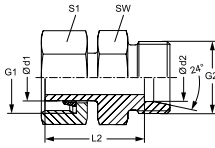
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d mm	G1	G2	i mm	L2 mm	SW mm	S1	OR
AOVN NW 04 L	L	PN 315	6	1/8" -27 NPT	M 12 x 1.5	10,0	31,5	11	14	4.0 x 1.5
AOVN NW 06 L	L	PN 315	8	1/4" -18 NPT	M 14 x 1.5	14,5	37,5	14	17	6.0 x 1.5
AOVN NW 08 L	L	PN 315	10	1/4" -18 NPT	M 16 x 1.5	14,5	38,0	14	19	7.5 x 1.5
AOVN NW 10 L	L	PN 315	12	3/8" -18 NPT	M 18 x 1.5	14,5	40,0	19	22	9.0 x 1.5
AOVN NW 13 L	L	PN 315	15	1/2" -14 NPT	M 22 x 1.5	19,5	49,5	22	27	12.0 x 2.0
AOVN NW 16 L	L	PN 315	18	1/2" -14 NPT	M 26 x 1.5	19,5	49,0	24	32	15.0 x 2.0
AOVN NW 20 L	L	PN 160	22	3/4" -14 NPT	M 30 x 2	19,5	52,0	27	36	20.0 x 2.0
AOVN NW 25 L	L	PN 160	28	1" -11.5 NPT	M 36 x 2	24,5	61,0	36	41	26.0 x 2.0
AOVN NW 32 L	L	PN 160	35	1.1/4" -11.5 NPT	M 45 x 2	25,0	65,5	46	50	32.0 x 2.5
AOVN NW 40 L	L	PN 160	42	1.1/2" -11.5 NPT	M 52 x 2	26,0	68,5	50	60	38.0 x 2.5
AOVN NW 03 S	S	PN 630	6	1/4" -18 NPT	M 14 x 1.5	14,5	37,5	14	17	4.0 x 1.5
AOVN NW 04 S	S	PN 630	8	1/4" -18 NPT	M 16 x 1.5	14,5	38,0	14	19	6.0 x 1.5
AOVN NW 06 S	S	PN 630	10	3/8" -18 NPT	M 18 x 1.5	14,5	40,5	19	22	7.5 x 1.5
AOVN NW 08 S	S	PN 630	12	3/8" -18 NPT	M 20 x 1.5	14,5	42,0	19	24	9.0 x 1.5
AOVN NW 10 S	S	PN 630	14	1/2" -14 NPT	M 22 x 1.5	19,5	50,5	22	27	10.0 x 2.0
AOVN NW 13 S	S	PN 400	16	1/2" -14 NPT	M 24 x 1.5	19,5	51,0	22	30	12.0 x 2.0
AOVN NW 16 S	S	PN 400	20	3/4" -14 NPT	M 30 x 2	19,5	54,0	27	36	16.3 x 2.4
AOVN NW 20 S	S	PN 400	25	1" -11.5 NPT	M 36 x 2	24,5	63,5	36	46	20.3 x 2.4
AOVN NW 25 S	S	PN 400	30	1.1/4" -11.5 NPT	M 42 x 2	25,0	70,5	46	50	25.3 x 2.4
AOVN NW 32 S	S	PN 315	38	1.1/2" -11.5 NPT	M 52 x 2	26,0	73,5	50	60	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d = External pipe diameter

**Product versions:**

**AOVN VA** - Screw-in fitting, Stainless steel

**XAH****Reducing fitting**

**Connection 1:** metric nut thread  
**Sealing form 1:** Pipe socket with cutting ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Reducing fitting  
**Construction:** straight  
**Standard:** ISO 8434-1  
**Included in scope of supply:** pre-assembled, Socket (without union nut and cutting ring)

**Material:** Steel

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L2 mm	SW mm	S1
XAH 06 LL 04	LL	PN 100	6	4	M 10 x 1	M 8 x 1	24,5	12	12
XAH 08 LL 04	LL	PN 100	8	4	M 12 x 1	M 8 x 1	24,5	14	14
XAH 08 LL 06	LL	PN 100	8	6	M 12 x 1	M 10 x 1	17,5	14	14
XAH NW 04 LL 04	L/LL	PN 100	6	4	M 12 x 1.5	M 8 x 1	24,5	11	14
XAH NW 06 LL 04	L/LL	PN 100	8	4	M 14 x 1.5	M 8 x 1	24,5	12	17
XAH NW 08 LL 04	L/LL	PN 100	10	4	M 16 x 1.5	M 8 x 1	24,5	11	19
XAH NW 10 LL 04	L/LL	PN 100	12	4	M 18 x 1.5	M 8 x 1	24,5	12	22
XAH NW 06 L 04	L	PN 315	8	6	M 14 x 1.5	M 12 x 1.5	26,5	12	17
XAH NW 08 L 04	L	PN 315	10	6	M 16 x 1.5	M 12 x 1.5	27,0	12	19
XAH NW 08 L 06	L	PN 315	10	8	M 16 x 1.5	M 14 x 1.5	27,5	14	19
XAH NW 10 L 04	L	PN 315	12	6	M 18 x 1.5	M 12 x 1.5	28,0	14	22
XAH NW 10 L 06	L	PN 315	12	8	M 18 x 1.5	M 14 x 1.5	29,0	14	22
XAH NW 10 L 08	L	PN 315	12	10	M 18 x 1.5	M 16 x 1.5	30,0	17	22
XAH NW 10 L	L	PN 315	12	12	M 18 x 1.5	M 18 x 1.5	31,0	22	22
XAH NW 10 L 13	L	PN 315	12	15	M 18 x 1.5	M 22 x 1.5	32,0	17	22
XAH NW 13 L 04	L	PN 315	15	6	M 22 x 1.5	M 12 x 1.5	29,0	17	27
XAH NW 13 L 06	L	PN 315	15	8	M 22 x 1.5	M 14 x 1.5	29,0	17	27
XAH NW 13 L 08	L	PN 315	15	10	M 22 x 1.5	M 16 x 1.5	30,0	17	27
XAH NW 13 L 10	L	PN 315	15	12	M 22 x 1.5	M 18 x 1.5	31,0	19	27
XAH NW 13 L	L	PN 315	15	15	M 22 x 1.5	M 22 x 1.5	32,0	27	27
XAH NW 16 L 04	L	PN 315	18	6	M 26 x 1.5	M 12 x 1.5	30,0	19	32
XAH NW 16 L 06	L	PN 315	18	8	M 26 x 1.5	M 14 x 1.5	31,0	19	32
XAH NW 16 L 08	L	PN 315	18	10	M 26 x 1.5	M 16 x 1.5	32,0	19	32
XAH NW 16 L 10	L	PN 315	18	12	M 26 x 1.5	M 18 x 1.5	33,0	19	32
XAH NW 16 L 13	L	PN 315	18	15	M 26 x 1.5	M 22 x 1.5	32,5	24	32
XAH NW 20 L 04	L	PN 160	22	6	M 30 x 2	M 12 x 1.5	32,0	24	36
XAH NW 20 L 06	L	PN 160	22	8	M 30 x 2	M 14 x 1.5	33,0	24	36
XAH NW 20 L 08	L	PN 160	22	10	M 30 x 2	M 16 x 1.5	35,0	24	36
XAH NW 20 L 10	L	PN 160	22	12	M 30 x 2	M 18 x 1.5	35,0	24	36
XAH NW 20 L 13	L	PN 160	22	15	M 30 x 2	M 22 x 1.5	36,0	24	36
XAH NW 20 L 16	L	PN 160	22	18	M 30 x 2	M 26 x 1.5	36,5	27	36
XAH NW 25 L 04	L	PN 160	28	6	M 36 x 2	M 12 x 1.5	34,0	30	41
XAH NW 25 L 06	L	PN 160	28	8	M 36 x 2	M 14 x 1.5	34,0	30	41
XAH NW 25 L 08	L	PN 160	28	10	M 36 x 2	M 16 x 1.5	35,0	30	41
XAH NW 25 L 10	L	PN 160	28	12	M 36 x 2	M 18 x 1.5	36,0	30	41
XAH NW 25 L 13	L	PN 160	28	15	M 36 x 2	M 22 x 1.5	37,0	30	41
XAH NW 25 L 16	L	PN 160	28	18	M 36 x 2	M 26 x 1.5	37,5	30	41
XAH NW 25 L 20	L	PN 160	28	22	M 36 x 2	M 30 x 2	39,5	32	41
XAH NW 32 L 04	L	PN 160	35	6	M 45 x 2	M 12 x 1.5	40,0	36	50
XAH NW 32 L 06	L	PN 160	35	8	M 45 x 2	M 14 x 1.5	40,0	36	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**XAH****(Continued)****Reducing fitting**

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L2 mm	SW mm	S1
XAH NW 32 L 08	L	PN 160	35	10	M 45 x 2	M 16 x 1.5	41,0	36	50
XAH NW 32 L 10	L	PN 160	35	12	M 45 x 2	M 18 x 1.5	42,0	36	50
XAH NW 32 L 13	L	PN 160	35	15	M 45 x 2	M 22 x 1.5	43,0	36	50
XAH NW 32 L 16	L	PN 160	35	18	M 45 x 2	M 26 x 1.5	42,0	36	50
XAH NW 32 L 20	L	PN 160	35	22	M 45 x 2	M 30 x 2	45,5	36	50
XAH NW 32 L 25	L	PN 160	35	28	M 45 x 2	M 36 x 2	46,5	41	50
XAH NW 40 L 04	L	PN 160	42	6	M 52 x 2	M 12 x 1.5	42,5	46	60
XAH NW 40 L 06	L	PN 160	42	8	M 52 x 2	M 14 x 1.5	42,5	46	60
XAH NW 40 L 08	L	PN 160	42	10	M 52 x 2	M 16 x 1.5	42,0	46	60
XAH NW 40 L 10	L	PN 160	42	12	M 52 x 2	M 18 x 1.5	43,0	46	60
XAH NW 40 L 13	L	PN 160	42	15	M 52 x 2	M 22 x 1.5	45,0	46	60
XAH NW 40 L 16	L	PN 160	42	18	M 52 x 2	M 26 x 1.5	44,0	46	60
XAH NW 40 L 20	L	PN 160	42	22	M 52 x 2	M 30 x 2	46,0	46	60
XAH NW 40 L 25	L	PN 160	42	28	M 52 x 2	M 36 x 2	47,5	46	60
XAH NW 40 L 32	L	PN 160	42	35	M 52 x 2	M 45 x 2	47,5	46	60
XAH NW 13 L 10 S	L/S	PN 315	15	14	M 22 x 1.5	M 22 x 1.5	31,0	22	27
XAH NW 16 L 13 S	L/S	PN 315	18	16	M 26 x 1.5	M 24 x 1.5	31,5	32	32
XAH NW 20 L 13 S	L/S	PN 315	22	16	M 30 x 2	M 24 x 1.5	34,5	32	36
XAH NW 20 L 16 S	L/S	PN 315	22	20	M 30 x 2	M 30 x 2	34,5	41	36
XAH NW 25 L 13 S	L/S	PN 250	28	16	M 36 x 2	M 24 x 1.5	36,5	32	41
XAH NW 25 L 20 S	L/S	PN 250	28	25	M 36 x 2	M 36 x 2	38,5	41	41
XAH NW 04 S 03	S	PN 630	8	6	M 16 x 1.5	M 14 x 1.5	30,0	14	19
XAH NW 06 S 03	S	PN 630	10	6	M 18 x 1.5	M 14 x 1.5	32,0	14	22
XAH NW 06 S 04	S	PN 630	10	8	M 18 x 1.5	M 16 x 1.5	34,0	17	22
XAH NW 08 S 03	S	PN 630	12	6	M 20 x 1.5	M 14 x 1.5	32,0	14	24
XAH NW 08 S 04	S	PN 630	12	8	M 20 x 1.5	M 16 x 1.5	34,0	17	24
XAH NW 08 S 06	S	PN 630	12	10	M 20 x 1.5	M 18 x 1.5	33,5	19	24
XAH NW 10 S 03	S	PN 630	14	6	M 22 x 1.5	M 14 x 1.5	35,0	17	27
XAH NW 10 S 04	S	PN 630	14	8	M 22 x 1.5	M 16 x 1.5	37,0	17	27
XAH NW 10 S 06	S	PN 630	14	10	M 22 x 1.5	M 18 x 1.5	36,5	19	27
XAH NW 10 S 08	S	PN 630	14	12	M 22 x 1.5	M 20 x 1.5	38,5	22	27
XAH NW 13 S 03	S	PN 400	16	6	M 24 x 1.5	M 14 x 1.5	35,0	17	30
XAH NW 13 S 04	S	PN 400	16	8	M 24 x 1.5	M 16 x 1.5	37,0	17	30
XAH NW 13 S 06	S	PN 400	16	10	M 24 x 1.5	M 18 x 1.5	36,5	19	30
XAH NW 13 S 08	S	PN 400	16	12	M 24 x 1.5	M 20 x 1.5	38,5	22	30
XAH NW 13 S 10	S	PN 400	16	14	M 24 x 1.5	M 22 x 1.5	40,0	24	30
XAH NW 16 S 03	S	PN 400	20	6	M 30 x 2	M 14 x 1.5	42,0	22	36
XAH NW 16 S 04	S	PN 400	20	8	M 30 x 2	M 16 x 1.5	42,0	22	36
XAH NW 16 S 06	S	PN 400	20	10	M 30 x 2	M 18 x 1.5	42,5	22	36
XAH NW 16 S 08	S	PN 400	20	12	M 30 x 2	M 20 x 1.5	43,5	22	36
XAH NW 16 S 10	S	PN 400	20	14	M 30 x 2	M 22 x 1.5	45,0	24	36
XAH NW 16 S 13	S	PN 400	20	16	M 30 x 2	M 24 x 1.5	44,5	27	36
XAH NW 20 S 03	S	PN 400	25	6	M 36 x 2	M 14 x 1.5	44,0	27	46
XAH NW 20 S 04	S	PN 400	25	8	M 36 x 2	M 16 x 1.5	44,0	27	46
XAH NW 20 S 06	S	PN 400	25	10	M 36 x 2	M 18 x 1.5	43,5	27	46
XAH NW 20 S 08	S	PN 400	25	12	M 36 x 2	M 20 x 1.5	45,5	27	46
XAH NW 20 S 10	S	PN 400	25	14	M 36 x 2	M 22 x 1.5	47,0	27	46
XAH NW 20 S 13	S	PN 400	25	16	M 36 x 2	M 24 x 1.5	47,5	27	46
XAH NW 20 S 16	S	PN 400	25	20	M 36 x 2	M 30 x 2	48,5	32	46
XAH NW 25 S 03	S	PN 400	30	6	M 42 x 2	M 14 x 1.5	52,0	32	50
XAH NW 25 S 04	S	PN 400	30	8	M 42 x 2	M 16 x 1.5	52,0	32	50
XAH NW 25 S 06	S	PN 400	30	10	M 42 x 2	M 18 x 1.5	51,5	32	50
XAH NW 25 S 08	S	PN 400	30	12	M 42 x 2	M 20 x 1.5	51,5	32	50
XAH NW 25 S 10	S	PN 400	30	14	M 42 x 2	M 22 x 1.5	50,0	32	50
XAH NW 25 S 13	S	PN 400	30	16	M 42 x 2	M 24 x 1.5	52,5	32	50
XAH NW 25 S 16	S	PN 400	30	20	M 42 x 2	M 30 x 2	49,5	32	50
XAH NW 25 S 20	S	PN 400	30	25	M 42 x 2	M 36 x 2	57,0	41	50
XAH NW 32 S 03	S	PN 315	38	6	M 52 x 2	M 14 x 1.5	55,0	41	60
XAH NW 32 S 04	S	PN 315	38	8	M 52 x 2	M 16 x 1.5	55,0	41	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**XAH****Reducing fitting****(Continued)**

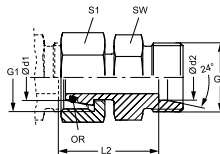
Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L2 mm	SW mm	S1
XAH NW 32 S 06	S	PN 315	38	10	M 52 x 2	M 18 x 1.5	54,5	41	60
XAH NW 32 S 08	S	PN 315	38	12	M 52 x 2	M 20 x 1.5	54,5	41	60
XAH NW 32 S 10	S	PN 315	38	14	M 52 x 2	M 22 x 1.5	57,0	41	60
XAH NW 32 S 13	S	PN 315	38	16	M 52 x 2	M 24 x 1.5	55,5	41	60
XAH NW 32 S 16	S	PN 315	38	20	M 52 x 2	M 30 x 2	56,5	41	60
XAH NW 32 S 20	S	PN 315	38	25	M 52 x 2	M 36 x 2	60,0	41	60
XAH NW 32 S 25	S	PN 315	38	30	M 52 x 2	M 42 x 2	60,5	46	60
XAH NW 13 S 13 L	S/L	PN 315	16	15	M 24 x 1.5	M 22 x 1.5	37,0	24	30
XAH NW 13 S 16 L	S/L	PN 315	16	18	M 24 x 1.5	M 26 x 1.5	39,5	26	30
XAH NW 16 S 13 L	S/L	PN 315	20	15	M 30 x 2	M 22 x 1.5	43,0	24	36
XAH NW 16 S 16 L	S/L	PN 315	20	18	M 30 x 2	M 26 x 1.5	42,5	27	36
XAH NW 20 S 16 L	S/L	PN 315	25	18	M 36 x 2	M 26 x 1.5	48,0	27	46
XAH NW 20 S 20 L	S/L	PN 160	25	22	M 36 x 2	M 30 x 2	48,5	32	46
XAH NW 25 S 25 L	S/L	PN 160	30	28	M 42 x 2	M 36 x 2	50,5	41	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**Product versions:****XAH VA** - Reducing fitting, pre-assembled, Stainless steel**AH** - Reducing fitting, Socket with union nut and cutting ring, Steel

**XAOH****Reducing fitting**

**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Reducing fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L2 mm	SW mm	S1	OR
XAOH NW 04 LL 04	L/LL	PN 100	6	4	M 12 x 1.5	M 8 x 1	24,5	9	14	4.0 x 1.5
XAOH NW 04 L	L	PN 315	6	6	M 12 x 1.5	M 12 x 1.5	27,5	14	14	4.0 x 1.5
XAOH NW 04 L 06	L	PN 315	6	8	M 12 x 1.5	M 14 x 1.5	24,5	14	14	4.0 x 1.5
XAOH NW 04 L 08	L	PN 315	6	10	M 12 x 1.5	M 16 x 1.5	25,5	17	14	4.0 x 1.5
XAOH NW 04 L 10	L	PN 315	6	12	M 12 x 1.5	M 18 x 1.5	25,5	19	14	4.0 x 1.5
XAOH NW 04 L 13	L	PN 315	6	15	M 12 x 1.5	M 22 x 1.5	27,5	24	14	4.0 x 1.5
XAOH NW 06 L 04	L	PN 315	8	6	M 14 x 1.5	M 12 x 1.5	24,5	12	17	6.0 x 1.5
XAOH NW 06 L	L	PN 315	8	8	M 14 x 1.5	M 14 x 1.5	37,0	14	17	6.0 x 1.5
XAOH NW 06 L 08	L	PN 315	8	10	M 14 x 1.5	M 16 x 1.5	26,0	17	17	6.0 x 1.5
XAOH NW 06 L 10	L	PN 315	8	12	M 14 x 1.5	M 18 x 1.5	27,0	19	17	6.0 x 1.5
XAOH NW 06 L 13	L	PN 315	8	15	M 14 x 1.5	M 22 x 1.5	28,0	24	17	4.0 x 1.5
XAOH NW 08 L 04	L	PN 315	10	6	M 16 x 1.5	M 12 x 1.5	25,0	14	19	7.5 x 1.5
XAOH NW 08 L 06	L	PN 315	10	8	M 16 x 1.5	M 14 x 1.5	25,0	14	19	7.5 x 1.5
XAOH NW 08 L	L	PN 315	10	10	M 16 x 1.5	M 16 x 1.5	37,0	17	19	7.5 x 1.5
XAOH NW 08 L 10	L	PN 315	10	12	M 16 x 1.5	M 18 x 1.5	28,0	19	19	7.5 x 1.5
XAOH NW 08 L 13	L	PN 315	10	15	M 16 x 1.5	M 22 x 1.5	29,0	24	19	7.5 x 1.5
XAOH NW 08 L 16	L	PN 315	10	18	M 16 x 1.5	M 26 x 1.5	33,0	27	19	7.5 x 1.5
XAOH NW 10 L 04	L	PN 315	12	6	M 18 x 1.5	M 12 x 1.5	26,5	17	22	9.0 x 1.5
XAOH NW 10 L 06	L	PN 315	12	8	M 18 x 1.5	M 14 x 1.5	26,5	17	22	9.0 x 1.5
XAOH NW 10 L 08	L	PN 315	12	10	M 18 x 1.5	M 16 x 1.5	27,5	17	22	9.0 x 1.5
XAOH NW 10 L	L	PN 315	12	12	M 18 x 1.5	M 18 x 1.5	37,0	19	22	9.0 x 1.5
XAOH NW 10 L 13	L	PN 315	12	15	M 18 x 1.5	M 22 x 1.5	29,0	24	22	9.0 x 1.5
XAOH NW 10 L 16	L	PN 315	12	18	M 18 x 1.5	M 26 x 1.5	29,5	27	22	9.0 x 1.5
XAOH NW 13 L 04	L	PN 315	15	6	M 22 x 1.5	M 12 x 1.5	28,5	19	27	12.0 x 2.0
XAOH NW 13 L 06	L	PN 315	15	8	M 22 x 1.5	M 14 x 1.5	28,5	19	27	12.0 x 2.0
XAOH NW 13 L 08	L	PN 315	15	10	M 22 x 1.5	M 16 x 1.5	29,5	19	27	12.0 x 2.0
XAOH NW 13 L 10	L	PN 315	15	12	M 22 x 1.5	M 18 x 1.5	29,5	19	27	12.0 x 2.0
XAOH NW 13 L	L	PN 315	15	15	M 22 x 1.5	M 22 x 1.5	37,0	24	27	12.0 x 2.0
XAOH NW 13 L 16	L	PN 315	15	18	M 22 x 1.5	M 26 x 1.5	31,5	27	27	12.0 x 2.0
XAOH NW 13 L 20	L	PN 160	15	22	M 22 x 1.5	M 30 x 2	33,5	32	27	12.0 x 2.0
XAOH NW 16 L 04	L	PN 315	18	6	M 26 x 1.5	M 12 x 1.5	29,5	24	32	15.0 x 2.0
XAOH NW 16 L 06	L	PN 315	18	8	M 26 x 1.5	M 14 x 1.5	29,5	24	32	15.0 x 2.0
XAOH NW 16 L 08	L	PN 315	18	10	M 26 x 1.5	M 16 x 1.5	30,5	24	32	15.0 x 2.0
XAOH NW 16 L 10	L	PN 315	18	12	M 26 x 1.5	M 18 x 1.5	30,5	24	32	15.0 x 2.0
XAOH NW 16 L 13	L	PN 315	18	15	M 26 x 1.5	M 22 x 1.5	31,5	24	32	15.0 x 2.0
XAOH NW 16 L	L	PN 315	18	18	M 26 x 1.5	M 26 x 1.5	36,0	27	32	15.0 x 2.0
XAOH NW 16 L 20	L	PN 160	18	22	M 26 x 1.5	M 30 x 2	33,0	32	32	15.0 x 2.0
XAOH NW 16 L 25	L	PN 160	18	28	M 26 x 1.5	M 36 x 2	34,0	41	32	15.0 x 2.0
XAOH NW 20 L 04	L	PN 160	22	6	M 30 x 2	M 12 x 1.5	32,0	27	36	20.0 x 2.0
XAOH NW 20 L 06	L	PN 160	22	8	M 30 x 2	M 14 x 1.5	32,0	27	36	20.0 x 2.0

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

## XAOH

## Reducing fitting

(Continued)

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L2 mm	SW mm	S1	OR
XAOH NW 20 L 08	L	PN 160	22	10	M 30 x 2	M 16 x 1.5	33,0	27	36	20,0 x 2,0
XAOH NW 20 L 10	L	PN 160	22	12	M 30 x 2	M 18 x 1.5	33,0	27	36	20,0 x 2,0
XAOH NW 20 L 13	L	PN 160	22	15	M 30 x 2	M 22 x 1.5	34,0	27	36	20,0 x 2,0
XAOH NW 20 L 16	L	PN 160	22	18	M 30 x 2	M 26 x 1.5	33,5	27	36	20,0 x 2,0
XAOH NW 20 L	L	PN 160	22	22	M 30 x 2	M 30 x 2	42,5	32	36	20,0 x 2,0
XAOH NW 20 L 25	L	PN 160	22	28	M 30 x 2	M 36 x 2	38,0	41	36	20,0 x 2,0
XAOH NW 20 L 32	L	PN 160	22	35	M 30 x 2	M 45 x 2	39,0	46	36	20,0 x 2,0
XAOH NW 25 L 04	L	PN 160	28	6	M 36 x 2	M 12 x 1.5	34,0	32	41	26,0 x 2,0
XAOH NW 25 L 06	L	PN 160	28	8	M 36 x 2	M 14 x 1.5	34,0	32	41	26,0 x 2,0
XAOH NW 25 L 08	L	PN 160	28	10	M 36 x 2	M 16 x 1.5	35,0	32	41	26,0 x 2,0
XAOH NW 25 L 10	L	PN 160	28	12	M 36 x 2	M 18 x 1.5	35,0	32	41	26,0 x 2,0
XAOH NW 25 L 13	L	PN 160	28	15	M 36 x 2	M 22 x 1.5	36,0	32	41	26,0 x 2,0
XAOH NW 25 L 16	L	PN 160	28	18	M 36 x 2	M 26 x 1.5	35,5	32	41	26,0 x 2,0
XAOH NW 25 L 20	L	PN 160	28	22	M 36 x 2	M 30 x 2	37,5	32	41	26,0 x 2,0
XAOH NW 25 L	L	PN 160	28	28	M 36 x 2	M 36 x 2	41,5	41	41	26,0 x 2,0
XAOH NW 25 L 32	L	PN 160	28	35	M 36 x 2	M 45 x 2	39,5	46	41	26,0 x 2,0
XAOH NW 25 L 40	L	PN 160	28	42	M 36 x 2	M 52 x 2	41,0	55	41	26,0 x 2,0
XAOH NW 32 L 04	L	PN 160	35	6	M 45 x 2	M 12 x 1.5	37,0	41	50	32,0 x 2,5
XAOH NW 32 L 06	L	PN 160	35	8	M 45 x 2	M 14 x 1.5	37,0	41	50	32,0 x 2,5
XAOH NW 32 L 08	L	PN 160	35	10	M 45 x 2	M 16 x 1.5	38,0	41	50	32,0 x 2,5
XAOH NW 32 L 10	L	PN 160	35	12	M 45 x 2	M 18 x 1.5	38,0	41	50	32,0 x 2,5
XAOH NW 32 L 13	L	PN 160	35	15	M 45 x 2	M 22 x 1.5	39,5	41	50	32,0 x 2,5
XAOH NW 32 L 16	L	PN 160	35	18	M 45 x 2	M 26 x 1.5	39,5	41	50	32,0 x 2,5
XAOH NW 32 L 20	L	PN 160	35	22	M 45 x 2	M 30 x 2	41,5	41	50	32,0 x 2,5
XAOH NW 32 L 25	L	PN 160	35	28	M 45 x 2	M 36 x 2	41,5	41	50	32,0 x 2,5
XAOH NW 32 L	L	PN 160	35	35	M 45 x 2	M 45 x 2	50,0	46	50	32,0 x 2,5
XAOH NW 32 L 40	L	PN 160	35	42	M 45 x 2	M 52 x 2	42,0	55	50	32,0 x 2,5
XAOH NW 40 L 04	L	PN 160	42	6	M 52 x 2	M 12 x 1.5	40,5	50	60	38,0 x 2,5
XAOH NW 40 L 06	L	PN 160	42	8	M 52 x 2	M 14 x 1.5	40,5	50	60	38,0 x 2,5
XAOH NW 40 L 08	L	PN 160	42	10	M 52 x 2	M 16 x 1.5	41,5	50	60	38,0 x 2,5
XAOH NW 40 L 10	L	PN 160	42	12	M 52 x 2	M 18 x 1.5	41,5	50	60	38,0 x 2,5
XAOH NW 40 L 13	L	PN 160	42	15	M 52 x 2	M 22 x 1.5	42,5	50	60	38,0 x 2,5
XAOH NW 40 L 16	L	PN 160	42	18	M 52 x 2	M 26 x 1.5	42,0	50	60	38,0 x 2,5
XAOH NW 40 L 20	L	PN 160	42	22	M 52 x 2	M 30 x 2	44,0	50	60	38,0 x 2,5
XAOH NW 40 L 25	L	PN 160	42	28	M 52 x 2	M 36 x 2	44,0	50	60	38,0 x 2,5
XAOH NW 40 L 32	L	PN 160	42	35	M 52 x 2	M 45 x 2	43,0	50	60	38,0 x 2,5
XAOH NW 40 L	L	PN 160	42	42	M 52 x 2	M 52 x 2	42,0	55	60	38,0 x 2,5
XAOH NW 04 L 03 S	L/S	PN 315	6	6	M 12 x 1.5	M 14 x 1.5	29,5	17	14	4,0 x 1,5
XAOH NW 04 L 04 S	L/S	PN 315	6	8	M 12 x 1.5	M 16 x 1.5	29,5	17	14	4,0 x 1,5
XAOH NW 04 L 06 S	L/S	PN 315	6	10	M 12 x 1.5	M 18 x 1.5	29,0	19	14	4,0 x 1,5
XAOH NW 04 L 08 S	L/S	PN 315	6	12	M 12 x 1.5	M 20 x 1.5	31,0	22	14	4,0 x 1,5
XAOH NW 06 L 04 S	L/S	PN 315	8	8	M 14 x 1.5	M 16 x 1.5	30,0	17	17	6,0 x 1,5
XAOH NW 06 L 06 S	L/S	PN 315	8	10	M 14 x 1.5	M 18 x 1.5	29,5	19	17	6,0 x 1,5
XAOH NW 06 L 08 S	L/S	PN 315	8	12	M 14 x 1.5	M 20 x 1.5	31,5	22	17	6,0 x 1,5
XAOH NW 08 L 06 S	L/S	PN 315	10	10	M 16 x 1.5	M 18 x 1.5	32,5	19	19	7,5 x 1,5
XAOH NW 08 L 08 S	L/S	PN 315	10	12	M 16 x 1.5	M 20 x 1.5	32,5	22	19	7,5 x 1,5
XAOH NW 08 L 10 S	L/S	PN 315	10	14	M 16 x 1.5	M 22 x 1.5	34,0	24	19	7,5 x 1,5
XAOH NW 08 L 13 S	L/S	PN 315	10	16	M 16 x 1.5	M 24 x 1.5	33,5	27	19	7,5 x 1,5
XAOH NW 10 L 04 S	L/S	PN 315	12	8	M 18 x 1.5	M 16 x 1.5	31,0	19	22	9,0 x 1,5
XAOH NW 10 L 06 S	L/S	PN 315	12	10	M 18 x 1.5	M 18 x 1.5	30,5	19	22	9,0 x 1,5
XAOH NW 10 L 08 S	L/S	PN 315	12	12	M 18 x 1.5	M 20 x 1.5	33,0	22	22	9,0 x 1,5
XAOH NW 10 L 10 S	L/S	PN 315	12	14	M 18 x 1.5	M 22 x 1.5	35,5	24	22	9,0 x 1,5
XAOH NW 10 L 13 S	L/S	PN 315	12	16	M 18 x 1.5	M 24 x 1.5	33,5	27	22	9,0 x 1,5
XAOH NW 10 L 16 S	L/S	PN 315	12	20	M 18 x 1.5	M 30 x 2	29,5	32	22	9,0 x 1,5
XAOH NW 13 L 13 S	L/S	PN 315	15	16	M 22 x 1.5	M 24 x 1.5	35,5	27	27	12,0 x 2,0
XAOH NW 13 L 16 S	L/S	PN 315	15	20	M 22 x 1.5	M 30 x 2	32,5	32	27	12,0 x 2,0
XAOH NW 16 L 13 S	L/S	PN 315	18	16	M 26 x 1.5	M 24 x 1.5	31,5	27	32	16,0 x 2,0
XAOH NW 16 L 16 S	L/S	PN 315	18	20	M 26 x 1.5	M 30 x 2	37,0	32	32	16,0 x 2,0
XAOH NW 16 L 20 S	L/S	PN 315	18	25	M 26 x 1.5	M 36 x 2	33,5	41	32	16,0 x 2,0

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter



## XAOH

(Continued)

## Reducing fitting

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L2 mm	SW mm	S1	OR
XAOH NW 20 L 13 S	L/S	PN 160	22	16	M 30 x 2	M 24 x 1.5	34,0	27	36	20,0 x 2,0
XAOH NW 20 L 16 S	L/S	PN 160	22	20	M 30 x 2	M 30 x 2	41,0	32	36	20,0 x 2,0
XAOH NW 20 L 20 S	L/S	PN 160	22	25	M 30 x 2	M 36 x 2	43,5	41	36	20,0 x 2,0
XAOH NW 20 L 25 S	L/S	PN 160	22	30	M 30 x 2	M 42 x 2	43,5	46	36	20,0 x 2,0
XAOH NW 25 L 13 S	L/S	PN 160	28	16	M 36 x 2	M 24 x 2	36,5	32	41	26,0 x 2,0
XAOH NW 25 L 20 S	L/S	PN 160	28	25	M 36 x 2	M 36 x 2	44,0	41	41	26,0 x 2,0
XAOH NW 25 L 25 S	L/S	PN 160	28	30	M 36 x 2	M 42 x 2	43,5	46	41	26,0 x 2,0
XAOH NW 25 L 32 S	L/S	PN 160	28	38	M 26 x 2	M 52 x 2	47,0	55	41	26,0 x 2,0
XAOH NW 32 L 20 S	L/S	PN 160	35	25	M 45 x 2	M 36 x 2	40,0	41	50	32,0 x 2,5
XAOH NW 32 L 25 S	L/S	PN 160	35	30	M 45 x 2	M 42 x 2	40,5	46	50	32,0 x 2,5
XAOH NW 32 L 32 S	L/S	PN 160	35	38	M 45 x 2	M 52 x 2	50,0	55	50	32,0 x 2,5
XAOH NW 40 L 25 S	L/S	PN 160	42	30	M 52 x 2	M 42 x 2	42,5	50	60	38,0 x 2,5
XAOH NW 40 L 32 S	L/S	PN 160	42	38	M 52 x 2	M 52 x 2	45,5	55	60	38,0 x 2,5
XAOH NW 03 S	S	PN 630	6	6	M 14 x 1.5	M 14 x 1.5	36,0	14	17	4,0 x 1,5
XAOH NW 03 S 04	S	PN 630	6	8	M 14 x 1.5	M 16 x 1.5	30,0	17	17	4,0 x 1,5
XAOH NW 03 S 06	S	PN 630	6	10	M 14 x 1.5	M 18 x 1.5	29,5	19	17	4,0 x 1,5
XAOH NW 04 S 03	S	PN 630	8	6	M 16 x 1.5	M 14 x 1.5	28,0	14	19	6,0 x 1,5
XAOH NW 04 S	S	PN 630	8	8	M 16 x 1.5	M 16 x 1.5	37,5	17	19	6,0 x 1,5
XAOH NW 04 S 06	S	PN 630	8	10	M 16 x 1.5	M 18 x 1.5	30,0	19	19	6,0 x 1,5
XAOH NW 04 S 08	S	PN 630	8	12	M 16 x 1.5	M 20 x 1.5	32,0	22	19	6,0 x 1,5
XAOH NW 04 S 13	S	PN 400	8	16	M 16 x 1.5	M 24 x 1.5	31,5	27	19	6,0 x 1,5
XAOH NW 06 S 03	S	PN 630	10	6	M 18 x 1.5	M 14 x 1.5	29,5	17	22	7,5 x 1,5
XAOH NW 06 S 04	S	PN 630	10	8	M 18 x 1.5	M 16 x 1.5	29,5	17	22	7,5 x 1,5
XAOH NW 06 S	S	PN 630	10	10	M 18 x 1.5	M 18 x 1.5	36,5	19	22	7,5 x 1,5
XAOH NW 06 S 08	S	PN 630	10	12	M 18 x 1.5	M 20 x 1.5	32,5	22	22	7,5 x 1,5
XAOH NW 06 S 10	S	PN 630	10	14	M 18 x 1.5	M 22 x 1.5	34,0	24	22	7,5 x 1,5
XAOH NW 06 S 13	S	PN 400	10	16	M 18 x 1.5	M 24 x 1.5	33,5	27	22	7,5 x 1,5
XAOH NW 08 S 03	S	PN 630	12	6	M 20 x 1.5	M 14 x 1.5	30,0	17	24	9,0 x 1,5
XAOH NW 08 S 04	S	PN 630	12	8	M 20 x 1.5	M 16 x 1.5	30,0	17	24	9,0 x 1,5
XAOH NW 08 S 06	S	PN 630	12	10	M 20 x 1.5	M 18 x 1.5	30,5	19	24	9,0 x 1,5
XAOH NW 08 S	S	PN 630	12	12	M 20 x 1.5	M 20 x 1.5	32,5	22	24	9,0 x 1,5
XAOH NW 08 S 10	S	PN 630	12	14	M 20 x 1.5	M 22 x 1.5	34,0	24	24	9,0 x 1,5
XAOH NW 08 S 13	S	PN 400	12	16	M 20 x 1.5	M 24 x 1.5	33,5	27	24	9,0 x 1,5
XAOH NW 08 S 16	S	PN 400	12	20	M 20 x 1.5	M 30 x 2	37,0	32	24	9,0 x 1,5
XAOH NW 10 S 03	S	PN 630	14	6	M 22 x 1.5	M 14 x 1.5	33,0	19	27	10,0 x 2,0
XAOH NW 10 S 04	S	PN 630	14	8	M 22 x 1.5	M 16 x 1.5	33,0	19	27	10,0 x 2,0
XAOH NW 10 S 06	S	PN 630	14	10	M 22 x 1.5	M 18 x 1.5	32,5	19	27	10,0 x 2,0
XAOH NW 10 S 08	S	PN 630	14	12	M 22 x 1.5	M 20 x 1.5	32,5	22	27	10,0 x 2,0
XAOH NW 10 S	S	PN 630	14	14	M 22 x 1.5	M 22 x 1.5	40,0	24	27	10,0 x 2,0
XAOH NW 10 S 13	S	PN 400	14	16	M 22 x 1.5	M 24 x 1.5	36,0	27	27	10,0 x 2,0
XAOH NW 10 S 16	S	PN 400	14	20	M 22 x 1.5	M 30 x 2	38,0	32	27	10,0 x 2,0
XAOH NW 13 S 03	S	PN 400	16	6	M 24 x 1.5	M 14 x 1.5	34,0	22	30	12,0 x 2,0
XAOH NW 13 S 04	S	PN 400	16	8	M 24 x 1.5	M 16 x 1.5	34,0	22	30	12,0 x 2,0
XAOH NW 13 S 06	S	PN 400	16	10	M 24 x 1.5	M 18 x 1.5	33,5	22	30	12,0 x 2,0
XAOH NW 13 S 08	S	PN 400	16	12	M 24 x 1.5	M 20 x 1.5	33,5	22	30	12,0 x 2,0
XAOH NW 13 S 10	S	PN 400	16	14	M 24 x 1.5	M 22 x 1.5	35,5	24	30	12,0 x 2,0
XAOH NW 13 S	S	PN 400	16	16	M 24 x 1.5	M 24 x 1.5	40,0	27	30	12,0 x 2,0
XAOH NW 13 S 16	S	PN 400	16	20	M 24 x 1.5	M 30 x 2	39,0	32	30	12,0 x 2,0
XAOH NW 13 S 20	S	PN 400	16	25	M 24 x 1.5	M 36 x 2	41,5	41	30	12,0 x 2,0
XAOH NW 16 S 03	S	PN 400	20	6	M 30 x 2	M 14 x 1.5	39,0	27	36	16,3 x 2,4
XAOH NW 16 S 04	S	PN 400	20	8	M 30 x 2	M 16 x 1.5	39,0	27	36	16,3 x 2,4
XAOH NW 16 S 06	S	PN 400	20	10	M 30 x 2	M 18 x 1.5	38,5	27	36	16,3 x 2,4
XAOH NW 16 S 08	S	PN 400	20	12	M 30 x 2	M 20 x 1.5	38,5	27	36	16,3 x 2,4
XAOH NW 16 S 10	S	PN 400	20	14	M 30 x 2	M 22 x 1.5	40,0	27	36	16,3 x 2,4
XAOH NW 16 S 13	S	PN 400	20	16	M 30 x 2	M 24 x 1.5	39,5	27	36	16,3 x 2,4
XAOH NW 16 S	S	PN 400	20	20	M 30 x 2	M 30 x 2	46,0	32	36	16,3 x 2,4
XAOH NW 16 S 20	S	PN 400	20	25	M 30 x 2	M 36 x 2	44,5	41	36	16,3 x 2,4
XAOH NW 16 S 25	S	PN 400	20	30	M 30 x 2	M 42 x 2	45,0	46	36	16,3 x 2,4
XAOH NW 16 S 32	S	PN 315	20	38	M 30 x 2	M 52 x 2	41,5	55	36	16,3 x 2,4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

## XAOH

## Reducing fitting

(Continued)

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L2 mm	SW mm	S1	OR
XAOH NW 20 S 03	S	PN 400	25	6	M 36 x 2	M 14 x 1.5	41,5	32	46	20.3 x 2.4
XAOH NW 20 S 04	S	PN 400	25	8	M 36 x 2	M 16 x 1.5	41,5	32	46	20.3 x 2.4
XAOH NW 20 S 06	S	PN 400	25	10	M 36 x 2	M 18 x 1.5	41,0	32	46	20.3 x 2.4
XAOH NW 20 S 08	S	PN 400	25	12	M 36 x 2	M 20 x 1.5	41,0	32	46	20.3 x 2.4
XAOH NW 20 S 10	S	PN 400	25	14	M 36 x 2	M 22 x 1.5	42,5	32	46	20.3 x 2.4
XAOH NW 20 S 13	S	PN 400	25	16	M 36 x 2	M 24 x 1.5	42,0	32	46	20.3 x 2.4
XAOH NW 20 S 16	S	PN 400	25	20	M 36 x 2	M 30 x 2	42,0	32	46	20.3 x 2.4
XAOH NW 20 S	S	PN 400	25	25	M 36 x 2	M 36 x 2	50,0	41	46	20.3 x 2.4
XAOH NW 20 S 25	S	PN 400	25	30	M 36 x 2	M 42 x 2	48,0	46	46	20.3 x 2.4
XAOH NW 20 S 32	S	PN 315	25	38	M 36 x 2	M 52 x 2	50,5	55	46	20.3 x 2.4
XAOH NW 25 S 03	S	PN 400	30	6	M 42 x 2	M 14 x 1.5	44,0	41	50	25.3 x 2.4
XAOH NW 25 S 04	S	PN 400	30	8	M 42 x 2	M 16 x 1.5	46,0	41	50	25.3 x 2.4
XAOH NW 25 S 06	S	PN 400	30	10	M 42 x 2	M 18 x 2	45,5	41	50	25.3 x 2.4
XAOH NW 25 S 08	S	PN 400	30	12	M 42 x 2	M 20 x 2	45,5	41	50	25.3 x 2.4
XAOH NW 25 S 10	S	PN 400	30	14	M 42 x 2	M 22 x 1.5	45,0	41	50	25.3 x 2.4
XAOH NW 25 S 13	S	PN 400	30	16	M 42 x 2	M 24 x 1.5	46,5	41	50	25.3 x 2.4
XAOH NW 25 S 16	S	PN 400	30	20	M 42 x 2	M 30 x 2	46,5	41	50	25.3 x 2.4
XAOH NW 25 S 20	S	PN 400	30	25	M 42 x 2	M 36 x 2	47,0	41	50	25.3 x 2.4
XAOH NW 25 S	S	PN 400	30	30	M 42 x 2	M 42 x 2	53,5	46	50	25.3 x 2.4
XAOH NW 25 S 32	S	PN 315	30	38	M 42 x 2	M 52 x 2	56,5	55	50	25.3 x 2.4
XAOH NW 32 S 03	S	PN 315	38	6	M 52 x 2	M 14 x 1.5	47,5	50	60	33.3 x 2.4
XAOH NW 32 S 04	S	PN 315	38	8	M 52 x 2	M 16 x 1.5	47,5	50	60	33.3 x 2.4
XAOH NW 32 S 06	S	PN 315	38	10	M 52 x 2	M 18 x 1.5	47,0	50	60	33.3 x 2.4
XAOH NW 32 S 08	S	PN 315	38	12	M 52 x 2	M 20 x 1.5	50,0	50	60	33.3 x 2.4
XAOH NW 32 S 10	S	PN 315	38	14	M 52 x 2	M 22 x 1.5	48,5	50	60	33.3 x 2.4
XAOH NW 32 S 13	S	PN 315	38	16	M 52 x 2	M 24 x 1.5	51,0	50	60	33.3 x 2.4
XAOH NW 32 S 16	S	PN 315	38	20	M 52 x 2	M 30 x 2	51,0	50	60	33.3 x 2.4
XAOH NW 32 S 20	S	PN 315	38	25	M 52 x 2	M 36 x 2	51,5	50	60	33.3 x 2.4
XAOH NW 32 S 25	S	PN 315	38	30	M 52 x 2	M 42 x 2	52,0	50	60	33.3 x 2.4
XAOH NW 32 S	S	PN 315	38	38	M 52 x 2	M 52 x 2	57,0	55	60	33.3 x 2.4
XAOH NW 03 S 04 L	S/L	PN 315	6	6	M 14 x 1.5	M 12 x 1.5	24,5	12	17	4.0 x 1.5
XAOH NW 03 S 06 L	S/L	PN 315	6	8	M 14 x 1.5	M 14 x 1.5	23,5	14	17	4.0 x 1.5
XAOH NW 04 S 04 L	S/L	PN 315	8	6	M 16 x 1.5	M 12 x 1.5	24,0	12	19	6.0 x 1.5
XAOH NW 04 S 06 L	S/L	PN 315	8	8	M 16 x 1.5	M 14 x 1.5	24,5	14	19	6.0 x 1.5
XAOH NW 04 S 08 L	S/L	PN 315	8	10	M 16 x 1.5	M 16 x 1.5	36,0	17	19	6.0 x 1.5
XAOH NW 04 S 10 L	S/L	PN 315	8	12	M 16 x 1.5	M 18 x 1.5	27,5	19	19	6.0 x 1.5
XAOH NW 06 S 06 L	S/L	PN 315	10	8	M 18 x 1.5	M 14 x 1.5	26,0	17	22	7.5 x 1.5
XAOH NW 06 S 08 L	S/L	PN 315	10	10	M 18 x 1.5	M 16 x 1.5	27,0	17	22	7.5 x 1.5
XAOH NW 06 S 10 L	S/L	PN 315	10	12	M 18 x 1.5	M 18 x 1.5	27,5	19	22	7.5 x 1.5
XAOH NW 06 S 13 L	S/L	PN 315	10	15	M 18 x 1.5	M 22 x 1.5	29,0	24	22	7.5 x 1.5
XAOH NW 08 S 06 L	S/L	PN 315	12	8	M 20 x 1.5	M 14 x 1.5	27,0	17	24	9.0 x 1.5
XAOH NW 08 S 08 L	S/L	PN 315	12	10	M 20 x 1.5	M 16 x 1.5	29,5	17	24	9.0 x 1.5
XAOH NW 08 S 10 L	S/L	PN 315	12	12	M 20 x 1.5	M 18 x 1.5	29,5	19	24	9.0 x 1.5
XAOH NW 08 S 13 L	S/L	PN 315	12	15	M 20 x 1.5	M 22 x 1.5	30,5	24	24	9.0 x 1.5
XAOH NW 08 S 16 L	S/L	PN 315	12	18	M 20 x 1.5	M 26 x 1.5	34,0	27	24	9.0 x 1.5
XAOH NW 10 S 10 L	S/L	PN 315	14	12	M 22 x 1.5	M 18 x 1.5	30,5	19	27	10.0 x 2.0
XAOH NW 10 S 13 L	S/L	PN 315	14	15	M 22 x 1.5	M 22 x 1.5	42,5	24	27	10.0 x 2.0
XAOH NW 10 S 16 L	S/L	PN 315	14	18	M 22 x 1.5	M 26 x 1.5	35,0	27	27	10.0 x 2.0
XAOH NW 13 S 13 L	S/L	PN 315	16	15	M 24 x 1.5	M 22 x 1.5	32,5	24	30	12.0 x 2.0
XAOH NW 13 S 16 L	S/L	PN 315	16	18	M 24 x 1.5	M 26 x 1.5	33,0	27	30	12.0 x 2.0
XAOH NW 13 S 20 L	S/L	PN 160	16	22	M 24 x 1.5	M 30 x 2	35,0	32	30	12.0 x 2.0
XAOH NW 16 S 13 L	S/L	PN 315	20	15	M 30 x 2	M 22 x 1.5	38,0	27	36	16.3 x 2.4
XAOH NW 16 S 16 L	S/L	PN 315	20	18	M 30 x 2	M 26 x 1.5	35,5	27	36	16.3 x 2.4
XAOH NW 16 S 20 L	S/L	PN 160	20	22	M 30 x 2	M 30 x 2	38,0	32	36	16.3 x 2.4
XAOH NW 16 S 25 L	S/L	PN 160	20	28	M 30 x 2	M 36 x 2	39,0	41	36	16.3 x 2.4
XAOH NW 20 S 13 L	S/L	PN 315	25	15	M 36 x 2	M 22 x 1.5	40,5	32	46	20.3 x 2.4
XAOH NW 20 S 16 L	S/L	PN 315	25	18	M 36 x 2	M 26 x 1.5	38,0	32	46	20.3 x 2.4
XAOH NW 20 S 20 L	S/L	PN 160	25	22	M 36 x 2	M 30 x 2	42,0	32	46	20.3 x 2.4
XAOH NW 20 S 25 L	S/L	PN 160	25	28	M 36 x 2	M 36 x 2	42,0	41	46	20.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**XAOH**

(Continued)

**Reducing fitting**

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	G2	L2 mm	SW mm	S1	OR
XAOH NW 20 S 32 L	S/L	PN 160	25	35	M 36 x 2	M 45 x 2	42,0	46	46	20.3 x 2.4
XAOH NW 25 S 20 L	S/L	PN 160	30	22	M 42 x 2	M 30 x 2	45,0	41	50	25.3 x 2.4
XAOH NW 25 S 25 L	S/L	PN 160	30	28	M 42 x 2	M 36 x 2	45,5	41	50	25.3 x 2.4
XAOH NW 25 S 32 L	S/L	PN 160	30	35	M 42 x 2	M 45 x 2	45,5	46	50	25.3 x 2.4
XAOH NW 25 S 40 L	S/L	PN 160	30	42	M 42 x 2	M 52 x 2	47,0	55	50	25.3 x 2.4
XAOH NW 32 S 25 L	S/L	PN 160	38	28	M 52 x 2	M 36 x 2	50,0	50	60	33.3 x 2.4
XAOH NW 32 S 32 L	S/L	PN 160	38	35	M 52 x 2	M 45 x 2	48,0	50	60	33.3 x 2.4
XAOH NW 32 S 40 L	S/L	PN 160	38	42	M 52 x 2	M 52 x 2	50,5	55	60	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**Product versions:**

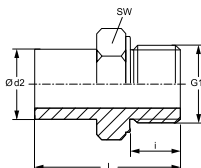
**XAOH VA** - Reducing fitting, Socket (without union nut and cutting ring), Stainless steel

**AOH** - Reducing fitting, Socket with union nut and cutting ring, Steel

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## NVR

## Screw-in sockets



**Connection 1:** BSP external thread, cylindrical Shape B  
**Sealing form 1:**  
**Connection 2:** Pipe socket not pre-assembled  
**Sealing form 2:** Cutting ring connection  
**Design:** Screw-in sockets  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	i mm	L mm	SW mm
NVR NW 04 L	L	PN 315	6	G 1/8" -28	8	32,5	14
NVR NW 06 L	L	PN 315	8	G 1/4" -19	12	39,0	19
NVR NW 08 L	L	PN 315	10	G 1/4" -19	12	39,5	19
NVR NW 10 L 1/4	L	PN 250	12	G 1/4" -19	12	40,5	19
NVR NW 10 L	L	PN 315	12	G 3/8" -19	12	42,0	22
NVR NW 10 L 1/2	L	PN 250	12	G 1/2" -14	14	44,5	27
NVR NW 13 L 3/8	L	PN 250	15	G 3/8" -19	12	42,0	22
NVR NW 13 L	L	PN 315	15	G 1/2" -14	14	44,5	27
NVR NW 16 L	L	PN 315	18	G 1/2" -14	14	45,5	27
NVR NW 20 L 1/2	L	PN 160	22	G 1/2" -14	14	46,0	27
NVR NW 20 L	L	PN 160	22	G 3/4" -14	16	48,5	32
NVR NW 25 L	L	PN 160	28	G 1" -11	18	53,0	41
NVR NW 32 L	L	PN 160	35	G 1.1/4" -11	20	62,5	50
NVR NW 40 L	L	PN 160	42	G 1.1/2" -11	22	69,0	55
NVR NW 03 S	S	PN 400	6	G 1/4" -19	12	39,0	19
NVR NW 04 S	S	PN 400	8	G 1/4" -19	12	39,0	19
NVR NW 06 S	S	PN 400	10	G 3/8" -19	12	44,0	22
NVR NW 08 S	S	PN 400	12	G 3/8" -19	12	44,0	22
NVR NW 08 S 1/2	S	PN 400	12	G 1/2" -14	14	49,0	27
NVR NW 10 S	S	PN 400	14	G 1/2" -14	14	50,5	27
NVR NW 13 S 3/8	S	PN 400	16	G 3/8" -19	12	46,0	22
NVR NW 13 S	S	PN 400	16	G 1/2" -14	14	51,0	27
NVR NW 13 S 3/4	S	PN 400	16	G 3/4" -14	16	54,5	32
NVR NW 16 S 1/2	S	PN 400	20	G 1/2" -14	14	55,5	27
NVR NW 16 S	S	PN 400	20	G 3/4" -14	16	59,0	32
NVR NW 20 S	S	PN 250	25	G 1" -11	18	66,0	41
NVR NW 25 S	S	PN 160	30	G 1.1/4" -11	20	71,0	50
NVR NW 32 S	S	PN 160	38	G 1.1/2" -11	22	82,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**NVR VA** - Screw-in sockets, Stainless steel

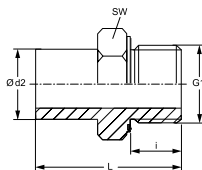
**Additional elements:**

**VOM** - Pre-assembly sockets

## NVR ED

## Screw-in sockets

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** Pipe socket not pre-assembled  
**Sealing form 2:** Cutting ring connection  
**Design:** Screw-in sockets  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



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**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	i mm	L mm	SW mm
NVR NW 04 L ED	L	PN 315	6	G 1/8" -28	8	32,5	14
NVR NW 06 L ED	L	PN 315	8	G 1/4" -19	12	39,0	19
NVR NW 08 L ED	L	PN 315	10	G 1/4" -19	12	39,5	19
NVR NW 10 L 1/4 ED	L	PN 315	12	G 1/4" -19	12	40,5	19
NVR NW 10 L ED	L	PN 315	12	G 3/8" -19	12	42,0	22
NVR NW 10 L 1/2 ED	L	PN 315	12	G 1/2" -14	14	44,5	27
NVR NW 13 L 3/8 ED	L	PN 315	15	G 3/8" -19	12	42,0	22
NVR NW 13 L ED	L	PN 315	15	G 1/2" -14	14	44,5	27
NVR NW 16 L ED	L	PN 315	18	G 1/2" -14	14	45,5	27
NVR NW 20 L ED	L	PN 160	22	G 3/4" -14	16	48,5	32
NVR NW 25 L ED	L	PN 160	28	G 1" -11	18	53,0	41
NVR NW 32 L ED	L	PN 160	35	G 1.1/4" -11	20	62,5	50
NVR NW 40 L ED	L	PN 160	42	G 1.1/2" -11	22	69,0	55
NVR NW 03 S ED	S	PN 630	6	G 1/4" -19	12	39,0	19
NVR NW 04 S ED	S	PN 630	8	G 1/4" -19	12	39,0	19
NVR NW 06 S ED	S	PN 630	10	G 3/8" -19	12	44,0	22
NVR NW 08 S ED	S	PN 630	12	G 3/8" -19	12	44,0	22
NVR NW 08 S 1/2 ED	S	PN 630	12	G 1/2" -14	14	49,0	27
NVR NW 10 S ED	S	PN 630	14	G 1/2" -14	14	50,5	27
NVR NW 13 S ED	S	PN 400	16	G 1/2" -14	14	51,0	27
NVR NW 16 S ED	S	PN 400	20	G 3/4" -14	16	59,0	32
NVR NW 20 S ED	S	PN 400	25	G 1" -11	18	66,0	41
NVR NW 25 S ED	S	PN 400	30	G 1.1/4" -11	20	71,0	50
NVR NW 32 S ED	S	PN 315	38	G 1.1/2" -11	22	82,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

NVR ED VA - Screw-in sockets, Stainless steel

**Spare parts:**

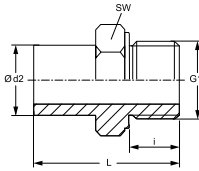
WD - Soft seal for ED fittings

**Additional elements:**

VOM - Pre-assembly sockets

## NVM

### Screw-in sockets



<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	Shape B
<b>Connection 2:</b>	Pipe socket not pre-assembled
<b>Sealing form 2:</b>	Cutting ring connection
<b>Design:</b>	Screw-in sockets
<b>Construction:</b>	straight
<b>Standard:</b>	DIN 2353, ISO 8434-1
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	i mm	L mm	SW mm
NVM NW 04 L	L	PN 315	6	M 10 x 1	8	32,5	14
NVM NW 06 L	L	PN 315	8	M 12 x 1.5	12	38,0	17
NVM NW 08 L	L	PN 315	10	M 14 x 1.5	12	39,5	19
NVM NW 10 L	L	PN 315	12	M 16 x 1.5	12	41,5	22
NVM NW 10 L 14	L	PN 315	12	M 14 x 1.5	12	41,5	19
NVM NW 10 L 18	L	PN 315	12	M 18 x 1.5	12	41,5	24
NVM NW 10 L 22	L	PN 315	12	M 22 x 1.5	14	44,0	27
NVM NW 13 L	L	PN 315	15	M 18 x 1.5	12	43,5	27
NVM NW 13 L 22	L	PN 315	15	M 22 x 1.5	17	48,0	27
NVM NW 16 L	L	PN 315	18	M 22 x 1.5	14	45,5	27
NVM NW 20 L	L	PN 160	22	M 26 x 1.5	16	48,5	32
NVM NW 25 L	L	PN 160	28	M 33 x 2	18	53,0	41
NVM NW 32 L	L	PN 160	35	M 42 x 2	20	62,5	50
NVM NW 40 L	L	PN 160	42	M 48 x 2	22	68,5	55
NVM NW 03 S	S	PN 400	6	M 12 x 1.5	12	39,0	17
NVM NW 04 S	S	PN 400	8	M 14 x 1.5	12	41,5	19
NVM NW 06 S	S	PN 400	10	M 16 x 1.5	12	44,0	22
NVM NW 08 S	S	PN 400	12	M 18 x 1.5	12	46,0	24
NVM NW 10 S	S	PN 400	14	M 20 x 1.5	14	50,0	27
NVM NW 13 S	S	PN 400	16	M 22 x 1.5	14	51,0	27
NVM NW 16 S	S	PN 400	20	M 27 x 2	16	59,0	32
NVM NW 20 S	S	PN 250	25	M 33 x 2	18	66,0	46
NVM NW 25 S	S	PN 160	30	M 42 x 2	20	51,0	50
NVM NW 32 S	S	PN 160	38	M 48 x 2	22	82,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

#### Product versions:

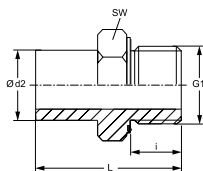
**NVM VA** - Screw-in sockets, Stainless steel

#### Additional elements:

**VOM** - Pre-assembly sockets

## Screw-in sockets

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** Pipe socket not pre-assembled  
**Sealing form 2:** Cutting ring connection  
**Design:** Screw-in sockets  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



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**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	i mm	L mm	SW mm
NVM NW 04 L ED	L	PN 315	6	M 10 x 1	8	32,5	14
NVM NW 06 L ED	L	PN 315	8	M 12 x 1.5	12	38,5	17
NVM NW 08 L ED	L	PN 315	10	M 16 x 1.5	12	39,5	19
NVM NW 10 L ED	L	PN 315	12	M 16 x 1.5	12	42,5	22
NVM NW 13 L ED	L	PN 315	15	M 18 x 1.5	12	43,5	24
NVM NW 16 L ED	L	PN 315	18	M 22 x 1.5	14	45,5	27
NVM NW 20 L ED	L	PN 160	22	M 26 x 1.5	16	48,5	32
NVM NW 25 L ED	L	PN 160	28	M 33 x 2	18	53,0	41
NVM NW 32 L ED	L	PN 160	35	M 42 x 2	20	62,5	50
NVM NW 40 L ED	L	PN 160	42	M 48 x 2	22	68,5	55
NVM NW 03 S ED	S	PN 630	6	M 12 x 1.5	12	39,0	17
NVM NW 04 S ED	S	PN 630	8	M 14 x 1.5	12	41,5	19
NVM NW 06 S ED	S	PN 630	10	M 16 x 1.5	12	44,0	22
NVM NW 08 S ED	S	PN 630	12	M 18 x 1.5	12	46,0	24
NVM NW 10 S ED	S	PN 630	14	M 20 x 1.5	14	50,5	27
NVM NW 13 S ED	S	PN 400	16	M 22 x 1.5	14	51,0	27
NVM NW 16 S ED	S	PN 400	20	M 27 x 2	16	59,0	32
NVM NW 20 S ED	S	PN 400	25	M 33 x 2	18	66,0	41
NVM NW 25 S ED	S	PN 400	30	M 42 x 2	20	71,0	50
NVM NW 32 S ED	S	PN 315	38	M 48 x 2	22	82,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**NVM ED VA** - Screw-in sockets, Stainless steel

**Spare parts:**

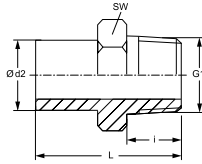
**WD** - Soft seal for ED fittings

**Additional elements:**

**VOM** - Pre-assembly sockets

## NVN

### Screw-in sockets



**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** Pipe socket not pre-assembled  
**Sealing form 2:** Cutting ring connection  
**Design:** Screw-in sockets  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	i mm	L mm	SW mm
NVN NW 04 L	L	PN 315	6	1/8" -27 NPT	10,0	33,0	11
NVN NW 06 L	L	PN 315	8	1/4" -18 NPT	15,0	39,0	14
NVN NW 08 L	L	PN 315	10	1/4" -18 NPT	15,0	40,0	14
NVN NW 10 L	L	PN 315	12	3/8" -18 NPT	15,0	44,5	19
NVN NW 13 L	L	PN 315	15	1/2" -14 NPT	20,0	48,0	22
NVN NW 16 L	L	PN 315	18	1/2" -14 NPT	20,0	49,0	22
NVN NW 20 L	L	PN 160	22	3/4" -14 NPT	20,0	49,0	27
NVN NW 25 L	L	PN 160	28	1" -11.5 NPT	25,0	55,5	36
NVN NW 32 L	L	PN 160	35	1.1/4" -11.5 NPT	26,0	63,0	46
NVN NW 40 L	L	PN 160	42	1.1/2" -11.5 NPT	26,0	65,0	50
NVN NW 03 S	S	PN 630	6	1/4" -18 NPT	15,0	40,0	14
NVN NW 04 S	S	PN 630	8	1/4" -18 NPT	15,0	40,0	14
NVN NW 06 S	S	PN 630	10	3/8" -18 NPT	15,0	44,0	19
NVN NW 08 S	S	PN 630	12	3/8" -18 NPT	15,0	44,5	19
NVN NW 10 S	S	PN 630	14	1/2" -14 NPT	20,0	53,5	22
NVN NW 13 S	S	PN 400	16	1/2" -14 NPT	20,0	53,5	22
NVN NW 16 S	S	PN 400	20	3/4" -14 NPT	20,0	58,0	27
NVN NW 20 S	S	PN 400	25	1" -11.5 NPT	25,0	68,5	36
NVN NW 25 S	S	PN 400	30	1.1/4" -11.5 NPT	26,0	73,5	46
NVN NW 32 S	S	PN 315	38	1.1/2" -11.5 NPT	26,0	78,0	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

#### Product versions:

NVN VA - Screw-in sockets, Stainless steel

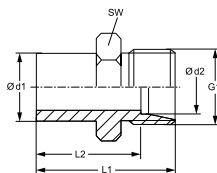
#### Additional elements:

VOM - Pre-assembly sockets



**XNAH****Reducing fitting, not pre-assembled**

**Connection 1:** Pipe socket not pre-assembled  
**Sealing form 1:** Cutting ring connection  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Reducing fitting, not pre-assembled  
**Construction:** straight  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	L1 mm	L2 mm	SW mm
XNAH NW 04 LL 04	L/LL	PN 100	6	4	M 8 x 1	28,5	24,0	11
XNAH NW 06 LL 04	L/LL	PN 100	8	4	M 8 x 1	28,5	24,5	12
XNAH NW 08 LL 04	L/LL	PN 100	10	4	M 8 x 1	28,5	24,5	11
XNAH NW 10 LL 04	L/LL	PN 100	12	4	M 8 x 1	28,5	24,5	11
XNAH NW 06 L 04	L	PN 315	8	6	M 12 x 1,5	33,5	26,5	12
XNAH NW 08 L 04	L	PN 315	10	6	M 12 x 1,5	34,0	27,0	12
XNAH NW 08 L 06	L	PN 315	10	8	M 14 x 1,5	34,5	27,5	14
XNAH NW 10 L 04	L	PN 315	12	6	M 12 x 1,5	35,0	28,0	14
XNAH NW 10 L 06	L	PN 315	12	8	M 14 x 1,5	36,0	29,0	14
XNAH NW 10 L 08	L	PN 315	12	10	M 16 x 1,5	37,0	30,0	17
XNAH NW 10 L	L	PN 315	12	12	M 18 x 1,5	38,0	31,0	19
XNAH NW 13 L 04	L	PN 315	15	6	M 12 x 1,5	36,0	29,0	17
XNAH NW 13 L 06	L	PN 315	15	8	M 14 x 1,5	36,0	29,0	17
XNAH NW 13 L 08	L	PN 315	15	10	M 16 x 1,5	37,0	30,0	17
XNAH NW 13 L 10	L	PN 315	15	12	M 18 x 1,5	38,0	31,0	19
XNAH NW 13 L	L	PN 315	15	15	M 22 x 1,5	39,0	32,0	24
XNAH NW 16 L 04	L	PN 315	18	6	M 12 x 1,5	37,0	30,0	19
XNAH NW 16 L 06	L	PN 315	18	8	M 14 x 1,5	38,0	31,0	19
XNAH NW 16 L 08	L	PN 315	18	10	M 16 x 1,5	39,0	32,0	19
XNAH NW 16 L 10	L	PN 315	18	12	M 18 x 1,5	40,0	33,0	19
XNAH NW 16 L 13	L	PN 315	18	15	M 22 x 1,5	39,5	32,5	24
XNAH NW 20 L 04	L	PN 160	22	6	M 14 x 1,5	39,0	32,0	24
XNAH NW 20 L 06	L	PN 160	22	8	M 16 x 1,5	40,0	33,0	24
XNAH NW 20 L 08	L	PN 160	22	10	M 18 x 1,5	42,0	35,0	24
XNAH NW 20 L 10	L	PN 160	22	12	M 18 x 1,5	42,0	35,0	24
XNAH NW 20 L 13	L	PN 160	22	15	M 22 x 1,5	43,0	36,0	24
XNAH NW 20 L 16	L	PN 160	22	18	M 26 x 1,5	44,0	36,5	27
XNAH NW 25 L 04	L	PN 160	28	6	M 12 x 1,5	41,0	34,0	30
XNAH NW 25 L 06	L	PN 160	28	8	M 14 x 1,5	41,0	34,0	30
XNAH NW 25 L 08	L	PN 160	28	10	M 16 x 1,5	42,0	35,0	30
XNAH NW 25 L 10	L	PN 160	28	12	M 18 x 1,5	43,0	36,0	30
XNAH NW 25 L 13	L	PN 160	28	15	M 22 x 1,5	44,0	37,0	30
XNAH NW 25 L 16	L	PN 160	28	18	M 26 x 1,5	45,0	37,5	30
XNAH NW 25 L 20	L	PN 160	28	22	M 30 x 2	47,0	39,5	32
XNAH NW 32 L 04	L	PN 160	35	6	M 12 x 1,5	47,0	40,0	36
XNAH NW 32 L 06	L	PN 160	35	8	M 14 x 1,5	47,0	40,0	36
XNAH NW 32 L 08	L	PN 160	35	10	M 16 x 1,5	48,0	41,0	36
XNAH NW 32 L 10	L	PN 160	35	12	M 18 x 1,5	49,0	42,0	36
XNAH NW 32 L 13	L	PN 160	35	15	M 22 x 1,5	50,0	43,0	36
XNAH NW 32 L 16	L	PN 160	35	18	M 26 x 1,5	49,5	42,0	36

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**XNAH****Reducing fitting, not pre-assembled****(Continued)**

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	L1 mm	L2 mm	SW mm
XNAH NW 32 L 20	L	PN 160	35	22	M 30 x 2	53,0	45,5	36
XNAH NW 32 L 25	L	PN 160	35	28	M 36 x 2	54,0	46,5	41
XNAH NW 40 L 04	L	PN 160	42	6	M 12 x 1.5	49,5	42,5	46
XNAH NW 40 L 06	L	PN 160	42	8	M 14 x 1.5	49,5	42,5	46
XNAH NW 40 L 08	L	PN 160	42	10	M 16 x 1.5	49,0	42,0	46
XNAH NW 40 L 10	L	PN 160	42	12	M 18 x 1.5	50,0	43,0	46
XNAH NW 40 L 13	L	PN 160	42	15	M 22 x 1.5	52,0	45,0	46
XNAH NW 40 L 16	L	PN 160	42	18	M 26 x 1.5	51,5	44,0	46
XNAH NW 40 L 20	L	PN 160	42	22	M 30 x 2	53,5	46,0	46
XNAH NW 40 L 25	L	PN 160	42	28	M 36 x 2	55,0	47,5	46
XNAH NW 40 L 32	L	PN 160	42	35	M 45 x 2	58,0	47,5	46
XNAH NW 16 L 13 S	L/S	PN 315	18	16	M 24 x 1.5	40,0	36,0	27
XNAH NW 20 L 13 S	L/S	PN 160	22	16	M 24 x 1.5	43,0	38,0	27
XNAH NW 20 L 16 S	L/S	PN 160	22	20	M 30 x 2	45,0	38,0	32
XNAH NW 25 L 13 S	L/S	PN 160	28	16	M 24 x 1.5	45,0	39,0	32
XNAH NW 25 L 20 S	L/S	PN 160	28	25	M 36 x 2	50,0	40,5	41
XNAH NW 04 S 03	S	PN 630	8	6	M 14 x 1.5	37,0	30,0	17
XNAH NW 06 S 03	S	PN 630	10	6	M 14 x 1.5	39,0	32,0	17
XNAH NW 06 S 04	S	PN 630	10	8	M 16 x 1.5	34,0	31,0	17
XNAH NW 08 S 03	S	PN 630	12	6	M 14 x 1.5	39,0	32,0	17
XNAH NW 08 S 04	S	PN 630	12	8	M 16 x 1.5	41,0	34,0	17
XNAH NW 08 S 06	S	PN 630	12	10	M 18 x 1.5	41,0	33,5	19
XNAH NW 10 S 03	S	PN 630	14	6	M 14 x 1.5	42,0	35,0	17
XNAH NW 10 S 04	S	PN 630	14	8	M 16 x 1.5	44,0	37,0	17
XNAH NW 10 S 06	S	PN 630	14	10	M 18 x 1.5	44,0	36,5	19
XNAH NW 10 S 08	S	PN 630	14	12	M 20 x 1.5	46,0	38,5	22
XNAH NW 13 S 03	S	PN 630	16	6	M 14 x 1.5	42,0	35,0	17
XNAH NW 13 S 04	S	PN 630	16	8	M 16 x 1.5	44,0	37,0	17
XNAH NW 13 S 06	S	PN 630	16	10	M 18 x 1.5	44,0	36,5	19
XNAH NW 13 S 08	S	PN 630	16	12	M 20 x 1.5	46,0	38,5	22
XNAH NW 13 S 10	S	PN 630	16	14	M 22 x 1.5	48,0	40,0	24
XNAH NW 16 S 03	S	PN 400	20	6	M 14 x 1.5	49,0	42,0	22
XNAH NW 16 S 04	S	PN 400	20	8	M 16 x 1.5	49,0	42,0	22
XNAH NW 16 S 06	S	PN 400	20	10	M 18 x 1.5	50,0	42,5	22
XNAH NW 16 S 08	S	PN 400	20	12	M 20 x 1.5	51,0	43,5	22
XNAH NW 16 S 10	S	PN 400	20	14	M 22 x 1.5	53,0	45,0	24
XNAH NW 16 S 13	S	PN 400	20	16	M 24 x 1.5	53,0	44,5	27
XNAH NW 20 S 03	S	PN 400	25	6	M 14 x 1.5	51,0	44,0	27
XNAH NW 20 S 04	S	PN 400	25	8	M 16 x 1.5	51,0	44,0	27
XNAH NW 20 S 06	S	PN 400	25	10	M 18 x 1.5	51,0	43,5	27
XNAH NW 20 S 08	S	PN 400	25	12	M 20 x 1.5	53,0	44,5	27
XNAH NW 20 S 10	S	PN 400	25	14	M 22 x 1.5	55,0	47,0	27
XNAH NW 20 S 13	S	PN 400	25	16	M 24 x 1.5	56,0	47,5	27
XNAH NW 20 S 16	S	PN 400	25	20	M 30 x 2	59,0	48,5	32
XNAH NW 25 S 03	S	PN 400	30	6	M 14 x 1.5	59,0	52,0	32
XNAH NW 25 S 04	S	PN 400	30	8	M 16 x 1.5	59,0	52,0	32
XNAH NW 25 S 06	S	PN 400	30	10	M 18 x 1.5	59,0	51,5	32
XNAH NW 25 S 08	S	PN 400	30	12	M 20 x 1.5	59,0	51,5	32
XNAH NW 25 S 10	S	PN 400	30	14	M 22 x 1.5	58,0	50,0	32
XNAH NW 25 S 13	S	PN 400	30	16	M 24 x 1.5	61,0	52,5	32
XNAH NW 25 S 16	S	PN 400	30	20	M 30 x 2	60,0	49,5	32
XNAH NW 25 S 20	S	PN 400	30	25	M 36 x 2	69,0	57,0	41
XNAH NW 32 S 03	S	PN 315	38	6	M 14 x 1.5	62,0	55,0	41
XNAH NW 32 S 04	S	PN 315	38	8	M 16 x 1.5	62,0	55,0	41
XNAH NW 32 S 06	S	PN 315	38	10	M 18 x 1.5	62,0	54,5	41
XNAH NW 32 S 08	S	PN 315	38	12	M 20 x 1.5	62,0	54,5	41
XNAH NW 32 S 10	S	PN 315	38	14	M 22 x 1.5	65,0	57,0	41
XNAH NW 32 S 13	S	PN 315	38	16	M 24 x 1.5	64,0	55,5	41
XNAH NW 32 S 16	S	PN 315	38	20	M 30 x 2	67,0	56,5	41

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

(Continued)

**Reducing fitting, not pre-assembled**

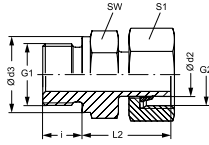
Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	L1 mm	L2 mm	SW mm
XNAH NW 32 S 20	S	PN 315	38	25	M 36 x 2	72,0	60,0	41
XNAH NW 32 S 25	S	PN 315	38	30	M 42 x 2	74,0	60,5	46
XNAH NW 13 S 13 L	S/L	PN 315	16	15	M 22 x 1.5	39,0	37,0	24
XNAH NW 16 S 13 L	S/L	PN 315	20	15	M 22 x 1.5	43,0	43,0	24
XNAH NW 16 S 16 L	S/L	PN 315	20	18	M 26 x 1.5	43,0	42,5	27
XNAH NW 20 S 20 L	S/L	PN 160	25	22	M 30 x 2	47,5	48,5	32
XNAH NW 25 S 25 L	S/L	PN 160	30	28	M 36 x 2	53,0	50,5	41

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**Product versions:****XNAH VA** - Reducing fitting, not pre-assembled, Stainless steel**NAH** - Reducing fitting, not pre-assembled, Steel**Additional elements:****VOM** - Pre-assembly sockets

## AVR

## Screw-in fitting



- Connection 1:** BSP external thread, cylindrical Shape B  
**Sealing form 1:** metric nut thread  
**Connection 2:** Pipe socket with cutting ring  
**Sealing form 2:** Screw-in fitting  
**Design:** straight  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Pipe socket with union nut and pre-assembled cutting ring  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L2 mm	SW mm	S1
AVR NW 04 L	L	PN 315	6	G 1/8" -28	M 12 x 1.5	14	8	24,5	14	14
AVR NW 06 L	L	PN 315	8	G 1/4" -19	M 14 x 1.5	18	12	27,0	19	17
AVR NW 08 L	L	PN 315	10	G 1/4" -19	M 16 x 1.5	18	12	27,5	19	19
AVR NW 10 L 1/4	L	PN 315	12	G 1/4" -19	M 18 x 1.5	18	12	28,5	19	22
AVR NW 10 L	L	PN 315	12	G 3/8" -19	M 18 x 1.5	22	12	30,0	22	22
AVR NW 10 L 1/2	L	PN 315	12	G 1/2" -14	M 18 x 1.5	26	14	30,5	27	22
AVR NW 13 L 3/8	L	PN 315	15	G 3/8" -19	M 22 x 1.5	22	12	30,0	22	27
AVR NW 13 L	L	PN 315	15	G 1/2" -14	M 22 x 1.5	26	14	30,5	27	27
AVR NW 16 L	L	PN 315	18	G 1/2" -14	M 26 x 1.5	26	14	31,5	27	32
AVR NW 20 L	L	PN 160	22	G 3/4" -14	M 30 x 2	32	16	32,5	32	36
AVR NW 25 L 3/4	L	PN 160	28	G 3/4" -14	M 36 x 2	32	16	34,0	32	41
AVR NW 25 L	L	PN 160	28	G 1" -11	M 36 x 2	39	18	35,0	41	41
AVR NW 32 L	L	PN 160	35	G 1.1/4" -11	M 45 x 2	49	20	42,5	50	50
AVR NW 40 L	L	PN 160	42	G 1.1/2" -11	M 52 x 2	55	22	47,0	55	60
AVR NW 03 S	S	PN 400	6	G 1/4" -19	M 14 x 1.5	18	12	27,0	19	17
AVR NW 04 S	S	PN 400	8	G 1/4" -19	M 16 x 1.5	18	12	27,0	19	19
AVR NW 06 S	S	PN 400	10	G 3/8" -19	M 18 x 1.5	22	12	32,0	22	22
AVR NW 08 S	S	PN 400	12	G 3/8" -19	M 20 x 1.5	22	12	32,0	22	24
AVR NW 08 S 1/2	S	PN 400	12	G 1/2" -14	M 20 x 1.5	26	14	35,0	27	24
AVR NW 10 S	S	PN 400	14	G 1/2" -14	M 22 x 1.5	26	14	36,5	27	27
AVR NW 13 S 3/8	S	PN 400	16	G 3/8" -19	M 24 x 1.5	22	12	34,0	22	30
AVR NW 13 S	S	PN 400	16	G 1/2" -14	M 24 x 1.5	26	14	37,0	27	30
AVR NW 13 S 3/4	S	PN 400	16	G 3/4" -14	M 24 x 1.5	32	16	38,5	32	30
AVR NW 16 S	S	PN 400	20	G 3/4" -14	M 30 x 2	32	16	43,0	32	36
AVR NW 20 S	S	PN 250	25	G 1" -11	M 36 x 2	39	18	48,0	41	46
AVR NW 25 S	S	PN 160	30	G 1.1/4" -11	M 42 x 2	49	20	51,0	50	50
AVR NW 32 S	S	PN 160	38	G 1.1/2" -11	M 52 x 2	55	22	60,0	55	60

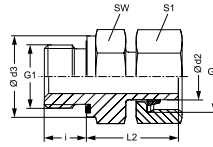
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**AVR VA** - Screw-in fitting, Stainless steel

**AVR ED****Screw-in fitting**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** metric nut thread  
**Sealing form 2:** Pipe socket with cutting ring  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Pipe socket with union nut and pre-assembled cutting ring  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L2 mm	SW mm	S1 mm
AVR NW 04 L ED	L	PN 315	6	G 1/8" -28	M 12 x 1.5	13,9	8	24,5	14	14
AVR NW 06 L ED	L	PN 315	8	G 1/4" -19	M 14 x 1.5	18,9	12	27,0	19	17
AVR NW 08 L ED	L	PN 315	10	G 1/4" -19	M 16 x 1.5	18,9	12	27,5	19	19
AVR NW 10 L 1/4 ED	L	PN 315	12	G 1/4" -19	M 18 x 1.5	18,9	12	28,5	19	22
AVR NW 10 L ED	L	PN 315	12	G 3/8" -19	M 18 x 1.5	21,9	12	30,0	22	22
AVR NW 10 L 1/2 ED	L	PN 315	12	G 1/2" -14	M 18 x 1.5	26,9	14	30,5	27	22
AVR NW 13 L 3/8 ED	L	PN 315	15	G 3/8" -19	M 22 x 1.5	21,9	12	30,0	22	27
AVR NW 13 L ED	L	PN 315	15	G 1/2" -14	M 22 x 1.5	26,9	14	30,5	27	27
AVR NW 16 L ED	L	PN 315	18	G 1/2" -14	M 26 x 1.5	26,9	14	31,5	27	32
AVR NW 20 L ED	L	PN 160	22	G 3/4" -14	M 30 x 2	31,9	16	32,5	32	36
AVR NW 25 L ED	L	PN 160	28	G 1" -11	M 36 x 2	39,9	18	35,0	41	41
AVR NW 32 L ED	L	PN 160	35	G 1.1/4" -11	M 45 x 2	49,9	20	42,5	50	50
AVR NW 40 L ED	L	PN 160	42	G 1.1/2" -11	M 52 x 2	54,9	22	47,0	55	60
AVR NW 03 S ED	S	PN 630	6	G 1/4" -19	M 14 x 1.5	18,9	12	27,0	19	17
AVR NW 04 S ED	S	PN 630	8	G 1/4" -19	M 16 x 1.5	18,9	12	27,0	19	19
AVR NW 06 S ED	S	PN 630	10	G 3/8" -19	M 18 x 1.5	21,9	12	32,0	22	22
AVR NW 08 S ED	S	PN 630	12	G 3/8" -19	M 20 x 1.5	21,9	12	32,0	22	24
AVR NW 08 S 1/2 ED	S	PN 630	12	G 1/2" -14	M 20 x 1.5	26,9	14	35,0	27	24
AVR NW 10 S ED	S	PN 630	14	G 1/2" -14	M 22 x 1.5	26,9	14	36,5	27	27
AVR NW 13 S ED	S	PN 400	16	G 1/2" -14	M 24 x 1.5	26,9	14	37,0	27	30
AVR NW 16 S ED	S	PN 400	20	G 3/4" -14	M 30 x 2	31,9	16	43,0	32	36
AVR NW 20 S ED	S	PN 400	25	G 1" -11	M 36 x 2	39,9	18	48,0	41	46
AVR NW 25 S ED	S	PN 400	30	G 1.1/4" -11	M 42 x 2	49,9	20	51,0	50	50
AVR NW 32 S ED	S	PN 315	38	G 1.1/2" -11	M 52 x 2	54,9	22	60,0	55	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

AVR ED MG - Screw-in fitting, Brass

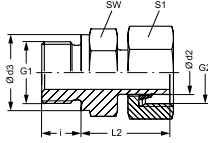
AVR ED VA - Screw-in fitting, Stainless steel

**Spare parts:**

WD - Soft seal for ED fittings

## AVM

### Screw-in fitting



- Connection 1:** metric cylindrical outer thread
- Sealing form 1:** Shape B
- Connection 2:** metric nut thread
- Sealing form 2:** Pipe socket with cutting ring
- Design:** Screw-in fitting
- Construction:** straight
- Standard:** DIN 2353, ISO 8434-1
- Included in scope of supply:** Pipe socket with union nut and pre-assembled cutting ring
- Material:** Steel
- Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L2 mm	SW mm	S1
AVM NW 04 L	L	PN 315	6	M 10 x 1	M 12 x 1.5	14	8	24,5	14	14
AVM NW 06 L	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	17	12	26,5	17	17
AVM NW 08 L	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	19	12	27,5	19	19
AVM NW 10 L	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	21	12	30,5	22	22
AVM NW 10 L 18	L	PN 315	12	M 18 x 1.5	M 18 x 1.5	23	12	30,5	24	22
AVM NW 10 L 22	L	PN 315	12	M 22 x 1.5	M 18 x 1.5	27	14	31,5	32	22
AVM NW 13 L	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	23	14	31,5	24	27
AVM NW 13 L 22	L	PN 315	15	M 22 x 1.5	M 22 x 1.5	27	14	31,5	27	27
AVM NW 16 L	L	PN 315	18	M 22 x 1.5	M 26 x 1.5	27	14	31,5	27	32
AVM NW 20 L	L	PN 160	22	M 26 x 1.5	M 30 x 2	31	16	32,5	32	36
AVM NW 25 L	L	PN 160	28	M 33 x 2	M 36 x 2	39	18	35,0	41	41
AVM NW 32 L	L	PN 160	35	M 42 x 2	M 45 x 2	49	20	42,5	50	50
AVM NW 40 L	L	PN 250	42	M 48 x 2	M 52 x 2	55	22	46,5	55	60
AVM NW 03 S	S	PN 630	6	M 12 x 1.5	M 14 x 1.5	17	12	27,0	17	17
AVM NW 04 S	S	PN 630	8	M 14 x 1.5	M 16 x 1.5	19	12	29,5	19	19
AVM NW 06 S	S	PN 630	10	M 16 x 1.5	M 18 x 1.5	21	12	32,0	22	22
AVM NW 08 S	S	PN 630	12	M 18 x 1.5	M 20 x 1.5	23	12	34,0	24	24
AVM NW 10 S	S	PN 630	14	M 20 x 1.5	M 22 x 1.5	25	14	36,5	27	27
AVM NW 13 S	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	27	14	37,0	27	30
AVM NW 16 S	S	PN 400	20	M 27 x 2	M 30 x 2	32	16	43,0	32	36
AVM NW 20 S	S	PN 400	25	M 33 x 2	M 36 x 2	39	18	48,0	41	46
AVM NW 20 S M 42	S	PN 400	25	M 42 x 2	M 36 x 2	49	20	51,0	50	46
AVM NW 25 S	S	PN 250	30	M 42 x 2	M 42 x 2	49	20	51,0	50	50
AVM NW 32 S	S	PN 250	38	M 48 x 2	M 52 x 2	55	22	60,0	55	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

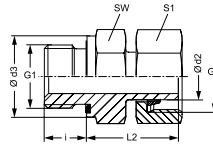
#### Product versions:

AVM VA - Screw-in fitting, Stainless steel

## AVM ED

## Screw-in fitting

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric nut thread  
**Sealing form 2:** Pipe socket with cutting ring  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Pipe socket with union nut and pre-assembled cutting ring  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L2 mm	SW mm	S1 mm
AVM NW 04 L ED	L	PN 315	6	M 10 x 1	M 12 x 1.5	13,9	8	24,5	14	14
AVM NW 06 L ED	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	16,9	12	26,5	17	17
AVM NW 08 L ED	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	18,9	12	27,5	19	19
AVM NW 10 L ED	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	21,9	12	30,5	22	22
AVM NW 13 L ED	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	23,9	12	31,5	24	27
AVM NW 16 L ED	L	PN 315	18	M 22 x 1.5	M 26 x 1.5	26,9	14	31,5	27	32
AVM NW 20 L ED	L	PN 160	22	M 26 x 1.5	M 30 x 2	31,9	16	32,5	32	36
AVM NW 25 L ED	L	PN 160	28	M 33 x 2	M 36 x 2	39,9	18	35,0	41	41
AVM NW 32 L ED	L	PN 160	35	M 42 x 2	M 45 x 2	49,9	20	42,5	50	50
AVM NW 40 L ED	L	PN 160	42	M 48 x 2	M 52 x 2	54,9	22	46,5	55	60
AVM NW 03 S ED	S	PN 630	6	M 12 x 1.5	M 14 x 1.5	16,9	12	27,0	17	17
AVM NW 04 S ED	S	PN 630	8	M 14 x 1.5	M 16 x 1.5	18,9	12	29,5	19	19
AVM NW 06 S ED	S	PN 630	10	M 16 x 1.5	M 18 x 1.5	21,9	12	32,0	22	22
AVM NW 08 S ED	S	PN 630	12	M 18 x 1.5	M 20 x 1.5	23,9	12	34,0	24	24
AVM NW 10 S ED	S	PN 630	14	M 20 x 1.5	M 22 x 1.5	25,9	14	36,5	27	27
AVM NW 13 S ED	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	26,9	14	37,0	27	30
AVM NW 16 S ED	S	PN 400	20	M 27 x 2	M 30 x 2	31,9	16	43,0	32	36
AVM NW 20 S ED	S	PN 400	25	M 33 x 2	M 36 x 2	39,9	18	48,0	41	46
AVM NW 25 S ED	S	PN 400	30	M 42 x 2	M 42 x 2	49,9	20	51,0	50	50
AVM NW 32 S ED	S	PN 315	38	M 48 x 2	M 52 x 2	54,9	22	60,0	55	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

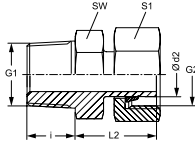
**AVM ED VA** - Screw-in fitting, Stainless steel

**Spare parts:**

**WD** - Soft seal for ED fittings

## AVN

## Screw-in fitting



- Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** metric nut thread  
**Sealing form 2:** Pipe socket with cutting ring  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Pipe socket with union nut and pre-assembled cutting ring  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L2 mm	SW mm	S1
AVN NW 04 L	L	PN 315	6	1/8" -27 NPT	M 12 x 1.5	9,9	23,1	11	14
AVN NW 06 L	L	PN 315	8	1/4" -18 NPT	M 14 x 1.5	15,1	23,9	14	17
AVN NW 08 L	L	PN 315	10	1/4" -18 NPT	M 16 x 1.5	15,1	25,4	17	19
AVN NW 10 L	L	PN 315	12	3/8" -18 NPT	M 18 x 1.5	15,2	26,2	19	22
AVN NW 13 L	L	PN 315	15	1/2" -14 NPT	M 22 x 1.5	19,8	28,2	22	27
AVN NW 16 L	L	PN 315	18	1/2" -14 NPT	M 26 x 1.5	20,1	28,7	27	32
AVN NW 20 L	L	PN 160	22	3/4" -14 NPT	M 30 x 2	25,0	28,9	27	36
AVN NW 25 L	L	PN 160	28	1" -11.5 NPT	M 36 x 2	25,6	30,5	36	41
AVN NW 32 L	L	PN 160	35	1.1/4" -11.5 NPT	M 45 x 2	26,0	37,4	46	50
AVN NW 40 L	L	PN 160	42	1.1/2" -11.5 NPT	M 52 x 2	15,1	39,0	50	60
AVN NW 03 S	S	PN 630	6	1/4" -18 NPT	M 14 x 1.5	15,1	24,9	14	17
AVN NW 04 S	S	PN 630	8	1/4" -18 NPT	M 16 x 1.5	15,2	24,9	14	19
AVN NW 06 S	S	PN 630	10	3/8" -18 NPT	M 18 x 1.5	15,2	29,3	19	22
AVN NW 08 S	S	PN 630	12	3/8" -18 NPT	M 20 x 1.5	19,8	28,3	19	24
AVN NW 10 S	S	PN 630	14	1/2" -14 NPT	M 22 x 1.5	19,8	33,2	22	27
AVN NW 13 S	S	PN 400	16	1/2" -14 NPT	M 24 x 1.5	20,1	33,7	22	30
AVN NW 16 S	S	PN 400	20	3/4" -14 NPT	M 30 x 2	25,0	37,9	27	36
AVN NW 20 S	S	PN 400	25	1" -11.5 NPT	M 36 x 1.5	25,0	43,5	36	46
AVN NW 25 S	S	PN 400	30	1.1/4" -11.5 NPT	M 42 x 2	25,6	47,9	46	50
AVN NW 32 S	S	PN 315	38	1.1/2" -11.5 NPT	M 52 x 2	26,0	52,0	50	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

## Product versions:

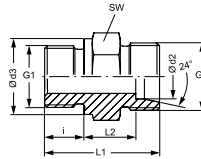
AVN VA - Screw-in fitting, Stainless steel



XVR

## Screw-in fitting

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape B  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	L2 mm	SW mm
XVR NW 04 HL	L	PN 315	6	G 1/8"-28	M 12 x 1.5	14	8	23,5	8,5	14
XVR NW 04 HL 1/4	L	PN 315	6	G 1/4"-19	M 12 x 1.5	18	12	29,0	10,0	19
XVR NW 04 HL 3/8	L	PN 315	6	G 3/8"-19	M 12 x 1.5	22	12	30,5	11,5	22
XVR NW 04 HL 1/2	L	PN 315	6	G 1/2"-14	M 12 x 1.5	26	14	33,0	12,0	27
XVR NW 06 HL 1/8	L	PN 315	8	G 1/8"-28	M 14 x 1.5	14	8	24,0	9,0	14
XVR NW 06 HL	L	PN 315	8	G 1/4"-19	M 14 x 1.5	18	12	29,0	10,0	19
XVR NW 06 HL 3/8	L	PN 315	8	G 3/8"-19	M 14 x 1.5	22	12	30,5	11,5	22
XVR NW 06 HL 1/2	L	PN 315	8	G 1/2"-14	M 14 x 1.5	26	14	33,0	12,0	27
XVR NW 08 HL 1/8	L	PN 315	10	G 1/8"-28	M 16 x 1.5	14	8	25,5	10,5	17
XVR NW 08 HL	L	PN 315	10	G 1/4"-19	M 16 x 1.5	18	12	30,0	11,0	19
XVR NW 08 HL 3/8	L	PN 315	10	G 3/8"-19	M 16 x 1.5	22	12	31,5	12,5	22
XVR NW 08 HL 1/2	L	PN 315	10	G 1/2"-14	M 16 x 1.5	26	14	34,0	13,0	27
XVR NW 10 HL 1/8	L	PN 315	12	G 1/8"-28	M 18 x 1.5	14	8	26,5	11,5	19
XVR NW 10 HL 1/4	L	PN 315	12	G 1/4"-19	M 18 x 1.5	18	12	31,0	12,0	19
XVR NW 10 HL	L	PN 315	12	G 3/8"-19	M 18 x 1.5	22	12	31,5	12,5	22
XVR NW 10 HL 1/2	L	PN 315	12	G 1/2"-14	M 18 x 1.5	26	14	34,0	13,0	27
XVR NW 10 HL 3/4	L	PN 315	12	G 3/4"-14	M 18 x 1.5	32	16	37,0	14,0	32
XVR NW 13 HL 1/4	L	PN 315	15	G 1/4"-19	M 22 x 1.5	18	12	32,0	13,0	24
XVR NW 13 HL 3/8	L	PN 250	15	G 3/8"-19	M 22 x 1.5	22	12	33,0	14,0	24
XVR NW 13 HL	L	PN 250	15	G 1/2"-14	M 22 x 1.5	26	14	35,0	14,0	27
XVR NW 13 HL 3/4	L	PN 250	15	G 3/4"-14	M 22 x 1.5	32	16	38,0	15,0	32
XVR NW 13 HL 1	L	PN 250	15	G 1"-11	M 22 x 1.5	39	18	42,5	17,5	41
XVR NW 16 HL 3/8	L	PN 250	18	G 3/8"-19	M 26 x 1.5	22	12	33,5	14,0	27
XVR NW 16 HL	L	PN 250	18	G 1/2"-14	M 26 x 1.5	26	14	36,0	14,5	27
XVR NW 16 HL 3/4	L	PN 250	18	G 3/4"-14	M 26 x 1.5	32	16	38,0	14,5	32
XVR NW 16 HL 1	L	PN 250	18	G 1"-11	M 26 x 1.5	39	18	40,5	15,0	41
XVR NW 20 HL 1/2	L	PN 160	22	G 1/2"-14	M 30 x 2	26	14	38,0	16,5	32
XVR NW 20 HL	L	PN 160	22	G 3/4"-14	M 30 x 2	32	16	40,0	16,5	32
XVR NW 20 HL 1	L	PN 160	22	G 1"-11	M 30 x 2	39	18	43,0	17,5	41
XVR NW 25 HL 1/2	L	PN 160	28	G 1/2"-14	M 36 x 2	26	14	40,0	18,5	41
XVR NW 25 HL 3/4	L	PN 160	28	G 3/4"-14	M 36 x 2	32	16	41,0	17,5	41
XVR NW 25 HL	L	PN 160	28	G 1"-11	M 36 x 2	39	18	43,0	17,5	41
XVR NW 25 HL 1 1/4	L	PN 160	28	G 1.1/4"-11	M 36 x 2	49	20	46,0	18,3	50
XVR NW 32 HL 3/4	L	PN 160	35	G 3/4"-14	M 45 x 2	32	16	45,0	18,5	46
XVR NW 32 HL 1	L	PN 160	35	G 1"-11	M 45 x 2	39	18	47,0	18,5	46
XVR NW 32 HL	L	PN 160	35	G 1.1/4"-11	M 45 x 2	49	20	48,0	17,5	50
XVR NW 32 HL 1 1/2	L	PN 160	35	G 1.1/2"-11	M 45 x 2	55	22	51,0	18,5	55
XVR NW 40 HL 1 1/4	L	PN 160	42	G 1.1/4"-11	M 52 x 2	49	20	50,0	19,0	55
XVR NW 40 HL	L	PN 160	42	G 1.1/2"-11	M 52 x 2	55	22	52,0	19,0	55
XVR NW 03 HS 1/8	S	PN 400	6	G 1/8"-28	M 14 x 1.5	14	8	27,5	12,5	14

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XVR****Screw-in fitting****(Continued)**

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	L2 mm	SW mm
XVR NW 03 HS	S	PN 400	6	G 1/4" -19	M 14 x 1.5	18	12	32,0	13,0	19
XVR NW 03 HS 3/8	S	PN 400	6	G 3/8" -19	M 14 x 1.5	22	12	32,5	13,5	22
XVR NW 03 HS 1/2	S	PN 400	6	G 1/2" -14	M 14 x 1.5	26	14	35,0	14,0	27
XVR NW 04 HS	S	PN 400	8	G 1/4" -19	M 16 x 1.5	18	12	34,0	15,0	19
XVR NW 04 HS 3/8	S	PN 400	8	G 3/8" -19	M 16 x 1.5	22	12	34,5	15,5	22
XVR NW 04 HS 1/2	S	PN 400	8	G 1/2" -14	M 16 x 1.5	26	14	37,0	16,0	27
XVR NW 06 HS 1/4	S	PN 400	10	G 1/4" -19	M 18 x 1.5	18	12	34,0	14,5	19
XVR NW 06 HS	S	PN 400	10	G 3/8" -19	M 18 x 1.5	22	12	34,5	15,0	22
XVR NW 06 HS 1/2	S	PN 400	10	G 1/2" -14	M 18 x 1.5	26	14	39,0	17,5	27
XVR NW 08 HS 1/4	S	PN 400	12	G 1/4" -19	M 20 x 1.5	18	12	36,0	16,5	22
XVR NW 08 HS	S	PN 400	12	G 3/8" -19	M 20 x 1.5	22	12	36,5	17,0	22
XVR NW 08 HS 1/2	S	PN 400	12	G 1/2" -14	M 20 x 1.5	26	14	39,0	17,5	27
XVR NW 08 HS 3/4	S	PN 400	12	G 3/4" -14	M 20 x 1.5	32	16	41,0	17,5	32
XVR NW 10 HS 3/8	S	PN 400	14	G 3/8" -19	M 22 x 1.5	22	12	38,5	18,5	27
XVR NW 10 HS	S	PN 400	14	G 1/2" -14	M 22 x 1.5	27	14	41,0	19,0	27
XVR NW 10 HS 3/4	S	PN 400	14	G 3/4" -14	M 22 x 1.5	32	16	43,0	19,0	32
XVR NW 13 HS 1/4	S	PN 400	16	G 1/4" -19	M 24 x 1.5	22	12	38,0	18,5	27
XVR NW 13 HS 3/8	S	PN 400	16	G 3/8" -19	M 24 x 1.5	22	12	39,0	18,5	27
XVR NW 13 HS	S	PN 400	16	G 1/2" -14	M 24 x 1.5	26	14	41,0	18,5	27
XVR NW 13 HS 3/4	S	PN 400	16	G 3/4" -14	M 24 x 1.5	32	16	45,0	20,5	32
XVR NW 16 HS 1/2	S	PN 400	20	G 1/2" -14	M 30 x 2	26	14	45,0	20,5	32
XVR NW 16 HS	S	PN 400	20	G 3/4" -14	M 30 x 2	39	18	47,0	20,5	32
XVR NW 16 HS 1	S	PN 250	20	G 1" -11	M 30 x 2	39	18	50,0	21,5	41
XVR NW 20 HS 1/2	S	PN 250	25	G 1/2" -14	M 36 x 2	26	14	49,0	23,0	41
XVR NW 20 HS 3/4	S	PN 250	25	G 3/4" -14	M 36 x 2	32	16	51,0	23,5	41
XVR NW 20 HS	S	PN 250	25	G 1" -11	M 36 x 2	39	18	53,0	23,0	41
XVR NW 20 HS 1 1/4	S	PN 160	25	G 1.1/4" -11	M 36 x 2	49	20	56,0	24,0	50
XVR NW 25 HS 3/4	S	PN 160	30	G 3/4" -14	M 42 x 2	32	16	53,0	23,5	46
XVR NW 25 HS 1	S	PN 160	30	G 1" -11	M 42 x 2	39	18	55,0	23,5	46
XVR NW 25 HS	S	PN 160	30	G 1.1/4" -11	M 42 x 2	49	20	57,0	23,5	50
XVR NW 25 HS 1 1/2	S	PN 160	30	G 1.1/2" -11	M 42 x 2	55	22	50,0	23,5	55
XVR NW 32 HS 1	S	PN 160	38	G 1" -11	M 52 x 2	39	18	60,0	26,0	55
XVR NW 32 HS 1 1/4	S	PN 160	38	G 1.1/4" -11	M 52 x 2	49	20	62,0	26,0	55
XVR NW 32 HS	S	PN 160	38	G 1.1/2" -11	M 52 x 2	55	22	64,0	26,0	55

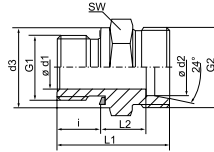
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:****XVR VA** - Screw-in fitting, Stainless steel**VR** - Screw-in fitting, Steel

## XVR ED

## Screw-in fitting

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	L2 mm	SW mm
XVR 04 LL ED	LL	PN 100	4	G 1/8"-28	M 8 x 1	14	8	20,0	9,5	14
XVR 06 LL ED	LL	PN 100	6	G 1/8"-28	M 10 x 1	14	8	20,0	8,0	14
XVR NW 04 HL ED	L	PN 315	6	G 1/8"-28	M 12 x 1.5	14	8	23,5	8,5	14
XVR NW 04 HL 1/4 ED	L	PN 315	6	G 1/4"-19	M 12 x 1.5	20	12	29,0	10,0	19
XVR NW 04 HL 1/2 ED	L	PN 315	6	G 1/2"-14	M 12 x 1.5	27	14	33,0	12,0	27
XVR NW 04 HL 3/8 ED	L	PN 315	6	G 3/8"-19	M 12 x 1.5	22	12	26,0	11,5	22
XVR NW 06 HL 1/8 ED	L	PN 315	8	G 1/8"-28	M 14 x 1.5	14	8	24,5	9,5	14
XVR NW 06 HL ED	L	PN 315	8	G 1/4"-19	M 14 x 1.5	19	12	29,0	10,0	19
XVR NW 06 HL 3/8 ED	L	PN 315	8	G 3/8"-19	M 14 x 1.5	22	12	30,5	11,5	22
XVR NW 06 HL 1/2 ED	L	PN 315	8	G 1/2"-14	M 14 x 1.5	27	14	33,0	12,0	27
XVR NW 08 HL 1/8 ED	L	PN 315	10	G 1/8"-28	M 16 x 1.5	14	8	25,5	10,5	17
XVR NW 08 HL ED	L	PN 315	10	G 1/4"-19	M 16 x 1.5	19	12	30,0	11,0	19
XVR NW 08 HL 3/8 ED	L	PN 315	10	G 3/8"-19	M 16 x 1.5	22	12	31,5	12,5	22
XVR NW 08 HL 1/2 ED	L	PN 315	10	G 1/2"-14	M 16 x 1.5	27	14	34,0	13,0	27
XVR NW 10 HL 1/4 ED	L	PN 315	12	G 1/4"-19	M 18 x 1.5	19	12	31,5	12,5	22
XVR NW 10 HL ED	L	PN 315	12	G 3/8"-19	M 18 x 1.5	22	12	31,5	12,5	22
XVR NW 10 HL 1/2 ED	L	PN 315	12	G 1/2"-14	M 18 x 1.5	27	14	34,0	13,0	27
XVR NW 10 HL 3/4 ED	L	PN 250	12	G 3/4"-14	M 18 x 1.5	32	16	36,0	13,0	32
XVR NW 13 HL 3/8 ED	L	PN 315	15	G 3/8"-19	M 22 x 1.5	22	12	33,0	14,0	27
XVR NW 13 HL ED	L	PN 315	15	G 1/2"-14	M 22 x 1.5	27	14	35,0	14,0	27
XVR NW 13 HL 3/4 ED	L	PN 250	15	G 3/4"-14	M 22 x 1.5	32	16	38,0	15,0	32
XVR NW 16 HL 3/8 ED	L	PN 315	18	G 3/8"-19	M 26 x 1.5	22	12	33,5	14,0	27
XVR NW 16 HL ED	L	PN 315	18	G 1/2"-14	M 26 x 1.5	27	14	36,0	14,5	27
XVR NW 16 HL 3/4 ED	L	PN 250	18	G 3/4"-14	M 26 x 1.5	32	16	38,0	14,5	32
XVR NW 20 HL 1/2 ED	L	PN 160	22	G 1/2"-14	M 30 x 2	27	14	38,0	16,5	32
XVR NW 20 HL ED	L	PN 160	22	G 3/4"-14	M 30 x 2	32	16	40,0	16,5	32
XVR NW 20 HL 1 ED	L	PN 160	22	G 1"-11	M 30 x 2	40	18	42,0	16,5	41
XVR NW 25 HL 3/4 ED	L	PN 160	28	G 3/4"-14	M 36 x 2	32	16	41,0	17,5	41
XVR NW 25 HL ED	L	PN 160	28	G 1"-11	M 36 x 2	40	18	43,0	17,5	41
XVR NW 25 HL 1 1/4 ED	L	PN 160	28	G 1 1/4"-11	M 36 x 2	50	20	46,0	18,5	50
XVR NW 32 HL 1 ED	L	PN 160	35	G 1"-11	M 45 x 2	40	18	46,0	17,5	50
XVR NW 32 HL ED	L	PN 160	35	G 1 1/4"-11	M 45 x 2	50	20	48,0	17,5	50
XVR NW 40 HL 1 1/4 ED	L	PN 160	42	G 1 1/4"-11	M 52 x 2	50	20	50,0	19,0	55
XVR NW 40 HL ED	L	PN 160	42	G 1 1/2"-11	M 52 x 2	55	22	52,0	19,0	55
XVR NW 03 HS ED	S	PN 630	6	G 1/4"-19	M 14 x 1.5	19	12	32,0	13,0	19
XVR NW 03 HS 1/2 ED	S	PN 630	6	G 1/2"-14	M 14 x 1.5	27	14	39,0	18,0	27
XVR NW 04 HS ED	S	PN 630	8	G 1/4"-19	M 16 x 1.5	19	12	34,0	15,0	19
XVR NW 04 HS 3/8 ED	S	PN 630	8	G 3/8"-19	M 16 x 1.5	22	12	34,5	15,5	22
XVR NW 06 HS 1/4 ED	S	PN 630	10	G 1/4"-19	M 18 x 1.5	19	12	34,0	14,5	22
XVR NW 06 HS ED	S	PN 630	10	G 3/8"-19	M 18 x 1.5	22	12	34,5	15,0	22

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XVR ED****Screw-in fitting****(Continued)**

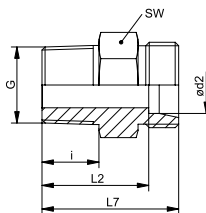
Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	L2 mm	SW mm
XVR NW 06 HS 1/2 ED	S	PN 630	10	G 1/2" -14	M 18 x 1.5	27	14	39,0	17,5	27
XVR NW 08 HS 1/4 ED	S	PN 630	12	G 1/4" -19	M 20 x 1.5	19	12	36,0	16,5	22
XVR NW 08 HS ED	S	PN 630	12	G 3/8" -19	M 20 x 1.5	22	12	36,5	17,0	22
XVR NW 08 HS 1/2 ED	S	PN 630	12	G 1/2" -14	M 20 x 1.5	27	14	39,0	17,5	27
XVR NW 10 HS 3/8 ED	S	PN 630	14	G 3/8" -19	M 22 x 1.5	22	12	38,5	18,5	27
XVR NW 10 HS ED	S	PN 630	14	G 1/2" -14	M 22 x 1.5	27	14	41,0	19,0	27
XVR NW 10 HS 3/4 ED	S	PN 630	14	G 3/4" -14	M 22 x 1.5	32	16	45,0	21,0	32
XVR NW 13 HS 3/8 ED	S	PN 400	16	G 3/8" -19	M 24 x 1.5	22	12	38,5	18,0	27
XVR NW 13 HS ED	S	PN 400	16	G 1/2" -14	M 24 x 1.5	27	14	41,0	18,5	27
XVR NW 13 HS 3/4 ED	S	PN 400	16	G 3/4" -14	M 24 x 1.5	32	16	45,0	20,5	32
XVR NW 16 HS 1/2 ED	S	PN 400	20	G 1/2" -14	M 30 x 2	27	14	45,0	20,5	32
XVR NW 16 HS ED	S	PN 400	20	G 3/4" -14	M 30 x 2	32	16	47,0	20,5	32
XVR NW 16 HS 1 ED	S	PN 400	20	G 1" -11	M 30 x 2	40	18	51,0	22,5	41
XVR NW 20 HS 1/2 ED	S	PN 400	25	G 1/2" -14	M 36 x 2	27	14	49,0	23,0	41
XVR NW 20 HS 3/4 ED	S	PN 400	25	G 3/4" -14	M 36 x 2	32	16	51,0	23,0	41
XVR NW 20 HS ED	S	PN 400	25	G 1" -11	M 36 x 2	40	18	53,0	23,0	41
XVR NW 25 HS 1 ED	S	PN 400	30	G 1" -11	M 42 x 2	40	18	55,0	23,5	50
XVR NW 25 HS ED	S	PN 400	30	G 1.1/4" -11	M 42 x 2	50	20	57,0	23,5	50
XVR NW 32 HS 1 1/4 ED	S	PN 315	38	G 1.1/4" -11	M 52 x 2	50	20	62,0	26,0	55
XVR NW 32 HS ED	S	PN 315	38	G 1.1/2" -11	M 52 x 2	55	22	64,0	26,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:****XVR ED VA** - Screw-in fitting, Stainless steel**VR ED** - Screw-in fitting, Steel**Spare parts:****WD** - Soft seal for ED fittings

**XVRK****Screw-in fitting**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L2 mm	L7 mm	SW mm
XVR 04 LL	LL	PN 100	4	R 1/8" K	8,0	16,0	20,0	11
XVR 05 LL	LL	PN 100	5	R 1/8" K	8,0	14,5	20,0	11
XVR 06 LL	LL	PN 100	6	R 1/8" K	8,0	14,5	20,0	11
XVR 06 LL 1/4	LL	PN 100	6	R 1/4" K	12,0	14,5	20,0	12
XVR 08 LL	LL	PN 100	8	R 1/8" K	8,0	16,5	22,0	12
XVR 08 LL 1/4	LL	PN 100	8	R 1/4" K	12,0	20,5	26,0	14
XVR 10 LL	LL	PN 100	10	R 1/4" K	12,0	20,5	26,0	14
XVR 12 LL	LL	PN 100	12	R 1/4" K	12,0	20,0	26,0	17
XVR 12 LL 3/8	LL	PN 100	12	R 3/8" K	12,0	20,0	26,0	17
XVRK NW 04 HL	L	PN 315	6	R 1/8" K	10,5	17,5	24,5	12
XVRK NW 04 HL 1/4	L	PN 315	6	R 1/4" K	14,0	22,0	29,0	17
XVRK NW 06 HL 1/8	L	PN 315	8	R 1/8" K	10,5	18,5	25,5	14
XVRK NW 06 HL	L	PN 315	8	R 1/4" K	14,0	22,0	29,0	17
XVRK NW 06 HL 3/8	L	PN 315	8	R 3/8" K	14,5	22,5	30,5	19
XVRK NW 06 HL 1/2	L	PN 315	8	R 1/2" K	18,5	27,5	34,5	22
XVRK NW 08 HL 1/8	L	PN 315	10	R 1/8" K	10,5	19,5	26,5	17
XVRK NW 08 HL	L	PN 315	10	R 1/4" K	14,0	23,0	30,0	17
XVRK NW 08 HL 3/8	L	PN 315	10	R 3/8" K	14,5	24,5	31,5	19
XVRK NW 08 HL 1/2	L	PN 315	10	R 1/2" K	18,5	28,5	35,5	22
XVRK NW 10 HL 1/4	L	PN 315	12	R 1/4" K	14,0	24,0	31,0	19
XVRK NW 10 HL	L	PN 315	12	R 3/8" K	14,5	24,5	31,5	19
XVRK NW 10 HL 1/2	L	PN 315	12	R 1/2" K	18,5	28,5	35,5	24
XVRK NW 13 HL 3/8	L	PN 315	15	R 3/8" K	14,5	25,5	24,0	33
XVRK NW 13 HL	L	PN 315	15	R 1/2" K	18,5	29,5	36,5	24
XVRK NW 16 HL 3/8	L	PN 315	18	R 3/8" K	14,5	26,0	33,5	27
XVRK NW 16 HL	L	PN 315	18	R 1/2" K	18,5	30,0	37,5	27
XVRK NW 16 HL 3/4	L	PN 160	18	R 3/4" K	20,0	31,5	39,0	32
XVRK NW 20 HL 1/2	L	PN 160	22	R 1/2" K	18,5	32,0	39,5	32
XVRK NW 20 HL	L	PN 160	22	R 3/4" K	20,0	33,5	41,0	32
XVRK NW 25 HL	L	PN 160	28	R 1" K	24,0	38,5	46,0	41
XVRK NW 32 HL 1	L	PN 160	35	R 1" K	24,0	40,5	51,0	46
XVRK NW 32 HL	L	PN 160	35	R 1.1/4" K	26,0	42,5	53,0	46
XVRK NW 40 HL	L	PN 160	42	R 1.1/2" K	27,0	43,0	54,0	55
XVRK NW 03 HS	S	PN 400	6	R 1/4" K	14,0	27,0	34,0	17
XVRK NW 04 HS	S	PN 400	8	R 1/4" K	14,0	27,0	34,0	17
XVRK NW 06 HS 1/4	S	PN 400	10	R 1/4" K	14,0	26,5	34,0	19
XVRK NW 06 HS	S	PN 400	10	R 3/8" K	14,5	27,0	34,5	19
XVRK NW 08 HS 1/4	S	PN 400	12	R 1/4" K	14,0	28,5	36,0	22
XVRK NW 08 HS	S	PN 400	12	R 3/8" K	14,5	29,0	36,5	22
XVRK NW 08 HS 1/2	S	PN 400	12	R 1/2" K	18,5	33,0	40,5	22

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XVRK****Screw-in fitting****(Continued)**

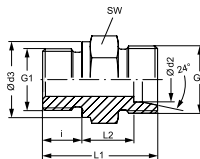
Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L2 mm	L7 mm	SW mm
XVRK NW 10 HS 3/8	S	PN 400	14	R 3/8" K	14,5	30,5	38,5	24
XVRK NW 10 HS	S	PN 400	14	R 1/2" K	18,5	34,5	42,5	24
XVRK NW 13 HS 3/8	S	PN 400	16	R 3/8" K	14,5	30,0	38,5	27
XVRK NW 13 HS	S	PN 400	16	R 1/2" K	18,5	34,0	42,5	27
XVRK NW 16 HS	S	PN 400	20	R 3/4" K	20,0	37,5	48,0	32
XVRK NW 20 HS	S	PN 400	25	R 1" K	24,0	43,0	55,0	41
XVRK NW 25 HS 1	S	PN 400	30	R 1" K	24,0	43,5	57,0	46
XVRK NW 25 HS	S	PN 400	30	R 1.1/4" K	26,0	45,5	59,0	46
XVRK NW 32 HS	S	PN 315	38	R 1.1/2" K	27,0	49,0	65,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:****XVRK VA** - Screw-in fitting, Stainless steel**VRK** - Screw-in fitting, Steel

**XVM****Screw-in fitting**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	L2 mm	SW mm
XVM 16 LL	LL	PN 100	16	M 22 x 1.5	M 22 x 1.5	27	14	36,5	15,5	27
XVM 16 LL 18-1.5	LL	PN 100	16	M 18 x 1.5	M 22 x 1.5	23	12	33,5	14,5	24
XVM NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	14	8	23,5	8,5	14
XVM NW 04 HL 12	L	PN 315	6	M 12 x 1.5	M 12 x 1.5	17	12	28,0	9,0	17
XVM NW 04 HL 14	L	PN 315	6	M 14 x 1.5	M 12 x 1.5	19	12	28,0	9,0	19
XVM NW 04 HL 16	L	PN 315	6	M 16 x 1.5	M 12 x 1.5	21	12	28,0	9,0	22
XVM NW 04 HL 18	L	PN 315	6	M 18 x 1.5	M 12 x 1.5	23	12	28,5	9,5	24
XVM NW 04 HL 22	L	PN 315	6	M 22 x 1.5	M 12 x 1.5	27	14	31,0	10,0	27
XVM NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	17	12	29,0	10,0	17
XVM NW 06 HL 10	L	PN 315	8	M 10 x 1	M 14 x 1.5	14	8	24,5	9,5	17
XVM NW 06 HL 14	L	PN 315	8	M 14 x 1.5	M 14 x 1.5	19	12	29,0	10,0	19
XVM NW 06 HL 16	L	PN 315	8	M 16 x 1.5	M 14 x 1.5	21	12	29,0	10,0	22
XVM NW 06 HL 18	L	PN 315	8	M 18 x 1.5	M 14 x 1.5	23	12	29,5	10,5	24
XVM NW 06 HL 22	L	PN 315	8	M 22 x 1.5	M 14 x 1.5	27	14	32,0	11,0	27
XVM NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	19	12	30,0	11,0	19
XVM NW 08 HL 12	L	PN 315	10	M 12 x 1.5	M 16 x 1.5	17	12	30,0	11,0	17
XVM NW 08 HL 16	L	PN 315	10	M 16 x 1.5	M 16 x 1.5	21	12	30,0	11,0	22
XVM NW 08 HL 18	L	PN 315	10	M 18 x 1.5	M 16 x 1.5	23	12	30,5	11,5	24
XVM NW 08 HL 22	L	PN 315	10	M 22 x 1.5	M 16 x 1.5	27	14	33,0	12,0	27
XVM NW 10 HL	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	21	12	31,5	12,5	22
XVM NW 10 HL 12	L	PN 315	12	M 12 x 1.5	M 18 x 1.5	17	12	31,5	12,5	19
XVM NW 10 HL 14	L	PN 315	12	M 14 x 1.5	M 18 x 1.5	19	12	31,5	12,5	22
XVM NW 10 HL 18	L	PN 315	12	M 18 x 1.5	M 18 x 1.5	23	12	32,0	13,0	24
XVM NW 10 HL 22	L	PN 315	12	M 22 x 1.5	M 18 x 1.5	27	14	34,5	13,5	27
XVM NW 10 HL 24	L	PN 315	12	M 24 x 1.5	M 18 x 1.5	29	14	34,5	13,5	32
XVM NW 10 HL 26	L	PN 315	12	M 26 x 1.5	M 18 x 1.5	31	16	36,5	13,5	32
XVM NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	23	12	32,5	13,5	24
XVM NW 13 HL 14	L	PN 315	15	M 14 x 1.5	M 22 x 1.5	19	12	32,0	13,0	24
XVM NW 13 HL 16	L	PN 315	15	M 16 x 1.5	M 22 x 1.5	21	12	32,0	13,0	24
XVM NW 13 HL 20	L	PN 250	15	M 20 x 1.5	M 22 x 1.5	25	14	34,5	13,5	27
XVM NW 13 HL 22	L	PN 315	15	M 22 x 1.5	M 22 x 1.5	27	14	35,0	14,0	27
XVM NW 13 HL 26	L	PN 315	15	M 26 x 1.5	M 22 x 1.5	31	16	37,0	14,0	32
XVM NW 13 HL 30	L	PN 315	15	M 30 x 2	M 22 x 1.5	36	16	37,0	14,0	41
XVM NW 16 HL	L	PN 315	18	M 22 x 1.5	M 26 x 1.5	27	14	36,0	14,5	27
XVM NW 16 HL 18	L	PN 315	18	M 18 x 1.5	M 26 x 1.5	23	12	33,5	14,0	27
XVM NW 16 HL 26	L	PN 315	18	M 26 x 1.5	M 26 x 1.5	31	16	38,0	14,5	32
XVM NW 16 HL 27	L	PN 315	18	M 27 x 2	M 26 x 1.5	32	16	38,0	14,5	32
XVM NW 16 HL 30-1.5	L	PN 315	18	M 30 x 1.5	M 26 x 1.5	36	16	38,0	14,5	41
XVM NW 20 HL	L	PN 160	22	M 26 x 1.5	M 30 x 2	31	16	40,0	16,5	32
XVM NW 20 HL 18	L	PN 160	22	M 18 x 1.5	M 30 x 2	23	12	35,5	16,0	32

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XVM****Screw-in fitting****(Continued)**

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	L2 mm	SW mm
XVM NW 20 HL 22	L	PN 160	22	M 22 x 1.5	M 30 x 2	27	14	38,0	16,5	32
XVM NW 20 HL 22-LS 20	L	PN 160	22	M 22 x 1.5	M 30 x 2	27	14	44,0	22,5	32
XVM NW 20 HL 30-1.5	L	PN 160	22	M 30 x 1.5	M 30 x 2	36	16	40,0	16,5	41
XVM NW 20 HL 33-LS 20	L	PN 160	22	M 33 x 2	M 30 x 2	39	18	55,0	23,5	41
XVM NW 25 HL	L	PN 160	28	M 33 x 2	M 36 x 2	39	18	43,0	17,5	41
XVM NW 25 HL-LS 20	L	PN 160	28	M 33 x 2	M 36 x 2	39	18	49,0	23,5	41
XVM NW 25 HL 22	L	PN 160	28	M 22 x 1.5	M 36 x 2	27	14	39,0	17,5	41
XVM NW 25 HL 26	L	PN 160	28	M 26 x 1.5	M 36 x 2	31	16	41,0	17,5	41
XVM NW 25 HL 27	L	PN 160	28	M 27 x 2	M 36 x 2	32	16	41,0	17,5	41
XVM NW 25 HL 42	L	PN 160	28	M 42 x 2	M 36 x 2	49	22	45,0	17,5	50
XVM NW 32 HL	L	PN 160	35	M 42 x 2	M 45 x 2	49	20	48,0	17,5	50
XVM NW 40 HL	L	PN 160	42	M 48 x 2	M 52 x 2	55	22	52,0	19,0	55
XVM NW 03 HS	S	PN 400	6	M 12 x 1.5	M 14 x 1.5	17	12	32,0	13,0	17
XVM NW 03 HS 16	S	PN 400	6	M 16 x 1.5	M 14 x 1.5	21	12	32,0	13,0	22
XVM NW 03 HS 18	S	PN 400	6	M 18 x 1.5	M 14 x 1.5	23	12	32,5	13,5	24
XVM NW 03 HS 22	S	PN 400	6	M 22 x 1.5	M 14 x 1.5	27	14	35,0	14,0	27
XVM NW 04 HS	S	PN 400	8	M 14 x 1.5	M 16 x 1.5	19	12	34,0	15,0	19
XVM NW 06 HS	S	PN 400	10	M 16 x 1.5	M 18 x 1.5	21	12	34,5	15,0	22
XVM NW 06 HS 18	S	PN 400	10	M 18 x 1.5	M 18 x 1.5	23	12	35,0	15,5	24
XVM NW 06 HS 22	S	PN 400	10	M 22 x 1.5	M 18 x 1.5	27	14	37,5	16,0	27
XVM NW 08 HS	S	PN 400	12	M 18 x 1.5	M 20 x 1.5	23	12	36,5	17,0	24
XVM NW 08 HS 14	S	PN 400	12	M 14 x 1.5	M 20 x 1.5	19	12	36,0	16,5	22
XVM NW 08 HS 16	S	PN 400	12	M 16 x 1.5	M 20 x 1.5	21	12	36,0	16,5	22
XVM NW 08 HS 22	S	PN 400	12	M 22 x 1.5	M 20 x 1.5	27	14	39,0	17,5	27
XVM NW 10 HS	S	PN 400	14	M 20 x 1.5	M 22 x 1.5	25	14	41,0	19,0	27
XVM NW 10 HS 16	S	PN 400	14	M 16 x 1.5	M 22 x 1.5	21	12	38,5	18,5	24
XVM NW 10 HS 18	S	PN 400	14	M 18 x 1.5	M 22 x 1.5	23	12	39,0	19,0	24
XVM NW 10 HS 22	S	PN 400	14	M 22 x 1.5	M 22 x 1.5	27	14	41,5	19,5	27
XVM NW 13 HS	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	27	14	41,0	18,5	27
XVM NW 13 HS 16	S	PN 400	16	M 16 x 1.5	M 24 x 1.5	21	12	38,0	17,5	27
XVM NW 13 HS 18	S	PN 400	16	M 18 x 1.5	M 24 x 1.5	23	12	38,5	18,0	27
XVM NW 13 HS 26	S	PN 400	16	M 26 x 1.5	M 24 x 1.5	31	16	43,0	18,5	32
XVM NW 16 HS	S	PN 400	20	M 27 x 2	M 30 x 2	32	16	47,0	20,5	32
XVM NW 16 HS 22	S	PN 400	20	M 22 x 1.5	M 30 x 2	27	14	45,0	20,5	32
XVM NW 16 HS 26	S	PN 400	20	M 26 x 1.5	M 30 x 1.5	32	16	47,0	20,5	32
XVM NW 16 HS 30-1.5	S	PN 400	20	M 30 x 1.5	M 30 x 2	36	16	47,0	20,5	36
XVM NW 20 HS	S	PN 250	25	M 33 x 2	M 36 x 2	39	18	53,0	23,0	41
XVM NW 20 HS 26	S	PN 250	25	M 26 x 1.5	M 36 x 2	32	16	44,0	16,0	30
XVM NW 20 HS 27	S	PN 250	25	M 27 x 2	M 36 x 2	32	16	51,0	23,0	41
XVM NW 20 HS 30-1.5	S	PN 250	25	M 30 x 1.5	M 36 x 2	36	16	51,0	23,0	41
XVM NW 25 HS	S	PN 160	30	M 42 x 2	M 42 x 2	49	20	57,0	23,5	50
XVM NW 25 HS 30-1.5	S	PN 160	30	M 30 x 1.5	M 42 x 2	36	16	53,0	23,5	50
XVM NW 25 HS 38-1.5	S	PN 160	30	M 38 x 1.5	M 42 x 2	49	20	43,5	23,5	50
XVM NW 32 HS	S	PN 160	38	M 48 x 2	M 52 x 2	55	22	64,0	26,0	55
XVM NW 32 HS 38-1.5	S	PN 160	38	M 38 x 1.5	M 52 x 2	49	20	62,0	26,0	50
XVM NW 32 HS 45-1.5	S	PN 160	38	M 45 x 1.5	M 52 x 2	55	22	64,0	26,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

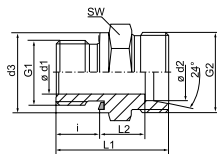
**Product versions:****XVM VA** - Screw-in fitting, Stainless steel**VM** - Screw-in fitting, Steel



## XVM ED

## Screw-in fitting

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	L2 mm	SW mm
XVM NW 04 HL ED	L	PN 315	6	M 10 x 1	M 12 x 1.5	13,9	8	23,5	8,5	14
XVM NW 04 HL 12 ED	L	PN 315	6	M 12 x 1.5	M 12 x 1.5	16,9	12	28,0	9,0	17
XVM NW 06 HL ED	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	16,9	12	29,0	10,0	17
XVM NW 06 HL 16 ED	L	PN 315	8	M 16 x 1.5	M 14 x 1.5	21,9	12	30,5	11,5	22
XVM NW 06 HL 18 ED	L	PN 315	8	M 18 x 1.5	M 14 x 1.5	23,9	12	30,5	11,5	24
XVM NW 08 HL ED	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	18,9	12	30,0	11,0	19
XVM NW 08 HL 12 ED	L	PN 315	10	M 12 x 1.5	M 16 x 1.5	16,9	12	30,0	11,0	19
XVM NW 08 HL 16 ED	L	PN 315	10	M 16 x 1.5	M 16 x 1.5	21,9	12	31,5	12,5	22
XVM NW 08 HL 18 ED	L	PN 315	10	M 18 x 1.5	M 16 x 1.5	23,9	12	31,5	12,5	24
XVM NW 08 HL 22 ED	L	PN 315	10	M 22 x 1.5	M 16 x 1.5	26,9	14	35,0	14,0	27
XVM NW 10 HL ED	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	21,9	12	31,5	12,5	22
XVM NW 10 HL 14 ED	L	PN 315	12	M 14 x 1.5	M 18 x 1.5	18,9	12	31,5	12,5	22
XVM NW 10 HL 18 ED	L	PN 315	12	M 18 x 1.5	M 18 x 1.5	23,9	12	32,0	13,0	24
XVM NW 10 HL 22 ED	L	PN 315	12	M 22 x 1.5	M 18 x 1.5	26,9	14	35,0	14,0	27
XVM NW 13 HL ED	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	23,9	12	32,5	13,5	24
XVM NW 13 HL 16 ED	L	PN 315	15	M 16 x 1.5	M 22 x 1.5	21,9	12	32,0	13,0	24
XVM NW 13 HL 22 ED	L	PN 315	15	M 22 x 1.5	M 22 x 1.5	26,9	14	35,0	14,0	27
XVM NW 16 HL ED	L	PN 315	18	M 22 x 1.5	M 26 x 1.5	26,9	14	36,0	14,5	27
XVM NW 16 HL 18 ED	L	PN 315	18	M 18 x 1.5	M 26 x 1.5	23,9	12	33,5	14,0	27
XVM NW 20 HL ED	L	PN 160	22	M 26 x 1.5	M 30 x 2	31,9	16	40,0	16,5	32
XVM NW 20 HL 22 ED	L	PN 160	22	M 22 x 1.5	M 30 x 2	26,9	14	38,0	16,5	32
XVM NW 25 HL ED	L	PN 160	28	M 33 x 2	M 36 x 2	39,9	18	43,0	17,5	41
XVM NW 32 HL ED	L	PN 160	35	M 42 x 2	M 45 x 2	49,9	20	48,0	17,5	50
XVM NW 40 HL ED	L	PN 160	42	M 48 x 2	M 52 x 2	54,9	22	52,0	19,0	55
XVM NW 03 HS ED	S	PN 630	6	M 12 x 1.5	M 14 x 1.5	16,9	12	32,0	13,0	17
XVM NW 04 HS ED	S	PN 630	8	M 14 x 1.5	M 16 x 1.5	18,9	12	34,0	15,0	19
XVM NW 06 HS ED	S	PN 630	10	M 16 x 1.5	M 18 x 1.5	21,9	12	34,5	15,0	22
XVM NW 08 HS ED	S	PN 630	12	M 18 x 1.5	M 20 x 1.5	23,9	12	36,5	17,0	24
XVM NW 08 HS 22 ED	S	PN 400	12	M 22 x 1.5	M 20 x 1.5	26,9	14	39,0	17,5	27
XVM NW 10 HS ED	S	PN 630	14	M 20 x 1.5	M 22 x 1.5	25,9	14	41,0	19,0	27
XVM NW 13 HS 18 ED	S	PN 400	16	M 18 x 1.5	M 24 x 1.5	23,9	12	38,5	18,0	27
XVM NW 13 HS ED	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	26,9	14	41,0	18,5	27
XVM NW 16 HS ED	S	PN 400	20	M 27 x 2	M 30 x 2	31,9	16	47,0	20,5	32
XVM NW 20 HS ED	S	PN 400	25	M 33 x 2	M 36 x 2	39,9	18	53,0	23,0	41
XVM NW 25 HS ED	S	PN 400	30	M 42 x 2	M 42 x 2	49,9	20	57,0	23,5	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XVM ED****Screw-in fitting****(Continued)**

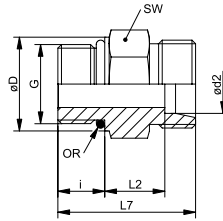
Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	L2 mm	SW mm
XVM NW 32 HS ED	S	PN 315	38	M 48 x 2	M 52 x 2	54,9	22	64,0	26,0	55
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter										

**Product versions:****XVM ED VA** - Screw-in fitting, Stainless steel**VM ED** - Screw-in fitting, Steel**Spare parts:****WD** - Soft seal for ED fittings

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**XVMO****Screw-in fitting**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape F  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



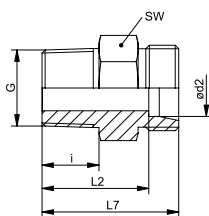
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L2 mm	L7 mm	SW mm	OR
XVMO 04 LL	LL	PN 100	4	M 8 x 1	10,8	6,5	9,5	20,0	11	6.1 x 1.6
XVMO 04 LL 10	LL	PN 100	4	M 10 x 1	12,8	6,5	9,5	20,0	13	8.0 x 1.5
XVMO 06 LL	LL	PN 100	6	M 10 x 1	12,8	6,5	8,0	20,0	13	8.0 x 1.5
XVMO NW 04 HL	L	PN 250	6	M 10 x 1	14,0	8,5	8,5	24,0	14	8.0 x 1.5
XVMO NW 06 HL	L	PN 250	8	M 12 x 1.5	17,0	11,0	10,0	28,0	17	9.3 x 2.4
XVMO NW 08 HL	L	PN 250	10	M 14 x 1.5	19,0	11,0	11,0	29,0	19	11.3 x 2.4
XVMO NW 10 HL	L	PN 250	12	M 16 x 1.5	22,0	11,5	12,5	31,0	22	13.3 x 2.4
XVMO NW 10 HL 18	L	PN 315	12	M 18 x 1.5	24,0	12,0	12,5	31,5	24	15.3 x 2.4
XVMO NW 13 HL	L	PN 250	15	M 18 x 1.5	24,0	12,5	13,5	33,0	24	15.3 x 2.4
XVMO NW 13 HL 22	L	PN 315	15	M 22 x 1.5	27,0	13,0	15,0	35,0	27	19.3 x 2.4
XVMO NW 16 HL	L	PN 160	18	M 22 x 1.5	27,0	13,0	14,5	35,0	27	19.3 x 2.4
XVMO NW 20 HL	L	PN 160	22	M 26 x 1.5	31,0	16,0	17,5	41,0	41	23.3 x 2.4
XVMO NW 20 HL 27	L	PN 160	22	M 27 x 2	32,0	16,0	16,5	40,0	32	23.6 x 2.9
XVMO NW 25 HL	L	PN 100	28	M 33 x 2	41,0	16,0	17,5	41,0	41	29.5 x 3.0
XVMO NW 32 HL	L	PN 100	35	M 42 x 2	50,0	16,0	17,5	44,0	50	38.0 x 3.0
XVMO NW 40 HL	L	PN 160	42	M 48 x 2	55,0	17,5	19,0	47,5	55	44.6 x 3.0
XVMO NW 03 HS	S	PN 630	6	M 12 x 1.5	17,0	11,0	13,0	31,0	17	9.3 x 2.4
XVMO NW 04 HS	S	PN 630	8	M 14 x 1.5	19,0	11,0	15,0	33,0	19	11.3 x 2.4
XVMO NW 06 HS	S	PN 630	10	M 16 x 1.5	22,0	12,5	15,0	35,0	22	13.3 x 2.4
XVMO NW 08 HS	S	PN 630	12	M 18 x 1.5	24,0	14,0	17,0	38,5	24	15.3 x 2.4
XVMO NW 13 HS	S	PN 400	16	M 22 x 1.5	27,0	15,0	18,5	42,0	27	19.3 x 2.4
XVMO NW 16 HS	S	PN 400	20	M 27 x 2	32,0	18,5	20,5	19,5	32	23.5 x 3.0
XVMO NW 20 HS	S	PN 400	25	M 33 x 2	41,0	18,5	23,0	53,5	41	29.5 x 3.0
XVMO NW 25 HS	S	PN 250	30	M 42 x 2	50,0	19,0	23,5	56,0	50	38.0 x 3.0
XVMO NW 32 HS	S	PN 315	38	M 48 x 2	55,0	21,5	26,0	63,5	55	46.7 x 2.8

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**VMO** - Screw-in fitting, Steel

**XVMK****Screw-in fitting**

**Connection 1:** metric conical outer thread  
**Sealing form 1:** thread seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L2 mm	L7 mm	SW mm
XVM 04 LL 6	LL	PN 100	4	M 6 x 1 K	8	16,0	20	9
XVM 04 LL	LL	PN 100	4	M 8 x 1 K	8	16,0	20	9
XVM 04 LL 10	LL	PN 100	4	M 10 x 1 K	8	16,0	20	11
XVM 05 LL	LL	PN 100	5	M 8 x 1 K	8	14,5	20	11
XVM 06 LL 6	LL	PN 100	6	M 6 x 1 K	8	14,5	20	11
XVM 06 LL 8	LL	PN 100	6	M 8 x 1 K	8	14,5	20	11
XVM 06 LL	LL	PN 100	6	M 10 x 1 K	8	14,5	20	11
XVM 08 LL	LL	PN 100	8	M 10 x 1 K	8	16,5	22	12
XVM 12 LL	LL	PN 100	12	M 16 x 1,5 K	12	21,0	27	19
XVMK NW 04 HL	L	PN 315	6	M 10 x 1 K	8	15,0	22	12
XVMK NW 06 HL	L	PN 315	8	M 12 x 1,5 K	12	20,0	27	14
XVMK NW 08 HL	L	PN 315	10	M 14 x 1,5 K	12	21,0	28	17
XVMK NW 10 HL	L	PN 315	12	M 16 x 1,5 K	12	22,0	29	19
XVMK NW 13 HL	L	PN 315	15	M 18 x 1,5 K	12	23,0	30	24
XVMK NW 16 HL	L	PN 315	18	M 22 x 1,5 K	14	25,5	33	27
XVMK NW 20 HL	L	PN 160	22	M 26 x 1,5 k	18	31,5	39	32
XVMK NW 25 HL	L	PN 160	28	M 33 x 2 K	20	34,5	42	41
XVMK NW 32 HL	L	PN 160	35	M 42 x 2 K	21	35,5	46	46
XVMK NW 40 HL	L	PN 160	42	M 48 x 2 K	22	38,0	49	55
XVMK NW 03 HS	S	PN 630	6	M 12 x 1,5 K	12	24,0	31	14

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

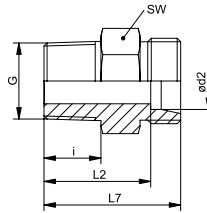
**XVMK VA** - Screw-in fitting, Stainless steel

**VMK** - Screw-in fitting, Steel

XVN

## Screw-in fitting

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L2 mm	L7 mm	SW mm
XVN 04 LL	LL	PN 100	4	1/8" -27 NPT	10,0	18,0	22,0	11
XVN 05 LL	LL	PN 100	5	1/8" -27 NPT	10,0	16,5	22,0	11
XVN 06 LL	LL	PN 100	6	1/8" -27 NPT	10,0	16,5	22,0	11
XVN 08 LL	LL	PN 100	8	1/8" -27 NPT	10,0	18,5	24,0	12
XVN NW 04 HL	L	PN 315	6	1/8" -27 NPT	10,0	17,0	24,0	12
XVN NW 04 HL 1/4	L	PN 315	6	1/4" -18 NPT	15,0	23,0	30,0	17
XVN NW 04 HL 3/8	L	PN 315	6	3/8" -18 NPT	15,3	24,0	31,0	19
XVN NW 04 HL 1/2	L	PN 315	6	1/2" -14 NPT	20,0	29,0	36,0	24
XVN NW 06 HL 1/8	L	PN 315	8	1/8" -27 NPT	10,0	18,0	25,0	17
XVN NW 06 HL	L	PN 315	8	1/4" -18 NPT	15,0	23,0	30,0	17
XVN NW 06 HL 3/8	L	PN 315	8	3/8" -18 NPT	15,3	24,0	31,0	19
XVN NW 06 HL 1/2	L	PN 315	8	1/2" -14 NPT	20,0	29,0	36,0	24
XVN NW 08 HL 1/8	L	PN 315	10	1/8" -27 NPT	10,0	19,0	26,0	17
XVN NW 08 HL	L	PN 315	10	1/4" -18 NPT	15,0	24,0	31,0	17
XVN NW 08 HL 3/8	L	PN 315	10	3/8" -18 NPT	15,3	25,0	32,0	19
XVN NW 08 HL 1/2	L	PN 315	10	1/2" -14 NPT	20,0	30,0	37,0	24
XVN NW 10 HL 1/8	L	PN 315	12	1/8" -27 NPT	10,0	19,5	26,5	19
XVN NW 10 HL 1/4	L	PN 315	12	1/4" -18 NPT	15,0	25,0	32,0	19
XVN NW 10 HL	L	PN 315	12	3/8" -18 NPT	15,3	25,0	32,0	19
XVN NW 10 HL 1/2	L	PN 315	12	1/2" -14 NPT	20,0	30,0	37,0	24
XVN NW 10 HL 3/4	L	PN 315	12	3/4" -14 NPT	20,2	31,0	38,0	27
XVN NW 13 HL 1/4	L	PN 315	15	1/4" -18 NPT	15,0	26,0	33,0	24
XVN NW 13 HL 3/8	L	PN 315	15	3/8" -18 NPT	15,3	26,5	33,5	24
XVN NW 13 HL	L	PN 315	15	1/2" -14 NPT	20,0	31,0	38,0	24
XVN NW 13 HL 3/4	L	PN 315	15	3/4" -14 NPT	20,2	32,0	39,0	27
XVN NW 16 HL 1/4	L	PN 315	18	1/4" -18 NPT	15,0	26,5	34,0	27
XVN NW 16 HL	L	PN 315	18	1/2" -14 NPT	20,0	31,5	39,0	27
XVN NW 16 HL 3/4	L	PN 315	18	3/4" -14 NPT	20,2	31,5	39,0	27
XVN NW 20 HL 1/2	L	PN 160	22	1/2" -14 NPT	20,0	33,5	41,0	32
XVN NW 20 HL	L	PN 160	22	3/4" -14 NPT	20,2	33,5	41,0	32
XVN NW 25 HL	L	PN 160	28	1" -11.5 NPT	25,0	39,5	47,0	41
XVN NW 32 HL 1	L	PN 160	35	1" -11.5 NPT	25,0	40,0	50,5	46
XVN NW 32 HL	L	PN 160	35	1.1/4" -11.5 NPT	25,6	40,5	51,0	46
XVN NW 40 HL	L	PN 160	42	1.1/2" -11.5 NPT	26,0	42,0	53,0	55
XVN NW 03 HS	S	PN 630	6	1/4" -18 NPT	15,0	28,0	35,0	17
XVN NW 03 HS 1/2	S	PN 630	6	1/2" -14 NPT	20,0	35,0	42,0	24
XVN NW 04 HS	S	PN 630	8	1/4" -18 NPT	15,0	28,0	35,0	17
XVN NW 04 HS 3/8	S	PN 630	8	3/8" -18 NPT	15,3	28,0	35,0	19
XVN NW 06 HS 1/4	S	PN 630	10	1/4" -18 NPT	15,0	27,5	35,0	19
XVN NW 06 HS	S	PN 630	10	3/8" -18 NPT	15,3	27,5	35,0	19

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XVN****Screw-in fitting****(Continued)**

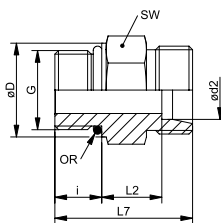
Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L2 mm	L7 mm	SW mm
XVN NW 06 HS 1/2	S	PN 630	10	1/2" -14 NPT	20,0	34,5	42,0	24
XVN NW 08 HS 1/4	S	PN 630	12	1/4" -18 NPT	15,0	29,0	36,5	22
XVN NW 08 HS	S	PN 630	12	3/8" -18 NPT	15,3	29,5	37,0	22
XVN NW 08 HS 1/2	S	PN 630	12	1/2" -14 NPT	20,0	34,5	42,0	24
XVN NW 10 HS 3/8	S	PN 630	14	3/8" -18 NPT	15,3	31,5	39,5	24
XVN NW 10 HS	S	PN 630	14	1/2" -14 NPT	20,0	36,0	44,0	24
XVN NW 13 HS	S	PN 400	16	1/2" -14 NPT	20,0	35,5	44,0	27
XVN NW 13 HS 3/4	S	PN 400	16	3/4" -14 NPT	20,2	37,5	46,0	32
XVN NW 16 HS 1/2	S	PN 400	20	1/2" -14 NPT	20,0	37,5	48,0	32
XVN NW 16 HS	S	PN 400	20	3/4" -14 NPT	20,2	37,5	48,0	32
XVN NW 16 HS 1	S	PN 400	20	1" -11.5 NPT	25,0	44,5	55,0	41
XVN NW 20 HS 3/4	S	PN 400	25	3/4" -14 NPT	20,2	40,0	52,0	41
XVN NW 20 HS	S	PN 400	25	1" -11.5 NPT	25,0	45,0	57,0	41
XVN NW 20 HS 1 1/4	S	PN 400	25	1.1/4" -11.5 NPT	25,6	46,0	58,0	46
XVN NW 25 HS 1	S	PN 400	30	1" -11.5 NPT	25,0	46,0	59,5	46
XVN NW 25 HS	S	PN 400	30	1.1/4" -11.5 NPT	25,6	46,5	60,0	46
XVN NW 32 HS	S	PN 315	38	1.1/2" -11.5 NPT	26,0	49,0	65,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:****XVN VA** - Screw-in fitting, Stainless steel**VN** - Screw-in fitting, Steel

**XVU****Screw-in fitting**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** Shape F  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L2 mm	L7 mm	SW mm	OR
XVU NW 04 HL 7/16	L	PN 315	6	7/16"-20 UNF	14,4	9,1	9,9	26,0	17	9.17 x 1.83
XVU NW 04 HL 1/2	L	PN 315	6	1/2"-20 UNF	16,8	9,1	9,9	26,0	17	10.52 x 1.83
XVU NW 04 HL 9/16	L	PN 315	6	9/16"-18 UNF	17,6	10,0	11,0	28,0	19	11.89 x 1.98
XVU NW 06 HL 7/16	L	PN 315	8	7/16"-20 UNF	14,4	9,1	12,9	29,0	17	9.17 x 1.83
XVU NW 06 HL 1/2	L	PN 315	8	1/2"-20 UNF	16,8	9,1	12,9	29,0	17	10.52 x 1.83
XVU NW 06 HL 9/16	L	PN 315	8	9/16"-18 UNF	17,6	10,0	13,0	30,0	19	11.89 x 1.98
XVU NW 08 HL 7/16	L	PN 315	10	7/16"-20 UNF	14,4	9,1	13,9	30,0	17	9.17 x 1.83
XVU NW 08 HL 9/16	L	PN 315	10	9/16"-18 UNF	17,6	10,0	14,0	31,0	19	11.89 x 1.98
XVU NW 08 HL 3/4	L	PN 315	10	3/4"-16 UNF	22,3	11,1	14,9	33,0	24	16.36 x 2.20
XVU NW 10 HL 9/16	L	PN 315	12	9/16"-18 UNF	17,6	10,0	12,0	29,0	19	11.89 x 1.98
XVU NW 10 HL 3/4	L	PN 315	12	3/4"-16 UNF	22,3	11,1	12,9	31,0	24	16.36 x 2.20
XVU NW 10 HL 7/8	L	PN 315	12	7/8"-14 UNF	25,5	12,7	14,3	34,0	27	19.18 x 2.46
XVU NW 13 HL 9/16	L	PN 315	15	9/16"-18 UNF	17,6	10,0	14,0	31,0	24	11.89 x 1.98
XVU NW 13 HL 3/4	L	PN 315	15	3/4"-16 UNF	22,3	11,1	13,9	32,0	24	16.36 x 2.20
XVU NW 13 HL 7/8	L	PN 315	15	7/8"-14 UNF	25,5	12,7	15,8	35,5	27	19.18 x 2.46
XVU NW 16 HL 3/4	L	PN 315	18	3/4"-16 UNF	22,3	11,1	14,4	33,0	27	16.36 x 2.20
XVU NW 16 HL 7/8	L	PN 315	18	7/8"-14 UNF	25,5	12,7	14,5	34,7	27	19.18 x 2.46
XVU NW 16 HL 1 1/16	L	PN 315	18	1 1/16"-12 UN	31,9	15,1	14,4	37,0	32	23.47 x 2.95
XVU NW 20 HL 7/8	L	PN 160	22	7/8"-14 UNF	25,5	12,7	16,8	37,0	32	19.18 x 2.46
XVU NW 20 HL 1 1/16	L	PN 160	22	1 1/16"-12 UN	31,9	15,1	16,4	39,0	32	23.47 x 2.95
XVU NW 20 HL 1 5/16	L	PN 160	22	1 5/16"-12 UN	38,2	15,1	17,4	40,0	41	29.74 x 2.95
XVU NW 25 HL 7/8	L	PN 160	28	7/8"-14 UNF	25,5	12,7	19,8	40,0	41	19.18 x 2.46
XVU NW 25 HL 1 1/16	L	PN 160	28	1 1/16"-12 UN	31,9	15,1	17,4	40,0	41	23.47 x 2.95
XVU NW 25 HL 1 5/16	L	PN 160	28	1 5/16"-12 UN	38,2	15,1	17,4	40,0	41	29.74 x 2.95
XVU NW 32 HL 1 5/16	L	PN 160	35	1 5/16"-12 UN	38,2	15,1	17,4	43,0	46	29.74 x 2.95
XVU NW 32 HL 1 5/8	L	PN 160	35	1 5/8"-12 UN	47,7	15,1	17,4	43,0	50	37.47 x 3.00
XVU NW 40 HL 1 5/8	L	PN 160	42	1 5/8"-12 UN	47,7	15,1	18,9	45,0	55	37.47 x 3.00
XVU NW 40 HL 1 7/8	L	PN 160	42	1 7/8"-12 UN	53,8	15,1	18,9	45,0	60	43.69 x 3.00
XVU NW 03 HS 7/16	S	PN 630	6	7/16"-20 UNF	14,4	9,1	14,9	31,0	17	9.17 x 1.83
XVU NW 04 HS 7/16	S	PN 630	8	7/16"-20 UNF	14,4	9,1	14,9	31,0	17	9.17 x 1.83
XVU NW 04 HS 1/2	S	PN 630	8	1/2"-20 UNF	16,8	9,1	14,9	31,0	19	10.52 x 1.83
XVU NW 04 HS 9/16	S	PN 630	8	9/16"-18 UNF	17,6	10,0	15,0	32,0	19	11.89 x 1.98
XVU NW 06 HS 9/16	S	PN 630	10	9/16"-18 UNF	17,6	10,0	14,5	32,0	19	10.89 x 1.98
XVU NW 06 HS 3/4	S	PN 630	10	3/4"-16 UNF	22,3	11,1	14,4	33,0	24	16.36 x 2.20
XVU NW 08 HS 9/16	S	PN 630	12	9/16"-18 UNF	17,6	10,0	14,5	32,0	22	11.89 x 1.98
XVU NW 08 HS 3/4	S	PN 630	12	3/4"-16 UNF	22,3	11,1	17,4	36,0	24	16.36 x 2.20
XVU NW 08 HS 7/8	S	PN 630	12	7/8"-14 UNF	25,5	12,7	17,8	38,0	27	19.18 x 2.46
XVU NW 10 HS 3/4	S	PN 630	14	3/4"-16 UNF	22,3	11,1	15,9	35,0	24	16.36 x 2.20
XVU NW 13 HS 3/4	S	PN 400	16	3/4"-16 UNF	22,3	11,1	15,4	35,0	24	16.36 x 2.20
XVU NW 13 HS 7/8	S	PN 400	16	7/8"-14 UNF	25,5	12,7	18,8	40,0	27	19.18 x 2.46

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XVU****Screw-in fitting****(Continued)**

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L2 mm	L7 mm	SW mm	OR
XVU NW 13 HS 1 1/16	S	PN 400	16	1.1/16" -12 UN	31,9	15,1	20,4	44,0	32	23.47 x 2.95
XVU NW 16 HS 3/4	S	PN 400	20	3/4" -16 UNF	22,3	11,1	20,4	42,0	32	16.36 x 2.20
XVU NW 16 HS 7/8	S	PN 400	20	7/8" -14 UNF	25,5	12,7	20,8	44,0	32	19.18 x 2.46
XVU NW 16 HS 1 1/16	S	PN 400	20	1.1/16" -12 UN	31,9	15,1	20,4	46,0	32	23.47 x 2.95
XVU NW 20 HS 1 1/16	S	PN 400	25	1.1/16" -12 UN	31,9	15,1	22,9	50,0	41	23.47 x 2.95
XVU NW 20 HS 1 5/16	S	PN 400	25	1.5/16" -12 UN	38,2	15,1	22,9	50,0	41	29.74 x 2.95
XVU NW 25 HS 1 5/16	S	PN 400	30	1.5/16" -12 UN	38,2	15,1	23,4	52,0	46	29.74 x 2.95
XVU NW 25 HS 1 5/8	S	PN 400	30	1.5/8" -12 UN	47,7	15,1	23,4	52,0	50	37.47 x 3.00
XVU NW 32 HS 1 5/8	S	PN 315	38	1.5/8" -12 UN	47,7	15,1	25,9	57,0	55	37.47 x 3.00
XVU NW 32 HS 1 7/8	S	PN 315	38	1.7/8" -12 UN	53,8	15,1	25,9	57,0	60	43.69 x 3.00

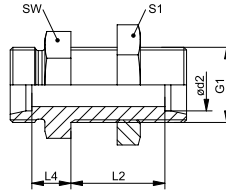
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:****XVU VA** - Screw-in fitting, Stainless steel**VU** - Screw-in fitting, Steel



**XSV****Bulkhead fitting**

**Connection 1 + 2:** metric cylindrical outer thread  
**Sealing form 1 + 2:** 24° inner cone  
**Design:** Bulkhead fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L2 mm	L4 mm	SW mm	S1
XSV NW 04 HL	L	PN 315	6	M 12 x 1.5	27,0	7,0	17	17
XSV NW 06 HL	L	PN 315	8	M 14 x 1.5	27,0	8,0	19	19
XSV NW 08 HL	L	PN 315	10	M 16 x 1.5	28,0	10,0	22	22
XSV NW 10 HL	L	PN 315	12	M 18 x 1.5	29,0	10,0	24	24
XSV NW 13 HL	L	PN 315	15	M 22 x 1.5	31,0	12,0	27	30
XSV NW 16 HL	L	PN 315	18	M 26 x 1.5	32,5	13,5	32	36
XSV NW 20 HL	L	PN 160	22	M 30 x 2	34,5	16,5	36	41
XSV NW 25 HL	L	PN 160	28	M 36 x 2	35,5	18,5	41	46
XSV NW 32 HL	L	PN 160	35	M 45 x 2	36,5	18,5	50	55
XSV NW 40 HL	L	PN 160	42	M 52 x 2	36,0	19,0	60	65
XSV NW 03 HS	S	PN 630	6	M 14 x 1.5	29,0	12,0	19	19
XSV NW 04 HS	S	PN 630	8	M 16 x 1.5	29,0	13,0	22	22
XSV NW 06 HS	S	PN 630	10	M 18 x 1.5	29,5	14,5	24	24
XSV NW 08 HS	S	PN 630	12	M 20 x 1.5	30,5	14,5	27	27
XSV NW 10 HS	S	PN 630	14	M 22 x 1.5	32,0	17,0	30	30
XSV NW 13 HS	S	PN 400	16	M 24 x 1.5	31,5	16,5	32	32
XSV NW 16 HS	S	PN 400	20	M 30 x 2	33,5	17,5	41	41
XSV NW 20 HS	S	PN 400	25	M 36 x 2	35,0	20,0	46	46
XSV NW 25 HS	S	PN 400	30	M 42 x 2	37,5	21,5	50	50
XSV NW 32 HS	S	PN 315	38	M 52 x 2	37,0	22,0	65	65

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

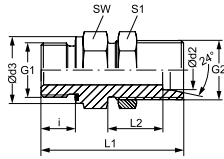
**Product versions:**

**XSV VA** - Bulkhead fitting, Stainless steel

**SV** - Bulkhead fitting, Steel

## XSVR ED

### Bulkhead screw-in fitting



- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Bulkhead screw-in fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	L2 mm	SW mm	S1
XSVR NW 06 HL ED	L	PN 315	8	G 1/4" -19	M 14 x 1.5	18,9	12	53,0	27,0	19	19
XSVR NW 06 HL 3/8 ED	L	PN 315	8	G 3/8" -19	M 14 x 1.5	21,9	12	54,5	27,0	22	19
XSVR NW 06 HL 1/2 ED	L	PN 315	8	G 1/2" -14	M 14 x 1.5	26,9	14	58,0	27,0	27	19
XSVR NW 08 HL ED	L	PN 315	10	G 1/4" -19	M 16 x 1.5	18,9	12	55,0	28,0	22	22
XSVR NW 08 HL 1/2 ED	L	PN 315	10	G 1/2" -14	M 16 x 1.5	26,9	14	59,0	27,0	27	22
XSVR NW 10 HL ED	L	PN 315	12	G 3/8" -19	M 18 x 1.5	21,9	12	56,5	29,0	24	24
XSVR NW 10 HL 1/2 ED	L	PN 315	12	G 1/2" -14	M 18 x 1.5	26,9	14	60,0	29,0	27	24
XSVR NW 13 HL ED	L	PN 250	15	G 1/2" -14	M 22 x 1.5	26,9	14	62,0	31,0	27	30
XSVR NW 13 HL 3/4 ED	L	PN 250	15	G 3/4" -14	M 22 x 1.5	31,9	16	66,0	31,0	32	30
XSVR NW 16 HL ED	L	PN 250	18	G 1/2" -14	M 26 x 1.5	26,9	14	66,0	33,5	32	36
XSVR NW 16 HL 3/4 ED	L	PN 250	18	G 3/4" -14	M 26 x 1.5	31,9	16	68,0	33,5	32	36
XSVR NW 16 HL 1 ED	L	PN 250	18	G 1" -11	M 26 x 1.5	39,9	18	73,0	33,5	41	36
XSVR NW 20 HL ED	L	PN 250	22	G 3/4" -14	M 30 x 2	31,9	16	71,0	34,5	36	41
XSVR NW 40 HL ED	L	PN 250	42	G 1.1/2" -11	M 52 x 2	54,9	22	86,0	36,0	60	65
XSVR NW 08 HS 1/2 ED	S	PN 400	12	G 1/2" -14	M 20 x 1.5	26,9	14	65,0	30,5	27	27
XSVR NW 13 HS ED	S	PN 400	16	G 1/2" -14	M 24 x 1.5	26,9	14	68,0	31,5	32	32
XSVR NW 13 HS 3/4 ED	S	PN 400	16	G 3/4" -14	M 24 x 1.5	31,9	16	70,0	31,5	32	32
XSVR NW 16 HS ED	S	PN 400	20	G 3/4" -14	M 30 x 2	31,9	16	75,0	33,5	41	41
XSVR NW 20 HS 3/4 ED	S	PN 250	25	G 3/4" -14	M 36 x 2	31,9	16	80,0	35,0	46	46
XSVR NW 20 HS ED	S	PN 250	25	G 1" -11	M 36 x 2	39,9	18	82,0	35,0	46	46
XSVR NW 25 HS ED	S	PN 160	30	G 1.1/4" -11	M 42 x 2	49,9	20	89,0	37,5	50	50

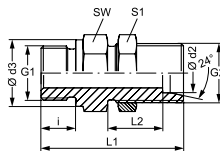
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

#### Spare parts:

**WD** - Soft seal for ED fittings

## Bulkhead screw-in fitting

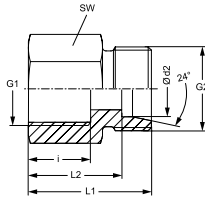
<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	Shape A
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Bulkhead screw-in fitting
<b>Construction:</b>	straight
<b>Standard:</b>	DIN 2353, ISO 8434-1
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L1 mm	SW mm	S1 mm
XSVM NW 13 HS	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	27	14	68,0	32	32
XSVM NW 16 HS 22	S	PN 400	20	M 22 x 1.5	M 30 x 2	27	14	70,0	41	41
XSVM NW 16 HS 26	S	PN 400	20	M 26 x 1.5	M 30 x 2	31	16	72,0	41	41
XSVM NW 20 HS 26	S	PN 400	25	M 26 x 1.5	M 36 x 2	31	16	75,0	41	46
XSVM NW 20 HS 30-1.5	S	PN 400	25	M 30 x 1.5	M 36 x 2	36	16	75,0	41	46
XSVM NW 25 HS 30-1.5	S	PN 400	30	M 30 x 1.5	M 42 x 2	36	16	79,0	50	50
XSVM NW 25 HS 38-1.5	S	PN 400	30	M 38 x 1.5	M 42 x 2	44	16	79,0	50	50
XSVM NW 25 HS 45-1.5	S	PN 400	30	M 45 x 1.5	M 42 x 2	52	16	79,0	55	50
XSVM NW 32 HS 38-1.5	S	PN 315	38	M 38 x 1.5	M 52 x 2	44	16	81,5	60	65
XSVM NW 32 HS 45-1.5	S	PN 315	38	M 45 x 1.5	M 52 x 2	52	16	81,5	60	65

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XGAR****Screw-on fitting**

**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** Shape A  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-on fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L1 mm	L2 mm	SW mm
XGAR NW 04 HL	L	PN 315	6	G 1/8" -28	M 12 x 1.5	12,0	26,0	19,0	14
XGAR NW 04 HL 1/4	L	PN 315	6	G 1/4" -19	M 12 x 1.5	17,0	31,0	24,0	19
XGAR NW 04 HL 3/8	L	PN 315	6	G 3/8" -19	M 12 x 1.5	17,0	32,0	25,0	22
XGAR NW 06 HL	L	PN 315	8	G 1/4" -19	M 14 x 1.5	17,0	31,0	24,0	19
XGAR NW 06 HL 3/8	L	PN 315	8	G 3/8" -19	M 14 x 1.5	17,0	32,0	25,0	22
XGAR NW 06 HL 1/2	L	PN 315	8	G 1/2" -14	M 14 x 1.5	20,0	36,0	29,0	27
XGAR NW 08 HL	L	PN 315	10	G 1/4" -19	M 16 x 1.5	17,0	32,0	25,0	19
XGAR NW 08 HL 3/8	L	PN 315	10	G 3/8" -19	M 16 x 1.5	17,0	33,0	26,0	22
XGAR NW 08 HL 1/2	L	PN 315	10	G 1/2" -14	M 16 x 1.5	20,0	37,0	30,0	27
XGAR NW 10 HL 1/4	L	PN 315	12	G 1/4" -19	M 18 x 1.5	17,0	32,0	25,0	19
XGAR NW 10 HL	L	PN 315	12	G 3/8" -19	M 18 x 1.5	17,0	33,0	26,0	22
XGAR NW 10 HL 1/2	L	PN 315	12	G 1/2" -14	M 18 x 1.5	20,0	37,0	30,0	27
XGAR NW 13 HL 3/8	L	PN 315	15	G 3/8" -19	M 22 x 1.5	17,0	34,0	27,0	24
XGAR NW 13 HL	L	PN 315	15	G 1/2" -14	M 22 x 1.5	20,0	38,0	31,0	27
XGAR NW 16 HL	L	PN 315	18	G 1/2" -14	M 26 x 1.5	20,0	38,0	30,5	27
XGAR NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	22,0	43,0	35,5	32
XGAR NW 25 HL	L	PN 160	28	G 1" -11	M 36 x 2	24,5	45,5	38,0	41
XGAR NW 32 HL	L	PN 160	35	G 1.1/4" -11	M 45 x 2	26,5	51,5	41,0	50
XGAR NW 40 HL	L	PN 160	42	G 1.1/2" -11	M 52 x 2	28,5	53,5	42,5	55
XGAR NW 03 HS	S	PN 400	6	G 1/4" -19	M 14 x 1.5	17,0	33,0	26,0	19
XGAR NW 04 HS	S	PN 400	8	G 1/4" -19	M 16 x 1.5	17,0	33,0	26,0	19
XGAR NW 06 HS	S	PN 400	10	G 3/8" -19	M 18 x 1.5	17,0	34,0	26,5	24
XGAR NW 08 HS	S	PN 400	12	G 3/8" -19	M 20 x 1.5	17,0	34,0	26,5	24
XGAR NW 10 HS	S	PN 400	14	G 1/2" -14	M 22 x 1.5	20,0	40,0	32,0	27
XGAR NW 13 HS	S	PN 400	16	G 1/2" -14	M 24 x 1.5	20,0	40,0	31,5	27
XGAR NW 16 HS	S	PN 315	20	G 3/4" -14	M 30 x 2	22,0	45,0	34,5	36
XGAR NW 20 HS	S	PN 315	25	G 1" -11	M 36 x 2	24,5	49,5	37,5	41
XGAR NW 25 HS	S	PN 315	30	G 1.1/4" -11	M 42 x 2	26,5	55,5	42,0	50
XGAR NW 32 HS	S	PN 250	38	G 1.1/2" -11	M 52 x 2	28,5	59,5	43,5	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

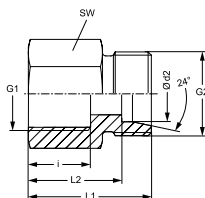
**Product versions:**

**XGAR VA** - Screw-on fitting, Stainless steel

**GAR** - Screw-on fitting, Steel

**XGAM****Screw-on fitting**

**Connection 1:** metric cylindrical inner thread  
**Sealing form 1:** Shape A  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-on fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

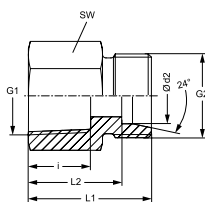
Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L1 mm	L2 mm	SW mm
XGAM NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	12,5	26,5	19,5	14
XGAM NW 04 HL 22	L	PN 315	6	M 22 x 1.5	M 12 x 1.5	19,0	35,0	28,0	27
XGAM NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	17,0	31,0	24,0	17
XGAM NW 06 HL 22	L	PN 315	8	M 22 x 1.5	M 14 x 1.5	19,0	35,0	29,0	27
XGAM NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	17,0	32,0	25,0	19
XGAM NW 08 HL 22	L	PN 315	10	M 22 x 1.5	M 16 x 1.5	19,0	36,0	29,0	27
XGAM NW 10 HL	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	17,0	33,0	26,0	22
XGAM NW 10 HL 18	L	PN 315	12	M 18 x 1.5	M 18 x 1.5	17,0	34,0	27,0	24
XGAM NW 10 HL 22	L	PN 315	12	M 22 x 1.5	M 18 x 1.5	19,0	36,0	29,0	27
XGAM NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	17,0	35,0	28,0	24
XGAM NW 13 HL 22	L	PN 315	15	M 22 x 1.5	M 22 x 1.5	19,0	37,0	30,0	27
XGAM NW 16 HL	L	PN 315	18	M 22 x 1.5	M 26 x 1.5	19,0	37,0	29,5	27
XGAM NW 20 HL	L	PN 160	22	M 26 x 1.5	M 30 x 2	21,0	42,0	34,5	32
XGAM NW 25 HL	L	PN 160	28	M 33 x 2	M 36 x 2	24,0	45,0	37,5	41
XGAM NW 32 HL	L	PN 160	35	M 42 x 2	M 45 x 2	26,0	51,0	40,5	55
XGAM NW 40 HL	L	PN 160	42	M 48 x 2	M 52 x 2	28,0	53,0	42,0	60
XGAM NW 03 HS	S	PN 400	6	M 12 x 1.5	M 14 x 1.5	17,0	33,0	26,0	17
XGAM NW 04 HS	S	PN 400	8	M 14 x 1.5	M 16 x 1.5	17,0	33,0	26,0	19
XGAM NW 06 HS	S	PN 400	10	M 16 x 1.5	M 18 x 1.5	17,0	34,0	26,5	22
XGAM NW 08 HS	S	PN 400	12	M 18 x 1.5	M 20 x 1.5	17,0	35,0	27,5	24
XGAM NW 10 HS	S	PN 400	14	M 20 x 1.5	M 22 x 1.5	19,0	39,0	31,0	27
XGAM NW 13 HS	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	19,0	39,0	30,5	30
XGAM NW 16 HS	S	PN 315	20	M 27 x 2	M 30 x 2	22,0	45,0	34,5	36
XGAM NW 20 HS	S	PN 315	25	M 33 x 2	M 36 x 2	24,0	49,0	37,0	41
XGAM NW 25 HS	S	PN 315	30	M 42 x 2	M 42 x 2	26,0	55,0	41,5	55
XGAM NW 32 HS	S	PN 250	38	M 48 x 2	M 52 x 2	28,0	59,0	43,0	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XGAM VA** - Screw-on fitting, Stainless steel

**GAM** - Screw-on fitting, Steel

**XGAN VA****Screw-on fitting**

**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-on fitting  
**Construction:** straight  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Stainless steel

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L1 mm	L2 mm	SW mm
XGAN NW 04 HL VA	L	PN 315	6	1/8" -27 NPT	M 12 x 1.5	11,6	26,0	19,0	14
XGAN NW 04 HL 1/4 VA	L	PN 315	6	1/4" -18 NPT	M 12 x 1.5	16,4	30,5	23,5	19
XGAN NW 06 HL VA	L	PN 315	8	1/4" -18 NPT	M 14 x 1.5	16,4	30,5	23,5	19
XGAN NW 08 HL VA	L	PN 315	10	1/4" -18 NPT	M 16 x 1.5	16,4	31,0	24,0	19
XGAN NW 08 HL 1/2 VA	L	PN 315	10	1/2" -14 NPT	M 16 x 1.5	22,6	39,0	32,0	27
XGAN NW 10 HL 1/4 VA	L	PN 315	12	1/4" -18 NPT	M 18 x 1.5	16,4	31,0	24,0	19
XGAN NW 10 HL VA	L	PN 315	12	3/8" -18 NPT	M 18 x 1.5	17,4	34,0	27,0	24
XGAN NW 10 HL 1/2 VA	L	PN 315	12	1/2" -14 NPT	M 18 x 1.5	22,6	39,0	32,0	27
XGAN NW 13 HL VA	L	PN 315	15	1/2" -14 NPT	M 22 x 1.5	22,6	40,0	33,0	27
XGAN NW 16 HL VA	L	PN 315	18	1/2" -14 NPT	M 26 x 1.5	22,6	40,0	32,5	27
XGAN NW 20 HL VA	L	PN 160	22	3/4" -14 NPT	M 30 x 2	23,1	43,0	35,5	36
XGAN NW 25 HL VA	L	PN 160	28	1" -11.5 NPT	M 36 x 2	27,8	48,0	40,5	41
XGAN NW 32 HL VA	L	PN 160	35	1.1/4" -11.5 NPT	M 45 x 2	28,3	51,0	40,5	55
XGAN NW 40 HL VA	L	PN 160	42	1.1/2" -11.5 NPT	M 52 x 2	28,3	53,0	42,0	60
XGAN NW 03 HS VA	S	PN 630	6	1/4" -18 NPT	M 14 x 1.5	16,4	33,0	26,0	19
XGAN NW 04 HS VA	S	PN 630	8	1/4" -18 NPT	M 16 x 1.5	16,4	33,0	26,0	19
XGAN NW 06 HS VA	S	PN 630	10	3/8" -18 NPT	M 18 x 1.5	17,4	35,0	27,0	24
XGAN NW 08 HS VA	S	PN 630	12	3/8" -18 NPT	M 20 x 1.5	17,4	35,0	27,5	24
XGAN NW 08 HS 1/2 VA	S	PN 630	12	1/2" -14 NPT	M 20 x 1.5	22,6	41,0	33,5	27
XGAN NW 10 HS VA	S	PN 630	14	1/2" -14 NPT	M 22 x 1.5	22,6	43,0	35,0	27
XGAN NW 13 HS VA	S	PN 400	16	1/2" -14 NPT	M 24 x 1.5	22,6	43,0	34,5	27
XGAN NW 16 HS VA	S	PN 400	20	3/4" -14 NPT	M 30 x 2	23,1	46,0	35,5	36
XGAN NW 20 HS VA	S	PN 400	25	1" -11.5 NPT	M 36 x 2	27,8	53,0	41,0	41
XGAN NW 25 HS VA	S	PN 400	30	1.1/4" -11.5 NPT	M 42 x 2	28,3	57,0	43,5	55
XGAN NW 32 HS VA	S	PN 315	38	1.1/2" -11.5 NPT	M 52 x 2	28,3	59,0	43,0	60

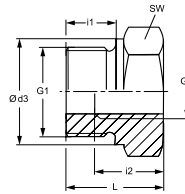
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**GAN VA** - Screw-on fitting, Socket with union nut and cutting ring, Stainless steel

**RIK****Reducing adapter, short**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape B  
**Connection 2:** BSP cylindrical internal threads  
**Design:** Reducing adapters  
**Construction:** short  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

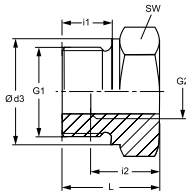
Identification	Working pressure bar	G1	G2	Ø d3 mm	i1 mm	i2 mm	L mm	SW mm
RIK NW 10 03	PN 400	G 3/8" -19	G 1/8" -28	22	12	9	22,5	22
RIK NW 13 03	PN 400	G 1/2" -14	G 1/8" -28	26	14	9	24,0	27
RIK NW 13 06	PN 315	G 1/2" -14	G 1/4" -19	26	14	13	24,0	27
RIK NW 20 06	PN 315	G 3/4" -14	G 1/4" -19	32	16	13	26,0	32
RIK NW 20 10	PN 315	G 3/4" -14	G 3/8" -19	32	16	14	26,0	32
RIK NW 25 06	PN 315	G 1" -11	G 1/4" -19	39	18	14	29,0	41
RIK NW 25 10	PN 315	G 1" -11	G 3/8" -19	39	18	14	29,0	41
RIK NW 25 13	PN 315	G 1" -11	G 1/2" -14	39	18	16	29,0	41
RIK NW 32 13	PN 160	G 1.1/4" -11	G 1/2" -14	49	20	16	32,0	50
RIK NW 32 20	PN 160	G 1.1/4" -11	G 3/4" -14	49	20	18	32,0	50
RIK NW 40 13	PN 160	G 1.1/2" -11	G 1/2" -14	55	22	16	36,0	55
RIK NW 40 20	PN 160	G 1.1/2" -11	G 3/4" -14	55	22	18	36,0	55
RIK NW 40 25	PN 160	G 1.1/2" -11	G 1" -11	55	22	20	36,0	55

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**RIK MG** - Reducing adapter, short, Brass

**RIK VA** - Reducing adapter, short, Stainless steel

**RIK ED****Reducing adapter, short**

**Connection 1:** BSP external thread, cylindrical Shape E  
**Sealing form 1:**  
**Connection 2:** BSP cylindrical internal threads  
**Design:** Reducing adapters  
**Construction:** short  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	G1	G2	Ø d3 mm	i1 mm	i2 mm	L mm	SW mm
RIK NW 10 03 ED	PN 400	G 3/8" -19	G 1/8" -28	21,9	12	9	22,5	22
RIK NW 13 03 ED	PN 400	G 1/2" -14	G 1/8" -28	26,9	14	9	24,0	27
RIK NW 13 06 ED	PN 400	G 1/2" -14	G 1/4" -19	26,9	14	14	24,0	27
RIK NW 20 06 ED	PN 315	G 3/4" -14	G 1/4" -19	31,9	16	14	26,0	32
RIK NW 20 10 ED	PN 315	G 3/4" -14	G 3/8" -19	31,9	16	14	26,0	32
RIK NW 25 06 ED	PN 315	G 1" -11	G 1/4" -19	39,9	18	14	29,0	41
RIK NW 25 10 ED	PN 315	G 1" -11	G 3/8" -19	39,9	18	14	29,0	41
RIK NW 25 13 ED	PN 315	G 1" -11	G 1/2" -14	39,9	18	16	29,0	41
RIK NW 32 13 ED	PN 315	G 1.1/4" -11	G 1/2" -14	49,9	20	16	32,0	50
RIK NW 32 20 ED	PN 315	G 1.1/4" -11	G 3/4" -14	49,9	20	18	32,0	50
RIK NW 40 13 ED	PN 250	G 1.1/2" -11	G 1/2" -14	54,9	22	16	36,0	55
RIK NW 40 20 ED	PN 250	G 1.1/2" -11	G 3/4" -14	54,9	22	18	36,0	55
RIK NW 40 25 ED	PN 250	G 1.1/2" -11	G 1" -11	54,9	22	20	36,0	55

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**RIK ED VA** - Reducing adapter, short, Stainless steel

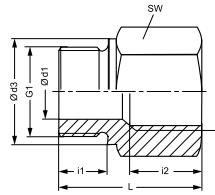
**Spare parts:**

**WD** - Soft seal for ED fittings



## Reducing adapter, long

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape B  
**Connection 2:** BSP cylindrical internal threads  
**Design:** Reducing adapters  
**Construction:** Long  
**Standard:** DIN 2353, ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

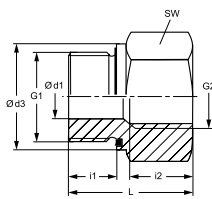
Identification	Working pressure bar	Ø d1 mm	G1	G2	Ø d3 mm	i1 mm	i2 mm	L mm	SW mm
RIL NW 03 06	PN 400	4	G 1/8" -28	G 1/4" -19	14	8	17,0	31,0	19
RIL NW 03 10	PN 400	4	G 1/8" -28	G 3/8" -19	14	8	17,0	32,0	24
RIL NW 06 03	PN 400	5	G 1/4" -19	G 1/8" -28	18	12	12,0	28,0	19
RIL NW 06 06	PN 400	5	G 1/4" -19	G 1/4" -19	18	12	17,0	35,0	19
RIL NW 06 10	PN 400	5	G 1/4" -19	G 3/8" -19	18	12	17,0	36,0	24
RIL NW 06 13	PN 400	5	G 1/4" -19	G 1/2" -14	18	12	20,0	40,0	27
RIL NW 06 20	PN 315	5	G 1/4" -19	G 3/4" -14	18	12	22,0	43,0	36
RIL NW 10 06	PN 400	8	G 3/8" -19	G 1/4" -19	22	12	17,0	36,0	22
RIL NW 10 10	PN 400	8	G 3/8" -19	G 3/8" -19	22	12	17,0	35,5	24
RIL NW 10 13	PN 400	8	G 3/8" -19	G 1/2" -14	22	12	20,0	41,0	27
RIL NW 10 20	PN 315	8	G 3/8" -19	G 3/4" -14	22	12	22,0	44,0	36
RIL NW 13 10	PN 315	12	G 1/2" -14	G 3/8" -19	26	14	17,0	36,0	27
RIL NW 13 13	PN 315	12	G 1/2" -14	G 1/2" -14	26	14	20,0	42,0	27
RIL NW 13 20	PN 315	12	G 1/2" -14	G 3/4" -14	26	14	22,0	46,0	36
RIL NW 13 25	PN 315	12	G 1/2" -14	G 1" -11	26	14	24,5	49,0	41
RIL NW 13 32	PN 160	10	G 1/2" -14	G 1.1/4" -11	26	14	26,5	53,0	55
RIL NW 20 13	PN 315	16	G 3/4" -14	G 1/2" -14	32	16	20,0	41,0	32
RIL NW 20 20	PN 315	16	G 3/4" -14	G 3/4" -14	32	16	22,0	46,0	36
RIL NW 20 25	PN 315	16	G 3/4" -14	G 1" -11	32	16	24,5	51,0	41
RIL NW 20 32	PN 160	16	G 3/4" -14	G 1.1/4" -11	32	16	26,5	55,0	55
RIL NW 20 40	PN 160	16	G 3/4" -14	G 1.1/2" -11	32	16	28,5	57,0	60
RIL NW 25 20	PN 315	20	G 1" -11	G 3/4" -14	39	18	22,0	47,0	41
RIL NW 25 32	PN 160	20	G 1" -11	G 1.1/4" -11	39	18	26,5	57,0	55
RIL NW 25 40	PN 160	20	G 1" -11	G 1.1/2" -11	39	18	28,5	59,0	60
RIL NW 32 25	PN 160	25	G 1.1/4" -11	G 1" -11	49	20	24,5	52,0	50
RIL NW 32 40	PN 160	25	G 1.1/4" -11	G 1.1/2" -11	49	20	28,5	60,0	60
RIL NW 40 32	PN 160	32	G 1.1/2" -11	G 1.1/4" -11	55	22	26,5	58,0	55
RIL NW 50 40	PN 160	40	G 2" -11	G 1.1/2" -11	68	24	28,5	62,0	70

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**RIL MG** - Reducing adapter, long, Brass

**RIL VA** - Reducing adapter, long, Stainless steel

**RIL ED****Reducing adapter, long**

**Connection 1:** BSP external thread, cylindrical Shape E  
**Sealing form 1:**  
**Connection 2:** BSP cylindrical internal threads  
**Design:** Reducing adapters  
**Construction:** Long  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d1 mm	G1	G2	Ø d3 mm	i1 mm	i2 mm	L mm	SW mm
RIL NW 03 06 ED	PN 400	4	G 1/8" -28	G 1/4" -19	13,9	8	17,0	31,0	19
RIL NW 03 10 ED	PN 400	4	G 1/8" -28	G 3/8" -19	13,9	8	17,0	32,0	24
RIL NW 06 03 ED	PN 400	5	G 1/4" -19	G 1/8" -28	18,9	12	12,0	28,0	19
RIL NW 06 10 ED	PN 400	5	G 1/4" -19	G 3/8" -19	18,9	12	17,0	36,0	24
RIL NW 06 13 ED	PN 400	5	G 1/4" -19	G 1/2" -14	18,9	12	20,0	40,0	27
RIL NW 06 20 ED	PN 400	5	G 1/4" -19	G 3/4" -14	18,9	12	22,0	43,0	36
RIL NW 10 06 ED	PN 400	8	G 3/8" -19	G 1/4" -19	21,9	12	17,0	36,0	22
RIL NW 10 13 ED	PN 400	8	G 3/8" -19	G 1/2" -14	21,9	12	20,0	41,0	27
RIL NW 10 20 ED	PN 315	8	G 3/8" -19	G 3/4" -14	21,9	12	22,0	44,0	36
RIL NW 13 10 ED	PN 400	12	G 1/2" -14	G 3/8" -19	26,9	14	17,0	36,0	27
RIL NW 13 20 ED	PN 315	12	G 1/2" -14	G 3/4" -14	26,9	14	22,0	46,0	36
RIL NW 13 25 ED	PN 315	12	G 1/2" -14	G 1" -11	26,9	14	24,5	49,0	41
RIL NW 13 32 ED	PN 315	10	G 1/2" -14	G 1.1/4" -11	26,9	14	26,5	53,0	55
RIL NW 20 13 ED	PN 315	16	G 3/4" -14	G 1/2" -14	31,9	16	20,0	41,0	32
RIL NW 20 25 ED	PN 315	16	G 3/4" -14	G 1" -11	31,9	16	24,5	51,0	41
RIL NW 20 32 ED	PN 315	16	G 3/4" -14	G 1.1/4" -11	31,9	16	26,5	55,0	55
RIL NW 20 40 ED	PN 250	16	G 3/4" -14	G 1.1/2" -11	31,9	16	28,5	57,0	60
RIL NW 25 20 ED	PN 315	20	G 1" -11	G 3/4" -14	39,9	18	22,0	47,0	41
RIL NW 25 32 ED	PN 315	20	G 1" -11	G 1.1/4" -11	39,9	18	26,5	57,0	55
RIL NW 25 40 ED	PN 250	20	G 1" -11	G 1.1/2" -11	39,9	18	28,5	59,0	60
RIL NW 32 25 ED	PN 315	25	G 1.1/4" -11	G 1" -11	49,9	20	24,5	52,0	50
RIL NW 32 40 ED	PN 250	25	G 1.1/4" -11	G 1.1/2" -11	49,9	20	28,5	60,0	60
RIL NW 40 32 ED	PN 250	32	G 1.1/2" -11	G 1.1/4" -11	54,9	22	26,5	58,0	55
RIL NW 50 40 ED	PN 160	40	G 2" -11	G 1.1/2" -11	69,9	24	28,5	65,5	70

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

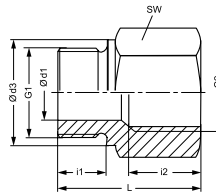
**RIL ED VA** - Reducing adapter, long, Stainless steel

**Spare parts:**

**WD** - Soft seal for ED fittings

**RIL R-M****Reducing adapter, long**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape B  
**Connection 2:** metric cylindrical inner thread  
**Design:** Reducing adapters  
**Construction:** Long  
**Material:** Steel  
**Surface:** electro galvanised

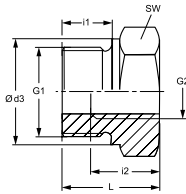


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**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d1 mm	G1	G2	Ø d3 mm	i1 mm	i2 mm	L mm	SW mm
RIL NW 13 M 12	PN 250	10,5	G 1/2" -14	M 12 x 1.5	26	14,0	18	26,5	27
RIL NW 20 M 26	PN 250	16,0	G 3/4" -14	M 26 x 1.5	32	16,5	20	46,0	36
RIL NW 25 M 22	PN 250	20,0	G 1" -11	M 22 x 1.5	39	18,0	18	29,0	41

PN = Nominal pressure PB = Max. operating pressure

**RIK M****Reducing adapter, short**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Connection 2:** metric cylindrical inner thread  
**Design:** Reducing adapters  
**Construction:** short  
**Material:** Steel  
**Surface:** electro galvanised

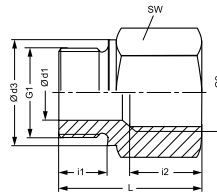
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	G1	G2	Ø d3 mm	i1 mm	i2 mm	L mm	SW mm
RIK M 14 12-1	PN 400	M 14 x 1.5	M 12 x 1	19	12	10	20	24
RIK M 16 12	PN 400	M 16 x 1.5	M 12 x 1.5	21	12	10	24	27
RIK M 16 12-1	PN 400	M 16 x 1.5	M 12 x 1	27	12	12	24	27
RIK M 22 12	PN 400	M 22 x 1.5	M 12 x 1.5	27	14	12	24	27
RIK M 22 14	PN 400	M 22 x 1.5	M 14 x 1.5	27	14	12	24	27

PN = Nominal pressure PB = Max. operating pressure

**RIL M****Reducing adapter, long**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Connection 2:** metric cylindrical inner thread  
**Design:** Reducing adapters  
**Construction:** Long  
**Material:** Steel  
**Surface:** electro galvanised

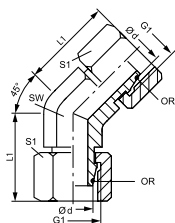


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**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d1 mm	G1	G2	Ø d3 mm	i1 mm	i2 mm	L mm	SW mm
RIL M 18 22	PN 250	8	M 18 x 1.5	M 22 x 1.5	23	12	20	41	32

PN = Nominal pressure PB = Max. operating pressure

**DMO 45****Fitting, double nuts, angle 45°**

**Connection 1 + 2:** metric nut thread  
**Sealing form 1 + 2:** 24° outer cone with O-ring  
**Design:** Fitting, double nuts  
**Construction:** Angle 45°  
**Standard:** DIN 2353, ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised

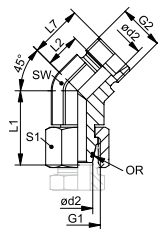
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d mm	G1	L1 mm	SW mm	S1	OR
DMO 45 NW 04 L	L	PN 400	6	M 12 x 1.5	22,5	14	14	4.0 x 1.5
DMO 45 NW 06 L	L	PN 400	8	M 14 x 1.5	23,0	14	17	6.0 x 1.5
DMO 45 NW 08 L	L	PN 400	10	M 16 x 1.5	25,0	19	19	7.5 x 1.5
DMO 45 NW 10 L	L	PN 400	12	M 18 x 1.5	25,5	19	22	9.0 x 1.5
DMO 45 NW 13 L	L	PN 400	15	M 22 x 1.5	27,0	22	27	12.0 x 2.0
DMO 45 NW 16 L	L	PN 315	18	M 26 x 1.5	30,0	27	32	15.0 x 2.0
DMO 45 NW 20 L	L	PN 315	22	M 30 x 2	32,0	30	36	20.0 x 2.0
DMO 45 NW 25 L	L	PN 250	28	M 36 x 2	35,0	36	41	26.0 x 2.0
DMO 45 NW 32 L	L	PN 250	35	M 45 x 2	39,5	50	50	32.0 x 2.5
DMO 45 NW 40 L	L	PN 250	42	M 52 x 2	42,0	50	60	38.0 x 2.5
DMO 45 NW 03 S	S	PN 630	6	M 14 x 1.5	23,5	14	17	4.0 x 1.5
DMO 45 NW 04 S	S	PN 630	8	M 16 x 1.5	26,5	19	19	6.0 x 1.5
DMO 45 NW 06 S	S	PN 630	10	M 18 x 1.5	27,0	19	22	7.5 x 1.5
DMO 45 NW 08 S	S	PN 630	12	M 20 x 1.5	27,5	19	24	9.0 x 1.5
DMO 45 NW 13 S	S	PN 400	16	M 24 x 1.5	31,5	27	30	12.0 x 2.0
DMO 45 NW 16 S	S	PN 400	20	M 30 x 2	36,0	30	36	16.3 x 2.4
DMO 45 NW 20 S	S	PN 400	25	M 36 x 2	40,5	36	46	20.3 x 2.4
DMO 45 NW 25 S	S	PN 400	30	M 42 x 2	44,5	50	50	25.3 x 2.4
DMO 45 NW 32 S	S	PN 315	38	M 52 x 2	50,5	50	60	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d = External pipe diameter

**XVEWO 45****Fitting, angle 45°**

**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** Angle 45°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

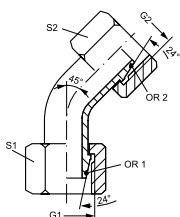
Identification	Series	Working pressure bar	Ø d2 mm	G1 + G2	L1 mm	L2 mm	L7 mm	SW mm	S1	OR
XVEWO 45 NW 04 HL	L	PN 315	6	M 12 x 1.5	26,0	9,0	16,0	14	14	4.0 x 1.5
XVEWO 45 NW 06 HL	L	PN 315	8	M 14 x 1.5	27,5	12,0	27,5	14	17	6.0 x 1.5
XVEWO 45 NW 08 HL	L	PN 315	10	M 16 x 1.5	29,0	12,0	19,0	19	19	7.5 x 1.5
XVEWO 45 NW 10 HL	L	PN 315	12	M 18 x 1.5	29,5	14,0	21,0	19	22	9.0 x 1.5
XVEWO 45 NW 13 HL	L	PN 315	15	M 22 x 1.5	32,5	17,0	24,0	22	27	12.0 x 2.0
XVEWO 45 NW 16 HL	L	PN 315	18	M 26 x 1.5	35,5	16,5	24,0	27	32	15.0 x 2.0
XVEWO 45 NW 20 HL	L	PN 160	22	M 30 x 2	38,5	18,5	26,0	30	36	20.0 x 2.0
XVEWO 45 NW 25 HL	L	PN 160	28	M 36 x 2	41,5	23,0	30,5	36	41	26.0 x 2.0
XVEWO 45 NW 32 HL	L	PN 160	35	M 45 x 2	51,0	26,5	37,0	50	50	32.0 x 2.5
XVEWO 45 NW 40 HL	L	PN 160	42	M 52 x 2	56,0	26,0	37,0	50	60	38.0 x 2.5
XVEWO 45 NW 03 HS	S	PN 630	6	M 14 x 1.5	27,0	9,0	16,0	14	17	4.0 x 1.5
XVEWO 45 NW 04 HS	S	PN 630	8	M 16 x 1.5	27,5	12,0	19,0	19	19	6.0 x 1.5
XVEWO 45 NW 06 HS	S	PN 630	10	M 18 x 1.5	30,0	13,5	21,0	19	22	7.5 x 1.5
XVEWO 45 NW 08 HS	S	PN 630	12	M 20 x 1.5	31,0	16,5	24,0	19	24	9.0 x 1.5
XVEWO 45 NW 13 HS	S	PN 400	16	M 24 x 1.5	36,5	15,5	24,0	19	30	12.0 x 2.0
XVEWO 45 NW 16 HS	S	PN 400	20	M 30 x 2	44,5	16,0	26,5	27	36	16.3 x 2.4
XVEWO 45 NW 20 HS	S	PN 400	25	M 36 x 2	50,0	18,5	30,5	36	46	20.3 x 2.4
XVEWO 45 NW 25 HS	S	PN 400	30	M 42 x 2	55,0	23,5	37,0	50	50	25.3 x 2.4
XVEWO 45 NW 32 HS	S	PN 315	38	M 52 x 2	63,0	21,0	37,0	50	60	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XVEWO 45 VA** - Fitting, angle 45°, Stainless steel

**VEWO 45** - Fitting, angle 45°, Steel

**WB45 AOL****Connection socket, angle 45°**

- Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Connection 2:** metric nut thread  
**Sealing form 2:** 24° outer cone with O-ring  
**Design:** Connecting socket (short pipe bend)  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

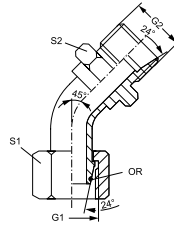
Identification	Series	External pipe Ø mm	Calculation pressure bar	G1 + G2	S1	S2	OR1 + OR2
WB45 NW 04 AOL	L	6	315	M 12 x 1.5	14	14	4.0 x 1.5
WB45 NW 06 AOL	L	8	315	M 14 x 1.5	17	17	6.0 x 1.5
WB45 NW 08 AOL	L	10	315	M 16 x 1.5	19	19	7.5 x 1.5
WB45 NW 10 AOL	L	12	315	M 18 x 1.5	22	22	9.0 x 1.5
WB45 NW 13 AOL	L	15	315	M 22 x 1.5	27	27	12.0 x 2.0
WB45 NW 16 AOL	L	18	315	M 26 x 1.5	32	32	15.0 x 2.0
WB45 NW 20 AOL	L	22	160	M 30 x 2	36	36	20.0 x 2.0
WB45 NW 25 AOL	L	28	160	M 36 x 2	41	41	26.0 x 2.0
WB45 NW 32 AOL	L	35	160	M 45 x 2	50	50	32.0 x 2.5
WB45 NW 40 AOL	L	42	160	M 52 x 2	60	60	38.0 x 2.5

Series: LL = Very light L = Light S = Heavy SW, S1, S2 = With across flats



**WB45 AOL HL****Connection socket, angle 45°**

<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Connecting socket (short pipe bend)
<b>Construction:</b>	Angle 45°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

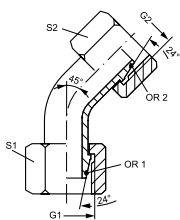


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**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	Calculation pressure bar	G1 + G2	S1	S2	OR
WB45 AOL 04 HL	L	6	315	M 12 x 1.5	14	12	4.0 x 1.5
WB45 AOL 06 HL	L	8	315	M 14 x 1.5	17	14	6.0 x 1.5
WB45 AOL 08 HL	L	10	315	M 16 x 1.5	19	17	7.5 x 1.5
WB45 AOL 10 HL	L	12	315	M 18 x 1.5	22	19	9.0 x 1.5
WB45 AOL 13 HL	L	15	315	M 22 x 1.5	27	22	12.0 x 2.0
WB45 AOL 16 HL	L	18	315	M 26 x 1.5	32	27	15.0 x 2.0
WB45 AOL 20 HL	L	22	160	M 30 x 2	36	30	20.0 x 2.0
WB45 AOL 25 HL	L	28	160	M 36 x 2	41	36	26.0 x 2.0
WB45 AOL 32 HL	L	35	160	M 45 x 2	50	46	32.0 x 2.5
WB45 AOL 40 HL	L	42	160	M 52 x 2	60	55	38.0 x 2.5

Series: LL = Very light L = Light S = Heavy SW, S1, S2 = With across flats

**WB45 AOS****Connection socket, angle 45°**

**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Connection 2:** metric nut thread  
**Sealing form 2:** 24° outer cone with O-ring  
**Design:** Connecting socket (short pipe bend)  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

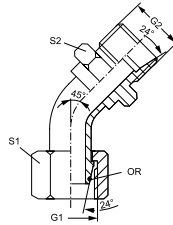
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	Calculation pressure bar	G1 + G2	S1	S2	OR1 + OR2
WB45 NW 03 AOS	S	6	600	M 14 x 1.5	17	17	4.0 x 1.5
WB45 NW 04 AOS	S	8	600	M 16 x 1.5	19	19	6.0 x 1.5
WB45 NW 06 AOS	S	10	600	M 18 x 1.5	22	22	7.5 x 1.5
WB45 NW 08 AOS	S	12	600	M 20 x 1.5	24	24	9.0 x 1.5
WB45 NW 10 AOS	S	14	600	M 22 x 1.5	27	27	10.0 x 2.0
WB45 NW 13 AOS	S	16	400	M 24 x 1.5	30	30	12.0 x 2.0
WB45 NW 16 AOS	S	20	400	M 30 x 2	36	36	16.3 x 2.4
WB45 NW 20 AOS	S	25	400	M 36 x 2	46	46	20.3 x 2.4
WB45 NW 25 AOS	S	30	400	M 42 x 2	50	50	25.3 x 2.4
WB45 NW 32 AOS	S	38	315	M 52 x 2	60	60	33.2 x 2.4

Series: LL = Very light L = Light S = Heavy SW, S1, S2 = With across flats

**WB45 AOS HS****Connection socket, angle 45°**

<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Connecting socket (short pipe bend)
<b>Construction:</b>	Angle 45°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



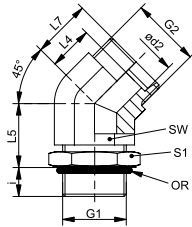
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	Calculation pressure bar	G1 + G2	S1	S2	OR
WB45 AOS 03 HS	S	6	600	M 14 x 1.5	17	14	4.0 x 1.5
WB45 AOS 04 HS	S	8	600	M 16 x 1.5	19	17	6.0 x 1.5
WB45 AOS 06 HS	S	10	600	M 18 x 1.5	22	19	7.5 x 1.5
WB45 AOS 08 HS	S	12	600	M 20 x 1.5	24	22	9.0 x 1.5
WB45 AOS 10 HS	S	14	600	M 22 x 1.5	27	22	10.0 x 2.0
WB45 AOS 13 HS	S	16	400	M 24 x 1.5	30	24	12.0 x 2.0
WB45 AOS 16 HS	S	20	400	M 30 x 2	36	30	16.3 x 2.4
WB45 AOS 20 HS	S	25	400	M 36 x 2	46	36	20.3 x 2.4
WB45 AOS 25 HS	S	30	400	M 42 x 2	50	46	25.3 x 2.4
WB45 AOS 32 HS	S	38	315	M 52 x 2	60	55	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy SW, S1, S2 = With across flats

## XEWOR 45

### Screw-in fitting, angle 45°



- Connection 1:** BSP external thread, cylindrical form G
- Sealing form 1:** metric cylindrical outer thread
- Connection 2:** metric cylindrical outer thread
- Sealing form 2:** 24° inner cone
- Design:** Adjustable direction screw-in fitting
- Construction:** Angle 45°
- Included in scope of supply:** Socket (without union nut and cutting ring)
- Material:** Steel
- Surface:** electro galvanised

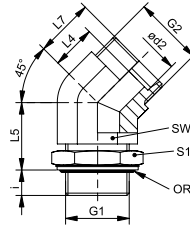
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XEWOR 45 NW 04 HL	L	PN 315	6	G 1/8" -28	M 12 x 1.5	8	9	21	16,0	14	14	8.00 x 1.50
XEWOR 45 NW 06 HL	L	PN 315	8	G 1/4" -19	M 14 x 1.5	9	12	20	19,0	14	19	10.77 x 2.62
XEWOR 45 NW 08 HL	L	PN 315	10	G 1/4" -19	M 16 x 1.5	9	12	25	19,0	19	19	10.77 x 2.62
XEWOR 45 NW 10 HL	L	PN 250	12	G 3/8" -19	M 18 x 1.5	9	14	28	21,0	19	22	13.94 x 2.62
XEWOR 45 NW 13 HL	L	PN 250	15	G 1/2" -14	M 22 x 1.5	13	17	26	24,0	22	27	17.86 x 2.62
XEWOR 45 NW 16 HL	L	PN 250	18	G 1/2" -14	M 26 x 1.5	13	17	32	24,5	27	27	17.86 x 2.62
XEWOR 45 NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	13	19	37	26,5	30	36	23.47 x 2.62
XEWOR 45 NW 25 HL	L	PN 160	28	G 1" -11	M 36 x 2	15	23	37	30,5	36	41	29.74 x 3.53
XEWOR 45 NW 32 HL	L	PN 160	35	G 1.1/4" -11	M 45 x 2	15	27	39	37,5	50	50	37.69 x 3.53
XEWOR 45 NW 40 HL	L	PN 160	42	G 1.1/2" -11	M 52 x 2	15	26	39	37,0	50	55	44.04 x 3.53
XEWOR 45 NW 03 HS	S	PN 315	6	G 1/4" -19	M 14 x 1.5	9	9	19	16,0	14	19	10.77 x 2.62
XEWOR 45 NW 04 HS	S	PN 315	8	G 1/4" -19	M 16 x 1.5	9	12	23	19,0	19	19	10.77 x 2.62
XEWOR 45 NW 06 HS	S	PN 250	10	G 3/8" -19	M 16 x 1.5	9	13	25	20,5	19	22	13.94 x 2.62
XEWOR 45 NW 08 HS	S	PN 250	12	G 3/8" -19	M 20 x 1.5	9	17	25	24,5	22	22	13.94 x 2.62
XEWOR 45 NW 10 HS	S	PN 250	14	G 1/2" -14	M 22 x 1.5	13	16	31	24,5	27	27	17.86 x 2.62
XEWOR 45 NW 13 HS	S	PN 250	16	G 1/2" -14	M 24 x 1.5	13	16	31	24,5	27	27	17.86 x 2.62
XEWOR 45 NW 16 HS	S	PN 250	20	G 3/4" -14	M 30 x 2	12	16	34	26,5	30	36	23.47 x 2.62
XEWOR 45 NW 20 HS	S	PN 250	25	G 1" -11	M 36 x 2	14	19	37	31,0	36	41	29.74 x 3.53
XEWOR 45 NW 25 HS	S	PN 160	30	G 1.1/4" -11	M 42 x 2	15	24	38	37,5	50	50	37.69 x 3.53
XEWOR 45 NW 32 HS	S	PN 160	38	G 1.1/2" -11	M 52 x 2	15	21	38	37,0	50	55	44.04 x 3.53

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XEWORK 45****Screw-in fitting, angle 45°**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** Angle 45°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



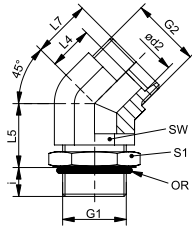
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XEWORK 45 NW 04 HL	L	PN 315	6	G 1/8" -28	M 12 x 1.5	7	9	21	16	14	14	7.65 x 1.78
XEWORK 45 NW 06 HL	L	PN 315	8	G 1/4" -19	M 14 x 1.5	9	12	20	19	14	19	10.78 x 2.62
XEWORK 45 NW 08 HL	L	PN 315	10	G 1/4" -19	M 16 x 1.5	9	12	25	19	19	19	10.78 x 2.62
XEWORK 45 NW 10 HL	L	PN 250	12	G 3/8" -19	M 18 x 1.5	9	14	28	21	19	22	13.94 x 2.62
XEWORK 45 NW 13 HL	L	PN 250	15	G 1/2" -14	M 22 x 1.5	13	17	26	24	22	27	17.86 x 2.62
XEWORK 45 NW 16 HL	L	PN 250	18	G 1/2" -14	M 26 x 1.5	13	17	32	24	27	27	17.86 x 2.62
XEWORK 45 NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	13	19	37	26	30	36	23.47 x 2.62
XEWORK 45 NW 20 HL 27	L	PN 160	22	G 3/4" -14	M 27 x 2	13	19	37	26	30	36	23.47 x 2.62
XEWORK 45 NW 25 HL	L	PN 160	28	G 1" -11	M 36 x 2	15	23	37	31	36	41	29.74 x 3.53
XEWORK 45 NW 32 HL	L	PN 160	35	G 1.1/4" -11	M 45 x 2	15	27	39	37	50	50	37.69 x 3.53
XEWORK 45 NW 40 HL	L	PN 160	42	G 1.1/2" -11	M 52 x 2	15	26	39	37	50	55	44.04 x 3.53
XEWORK 45 NW 03 HS	S	PN 315	6	G 1/4" -19	M 14 x 1.5	9	9	19	16	14	19	10.78 x 2.62
XEWORK 45 NW 04 HS	S	PN 315	8	G 1/4" -19	M 16 x 1.5	9	12	23	19	19	19	10.78 x 2.62
XEWORK 45 NW 06 HS	S	PN 250	10	G 3/8" -19	M 18 x 1.5	9	13	25	21	19	22	13.94 x 2.62
XEWORK 45 NW 08 HS	S	PN 250	12	G 3/8" -19	M 20 x 1.5	9	17	25	24	22	22	13.94 x 2.62
XEWORK 45 NW 10 HS	S	PN 250	14	G 1/2" -14	M 22 x 1.5	13	16	31	24	27	27	17.86 x 2.62
XEWORK 45 NW 13 HS	S	PN 250	16	G 1/2" -14	M 24 x 1.5	13	16	31	24	27	27	17.86 x 2.62
XEWORK 45 NW 16 HS	S	PN 250	20	G 3/4" -14	M 30 x 2	12	16	34	27	30	36	23.47 x 2.62
XEWORK 45 NW 20 HS	S	PN 250	25	G 1" -11	M 36 x 2	14	19	37	31	36	41	29.74 x 3.53
XEWORK 45 NW 25 HS	S	PN 160	30	G 1.1/4" -11	M 42 x 2	15	24	38	37	50	50	37.69 x 3.53
XEWORK 45 NW 32 HS	S	PN 160	38	G 1.1/2" -11	M 52 x 2	15	21	38	37	50	55	44.04 x 3.53

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**EWOK 45** - Screw-in fitting, angle 45°, Socket with union nut and cutting ring, Steel

**XEWOM 45****Screw-in fitting, angle 45°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** Angle 45°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XEWOM 45 NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	8	9	20	16	14	14	8.1 x 1.6
XEWOM 45 NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	11	12	18	19	14	17	9.3 x 2.4
XEWOM 45 NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	11	12	22	19	19	19	11.3 x 2.4
XEWOM 45 NW 10 HL	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	11	14	23	21	19	22	13.3 x 2.4
XEWOM 45 NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	12	17	23	24	22	24	15.3 x 2.4
XEWOM 45 NW 16 HL	L	PN 315	18	M 22 x 1.5	M 26 x 1.5	12	17	30	24	27	27	19.3 x 2.4
XEWOM 45 NW 20 HL 27	L	PN 160	22	M 27 x 2	M 30 x 2	15	19	30	26	30	32	23.6 x 2.9
XEWOM 45 NW 25 HL	L	PN 160	28	M 33 x 2	M 36 x 2	15	23	34	31	36	41	29.5 x 3.0
XEWOM 45 NW 32 HL	L	PN 160	35	M 42 x 2	M 45 x 2	15	27	36	37	50	50	38.0 x 3.0
XEWOM 45 NW 40 HL	L	PN 160	42	M 48 x 2	M 52 x 2	17	26	36	37	50	55	44.5 x 3.0
XEWOM 45 NW 03 HS	S	PN 400	6	M 12 x 1.5	M 14 x 1.5	11	9	18	16	14	17	9.3 x 2.4
XEWOM 45 NW 04 HS	S	PN 400	8	M 14 x 1.5	M 16 x 1.5	11	12	18	19	19	19	11.3 x 2.4
XEWOM 45 NW 06 HS	S	PN 400	10	M 16 x 1.5	M 18 x 1.5	12	13	22	21	19	22	13.3 x 2.4
XEWOM 45 NW 08 HS	S	PN 400	12	M 18 x 1.5	M 20 x 1.5	14	17	23	24	22	24	15.3 x 2.4
XEWOM 45 NW 10 HS	S	PN 400	14	M 20 x 1.5	M 22 x 1.5	14	16	23	24	27	27	17.3 x 2.4
XEWOM 45 NW 13 HS	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	14	16	20	24	27	27	19.3 x 2.4
XEWOM 45 NW 16 HS	S	PN 400	20	M 27 x 2	M 30 x 2	18	16	33	27	30	32	23.6 x 2.9
XEWOM 45 NW 20 HS	S	PN 315	25	M 33 x 2	M 36 x 2	18	19	35	31	36	41	29.5 x 3.0
XEWOM 45 NW 25 HS	S	PN 250	30	M 42 x 2	M 42 x 2	18	24	36	37	50	50	38.0 x 3.0
XEWOM 45 NW 32 HS	S	PN 200	38	M 42 x 2	M 52 x 2	21	21	36	37	50	55	38.0 x 3.0

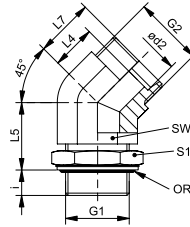
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**EWOM 45** - Screw-in fitting, angle 45°, Socket with union nut and cutting ring, Steel

**XEWOMK 45****Screw-in fitting, angle 45°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** Angle 45°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



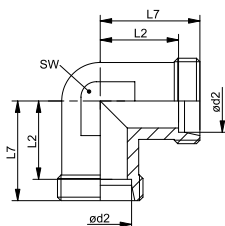
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XEWOMK 45 NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	8	9	20	16	14	13	8.1 x 1.6
XEWOMK 45 NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	11	12	18	19	14	17	9.3 x 2.4
XEWOMK 45 NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	11	12	22	19	19	17	11.3 x 2.4
XEWOMK 45 NW 10 HL	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	11	14	23	21	19	19	13.3 x 2.4
XEWOMK 45 NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	12	17	23	24	22	22	15.3 x 2.4
XEWOMK 45 NW 16 HL	L	PN 250	18	M 22 x 1.5	M 26 x 1.5	12	17	30	24	27	27	19.3 x 2.4
XEWOMK 45 NW 20 HL	L	PN 160	22	M 26 x 1.5	M 30 x 2	16	19	30	26	27	32	23.3 x 2.4
XEWOMK 45 NW20 HL27	L	PN 160	22	M 27 x 2	M 30 x 2	15	19	30	26	30	32	23.6 x 2.9
XEWOMK 45 NW 25 HL	L	PN 160	28	M 33 x 2	M 36 x 2	15	23	34	31	36	38	29.5 x 3.0
XEWOMK 45 NW 32 HL	L	PN 160	35	M 42 x 2	M 45 x 2	15	27	36	37	50	50	38.0 x 3.0
XEWOMK 45 NW 40 HL	L	PN 160	42	M 48 x 2	M 52 x 2	17	26	36	37	50	55	44.5 x 3.0
XEWOMK 45 NW 03 HS	S	PN 315	6	M 12 x 1.5	M 14 x 1.5	11	9	18	16	14	17	9.3 x 2.4
XEWOMK 45 NW 04 HS	S	PN 315	8	M 14 x 1.5	M 16 x 1.5	11	12	18	19	19	17	11.3 x 2.4
XEWOMK 45 NW 06 HS	S	PN 315	10	M 16 x 1.5	M 18 x 1.5	12	13	22	21	19	19	13.3 x 2.4
XEWOMK 45 NW 08 HS	S	PN 315	12	M 18 x 1.5	M 20 x 1.5	14	17	23	24	22	22	15.3 x 2.4
XEWOMK 45 NW 10 HS	S	PN 250	14	M 20 x 1.5	M 22 x 1.5	14	16	30	24	27	27	17.3 x 2.4
XEWOMK 45 NW 13 HS	S	PN 250	16	M 22 x 1.5	M 24 x 1.5	14	16	30	24	27	27	19.3 x 2.4
XEWOMK 45 NW 16 HS	S	PN 250	20	M 27 x 2	M 30 x 2	18	16	33	27	30	32	23.6 x 2.9
XEWOMK 45 NW 20 HS	S	PN 160	25	M 33 x 2	M 36 x 2	18	19	35	31	38	36	29.5 x 3.0
XEWOMK 45 NW 25 HS	S	PN 160	30	M 42 x 2	M 42 x 2	18	24	36	37	50	50	38.0 x 3.0
XEWOMK 45 NW 32 HS	S	PN 160	38	M 48 x 2	M 52 x 2	21	21	36	37	50	55	44.5 x 3.0

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**EWOMK 45 -** Screw-in fitting, angle 45°, Socket with union nut and cutting ring, Steel

**XW****Fitting, angle 90°**

**Connection 1 + 2:** metric cylindrical outer thread  
**Sealing form 1 + 2:** 24° inner cone  
**Design:** Fitting  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	External pipe Ø mm	L2 mm	L7 mm	SW mm
XW 04 LL	LL	PN 100	4	11,0	15	9
XW 05 LL	LL	PN 100	5	9,5	15	9
XW 06 LL	LL	PN 100	6	9,5	15	9
XW 08 LL	LL	PN 100	8	11,5	17	12
XW 10 LL	LL	PN 100	10	12,5	18	14
XW 12 LL	LL	PN 100	12	13,0	19	17
XW NW 04 HL	L	PN 315	6	12,0	19	12
XW NW 06 HL	L	PN 315	8	14,0	21	12
XW NW 08 HL	L	PN 315	10	15,0	22	14
XW NW 10 HL	L	PN 315	12	17,0	24	17
XW NW 13 HL	L	PN 315	15	21,0	28	19
XW NW 16 HL	L	PN 315	18	23,5	31	24
XW NW 20 HL	L	PN 160	22	27,5	35	27
XW NW 25 HL	L	PN 160	28	30,5	38	36
XW NW 32 HL	L	PN 160	35	34,5	45	41
XW NW 40 HL	L	PN 160	42	40,0	51	50
XW NW 03 HS	S	PN 630	6	16,0	23	12
XW NW 04 HS	S	PN 630	8	17,0	24	14
XW NW 06 HS	S	PN 630	10	17,5	25	17
XW NW 08 HS	S	PN 630	12	21,5	29	17
XW NW 10 HS	S	PN 630	14	22,0	30	19
XW NW 13 HS	S	PN 400	16	24,5	33	24
XW NW 16 HS	S	PN 400	20	26,5	37	27
XW NW 20 HS	S	PN 400	25	30,0	42	36
XW NW 25 HS	S	PN 400	30	35,5	49	41
XW NW 32 HS	S	PN 315	38	41,0	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**Product versions:**

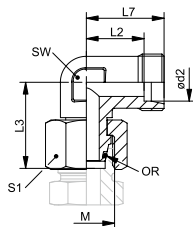
**XW VA** - Fitting, angle 90°, Stainless steel

**W** - Fitting, angle 90°, Steel



**XVEWO****Fitting, angle 90°**

**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** Angle 90°  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

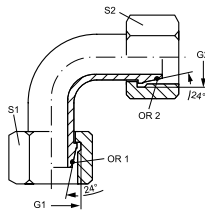
Identification	Series	Working pressure bar	Ø d2 mm	M	L2 mm	L3 mm	L7 mm	SW mm	S1	OR
XVEWO NW 04 HL	L	PN 315	6	M 12 x 1.5	12,0	26,0	19	12	14	4.0 x 1.5
XVEWO NW 06 HL	L	PN 315	8	M 14 x 1.5	14,0	26,5	21	12	17	6.0 x 1.5
XVEWO NW 08 HL	L	PN 315	10	M 16 x 1.5	15,0	29,0	22	14	19	7.5 x 1.5
XVEWO NW 10 HL	L	PN 315	12	M 18 x 1.5	17,0	29,5	24	17	22	9.0 x 1.5
XVEWO NW 13 HL	L	PN 315	15	M 22 x 1.5	21,0	32,5	28	19	27	12.0 x 2.0
XVEWO NW 16 HL	L	PN 315	18	M 26 x 1.5	23,5	35,5	31	24	32	15.0 x 2.0
XVEWO NW 20 HL	L	PN 160	22	M 30 x 2	27,5	39,5	35	27	36	20.0 x 2.0
XVEWO NW 25 HL	L	PN 160	28	M 36 x 2	30,5	43,0	38	36	41	26.0 x 2.0
XVEWO NW 32 HL	L	PN 160	35	M 45 x 2	34,5	51,5	45	41	50	32.0 x 2.5
XVEWO NW 40 HL	L	PN 160	42	M 52 x 2	40,0	56,0	51	50	60	38.0 x 2.5
XVEWO NW 03 HS	S	PN 630	6	M 14 x 1.5	16,0	27,0	23	12	17	4.0 x 1.5
XVEWO NW 04 HS	S	PN 630	8	M 16 x 1.5	17,0	27,5	24	14	19	6.0 x 1.5
XVEWO NW 06 HS	S	PN 630	10	M 18 x 1.5	17,5	30,0	25	17	22	7.5 x 1.5
XVEWO NW 08 HS	S	PN 630	12	M 20 x 1.5	21,5	31,0	29	17	24	9.0 x 1.5
XVEWO NW 10 HS	S	PN 630	14	M 22 x 1.5	22,0	36,5	30	19	27	10.0 x 2.0
XVEWO NW 13 HS	S	PN 400	16	M 24 x 1.5	24,5	37,5	33	24	30	12.0 x 2.0
XVEWO NW 16 HS	S	PN 400	20	M 30 x 2	26,5	45,0	37	27	36	
XVEWO NW 20 HS	S	PN 400	25	M 36 x 2	30,0	50,5	42	36	46	
XVEWO NW 25 HS	S	PN 400	30	M 42 x 2	35,5	55,0	49	41	50	25.3 x 2.4
XVEWO NW 32 HS	S	PN 315	38	M 52 x 2	41,0	63,0	57	50	60	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XVEWO VA** - Fitting, angle 90°, Stainless steel

**VEWO** - Fitting, angle 90°, Steel

**WB90 AOL****Connection socket, angle 90°**

<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	metric nut thread
<b>Sealing form 2:</b>	24° outer cone with O-ring
<b>Design:</b>	Connecting socket (short pipe bend)
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

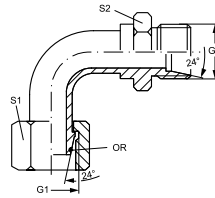
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	Calculation pressure bar	G1 + G2	S1	S2	OR1 + OR2
WB90 NW 04 AOL	L	6	315	M 12 x 1.5	14	14	4.0 x 1.5
WB90 NW 06 AOL	L	8	315	M 14 x 1.5	17	17	6.0 x 1.5
WB90 NW 08 AOL	L	10	315	M 16 x 1.5	19	19	7.5 x 1.5
WB90 NW 10 AOL	L	12	315	M 18 x 1.5	22	22	9.0 x 1.5
WB90 NW 13 AOL	L	15	315	M 22 x 1.5	27	27	12.0 x 2.0
WB90 NW 16 AOL	L	18	315	M 26 x 1.5	32	32	15.0 x 2.0
WB90 NW 20 AOL	L	22	160	M 30 x 2	36	36	20.0 x 2.0
WB90 NW 25 AOL	L	28	160	M 36 x 2	41	41	26.0 x 2.0
WB90 NW 32 AOL	L	35	160	M 45 x 2	50	50	32.0 x 2.5
WB90 NW 40 AOL	L	42	160	M 52 x 2	60	60	38.0 x 2.5

Series: LL = Very light L = Light S = Heavy SW, S1, S2 = With across flats

**WB90 AOL HL****Connection socket, angle 90°**

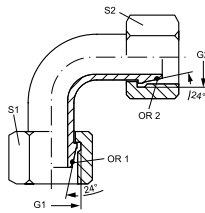
<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Connecting socket (short pipe bend)
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	Calculation pressure bar	G1 + G2	S1	S2	OR
WB90 AOL 04 HL	L	6	315	M 12 x 1.5	14	14	4.0 x 1.5
WB90 AOL 06 HL	L	8	315	M 14 x 1.5	17	14	6.0 x 1.5
WB90 AOL 08 HL	L	10	315	M 16 x 1.5	19	17	7.5 x 1.5
WB90 AOL 10 HL	L	12	315	M 18 x 1.5	22	19	9.0 x 1.5
WB90 AOL 13 HL	L	15	315	M 22 x 1.5	27	22	12.0 x 2.0
WB90 AOL 16 HL	L	18	315	M 26 x 1.5	32	27	15.0 x 2.0
WB90 AOL 20 HL	L	22	160	M 30 x 2	36	36	20.0 x 2.0
WB90 AOL 25 HL	L	28	160	M 36 x 2	41	36	26.0 x 2.0
WB90 AOL 32 HL	L	35	160	M 42 x 2	50	46	32.0 x 2.5
WB90 AOL 40 HL	L	42	160	M 52 x 2	60	55	38.0 x 2.5

Series: LL = Very light L = Light S = Heavy SW, S1, S2 = With across flats

**WB90 AOS****Connection socket, angle 90°**

**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Connection 2:** metric nut thread  
**Sealing form 2:** 24° outer cone with O-ring  
**Design:** Connecting socket (short pipe bend)  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

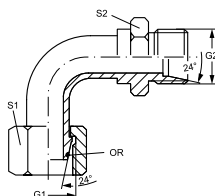
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	Calculation pressure bar	G1 + G2	S1	S2	OR1 + OR2
WB90 NW 03 AOS	S	6	600	M 14 x 1.5	17	17	4.0 x 1.5
WB90 NW 04 AOS	S	8	600	M 16 x 1.5	19	19	6.0 x 1.5
WB90 NW 06 AOS	S	10	600	M 18 x 1.5	22	22	7.5 x 1.5
WB90 NW 08 AOS	S	12	600	M 20 x 1.5	24	24	9.0 x 1.5
WB90 NW 10 AOS	S	14	600	M 22 x 1.5	27	27	10.0 x 2.0
WB90 NW 13 AOS	S	16	400	M 24 x 1.5	30	30	12.0 x 2.0
WB90 NW 16 AOS	S	20	400	M 30 x 2	36	36	16.3 x 2.4
WB90 NW 20 AOS	S	25	400	M 36 x 2	46	46	20.3 x 2.4
WB90 NW 25 AOS	S	30	400	M 42 x 2	50	50	25.3 x 2.4
WB90 NW 32 AOS	S	38	360	M 52 x 2	60	60	33.2 x 2.4

Series: LL = Very light L = Light S = Heavy SW, S1, S2 = With across flats

**WB90 AOS HS****Connection socket, angle 90°**

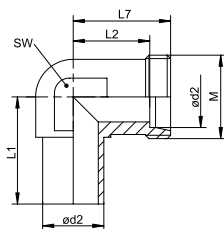
<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Connecting socket (short pipe bend)
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	Calculation pressure bar	G1 + G2	S1	S2	OR
WB90 AOS 03 HS	S	6	600	M 14 x 1.5	17	14	4.0 x 1.5
WB90 AOS 04 HS	S	8	600	M 16 x 1.5	19	17	6.0 x 1.5
WB90 AOS 06 HS	S	10	600	M 18 x 1.5	22	19	7.5 x 1.5
WB90 AOS 08 HS	S	12	600	M 20 x 1.5	24	22	9.0 x 1.5
WB90 AOS 10 HS	S	14	600	M 22 x 1.5	27	22	10.0 x 2.0
WB90 AOS 13 HS	S	16	400	M 24 x 1.5	30	24	12.0 x 2.0
WB90 AOS 16 HS	S	20	400	M 30 x 2	36	30	16.3 x 2.4
WB90 AOS 20 HS	S	25	400	M 36 x 2	46	36	20.3 x 2.4
WB90 AOS 25 HS	S	30	400	M 42 x 2	50	46	25.3 x 2.4
WB90 AOS 32 HS	S	38	360	M 52 x 2	60	55	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy SW, S1, S2 = With across flats

**XNEW****Fitting, angle 90°**

**Connection 1:** Pipe socket not pre-assembled  
**Sealing form 1:** Cutting ring connection  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** Angle 90°  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	M	L1 mm	L2 mm	L7 mm	SW mm	S1
XNEW NW 04 HL	L	PN 315	6	M 12 x 1.5	26,0	12,0	19	12	14
XNEW NW 06 HL	L	PN 315	8	M 14 x 1.5	27,5	14,0	21	12	17
XNEW NW 08 HL	L	PN 315	10	M 16 x 1.5	29,0	15,0	22	14	19
XNEW NW 10 HL	L	PN 315	12	M 18 x 1.5	29,5	17,0	24	17	22
XNEW NW 13 HL	L	PN 315	15	M 22 x 1.5	32,5	21,0	28	19	27
XNEW NW 16 HL	L	PN 315	18	M 26 x 1.5	35,5	23,5	31	24	32
XNEW NW 20 HL	L	PN 160	22	M 30 x 2	38,5	27,5	35	27	36
XNEW NW 25 HL	L	PN 160	28	M 36 x 2	42,0	30,5	38	36	41
XNEW NW 32 HL	L	PN 160	35	M 45 x 2	51,0	34,5	45	41	50
XNEW NW 40 HL	L	PN 160	42	M 52 x 2	60,0	40,0	51	50	60
XNEW NW 03 HS	S	PN 630	6	M 14 x 1.5	27,0	16,0	23	12	17
XNEW NW 04 HS	S	PN 630	8	M 16 x 1.5	27,5	17,0	24	14	19
XNEW NW 06 HS	S	PN 630	10	M 18 x 1.5	31,0	17,5	25	17	22
XNEW NW 08 HS	S	PN 630	12	M 20 x 1.5	31,0	21,5	29	17	24
XNEW NW 10 HS	S	PN 630	14	M 22 x 1.5	35,0	22,0	30	19	27
XNEW NW 13 HS	S	PN 400	16	M 24 x 1.5	34,5	24,5	33	24	30
XNEW NW 16 HS	S	PN 400	20	M 30 x 2	44,5	26,5	37	27	36
XNEW NW 20 HS	S	PN 400	25	M 36 x 2	50,0	30,0	42	36	46
XNEW NW 25 HS	S	PN 400	30	M 42 x 2	55,0	35,5	49	41	50
XNEW NW 32 HS	S	PN 315	38	M 52 x 2	66,5	41,0	57	50	60

PN = Nominal pressure    PB = Max. operating pressure    Series: LL = Very light    L = Light    S = Heavy    Ø d2 = External pipe diameter

**Product versions:**

XNEW VA - Fitting, angle 90°, Stainless steel

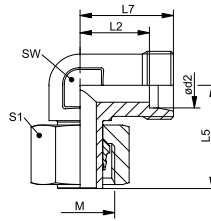
NEW - Fitting, angle 90°, Steel

**Additional elements:**

VOM - Pre-assembly sockets

**XVEW****Fitting, angle 90°**

**Connection 1:** metric nut thread  
**Sealing form 1:** Pipe socket with cutting ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring), pre-assembled  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

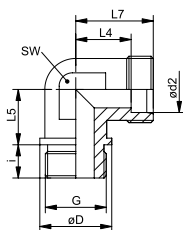
Identification	Series	Working pressure bar	Ø d2 mm	M	L2 mm	L5 mm	L7 mm	SW mm	S1
XVEW NW 04 HL	L	PN 315	6	M 12 x 1.5	12,0	26,0	19	12	14
XVEW NW 06 HL	L	PN 315	8	M 14 x 1.5	14,0	27,5	21	12	17
XVEW NW 08 HL	L	PN 315	10	M 16 x 1.5	15,0	29,0	22	14	19
XVEW NW 10 HL	L	PN 315	12	M 18 x 1.5	17,0	29,5	24	17	22
XVEW NW 13 HL	L	PN 315	15	M 22 x 1.5	21,0	32,5	28	19	27
XVEW NW 16 HL	L	PN 315	18	M 26 x 1.5	23,5	35,5	31	24	32
XVEW NW 20 HL	L	PN 160	22	M 30 x 2	27,5	38,5	35	27	36
XVEW NW 25 HL	L	PN 160	28	M 36 x 2	30,5	41,5	38	36	41
XVEW NW 32 HL	L	PN 160	35	M 45 x 2	34,5	51,0	45	41	50
XVEW NW 40 HL	L	PN 160	42	M 52 x 2	40,0	56,0	51	50	60
XVEW NW 03 HS	S	PN 630	6	M 14 x 1.5	16,0	27,0	23	12	17
XVEW NW 04 HS	S	PN 630	8	M 16 x 1.5	17,0	27,5	24	14	19
XVEW NW 06 HS	S	PN 630	10	M 18 x 1.5	17,5	30,0	25	17	22
XVEW NW 08 HS	S	PN 630	12	M 20 x 1.5	21,5	31,0	29	17	24
XVEW NW 10 HS	S	PN 630	14	M 22 x 1.5	22,0	35,0	30	19	27
XVEW NW 13 HS	S	PN 400	16	M 24 x 1.5	24,5	36,5	33	24	30
XVEW NW 16 HS	S	PN 400	20	M 30 x 2	26,5	44,5	37	27	36
XVEW NW 20 HS	S	PN 400	25	M 36 x 2	30,0	50,0	42	36	46
XVEW NW 25 HS	S	PN 400	30	M 42 x 2	35,5	55,0	49	41	50
XVEW NW 32 HS	S	PN 315	38	M 52 x 2	41,0	63,0	57	50	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XVEW VA** - Fitting, angle 90°, Stainless steel

**VEW** - Fitting, angle 90°, Steel

**XWR****Screw-in fitting, angle 90°**

**Connection 1:** BSP external thread, cylindrical Shape B  
**Sealing form 1:** metric cylindrical outer thread  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L4 mm	L5 mm	L7 mm	SW mm
XWR NW 20 HL	L	PN 160	22	G 3/4" -14	32	16	27,5	26	35	27
XWR NW 25 HL	L	PN 160	28	G 1" -11	39	18	30,5	30	38	36
XWR NW 32 HL	L	PN 160	35	G 1.1/4" -11	49	20	34,5	34	45	41
XWR NW 40 HL	L	PN 160	42	G 1.1/2" -11	55	22	40,0	39	51	50
XWR NW 16 HS	S	PN 160	20	G 3/4" -14	32	16	26,5	26	32	27
XWR NW 20 HS	S	PN 160	25	G 1" -11	39	18	30,0	30	42	36
XWR NW 25 HS	S	PN 160	30	G 1.1/4" -11	49	20	35,5	34	49	41
XWR NW 32 HS	S	PN 160	38	G 1.1/2" -11	55	22	41,0	39	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

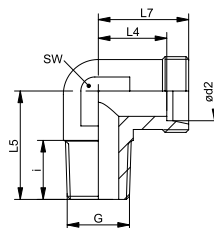
**XWR VA** - Screw-in fitting, angle 90°, Stainless steel

**WR** - Screw-in fitting, angle 90°, Steel



**XWRK****Screw-in fitting, angle 90°**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

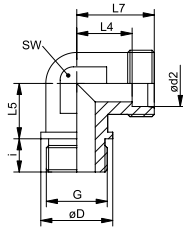
Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L4 mm	L5 mm	L7 mm	SW mm
XWR 04 LL	LL	PN 100	4	R 1/8" K	8	11,0	17,0	15,0	9
XWR 05 LL	LL	PN 100	5	R 1/8" K	8	8,0	17,0	13,5	9
XWR 06 LL	LL	PN 100	6	R 1/8" K	8	9,5	17,0	15,0	9
XWR 08 LL	LL	PN 100	8	R 1/8" K	8	11,5	20,0	17,0	12
XWR 10 LL	LL	PN 100	10	R 1/4" K	12	15,5	26,0	21,0	14
XWR 12 LL	LL	PN 100	12	R 1/4" K	12	12,0	21,5	18,0	17
XWR NW 04 HL	L	PN 315	6	R 1/8" K	8	12,0	20,0	19,0	12
XWR NW 04 HL 1/4	L	PN 315	6	R 1/4" K	12	14,0	26,0	21,0	12
XWR NW 04 HL 3/8	L	PN 315	6	R 3/8" K	12	17,0	28,0	24,0	17
XWR NW 06 HL	L	PN 315	8	R 1/4" K	12	14,0	26,0	21,0	12
XWR NW 06 HL 1/8	L	PN 315	8	R 1/8" K	8	14,0	26,0	21,0	12
XWR NW 06 HL 3/8	L	PN 315	8	R 3/8" K	12	19,0	28,0	26,0	17
XWR NW 06 HL 1/2	L	PN 315	8	R 1/2" K	13	20,0	34,0	27,0	19
XWR NW 08 HL	L	PN 315	10	R 1/4" K	12	15,0	27,0	22,0	14
XWR NW 08 HL 1/8	L	PN 315	10	R 1/8" K	8	15,0	27,0	22,0	14
XWR NW 08 HL 3/8	L	PN 315	10	R 3/8" K	12	17,0	28,0	24,0	17
XWR NW 08 HL 1/2	L	PN 316	10	R 1/2" K	14	23,0	34,0	30,0	19
XWR NW 10 HL	L	PN 315	12	R 3/8" K	12	17,0	28,0	24,0	17
XWR NW 10 HL 1/4	L	PN 315	12	R 1/4" K	12	17,0	28,0	24,0	17
XWR NW 10 HL 1/2	L	PN 315	12	R 1/2" K	14	23,0	34,0	30,0	19
XWR NW 10 HL 3/4	L	PN 315	12	R 3/4" K	16	28,0	42,0	35,0	27
XWR NW 13 HL	L	PN 315	15	R 1/2" K	14	21,0	34,0	28,0	19
XWR NW 13 HL 1/4	L	PN 315	15	R 1/4" K	12	21,0	34,0	28,0	19
XWR NW 13 HL 3/8	L	PN 315	15	R 3/8" K	12	21,0	34,0	28,0	19
XWR NW 16 HL	L	PN 315	18	R 1/2" K	14	23,5	36,0	31,0	24
XWR NW 16 HL 3/8	L	PN 315	18	R 3/8" K	12	23,5	36,0	31,0	24
XWR NW 16 HL 3/4	L	PN 315	18	R 3/4" K	16	27,5	42,0	35,0	27
XWRK NW 20 HL	L	PN 160	22	R 3/4" K	16	27,5	42,0	35,0	27
XWR NW 03 HS	S	PN 400	6	R 1/4" K	12	16,0	26,0	23,0	12
XWR NW 04 HS	S	PN 400	8	R 1/4" K	12	17,0	27,0	24,0	14
XWR NW 06 HS	S	PN 400	10	R 3/8" K	12	17,5	28,0	25,0	17
XWR NW 08 HS	S	PN 400	12	R 3/8" K	12	21,5	28,0	29,0	17
XWR NW 08 HS 1/2	S	PN 400	12	R 1/2" K	14	23,5	34,0	31,0	19
XWR NW 10 HS	S	PN 400	14	R 1/2" K	14	22,0	32,0	30,0	19
XWR NW 13 HS	S	PN 400	16	R 1/2" K	14	24,5	32,0	33,0	24
XWR NW 16 HS 1/2	S	PN 400	20	R 1/2" K	14	26,5	42,0	37,0	27
XWR NW 13 HS 3/8	S	PN 400	16	R 3/8" K	12	24,5	32,0	33,0	24

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure, PB = Max. operating pressure Ø d2 = Ext. pipe diameter

**Product versions:**

XWRK VA - Screw-in fitting, angle 90°, Stainless steel

WRK - Screw-in fitting, angle 90°, Steel

**XWM****Screw-in fitting, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	D mm	i mm	L4 mm	L5 mm	L7 mm	SW mm
XWM NW 20 HL	L	PN 160	22	M 26 x 1.5	31	16	27,5	26	35	27
XWM NW 25 HL	L	PN 160	28	M 33 x 2	39	18	30,5	30	38	36
XWM NW 32 HL	L	PN 160	35	M 42 x 2	49	20	34,5	34	45	41
XWM NW 40 HL	L	PN 160	42	M 48 x 2	55	22	40,0	39	51	50
XWM NW 16 HS	S	PN 400	20	M 27 x 2	32	16	26,5	26	37	27
XWM NW 20 HS	S	PN 250	25	M 33 x 2	39	18	30,0	30	42	36
XWM NW 25 HS	S	PN 160	30	M 42 x 2	49	20	35,5	34	49	41
XWM NW 32 HS	S	PN 160	38	M 48 x 2	55	22	41,0	39	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

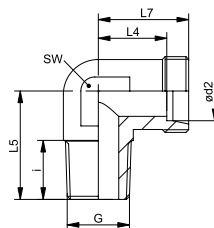
**Product versions:**

**XWM VA** - Screw-in fitting, angle 90°, Stainless steel

**WM** - Screw-in fitting, angle 90°, Steel

**XWMK****Screw-in fitting, angle 90°**

**Connection 1:** metric conical outer thread  
**Sealing form 1:** thread seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

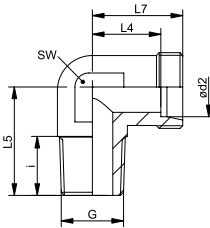
Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L4 mm	L5 mm	L7 mm	SW mm
XWM 04 LL	LL	PN 100	4	M 8 x 1 K	8,0	11,0	17	15	9
XWM 04 LL 6	LL	PN 100	4	M 6 x 1 K	8,0	11,0	17	15	9
XWM 05 LL	LL	PN 100	5	M 8 x 1 K	8,0	9,5	17	15	9
XWM 06 LL 6	LL	PN 100	6	M 6 x 1 K	7,0	9,5	17	15	9
XWM 06 LL 8	LL	PN 100	6	M 8 x 1 K	8,0	9,5	17	15	9
XWM 06 LL	LL	PN 100	6	M 10 x 1 K	9,0	9,5	17	15	9
XWM 08 LL	LL	PN 100	8	M 10 x 1 K	10,0	11,5	20	17	12
XWM NW 04 HL	L	PN 315	6	M 10 x 1 K	8,0	12,0	20	19	12
XWM NW 04 HL 12	L	PN 315	6	M 12 x 1.5 K	12,0	12,0	22	19	12
XWM NW 06 HL	L	PN 315	8	M 12 x 1.5 K	12,0	14,0	26	21	12
XWM NW 08 HL	L	PN 315	10	M 14 x 1.5 K	11,5	15,0	27	22	14
XWM NW 08 HL 16	L	PN 315	10	M 16 x 1.5 K	11,5	15,0	28	22	14
XWM NW 10 HL	L	PN 315	12	M 16 x 1.5 K	11,5	17,0	28	24	17
XWM NW 13 HL	L	PN 315	15	M 18 x 1.5 K	13,5	21,0	32	28	19
XWM NW 16 HL	L	PN 315	18	M 22 x 1.5 K	15,0	23,5	36	31	24
XWM NW 03 HS	S	PN 400	6	M 12 x 1.5 K	12,0	16,0	26	23	12
XWM NW 04 HS	S	PN 400	8	M 14 x 1.5 K	12,0	17,0	27	24	14
XWM NW 06 HS	S	PN 400	10	M 16 x 1.5 K	12,0	17,5	28	25	17
XWM NW 08 HS	S	PN 400	12	M 18 x 1.5 K	12,0	21,5	28	29	17
XWM NW 10 HS	S	PN 400	14	M 20 x 1.5 K	14,0	22,0	32	30	19
XWM NW 13 HS	S	PN 400	16	M 22 x 1.5 K	14,0	24,5	32	33	24

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XWMK VA** - Screw-in fitting, angle 90°, Stainless steel

**WMK** - Screw-in fitting, angle 90°, Steel

**XWN****Screw-in fitting, angle 90°**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	External pipe Ø mm	G	i mm	L4 mm	L5 mm	L7 mm	SW mm
XWN 04 LL	LL	PN 100	4	1/8" -27 NPT	8,0	11,0	17	15,0	9
XWN 05 LL	LL	PN 100	5	1/8" -27 NPT	8,0	11,0	17	15,0	9
XWN 06 LL	LL	PN 100	6	1/8" -27 NPT	8,0	9,5	17	15,0	9
XWN 08 LL	LL	PN 100	8	1/8" -27 NPT	10,0	11,5	20	17,0	12
XWN NW 04 HL	L	PN 315	6	1/8" -27 NPT	10,0	12,0	20	19,0	12
XWN NW 04 HL 1/4	L	PN 315	6	1/4" -18 NPT	12,0	14,0	26	21,0	12
XWN NW 04 HL 1/2	L	PN 315	6	1/2" -14 NPT	17,0	23,0	34	30,0	19
XWN NW 06 HL	L	PN 315	8	1/4" -18 NPT	12,0	14,0	26	21,0	12
XWN NW 06 HL 3/8	L	PN 315	8	3/8" -18 NPT	15,2	11,5	20	18,5	12
XWN NW 06 HL 1/2	L	PN 315	8	1/2" -14 NPT	17,5	15,0	26	22,0	12
XWN NW 08 HL	L	PN 315	10	1/4" -18 NPT	14,0	15,0	27	22,0	14
XWN NW 08 HL 3/8	L	PN 315	10	3/8" -18 NPT	15,2	15,0	27	22,0	14
XWN NW 10 HL	L	PN 315	12	3/8" -18 NPT	12,5	17,0	28	24,0	17
XWN NW 10 HL 1/4	L	PN 315	12	1/4" -18 NPT	14,0	17,0	28	24,0	17
XWN NW 10 HL 1/2	L	PN 315	12	1/2" -14 NPT	19,0	23,0	34	30,0	19
XWN NW 13 HL	L	PN 315	15	1/2" -14 NPT	18,5	21,0	34	28,0	19
XWN NW 13 HL 3/8	L	PN 315	15	3/8" -18 NPT	13,0	21,0	34	28,0	19
XWN NW 16 HL	L	PN 315	18	1/2" -14 NPT	20,0	23,5	36	31,0	24
XWN NW 16 HL 3/4	L	PN 315	18	3/4" -14 NPT	18,5	23,5	40	31,0	24
XWN NW 20 HL	L	PN 160	22	3/4" -14 NPT	18,5	27,5	42	35,0	27
XWN NW 25 HL	L	PN 160	28	1" -11.5 NPT	24,0	30,5	48	38,0	36
XWN NW 32 HL	L	PN 160	35	1.1/4" -11.5 NPT	25,5	34,5	54	45,0	41
XWN NW 40 HL	L	PN 160	42	1.1/2" -11.5 NPT	26,0	40,0	61	51,0	50
XWN NW 03 HS	S	PN 630	6	1/4" -18 NPT	12,0	16,0	26	23,0	12
XWN NW 04 HS	S	PN 630	8	1/4" -18 NPT	15,0	17,0	27	24,0	14
XWN NW 06 HS	S	PN 630	10	3/8" -18 NPT	12,0	17,5	28	25,0	17
XWN NW 08 HS	S	PN 630	12	3/8" -18 NPT	12,5	21,5	28	29,0	17
XWN NW 10 HS	S	PN 630	14	1/2" -14 NPT	18,0	22,0	34	30,0	19
XWN NW 13 HS	S	PN 400	16	1/2" -14 NPT	19,0	24,5	36	33,0	24
XWN NW 13 HS 3/4	S	PN 400	16	3/4" -14 NPT	20,0	24,5	40	33,0	24
XWN NW 16 HS	S	PN 400	20	3/4" -14 NPT	20,0	26,6	42	37,0	27
XWN NW 20 HS	S	PN 400	25	1" -11.5 NPT	24,0	30,0	48	42,0	36
XWN NW 25 HS	S	PN 400	30	1.1/4" -11.5 NPT	25,5	35,5	54	49,0	41
XWN NW 32 HS	S	PN 315	38	1.1/2" -11.5 NPT	26,0	41,0	61	57,0	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

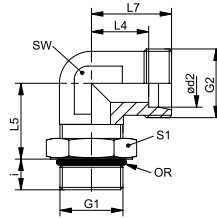
**Product versions:**

**XWN VA** - Screw-in fitting, angle 90°, Stainless steel

**WN** - Screw-in fitting, angle 90°, Steel

**XEWOR****Screw-in fitting, angle 90°**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** Angle 90°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XEWOR NW 04 HL	L	PN 250	6	G 1/8" -28	M 12 x 1.5	8	12,0	21,5	19	12	14	8.0 x 1.5
XEWOR NW 06 HL	L	PN 250	8	G 1/4" -19	M 14 x 1.5	12	14,0	26,0	21	14	19	10.0 x 2.0
XEWOR NW 06 HL 3/8	L	PN 250	8	G 3/8" -19	M 14 x 1.5	12	17,0	28,5	24	17	22	14.0 x 2.5
XEWOR NW 08 HL	L	PN 250	10	G 1/4" -19	M 16 x 1.5	12	15,0	26,0	22	14	19	10.0 x 2.0
XEWOR NW 10 HL	L	PN 250	12	G 3/8" -19	M 18 x 1.5	12	17,0	28,5	24	17	22	14.0 x 2.5
XEWOR NW 13 HL	L	PN 250	15	G 1/2" -14	M 22 x 1.5	14	21,0	33,5	28	19	27	18.0 x 3.0
XEWOR NW 16 HL	L	PN 160	18	G 1/2" -14	M 26 x 1.5	14	23,5	36,5	31	24	27	18.0 x 3.0
XEWOR NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	16	27,5	41,0	35	27	32	23.5 x 3.0
XEWOR NW 25 HL	L	PN 100	28	G 1" -11	M 36 x 2	18	30,5	45,0	38	36	41	29.0 x 3.5
XEWOR NW 32 HL	L	PN 100	35	G 1.1/4" -11	M 45 x 2	20	34,5	50,0	45	41	50	38.0 x 3.5
XEWOR NW 40 HL	L	PN 100	42	G 1.1/2" -11	M 52 x 2	22	40,0	56,0	51	50	55	44.0 x 3.5
XEWOR NW 03 HS	S	PN 630	6	G 1/4" -19	M 14 x 1.5	12	15,0	26,0	22	12	19	10.0 x 2.0
XEWOR NW 04 HS	S	PN 630	8	G 1/4" -19	M 16 x 1.5	12	17,0	27,0	24	14	19	10.0 x 2.0
XEWOR NW 06 HS	S	PN 630	10	G 3/8" -19	M 18 x 1.5	12	17,5	28,5	25	17	22	14.0 x 2.5
XEWOR NW 08 HS	S	PN 630	12	G 3/8" -19	M 20 x 1.5	12	21,5	32,5	29	19	22	14.0 x 2.5
XEWOR NW 10 HS	S	PN 630	14	G 1/2" -14	M 22 x 1.5	14	22,0	33,5	30	19	27	18.0 x 3.0
XEWOR NW 13 HS	S	PN 400	16	G 1/2" -14	M 24 x 1.5	14	24,5	36,5	33	24	27	18.0 x 3.0
XEWOR NW 16 HS	S	PN 400	20	G 3/4" -14	M 30 x 2	16	26,5	41,0	39	27	32	23.5 x 3.0
XEWOR NW 20 HS	S	PN 400	25	G 1" -11	M 36 x 2	18	30,0	45,0	42	36	41	29.0 x 3.5
XEWOR NW 25 HS	S	PN 250	30	G 1.1/4" -11	M 42 x 2	20	35,5	50,0	49	41	50	38.0 x 3.5
XEWOR NW 32 HS	S	PN 250	38	G 1.1/2" -11	M 52 x 2	22	41,0	56,0	57	50	55	44.0 x 3.5

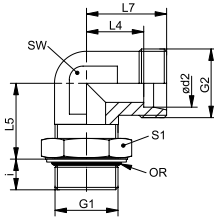
PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

**Product versions:**

**EWOR** - Screw-in fitting, angle 90°, Socket with union nut and cutting ring, Steel

## XEWORK

### Screw-in fitting, angle 90°



**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** Angle 90°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XEWORK 04 LL	LL	PN 250	4	G 1/8" -28	M 8 x 1	7,1	11,3	20	15	11	14	7.65 x 1.78
XEWORK 06 LL	LL	PN 250	6	G 1/8" -28	M 10 x 1	7,1	11,3	20	15	11	14	7.65 x 1.78
XEWORK NW 04 HL	L	PN 315	6	G 1/8" -28	M 12 x 1.5	7,0	14,0	19	21	14	14	7.65 x 1.78
XEWORK NW 06 HL	L	PN 315	8	G 1/4" -19	M 14 x 1.5	9,0	16,0	23	23	14	19	10.78 x 2.62
XEWORK NW 06 HL 3/8	L	PN 315	8	G 3/8" -19	M 14 x 1.5	9,0	16,0	23	23	19	22	13.94 x 2.62
XEWORK NW 08 HL	L	PN 315	10	G 1/4" -19	M 16 x 1.5	9,0	17,0	25	24	19	19	10.77 x 2.62
XEWORK NW 10 HL	L	PN 250	12	G 3/8" -19	M 18 x 1.5	9,0	19,0	28	26	19	22	13.94 x 2.62
XEWORK NW 13 HL	L	PN 250	15	G 1/2" -14	M 22 x 1.5	13,0	21,0	30	28	22	27	17.86 x 2.62
XEWORK NW 16 HL	L	PN 250	18	G 1/2" -14	M 26 x 1.5	13,0	24,0	36	31	27	27	17.86 x 2.62
XEWORK NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	13,0	28,0	36	35	30	36	23.47 x 2.62
XEWORK NW 25 HL	L	PN 160	28	G 1" -11	M 36 x 2	15,0	31,0	44	38	36	41	29.74 x 3.53
XEWORK NW 32 HL	L	PN 160	35	G 1.1/4" -11	M 45 x 2	15,0	38,0	50	48	50	50	37.69 x 3.53
XEWORK NW 40 HL	L	PN 160	42	G 1.1/2" -11	M 52 x 2	15,0	38,0	52	49	50	55	44.04 x 3.53
XEWORK NW 03 HS	S	PN 315	6	G 1/4" -19	M 14 x 1.5	9,0	15,0	23	22	14	19	10.77 x 2.62
XEWORK NW 04 HS	S	PN 315	8	G 1/4" -19	M 16 x 1.5	9,0	17,0	27	24	19	19	10.77 x 2.62
XEWORK NW 06 HS	S	PN 250	10	G 3/8" -19	M 18 x 1.5	9,0	18,0	29	25	19	22	13.94 x 2.62
XEWORK NW 08 HS	S	PN 250	12	G 3/8" -19	M 20 x 1.5	9,0	22,0	29	29	22	22	13.94 x 2.62
XEWORK NW 10 HS	S	PN 250	14	G 1/2" -14	M 22 x 1.5	13,0	25,0	36	33	27	27	18.00 x 3.00
XEWORK NW 13 HS	S	PN 250	16	G 1/2" -14	M 24 x 1.5	13,0	25,0	36	33	27	27	17.86 x 2.62
XEWORK NW 16 HS	S	PN 250	20	G 3/4" -14	M 30 x 2	12,0	28,0	39	38	30	36	23.47 x 2.62
XEWORK NW 20 HS	S	PN 250	25	G 1" -11	M 36 x 2	14,0	30,0	44	42	36	41	29.74 x 3.53
XEWORK NW 25 HS	S	PN 160	30	G 1.1/4" -11	M 42 x 2	15,0	36,0	49	49	50	50	37.69 x 3.53
XEWORK NW 32 HS	S	PN 160	38	G 1.1/2" -11	M 52 x 2	15,0	34,0	55	50	50	55	44.04 x 3.53

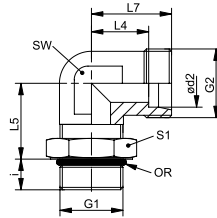
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

#### Product versions:

**EWOR** - Screw-in fitting, angle 90°, Socket with union nut and cutting ring, Steel

**XEWOM****Screw-in fitting, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** Angle 90°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XEWOM 04 LL	LL	PN 100	4	M 8 x 1	M 8 x 1	7,1	11,3	19,8	15	12	12	6.1 x 1.6
XEWOM 04 LL 10	LL	PN 100	4	M 10 x 1	M 8 x 1	7,1	11,3	19,8	15	11	14	8.0 x 1.5
XEWOM 06 LL	LL	PN 100	6	M 10 x 1	M 10 x 1	7,1	9,8	19,8	15	14	14	8.0 x 1.5
XEWOM 06 LL 12-1.5	LL	PN 100	6	M 12 x 1.5	M 10 x 1	9,6	12,8	23,2	18	14	17	9.3 x 2.4
XEWOM NW 04 HL	L	PN 250	6	M 10 x 1	M 12 x 1.5	7,0	14,0	20,0	21	14	14	8.0 x 1.5
XEWOM NW 06 HL	L	PN 250	8	M 12 x 1.5	M 14 x 1.5	10,0	16,0	22,0	23	14	17	9.3 x 2.4
XEWOM NW 08 HL	L	PN 250	10	M 14 x 1.5	M 16 x 1.5	10,0	17,0	25,0	24	19	19	11.3 x 2.4
XEWOM NW 10 HL	L	PN 250	12	M 16 x 1.5	M 18 x 1.5	10,0	19,0	26,0	26	19	22	13.3 x 2.4
XEWOM NW 13 HL	L	PN 250	15	M 18 x 1.5	M 22 x 1.5	11,0	21,0	30,0	28	22	24	15.3 x 2.4
XEWOM NW 13 HL 22	L	PN 315	15	M 22 x 1.5	M 22 x 1.5	12,0	21,0	33,0	24	22	27	17.3 x 2.4
XEWOM NW 16 HL	L	PN 160	18	M 22 x 1.5	M 26 x 1.5	12,0	24,0	33,0	31	27	27	19.3 x 2.4
XEWOM NW 20 HL	L	PN 160	22	M 26 x 1.5	M 30 x 2	14,0	28,0	34,0	35	27	32	23.3 x 2.4
XEWOM NW 20 HL 27	L	PN 160	22	M 27 x 2	M 30 x 2	14,0	28,0	35,0	35	30	32	23.6 x 2.9
XEWOM NW 25 HL	L	PN 100	28	M 33 x 2	M 36 x 2	14,0	31,0	38,0	38	36	41	29.5 x 3.0
XEWOM NW 32 HL	L	PN 100	35	M 42 x 2	M 45 x 2	14,0	38,0	48,0	48	50	50	38.0 x 3.0
XEWOM NW 40 HL	L	PN 100	42	M 48 x 2	M 52 x 2	16,0	38,0	49,0	49	50	55	44.5 x 3.0
XEWOM NW 03 HS	S	PN 630	6	M 12 x 1.5	M 14 x 1.5	10,0	15,0	22,0	22	14	17	9.3 x 2.4
XEWOM NW 04 HS	S	PN 630	8	M 14 x 1.5	M 15 x 1.5	10,0	17,0	26,0	24	19	19	11.3 x 2.4
XEWOM NW 06 HS	S	PN 630	10	M 16 x 1.5	M 18 x 1.5	11,0	18,0	27,0	25	19	22	13.3 x 2.4
XEWOM NW 08 HS	S	PN 630	12	M 18 x 1.5	M 20 x 1.5	12,0	22,0	31,0	29	22	24	15.3 x 2.4
XEWOM NW 10 HS	S	PN 630	14	M 20 x 1.5	M 22 x 1.5	14,0	22,0	34,0	31	27	27	17.3 x 2.4
XEWOM NW 13 HS	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	14,0	25,0	35,0	33	27	27	19.3 x 2.4
XEWOM NW 16 HS	S	PN 400	20	M 27 x 2	M 30 x 2	16,0	28,0	39,0	38	30	32	23.5 x 3.0
XEWOM NW 20 HS	S	PN 315	25	M 33 x 2	M 36 x 2	16,0	30,0	44,0	42	36	41	29.5 x 3.0
XEWOM NW 25 HS	S	PN 250	30	M 42 x 2	M 42 x 2	17,0	36,0	51,0	49	50	50	38.0 x 3.0
XEWOM NW 32 HS	S	PN 200	38	M 48 x 2	M 52 x 2	19,0	34,0	54,0	50	50	55	44.5 x 3.0

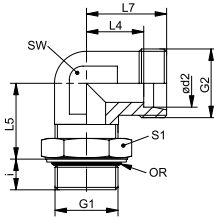
PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

**Product versions:**

**EWOM** - Screw-in fitting, angle 90°, Socket with union nut and cutting ring, Steel

## XEWOMK

### Screw-in fitting, angle 90°



- Connection 1:** metric cylindrical outer thread
- Sealing form 1:** O-ring and spacer diaphragm ring
- Connection 2:** metric cylindrical outer thread
- Sealing form 2:** 24° inner cone
- Design:** Adjustable direction screw-in fitting
- Construction:** L shaped
- Included in scope of supply:** Socket (without union nut and cutting ring)
- Material:** Steel
- Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XEWOMK NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	7	14	20	21	14	13	8.1 x 1.6
XEWOMK NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	10	16	22	23	14	17	9.3 x 2.4
XEWOMK NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	10	17	24	24	19	17	11.3 x 2.4
XEWOMK NW 10 HL	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	10	19	25	26	19	19	13.3 x 2.4
XEWOMK NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	11	21	31	28	22	22	15.3 x 2.4
XEWOMK NW 16 HL	L	PN 250	18	M 22 x 1.5	M 26 x 1.5	12	24	33	31	27	27	19.3 x 2.4
XEWOMK NW 20 HL	L	PN 160	22	M 26 x 1.5	M 30 x 2	14	28	36	35	30	32	23.5 x 2.6
XEWOMK NW 20 HL 27	L	PN 160	22	M 27 x 2	M 30 x 2	14	28	36	35	30	32	23.6 x 2.9
XEWOMK NW 25 HL	L	PN 160	28	M 33 x 2	M 36 x 2	14	31	39	38	36	38	29.5 x 3.0
XEWOMK NW 32 HL	L	PN 160	35	M 42 x 2	M 42 x 2	14	38	49	48	50	50	38.0 x 3.0
XEWOMK NW 40 HL	L	PN 160	42	M 48 x 2	M 52 x 2	16	38	50	49	50	55	44.5 x 3.0
XEWOMK NW 03 HS	S	PN 315	6	M 12 x 1.5	M 14 x 1.5	10	15	22	22	14	17	9.3 x 2.4
XEWOMK NW 04 HS	S	PN 315	8	M 14 x 1.5	M 16 x 1.5	10	17	26	24	19	17	11.3 x 2.4
XEWOMK NW 06 HS	S	PN 315	10	M 16 x 1.5	M 18 x 1.5	11	18	27	25	19	19	13.3 x 2.4
XEWOMK NW 08 HS	S	PN 315	12	M 18 x 1.5	M 20 x 1.5	12	22	31	29	22	22	15.3 x 2.4
XEWOMK NW 10 HS	S	PN 250	14	M 20 x 1.5	M 22 x 1.5	14	25	36	33	27	27	17.3 x 2.4
XEWOMK NW 13 HS	S	PN 250	16	M 22 x 1.5	M 24 x 1.5	14	25	36	33	27	27	19.3 x 2.4
XEWOMK NW 16 HS	S	PN 250	20	M 27 x 2	M 30 x 2	16	28	39	38	30	32	23.6 x 2.9
XEWOMK NW 20 HS	S	PN 160	25	M 33 x 2	M 36 x 2	16	30	44	42	36	38	29.5 x 3.0
XEWOMK NW 25 HS	S	PN 160	30	M 42 x 2	M 42 x 2	17	36	51	49	50	50	38.0 x 3.0
XEWOMK NW 32 HS	S	PN 160	38	M 48 x 2	M 52 x 2	19	34	54	50	50	55	44.5 x 3.0

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

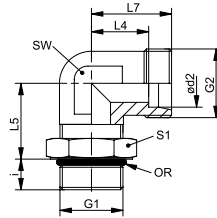
#### Product versions:

**EWOMK** - Screw-in fitting, angle 90°, Socket with union nut and cutting ring, Steel



**XEWO****Screw-in fitting, angle 90°**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** Angle 90°  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



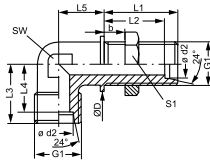
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XEWO NW04 HL 7/16	L	PN 315	6		M 12 x 1.5	10	14	19	21	14	14	8.92 x 1.83
XEWO NW06 HL 7/16	L	PN 315	8		M 14 x 1.5	10	16	19	23	14	14	8.92 x 1.83
XEWO NW06 HL 1/2	L	PN 315	8		M 14 x 1.5	10	16	19	24	14	17	10.52 x 1.83
XEWO NW06 HL 9/16	L	PN 315	8		M 14 x 1.5	10	16	24	24	19	17	11.90 x 1.98
XEWO NW08 HL 9/16	L	PN 315	10		M 16 x 1.5	10	17	24	24	19	17	11.90 x 1.98
XEWO NW10 HL 9/16	L	PN 315	12		M 18 x 1.5	11	19	25	26	19	17	11.90 x 1.98
XEWO NW10 HL 3/4	L	PN 315	12		M 18 x 1.5	13	19	25	26	19	22	16.36 x 2.20
XEWO NW13 HL 3/4	L	PN 315	15		M 22 x 1.5	13	21	28	28	22	22	16.36 x 2.20
XEWO NW13 HL 7/8	L	PN 315	15		M 22 x 1.5	15	21	28	28	22	27	19.18 x 2.46
XEWO NW16 HL 7/8	L	PN 315	18		M 26 x 1.5	15	24	32	31	27	27	19.18 x 2.46
XEWO NW16 HL 1 1/16	L	PN 315	18		M 26 x 1.5	17	24	32	31	30	32	23.47 x 2.95
XEWO NW20 HL 1 1/16	L	PN 160	22		M 30 x 2	17	28	35	35	30	32	23.47 x 2.95
XEWO NW25 HL 1 5/16	L	PN 160	28		M 36 x 2	17	31	42	38	36	41	29.74 x 2.95
XEWO NW32 HL 1 5/8	L	PN 160	35		M 45 x 2	17	38	46	48	50	50	37.47 x 3.00
XEWO NW40 HL 1 7/8	L	PN 160	42		M 52 x 2	17	38	47	49	50	55	43.69 x 3.00
XEWO NW03 HS 7/16	S	PN 400	6		M 14 x 1.5	12	15	20	22	14	14	8.92 x 1.83
XEWO NW04 HS 1/2	S	PN 400	8		M 16 x 1.5	11	17	22	25	14	17	10.52 x 1.83
XEWO NW04 HS 9/16	S	PN 400	8		M 16 x 1.5	12	17	25	24	19	17	11.90 x 1.98
XEWO NW06 HS 9/16	S	PN 400	10		M 18 x 1.5	12	18	26	25	19	17	11.90 x 1.98
XEWO NW08 HS 3/4	S	PN 400	12		M 20 x 1.5	14	22	30	29	22	22	16.36 x 2.20
XEWO NW10 HS 7/8	S	PN 400	14		M 22 x 1.5	16	25	34	33	27	24	19.18 x 2.46
XEWO NW13 HS 7/8	S	PN 400	16		M 24 x 1.5	16	25	34	33	27	27	19.18 x 2.46
XEWO NW16 HS 1 1/16	S	PN 400	20		M 30 x 2	19	28	37	38	30	32	23.47 x 2.95
XEWO NW20 HS 1 1/16	S	PN 400	25		M 36 x 2	19	30	50	42	36	32	23.47 x 2.95
XEWO NW20 HS 1 5/16	S	PN 400	25		M 36 x 2	19	33	50	45	41	36	29.74 x 2.95
XEWO NW25 HS 1 5/8	S	PN 250	30		M 42 x 2	19	36	50	49	50	50	37.47 x 3.00
XEWO NW32 HS 1 7/8	S	PN 250	38		M 52 x 2	19	34	51	50	50	55	43.69 x 3.00

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø = External pipe diameter

**Product versions:**

**EWO** - Screw-in fitting, angle 90°, Socket with union nut and cutting ring, Steel

**XSW****Bulkhead fitting, angle 90**

**Connection 1 + 2:** metric cylindrical outer thread  
**Sealing form 1 + 2:**

24° inner cone  
 Bulkhead fitting

**Design:** Angle 90°

**Construction:** DIN 2353, ISO 8434-1

**Standard:**

**Included in scope of supply:** Socket (without union nut and cutting ring)

**Material:** Steel

**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	Ø D mm	b mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	SW mm	S1
XSW NW 04 HL	L	PN 315	6	M 12 x 1.5	17	16	34	27,0	19	12,0	14	12	17
XSW NW 06 HL	L	PN 315	8	M 14 x 1.5	19	16	34	27,0	21	14,0	17	12	19
XSW NW 08 HL	L	PN 315	10	M 16 x 1.5	22	16	35	28,0	22	15,0	18	14	22
XSW NW 10 HL	L	PN 315	12	M 18 x 1.5	24	16	36	29,0	24	17,0	20	17	24
XSW NW 13 HL	L	PN 315	15	M 22 x 1.5	27	16	38	31,0	28	21,0	23	19	30
XSW NW 16 HL	L	PN 315	18	M 26 x 1.5	32	16	40	32,5	31	23,5	24	24	36
XSW NW 20 HL	L	PN 160	22	M 30 x 2	36	16	42	34,5	35	27,5	30	27	41
XSW NW 25 HL	L	PN 160	28	M 36 x 2	42	16	43	35,5	38	30,5	34	36	46
XSW NW 32 HL	L	PN 160	35	M 45 x 2	50	16	47	36,5	45	34,5	39	41	55
XSW NW 40 HL	L	PN 160	42	M 52 x 2	60	16	47	36,0	51	40,0	43	50	65
XSW NW 03 HS	S	PN 630	6	M 14 x 1.5	19	16	36	29,0	23	16,0	17	12	19
XSW NW 04 HS	S	PN 630	8	M 16 x 1.5	22	16	36	29,0	24	17,0	18	14	22
XSW NW 06 HS	S	PN 630	10	M 18 x 1.5	24	16	16	29,5	25	17,5	20	17	24
XSW NW 08 HS	S	PN 630	12	M 20 x 1.5	27	16	38	30,5	29	21,5	21	17	27
XSW NW 10 HS	S	PN 630	14	M 22 x 1.5	27	16	40	32,0	30	22,0	23	19	30
XSW NW 13 HS	S	PN 400	16	M 24 x 1.5	30	16	40	31,5	33	24,5	24	24	32
XSW NW 16 HS	S	PN 400	20	M 30 x 2	36	16	44	33,5	37	26,5	30	27	41
XSW NW 20 HS	S	PN 400	25	M 36 x 2	42	16	47	35,0	42	30,0	34	36	46
XSW NW 25 HS	S	PN 400	30	M 42 x 2	50	16	51	37,5	49	35,5	39	41	50
XSW NW 32 HS	S	PN 315	38	M 52 x 2	60	16	53	37,0	57	41,0	43	50	65

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

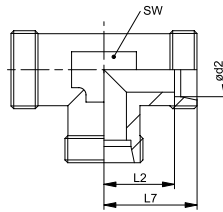
**XSW VA** - Bulkhead fitting, angle 90, Stainless steel

**SW** - Bulkhead fitting, angle 90, Steel

XT

## Fitting, T shaped

**Connection 1 - 3:** metric cylindrical outer thread  
**Sealing form 1 - 3:** 24° inner cone  
**Design:** Fitting  
**Construction:** T shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

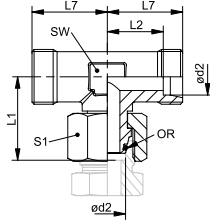
Identification	Series	Working pressure bar	Ø d2 mm	G1 - G3	L2 mm	L7 mm	SW mm
XT 04 LL	LL	PN 100	4	M 8 x 1	11,0	15	9
XT 05 LL	LL	PN 100	5	M 10 x 1	9,5	15	9
XT 06 LL	LL	PN 100	6	M 10 x 1	9,5	15	9
XT 08 LL	LL	PN 100	8	M 12 x 1	11,5	17	12
XT 10 LL	LL	PN 100	10	M 14 x 1	12,5	18	12
XT 12 LL	LL	PN 100	12	M 16 x 1	15,0	21	14
XT NW 04 HL	L	PN 315	6	M 12 x 1.5	12,0	19	12
XT NW 06 HL	L	PN 315	8	M 14 x 1.5	14,0	21	12
XT NW 08 HL	L	PN 315	10	M 16 x 1.5	15,0	22	14
XT NW 10 HL	L	PN 315	12	M 18 x 1.5	17,0	24	17
XT NW 13 HL	L	PN 315	15	M 22 x 1.5	21,0	28	19
XT NW 16 HL	L	PN 315	18	M 26 x 1.5	23,5	31	24
XT NW 20 HL	L	PN 160	22	M 30 x 2	27,5	35	27
XT NW 25 HL	L	PN 160	28	M 36 x 2	30,5	38	36
XT NW 32 HL	L	PN 160	35	M 45 x 2	34,5	45	41
XT NW 40 HL	L	PN 160	42	M 52 x 2	40,0	51	50
XT NW 03 HS	S	PN 630	6	M 14 x 1.5	16,0	23	12
XT NW 04 HS	S	PN 630	8	M 16 x 1.5	17,0	24	14
XT NW 06 HS	S	PN 630	10	M 18 x 1.5	17,5	25	17
XT NW 08 HS	S	PN 630	12	M 20 x 1.5	21,5	29	17
XT NW 10 HS	S	PN 630	14	M 22 x 1.5	22,0	30	19
XT NW 13 HS	S	PN 400	16	M 24 x 1.5	24,5	33	24
XT NW 16 HS	S	PN 400	20	M 30 x 2	26,5	37	27
XT NW 20 HS	S	PN 400	25	M 36 x 2	30,0	42	36
XT NW 25 HS	S	PN 400	30	M 42 x 2	35,5	49	41
XT NW 32 HS	S	PN 315	38	M 52 x 2	41,0	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XT VA** - Fitting, T shaped, Stainless steel

**T** - Fitting, T shaped, Steel

**XVETO****Fitting, T shaped**

**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	L1 mm	L2 mm	L7 mm	SW mm	S1	OR
XVETO NW 04 HL	L	PN 315	6	26,0	12,0	19	12	14	4.0 x 1.5
XVETO NW 06 HL	L	PN 315	8	27,5	14,0	21	12	17	6.0 x 1.5
XVETO NW 08 HL	L	PN 315	10	29,0	15,0	22	14	19	7.5 x 1.5
XVETO NW 10 HL	L	PN 315	12	29,5	17,0	24	17	22	9.0 x 1.5
XVETO NW 13 HL	L	PN 315	15	33,0	21,0	28	19	27	12.0 x 2.0
XVETO NW 16 HL	L	PN 315	18	35,5	23,5	31	24	32	15.0 x 2.0
XVETO NW 20 HL	L	PN 160	22	39,5	27,5	35	27	36	20.0 x 2.0
XVETO NW 25 HL	L	PN 160	28	41,5	30,5	38	36	41	26.0 x 2.0
XVETO NW 32 HL	L	PN 160	35	51,0	34,5	45	41	50	32.0 x 2.5
XVETO NW 40 HL	L	PN 160	42	56,0	40,0	51	50	60	38.0 x 2.5
XVETO NW 03 HS	S	PN 630	6	27,0	16,0	23	12	17	4.0 x 1.5
XVETO NW 04 HS	S	PN 630	8	27,5	17,0	24	14	19	6.0 x 1.5
XVETO NW 06 HS	S	PN 630	10	30,0	17,5	25	17	22	7.5 x 1.5
XVETO NW 08 HS	S	PN 630	12	31,5	21,5	29	17	24	9.0 x 1.5
XVETO NW 10 HS	S	PN 630	14	35,0	22,0	30	19	27	10.0 x 2.0
XVETO NW 13 HS	S	PN 400	16	37,5	24,5	33	24	30	12.0 x 2.0
XVETO NW 16 HS	S	PN 400	20	44,5	26,5	37	27	36	16.3 x 2.4
XVETO NW 20 HS	S	PN 400	25	50,5	30,0	42	36	46	
XVETO NW 25 HS	S	PN 400	30	55,0	35,5	49	41	50	25.3 x 2.4
XVETO NW 32 HS	S	PN 315	38	63,0	41,0	57	50	60	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

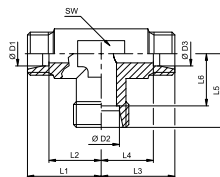
**Product versions:**

**XVETO VA** - Fitting, T shaped, Stainless steel

**VETO** - Fitting, T shaped, Steel

**XRT****T shaped reducing fitting**

**Connection 1 - 3:** metric cylindrical outer thread  
**Sealing form 1 - 3:** 24° inner cone  
**Design:** Reducing fitting  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Material:**  
**Surface:**

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	SW mm
XRT 04 08 04 LL	LL	PN 100	4	8	4	17,0	13,0	17,0	13,0	17,0	11,5	12
XRT 06 04 06 LL	LL	PN 100	6	4	6	15,0	9,5	15,0	9,5	15,0	11,0	11
XRT NW 04 06 04 HL	L	PN 315	6	8	6	21,0	14,0	21,0	14,0	21,0	14,0	12
XRT NW 04 08 04 HL	L	PN 315	6	10	6	22,0	15,0	22,0	15,0	22,0	15,0	14
XRT NW 06 04 06 HL	L	PN 315	8	6	8	29,0	14,0	21,0	14,0	21,0	21,0	12
XRT NW 06 06 04 HL	L	PN 315	8	8	6	21,0	14,0	21,0	14,0	21,0	14,0	14
XRT NW 06 08 06 HL	L	PN 315	8	10	8	22,0	15,0	22,0	15,0	22,0	15,0	14
XRT NW 06 10 06 HL	L	PN 315	8	12	8	24,0	17,0	24,0	17,0	24,0	17,0	17
XRT NW 06 13 06 HL	L	PN 315	8	15	8	21,0	14,0	21,0	14,0	21,0	14,0	19
XRT NW 08 04 08 HL	L	PN 315	10	6	10	22,0	15,0	22,0	15,0	22,0	15,0	14
XRT NW 08 06 06 HL	L	PN 315	10	8	8	22,0	15,0	22,0	15,0	22,0	15,0	17
XRT NW 08 06 08 HL	L	PN 315	10	8	10	22,0	15,0	22,0	15,0	22,0	15,0	14
XRT NW 08 08 04 HL	L	PN 315	10	10	6	22,0	15,0	22,0	15,0	22,0	15,0	14
XRT NW 08 10 08 HL	L	PN 315	10	12	10	24,0	17,0	24,0	17,0	24,0	17,0	19
XRT NW 08 13 08 HL	L	PN 315	10	15	10	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 10 04 10 HL	L	PN 315	12	6	12	24,0	17,0	24,0	17,0	24,0	17,0	17
XRT NW 10 06 06 HL	L	PN 315	12	8	8	24,0	17,0	24,0	17,0	24,0	17,0	17
XRT NW 10 06 10 HL	L	PN 315	12	8	12	24,0	17,0	24,0	17,0	24,0	17,0	17
XRT NW 10 08 08 HL	L	PN 315	12	10	10	24,0	17,0	24,0	17,0	24,0	17,0	17
XRT NW 10 08 10 HL	L	PN 315	12	10	12	24,0	17,0	24,0	17,0	24,0	17,0	17
XRT NW 10 10 06 HL	L	PN 315	12	12	8	24,0	17,0	24,0	17,0	24,0	17,0	19
XRT NW 10 10 08 HL	L	PN 315	12	12	10	24,0	17,0	24,0	17,0	24,0	17,0	17
XRT NW 10 13 10 HL	L	PN 315	12	15	12	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 10 16 10 HL	L	PN 315	12	18	12	31,0	24,0	31,0	24,0	31,0	23,5	24
XRT NW 10 20 10 HL	L	PN 160	12	22	12	35,0	28,0	35,0	28,0	35,0	27,5	27
XRT NW 13 04 13 HL	L	PN 315	15	6	15	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 06 06 HL	L	PN 315	15	8	8	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 06 13 HL	L	PN 315	15	8	15	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 08 06 HL	L	PN 315	15	10	8	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 08 08 HL	L	PN 315	15	10	10	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 08 13 HL	L	PN 315	15	10	15	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 10 10 HL	L	PN 315	15	12	12	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 10 13 HL	L	PN 315	15	12	15	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 13 08 HL	L	PN 315	15	15	10	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 13 10 HL	L	PN 315	15	15	12	28,0	21,0	28,0	21,0	28,0	21,0	19
XRT NW 13 16 13 HL	L	PN 315	15	18	15	31,0	24,0	31,0	24,0	31,0	23,5	24
XRT NW 13 20 10 HL	L	PN 160	15	22	12	35,0	28,0	35,0	28,0	35,0	27,5	27
XRT NW 16 06 06 HL	L	PN 315	18	8	8	31,5	24,0	31,0	24,0	30,5	23,5	24
XRT NW 16 06 16 HL	L	PN 315	18	8	18	31,0	23,5	31,0	23,5	31,0	24,0	24
XRT NW 16 08 08 HL	L	PN 315	18	10	10	31,0	23,5	31,0	24,0	31,0	24,0	24

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure D1, D2, D3 = External pipe diameter

**XRT****T shaped reducing fitting****(Continued)**

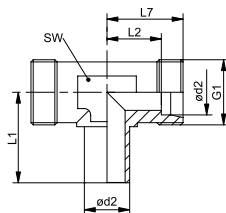
Identification	Series	Working pressure bar	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	SW mm
XRT NW 16 08 16 HL	L	PN 315	18	10	18	31,0	23,5	31,0	23,5	31,0	24,0	24
XRT NW 16 10 10 HL	L	PN 315	18	12	12	31,0	23,5	31,0	24,0	31,0	24,0	24
XRT NW 16 10 16 HL	L	PN 315	18	12	18	31,0	23,5	31,0	23,5	31,0	24,0	24
XRT NW 16 13 16 HL	L	PN 315	18	15	18	31,0	23,5	31,0	23,5	31,0	24,0	24
XRT NW 16 16 06 HL	L	PN 315	18	18	8	31,0	23,5	30,5	23,5	31,0	23,5	24
XRT NW 16 16 08 HL	L	PN 315	18	18	10	31,0	23,5	31,0	24,0	31,0	23,5	24
XRT NW 16 16 10 HL	L	PN 315	18	18	12	31,0	23,5	30,5	23,5	31,5	24,0	24
XRT NW 20 08 20 HL	L	PN 160	22	10	22	35,0	27,5	35,0	27,5	35,0	28,0	27
XRT NW 20 10 20 HL	L	PN 160	22	12	22	35,0	27,5	35,0	27,5	35,0	28,0	27
XRT NW 20 13 13 HL	L	PN 160	22	15	15	35,0	27,5	35,0	28,0	35,0	28,0	27
XRT NW 20 13 20 HL	L	PN 160	22	15	22	35,0	27,5	35,0	27,5	35,0	28,0	27
XRT NW 20 16 16 HL	L	PN 160	22	18	18	35,0	27,5	35,0	27,5	35,0	27,5	27
XRT NW 20 16 20 HL	L	PN 160	22	18	22	35,0	27,5	35,0	27,5	35,0	27,5	27
XRT NW 20 20 16 HL	L	PN 160	22	22	18	35,0	27,5	35,0	27,5	35,0	27,5	27
XRT NW 20 25 20 HL	L	PN 160	22	28	22	38,0	30,5	38,0	30,5	38,0	30,5	36
XRT NW 25 08 25 HL	L	PN 160	28	10	28	38,0	30,5	38,0	30,5	38,0	31,0	36
XRT NW 25 10 25 HL	L	PN 160	28	12	28	38,0	30,5	38,0	30,5	38,0	31,0	36
XRT NW 25 13 25 HL	L	PN 160	28	15	28	38,0	30,5	38,0	30,5	38,0	31,0	36
XRT NW 25 16 25 HL	L	PN 160	28	18	28	38,0	30,5	38,0	30,5	38,0	30,5	36
XRT NW 25 20 20 HL	L	PN 160	28	22	22	38,0	30,5	38,0	30,5	38,0	30,5	36
XRT NW 25 20 25 HL	L	PN 160	28	22	28	38,0	30,5	38,0	30,5	38,0	30,5	36
XRT NW 25 25 20 HL	L	PN 160	28	28	22	38,0	30,5	38,0	30,5	38,0	30,5	36
XRT NW 32 20 32 HL	L	PN 160	35	22	35	45,0	34,5	45,0	34,5	45,0	37,5	41
XRT NW 32 25 25 HL	L	PN 160	35	28	28	45,0	34,5	45,0	37,5	45,0	37,5	41
XRT NW 32 25 32 HL	L	PN 160	35	28	35	45,0	34,5	45,0	34,5	45,0	37,5	41
XRT NW 16 HL 16 HS	L/S	PN 315	20	18	20	37,0	26,5	37,0	26,5	37,0	29,5	27
XRT NW 04 03 04 HS	S	PN 630	8	6	8	20,0	13,0	19,0	12,0	20,0	13,0	12
XRT NW 06 03 06 HS	S	PN 630	10	6	10	25,0	17,5	25,0	17,5	25,0	18,0	17
XRT NW 08 03 08 HS	S	PN 630	12	6	12	24,5	17,0	24,5	17,0	24,0	17,0	17
XRT NW 08 04 04 HS	S	PN 630	12	8	8	29,0	21,5	29,0	22,0	29,0	22,0	17
XRT NW 08 04 08 HS	S	PN 630	12	8	12	29,0	21,5	29,0	21,5	29,0	22,0	17
XRT NW 08 06 08 HS	S	PN 630	12	10	12	29,0	21,5	29,0	21,5	29,0	21,5	17
XRT NW 08 13 08 HS	S	PN 630	12	16	12	33,0	25,5	33,0	25,5	33,0	24,5	24
XRT NW 10 06 10 HS	S	PN 630	14	10	14	30,0	22,0	30,0	22,0	30,0	22,5	19
XRT NW 13 03 13 HS	S	PN 400	16	6	16	33,0	24,5	33,0	24,5	33,0	26,0	24
XRT NW 13 04 13 HS	S	PN 400	16	8	16	33,0	24,5	33,0	24,5	33,0	26,0	24
XRT NW 13 06 13 HS	S	PN 400	16	10	16	33,0	24,5	33,0	24,5	33,0	25,5	24
XRT NW 13 08 13 HS	S	PN 400	16	12	16	33,0	24,5	33,0	24,5	33,0	25,5	24
XRT NW 13 16 13 HS	S	PN 400	16	20	16	37,0	28,5	37,0	28,5	37,0	26,5	27
XRT NW 16 06 16 HS	S	PN 400	20	10	20	37,0	26,5	37,0	26,5	37,0	29,5	27
XRT NW 16 08 16 HS	S	PN 400	20	12	20	37,0	26,5	37,0	26,5	37,0	29,5	27
XRT NW 16 10 16 HS	S	PN 400	20	14	20	37,0	26,5	37,0	26,5	37,5	29,5	27
XRT NW 16 13 16 HS	S	PN 400	20	16	20	37,0	26,5	37,0	26,5	37,0	28,5	27
XRT NW 16 16 20 HS	S	PN 400	20	20	25	39,0	28,5	40,5	28,5	37,0	28,5	36
XRT NW 16 20 16 HS	S	PN 400	20	25	20	42,0	31,5	42,0	31,5	42,0	30,0	36
XRT NW 20 13 20 HS	S	PN 400	25	16	25	42,0	30,0	42,0	30,0	42,0	33,5	36
XRT NW 20 16 20 HS	S	PN 400	25	20	25	42,0	30,0	42,0	30,0	42,0	31,5	36
XRT NW 20 25 20 HS	S	PN 400	25	30	25	49,0	37,0	49,0	37,0	49,0	35,5	41
XRT NW 25 13 25 HS	S	PN 400	30	16	30	49,0	35,5	49,0	35,5	49,0	40,5	41
XRT NW 25 16 25 HS	S	PN 400	30	20	30	49,0	35,5	49,0	35,5	49,0	38,5	41
XRT NW 25 20 25 HS	S	PN 400	30	25	30	49,0	35,5	49,0	35,5	49,0	37,0	41

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure D1, D2, D3 = External pipe diameter

**Product versions:****XRT VA** - T shaped reducing fitting, Stainless steel**RT** - T shaped reducing fitting, Steel

**XNET****Fitting, T shaped**

**Connection 1:** Pipe socket not pre-assembled  
**Sealing form 1:** Cutting ring connection  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L7 mm	SW mm
XNET NW 04 HL	L	PN 315	6	M 12 x 1.5	26,0	12,0	19	12
XNET NW 06 HL	L	PN 315	8	M 14 x 1.5	27,5	14,0	21	12
XNET NW 08 HL	L	PN 315	10	M 16 x 1.5	29,0	15,0	22	14
XNET NW 10 HL	L	PN 315	12	M 18 x 1.5	29,5	17,0	24	17
XNET NW 13 HL	L	PN 315	15	M 22 x 1.5	32,5	21,0	28	19
XNET NW 16 HL	L	PN 315	18	M 26 x 1.5	35,5	23,5	31	24
XNET NW 20 HL	L	PN 160	22	M 30 x 2	38,5	27,5	35	27
XNET NW 25 HL	L	PN 160	28	M 36 x 2	41,5	30,5	38	36
XNET NW 32 HL	L	PN 160	35	M 45 x 2	51,0	34,5	45	41
XNET NW 40 HL	L	PN 160	42	M 52 x 2	56,0	40,0	51	50
XNET NW 03 HS	S	PN 630	6	M 14 x 1.5	27,0	16,0	23	12
XNET NW 04 HS	S	PN 630	8	M 16 x 1.5	27,5	17,0	24	14
XNET NW 06 HS	S	PN 630	10	M 18 x 1.5	30,0	17,5	25	17
XNET NW 08 HS	S	PN 630	12	M 20 x 1.5	31,0	21,5	29	17
XNET NW 10 HS	S	PN 630	14	M 22 x 1.5	35,0	22,0	30	19
XNET NW 13 HS	S	PN 400	16	M 24 x 1.5	36,5	24,5	33	24
XNET NW 16 HS	S	PN 400	20	M 30 x 2	44,5	26,5	37	27
XNET NW 20 HS	S	PN 400	25	M 36 x 2	50,0	30,0	42	36
XNET NW 25 HS	S	PN 400	30	M 42 x 2	55,0	35,5	49	41
XNET NW 32 HS	S	PN 315	38	M 52 x 2	63,0	41,0	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

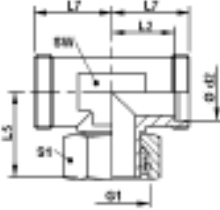
**Product versions:**

**XNET VA** - Fitting, T shaped, Stainless steel

**NET** - Fitting, T shaped, Steel

**Additional elements:**

**VOM** - Pre-assembly sockets

**XVET****Fitting, T shaped**

**Connection 1:** metric nut thread  
**Sealing form 1:** Pipe socket with cutting ring  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** T shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring), pre-assembled  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L2 mm	L5 mm	L7 mm	SW mm	S1
XVET NW 04 HL	L	PN 315	6	M 12 x 1.5	12,0	26,0	19	12	14
XVET NW 06 HL	L	PN 315	8	M 14 x 1.5	14,0	27,5	21	12	17
XVET NW 08 HL	L	PN 315	10	M 16 x 1.5	15,0	29,0	22	14	19
XVET NW 10 HL	L	PN 315	12	M 18 x 1.5	17,0	29,5	24	17	22
XVET NW 13 HL	L	PN 315	15	M 22 x 1.5	21,0	32,5	28	19	27
XVET NW 16 HL	L	PN 315	18	M 26 x 1.5	23,5	35,5	31	24	32
XVET NW 20 HL	L	PN 160	22	M 30 x 2	27,5	38,5	35	27	36
XVET NW 25 HL	L	PN 160	28	M 36 x 2	30,5	41,5	38	36	41
XVET NW 32 HL	L	PN 160	35	M 45 x 2	34,5	51,0	45	41	50
XVET NW 40 HL	L	PN 160	42	M 52 x 2	40,0	56,0	51	50	60
XVET NW 03 HS	S	PN 630	6	M 14 x 1.5	16,0	27,0	23	12	17
XVET NW 04 HS	S	PN 630	8	M 16 x 1.5	17,0	27,5	24	14	19
XVET NW 06 HS	S	PN 630	10	M 18 x 1.5	17,5	30,0	25	17	22
XVET NW 08 HS	S	PN 630	12	M 20 x 1.5	21,5	31,0	29	17	24
XVET NW 10 HS	S	PN 630	14	M 22 x 1.5	22,0	35,0	30	19	27
XVET NW 13 HS	S	PN 400	16	M 24 x 1.5	24,5	36,5	33	24	30
XVET NW 16 HS	S	PN 400	20	M 30 x 2	26,5	44,5	37	27	36
XVET NW 20 HS	S	PN 400	25	M 36 x 2	30,0	50,0	42	36	46
XVET NW 25 HS	S	PN 400	30	M 42 x 2	35,5	55,0	49	41	50
XVET NW 32 HS	S	PN 315	38	M 52 x 2	41,0	63,0	57	50	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

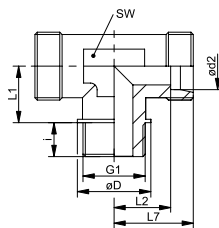
**XVET VA** - Fitting, T shaped, Stainless steel

**VET** - Fitting, T shaped, Steel



**XTR****Screw-in fitting, T shaped**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape B  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** T shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

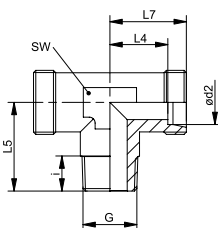
Identification	Series	Working pressure bar	Ø d2 mm	G1	Ø D mm	i mm	L1 mm	L2 mm	L7 mm	SW mm
XTR NW 20 HL	L	PN 160	22	G 3/4" -14	31,0	16	26	27,5	35	27
XTR NW 25 HL	L	PN 160	28	G 1" -11	39,0	18	30	30,5	38	36
XTR NW 32 HL	L	PN 160	35	G 1.1/4" -11	49,0	20	34	34,5	45	41
XTR NW 40 HL	L	PN 160	42	G 1.1/2" -11	55,0	22	39	40,0	51	50
XTR NW 16 HS	S	PN 400	20	G 3/4" -14	32,0	16	26	26,5	37	27
XTR NW 20 HS	S	PN 250	25	G 1" -11	39,0	18	30	30,0	42	36
XTR NW 25 HS	S	PN 160	30	G 1.1/4" -11	49,0	20	34	35,5	49	41
XTR NW 32 HS	S	PN 160	38	G 1.1/2" -11	55,0	22	39	41,0	57	50

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

**Product versions:**

XTR VA - Screw-in fitting, T shaped, Stainless steel

TR - Screw-in fitting, T shaped, Steel

**XTRK****Screw-in fitting, T shaped**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** T shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L4 mm	L5 mm	L7 mm	SW mm
XTR 04 LL	LL	PN 100	4	R 1/8" K	8	11,0	17	15	9
XTR 05 LL	LL	PN 100	5	R 1/8" K	8	9,5	17	15	9
XTR 06 LL	LL	PN 100	6	R 1/8" K	8	9,5	17	15	9
XTR 08 LL	LL	PN 100	8	R 1/8" K	8	11,5	20	17	12
XTR 10 LL	LL	PN 100	10	R 1/4" K	12	12,5	23	16	14
XTR 12 LL	LL	PN 100	12	R 1/4" K	12	13,0	23	17	17
XTR NW 04 HL	L	PN 315	6	R 1/8" K	8	12,0	20	19	12
XTR NW 06 HL	L	PN 315	8	R 1/4" K	12	14,0	26	21	12
XTR NW 08 HL	L	PN 315	10	R 1/4" K	12	15,0	27	22	14
XTR NW 10 HL	L	PN 315	12	R 3/8" K	12	17,0	28	24	17
XTR NW 13 HL	L	PN 315	15	R 1/2" K	14	21,0	34	28	19
XTR NW 16 HL	L	PN 315	18	R 1/2" K	14	23,5	34	31	24
XTR NW 03 HS	S	PN 400	6	R 1/4" K	12	16,0	26	23	12
XTR NW 04 HS	S	PN 400	8	R 1/4" K	12	17,0	26	24	14
XTR NW 06 HS	S	PN 400	10	R 3/8" K	12	17,5	27	25	17
XTR NW 08 HS	S	PN 400	12	R 3/8" K	12	21,5	28	29	19
XTR NW 10 HS	S	PN 400	14	R 1/2" K	14	22,0	32	30	19
XTR NW 13 HS	S	PN 400	16	R 1/2" K	14	24,5	32	33	24

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

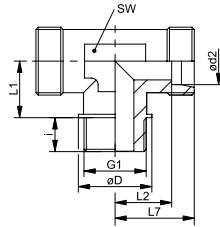
**Product versions:**

**XTRK VA** - Screw-in fitting, T shaped, Stainless steel

**TRK** - Screw-in fitting, T shaped, Steel

**XTM****Screw-in fitting, T shaped**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** T shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

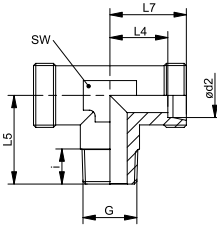
Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L7 mm	SW mm
XTM NW 20 HL	L	PN 160	22	M 26 x 1.5	31,0	16	26	27,5	35	27
XTM NW 25 HL	L	PN 160	28	M 33 x 2	39,0	18	30	30,5	38	36
XTM NW 32 HL	L	PN 160	35	M 42 x 2	49,0	20	34	34,5	45	41
XTM NW 40 HL	L	PN 160	42	M 48 x 2	55,0	22	39	41,0	51	50
XTM NW 16 HS	S	PN 400	20	M 27 x 2	32,0	16	26	26,5	39	27
XTM NW 20 HS	S	PN 250	25	M 33 x 2	39,0	18	30	30,0	42	36
XTM NW 25 HS	S	PN 160	30	M 42 x 2	49,0	20	34	35,5	49	41
XTM NW 32 HS	S	PN 160	38	M 48 x 2	55,0	22	39	41,0	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

XTM VA - Screw-in fitting, T shaped, Stainless steel

TM - Screw-in fitting, T shaped, Steel

**XTMK****Screw-in fitting, T shaped**

**Connection 1:** metric conical outer thread  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** T shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L4 mm	L5 mm	L7 mm	SW mm
XTM 04 LL	LL	PN 100	4	M 8 x 1 K	8	11,0	17	15	9
XTM 05 LL	LL	PN 100	5	M 8 x 1 K	8	9,5	17	15	9
XTM 06 LL	LL	PN 100	6	M 10 x 1 K	8	9,5	17	15	9
XTM 08 LL	LL	PN 100	8	M 10 x 1 K	8	11,5	20	17	12
XTM NW 04 HL	L	PN 315	6	M 10 x 1 K	8	12,0	20	19	12
XTM NW 06 HL	L	PN 315	8	M 12 x 1.5 K	12	14,0	26	21	12
XTM NW 08 HL	L	PN 315	10	M 14 x 1.5 K	12	15,0	27	22	14
XTM NW 10 HL	L	PN 315	12	M 16 x 1.5 K	12	17,0	28	24	17
XTM NW 13 HL	L	PN 315	15	M 18 x 1.5 K	12	21,0	32	28	19
XTM NW 16 HL	L	PN 315	18	M 22 x 1.5 K	14	23,5	34	31	24
XTM NW 03 HS	S	PN 400	6	M 12 x 1.5 K	12	16,0	26	23	12
XTM NW 04 HS	S	PN 400	8	M 14 x 1.5 K	12	17,0	26	24	14
XTM NW 06 HS	S	PN 400	10	M 16 x 1.5 K	12	17,5	27	25	17
XTM NW 08 HS	S	PN 400	12	M 18 x 1.5 K	12	21,5	28	29	19
XTM NW 10 HS	S	PN 400	14	M 20 x 1.5 K	14	22,0	32	30	19
XTM NW 13 HS	S	PN 400	16	M 22 x 1.5 K	14	24,5	32	33	24

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

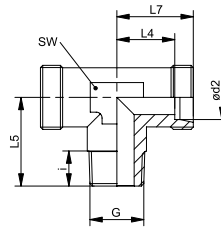
**Product versions:**

**XTMK VA** - Screw-in fitting, T shaped, Stainless steel

**XTMK** - Screw-in fitting, T shaped, Steel

**XTN****Screw-in fitting, T shaped**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** T shaped  
**Standard:** DIN 2353  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

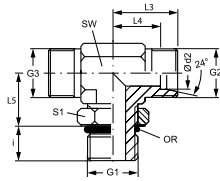
Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L4 mm	L5 mm	L7 mm	SW mm
XTN 04 LL	LL	PN 100	4	1/8" -27 NPT	8	11,0	17	15	9
XTN 05 LL	LL	PN 100	5	1/8" -27 NPT	8	9,5	17	15	9
XTN 06 LL	LL	PN 100	6	1/8" -27 NPT	8	9,5	17	15	9
XTN 08 LL	LL	PN 100	8	1/8" -27 NPT	8	11,5	20	17	12
XTN NW 04 HL	L	PN 315	6	1/8" -27 NPT	8	12,0	20	19	12
XTN NW 04 HL 1/4	L	PN 315	6	1/4" -18 NPT	12	12,0	25	19	12
XTN NW 06 HL	L	PN 315	8	1/4" -18 NPT	12	14,0	26	21	12
XTN NW 08 HL	L	PN 315	10	1/4" -18 NPT	12	15,0	27	22	14
XTN NW 10 HL	L	PN 315	12	3/8" -18 NPT	12	17,0	28	24	17
XTN NW 13 HL	L	PN 315	15	1/2" -14 NPT	14	21,0	34	26	19
XTN NW 16 HL	L	PN 315	18	1/2" -14 NPT	14	23,5	36	31	24
XTN NW 20 HL	L	PN 160	22	3/4" -14 NPT	16	27,5	42	35	27
XTN NW 25 HL	L	PN 160	28	1" -11.5 NPT	18	30,5	48	38	36
XTN NW 32 HL	L	PN 160	35	1.1/4" -11.5 NPT	20	34,5	54	45	41
XTN NW 40 HL	L	PN 160	42	1.1/2" -11.5 NPT	22	40,0	61	51	50
XTN NW 03 HS	S	PN 630	6	1/4" -18 NPT	12	16,0	26	23	12
XTN NW 04 HS	S	PN 630	8	1/4" -18 NPT	12	17,0	27	24	14
XTN NW 06 HS	S	PN 630	10	3/8" -18 NPT	12	17,5	28	35	17
XTN NW 08 HS	S	PN 630	12	3/8" -18 NPT	12	21,5	31	30	17
XTN NW 10 HS	S	PN 630	14	1/2" -14 NPT	14	22,0	32	30	19
XTN NW 13 HS	S	PN 400	16	1/2" -14 NPT	14	24,5	32	33	24
XTN NW 16 HS	S	PN 400	20	3/4" -14 NPT	16	26,5	42	37	27
XTN NW 20 HS	S	PN 400	25	1" -11.5 NPT	18	30,0	48	42	36
XTN NW 25 HS	S	PN 400	30	1.1/4" -11.5 NPT	20	35,5	54	49	41
XTN NW 32 HS	S	PN 315	38	1.1/2" -11.5 NPT	22	41,0	61	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**Product versions:**

**XTN VA** - Screw-in fitting, T shaped, Stainless steel

**TN** - Screw-in fitting, T shaped, Steel

**XETOR****Screw-in fitting, T shaped**

- Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** metric cylindrical outer thread  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

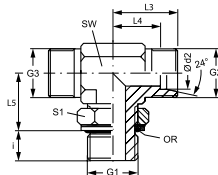
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	i mm	L3 mm	L4 mm	L5 mm	SW mm	S1	OR
XETOR NW 04 HL	L	PN 315	6	G 1/8" -28	M 12 x 1.5	7	21	14	19	14	14	8.00 x 1.50
XETOR NW 06 HL	L	PN 315	8	G 1/4" -19	M 14 x 1.5	9	23	16	23	14	19	10.77 x 2.62
XETOR NW 08 HL	L	PN 315	10	G 1/4" -19	M 16 x 1.5	9	24	17	25	19	19	10.77 x 2.62
XETOR NW 10 HL	L	PN 250	12	G 3/8" -19	M 18 x 1.5	9	26	19	28	19	22	13.94 x 2.62
XETOR NW 13 HL	L	PN 250	15	G 1/2" -14	M 22 x 1.5	13	28	21	30	22	27	17.86 x 2.62
XETOR NW 16 HL	L	PN 250	18	G 1/2" -14	M 26 x 1.5	13	31	24	36	27	27	17.86 x 2.62
XETOR NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	13	35	28	36	30	36	23.47 x 2.62
XETOR NW 25 HL	L	PN 160	28	G 1" -11	M 36 x 2	15	38	31	44	36	41	29.50 x 3.53
XETOR NW 32 HL	L	PN 160	35	G 1.1/4" -11	M 45 x 2	15	48	38	50	50	50	37.69 x 3.53
XETOR NW 40 HL	L	PN 160	42	G 1.1/2" -11	M 52 x 2	15	49	38	52	50	50	44.04 x 3.53
XETOR NW 03 HS	S	PN 315	6	G 1/4" -19	M 14 x 1.5	9	22	15	23	14	19	10.77 x 2.62
XETOR NW 04 HS	S	PN 315	8	G 1/4" -19	M 16 x 1.5	9	24	17	27	19	19	10.77 x 2.62
XETOR NW 06 HS	S	PN 250	10	G 3/8" -19	M 18 x 1.5	9	25	18	29	19	22	13.94 x 2.62
XETOR NW 08 HS	S	PN 250	12	G 3/8" -19	M 20 x 1.5	9	29	22	29	22	22	13.94 x 2.62
XETOR NW 10 HS	S	PN 250	14	G 1/2" -14	M 22 x 1.5	13	43	25	36	27	27	17.86 x 2.62
XETOR NW 13 HS	S	PN 250	16	G 1/2" -14	M 24 x 1.5	13	33	25	36	27	27	17.86 x 2.62
XETOR NW 16 HS	S	PN 250	20	G 3/4" -14	M 30 x 2	12	38	28	39	30	36	23.47 x 2.62
XETOR NW 20 HS	S	PN 250	25	G 1" -11	M 36 x 2	14	42	30	44	36	41	29.74 x 3.53
XETOR NW 25 HS	S	PN 160	30	G 1.1/4" -11	M 42 x 2	15	49	36	49	50	50	37.69 x 3.53
XETOR NW 32 HS	S	PN 160	38	G 1.1/2" -11	M 52 x 2	15	50	34	55	50	55	44.04 x 3.53

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XETORK****Screw-in fitting, T shaped**

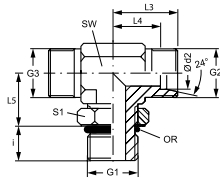
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	i mm	L3 mm	L4 mm	L5 mm	SW mm	S1	OR
XETORK NW 04 HL	L	PN 315	6	G 1/8" -28	M 12 x 1.5	7	21	14	19	14	14	8.00 x 1.50
XETORK NW 06 HL	L	PN 315	8	G 1/4" -19	M 14 x 1.5	9	23	16	23	14	19	10.77 x 2.62
XETORK NW 08 HL	L	PN 315	10	G 1/4" -19	M 16 x 1.5	9	24	17	25	19	19	10.77 x 2.62
XETORK NW 10 HL	L	PN 250	12	G 3/8" -19	M 18 x 1.5	9	26	19	28	19	22	13.94 x 2.62
XETORK NW 13 HL	L	PN 250	15	G 1/2" -14	M 22 x 1.5	13	28	21	30	22	27	17.86 x 2.62
XETORK NW 16 HL	L	PN 250	18	G 1/2" -14	M 26 x 1.5	13	31	24	36	27	27	17.86 x 2.62
XETORK NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	13	35	28	36	30	36	23.47 x 2.62
XETORK NW 25 HL	L	PN 160	28	G 1" -11	M 36 x 2	15	38	31	44	36	41	29.50 x 3.53
XETORK NW 32 HL	L	PN 160	35	G 1.1/4" -11	M 45 x 2	15	48	38	50	50	50	37.69 x 3.53
XETORK NW 40 HL	L	PN 160	42	G 1.1/2" -11	M 52 x 2	15	49	38	52	50	50	44.04 x 3.53
XETORK NW 03 HS	S	PN 315	6	G 1/4" -19	M 14 x 1.5	9	22	15	23	14	19	10.77 x 2.62
XETORK NW 04 HS	S	PN 315	8	G 1/4" -19	M 16 x 1.5	9	24	17	27	19	19	10.77 x 2.62
XETORK NW 06 HS	S	PN 250	10	G 3/8" -19	M 18 x 1.5	9	25	18	29	19	22	13.94 x 2.62
XETORK NW 08 HS	S	PN 250	12	G 3/8" -19	M 20 x 1.5	9	29	22	29	22	22	13.94 x 2.62
XETORK NW 10 HS	S	PN 250	14	G 1/2" -14	M 22 x 1.5	13	33	25	36	27	27	17.86 x 2.62
XETORK NW 13 HS	S	PN 250	16	G 1/2" -14	M 24 x 1.5	13	33	25	36	27	27	17.86 x 2.62
XETORK NW 16 HS	S	PN 250	20	G 3/4" -14	M 30 x 2	12	38	28	39	30	36	23.47 x 2.62
XETORK NW 20 HS	S	PN 250	25	G 1" -11	M 36 x 2	14	42	30	44	36	41	29.74 x 3.53
XETORK NW 25 HS	S	PN 160	30	G 1.1/4" -11	M 42 x 2	15	49	36	49	50	50	37.69 x 3.53
XETORK NW 32 HS	S	PN 160	38	G 1.1/2" -11	M 52 x 2	15	50	34	55	50	55	44.04 x 3.53

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XETOM****Screw-in fitting, T shaped**

- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	i mm	L3 mm	L4 mm	L5 mm	SW mm	S1	OR
XETOM NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	7	21	14	20	14	14	8.1 x 1.6
XETOM NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	10	23	16	22	14	17	9.3 x 2.4
XETOM NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	10	24	17	25	19	19	11.3 x 2.4
XETOM NW 10 HL	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	10	26	19	26	19	22	13.3 x 2.4
XETOM NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	11	28	21	30	22	24	15.3 x 2.4
XETOM NW 16 HL	L	PN 315	18	M 22 x 1.5	M 26 x 1.5	12	31	24	33	27	27	19.3 x 2.4
XETOM NW 20 HL 27	L	PN 160	22	M 27 x 2	M 30 x 2	14	35	28	35	30	32	23.6 x 2.9
XETOM NW 25 HL	L	PN 160	28	M 33 x 2	M 36 x 2	14	38	31	38	36	41	29.5 x 3.0
XETOM NW 32 HL	L	PN 160	35	M 42 x 2	M 45 x 2	14	48	38	48	50	50	38.0 x 3.0
XETOM NW 40 HL	L	PN 160	42	M 48 x 2	M 52 x 2	16	49	38	49	50	55	44.5 x 3.0
XETOM NW 03 HS	S	PN 400	6	M 12 x 1.5	M 14 x 1.5	10	22	15	22	14	17	9.3 x 2.4
XETOM NW 04 HS	S	PN 400	8	M 14 x 1.5	M 16 x 1.5	10	24	17	26	19	19	11.3 x 2.4
XETOM NW 06 HS	S	PN 400	10	M 16 x 1.5	M 18 x 1.5	11	25	19	27	19	22	13.3 x 2.4
XETOM NW 08 HS	S	PN 400	12	M 18 x 1.5	M 20 x 1.5	12	29	22	31	22	24	15.3 x 2.4
XETOM NW 10 HS	S	PN 250	14	M 20 x 1.5	M 22 x 1.5	14	33	25	35	27	27	17.3 x 2.4
XETOM NW 13 HS	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	14	33	25	35	27	27	19.3 x 2.4
XETOM NW 16 HS	S	PN 400	20	M 27 x 2	M 30 x 2	16	38	28	39	30	32	23.6 x 2.9
XETOM NW 20 HS	S	PN 315	25	M 33 x 2	M 36 x 2	16	42	30	44	36	41	29.5 x 3.0
XETOM NW 25 HS	S	PN 250	30	M 42 x 2	M 42 x 2	17	49	36	51	50	50	38.0 x 3.0
XETOM NW 32 HS	S	PN 200	38	M 48 x 2	M 52 x 2	19	50	34	54	50	55	44.5 x 3.0

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

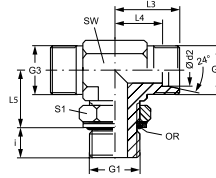
**Product versions:**

**ETOM** - Screw-in fitting, T shaped, Socket with union nut and cutting ring, Steel



**XETOMK****Screw-in fitting, T shaped**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	i mm	L3 mm	L4 mm	L5 mm	SW mm	S1	OR
XETOMK NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	7	21	14	20	14	13	8.1 x 1.6
XETOMK NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	10	23	16	22	14	17	9.3 x 2.4
XETOMK NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	9	24	17	25	19	17	11.3 x 2.4
XETOMK NW 10 HL	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	9	26	19	26	19	19	13.3 x 2.4
XETOMK NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	11	28	21	30	22	22	15.3 x 2.4
XETOMK NW 16 HL	L	PN 250	18	M 22 x 1.5	M 26 x 1.5	11	31	24	33	27	27	19.3 x 2.4
XETOMK NW 20 HL	L	PN 160	22	M 26 x 1.5	M 30 x 2	16	35	28	35	30	36	23.3 x 2.4
XETOMK NW 20 HL 27	L	PN 160	22	M 27 x 2	M 30 x 2	14	35	28	35	30	32	23.6 x 2.9
XETOMK NW 25 HL	L	PN 160	28	M 33 x 2	M 36 x 2	14	38	31	38	36	38	29.5 x 3.0
XETOMK NW 32 HL	L	PN 160	35	M 42 x 2	M 45 x 2	14	48	38	48	50	50	38.0 x 3.0
XETOMK NW 40 HL	L	PN 160	42	M 48 x 2	M 52 x 2	16	49	38	49	50	55	44.5 x 3.0
XETOMK NW 03 HS	S	PN 315	6	M 12 x 1.5	M 14 x 1.5	10	22	15	22	14	17	9.3 x 2.4
XETOMK NW 04 HS	S	PN 315	8	M 14 x 1.5	M 16 x 1.5	10	20	17	26	19	17	11.3 x 2.4
XETOMK NW 06 HS	S	PN 315	10	M 16 x 1.5	M 18 x 1.5	11	25	18	27	19	19	13.3 x 2.4
XETOMK NW 08 HS	S	PN 315	12	M 18 x 1.5	M 20 x 1.5	12	29	22	31	22	22	15.3 x 2.4
XETOMK NW 10 HS	S	PN 315	14	M 20 x 1.5	M 22 x 1.5	14	33	25	25	22	27	17.3 x 2.4
XETOMK NW 13 HS	S	PN 250	16	M 22 x 1.5	M 24 x 1.5	14	33	25	35	27	27	19.3 x 2.4
XETOMK NW 16 HS	S	PN 250	20	M 27 x 2	M 30 x 2	16	38	28	39	30	32	23.6 x 2.9
XETOMK NW 20 HS	S	PN 160	25	M 33 x 2	M 36 x 2	16	42	30	44	36	38	29.5 x 3.0
XETOMK NW 25 HS	S	PN 160	30	M 42 x 2	M 42 x 2	17	49	36	51	50	50	38.0 x 3.0
XETOMK NW 32 HS	S	PN 160	38	M 48 x 2	M 52 x 2	19	50	34	54	50	55	44.5 x 3.0

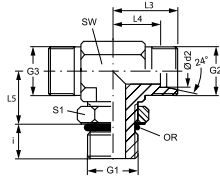
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**ETOMK** - Screw-in fitting, T shaped, Socket with union nut and cutting ring, Steel

# XETO

## Screw-in fitting, T shaped



- Connection 1:** UN/UNF external threads
- Sealing form 1:** O-ring seal on screw-in socket
- Connection 2 + 3:** metric cylindrical outer thread
- Sealing form 2 + 3:** 24° inner cone
- Design:** Adjustable direction screw-in fitting
- Construction:** T shaped
- Standard:** ISO 8434-1
- Included in scope of supply:** Socket (without union nut and cutting ring)
- Material:** Steel
- Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	i mm	L3 mm	L4 mm	L5 mm	SW mm	S1	OR
XETO NW 04 HL 7/16	L	PN 315	6	7/16"-20 UNF	M 12 x 1.5	10	29	14	19	14	14	8.92 x 1.83
XETO NW 06 HL 7/16	L	PN 315	8	7/16"-20 UNF	M 14 x 1.5	10	31	16	19	14	14	8.92 x 1.83
XETO NW 06 HL 1/2	L	PN 315	8	1/2"-20 UNF	M 14 x 1.5	10	31	16	19	14	17	10.52 x 1.83
XETO NW 06 HL 9/16	L	PN 315	8	9/16"-18 UNF	M 14 x 1.5	10	31	16	24	17	19	11.90 x 1.98
XETO NW 08 HL 9/16	L	PN 315	10	9/16"-18 UNF	M 16 x 1.5	10	32	17	24	17	19	11.90 x 1.98
XETO NW 10 HL 3/4	L	PN 315	12	3/4"-16 UNF	M 18 x 1.5	13	34	19	25	22	19	16.36 x 2.20
XETO NW 10 HL 9/16	L	PN 315	12	9/16"-18 UNF	M 18 x 1.5	11	34	19	25	17	19	11.90 x 1.98
XETO NW 13 HL 3/4	L	PN 315	15	3/4"-16 UNF	M 22 x 1.5	13	36	21	28	22	22	16.36 x 2.20
XETO NW 13 HL 7/8	L	PN 315	15	7/8"-14 UNF	M 22 x 1.5	15	36	21	28	27	22	19.18 x 2.46
XETO NW 16 HL 1 1/16	L	PN 315	18	1 1/16"-12 UN	M 26 x 1.5	17	40	24	32	32	30	23.47 x 2.95
XETO NW 16 HL 7/8	L	PN 315	18	7/8"-14 UNF	M 26 x 1.5	15	40	24	32	27	27	19.18 x 2.46
XETO NW 20 HL 1 1/16	L	PN 160	22	1 1/16"-12 UN	M 30 x 2	17	44	28	35	32	30	23.47 x 2.95
XETO NW 25 HL 1 5/16	L	PN 160	28	1 5/16"-12 UN	M 36 x 2	17	47	31	42	41	36	29.74 x 2.95
XETO NW 32 HL 1 5/8	L	PN 160	35	1 5/8"-12 UN	M 45 x 2	17	59	38	46	50	50	37.47 x 3.00
XETO NW 40 HL 1 7/8	L	PN 160	42	1 7/8"-12 UN	M 52 x 2	17	61	38	47	55	50	43.69 x 3.00
XETO NW 03 HS 7/16	S	PN 400	6	7/16"-20 UNF	M 14 x 1.5	12	30	15	20	14	14	8.92 x 1.83
XETO NW 04 HS 1/2	S	PN 400	8	1/2"-20 UNF	M 16 x 1.5	12	32	19	25	19	17	10.52 x 1.83
XETO NW 04 HS 9/16	S	PN 400	8	9/16"-18 UNF	M 16 x 1.5	12	32	17	25	19	17	11.90 x 1.98
XETO NW 06 HS 9/16	S	PN 400	10	9/16"-18 UNF	M 18 x 1.5	12	34	18	26	17	19	11.90 x 1.98
XETO NW 08 HS 3/4	S	PN 400	12	3/4"-16 UNF	M 20 x 1.5	14	38	22	30	22	22	16.36 x 2.20
XETO NW 10 HS 7/8	S	PN 250	14	7/8"-14 UNF	M 22 x 1.5	13	34	16	31	27	27	19.18 x 2.95
XETO NW 13 HS 7/8	S	PN 400	16	7/8"-14 UNF	M 24 x 1.5	16	43	25	34	27	27	19.18 x 2.46
XETO NW 16 HS 1 1/16	S	PN 400	20	1 1/16"-12 UN	M 30 x 2	19	49	28	37	32	30	23.47 x 2.95
XETO NW 20 HS 1 1/16	S	PN 400	25	1 1/16"-12 UN	M 36 x 2	19	54	30	50	32	36	23.47 x 2.95
XETO NW 20 HS 1 5/16	S	PN 250	25	1 5/16"-12 UN	M 36 x 2	19	54	30	50	36	41	29.74 x 2.95
XETO NW 25 HS 1 5/8	S	PN 250	30	1 5/8"-12 UN	M 42 x 2	19	62	36	50	50	50	37.47 x 3.00
XETO NW 32 HS 1 7/8	S	PN 250	38	1 7/8"-12 UN	M 52 x 2	19	65	34	51	55	50	43.69 x 3.00

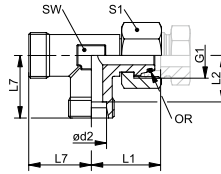
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

### Product versions:

ETO - Screw-in fitting, T shaped, Socket with union nut and cutting ring, Steel

**XVELO****Fitting, L shaped**

**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** L shaped  
**Standard:** ISO 8434-4  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



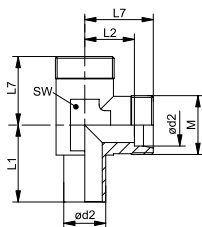
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L7 mm	SW mm	S1	OR
XVELO NW 04 HL	L	PN 315	6	M 12 x 1.5	26,0	12,0	19	12	14	4.0 x 1.5
XVELO NW 06 HL	L	PN 315	8	M 14 x 1.5	26,5	14,0	21	12	17	6.0 x 1.5
XVELO NW 08 HL	L	PN 315	10	M 16 x 1.5	29,0	15,0	22	14	19	7.5 x 1.5
XVELO NW 10 HL	L	PN 315	12	M 18 x 1.5	29,5	17,0	24	17	22	9.0 x 1.5
XVELO NW 13 HL	L	PN 315	15	M 22 x 1.5	32,5	21,0	28	19	27	12.0 x 2.0
XVELO NW 16 HL	L	PN 315	18	M 26 x 1.5	35,5	23,5	31	24	32	15.0 x 2.0
XVELO NW 20 HL	L	PN 160	22	M 30 x 2	38,5	27,5	35	27	36	20.0 x 2.0
XVELO NW 25 HL	L	PN 160	28	M 36 x 2	43,0	30,5	38	36	41	26.0 x 2.0
XVELO NW 32 HL	L	PN 160	35	M 45 x 2	51,5	34,5	45	41	50	32.0 x 2.5
XVELO NW 40 HL	L	PN 160	42	M 52 x 2	56,0	40,0	51	50	60	38.0 x 2.5
XVELO NW 03 HS	S	PN 630	6	M 14 x 1.5	27,0	16,0	23	12	17	4.0 x 1.5
XVELO NW 04 HS	S	PN 630	8	M 16 x 1.5	27,5	17,0	24	14	19	6.0 x 1.5
XVELO NW 06 HS	S	PN 630	10	M 18 x 1.5	30,5	17,5	25	17	22	7.5 x 1.5
XVELO NW 08 HS	S	PN 630	12	M 20 x 1.5	31,0	21,5	29	17	24	9.0 x 1.5
XVELO NW 10 HS	S	PN 630	14	M 22 x 1.5	35,0	22,0	30	19	27	10.0 x 2.0
XVELO NW 13 HS	S	PN 400	16	M 24 x 1.5	37,5	24,5	33	24	30	12.0 x 2.0
XVELO NW 16 HS	S	PN 400	20	M 30 x 2	44,5	26,5	37	27	36	16.3 x 2.4
XVELO NW 20 HS	S	PN 400	25	M 36 x 2	50,5	30,0	42	36	46	
XVELO NW 25 HS	S	PN 400	30	M 42 x 2	55,0	35,5	49	41	50	25.3 x 2.4
XVELO NW 32 HS	S	PN 315	38	M 52 x 2	63,0	41,0	57	50	60	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**Product versions:**

**XVELO VA** - Fitting, L shaped, Stainless steel  
**VELO** - Fitting, L shaped, Steel

**XNEL****Fitting, L shaped**

- Connection 1:** Pipe socket not pre-assembled  
**Sealing form 1:** Cutting ring connection  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** L shaped  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L7 mm	SW mm
XNEL NW 04 HL	L	PN 315	6	M 12 x 1.5	26,0	12,0	19	12
XNEL NW 06 HL	L	PN 315	8	M 14 x 1.5	27,5	14,0	21	12
XNEL NW 08 HL	L	PN 315	10	M 16 x 1.5	29,0	15,0	22	14
XNEL NW 10 HL	L	PN 315	12	M 18 x 1.5	29,5	17,0	24	17
XNEL NW 13 HL	L	PN 315	15	M 22 x 1.5	32,5	21,0	28	19
XNEL NW 16 HL	L	PN 315	18	M 26 x 1.5	35,5	23,5	31	24
XNEL NW 20 HL	L	PN 160	22	M 30 x 2	38,5	27,5	35	27
XNEL NW 25 HL	L	PN 160	28	M 36 x 2	41,5	30,5	38	36
XNEL NW 32 HL	L	PN 160	35	M 45 x 2	51,0	34,5	45	41
XNEL NW 40 HL	L	PN 160	42	M 52 x 2	56,0	40,0	51	50
XNEL NW 03 HS	S	PN 630	6	M 14 x 1.5	29,0	16,0	23	12
XNEL NW 04 HS	S	PN 630	8	M 16 x 1.5	27,5	17,0	24	14
XNEL NW 06 HS	S	PN 630	10	M 18 x 1.5	30,0	17,5	25	17
XNEL NW 08 HS	S	PN 630	12	M 20 x 1.5	31,0	21,5	29	17
XNEL NW 10 HS	S	PN 630	14	M 22 x 1.5	35,0	22,0	30	19
XNEL NW 13 HS	S	PN 400	16	M 24 x 1.5	36,5	24,5	33	24
XNEL NW 16 HS	S	PN 400	20	M 30 x 2	44,5	26,5	37	27
XNEL NW 20 HS	S	PN 400	25	M 36 x 2	50,0	30,0	42	36
XNEL NW 25 HS	S	PN 400	30	M 42 x 2	55,0	35,5	49	41
XNEL NW 32 HS	S	PN 315	38	M 52 x 2	63,0	41,0	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XNEL VA** - Fitting, L shaped, Stainless steel

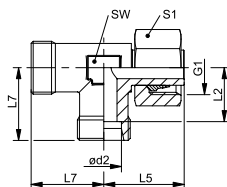
**NEL** - Fitting, L shaped, Steel

**Additional elements:**

**VOM** - Pre-assembly sockets

**XVEL****Fitting, L shaped**

**Connection 1:** metric nut thread  
**Sealing form 1:** Pipe socket, pre-assembled  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Adjustable direction fitting  
**Construction:** L shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring), pre-assembled  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

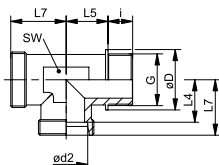
Identification	Series	Working pressure bar	Ø d2 mm	G1	L2 mm	L5 mm	L7 mm	SW mm	S1
XVEL NW 04 HL	L	PN 315	6	M 12 x 1.5	12,0	26,0	19	12	14
XVEL NW 06 HL	L	PN 315	8	M 14 x 1.5	14,0	27,5	21	12	17
XVEL NW 08 HL	L	PN 315	10	M 16 x 1.5	15,0	29,0	22	14	19
XVEL NW 10 HL	L	PN 315	12	M 18 x 1.5	17,0	29,5	24	17	22
XVEL NW 13 HL	L	PN 315	15	M 22 x 1.5	21,0	32,5	28	19	27
XVEL NW 16 HL	L	PN 315	18	M 26 x 1.5	23,5	35,5	31	24	32
XVEL NW 20 HL	L	PN 160	22	M 30 x 2	27,5	38,5	35	27	36
XVEL NW 25 HL	L	PN 160	28	M 36 x 2	30,5	41,5	38	36	41
XVEL NW 32 HL	L	PN 160	35	M 45 x 2	34,5	51,0	45	41	50
XVEL NW 40 HL	L	PN 160	42	M 52 x 2	40,0	56,0	51	50	60
XVEL NW 03 HS	S	PN 630	6	M 14 x 1.5	16,0	27,0	23	12	17
XVEL NW 04 HS	S	PN 630	8	M 16 x 1.5	17,0	27,5	24	14	19
XVEL NW 06 HS	S	PN 630	10	M 18 x 1.5	17,5	30,0	25	17	22
XVEL NW 08 HS	S	PN 630	12	M 20 x 1.5	21,5	31,0	29	17	24
XVEL NW 10 HS	S	PN 630	14	M 22 x 1.5	22,0	35,0	30	19	27
XVEL NW 13 HS	S	PN 400	16	M 24 x 1.5	24,5	36,5	33	24	30
XVEL NW 16 HS	S	PN 400	20	M 30 x 2	26,5	44,5	37	27	36
XVEL NW 20 HS	S	PN 400	25	M 36 x 2	30,0	50,0	42	36	46
XVEL NW 25 HS	S	PN 400	30	M 42 x 2	35,5	55,0	49	41	50
XVEL NW 32 HS	S	PN 315	38	M 52 x 2	41,0	63,0	57	50	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XVEL VA** - Fitting, L shaped, Stainless steel

**VEL** - Fitting, L shaped, Steel

**XLR****Screw-in fitting, L shaped**

<b>Connection 1:</b>	BSP external thread, cylindrical Shape B
<b>Sealing form 1:</b>	metric cylindrical outer thread
<b>Connection 2 + 3:</b>	metric cylindrical outer thread
<b>Sealing form 2 + 3:</b>	24° inner cone
<b>Design:</b>	Screw-in fitting
<b>Construction:</b>	L shaped
<b>Standard:</b>	DIN 2353
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L4 mm	L5 mm	L7 mm	SW mm
XLR NW 20 HL	L	PN 160	22	G 3/4" -14	32,0	16	27,5	26	35	27
XLR NW 25 HL	L	PN 160	28	G 1" -11	39,0	18	30,5	30	38	36
XLR NW 32 HL	L	PN 160	35	G 1.1/4" -11	49,0	20	34,5	34	45	41
XLR NW 40 HL	L	PN 160	42	G 1.1/2" -11	55,0	22	40,0	39	51	50
XLR NW 16 HS	S	PN 400	20	G 3/4" -14	32,0	16	26,5	26	37	27
XLR NW 20 HS	S	PN 400	25	G 1" -11	39,0	18	30,0	30	42	36
XLR NW 25 HS	S	PN 250	30	G 1.1/4" -11	49,0	20	35,5	34	49	41
XLR NW 32 HS	S	PN 250	38	G 1.1/2" -11	55,0	22	41,0	39	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

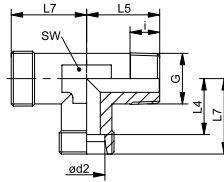
**Product versions:**

**XLR VA** - Screw-in fitting, L shaped, Stainless steel

**LR** - Screw-in fitting, L shaped, Steel

**XLRK****Screw-in fitting, L shaped**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** L shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

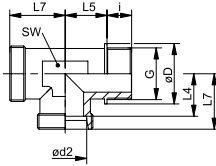
Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L4 mm	L5 mm	L7 mm	SW mm
XLR 04 LL	LL	PN 100	4	R 1/8" K	8	11,0	17	15	9
XLR 05 LL	LL	PN 100	5	R 1/8" K	8	9,5	17	15	9
XLR 06 LL	LL	PN 100	6	R 1/8" K	8	9,5	17	15	9
XLR 08 LL	LL	PN 100	8	R 1/8" K	8	11,5	20	17	12
XLR NW 04 HL	L	PN 315	6	R 1/8" K	8	12,0	20	19	12
XLR NW 06 HL	L	PN 315	8	R 1/4" K	12	14,0	26	21	12
XLR NW 08 HL	L	PN 315	10	R 1/4" K	12	15,0	27	22	14
XLR NW 10 HL	L	PN 315	12	R 3/8" K	12	17,0	28	24	17
XLR NW 13 HL	L	PN 315	15	R 1/2" K	14	21,0	34	26	19
XLR NW 16 HL	L	PN 315	18	R 1/2" K	14	23,5	36	31	24
XLR NW 03 HS	S	PN 400	6	R 1/4" K	12	16,0	26	23	14
XLR NW 04 HS	S	PN 400	8	R 1/4" K	12	17,0	27	24	17
XLR NW 06 HS	S	PN 400	10	R 3/8" K	12	17,5	28	25	17
XLR NW 08 HS	S	PN 400	12	R 3/8" K	12	21,5	28	29	19
XLR NW 10 HS	S	PN 400	14	R 1/2" K	14	22,0	32	30	19
XLR NW 13 HS	S	PN 400	16	R 1/2" K	14	24,5	32	33	24

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XLRK VA** - Screw-in fitting, L shaped, Stainless steel

**LRK** - Screw-in fitting, L shaped, Steel

**XLM****Screw-in fitting, L shaped**

<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	Shape B
<b>Connection 2 + 3:</b>	metric cylindrical outer thread
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	24° inner cone
<b>Design:</b>	Screw-in fitting
<b>Construction:</b>	L shaped
<b>Standard:</b>	DIN 2353
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L4 mm	L5 mm	L7 mm	SW mm
XLM NW 20 HL	L	PN 160	22	M 26 x 1.5	31,0	16	27,5	26	35	27
XLM NW 25 HL	L	PN 160	28	M 33 x 2	39,0	18	30,5	30	38	36
XLM NW 32 HL	L	PN 160	35	M 42 x 2	49,0	20	34,5	34	45	41
XLM NW 40 HL	L	PN 160	42	M 48 x 2	55,0	22	40,0	39	51	50
XLM NW 16 HS	S	PN 400	20	M 27 x 2	32,0	16	26,5	26	37	27
XLM NW 20 HS	S	PN 400	25	M 33 x 2	39,0	18	30,0	30	42	36
XLM NW 25 HS	S	PN 250	30	M 42 x 2	49,0	20	35,5	34	49	41
XLM NW 32 HS	S	PN 250	38	M 48 x 2	55,0	22	41,0	39	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

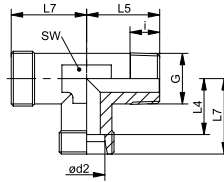
**XLM VA** - Screw-in fitting, L shaped, Stainless steel

**LM** - Screw-in fitting, L shaped, Steel



**XLMK****Screw-in fitting, L shaped**

**Connection 1:** metric conical outer thread  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Screw-in fitting  
**Construction:** L shaped  
**Standard:** DIN 2353  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



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**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L4 mm	L5 mm	L7 mm	SW mm
XLM 04 LL	LL	PN 100	4	M 8 x 1 K	8	11,0	17	15	9
XLM 05 LL	LL	PN 100	5	M 8 x 1 K	8	9,5	17	15	11
XLM 06 LL	LL	PN 100	6	M 10 x 1 K	8	9,5	17	15	9
XLM 08 LL	LL	PN 100	8	M 10 x 1 K	8	11,5	20	17	12
XLM NW 04 HL	L	PN 315	6	M 10 x 1 K	8	12,0	20	19	12
XLM NW 06 HL	L	PN 315	8	M 12 x 1.5 K	12	14,0	26	21	12
XLM NW 08 HL	L	PN 315	10	M 14 x 1.5 K	12	15,0	27	22	14
XLM NW 10 HL	L	PN 315	12	M 16 x 1.5 K	12	17,0	28	24	17
XLM NW 13 HL	L	PN 316	15	M 18 x 1.5 K	12	21,0	32	26	19
XLM NW 16 HL	L	PN 315	18	M 22 x 1.5 K	14	23,5	36	31	24
XLM NW 03 HS	S	PN 400	6	M 12 x 1.5 K	12	16,0	26	23	12
XLM NW 04 HS	S	PN 400	8	M 14 x 1.5 K	12	17,0	27	24	14
XLM NW 06 HS	S	PN 400	10	M 16 x 1.5 K	12	17,5	28	25	17
XLM NW 08 HS	S	PN 400	12	M 18 x 1.5 K	12	21,5	28	29	17
XLM NW 10 HS	S	PN 400	14	M 20 x 1.5 K	14	22,0	32	30	19
XLM NW 13 HS	S	PN 400	16	M 22 x 1.5 K	14	24,5	32	33	24

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

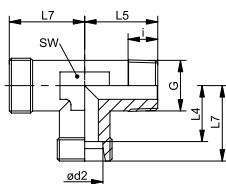
**Product versions:**

**XLMK VA** - Screw-in fitting, L shaped, Stainless steel

**LMK** - Screw-in fitting, L shaped, Steel

## XLN

## Screw-in fitting, L shaped



<b>Connection 1:</b>	NPT external threads
<b>Sealing form 1:</b>	thread seal
<b>Connection 2 + 3:</b>	metric cylindrical outer thread
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	24° inner cone
<b>Design:</b>	Screw-in fitting
<b>Construction:</b>	L shaped
<b>Standard:</b>	DIN 2353
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	i mm	L4 mm	L5 mm	L7 mm	SW mm
XLN 04 LL	LL	PN 100	4	1/8" -27 NPT	8	11,0	17	15	9
XLN 06 LL	LL	PN 100	6	1/8" -27 NPT	8	9,5	17	15	9
XLN 08 LL	LL	PN 100	8	1/8" -27 NPT	8	11,5	20	17	12
XLN NW 04 HL	L	PN 315	6	1/8" -27 NPT	8	12,0	20	19	12
XLN NW 06 HL	L	PN 315	8	1/4" -18 NPT	12	14,0	26	21	12
XLN NW 08 HL	L	PN 315	10	1/4" -18 NPT	12	15,0	27	22	14
XLN NW 10 HL	L	PN 315	12	3/8" -18 NPT	12	17,0	28	24	17
XLN NW 13 HL	L	PN 315	15	1/2" -14 NPT	14	21,0	34	28	19
XLN NW 16 HL	L	PN 315	18	1/2" -14 NPT	14	23,5	36	31	24
XLN NW 20 HL	L	PN 160	22	3/4" -14 NPT	16	27,5	42	35	27
XLN NW 25 HL	L	PN 160	28	1" -11.5 NPT	18	30,5	48	38	36
XLN NW 32 HL	L	PN 160	35	1.1/4" -11.5 NPT	20	34,5	54	45	41
XLN NW 40 HL	L	PN 160	42	1.1/2" -11.5 NPT	22	40,0	61	51	50
XLN NW 03 HS	S	PN 630	6	1/4" -18 NPT	12	16,0	26	23	12
XLN NW 04 HS	S	PN 630	8	1/4" -18 NPT	12	17,0	27	24	14
XLN NW 06 HS	S	PN 630	10	3/8" -18 NPT	12	17,5	28	25	17
XLN NW 08 HS	S	PN 630	12	3/8" -18 NPT	12	21,5	31	29	17
XLN NW 10 HS	S	PN 630	14	1/2" -14 NPT	14	22,0	32	30	19
XLN NW 13 HS	S	PN 400	16	1/2" -14 NPT	14	24,5	32	33	24
XLN NW 16 HS	S	PN 400	20	3/4" -14 NPT	16	26,5	42	37	27
XLN NW 20 HS	S	PN 400	25	1" -11.5 NPT	18	30,0	48	42	36
XLN NW 25 HS	S	PN 400	30	1.1/4" -11.5 NPT	20	35,5	54	49	41
XLN NW 32 HS	S	PN 315	38	1.1/2" -11.5 NPT	22	41,0	61	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

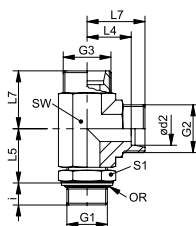
**Product versions:**

**XLN VA** - Screw-in fitting, L shaped, Stainless steel

**LN** - Screw-in fitting, L shaped, Steel

**XELORK****Screw-in fitting, L shaped**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** L shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



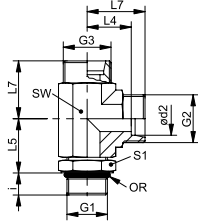
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	S2	OR
XELORK NW 04 HL	L	PN 315	6	G 1/8" -28	M 12 x 1.5	7	14	19	21	14	14	14	8.00 x 1.50
XELORK NW 06 HL	L	PN 315	8	G 1/4" -19	M 14 x 1.5	9	16	23	23	14	19	17	10.77 x 2.62
XELORK NW 08 HL	L	PN 315	10	G 1/4" -19	M 16 x 1.5	9	17	25	24	19	19	19	10.77 x 2.62
XELORK NW 10 HL	L	PN 315	12	G 3/8" -19	M 18 x 1.5	9	19	28	26	19	22	22	13.94 x 2.62
XELORK NW 13 HL	L	PN 250	15	G 1/2" -14	M 22 x 1.5	13	21	30	28	22	27	27	17.86 x 2.62
XELORK NW 16 HL	L	PN 250	18	G 1/2" -14	M 26 x 1.5	13	24	36	31	27	27	32	17.86 x 2.62
XELORK NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	13	28	36	35	30	36	36	23.47 x 2.62
XELORK NW 25 HL	L	PN 160	28	G 1" -11	M 36 x 2	15	31	44	38	36	41	41	29.74 x 3.53
XELORK NW 32 HL	L	PN 160	35	G 1.1/4" -11	M 45 x 2	15	38	50	48	50	50	50	37.69 x 3.53
XELORK NW 40 HL	L	PN 160	42	G 1.1/2" -11	M 52 x 2	15	38	52	49	50	55	60	44.04 x 3.53
XELORK NW 03 HS	S	PN 315	6	G 1/4" -19	M 14 x 1.5	9	15	23	22	14	19	17	10.77 x 2.62
XELORK NW 04 HS	S	PN 315	8	G 1/4" -19	M 16 x 1.5	9	17	27	24	19	19	19	10.77 x 2.62
XELORK NW 06 HS	S	PN 250	10	G 3/8" -19	M 18 x 1.5	9	18	29	25	19	22	22	13.94 x 2.62
XELORK NW 08 HS	S	PN 250	12	G 3/8" -19	M 18 x 1.5	9	22	29	29	22	22	24	13.94 x 2.62
XELORK NW 10 HS	S	PN 250	14	G 1/2" -14	M 22 x 1.5	13	25	36	33	27	27	27	17.86 x 2.62
XELORK NW 13 HS	S	PN 250	16	G 1/2" -14	M 24 x 1.5	13	25	36	33	27	27	30	17.86 x 2.62
XELORK NW 16 HS	S	PN 250	20	G 3/4" -14	M 30 x 2	12	28	39	38	30	36	36	23.47 x 2.62
XELORK NW 20 HS	S	PN 250	25	G 1" -11	M 36 x 2	14	30	44	42	36	41	46	29.74 x 3.53
XELORK NW 25 HS	S	PN 160	30	G 1.1/4" -11	M 42 x 2	15	36	49	51	50	50	50	37.69 x 3.53
XELORK NW 32 HS	S	PN 160	38	G 1.1/2" -11	M 52 x 2	15	34	55	50	50	55	60	44.04 x 3.53

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**ELORK** - Screw-in fitting, L shaped, Socket with union nut and cutting ring, Steel

**XELOR****Screw-in fitting, L shaped**

- Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** metric cylindrical outer thread  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** L shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

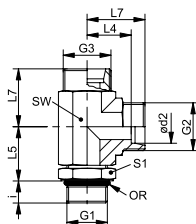
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2+ G3	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XELOR NW 06 HL	L	PN 315	8	G 1/4" -19	M 14 x 1.5	9,5	16	22,5	23	14	19	10.77 x 2.62
XELOR NW 08 HL	L	PN 315	10	G 1/4" -19	M 16 x 1.5	9,5	17	24,5	24	19	19	10.77 x 2.62
XELOR NW 10 HL	L	PN 250	12	G 3/8" -19	M 18 x 1.5	9,5	19	27,5	26	19	22	13.94 x 2.62
XELOR NW 13 HL	L	PN 250	15	G 1/2" -14	M 22 x 1.5	13,0	21	30,0	28	22	27	17.86 x 2.62
XELOR NW 16 HL	L	PN 250	18	G 1/2" -14	M 26 x 1.5	13,0	24	36,5	31	27	27	17.86 x 2.62
XELOR NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	13,0	28	37,5	35	30	36	23.47 x 2.62
XELOR NW 25 HL	L	PN 160	28	G 1" -11	M 36 x 2	16,0	31	41,0	38	36	41	29.74 x 3.53
XELOR NW 32 HL	L	PN 160	35	G 1.1/4" -11	M 45 x 2	16,0	38	49,0	48	50	50	37.69 x 3.53
XELOR NW 40 HL	L	PN 160	42	G 1.1/2" -11	M 52 x 2	16,0	38	51,0	49	50	55	44.04 x 3.53
XELOR NW 32 HS	S	PN 160	38	G 1.1/2" -11	M 52 x 2	16,0	34	53,0	50	50	55	44.04 x 3.53

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XELOM****Screw-in fitting, L shaped**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** L shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



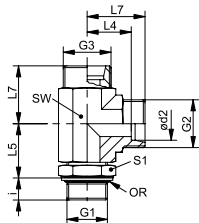
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XELOM NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	7	14	20	21	14	14	8.1 x 1.6
XELOM NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	10	16	22	23	14	17	9.3 x 2.4
XELOM NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	10	17	25	24	19	19	11.3 x 2.4
XELOM NW 10 HL	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	10	19	26	26	19	22	13.3 x 2.4
XELOM NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	11	21	30	28	22	24	15.3 x 2.4
XELOM NW 16 HL	L	PN 315	18	M 22 x 1.5	M 26 x 1.5	12	24	33	31	27	27	19.3 x 2.4
XELOM NW 20 HL 27	L	PN 160	22	M 27 x 2	M 30 x 2	14	28	35	35	30	32	23.6 x 2.9
XELOM NW 25 HL	L	PN 160	28	M 33 x 2	M 36 x 2	14	31	38	38	36	41	29.5 x 3.0
XELOM NW 32 HL	L	PN 160	35	M 42 x 2	M 45 x 2	14	38	48	48	50	50	38.0 x 3.0
XELOM NW 40 HL	L	PN 160	42	M 48 x 2	M 52 x 2	16	38	49	49	50	55	44.5 x 3.0
XELOM NW 03 HS	S	PN 400	6	M 12 x 1.5	M 14 x 1.5	10	15	22	22	14	17	9.3 x 2.4
XELOM NW 04 HS	S	PN 400	8	M 14 x 1.5	M 16 x 1.5	10	17	26	24	19	19	11.3 x 2.4
XELOM NW 06 HS	S	PN 400	10	M 16 x 1.5	M 18 x 1.5	11	18	27	25	19	22	13.3 x 2.4
XELOM NW 08 HS	S	PN 400	12	M 18 x 1.5	M 20 x 1.5	12	22	31	29	22	24	15.3 x 2.4
XELOM NW 10 HS	S	PN 250	14	M 20 x 1.5	M 22 x 1.5	14	22	34	30	24	27	17.3 x 2.4
XELOM NW 13 HS	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	14	25	35	33	27	27	19.3 x 2.4
XELOM NW 16 HS	S	PN 400	20	M 27 x 2	M 30 x 2	16	28	35	38	30	32	23.6 x 2.9
XELOM NW 20 HS	S	PN 315	25	M 33 x 2	M 36 x 2	16	30	44	42	36	41	29.5 x 3.0
XELOM NW 25 HS	S	PN 250	30	M 42 x 2	M 42 x 2	17	36	51	49	50	50	38.0 x 3.0
XELOM NW 32 HS	S	PN 200	38	M 48 x 2	M 52 x 2	19	34	54	50	50	55	44.5 x 3.0

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**ELOM** - Screw-in fitting, L shaped, Socket with union nut and cutting ring, Steel

**XELOMK****Screw-in fitting, L shaped**

<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	O-ring and spacer diaphragm ring
<b>Connection 2 + 3:</b>	metric cylindrical outer thread
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	24° inner cone
<b>Design:</b>	Adjustable direction screw-in fitting
<b>Construction:</b>	L shaped
<b>Standard:</b>	ISO 8434-1
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XELOMK NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	7	14	20	21	14	13	8.1 x 1.6
XELOMK NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	10	16	22	23	14	17	9.3 x 2.4
XELOMK NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	9	17	25	24	19	17	11.3 x 2.4
XELOMK NW 10 HL	L	PN 315	12	M 16 x 1.5	M 18 x 1.5	9	19	26	26	19	19	13.3 x 2.4
XELOMK NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	11	21	30	28	22	22	15.3 x 2.4
XELOMK NW 16 HL	L	PN 250	18	M 22 x 1.5	M 26 x 1.5	11	24	33	31	27	27	19.3 x 2.4
XELOMK NW 20 HL	L	PN 160	22	M 26 x 1.5	M 30 x 2	16	28	35	35	30	32	23.3 x 2.4
XELOMK NW 20 HL 27	L	PN 160	22	M 27 x 2	M 30 x 2	14	28	35	35	30	36	23.6 x 2.9
XELOMK NW 25 HL	L	PN 160	28	M 33 x 2	M 36 x 2	14	31	38	38	36	38	29.5 x 3.0
XELOMK NW 32 HL	L	PN 160	35	M 42 x 2	M 45 x 2	14	38	48	48	50	50	38.0 x 3.0
XELOMK NW 40 HL	L	PN 160	42	M 48 x 2	M 52 x 2	16	38	49	49	50	55	44.5 x 3.0
XELOMK NW 03 HS	S	PN 315	6	M 12 x 1.5	M 14 x 1.5	10	15	22	22	14	17	9.3 x 2.4
XELOMK NW 04 HS	S	PN 315	8	M 14 x 1.5	M 16 x 1.5	10	17	26	24	19	17	11.3 x 2.4
XELOMK NW 06 HS	S	PN 315	10	M 16 x 1.5	M 18 x 1.5	11	18	27	25	19	19	13.3 x 2.4
XELOMK NW 08 HS	S	PN 315	12	M 18 x 1.5	M 20 x 1.5	12	22	31	29	22	22	15.3 x 2.4
XELOMK NW 10 HS	S	PN 250	14	M 20 x 1.5	M 22 x 1.5	14	25	35	33	27	27	17.3 x 2.4
XELOMK NW 13 HS	S	PN 250	16	M 22 x 1.5	M 24 x 1.5	14	25	35	33	27	27	19.3 x 2.4
XELOMK NW 16 HS	S	PN 250	20	M 27 x 2	M 30 x 2	16	28	39	38	30	32	23.6 x 2.9
XELOMK NW 20 HS	S	PN 160	25	M 33 x 2	M 36 x 2	16	30	44	42	36	38	29.5 x 3.0
XELOMK NW 25 HS	S	PN 160	30	M 42 x 2	M 42 x 2	17	36	51	49	50	50	38.0 x 2.0
XELOMK NW 32 HS	S	PN 160	38	M 48 x 2	M 52 x 2	19	34	54	50	50	55	44.5 x 3.0

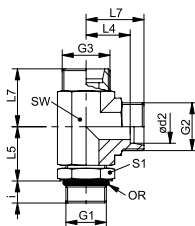
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**ELOMK** - Screw-in fitting, L shaped, Socket with union nut and cutting ring, Steel

**XELO****Screw-in fitting, L shaped**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Adjustable direction screw-in fitting  
**Construction:** L shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanized



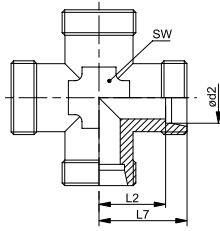
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	i mm	L4 mm	L5 mm	L7 mm	SW mm	S1	OR
XELO NW 04 HL 7/16	L	PN 315	6	7/16"-20 UNF	M 12 x 1.5	10	14	19	21	14	14	8.92 x 1.83
XELO NW 06 HL 7/16	L	PN 315	8	7/16"-20 UNF	M 14 x 1.5	10	16	19	23	14	14	8.92 x 1.83
XELO NW 06 HL 1/2	L	PN 315	8	1/2"-20 UNF	M 14 x 1.5	10	16	19	23	14	19	10.52 x 1.83
XELO NW 06 HL 9/16	L	PN 315	8	9/16"-18 UNF	M 14 x 1.5	10	16	19	23	19	17	11.90 x 1.98
XELO NW 08 HL 9/16	L	PN 315	10	9/16"-18 UNF	M 16 x 1.5	10	17	24	24	19	17	11.90 x 1.98
XELO NW 10 HL 9/16	L	PN 315	12	9/16"-18 UNF	M 18 x 1.5	11	19	25	26	19	17	11.90 x 1.98
XELO NW 10 HL 3/4	L	PN 315	12	3/4"-16 UNF	M 18 x 1.5	13	19	25	26	19	22	16.36 x 2.20
XELO NW 13 HL 3/4	L	PN 315	15	3/4"-16 UNF	M 22 x 1.5	13	21	28	28	22	22	16.36 x 2.20
XELO NW 13 HL 7/8	L	PN 315	15	7/8"-14 UNF	M 22 x 1.5	15	21	28	28	22	27	19.18 x 2.46
XELO NW 16 HL 7/8	L	PN 315	18	7/8"-14 UNF	M 26 x 1.5	15	24	32	31	27	27	19.18 x 2.46
XELO NW 16 HL 1 1/16	L	PN 315	18	1.1/16" -12 UN	M 26 x 1.5	17	24	32	31	30	32	23.47 x 2.95
XELO NW 20 HL 1 1/16	L	PN 160	22	1.1/16" -12 UN	M 30 x 2	17	28	35	35	30	32	23.47 x 2.95
XELO NW 25 HL 1 5/16	L	PN 160	28	1.5/16" -12 UN	M 36 x 2	17	31	42	38	36	41	29.74 x 2.95
XELO NW 32 HL 1 5/8	L	PN 160	35	1.5/8" -12 UN	M 45 x 2	17	38	46	48	50	50	37.47 x 3.00
XELO NW 40 HL 1 7/8	L	PN 160	42	1.7/8" -12 UN	M 52 x 2	17	38	47	49	50	55	43.69 x 3.00
XELO NW 03 HS 7/16	S	PN 400	6	7/16"-20 UNF	M 14 x 1.5	12	15	20	22	14	14	8.92 x 1.83
XELO NW 04 HS 1/2	S	PN 400	8	1/2"-20 UNF	M 16 x 1.5	12	15	20	22	14	17	10.52 x 1.83
XELO NW 04 HS 9/16	S	PN 400	8	9/16"-18 UNF	M 16 x 1.5	12	17	25	24	19	17	11.90 x 1.98
XELO NW 06 HS 9/16	S	PN 400	10	9/16"-18 UNF	M 18 x 1.5	12	18	26	25	19	17	11.90 x 1.98
XELO NW 08 HS 3/4	S	PN 400	12	3/4"-16 UNF	M 20 x 1.5	14	22	30	29	22	22	16.36 x 2.20
XELO NW 10 HS 7/8	S	PN 250	14	7/8"-14 UNF	M 22 x 1.5	16	25	34	33	27	27	19.18 x 2.46
XELO NW 13 HS 7/8	S	PN 400	16	7/8"-14 UNF	M 24 x 1.5	16	25	34	33	27	27	19.18 x 2.46
XELO NW 16 HS 1 1/16	S	PN 400	20	1.1/16" -12 UN	M 30 x 2	19	28	37	38	30	32	23.47 x 2.95
XELO NW 20 HS 1 1/16	S	PN 400	25	1.1/16" -12 UN	M 36 x 2	19	30	50	42	36	32	23.47 x 2.95
XELO NW 20 HS 1 5/16	S	PN 400	25	1.5/16" -12 UN	M 36 x 2	19	33	53	46	38	33	29.74 x 2.95
XELO NW 25 HS 1 5/8	S	PN 250	30	1.5/8" -12 UN	M 42 x 2	19	36	50	49	50	50	37.47 x 3.00
XELO NW 32 HS 1 7/8	S	PN 250	38	1.7/8" -12 UN	M 52 x 2	19	34	51	50	50	55	43.69 x 3.00

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

ELO - Screw-in fitting, L shaped, Socket with union nut and cutting ring, Steel

**XK****Fitting, cross shaped**

**Connection 1 - 4:** metric cylindrical outer thread  
**Sealing form 1 - 4:** 24° inner cone  
**Design:** Fitting  
**Construction:** K shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	L2 mm	L7 mm	SW mm
XK 04 LL	LL	PN 100	4	11,0	15,0	9
XK 05 LL	LL	PN 100	5	9,5	15,0	9
XK 06 LL	LL	PN 100	6	9,5	15,0	9
XK 08 LL	LL	PN 100	8	11,5	17,0	12
XK NW 04 HL	L	PN 315	6	12,0	19,0	12
XK NW 06 HL	L	PN 315	8	14,0	21,0	12
XK NW 08 HL	L	PN 315	10	15,0	22,0	14
XK NW 10 HL	L	PN 315	12	17,0	24,0	17
XK NW 13 HL	L	PN 315	15	21,0	28,0	19
XK NW 16 HL	L	PN 315	18	23,5	31,0	24
XK NW 20 HL	L	PN 160	22	27,5	35,0	27
XK NW 25 HL	L	PN 160	28	30,5	38,0	36
XK NW 32 HL	L	PN 160	35	34,5	45,0	41
XK NW 40 HL	L	PN 160	42	40,0	51,0	50
XK NW 03 HS	S	PN 630	6	16,0	23,0	12
XK NW 04 HS	S	PN 630	8	17,0	24,0	14
XK NW 06 HS	S	PN 630	10	17,5	25,0	17
XK NW 08 HS	S	PN 630	12	21,5	29,0	17
XK NW 10 HS	S	PN 630	14	22,0	30,0	19
XK NW 13 HS	S	PN 400	16	24,5	33,0	24
XK NW 16 HS	S	PN 400	20	26,5	37,0	27
XK NW 20 HS	S	PN 400	25	30,0	42,0	36
XK NW 25 HS	S	PN 400	30	35,5	49,0	41
XK NW 32 HS	S	PN 315	38	41,0	57,0	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XK VA** - Fitting, cross shaped, Stainless steel

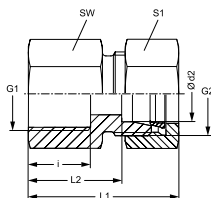
**K** - Fitting, cross shaped, Steel



## GAR HF

## Screw-on fitting, French series

<b>Connection 1:</b>	BSP cylindrical internal threads
<b>Sealing form 1:</b>	flat sealing
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Screw-on fitting
<b>Supplementary design information:</b>	
<b>Construction:</b>	French series straight
<b>Included in scope of supply:</b>	Socket with union nut and cutting ring
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



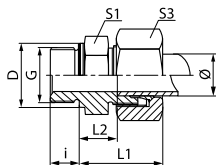
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d2 mm	G1	G2	i mm	L1 mm	L2 mm	SW mm	S1 mm
GAR NW 10 HF 1/4	PN 400	13,25	G 1/4" -19	M 20 x 1.5	12	41,5	19	22	27
GAR NW 10 HF	PN 400	13,25	G 3/8" -19	M 20 x 1.5	12	41,5	19	22	27
GAR NW 10 HF 1/2	PN 400	13,25	G 1/2" -14	M 20 x 1.5	15	45,0	22	27	30
GAR NW 13 HF 3/8	PN 250	16,75	G 3/8" -19	M 24 x 1.5	12	42,5	19	27	30
GAR NW 13 HF	PN 250	16,75	G 1/2" -14	M 24 x 1.5	14	44,5	21	27	30
GAR NW 16 HF	PN 250	21,25	G 1/2" -14	M 30 x 1.5	14	47,0	23	32	36

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

## VR HF

## Screw-in fitting, French series



**Connection 1:** BSP external thread, cylindrical Shape B  
**Sealing form 1:** metric cylindrical outer thread  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Screw-in fitting  
**Supplementary design information:** French series  
**Construction:** straight  
**Included in scope of supply:** Socket with union nut and cutting ring  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

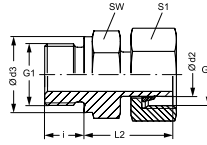
Identification	Working pressure bar	External pipe Ø mm	G	D mm	i mm	L1 mm	L2 mm	S1	S3
VR NW 10 HF 1/4	PN 400	13,25	G 1/4" -19	18	10	33,0	10,5	22	27
VR NW 10 HF	PN 400	13,25	G 3/8" -19	22	10	34,5	12,0	22	27
VR NW 10 HF 1/2	PN 400	13,25	G 1/2" -14	26	10	34,5	12,0	22	27
VR NW 13 HF 1/4	PN 250	16,75	G 1/4" -19	18	10	34,5	12,0	27	30
VR NW 13 HF 3/8	PN 250	16,75	G 3/8" -19	22	10	35,5	12,0	27	30
VR NW 13 HF	PN 250	16,75	G 1/2" -14	26	12	36,5	13,0	27	30
VR NW 16 HF	PN 250	21,25	G 1/2" -14	26	12	39,0	15,0	32	36
VR NW 16 HF 3/4	PN 250	21,25	G 3/4" -14	32	16	40,5	16,5	32	36
VR NW 20 HF	PN 250	26,75	G 3/4" -14	32	16	41,5	16,5	41	42
VR NW 20 HF 1	PN 250	26,75	G 1" -11	39	16	43,5	18,5	42	42
VR NW 25 HF	PN 160	33,50	G 1" -11	39	16	45,5	20,5	46	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

## AVR F

## Screw-in fitting, French series

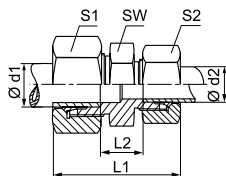
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	Shape B
<b>Connection 2:</b>	metric nut thread
<b>Sealing form 2:</b>	Pipe socket with cutting ring
<b>Design:</b>	Screw-in fitting
<b>Supplementary design information:</b>	
<b>Construction:</b>	French series
<b>Included in scope of supply:</b>	straight
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d2 mm	G1	G2	Ø d3 mm	i mm	L2 mm	SW mm	S1
AVR NW 10 F 1/4	PN 400	13,25	G 1/4" -19	M 20 x 1.5	22	10	39,5	22	27
AVR NW 10 F	PN 400	13,25	G 3/8" -19	M 20 x 1.5	22	10	41,0	22	27
AVR NW 13 F 3/8	PN 250	16,75	G 3/8" -19	M 24 x 1.5	26	10	43,0	22	30
AVR NW 13 F	PN 250	16,75	G 1/2" -14	M 24 x 1.5	26	12	46,0	27	30
AVR NW 16 F	PN 250	21,35	G 1/2" -14	M 30 x 1.5	26	12	48,0	27	36
AVR NW 16 F 3/4	PN 250	21,25	G 3/4" -14	M 30 x 1.5	32	16	53,5	32	36
AVR NW 20 F	PN 250	26,75	G 3/4" -14	M 36 x 1.5	39	16	53,5	32	42
AVR NW 20 F 1	PN 250	26,75	G 1" -11	M 36 x 1.5	40	16	55,5	46	42

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**V HF****Fitting, French series**

**Connection 1 + 2:** metric cylindrical outer thread  
**Sealing form 1 + 2:** 24° inner cone  
**Design:** Fitting  
**Supplementary design information:** French series  
**Construction:** straight  
**Included in scope of supply:** Socket with union nut and cutting ring  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

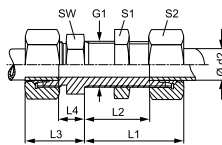
Identification	Working pressure bar	Ø d1 mm	Ø d2 mm	L1 mm	L2 mm	SW mm	S1	S2
V NW 10 HF	PN 400	13,25	13,25	58,0	13	22	27	27
V NW 13 HF 10	PN 250	16,75	13,25	60,0	14	27	30	27
V NW 13 HF	PN 250	16,75	16,75	61,0	14	27	30	30
V NW 16 HF 13	PN 250	21,25	16,75	64,5	17	32	36	30
V NW 16 HF	PN 250	21,25	21,25	67,0	19	32	36	36
V NW 20 HF 13	PN 250	26,75	16,75	66,5	18	41	42	30
V NW 20 HF	PN 250	26,75	26,75	70,0	20	36	42	42
V NW 25 HF 16	PN 160	33,50	21,25	73,0	24	46	55	36
V NW 25 HF 20	PN 160	33,50	26,75	74,0	24	46	55	42
V NW 25 HF	PN 160	33,50	33,50	76,0	26	46	55	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

## SV HF

## Bulkhead fitting, French series

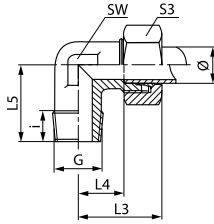
<b>Connection 1 + 2:</b>	metric cylindrical outer thread
<b>Sealing form 1 + 2:</b>	24° inner cone
<b>Design:</b>	Bulkhead fitting
<b>Supplementary design information:</b>	French series
<b>Construction:</b>	straight
<b>Included in scope of supply:</b>	Socket with union nut and cutting ring
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L3 mm	L4 mm	SW mm	S1	S2
SV NW 10 HF	PN 400	13,25	M 20 x 1.5	47,5	25	32,5	10	27	27	27
SV NW 13 HF	PN 250	16,75	M 24 x 1.5	49,5	26	34,5	11	30	30	30
SV NW 16 HF	PN 250	21,25	M 30 x 1.5	52,0	28	37,0	13	36	36	36
SV NW 20 HF	PN 160	26,75	M 36 x 1.5	54,0	29	40,0	15	42	42	42
SV NW 25 HF	PN 160	33,50	M 45 x 1.5	58,0	33	44,0	19	55	55	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**WN HF****Screw-in fitting, angle 90°, French**

<b>Connection 1:</b>	NPT external threads
<b>Sealing form 1:</b>	thread seal
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Screw-in fitting
<b>Supplementary design information:</b>	French series
<b>Construction:</b>	Angle 90°
<b>Included in scope of supply:</b>	Socket with union nut and cutting ring
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

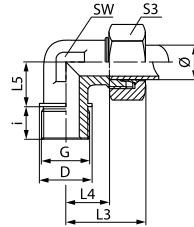
Identification	Working pressure bar	External pipe Ø mm	G	i mm	L3 mm	L4 mm	L5 mm	SW mm	S3 mm
WN NW 10 HF	PN 400	13,25	3/8" -18 NPT	12,4	38,5	16	22,9	19	27
WN NW 13 HF 3/8	PN 250	16,75	3/8" -18 NPT	12,4	41,5	18	24,4	24	30

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

## WR HF

## Screw-in fitting, angle 90°, French

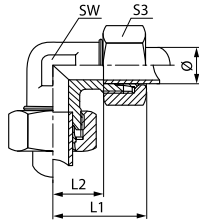
<b>Connection 1:</b>	BSPT conical external threads
<b>Sealing form 1:</b>	thread seal
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Screw-in fitting
<b>Supplementary design information:</b>	
<b>Construction:</b>	French series
<b>Included in scope of supply:</b>	Socket with union nut and cutting ring
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	External pipe Ø mm	G	i mm	L3 mm	L4 mm	L5 mm	SW mm	S3
WR NW 10 HF 1/4	PN 400	13,25	R 1/4" K	12,3	38,5	16	23,5	19	27
WR NW 10 HF	PN 400	13,25	R 3/8" K	12,7	38,5	16	23,7	19	27
WR NW 10 HF 1/2	PN 300	13,25	R 1/2" K	16,8	38,5	16	24,8	19	27
WR NW 13 HF 1/4	PN 250	16,75	R 1/4" K	12,3	41,5	18	30,0	24	30
WR NW 13 HF 3/8	PN 250	16,75	R 3/8" K	12,7	41,5	18	25,2	24	30
WR NW 13 HF	PN 250	16,75	R 1/2" K	16,8	41,5	18	26,3	24	30
WR NW 16 HF	PN 250	21,25	R 1/2" K	16,8	47,0	23	30,3	30	36
WR NW 16 HF 3/4	PN 250	21,25	R 3/4" K	18,1	47,0	23	30,0	30	36
WR NW 20 HF	PN 250	26,75	R 3/4" K	18,1	52,0	27	36,0	36	42
WR NW 20 HF 1	PN 250	26,75	R 1" K	21,3	52,0	27	36,5	36	42
WR NW 25 HF	PN 160	33,50	R 1" K	21,3	60,0	35	44,1	46	55
WR NW 25 HF 1 1/4	PN 160	33,50	R 1.1/4" K	23,6	60,0	35	43,3	46	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**W HF****Fitting, angle 90°, French series**

<b>Connection 1 + 2:</b>	metric cylindrical outer thread
<b>Sealing form 1 + 2:</b>	24° inner cone
<b>Design:</b>	Fitting
<b>Supplementary design information:</b>	French series
<b>Construction:</b>	Angle 90°
<b>Included in scope of supply:</b>	Socket with union nut and cutting ring
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	External pipe Ø mm	L1 mm	L2 mm	SW mm	S3
W NW 10 HF	PN 400	13,25	38,5	16	19	27
W NW 13 HF	PN 250	16,75	41,5	18	24	30
W NW 16 HF	PN 250	21,25	47,0	23	30	36
W NW 20 HF	PN 250	26,75	52,0	27	36	46
W NW 25 HF	PN 160	33,50	60,0	35	46	55

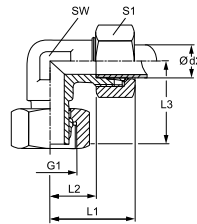
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter



## VEW HF

## Fitting, angle 90°, French series

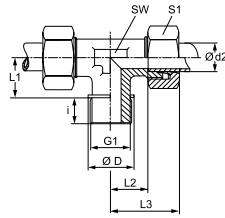
<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Adjustable direction fitting
<b>Supplementary design information:</b>	
<b>Construction:</b>	French series
<b>Included in scope of supply:</b>	Socket with union nut and cutting ring
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L3 mm	SW mm	S1
VEW NW 10 HF	PN 300	13,25	M 20 x 1.5	25	16	30,5	19	27
VEW NW 13 HF	PN 300	16,75	M 24 x 1.5	27	18	32,5	24	30
VEW NW 16 HF	PN 200	21,25	M 30 x 1.5	32	23	36,5	30	36
VEW NW 20 HF	PN 200	26,75	M 36 x 1.5	36	27	41,0	36	46
VEW NW 25 HF	PN 160	33,50	M 45 x 1.5	44	35	47,5	46	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**TR HF****Screw-in fitting, T shaped, French series**

<b>Connection 1:</b>	BSPT conical external threads
<b>Sealing form 1:</b>	thread seal
<b>Connection 2 + 3:</b>	metric cylindrical outer thread
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	24° inner cone
<b>Design:</b>	Screw-in fitting
<b>Supplementary design information:</b>	French series
<b>Construction:</b>	T shaped
<b>Included in scope of supply:</b>	Socket with union nut and cutting ring
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

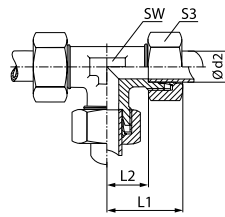
Identification	Working pressure bar	Ø d2 mm	G	i mm	L3 mm	L4 mm	L5 mm	SW mm	S3
TR NW 10 HF 1/4	PN 400	13,25	R 1/4" K	12,3	38,5	16,0	23,5	19	27
TR NW 10 HF	PN 250	13,25	R 3/8" K	12,7	38,5	16,0	23,7	19	27
TR NW 13 HF 3/8	PN 250	16,75	R 3/8" K	12,7	41,5	18,0	25,2	24	30

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

## T HF

## Fitting, T shaped, French series

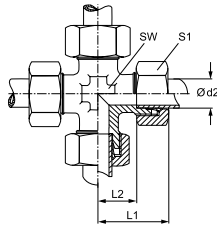
<b>Connection 1 - 3:</b>	metric cylindrical outer thread
<b>Sealing form 1 - 3:</b>	24° inner cone
<b>Design:</b>	Fitting
<b>Supplementary design information:</b>	French series
<b>Construction:</b>	T shaped
<b>Included in scope of supply:</b>	Socket with union nut and cutting ring
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d2 mm	L1 mm	L2 mm	SW mm	S3
T NW 10 HF	PN 400	13,25	38,5	16	19	27
T NW 13 HF	PN 250	16,75	41,5	18	24	30
T NW 16 HF	PN 250	21,25	47,0	23	30	36
T NW 20 HF	PN 250	26,75	52,0	27	36	42
T NW 25 HF	PN 160	33,50	60,0	35	46	55

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

**K HF****Fitting, cross shaped, French series**

- Connection 1 - 4:** metric cylindrical outer thread  
**Sealing form 1 - 4:** 24° inner cone  
**Design:** Fitting  
**Supplementary design information:** French series  
**Construction:** K shaped  
**Included in scope of supply:** Socket with union nut and cutting ring  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

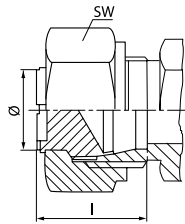
Identification	Working pressure bar	Ø d2 mm	L1 mm	L2 mm	SW mm	S1
K NW 10 HF	PN 400	13,25	38,5	16	19	27
K NW 13 HF	PN 250	16,75	41,5	18	24	30
K NW 16 HF	PN 250	21,25	47,0	23	30	36

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

## FFM

## Locking socket, French series

**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone  
**Design:** Cap  
**Supplementary design information:**  
**Material:** Steel  
**Surface:** electro galvanised

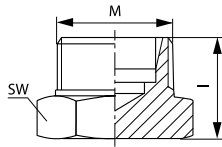


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**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	External pipe Ø mm	M	I mm	SW mm
FFM NW 13	PN 250	16,75	M 24 x 1.5	20	30
FFM NW 16	PN 250	21,25	M 30 x 1.5	21	36
FFM NW 20	PN 250	26,75	M 36 x 1.5	22	46

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**FHF****Locking socket, French series**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° inner cone  
**Design:** Blanking socket  
**Supplementary design information:** French series  
**Material:** Steel  
**Surface:** electro galvanised

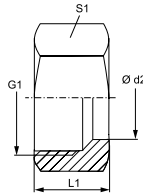
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	External pipe Ø mm	M	I mm	SW mm
FHF NW 13	PN 250	16,75	M 24 x 1.5	20	27
FHF NW 16	PN 250	21,25	M 30 x 1.5	23	32

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**UEM F****Union nut F**

**Connection 1:** metric nut thread  
**Design:** Union nut  
**Supplementary design information:** French series  
**Material:** Steel  
**Surface:** electro galvanised

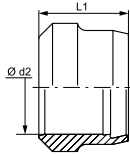


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**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d2 mm	G1	L1 mm	S1
UEM NW 10 F	PN 400	13,25	M 20 x 1.5	17,0	27
UEM NW 13 F	PN 400	16,75	M 24 x 1.5	18,0	30
UEM NW 16 F	PN 250	21,25	M 30 x 1.5	20,5	36
UEM NW 20 F	PN 250	26,75	M 36 x 1.5	21,5	42
UEM NW 25 F	PN 160	33,50	M 45 x 1.5	23,5	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**SRD-F****Cutting ring**

**Design:** Cutting ring  
**Supplementary design information:** French series  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Working pressure bar	Ø d2 mm	L1 mm
SRD 13	PN 400	13,25	10,0
SRD 17	PN 400	16,75	10,0
SRD 21	PN 250	21,25	10,0
SRD 27	PN 250	26,75	10,5
SRD 33	PN 160	33,50	10,5

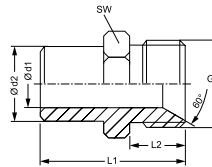
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter



## SA H VA

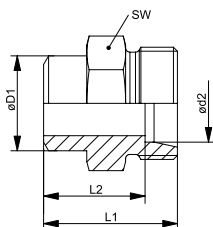
## Welded on fitting

<b>Connection 1:</b>	Welded on socket
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	60° inner cone
<b>Design:</b>	Welded on fitting
<b>Construction:</b>	straight
<b>Standard:</b>	DIN 2353, ISO 8434-1
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Stainless steel



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	G1	$\varnothing d_1$ mm	$\varnothing d_2$ mm	L1 mm	L2 mm	SW mm
SA NW 04 H VA	M 12 x 1.5	3,5	6	24	10	12
SA NW 06 H VA	M 14 x 1.5	4,5	8	25	10	14
SA NW 08 H VA	M 16 x 1.5	6,0	10	25	10	17
SA NW 10 H VA	M 18 x 1.5	8,0	14	25	10	19
SA NW 13 H VA	M 22 x 1.5	10,5	17	27	12	22
SA NW 16 H VA	M 26 x 1.5	13,0	21	28	12	27
SA NW 20 H VA	M 30 x 1.5	15,5	25	28	12	30
SA NW 25 H VA	M 38 x 1.5	21,0	30	30	14	41
SA NW 32 H VA	M 45 x 1.5	28,0	38	31	14	46
SA NW 40 H VA	M 52 x 1.5	35,0	44	32	14	55
SA NW 50 H VA	M 65 x 2	45,0	57	36	17	65
SA NW 60 H VA	M 78 x 2	55,0	64	36	17	80

**XSA****Welded on fitting**

- Connection 1:** Welded on socket for metric pipe  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Welded on fitting  
**Construction:** straight  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** phosphate treated and oiled (Znphr5f)

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	$\varnothing d2$ mm	$\varnothing D1$ mm	L1 mm	L2 mm	SW mm
XSA NW 04 HL	L	PN 315	6	10	21	14,0	14
XSA NW 06 HL	L	PN 315	8	12	23	16,0	14
XSA NW 08 HL	L	PN 315	10	14	25	18,0	17
XSA NW 10 HL	L	PN 315	12	16	25	18,0	19
XSA NW 13 HL	L	PN 315	15	19	29	22,0	22
XSA NW 16 HL	L	PN 315	18	22	31	23,5	27
XSA NW 20 HL	L	PN 160	22	27	36	28,5	32
XSA NW 25 HL	L	PN 160	28	32	38	30,5	41
XSA NW 32 HL	L	PN 160	35	40	43	32,5	46
XSA NW 40 HL	L	PN 160	42	46	46	35,0	55
XSA NW 03 HS	S	PN 630	6	11	26	19,0	14
XSA NW 04 HS	S	PN 630	8	13	28	21,0	17
XSA NW 06 HS	S	PN 630	10	15	30	22,5	19
XSA NW 08 HS	S	PN 630	12	17	32	24,5	22
XSA NW 10 HS	S	PN 630	14	19	35	27,0	24
XSA NW 13 HS	S	PN 400	16	21	35	26,5	27
XSA NW 16 HS	S	PN 400	20	26	40	29,5	32
XSA NW 20 HS	S	PN 400	25	31	44	32,0	41
XSA NW 25 HS	S	PN 400	30	36	49	35,5	46
XSA NW 32 HS	S	PN 315	38	44	54	38,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure  $\varnothing d2$  = External pipe diameter

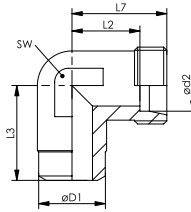
**Product versions:**

**XSA VA** - Welded on fitting, Stainless steel

**SA** - Welded on fitting, Steel

**XWSA****Welded on fitting, angle 90°**

**Connection 1:** Welded on socket for metric pipe  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Welded on fitting  
**Construction:** Angle 90°  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** phosphate treated and oiled (Znphr5f)



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

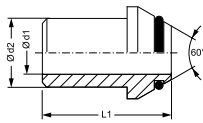
Identification	Series	Working pressure bar	Ø d2 mm	Ø D1 mm	L2 mm	L3 mm	L7 mm	SW mm
XWSA NW 04 HL	L	PN 315	6	10	12,0	19	19	12
XWSA NW 06 HL	L	PN 315	8	12	14,0	23	21	12
XWSA NW 08 HL	L	PN 315	10	14	15,0	24	22	14
XWSA NW 10 HL	L	PN 315	12	16	17,0	25	24	17
XWSA NW 13 HL	L	PN 315	15	19	21,0	30	28	19
XWSA NW 16 HL	L	PN 315	18	22	23,5	33	31	24
XWSA NW 20 HL	L	PN 160	22	27	27,5	37	35	27
XWSA NW 25 HL	L	PN 160	28	32	30,5	42	38	36
XWSA NW 32 HL	L	PN 160	35	40	34,5	49	40	41
XWSA NW 40 HL	L	PN 160	42	46	40,0	57	51	50
XWSA NW 03 HS	S	PN 630	6	11	16,0	23	23	12
XWSA NW 04 HS	S	PN 630	8	13	17,0	24	24	14
XWSA NW 06 HS	S	PN 630	10	15	17,5	25	25	17
XWSA NW 08 HS	S	PN 630	12	17	21,5	29	29	17
XWSA NW 10 HS	S	PN 630	14	19	22,0	30	30	19
XWSA NW 13 HS	S	PN 400	16	21	24,5	33	33	24
XWSA NW 16 HS	S	PN 400	20	26	26,5	37	37	27
XWSA NW 20 HS	S	PN 400	25	31	30,0	42	42	36
XWSA NW 25 HS	S	PN 400	30	36	35,5	49	49	41
XWSA NW 32 HS	S	PN 315	38	44	41,0	57	57	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**Product versions:**

**XWSA VA** - Welded on fitting, angle 90°, Stainless steel

**WSA** - Welded on fitting, angle 90°, Steel

**SA DKOR****Welded on sealing cone**

**Connection 1:** Welded on socket  
**Connection 2:** 60° sealing head with O-ring  
**Design:** Welded on sealing cone straight  
**Construction:** straight  
**Material:** Steel  
**Surface:** phosphate treated and oiled (Znphr5f)

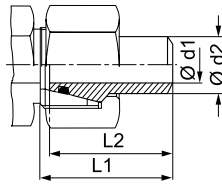
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Ø d1 mm	Ø d2 mm	L1 mm	L2 mm	OR
SA NW 06 DKOR 1.5	3,0	6	30	27	6.5 x 1.5
SA NW 10 DKOR 1.75	6,5	10	31	28	8.1 x 1.6
SA NW 13 DKOR 2	8,0	12	34	31	12.1 x 1.6
SA NW 16 DKOR 2.5	11,0	16	34	32	13.1 x 1.6
SA NW 20 DKOR 3	14,0	20	35	32	17.1 x 1.6
SA NW 25 DKOR 3.5	18,0	25	37	33	22.1 x 1.6
SA NW 32 DKOR 4	24,0	32	45	40	29.1 x 1.6
SA NW 40 DKOR 4	30,0	38	47	42	35.1 x 1.6

## SA DKOL

## Welded on sealing cone

**Connection 1:** Welded on socket for metric pipe  
**Sealing form 2:** 24° outer cone with O-ring  
**Design:** Welded on sealing cone  
**Construction:** straight  
**Standard:** DIN 3865, ISO 8434-1  
**Material:** Steel  
**Surface:** phosphate treated and oiled (Znphr5f)



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	L1 mm	L2 mm	OR
SA NW 04 DKOL 1	L	PN 315	3	6	32,0	30,5	4,0 x 1,5
SA NW 06 DKOL 1	L	PN 315	5	8	32,0	30,5	6,0 x 1,5
SA NW 08 DKOL 1	L	PN 249	8	10	33,5	32,5	7,5 x 1,5
SA NW 10 DKOL 1.5	L	PN 315	7	12	33,5	32,5	9,0 x 1,5
SA NW 13 DKOL 2.5	L	PN 315	10	15	35,0	34,5	12,0 x 2,0
SA NW 16 DKOL 2.5	L	PN 315	13	18	37,0	36,0	15,0 x 2,0
SA NW 20 DKOL 2.5	L	PN 160	17	22	39,5	37,5	20,0 x 2,0
SA NW 25 DKOL 2.5	L	PN 160	23	28	42,5	41,0	26,0 x 2,0
SA NW 25 DKOL 3	L	PN 160	22	28	42,5	41,0	26,0 x 2,0
SA NW 32 DKOL 3	L	PN 160	29	35	49,4	47,0	32,0 x 2,5
SA NW 32 DKOL 3.5	L	PN 160	28	35	49,5	47,0	32,0 x 2,5
SA NW 40 DKOL 2	L	PN 129	38	42	50,0	47,0	38,0 x 2,5
SA NW 40 DKOL 3	L	PN 160	36	42	50,0	47,0	38,0 x 2,5

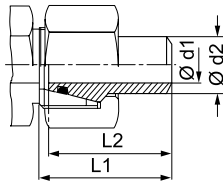
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure d2 = for external pipe diameter

**Product versions:**

SA DKOL VA - Welded on sealing cone, Stainless steel

## SA DKO

### Welded on sealing cone



**Connection 1:** Welded on socket for metric pipe  
**Sealing form 2:** 24° outer cone with O-ring  
**Design:** Welded on sealing cone  
**Construction:** straight  
**Standard:** DIN 3865, ISO 8434-1  
**Material:** Steel  
**Surface:** phosphate treated and oiled (Znphr5f)

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	L1 mm	L2 mm	OR
SA NW 03 DKO 1.5	S	PN 528	3	6	32,5	31,0	4.0 x 1.5
SA NW 04 DKO 1.5	S	PN 414	5	8	32,0	30,0	6.0 x 1.5
SA NW 04 DKO 2	S	PN 528	4	8	31,5	31,0	6.0 x 1.5
SA NW 06 DKO 1	S	PN 249	8	10	33,5	32,5	7.5 x 1.5
SA NW 06 DKO 1.5	S	PN 358	7	10	33,5	31,5	7.5 x 1.5
SA NW 06 DKO 2	S	PN 460	6	10	33,5	31,5	7.5 x 1.5
SA NW 08 DKO 1.5	S	PN 305	9	12	33,5	31,5	9.0 x 1.5
SA NW 08 DKO 2	S	PN 393	8	12	33,5	31,5	9.0 x 1.5
SA NW 08 DKO 2.5	S	PN 476	7	12	33,5	31,5	9.0 x 1.5
SA NW 08 DKO 3	S	PN 551	6	12	33,5	32,5	9.0 x 1.5
SA NW 10 DKO 2	S	PN 343	10	14	40,0	37,5	10.0 x 2.0
SA NW 10 DKO 3	S	PN 487	8	14	39,5	38,5	10.0 x 2.0
SA NW 13 DKO 1.5	S	PN 234	13	16	40,5	37,5	12.0 x 2.0
SA NW 13 DKO 2	S	PN 305	12	16	40,5	37,5	12.0 x 2.0
SA NW 13 DKO 2.5	S	PN 372	11	16	40,5	37,5	12.0 x 2.0
SA NW 13 DKO 3	S	PN 400	10	16	40,5	37,5	12.0 x 2.0
SA NW 16 DKO 2	S	PN 249	16	20	47,0	43,5	16.3 x 2.4
SA NW 16 DKO 2.5	S	PN 305	15	20	46,5	43,0	16.3 x 2.4
SA NW 16 DKO 3	S	PN 358	14	20	46,5	43,0	16.3 x 2.4
SA NW 16 DKO 3.5	S	PN 400	13	20	47,5	43,5	16.3 x 2.4
SA NW 16 DKO 4	S	PN 400	12	20	46,5	43,0	16.3 x 2.4
SA NW 20 DKO 2	S	PN 201	21	25	53,0	48,0	20.3 x 2.4
SA NW 20 DKO 3	S	PN 294	19	25	53,0	48,0	20.3 x 2.4
SA NW 20 DKO 4	S	PN 379	17	25	53,0	48,0	20.3 x 2.4
SA NW 20 DKO 5	S	PN 400	15	25	53,0	48,0	20.3 x 2.4
SA NW 25 DKO 3	S	PN 249	24	30	57,5	51,5	25.3 x 2.4
SA NW 25 DKO 4	S	PN 323	22	30	57,5	51,5	25.3 x 2.4
SA NW 25 DKO 5	S	PN 393	20	30	57,5	51,5	25.3 x 2.4
SA NW 25 DKO 6	S	PN 400	18	30	57,0	52,0	25.3 x 2.4
SA NW 32 DKO 4	S	PN 261	30	38	64,0	55,0	33.3 x 2.4
SA NW 32 DKO 5	S	PN 315	28	38	64,0	55,0	33.3 x 2.4
SA NW 32 DKO 6	S	PN 315	26	38	64,0	55,0	33.3 x 2.4
SA NW 32 DKO 7	S	PN 315	24	38	64,0	56,5	33.3 x 2.4

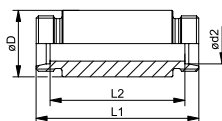
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

#### Product versions:

SA DKO VA - Welded on sealing cone, Stainless steel

## Bulkhead socket weld fitting

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Bulkhead socket weld fitting  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** phosphate treated and oiled (Znphr5f)



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

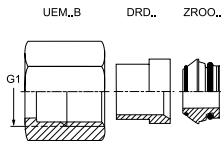
Identification	Series	Working pressure bar	Ø d2 mm	Ø D mm	L1 mm	L2 mm
XSE NW 04 HL	L	PN 315	6	18,0	70	56
XSE NW 06 HL	L	PN 315	8	20,0	70	56
XSE NW 08 HL	L	PN 315	10	22,0	72	58
XSE NW 10 HL	L	PN 315	12	25,0	72	58
XSE NW 13 HL	L	PN 315	15	28,0	84	70
XSE NW 16 HL	L	PN 315	18	32,0	84	69
XSE NW 20 HL	L	PN 160	22	36,0	88	73
XSE NW 25 HL	L	PN 160	28	40,0	88	73
XSE NW 32 HL	L	PN 160	35	50,0	92	71
XSE NW 40 HL	L	PN 160	42	60,0	92	70
XSE NW 03 HS	S	PN 630	6	20,0	74	60
XSE NW 04 HS	S	PN 630	8	22,0	74	60
XSE NW 06 HS	S	PN 630	10	25,0	74	59
XSE NW 08 HS	S	PN 630	12	28,0	74	59
XSE NW 10 HS	S	PN 630	14	30,0	88	72
XSE NW 13 HS	S	PN 400	16	35,0	88	71
XSE NW 16 HS	S	PN 400	20	38,0	92	71
XSE NW 20 HS	S	PN 400	25	45,0	96	72
XSE NW 25 HS	S	PN 400	30	50,0	100	73
XSE NW 32 HS	S	PN 315	38	60,0	104	72

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XSE VA** - Bulkhead socket weld fitting, Stainless steel

**SE** - Bulkhead socket weld fitting, Steel

**BOOK****Flare connection with 2 O-rings****Design:**Flare connection with 2 O-rings  
DIN 3949**Standard:****Included in scope  
of supply:**1x union nut, 1x pressure ring, 1x  
spacer ring**Material:**

Steel

**Surface:**

electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	for external pipe Ø mm	G1
BOOK NW 04 L	L	PN 400	6	M 12 x 1.5
BOOK NW 06 L	L	PN 400	8	M 14 x 1.5
BOOK NW 08 L	L	PN 400	10	M 16 x 1.5
BOOK NW 10 L	L	PN 400	12	M 18 x 1.5
BOOK NW 13 L	L	PN 400	15	M 22 x 1.5
BOOK NW 16 L	L	PN 400	18	M 26 x 1.5
BOOK NW 20 L	L	PN 250	22	M 30 x 2
BOOK NW 25 L	L	PN 250	28	M 36 x 2
BOOK NW 32 L	L	PN 250	35	M 45 x 2
BOOK NW 40 L	L	PN 250	42	M 52 x 2
BOOK NW 03 S	S	PN 630	6	M 14 x 1.5
BOOK NW 04 S	S	PN 630	8	M 16 x 1.5
BOOK NW 06 S	S	PN 630	10	M 18 x 1.5
BOOK NW 08 S	S	PN 630	12	M 20 x 1.5
BOOK NW 10 S	S	PN 630	14	M 22 x 1.5
BOOK NW 13 S	S	PN 400	16	M 24 x 1.5
BOOK NW 16 S	S	PN 400	20	M 30 x 2
BOOK NW 20 S	S	PN 400	25	M 36 x 2
BOOK NW 25 S	S	PN 400	30	M 42 x 2
BOOK NW 32 S	S	PN 315	38	M 52 x 2

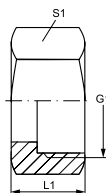
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure

**Product versions:****BOOK VA** - Flare connection with 2 O-rings, 1x union nut, 1x pressure ring, 1x spacer ring, Stainless steel



**UEM AJ****Union nut AJ**

**Connection 1:** UN/UNF inner thread  
**Design:** Union nut  
**Standard:** ISO 8434-2  
**Material:** Steel  
**Surface:** electro galvanised

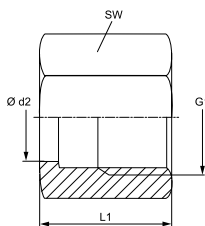


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Identification	G1	S1	L1 mm
UEM AJ 03	3/8"-24 UNF	11	16,0
UEM AJ 04	7/16"-20 UNF	14	16,0
UEM AJ 05	1/2"-20 UNF	17	17,0
UEM AJ 06	9/16"-18 UNF	19	18,0
UEM AJ 08	3/4"-16 UNF	22	21,0
UEM AJ 10	7/8"-14 UNF	27	25,0
UEM AJ 12	1.1/16" -12 UN	32	26,0
UEM AJ 14	1.3/16" -12 UN	36	27,5
UEM AJ 16	1.5/16" -12 UN	41	28,0
UEM AJ 20	1.5/8" -12 UN	50	31,0
UEM AJ 24	1.7/8" -12 UN	60	36,0
UEM AJ 32	2.1/2" -12 UN	70	45,0

**Product versions:**

UEM AJ VA - Union nut AJ, Stainless steel

**UEM B****Union nut for flange connection**

**Connection 1:** metric nut thread  
**Design:** Union nut for flange connection  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	for external pipe Ø mm	G1	Ø d2 mm	L1 mm	SW mm
UEM NW 04 LB	L	PN 315	6	M 12 x 1,5	7,7	18,0	14
UEM NW 06 LB	L	PN 315	8	M 14 x 1,5	9,5	19,0	17
UEM NW 08 LB	L	PN 315	10	M 16 x 1,5	11,7	20,5	19
UEM NW 10 LB	L	PN 315	12	M 18 x 1,5	13,8	21,5	22
UEM NW 13 LB	L	PN 315	15	M 22 x 1,5	17,7	24,0	27
UEM NW 16 LB	L	PN 315	18	M 26 x 1,5	21,1	23,0	32
UEM NW 20 LB	L	PN 160	22	M 30 x 2	24,3	27,5	36
UEM NW 25 LB	L	PN 160	28	M 36 x 2	30,3	27,5	41
UEM NW 32 LB	L	PN 160	35	M 45 x 2	38,2	30,0	50
UEM NW 40 LB	L	PN 160	42	M 52 x 2	45,2	34,0	60
UEM NW 03 SB	S	PN 630	6	M 14 x 1,5	7,7	19,0	17
UEM NW 04 SB	S	PN 630	8	M 16 x 1,5	9,5	20,0	19
UEM NW 06 SB	S	PN 630	10	M 18 x 1,5	11,7	21,5	22
UEM NW 08 SB	S	PN 630	12	M 20 x 1,5	13,8	22,0	24
UEM NW 10 SB	S	PN 630	14	M 22 x 1,5	17,7	24,0	27
UEM NW 13 SB	S	PN 400	16	M 24 x 1,5	18,6	26,5	30
UEM NW 16 SB	S	PN 400	20	M 30 x 2	24,3	27,5	36
UEM NW 20 SB	S	PN 400	25	M 36 x 2	28,6	30,5	46
UEM NW 25 SB	S	PN 400	30	M 42 x 2	34,1	32,0	50
UEM NW 32 SB	S	PN 315	38	M 52 x 2	42,2	38,0	60

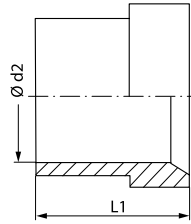
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**UEM B VA** - Union nut for flange connection, Stainless steel

## Pressure ring for flare connection

**Design:** Anel de suporte para conexão flangeada  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Series	Working pressure bar	Ø d2 mm	L1 mm
DRD 06	L/S	PN 630	6	10,5
DRD 08	L/S	PN 630	8	11,0
DRD 10	L/S	PN 630	10	12,5
DRD 12	L/S	PN 630	12	13,0
DRD 15	L	PN 400	15	14,0
DRD 18	L	PN 315	18	14,5
DRD 22	L	PN 315	22	18,0
DRD 28	L	PN 250	28	17,0
DRD 35	L	PN 250	35	19,0
DRD 42	L	PN 250	42	21,0
DRD 14	S	PN 630	14	14,5
DRD 16	S	PN 400	16	17,0
DRD 20	S	PN 400	20	17,5
DRD 25	S	PN 400	25	20,0
DRD 30	S	PN 400	30	21,5
DRD 38	S	PN 315	38	26,5

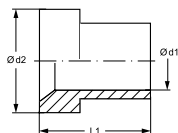
PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy

**Product versions:**

**DRD VA** - Pressure ring for flare connection, Stainless steel

**STUETZRING AJM**

## Support sleeve for flange



**Design:** Support sleeve for flange  
**Supplementary design information:** for metric pipes  
**Standard:** ISO 8434-2  
**Material:** Steel  
**Surface:** electro galvanised

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Identification	External pipe Ø mm	Ø d1 mm	Ø d2 mm	L1 mm
STUETZRING AJM 06	6	6,2	9,7	10,4
STUETZRING AJM 08	8	8,2	11,3	11,2
STUETZRING AJM 10	10	10,2	12,7	12,7
STUETZRING AJM 12	12	12,2	17,3	14,2
STUETZRING AJM 14	14	14,3	20,1	14,3
STUETZRING AJM 15	15	15,1	20,1	17,5
STUETZRING AJM 16	16	16,2	20,2	16,8
STUETZRING AJM 18	18	18,3	24,5	17,4
STUETZRING AJM 20	20	20,2	24,7	17,3
STUETZRING AJM 22	22	22,3	27,8	24,1
STUETZRING AJM 25	25	25,2	31,0	19,8
STUETZRING AJM 30	30	30,3	38,9	23,1
STUETZRING AJM 32	32	32,3	38,9	23,1
STUETZRING AJM 38	38	38,4	45,3	28,4
STUETZRING AJM 42	42	42,4	55,0	29,0
STUETZRING AJM 50	50	50,4	61,2	30,2

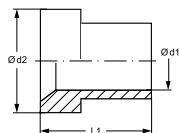
**Product versions:**

STUETZRING AJM VA - Support sleeve for flange, Stainless steel

**STUETZRING AJ**

## Support sleeve for flange

**Design:** Support sleeve for flange  
**Supplementary design information:** for imperial pipes  
**Standard:** ISO 8434-2  
**Material:** Steel  
**Surface:** electro galvanised

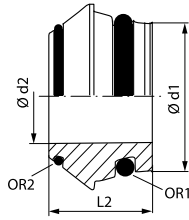


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Identification	External pipe Ø	Ø d1 mm	Ø d2 mm	L1 mm
STUETZRING AJ 04	1/4"	6,6	9,7	10,4
STUETZRING AJ 05	5/16"	8,2	11,3	11,2
STUETZRING AJ 06	3/8"	9,7	12,7	12,7
STUETZRING AJ 08	1/2"	12,9	17,3	14,2
STUETZRING AJ 10	5/8"	16,1	20,2	16,8
STUETZRING AJ 12	3/4"	19,3	24,7	17,3
STUETZRING AJ 14	7/8"	22,3	28,0	19,5
STUETZRING AJ 16	1"	25,6	31,0	19,8
STUETZRING AJ 20	1.1/4"	32,1	38,9	23,1
STUETZRING AJ 24	1.1/2"	38,4	45,3	28,4

**Product versions:**

STUETZRING AJ VA - Support sleeve for flange, Stainless steel

**ZR OO****Spacer ring, flange connection, 2 O-rings****Design:**

Spacer ring for flare connection with 2 O-rings

**Standard:**

DIN 3949

**Material:**

Steel

**Surface:**

electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	L2 mm	OR1	OR2
ZR OO 06	L/S	PN 630	6	3	11,5	4,0 x 1,5	4,40 x 0,80
ZR OO 08	L/S	PN 630	8	5	12,0	6,0 x 1,5	6,00 x 0,80
ZR OO 10	L/S	PN 630	10	6	12,5	7,5 x 1,5	7,50 x 0,80
ZR OO 12	L/S	PN 630	12	8	12,5	9,0 x 1,5	9,50 x 0,80
ZR OO 15	L	PN 400	15	11	12,5	12,0 x 2,0	12,50 x 0,80
ZR OO 18	L	PN 400	18	14	13,0	15,0 x 2,0	15,00 x 1,00
ZR OO 22	L	PN 250	22	17	14,2	20,0 x 2,0	18,00 x 1,00
ZR OO 28	L	PN 250	28	23	14,7	26,0 x 2,0	23,00 x 1,00
ZR OO 35	L	PN 250	35	28	18,5	32,0 x 2,5	30,00 x 1,00
ZR OO 42	L	PN 250	42	35	20,5	38,0 x 2,5	37,00 x 1,00
ZR OO 14	S	PN 630	14	9	14,0	10,0 x 2,0	11,00 x 1,00
ZR OO 16	S	PN 400	16	11	15,0	12,0 x 2,0	12,50 x 1,00
ZR OO 20	S	PN 400	20	14	18,5	16,3 x 2,4	16,00 x 1,00
ZR OO 25	S	PN 400	25	19	20,0	20,3 x 2,4	20,00 x 1,00
ZR OO 30	S	PN 400	30	23	22,0	25,3 x 2,4	25,00 x 1,00
ZR OO 38	S	PN 315	38	30	26,0	33,3 x 2,4	32,00 x 1,78

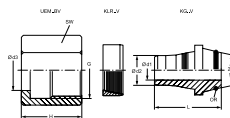
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**Product versions:**

**ZR OO VA** - Spacer ring, flange connection, 2 O-rings, Stainless steel

**BOV****Flare connection 10°**

**Material:** Steel  
**Surface:** electro galvanised



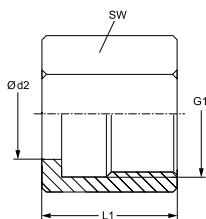
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	G	Ø d1 mm	Ø d2 mm	Ø d3 mm	L mm	H mm	SW mm	OR
BOL 06-1 V	L	PN 315	M 12 x 1,5	2,9	4,2	6	16,5	17,8	14	4,0 x 1,5
BOL 08-1 V	L	PN 315	M 14 x 1,5	4,9	6,2	8	16,5	17,8	17	6,0 x 1,5
BOL 10-1 V	L	PN 315	M 16 x 1,5	6,3	8,2	10	19,0	18,8	19	7,5 x 1,5
BOL 12-1.5 V	L	PN 315	M 18 x 1,5	7,5	9,2	12	21,5	18,8	22	9,0 x 1,5
BOL 15-1.5 V	L	PN 315	M 22 x 1,5	10,2	12,2	15	21,5	20,3	27	12,0 x 2,0
BOL 18-1.5 V	L	PN 315	M 26 x 1,5	13,0	15,2	18	22,0	21,3	32	15,0 x 2,0
BOL 22-2 V	L	PN 160	M 30 x 2	16,2	18,3	22	23,5	24,0	36	20,0 x 2,0
BOL 28-3 V	L	PN 160	M 36 x 2	19,5	22,3	28	27,0	25,0	41	26,0 x 2,0
BOL 35-3 V	L	PN 160	M 45 x 2	26,3	29,3	35	31,0	28,0	50	32,0 x 2,5
BOL 42-3 V	L	PN 160	M 52 x 2	33,5	36,3	42	31,0	28,0	60	38,0 x 2,5
BOS 08-1.5 V	S	PN 630	M 16 x 1,5	4,0	5,2	8	20,0	20,0	22	6,0 x 1,5
BOS 10-1.5 V	S	PN 630	M 18 x 1,5	5,5	7,2	10	21,0	21,5	24	7,5 x 1,5
BOS 10-2 V	S	PN 630	M 18 x 1,5	4,5	6,2	10	21,0	21,5	24	7,5 x 1,5
BOS 12-2 V	S	PN 630	M 20 x 1,5	6,5	8,2	12	22,5	21,5	27	9,0 x 1,5
BOS 12-3 V	S	PN 630	M 20 x 1,5	4,5	6,2	12	22,5	21,5	27	9,0 x 1,5
BOS 14-2 V	S	PN 630	M 22 x 1,5	8,5	10,3	14	26,0	26,0	30	10,0 x 2,0
BOS 16-2 V	S	PN 400	M 24 x 1,5	10,5	12,3	16	26,5	26,0	30	12,0 x 2,0
BOS 16-3 V	S	PN 400	M 24 x 1,5	8,5	10,3	16	26,5	26,0	30	12,0 x 2,0
BOS 20-2.5 V	S	PN 400	M 30 x 2	13,5	15,3	20	32,0	30,5	36	16,3 x 2,4
BOS 20-3 V	S	PN 400	M 30 x 2	12,5	14,3	20	32,0	30,5	36	16,3 x 2,4
BOS 25-3 V	S	PN 400	M 36 x 2	17,0	19,3	25	34,5	38,0	46	20,3 x 2,4
BOS 25-4 V	S	PN 400	M 36 x 2	15,0	17,3	25	34,5	38,0	46	20,3 x 2,4
BOS 30-3 V	S	PN 400	M 42 x 2	20,0	24,3	30	34,5	39,0	50	25,3 x 2,4
BOS 30-4 V	S	PN 400	M 42 x 2	20,0	22,3	30	34,5	39,0	50	25,3 x 2,4
BOS 30-5 V	S	PN 400	M 42 x 2	17,0	20,3	30	34,5	39,0	50	25,3 x 2,4
BOS 38-4 V	S	PN 315	M 52 x 2	27,0	30,3	38	38,0	46,0	60	33,3 x 2,4
BOS 38-5 V	S	PN 315	M 52 x 2	25,0	28,3	38	38,0	46,0	60	33,3 x 2,4
BOS 38-6 V	S	PN 315	M 52 x 2	23,0	26,3	38	38,0	45,0	46	33,3 x 2,4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure

## UEM B V

### Union nut for flare connection



**Design:**  
**Material:**  
**Surface:**

Union nut for flare connection, 10°  
Steel  
electro galvanised

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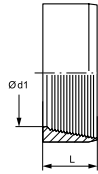
Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	SW mm
UEM NW 04 LB V	L	PN 315	6	M 12 x 1.5	17,8	14
UEM NW 06 LB V	L	PN 315	8	M 14 x 1.5	17,8	17
UEM NW 08 LB V	L	PN 315	10	M 16 x 1.5	18,8	19
UEM NW 10 LB V	L	PN 315	12	M 18 x 1.5	18,8	22
UEM NW 13 LB V	L	PN 315	15	M 22 x 1.5	20,3	27
UEM NW 16 LB V	L	PN 315	18	M 26 x 1.5	21,3	32
UEM NW 20 LB V	L	PN 160	22	M 30 x 2	24,0	36
UEM NW 25 LB V	L	PN 160	28	M 36 x 2	25,0	41
UEM NW 32 LB V	L	PN 160	35	M 45 x 2	28,0	50
UEM NW 40 LB V	L	PN 160	42	M 52 x 2	28,0	60
UEM NW 04 SB V	S	PN 630	8	M 16 x 1.5	20,0	22
UEM NW 06 SB V	S	PN 630	10	M 18 x 1.5	21,5	24
UEM NW 08 SB V	S	PN 630	12	M 20 x 1.5	21,5	27
UEM NW 10 SB V	S	PN 630	14	M 22 x 1.5	26,0	30
UEM NW 13 SB V	S	PN 400	16	M 24 x 1.5	26,0	30
UEM NW 16 SB V	S	PN 400	20	M 30 x 2	30,5	36
UEM NW 20 SB V	S	PN 400	25	M 36 x 2	38,0	46
UEM NW 25 SB V	S	PN 400	30	M 42 x 2	39,0	50
UEM NW 32 SB V	S	PN 315	38	M 52 x 2	46,0	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter



**KLR V****Clamping ring for flared coupling parts**

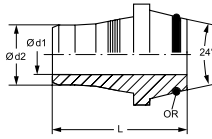
**Design:** Clamping ring  
**Material:** Steel  
**Surface:** electro galvanised



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Identification	Series	Working pressure bar	Ø d1 mm	L mm
KLR NW 04 L V	L	PN 315	6	3,8
KLR NW 06 L V	L	PN 315	8	3,8
KLR NW 08 L V	L	PN 315	10	3,8
KLR NW 10 L V	L	PN 315	12	3,8
KLR NW 13 L V	L	PN 315	15	4,5
KLR NW 16 L V	L	PN 315	18	4,5
KLR NW 20 L V	L	PN 160	22	5,0
KLR NW 25 L V	L	PN 160	28	5,5
KLR NW 32 L V	L	PN 160	25	7,0
KLR NW 40 L V	L	PN 160	42	7,0
KLR NW 04 S V	S	PN 630	8	4,5
KLR NW 06 S V	S	PN 630	10	4,5
KLR NW 08 S V	S	PN 630	12	4,5
KLR NW 10 S V	S	PN 630	14	6,5
KLR NW 13 S V	S	PN 400	16	6,5
KLR NW 16 S V	S	PN 400	20	9,0
KLR NW 20 S V	S	PN 400	25	10,0
KLR NW 25 S V	S	PN 400	30	10,0
KLR NW 32 S V	S	PN 315	38	13,5

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d1 = External pipe diameter

**KG V****Flare cone 10°**

**Connection 1:** Sealing cone  
**Sealing form 1:** O-ring seal  
**Connection 2:** Pipe connection  
**Design:** Flare cone 10°  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

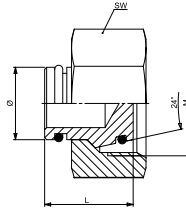
Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	L mm	OR
KGL 06-1 V	L	PN 315	2,9	4,2	16,5	4,0 x 1,5
KGL 08-1 V	L	PN 315	4,9	6,2	18,0	6,0 x 1,5
KGL 10-1 V	L	PN 315	6,3	8,2	19,0	7,5 x 1,5
KGL 12-1.5 V	L	PN 315	7,5	9,2	21,5	9,0 x 1,5
KGL 15-1.5 V	L	PN 315	10,2	12,2	21,5	12,0 x 2,0
KGL 18-1.5 V	L	PN 315	13,0	15,2	22,0	15,0 x 2,0
KGL 22-2 V	L	PN 160	16,2	18,3	23,5	20,0 x 2,0
KGL 28-3 V	L	PN 160	19,5	22,3	27,0	26,0 x 2,0
KGL 35-3 V	L	PN 160	26,5	29,3	31,0	32,0 x 2,5
KGL 42-3 V	L	PN 160	33,5	36,3	31,0	38,0 x 2,5
KGS 08-1.5 V	S	PN 630	4,0	5,2	20,0	6,0 x 1,5
KGS 10-1.5 V	S	PN 630	5,5	7,2	21,0	7,5 x 1,5
KGS 10-2 V	S	PN 630	4,5	6,2	21,0	7,5 x 1,5
KGS 12-2 V	S	PN 630	6,5	8,2	22,5	9,0 x 1,5
KGS 12-3 V	S	PN 630	4,5	6,2	22,5	9,0 x 1,5
KGS 14-2 V	S	PN 630	8,5	10,3	26,0	10,0 x 2,0
KGS 14-3 V	S	PN 630	6,5	8,3	26,0	10,0 x 2,0
KGS 16-2 V	S	PN 400	10,5	12,3	26,5	12,0 x 2,0
KGS 16-3 V	S	PN 400	8,5	10,3	26,5	12,0 x 2,0
KGS 20-2.5 V	S	PN 400	13,5	15,3	32,0	16,3 x 2,4
KGS 20-3 V	S	PN 400	12,5	14,3	32,0	16,3 x 2,4
KGS 25-3 V	S	PN 400	17,0	19,3	34,5	20,3 x 2,4
KGS 25-4 V	S	PN 400	15,0	17,3	34,5	20,3 x 2,4
KGS 30-3 V	S	PN 400	20,0	24,3	34,5	25,3 x 2,4
KGS 30-4 V	S	PN 400	20,0	22,3	34,5	25,3 x 2,4
KGS 30-5 V	S	PN 400	17,0	20,3	34,5	25,3 x 2,4
KGS 38-4 V	S	PN 315	27,0	30,3	38,0	33,3 x 2,4
KGS 38-5 V	S	PN 315	25,0	28,3	38,0	33,3 x 2,4
KGS 38-6 V	S	PN 315	23,0	26,3	38,0	33,3 x 2,4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure

## VLM / VSM

## Blanking nut

**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Design:** Blanking nut  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised



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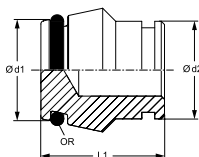
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	External pipe Ø mm	M	l mm	SW mm	OR
VLM NW 04	L	PN 400	6	M 12 x 1.5	18,5	14	4.0 x 1.5
VLM NW 06	L	PN 400	8	M 14 x 1.5	18,0	17	6.0 x 1.5
VLM NW 08	L	PN 400	10	M 16 x 1.5	19,5	19	7.5 x 1.5
VLM NW 10	L	PN 400	12	M 18 x 1.5	19,0	22	9.0 x 1.5
VLM NW 13	L	PN 400	15	M 22 x 1.5	19,0	27	12.0 x 2.0
VLM NW 16	L	PN 315	18	M 26 x 1.5	22,0	32	15.0 x 2.0
VLM NW 20	L	PN 315	22	M 30 x 2	22,0	36	20.0 x 2.0
VLM NW 25	L	PN 250	28	M 36 x 2	23,5	41	26.0 x 2.0
VLM NW 32	L	PN 250	35	M 45 x 2	27,0	50	32.0 x 2.5
VLM NW 40	L	PN 250	42	M 52 x 2	27,5	60	38.0 x 2.5
VSM NW 03	S	PN 630	6	M 14 x 1.5	18,5	17	4.0 x 1.5
VSM NW 04	S	PN 630	8	M 16 x 1.5	18,0	19	6.0 x 1.5
VSM NW 06	S	PN 630	10	M 18 x 1.5	19,5	22	7.5 x 1.5
VSM NW 08	S	PN 630	12	M 20 x 1.5	19,0	24	9.0 x 1.5
VSM NW 10	S	PN 630	14	M 22 x 1.5	21,0	27	10.0 x 2.0
VSM NW 13	S	PN 400	16	M 24 x 1.5	22,0	30	12.0 x 2.0
VSM NW 16	S	PN 400	20	M 30 x 2	26,5	36	16.0 x 2.5
VSM NW 20	S	PN 400	25	M 36 x 2	27,5	46	20.0 x 2.5
VSM NW 25	S	PN 400	30	M 42 x 2	28,5	50	25.0 x 2.5
VSM NW 32	S	PN 315	38	M 52 x 2	32,5	60	33.0 x 2.5

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø = External pipe diameter

**Product versions:**

VLM VA / VSM VA - Blanking nut, Stainless steel

**BZL / BZS****Lock without union nut**

**Sealing form 1:** 24° outer cone with O-ring  
**Design:** Lock without union nut  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	$\varnothing d1$ mm	$\varnothing d2$ mm	L1 mm	OR
BZL NW 04	L	PN 315	6,6	6	18,5	4.0 x 1.5
BZL NW 06	L	PN 315	8,5	8	18,0	6.0 x 1.5
BZL NW 08	L	PN 315	10,6	10	19,5	7.5 x 1.5
BZL NW 10	L	PN 315	12,6	12	19,0	9.0 x 1.5
BZL NW 13	L	PN 315	15,5	15	19,0	12.0 x 2.0
BZL NW 16	L	PN 315	18,6	18	22,0	15.0 x 2.0
BZL NW 20	L	PN 160	22,6	22	22,0	20.0 x 2.0
BZL NW 25	L	PN 160	28,5	28	23,5	26.0 x 2.0
BZL NW 32	L	PN 160	36,0	35	27,0	32.0 x 2.5
BZL NW 40	L	PN 160	43,0	42	27,5	38.0 x 2.5
BZS NW 10	S	PN 630	14,5	14	21,0	10.0 x 2.0
BZS NW 13	S	PN 400	16,5	16	22,0	12.0 x 2.0
BZS NW 16	S	PN 400	20,9	20	26,5	16.3 x 2.4
BZS NW 20	S	PN 400	25,9	25	27,5	20.3 x 2.4
BZS NW 25	S	PN 400	31,0	30	28,5	25.3 x 2.4
BZS NW 32	S	PN 315	39,0	38	32,5	33.3 x 2.4

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure  $\varnothing$  = External pipe diameter

**Product versions:**

**BZL / BZS MG** - Lock without union nut, Brass

**BZL VA / BZS VA** - Lock without union nut, Stainless steel

**XVHLL / XVHL / XVHS****Blanking socket**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° inner cone  
**Design:** Blanking socket  
**Construction:** straight  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

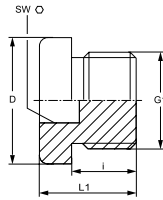
Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L3 mm	SW mm
XVHLL 04	LL	PN 100	4	M 8 x 1	12	8,0	4,0	9
XVHLL 05	LL	PN 100	5	M 10 x 1	12	8,0	5,5	11
XVHLL 06	LL	PN 100	6	M 10 x 1	12	8,0	5,5	11
XVHLL 08	LL	PN 100	8	M 12 x 1	14	9,0	5,5	12
XVHL NW 04	L	PN 315	6	M 12 x 1.5	14	10,0	7,0	12
XVHL NW 06	L	PN 315	8	M 14 x 1.5	15	10,0	7,0	14
XVHL NW 08	L	PN 315	10	M 16 x 1.5	16	11,0	7,0	17
XVHL NW 10	L	PN 315	12	M 18 x 1.5	17	11,0	7,0	19
XVHL NW 13	L	PN 315	15	M 22 x 1.5	18	12,0	7,0	24
XVHL NW 16	L	PN 315	18	M 26 x 1.5	19	12,0	7,5	27
XVHL NW 20	L	PN 160	22	M 30 x 2	21	14,0	7,5	32
XVHL NW 25	L	PN 160	28	M 36 x 2	22	14,0	7,5	41
XVHL NW 32	L	PN 160	35	M 45 x 2	25	16,0	10,5	46
XVHL NW 40	L	PN 160	42	M 52 x 2	27	16,0	11,0	55
XVHS NW 03	S	PN 630	6	M 14 x 1.5	18	12,0	7,0	14
XVHS NW 04	S	PN 630	8	M 16 x 1.5	20	12,0	7,0	17
XVHS NW 06	S	PN 630	10	M 18 x 1.5	20	12,0	7,5	19
XVHS NW 08	S	PN 630	12	M 20 x 1.5	22	12,0	7,5	22
XVHS NW 10	S	PN 630	14	M 22 x 1.5	24	14,0	8,0	24
XVHS NW 13	S	PN 400	16	M 24 x 1.5	24	14,0	8,5	27
XVHS NW 16	S	PN 400	20	M 30 x 2	28	16,0	10,5	32
XVHS NW 20	S	PN 400	25	M 36 x 2	32	18,0	12,0	41
XVHS NW 25	S	PN 400	30	M 42 x 2	36	20,0	13,5	46
XVHS NW 32	S	PN 315	38	M 52 x 2	39	22,0	16,0	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

XVHL VA / XVHS VA - Blanking socket, Stainless steel

VHLL / VHL / VHS - Blanking socket, Steel

**FHR 90****Blanking screw with hexagon socket**

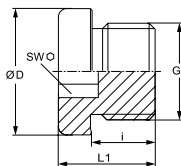
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape A  
**Design:** Blanking screw with hexagon socket  
**Construction:** straight  
**Standard:** DIN 908  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	D mm	i mm	L1 mm	SW mm
FHR 90-1/8	G 1/8" -28	14	8	11	5
FHR 90-1/4	G 1/4" -19	18	12	15	6
FHR 90-3/8	G 3/8" -19	22	12	15	8
FHR 90-1/2	G 1/2" -14	26	14	18	10
FHR 90-5/8	G 5/8" -14	28	14	18	12
FHR 90-3/4	G 3/4" -14	32	16	20	12
FHR 90-1	G 1" -11	39	16	21	17
FHR 90-1 1/4	G 1.1/4" -11	49	16	21	22
FHR 90-1 1/2	G 1.1/2" -11	55	16	21	24
FHR 90-2	G 2" -11	68	20	25	32

PN = Nominal pressure PB = Max. operating pressure

**VHR 90 VA****Blanking screw with hexagon socket**

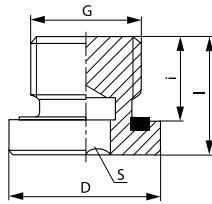
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape B  
**Design:** Blanking screw with hexagon socket  
**Construction:** straight  
**Material:** Stainless steel



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Identification	G1	Ø D mm	i mm	L1 mm	SW mm
VHR 90-1/8 VA	G 1/8" -28	14	8	12,0	5
VHR 90-1/4 VA	G 1/4" -19	18	12	17,0	6
VHR 90-3/8 VA	G 3/8" -19	22	12	17,0	8
VHR 90-1/2 VA	G 1/2" -14	26	14	19,0	10
VHR 90-3/4 VA	G 3/4" -14	32	16	21,0	12
VHR 90-1 VA	G 1" -11	39	16	22,5	17
VHR 90-1 1/4 VA	G 1.1/4" -11	49	16	22,5	22
VHR 90-1 1/2 VA	G 1.1/2" -11	55	16	22,5	24

PN = Nominal pressure PB = Max. operating pressure

**VHR 90 ED****Blanking screw with hexagon socket**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Design:** Blanking screw with hexagon socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Also available without seal as FHR.

Identification	Working pressure bar	G	D mm	i mm	l mm	S mm
VHR 90-1/8 ED	PN 400	G 1/8" -28	14	8	12,0	5
VHR 90-1/4 ED	PN 400	G 1/4" -19	19	12	17,0	6
VHR 90-3/8 ED	PN 400	G 3/8" -19	22	12	17,0	8
VHR 90-1/2 ED	PN 400	G 1/2" -14	27	14	19,0	10
VHR 90-3/4 ED	PN 400	G 3/4" -14	32	16	21,0	12
VHR 90-1 ED	PN 400	G 1" -11	40	16	22,5	17
VHR 90-1 1/4 ED	PN 315	G 1.1/4" -11	50	16	22,5	22
VHR 90-1 1/2 ED	PN 315	G 1.1/2" -11	55	16	22,5	24
VHR 90-2 ED	PN 315	G 2" -11	72	24	34,5	32

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**VHR 90 ED VA** - Blanking screw with hexagon socket, Stainless steel

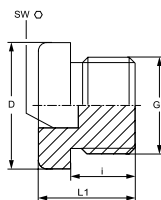
**Spare parts:**

**WD** - Soft seal for ED fittings



**FHM 90****Blanking screw with hexagon socket**

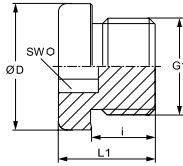
<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	Shape A
<b>Design:</b>	Blanking screw with hexagon socket
<b>Construction:</b>	straight
<b>Standard:</b>	DIN 908
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



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Identification	G1	D mm	i mm	L1 mm	SW mm
FHM 90-10	M 10 x 1	14	8	11	5
FHM 90-12	M 12 x 1.5	17	12	15	6
FHM 90-14	M 14 x 1.5	19	12	15	6
FHM 90-16	M 16 x 1.5	21	12	15	8
FHM 90-18	M 18 x 1.5	23	12	16	8
FHM 90-20	M 20 x 1.5	25	14	18	10
FHM 90-22	M 22 x 1.5	27	14	18	10
FHM 90-24	M 24 x 1.5	29	14	18	12
FHM 90-26	M 26 x 1.5	31	16	20	12
FHM 90-30-1.5	M 30 x 1.5	36	16	20	17
FHM 90-36-1.5	M 36 x 1.5	42	16	21	19
FHM 90-42-1.5	M 42 x 1.5	49	16	21	22
FHM 90-48-1.5	M 48 x 1.5	55	16	21	24
FHM 90-52-1.5	M 52 x 1.5	60	16	21	24

PN = Nominal pressure PB = Max. operating pressure

**VHM 90 VA****Blanking screw with hexagon socket**

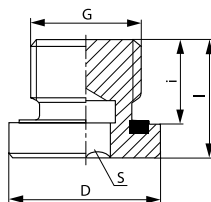
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Design:** Blanking screw with hexagon socket  
**Construction:** straight  
**Material:** Stainless steel

Identification	G1	Ø D mm	i mm	L1 mm	SW mm
VHM 90-10 VA	M 10 x 1	14	8	12,0	5
VHM 90-12 VA	M 12 x 1.5	17	12	17,0	6
VHM 90-14 VA	M 14 x 1.5	19	12	17,0	6
VHM 90-16 VA	M 16 x 1.5	21	12	17,5	8
VHM 90-18 VA	M 18 x 1.5	23	12	17,0	8
VHM 90-20 VA	M 20 x 1.5	25	14	19,0	10
VHM 90-22 VA	M 22 x 1.5	27	14	19,0	10
VHM 90-26 VA	M 26 x 1.5	31	16	21,0	12
VHM 90-27 VA	M 27 x 2	32	16	21,0	12
VHM 90-33 VA	M 33 x 2	36	16	22,5	17
VHM 90-42 VA	M 42 x 2	49	16	22,5	22
VHM 90-48 VA	M 48 x 2	55	16	22,5	24

PN = Nominal pressure    PB = Max. operating pressure

**VHM 90 ED****Blanking screw with hexagon socket**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Design:** Blanking screw with hexagon socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



1

**Note:** Also available without seal as FHM.

Identification	Working pressure bar	G	D mm	i mm	l mm	S mm
VHM 90-08 ED	PN 400	M 8 x 1	12,0	8	12,0	4
VHM 90-10 ED	PN 400	M 10 x 1	14,0	8	12,0	5
VHM 90-12 ED	PN 400	M 12 x 1.5	17,0	12	17,0	6
VHM 90-14 ED	PN 400	M 14 x 1.5	19,0	12	17,0	6
VHM 90-16 ED	PN 400	M 16 x 1.5	22,0	12	17,0	8
VHM 90-18 ED	PN 400	M 18 x 1.5	24,0	12	17,0	8
VHM 90-20 ED	PN 400	M 20 x 1.5	26,0	14	19,0	10
VHM 90-22 ED	PN 400	M 22 x 1.5	27,0	14	19,0	10
VHM 90-24ED	PN 400	M 24 x 1.5	29,9	14	19,0	12
VHM 90-26 ED	PN 400	M 26 x 1.5	32,0	16	21,0	12
VHM 90-27 ED	PN 400	M 27 x 2	32,0	16	21,0	12
VHM 90-33 ED	PN 400	M 33 x 2	40,0	16	22,5	17
VHM 90-42 ED	PN 315	M 42 x 2	50,0	16	22,5	22
VHM 90-48 ED	PN 315	M 48 x 2	55,0	16	22,5	24

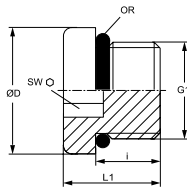
PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**VHM 90 ED VA** - Blanking screw with hexagon socket, Stainless steel

**Spare parts:**

**WD** - Soft seal for ED fittings

**VHMO 90****Blanking screw with hexagon socket**

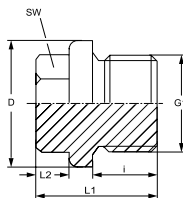
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape F  
**Design:** Blanking screw with hexagon socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	Working pressure bar	G1	Ø D mm	i mm	L1 mm	SW mm	OR
VHMO 90-08	PN 630	M 8 x 1	12	9,5	13,0	4	6.1 x 1.6
VHMO 90-10	PN 630	M 10 x 1	13	9,5	13,5	5	8.1 x 1.6
VHMO 90-12	PN 630	M 12 x 1.5	17	11,0	16,0	6	9.3 x 2.2
VHMO 90-14	PN 630	M 14 x 1.5	19	11,0	16,0	6	11.3 x 2.2
VHMO 90-16	PN 630	M 16 x 1.5	21	12,5	17,5	8	13.3 x 2.2
VHMO 90-18	PN 630	M 18 x 1.5	23	14,0	19,0	8	15.3 x 2.2
VHMO 90-20	PN 630	M 20 x 1.5	26	14,0	19,0	10	17.3 x 2.2
VHMO 90-22	PN 630	M 22 x 1.5	27	15,0	20,0	10	19.3 x 2.2
VHMO 90-27	PN 400	M 27 x 2	32	18,5	23,5	12	23.6 x 2.9
VHMO 90-33	PN 400	M 33 x 2	38	18,5	25,0	14	29.6 x 2.9
VHMO 90-42	PN 400	M 42 x 2	48	19,0	25,5	22	38.6 x 2.9
VHMO 90-48	PN 400	M 48 x 2	55	21,5	28,0	24	44.6 x 2.9

PN = Nominal pressure    PB = Max. operating pressure

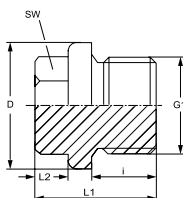
**FHR 91****Blanking screw with hexagon head**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape A  
**Design:** Blanking screws, with hexagon socket  
**Construction:** straight  
**Standard:** DIN 910  
**Material:** Steel  
**Surface:** electro galvanised



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Identification	G1	i mm	D mm	L1 mm	L2 mm	SW mm
FHR 91-1/8	G 1/8" -28	8	14	17	6	10
FHR 91-1/4	G 1/4" -19	12	18	21	6	13
FHR 91-3/8	G 3/8" -19	12	22	21	6	17
FHR 91-1/2	G 1/2" -14	14	26	26	8	19
FHR 91-5/8	G 5/8" -14	14	28	26	8	19
FHR 91-3/4	G 3/4" -14	16	32	30	10	24
FHR 91-1	G 1" -11	16	39	32	11	27
FHR 91-1 1/4	G 1.1/4" -11	16	49	33	12	30
FHR 91-1 1/2	G 1.1/2" -11	16	55	33	12	30

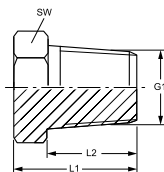
**FHM 91****Blanking screw with hexagon head**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape A  
**Design:** Blanking screws, with hexagon socket  
**Construction:** straight  
**Standard:** DIN 910  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	i mm	D mm	L1 mm	L2 mm	SW mm
FHM 91-8	M 8 x 1	8	14	17	6	10
FHM 91-10	M 10 x 1	8	14	17	6	10
FHM 91-12	M 12 x 1.5	12	17	21	6	13
FHM 91-14	M 14 x 1.5	12	19	21	6	13
FHM 91-16	M 16 x 1.5	12	19	21	6	13
FHM 91-18	M 18 x 1.5	12	23	24	8	17
FHM 91-20	M 20 x 1.5	14	25	26	8	19
FHM 91-22	M 22 x 1.5	14	27	26	8	19
FHM 91-24	M 24 x 1.5	14	29	27	9	22
FHM 91-26	M 26 x 1.5	16	31	30	10	24
FHM 91-30-1.5	M 30 x 1.5	16	36	30	10	24
FHM 91-38-1.5	M 38 x 1.5	16	44	32	11	27
FHM 91-45-1.5	M 45 x 1.5	16	49	33	12	30
FHM 91-52-1.5	M 52 x 1.5	16	60	33	12	30

**VHRK 90 VA****Blanking screw with hexagon head**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Design:** Blanking screws, with hexagon socket  
**Construction:** straight  
**Material:** Stainless steel

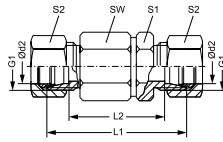


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Identification	G1	L1 mm	L2 mm	SW mm
VHRK 90-1/8 VA	R 1/8" K	14	8	12
VHRK 90-1/4 VA	R 1/4" K	18	12	14
VHRK 90-3/8 VA	R 3/8" K	19	12	17
VHRK 90-1/2 VA	R 1/2" K	27	19	22
VHRK 90-3/4 VA	R 3/4" K	29	19	27
VHRK 90-1 VA	R 1" K	29	18	36
VHRK 90-1 1/4 VA	R 1.1/4" K	32	20	46
VHRK 90-1 1/2 VA	R 1.1/2" K	36	22	50
VHRK 90-2 VA	R 2" K	40	26	65

## DG

## Rotary fitting, ball bearing



<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	24° inner cone
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Rotary fitting
<b>Supplementary design information:</b>	
<b>Construction:</b>	Ball bearing straight
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	SW mm	S1	S2
DG NW 03 HS	S	PN 250	6	M 14 x 1.5	61	47	22	17	17
DG NW 04 HS	S	PN 250	8	M 16 x 1.5	61	47	22	17	19
DG NW 08 HS	S	PN 250	12	M 20 x 1.5	72	57	30	24	24
DG NW 13 HS	S	PN 250	16	M 24 x 1.5	74	57	30	27	30
DG NW 16 HS	S	PN 250	20	M 30 x 2	92	71	41	36	36
DG NW 20 HS	S	PN 250	25	M 36 x 2	96	72	41	41	46
DG NW 25 HS	S	PN 250	30	M 42 x 2	109	82	60	46	50
DG NW 32 HS	S	PN 250	38	M 52 x 2	114	82	60	55	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter



DG H

## Rotary fitting, ball bearing

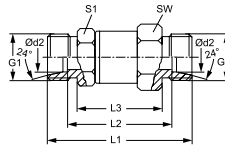
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting

**Supplementary design information:**

**Construction:** Ball bearing  
**Included in scope of supply:** straight

**Material:** Socket (without union nut and cutting ring)  
**Surface:** Steel

**Material:** Steel  
**Surface:** electro galvanised



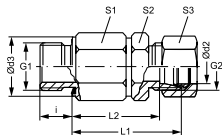
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L3 mm	SW mm	S1
DG NW 04 HL	L	PN 315	6	M 12 x 1.5	57,0	43,0	37,0	22	19
DG NW 06 HL	L	PN 315	8	M 14 x 1.5	57,0	43,0	37,0	22	19
DG NW 08 HL	L	PN 315	10	M 16 x 1.5	68,0	54,0	46,0	30	24
DG NW 10 HL	L	PN 315	12	M 18 x 1.5	68,0	54,0	46,0	30	24
DG NW 13 HL	L	PN 315	15	M 22 x 1.5	70,0	56,0	46,0	30	24
DG NW 16 HL	L	PN 315	18	M 26 x 1.5	80,5	65,5	56,5	41	36
DG NW 20 HL	L	PN 160	22	M 30 x 2	84,5	69,5	56,5	41	36
DG NW 25 HL	L	PN 160	28	M 36 x 2	96,5	81,5	68,5	60	55
DG NW 32 HL	L	PN 160	35	M 45 x 2	100,5	79,5	68,5	60	55
DG NW 03 HS H	S	PN 500	6	M 14 x 1.5	61,0	47,0	37,0	22	19
DG NW 04 HS H	S	PN 500	8	M 16 x 1.5	61,0	47,0	37,0	22	19
DG NW 06 HS H	S	PN 500	10	M 18 x 1.5	61,0	55,0	37,0	30	24
DG NW 08 HS H	S	PN 500	12	M 20 x 1.5	72,0	57,0	48,0	30	24
DG NW 10 HS H	S	PN 500	14	M 22 x 1.5	73,0	57,0	45,0	30	24
DG NW 13 HS H	S	PN 400	16	M 24 x 1.5	74,0	57,0	46,0	30	24
DG NW 16 HS H	S	PN 400	20	M 30 x 2	92,0	71,0	60,0	41	36
DG NW 20 HS H	S	PN 400	25	M 36 x 2	98,0	72,0	62,0	41	36
DG NW 25 HS H	S	PN 400	30	M 42 x 2	109,0	82,0	69,0	60	55
DG NW 32 HS H	S	PN 315	38	M 52 x 2	114,0	82,0	70,0	60	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

## DGR

### Rotary fitting, ball bearing



**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)  
**Supplementary design information:**  
**Construction:** Ball bearing  
 straight  
**Included in scope of supply:** Socket with union nut and cutting ring  
**Material:** Steel  
**Surface:** electro galvanised

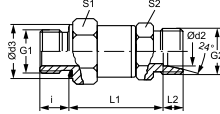
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	Ø d3 mm	L1 mm	L2 mm	S1	S2	S3
DGR NW 03 HS	S	PN 250	6	G 1/4" -19	M 14 x 1.5	12	19	49	42,0	22	17	17
DGR NW 04 HS	S	PN 250	8	G 1/4" -19	M 16 x 1.5	12	19	49	42,0	22	17	19
DGR NW 08 HS	S	PN 250	12	G 3/8" -19	M 20 x 1.5	12	22	60	52,5	30	24	24
DGR NW 13 HS	S	PN 250	16	G 1/2" -14	M 24 x 1.5	14	27	60	54,5	30	27	30
DGR NW 16 HS	S	PN 250	20	G 3/4" -14	M 30 x 2	16	32	76	65,5	41	36	36
DGR NW 20 HS	S	PN 250	25	G 1" -11	M 36 x 2	18	40	78	66,0	41	41	46
DGR NW 25 HS	S	PN 250	30	G 1.1/4" -11	M 42 x 2	20	50	89	75,5	60	46	50
DGR NW 32 HS	S	PN 250	38	G 1.1/2" -11	M 52 x 2	22	55	92	76,0	60	55	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**DGR H****Rotary fitting, ball bearing**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)  
**Supplementary design information:**  
**Construction:** Ball bearing  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

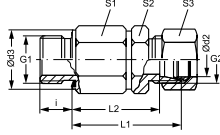
Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	Ø d3 mm	L1 mm	L2 mm	S1	S2
DGR NW 04 HL	L	PN 315	6	G 1/8" -28	M 12 x 1.5	8	14	40,5	7,0	22	19
DGR NW 04 HL 1/4	L	PN 315	6	G 1/4" -19	M 12 x 1.5	12	19	40,0	7,0	22	19
DGR NW 06 HL	L	PN 315	8	G 1/4" -19	M 14 x 1.5	12	19	40,0	7,0	22	19
DGR NW 08 HL	L	PN 315	10	G 1/4" -19	M 16 x 1.5	12	19	41,0	7,0	22	19
DGR NW 08 HL 3/8	L	PN 315	10	G 3/8" -19	M 16 x 1.5	12	22	50,0	7,0	30	24
DGR NW 10 HL 1/2	L	PN 315	12	G 1/2" -14	M 18 x 1.5	14	27	50,0	7,0	30	24
DGR NW 13 HL	L	PN 315	15	G 1/2" -14	M 22 x 1.5	14	27	51,0	7,0	30	24
DGR NW 13 HL 3/4	L	*1	15	G 3/4" -14	M 22 x 1.5	*1	*1	*1	*1	*1	*1
DGR NW 16 HL	L	PN 315	18	G 1/2" -14	M 26 x 1.5	14	27	51,5	7,5	30	30
DGR NW 16 HL 3/4	L	*1	18	G 3/4" -14	M 26 x 1.5	*1	*1	*1	*1	*1	*1
DGR NW 20 HL 1/2	L	*1	22	G 1/2" -14	M 30 x 2	*1	*1	*1	*1	*1	*1
DGR NW 20 HL	L	PN 160	22	G 3/4" -14	M 30 x 2	16	32	66,0	7,5	41	36
DGR NW 20 HL 1	L	*1	22	G 1" -11	M 30 x 2	*1	*1	*1	*1	*1	*1
DGR NW 03 HS H	S	PN 500	6	G 1/4" -19	M 14 x 1.5	12	19	42,0	7,0	22	19
DGR NW 04 HS H	S	PN 500	8	G 1/4" -19	M 16 x 1.5	12	19	42,0	7,0	22	19
DGR NW 06 HS H	S	PN 500	10	G 3/8" -19	M 18 x 1.5	12	22	42,0	7,5	22	19
DGR NW 08 HS H	S	PN 500	12	G 3/8" -19	M 20 x 1.5	12	22	52,5	7,5	30	24
DGR NW 08 HS 1/2 H	S	PN 500	12	G 1/2" -14	M 20 x 1.5	12	27	53,0	7,5	22	32
DGR NW 10 HS H	S	PN 500	14	G 1/2" -14	M 22 x 1.5	14	27	52,0	8,0	30	24
DGR NW 13 HS H	S	PN 400	16	G 1/2" -14	M 24 x 1.5	14	27	51,5	8,5	30	24
DGR NW 16 HS H	S	PN 400	20	G 3/4" -14	M 30 x 2	16	32	65,5	10,5	41	36
DGR NW 16 HS 1 H	S	PN 400	20	G 1" -11	M 30 x 2	18	40	65,0	10,5	41	36
DGR NW 20 HS 3/4 H	S	PN 400	25	G 3/4" -14	M 36 x 2	16	32	65,0	12,0	41	36
DGR NW 20 HS H	S	PN 400	25	G 1" -11	M 36 x 2	18	40	66,0	12,0	41	36

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

\*1) upon request

## DGM

## Rotary fitting, ball bearing



**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)

**Supplementary design information:**

**Construction:** Ball bearing  
 straight

**Included in scope of supply:** Socket (without union nut and cutting ring)

**Material:** Steel  
**Surface:** electro galvanised

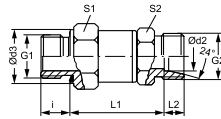
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	Ø d3 mm	L1 mm	L2 mm	S1	S2	S3
DGM NW 03 HS 14	S	PN 250	6	M 14 x 1.5	M 14 x 1.5	12	19	49	42,0	22	17	17
DGM NW 04 HS	S	PN 250	8	M 14 x 1.5	M 16 x 1.5	12	19	49	42,0	22	17	19
DGM NW 08 HS	S	PN 250	12	M 18 x 1.5	M 20 x 1.5	12	24	60	52,5	30	24	24
DGM NW 13 HS	S	PN 250	16	M 22 x 1.5	M 24 x 1.5	14	27	60	51,5	30	27	30
DGM NW 16 HS	S	PN 250	20	M 27 x 2	M 30 x 2	16	32	76	65,5	41	36	36
DGM NW 20 HS	S	PN 250	25	M 33 x 2	M 36 x 2	18	40	78	66,0	41	41	46
DGM NW 25 HS	S	PN 250	30	M 42 x 2	M 42 x 2	20	50	89	75,5	60	46	50
DGM NW 32 HS	S	PN 250	38	M 48 x 2	M 52 x 2	22	55	92	76,0	60	55	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**DGM H****Rotary fitting, ball bearing**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)  
**Supplementary design information:**  
**Construction:** Ball bearing  
**Construction:** straight  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

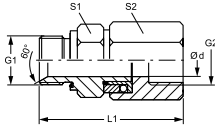


**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	i mm	Ø d3 mm	L1 mm	L2 mm	S1	S2
DGM NW 04 HL	L	PN 315	6	M 10 x 1	M 12 x 1.5	8	14	40,5	7,0	22	19
DGM NW 04 HL 12	L	PN 315	6	M 12 x 1.5	M 12 x 1.5	12	17	40,5	7,0	22	19
DGM NW 06 HL	L	PN 315	8	M 12 x 1.5	M 14 x 1.5	12	17	40,5	7,0	22	19
DGM NW 06 HL 14	L	PN 315	8	M 14 x 1.5	M 14 x 1.5	12	19	40,0	7,0	22	19
DGM NW 08 HL	L	PN 315	10	M 14 x 1.5	M 16 x 1.5	12	19	40,0	7,0	22	19
DGM NW 08 HL 16	L	PN 315	10	M 16 x 1.5	M 16 x 1.5	12	22	50,0	7,0	30	24
DGM NW 10 HL 18	L	PN 315	12	M 18 x 1.5	M 18 x 1.5	14	27	50,0	7,0	30	24
DGM NW 10 HL 22	L	PN 315	12	M 22 x 1.5	M 18 x 1.5	14	27	*1	7,0	30	24
DGM NW 13 HL	L	PN 315	15	M 18 x 1.5	M 22 x 1.5	14	27	51,0	7,0	30	24
DGM NW 13 HL 22	L	PN 315	15	M 22 x 1.5	M 22 x 1.5	14	27	51,0	7,0	30	24
DGM NW 16 HL	L	PN 315	18	M 22 x 1.5	M 26 x 1.5	14	27	50,5	7,5	30	30
DGM NW 20 HL	L	PN 160	22	M 26 x 1.5	M 30 x 2	16	32	64,5	7,5	41	36
DGM NW 03 HS 12 H	S	PN 500	6	M 12 x 1.5	M 14 x 1.5	12	17	42,5	7,0	22	19
DGM NW 06 HS 18 H	S	PN 500	10	M 18 x 1.5	M 18 x 1.5	12	22	42,0	7,5	22	19
DGM NW 06 HS H	S	PN 500	10	M 16 x 1.5	M 18 x 1.5	12	22	42,0	7,5	22	19
DGM NW 20 HS 27 H	S	PN 400	25	M 27 x 2	M 36 x 2	18	40	66,0	12,0	41	36

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

\*1) upon request

**DG HB IR****Rotary fitting, ball bearing**

<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	60° inner cone + shape E
<b>Connection 2:</b>	BSP cylindrical internal threads
<b>Sealing form 2:</b>	Shape A
<b>Design:</b>	Rotary fitting
<b>Supplementary design information:</b>	Ball guided
<b>Construction:</b>	straight
<b>Temp. min.:</b>	-30 °C
<b>Temp. max.:</b>	95 °C
<b>Media:</b>	Oil
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** For technical reasons, a minimum working pressure of 10 bar is required.

Identification	Working pressure bar	Ø d mm	G1 + G2	L1 mm	S1	S2
DG HB 10 IR	PN 300	8	G 3/8" -19	89,5	24	24
DG HB 13 IR	PN 300	10	G 1/2" -14	89,5	27	32

## Rotary fitting, ball bearing

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (bulkhead connector)

**Supplementary design information:**

**Construction:** Ball bearing  
**Construction:** straight

**Included in scope of supply:**

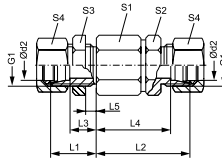
Socket (without union nut and cutting ring)

**Material:**

Steel

**Surface:**

electro galvanised



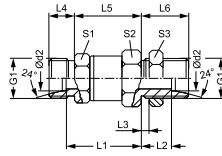
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	S1	S2	S3	S4
DGS NW 03 HS	S	PN 250	6	M 14 x 1.5	23	49	16,0	42,0	5,0	22	17	19	17
DGS NW 04 HS	S	PN 250	8	M 16 x 1.5	23	49	16,0	42,0	5,0	22	17	22	19
DGS NW 08 HS	S	PN 250	12	M 20 x 1.5	23	60	15,5	52,5	5,0	30	24	27	24
DGS NW 13 HS	S	PN 250	16	M 24 x 1.5	26	60	17,5	51,5	5,0	30	27	32	30
DGS NW 16 HS	S	PN 250	20	M 30 x 2	39	76	28,5	65,5	15,0	41	36	41	36
DGS NW 20 HS	S	PN 250	25	M 36 x 2	42	78	30,0	66,0	15,0	41	41	46	46
DGS NW 25 HS	S	PN 250	30	M 42 x 2	44	89	30,5	75,5	15,0	60	46	50	50
DGS NW 32 HS	S	PN 250	38	M 52 x 2	47	92	31,0	76,0	15,0	60	55	65	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

## DGS H

## Rotary fitting, ball bearing



<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	24° inner cone
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Rotary fitting (bulkhead connector)
<b>Supplementary design information:</b>	
<b>Construction:</b>	Ball bearing straight
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

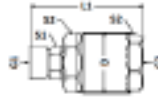
Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	S1	S2	S3
DGS NW 06 HL	L	PN 315	8	M 14 x 1,5	40,0	16,0	5	10	37,0	23,0	19	22	17
DGS NW 08 HL	L	PN 315	10	M 16 x 1,5	50,0	16,0	5	11	46,0	23,0	24	30	22
DGS NW 10 HL	L	PN 315	12	M 18 x 1,5	50,0	16,0	5	11	46,0	23,0	24	30	24
DGS NW 16 HL	L	PN 315	18	M 26 x 1,5	61,0	28,0	15	12	56,5	35,5	36	41	36
DGS NW 20 HL	L	PN 160	22	M 30 x 2	63,0	30,5	15	14	56,5	38,0	36	41	41
DGS NW 25 HL	L	PN 160	28	M 36 x 2	75,0	31,0	15	14	68,5	38,5	55	60	46
DGS NW 32 HL	L	PN 160	35	M 45 x 2	74,0	31,5	15	16	68,5	42,0	55	60	55
DGS NW 04 HS H	S	PN 500	8	M 16 x 1,5	42,0	16,0	5	12	37,0	23,0	19	22	22
DGS NW 08 HS H	S	PN 500	12	M 20 x 1,5	52,5	15,5	5	12	48,0	23,0	24	30	27
DGS NW 13 HS H	S	PN 400	16	M 24 x 1,5	51,5	17,5	5	14	46,0	26,0	24	30	32
DGS NW 16 HS H	S	PN 400	20	M 30 x 2	65,5	28,5	15	16	60,0	39,0	36	41	41
DGS NW 20 HS H	S	PN 400	25	M 36 x 2	66,0	30,0	15	18	60,0	42,0	36	41	46
DGS NW 25 HS H	S	PN 400	30	M 42 x 2	75,5	30,5	15	22	69,0	44,0	55	60	50

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter



**GV HB IR T****Rotary fitting, friction bearing**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Rotary fitting  
**Supplementary design information:** Friction bearing  
**Construction:** straight  
**Working pressure:** max. 410 bar  
**Temp. min.:** -40 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised



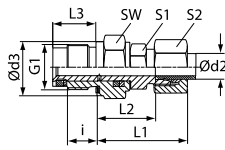
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Identification	G1	G2	D mm	L1 mm	S1	S2
GV HB 08 IR T	G 1/2" -14	G 1/2" -14	38,86	74,68	3/4"	1.5/16"
GV HB 12 IR T	G 3/4" -14	G 3/4" -14	50,80	96,77	15/16"	1.5/8"
GV HB 16 IR T	G 1" -11	G 1" -11	56,39	109,47	1.3/16"	1.7/8"

SW, S1, S2 = With across flats

## GVR

## Rotary fitting, friction bearing



**Connection 1:** BSP external thread, cylindrical Shape E  
**Sealing form 1:** metric cylindrical outer thread  
**Connection 2:** 24° inner cone  
**Sealing form 2:** Rotary fitting (screw-in connector)  
**Design:**

**Supplementary design information:**

**Construction:** Friction bearing straight

**Included in scope of supply:** Socket (without union nut and cutting ring)

**Material:** Steel  
**Surface:** electro galvanised

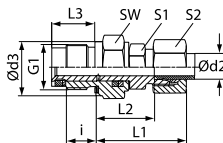
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	i mm	Ø d3 mm	L1 mm	L2 mm	L3 mm	SW mm	S1	S2
GVR NW 04 HL 1/4	L	PN 40	6	G 1/4" -19	12	19	40	21,0	18,0	19	12	14
GVR NW 06 HL	L	PN 40	8	G 1/4" -19	12	19	40	21,0	18,0	19	14	17
GVR NW 08 HL 3/8	L	PN 40	10	G 3/8" -19	12	22	40	25,0	18,0	24	17	19
GVR NW 10 HL 1/2	L	PN 40	12	G 1/2" -14	14	27	42	27,0	21,0	27	19	22
GVR NW 13 HL 3/4	L	PN 40	15	G 3/4" -14	16	32	47	32,0	24,0	32	24	27
GVR NW 16 HL 1	L	PN 40	18	G 1" -11	18	40	51	35,0	27,5	41	27	22
GVR NW 20 HL 1	L	PN 40	22	G 1" -11	18	40	55	39,5	27,5	41	32	36
GVR NW 25 HL 11/4	L	PN 40	28	G 1.1/4" -11	20	40	57	40,5	31,0	50	41	41
GVR NW 32 HL 11/2	L	PN 40	35	G 1.1/2" -11	22	55	66	44,5	35,0	55	46	50
GVR NW 03 HS	S	PN 100	6	G 1/4" -19	12	19	38	23,0	18,0	19	14	17
GVR NW 04 HS	S	PN 100	8	G 1/4" -19	12	19	39	24,0	18,0	19	17	19
GVR NW 06 HS	S	PN 100	10	G 3/8" -19	12	22	43	26,5	18,0	24	19	22
GVR NW 08 HS 1/2	S	PN 100	12	G 1/2" -14	14	27	45	28,5	21,0	27	22	24
GVR NW 13 HS 3/4	S	PN 100	16	G 3/4" -14	16	32	52	33,5	24,0	32	27	30
GVR NW 16 HS 1	S	PN 100	20	G 1" -11	18	40	60	38,0	27,5	41	32	36
GVR NW 20 HS	S	PN 100	25	G 1" -11	18	40	65	40,5	27,5	41	41	46
GVR NW 25 HS 11/4	S	PN 100	30	G 1.1/4" -11	20	50	68	41,5	31,0	50	46	50
GVR NW 32 HS 11/2	S	PN 100	38	G 1.1/2" -11	22	55	78	47,0	35,0	55	55	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**GVM****Rotary fitting, friction bearing**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)  
**Supplementary design information:**  
**Construction:** Friction bearing straight  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



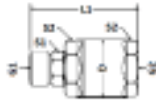
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	i mm	Ø d3 mm	L1 mm	L2 mm	L3 mm	SW mm	S1 mm	S2 mm
GVM NW 04 HL 14	L	PN 40	6	M 14 x 1.5	12	19	27	20,0	18,0	19	12	14
GVM NW 06 HL 14	L	PN 40	8	M 14 x 1.5	12	19	29	21,0	18,0	19	12	17
GVM NW 08 HL 18	L	PN 40	10	M 18 x 1.5	12	24	30	26,0	18,0	24	14	19
GVM NW 10 HL 22	L	PN 40	12	M 22 x 1.5	14	27	32	27,0	21,0	27	17	22
GVM NW 13 HL 27	L	PN 40	15	M 27 x 2	16	32	36	33,0	24,0	32	19	27
GVM NW 16 HL 33	L	PN 40	18	M 33 x 2	18	40	40	37,5	27,5	41	27	32
GVM NW 20 HL 33	L	PN 40	22	M 33 x 2	18	40	44	39,5	27,5	41	27	36
GVM NW 25 HL 42	L	PN 40	28	M 42 x 2	20	50	47	44,0	31,0	50	36	41
GVM NW 32 HL 48	L	PN 40	35	M 48 x 2	22	55	56	54,0	35,0	55	41	50
GVM NW 03 HS 14	S	PN 100	6	M 14 x 1.5	12	19	31	21,0	18,0	19	12	17
GVM NW 04 HS	S	PN 100	8	M 14 x 1.5	12	19	32	22,0	18,0	19	14	19
GVM NW 06 HS 18	S	PN 100	10	M 18 x 1.5	12	24	34	27,0	18,0	24	17	22
GVM NW 08 HS	S	PN 100	12	M 22 x 1.5	14	27	38	28,0	21,0	27	17	24
GVM NW 13 HS 27	S	PN 100	16	M 27 x 2	16	32	43	34,0	24,0	32	24	30
GVM NW 16 HS 33	S	PN 100	20	M 33 x 2	18	40	48	39,5	27,5	41	27	36
GVM NW 20 HS	S	PN 100	25	M 33 x 2	18	40	54	42,5	27,5	41	36	46
GVM NW 25 HS	S	PN 100	30	M 42 x 2	20	50	62	48,0	31,0	50	41	50
GVM NW 32 HS	S	PN 100	38	M 48 x 2	22	55	72	55,0	35,0	55	50	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

## GV HJOF IJF T

### Rotary fitting, friction bearing



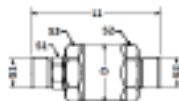
**Connection 1:** ORFS external threads  
**Sealing form 1:** flat seal with O-ring  
**Connection 2:** ORFS internal thread  
**Sealing form 2:** Flat seal  
**Design:** Rotary fitting  
**Supplementary design information:** Friction bearing  
**Construction:** straight  
**Working pressure:** max. 410 bar  
**Temp. min.:** -40 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	D mm	L1 mm	S1	S2
GV HJOF 08 IJF T	13/16" -16 UN	13/16" -16 UN	38,86	76,20	3/4"	1.5/16"
GV HJOF 12 IJF T	1.3/16" -12 UN	1.3/16" -12 UN	53,09	98,04	1.1/16"	1.3/4"
GV HJOF 16 IJF T	1.7/16" -12 UN	1.7/16" -12 UN	58,67	111,25	1.5/16"	2"

SW, S1, S2 = With across flats

**GV HJOF HJOF T****Rotary fitting, friction bearing**

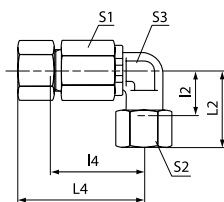
**Connection 1:** ORFS external threads  
**Sealing form 1:** flat seal with O-ring  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Rotary fitting  
**Supplementary design information:** Friction bearing  
**Construction:** straight  
**Working pressure:** max. 410 bar  
**Temp. min.:** -40 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	D mm	L1 mm	S1	S2
GV HJOF 08 HJOF T	13/16" -16 UN	13/16" -16 UN	38,86	88,90	3/4"	1.5/16"
GV HJOF 10 HJOF T	1" -14 UNS	1" -14 UNS	47,25	96,27	15/16"	1.5/8"
GV HJOF 12 HJOF T	1.3/16" -12 UN	1.3/16" -12 UN	53,09	114,81	1.1/16"	1.3/4"

SW, S1, S2 = With across flats

1

**DG 90****Rotary fitting, angle 90°, ball bearing**

<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	24° inner cone
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Rotary fitting
<b>Supplementary design information:</b>	Ball bearing
<b>Construction:</b>	Angle 90°
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

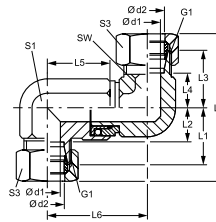
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	External pipe Ø mm	L2 mm	I2 mm	L4 mm	I4 mm	S1	S2	S3
DG 90 NW 03 HS	S	PN 250	6	31	16,0	59,0	44,5	22	17	17
DG 90 NW 04 HS	S	PN 250	8	32	17,0	59,0	44,5	22	19	17
DG 90 NW 08 HS	S	PN 250	12	38	21,5	72,0	55,5	30	24	22
DG 90 NW 13 HS	S	PN 250	16	43	24,5	73,0	54,5	30	30	22
DG 90 NW 16 HS	S	PN 250	20	48	26,5	94,5	72,5	41	36	36
DG 90 NW 20 HS	S	PN 250	25	54	30,0	95,5	71,0	41	46	36
DG 90 NW 25 HS	S	PN 250	30	62	35,5	116,0	89,0	60	50	50
DG 90 NW 32 HS	S	PN 250	38	72	41,0	117,0	86,5	60	60	50

PN = Nominal pressure    PB = Max. operating pressure    Series: LL = Very light    L = Light    S = Heavy    Ø = External pipe diameter

**DGD****Rotary fitting, 2x 90°, ball bearing**

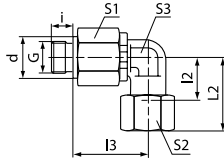
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting  
**Construction:** Double angle 90°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d1 mm	Ø d2 mm	G1	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	L6 mm	L7 mm	SW mm	S1	S3
DG D NW 08 HS	S	PN 250	9,5	12	M 20 x 1.5	29,0	21,5	34,0	26,5	39,5	53,0	81,0	24	22	24
DG D NW 13 HS	S	PN 250	9,5	16	M 24 x 1.5	33,0	24,5	34,0	25,5	39,5	53,0	87,0	24	22	30
DG D NW 16 HS	S	PN 250	16,0	20	M 30 x 2	37,0	26,5	50,0	39,5	56,5	76,0	109,0	32	36	36
DG D NW 20 HS	S	PN 250	16,0	25	M 36 x 2	42,0	30,0	50,0	38,0	56,5	76,0	116,0	32	36	46
DG D NW 25 HS	S	PN 250	26,0	30	M 42 x 2	49,0	35,5	58,0	44,5	65,0	92,5	133,0	50	50	50
DG D NW 32 HS	S	PN 250	26,0	38	M 52 x 2	57,0	41,0	58,0	42,0	65,0	92,5	145,0	50	50	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**DGR 90****Rotary fitting, angle 90°, ball bearing**

**Connection 1:** BSP external thread, cylindrical Shape E  
**Sealing form 1:** metric cylindrical outer thread  
**Connection 2:** 24° inner cone  
**Sealing form 2:** Rotary fitting (screw-in connector)

**Design:**  
**Supplementary design information:**

Ball bearing  
 Angle 90°

**Construction:**  
**Included in scope of supply:**

Socket (without union nut and cutting ring)

**Material:**  
**Surface:**

Steel  
 electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

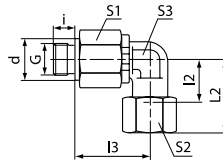
Identification	Series	Working pressure bar	External pipe Ø mm	G	Ø d mm	i mm	L2 mm	L2 mm	L3 mm	S1	S2	S3
DGR 90 NW 03 HS	S	PN 250	6	G 1/4" -19	19	12	31	16,0	39,5	22	17	17
DGR 90 NW 04 HS	S	PN 250	8	G 1/4" -19	19	12	32	17,0	39,5	22	19	17
DGR 90 NW 08 HS	S	PN 250	12	G 3/8" -19	22	12	38	21,5	51,0	30	24	22
DGR 90 NW 13 HS	S	PN 250	16	G 1/2" -14	27	14	43	24,5	49,0	30	30	22
DGR 90 NW 16 HS	S	PN 250	20	G 3/4" -14	32	16	48	26,5	67,0	41	36	36
DGR 90 NW 20 HS	S	PN 250	25	G 1" -11	40	18	54	30,0	65,0	41	46	36
DGR 90 NW 25 HS	S	PN 250	30	G 1.1/4" -11	50	20	62	35,5	82,5	60	50	50
DGR 90 NW 32 HS	S	PN 250	38	G 1.1/2" -11	55	22	72	41,0	80,5	60	60	50

Ø = External pipe diameter    Series: LL = Very light    L = Light    S = Heavy    PN = Nominal pressure    PB = Max. operating pressure



**DGM 90****Rotary fitting, angle 90°, ball bearing**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)  
**Supplementary design information:**  
**Construction:** Ball bearing  
**Construction:** Angle 90°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



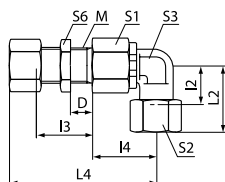
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	External pipe Ø mm	G	Ø d mm	i mm	L2 mm	L2 mm	L3 mm	S1	S2	S3
DGM 90 NW 03 HS 14	S	PN 250	6	M 14 x 1.5	19	12	31	16,0	39,5	22	17	17
DGM 90 NW 04 HS	S	PN 250	8	M 14 x 1.5	19	12	32	17,0	39,5	22	19	17
DGM 90 NW 08 HS	S	PN 250	12	M 18 x 1.5	22	12	38	21,5	51,0	30	24	22
DGM 90 NW 13 HS	S	PN 250	16	M 22 x 1.5	27	14	43	24,5	49,0	30	30	22
DGM 90 NW 16 HS	S	PN 250	20	M 27 x 2	32	16	48	26,5	67,0	41	36	36
DGM 90 NW 20 HS	S	PN 250	25	M 33 x 2	40	18	54	30,0	65,0	41	46	36
DGM 90 NW 25 HS	S	PN 250	30	M 42 x 2	50	20	62	35,5	82,5	60	50	50
DGM 90 NW 32 HS	S	PN 250	38	M 48 x 2	55	22	72	41,0	80,5	60	60	50

Ø = External pipe diameter    PN = Nominal pressure    PB = Max. operating pressure    Series: LL = Very light    L = Light    S = Heavy

## DGS 90

### Rotary fitting, angle 90°, ball bearing



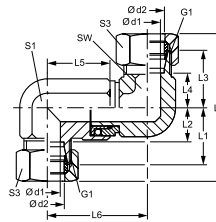
- Connection 1:** metric cylindrical outer thread
- Sealing form 1:** 24° inner cone
- Connection 2:** metric cylindrical outer thread
- Sealing form 2:** 24° inner cone
- Design:** Rotary fitting (bulkhead connector)
- Supplementary design information:**
- Construction:** Ball bearing
- Included in scope of supply:** Angle 90°
- Material:** Socket (without union nut and cutting ring)
- Surface:** Steel
- Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	External pipe Ø mm	M	D mm	L2 mm	I2 mm	I3 mm	L4 mm	I4 mm	S1	S3	S6
DGS 90 NW03 HS	S	PN 250	6	M 14 x 1.5	5	31	16,0	16,0	70,0	39,5	22	17	19
DGS 90 NW04 HS	S	PN 250	8	M 16 x 1.5	5	32	17,0	16,0	70,0	39,5	22	17	22
DGS 90 NW08 HS	S	PN 250	12	M 20 x 1.5	5	38	21,5	15,5	83,0	51,0	30	22	27
DGS 90 NW13 HS	S	PN 250	16	M 24 x 1.5	5	43	24,5	17,5	85,0	49,0	30	22	32
DGS 90 NW16 HS	S	PN 250	20	M 30 x 2	15	48	26,5	28,5	117,5	67,0	41	36	41
DGS 90 NW20 HS	S	PN 250	25	M 36 x 2	15	54	30,0	30,0	119,5	65,0	41	36	46
DGS 90 NW25 HS	S	PN 250	30	M 42 x 2	15	62	35,5	30,5	140,0	82,5	60	50	50
DGS 90 NW32 HS	S	PN 250	38	M 52 x 2	15	72	41,0	31,0	142,0	80,5	60	50	65

**DGDH****Rotary fitting 2x 90°, friction bearing**

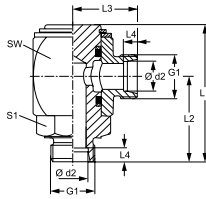
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting  
**Construction:** Double angle 90°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L3 mm	L4 mm	L6 mm	SW mm
DG D NW 08 HS H	S	PN 400	12	M 20 x 1.5	28	20,5	28	20,5	32	32
DG D NW 13 HS H	S	PN 400	16	M 24 x 1.5	34	25,5	34	25,5	40	40
DG D NW 16 HS H	S	PN 250	20	M 30 x 2	38	27,5	38	27,5	45	45
DG D NW 20 HS H	S	PN 250	25	M 36 x 2	45	33,0	45	33,0	55	55
DG D NW 25 HS H	S	PN 250	30	M 42 x 2	52	38,5	52	38,5	65	65
DG D NW 32 HS H	S	PN 250	38	M 52 x 2	59	43,0	59	43,0	75	75

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**GV 90 H****Rotary fitting, angle 90°, friction bearing**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 24° inner cone

**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone

**Design:** Rotary fitting

**Supplementary design information:**

Friction bearing

Angle 90°

**Construction:**  
**Included in scope of supply:**

Socket (without union nut and cutting ring)

**Material:**

Steel

**Surface:**

electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	L3 mm	L4 mm	SW mm	S1
GV 90 NW 04 HL H	L	PN 250	6	M 12 x 1.5	49	31	23	7,0	27	19
GV 90 NW 06 HL H	L	PN 250	8	M 14 x 1.5	54	33	25	7,0	30	22
GV 90 NW 08 HL H	L	PN 250	10	M 16 x 1.5	57	36	27	7,0	32	24
GV 90 NW 10 HL H	L	PN 250	12	M 18 x 1.5	63	39	29	7,0	36	27
GV 90 NW 13 HL H	L	PN 250	15	M 22 x 1.5	68	42	32	7,0	40	32
GV 90 NW 16 HL H	L	PN 160	18	M 26 x 1.5	75	46	34	7,5	45	36
GV 90 NW 20 HL H	L	PN 160	22	M 30 x 2	89	54	41	7,5	55	41
GV 90 NW 25 HL H	L	PN 100	28	M 36 x 2	103	62	46	7,5	65	50
GV 90 NW 32 HL H	L	PN 100	35	M 45 x 2	115	69	53	10,5	75	55
GV 90 NW 40 HL H	L	PN 100	42	M 52 x 2	147	90	61	11,0	90	70
GV 90 NW 03 HS H	S	PN 400	6	M 14 x 1.5	51	33	25	7,0	27	19
GV 90 NW 04 HS H	S	PN 400	8	M 16 x 1.5	51	33	25	7,0	27	19
GV 90 NW 06 HS H	S	PN 400	10	M 18 x 1.5	56	35	27	7,5	30	22
GV 90 NW 08 HS H	S	PN 400	12	M 20 x 1.5	58	37	28	7,5	32	24
GV 90 NW 10 HS H	S	PN 400	14	M 22 x 1.5	66	42	32	8,0	36	27
GV 90 NW 13 HS H	S	PN 400	16	M 24 x 1.5	70	44	34	8,5	40	32
GV 90 NW 16 HS H	S	PN 250	20	M 30 x 2	79	50	38	10,5	45	36
GV 90 NW 20 HS H	S	PN 250	25	M 36 x 2	93	58	45	12,0	55	41
GV 90 NW 25 HS H	S	PN 250	30	M 42 x 2	109	68	52	13,5	65	50
GV 90 NW 32 HS H	S	PN 250	38	M 52 x 2	121	75	59	16,0	75	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**GVR 90****Rotary fitting, angle 90°, friction bearing**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)

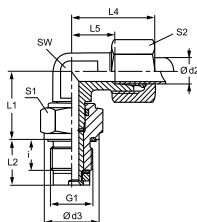
**Supplementary design information:**

Friction bearing

**Construction:** Angle 90°

**Included in scope of supply:**

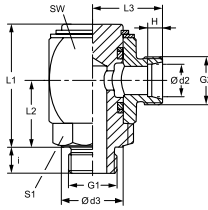
Socket (without union nut and cutting ring)

**Material:** Steel**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	d3 mm	i mm	L1 mm	L2 mm	L4 mm	L5 mm	SW mm	S1	S2
GVR 90 NW 04 HL 1/4	L	PN 40	6	G 1/4" -19	19	12	20,0	18,0	27	12,0	12	19	14
GVR 90 NW 06 HL	L	PN 40	8	G 1/4" -19	19	12	21,0	18,0	29	14,0	12	19	17
GVR 90 NW 08 HL 3/8	L	PN 40	10	G 3/8" -19	22	12	26,0	18,0	30	15,0	14	24	19
GVR 90 NW 10 HL 1/2	L	PN 40	12	G 1/2" -14	27	14	27,0	21,0	32	17,0	17	27	22
GVR 90 NW 13 HL 3/4	L	PN 40	15	G 3/4" -14	32	16	33,0	24,0	36	21,0	19	32	27
GVR 90 NW 16 HL 1	L	PN 40	18	G 1" -11	40	18	37,5	27,5	40	23,5	27	41	32
GVR 90 NW 20 HL 1	L	PN 40	22	G 1" -11	40	18	39,5	27,5	44	27,5	27	41	36
GVR 90 NW 25 HL 1 1/4	L	PN 40	28	G 1.1/4" -11	50	20	44,0	31,0	47	30,5	36	50	41
GVR 90 NW 32 HL 1 1/2	L	PN 40	35	G 1.1/2" -11	55	22	54,0	35,0	56	34,5	41	55	50
GVR 90 NW 03 HS	S	PN 100	6	G 1/4" -19	19	12	21,0	18,0	31	16,0	12	19	17
GVR 90 NW 04 HS	S	PN 100	8	G 1/4" -19	19	12	22,0	18,0	32	17,0	14	19	19
GVR 90 NW 06 HS	S	PN 100	10	G 3/8" -19	22	12	27,0	18,0	34	17,5	17	24	22
GVR 90 NW 08 HS 1/2	S	PN 100	12	G 1/2" -14	27	14	28,0	21,0	38	21,5	17	27	24
GVR 90 NW 13 HS 3/4	S	PN 100	16	G 3/4" -14	32	16	34,0	24,0	43	24,5	24	32	30
GVR 90 NW 16 HS 1	S	PN 100	20	G 1" -11	40	18	39,5	27,5	48	26,5	27	41	36
GVR 90 NW 20 HS	S	PN 100	25	G 1" -11	40	18	42,5	27,5	54	30,0	36	41	46
GVR 90 NW 25 HS	S	PN 100	30	G 1.1/4" -11	50	20	48,0	31,0	62	35,5	41	50	50
GVR 90 NW 32 HS	S	PN 100	38	G 1.1/2" -11	55	22	55,0	35,0	72	41,0	50	55	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**GVR 90 H****Rotary fitting, angle 90°, friction bearing**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)

**Supplementary design information:**

Friction bearing  
 Angle 90°

**Construction:**  
**Included in scope of supply:**

Socket (without union nut and cutting ring)

**Material:** Steel  
**Surface:** electro galvanised

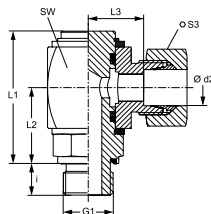
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	d3 mm	i mm	H mm	L1 mm	L2 mm	L3 mm	SW mm	S1
GVR 90 NW 04 HL H	L	PN 250	6	G 1/8"-28	M 12 x 1.5	14	8	7,0	40	21	23	27	17
GVR 90 NW 04 HL 1/4 H	L	PN 250	6	G 1/4"-19	M 12 x 1.5	19	12	7,0	41	22	23	27	19
GVR 90 NW 06 HL H	L	PN 250	8	G 1/4"-19	M 14 x 1.5	19	12	7,0	46	25	25	30	22
GVR 90 NW 08 HL H	L	PN 250	10	G 1/4"-19	M 16 x 1.5	19	12	7,0	46	25	26	30	22
GVR 90 NW 08 HL 3/8 H	L	PN 250	10	G 3/8"-19	M 16 x 1.5	22	12	7,0	48	27	27	32	24
GVR 90 NW 10 HL H	L	PN 250	12	G 3/8"-19	M 18 x 1.5	22	12	7,0	48	27	27	32	24
GVR 90 NW 10 HL 1/2 H	L	PN 250	12	G 1/2"-14	M 18 x 1.5	27	14	7,0	55	30	29	36	27
GVR 90 NW 13 HL H	L	PN 250	15	G 1/2"-14	M 22 x 1.5	27	14	7,0	59	33	32	40	32
GVR 90 NW 16 HL H	L	PN 160	18	G 1/2"-14	M 26 x 1.5	27	14	7,5	59	33	32	40	32
GVR 90 NW 16 HL 3/4 H	L	PN 160	18	G 3/4"-14	M 26 x 1.5	32	16	7,5	66	35	32	45	32
GVR 90 NW 20 HL H	L	PN 160	22	G 3/4"-14	M 30 x 2	32	16	7,5	66	35	36	45	36
GVR 90 NW 20 HL 1 H	L	PN 160	22	G 1"-11	M 30 x 2	40	18	7,5	78	41	36	55	36
GVR 90 NW 25 HL H	L	PN 100	28	G 1"-11	M 36 x 2	40	18	7,5	78	41	41	55	41
GVR 90 NW 32 HL 1 1/4 H	L	PN 100	35	G 1.1/4"-11	M 45 x 2	50	20	10,5	92	51	48	65	50
GVR 90 NW 40 HL H	L	PN 100	42	G 1.1/2"-11	M 52 x 2	55	22	11,0	102	56	53	75	55
GVR 90 NW 03 HS H	S	PN 400	6	G 1/4"-19	M 14 x 1.5	19	12	7,0	41	22	25	27	19
GVR 90 NW 04 HS H	S	PN 400	8	G 1/4"-19	M 16 x 1.5	19	12	7,0	41	22	25	27	19
GVR 90 NW 06 HS H	S	PN 400	10	G 3/8"-19	M 18 x 1.5	22	12	7,5	46	25	27	30	22
GVR 90 NW 06 HS 1/4 H	S	PN 400	10	G 1/4"-19	M 18 x 1.5	19	12	7,5	41	22	27	27	22
GVR 90 NW 08 HS H	S	PN 400	12	G 3/8"-19	M 20 x 1.5	22	12	7,5	48	27	28	32	24
GVR 90 NW 08 HS 1/2 H	S	PN 400	12	G 1/2"-14	M 20 x 1.5	27	14	7,5	55	30	27	36	24
GVR 90 NW 10 HS H	S	PN 400	14	G 1/2"-14	M 22 x 1.5	27	14	8,0	55	30	32	36	27
GVR 90 NW 13 HS H	S	PN 400	16	G 1/2"-14	M 24 x 1.5	27	14	8,5	59	33	34	40	32
GVR 90 NW 16 HS H	S	PN 250	20	G 3/4"-14	M 30 x 2	32	16	10,5	66	35	38	45	36
GVR 90 NW 16 HS 1 H	S	PN 250	20	G 1"-11	M 30 x 2	40	18	10,5	78	41	38	55	36
GVR 90 NW 20 HS 3/4 H	S	PN 250	25	G 3/4"-14	M 36 x 2	32	16	12,0	66	35	45	55	41
GVR 90 NW 20 HS H	S	PN 250	25	G 1"-11	M 36 x 2	40	18	12,0	78	41	45	55	41
GVR 90 NW 25 HS H	S	PN 250	30	G 1.1/4"-11	M 42 x 2	50	20	13,5	92	51	52	65	50
GVR 90 NW 32 HS H	S	PN 250	38	G 1.1/2"-11	M 52 x 2	55	22	16,0	102	56	59	75	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**GVR 90 ED VA****Rotary fitting, angle 90°, friction bearing**

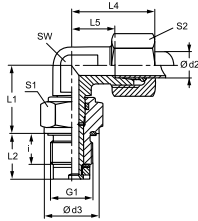
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	Shape E
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	24° inner cone
<b>Design:</b>	Rotary fitting (screw-in connector)
<b>Supplementary design information:</b>	
<b>Construction:</b>	Friction bearing
<b>Included in scope of supply:</b>	Angle 90°
<b>Material:</b>	Socket (without union nut and cutting ring)
	Stainless steel



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	i mm	L1 mm	L2 mm	L3 mm	SW mm	S3
GVR 90 NW 04 HL ED VA	L	PN 160	6	G 1/8" -28	8	47,0	26,5	16,5	27	14
GVR 90 NW 06 HL ED VA	L	PN 160	8	G 1/4" -19	12	47,5	26,5	16,5	27	14
GVR 90 NW 08 HL ED VA	L	PN 160	10	G 1/4" -19	12	47,5	26,5	17,5	27	19
GVR 90 NW 10 HL ED VA	L	PN 160	12	G 3/8" -19	12	47,5	26,5	18,0	27	24
GVR 90 NW 13 HL ED VA	L	PN 160	15	G 1/2" -14	14	58,5	33,5	24,0	36	27
GVR 90 NW 16 HL ED VA	L	PN 100	18	G 1/2" -14	14	58,5	33,5	23,5	36	32
GVR 90 NW 20 HL ED VA	L	PN 100	22	G 3/4" -14	16	66,0	38,0	27,5	41	36
GVR 90 NW 25 HL ED VA	L	PN 60	28	G 1" -11	18	72,0	42,5	29,5	46	41
GVR 90 NW 03 HS ED VA	S	PN 250	6	G 1/4" -19	8	47,5	26,5	18,5	27	17
GVR 90 NW 04 HS ED VA	S	PN 250	8	G 1/4" -19	8	47,5	26,5	18,5	27	19
GVR 90 NW 06 HS ED VA	S	PN 250	10	G 3/8" -19	12	47,5	26,5	18,0	27	22
GVR 90 NW 08 HS ED VA	S	PN 250	12	G 3/8" -19	12	47,5	26,5	18,0	27	24
GVR 90 NW 10 HS ED VA	S	PN 250	14	G 1/2" -14	14	58,5	33,5	25,0	36	27
GVR 90 NW 13 HS ED VA	S	PN 250	16	G 1/2" -14	14	58,5	33,5	24,5	36	30
GVR 90 NW 16 HS ED VA	S	PN 160	20	G 3/4" -14	16	66,0	38,0	26,5	41	36
GVR 90 NW 20 HS ED VA	S	PN 160	25	G 1" -11	18	72,0	42,5	29,0	46	46

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**GVM 90****Rotary fitting, angle 90°, friction bearing**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)

**Supplementary design information:**

Friction bearing  
 Angle 90°

**Construction:**  
**Included in scope of supply:**

Socket (without union nut and cutting ring)

**Material:**  
**Surface:**

Steel  
 electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

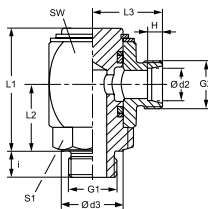
Identification	Series	Working pressure bar	Ø d2 mm	G1	d3 mm	i mm	L1 mm	L2 mm	L4 mm	L5 mm	SW mm	S1	S2
GVM 90 NW 04 HL 14	L	PN 40	6	M 14 x 1.5	19	12	20,0	18,0	27	12,0	12	19	14
GVM 90 NW 08 HL 18	L	PN 40	10	M 18 x 1.5	24	12	26,0	18,0	30	15,0	14	24	19
GVM 90 NW 10 HL 22	L	PN 40	12	M 22 x 1.5	27	14	27,0	21,0	32	17,0	17	27	22
GVM 90 NW 13 HL 27	L	PN 40	15	M 27 x 2	32	16	33,0	24,0	36	21,0	19	32	27
GVM 90 NW 16 HL 33	L	PN 40	18	M 33 x 2	40	18	37,5	27,5	40	23,5	27	41	32
GVM 90 NW 20 HL 33	L	PN 40	22	M 33 x 2	40	18	39,5	27,5	44	27,5	27	41	36
GVM 90 NW 25 HL 42	L	PN 40	28	M 42 x 2	50	20	44,0	31,0	47	30,5	36	50	41
GVM 90 NW 32 HL 48	L	PN 40	35	M 48 x 2	55	22	54,0	35,0	56	34,5	41	55	50
GVM 90 NW 03 HS 14	S	PN 100	6	M 14 x 1.5	19	12	21,0	18,0	31	16,0	12	19	17
GVM 90 NW 06 HS 18	S	PN 100	10	M 18 x 1.5	24	12	27,0	18,0	34	17,5	17	24	22
GVM 90 NW 08 HS	S	PN 100	12	M 18 x 1.5	27	14	28,0	21,0	38	21,5	17	27	24
GVM 90 NW 08 HS 22	S	PN 100	12	M 22 x 1.5	27	14	28,0	32,0	38	21,5	17	27	24
GVM 90 NW 13 HS 27	S	PN 100	16	M 27 x 2	32	16	34,0	24,0	43	24,5	24	32	30
GVM 90 NW 16 HS 33	S	PN 100	20	M 33 x 2	40	18	39,5	27,5	48	26,5	27	41	36
GVM 90 NW 20 HS	S	PN 100	25	M 33 x 2	40	18	42,5	27,5	54	30,0	36	41	46
GVM 90 NW 25 HS	S	PN 100	30	M 42 x 2	50	20	48,0	31,0	62	35,5	41	50	50
GVM 90 NW 32 HS	S	PN 100	38	M 48 x 2	55	22	55,0	35,0	72	41,0	50	55	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter



**GVM 90 H****Rotary fitting, angle 90°, friction bearing**

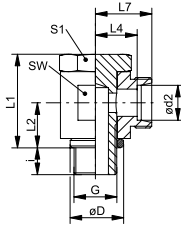
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Rotary fitting (screw-in connector)  
**Supplementary design information:** Friction bearing  
**Construction:** Angle 90°  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2	d3 mm	i mm	H mm	L1 mm	L2 mm	L3 mm	SW mm	S1
GVM 90 NW 04 HL H	L	PN 250	6	M 10 x 1	M 12 x 1.5	14	8	7,0	40	21	23	27	17
GVM 90 NW 04 HL 12 H	L	PN 250	6	M 12 x 1.5	M 12 x 1.5	14	12	7,0	41	22	23	27	17
GVM 90 NW 06 HL H	L	PN 250	8	M 12 x 1.5	M 14 x 1.5	17	12	7,0	41	22	23	27	19
GVM 90 NW 08 HL H	L	PN 250	10	M 14 x 1.5	M 16 x 1.5	19	12	7,0	46	25	26	30	22
GVM 90 NW 08 HL 16 H	L	PN 250	10	M 16 x 1.5	M 16 x 1.5	22	12	7,0	48	27	27	32	24
GVM 90 NW 10 HL H	L	PN 250	12	M 16 x 1.5	M 18 x 1.5	22	12	7,0	48	27	27	32	24
GVM 90 NW 10 HL 18 H	L	PN 250	12	M 18 x 1.5	M 18 x 1.5	24	12	7,0	55	30	29	36	27
GVM 90 NW 13 HL H	L	PN 250	15	M 18 x 1.5	M 22 x 1.5	24	12	7,0	55	30	30	36	27
GVM 90 NW 13 HL 22 H	L	PN 250	15	M 22 x 1.5	M 22 x 1.5	27	14	7,0	59	33	32	40	32
GVM 90 NW 16 HL H	L	PN 160	18	M 22 x 1.5	M 26 x 1.5	27	14	7,5	59	33	32	40	32
GVM 90 NW 20 HL H	L	PN 160	22	M 26 x 1.5	M 30 x 2	32	16	7,5	66	35	36	45	36
GVM 90 NW 25 HL H	L	PN 100	28	M 33 x 2	M 36 x 2	40	18	7,5	78	41	41	55	41
GVM 90 NW 32 HL H	L	PN 100	35	M 42 x 2	M 45 x 2	50	20	10,5	92	50	48	65	50
GVM 90 NW 40 HL H	L	PN 100	42	M 48 x 2	M 52 x 2	55	22	11,0	102	56	53	75	55
GVM 90 NW 03 HS H	S	PN 400	6	M 12 x 1.5	M 14 x 1.5	17	12	7,0	41	22	25	27	19
GVM 90 NW 03 HS 14 H	S	PN 400	6	M 14 x 1.5	M 14 x 1.5	19	12	7,0	41	22	25	27	19
GVM 90 NW 04 HS H	S	PN 400	8	M 14 x 1.5	M 16 x 1.5	19	12	7,0	41	22	25	27	19
GVM 90 NW 06 HS 14 H	S	PN 400	10	M 14 x 1.5	M 18 x 1.5	19	12	7,5	46	25	27	30	22
GVM 90 NW 06 HS H	S	PN 400	10	M 16 x 1.5	M 18 x 1.5	22	12	7,5	46	25	27	30	22
GVM 90 NW 08 HS H	S	PN 400	12	M 18 x 1.5	M 20 x 1.5	24	12	7,5	48	27	28	32	24
GVM 90 NW 10 HS 18 H	S	PN 400	14	M 18 x 1.5	M 22 x 1.5	24	14	8,0	55	30	32	36	27
GVM 90 NW 10 HS H	S	PN 400	14	M 20 x 1.5	M 22 x 1.5	26	14	8,0	55	30	32	36	27
GVM 90 NW 13 HS H	S	PN 400	16	M 22 x 1.5	M 24 x 1.5	27	14	8,5	59	33	34	40	32
GVM 90 NW 16 HS H	S	PN 250	20	M 27 x 2	M 30 x 2	32	16	10,5	66	35	38	45	36
GVM 90 NW 25 HS H	S	PN 160	30	M 42 x 2	M 42 x 2	50	20	13,5	92	51	52	65	50
GVM 90 NW 32 HS H	S	PN 160	38	M 48 x 2	M 52 x 2	55	22	16,0	102	56	59	75	55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**XSWR****Banjo fitting, angle 90°**

- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Banjo fitting  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1
XSWR 04 LL	LL	PN 100	4	G 1/8" -28	14,5	6	21,0	10,0	11,5	15,5	14	14
XSWR 05 LL	LL	PN 100	5	G 1/8" -28	14,5	6	21,5	10,0	10,0	14,5	14	14
XSWR 06 LL	LL	PN 100	6	G 1/8" -28	14,5	6	21,5	10,0	10,0	14,5	14	14
XSWR 08 LL	LL	PN 100	8	G 1/8" -28	14,5	6	21,0	10,0	11,0	16,5	14	14
XSWR NW 13 HL 3/8	L	PN 250	15	G 3/8" -19	22,5	9	37,5	18,0	19,0	26,0	27	22

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

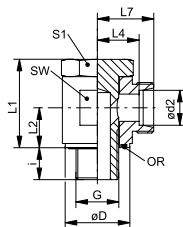
**Product versions:**

**XSWR VA** - Banjo fitting, angle 90°, Stainless steel

**SWR** - Banjo fitting, angle 90°, Steel

**XSDOR****Banjo fitting, throttle free, angle 90°**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape F  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Banjo coupling, throttle free  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

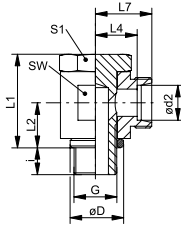


**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1	OR
XSDOR 04 LL	LL	PN 100	4	G 1/8"-28	14,5	8,0	23,5	10,5	14,0	18,0	17	17	7.65 x 1.78
XSDOR 06 LL	LL	PN 100	6	G 1/8"-28	14,5	8,0	23,5	10,5	13,5	19,0	17	17	7.65 x 1.78
XSDOR 08 LL	LL	PN 100	8	G 1/8"-28	14,5	8,0	23,5	10,5	13,5	19,0	17	17	7.65 x 1.78
XSDOR NW 04 HL	L	PN 315	6	G 1/8"-28	14,5	8,0	23,5	10,5	12,0	19,0	17	17	7.65 x 1.78
XSDOR NW 06 HL	L	PN 315	8	G 1/4"-19	19,0	13,0	29,0	14,0	14,5	21,5	22	19	11.10 x 1.78
XSDOR NW 08 HL	L	PN 315	10	G 1/4"-19	19,0	12,5	29,0	14,0	15,5	22,5	22	19	11.10 x 1.78
XSDOR NW 10 HL 1/4	L	PN 315	12	G 1/4"-19	19,0	12,0	34,0	16,5	18,0	25,0	27	19	11.10 x 1.78
XSDOR NW 10 HL	L	PN 315	12	G 3/8"-19	22,5	12,0	35,0	16,5	18,0	25,0	27	24	14.00 x 1.78
XSDOR NW 10 HL 1/2	L	PN 315	12	G 1/2"-14	27,0	14,0	46,0	21,5	20,5	27,5	32	27	18.77 x 1.78
XSDOR NW 13 HL	L	PN 315	15	G 1/2"-14	27,0	12,0	46,0	21,5	21,5	28,5	32	27	18.77 x 1.78
XSDOR NW 16 HL	L	PN 315	18	G 1/2"-14	27,0	14,0	46,0	21,5	21,0	28,5	32	27	18.77 x 1.78
XSDOR NW 20 HL	L	PN 160	22	G 3/4"-14	32,5	16,0	52,0	24,0	27,5	35,0	41	36	23.81 x 2.62
XSDOR NW 25 HL	L	PN 160	28	G 1"-11	40,0	18,0	64,0	30,5	32,0	39,5	50	46	29.82 x 2.62
XSDOR NW 32 HL	L	PN 160	35	G 1.1/4"-11	50,0	20,0	75,0	35,5	36,0	46,5	60	50	37.77 x 2.62
XSDOR NW 40 HL	L	PN 160	42	G 1.1/2"-11	55,5	22,0	74,0	40,5	40,5	51,5	70	60	41.28 x 3.53
XSDOR NW 03 HS	S	PN 400	6	G 1/4"-19	19,0	13,0	29,0	14,0	16,5	23,5	22	19	11.10 x 1.78
XSDOR NW 04 HS	S	PN 400	8	G 1/4"-19	19,0	13,0	29,0	14,0	16,5	23,5	22	19	11.10 x 1.78
XSDOR NW 06 HS	S	PN 400	10	G 3/8"-19	22,5	12,0	35,5	16,5	18,5	26,0	27	24	14.00 x 1.78
XSDOR NW 08 HS	S	PN 400	12	G 3/8"-19	22,5	12,0	35,0	16,5	18,5	26,0	27	24	14.00 x 1.78
XSDOR NW 10 HS	S	PN 400	14	G 1/2"-14	27,0	12,0	46,0	21,5	22,5	30,5	30	27	18.77 x 1.78
XSDOR NW 13 HS	S	PN 315	16	G 1/2"-14	27,0	14,0	46,0	21,5	22,0	30,5	30	27	18.77 x 1.78
XSDOR NW 16 HS	S	PN 315	20	G 3/4"-14	32,5	16,0	52,0	24,0	26,5	37,0	41	36	23.81 x 2.62
XSDOR NW 20 HS	S	PN 250	25	G 1"-11	40,0	19,0	63,0	30,5	31,5	43,5	50	46	29.82 x 2.62
XSDOR NW 25 HS	S	PN 160	30	G 1.1/4"-11	50,0	20,0	75,0	35,5	37,0	50,5	60	50	37.77 x 2.62
XSDOR NW 32 HS	S	PN 160	38	G 1.1/2"-11	55,5	22,0	74,0	40,5	41,5	57,5	70	60	41.28 x 3.53

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø = External pipe diameter

**Product versions:****XSDOR VA** - Banjo fitting, throttle free, angle 90°, Stainless steel**SDOR** - Banjo fitting, throttle free, angle 90°, Steel

**XSDR****Banjo fitting, throttle free, angle 90°**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Banjo coupling, throttle free  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1
XSDR NW 04 HL	L	PN 250	6	G 1/8" -28	14	8	24	10,5	12,0	19,0	17	17
XSDR NW 04 HL 1/4	L	PN 250	6	G 1/4" -19	18	12	30	14,0	14,5	21,5	22	19
XSDR NW 06 HL	L	PN 250	8	G 1/4" -19	18	12	30	14,0	14,5	21,5	22	19
XSDR NW 08 HL	L	PN 250	10	G 1/4" -19	18	12	30	14,0	15,5	22,5	22	19
XSDR NW 10 HL 1/4	L	PN 250	12	G 1/4" -19	22	12	30	14,0	15,5	22,5	22	19
XSDR NW 10 HL	L	PN 250	12	G 3/8" -19	22	12	36	16,5	18,0	25,0	27	24
XSDR NW 10 HL 1/2	L	PN 250	12	G 1/2" -14	26	14	45	21,5	20,5	28,5	32	30
XSDR NW 13 HL	L	PN 250	15	G 1/2" -14	26	14	45	21,5	21,5	28,5	32	30
XSDR NW 16 HL	L	PN 250	18	G 1/2" -14	26	14	45	21,5	21,0	28,5	32	30
XSDR NW 20 HL	L	PN 160	22	G 3/4" -14	32	16	53	24,0	27,5	35,0	41	36
XSDR NW 25 HL	L	PN 160	28	G 1" -11	39	18	66	30,5	32,0	39,5	50	46
XSDR NW 32 HL	L	PN 160	35	G 1.1/4" -11	49	20	76	35,5	36,0	46,5	60	55
XSDR NW 40 HL	L	PN 160	42	G 1.1/2" -11	55	22	87	40,5	40,5	51,5	70	60
XSDR NW 03 HS	S	PN 315	6	G 1/4" -19	18	12	30	14,0	16,5	23,5	22	19
XSDR NW 04 HS	S	PN 315	8	G 1/4" -19	18	12	30	14,0	16,5	23,5	22	19
XSDR NW 06 HS	S	PN 315	10	G 3/8" -19	22	12	36	16,5	18,5	26,0	27	24
XSDR NW 08 HS	S	PN 315	12	G 3/8" -19	22	12	36	16,5	18,5	26,0	27	24
XSDR NW 10 HS	S	PN 315	14	G 1/2" -14	26	14	45	21,5	22,5	30,5	32	30
XSDR NW 13 HS	S	PN 315	16	G 1/2" -14	26	14	45	21,5	22,0	30,5	32	30
XSDR NW 16 HS	S	PN 160	20	G 3/4" -14	32	16	53	24,0	26,5	37,0	41	36
XSDR NW 20 HS	S	PN 160	25	G 1" -11	39	18	66	30,5	31,5	43,5	50	46
XSDR NW 25 HS	S	PN 160	30	G 1.1/4" -11	49	20	76	35,5	37,0	50,5	60	55
XSDR NW 32 HS	S	PN 160	38	G 1.1/2" -11	55	22	87	40,5	41,5	57,5	70	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

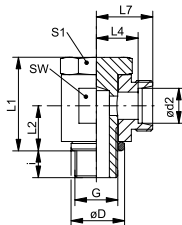
**Product versions:**

**XSDR VA** - Banjo fitting, throttle free, angle 90°, Stainless steel

**SDR** - Banjo fitting, throttle free, angle 90°, Steel

**XSWM****Banjo fitting, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Banjo fitting  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

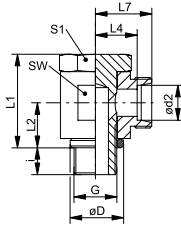
Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1
XSWM 04 LL	LL	PN 100	4	M 8 x 1	12,5	6	17,0	8	10,5	14,5	12	14
XSWM 05 LL	LL	PN 100	5	M 8 x 1	12,5	6	17,0	10	11,5	17,0	14	14
XSWM 06 LL	LL	PN 100	6	M 10 x 1	14,0	6	21,0	10	10,0	15,5	14	14
XSWM 08 LL	LL	PN 100	8	M 10 x 1	14,0	6	21,0	10	11,0	16,5	14	14
XSWM NW 04 HL 12	L	PN 250	6	M 12 x 1.5	17,0	9	27,5	13	12,5	19,5	17	17

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

**Product versions:**

**XSWM VA** - Banjo fitting, angle 90°, Stainless steel

**SWM** - Banjo fitting, angle 90°, Steel

**XSDM****Banjo fitting, throttle free, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Banjo coupling, throttle free  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1
XSDM NW 04 HL	L	PN 250	6	M 10 x 1	14	8	24,0	10,5	12,0	19,0	17	17
XSDM NW 06 HL	L	PN 250	8	M 12 x 1.5	17	12	30,0	14,0	14,5	21,5	22	19
XSDM NW 08 HL	L	PN 250	10	M 14 x 1.5	19	12	30,0	14,0	15,5	22,5	22	19
XSDM NW 10 HL	L	PN 250	12	M 16 x 1.5	21	12	36,0	16,5	18,0	25,0	27	24
XSDM NW 10 HL 18	L	PN 250	12	M 18 x 1.5	23	12	38,0	17,0	13,5	25,0	30	27
XSDM NW 13 HL	L	PN 250	15	M 18 x 1.5	23	12	39,5	18,5	20,5	27,5	30	27
XSDM NW 16 HL	L	PN 250	18	M 22 x 1.5	27	14	45,0	21,5	21,0	28,5	32	30
XSDM NW 20 HL	L	PN 160	22	M 26 x 1.5	31	16	53,0	24,0	27,5	35,0	41	36
XSDM NW 25 HL	L	PN 160	28	M 33 x 2	39	18	66,0	30,5	32,0	39,5	50	46
XSDM NW 32 HL	L	PN 160	35	M 42 x 2	49	20	76,0	35,5	36,0	46,5	60	55
XSDM NW 40 HL	L	PN 160	42	M 48 x 2	55	22	87,0	40,5	40,5	51,5	70	60
XSDM NW 03 HS	S	PN 315	6	M 12 x 1.5	17	12	30,0	14,0	16,5	23,5	22	19
XSDM NW 04 HS	S	PN 315	8	M 14 x 1.5	19	12	30,0	14,0	16,5	23,5	22	19
XSDM NW 06 HS	S	PN 315	10	M 16 x 1.5	21	12	36,0	16,5	18,5	26,0	27	24
XSDM NW 08 HS	S	PN 315	12	M 18 x 1.5	23	12	39,5	18,5	20,0	27,5	30	27
XSDM NW 10 HS	S	PN 315	14	M 20 x 1.5	25	14	43,5	20,0	22,5	30,5	32	30
XSDM NW 13 HS	S	PN 315	16	M 22 x 1.5	27	14	45,0	21,5	22,0	30,5	32	30
XSDM NW 16 HS	S	PN 160	20	M 27 x 2	32	16	53,0	24,0	26,5	37,0	41	36
XSDM NW 20 HS	S	PN 160	25	M 33 x 2	39	18	66,0	30,5	31,5	43,5	50	46
XSDM NW 25 HS	S	PN 160	30	M 42 x 2	49	20	76,0	35,5	37,0	50,5	60	55
XSDM NW 32 HS	S	PN 160	38	M 48 x 2	55	22	87,0	40,5	41,5	57,5	70	60

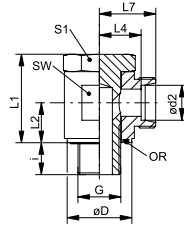
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**Product versions:**

**SDM** - Banjo fitting, throttle free, angle 90°, Steel

**XSDOM****Banjo fitting, throttle free, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape F  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Banjo coupling, throttle free  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



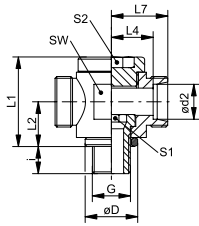
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1	OR
XSDOM 06 LL	LL	PN 100	6	M 10 x 1	14,5	8,0	23,5	10,5	13,5	19,0	17	17	7.65 x 1.78
XSDOM 08 LL	LL	PN 100	8	M 10 x 1	14,5	8,0	23,5	10,5	13,5	19,0	17	17	7.65 x 1.78
XSDOM NW 04 HL	L	PN 315	6	M 10 x 1	14,5	8,0	23,5	10,5	12,0	19,0	17	17	7.65 x 1.78
XSDOM NW 06 HL	L	PN 315	8	M 12 x 1.5	17,5	12,5	29,5	14,0	14,5	21,5	22	19	11.10 x 1.78
XSDOM NW 08 HL	L	PN 315	10	M 14 x 1.5	18,5	12,0	30,0	14,0	15,5	22,5	22	19	11.10 x 1.78
XSDOM NW 10 HL	L	PN 315	12	M 16 x 1.5	22,5	12,0	35,0	16,5	18,0	25,0	27	24	14.00 x 1.78
XSDOM NW 10 HL 18	L	PN 315	12	M 18 x 1.5	23,5	12,0	35,0	16,5	18,0	25,0	27	24	18.77 x 1.78
XSDOM NW 13 HL	L	PN 315	15	M 18 x 1.5	23,5	12,0	46,0	21,5	21,5	28,5	32	27	18.77 x 1.78
XSDOM NW 16 HL	L	PN 315	18	M 22 x 1.5	27,5	12,0	46,5	21,5	21,0	28,5	32	27	18.77 x 1.78
XSDOM NW 20 HL	L	PN 160	22	M 26 x 1.5	32,5	16,0	52,0	24,0	27,5	35,0	41	36	23.81 x 2.62
XSDOM NW 25 HL	L	PN 160	28	M 33 x 2	39,5	18,0	64,0	30,5	32,0	39,5	50	46	29.82 x 2.62
XSDOM NW 32 HL	L	PN 160	35	M 42 x 2	49,5	20,0	75,0	35,5	36,0	46,5	60	50	37.77 x 2.62
XSDOM NW 40 HL	L	PN 160	42	M 48 x 2	55,5	22,0	88,0	40,5	40,5	51,5	70	60	41.28 x 3.53
XSDOM NW 03 HS	S	PN 400	6	M 12 x 1.5	17,5	12,0	30,0	14,0	16,5	23,5	22	19	11.10 x 1.78
XSDOM NW 04 HS	S	PN 400	8	M 14 x 1.5	18,5	12,0	30,0	14,0	16,5	23,5	22	19	11.10 x 1.78
XSDOM NW 06 HS	S	PN 400	10	M 16 x 1.5	22,5	12,0	35,0	16,5	18,5	26,0	27	24	14.00 x 1.78
XSDOM NW 08 HS	S	PN 400	12	M 18 x 1.5	23,5	12,0	35,0	16,5	18,5	26,0	27	27	18.77 x 1.78
XSDOM NW 10 HS	S	PN 400	14	M 20 x 1.5	25,5	14,0	46,0	21,5	22,5	30,5	30	27	18.77 x 1.78
XSDOM NW 13 HS	S	PN 315	16	M 22 x 1.5	27,5	14,0	46,0	21,5	22,0	30,5	30	27	18.77 x 1.78
XSDOM NW 16 HS	S	PN 315	20	M 27 x 2	32,5	16,0	52,0	24,0	26,5	37,0	41	36	23.81 x 2.62
XSDOM NW 20 HS	S	PN 250	25	M 33 x 2	39,5	18,0	64,0	30,5	31,5	43,5	50	46	29.82 x 2.62
XSDOM NW 25 HS	S	PN 160	30	M 42 x 2	49,5	20,0	75,0	35,5	37,0	50,5	60	50	37.77 x 2.62
XSDOM NW 32 HS	S	PN 160	38	M 48 x 2	55,5	23,0	87,0	40,5	41,5	57,5	70	60	41.28 x 3.53

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø = External pipe diameter

**Product versions:**

**XSDOM VA** - Banjo fitting, throttle free, angle 90°, Stainless steel  
**SDOM** - Banjo fitting, throttle free, angle 90°, Steel

**XDTR****Banjo fitting, throttle free, T shaped**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Edge sealing ring  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Banjo coupling, throttle free  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1	S2
XDTR NW 04 HL	L	PN 160	6	G 1/8" -28	14,0	8	24	12	12,0	19	19	6	6
XDTR NW 06 HL	L	PN 160	8	G 1/4" -19	18,0	12	30	15	14,0	21	22	8	8
XDTR NW 08 HL	L	PN 100	10	G 1/4" -19	18,0	12	30	15	15,0	22	22	8	8
XDTR NW 10 HL	L	PN 100	12	G 3/8" -19	22,0	12	36	18	17,5	24	27	10	10
XDTR NW 13 HL	L	PN 100	15	G 1/2" -14	26,0	14	40	20	20,0	27	30	12	12
XDTR NW 16 HL	L	PN 100	18	G 1/2" -14	26,0	14	40	20	19,5	27	30	12	12
XDTR NW 20 HL	L	PN 100	22	G 3/4" -14	32,0	16	52	25	27,0	34	41	17	17
XDTR NW 25 HL	L	PN 100	28	G 1" -11	39,0	18	58	29	29,5	37	46	22	22
XDTR NW 32 HL	L	PN 63	35	G 1.1/4" -11	49,0	20	69	34	33,0	44	55	27	27
XDTR NW 40 HL	L	PN 63	42	G 1.1/2" -11	55,0	22	84	41	40,0	51	70	32	32
XDTR NW 03 HS	S	PN 160	6	G 1/4" -19	18,0	12	30	15	16,0	23	22	8	8
XDTR NW 04 HS	S	PN 160	8	G 1/4" -19	18,0	12	30	15	16,0	23	22	8	8
XDTR NW 06 HS	S	PN 100	10	G 3/8" -19	22,0	12	36	18	18,0	25	27	10	10
XDTR NW 08 HS	S	PN 100	12	G 3/8" -19	22,0	12	36	18	24,0	25	27	10	10
XDTR NW 10 HS	S	PN 100	14	G 1/2" -14	26,0	14	42	21	22,0	30	32	12	12
XDTR NW 13 HS	S	PN 100	16	G 1/2" -14	26,0	14	42	21	21,5	30	32	12	12
XDTR NW 16 HS	S	PN 100	20	G 3/4" -14	32,0	16	57	28	28,5	39	46	17	17
XDTR NW 20 HS	S	PN 100	25	G 1" -11	39,0	18	62	31	31,0	43	50	22	22
XDTR NW 25 HS	S	PN 63	30	G 1.1/4" -11	49,0	20	74	36	36,5	50	60	27	27
XDTR NW 32 HS	S	PN 63	38	G 1.1/2" -11	55,0	22	84	41	41,0	57	70	32	32

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

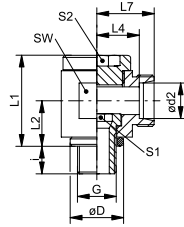
**XDTR VA** - Banjo fitting, throttle free, T shaped, Socket (without union nut and cutting ring), Stainless steel

**DTR** - Banjo fitting, throttle free, T shaped, Socket with union nut and cutting ring, Steel



**XDWR****Banjo fitting, throttle free, angle 90°**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Banjo coupling, throttle free  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

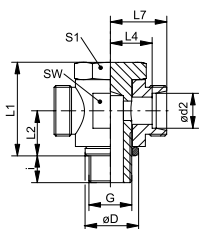
Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1	S2
XDWR NW 04 HL	L	PN 160	6	G 1/8" -28	14	8	24	12	12,5	19	19	6	6
XDWR NW 06 HL	L	PN 160	8	G 1/4" -19	18	12	30	16	14,5	21	22	8	8
XDWR NW 08 HL	L	PN 100	10	G 1/4" -19	18	12	30	16	15,5	22	22	8	8
XDWR NW 10 HL 1/4	L	PN 100	12	G 1/4" -19	18	12	37	18	15,5	22	22	8	8
XDWR NW 10 HL	L	PN 100	12	G 3/8" -19	22	12	37	18	18,0	25	27	10	10
XDWR NW 13 HL	L	PN 100	15	G 1/2" -14	26	14	42	21	22,0	29	32	12	12
XDWR NW 16 HL	L	PN 100	18	G 1/2" -14	26	14	46	23	21,5	29	36	12	12
XDWR NW 20 HL	L	PN 100	22	G 3/4" -14	32	16	58	28	28,5	36	46	17	17
XDWR NW 25 HL	L	PN 100	28	G 1" -11	39	18	64	32	31,5	39	50	22	22
XDWR NW 32 HL	L	PN 63	35	G 1.1/4" -11	49	20	76	37	35,5	46	60	27	27
XDWR NW 40 HL	L	PN 63	42	G 1.1/2" -11	55	22	85	42	40,0	51	70	32	32
XDWR NW 03 HS	S	PN 160	6	G 1/4" -19	18	12	30	16	16,5	23	22	8	8
XDWR NW 04 HS	S	PN 160	8	G 1/4" -19	18	12	30	16	16,5	23	22	8	8
XDWR NW 06 HS	S	PN 100	10	G 3/8" -19	22	12	37	18	18,5	26	27	10	10
XDWR NW 08 HS	S	PN 100	12	G 3/8" -19	22	12	37	18	18,5	26	27	10	10
XDWR NW 10 HS	S	PN 100	14	G 1/2" -14	26	14	42	21	23,0	31	32	12	12
XDWR NW 13 HS	S	PN 100	16	G 1/2" -14	26	14	46	23	22,5	31	36	12	12
XDWR NW 16 HS	S	PN 100	20	G 3/4" -14	32	16	58	28	27,5	38	46	17	17
XDWR NW 20 HS	S	PN 100	25	G 1" -11	39	18	64	32	31,0	43	50	22	22
XDWR NW 25 HS	S	PN 63	30	G 1.1/4" -11	49	20	76	37	36,5	50	60	27	27
XDWR NW 32 HS	S	PN 63	38	G 1.1/2" -11	55	22	85	42	41,0	57	70	32	32

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XDWR VA** - Banjo fitting, throttle free, angle 90°, Socket (without union nut and cutting ring), Stainless steel

**DWR** - Banjo fitting, throttle free, angle 90°, Socket with union nut and cutting ring, Steel

**XSTR****Banjo fitting, throttle free, T shaped**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Edge sealing ring  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Banjo coupling, throttle free  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1 mm
XSTR NW 04 HL	L	PN 250	6	G 1/8" -28	14	8	24	10,5	12,0	19,0	17	17
XSTR NW 06 HL	L	PN 250	8	G 1/4" -19	18	12	30	14,0	14,5	21,5	22	19
XSTR NW 08 HL	L	PN 250	10	G 1/4" -19	18	12	30	14,0	15,5	22,5	22	19
XSTR NW 10 HL	L	PN 250	12	G 3/8" -19	22	12	36	16,5	18,0	25,0	27	24
XSTR NW 13 HL	L	PN 250	15	G 1/2" -14	26	14	45	21,5	21,5	28,5	32	30
XSTR NW 16 HL	L	PN 250	18	G 1/2" -14	26	14	45	21,5	21,0	28,5	32	30
XSTR NW 20 HL	L	PN 160	22	G 3/4" -14	32	16	53	24,0	27,5	35,0	41	36
XSTR NW 25 HL	L	PN 160	28	G 1" -11	39	18	66	30,5	32,0	39,5	50	46
XSTR NW 32 HL	L	PN 160	35	G 1.1/4" -11	49	20	76	35,5	36,0	46,5	60	55
XSTR NW 40 HL	L	PN 160	42	G 1.1/2" -11	55	22	87	40,5	40,5	51,5	70	60
XSTR NW 03 HS	S	PN 315	6	G 1/4" -19	18	12	30	14,0	16,5	23,5	22	19
XSTR NW 04 HS	S	PN 315	8	G 1/4" -19	18	12	30	14,0	16,5	23,5	22	19
XSTR NW 06 HS	S	PN 315	10	G 3/8" -19	22	12	36	16,5	18,5	26,0	27	24
XSTR NW 08 HS	S	PN 315	12	G 3/8" -19	22	12	36	16,5	18,5	26,0	27	24
XSTR NW 10 HS	S	PN 315	14	G 1/2" -14	26	14	45	21,5	22,5	30,5	32	30
XSTR NW 13 HS	S	PN 315	16	G 1/2" -14	26	14	45	21,5	22,0	30,5	32	30
XSTR NW 16 HS	S	PN 160	20	G 3/4" -14	32	16	53	24,0	26,5	37,0	41	36
XSTR NW 20 HS	S	PN 160	25	G 1" -11	39	18	66	30,5	31,5	43,5	50	46
XSTR NW 25 HS	S	PN 160	30	G 1.1/4" -11	49	20	76	35,5	37,0	50,5	60	55
XSTR NW 32 HS	S	PN 160	38	G 1.1/2" -11	55	22	87	40,5	41,5	57,5	70	60

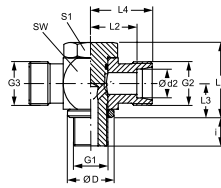
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**STR** - Banjo fitting, throttle free, T shaped, Socket with union nut and cutting ring, Steel

**XSTOR VA****Banjo fitting, throttle free, T shaped**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Banjo couplings, throttle free (high pressure)  
**Construction:** T shaped  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Stainless steel



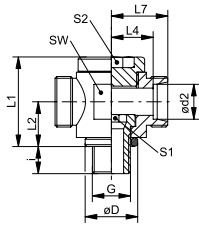
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G1	G2 + G3	Ø D mm	i mm	L1 mm	L2 mm	L3 mm	L4 mm	SW mm	S1
XSTOR 04 LL VA	LL	PN 63	4	G 1/8" -28	M 8 x 1	14,0	8	24	11,0	8,0	15,0	18	17
XSTOR 06 LL VA	LL	PN 63	6	G 1/8" -28	M 10 x 1	14,0	8	24	11,5	10,0	17,0	18	17
XSTOR 08 LL VA	LL	PN 63	8	G 1/8" -28	M 12 x 1	14,0	8	24	11,5	10,0	17,0	18	17
XSTOR NW 04 HL VA	L	PN 250	6	G 1/8" -28	M 12 x 1,5	14,0	8	24	12,0	10,5	19,0	17	17
XSTOR NW 06 HL VA	L	PN 250	8	G 1/4" -19	M 14 x 1,5	18,0	12	30	14,5	14,0	22,0	22	19
XSTOR NW 08 HL VA	L	PN 250	10	G 1/4" -19	M 16 x 1,5	18,0	12	30	15,5	14,0	22,0	22	19
XSTOR NW 10 HL 1/4 VA	L	PN 250	12	G 1/4" -19	M 18 x 1,5	18,0	12	30	15,5	14,0	22,5	22	22
XSTOR NW 10 HL VA	L	PN 250	12	G 3/8" -19	M 18 x 1,5	22,0	12	36	18,0	16,5	28,0	27	24
XSTOR NW 13 HL VA	L	PN 250	15	G 1/2" -14	M 22 x 1,5	26,0	14	45	21,5	21,5	29,0	32	30
XSTOR NW 16 HL VA	L	PN 315	18	G 1/2" -14	M 26 x 1,5	26,0	14	45	21,0	21,5	28,0	32	30
XSTOR NW 20 HL VA	L	PN 160	22	G 3/4" -14	M 30 x 2	32,0	16	53	27,5	24,0	35,0	41	36
XSTOR NW 25 HL VA	L	PN 160	28	G 1" -11	M 36 x 2	39,0	18	66	32,0	30,5	40,0	50	46
XSTOR NW 32 HL VA	L	PN 160	35	G 1.1/4" -11	M 45 x 2	49,0	20	76	36,0	35,5	47,0	60	55
XSTOR NW 40 HL VA	L	PN 160	42	G 1.1/2" -11	M 52 x 2	55,0	22	87	40,5	40,5	51,0	70	60
XSTOR NW 03 HS VA	S	PN 315	6	G 1/4" -19	M 14 x 1,5	18,0	12	30	16,5	14,0	22,0	22	19
XSTOR NW 04 HS VA	S	PN 315	8	G 1/4" -19	M 16 x 1,5	18,0	12	30	16,5	14,0	22,0	22	19
XSTOR NW 06 HS 1/4 VA	S	PN 315	10	G 1/4" -19	M 18 x 1,5	18,0	12	30	16,5	14,0	24,0	22	22
XSTOR NW 06 HS VA	S	PN 315	10	G 3/8" -19	M 18 x 1,5	22,0	12	36	18,5	16,5	26,0	27	24
XSTOR NW 08 HS VA	S	PN 315	12	G 3/8" -19	M 20 x 1,5	22,0	12	36	18,5	16,5	27,0	27	24
XSTOR NW 10 HS VA	S	PN 315	14	G 1/2" -14	M 22 x 1,5	32,0	15	45	22,5	21,5	30,0	32	27
XSTOR NW 13 HS VA	S	PN 315	16	G 1/2" -14	M 24 x 1,5	26,0	14	45	22,0	21,5	30,0	32	30
XSTOR NW 16 HS VA	S	PN 160	20	G 3/4" -14	M 30 x 2	32,0	16	53	26,5	24,0	37,0	41	36
XSTOR NW 20 HS VA	S	PN 160	25	G 1" -11	M 36 x 2	39,0	18	66	31,5	30,5	44,0	50	46
XSTOR NW 25 HS VA	S	PN 160	30	G 1.1/4" -11	M 42 x 2	49,0	20	76	37,0	35,5	51,0	60	55
XSTOR NW 32 HS VA	S	PN 160	38	G 1.1/2" -11	M 52 x 2	55,0	22	87	41,5	40,5	57,0	70	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**STOR VA** - Banjo fitting, throttle free, T shaped, Socket with union nut and cutting ring, Stainless steel

**XDTM****Banjo fitting, throttle free, T shaped**

- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Edge sealing ring  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:** 24° inner cone  
**Design:** Banjo coupling, throttle free  
**Construction:** T shaped  
**Standard:** ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1	S2
XDTM NW 04 HL	L	PN 160	6	M 10 x 1	14,0	8	24	12	12,0	19	19	6	6
XDTM NW 06 HL	L	PN 160	8	M 12 x 1.5	17,0	12	27	14	13,0	20	22	6	6
XDTM NW 08 HL	L	PN 100	10	M 14 x 1.5	19,0	12	30	15	15,0	22	22	8	8
XDTM NW 10 HL	L	PN 100	12	M 16 x 1.5	21,0	12	36	18	17,5	24	27	10	10
XDTM NW 13 HL	L	PN 100	15	M 18 x 1.5	23,0	12	39	19	20,0	27	30	12	12
XDTM NW 16 HL	L	PN 100	18	M 22 x 1.5	27,0	14	41	20	20,5	28	32	14	14
XDTM NW 20 HL	L	PN 100	22	M 26 x 1.5	31,0	16	46	22	24,5	32	36	17	17
XDTM NW 25 HL	L	PN 100	28	M 33 x 2	39,0	18	58	29	29,5	37	46	22	22
XDTM NW 32 HL	L	PN 63	35	M 42 x 2	49,0	20	69	33	33,0	44	55	27	27
XDTM NW 40 HL	L	PN 63	42	M 48 x 2	55,0	22	84	41	40,0	51	70	32	32
XDTM NW 03 HS	S	PN 160	6	M 12 x 1.5	17,0	12	27	14	15,0	22	22	6	6
XDTM NW 04 HS	S	PN 160	8	M 14 x 1.5	19,0	12	30	15	16,0	23	22	8	8
XDTM NW 06 HS	S	PN 100	10	M 16 x 1.5	21,0	12	36	18	18,0	25	27	10	10
XDTM NW 08 HS	S	PN 100	12	M 18 x 1.5	23,0	12	39	19	26,0	27	30	12	12
XDTM NW 10 HS	S	PN 100	14	M 20 x 1.5	25,0	14	41	20	22,0	30	32	12	12
XDTM NW 13 HS	S	PN 100	16	M 22 x 1.5	27,0	14	45	22	23,5	32	36	14	14
XDTM NW 16 HS	S	PN 100	20	M 27 x 2	32,0	16	58	28	28,5	39	46	17	17
XDTM NW 20 HS	S	PN 100	25	M 33 x 2	39,0	18	62	31	31,0	43	50	22	22
XDTM NW 25 HS	S	PN 63	30	M 42 x 2	49,0	20	74	36	36,5	50	60	27	27
XDTM NW 32 HS	S	PN 63	38	M 48 x 2	55,0	22	84	41	41,0	57	70	32	32

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

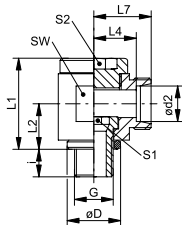
**Product versions:**

**XDTM VA** - Banjo fitting, throttle free, T shaped, Socket (without union nut and cutting ring), Stainless steel

**DTM** - Banjo fitting, throttle free, T shaped, Socket with union nut and cutting ring, Steel

**XDWM****Banjo fitting, throttle free, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Banjo coupling, throttle free  
**Construction:** Angle 90°  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



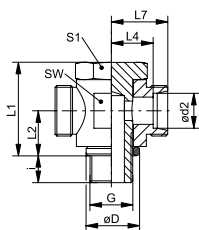
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1	S2
XDWM NW 04 HL	L	PN 160	6	M 10 x 1	14	8	24	12	12,5	19	19	6	6
XDWM NW 06 HL	L	PN 160	8	M 12 x 1.5	17	12	30	15	14,5	21	22	6	6
XDWM NW 08 HL	L	PN 100	10	M 14 x 1.5	19	12	30	16	15,5	22	22	8	8
XDWM NW 10 HL	L	PN 100	12	M 16 x 1.5	21	12	37	18	18,0	25	27	10	10
XDWM NW 10 HL 18	L	PN 100	12	M 18 x 1.5	23	12	37	18	18,0	25	30	12	12
XDWM NW 13 HL	L	PN 100	15	M 18 x 1.5	23	12	40	20	22,0	26	30	12	12
XDWM NW 16 HL	L	PN 100	18	M 22 x 1.5	27	14	46	23	21,5	27	36	14	14
XDWM NW 20 HL	L	PN 100	22	M 26 x 1.5	31	16	51	25	26,0	33	41	17	17
XDWM NW 25 HL	L	PN 100	28	M 33 x 2	39	18	64	32	31,5	39	50	22	22
XDWM NW 32 HL	L	PN 63	35	M 42 x 2	49	20	76	37	35,5	46	60	27	27
XDWM NW 40 HL	L	PN 63	42	M 48 x 2	55	22	85	42	40,0	51	70	32	32
XDWM NW 03 HS	S	PN 160	6	M 12 x 1.5	17	12	30	15	16,5	23	22	6	6
XDWM NW 04 HS	S	PN 160	8	M 14 x 1.5	19	12	30	16	16,5	23	22	8	8
XDWM NW 06 HS	S	PN 100	10	M 16 x 1.5	21	12	37	18	18,5	26	27	10	10
XDWM NW 08 HS	S	PN 100	12	M 18 x 1.5	23	12	41	20	20,5	28	30	12	12
XDWM NW 10 HS	S	PN 100	14	M 20 x 1.5	25	14	42	21	23,0	31	32	12	12
XDWM NW 13 HS	S	PN 100	16	M 22 x 1.5	27	14	46	23	22,5	31	36	14	14
XDWM NW 16 HS	S	PN 100	20	M 27 x 2	32	16	58	28	27,5	38	46	17	17
XDWM NW 20 HS	S	PN 100	25	M 33 x 2	39	18	64	32	31,0	43	50	22	22
XDWM NW 25 HS	S	PN 63	30	M 42 x 2	49	20	76	37	36,5	50	60	27	27
XDWM NW 32 HS	S	PN 63	38	M 48 x 2	55	22	85	42	41,0	57	70	32	32

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XDWM VA** - Banjo fitting, throttle free, angle 90°, Socket (without union nut and cutting ring), Stainless steel  
**DWM** - Banjo fitting, throttle free, angle 90°, Socket with union nut and cutting ring, Steel

**XSTM****Banjo fitting, throttle free, T shaped**

<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	Edge sealing ring
<b>Connection 2 + 3:</b>	metric cylindrical outer thread
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	24° inner cone
<b>Design:</b>	Banjo coupling, throttle free
<b>Construction:</b>	T shaped
<b>Standard:</b>	ISO 8434-1
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø D mm	G	Ø D mm	i mm	L1 mm	L2 mm	L4 mm	L7 mm	SW mm	S1
XSTM NW 04 HL	L	PN 250	6	M 10 x 1	14	8	24,0	10,5	12,0	19,0	17	17
XSTM NW 06 HL	L	PN 250	8	M 12 x 1.5	17	12	30,0	14,0	14,5	21,5	22	19
XSTM NW 08 HL	L	PN 250	10	M 14 x 1.5	19	12	30,0	14,0	15,5	22,5	22	19
XSTM NW 10 HL	L	PN 250	12	M 16 x 1.5	21	12	36,0	16,5	18,0	25,0	27	24
XSTM NW 13 HL	L	PN 250	15	M 18 x 1.5	23	12	39,5	18,5	20,5	27,5	30	27
XSTM NW 16 HL	L	PN 100	18	M 22 x 1.5	27	14	45,0	21,5	21,0	28,5	32	30
XSTM NW 20 HL	L	PN 160	22	M 26 x 1.5	31	16	53,0	24,0	27,5	35,0	41	36
XSTM NW 25 HL	L	PN 160	28	M 33 x 2	39	18	66,0	30,5	32,0	39,5	50	46
XSTM NW 32 HL	L	PN 160	35	M 42 x 2	49	20	76,0	35,5	36,0	46,5	60	55
XSTM NW 40 HL	L	PN 160	42	M 48 x 2	55	22	87,0	40,5	40,5	51,5	70	60
XSTM NW 03 HS	S	PN 315	6	M 12 x 1.5	17	12	30,0	14,0	16,5	23,5	22	19
XSTM NW 04 HS	S	PN 315	8	M 14 x 1.5	19	12	30,0	14,0	16,5	23,5	22	19
XSTM NW 06 HS	S	PN 315	10	M 16 x 1.5	21	12	36,0	16,5	18,5	26,0	27	24
XSTM NW 08 HS	S	PN 315	12	M 18 x 1.5	23	12	39,5	18,5	20,0	27,5	30	27
XSTM NW 10 HS	S	PN 315	14	M 20 x 1.5	25	14	43,5	20,0	22,5	30,5	32	30
XSTM NW 13 HS	S	PN 315	16	M 22 x 1.5	27	14	45,0	21,5	22,0	30,5	32	30
XSTM NW 16 HS	S	PN 160	20	M 27 x 2	32	16	53,0	24,0	26,5	37,0	41	36
XSTM NW 20 HS	S	PN 160	25	M 33 x 2	39	18	66,0	30,5	31,5	43,5	50	46
XSTM NW 25 HS	S	PN 160	30	M 42 x 2	49	20	76,0	35,5	37,0	50,5	60	55
XSTM NW 32 HS	S	PN 160	38	M 48 x 2	55	22	87,0	40,5	41,5	57,5	70	60

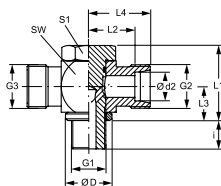
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**STM** - Banjo fitting, throttle free, T shaped, Socket with union nut and cutting ring, Steel

**XSTOM VA****Banjo fitting, throttle free, T shaped**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2 + 3:** metric cylindrical outer thread  
**Sealing form 2 + 3:**  
**3:** 24° inner cone  
**Design:** Banjo couplings, throttle free (high pressure)  
**Construction:** T shaped  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Stainless steel



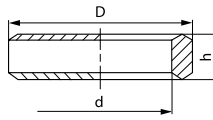
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	ø d2 mm	G1	G2 + G3	Ø D mm	i mm	L1 mm	L2 mm	L3 mm	L4 mm	SW mm	S1
XSTOM 04 LL VA	LL	PN 63	4	M 8 x 1	M 8 x 1	15	8	24,0	11,0	10,5	15	18	17
XSTOM 06 LL VA	LL	PN 63	6	M 10 x 1	M 10 x 1	14	8	24,0	11,5	10,5	17	18	17
XSTOM 08 LL VA	LL	PN 63	8	M 10 x 1	M 12 x 1	14	8	24,0	11,5	10,5	17	18	17
XSTOM NW04 HL VA	L	PN 250	6	M 10 x 1	M 12 x 1.5	14	8	24,0	12,0	10,5	19	17	17
XSTOM NW06 HL VA	L	PN 250	8	M 12 x 1.5	M 14 x 1.5	17	12	30,0	14,5	14,0	21	22	19
XSTOM NW08 HL VA	L	PN 250	10	M 14 x 1.5	M 16 x 1.5	19	12	30,0	15,5	14,0	22	22	19
XSTOM NW10 HL VA	L	PN 250	12	M 16 x 1.5	M 18 x 1.5	21	12	36,0	18,0	16,5	25	27	24
XSTOM NW13 HL VA	L	PN 250	15	M 18 x 1.5	M 22 x 1.5	23	12	39,5	20,5	18,5	26	30	27
XSTOM NW16 HL VA	L	PN 250	18	M 22 x 1.5	M 26 x 1.5	27	14	45,0	21,0	21,5	28	32	30
XSTOM NW20 HL VA	L	PN 160	22	M 26 x 1.5	M 30 x 2	31	16	53,0	27,5	24,0	35	41	36
XSTOM NW25 HL VA	L	PN 160	28	M 33 x 2	M 36 x 2	39	18	66,0	32,0	30,5	40	50	46
XSTOM NW32 HL VA	L	PN 160	35	M 42 x 2	M 45 x 2	49	20	76,0	36,0	35,5	47	60	55
XSTOM NW40 HL VA	L	PN 160	42	M 48 x 2	M 52 x 2	55	22	87,0	40,5	40,5	51	70	60
XSTOM NW03 HS VA	S	PN 315	6	M 12 x 1.5	M 14 x 1.5	17	12	30,0	16,5	14,0	23	22	19
XSTOM NW04 HS VA	S	PN 315	8	M 14 x 1.5	M 16 x 1.5	19	12	30,0	16,5	14,0	23	22	19
XSTOM NW06 HS VA	S	PN 315	10	M 16 x 1.5	M 18 x 1.5	21	12	36,0	18,5	16,5	26	27	24
XSTOM NW08 HS VA	S	PN 315	12	M 18 x 1.5	M 20 x 1.5	23	12	39,5	20,0	18,5	27	30	27
XSTOM NW10 HS VA	S	PN 315	14	M 20 x 1.5	M 22 x 1.5	25	14	43,5	22,5	20,0	30	32	30
XSTOM NW13 HS VA	S	PN 315	16	M 22 x 1.5	M 24 x 1.5	27	14	45,0	22,0	21,5	30	32	30
XSTOM NW16 HS VA	S	PN 160	20	M 27 x 2	M 30 x 2	32	16	53,0	26,5	24,0	37	41	36
XSTOM NW20 HS VA	S	PN 160	25	M 33 x 2	M 36 x 2	39	18	66,0	31,5	30,5	44	50	46
XSTOM NW25 HS VA	S	PN 160	30	M 42 x 2	M 42 x 2	49	20	76,0	37,0	35,5	51	60	55
XSTOM NW32 HS VA	S	PN 160	38	M 48 x 2	M 52 x 2	55	22	87,0	41,5	40,5	57	70	60

Series: LL = Very light diameter L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**STOM VA** - Banjo fitting, throttle free, T shaped, Socket with union nut and cutting ring, Stainless steel

**DKM****Edge sealing ring**

**Design:**  
**Supplementary design information:**  
**Material:**  
**Surface:**

Edge sealing ring  
 for metric threads  
 Steel  
 electro galvanised

Identification	for thread	D mm	d mm	h mm
DKM 10	M 10 x 1	14	10	3,2
DKM 12	M 12 x 1.5	17	12	4,2
DKM 14	M 14 x 1.5	19	14	4,5
DKM 16	M 16 x 1.5	21	16	4,5
DKM 18	M 18 x 1.5	23	18	4,5
DKM 20	M 20 x 1.5	25	20	4,5
DKM 22	M 22 x 1.5	27	22	4,5
DKM 26	M 26 x 1.5	31	26	4,5
DKM 27	M 27 x 2	32	27	5,0
DKM 33	M 33 x 2	39	33	6,0
DKM 42	M 42 x 2	49	42	6,5
DKM 48	M 48 x 2	55	48	6,5

**Product versions:**

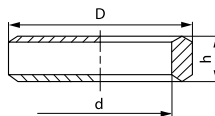
**DKM VA** - Edge sealing ring for metric threads, Stainless steel



DKR

## Edge sealing ring

**Design:** Edge sealing ring  
**Supplementary design information:** for imperial threads  
**Material:** Steel  
**Surface:** electro galvanised

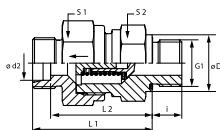


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Identification	for thread	D mm	d mm	h mm
DKR 1/8	G 1/8"	14	9,80	3,2
DKR 1/4	G 1/4"	18	13,30	4,5
DKR 3/8	G 3/8"	22	16,80	4,5
DKR 1/2	G 1/2"	26	21,10	5,0
DKR 3/4	G 3/4"	32	26,60	5,0
DKR 1	G 1"	39	33,40	6,0

**Product versions:**

DKR VA - Edge sealing ring for imperial threads, Stainless steel

**XHVR ED****Non-return valve, screw-in connection**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Non-return valve, screw-in connection  
**Construction:** straight  
**Standard:** DIN 3865  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** Direction of flow from screw-in pin

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Opening pressure	Series	Working pressure bar	Ø d2 mm	G1	Ø D mm	i mm	L1 mm	L2 mm	S1	S2
XHVR NW 04 HL ED	approx. 1 bar	L	PN 250	6	G 1/8" -28	14	8	35,0	28,0	17	17
XHVR NW 06 HL ED	approx. 1 bar	L	PN 250	8	G 1/4" -19	19	12	37,0	30,0	19	19
XHVR NW 08 HL ED	approx. 1 bar	L	PN 250	10	G 1/4" -19	19	12	45,5	38,5	22	24
XHVR NW 10 HL ED	approx. 1 bar	L	PN 250	12	G 3/8" -19	22	12	49,5	42,5	30	27
XHVR NW 13 HL ED	approx. 1 bar	L	PN 250	15	G 1/2" -14	27	14	52,5	45,5	32	27
XHVR NW 16 HL ED	approx. 1 bar	L	PN 160	18	G 1/2" -14	27	14	57,5	50,0	36	36
XHVR NW 20 HL ED	approx. 1 bar	L	PN 160	22	G 3/4" -14	32	16	62,5	55,0	46	41
XHVR NW 25 HL ED	approx. 1 bar	L	PN 100	28	G 1" -11	40	18	70,5	63,0	55	50
XHVR NW 32 HL ED	approx. 1 bar	L	PN 100	35	G 1.1/4" -11	50	20	79,5	69,0	60	60
XHVR NW 40 HL ED	approx. 1 bar	L	PN 100	42	G 1.1/2" -11	55	22	79,5	68,5	70	65
XHVR NW 03 HS ED	approx. 1 bar	S	PN 400	6	G 1/4" -19	19	12	38,5	31,5	19	19
XHVR NW 04 HS ED	approx. 1 bar	S	PN 400	8	G 1/4" -19	19	12	38,5	31,5	19	19
XHVR NW 06 HS ED	approx. 1 bar	S	PN 400	10	G 3/8" -19	22	12	45,5	38,0	24	22
XHVR NW 08 HS ED	approx. 1 bar	S	PN 400	12	G 3/8" -19	22	12	48,5	41,0	27	24
XHVR NW 10 HS ED	approx. 1 bar	S	PN 315	14	G 1/2" -14	27	14	52,5	44,5	32	27
XHVR NW 13 HS ED	approx. 1 bar	S	PN 315	16	G 1/2" -14	27	14	56,5	48,0	36	32
XHVR NW 16 HS ED	approx. 1 bar	S	PN 250	20	G 3/4" -14	32	16	62,5	52,0	46	41
XHVR NW 20 HS ED	approx. 1 bar	S	PN 250	25	G 1" -11	40	18	66,5	54,5	50	46
XHVR NW 25 HS ED	approx. 1 bar	S	PN 250	30	G 1.1/4" -11	50	20	77,5	64,0	60	60
XHVR NW 32 HS ED	approx. 1 bar	S	PN 250	38	G 1.1/2" -11	55	22	85,5	69,5	70	65

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

XHVR ED VA - Non-return valve, screw-in connection, Stainless steel

HVR ED - Non-return valve, screw-in connection, Steel

**Spare parts:**

WD - Soft seal for ED fittings

**Accessories:**

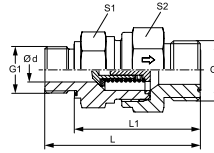
RD FEDER - Spring for non-return valve

RD FEDER PT - Spring for non-return valve

## HVR ED HJOF

### Non-return valve, screw-in connection

- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Non-return valve, screw-in connection  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** Direction of flow from screw-in pin



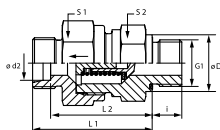
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Identification	Opening pressure	Working pressure bar	Ø d mm	G1	G2	L mm	L1 mm	S1	S2
HVR 02 ED 04 HJOF	approx. 1 bar	PN 400	3,5	G 1/4" -19	9/16"-18 UNF	44,5	36,5	19	19
HVR 04 ED 06 HJOF	approx. 1 bar	PN 400	6,5	G 1/4" -19	11/16"-16 UN	56,4	44,5	22	24
HVR 06 ED 08 HJOF	approx. 1 bar	PN 400	7,5	G 3/8" -19	13/16"-16 UN	61,5	49,5	24	27
HVR 08 ED 10 HJOF	approx. 1 bar	PN 315	11,5	G 1/2" -14	1" -14 UNS	70,0	56,0	32	36
HVR 12 ED HJOF	approx. 1 bar	PN 250	15,0	G 3/4" -14	1.3/16"-12 UN	77,5	63,5	41	46
HVR 16 ED HJOF	approx. 1 bar	PN 250	19,0	G 1" -11	1.7/16"-12 UN	84,0	66,0	46	50
HVR 20 ED HJOF	approx. 1 bar	PN 250	24,0	G 1.1/4" -11	1.11/16"-12 UN	95,0	75,0	60	60
HVR 24 ED HJOF	approx. 1 bar	PN 250	29,0	G 1.1/2" -11	2" -12 UN	105,0	83,0	65	70

PN = Nominal pressure PB = Max. operating pressure

#### Spare parts:

WD - Soft seal for ED fittings

**XHVM ED****Non-return valve, screw-in connection**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Non-return valve, screw-in connection  
**Standard:** DIN 3865  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** Direction of flow from screw-in pin

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Opening pressure	Series	Working pressure bar	Ø d2 mm	G1	Ø D mm	i mm	L1 mm	L2 mm	S1	S2
XHVM NW 04 HL ED	approx. 1 bar	L	PN 250	6	M 10 x 1	14	8	35,0	28,0	17	17
XHVM NW 06 HL ED	approx. 1 bar	L	PN 250	8	M 12 x 1.5	17	12	36,0	29,0	19	19
XHVM NW 08 HL ED	approx. 1 bar	L	PN 250	10	M 14 x 1.5	19	12	45,5	38,5	24	22
XHVM NW 10 HL ED	approx. 1 bar	L	PN 250	12	M 16 x 1.5	22	12	49,5	42,5	30	27
XHVM NW 13 HL ED	approx. 1 bar	L	PN 250	15	M 18 x 1.5	24	12	52,5	45,5	32	27
XHVM NW 16 HL ED	approx. 1 bar	L	PN 160	18	M 22 x 1.5	27	14	57,5	50,0	36	36
XHVM NW 20 HL ED	approx. 1 bar	L	PN 160	22	M 26 x 1.5	32	16	62,5	55,0	46	41
XHVM NW 25 HL ED	approx. 1 bar	L	PN 100	28	M 33 x 2	40	18	70,5	63,0	55	50
XHVM NW 32 HL ED	approx. 1 bar	L	PN 100	35	M 42 x 2	50	20	79,5	69,0	60	60
XHVM NW 40 HL ED	approx. 1 bar	L	PN 100	42	M 48 x 2	55	22	79,5	68,5	70	65
XHVM NW 03 HS ED	approx. 1 bar	S	PN 400	6	M 12 x 1.5	17	12	38,5	31,5	19	19
XHVM NW 04 HS ED	approx. 1 bar	S	PN 400	8	M 14 x 1.5	19	12	38,5	31,5	19	19
XHVM NW 06 HS ED	approx. 1 bar	S	PN 400	10	M 16 x 1.5	22	12	45,5	38,0	24	22
XHVM NW 08 HS ED	approx. 1 bar	S	PN 400	12	M 18 x 1.5	24	12	48,5	41,0	27	24
XHVM NW 10 HS ED	approx. 1 bar	S	PN 315	14	M 20 x 1.5	26	14	52,5	44,5	32	27
XHVM NW 13 HS ED	approx. 1 bar	S	PN 315	16	M 22 x 1.5	27	14	56,5	48,0	36	32
XHVM NW 16 HS ED	approx. 1 bar	S	PN 250	20	M 27 x 2	32	16	62,5	52,0	46	41
XHVM NW 20 HS ED	approx. 1 bar	S	PN 250	25	M 33 x 2	40	18	66,5	54,5	50	46
XHVM NW 25 HS ED	approx. 1 bar	S	PN 250	30	M 42 x 2	50	20	77,5	64,0	60	60
XHVM NW 32 HS ED	approx. 1 bar	S	PN 250	38	M 48 x 2	55	22	85,5	69,5	70	65

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

XHVM ED VA - Non-return valve, screw-in connection, Stainless steel

HVM ED - Non-return valve, screw-in connection, Steel

**Spare parts:**

WD - Soft seal for ED fittings

**Accessories:**

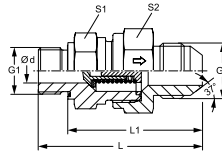
RD FEDER - Spring for non-return valve

RD FEDER PT - Spring for non-return valve

## HVM ED HJ

### Non-return valve, screw-in connection

- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Non-return valve, screw-in connection  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** Direction of flow from screw-in pin



1

Identification	Opening pressure	Working pressure bar	Ø d mm	G1	G2	L mm	L1 mm	S1	S2
HVM 10 ED 04 HJ	approx. 1 bar	PN 350	3,5	M 10 x 1	7/16"-20 UNF	48,0	40,0	19	19
HVM 14 ED 06 HJ	approx. 1 bar	PN 350	7,5	M 14 x 1.5	9/16"-18 UNF	62,0	50,0	24	27
HVM 16 ED 08 HJ	approx. 1 bar	PN 315	9,5	M 16 x 1.5	3/4"-16 UNF	67,0	55,0	27	32
HVM 18 ED 10 HJ	approx. 1 bar	PN 315	11,5	M 18 x 1.5	7/8"-14 UNF	73,5	61,5	32	36
HVM 27 ED 12 HJ	approx. 1 bar	PN 160	15,0	M 27 x 2	1.1/16"-12 UN	84,5	68,5	41	46
HVM 33 ED 16 HJ	approx. 1 bar	PN 250	19,0	M 33 x 2	1.5/16"-12 UN	89,5	71,5	46	50
HVM 42 ED 20 HJ	approx. 1 bar	PN 210	24,0	M 42 x 2	1.5/8"-12 UN	102,0	82,0	60	60
HVM 48 ED 24 HJ	approx. 1 bar	PN 140	29,0	M 48 x 2	1.7/8"-12 UN	113,0	91,0	65	70

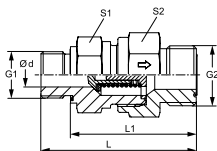
PN = Nominal pressure PB = Max. operating pressure

#### Spare parts:

WD - Soft seal for ED fittings

## HVM ED HJOF

### Non-return valve, screw-in connection



- Connection 1:** metric cylindrical outer thread
- Sealing form 1:** Shape E
- Connection 2:** ORFS external threads
- Sealing form 2:** flat seal with O-ring
- Design:** Non-return valve, screw-in connection
- Construction:** straight
- Material:** Steel
- Surface:** electro galvanised
- Description:** Direction of flow from screw-in pin

1

Identification	Opening pressure	Working pressure bar	Ø d mm	G1	G2	L mm	L1 mm	S1	S2
HVM 12 ED 04 HJOF	approx. 1 bar	PN 400	3,5	M 12 x 1.5	9/16"-18 UNF	48,5	36,5	19	19
HVM 16 ED 06 HJOF	approx. 1 bar	PN 400	5,5	M 16 x 1.5	11/16"-16 UN	56,4	44,5	22	24
HVM 18 ED 08 HJOF	approx. 1 bar	PN 400	7,5	M 18 x 1.5	13/16"-16 UN	61,5	49,5	24	27
HVM 22 ED 10 HJOF	approx. 1 bar	PN 315	11,5	M 22 x 1.5	1"-14 UNS	72,0	58,0	32	36
HVM 27 ED 12 HJOF	approx. 1 bar	PN 250	15,0	M 27 x 2	1.3/16"-12 UN	79,5	63,5	41	46
HVM 33 ED 16 HJOF	approx. 1 bar	PN 250	19,0	M 33 x 2	1.7/16"-12 UN	84,0	66,0	46	50
HVM 42 ED 20 HJOF	approx. 1 bar	PN 250	24,0	M 42 x 2	1.11/16"-12 UN	95,0	75,0	60	60
HVM 48 ED 24 HJOF	approx. 1 bar	PN 250	29,0	M 48 x 2	2"-12 UN	103,0	81,0	65	70

PN = Nominal pressure PB = Max. operating pressure

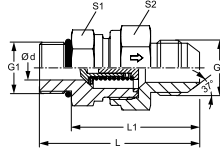
#### Spare parts:

WD - Soft seal for ED fittings

## HVO HJ

### Non-return valve, screw-in connection

- Connection 1:** UN/UNF external threads
- Sealing form 1:** O-ring seal
- Connection 2:** UN/UNF external threads
- Sealing form 2:** 74° outer cone
- Design:** Non-return valve, screw-in connection
- Construction:** straight
- Material:** Steel
- Surface:** electro galvanised
- Description:** Direction of flow from screw-in pin



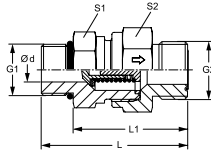
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Identification	Opening pressure	Working pressure bar	Ø d mm	G1	G2	L mm	L1 mm	S1	S2
HVO 04 HJ	approx. 1 bar	PN 350	3,5	7/16"-20 UNF	7/16"-20 UNF	49,5	38,5	19	19
HVO 06 HJ	approx. 1 bar	PN 350	7,5	9/16"-18 UNF	9/16"-18 UNF	59,5	47,5	24	27
HVO 08 HJ	approx. 1 bar	PN 315	9,5	3/4"-16 UNF	3/4"-16 UNF	66,5	52,5	27	32
HVO 10 HJ	approx. 1 bar	PN 315	11,5	7/8"-14 UNF	7/8"-14 UNF	75,0	59,0	32	36
HVO 12 HJ	approx. 1 bar	PN 250	15,0	1.1/16"-12 UN	1.1/16"-12 UN	84,0	65,5	41	46
HVO 16 HJ	approx. 1 bar	PN 250	19,0	1.5/16"-12 UN	1.5/16"-12 UN	88,0	69,5	46	50
HVO 20 HJ	approx. 1 bar	PN 210	24,0	1.5/8"-12 UN	1.5/8"-12 UN	99,5	81,0	60	60
HVO 24 HJ	approx. 1 bar	PN 140	29,0	1.7/8"-12 UN	1.7/8"-12 UN	109,5	91,0	65	70

PN = Nominal pressure PB = Max. operating pressure SW, S1, S2 = With across flats

## HVO HJOF

### Non-return valve, screw-in connection



- Connection 1:** UN/UNF external threads
- Sealing form 1:** O-ring seal
- Connection 2:** ORFS external threads
- Sealing form 2:** flat seal with O-ring
- Design:** Non-return valve, screw-in connection
- Construction:** straight
- Material:** Steel
- Surface:** electro galvanised
- Description:** Direction of flow from screw-in pin

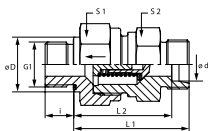
Identification	Opening pressure	Working pressure bar	Ø d mm	G1	G2	L mm	L1 mm	S1	S2
HVO 04 HJOF	approx. 1 bar	PN 400	3,5	7/16"-20 UNF	9/16"-18 UNF	45,5	34,5	19	19
HVO 06 HJOF	approx. 1 bar	PN 400	5,5	9/16"-18 UNF	11/16"-16 UN	54,5	42,5	22	24
HVO 08 HJOF	approx. 1 bar	PN 400	5,5	3/4"-16 UNF	13/16"-16 UN	60,5	46,5	24	27
HVO 10 HJOF	approx. 1 bar	PN 315	11,5	7/8"-14 UNF	1"-14 UNS	71,0	55,0	32	36
HVO 12 HJOF	approx. 1 bar	PN 250	15,0	1.1/16"-12 UN	1.3/16"-12 UN	79,0	60,5	41	46
HVO 16 HJOF	approx. 1 bar	PN 250	19,0	1.5/16"-12 UN	1.7/16"-12 UN	82,5	64,0	46	50
HVO 20 HJOF	approx. 1 bar	PN 250	24,0	1.5/8"-12 UN	1.11/16"-12 UN	92,5	74,0	60	60
HVO 24 HJOF	approx. 1 bar	PN 250	29,0	1.7/8"-12 UN	2"-12 UN	99,5	61,0	65	70

PN = Nominal pressure    PB = Max. operating pressure    SW, S1, S2 = With across flats



**XHZR ED****Non-return valve, screw-in connection**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Non-return valve, screw-in connection  
**Construction:** straight  
**Standard:** DIN 3865  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** Direction of flow to screw-in pin



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Opening pressure	Series	Working pressure bar	Ø d2 mm	G1	Ø D mm	i mm	L1 mm	L2 mm	S1	S2
XHZR NW 04 HL ED	approx. 1 bar	L	PN 250	6	G 1/8" -28	14	8	33,5	26,5	17	17
XHZR NW 06 HL ED	approx. 1 bar	L	PN 250	8	G 1/4" -19	19	12	33,5	28,5	19	19
XHZR NW 08 HL ED	approx. 1 bar	L	PN 250	10	G 1/4" -19	19	12	45,5	38,5	24	22
XHZR NW 10 HL ED	approx. 1 bar	L	PN 250	12	G 3/8" -19	22	12	47,5	40,5	30	27
XHZR NW 13 HL ED	approx. 1 bar	L	PN 250	15	G 1/2" -14	27	14	49,5	42,5	32	27
XHZR NW 16 HL ED	approx. 1 bar	L	PN 160	18	G 1/2" -14	27	14	55,5	48,0	36	36
XHZR NW 20 HL ED	approx. 1 bar	L	PN 160	22	G 3/4" -14	32	16	63,5	56,0	46	41
XHZR NW 25 HL ED	approx. 1 bar	L	PN 100	28	G 1" -11	40	18	71,5	64,0	55	50
XHZR NW 32 HL ED	approx. 1 bar	L	PN 100	35	G 1.1/4" -11	50	20	80,5	70,0	60	60
XHZR NW 40 HL ED	approx. 1 bar	L	PN 100	42	G 1.1/2" -11	55	22	81,5	70,5	70	65
XHZR NW 03 HS ED	approx. 1 bar	S	PN 400	6	G 1/4" -19	19	12	38,5	31,5	19	19
XHZR NW 04 HS ED	approx. 1 bar	S	PN 400	8	G 1/4" -19	19	12	38,5	31,5	19	19
XHZR NW 06 HS ED	approx. 1 bar	S	PN 400	10	G 3/8" -19	22	12	45,5	38,0	24	22
XHZR NW 08 HS ED	approx. 1 bar	S	PN 400	12	G 3/8" -19	22	12	48,5	41,0	27	24
XHZR NW 10 HS ED	approx. 1 bar	S	PN 315	14	G 1/2" -14	27	14	51,5	43,5	32	27
XHZR NW 13 HS ED	approx. 1 bar	S	PN 315	16	G 1/2" -14	27	14	54,5	46,0	36	32
XHZR NW 16 HS ED	approx. 1 bar	S	PN 250	20	G 3/4" -14	32	16	60,5	50,0	46	41
XHZR NW 20 HS ED	approx. 1 bar	S	PN 250	25	G 1" -11	40	18	66,5	54,5	50	46
XHZR NW 25 HS ED	approx. 1 bar	S	PN 250	30	G 1.1/4" -11	50	20	77,5	64,0	60	60
XHZR NW 32 HS ED	approx. 1 bar	S	PN 250	38	G 1.1/2" -11	55	22	87,5	71,5	70	65

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

**XHZR ED VA** - Non-return valve, screw-in connection, Stainless steel

**HZR ED** - Non-return valve, screw-in connection, Steel

**Spare parts:**

**WD** - Soft seal for ED fittings

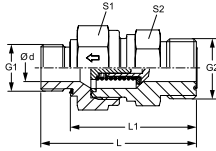
**Accessories:**

**RD FEDER** - Spring for non-return valve

**RD FEDER PT** - Spring for non-return valve

## HZR ED HJOF

### Non-return valve, screw-in connection



- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Non-return valve, screw-in connection  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** Direction of flow to screw-in pin

Identification	Opening pressure	Working pressure bar	$\varnothing d$ mm	G1	G2	L mm	L1 mm	S1	S2
HZR 02 ED 04 HJOF	approx. 1 bar	PN 400	3,5	G 1/8" -28	9/16"-18 UNF	44,5	36,5	19	19
HZR 04 ED 06 HJOF	approx. 1 bar	PN 400	6,5	G 1/4" -19	11/16" -16 UN	56,4	44,5	22	24
HZR 06 ED 08 HJOF	approx. 1 bar	PN 400	7,5	G 3/8" -19	13/16" -16 UN	61,5	49,5	24	27
HZR 08 ED 10 HJOF	approx. 1 bar	PN 315	11,5	G 1/2" -14	1" -14 UNS	70,0	56,0	32	36
HZR 12 ED HJOF	approx. 1 bar	PN 250	15,0	G 3/4" -14	1.3/16" -12 UN	77,5	53,5	41	46
HZR 16 ED HJOF	approx. 1 bar	PN 250	19,0	G 1" -11	1.7/16" -12 UN	84,0	66,0	46	50
HZR 20 ED HJOF	approx. 1 bar	PN 250	24,0	G 1.1/4" -11	1.11/16" -12 UN	95,0	75,0	60	60
HZR 24 ED HJOF	approx. 1 bar	PN 250	29,0	G 1.1/2" -11	2" -12 UN	105,0	83,0	65	70

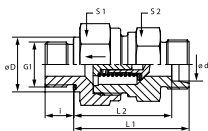
PN = Nominal pressure PB = Max. operating pressure

#### Spare parts:

WD - Soft seal for ED fittings

**XHZM ED****Non-return valve, screw-in connection**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Non-return valve, screw-in connection  
**Standard:** DIN 3865  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** Direction of flow to screw-in pin



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**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Opening pressure	Series	Working pressure bar	Ø d2 mm	G1	Ø D mm	i mm	L1 mm	L2 mm	S1	S2
XHZM NW 04 HL ED	approx. 1 bar	L	PN 250	6	M 10 x 1	14	8	33,5	26,5	17	17
XHZM NW 06 HL ED	approx. 1 bar	L	PN 250	8	M 12 x 1.5		12	33,5	28,5	19	19
XHZM NW 08 HL ED	approx. 1 bar	L	PN 250	10	M 14 x 1.5		12	45,5	38,5	24	22
XHZM NW 10 HL ED	approx. 1 bar	L	PN 250	12	M 16 x 1.5		12	47,5	40,5	30	27
XHZM NW 13 HL ED	approx. 1 bar	L	PN 250	15	M 18 x 1.5		12	49,5	42,5	32	27
XHZM NW 16 HL ED	approx. 1 bar	L	PN 160	18	M 22 x 1.5		14	55,5	48,0	36	36
XHZM NW 20 HL ED	approx. 1 bar	L	PN 160	22	M 26 x 1.5		16	63,5	56,0	46	41
XHZM NW 25 HL ED	approx. 1 bar	L	PN 100	28	M 33 x 2		18	71,5	64,0	55	50
XHZM NW 32 HL ED	approx. 1 bar	L	PN 100	35	M 42 x 2		20	80,5	70,0	60	60
XHZM NW 40 HL ED	approx. 1 bar	L	PN 100	42	M 48 x 2		22	81,5	70,5	70	65
XHZM NW 03 HS ED	approx. 1 bar	S	PN 400	6	M 12 x 1.5		12	38,5	31,5	19	19
XHZM NW 04 HS ED	approx. 1 bar	S	PN 400	8	M 14 x 1.5		12	38,5	31,5	19	19
XHZM NW 06 HS ED	approx. 1 bar	S	PN 400	10	M 16 x 1.5		12	45,5	38,0	24	22
XHZM NW 08 HS ED	approx. 1 bar	S	PN 400	12	M 18 x 1.5		12	48,5	41,0	27	24
XHZM NW 10 HS ED	approx. 1 bar	S	PN 315	14	M 20 x 1.5		14	51,5	43,5	32	27
XHZM NW 13 HS ED	approx. 1 bar	S	PN 315	16	M 22 x 1.5		14	54,5	46,0	36	32
XHZM NW 16 HS ED	approx. 1 bar	S	PN 250	20	M 27 x 2		16	60,5	50,0	46	41
XHZM NW 20 HS ED	approx. 1 bar	S	PN 250	25	M 33 x 2		18	66,5	54,5	50	46
XHZM NW 25 HS ED	approx. 1 bar	S	PN 250	30	M 42 x 2		20	77,5	64,0	60	60
XHZM NW 32 HS ED	approx. 1 bar	S	PN 250	38	M 48 x 2		22	87,5	71,5	70	65

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

XHZM ED VA - Non-return valve, screw-in connection, Stainless steel

H2M ED - Non-return valve, screw-in connection, Steel

**Spare parts:**

WD - Soft seal for ED fittings

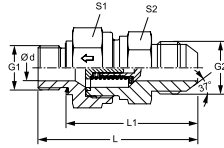
**Accessories:**

RD FEDER - Spring for non-return valve

RD FEDER PT - Spring for non-return valve

## HZM ED HJ

### Non-return valve, screw-in connection



- Connection 1:** metric cylindrical outer thread
- Sealing form 1:** Shape E
- Connection 2:** UN/UNF external threads
- Sealing form 2:** 74° outer cone
- Design:** Non-return valve, screw-in connection
- Construction:** straight
- Material:** Steel
- Surface:** electro galvanised
- Description:** Direction of flow to screw-in pin

Identification	Opening pressure	Working pressure bar	Ø d mm	G1	G2	L mm	L1 mm	S1	S2
HZM 10 ED 04 HJ	approx. 1 bar	PN 350	3,5	M 10 x 1	7/16"-20 UNF	48,0	40,0	19	19
HZM 14 ED 06 HJ	approx. 1 bar	PN 350	7,5	M 14 x 1.5	9/16"-18 UNF	62,0	50,0	24	27
HZM 16 ED 08 HJ	approx. 1 bar	PN 315	9,5	M 16 x 1.5	3/4"-16 UNF	66,0	54,0	27	32
HZM 18 ED 10 HJ	approx. 1 bar	PN 315	11,5	M 18 x 1.5	7/8"-14 UNF	71,5	59,5	32	36
HZM 27 ED 12 HJ	approx. 1 bar	PN 250	15,0	M 27 x 2	1.1/16" -12 UN	82,5	66,5	41	46
HZM 33 ED 16 HJ	approx. 1 bar	PN 250	19,0	M 33 x 2	1.5/16" -12 UN	89,5	71,5	46	50
HZM 42 ED 20 HJ	approx. 1 bar	PN 210	24,0	M 42 x 2	1.5/8" -12 UN	102,0	82,0	60	60
HZM 48 ED 24 HJ	approx. 1 bar	PN 140	29,0	M 48 x 2	1.7/8" -12 UN	115,0	93,0	65	70

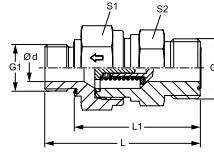
PN = Nominal pressure PB = Max. operating pressure

#### Spare parts:

WD - Soft seal for ED fittings

**HZM ED HJOF****Non-return valve, screw-in connection**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Non-return valve, screw-in connection  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** Direction of flow to screw-in pin



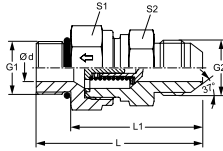
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Identification	Opening pressure	Working pressure bar	$\varnothing d$ mm	G1	G2	L mm	L1 mm	S1	S2
HZM 12 ED 04 HJOF	approx. 1 bar	PN 400	3,5	M 12 x 1.5	9/16"-18 UNF	48,5	36,5	19	19
HZM 16 ED 06 HJOF	approx. 1 bar	PN 400	5,5	M 16 x 1.5	11/16" -16 UN	56,4	44,5	22	24
HZM 18 ED 08 HJOF	approx. 1 bar	PN 400	7,5	M 18 x 2	13/16" -16 UN	61,5	49,5	24	27
HZM 22 ED 10 HJOF	approx. 1 bar	PN 315	11,5	M 22 x 2	1" -14 UNS	70,0	56,0	32	36
HZM 27 ED 12 HJOF	approx. 1 bar	PN 250	15,0	M 27 x 2	1.3/16" -12 UN	77,5	61,5	41	46
HZM 33 ED 16 HJOF	approx. 1 bar	PN 250	19,0	M 33 x 2	1.7/16" -12 UN	84,0	66,0	46	50
HZM 42 ED 20 HJOF	approx. 1 bar	PN 250	24,0	M 42 x 2	1.11/16" -12 UN	95,0	75,0	60	60
HZM 48 ED 24 HJOF	approx. 1 bar	PN 250	29,0	M 48 x 2	2" -12 UN	115,0	93,0	65	70

PN = Nominal pressure PB = Max. operating pressure

**Spare parts:**

WD - Soft seal for ED fittings

**HZO HJ****Non-return valve, screw-in connection**

<b>Connection 1:</b>	UN/UNF external threads
<b>Sealing form 1:</b>	O-ring seal
<b>Connection 2:</b>	UN/UNF external threads
<b>Sealing form 2:</b>	74° outer cone
<b>Design:</b>	Non-return valve, screw-in connection
<b>Construction:</b>	straight
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised
<b>Description:</b>	Direction of flow to screw-in pin

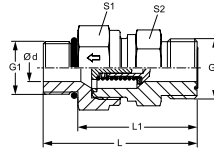
Identification	Opening pressure	Working pressure bar	Ø d mm	G1	G2	L mm	L1 mm	S1	S2
HZO 04 HJ	approx. 1 bar	PN 350	3,5	7/16"-20 UNF	7/16"-20 UN	49,5	38,5	19	19
HZO 06 HJ	approx. 1 bar	PN 350	7,5	9/16"-18 UNF	9/16"-18 UNF	59,5	47,5	24	27
HZO 08 HJ	approx. 1 bar	PN 315	9,5	3/4"-16 UNF	3/4"-16 UNF	66,5	52,5	27	32
HZO 10 HJ	approx. 1 bar	PN 315	11,5	7/8"-14 UNF	7/8"-14 UNF	75,0	59,0	32	36
HZO 12 HJ	approx. 1 bar	PN 250	15,0	1.1/16" -12 UN	1.1/16" -12 UN	84,0	65,5	41	46
HZO 16 HJ	approx. 1 bar	PN 250	19,0	1.5/16" -12 UN	1.5/16" -12 UN	88,0	69,5	46	50
HZO 20 HJ	approx. 1 bar	PN 210	24,0	1.5/8" -12 UN	1.5/8" -12 UN	99,5	81,0	60	60
HZO 24 HJ	approx. 1 bar	PN 140	29,0	1.7/8" -12 UN	1.7/8" -12 UN	109,5	91,0	65	70

PN = Nominal pressure PB = Max. operating pressure

## HZO HJOF

### Non-return valve, screw-in connection

- Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Non-return valve, screw-in connection  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** Direction of flow to screw-in pin



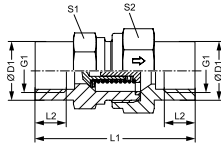
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Identification	Opening pressure	Working pressure bar	Ø d mm	G1	G2	L mm	L1 mm	S1	S2
HZO 04 HJOF	approx. 1 bar	PN 400	3,5	7/16"-20 UNF	9/16"-18 UNF	45,5	34,5	19	19
HZO 06 HJOF	approx. 1 bar	PN 400	5,5	9/16"-18 UNF	11/16"-16 UN	54,5	42,5	22	24
HZO 08 HJOF	approx. 1 bar	PN 400	5,5	3/4"-16 UNF	13/16"-16 UN	60,5	46,5	24	27
HZO 10 HJOF	approx. 1 bar	PN 315	11,5	7/8"-14 UNF	1"-14 UNS	71,0	55,0	32	36
HZO 12 HJOF	approx. 1 bar	PN 250	15,0	1.1/16"-12 UN	1.3/16"-12 UN	79,0	60,5	41	46
HZO 16 HJOF	approx. 1 bar	PN 250	19,0	1.5/16"-12 UN	1.7/16"-12 UN	82,5	64,0	46	50
HZO 20 HJOF	approx. 1 bar	PN 250	24,0	1.5/8"-12 UN	1.11/16"-12 UN	92,5	74,0	60	60
HZO 24 HJOF	approx. 1 bar	PN 250	29,0	1.7/8"-12 UN	2"-12 UN	99,5	81,0	65	70

PN = Nominal pressure PB = Max. operating pressure

## RD IR

### Non-return valve, connector



**Connection 1 + 2:** BSP cylindrical internal threads  
**Sealing form 1 + 2:** Shape A  
**Design:** Non-return valve, connector  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

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Identification	Opening pressure	Working pressure bar	G1	Ø D1 mm	L1 mm	L2 mm	S1	S2
RD NW 04 IR	approx. 1 bar	PN 400	G 1/8" -28	19,0	42,5	8,0	19	19
RD NW 06 IR	approx. 1 bar	PN 400	G 1/4" -19	19,0	51,0	12,0	19	19
RD NW 10 IR	approx. 1 bar	PN 400	G 3/8" -19	24,0	60,0	12,0	24	27
RD NW 13 IR	approx. 1 bar	PN 315	G 1/2" -14	32,0	72,0	15,0	32	36
RD NW 20 IR	approx. 1 bar	PN 250	G 3/4" -14	41,0	84,0	16,5	41	46
RD NW 25 IR	approx. 1 bar	PN 250	G 1" -11	46,0	95,0	19,0	46	50
RD NW 32 IR	approx. 1 bar	PN 250	G 1.1/4" -11	60,0	110,0	21,5	60	60
RD NW 40 IR	approx. 1 bar	PN 250	G 1.1/2" -11	65,0	114,0	22,0	65	70

PN = Nominal pressure PB = Max. operating pressure SW, S1, S2 = With across flats

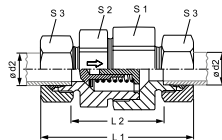
**Product versions:**

RD IR VA - Non-return valve, connector, Stainless steel



**XRD****Non-return valve, connector****Connection 1 + 2:** metric cylindrical outer thread**Sealing form 1 +****2:** 24° inner cone**Design:** Non-return valve, connector**Construction:** straight**Standard:** DIN 3865**Included in scope of supply:**

Socket (without union nut and cutting ring)

**Material:** Steel**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

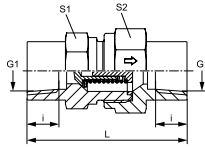
Identification	Opening pressure	Series	Working pressure bar	Ø d2 mm	G1	L1 mm	L2 mm	S1	S2
XRD NW 04 HL	approx. 1 bar	L	PN 250	6	M 12 x 1.5	58,0	29,0	17	17
XRD NW 06 HL	approx. 1 bar	L	PN 250	8	M 14 x 1.5	59,0	30,0	19	19
XRD NW 08 HL	approx. 1 bar	L	PN 250	10	M 16 x 1.5	69,5	40,5	24	22
XRD NW 10 HL	approx. 1 bar	L	PN 250	12	M 18 x 1.5	72,5	43,5	30	27
XRD NW 13 HL	approx. 1 bar	L	PN 250	15	M 22 x 1.5	77,5	47,5	32	27
XRD NW 16 HL	approx. 1 bar	L	PN 160	18	M 26 x 1.5	83,5	51,5	36	36
XRD NW 20 HL	approx. 1 bar	L	PN 160	22	M 30 x 2	93,5	61,5	46	41
XRD NW 25 HL	approx. 1 bar	L	PN 100	28	M 36 x 2	102,5	69,5	55	50
XRD NW 32 HL	approx. 1 bar	L	PN 100	35	M 45 x 2	117,5	74,5	60	60
XRD NW 40 HL	approx. 1 bar	L	PN 100	42	M 52 x 2	119,0	74,0	70	65
XRD NW 03 HS	approx. 1 bar	S	PN 400	6	M 14 x 1.5	63,5	34,5	19	17
XRD NW 04 HS	approx. 1 bar	S	PN 400	8	M 16 x 1.5	63,5	34,5	19	17
XRD NW 06 HS	approx. 1 bar	S	PN 400	10	M 18 x 1.5	72,5	40,5	24	22
XRD NW 08 HS	approx. 1 bar	S	PN 400	12	M 20 x 1.5	74,5	42,5	27	24
XRD NW 10 HS	approx. 1 bar	S	PN 315	14	M 22 x 1.5	82,5	47,5	32	27
XRD NW 13 HS	approx. 1 bar	S	PN 315	16	M 24 x 1.5	86,5	50,5	36	32
XRD NW 16 HS	approx. 1 bar	S	PN 250	20	M 30 x 2	97,5	54,5	41	38
XRD NW 20 HS	approx. 1 bar	S	PN 250	25	M 36 x 2	106,5	58,5	50	46
XRD NW 25 HS	approx. 1 bar	S	PN 250	30	M 42 x 2	122,5	69,5	60	55
XRD NW 32 HS	approx. 1 bar	S	PN 250	38	M 52 x 2	136,5	75,5	70	65

Ø = External pipe diameter    Series: LL = Very light    L = Light    S = Heavy    PN = Nominal pressure    PB = Max. operating pressure

**Product versions:****XRD VA** - Non-return valve, connector, Stainless steel**RD** - Non-return valve, connector, Steel**Accessories:****RD FEDER** - Spring for non-return valve**RD FEDER PT** - Spring for non-return valve

## RD IN VA

### Non-return valve, connector



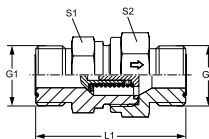
**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Non-return valve, connector  
**Construction:** straight  
**Material:** Stainless steel

Identification	Opening pressure	Working pressure bar	G1	i mm	L mm	S1	S2
RD NW 04 IN VA	approx. 1 bar	PN 400	1/8" -27 NPT	11,6		17	17
RD NW 06 IN VA	approx. 1 bar	PN 400	1/4" -18 NPT	16,4	57,5	19	19
RD NW 10 IN VA	approx. 1 bar	PN 400	3/8" -18 NPT	17,4	63,5	24	27
RD NW 13 IN VA	approx. 1 bar	PN 400	1/2" -14 NPT	22,6	78,0	32	36
RD NW 20 IN VA	approx. 1 bar	PN 400	3/4" -14 NPT	23,1	84,5	41	46
RD NW 25 IN VA	approx. 1 bar	PN 400	1" -11.5 NPT	27,8	101,0	46	50
RD NW 32 IN VA	approx. 1 bar	PN 250	1.1/4" -11.5 NPT	28,3		55	60
RD NW 40 IN VA	approx. 1 bar	PN 250	1.1/2" -11.5 NPT	28,3		65	70

SW, S1, S2 = With across flats

**RD HJOF****Non-return valve, connector**

**Connection 1 + 2:** ORFS external threads  
**Sealing form 1 + 2:** flat seal with O-ring  
**Design:** Non-return valve, connector  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



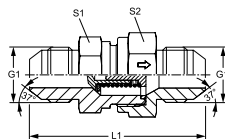
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Identification	Opening pressure	Working pressure bar	G1	L1 mm	S1	S2
RD 04 HJOF	approx. 1 bar	PN 400	9/16"-18 UNF	44,5	19	19
RD 06 HJOF	approx. 1 bar	PN 400	11/16" -16 UN	53,5	22	24
RD 08 HJOF	approx. 1 bar	PN 400	13/16" -16 UN	59,5	24	27
RD 10 HJOF	approx. 1 bar	PN 315	1" -14 UNS	70,5	32	36
RD 12 HJOF	approx. 1 bar	PN 250	1.3/16" -12 UN	77,5	41	46
RD 16 HJOF	approx. 1 bar	PN 250	1.7/16" -12 UN	81,5	46	50
RD 20 HJOF	approx. 1 bar	PN 250	1.11/16" -12 UN	91,5	60	60
RD 24 HJOF	approx. 1 bar	PN 250	2" -12 UN	98,5	65	70

PN = Nominal pressure PB = Max. operating pressure SW, S1, S2 = With across flats

## RD HJ

### Non-return valve, connector



**Connection 1 + 2:** UN/UNF external threads  
**Sealing form 1 + 2:** 74° outer cone  
**Design:** Check valve  
**Construction:** Connectors  
**Material:** Steel  
**Surface:** electro galvanised

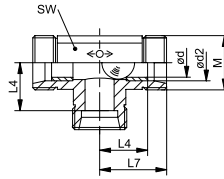
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Identification	Opening pressure	Working pressure bar	G1	L1 mm	S1	S2
RD 04 HJ	approx. 1 bar	PN 350	7/16"-20 UNF	52,5	19	19
RD 06 HJ	approx. 1 bar	PN 350	9/16"-18 UNF	61,5	24	27
RD 08 HJ	approx. 1 bar	PN 315	3/4"-16 UNF	69,5	27	32
RD 10 HJ	approx. 1 bar	PN 315	7/8"-14 UNF	78,5	32	36
RD 12 HJ	approx. 1 bar	PN 250	1.1/16"-12 UN	87,5	41	46
RD 16 HJ	approx. 1 bar	PN 250	1.5/16"-12 UN	92,5	46	50
RD 20 HJ	approx. 1 bar	PN 250	1.5/8"-12 UN	105,5	60	60
RD 24 HJ	approx. 1 bar	PN 140	1.7/8"-12 UN	118,5	65	70

PN = Nominal pressure    PB = Max. operating pressure    SW, S1, S2 = With across flats

**XWV****Shuttle valve, connector**

**Connection 1 - 3:** metric cylindrical outer thread  
**Sealing form 1 - 3:** 24° inner cone  
**Construction:** T shaped  
**Design:** Shuttle valve, connector  
**Included in scope of supply:** Socket (without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** With two lockable inlets and one outlet.



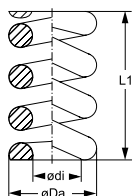
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Working pressure bar	Ø d2 mm	M	Ø d mm	L4 mm	L7 mm	S1
XWV NW 06 HL	L	PN 160	8	M 14 x 1.5	4,5	14,0	21	14
XWV NW 08 HL	L	PN 160	10	M 16 x 1.5	6,0	15,0	22	17
XWV NW 10 HL	L	PN 160	12	M 18 x 1.5	7,5	17,0	24	19
XWV NW 13 HL	L	PN 160	15	M 22 x 1.5	10,0	21,0	28	19
XWV NW 03 HS	S	PN 400	6	M 14 x 1.5	3,0	16,0	24	14
XWV NW 04 HS	S	PN 400	8	M 16 x 1.5	4,5	17,0	24	17
XWV NW 06 HS	S	PN 400	10	M 18 x 1.5	6,0	17,5	25	19
XWV NW 13 HS	S	PN 400	16	M 24 x 1.5	7,5	21,5	30	22

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

## RD FEDER PT

## Spring for non-return valve



**Design:**  
**Material:**  
**Surface:**

Spring for non-return valve  
Steel  
electro galvanised

**Note:** The RD springs vary depending on the supplier.

Identification	for series	Opening pressure bar	Size	Ø Da mm	Ø di mm	L1 mm
RD FEDER 01-0.2 PT	06L; 06S; 08S	0,2	1	4,2	3,6	13,1
RD FEDER 01-0.5 PT	06L; 06S; 08S	0,5	1	4,6	3,6	9,2
RD FEDER 01-2.0 PT	06L; 06S; 08S	2,0	1	4,8	3,6	10,8
RD FEDER 01-3.0 PT	06L; 06S; 08S	3,0	1	4,8	3,6	12,4
RD FEDER 01-5.0 PT	06L; 06S; 08S	5,0	1	5,0	3,6	10,1
RD FEDER 02-0.2 PT	08L; 10S	0,2	2	5,3	4,5	15,2
RD FEDER 02-0.5 PT	08L; 10S	0,5	2	5,7	4,5	13,2
RD FEDER 02-2.0 PT	08L; 10S	2,0	2	5,9	4,5	16,3
RD FEDER 02-3.0 PT	08L; 10S	3,0	2	5,9	4,5	19,0
RD FEDER 02-5.0 PT	08L; 10S	5,0	2	6,1	4,5	17,8
RD FEDER 03-0.2 PT	10L; 12S	0,2	3	7,5	6,3	17,5
RD FEDER 03-0.5 PT	10L; 12S	0,5	3	7,7	6,3	19,5
RD FEDER 03-2.0 PT	10L; 12S	2,0	3	8,1	6,3	21,6
RD FEDER 03-3.0 PT	10L; 12S	3,0	3	8,3	6,3	21,8
RD FEDER 03-5.0 PT	10L; 12S	5,0	3	8,7	6,3	19,5
RD FEDER 04-0.2 PT	12L; 14S	0,2	4	9,6	8,3	28,2
RD FEDER 04-0.5 PT	12L; 14S	0,5	4	10,1	8,3	22,5
RD FEDER 04-2.0 PT	12L; 14S	2,0	4	10,7	8,3	25,0
RD FEDER 04-3.0 PT	12L; 14S	3,0	4	10,9	8,3	24,7
RD FEDER 04-5.0 PT	12L; 14S	5,0	4	10,9	8,3	29,4
RD FEDER 05-0.2 PT	15L; 16S	0,2	5	10,4	8,8	25,9
RD FEDER 05-0.5 PT	15L; 16S	0,5	5	11,0	8,8	24,3
RD FEDER 05-2.0 PT	15L; 16S	2,0	5	11,4	8,8	29,0
RD FEDER 05-3.0 PT	15L; 16S	3,0	5	11,6	8,8	28,9
RD FEDER 05-5.0 PT	15L; 16S	5,0	5	11,8	8,8	30,8
RD FEDER 06-0.2 PT	18L; 20S	0,2	6	13,5	11,3	29,9
RD FEDER 06-0.5 PT	18L; 20S	0,5	6	14,1	11,3	30,1
RD FEDER 06-2.0 PT	18L; 20S	2,0	6	14,7	11,3	35,2
RD FEDER 06-3.0 PT	18L; 20S	3,0	6	15,1	11,3	33,6
RD FEDER 06-5.0 PT	18L; 20S	5,0	6	15,2	11,3	40,2
RD FEDER 07-0.2 PT	22L; 25S	0,2	7	16,9	14,3	38,0
RD FEDER 07-0.5 PT	22L; 25S	0,5	7	17,7	14,3	36,1
RD FEDER 07-2.0 PT	22L; 25S	2,0	7	18,7	14,3	39,0
RD FEDER 07-3.0 PT	22L; 25S	3,0	7	18,7	14,3	44,4
RD FEDER 07-5.0 PT	22L; 25S	5,0	7	18,7	14,3	54,6
RD FEDER 08-0.2 PT	28L; 30S	0,2	8	20,9	17,9	46,8
RD FEDER 08-0.5 PT	28L; 30S	0,5	8	21,9	17,9	46,6
RD FEDER 08-2.0 PT	28L; 30S	2,0	8	23,5	17,9	46,8
RD FEDER 08-3.0 PT	28L; 30S	3,0	8	23,5	17,9	53,2
RD FEDER 08-5.0 PT	28L; 30S	5,0	8	24,0	18,0	59,3
RD FEDER 09-0.2 PT	35L; 42L; 38S	0,2	9	23,9	20,5	62,5
RD FEDER 09-0.5 PT	35L; 42L; 38S	0,5	9	24,9	20,5	57,4

**RD FEDER PT**

(Continued)

Spring for non-return valve

Identification	for series	Opening pressure bar	Size	Ø Da mm	Ø di mm	L1 mm
RD FEDER 09-2.0 PT	35L; 42L; 38S	2,0	9	26,1	20,5	64,8
RD FEDER 09-3.0 PT	35L; 42L; 38S	3,0	9	26,5	20,5	70,0
RD FEDER 09-5.0 PT	35L; 42L; 38S	5,0	9	27,1	20,5	66,1

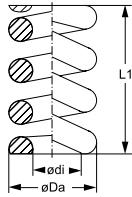
**Accessory for following products:**

- XHVM ED - Non-return valve, screw-in connection
- XHVR ED - Non-return valve, screw-in connection
- XHZM ED - Non-return valve, screw-in connection
- XHZR ED - Non-return valve, screw-in connection
- XRD - Non-return valve, connector

1

## RD FEDER

### Spring for non-return valve



**Design:**  
**Material:**  
**Surface:**

Spring for non-return valve  
Steel  
electro galvanised

**Note:** The RD springs vary depending on the supplier.

Identification	for series	Opening pressure bar	Ø Da mm	Ø di mm	L1 mm
RD FEDER 01-0.2	06L; 06S; 08S	0,2	4,6	3,7	9,5
RD FEDER 01-0.5	06L; 06S; 08S	0,5	4,9	3,8	9,3
RD FEDER 01-2.0	06L; 06S; 08S	2,0	5,3	3,8	9,1
RD FEDER 01-3.0	06L; 06S; 08S	3,0	5,3	3,8	9,4
RD FEDER 01-5.0	06L; 06S; 08S	5,0	5,7	3,9	10,5
RD FEDER 02-0.2	08L; 10S	0,2	6,5	5,4	14,8
RD FEDER 02-0.5	08L; 10S	0,5	6,7	6,5	14,5
RD FEDER 02-2.0	08L; 10S	2,0	7,2	5,5	14,5
RD FEDER 02-3.0	08L; 10S	3,0	7,3	5,4	14,3
RD FEDER 02-5.0	08L; 10S	5,0	7,4	5,4	20,2
RD FEDER 03-0.2	10L; 12S	0,2	7,5	6,1	19,5
RD FEDER 03-0.5	10L; 12S	0,5	7,8	6,3	19,1
RD FEDER 03-2.0	10L; 12S	2,0	8,3	6,3	18,7
RD FEDER 03-3.0	10L; 12S	3,0	8,6	6,2	19,2
RD FEDER 03-5.0	10L; 12S	5,0	10,0	6,5	37,5
RD FEDER 04-0.2	12L; 14S	0,2	9,7	8,0	22,7
RD FEDER 04-0.5	12L; 14S	0,5	9,9	8,0	22,6
RD FEDER 04-2.0	12L; 14S	2,0	10,5	8,0	23,0
RD FEDER 04-3.0	12L; 14S	3,0	11,0	8,0	22,8
RD FEDER 04-5.0	12L; 14S	5,0	11,1	8,0	25,4
RD FEDER 05-0.2	15L; 16S	0,2	10,8	8,9	23,9
RD FEDER 05-0.5	15L; 16S	0,5	11,4	8,9	24,2
RD FEDER 05-2.0	15L; 16S	2,0	12,3	8,9	23,6
RD FEDER 05-3.0	15L; 16S	3,0	12,7	9,0	24,1
RD FEDER 05-5.0	15L; 16S	5,0	12,6	8,9	28,3
RD FEDER 06-0.2	18L; 20S	0,2	14,4	11,9	28,4
RD FEDER 06-0.5	18L; 20S	0,5	15,0	11,9	28,5
RD FEDER 06-2.0	18L; 20S	2,0	16,2	12,0	28,0
RD FEDER 06-3.0	18L; 20S	3,0	16,6	12,0	28,0
RD FEDER 06-5.0	18L; 20S	5,0	17,4	12,0	28,5
RD FEDER 07-0.2	22L; 25S	0,2	16,7	14,0	37,0
RD FEDER 07-0.5	22L; 25S	0,5	17,5	14,0	37,0
RD FEDER 07-2.0	22L; 25S	2,0	18,9	14,0	37,0
RD FEDER 07-3.0	22L; 25S	3,0	19,1	14,0	36,6
RD FEDER 07-5.0	22L; 25S	5,0	18,6	14,0	50,0
RD FEDER 08-0.2	28L; 30S	0,2	21,3	17,8	43,5
RD FEDER 08-0.5	28L; 30S	0,5	22,1	17,7	45,2
RD FEDER 08-2.0	28L; 30S	2,0	23,3	17,7	45,5
RD FEDER 08-3.0	28L; 30S	3,0	26,6	18,0	61,0
RD FEDER 08-5.0	28L; 30S	5,0	25,0	18,0	47,0
RD FEDER 09-0.2	35L; 42L; 38S	0,2	22,1	19,0	56,7
RD FEDER 09-0.5	35L; 42L; 38S	0,5	23,5	18,9	55,2



**RD FEDER**

(Continued)

Spring for non-return valve

Identification	for series	Opening pressure bar	Ø Da mm	Ø di mm	L1 mm
RD FEDER 09-2.0	35L; 42L; 38S	2,0	24,6	18,7	56,5
RD FEDER 09-3.0	35L; 42L; 38S	3,0	26,6	19,3	49,0
RD FEDER 09-5.0	35L; 42L; 38S	5,0	33,5	19,0	53,2

**Accessory for following products:**

XHVM ED - Non-return valve, screw-in connection

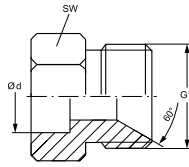
XHVR ED - Non-return valve, screw-in connection

XHZM ED - Non-return valve, screw-in connection

XHZR ED - Non-return valve, screw-in connection

XRD - Non-return valve, connector

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**LOET HB****Soldered socket AGR**

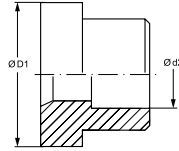
**Connection 1:** Soldered connection  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Soldered socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** oiled

Identification	Ø d mm	G1	L1 mm	SW mm
LOET 04 HB 08	8	G 1/4" -19	21,0	19
LOET 04 HB 12	12	G 1/4" -19	21,0	19
LOET 06 HB 14	14	G 3/8" -19	27,0	24
LOET 06 HB 16	16	G 3/8" -19	27,0	24
LOET 08 HB 14	14	G 1/2" -14	29,5	29
LOET 08 HB 16	16	G 1/2" -14	29,5	24
LOET 08 HB 18	18	G 1/2" -14	29,5	29
LOET 08 HB 20	20	G 1/2" -14	32,5	29
LOET 12 HB 20	20	G 3/4" -14	37,5	35
LOET 12 HB 25	25	G 3/4" -14	37,5	35
LOET 16 HB 25	25	G 1" -11	41,0	43
LOET 16 HB 30	30	G 1" -11	41,0	43

Ø d = External pipe diameter

**LOET DK AJF****Soldered socket DK AJF**

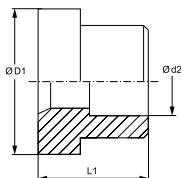
**Design:** Soldered socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** oiled



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Identification	Ø d2 mm	Ø D1 mm	L1 mm
LOET 04 DK 06 AJF	6	16,0	9,5
LOET 06 DK 08 AJF	8	16,0	9,5
LOET 06 DK 10 AJF	10	16,0	9,5
LOET 08 DK 12 AJF	12	19,0	9,5
LOET 10 DK 14 AJF	14	23,0	10,5
LOET 10 DK 15 AJF	15	23,0	10,5
LOET 10 DK 16 AJF	16	23,0	10,5
LOET 12 DK 18 AJF	18	28,0	14,0
LOET 12 DK 20 AJF	20	28,0	14,0
LOET 16 DK 22 AJF	22	34,0	15,5
LOET 16 DK 25 AJF	25	34,0	15,5
LOET 20 DK 28 AJF	28	41,0	15,5
LOET 20 DK 30 AJF	30	41,0	15,5
LOET 20 DK 32 AJF	32	41,0	15,5
LOET 24 DK 35 AJF	35	49,0	15,5
LOET 24 DK 38 AJF	38	49,0	15,5

Ø d2 = External pipe diameter

**LOET DKF****Soldered socket DKF**

**Design:**  
**Construction:** Soldered socket  
**Material:** straight  
**Surface:** Steel  
 oiled

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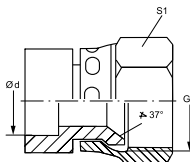
Identification	Ø d2 mm	Ø D1 mm	L1 mm
LOET 06 DKF 06	6	13,0	10,0
LOET 10 DKF 08	8	16,0	10,0
LOET 10 DKF 10	10	16,0	10,0
LOET 13 DKF 12	12	19,0	10,0
LOET 16 DKF 14	14	23,0	11,0
LOET 16 DKF 15	15	23,0	11,0
LOET 16 DKF 16	16	23,0	11,0
LOET 20 DKF 18	18	28,0	14,0
LOET 20 DKF 20	20	28,0	14,0
LOET 20 DKF 22	22	28,0	14,0
LOET 25 DKF 25	25	34,0	16,0
LOET 32 DKF 30	30	41,0	16,0
LOET 32 DKF 32	32	41,0	16,0
LOET 40 DKF 35	35	49,0	16,0
LOET 40 DKF 38	38	49,0	16,0

Ø d2 = External pipe diameter

## LOET AJ

## Soldered connection, AJ

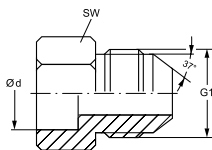
**Connection 1:** Soldered connection  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Soldered socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** oiled



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Identification	Ø d mm	G1	L1 mm	SW mm
LOET 04 AJ 06	6	7/16"-20 UNF	30,5	17
LOET 05 AJ 10	10	1/2"-20 UNF	32,0	19
LOET 06 AJ 10	10	9/16"-18 UNF	33,5	21
LOET 06 AJ 12	12	9/16"-18 UNF	33,5	21
LOET 08 AJ 12	12	3/4"-16 UNF	35,0	26
LOET 08 AJ 16	16	3/4"-16 UNF	35,0	26
LOET 08 AJ 18	18	3/4"-16 UNF	35,0	26
LOET 10 AJ 16	16	7/8"-14 UNF	38,0	30
LOET 10 AJ 18	18	7/8"-14 UNF	38,0	30
LOET 10 AJ 22	22	7/8"-14 UNF	44,0	30
LOET 12 AJ 18	18	1.1/16" -12 UN	45,5	37
LOET 12 AJ 20	20	1.1/16" -12 UN	45,5	37
LOET 12 AJ 25	25	1.1/16" -12 UN	45,5	37
LOET 16 AJ 25	25	1.5/16" -12 UN	50,0	45
LOET 16 AJ 27	27	1.5/16" -12 UN	50,0	45
LOET 16 AJ 32	32	1.5/16" -12 UN	50,0	45
LOET 20 AJ 32	32	1.5/8" -12 UN	53,5	55
LOET 20 AJ 38	38	1.5/8" -12 UN	53,5	55
LOET 24 AJ 38	38	1.7/8" -12 UN	60,0	62

Ø d = External pipe diameter

**LOET HJ****Soldered socket AGJ**

**Connection 1:** Soldered connection  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Soldered socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** oiled

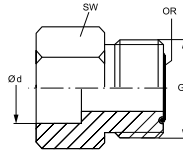
Identification	Ø d mm	G1	L1 mm	SW mm
LOET 04 HJ 06	6	7/16"-20 UNF	26,0	17
LOET 05 HJ 10	10	1/2"-20 UNF	26,0	19
LOET 06 HJ 10	10	9/16"-18 UNF	27,5	21
LOET 06 HJ 12	12	9/16"-18 UNF	27,5	21
LOET 08 HJ 12	12	3/4"-16 UNF	29,0	26
LOET 08 HJ 16	16	3/4"-16 UNF	29,0	26
LOET 08 HJ 18	18	3/4"-16 UNF	29,0	26
LOET 10 HJ 16	16	7/8"-14 UNF	31,5	30
LOET 10 HJ 18	18	7/8"-14 UNF	31,5	30
LOET 10 HJ 22	22	7/8"-14 UNF	36,5	30
LOET 12 HJ 18	18	1.1/16" -12 UN	40,0	37
LOET 12 HJ 20	20	1.1/16" -12 UN	40,0	37
LOET 12 HJ 25	25	1.1/16" -12 UN	40,0	37
LOET 16 HJ 25	25	1.5/16" -12 UN	42,0	45
LOET 16 HJ 27	27	1.5/16" -12 UN	42,0	45
LOET 16 HJ 32	32	1.5/16" -12 UN	42,5	45
LOET 20 HJ 32	32	1.5/8" -12 UN	45,0	55
LOET 20 HJ 38	38	1.5/8" -12 UN	43,5	50
LOET 24 HJ 38	38	1.7/8" -12 UN	45,5	50
LOET 50 HJ 32	32	2.1/2" -12 UN		

Ø d = External pipe diameter

## LOET HJOF

## Soldered socket ORFS

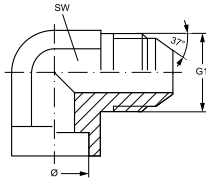
**Connection 1:** Soldered connection  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Soldered socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** oiled



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Identification	Ø d mm	G1	SW mm	OR
LOET 04 HJOF 06	6	9/16"-18 UNF	17	7.65 x 1.78
LOET 04 HJOF 08	8	9/16"-18 UNF	17	7.65 x 1.78
LOET 04 HJOF 10	10	9/16"-18 UNF	17	7.65 x 1.78
LOET 06 HJOF 06	6	11/16"-16 UN	19	9.25 x 1.78
LOET 06 HJOF 10	10	11/16"-16 UN	19	9.25 x 1.78
LOET 06 HJOF 12	12	11/16"-16 UN	19	9.25 x 1.78
LOET 08 HJOF 12	12	13/16"-16 UN	22	12.42 x 1.78
LOET 08 HJOF 14	14	13/16"-16 UN	22	12.42 x 1.78
LOET 08 HJOF 16	16	13/16"-16 UN	22	12.42 x 1.78
LOET 10 HJOF 10	10	1"-14 UNS	27	15.60 x 1.78
LOET 10 HJOF 16	16	1"-14 UNS	27	15.60 x 1.78
LOET 10 HJOF 18	18	1"-14 UNS	27	15.60 x 1.78
LOET 12 HJOF 18	18	1.3/16"-12 UN	32	18.77 x 1.78
LOET 12 HJOF 20	20	1.3/16"-12 UN	32	18.77 x 1.78
LOET 12 HJOF 22	22	1.3/16"-12 UN	32	18.77 x 1.78
LOET 12 HJOF 25	25	1.3/16"-12 UN	32	18.77 x 1.78
LOET 16 HJOF 16	16	1.7/16"-12 UN	41	23.52 x 1.78
LOET 16 HJOF 25	25	1.7/16"-12 UN	41	23.52 x 1.78
LOET 16 HJOF 28	28	1.7/16"-12 UN	41	23.52 x 1.78
LOET 16 HJOF 32	32	1.7/16"-12 UN	41	23.52 x 1.78
LOET 20 HJOF 32	32	1.11/16"-12 UN	46	29.87 x 1.78
LOET 20 HJOF 35	35	1.11/16"-12 UN	46	29.87 x 1.78
LOET 20 HJOF 38	38	1.11/16"-12 UN	46	29.87 x 1.78
LOET 24 HJOF 38	38	2"-12 UN	55	37.82 x 1.78
LOET 32 HJOF 30	30	2.1/2"-12 UN	75	48.90 x 2.62

Ø d = External pipe diameter

**W90 HJ LOET****Soldered socket, angle 90°**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Connection 2:** Push-on soldered connection  
**Design:** Soldered socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** oiled

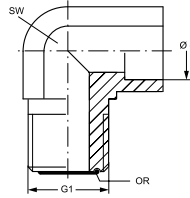
Identification	External pipe Ø mm	G1	SW mm
W90 HJ 04 LOET 06	6	7/16"-20 UNF	11
W90 HJ 05 LOET 10	10	1/2"-20 UNF	13
W90 HJ 06 LOET 10	10	9/16"-18 UNF	19
W90 HJ 06 LOET 12	12	9/16"-18 UNF	19
W90 HJ 08 LOET 12	12	3/4"-16 UNF	19
W90 HJ 08 LOET 16	16	3/4"-16 UNF	19
W90 HJ 10 LOET 14	14	7/8"-14 UNF	22
W90 HJ 10 LOET 16	16	7/8"-14 UNF	22
W90 HJ 10 LOET 18	18	7/8"-14 UNF	22
W90 HJ 10 LOET 22	22	7/8"-14 UNF	27
W90 HJ 12 LOET 18	18	1.1/16" -12 UN	27
W90 HJ 12 LOET 20	20	1.1/16" -12 UN	27
W90 HJ 12 LOET 25	25	1.1/16" -12 UN	33
W90 HJ 16 LOET 25	25	1.5/16" -12 UN	33
W90 HJ 16 LOET 32	32	1.1/16" -12 UN	45
W90 HJ 20 LOET 30	30	1.5/8" -12 UN	41
W90 HJ 20 LOET 32	32	1.5/8" -12 UN	41
W90 HJ 20 LOET 38	38	1.5/8" -12 UN	45
W90 HJ 24 LOET 38	38	1.7/8" -12 UN	48

Ø = External pipe diameter



**W90 HJOF LOET****Soldered socket, angle 90°**

**Connection 1:** ORFS external threads  
**Sealing form 1:** flat seal with O-ring  
**Connection 2:** Soldered socket  
**Design:** Soldered socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** oiled



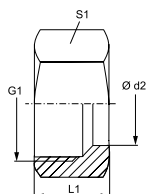
Identification	Ø d mm	G1	SW mm	OR
W90 HJOF 04 LOET 06	6	9/16"-18 UNF	14	7.65 x 1.78
W90 HJOF 06 LOET 10	10	11/16"-16 UN	19	9.25 x 1.78
W90 HJOF 08 LOET 12	12	13/16"-16 UN	19	12.42 x 1.78
W90 HJOF 10 LOET 16	16	1" -14 UNS	27	15.60 x 1.78
W90 HJOF 12 LOET 18	18	1.3/16" -12 UN	30	18.77 x 1.78
W90 HJOF 12 LOET 20	20	1.3/16" -12 UN	30	18.77 x 1.78
W90 HJOF 16 LOET 25	25	1.7/16" -12 UN	36	23.52 x 1.78

Ø = External pipe diameter

1

## UEM

### Union nut



**Connection 1:** metric nut thread  
**Design:** Union nut  
**Standard:** DIN 3870  
**Material:** Steel  
**Surface:** electro galvanised

1

Identification	Series	Ø d2 mm	G1	L1 mm	S1
UEM 04 LL	LL	4,0	M 8 x 1	11,5	10
UEM 05 LL	LL	5,0	M 10 x 1	12,0	12
UEM 06 LL	LL	6,0	M 10 x 1	12,0	12
UEM 08 LL	LL	8,0	M 12 x 1	12,5	14
UEM 10 LL	LL	10,0	M 14 x 1	13,5	17
UEM 12 LL	LL	12,0	M 16 x 1	13,5	19
UEM 16 LL	LL	16,0	M 22 x 1.5	17,5	27
UEM NW 04 L	L	6,0	M 12 x 1.5	15,0	14
UEM NW 06 L	L	8,0	M 14 x 1.5	15,0	17
UEM NW 08 L	L	10,0	M 16 x 1.5	16,0	19
UEM NW 10 L	L	12,0	M 18 x 1.5	16,0	22
UEM NW 13 L	L	15,0	M 22 x 1.5	17,5	27
UEM NW 16 L	L	18,0	M 26 x 1.5	18,5	32
UEM NW 16 L 27	L	18,0	M 27 x 2	18,0	32
UEM NW 20 L	L	22,0	M 30 x 2	20,5	36
UEM NW 25 L	L	28,0	M 36 x 2	21,5	41
UEM NW 32 L	L	35,3	M 45 x 2	24,5	50
UEM NW 40 L	L	42,0	M 52 x 2	24,5	60
UEM NW 03 S	S	6,0	M 14 x 1.5	17,0	17
UEM NW 04 S	S	8,0	M 16 x 1.5	17,0	19
UEM NW 06 S	S	10,0	M 18 x 1.5	18,0	22
UEM NW 08 S	S	12,0	M 20 x 1.5	18,0	24
UEM NW 10 S	S	14,0	M 22 x 1.5	21,0	27
UEM NW 13 S	S	16,0	M 24 x 1.5	21,0	30
UEM NW 16 S	S	20,0	M 30 x 2	24,5	36
UEM NW 20 S	S	25,0	M 36 x 2	27,5	46
UEM NW 25 S	S	30,0	M 42 x 2	29,5	50
UEM NW 32 S	S	38,0	M 52 x 2	33,0	60

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

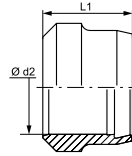
#### Product versions:

**UEM VA** - Union nut, VA, Stainless steel

**UEM MG** - Union nut MG, Brass

**SRD****Cutting ring**

**Design:** Cutting ring  
**Standard:** DIN 3861 shape B  
**Material:** Steel  
**Surface:** electro galvanised



1

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

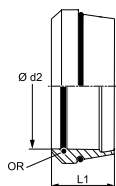
Identification	Series	$\varnothing d_2$ mm	L1 mm
SRD 04 LL	LL	4	6,0
SRD 05 LL	LL	5	7,0
SRD 06 LL	LL	6	7,0
SRD 08 LL	LL	8	7,0
SRD 10 LL	LL	10	7,0
SRD 12 LL	LL	12	7,5
SRD 16 LL	LL	16	9,0
SRD 06	L/S	6	9,5
SRD 08	L/S	8	9,5
SRD 10	L/S	10	10,0
SRD 12	L/S	12	10,0
SRD 14	S	14	10,0
SRD 15	L	15	10,0
SRD 16	S	16	10,5
SRD 18	L	18	10,0
SRD 20	S	20	12,5
SRD 22	L	22	10,5
SRD 25	S	25	12,5
SRD 28	L	28	10,5
SRD 30	S	30	13,0
SRD 35	L	35	13,0
SRD 38	S	38	13,5
SRD 42	L	42	13,0
SRD 65	L	65	21,2

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure  $\varnothing d_2$  = External pipe diameter

**Product versions:**

SRD MG - Cutting ring, Brass

SRD VA - Cutting ring, Stainless steel

**SRDO V****Cutting ring with O-ring**

**Design:**  
**Standard:**  
**Material:**  
**Surface:**

Cutting ring with O-ring  
 DIN 3861  
 Steel  
 electro galvanised

1

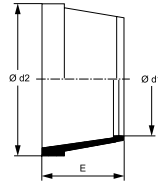
Identification	Series	Ø d2 mm	L1 mm	OR
SRDO 06 V	L/S	6	8,8	6 x 1
SRDO 08 V	L/S	8	8,8	8 x 1
SRDO 10 V	L/S	10	9,8	10 x 1
SRDO 12 V	L/S	12	9,8	12 x 1
SRDO 14 V	S	14	10,2	14 x 1
SRDO 15 V	L	15	10,2	15 x 1
SRDO 16 V	S	16	10,2	16 x 1
SRDO 18 V	L	18	10,2	18 x 1
SRDO 20 V	S	20	12,5	20 x 1
SRDO 22 V	L	22	11,5	22 x 1
SRDO 25 V	S	25	12,5	25 x 1
SRDO 28 V	L	28	11,5	28 x 1
SRDO 30 V	S	30	13,5	30 x 1
SRDO 35 V	L	35	13,5	35 x 1
SRDO 38 V	S	38	13,5	38 x 1
SRDO 42 V	L	42	13,5	42 x 1

Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

**SRWD-VI**

## Soft seal for cutting ring

**Design:** Soft seal for cutting ring  
**Material:** FPM (Viton)



1

**Note:** Permissible operating temperature (Viton): - 25 °C to + 200 °C.

Identification	Series	$\varnothing d1$ mm	$\varnothing d2$ mm	E mm
SRWD 06 VI	L/S	6	9,1	7,3
SRWD 08 VI	L/S	8	8,0	7,3
SRWD 10 VI	L/S	10	13,3	7,3
SRWD 12 VI	L/S	12	15,3	7,0
SRWD 14 VI	S	14	18,8	7,2
SRWD 15 VI	L	15	19,0	7,2
SRWD 16 VI	S	16	20,8	7,5
SRWD 18 VI	L	18	22,8	7,7
SRWD 20 VI	S	20	25,8	9,3
SRWD 22 VI	L	22	26,3	7,9
SRWD 25 VI	S	25	31,5	8,9
SRWD 28 VI	L	28	32,3	8,0
SRWD 30 VI	S	30	37,3	8,2
SRWD 35 VI	L	35	41,3	8,0
SRWD 38 VI	S	38	46,0	8,2
SRWD 42 VI	L	42	48,3	8,2

Series: LL = Very light L = Light S = Heavy  $\varnothing d1$  = External pipe diameter

**WD****Soft seal for ED fittings**

**Design:**  
**Standard:**  
**Material:**

Soft packing  
DIN EN ISO 9474-2, ISO 1179-2  
NBR

1

Identification	for thread	for thread	Ø Da mm	Ø di mm	S mm
WD 8-1	M 8 x 1	-	9,9	6,5	1,0
WD 10-1 R1/8	M 10 x 1	G 1/8"	11,9	8,4	1,0
WD 12-1.5	M 12 x 1.5	-	14,4	9,8	1,5
WD 14-1.5 R1/4	M 14 x 1.5	G 1/4"	16,5	11,6	1,5
WD 16-1.5	M 16 x 1.5	-	18,9	13,8	1,5
WD R3/8	-	G 3/8"	18,9	14,7	1,5
WD 18-1.5	M 18 x 1.5	-	20,9	15,7	1,5
WD 20-1.5	M 20 x 1.5	-	22,9	17,8	1,5
WD R1/2	-	G 1/2"	23,9	18,5	1,5
WD 22-1.5	M 22 x 1.5	-	24,3	19,6	1,5
WD 26-27-R3/4	M 26 x 1.5	G 3/4"	29,2	23,9	1,5
WD 33-2 R 1	M 33 x 2	G 1"	35,7	29,7	2,0
WD 42-2 R1 1/4	M 42 x 2	G 1.1/4"	45,8	38,8	2,0
WD 48-2 R1 1/2	M 48 x 2	G 1.1/2"	50,7	44,7	2,0
WD R2	-	G 2"	66,0	56,0	4,0

**Product versions:**

**WD V** - Soft seal for ED fittings, FPM (Viton)

**UEM FM L WR / UEM FM S WR****WALRING union nut**

**Connection 1:** metric nut thread  
**Design:** WALRING union nut  
**Included in scope of supply:** Union nut, cutting ring, soft seal  
**Material:** Steel  
**Surface:** electro galvanised



1

**Note:** Noticeable increase in force (end stop) during assembly. Assembly of the UEM WR must only be used with the VOM WR.

Identification	Series	Working pressure bar	Ø d2 mm	G1
UEM NW 04 FM L WR	L	PN 500	6	M 12 x 1.5
UEM NW 06 FM L WR	L	PN 500	8	M 14 x 1.5
UEM NW 08 FM L WR	L	PN 500	10	M 16 x 1.5
UEM NW 10 FM L WR	L	PN 400	12	M 18 x 1.5
UEM NW 13 FM L WR	L	PN 400	15	M 22 x 1.5
UEM NW 16 FM L WR	L	PN 400	18	M 26 x 1.5
UEM NW 20 FM L WR	L	PN 250	22	M 30 x 2
UEM NW 25 FM L WR	L	PN 250	28	M 36 x 2
UEM NW 32 FM L WR	L	PN 250	35	M 45 x 2
UEM NW 40 FM L WR	L	PN 250	42	M 52 x 2
UEM NW 03 FM S WR	S	PN 800	6	M 14 x 1.5
UEM NW 04 FM S WR	S	PN 800	8	M 16 x 1.5
UEM NW 06 FM S WR	S	PN 800	10	M 18 x 1.5
UEM NW 08 FM S WR	S	PN 630	12	M 20 x 1.5
UEM NW 13 FM S WR	S	PN 630	16	M 24 x 1.5
UEM NW 16 FM S WR	S	PN 420	20	M 30 x 2
UEM NW 20 FM S WR	S	PN 420	25	M 36 x 2
UEM NW 25 FM S WR	S	PN 420	30	M 42 x 2
UEM NW 32 FM S WR	S	PN 420	38	M 52 x 2

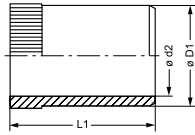
Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

**Additional info:** Economical and user-friendly due to simple replacement of the soft seal in the event of damage or repeated assembly.

Damage is avoided because the soft seal cannot be tightened until the pipe has been packaged or pre-assembled.

**Accessories:**

**VOM WR** - Pre-assembly sockets

**VSH****Reinforcing sleeve for pipes**

**Design:**  
**Material:**  
**Surface:**

Support bushes  
Steel  
electro galvanised

Identification	for internal pipe Ø mm	Ø D1 mm	Ø d2 mm	L1 mm
VSH 4 ID	4,0	3,8	2,6	15,5
VSH 04.5 ID	4,5	4,3	3,1	14,0
VSH 5 ID	5,0	4,8	3,6	14,0
VSH 6 ID	6,0	5,8	4,6	15,5
VSH 7 ID	7,0	6,8	5,6	17,0
VSH 8 ID	8,0	7,8	6,6	16,5
VSH 9 ID	9,0	8,8	7,6	16,5
VSH 10 ID	10,0	9,8	8,6	16,5
VSH 12 ID	12,0	11,8	10,2	17,0
VSH 13 ID	13,0	12,8	11,2	17,0
VSH 14 ID	14,0	13,8	12,2	17,0
VSH 15 ID	15,0	14,8	13,2	17,5
VSH 16 ID	16,0	15,8	14,2	17,5
VSH 17 ID	17,0	16,8	15,2	18,0
VSH 18 ID	18,0	17,8	16,2	22,0
VSH 19 ID	19,0	18,8	17,2	18,0
VSH 20 ID	20,0	19,8	18,2	18,0
VSH 21 ID	21,0	20,8	19,2	20,0
VSH 22 ID	22,0	21,8	20,2	23,5
VSH 24 ID	24,0	23,8	22,2	18,0
VSH 25 ID	25,0	24,8	23,2	18,0
VSH 26 ID	26,0	25,8	24,2	21,0
VSH 27 ID	27,0	26,8	25,2	21,0
VSH 30 ID	30,0	29,8	27,2	21,0
VSH 31 ID	31,0	30,8	28,8	22,5
VSH 32 ID	32,0	31,8	29,2	22,5
VSH 33 ID	33,0	32,8	30,2	22,5
VSH 38 ID	38,0	37,8	35,8	23,5

**Product versions:**

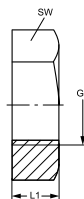
**VSH MG** - Reinforcing sleeve for pipes, Brass

**VSH VA** - Reinforcing sleeve for pipes, Stainless steel



**KM****Counter nut for bulkhead fitting**

**Design:** Counter nut for bulkhead fittings  
**Standard:** ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised



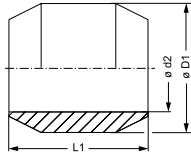
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Identification	G1	L1 mm	SW mm
KM 12	M 12 x 1.5	6	17
KM 14	M 14 x 1.5	6	19
KM 16	M 16 x 1.5	6	22
KM 18	M 18 x 1.5	6	24
KM 20	M 20 x 1.5	6	27
KM 22	M 22 x 1.5	7	30
KM 24	M 24 x 1.5	7	32
KM 26	M 26 x 1.5	8	36
KM 30	M 30 x 2	9	41
KM 36 - 1.5	M 36 x 1.5	9	46
KM 36	M 36 x 2	9	46
KM 42	M 42 x 2	9	50
KM 45	M 45 x 2	9	55
KM 52	M 52 x 2	10	65

**Product versions:**

**KM MG** - Counter nut for bulkhead fitting, Brass

**KM VA** - Counter nut for bulkhead fitting, Stainless steel

**SRDK****Double conical ring**

**Design:** Double conical ring  
**Standard:** DIN 3862  
**Application:** For union nuts A DIN 3870 and union screws DIN 3871  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** For union nuts A DIN 3870 and union screws DIN 3871.

Identification	Ø D1 mm	Ø d2 mm	L1 mm
SRDK 06	8	6	6,5
SRDK 08	10	8	6,5
SRDK 10	12	10	7,5
SRDK 12	14	12	8,0
SRDK 18	20	18	9,0

Ø d2 = External pipe diameter

**Product versions:**

SRDK MG - Double conical ring, Brass

**MONTAGESPRAY****Fitting spray**

- Properties:** Good sealing/blocking properties against liquid media, Reduces friction and slip stick, Prevents corrosion, including fretting corrosion, oxidation, wear, Prevents wear, Prevents seizing, cold fusing
- Temp. range:** -40°C to +1400°C
- Description:** Applications include fittings and parts with extreme dynamic loads and slowly rotating systems in the high temperature range.



1

Identification	Content mL
MONTAGE SPRAY 400	400

**Additional info:** This metal-free \* product the special properties are ensured by the special additives and ceramic solid lubricants in the smallest particle size. Especially in high-alloy steels and in the use of different metals, the exceptionally good release effect of fitting spray 400 shows white. The product is characterized by a pressure capacity (<230 N / mm<sup>2</sup>). Assembly Spray 400 white is resistant to freshwater, sea and hot water, steam, alkaline and weakly acidic media, and strong adhesion and water repellent. In addition, the product is free of sulfur-containing additives and halogens. If optical reasons, the use of metal-containing products is undesirable, as well as nickel-containing products for health reasons and copper-containing electrochemical reasons may not be used, then fitting spray is 400 knows particularly well suited.  
\* up to max. 0.1% of the shares

## MONTAGEPASTE

### Fitting lubricant



**Properties:** Prevents corrosion, including fretting corrosion, oxidation, wear, Prevents seizing, cold fusing, Good sealing/blocking properties against liquid media, Reduces friction and slip stick

**Temp. range:** -40°C to +1400°C

**Description:** Assembly Paste 450 WHITE is a high performance paste that protects against corrosion. Applications include fittings and parts with extreme dynamic loads and slowly rotating systems in the high temperature range.

Identification	Content mL
MONTAGEPASTE 450	450

**Additional info:** Assembly Paste 450 WHITE demonstrates its exceptionally good separating effect particularly with high-alloy steels and when using different metals. The product is characterised by a high pressure absorption (<230N/mm<sup>2</sup>). Assembly Paste 450 WHITE is resistant to fresh water, seawater and hot water, water vapour, alkaline and weakly acidic media as well as being strongly adhesive and water-repellent. The product is also free of sulphur-containing additives and halogens. If, for optical reasons, the use of metallic products is undesirable and nickel-based products cannot be used for health reasons and copper-based products cannot be used for electrochemical reasons, the Assembly Paste 450 WHITE is particularly suitable.

**AN 305****Sealant****Temp. range:**

-60°C to +150°C

**Description:**

AN 305-42 is an adhesive and sealant for hydraulic and pneumatic seals. Gap up to max. 0.15 mm AN 305-72 is an adhesive and sealant for pipe and thread seals. Gap up to max. 0.40 mm



1

**Identification**

AN 305-42

AN 305-72

**TF BAND****PTFE sealing tape****Standard:**

DIN EN 751-3

**Description:**

DVGW tested PTFE thread sealing tape for fine and coarse threads.

1

Identification	Width mm	Strength mm	Length m
TF BAND	12	0,10	12,00

**CORROSCHUTZ**

## Corrosion protection

**Temp. range:** -20°C to +50°C**Description:** Corrosion protection is built up based on synthetic wax and special additives. It therefore provides temporary corrosion protection and preserves uncoated bare metal parts.

1

Identification	Content mL
CORROSCHUTZSPRAY	500

**Additional info:** It adheres to all metallic surfaces and leaves an elastic, non-slip protective film that is free from silicone or silicone-based products. In the temperature range from -20°C to +50°C, the coating is resistant to e.g. salt water (240 h salt spray test to DIN 50021).

As corrosion inhibitor, e.g.: For indoor storage of workpieces (e.g. injection moulds), of tools and precision parts, of shut-down machines and wherever oil or grease-based coatings are undesirable.

## ENTFETTER

### Degreaser spray



**Description:** Quickly, cleanly and reliably clears all types of hydraulic components of oils, greases and lubricants.

1

Identification	Content mL
ENTFETTERSPRAY	500

**Additional info:** Applications include rotary and pipe fittings, adapters and couplings, hydraulic pipes and high pressure flanges. Degreaser spray evaporates residue-free and leaves no residues on the treated workpieces.



**FORMENTRENN****Mould release**

**Temp. range:** to + 130°C  
**Description:** Silicone-free separating agent with outstanding anti-friction properties.



1

Identification	Content mL
FORMENTRENNSPRAY	500

**Additional info:** The high-grade combination of active substances comprises pure natural products and prevents adhesion to plastics, forms, metals and tools in the temperature range to +130°C. Free from PCBs, CFCs and formaldehyde. The ejected workpieces can then normally be painted, printed or bonded. Application areas include plastic processing, extrusion, pressing and vacuum forming.

**MULTISPRAY****Multi spray**

**Temp. range:** -50°C to +210°C  
**Description:** Multi-function Spray 44 in all industrial and workshop situations. Thanks to its special active formula and excellent creepage properties, corrosion protection, cleaning, water repellence, lubrication and preservation are combined in one product.

1

Identification	Content mL
MULTISPRAY 44	400

**Additional info:** Multi-function Spray 44 resists weathering and therefore has practically unlimited use in the areas of workshop, automotive, shipping, electrical engineering and agriculture, in the house and for hobbies. Applications: Frees seized screw connections, bolts, fittings and valves, penetrates and dissolves results, dispels moisture from electrical contacts, prevents leak currents and simplifies the starting of damp engines. Eliminates squeaks and creaks at hinges, guides, bearings and all types of joints and couplings. Cleans soiled metal surfaces and leaves a long-lasting ultra-thin film that does not stick or smear and does not attract dust, protects and cares for all tools, machines, electrical devices and mechanical precision equipment (such as measuring tools, locks and weapons) and keeps them functional.

**REINIGER**

## Cleaning spray

**Description:** For repairs and fitting. Degreases all metals, glass, ceramic and most plastics.



1

Identification	Content mL
REINIGER 706	500

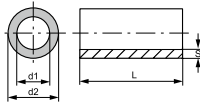
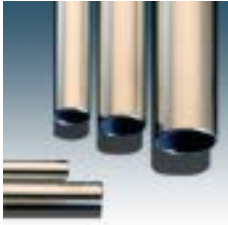
**Additional info:** Thermoplastics such as PVC, PMMA (Plexiglas), polystyrene etc., as well single paint coating can be dissolved. Unlike conventional thinners, spray cleaner evaporates to leave no residues. The special valve also allows operatives to work above head height. Applications: Brakes (drum/disc brakes, linings, blocks, cylinders, springs and sleeves), clutches (clutch linings/parts), engine parts (carburettor, petrol/oil pumps, transmission, etc.), use on products where a greasy underlay would impair the desired effect



## Pipes

**Hydraulic**

Hydraulic pipes	312
Hydraulic pipe bends	325

**PR VZ (M)****Metric precision steel pipe, EN 10305-4, E235+M**

**Design:** Precision steel pipe, metric  
**Standard:** DIN EN 10305-4  
**Material:** Steel ST 37.4 NBK (1.0255)  
**Surface:** electro galvanised  
**Pipe length:** 6 metres

**Note:** The pressure figures are based on straight pipes. The appropriate wall thickness needs to be calculated for pipes with bends as stipulated in DIN EN 13480-4.

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 04-1 VZ	4,0	0,08	2,0	0,15	1,00	602	484
PR 05-0.75 VZ	5,0	0,08	2,5	0,15	0,75	325	282
PR 05-1 VZ	5,0	0,08	3,0	0,15	1,00	482	400
PR 06-0.75 VZ	6,0	0,08	4,5	0,15	0,75	286	251
PR 06-1 VZ	6,0	0,08	4,0	0,12	1,00	416	352
PR 06-1.5 VZ	6,0	0,08	3,0	0,15	1,50	663	524
PR 06-2 VZ	6,0	0,08	2,0	0,15	2,00	924	683
PR 08-1 VZ	8,0	0,08	6,0	0,10	1,00	320	278
PR 08-1.5 VZ	8,0	0,08	5,0	0,10	1,50	516	424
PR 08-2 VZ	8,0	0,08	4,0	0,15	2,00	693	543
PR 10-1 VZ	10,0	0,08	8,0	0,08	1,00	263	232
PR 10-1.5 VZ	10,0	0,08	7,0	0,12	1,50	407	345
PR 10-2 VZ	10,0	0,08	6,0	0,15	2,00	554	451
PR 10-2.5 VZ	10,0	0,08	5,0	0,15	2,50	711	555
PR 12-1 VZ	12,0	0,08	10,0	0,08	1,00	219	196
PR 12-1.5 VZ	12,0	0,08	9,0	0,10	1,50	344	297
PR 12-2 VZ	12,0	0,08	8,0	0,12	2,00	469	391
PR 12-2.5 VZ	12,0	0,08	7,0	0,15	2,50	592	477
PR 14-1.5 VZ	14,0	0,08	11,0	0,08	1,50	299	262
PR 14-2 VZ	14,0	0,08	10,0	0,10	2,00	407	345
PR 14-2.5 VZ	14,0	0,08	9,0	0,12	2,50	514	423
PR 15-1 VZ	15,0	0,08	13,0	0,08	1,00	175	159
PR 15-1.5 VZ	15,0	0,08	12,0	0,08	1,50	279	246
PR 15-2 VZ	15,0	0,08	11,0	0,10	2,00	380	324
PR 15-2.5 VZ	15,0	0,08	10,0	0,08	2,50	480	398
PR 16-1.5 VZ	16,0	0,08	13,0	0,08	1,50	262	231
PR 16-2 VZ	16,0	0,08	12,0	0,15	2,00	346	298
PR 16-2.5 VZ	16,0	0,08	11,0	0,12	2,50	450	377
PR 18-1 VZ	18,0	0,08	16,0	0,08	1,00	146	133
PR 18-1.5 VZ	18,0	0,08	15,0	0,08	1,50	233	207
PR 18-2 VZ	18,0	0,08	14,0	0,08	2,00	320	278
PR 18-2.5 VZ	18,0	0,08	13,0	0,15	2,50	395	335
PR 20-1.5 VZ	20,0	0,08	17,0	0,08	1,50	209	188
PR 20-2 VZ	20,0	0,08	16,0	0,08	2,00	288	252
PR 20-2.5 VZ	20,0	0,08	15,0	0,15	2,50	355	305
PR 20-3 VZ	20,0	0,08	14,0	0,15	3,00	433	364
PR 20-3.5 VZ	20,0	0,08	13,0	0,15	3,50	512	421
PR 22-1.5 VZ	22,0	0,08	19,0	0,08	1,50	190	172
PR 22-2 VZ	22,0	0,08	18,0	0,08	2,00	262	231
PR 22-2.5 VZ	22,0	0,08	17,0	0,08	2,50	333	288
PR 25-1.5 VZ	25,0	0,08	22,0	0,08	1,50	167	152
PR 25-2 VZ	25,0	0,08	21,0	0,08	2,00	230	205

## PR VZ (M)

(Continued)

## Metric precision steel pipe, EN 10305-4, E235+N

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 25-2.5 VZ	25,0	0,08	20,0	0,08	2,50	293	256
PR 25-3 VZ	25,0	0,08	19,0	0,15	3,00	347	299
PR 25-3.5 VZ	25,0		18,0		3,50		
PR 25-4 VZ	25,0	0,08	17,0	0,15	4,00	472	393
PR 28-1.5 VZ	28,0	0,08	25,0	0,08	1,50	149	136
PR 28-2 VZ	28,0	0,08	24,0	0,08	2,00	205	184
PR 28-2.5 VZ	28,0	0,08	23,0	0,08	2,50	261	231
PR 28-3 VZ	28,0	0,08	22,0	0,15	3,00	309	270
PR 30-2.5 VZ	30,0	0,08	25,0	0,08	2,50	244	217
PR 30-3 VZ	30,0	0,08	24,0	0,15	3,00	289	253
PR 30-4 VZ	30,0	0,08	22,0	0,15	4,00	393	334
PR 30-5 VZ	30,0	0,08	20,0	0,15	5,00	498	411
PR 35-1.5 VZ	35,0	0,08	32,0	0,08	1,50	119	110
PR 35-2 VZ	35,0	0,15	31,0	0,15	2,00	152	138
PR 35-3 VZ	35,0	0,15	29,0	0,15	3,00	241	214
PR 35-4 VZ	35,0	0,15	27,0	0,15	4,00	331	286
PR 38-2 VZ	38,0	0,15	34,0	0,15	2,00	140	128
PR 38-2.5 VZ	38,0	0,15	33,0	0,15	2,50	181	163
PR 38-3 VZ	38,0	0,15	32,0	0,15	3,00	222	198
PR 38-4 VZ	38,0	0,15	30,0	0,15	4,00	305	266
PR 38-5 VZ	38,0	0,15	28,0	0,15	5,00	387	330
PR 38-6 VZ	38,0	0,15	26,0	0,15	6,00	469	391
PR 42-2 VZ	42,0	0,20	38,0	0,20	2,00	119	109
PR 42-3 VZ	42,0	0,20	36,0	0,20	3,00	193	174

**Additional info:**

Calculation as in DIN 2413 (draft)

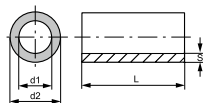
Specific load I: static (up to 100 °C)

Specific load III: dynamic (up to 200 °C) stress range = P bar Strength parameter: K 235 [N/mm<sup>2</sup>]

Safety coefficient: S 1.5

Fatigue strength:  $\sigma_{Sch}/D$  225 [N/mm<sup>2</sup>]

Tolerance: DIN 10305-4

**PR (M)****Metric precision steel pipe, EN 10305-4, E235+N**

**Design:** Precision steel pipe, metric  
**Standard:** DIN EN 10305-4  
**Material:** Steel ST 37.4 NBK (1.0255)  
**Surface:** phosphate treated and oiled  
**Pipe length:** 6 metres

**Note:** The pressure figures are based on straight pipes. The appropriate wall thickness needs to be calculated for pipes with bends as stipulated in DIN EN 13480-4.

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 04-0.5	4,0	0,08	3,0	0,15	0,50	210	189
PR 04-0.75	4,0	0,08	2,5	0,15	0,75	405	345
PR 04-1	4,0	0,08	2,0	0,15	1,00	602	484
PR 05-0.75	5,0	0,08	3,5	0,15	0,75	325	282
PR 05-1	5,0	0,08	3,0	0,15	1,00	482	400
PR 06-0.75	6,0	0,08	4,5	0,12	0,75	286	251
PR 06-1	6,0	0,08	4,0	0,12	1,00	416	352
PR 06-1.5	6,0	0,08	3,0	0,15	1,50	663	524
PR 06-2	6,0	0,08	2,0	0,15	2,00	924	683
PR 06-2.25	6,0	0,08	1,5	0,15	2,25	1053	755
PR 08-1	8,0	0,08	6,0	0,10	1,00	320	278
PR 08-1.5	8,0	0,08	5,0	0,10	1,50	516	424
PR 08-2	8,0	0,08	4,0	0,15	2,00	693	543
PR 08-2.5	8,0	0,08	3,0	0,15	2,50	888	663
PR 10-1	10,0	0,08	8,0	0,08	1,00	263	232
PR 10-1.5	10,0	0,08	7,0	0,12	1,50	407	345
PR 10-2	10,0	0,08	6,0	0,15	2,00	554	451
PR 10-2.5	10,0	0,08	5,0	0,15	2,50	711	555
PR 10-3	10,0	0,08	4,0	0,15	3,00	867	650
PR 10-4	10,0	0,08	2,0	0,15	4,00	1178	820
PR 12-1	12,0	0,08	10,0	0,08	1,00	219	196
PR 12-1.5	12,0	0,08	9,0	0,10	1,50	344	297
PR 12-2	12,0	0,08	8,0	0,12	2,00	469	391
PR 12-2.5	12,0	0,08	7,0	0,15	2,50	592	477
PR 12-3	12,0	0,08	6,0	0,15	3,00	723	562
PR 12-4	12,0	0,08	4,0	0,15	4,00	984	717
PR 14-1	14,0	0,08	12,0	0,08	1,00	187	169
PR 14-1.5	14,0	0,08	11,0	0,08	1,50	299	262
PR 14-2	14,0	0,08	10,0	0,10	2,00	407	345
PR 14-2.5	14,0	0,08	9,0	0,12	2,50	514	423
PR 14-3	14,0	0,08	8,0	0,15	3,00	619	495
PR 14-3.5	14,0	0,08	7,0	0,15	3,50	731	568
PR 15-1	15,0	0,08	13,0	0,08	1,00	175	159
PR 15-1.5	15,0	0,08	12,0	0,08	1,50	279	246
PR 15-2	15,0	0,08	11,0	0,10	2,00	380	324
PR 15-2.5	15,0	0,08	10,0	0,12	2,50	480	398
PR 15-3	15,0	0,08	9,0	0,15	3,00	578	467
PR 16-1	16,0	0,08	14,0	0,08	1,00	164	149
PR 16-1.5	16,0	0,08	13,0	0,08	1,50	262	231
PR 16-2	16,0	0,08	12,0	0,15	2,00	346	298
PR 16-2.5	16,0	0,08	11,0	0,12	2,50	450	377
PR 16-3	16,0	0,08	10,0	0,15	3,00	542	442



## PR (M)

(Continued)

## Metric precision steel pipe, EN 10305-4, E235+N

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 16-4	16,0	0,08	8,0	0,15	4,00	738	572
PR 17-2	17,0	0,08	13,0	0,15	2,00	325	281
PR 18-1	18,0	0,08	16,0	0,08	1,00	146	133
PR 18-1.5	18,0	0,08	15,0	0,08	1,50	233	207
PR 18-2	18,0	0,08	14,0	0,08	2,00	320	278
PR 18-2.5	18,0	0,08	13,0	0,15	2,50	395	335
PR 18-3	18,0	0,08	12,0	0,15	3,00	482	400
PR 20-1.5	20,0	0,08	17,0	0,08	1,50	209	188
PR 20-2	20,0	0,08	16,0	0,08	2,00	288	252
PR 20-2.5	20,0	0,08	15,0	0,15	2,50	355	305
PR 20-3	20,0	0,08	14,0	0,15	3,00	433	364
PR 20-3.5	20,0	0,08	13,0	0,15	3,50	512	421
PR 20-4	20,0	0,08	12,0	0,15	4,00	590	475
PR 22-1	22,0	0,08	20,0	0,08	1,00	119	109
PR 22-1.5	22,0	0,08	19,0	0,08	1,50	190	172
PR 22-2	22,0	0,08	18,0	0,08	2,00	262	231
PR 22-2.5	22,0	0,08	17,0	0,08	2,50	333	288
PR 22-3	22,0	0,08	16,0	0,15	3,00	394	335
PR 25-1	25,0	0,08	23,0	0,08	1,00	105	97
PR 25-1.5	25,0	0,08	20,0	0,08	1,50	167	152
PR 25-2	25,0	0,08	21,0	0,08	2,00	230	205
PR 25-2.5	25,0	0,08	20,0	0,08	2,50	293	256
PR 25-3	25,0	0,08	19,0	0,15	3,00	347	299
PR 25-3.5	25,0	0,08	18,0	0,15	3,50	409	347
PR 25-4	25,0	0,08	17,0	0,15	4,00	472	393
PR 25-4.5	25,0	0,08	16,0	0,15	4,50	535	437
PR 25-5	25,0	0,08	15,0	0,15	5,00	597	480
PR 28-1	28,0	0,08	26,0	0,08	1,00	93	87
PR 28-1.5	28,0	0,08	25,0	0,08	1,50	149	136
PR 28-2	28,0	0,08	24,0	0,08	2,00	205	184
PR 28-2.5	28,0	0,08	23,0	0,08	2,50	261	231
PR 28-3	28,0	0,08	20,0	0,15	3,00	309	270
PR 28-4	28,0	0,08	20,0	0,15	4,00	421	355
PR 28-4.5	28,0	0,08	19,0	0,15	4,50	477	396
PR 28-5	28,0	0,08	18,0	0,15	5,00	533	436
PR 30-1.5	30,0	0,08	27,0	0,08	1,50	139	128
PR 30-2	30,0	0,08	26,0	0,08	2,00	192	173
PR 30-2.5	30,0	0,08	25,0	0,08	2,50	244	217
PR 30-3	30,0	0,08	24,0	0,15	3,00	289	253
PR 30-4	30,0	0,08	20,0	0,15	4,00	393	334
PR 30-5	30,0	0,08	20,0	0,15	5,00	498	411
PR 30-6	30,0	0,15	18,0	0,15	6,00	595	478
PR 32-1.5	32,0	0,08	29,0	0,08	1,50	131	120
PR 32-2.5	32,0		27,0		2,50		
PR 32-4	32,0		24,0		4,00		
PR 35-2	35,0	0,15	31,0	0,15	2,00	152	138
PR 35-2.5	35,0	0,15	30,0	0,15	2,50	196	177
PR 35-3	35,0	0,15	29,0	0,15	3,00	241	214
PR 35-4	35,0	0,15	27,0	0,15	4,00	331	286
PR 35-5	35,0	0,15	25,0	0,15	5,00	420	355
PR 35-6	35,0	0,15	23,0	0,15	6,00	510	420
PR 38-2.5	38,0	0,15	33,0	0,15	2,50	181	163
PR 38-3	38,0	0,15	32,0	0,15	3,00	222	198
PR 38-4	38,0	0,15	30,0	0,15	4,00	305	266
PR 38-5	38,0	0,15	28,0	0,15	5,00	387	330
PR 38-6	38,0	0,15	26,0	0,15	6,00	469	391
PR 38-7	38,0	0,15	24,0	0,15	7,00	552	449
PR 42-2	42,0	0,20	38,0	0,20	2,00	119	109
PR 42-3	42,0	0,20	36,0	0,20	3,00	193	174
PR 42-4	42,0	0,20	34,0	0,20	4,00	268	236
PR 42-5	42,0	0,20	32,0	0,20	5,00	343	296

2

**PR (M)****Metric precision steel pipe, EN 10305-4, E235+N****(Continued)**

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 45-5	45,0	0,20	35,0	0,20	5,00	320	278
PR 50-4	50,0	0,20	42,0	0,20	4,00	225	201
PR 50-5	50,0	0,20	40,0	0,20	5,00	288	252
PR 50-6	50,0	0,20	38,0	0,20	6,00	350	302
PR 60-3	60,0	0,25	54,0	0,25	3,00	130	119
PR 60-4	60,0	0,25	52,0	0,25	4,00	182	165
PR 60-10	60,0	0,25	40,0	0,25	10,00	496	410
PR 65-8	65,0	0,30	49,0	0,30	8,00	356	306
PR 80-10	80,0	0,35	60,0	0,35	10,00	364	312

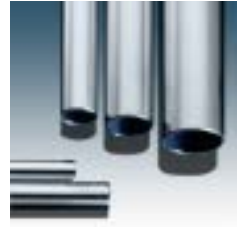
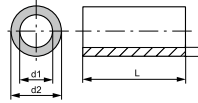
**Additional info:** Calculation as in DIN 2413 (draft)  
 Specific load I: static (up to 100 °C)  
 Specific load III: dynamic (up to 200 °C) stress range = P bar Strength parameter: K 235 [N/mm<sup>2</sup>]  
 Safety coefficient: S 1.5  
 Fatigue strength:  $\sigma_{Sch/D}$  225 [N/mm<sup>2</sup>]  
 Tolerance: DIN 10305-4

2

## PR V1 (M)

## Metric precision steel pipe, 1.4301

**Design:** Precision steel pipe, metric  
**Material:** Stainless steel 1.4301  
**Pipe length:** 6 metres



**Note:** The pressure figures are based on straight pipes. The appropriate wall thickness needs to be calculated for pipes with bends as stipulated in DIN EN 13480-4.

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 04-1 V1	4,0	0,08	2,0	0,15	1,00	558	376
PR 05-1 V1	5,0	0,08	3,0	0,15	1,00	447	311
PR 06-1 V1	6,0	0,08	4,0	0,15	1,00	372	265
PR 06-1.5 V1	6,0	0,08	3,0	0,15	1,50	610	405
PR 08-1 V1	8,0	0,08	6,0	0,15	1,00	279	204
PR 08-1.5 V1	8,0	0,08	5,0	0,15	1,50	460	319
PR 10-1 V1	10,0	0,08	8,0	0,15	1,00	223	166
PR 10-1.5 V1	10,0	0,08	7,0	0,15	1,50	369	262
PR 12-1 V1	12,0	0,08	10,0	0,15	1,00	186	140
PR 12-1.5 V1	12,0	0,08	9,0	0,15	1,50	307	223
PR 12-2 V1	12,0	0,08	8,0	0,15	2,00	428	299
PR 12-3 V1	12,0	0,08	6,0	0,15	3,00	670	436
PR 14-2 V1	14,0	0,08	10,0	0,15	2,00	367	261
PR 14-3 V1	14,0	0,08	8,0	0,15	3,00	575	395
PR 15-1.5 V1	15,0	0,08	12,0	0,15	1,50	246	182
PR 16-1 V1	16,0	0,08	14,0	0,08	1,00	152	115
PR 16-2 V1	16,0	0,08	12,0	0,15	2,00	321	232
PR 18-1 V1	18,0	0,08	16,0	0,08	1,00	135	104
PR 18-1.5 V1	18,0	0,08	15,0	0,08	1,50	216	161
PR 18-2 V1	18,0	0,08	14,0	0,08	2,00	297	216
PR 22-1 V1	22,0	0,08	20,0	0,08	1,00	110	85
PR 20-2 V1	20,0	0,08	16,0	0,15	2,00	257	189
PR 22-1.5 V1	22,0	0,08	19,0	0,08	1,50	176	133
PR 22-2 V1	22,0	0,08	18,0	0,15	2,00	233	173
PR 24-2 V1	24,0	0,08	20,0	0,15	2,00	214	160
PR 25-5 V1	25,0	0,08	15,0	0,15	5,00	554	373
PR 28-1 V1	28,0	0,08	26,0	0,08	1,00	87	67
PR 28-2 V1	28,0	0,08	24,0	0,08	2,00	191	143
PR 28-3 V1	28,0	0,08	22,0	0,15	3,00	287	210
PR 28-4 V1	28,0	0,15	20,0	0,15	4,00	384	272
PR 30-2 V1	30,0	0,08	26,0	0,08	2,00	178	134
PR 30-3 V1	30,0	0,08	24,0	0,08	3,00	275	201
PR 30-4 V1	30,0	0,15	22,0	0,15	4,00	358	256
PR 30-5 V1	30,0	0,15	20,0	0,20	5,00	450	313
PR 40-4 V1	40,0	0,15	32,0	0,20	4,00	265	195
PR 40-5 V1	40,0	0,15	30,0	0,20	5,00	337	243
PR 50-1.5 V1	50,0	0,20	47,0	0,20	1,50	63	50
PR 50-2 V1	50,0	0,20	46,0	0,20	2,00	93	72
PR 57-2 V1	57,0	0,25	53,0	0,25	2,00	76	59
PR 64-2 V1	64,0	0,25	60,0	0,25	2,00	68	53

**PR V1 (M)****Metric precision steel pipe, 1.4301****(Continued)**

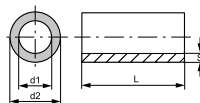
Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 70-2 V1	70,0	0,25	66,0	0,25	2,00	62	48

**Additional info:** Calculation as in DIN 2413 (draft)  
 Specific load I: static (up to 100 °C)  
 Specific load III: dynamic (up to 200 °C) stress range = P bar Strength parameter: K 218 [N/mm<sup>2</sup>]  
 Safety coefficient: S 1.5  
 Fatigue strength:  $\sigma_{Sch/D 175}$  [N/mm<sup>2</sup>]  
 Tolerance: DIN 10305-4  
 Elastic strength to DIN 10216-5 Rp 1.0 to 50°C The fatigue strength value was reduced in relation to the strength parameter by 1.4571.

## PR V2 (M)

## Metric precision steel pipe, 1.4541

**Design:** Precision steel pipe, metric  
**Material:** Stainless steel 1.4541  
**Pipe length:** 6 metres



**Note:** The pressure figures are based on straight pipes. The appropriate wall thickness needs to be calculated for pipes with bends as stipulated in DIN EN 13480-4.

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	S mm	ID tolerance +/- mm	Specific load I bar	Specific load III bar
PR 06-1 V2	6,0		4,0	1,00			
PR 04-1 V2	4,0	0,08	2,0	1,00	0,15	567	387
PR 06-1 V2	6,0	0,08	4,0	1,00	0,15	379	272
PR 08-1 V2	8,0	0,08	6,0	1,00	0,15	284	210
PR 08-1.5 V2	8,0	0,08	5,0	1,50	0,15	469	328
PR 10-1 V2	10,0	0,08	8,0	1,00	0,15	227	171
PR 10-1.5 V2	10,0	0,08	7,0	1,50	0,15	375	270
PR 10-2 V2	10,0	0,08	6,0	2,00	0,15	523	360
PR 12-1 V2	12,0	0,08	10,0	1,00	0,15	189	144
PR 12-1.5 V2	12,0	0,08	9,0	1,50	0,15	313	229
PR 12-2 V2	12,0	0,08	8,0	2,00	0,15	436	308
PR 14-1 V2	14,0	0,08	12,0	1,00	0,15	162	125
PR 14-2 V2	14,0	0,08	10,0	2,00	0,15	374	269
PR 14-2.5 V2	14,0	0,08	9,0	2,50	0,15	478	334
PR 15-1 V2	15,0	0,08	13,0	1,00	0,08	165	127
PR 15-1.5 V2	15,0	0,08	12,0	1,50	0,15	250	187
PR 15-2 V2	15,0	0,08	11,0	2,00	0,15	349	253
PR 16-1 V2	16,0	0,08	14,0	1,00	0,15	155	119
PR 16-1.5 V2	16,0	0,08	13,0	1,50	0,15	234	176
PR 16-2 V2	16,0	0,08	12,0	2,00	0,15	327	239
PR 18-1 V2	18,0	0,08	16,0	1,00	0,08	138	107
PR 18-1.5 V2	18,0	0,08	15,0	1,50	0,08	220	166
PR 18-2 V2	18,0	0,08	14,0	2,00	0,08	302	222
PR 18-2.5 V2	18,0	0,08	13,0	2,50	0,15	373	268
PR 20-1 V2	20,0	0,08	18,0	1,00	0,08	124	96
PR 20-1.5 V2	20,0	0,08	17,0	1,50	0,15	187	143
PR 20-2 V2	20,0	0,08	16,0	2,00	0,15	261	195
PR 20-2.5 V2	20,0	0,08	15,0	2,50	0,15	335	244
PR 20-3 V2	20,0	0,08	14,0	3,00	0,08	420	298
PR 22-1 V2	22,0	0,08	20,0	1,00	0,08	113	88
PR 22-1.5 V2	22,0	0,08	19,0	1,50	0,08	180	137
PR 22-2 V2	22,0	0,08	18,0	2,00	0,15	238	178
PR 22-2.5 V2	22,0	0,08	17,0	2,50	0,15	305	224
PR 23-1.5 V2	23,0	0,08	20,0	1,50	0,15	163	125
PR 25-2 V2	25,0	0,08	21,0	2,00	0,08	217	164
PR 25-2.5 V2	25,0	0,08	20,0	2,50	0,08	277	205
PR 25-3 V2	25,0	0,08	19,0	3,00	0,08	336	244
PR 26-3 V2	26,0	0,08	20,0	3,00	0,15	273	202
PR 28-1 V2	28,0	0,08	26,0	1,00	0,08	88	69
PR 28-2 V2	28,0	0,08	24,0	2,00	0,08	194	147
PR 28-2.5 V2	28,0	0,08	23,0	2,50	0,08	247	185
PR 28-3 V2	28,0	0,08	22,0	3,00	0,15	292	216

**PR V2 (M)****Metric precision steel pipe, 1.4541****(Continued)**

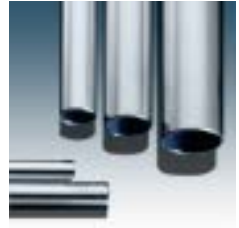
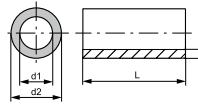
Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	S mm	ID tolerance +/- mm	Specific load I bar	Specific load III bar
PR 28-4 V2	28,0	0,08	20,0	4,00	0,15	398	284
PR 30-1.5 V2	30,0	0,08	27,0	1,50	0,08	132	102
PR 30-2 V2	30,0	0,08	26,0	2,00	0,08	181	138
PR 30-2.5 V2	30,0	0,15	25,0	2,50	0,15	216	154
PR 30-3 V2	30,0	0,08	24,0	3,00	0,15	273	202
PR 30-4 V2	30,0	0,08	22,0	4,00	0,15	371	267
PR 30-5 V2	30,0	0,08	20,0	5,00	0,15	496	347
PR 32-1.5 V2	32,0	0,15	29,0	1,50	0,15	110	86
PR 32-2 V2	32,0	0,15	28,0	2,00	0,15	157	121
PR 32-2.5 V2	32,0	0,15	27,0	2,50	0,15	203	154
PR 32-4 V2	32,0	0,08	24,0	4,00	0,08	181	138
PR 34-2 V2	34,0	0,15	30,0	2,00	0,15	147	114
PR 35-1.5 V2	35,0	0,15	32,0	1,50	0,15	101	79
PR 38-2 V2	38,0	0,15	34,0	2,00	0,15	132	102
PR 38-3 V2	38,0	0,15	32,0	3,00	0,15	210	159
PR 38-5 V2	38,0		28,0	5,00			
PR 40-1.5 V2	40,0	0,15	37,0	1,50	0,15	87	69
PR 42-2 V2	42,0	0,20	38,0	2,00	0,20	112	88
PR 42-3 V2	42,0		36,0	3,00			
PR 42-6 V2	42,0	0,25	30,0	6,00	0,25	387	277
PR 54-2 V 2	54,0	0,25	50,0	2,00	0,25	82	64

**Additional info:** Calculation as in DIN 2413 (draft)  
 Specific load I: static (up to 100 °C)  
 Specific load III: dynamic (up to 200 °C) stress range = P bar Strength parameter: K 222 [N/mm<sup>2</sup>]  
 Safety coefficient: S 1.5  
 Fatigue strength:  $\sigma_{Sch}/D$  180 [N/mm<sup>2</sup>]  
 Tolerance: DIN 10305-4  
 Elastic strength to DIN 10216-5 Rp 1.0 to 50°C The fatigue strength value was reduced in relation to the strength parameter by 1.4571.

## PR V2 (Z)

## Imperial precision steel pipe, 1.4541

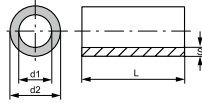
**Design:** Precision steel pipe, imperial  
**Material:** Stainless steel 1.4541  
**Pipe length:** 6 metres



**Note:** The pressure figures are based on straight pipes. The appropriate wall thickness needs to be calculated for pipes with bends as stipulated in DIN EN 13480-4.

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 12.7-0.91 V 2	12,70	0,08	10,88	0,15	0,91	158	121
PR 13.5-2.3 V 2	13,50	0,08	2,30	0,15	8,90	451	318
PR 26.9-2.3 V 2	26,90	0,08	22,30	0,15	2,30	227	171
PR 26.9-2.6 V 2	26,90	0,08	21,70	0,08	2,60	268	199
PR 26.9-3.2 V 2	26,90	0,08	20,50	0,15	3,20	326	238
PR 33.7-1.6 V2	33,70	0,08	30,50	0,08	1,60	126	98
PR 33.7-2 V2	33,70	0,08	29,70	0,08	2,00	161	124
PR 33.7-2.6 V 2	33,70	0,08	28,50	0,15	2,60	207	157
PR 48.3-2.6 V 2	48,30	0,20	43,10	0,20	2,60	134	104
PR 48.3-4.05 V 2	48,30	0,20	40,20	0,20	4,05	223	168
PR 60.3-2 V 2	60,30	0,20	56,30	0,20	2,00	78	62
PR 60.3-5 V 2	60,30	0,20	50,30	0,20	5,00	225	170
PR 76.1-2 V 2	76,10	0,20	72,10	0,20	2,00	62	49
PR 88.9-4.5 V 2	88,90	0,45	79,90	0,50	4,50	118	92
PR 101.6-4.05 V 2	101,60	0,45	93,50	0,50	4,05	90	71
PR 114.3-3.6 V 2	114,30	0,50	107,10	0,70	3,60	62	49

**Additional info:** Calculation as in DIN 2413 (draft)  
 Specific load I: static (up to 100 °C)  
 Specific load III: dynamic (up to 200 °C) stress range = P bar Strength parameter: K 222 [N/mm<sup>2</sup>]  
 Safety coefficient: S 1.5  
 Fatigue strength:  $\sigma_{Sch}/D$  180 [N/mm<sup>2</sup>]  
 Tolerance: DIN 10305-4  
 Elastic strength to DIN 10216-5 Rp 1.0 to 50°C The fatigue strength value was reduced in relation to the strength parameter by 1.4571.

**PR V4 (M)****Metric precision steel pipe, 1.4571**

**Design:**  
**Material:**  
**Pipe length:**

Precision steel pipe, metric  
Stainless steel 1.4571  
6 metres

**Note:** The pressure figures are based on straight pipes. The appropriate wall thickness needs to be calculated for pipes with bends as stipulated in DIN EN 13480-4.

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 04-1 V4	4,0	0,08	2,0	0,15	1,00	600	408
PR 06-1 V4	6,0	0,08	4,0	0,15	1,00	400	287
PR 06-1.5 V4	6,0	0,08	3,0	0,15	1,50	660	442
PR 06-2 V4	6,0	0,08	2,0	0,15	2,00	915	575
PR 08-1 V4	8,0	0,08	6,0	0,15	1,00	300	222
PR 08-1.5 V4	8,0	0,08	5,0	0,15	1,50	495	347
PR 08-2 V4	8,0	0,08	4,0	0,15	2,00	690	458
PR 08-2.5 V4	8,0		3,0		2,50		
PR 10-0.5 V4	10,0	0,08	9,0	0,08	0,50	105	81
PR 10-1 V4	10,0	0,08	8,0	0,15	1,00	240	181
PR 10-1.5 V4	10,0	0,08	7,0	0,15	1,50	396	285
PR 10-2 V4	10,0	0,08	6,0	0,15	2,00	552	380
PR 12-1 V4	12,0	0,08	10,0	0,15	1,00	200	152
PR 12-1.5 V4	12,0	0,08	9,0	0,15	1,50	330	242
PR 12-2 V4	12,0	0,08	8,0	0,15	2,00	460	325
PR 12-3 V4	12,0	0,08	6,0	0,25	3,00	694	461
PR 14-1.5 V4	14,0	0,08	11,0	0,15	1,50	283	210
PR 14-2 V4	14,0	0,08	10,0	0,15	2,00	394	284
PR 14-2.5 V4	14,0	0,08	9,0	0,15	2,50	505	353
PR 15-1 V4	15,0	0,08	13,0	0,08	1,00	174	134
PR 15-1.5 V4	15,0	0,08	12,0	0,15	1,50	264	197
PR 15-2 V4	15,0	0,08	11,0	0,15	2,00	368	267
PR 16-1.5 V4	16,0	0,08	13,0	0,08	1,50	261	195
PR 16-2 V4	16,0	0,08	12,0	0,15	2,00	345	252
PR 16-2.5 V4	16,0	0,08	11,0	0,15	2,50	442	314
PR 16-3 V4	16,0	0,08	10,0	0,15	3,00	540	373
PR 18-1 V4	18,0	0,08	16,0	0,08	1,00	145	112
PR 18-1.5 V4	18,0	0,08	15,0	0,08	1,50	232	175
PR 18-2 V4	18,0	0,08	14,0	0,08	2,00	318	234
PR 18-2.5 V4	18,0	0,08	13,0	0,15	2,50	393	283
PR 20-2 V4	20,0	0,08	16,0	0,08	2,00	287	213
PR 20-2.5 V4	20,0	0,08	15,0	0,15	2,50	354	258
PR 20-3 V4	20,0	0,08	14,0	0,15	3,00	432	308
PR 20-3.5 V4	20,0	0,08	13,0	0,15	3,50	510	355
PR 22-1.5 V4	22,0	0,08	19,0	0,08	1,50	190	145
PR 22-2 V4	22,0	0,08	18,0	0,08	2,00	260	195
PR 22-2.5 V4	22,0	0,08	17,0	0,15	2,50	321	236
PR 22-3 V4	22,0	0,08	16,0	0,15	3,00	392	283
PR 25-1.5 V4	25,0	0,08	22,0	0,08	1,50	167	128
PR 25-2 V4	25,0	0,08	21,0	0,08	2,00	229	173
PR 25-2.5 V4	25,0	0,08	20,0	0,08	2,50	292	216
PR 25-3 V4	25,0	0,08	19,0	0,15	3,00	345	252



## PR V4 (M)

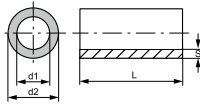
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## Metric precision steel pipe, 1.4571

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 28-1.5 V4	28,0	0,08	25,0	0,08	1,50	149	115
PR 28-2 V4	28,0	0,08	24,0	0,08	2,00	205	156
PR 28-2.5 V4	28,0	0,08	23,0	0,08	2,50	260	195
PR 30-2 V4	30,0	0,08	26,0	0,08	2,00	191	146
PR 30-2.5 V4	30,0	0,08	25,0	0,08	2,50	243	183
PR 30-3 V4	30,0	0,08	24,0	0,15	3,00	288	214
PR 30-4 V4	30,0	0,08	22,0	0,15	4,00	392	282
PR 30-5 V4	30,0	0,08	20,0	0,15	5,00	496	347
PR 35-1.5 V4	35,0	0,08	32,0	0,08	1,50	119	93
PR 35-2 V4	35,0	0,15	31,0	0,15	2,00	151	117
PR 35-2.5 V4	35,0	0,15	30,0	0,15	2,50	196	149
PR 35-5 V4	35,0	0,15	25,0	0,15	5,00	418	299
PR 38-4 V4	38,0	0,15	30,0	0,15	4,00	303	224
PR 38-5 V4	38,0	0,15	28,0	0,15	5,00	385	278
PR 40-2 V4	40,0		36,0		2,00		
PR 42-2 V4	42,0	0,20	38,0	0,20	2,00	118	92
PR 42-3 V4	42,0	0,20	36,0	0,20	3,00	193	147
PR 70-5 V4	70,0		60,0		5,00		

**Additional info:** Calculation as in DIN 2413 (draft)  
 Specific load I: static (up to 100 °C)  
 Specific load III: dynamic (up to 200 °C) stress range = P bar Strength parameter: K 234 [N/mm<sup>2</sup>]  
 Safety coefficient: S 1.5  
 Fatigue strength:  $\sigma_{Sch}/D$  190 [N/mm<sup>2</sup>]  
 Tolerance: DIN 10305-4  
 Elastic strength to DIN 10216-5 Rp 1.0 to 50°C

2

**PR V4 (Z)****Imperial precision steel pipe, 1.4571**

**Design:** Precision steel pipe, imperial  
**Material:** Stainless steel 1.4571  
**Pipe length:** 6 metres

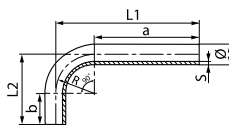
**Note:** The pressure figures are based on straight pipes. The appropriate wall thickness needs to be calculated for pipes with bends as stipulated in DIN EN 13480-4.

Identification	Ø d2 mm	AD tolerance +/- mm	Ø d1 mm	ID tolerance +/- mm	S mm	Specific load I bar	Specific load III bar
PR 17.2-2.3 V4	17,20	0,08	12,60	0,15	2,30	375	272
PR 17.2-2.9 V4	17,20	0,08	11,40	0,15	2,90	375	272
PR 21.3-2 V4	21,30	0,08	17,30	0,08	2,00	269	201
PR 33.7-1.6 V4	33,70	0,08	30,50	0,15	1,60	126	98
PR 33.7-3.2 V4	33,70	0,08	27,30	0,15	3,20	274	205
PR 42.4-1.6 V4	42,40	0,08	39,20	0,20	1,60	97	76
PR 42.4-2 V4	42,40	0,20	38,40	0,20	2,00	117	92
PR 42.4-2.6 V4	42,40	0,20	37,20	0,20	2,60	161	124
PR 42.4-3.2 V4	42,40	0,20	36,00	0,20	3,20	206	156
PR 48.3-1.6 V4	48,30	0,20	45,10	0,20	1,60	77	61
PR 48.3-3.2 V4	48,30	0,20	41,90	0,20	3,20	180	138
PR 48.3-6.3 V4	48,30		35,70		6,30		
PR 60.3-2.9 V4	60,30	0,25	54,50	0,30	2,90	121	95
PR 76.1-2.9 V4	76,10	0,35	70,30	0,35	2,90	90	71
PR 88.9-2.9 V4	88,90	0,40	83,10	0,45	2,90	71	57
PR 88.9-3.2 V4	88,90	0,40	82,50	0,45	3,20	82	65
PR 88.9-11.13 V4	88,90	0,70	66,64	0,70	11,13	347	249

**Additional info:** Calculation as in DIN 2413 (draft)  
 Specific load I: static (up to 100 °C)  
 Specific load III: dynamic (up to 200 °C) stress range = P bar Strength parameter: K 234 [N/mm<sup>2</sup>]  
 Safety coefficient: S 1.5  
 Fatigue strength:  $\sigma_{Sch/D 190}$  [N/mm<sup>2</sup>]  
 Tolerance: DIN 10305-4  
 Elastic strength to DIN 10216-5 Rp 1.0 to 50°C

## Pipe bend 90°

**Design:** Pipe bend 90°  
**Standard:** DIN 2391/C  
**Material:** Steel ST 37.4 NBK (1.0255)  
**Surface:** phosphate treated and oiled  
**Description:** Seamless pipe bends 90° for minimum loss of flow.



Identification	External pipe Ø mm	Internal Ø mm	S mm	Bending radius R mm	a mm	b mm	L1 mm	L2 mm
RB 14-1.5	14,0	11,0	1,50	30	200,0	40,0	230,0	70,0
RB 15-1.5	15,0	12,0	1,50	30	200,0	40,0	230,0	70,0
RB 15-2	15,0	11,0	2,00	30	200,0	40,0	230,0	70,0
RB 16-2	16,0	12,0	2,00	30	200,0	40,0	230,0	70,0
RB 18-1.5	18,0	15,0	1,50	36	200,0	35,0	236,0	71,0
RB 18-2	18,0	14,0	2,00	36	200,0	35,0	236,0	72,0
RB 20-2	20,0	16,0	2,00	36	200,0	45,0	236,0	81,0
RB 20-2.5	20,0	15,0	2,50	36	200,0	45,0	236,0	81,0
RB 20-3	20,0	14,0	3,00	36	200,0	45,0	236,0	81,0
RB 22-1.5	22,0	19,0	1,50	38	200,0	40,0	238,0	78,0
RB 22-2	22,0	18,0	2,00	38	200,0	40,0	238,0	78,0
RB 22-2.5	22,0	17,0	2,50	38	200,0	40,0	238,0	78,0
RB 22-3.5	22,0	15,0	3,50	38	200,0	40,0	238,0	78,0
RB 25-2	25,0	21,0	2,00	44	200,0	50,0	244,0	94,0
RB 25-2.5	25,0	20,0	2,50	44	200,0	50,0	244,0	94,0
RB 25-3	25,0	19,0	3,00	44	200,0	50,0	244,0	94,0
RB 25-4	25,0	17,0	4,00	44	200,0	50,0	244,0	94,0
RB 28-1.5	28,0	25,0	1,50	48	200,0	50,0	248,0	98,0
RB 28-2	28,0	24,0	2,00	48	200,0	50,0	248,0	98,0
RB 28-3	28,0	22,0	3,00	48	200,0	50,0	248,0	98,0
RB 30-2.5	30,0	25,0	2,50	50	200,0	60,0	250,0	110,0
RB 30-3	30,0	24,0	3,00	50	200,0	60,0	250,0	110,0
RB 30-4	30,0	22,0	4,00	50	200,0	60,0	250,0	110,0
RB 35-2	35,0	31,0	2,00	60	200,0	65,0	260,0	125,0
RB 35-3	35,0	29,0	3,00	60	200,0	65,0	260,0	125,0
RB 38-2.5	38,0	33,0	2,50	65	200,0	75,0	265,0	140,0
RB 38-3	38,0	32,0	3,00	65	200,0	75,0	265,0	140,0
RB 38-4	38,0	30,0	4,00	65	200,0	75,0	265,0	140,0
RB 38-5	38,0	28,0	5,00	65	200,0	75,0	265,0	140,0
RB 42-2	42,0	38,0	2,00	80	200,0	85,0	280,0	165,0
RB 42-3	42,0	36,0	3,00	80	200,0	85,0	280,0	165,0
RB 50-6	50,0	38,0	6,00	210	100,0	100,0	310,0	310,0
RB 65-8	65,0	49,0	8,00	210	110,0	110,0	320,0	320,0
RB 80-10	80,0	60,0	10,00	210	120,0	120,0	330,0	330,0

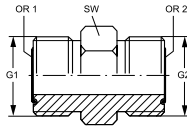


## Adapters

<b>ORFS Adapters</b>		<b>Caps</b>	
Straight	328	BSP external thread	620
Angle 45°	349	BSP internal threads	623
Angle 90°	357	BSP nut thread	625
T shaped	366	BSPT conical external threads	628
L shaped	372	Metric external thread	629
Cross-shaped	380	Metric nut threads	631
<b>JIC Adapters</b>		NPT external threads	632
Straight	382	NPT hexagon socket outer threads	633
Angle 45°	425	NPT internal threads	634
Angle 90°	440	ORFS external threads	635
T shaped	463	ORFS nut threads	636
L shaped	476	UNF external threads	637
Cross-shaped	484	UNF hexagon external threads	639
<b>JIS Adapters</b>		UNF inner thread	640
Straight	485	UNF nut threads	641
Angle 45°	491	<b>Banjos</b>	
Angle 90°	492	Imperial ring eye	642
<b>SAE Adapters</b>		Metric banjos	643
Straight	496	<b>For washing equipment</b>	
Angle 90°	498	For washing equipment	645
<b>Metric Adapters</b>		<b>WEO plug-in</b>	
Straight	501	Sockets	647
Angle 90°	504	Connectors	654
<b>BSP Adapters</b>		Socket connector	656
Straight	507	Caps	657
Angle 45°	540	WEO spare parts	659
Angle 90°	556	<b>Individual parts</b>	
T shaped	574	Hollow screws	662
L shaped	584	Counter nuts	666
Cross-shaped	590	Union nuts	669
<b>NPT Adapters</b>			
Straight	593		
Angle 45°	603		
Angle 90°	607		
T shaped	613		
L shaped	617		
Cross-shaped	619		

## G HJOF

### Connection sockets



**Connection 1:** ORFS external threads  
**Sealing form 1:** flat seal with O-ring  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	OR1	OR2
G HJOF 04	9/16"-18 UNF	9/16"-18 UNF	16	7.65 x 1.78	7.65 x 1.78
G HJOF 04 HJOF 06	9/16"-18 UNF	11/16"-16 UN	19	7.65 x 1.78	9.25 x 1.78
G HJOF 06	11/16"-16 UN	11/16"-16 UN	19	9.25 x 1.78	9.25 x 1.78
G HJOF 06 HJOF 08	11/16"-16 UN	13/16"-16 UN	22	9.25 x 1.78	12.42 x 1.78
G HJOF 08	13/16"-16 UN	13/16"-16 UN	22	12.42 x 1.78	12.42 x 1.78
G HJOF 08 HJOF 10	13/16"-16 UN	1" -14 UNS	27	12.42 x 1.78	15.60 x 1.78
G HJOF 10	1" -14 UNS	1" -14 UNS	27	15.60 x 1.78	15.60 x 1.78
G HJOF 10 HJOF 12	1" -14 UNS	1.3/16" -12 UN	32	15.60 x 1.78	18.77 x 1.78
G HJOF 12	1.3/16" -12 UN	1.3/16" -12 UN	32	18.77 x 1.78	18.77 x 1.78
G HJOF 12 HJOF 16	1.3/16" -12 UN	1.7/16" -12 UN	41	18.77 x 1.78	23.52 x 1.78
G HJOF 16	1.7/16" -12 UN	1.7/16" -12 UN	38	23.52 x 1.78	23.52 x 1.78
G HJOF 16 HJOF 20	1.7/16" -12 UN	1.11/16" -12 UN	46	23.52 x 1.78	29.87 x 1.78
G HJOF 20	1.11/16" -12 UN	1.11/16" -12 UN	46	29.87 x 1.78	29.87 x 1.78
G HJOF 24	2" -12 UN	2" -12 UN	55	37.82 x 1.78	37.82 x 1.78
G HJOF 32	2.1/2" -12 UN	2.1/2" -12 UN	70	48.90 x 2.62	48.90 x 2.62

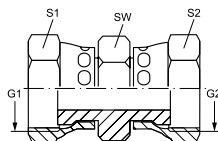
SW = Width across flats

#### Product versions:

G HJOF VA - Connection sockets, Stainless steel

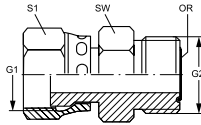
**G AJF****Connectors**

**Connection 1:** ORFS nut threads  
**Sealing form 1:** flat sealing  
**Connection 2:** ORFS nut threads  
**Sealing form 2:** Flat seal  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1	S2
G AJF 04	9/16"-18 UNF	17	18	18
G AJF 06	11/16"-16 UN	19	21	21
G AJF 08	13/16"-16 UN	22	24	24
G AJF 10	1" -14 UNS	27	29	29
G AJF 12	1.3/16" -12 UN	32	35	35
G AJF 16	1.7/16" -12 UN	38	41	41
G AJF 20	1.11/16" -12 UN	46	48	48
G AJF 24	2" -12 UN	55	55	57

SW, S1, S2 = With across flats

**G AJF HJOF****Connectors**

**Connection 1:** ORFS nut threads  
**Sealing form 1:** flat sealing  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
G AJF 06 HJOF 04	11/16" -16 UN	9/16" -18 UNF	19	22	7.65 x 1.78
G AJF 08 HJOF 04	13/16" -16 UN	9/16" -18 UNF	16	24	7.65 x 1.78
G AJF 08 HJOF 06	13/16" -16 UN	11/16" -16 UN	22	24	9.25 x 1.78
G AJF 10 HJOF 04	1" -14 UNS	9/16" -18 UNF	16	30	7.65 x 1.78
G AJF 10 HJOF 06	1" -14 UNS	11/16" -16 UN	19	30	9.25 x 1.78
G AJF 10 HJOF 08	1" -14 UNS	13/16" -16 UN	22	30	12.42 x 1.78
G AJF 12 HJOF 04	1.3/16" -12 UN	9/16" -18 UNF	16	36	7.65 x 1.78
G AJF 12 HJOF 06	1.3/16" -12 UN	11/16" -16 UN	19	36	9.25 x 1.78
G AJF 12 HJOF 08	1.3/16" -12 UN	13/16" -16 UN	32	36	12.42 x 1.78
G AJF 12 HJOF 10	1.3/16" -12 UN	1" -14 UNS	32	36	15.60 x 1.78
G AJF 16 HJOF 08	1.7/16" -12 UN	13/16" -16 UN	22	41	12.42 x 1.78
G AJF 16 HJOF 10	1.7/16" -12 UN	1" -14 UNS	27	41	15.60 x 1.78
G AJF 16 HJOF 12	1.7/16" -12 UN	1.3/16" -12 UN	41	41	18.77 x 1.78
G AJF 20 HJOF 12	1.11/16" -12 UN	1.3/16" -12 UN	32	50	18.77 x 1.78
G AJF 20 HJOF 16	1.11/16" -12 UN	1.7/16" -12 UN	38	50	23.52 x 1.78
G AJF 24 HJOF 16	2" -12 UN	1.7/16" -12 UN	38	60	23.52 x 1.78
G AJF 24 HJOF 20	2" -12 UN	1.11/16" -12 UN	46	60	29.87 x 1.78

SW, S1, S2 = With across flats

**Product versions:**

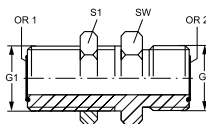
**G AJF HJOF VA** - Connectors, Stainless steel



## SV HJOF

## Bulkhead fitting socket

<b>Connection 1:</b>	ORFS external threads
<b>Sealing form 1:</b>	flat seal with O-ring
<b>Connection 2:</b>	ORFS external threads
<b>Sealing form 2:</b>	flat seal with O-ring
<b>Design:</b>	Bulkhead fitting socket
<b>Construction:</b>	straight
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

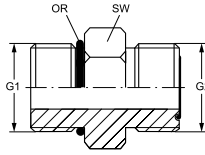


Identification	G1 + G2	SW mm	S1	OR1 + OR2
SV HJOF 04	9/16"-18 UNF	22	22	7.66 x 1.78
SV HJOF 06	11/16" -16 UN	27	27	9.25 x 1.78
SV HJOF 08	13/16" -16 UN	30	30	12.42 x 1.78
SV HJOF 10	1" -14 UNS	36	36	15.60 x 1.78
SV HJOF 12	1.3/16" -12 UN	41	41	18.77 x 1.78
SV HJOF 16	1.7/16" -12 UN	46	46	23.52 x 1.78
SV HJOF 20	1.11/16" -12 UN	50	50	29.87 x 1.78
SV HJOF 24	2" -12 UN	60	60	37.82 x 1.78

SW, S1, S2 = With across flats

**Product versions:**

**SV HJOF VA** - Bulkhead fitting socket, Stainless steel

**GE O HJOF****Screw-in sockets**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	OR1	OR2
GE O 04 HJOF	7/16"-20 UNF	9/16"-18 UNF	17	8.92 x 1.83	7.65 x 1.78
GE O 04 HJOF 06	7/16"-20 UNF	11/16"-16 UN	19	8.92 x 1.83	9.25 x 1.78
GE O 05 HJOF 04	1/2"-20 UNF	9/16"-18 UNF	19	10.52 x 1.83	7.65 x 1.78
GE O 05 HJOF 06	1/2"-20 UNF	11/16"-16 UN	19	10.52 x 1.83	9.25 x 1.78
GE O 06 HJOF 04	9/16"-18 UNF	9/16"-18 UNF	19	11.89 x 1.98	7.65 x 1.78
GE O 06 HJOF	9/16"-18 UNF	11/16"-16 UN	19	11.89 x 1.98	9.25 x 1.78
GE O 06 HJOF 08	9/16"-18 UNF	13/16"-16 UN	22	11.89 x 1.98	12.42 x 1.78
GE O 08 HJOF 04	3/4"-16 UNF	9/16"-18 UNF	22	16.36 x 2.21	7.65 x 1.78
GE O 08 HJOF 06	3/4"-16 UNF	11/16"-16 UN	22	16.36 x 2.21	9.25 x 1.78
GE O 08 HJOF	3/4"-16 UNF	13/16"-16 UN	22	16.36 x 2.21	12.42 x 1.78
GE O 08 HJOF 10	3/4"-16 UNF	1"-14 UNS	27	16.36 x 2.21	15.60 x 1.78
GE O 08 HJOF 12	3/4"-16 UNF	1.3/16"-12 UN	32	16.36 x 2.21	18.77 x 1.78
GE O 10 HJOF 06	7/8"-14 UNF	11/16"-16 UN	27	19.18 x 2.46	9.25 x 1.78
GE O 10 HJOF 08	7/8"-14 UNF	13/16"-16 UN	27	19.18 x 2.46	12.42 x 1.78
GE O 10 HJOF	7/8"-14 UNF	1"-14 UNS	27	19.18 x 2.46	15.60 x 1.78
GE O 10 HJOF 12	7/8"-14 UNF	1.3/16"-12 UN	32	19.18 x 2.46	18.77 x 1.78
GE O 12 HJOF 08	1.1/16"-12 UN	13/16"-16 UN	32	23.47 x 2.95	12.42 x 1.78
GE O 12 HJOF 10	1.1/16"-12 UN	1"-14 UNS	32	23.47 x 2.95	15.60 x 1.78
GE O 12 HJOF	1.1/16"-12 UN	1.3/16"-12 UN	32	23.47 x 2.95	18.77 x 1.78
GE O 12 HJOF 16	1.1/16"-12 UN	1.7/16"-12 UN	38	23.47 x 2.95	23.52 x 1.78
GE O 16 HJOF 12	1.5/16"-12 UN	1.3/16"-12 UN	38	29.74 x 2.95	18.77 x 1.78
GE O 16 HJOF	1.5/16"-12 UN	1.7/16"-12 UN	38	29.74 x 2.95	23.52 x 1.78
GE O 16 HJOF 20	1.5/16"-12 UN	1.11/16"-12 UN	46	29.74 x 2.95	29.87 x 1.78
GE O 20 HJOF 16	1.5/8"-12 UN	1.7/16"-12 UN	46	37.47 x 3.00	23.52 x 1.78
GE O 20 HJOF	1.5/8"-12 UN	1.11/16"-12 UN	46	37.47 x 3.00	29.87 x 1.78
GE O 20 HJOF 24	1.5/8"-12 UN	2"-12 UN	55	37.47 x 3.00	37.82 x 1.78
GE O 24 HJOF 20	1.7/8"-12 UN	1.11/16"-12 UN	54	43.69 x 3.00	29.87 x 1.78
GE O 24 HJOF	1.7/8"-12 UN	2"-12 UN	55	43.69 x 3.00	37.82 x 1.78
GE O 32 HJOF	2.1/2"-12 UN	2.1/2"-12 UN	70	59.36 x 3.00	48.90 x 2.62

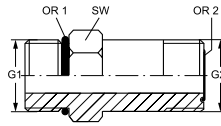
SW = Width across flats

**Product versions:**

GE O HJOF VA - Screw-in sockets, Stainless steel

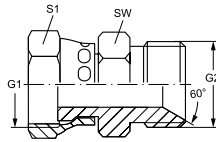
**GE O L HJOF****Screw-in socket, long**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in socket, long  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR1	OR2
GE O L 04 HJOF	7/16"-20 UNF	9/16"-18 UNF	16	8.92 x 1.83	7.65 x 1.78
GE O L 06 HJOF	9/16"-18 UNF	11/16"-16 UN	19	11.89 x 1.98	9.25 x 1.78
GE O L 08 HJOF	3/4"-16 UNF	13/16"-16 UN	22	16.36 x 2.21	12.42 x 1.78
GE O L 10 HJOF	7/8"-14 UNF	1"-14 UNS	27	19.18 x 2.46	15.60 x 1.78
GE O L 12 HJOF	1.1/16" -12 UN	1.3/16" -12 UN	33	23.47 x 2.95	18.77 x 1.78
GE O L 16 HJOF	1.5/16" -12 UN	1.7/16" -12 UN	41	29.74 x 2.95	23.52 x 1.78
GE O L 20 HJOF	1.5/8" -12 UN	1.11/16" -12 UN	48	37.47 x 3.00	29.87 x 1.78
GE O L 24 HJOF	1.7/8" -12 UN	2" -12 UN	54	43.69 x 3.00	37.82 x 1.78

SW = Width across flats

**G AJF HB****Connectors**

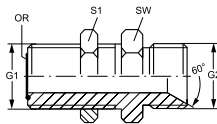
**Connection 1:** ORFS nut threads  
**Sealing form 1:** flat sealing  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1
G AJF 04 HB	9/16"-18 UNF	G 1/4" -19	19	17
G AJF 04 HB 06	9/16"-18 UNF	G 3/8" -19	22	17
G AJF 06 HB 04	11/16" -16 UN	G 1/4" -19	19	22
G AJF 06 HB	11/16" -16 UN	G 3/8" -19	22	22
G AJF 06 HB 08	11/16" -16 UN	G 1/2" -14	27	22
G AJF 08 HB 06	13/16" -16 UN	G 3/8" -19	22	24
G AJF 08 HB	13/16" -16 UN	G 1/2" -14	27	24
G AJF 10 HB 08	1" -14 UNS	G 1/2" -14	27	30
G AJF 10 HB	1" -14 UNS	G 5/8" -14	30	30
G AJF 10 HB 12	1" -14 UNS	G 3/4" -14	32	30
G AJF 12 HB	1.3/16" -12 UN	G 3/4" -14	32	36
G AJF 12 HB 16	1.3/16" -12 UN	G 1" -11	41	36
G AJF 16 HB 12	1.7/16" -12 UN	G 3/4" -14	32	41
G AJF 16 HB	1.7/16" -12 UN	G 1" -11	41	41
G AJF 16 HB 20	1.7/16" -12 UN	G 1.1/4" -11	50	41
G AJF 20 HB	1.11/16" -12 UN	G 1.1/4" -11	50	50
G AJF 24 HB	2" -12 UN	G 1.1/2" -11	55	60

SW, S1, S2 = With across flats

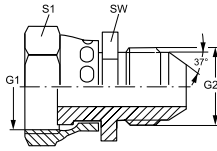
**SV HJOF HB****Bulkhead fitting socket**

<b>Connection 1:</b>	ORFS external threads
<b>Sealing form 1:</b>	flat seal with O-ring
<b>Connection 2:</b>	BSP cylindrical external threads
<b>Sealing form 2:</b>	60° inner cone
<b>Design:</b>	Bulkhead fitting socket
<b>Construction:</b>	straight
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1	G2	SW mm	S1	OR
SV HJOF 06 HB	11/16" -16 UN	G 3/8" -19	27	27	9.25 x 1.78
SV HJOF 08 HB	13/16" -16 UN	G 1/2" -14	27	30	12.42 x 1.78
SV HJOF 12 HB	1.3/16" -12 UN	G 3/4" -14	36	41	18.77 x 1.78
SV HJOF 16 HB	1.7/16" -12 UN	G 1" -11	41	46	23.52 x 1.78

SW, S1, S2 = With across flats

**G AJF HJ****Connectors**

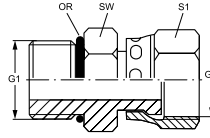
**Connection 1:** ORFS nut threads  
**Sealing form 1:** flat sealing  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1
G AJF 04 HJ	9/16"-18 UNF	7/16"-20 UNF	17	19
G AJF 06 HJ	11/16"-16 UN	9/16"-18 UNF	19	22
G AJF 08 HJ	13/16"-16 UN	3/4"-16 UNF	22	24
G AJF 10 HJ	1"-14 UNS	7/8"-14 UNF	27	30
G AJF 12 HJ	1.3/16"-12 UN	1.1/16"-12 UN	32	36
G AJF 16 HJ	1.7/16"-12 UN	1.5/16"-12 UN	41	41

SW, S1, S2 = With across flats

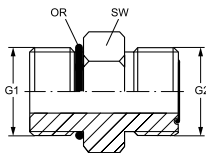
**GE HMO AJF****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** ORFS nut threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
GE HMO 12 AJF 04	M 12 x 1.5	9/16"-18 UNF	17	17	9.4 x 2.1
GE HMO 14 AJF 06	M 14 x 1.5	11/16" -16 UN	19	22	11.4 x 2.1
GE HMO 16 AJF 06	M 16 x 1.5	11/16" -16 UN	22	22	13.4 x 2.1
GE HMO 16 AJF 08	M 16 x 1.5	13/16" -16 UN	22	24	13.4 x 2.1
GE HMO 22 AJF 10	M 22 x 1.5	1" -14 UNS	27	30	19.4 x 2.1
GE HMO 27 AJF 10	M 27 x 2	1" -14 UNS	27	30	23.7 x 2.8
GE HMO 27 AJF 12	M 27 x 2	1.3/16" -12 UN	32	36	23.7 x 2.8
GE HMO 33 AJF 16	M 33 x 2	1.7/16" -12 UN	41	41	29.7 x 2.8
GE HMO 42 AJF 20	M 42 x 2	1.11/16" -12 UN	50	50	38.7 x 2.8

SW, S1, S2 = With across flats

**GE HMO HJOF****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

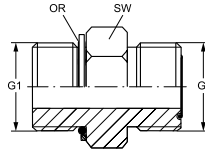
Identification	G1	G2	SW mm	OR1	OR2
GE HMO 10 HJOF 04	M 10 x 1	9/16"-18 UNF	17	8.2 x 1.5	7.65 x 1.78
GE HMO 12 HJOF 04	M 12 x 1.5	9/16"-18 UNF	17	9.4 x 2.1	7.65 x 1.78
GE HMO 14 HJOF 06	M 14 x 1.5	11/16"-16 UN	19	11.4 x 2.1	9.25 x 1.78
GE HMO 16 HJOF 06	M 16 x 1.5	11/16"-16 UN	22	13.4 x 2.1	9.25 x 1.78
GE HMO 18 HJOF 06	M 18 x 1.5	11/16"-16 UN	24	15.4 x 2.1	9.25 x 1.78
GE HMO 18 HJOF 08	M 18 x 1.5	13/16"-16 UN	24	15.4 x 2.1	12.42 x 1.78
GE HMO 18 HJOF 10	M 18 x 1.5	1"-14 UNS	27	15.4 x 2.1	23.52 x 1.78
GE HMO 22 HJOF 08	M 22 x 1.5	13/16"-16 UN	27	19.4 x 2.1	12.42 x 1.78
GE HMO 22 HJOF 10	M 22 x 1.5	1"-14 UNS	27	19.4 x 2.1	15.60 x 1.78
GE HMO 22 HJOF 12	M 22 x 1.5	1.3/16"-12 UN	32	19.4 x 2.1	18.77 x 1.78
GE HMO 27 HJOF 10	M 27 x 2	1"-14 UNS	32	23.7 x 2.8	15.60 x 1.78
GE HMO 27 HJOF 12	M 27 x 2	1.3/16"-12 UN	32	23.7 x 2.8	18.77 x 1.78
GE HMO 33 HJOF 12	M 33 x 2	1.3/16"-12 UN	41	29.7 x 2.8	18.77 x 1.78
GE HMO 33 HJOF 16	M 33 x 2	1.7/16"-12 UN	41	29.7 x 2.8	23.52 x 1.78
GE HMO 33 HJOF 20	M 33 x 2	1.11/16"-12 UN	46	29.7 x 2.8	29.87 x 1.78
GE HMO 42 HJOF 16	M 42 x 2	1.7/8"-12 UN	50	38.7 x 2.8	23.52 x 1.78
GE HMO 42 HJOF 20	M 42 x 2	1.11/16"-12 UN	50	38.7 x 2.8	29.87 x 1.78
GE HMO 48 HJOF 20	M 48 x 2	1.11/16"-12 UN	55	46.7 x 2.8	29.87 x 1.78
GE HMO 48 HJOF 24	M 48 x 2	2"-12 UN	55	46.7 x 2.8	37.82 x 1.78

SW = Width across flats



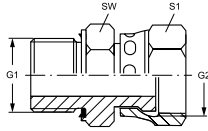
**GE HMOK HJOF****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR1	OR2
GE HMOK 10 HJOF 04	M 10 x 1	9/16"-18 UNF	17	8.2 x 1.5	7.65 x 1.78
GE HMOK 12 HJOF 04	M 12 x 1.5	9/16"-18 UNF	17	9.4 x 2.1	7.65 x 1.78
GE HMOK 14 HJOF 04	M 14 x 1.5	9/16"-18 UNF	19	11.4 x 2.1	7.65 x 1.78
GE HMOK 14 HJOF 06	M 14 x 1.5	11/16"-16 UN	19	11.4 x 2.1	9.25 x 1.78
GE HMOK 16 HJOF 06	M 16 x 1.5	11/16"-16 UN	22	13.4 x 2.1	9.25 x 1.78
GE HMOK 18 HJOF 08	M 18 x 1.5	13/16"-16 UN	24	15.4 x 2.1	12.42 x 1.78
GE HMOK 22 HJOF 08	M 22 x 1.5	13/16"-16 UN	27	19.4 x 2.1	12.42 x 1.78
GE HMOK 22 HJOF 10	M 22 x 1.5	1"-14 UNS	27	19.4 x 2.1	15.60 x 1.78
GE HMOK 27 HJOF 10	M 27 x 2	1"-14 UNS	32	23.7 x 2.8	15.60 x 1.78
GE HMOK 27 HJOF 12	M 27 x 2	1.3/16"-12 UN	32	23.7 x 2.8	18.77 x 1.78
GE HMOK 33 HJOF 12	M 33 x 2	1.3/16"-12 UN	41	29.7 x 2.8	18.77 x 1.78
GE HMOK 33 HJOF 16	M 33 x 2	1.7/16"-12 UN	41	29.7 x 2.8	23.52 x 1.78
GE HMOK 33 HJOF 20	M 33 x 2	1.11/16"-12 UN	46	29.7 x 2.8	29.87 x 1.78
GE HMOK 42 HJOF 20	M 42 x 2	1.11/16"-12 UN	50	38.7 x 2.8	29.87 x 1.78
GE HMOK 48 HJOF 20	M 48 x 2	1.11/16"-12 UN	55	46.7 x 2.8	29.87 x 1.78
GE HMOK 48 HJOF 24	M 48 x 2	2"-12 UN	55	46.7 x 2.8	37.82 x 1.78

SW = Width across flats

**GE HMED AJF****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1
GE HMED 12 AJF 04	M 12 x 1.5	9/16"-18 UNF	17	17
GE HMED 14 AJF 06	M 14 x 1.5	11/16"-16 UN	19	22
GE HMED 16 AJF 08	M 16 x 1.5	13/16"-16 UN	22	24
GE HMED 22 AJF 10	M 22 x 1.5	1"-14 UNS	27	30
GE HMED 27 AJF 12	M 27 x 2	1.3/16"-12 UN	32	36
GE HMED 33 AJF 16	M 33 x 2	1.7/16"-12 UN	41	41
GE HMED 42 AJF 20	M 42 x 2	1.11/16"-12 UN	50	50

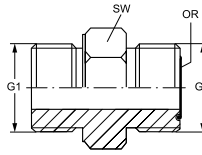
SW, S1, S2 = With across flats

**Spare parts:**

**WD** - Soft seal for ED fittings

**GE M HJOF****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape A  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



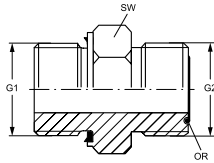
Identification	G1	G2	SW mm	OR
GE M12 HJOF 04	M 12 x 1.5	9/16"-18 UNF	17	7.65 x 1.78
GE M16 HJOF 06	M 16 x 1.5	11/16"-16 UN	22	9.25 x 1.78
GE M27 HJOF 12	M 27 x 2	1.3/16"-12 UN	32	18.77 x 1.78

SW = Width across flats

3

## GE HMED HJOF

### Screw-in sockets



<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	Shape E
<b>Connection 2:</b>	ORFS external threads
<b>Sealing form 2:</b>	flat seal with O-ring
<b>Design:</b>	Screw-in sockets
<b>Construction:</b>	straight
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2	SW mm	OR
GE HMED 10 HJOF 04	M 10 x 1	9/16"-18 UNF	17	7.65 x 1.78
GE HMED 12 HJOF 06	M 12 x 1.5	11/16"-16 UN	19	9.25 x 1.78
GE HMED 14 HJOF 06	M 14 x 1.5	11/16"-16 UN	19	9.25 x 1.78
GE HMED 18 HJOF 08	M 18 x 1.5	13/16"-16 UN	24	12.42 x 1.78
GE HMED 22 HJOF 10	M 22 x 1.5	1" -14 UNS	27	15.60 x 1.78
GE HMED 27 HJOF 12	M 27 x 2	1.3/16"-12 UN	32	18.77 x 1.78
GE HMED 33 HJOF 16	M 33 x 2	1.7/16" -12 UN	41	23.52 x 1.78
GE HMED 42 HJOF 20	M 42 x 2	1.11/16" -12 UN	50	29.87 x 1.78

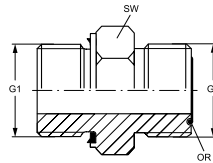
SW = Width across flats

#### Spare parts:

WD - Soft seal for ED fittings

**GE HRED HJOF****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR
GE HRED 02 HJOF 04	G 1/8" -28	9/16"-18 UNF	17	7.65 x 1.78
GE HRED 02 HJOF 06	G 1/8" -28	11/16" -16 UN	19	9.25 x 1.78
GE HRED 04 HJOF	G 1/4" -19	9/16"-18 UNF	19	7.65 x 1.78
GE HRED 04 HJOF 06	G 1/4" -19	11/16" -16 UN	19	9.25 x 1.78
GE HRED 04 HJOF 08	G 1/4" -19	13/16" -16 UN	22	12.42 x 1.78
GE HRED 06 HJOF 04	G 3/8" -19	9/16"-18 UNF	22	7.65 x 1.78
GE HRED 06 HJOF	G 3/8" -19	11/16" -16 UN	22	9.25 x 1.78
GE HRED 06 HJOF 08	G 3/8" -19	13/16" -16 UN	22	12.42 x 1.78
GE HRED 06 HJOF 10	G 3/8" -19	1" -14 UNS	27	15.60 x 1.78
GE HRED 08 HJOF 04	G 1/2" -14	9/16"-18 UNF	27	7.65 x 1.78
GE HRED 08 HJOF 06	G 1/2" -14	11/16" -16 UN	27	9.25 x 1.78
GE HRED 08 HJOF	G 1/2" -14	13/16" -16 UN	27	12.42 x 1.78
GE HRED 08 HJOF 10	G 1/2" -14	1" -14 UNS	27	15.60 x 1.78
GE HRED 08 HJOF 12	G 1/2" -14	1.3/16" -12 UN	32	18.77 x 1.78
GE HRED 12 HJOF 06	G 3/4" -14	11/16" -16 UN	32	9.25 x 1.78
GE HRED 12 HJOF 08	G 3/4" -14	13/16" -16 UN	32	12.42 x 1.78
GE HRED 12 HJOF 10	G 3/4" -14	1" -14 UNS	32	15.60 x 1.78
GE HRED 12 HJOF	G 3/4" -14	1.3/16" -12 UN	32	18.77 x 1.78
GE HRED 12 HJOF 16	G 3/4" -14	1.7/16" -12 UN	41	23.52 x 1.78
GE HRED 16 HJOF 10	G 1" -11	1" -14 UNS	41	15.60 x 1.78
GE HRED 16 HJOF 12	G 1" -11	1.3/16" -12 UN	41	18.77 x 1.78
GE HRED 16 HJOF	G 1" -11	1.7/16" -12 UN	41	23.52 x 1.78
GE HRED 16 HJOF 20	G 1" -11	1.11/16" -12 UN	46	29.87 x 1.78
GE HRED 20 HJOF 16	G 1.1/4" -11	1.7/16" -12 UN	50	23.52 x 1.78
GE HRED 20 HJOF	G 1.1/4" -11	1.11/16" -12 UN	50	29.87 x 1.78
GE HRED 24 HJOF 16	G 1.1/2" -11	1.7/16" -12 UN	55	23.52 x 1.78
GE HRED 24 HJOF 20	G 1.1/2" -11	1.11/16" -12 UN	55	29.87 x 1.78
GE HRED 24 HJOF	G 1.1/2" -11	2" -12 UN	55	37.82 x 1.78

SW = Width across flats

**Product versions:**

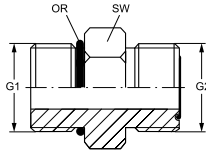
**GE HRED HJOF VA** - Screw-in sockets, Stainless steel

**Spare parts:**

**WD** - Soft seal for ED fittings

## GE HRO HJOF

### Screw-in sockets



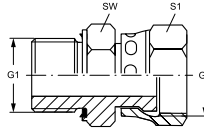
**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** BSP external threads  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	OR1	OR2
GE HRO 02 HJOF 04	G 1/8" -28	9/16"-18 UNF	16	7.65 x 1.78	7.65 x 1.78
GE HRO 02 HJOF 06	G 1/8" -28	11/16"-16 UN	20	7.65 x 1.78	9.25 x 1.78
GE HRO 04 HJOF	G 1/4" -19	9/16"-18 UNF	20	10.77 x 2.62	7.65 x 1.78
GE HRO 04 HJOF 06	G 1/4" -19	11/16" -16 UN	20	10.77 x 2.62	9.25 x 1.78
GE HRO 04 HJOF 08	G 1/4" -19	13/16"-16 UN	24	10.77 x 2.62	12.42 x 1.78
GE HRO 06 HJOF 04	G 3/8" -19	9/16"-18 UNF	24	13.94 x 2.62	7.65 x 1.78
GE HRO 06 HJOF	G 3/8" -19	11/16" -16 UN	24	13.94 x 2.62	9.25 x 1.78
GE HRO 06 HJOF 08	G 3/8" -19	13/16"-16 UN	24	13.94 x 2.62	12.42 x 1.78
GE HRO 06 HJOF 10	G 3/8" -19	1" -14 UNS	28	13.94 x 2.62	15.60 x 1.78
GE HRO 08 HJOF 04	G 1/2" -14	9/16"-18 UNF	28	17.86 x 2.62	7.65 x 1.78
GE HRO 08 HJOF 06	G 1/2" -14	11/16"-16 UN	28	17.86 x 2.62	9.25 x 1.78
GE HRO 08 HJOF	G 1/2" -14	13/16"-16 UN	28	17.86 x 2.62	12.42 x 1.78
GE HRO 08 HJOF 10	G 1/2" -14	1" -14 UNS	28	17.86 x 2.62	15.60 x 1.78
GE HRO 08 HJOF 12	G 1/2" -14	1.3/16"-12 UN	35	17.86 x 2.62	18.77 x 1.78
GE HRO 12 HJOF 06	G 3/4" -14	11/16"-16 UN	35	23.47 x 2.62	9.25 x 1.78
GE HRO 12 HJOF 08	G 3/4" -14	13/16"-16 UN	35	23.47 x 2.62	12.42 x 1.78
GE HRO 12 HJOF 10	G 3/4" -14	1" -14 UNS	35	23.47 x 2.62	15.60 x 1.78
GE HRO 12 HJOF	G 3/4" -14	1.3/16"-12 UN	35	23.47 x 2.62	18.77 x 1.78
GE HRO 12 HJOF 16	G 3/4" -14	1.7/16"-12 UN	43	23.47 x 2.62	23.52 x 1.78
GE HRO 16 HJOF 12	G 1" -11	1.3/16"-12 UN	43	29.75 x 3.53	18.77 x 1.78
GE HRO 16 HJOF	G 1" -11	1.7/16"-12 UN	43	29.75 x 3.53	23.52 x 1.78
GE HRO 16 HJOF 20	G 1" -11	1.11/16"-12 UN	45	29.75 x 3.53	29.87 x 1.78
GE HRO 20 HJOF 12	G 1.1/4" -11	1.3/16"-12 UN	52	37.69 x 3.53	18.77 x 1.78
GE HRO 20 HJOF 16	G 1.1/4" -11	1.7/16"-12 UN	52	37.69 x 3.53	23.52 x 1.78
GE HRO 20 HJOF	G 1.1/4" -11	1.11/16"-12 UN	52	37.69 x 3.53	29.87 x 1.78
GE HRO 24 HJOF 20	G 1.1/2" -11	1.11/16"-12 UN	58	44.04 x 3.53	29.87 x 1.78
GE HRO 24 HJOF	G 1.1/2" -11	2" -12 UN	58	44.04 x 3.53	37.82 x 1.78

SW = Width across flats

**GE HRED AJF****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** ORFS nut threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

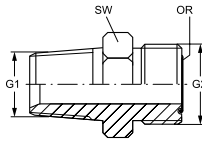


Identification	Working pressure bar	G1	G2	SW mm	S1
GE HRED 02 AJ F 04	PN 500	G 1/8" -28	9/16"-18 UNF	14	17
GE HRED 04 AJF	PN 500	G 1/4" -19	9/16"-18 UNF	19	17
GE HRED 04 AJF 06	PN 630	G 1/4" -19	11/16" -16 UN	19	22
GE HRED 04 AJF 08	PN 630	G 1/4" -19	13/16" -16 UN	22	24
GE HRED 06 AJF	PN 630	G 3/8" -19	11/16" -16 UN	22	22
GE HRED 06 AJF 08	PN 630	G 3/8" -19	13/16" -16 UN	22	24
GE HRED 08 AJF 06	PN 420	G 1/2" -14	11/16" -16 UN	27	22
GE HRED 08 AJF	PN 420	G 1/2" -14	13/16" -16 UN	27	24
GE HRED 08 AJF 10	PN 400	G 1/2" -14	1" -14 UNS	27	30
GE HRED 08 AJF 12	PN 420	G 1/2" -14	1.3/16" -12 UN	30	36
GE HRED 12 AJF 10	PN 420	G 3/4" -14	1" -14 UNS	32	30
GE HRED 12 AJF	PN 400	G 3/4" -14	1.3/16" -12 UN	32	36
GE HRED 16 AJF	PN 400	G 1" -11	1.7/16" -12 UN	41	41
GE HRED 20 AJF	PN 250	G 1.1/4" -11	1.11/16" -12 UN	50	50
GE HRED 24 AJF	PN 250	G 1.1/2" -11	2" -12 UN	55	60

SW, S1, S2 = With across flats

**Spare parts:**

WD - Soft seal for ED fittings

**GE HRK HJOF****Screw-in sockets**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

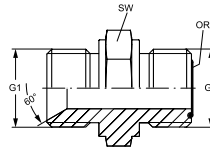
Identification	G1	G2	SW mm	OR
GE HRK 04 HJOF	R 1/4" K	9/16"-18 UNF	17	7.65 x 1.78
GE HRK 06 HJOF	R 3/8" K	11/16"-16 UN	19	9.25 x 1.78
GE HRK 08 HJOF	R 1/2" K	13/16"-16 UN	22	12.42 x 1.78
GE HRK 08 HJOF 10	R 1/2" K	1" -14 UNS	27	15.60 x 1.78
GE HRK 12 HJOF	R 3/4" K	1.3/16" -12 UN	32	18.77 x 1.78
GE HRK 16 HJOF	R 1" K	1.7/16" -12 UN	38	23.52 x 1.78
GE HRK 16 HJOF 12	R 1" K	1.3/16" -12 UN	36	18.77 x 1.78
GE HRK 20 HJOF	R 1.1/4" K	1.11/16" -12 UN	48	29.87 x 1.78
GE HRK 24 HJOF	R 1.1/2" K	2" -12 UN	55	37.82 x 1.78

SW = Width across flats



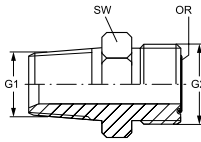
**G HB HJOF****Connection sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR
G HB 16 HJOF 12	G 1" -11	1.3/16" -12 UN	41	18.77 x 1.78

SW = Width across flats

**GE HN HJOF****Screw-in sockets**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	OR
GE HN 02 HJOF 04	1/8" -27 NPT	9/16"-18 UNF	16	7.65 x 1.78
GE HN 04 HJOF	1/4" -18 NPT	9/16"-18 UNF	16	7.65 x 1.78
GE HN 04 HJOF 06	1/4" -18 NPT	11/16" -16 UN	19	9.25 x 1.78
GE HN 06 HJOF	3/8" -18 NPT	11/16" -16 UN	19	9.25 x 1.78
GE HN 06 HJOF 08	3/8" -18 NPT	13/16" -16 UN	22	12.42 x 1.78
GE HN 08 HJOF 06	1/2" -14 NPT	11/16" -16 UN	22	9.25 x 1.78
GE HN 08 HJOF	1/2" -14 NPT	13/16" -16 UN	22	12.42 x 1.78
GE HN 08 HJOF 10	1/2" -14 NPT	1" -14 UNS	27	15.60 x 1.78
GE HN 12 HJOF 08	3/4" -14 NPT	13/16" -16 UN	29	12.42 x 1.78
GE HN 12 HJOF 10	3/4" -14 NPT	1" -14 UNS	29	15.60 x 1.78
GE HN 12 HJOF	3/4" -14 NPT	1.3/16" -12 UN	32	18.77 x 1.78
GE HN 12 HJOF 16	3/4" -14 NPT	1.7/16" -12 UN	38	23.52 x 1.78
GE HN 16 HJOF 12	1" -11.5 NPT	1.3/16" -12 UN	35	18.77 x 1.78
GE HN 16 HJOF	1" -11.5 NPT	1.7/16" -12 UN	38	23.52 x 1.78
GE HN 20 HJOF	1.1/4" -11.5 NPT	1.11/16" -12 UN	48	29.87 x 1.78
GE HN 24 HJOF	1.1/2" -11.5 NPT	2" -12 UN	54	37.82 x 1.78

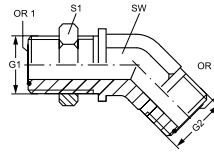
SW = Width across flats

**Product versions:**

**GE HN HJOF VA** - Screw-in sockets, Stainless steel

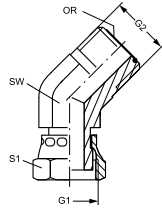
**SW 45 HJOF****Bulkhead fitting socket, angle 45°**

**Connection 1:** ORFS external threads  
**Sealing form 1:** flat seal with O-ring  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Bulkhead fitting socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1	OR1 + OR2
SW 45 HJOF 04	9/16"-18 UNF	14	22	7.66 x 1.78
SW 45 HJOF 06	11/16" -16 UN	19	27	9.25 x 1.78
SW 45 HJOF 08	13/16" -16 UN	19	30	12.42 x 1.78
SW 45 HJOF 10	1" -14 UNS	27	32	15.60 x 1.78
SW 45 HJOF 12	1.3/16" -12 UN	30	38	18.77 x 1.78
SW 45 HJOF 16	1.7/16" -12 UN	37	48	23.52 x 1.78
SW 45 HJOF 20	1.11/16" -12 UN	41	51	29.87 x 1.78
SW 45 HJOF 24	2" -12 UN	48	60	37.82 x 1.78

SW, S1, S2 = With across flats

**W45 AJF HJOF****Connector, angle 45°**

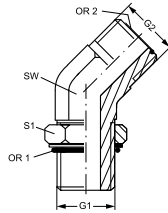
**Connection 1:** ORFS nut threads  
**Sealing form 1:** flat sealing  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Connectors  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	Working pressure bar	G1 + G2	SW mm	S1	OR
W45 AJF 04 HJOF	PN 630	9/16" -18 UNF	14	17	7.65 x 1.78
W45 AJF 06 HJOF	PN 630	11/16" -16 UN	19	22	9.25 x 1.78
W45 AJF 08 HJOF	PN 630	13/16" -16 UN	19	24	12.42 x 1.78
W45 AJF 10 HJOF	PN 400	1" -14 UNS	27	30	15.60 x 1.78
W45 AJF 12 HJOF	PN 400	1.3/16" -12 UN	30	36	18.77 x 1.78
W45 AJF 16 HJOF	PN 400	1.7/16" -12 UN	36	41	23.52 x 1.78
W45 AJF 20 HJOF	PN 250	1.11/16" -12 UN	41	50	29.87 x 1.78
W45 AJF 24 HJOF	PN 250	2" -12 UN	48	60	37.82 x 1.78

SW, S1, S2 = With across flats

**W45 O HJOF****Screw-in socket, angle 45°**

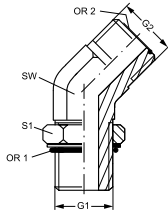
<b>Connection 1:</b>	UN/UNF external threads
<b>Sealing form 1:</b>	O-ring seal on screw-in socket
<b>Connection 2:</b>	ORFS external threads
<b>Sealing form 2:</b>	flat seal with O-ring
<b>Design:</b>	Adjustable direction screw-in socket
<b>Construction:</b>	Angle 45°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1	G2	SW mm	S1	OR1	OR2
W45 O 04 HJOF	7/16"-20 UNF	9/16"-18 UNF	14	16	8.92 x 1.83	7.65 x 1.78
W45 O 04 HJOF 06	7/16"-20 UNF	11/16"-16 UN	19	16	8.92 x 1.83	9.25 x 1.78
W45 O 06 HJOF 04	9/16"-18 UNF	9/16"-18 UNF	19	19	11.89 x 1.98	7.65 x 1.78
W45 O 06 HJOF	9/16"-18 UNF	11/16"-16 UN	19	19	11.89 x 1.98	9.25 x 1.78
W45 O 06 HJOF 08	9/16"-18 UNF	13/16"-16 UN	19	19	11.89 x 1.98	12.42 x 1.78
W45 O 08 HJOF 06	3/4"-16 UNF	11/16"-16 UN	19	24	16.36 x 2.21	12.42 x 1.78
W45 O 08 HJOF	3/4"-16 UNF	13/16"-16 UN	19	24	16.36 x 2.21	12.42 x 1.78
W45 O 08 HJOF 10	3/4"-16 UNF	1"-14 UNS	27	24	16.36 x 2.21	15.60 x 1.78
W45 O 10 HJOF 08	7/8"-14 UNF	13/16"-16 UN	27	27	19.18 x 2.46	12.42 x 1.78
W45 O 10 HJOF	7/8"-14 UNF	1"-14 UNS	27	27	19.18 x 2.46	15.60 x 1.78
W45 O 10 HJOF 12	7/8"-14 UNF	1.3/16"-12 UN	30	27	19.18 x 2.46	18.77 x 1.78
W45 O 12 HJOF 10	1.1/16"-12 UN	1"-14 UNS	30	36	23.47 x 2.95	15.60 x 1.78
W45 O 12 HJOF	1.1/16"-12 UN	1.3/16"-12 UN	30	35	23.47 x 2.95	18.77 x 1.78
W45 O 12 HJOF 16	1.1/16"-12 UN	1.7/16"-12 UN	36	36	23.47 x 2.95	23.52 x 1.78
W45 O 16 HJOF 12	1.5/16"-12 UN	1.3/16"-12 UN	37	41	29.74 x 2.95	18.77 x 1.78
W45 O 16 HJOF	1.5/16"-12 UN	1.7/16"-12 UN	37	41	29.74 x 2.95	23.52 x 1.78
W45 O 20 HJOF 16	1.5/8"-12 UN	1.7/16"-12 UN	41	48	37.47 x 3.00	23.52 x 1.78
W45 O 20 HJOF	1.5/8"-12 UN	1.11/16"-12 UN	41	48	37.47 x 3.00	29.87 x 1.78
W45 O 24 HJOF 20	1.7/8"-12 UN	1.11/16"-12 UN	48	54	43.69 x 3.00	29.87 x 1.78
W45 O 24 HJOF	1.7/8"-12 UN	2"-12 UN	48	54	43.69 x 3.00	37.82 x 1.78

SW, S1, S2 = With across flats

**Product versions:****W45 O HJOF VA** - Screw-in socket, angle 45°, Stainless steel

**W45 HMO HJOF****Screw-in socket, angle 45°**

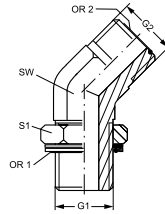
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR1	OR2
W45 HMO 12 HJOF 04	M 12 x 1.5	9/16" -18 UNF	14	17	9.30 x 2.30	7.65 x 1.78
W45 HMO 16 HJOF 06	M 16 x 1.5	11/16" -16 UN	19	22	13.30 x 2.30	9.25 x 1.78
W45 HMO 18 HJOF 08	M 18 x 1.5	13/16" -16 UN	19	24	15.30 x 2.30	12.42 x 1.78
W45 HMO 22 HJOF 10	M 22 x 1.5	1" -14 UNS	27	27	19.30 x 2.30	15.60 x 1.78
W45 HMO 27 HJOF 12	M 27 x 2	1.3/16" -12 UN	30	32	23.47 x 2.95	18.77 x 1.78
W45 HMO 33 HJOF 16	M 33 x 2	1.7/16" -12 UN	36	41	29.74 x 2.95	23.52 x 1.78
W45 HMO 42 HJOF 20	M 42 x 2	1.11/16" -12 UN	41	50	38.00 x 3.00	29.87 x 1.78
W45 HMO 48 HJOF 24	M 48 x 2	2" -12 UN	50	55	44.04 x 3.53	37.82 x 1.78

SW, S1, S2 = With across flats

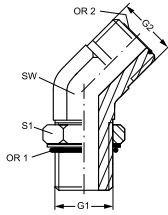
**W45 HMOK HJOF****Screw-in socket, angle 45°**

- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR1	OR2
W45 HMOK 12 HJOF 04	M 12 x 1.5	9/16"-18 UNF	14	17	9.30 x 2.30	7.65 x 1.78
W45 HMOK 16 HJOF 06	M 16 x 1.5	11/16"-16 UN	19	19	13.30 x 2.30	9.25 x 1.78
W45 HMOK 18 HJOF 08	M 18 x 1.5	13/16"-16 UN	19	22	15.30 x 2.30	12.42 x 1.78
W45 HMOK 22 HJOF 10	M 22 x 1.5	1"-14 UNS	27	27	19.30 x 2.30	15.60 x 1.78
W45 HMOK 27 HJOF 12	M 27 x 2	1.3/16"-12 UN	30	32	23.47 x 2.95	18.77 x 1.78
W45 HMOK 33 HJOF 16	M 33 x 2	1.7/16"-12 UN	36	38	29.74 x 2.95	23.52 x 1.78
W45 HMOK 42 HJOF 20	M 42 x 2	1.11/16"-12 UN	41	50	38.00 x 3.00	29.87 x 1.78
W45 HMOK 48 HJOF 24	M 48 x 2	2"-12 UN	50	55	44.04 x 3.53	37.82 x 1.78

SW, S1, S2 = With across flats

**W45 HRO HJOF****Screw-in socket, angle 45°**

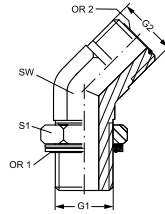
**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** ORFS external threads  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR1	OR2
W45 HRO 20 HJOF	G 1.1/4" -11	1.11/16" -12 UN	41	50	37.69 x 3.53	29.87 x 1.78
W45 HRO 24 HJOF	G 1.1/2" -11	2" -12 UN	50	55	44.04 x 3.53	37.82 x 1.78
SW, S1, S2 = With across flats						



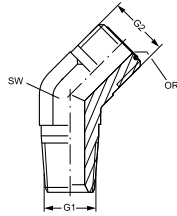
**W45 HROK HJOF****Screw-in socket, angle 45°**

- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring
- Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring
- Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR1	OR2
W45 HROK 02 HJOF 04	G 1/8" -28	9/16"-18 UNF	14	14	8.00 x 2.00	7.65 x 1.78
W45 HROK 04 HJOF	G 1/4" -19	9/16"-18 UNF	19	19	10.77 x 2.62	7.65 x 1.78
W45 HROK 04 HJOF 06	G 1/4" -19	11/16" -16 UN	19	19	10.77 x 2.62	9.25 x 1.78
W45 HROK 06 HJOF	G 3/8" -19	11/16" -16 UN	19	22	13.94 x 2.62	9.25 x 1.78
W45 HROK 06 HJOF 08	G 3/8" -19	13/16" -16 UN	19	22	13.94 x 2.62	12.42 x 1.78
W45 HROK 08 HJOF 06	G 1/2" -14	11/16" -16 UN	27	27	17.86 x 2.62	9.25 x 1.78
W45 HROK 08 HJOF	G 1/2" -14	13/16" -16 UN	27	27	17.86 x 2.62	12.42 x 1.78
W45 HROK 08 HJOF 10	G 1/2" -14	1" -14 UNS	27	27	17.86 x 2.62	15.60 x 1.78
W45 HROK 12 HJOF 10	G 3/4" -14	1" -14 UNS	30	36	23.47 x 2.62	15.60 x 1.78
W45 HROK 12 HJOF	G 3/4" -14	1.3/16" -12 UN	30	36	23.47 x 2.62	18.77 x 1.78
W45 HROK 16 HJOF 12	G 1" -11	1.3/16" -12 UN	36	41	29.75 x 3.53	18.77 x 1.78
W45 HROK 16 HJOF	G 1" -11	1.7/16" -12 UN	36	41	29.75 x 3.53	23.52 x 1.78
W45 HROK 20 HJOF	G 1.1/4" -11	1.11/16" -12 UN	41	50	37.69 x 3.53	29.87 x 1.78
W45 HROK 24 HJOF	G 1.1/2" -11	2" -12 UN	50	55	44.04 x 3.53	37.82 x 1.78

SW, S1, S2 = With across flats

**W45 HN HJOF****Screw-in socket, angle 45°**

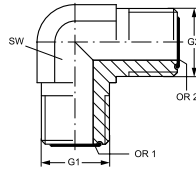
**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	OR
W45 HN 02 HJOF 04	1/8" -27 NPT	9/16"-18 UNF	14	7.65 x 1.78
W45 HN 04 HJOF	1/4" -18 NPT	9/16"-18 UNF	14	7.65 x 1.78
W45 HN 04 HJOF 06	1/4" -18 NPT	11/16"-16 UN	19	9.25 x 1.78
W45 HN 06 HJOF 04	3/8" -18 NPT	9/16"-18 UNF	19	7.65 x 1.78
W45 HN 06 HJOF	3/8" -18 NPT	11/16"-16 UN	19	9.25 x 1.78
W45 HN 06 HJOF 08	3/8" -18 NPT	13/16"-16 UN	19	12.42 x 1.78
W45 HN 08 HJOF 06	1/2" -14 NPT	11/16" -16 UN	22	9.25 x 1.78
W45 HN 08 HJOF	1/2" -14 NPT	13/16"-16 UN	22	12.42 x 1.78
W45 HN 08 HJOF 10	1/2" -14 NPT	1" -14 UNS	27	15.60 x 1.78
W45 HN 12 HJOF	3/4" -14 NPT	1.3/16"-12 UN	30	18.77 x 1.78
W45 HN 16 HJOF	1" -11.5 NPT	1.7/16"-12 UN	37	23.52 x 1.78

SW = Width across flats

**W90 HJOF****Fitting socket, angle 90°**

**Connection 1:** ORFS external threads  
**Sealing form 1:** flat seal with O-ring  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Fitting socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

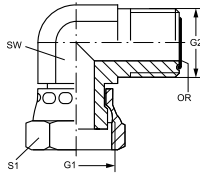


Identification	G1	G2	SW mm	OR1	OR2
W90 HJOF 04	9/16"-18 UNF	9/16"-18 UNF	14	7.65 x 1.78	7.65 x 1.78
W90 HJOF 04 HJOF 06	9/16"-18 UNF	11/16"-16 UN	19	7.65 x 1.78	9.25 x 1.78
W90 HJOF 06	11/16"-16 UN	11/16"-16 UN	19	9.25 x 1.78	9.25 x 1.78
W90 HJOF 06 HJOF 08	11/16"-16 UN	13/16"-16 UN	19	9.25 x 1.78	12.42 x 1.78
W90 HJOF 08	13/16"-16 UN	13/16"-16 UN	19	12.42 x 1.78	12.42 x 1.78
W90 HJOF 08 HJOF 12	13/16"-16 UN	1.3/16"-12 UN	30	12.42 x 1.78	18.77 x 1.78
W90 HJOF 10	1"-14 UNS	1"-14 UNS	27	15.60 x 1.78	15.60 x 1.78
W90 HJOF 12	1.3/16"-12 UN	1.3/16"-12 UN	30	18.77 x 1.78	18.77 x 1.78
W90 HJOF 16	1.7/16"-12 UN	1.7/16"-12 UN	36	23.52 x 1.78	23.52 x 1.78
W90 HJOF 20	1.11/16"-12 UN	1.11/16"-12 UN	41	29.87 x 1.78	29.87 x 1.78
W90 HJOF 24	2"-12 UN	2"-12 UN	48	37.82 x 1.78	37.82 x 1.78
W90 HJOF 32	2.1/2"-12 UN	2.1/2"-12 UN	64	48.90 x 2.62	48.90 x 2.62

SW = Width across flats

**Product versions:**

**W90 HJOF VA** - Fitting socket, angle 90°, Stainless steel

**W90 AJF HJOF****Screw-on socket, angle 90°**

**Connection 1:** ORFS nut threads  
**Sealing form 1:** flat sealing  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-on socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm	S1	OR
W90 AJF 04 HJOF	9/16"-18 UNF	14	17	7.65 x 1.78
W90 AJF 06 HJOF	11/16" -16 UN	19	22	9.25 x 1.78
W90 AJF 08 HJOF	13/16" -16 UN	19	24	12.42 x 1.78
W90 AJF 10 HJOF	1" -14 UNS	27	30	15.60 x 1.78
W90 AJF 12 HJOF	1.3/16" -12 UN	30	36	18.77 x 1.78
W90 AJF 16 HJOF	1.7/16" -12 UN	36	41	23.52 x 1.78
W90 AJF 20 HJOF	1.11/16" -12 UN	41	50	29.87 x 1.78
W90 AJF 24 HJOF	2" -12 UN	48	60	37.82 x 1.78

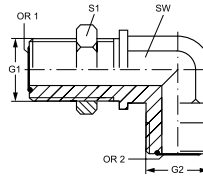
SW, S1, S2 = With across flats

**Product versions:**

**W90 AJF HJOF VA** - Screw-on socket, angle 90°, Stainless steel

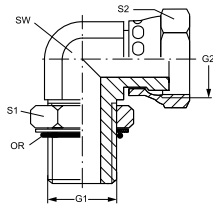
**SW HJOF****Bulkhead fitting socket, angle 90°**

**Connection 1:** ORFS external threads  
**Sealing form 1:** flat seal with O-ring  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Bulkhead fitting socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1	OR1 + OR2
SW HJOF 04	9/16"-18 UNF	14	22	7.66 x 1.78
SW HJOF 06	11/16"-16 UN	19	27	9.25 x 1.78
SW HJOF 08	13/16"-16 UN	19	30	12.42 x 1.78
SW HJOF 10	1" -14 UNS	27	32	15.60 x 1.78
SW HJOF 12	1.3/16" -12 UN	30	38	18.77 x 1.78
SW HJOF 16	1.7/16" -12 UN	37	46	23.52 x 1.78
SW HJOF 20	1.11/16" -12 UN	41	51	29.87 x 1.78
SW HJOF 24	2" -12 UN	60	48	37.82 x 1.78

SW, S1, S2 = With across flats

**W90 O AJF****Screw-in socket, ORFS, angle 90°**

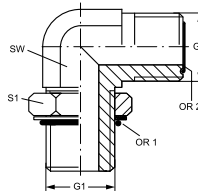
**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** ORFS nut threads  
**Sealing form 2:** Flat seal  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	S2	OR
W90 O 04 AJF	7/16"-20 UNF	9/16"-18 UNF	14	16	18	8.92 x 1.83
W90 O 06 AJF	9/16"-18 UNF	11/16"-16 UN	19	19	21	11.90 x 1.98
W90 O 08 AJF	3/4"-16 UNF	13/16"-16 UN	19	24	24	16.36 x 2.20
W90 O 10 AJF	7/8"-14 UNF	1" -14 UNS	27	27	29	19.18 x 2.46
W90 O 12 AJF	1.1/16" -12 UN	1.3/16" -12 UN	27	35	35	23.47 x 2.95
W90 O 16 AJF	1.5/16" -12 UN	1.7/16" -12 UN	33	41	41	29.74 x 2.95
W90 O 20 AJF	1.5/8" -12 UN	1.11/16" -12 UN	41	48	48	37.47 x 3.00
W90 O 24 AJF	1.7/8" -12 UN	2" -12 UN	48	54	57	43.69 x 3.00

SW, S1, S2 = With across flats

**W90 O HJOF****Screw-in socket, ORFS, angle 90°**

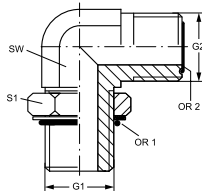
<b>Connection 1:</b>	UN/UNF external threads
<b>Sealing form 1:</b>	O-ring seal on screw-in socket
<b>Connection 2:</b>	ORFS external threads
<b>Sealing form 2:</b>	flat seal with O-ring
<b>Design:</b>	Adjustable direction screw-in socket
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1	G2	SW mm	S1	OR1	OR2
W90 O 04 HJOF	7/16"-20 UNF	9/16"-18 UNF	14	16	8.92 x 1.83	7.65 x 1.78
W90 O 04 HJOF 06	7/16"-20 UNF	11/16"-16 UNF	19	16	8.92 x 1.83	9.25 x 1.78
W90 O 06 HJOF 04	9/16"-18 UNF	9/16"-18 UNF	19	19	11.89 x 1.98	7.65 x 1.78
W90 O 06 HJOF	9/16"-18 UNF	11/16"-16 UN	19	19	11.89 x 1.98	9.25 x 1.78
W90 O 06 HJOF 08	9/16"-18 UNF	13/16"-16 UN	19	19	11.89 x 1.98	12.42 x 1.78
W90 O 08 HJOF 06	3/4"-16 UNF	11/16"-16 UN	19	24	16.36 x 2.21	9.25 x 1.78
W90 O 08 HJOF	3/4"-16 UNF	13/16"-16 UN	19	24	16.36 x 2.21	12.42 x 1.78
W90 O 08 HJOF 10	3/4"-16 UNF	1"-14 UNS	27	24	16.36 x 2.21	15.60 x 1.78
W90 O 08 HJOF 12	3/4"-16 UNF	1.3/16"-12 UN	30	24	16.36 x 2.21	18.77 x 1.78
W90 O 10 HJOF 06	7/8"-14 UNF	11/16"-16 UN	22	27	19.18 x 2.46	9.25 x 1.78
W90 O 10 HJOF 08	7/8"-14 UNF	13/16"-16 UN	27	27	19.18 x 2.46	12.42 x 1.78
W90 O 10 HJOF	7/8"-14 UNF	1"-14 UNS	27	27	19.18 x 2.46	15.60 x 1.78
W90 O 10 HJOF 12	7/8"-14 UNF	1.3/16"-12 UN	30	27	19.18 x 2.46	18.77 x 1.78
W90 O 12 HJOF 08	1.1/16"-12 UN	13/16"-16 UN	30	36	23.47 x 2.95	12.42 x 1.78
W90 O 12 HJOF 10	1.1/16"-12 UN	1"-14 UNS	30	35	23.47 x 2.95	15.60 x 1.78
W90 O 12 HJOF	1.1/16"-12 UN	1.3/16"-12 UN	30	36	23.47 x 2.95	18.77 x 1.78
W90 O 12 HJOF 16	1.1/16"-12 UN	1.7/16"-12 UN	37	35	23.47 x 2.95	23.52 x 1.78
W90 O 16 HJOF 12	1.5/16"-12 UN	1.3/16"-12 UN	36	41	29.74 x 2.95	18.77 x 1.78
W90 O 16 HJOF	1.5/16"-12 UN	1.7/16"-12 UN	37	41	29.74 x 2.95	23.52 x 1.78
W90 O 16 HJOF 20	1.5/16"-12 UN	1.11/16"-12 UN	41	41	29.74 x 2.95	29.87 x 1.78
W90 O 20 HJOF 16	1.5/8"-12 UN	1.7/16"-12 UN	41	48	37.47 x 3.00	23.52 x 1.78
W90 O 20 HJOF	1.5/8"-12 UN	1.11/16"-12 UN	41	48	37.47 x 3.00	29.87 x 1.78
W90 O 20 HJOF 24	1.5/8"-12 UN	2"-12 UN	48	48	37.47 x 3.00	37.82 x 1.78
W90 O 24 HJOF	1.7/8"-12 UN	2"-12 UN	48	54	43.69 x 3.00	37.82 x 1.78
W90 O 24 HJOF 20	1.7/8"-12 UN	1.11/16"-12 UN	48	54	43.69 x 3.00	29.87 x 1.78
W90 O 32 HJOF	2.1/2"-12 UN	2.1/2"-12 UN	64	70	59.36 x 3.00	48.90 x 2.62

SW, S1, S2 = With across flats

**Product versions:****W90 O HJOF VA** - Screw-in socket, ORFS, angle 90°, Stainless steel

**W90 HMO HJOF****Screw-in socket, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

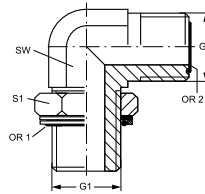
Identification	G1	G2	SW mm	S1	OR1	OR2
W90 HMO 10 HJOF 04	M 10 x 1	9/16"-18 UNF	14	14	8.2 x 1.5	7.65 x 1.78
W90 HMO 12 HJOF 04	M 12 x 1.5	9/16"-18 UNF	14	17	9.4 x 2.1	7.65 x 1.78
W90 HMO 14 HJOF 06	M 14 x 1.5	11/16"-16 UN	19	19	11.4 x 2.1	9.25 x 1.78
W90 HMO 16 HJOF 06	M 16 x 1.5	11/16"-16 UN	19	22	13.4 x 2.1	9.25 x 1.78
W90 HMO 16 HJOF 08	M 16 x 1.5	13/16"-16 UN	19	22	13.4 x 2.1	12.42 x 1.78
W90 HMO 18 HJOF 08	M 18 x 1.5	13/16"-16 UN	19	24	15.4 x 2.1	12.42 x 1.78
W90 HMO 18 HJOF 10	M 18 x 1.5	1" -14 UNS	27	24	15.4 x 2.1	15.60 x 1.78
W90 HMO 22 HJOF 08	M 22 x 1.5	13/16"-16 UN	27	27	19.4 x 2.1	12.42 x 1.78
W90 HMO 22 HJOF 10	M 22 x 1.5	1" -14 UNS	27	27	19.4 x 2.1	15.60 x 1.78
W90 HMO 22 HJOF 12	M 22 x 1.5	1.3/16"-12 UN	30	27	19.4 x 2.1	18.77 x 1.78
W90 HMO 27 HJOF 10	M 27 x 2	1" -14 UNS	27	32	23.7 x 2.8	15.60 x 1.78
W90 HMO 27 HJOF 12	M 27 x 1.5	1.3/16"-12 UN	30	32	23.7 x 2.8	18.77 x 1.78
W90 HMO 33 HJOF 12	M 33 x 2	1.3/16"-12 UN	30	41	29.7 x 2.8	18.77 x 1.78
W90 HMO 33 HJOF 16	M 33 x 2	1.7/16"-12 UN	36	41	29.7 x 2.8	23.52 x 1.78
W90 HMO 42 HJOF 16	M 42 x 2	1.7/16"-12 UN	36	50	38.7 x 2.8	23.52 x 1.78
W90 HMO 42 HJOF 20	M 42 x 2	1.11/16"-12 UN	41	50	38.7 x 2.8	29.87 x 1.78
W90 HMO 48 HJOF 20	M 48 x 2	1.11/16"-12 UN	41	55	46.7 x 2.8	29.87 x 1.78
W90 HMO 48 HJOF 24	M 48 x 2	2" -12 UN	50	55	46.7 x 2.8	37.82 x 1.78

SW, S1, S2 = With across flats



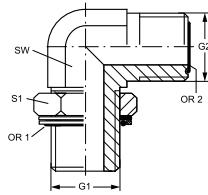
**W90 HMOK HJOF****Screw-in socket, angle 90°**

- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR1	OR2
W90 HMOK 10 HJOF 04	M 10 x 1	9/16"-18 UNF	14	15	8.00 x 1.50	7.65 x 1.78
W90 HMOK 12 HJOF 04	M 12 x 1.5	9/16"-18 UNF	14	18	9.30 x 2.30	7.65 x 1.78
W90 HMOK 14 HJOF 06	M 14 x 1.5	11/16"-16 UN	19	20	11.30 x 2.30	9.25 x 1.78
W90 HMOK 16 HJOF 06	M 16 x 1.5	11/16"-16 UN	19	20	13.30 x 2.30	9.25 x 1.78
W90 HMOK 18 HJOF 08	M 18 x 1.5	13/16"-16 UN	19	25	15.30 x 2.30	12.42 x 1.78
W90 HMOK 22 HJOF 08	M 22 x 1.5	13/16"-16 UN	19	28	19.30 x 2.30	12.42 x 1.78
W90 HMOK 22 HJOF 10	M 22 x 1.5	1" -14 UNS	27	28	19.30 x 2.30	15.60 x 1.78
W90 HMOK 27 HJOF 10	M 27 x 2	1" -14 UNS	27	32	23.47 x 2.95	15.60 x 1.78
W90 HMOK 27 HJOF 12	M 27 x 2	1.3/16" -12 UN	30	32	23.47 x 2.95	18.77 x 1.78
W90 HMOK 33 HJOF 12	M 33 x 2	1.3/16" -12 UN	30	42	29.74 x 2.95	18.77 x 1.78
W90 HMOK 33 HJOF 16	M 33 x 2	1.7/16" -12 UN	36	42	29.74 x 2.95	23.52 x 1.78
W90 HMOK 42 HJOF 16	M 42 x 2	1.7/16" -12 UN	36	50	38.00 x 3.00	23.52 x 1.78
W90 HMOK 42 HJOF 20	M 42 x 2	1.11/16" -12 UN	41	50	38.00 x 3.00	29.87 x 1.78
W90 HMOK 48 HJOF 20	M 48 x 2	1.11/16" -12 UN	41	56	44.04 x 3.53	29.87 x 1.78
W90 HMOK 48 HJOF 24	M 48 x 2	2" -12 UN	50	56	44.04 x 3.53	37.82 x 1.78

SW, S1, S2 = With across flats

**W90 HROK HJOF****Screw-in socket, angle 90°**

- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring
- Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring
- Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

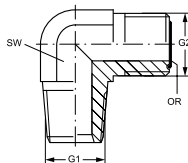
Identification	G1	G2	SW mm	S1	OR1	OR2
W90 HROK 02 HJOF 04	G 1/8" -28	9/16"-18 UNF	14	14	8.00 x 2.00	7.65 x 1.78
W90 HROK 04 HJOF	G 1/4" -19	9/16"-18 UNF	19	19	10.77 x 2.62	7.65 x 1.78
W90 HROK 04 HJOF 06	G 1/4" -19	11/16"-16 UN	19	19	10.77 x 2.62	9.25 x 1.78
W90 HROK 04 HJOF 08	G 1/4" -19	13/16"-16 UN	19	19	10.77 x 2.62	12.42 x 1.78
W90 HROK 06 HJOF 04	G 3/8" -19	9/16"-18 UNF	19	22	13.94 x 2.62	7.65 x 1.78
W90 HROK 06 HJOF	G 3/8" -19	11/16"-16 UN	19	22	13.94 x 2.62	9.25 x 1.78
W90 HROK 06 HJOF 08	G 3/8" -19	13/16"-16 UN	19	22	13.94 x 2.62	12.42 x 1.78
W90 HROK 06 HJOF 10	G 3/8" -19	1" -14 UNS	27	22	13.94 x 2.62	15.60 x 1.78
W90 HROK 08 HJOF 06	G 1/2" -14	11/16"-16 UN	27	27	17.86 x 2.62	9.25 x 1.78
W90 HROK 08 HJOF	G 1/2" -14	13/16"-16 UN	27	27	17.86 x 2.62	12.42 x 1.78
W90 HROK 08 HJOF 10	G 1/2" -14	1" -14 UNS	27	27	17.86 x 2.62	15.60 x 1.78
W90 HROK 08 HJOF 12	G 1/2" -14	1.3/16"-12 UN	30	27	17.86 x 2.62	18.77 x 1.78
W90 HROK 12 HJOF 08	G 3/4" -14	13/16"-16 UN	30	36	23.47 x 2.62	12.42 x 1.78
W90 HROK 12 HJOF 10	G 3/4" -14	1" -14 UNS	30	36	23.47 x 2.62	15.60 x 1.78
W90 HROK 12 HJOF	G 3/4" -14	1.3/16"-12 UN	30	36	23.47 x 2.62	18.77 x 1.78
W90 HROK 12 HJOF 16	G 3/4" -14	1.7/16"-12 UN	36	36	23.47 x 2.62	23.52 x 1.78
W90 HROK 16 HJOF 10	G 1" -11	1" -14 UNS	36	41	29.75 x 3.53	15.60 x 1.78
W90 HROK 16 HJOF 12	G 1" -11	1.3/16"-12 UN	36	41	29.75 x 3.53	18.77 x 1.78
W90 HROK 16 HJOF	G 1" -11	1.7/16"-12 UN	36	41	29.75 x 3.53	23.52 x 1.78
W90 HROK 16 HJOF 20	G 1" -11	1.1/16"-12 UN	41	41	29.75 x 3.53	29.87 x 1.78
W90 HROK 20 HJOF 16	G 1.1/4" -11	1.7/16"-12 UN	41	50	37.69 x 3.53	23.52 x 1.78
W90 HROK 20 HJOF	G 1.1/4" -11	1.1/16"-12 UN	41	50	37.69 x 3.53	29.87 x 1.78
W90 HROK 24 HJOF 20	G 1.1/2" -11	1.1/16"-12 UN	50	55	44.04 x 3.53	29.87 x 1.78
W90 HROK 24 HJOF	G 1.1/2" -11	2" -12 UN	50	55	44.04 x 3.53	37.82 x 1.78

SW, S1, S2 = With across flats

**Product versions:****W90 HROK HJOF VA** - Screw-in socket, angle 90°, Stainless steel

**W90 HN HJOF****Screw-in socket, angle 90°**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

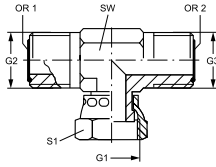


Identification	G1	G2	SW mm	OR
W90 HN 02 HJOF 04	1/8" -27 NPT	9/16"-18 UNF	14	7.65 x 1.78
W90 HN 04 HJOF	1/4" -18 NPT	9/16"-18 UNF	14	7.65 x 1.78
W90 HN 04 HJOF 06	1/4" -18 NPT	11/16" -16 UN	19	9.25 x 1.78
W90 HN 06 HJOF	3/8" -18 NPT	11/16" -16 UN	19	9.25 x 1.78
W90 HN 06 HJOF 08	3/8" -18 NPT	13/16" -16 UN	19	12.42 x 1.78
W90 HN 08 HJOF 06	1/2" -14 NPT	11/16" -16 UN	22	9.25 x 1.78
W90 HN 08 HJOF	1/2" -14 NPT	13/16" -16 UN	22	12.42 x 1.78
W90 HN 08 HJOF 10	1/2" -14 NPT	1" -14 UNS	27	15.60 x 1.78
W90 HN 08 HJOF 12	1/2" -14 NPT	1.3/16" -12 UN	30	18.77 x 1.78
W90 HN 12 HJOF 08	3/4" -14 NPT	13/16" -16 UN	30	12.42 x 1.78
W90 HN 12 HJOF 10	3/4" -14 NPT	1" -14 UNS	30	15.60 x 1.78
W90 HN 12 HJOF	3/4" -14 NPT	1.3/16" -12 UN	30	18.77 x 1.78
W90 HN 12 HJOF 16	3/4" -14 NPT	1.7/16" -12 UN	37	23.52 x 1.78
W90 HN 16 HJOF 12	1" -11.5 NPT	1.3/16" -12 UN	33	18.77 x 1.78
W90 HN 16 HJOF	1" -11.5 NPT	1.7/16" -12 UN	37	23.52 x 1.78
W90 HN 20 HJOF	1.1/4" -11.5 NPT	1.1/16" -12 UN	41	29.87 x 1.78
W90 HN 24 HJOF	1.1/2" -11.5 NPT	2" -12 UN	48	37.82 x 1.78

SW = Width across flats

**Product versions:**

**W90 HN HJOF VA** - Screw-in socket, angle 90°, Stainless steel

**T AJF HJOF****Screw-on socket, T shaped**

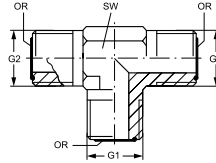
<b>Connection 1:</b>	ORFS nut threads
<b>Sealing form 1:</b>	flat sealing
<b>Connection 2 + 3:</b>	ORFS external threads
<b>Sealing form 2 + 3:</b>	flat seal with O-ring
<b>Design:</b>	Adjustable direction screw-on socket
<b>Construction:</b>	T shaped
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR1 + OR2
T AJF 04 HJOF	9/16"-18 UNF	9/16"-18 UNF	14	17	7.66 x 1.78
T AJF 06 HJOF	11/16" -16 UN	11/16" -16 UN	19	22	9.25 x 1.78
T AJF 08 HJOF	13/16" -16 UN	13/16" -16 UN	19	24	12.42 x 1.78
T AJF 10 HJOF	1" -14 UNS	1" -14 UNS	27	30	15.60 x 1.78
T AJF 12 HJOF	1.3/16" -12 UN	1.3/16" -12 UN	30	35	18.77 x 1.78
T AJF 16 HJOF	1.7/16" -12 UN	1.7/16" -12 UN	37	41	23.52 x 1.78
T AJF 20 HJOF	1.11/16" -12 UN	1.11/16" -12 UN	41	48	29.87 x 1.78
T AJF 24 HJOF	2" -12 UN	2" -12 UN	48	55	37.82 x 1.78

SW, S1, S2 = With across flats

**T HJOF****Fitting socket, T shaped**

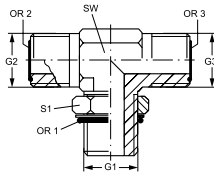
**Connection 1 - 3:** ORFS external threads  
**Sealing form 1 - 3:** flat seal with O-ring  
**Design:** Fitting socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 - G3	SW mm	OR1 - OR3
T HJOF 04	9/16"-18 UNF	14	7.65 x 1.78
T HJOF 06	11/16" -16 UN	19	9.25 x 1.78
T HJOF 08	13/16" -16 UN	19	12.42 x 1.78
T HJOF 10	1" -14 UNS	27	15.60 x 1.78
T HJOF 12	1.3/16" -12 UN	30	18.77 x 1.78
T HJOF 16	1.7/16" -12 UN	36	23.52 x 1.78
T HJOF 20	1.11/16" -12 UN	41	29.87 x 1.78
T HJOF 24	2" -12 UN	48	37.82 x 1.78
T HJOF 32	2.1/2" -12 UN	64	48.90 x 2.62
SW = Width across flats			

**Product versions:**

**T HJOF VA** - Fitting socket, T shaped, Stainless steel

**T O HJOF****Screw-in socket, T shaped**

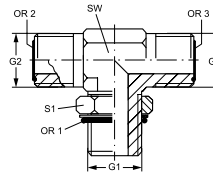
**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR1	OR2 + OR3
T O 04 HJOF	7/16"-20 UNF	9/16"-18 UNF	14	16	8.92 x 1.83	7.65 x 1.78
T O 06 HJOF	9/16"-18 UNF	11/16"-16 UN	19	19	11.89 x 1.98	9.25 x 1.78
T O 08 HJOF	3/4"-16 UNF	13/16"-16 UN	19	24	16.36 x 2.21	12.42 x 1.78
T O 10 HJOF	7/8"-14 UNF	1"-14 UNS	27	27	19.18 x 2.46	15.60 x 1.78
T O 12 HJOF	1.1/16"-12 UN	1.3/16"-12 UN	30	36	23.47 x 2.95	18.77 x 1.78
T O 16 HJOF	1.5/16"-12 UN	1.7/16"-12 UN	37	41	29.74 x 2.95	23.52 x 1.78
T O 20 HJOF	1.5/8"-12 UN	1.11/16"-12 UN	41	48	37.47 x 3.00	29.87 x 1.78
T O 24 HJOF	1.7/8"-12 UN	2"-12 UN	48	54	43.69 x 3.00	37.82 x 1.78

SW, S1, S2 = With across flats

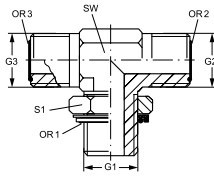
**T HMO HJOF****Screw-in socket, T shaped**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:**  
**3:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR1	OR2 + OR3
T HMO 12 HJOF 04	M 12 x 1.5	9/16"-18 UNF	14	17	8.2 x 1.5	7.65 x 1.78
T HMO 16 HJOF 06	M 16 x 1.5	11/16"-16 UN	19	22	13.4 x 2.1	9.25 x 1.78
T HMO 18 HJOF 08	M 18 x 1.5	13/16"-16 UN	19	24	15.4 x 2.1	12.42 x 1.78
T HMO 22 HJOF 10	M 22 x 1.5	1" -14 UNS	27	27	19.4 x 2.1	15.60 x 1.78
T HMO 27 HJOF 12	M 27 x 2	1.3/16" -12 UN	30	32	23.7 x 2.8	18.77 x 1.78
T HMO 33 HJOF 16	M 33 x 2	1.7/16" -12 UN	36	41	29.7 x 2.8	23.52 x 1.78
T HMO 42 HJOF 20	M 42 x 2	1.11/16" -12 UN	41	50	38.7 x 2.8	29.87 x 1.78
T HMO 48 HJOF 24	M 48 x 2	2" -12 UN	48	55	46.7 x 2.8	37.82 x 1.78

SW, S1, S2 = With across flats

**T HMOK HJOF****Screw-in socket, T shaped**

- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

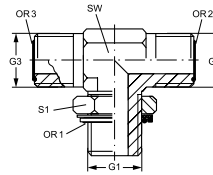
Identification	G1	G2 + G3	SW mm	S1	OR1	OR2 + OR3
T HMOK 12 HJOF 04	M 12 x 1.5	9/16"-18 UNF	14	17	9.4 x 2.1	7.66 x 1.78
T HMOK 16 HJOF 06	M 16 x 1.5	11/16"-16 UN	19	22	13.4 x 2.1	9.25 x 1.78
T HMOK 18 HJOF 08	M 18 x 1.5	13/16"-16 UN	19	24	15.4 x 2.1	12.42 x 1.78
T HMOK 22 HJOF 10	M 22 x 1.5	1"-14 UNS	27	27	19.4 x 2.1	15.60 x 1.78
T HMOK 27 HJOF 12	M 27 x 2	1.3/16"-12 UN	30	32	23.7 x 2.8	18.77 x 1.78
T HMOK 33 HJOF 16	M 33 x 2	1.7/16"-12 UN	36	41	29.7 x 2.8	23.52 x 1.78
T HMOK 42 HJOF 20	M 42 x 2	1.11/16"-12 UN	41	50	38.7 x 2.8	29.87 x 1.78
T HMOK 48 HJOF 24	M 48 x 2	2"-12 UN	48	55	46.7 x 2.8	37.82 x 1.78

SW, S1, S2 = With across flats



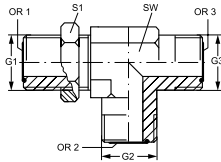
**T HROK HJOF****Screw-in socket, T shaped**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR1	OR2 + OR3
T HROK 02 HJOF 04	G 1/8" -28	9/16"-18 UNF	14	14	8.00 x 2.00	7.65 x 1.78
T HROK 04 HJOF	G 1/4" -19	9/16"-18 UNF	19	19	10.77 x 2.62	7.65 x 1.78
T HROK 04 HJOF 06	G 1/4" -19	11/16" -16 UN	19	19	10.70 x 2.62	9.25 x 1.78
T HROK 06 HJOF	G 3/8" -19	11/16" -16 UN	19	22	13.94 x 2.62	9.25 x 1.78
T HROK 06 HJOF 08	G 3/8" -19	13/16" -16 UN	19	22	13.94 x 2.62	12.42 x 1.78
T HROK 08 HJOF	G 1/2" -14	13/16" -16 UN	27	27	17.86 x 2.62	12.42 x 1.78
T HROK 08 HJOF 10	G 1/2" -14	1" -14 UNS	27	27	17.86 x 2.62	15.60 x 1.78
T HROK 12 HJOF 10	G 3/4" -14	1" -14 UNS	30	36	23.47 x 2.62	15.60 x 1.78
T HROK 12 HJOF	G 3/4" -14	1.3/16" -12 UN	30	36	23.47 x 2.62	12.42 x 1.78
T HROK 16 HJOF	G 1" -11	1.7/16" -12 UN	36	41	29.75 x 3.53	23.52 x 1.78
T HROK 20 HJOF	G 1.1/4" -11	1.11/16" -12 UN	41	50	37.69 x 3.53	29.87 x 1.78
T HROK 24 HJOF	G 1.1/2" -11	2" -12 UN	50	55	44.04 x 3.53	37.82 x 1.78

SW, S1, S2 = With across flats

**SL HJOF****Bulkhead fitting socket, T shaped**

**Connection 1 - 3:** ORFS external threads

**Sealing form 1 - 3:** flat seal with O-ring

**Design:** Adjustable direction bulkhead fitting socket

**Construction:** L shaped

**Material:** Steel

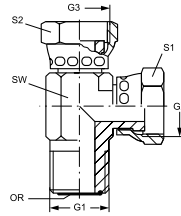
**Surface:** electro galvanised

Identification	G1 - G3	OR1 - OR3	SW mm	S1
SL HJOF 04	9/16"-18 UNF	7.66 x 1.78	14	22
SL HJOF 06	11/16" -16 UN	9.25 x 1.78	19	27
SL HJOF 08	13/16" -16 UN	12.42 x 1.78	19	30
SL HJOF 10	1" -14 UNS	15.60 x 1.78	27	32
SL HJOF 12	1.3/16" -12 UN	18.77 x 1.78	30	38
SL HJOF 16	1.7/16" -12 UN	23.52 x 1.78	37	46
SL HJOF 20	1.11/16" -12 UN	29.87 x 1.78	41	51
SL HJOF 24	2" -12 UN	37.82 x 1.78	48	60

SW, S1, S2 = With across flats

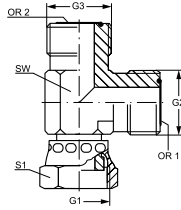
**L HJOF AJF****Screw-in socket, L shaped**

**Connection 1:** ORFS external threads  
**Sealing form 1:** flat seal with O-ring  
**Connection 2 + 3:** ORFS nut threads  
**Sealing form 2 + 3:** Flat seal  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1 + S2 mm	OR
L HJOF 04 AJF	9/16"-18 UNF	9/16"-18 UNF	14	17	7.65 x 1.78
L HJOF 06 AJF	11/16"-16 UN	11/16"-16 UN	19	22	9.25 x 1.78
L HJOF 08 AJF	13/16"-16 UN	13/16"-16 UN	19	24	12.42 x 1.78
L HJOF 10 AJF	1" -14 UNS	1" -14 UNS	27	30	15.60 x 1.78
L HJOF 12 AJF	1.3/16" -12 UN	1.3/16" -12 UN	30	35	18.77 x 1.78
L HJOF 16 AJF	1.7/16" -12 UN	1.7/16" -12 UN	37	41	23.52 x 1.78

SW, S1, S2 = With across flats

**L AJF HJOF****Screw-on socket, L shaped**

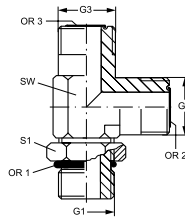
**Connection 1:** ORFS nut threads  
**Sealing form 1:** flat sealing  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:** flat seal with O-ring  
**Design:** Adjustable direction screw-on socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR1 + OR2
L AJF 04 HJOF	9/16"-18 UNF	9/16"-18 UNF	14	17	7.66 x 1.78
L AJF 06 HJOF	11/16" -16 UN	11/16" -16 UN	19	22	9.25 x 1.78
L AJF 08 HJOF	13/16" -16 UN	13/16" -16 UN	19	24	12.42 x 1.78
L AJF 10 HJOF	1" -14 UNS	1" -14 UNS	27	30	15.60 x 1.78
L AJF 12 HJOF	1.3/16" -12 UN	1.3/16" -12 UN	30	36	18.77 x 1.78
L AJF 16 HJOF	1.7/16" -12 UN	1.7/16" -12 UN	36	41	23.52 x 1.78
L AJF 20 HJOF	1.11/16" -12 UN	1.11/16" -12 UN	41	50	29.87 x 1.78
L AJF 24 HJOF	2" -12 UN	2" -12 UN	48	60	37.82 x 1.78

SW, S1, S2 = With across flats

**L O HJOF****Screw-in socket, L shaped**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** Shape F  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:**  
 flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

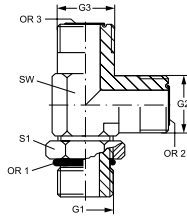


Identification	G1	G2 + G3	SW mm	S1	OR1	OR2 + OR3
L O 04 HJOF	7/16"-20 UNF	9/16"-18 UNF	14	16	8.92 x 1.83	7.66 x 1.78
L O 06 HJOF	9/16"-18 UNF	11/16"-16 UN	19	19	11.89 x 1.98	9.25 x 1.78
L O 08 HJOF	3/4"-16 UNF	13/16"-16 UN	19	24	16.36 x 2.21	12.42 x 1.78
L O 10 HJOF	7/8"-14 UNF	1"-14 UNS	27	27	19.18 x 2.46	15.60 x 1.78
L O 12 HJOF	1.1/16" -12 UN	1.3/16" -12 UN	30	35	23.47 x 2.95	18.77 x 1.78
L O 16 HJOF	1.5/16" -12 UN	1.7/16" -12 UN	36	41	29.74 x 2.95	23.52 x 1.78
L O 20 HJOF	1.5/8" -12 UN	1.11/16" -12 UN	41	48	37.47 x 3.00	29.87 x 1.78
L O 24 HJOF	1.7/8" -12 UN	2" -12 UN	48	54	43.69 x 3.00	37.82 x 1.78

SW = Width across flats

**Product versions:**

**L O HJOF VA** - Screw-in socket, L shaped, Stainless steel

**L HMO HJOF****Screw-in socket, L shaped**

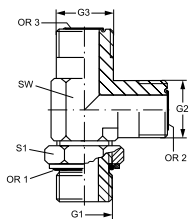
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR1	OR2 + OR3
L HMO 12 HJOF 04	M 12 x 1.5	9/16"-18 UNF	14	17	8.2 x 1.5	7.65 x 1.78
L HMO 16 HJOF 06	M 16 x 1.5	11/16"-16 UN	19	22	13.4 x 2.1	9.25 x 1.78
L HMO 18 HJOF 08	M 18 x 1.5	13/16"-16 UN	19	24	15.4 x 2.1	12.42 x 1.78
L HMO 22 HJOF 10	M 22 x 1.5	1" -14 UNS	27	27	19.4 x 2.1	15.60 x 1.78
L HMO 27 HJOF 12	M 27 x 2	1.3/16"-12 UN	30	32	23.7 x 2.8	18.77 x 1.78
L HMO 33 HJOF 16	M 33 x 2	1.7/16"-12 UN	36	41	29.7 x 2.8	23.52 x 1.78
L HMO 42 HJOF 20	M 42 x 2	1.11/16"-12 UN	41	50	38.7 x 2.8	29.87 x 1.78
L HMO 48 HJOF 24	M 48 x 2	2" -12 UN	48	55	46.7 x 2.8	37.82 x 1.78

SW, S1, S2 = With across flats

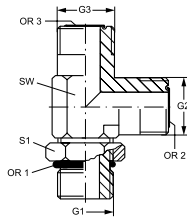
**L HMOK HJOF****Screw-in socket, L shaped**

- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR1	OR2 + OR3
L HMOK 12 HJOF 04	M 12 x 1.5	9/16" -18 UNF	14	17	9.4 x 2.1	7.66 x 1.78
L HMOK 16 HJOF 06	M 16 x 1.5	11/16" -16 UN	19	22	13.4 x 2.1	9.25 x 1.78
L HMOK 18 HJOF 08	M 18 x 1.5	13/16" -16 UN	19	24	15.4 x 2.1	12.42 x 1.78
L HMOK 22 HJOF 10	M 22 x 1.5	1" -14 UNS	27	27	19.4 x 2.1	15.60 x 1.78
L HMOK 27 HJOF 12	M 27 x 2	1.3/16" -12 UN	30	32	23.7 x 2.8	18.77 x 1.78
L HMOK 33 HJOF 16	M 33 x 2	1.7/16" -12 UN	36	41	29.7 x 2.8	23.52 x 1.78
L HMOK 42 HJOF 20	M 42 x 2	1.11/16" -12 UN	41	50	38.7 x 2.8	29.87 x 1.78
L HMOK 48 HJOF 24	M 48 x 2	2" -12 UN	48	55	46.7 x 2.8	37.82 x 1.78

SW, S1, S2 = With across flats

**L HRO HJOF****Screw-in socket, L shaped**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** ORFS external threads  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

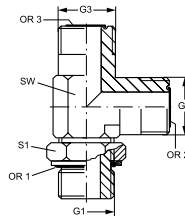
Identification	G1	G2 + G3	SW mm	S1	OR1	OR2 + OR3
L HRO 12 HJOF 10	G 3/4" -14	1" -14 UNS	30	36	23.47 x 2.62	15.60 x 1.78
L HRO 16 HJOF 12	G 1" -11	1.3/16" -12 UN	36	41	29.75 x 3.53	18.77 x 1.78

SW, S1, S2 = With across flats



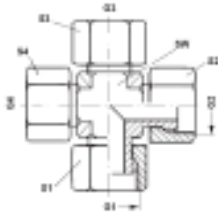
**L HROK HJOF****Screw-in socket, L shaped**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2 + 3:** ORFS external threads  
**Sealing form 2 + 3:** flat seal with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR1	OR2 + OR3
L HROK 02 HJOF 04	G 1/8" -28	9/16"-18 UNF	14	14	8.00 x 2.00	7.65 x 1.78
L HROK 04 HJOF	G 1/4" -19	9/16"-18 UNF	19	19	10.77 x 2.62	7.65 x 1.78
L HROK 04 HJOF 06	G 1/4" -19	11/16"-16 UN	19	19	10.77 x 2.62	9.25 x 1.78
L HROK 06 HJOF	G 3/8" -19	11/16"-16 UN	19	22	13.94 x 2.62	9.25 x 1.78
L HROK 06 HJOF 08	G 3/8" -19	13/16"-16 UN	19	22	13.94 x 2.62	12.42 x 1.78
L HROK 08 HJOF	G 1/2" -14	13/16"-16 UN	27	27	17.86 x 2.62	12.42 x 1.78
L HROK 08 HJOF 10	G 1/2" -14	1" -14 UNS	27	27	17.86 x 2.62	15.60 x 1.78
L HROK 12 HJOF 10	G 3/4" -14	1" -14 UNS	30	36	23.47 x 2.62	15.60 x 1.78
L HROK 12 HJOF	G 3/4" -14	1.3/16" -12 UN	30	36	23.47 x 2.62	18.77 x 1.78
L HROK 16 HJOF 12	G 1" -11	1.3/16" -12 UN	36	41	29.75 x 3.53	18.77 x 1.78
L HROK 16 HJOF	G 1" -11	1.7/16" -12 UN	36	41	29.75 x 3.53	23.52 x 1.78
L HROK 20 HJOF	G 1.1/4" -11	1.11/16" -12 UN	41	50	37.69 x 3.53	29.87 x 1.78
L HROK 24 HJOF	G 1.1/2" -11	2" -12 UN	50	55	44.04 x 3.53	37.82 x 1.78

SW, S1, S2 = With across flats

**K AJF****Connector, cross shaped**

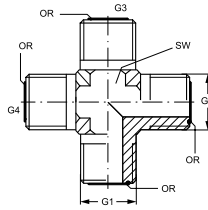
**Connection 1 - 4:** ORFS nut threads  
**Sealing form 1 - 4:** Flat seal  
**Design:** Connectors  
**Construction:** K shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 - G4	SW mm	S1 - S4 mm
K AJF 04	9/16" -18 UNF	14	17
K AJF 06	11/16" -16 UN	19	22
K AJF 08	13/16" -16 UN	19	24
K AJF 10	1" -14 UNS	27	30
K AJF 12	1.3/16" -12 UN	30	36
K AJF 16	1.7/16" -12 UN	37	41

SW, S1, S2 = With across flats

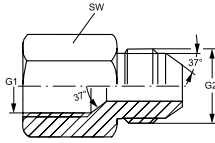
**K HJOF****Fitting socket, cross shaped**

**Connection 1 - 4:** ORFS external threads  
**Sealing form 1 - 4:** flat seal with O-ring  
**Design:** Fitting socket  
**Construction:** K shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 - G4	SW mm	OR1 - OR4
K HJOF 04	9/16"-18 UNF	14	7.66 x 1.78
K HJOF 06	11/16" -16 UN	19	9.25 x 1.78
K HJOF 08	13/16" -16 UN	19	12.42 x 1.78
K HJOF 10	1" -14 UNS	27	15.60 x 1.78
K HJOF 12	1.3/16" -12 UN	30	18.77 x 1.78
K HJOF 16	1.7/16" -12 UN	36	23.52 x 1.78
K HJOF 20	1.11/16" -12 UN	41	29.87 x 1.78
K HJOF 24	2" -12 UN	48	37.82 x 1.78

SW = Width across flats

**GIJHJ****Connectors**

**Connection 1:** UN/UNF inner thread  
**Sealing form 1:** 74° inner cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

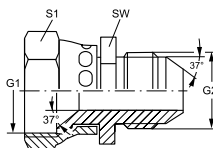
Identification	G1	G2	SW mm
G IJ 04 HJ 06	7/16"-20 UNF	9/16"-18 UNF	17
G IJ 04 HJ 08	7/16"-20 UNF	3/4"-16 UNF	22
G IJ 04 HJ 10	7/16"-20 UNF	7/8"-14 UNF	24
G IJ 05 HJ 04	1/2"-20 UNF	7/16"-20 UNF	17
G IJ 05 HJ 06	1/2"-20 UNF	9/16"-18 UNF	17
G IJ 05 HJ 08	1/2"-20 UNF	3/4"-16 UNF	17
G IJ 06 HJ 04	9/16"-18 UNF	7/16"-20 UNF	19
G IJ 06 HJ 05	9/16"-18 UNF	1/2"-20 UNF	19
G IJ 06 HJ 08	9/16"-18 UNF	3/4"-16 UNF	19
G IJ 08 HJ 04	3/4"-16 UNF	7/16"-20 UNF	22
G IJ 08 HJ 06	3/4"-16 UNF	9/16"-18 UNF	22
G IJ 08 HJ 10	3/4"-16 UNF	7/8"-14 UNF	24
G IJ 08 HJ 12	3/4"-16 UNF	1.1/16" -12 UN	22
G IJ 10 HJ 04	7/8"-14 UNF	7/16"-20 UNF	27
G IJ 10 HJ 06	7/8"-14 UNF	9/16"-18 UNF	27
G IJ 10 HJ 08	7/8"-14 UNF	3/4"-16 UNF	27
G IJ 12 HJ 04	1.1/16" -12 UN	7/16"-20 UNF	32
G IJ 12 HJ 06	1.1/16" -12 UN	9/16"-18 UNF	32
G IJ 12 HJ 08	1.1/16" -12 UN	3/4"-16 UNF	32
G IJ 12 HJ 10	1.1/16" -12 UN	7/8"-14 UNF	32
G IJ 16 HJ 08	1.5/16" -12 UN	3/4"-16 UNF	41
G IJ 16 HJ 10	1.5/16" -12 UN	7/8"-14 UNF	41
G IJ 16 HJ 12	1.5/16" -12 UN	1.1/16" -12 UN	41
G IJ 20 HJ 12	1.5/8" -12 UN	1.1/16" -12 UN	50
G IJ 20 HJ 16	1.5/8" -12 UN	1.5/16" -12 UN	50
G IJ 24 HJ 20	1.7/8" -12 UN	1.5/8" -12 UN	60
G IJ 32 HJ 24	2.1/2" -12 UN	1.7/8" -12 UN	75

SW = Width across flats

## G AJ HJ

## Connectors

**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
G AJ 04 HJ	7/16"-20 UNF	7/16"-20 UNF	12	17
G AJ 04 HJ 06	7/16"-20 UNF	9/16"-18 UNF	17	17
G AJ 05 HJ 04	1/2"-20 UNF	7/16"-20 UNF	14	17
G AJ 05 HJ	1/2"-20 UNF	1/2"-20 UNF	14	17
G AJ 06 HJ 04	9/16"-18 UNF	7/16"-20 UNF	17	17
G AJ 06 HJ 05	9/16"-18 UNF	1/2"-20 UNF	17	19
G AJ 06 HJ	9/16"-18 UNF	9/16"-18 UNF	17	19
G AJ 06 HJ 08	9/16"-18 UNF	3/4"-16 UNF	22	19
G AJ 08 HJ 04	3/4"-16 UNF	7/16"-20 UNF	19	22
G AJ 08 HJ 05	3/4"-16 UNF	1/2"-20 UNF	22	22
G AJ 08 HJ 06	3/4"-16 UNF	9/16"-18 UNF	19	22
G AJ 08 HJ	3/4"-16 UNF	3/4"-16 UNF	22	24
G AJ 08 HJ 10	3/4"-16 UNF	7/8"-14 UNF	24	24
G AJ 08 HJ 12	3/4"-16 UNF	1.1/16" -12 UN	24	24
G AJ 10 HJ 04	7/8"-14 UNF	7/16"-20 UNF	19	27
G AJ 10 HJ 05	7/8"-14 UNF	1/2"-20 UNF	19	27
G AJ 10 HJ 06	7/8"-14 UNF	9/16"-18 UNF	24	27
G AJ 10 HJ 08	7/8"-14 UNF	3/4"-16 UNF	22	27
G AJ 10 HJ	7/8"-14 UNF	7/8"-14 UNF	24	27
G AJ 10 HJ 12	7/8"-14 UNF	1.1/16" -12 UN	28	27
G AJ 12 HJ 04	1.1/16" -12 UN	7/16"-20 UNF	24	32
G AJ 12 HJ 05	1.1/16" -12 UN	1/2"-20 UNF	24	32
G AJ 12 HJ 06	1.1/16" -12 UN	9/16"-18 UNF	27	32
G AJ 12 HJ 08	1.1/16" -12 UN	3/4"-16 UNF	29	32
G AJ 12 HJ 10	1.1/16" -12 UN	7/8"-14 UNF	27	32
G AJ 12 HJ	1.1/16" -12 UN	1.1/16" -12 UN	32	32
G AJ 12 HJ 16	1.1/16" -12 UN	1.5/16" -12 UN	27	32
G AJ 14 HJ 12	1.3/16" -12 UN	1.1/16" -12 UN	32	35
G AJ 16 HJ 08	1.5/16" -12 UN	3/4"-16 UNF	36	41
G AJ 16 HJ 10	1.5/16" -12 UN	7/8"-14 UNF	36	41
G AJ 16 HJ 12	1.5/16" -12 UN	1.1/16" -12 UN	36	41
G AJ 16 HJ 14	1.5/16" -12 UN	1.3/16" -12 UN	36	41
G AJ 16 HJ	1.5/16" -12 UN	1.5/16" -12 UN	36	41
G AJ 20 HJ 10	1.5/8" -12 UN	7/8"-14 UNF	46	50
G AJ 20 HJ 12	1.5/8" -12 UN	1.1/16" -12 UN	41	41
G AJ 20 HJ 14	1.5/8" -12 UN	1.3/16" -12 UN	46	50
G AJ 20 HJ 16	1.5/8" -12 UN	1.5/16" -12 UN	46	50
G AJ 20 HJ	1.5/8" -12 UN	1.5/8" -12 UN	46	50
G AJ 24 HJ 20	1.7/8" -12 UN	1.5/8" -12 UN	50	55
G AJ 24 HJ	1.7/8" -12 UN	1.7/8" -12 UN	50	55

SW, S1, S2 = With across flats

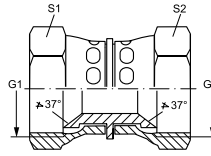
**G AJ HJ****Connectors****(Continued)**

Identification	G1	G2	SW mm	S1
G AJ 32 HJ 24	2.1/2" -12 UN	1.7/8" -12 UN	65	70
SW, S1, S2 = With across flats				

**Product versions:****G AJ HJ VA** - Connectors, Stainless steel

**G AJ****Connectors**

**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

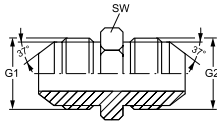


Identification	G1	G2	S1	S2
G AJ 04	7/16"-20 UNF	7/16"-20 UNF	14	14
G AJ 05	1/2"-20 UNF	1/2"-20 UNF	17	17
G AJ 06 AJ 04	9/16"-18 UNF	7/16"-20 UNF	19	14
G AJ 06 AJ 05	9/16"-18 UNF	1/2"-20 UNF	19	17
G AJ 06	9/16"-18 UNF	9/16"-18 UNF	19	19
G AJ 08 AJ 06	3/4"-16 UNF	9/16"-18 UNF	22	19
G AJ 08	3/4"-16 UNF	3/4"-16 UNF	22	22
G AJ 10 AJ 06	7/8"-14 UNF	9/16"-18 UNF	27	19
G AJ 10 AJ 08	7/8"-14 UNF	3/4"-16 UNF	27	22
G AJ 10	7/8"-14 UNF	7/8"-14 UNF	27	27
G AJ 12	1.1/16" -12 UN	1.1/16" -12 UN	32	32
G AJ 16 AJ 12	1.5/16" -12 UN	1.1/16" -12 UN	41	32
G AJ 16	1.5/16" -12 UN	1.5/16" -12 UN	41	41
G AJ 20	1.5/8" -12 UN	1.5/8" -12 UN	50	50
G AJ 24	1.7/8" -12 UN	1.7/8" -12 UN	60	60

SW, S1, S2 = With across flats

**Product versions:**

**G AJ VA** - Connectors, Stainless steel

**G HJ****Connection sockets**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
G HJ 03	3/8"-24 UNF	3/8"-24 UNF	12
G HJ 03 HJ 04	3/8"-24 UNF	7/16"-20 UNF	12
G HJ 04	7/16"-20 UNF	7/16"-20 UNF	12
G HJ 04 HJ 05	7/16"-20 UNF	1/2"-20 UNF	14
G HJ 04 HJ 06	7/16"-20 UNF	9/16"-18 UNF	17
G HJ 04 HJ 08	7/16"-20 UNF	3/4"-16 UNF	19
G HJ 04 HJ 10	7/16"-20 UNF	7/8"-14 UNF	24
G HJ 05	1/2"-20 UNF	1/2"-20 UNF	14
G HJ 05 HJ 06	1/2"-20 UNF	9/16"-18 UNF	17
G HJ 05 HJ 08	1/2"-20 UNF	3/4"-16 UNF	19
G HJ 05 HJ 10	1/2"-20 UNF	7/8"-14 UNF	24
G HJ 06	9/16"-18 UNF	9/16"-18 UNF	17
G HJ 06 HJ 08	9/16"-18 UNF	3/4"-16 UNF	19
G HJ 06 HJ 10	9/16"-18 UNF	7/8"-14 UNF	24
G HJ 06 HJ 12	9/16"-18 UNF	1.1/16"-12 UN	27
G HJ 08	3/4"-16 UNF	3/4"-16 UNF	19
G HJ 08 HJ 10	3/4"-16 UNF	7/8"-14 UNF	24
G HJ 08 HJ 12	3/4"-16 UNF	1.1/16"-12 UN	27
G HJ 08 HJ 16	3/4"-16 UNF	1.5/16"-12 UN	36
G HJ 10	7/8"-14 UNF	7/8"-14 UNF	24
G HJ 10 HJ 12	7/8"-14 UNF	1.1/16"-12 UN	27
G HJ 10 HJ 16	7/8"-14 UNF	1.5/16"-12 UN	36
G HJ 12	1.1/16"-12 UN	1.1/16"-12 UN	27
G HJ 12 HJ 14	1.1/16"-12 UN	1.3/16"-12 UN	32
G HJ 12 HJ 16	1.1/16"-12 UN	1.5/16"-12 UN	36
G HJ 12 HJ 20	1.1/16"-12 UN	1.5/8"-12 UN	46
G HJ 14	1.3/16"-12 UN	1.3/16"-12 UN	32
G HJ 14 HJ 16	1.3/16"-12 UN	1.5/16"-12 UN	36
G HJ 16	1.5/16"-12 UN	1.5/16"-12 UN	36
G HJ 16 HJ 20	1.5/16"-12 UN	1.5/8"-12 UN	46
G HJ 16 HJ 24	1.5/16"-12 UN	1.7/8"-12 UN	50
G HJ 20	1.5/8"-12 UN	1.5/8"-12 UN	46
G HJ 20 HJ 24	1.5/8"-12 UN	1.7/8"-12 UN	50
G HJ 24	1.7/8"-12 UN	1.7/8"-12 UN	50
G HJ 32	2.1/2"-12 UN	2.1/2"-12 UN	65

SW = Width across flats

**Product versions:**

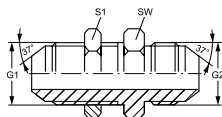
G HJ VA - Connection sockets, Stainless steel



## SV HJ

## Bulkhead fitting socket

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Bulkhead fitting socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

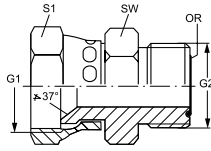


Identification	G1 + G2	SW mm	S1
SV HJ 04	7/16"-20 UNF	17	17
SV HJ 05	1/2"-20 UNF	19	19
SV HJ 06	9/16"-18 UNF	22	22
SV HJ 08	3/4"-16 UNF	24	24
SV HJ 10	7/8"-14 UNF	30	30
SV HJ 12	1.1/16" -12 UN	36	36
SV HJ 14	1.3/16" -12 UN	38	38
SV HJ 16	1.5/16" -12 UN	41	41
SV HJ 20	1.5/8" -12 UN	50	50
SV HJ 24	1.7/8" -12 UN	55	55
SV HJ 32	2.1/2" -12 UN	65	65

SW, S1, S2 = With across flats

**Product versions:**

SV HJ VA - Bulkhead fitting socket, Stainless steel

**G AJ HJOF****Connectors**

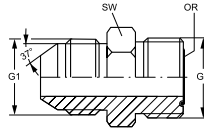
**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
G AJ 04 HJOF	7/16"-20 UNF	9/16"-18 UNF	16	14	7.65 x 1.78
G AJ 06 HJOF	9/16"-18 UNF	11/16"-16 UN	19	18	9.25 x 1.78
G AJ 08 HJOF	3/4"-16 UNF	13/16"-16 UN	22	22	12.42 x 1.78
G AJ 10 HJOF	7/8"-14 UNF	1"-14 UNS	27	25	15.60 x 1.78
G AJ 12 HJOF	1.1/16"-12 UN	1.3/16"-12 UN	32	32	18.77 x 1.78
G AJ 16 HJOF	1.5/16"-12 UN	1.7/16"-12 UN	38	38	23.52 x 1.78

SW, S1, S2 = With across flats

**G HJ HJOF****Connection sockets**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

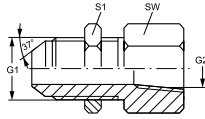


Identification	G1	G2	SW mm	OR
G HJ 04 HJOF	7/16"-20 UNF	9/16"-18 UNF	16	7.65 x 1.78
G HJ 05 HJOF 06	1/2"-20 UNF	11/16"-16 UN	19	9.25 x 1.78
G HJ 06 HJOF	9/16"-18 UNF	11/16"-16 UN	19	9.25 x 1.78
G HJ 08 HJOF	3/4"-16 UNF	13/16"-16 UN	22	12.42 x 1.78
G HJ 10 HJOF	7/8"-14 UNF	1"-14 UNS	27	15.60 x 1.78
G HJ 12 HJOF	1.1/16"-12 UN	1.3/16"-12 UN	32	18.77 x 1.78
G HJ 16 HJOF	1.5/16"-12 UN	1.7/16"-12 UN	38	23.52 x 1.78
G HJ 20 HJOF	1.5/8"-12 UN	1.11/16"-12 UN	45	29.87 x 1.78
G HJ 24 HJOF	1.7/8"-12 UN	2"-12 UN	54	37.82 x 1.78

SW = Width across flats

## SV HJ IN

## Bulkhead fitting socket



**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Bulkhead fitting socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

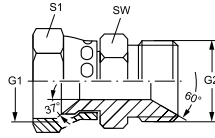
Identification	G1	G2	SW mm	S1
SV HJ 04 IN 02	7/16"-20 UNF	1/8" -27 NPT	17	17
SV HJ 04 IN	7/16"-20 UNF	1/4" -18 NPT	19	19
SV HJ 05 IN 02	1/2"-20 UNF	1/8" -27 NPT	21	17
SV HJ 05 IN 04	1/2"-20 UNF	1/4" -18 NPT	19	17
SV HJ 06 IN 02	9/16"-18 UNF	1/8" -27 NPT	17	21
SV HJ 06 IN 04	9/16"-18 UNF	1/4" -18 NPT	21	21
SV HJ 06 IN	9/16"-18 UNF	3/8" -18 NPT	25	21
SV HJ 08 IN 04	3/4"-16 UNF	1/4" -18 NPT	21	25
SV HJ 08 IN 06	3/4"-16 UNF	3/8" -18 NPT	25	25
SV HJ 08 IN	3/4"-16 UNF	1/2" -14 NPT	29	25
SV HJ 10 IN 08	7/8"-14 UNF	1/2" -14 NPT	29	29
SV HJ 12 IN 08	1.1/16" -12 UN	1/2" -14 NPT	29	35
SV HJ 12 IN	1.1/16" -12 UN	3/4" -14 NPT	35	35
SV HJ 14 IN 12	1.3/16" -12 UN	3/4" -14 NPT	35	41
SV HJ 16 IN	1.5/16" -12 UN	1" -11.5 NPT	41	41
SV HJ 20 IN	1.5/8" -12 UN	1.1/4" -11.5 NPT	46	46
SV HJ 24 IN	1.7/8" -12 UN	1.1/2" -11.5 NPT	50	50

SW, S1, S2 = With across flats

## G AJ HB

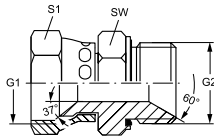
## Connectors

**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
G AJ 04 HB 02	7/16"-20 UNF	G 1/8" -28	14	17
G AJ 04 HB	7/16"-20 UNF	G 1/4" -19	19	17
G AJ 04 HB 06	7/16"-20 UNF	G 3/8" -19	22	17
G AJ 04 HB 08	7/16"-20 UNF	G 1/2" -14	27	17
G AJ 05 HB 04	1/2"-20 UNF	G 1/4" -19	19	17
G AJ 06 HB 04	9/16"-18 UNF	G 1/4" -19	19	19
G AJ 06 HB	9/16"-18 UNF	G 3/8" -19	22	19
G AJ 06 HB 08	9/16"-18 UNF	G 1/2" -14	27	19
G AJ 08 HB 04	3/4"-16 UNF	G 1/4" -19	19	24
G AJ 08 HB 06	3/4"-16 UNF	G 3/8" -19	22	24
G AJ 08 HB	3/4"-16 UNF	G 1/2" -14	27	24
G AJ 08 HB 12	3/4"-16 UNF	G 3/4" -14	32	24
G AJ 10 HB 06	7/8"-14 UNF	G 3/8" -19	22	27
G AJ 10 HB 08	7/8"-14 UNF	G 1/2" -14	27	27
G AJ 10 HB	7/8"-14 UNF	G 5/8" -14	30	27
G AJ 10 HB 12	7/8"-14 UNF	G 3/4" -14	32	27
G AJ 12 HB 08	1.1/16" -12 UN	G 1/2" -14	27	32
G AJ 12 HB	1.1/16" -12 UN	G 3/4" -14	32	32
G AJ 12 HB 16	1.1/16" -12 UN	G 1" -11	41	32
G AJ 16 HB 12	1.5/16" -12 UN	G 3/4" -14	32	41
G AJ 16 HB	1.5/16" -12 UN	G 1" -11	41	41
G AJ 20 HB	1.5/8" -12 UN	G 1.1/4" -11	50	50
G AJ 24 HB	1.7/8" -12 UN	G 1.1/2" -11	55	55
G AJ 32 HB	2.1/2" -12 UN	G 2" -11	70	70

SW, S1, S2 = With across flats

**G AJ HBED VA****Connectors**

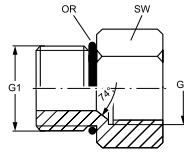
**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone + shape E  
**Design:** Connectors  
**Construction:** straight  
**Material:** Stainless steel

Identification	G1	G2	SW mm	S1
G AJ 04 HB 02 ED VA	7/16"-20 UNF	G 1/8" -28	14	17
G AJ 04 HBED VA	7/16"-20 UNF	G 1/4" -19	19	17
G AJ 05 HB 04 ED VA	1/2"-20 UNF	G 1/4" -19	19	17
G AJ 06 HB 04 ED VA	9/16"-18 UNF	G 1/4" -19	19	19
G AJ 06 HBED VA	9/16"-18 UNF	G 3/8" -19	22	19
G AJ 08 HB 06 ED VA	3/4"-16 UNF	G 3/8" -19	32	24
G AJ 08 HBED VA	3/4"-16 UNF	G 1/2" -14	27	24
G AJ 10 HB 08 ED VA	7/8"-14 UNF	G 1/2" -14	27	27
G AJ 12 HBED VA	1.1/16" -12 UN	G 3/4" -14	32	32
G AJ 12 HB 16 ED VA	1.1/16" -12 UN	G 1" -11	41	32
G AJ 16 HB 12 ED VA	1.5/16" -12 UN	G 3/4" -14	32	41
G AJ 16 HBED VA	1.5/16" -12 UN	G 1" -11	41	41
G AJ 20 HB 16 ED VA	1.5/8" -12 UN	G 1" -11	41	50
G AJ 20 HBED VA	1.5/8" -12 UN	G 1.1/4" -11	50	50
G AJ 24 HB 20 ED VA	1.7/8" -12 UN	G 1.1/4" -11	50	55
G AJ 24 HBED VA	1.7/8" -12 UN	G 1.1/2" -11	55	55

SW, S1, S2 = With across flats

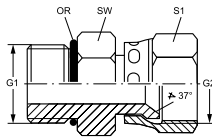
**GEOIJ****Screw-in sockets**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF inner thread  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR
GE O 06 IJ 08	9/16"-18 UNF	3/4"-16 UNF	27	11.90 x 1.98
GE O 10 IJ 08	7/8"-14 UNF	3/4"-16 UNF	25	19.18 x 2.46
GE O 10 IJ 12	7/8"-14 UNF	1.1/16"-12 UN	35	19.18 x 2.46
GE O 12 IJ 08	1.1/16"-12 UN	3/4"-16 UNF	32	23.47 x 2.95
GE O 12 IJ 10	1.1/16"-12 UN	7/8"-14 UNF	32	23.47 x 2.95
GE O 16 IJ 12	1.5/16"-12 UN	1.1/16"-12 UN	38	29.74 x 2.95

SW = Width across flats

**GE O AJ****Screw-in sockets**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
GE O 04 AJ	7/16"-20 UNF	7/16"-20 UNF	14	16	8.92 x 1.83
GE O 05 AJ 04	1/2"-20 UNF	7/16"-20 UNF	17	16	10.52 x 1.83
GE O 05 AJ	1/2"-20 UNF	1/2"-20 UNF	17	17	10.52 x 1.83
GE O 06 AJ 04	9/16"-18 UNF	7/16"-20 UNF	17	16	11.90 x 1.98
GE O 06 AJ	9/16"-18 UNF	9/16"-18 UNF	17	19	11.90 x 1.98
GE O 06 AJ 08	9/16"-18 UNF	3/4"-16 UNF	17	22	10.89 x 1.98
GE O 08 AJ 06	3/4"-16 UNF	9/16"-18 UNF	22	19	16.36 x 2.20
GE O 08 AJ	3/4"-16 UNF	3/4"-16 UNF	22	22	16.36 x 2.20
GE O 08 AJ 10	3/4"-16 UNF	7/8"-14 UNF	22	27	16.36 x 2.20
GE O 08 AJ 12	3/4"-16 UNF	1.1/16"-12 UN	22	32	16.36 x 2.20
GE O 10 AJ 08	7/8"-14 UNF	3/4"-16 UNF	27	22	19.18 x 2.46
GE O 10 AJ	7/8"-14 UNF	7/8"-14 UNF	27	27	19.18 x 2.46
GE O 10 AJ 12	7/8"-14 UNF	1.1/16"-12 UN	27	32	19.18 x 2.46
GE O 12 AJ 08	1.1/16"-12 UN	3/4"-16 UNF	32	22	23.47 x 2.95
GE O 12 AJ 10	1.1/16"-12 UN	7/8"-14 UNF	32	27	23.47 x 2.95
GE O 12 AJ	1.1/16"-12 UN	1.1/16"-12 UN	32	32	23.47 x 2.95
GE O 12 AJ 16	1.1/16"-12 UN	1.5/16"-12 UN	32	38	23.47 x 2.95
GE O 14 AJ	1.3/16"-12 UN	1.3/16"-12 UN	41	36	26.59 x 2.95
GE O 16 AJ 12	1.5/16"-12 UN	1.1/16"-12 UN	41	32	29.74 x 2.95
GE O 16 AJ	1.5/16"-12 UN	1.5/16"-12 UN	41	38	29.74 x 2.95
GE O 20 AJ 16	1.5/8"-12 UN	1.5/16"-12 UN	50	38	37.47 x 3.00
GE O 20 AJ	1.5/8"-12 UN	1.5/8"-12 UN	50	50	37.47 x 3.00
GE O 24 AJ	1.7/8"-12 UN	1.7/8"-12 UN	54	60	43.69 x 3.00

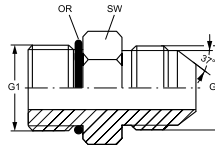
SW, S1, S2 = With across flats



## GEO HJ

## Screw-in sockets

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR
GE O 03 HJ 04	3/8"-24 UNF	7/16"-20 UNF	14	7.65 x 1.78
GE O 04 HJ	7/16"-20 UNF	7/16"-20 UNF	14	8.92 x 1.83
GE O 04 HJ 05	7/16"-20 UNF	1/2"-20 UNF	14	8.92 x 1.83
GE O 04 HJ 06	7/16"-20 UNF	9/16"-18 UNF	16	8.92 x 1.83
GE O 05 HJ 04	1/2"-20 UNF	7/16"-20 UNF	16	10.52 x 1.83
GE O 05 HJ	1/2"-20 UNF	1/2"-20 UNF	16	10.52 x 1.83
GE O 05 HJ 06	1/2"-20 UNF	9/16"-18 UNF	16	10.52 x 1.83
GE O 06 HJ 04	9/16"-18 UNF	7/16"-20 UNF	17	11.90 x 1.98
GE O 06 HJ 05	9/16"-18 UNF	1/2"-20 UNF	17	11.90 x 1.98
GE O 06 HJ	9/16"-18 UNF	9/16"-18 UNF	17	11.90 x 1.98
GE O 06 HJ 08	9/16"-18 UNF	3/4"-16 UNF	19	11.90 x 1.98
GE O 08 HJ 04	3/4"-16 UNF	7/16"-20 UNF	22	16.36 x 2.20
GE O 08 HJ 05	3/4"-16 UNF	1/2"-20 UNF	22	16.36 x 2.20
GE O 08 HJ 06	3/4"-16 UNF	9/16"-18 UNF	22	16.36 x 2.20
GE O 08 HJ	3/4"-16 UNF	3/4"-16 UNF	22	16.36 x 2.20
GE O 08 HJ 10	3/4"-16 UNF	7/8"-14 UNF	24	16.36 x 2.20
GE O 08 HJ 12	3/4"-16 UNF	1.1/16"-12 UN	29	16.36 x 2.20
GE O 10 HJ 08	7/8"-14 UNF	3/4"-16 UNF	27	19.18 x 2.46
GE O 10 HJ 06	7/8"-14 UNF	9/16"-18 UNF	25	19.18 x 2.46
GE O 10 HJ	7/8"-14 UNF	7/8"-14 UNF	27	19.18 x 2.46
GE O 10 HJ 12	7/8"-14 UNF	1.1/16"-12 UN	27	19.18 x 2.46
GE O 10 HJ 16	7/8"-14 UNF	1.5/16"-12 UN	35	19.18 x 2.46
GE O 12 HJ 06	1.1/16"-12 UN	9/16"-18 UNF	32	23.47 x 2.95
GE O 12 HJ 08	1.1/16"-12 UN	3/4"-16 UNF	32	23.47 x 2.95
GE O 12 HJ 10	1.1/16"-12 UN	7/8"-14 UNF	32	23.47 x 2.95
GE O 12 HJ	1.1/16"-12 UN	1.1/16"-12 UN	32	23.47 x 2.95
GE O 12 HJ 16	1.1/16"-12 UN	1.5/16"-12 UN	36	23.47 x 2.95
GE O 14 HJ 12	1.3/16"-12 UN	1.1/16"-12 UN	35	26.59 x 2.95
GE O 14 HJ	1.3/16"-12 UN	1.3/16"-12 UN	35	26.59 x 2.95
GE O 16 HJ 10	1.5/16"-12 UN	7/8"-14 UNF	41	29.74 x 2.95
GE O 16 HJ 12	1.5/16"-12 UN	1.1/16"-12 UN	38	29.74 x 2.95
GE O 16 HJ	1.5/16"-12 UN	1.5/16"-12 UN	38	29.74 x 2.95
GE O 16 HJ 20	1.5/16"-12 UN	1.5/8"-12 UN	43	29.74 x 2.95
GE O 16 HJ 24	1.5/16"-12 UN	1.7/8"-12 UN	55	29.74 x 2.95
GE O 20 HJ 16	1.5/8"-12 UN	1.5/16"-12 UN	35	37.47 x 3.00
GE O 20 HJ	1.5/8"-12 UN	1.5/8"-12 UN	50	37.47 x 3.00
GE O 20 HJ 24	1.5/8"-12 UN	1.7/8"-12 UN	51	37.47 x 3.00
GE O 24 HJ 20	1.7/8"-12 UN	1.5/8"-12 UN	51	43.69 x 3.00
GE O 24 HJ	1.7/8"-12 UN	1.7/8"-12 UN	55	43.69 x 3.00

SW = Width across flats

**GE O HJ****Screw-in sockets****(Continued)**

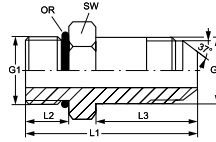
Identification	G1	G2	SW mm	OR
GE O 32 HJ	2.1/2" -12 UN	2.1/2" -12 UN	70	43.69 x 3.00

SW = Width across flats

**Product versions:****GE O HJ VA** - Screw-in sockets, Stainless steel

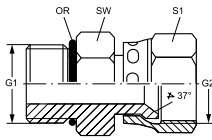
**GEOLHJ****Screw-in socket, long**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in socket, long  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	L1 mm	L2 mm	L3 mm	SW mm	OR
GEOL04HJ	7/16"-20 UNF	7/16"-20 UNF	52,8	9,5	35	17	8.92 x 1.83
GEOL05HJ04	1/2"-20 UNF	7/16"-20 UNF	52,5	9,5	35	19	10.52 x 1.83
GEOL05HJ	1/2"-20 UNF	1/2"-20 UNF	54,5	9,5	37	19	10.52 x 1.83
GEOL06HJ04	9/16"-18 UNF	7/16"-20 UNF	54,5	10,0	35	21	11.90 x 1.98
GEOL06HJ	9/16"-18 UNF	9/16"-18 UNF	58,5	10,0	39	21	11.90 x 1.98
GEOL08HJ06	3/4"-16 UNF	9/16"-18 UNF	60,0	9,5	39	26	16.36 x 2.20
GEOL08HJ	3/4"-16 UNF	3/4"-16 UNF	68,5	10,0	48	26	16.36 x 2.20
GEOL08HJ10	3/4"-16 UNF	7/8"-14 UNF	74,5	13,0	53	36	16.36 x 2.20
GEOL08HJ12	3/4"-16 UNF	1.1/16"-12 UN	86,5	13,0	63	36	16.36 x 2.20
GEOL10HJ08	7/8"-14 UNF	3/4"-16 UNF	71,5	11,5	48	30	19.18 x 2.46
GEOL10HJ	7/8"-14 UNF	7/8"-14 UNF	77,0	15,5	53	30	19.18 x 2.46
GEOL10HJ12	7/8"-14 UNF	1.1/16"-12 UN	88,0	15,5	63	36	19.18 x 2.46
GEOL12HJ08	1.1/16"-12 UN	3/4"-16 UNF	76,0	11,5	48	36	23.47 x 2.95
GEOL12HJ10	1.1/16"-12 UN	7/8"-14 UNF	81,5	11,5	53	36	23.47 x 2.95
GEOL12HJ	1.1/16"-12 UN	1.1/16"-12 UN	91,5	11,5	63	36	23.47 x 2.95
GEOL12HJ16	1.1/16"-12 UN	1.5/16"-12 UN	100,0	15,5	72	45	23.47 x 2.95
GEOL14HJ	1.3/16"-12 UN	1.3/16"-12 UN	96,5	15,5	68	40	26.59 x 2.95
GEOL16HJ12	1.5/16"-12 UN	1.1/16"-12 UN	92,5	13,0	63	45	29.74 x 2.95
GEOL16HJ	1.5/16"-12 UN	1.5/16"-12 UN	101,0	15,5	72	45	29.74 x 2.95
GEOL20HJ16	1.5/8"-12 UN	1.5/16"-12 UN	102,0	15,5	72	55	37.47 x 3.00
GEOL20HJ	1.5/8"-12 UN	1.5/8"-12 UN	119,0	15,5	88	55	37.47 x 3.00
GEOL24HJ	1.7/8"-12 UN	1.7/8"-12 UN	131,0	15,5	98	62	43.69 x 3.00

SW = Width across flats

**GE HMO AJ****Screw-in sockets**

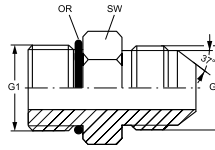
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
GE HMO 10 AJ 04	M 10 x 1	7/16"-20 UNF	14	16	8.2 x 1.5
GE HMO 10 AJ 05	M 10 x 1	1/2"-20 UNF	14	17	8.2 x 1.5
GE HMO 12 AJ 04	M 12 x 1.5	7/16"-20 UNF	17	16	9.4 x 2.1
GE HMO 12 AJ 05	M 12 x 1.5	1/2"-20 UNF	17	17	9.4 x 2.1
GE HMO 14 AJ 05	M 14 x 1.5	1/2"-20 UNF	19	17	11.4 x 2.1
GE HMO 14 AJ 06	M 14 x 1.5	9/16"-18 UNF	19	19	11.4 x 2.1
GE HMO 16 AJ 06	M 16 x 1.5	9/16"-18 UNF	22	19	13.4 x 2.1
GE HMO 16 AJ 08	M 16 x 1.5	3/4"-16 UNF	22	22	13.4 x 2.1
GE HMO 18 AJ 08	M 18 x 1.5	3/4"-16 UNF	24	22	15.4 x 2.1
GE HMO 18 AJ 10	M 18 x 1.5	7/8"-14 UNF	24	27	15.4 x 2.1
GE HMO 22 AJ 10	M 22 x 1.5	7/8"-14 UNF	27	27	19.4 x 2.1
GE HMO 22 AJ 12	M 22 x 1.5	1.1/16"-12 UN	27	32	19.4 x 2.1
GE HMO 27 AJ 12	M 27 x 2	1.1/16"-12 UN	32	32	23.7 x 2.8
GE HMO 27 AJ 16	M 27 x 2	1.5/16"-12 UN	32	38	23.7 x 2.8
GE HMO 33 AJ 16	M 33 x 2	1.5/16"-12 UN	41	38	29.7 x 2.8
GE HMO 42 AJ 20	M 42 x 2	1.5/8"-12 UN	50	50	38.7 x 2.8
GE HMO 48 AJ 24	M 48 x 2	1.7/8"-12 UN	60	60	46.7 x 2.8

SW, S1, S2 = With across flats

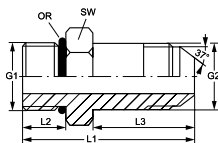
**GE HMO HJ****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR
GE HMO 10 HJ 04	M 10 x 1	7/16"-20 UNF	14	8.1 x 1.6
GE HMO 10 HJ 05	M 10 x 1	1/2"-20 UNF	14	8.1 x 1.6
GE HMO 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	17	9.3 x 2.2
GE HMO 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	17	9.3 x 2.2
GE HMO 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	19	11.3 x 2.2
GE HMO 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	19	11.3 x 2.2
GE HMO 14 HJ 08	M 14 x 1.5	3/4"-16 UNF	19	11.3 x 2.2
GE HMO 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	22	13.3 x 2.2
GE HMO 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	22	13.3 x 2.2
GE HMO 18 HJ 06	M 18 x 1.5	9/16"-18 UNF	24	15.3 x 2.2
GE HMO 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	24	15.3 x 2.2
GE HMO 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	24	15.3 x 2.2
GE HMO 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	27	19.3 x 2.2
GE HMO 22 HJ 12	M 22 x 1.5	1.1/16" -12 UN	27	19.3 x 2.2
GE HMO 27 HJ 12	M 27 x 2	1.1/16" -12 UN	32	23.6 x 2.9
GE HMO 27 HJ 16	M 27 x 2	1.5/16" -12 UN	36	23.6 x 2.9
GE HMO 33 HJ 16	M 33 x 2	1.5/16" -12 UN	41	29.6 x 2.9
GE HMO 42 HJ 20	M 42 x 2	1.5/8" -12 UN	50	38.6 x 2.9
GE HMO 48 HJ 24	M 48 x 2	1.7/8" -12 UN	55	44.6 x 2.9

SW = Width across flats

**GE HMO L HJ****Screw-in socket, long**

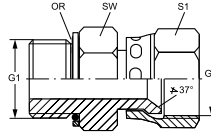
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in socket, long  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	L1 mm	L2 mm	L3 mm	SW mm	OR
GE HMO L 10 HJ 04	M 10 x 1	7/16"-20 UNF	51,0	9,0	35	15	8.00 x 1.50
GE HMO L 10 HJ 05	M 10 x 1	1/2"-20 UNF	53,0	9,0	37	15	8.00 x 1.50
GE HMO L 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	55,5	11,0	37	18	9.30 x 2.40
GE HMO L 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	56,5	11,0	37	20	11.30 x 2.40
GE HMO L 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	58,5	11,0	39	20	11.30 x 2.40
GE HMO L 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	60,0	12,5	39	23	13.30 x 2.40
GE HMO L 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	69,0	12,5	48	23	13.30 x 2.40
GE HMO L 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	70,5	13,5	48	25	15.30 x 2.40
GE HMO L 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	75,5	13,5	53	25	15.30 x 2.40
GE HMO L 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	78,0	15,0	53	28	19.30 x 2.40
GE HMO L 22 HJ 12	M 22 x 1.5	1.1/16"-12 UN	89,0	15,0	63	28	19.30 x 2.40
GE HMO L 27 HJ 12	M 27 x 2	1.1/16"-12 UN	92,5	18,5	63	32	23.47 x 2.95
GE HMO L 27 HJ 16	M 27 x 2	1.5/16"-12 UN	102,0	18,5	72	32	23.47 x 2.95
GE HMO L 33 HJ 16	M 33 x 2	1.5/16"-12 UN	102,5	18,5	72	42	29.74 x 2.95
GE HMO L 42 HJ 20	M 42 x 2	1.5/8"-12 UN	121,0	19,0	88	50	38.00 x 3.00
GE HMO L 48 HJ 24	M 48 x 2	1.7/8"-12 UN	136,0	22,0	98	56	44.04 x 3.00

SW = Width across flats

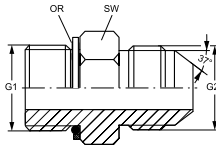
**GE HMOK AJ****Screw-in sockets**

- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer  
 diaphragm ring  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
GE HMOK 10 AJ 04	M 10 x 1	7/16"-20 UNF	14	16	8.0 x 1.5
GE HMOK 10 AJ 05	M 10 x 1	1/2"-20 UNF	14	17	8.0 x 1.5
GE HMOK 12 AJ 04	M 12 x 1.5	7/16"-20 UNF	17	16	9.3 x 2.4
GE HMOK 12 AJ 05	M 12 x 1.5	1/2"-20 UNF	17	17	9.3 x 2.4
GE HMOK 14 AJ 05	M 14 x 1.5	1/2"-20 UNF	19	17	11.3 x 2.4
GE HMOK 14 AJ 06	M 14 x 1.5	9/16"-18 UNF	19	19	11.3 x 2.4
GE HMOK 16 AJ 06	M 16 x 1.5	9/16"-18 UNF	22	19	13.3 x 2.4
GE HMOK 16 AJ 08	M 16 x 1.5	3/4"-16 UNF	22	22	13.3 x 2.4
GE HMOK 18 AJ 08	M 18 x 1.5	3/4"-16 UNF	24	22	15.3 x 2.4
GE HMOK 18 AJ 10	M 18 x 1.5	7/8"-14 UNF	24	27	15.3 x 2.4
GE HMOK 20 AJ 10	M 20 x 1.5	7/8"-14 UNF	27	27	17.3 x 2.4
GE HMOK 22 AJ 10	M 22 x 1.5	7/8"-14 UNF	27	27	19.3 x 2.4
GE HMOK 22 AJ 12	M 22 x 1.5	1.1/16" -12 UN	27	32	19.3 x 2.4
GE HMOK 26 AJ 14	M 26 x 1.5	1.3/16" -12 UN	32	40	23.5 x 2.6
GE HMOK 27 AJ 12	M 27 x 2	1.1/16" -12 UN	32	32	23.6 x 2.9
GE HMOK 27 AJ 16	M 27 x 2	1.5/16" -12 UN	32	38	23.6 x 2.9
GE HMOK 33 AJ 16	M 33 x 2	1.5/16" -12 UN	41	38	29.5 x 3.0
GE HMOK 42 AJ 20	M 42 x 2	1.5/8" -12 UN	50	50	38.0 x 3.0
GE HMOK 48 AJ 24	M 48 x 2	1.7/8" -12 UN	60	60	44.0 x 3.0

SW, S1, S2 = With across flats

**GE HMOK HJ****Screw-in sockets**

**Connection 1:**  
**Sealing form 1:**

metric cylindrical outer thread  
Thread socket with O-ring + spacer  
diaphragm ring

**Connection 2:**  
**Sealing form 2:**

UN/UNF external threads  
74° outer cone

**Design:**

Screw-in sockets

**Construction:**

straight

**Material:**

Steel

**Surface:**

electro galvanised

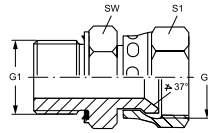
Identification	G1	G2	SW mm	OR
GE HMOK 10 HJ 04	M 10 x 1	7/16"-20 UNF	14	8.00 x 1.50
GE HMOK 10 HJ 05	M 10 x 1	1/2"-20 UNF	14	8.00 x 1.50
GE HMOK 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	17	9.30 x 2.30
GE HMOK 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	19	9.30 x 2.30
GE HMOK 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	19	11.30 x 2.30
GE HMOK 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	19	11.30 x 2.30
GE HMOK 14 HJ 08	M 14 x 1.5	3/4"-16 UNF	19	11.30 x 2.30
GE HMOK 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	22	13.30 x 2.30
GE HMOK 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	22	13.30 x 2.30
GE HMOK 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	24	15.30 x 2.30
GE HMOK 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	24	15.30 x 2.30
GE HMOK 18 HJ 12	M 18 x 1.5	1.1/16"-12 UN	27	15.30 x 2.30
GE HMOK 20 HJ 10	M 20 x 1.5	7/8"-14 UNF	27	17.30 x 2.30
GE HMOK 22 HJ 08	M 22 x 1.5	3/4"-16 UNF	27	19.30 x 2.30
GE HMOK 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	27	19.30 x 2.30
GE HMOK 22 HJ 12	M 22 x 1.5	1.1/16"-12 UN	27	19.30 x 2.30
GE HMOK 26 HJ 08	M 26 x 1.5	3/4"-16 UNF	27	23.50 x 2.60
GE HMOK 26 HJ 12	M 26 x 1.5	1.1/16"-12 UN	32	23.50 x 2.60
GE HMOK 26 HJ 14	M 26 x 1.5	1.3/16"-12 UN	32	23.50 x 2.60
GE HMOK 26 HJ 16	M 26 x 1.5	1.5/16"-12 UN	36	23.50 x 2.60
GE HMOK 27 HJ 12	M 27 x 2	1.1/16"-12 UN	32	23.47 x 2.95
GE HMOK 27 HJ 16	M 27 x 2	1.5/16"-12 UN	36	23.47 x 2.95
GE HMOK 33 HJ 16	M 33 x 2	1.5/16"-12 UN	41	29.74 x 2.95
GE HMOK 42 HJ 20	M 42 x 2	1.5/8"-12 UN	50	38.00 x 3.00
GE HMOK 48 HJ 24	M 48 x 2	1.7/8"-12 UN	55	44.00 x 3.00

SW = Width across flats



**GE HMED AJ****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

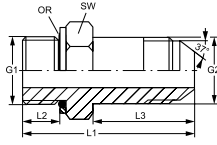


Identification	G1	G2	SW mm	S1
GE HMED 10 AJ 04	M 10 x 1	7/16"-20 UNF	14	16
GE HMED 12 AJ 05	M 12 x 1.5	1/2"-20 UNF	17	17
GE HMED 14 AJ 06	M 14 x 1.5	9/16"-18 UNF	19	19
GE HMED 16 AJ 08	M 16 x 1.5	3/4"-16 UNF	22	22
GE HMED 22 AJ 10	M 22 x 1.5	7/8"-14 UNF	27	27
GE HMED 27 AJ 12	M 27 x 2	1.1/16" -12 UN	32	32
GE HMED 33 AJ 16	M 33 x 2	1.5/16" -12 UN	41	38

SW, S1, S2 = With across flats

**Spare parts:**

WD - Soft seal for ED fittings

**GE HMOK L HJ****Screw-in socket, long**

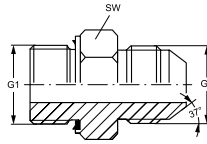
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in socket, long  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	L1 mm	L2 mm	L3 mm	SW mm	OR
GE HMOK L 10 HJ 04	M 10 x 1	7/16"-20 UNF	51,0	8,0	35	15	8.00 x 1.50
GE HMOK L 10 HJ 05	M 10 x 1	1/2"-20 UNF	53,0	8,0	37	15	8.00 x 1.50
GE HMOK L 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	55,5	9,5	37	18	9.30 x 2.30
GE HMOK L 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	56,5	9,5	37	20	11.30 x 2.30
GE HMOK L 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	58,5	9,5	39	20	11.30 x 2.30
GE HMOK L 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	60,0	11,0	39	22	13.30 x 2.30
GE HMOK L 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	69,0	11,0	48	22	13.30 x 2.30
GE HMOK L 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	70,5	12,0	48	25	15.30 x 2.30
GE HMOK L 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	75,5	12,0	53	25	15.30 x 2.30
GE HMOK L 20 HJ 10	M 20 x 1.5	7/8"-14 UNF	76,5	12,0	53	28	17.30 x 2.30
GE HMOK L 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	78,0	13,5	53	28	19.30 x 2.30
GE HMOK L 22 HJ 12	M 22 x 1.5	1.1/16"-12 UN	89,0	13,5	63	28	19.30 x 2.30
GE HMOK L 27 HJ 12	M 27 x 2	1.1/16"-12 UN	92,5	16,0	63	32	23.47 x 2.95
GE HMOK L 27 HJ 16	M 27 x 2	1.5/16"-12 UN	102,0	16,0	72	32	23.47 x 2.95
GE HMOK L 33 HJ 16	M 33 x 2	1.5/16"-12 UN	102,5	16,0	72	42	29.74 x 2.95
GE HMOK L 42 HJ 20	M 42 x 2	1.5/8"-12 UN	121,0	16,5	88	50	38.00 x 3.00
GE HMOK L 48 HJ 24	M 48 x 2	1.7/8"-12 UN	136,0	19,5	88	56	44.00 x 3.00

SW = Width across flats

**GE HMED HJ****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

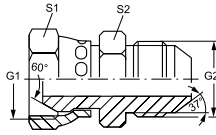


Identification	G1	G2	SW mm
GE HMED 10 HJ 04	M 10 x 1	7/16" -20 UN	14
GE HMED 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	17
GE HMED 12 HJ 06	M 12 x 1.5	9/16"-18 UNF	17
GE HMED 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	19
GE HMED 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	22
GE HMED 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	22
GE HMED 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	24
GE HMED 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	24
GE HMED 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	27
GE HMED 22 HJ 12	M 22 x 1.5	1.1/16" -12 UN	27
GE HMED 27 HJ 12	M 27 x 2	1.1/16" -12 UN	32
GE HMED 33 HJ 16	M 33 x 2	1.5/16" -12 UN	41
GE HMED 42HJ 20	M 42 x 2	1.5/8" -12 UN	50
GE HMED 48 H J24	M 48 x 2	1.7/8" -12 UN	55

SW = Width across flats

**Spare parts:**

**WD** - Soft seal for ED fittings

**G AB HJ****Connectors**

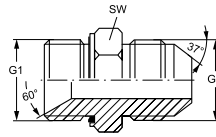
**Sealing form 1:** 60° outer cone  
**Connection 1:** BSP nut thread  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	S1	S2
G AB 02 HJ 04	G 1/8" -28	7/16"-20 UNF	14	13
G AB 04 HJ	G 1/4" -19	7/16"-20 UNF	19	19
G AB 04 HJ 05	G 1/4" -19	1/2"-20 UNF	19	19
G AB 04 HJ 06	G 1/4" -19	9/16"-18 UNF	19	16
G AB 06 HJ	G 3/8" -19	9/16"-18 UNF	22	19
G AB 06 HJ 04	G 3/8" -19	7/16"-20 UNF	22	19
G AB 06 HJ 08	G 3/8" -19	3/4"-16 UNF	22	19
G AB 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	24
G AB 08 HJ	G 1/2" -14	3/4"-16 UNF	27	22
G AB 08 HJ 04	G 1/2" -14	7/16"-20 UNF	27	22
G AB 08 HJ 06	G 1/2" -14	9/16"-18 UNF	27	22
G AB 08 HJ 10	G 1/2" -14	7/8"-14 UNF	27	24
G AB 12 HJ	G 3/4" -14	1.1/16" -12 UN	32	27
G AB 12 HJ 10	G 3/4" -14	7/8"-14 UNF	32	27
G AB 16 HJ	G 1" -11	1.5/16" -12 UN	41	46
G AB 16 HJ 12	G 1" -11	1.1/16" -12 UN	41	36

SW, S1, S2 = With across flats

**G HBED HJ****Connection sockets**

**Sealing form 1:** 60° inner cone + shape E  
**Connection 1:** BSP external thread, cylindrical  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
G HBED 12 HJ 14	G 3/4" -14	1.3/16" -12 UN	32
G HBED 20 HJ 12	G 1.1/4" -11	1.1/16" -12 UN	50

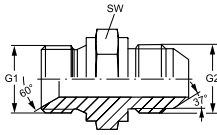
SW = Width across flats

**Product versions:**

**G HBED HJ VA** - Connection sockets, Stainless steel

**Spare parts:**

**WD** - Soft seal for ED fittings

**G HB HJ****Connection sockets**

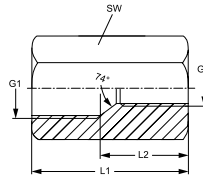
**Sealing form 1:** 60° inner cone  
**Connection 1:** BSP external thread, cylindrical  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
G HB 02 HJ 10	G 1/8" -28	7/8"-14 UNF	24
G HB 04 HJ 10	G 1/4" -19	7/8"-14 UNF	24
G HB 08 HJ 05	G 1/2" -14	1/2"-20 UNF	27
G HB 08 HJ 14	G 1/2" -14	1.3/16" -12 UN	32
G HB 08 HJ 16	G 1/2" -14	1.5/16" -12 UN	41
G HB 10 HJ 08	G 5/8" -14	3/4"-16 UNF	27
G HB 10 HJ	G 5/8" -14	7/8"-14 UNF	27
G HB 10 HJ 12	G 5/8" -14	1.1/16" -12 UN	32
G HB 10 HJ 16	G 5/8" -14	1.5/16" -12 UN	41
G HB 12 HJ 06	G 3/4" -14	9/16"-18 UNF	32
G HB 12 HJ 14	G 3/4" -14	1.3/16" -12 UN	32
G HB 12 HJ 20	G 3/4" -14	1.5/8" -12 UN	50
G HB 16 HJ 08	G 1" -11	3/4"-16 UNF	41
G HB 16 HJ 10	G 1" -11	7/8"-14 UNF	41
G HB 16 HJ 14	G 1" -11	1.3/16" -12 UN	41
G HB 20 HJ 12	G 1.1/4" -11	1.1/16" -12 UN	50
G HB 24 HJ 16	G 1.1/2" -11	1.5/16" -12 UN	55
G HB 24 HJ 32	G 1.1/2" -11	2.1/2" -12 UN	60
G HB 32 HJ 24	G 2" -11	1.7/8" -12 UN	60
G HB 32 HJ	G 2" -11	2.1/2" -12 UN	60

SW = Width across flats

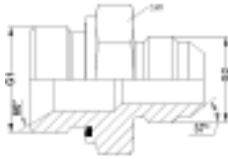
**UEM AJ IR****Connector AJ IR**

**Connection 1:** UN/UNF inner thread  
**Sealing form 1:** 74° inner cone  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Union nut  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	L1 mm	L2 mm	SW mm
UEM AJ 04 IR	7/16"-20 UNF	G 1/4" -19	29		19
UEM AJ 05 IR 04	1/2"-20 UNF	G 1/4" -19	29		19
UEM AJ 06 IR 04	9/16"-18 UNF	G 1/4" -19	29		19
UEM AJ 06 IR	9/16"-18 UNF	G 3/8" -19	29		19
UEM AJ 08 IR 04	3/4"-16 UNF	G 1/4" -19	32		22
UEM AJ 08 IR	3/4"-16 UNF	G 1/2" -14	32		22
UEM AJ 10 IR 04	7/8"-14 UNF	G 1/4" -19	32		27
UEM AJ 10 IR 08	7/8"-14 UNF	G 1/2" -14	32		27
UEM AJ 12 IR 04	1.1/16" -12 UN	G 1/4" -19		13	32
UEM AJ 12 IR	1.1/16" -12 UN	G 3/4" -14		13	32
UEM AJ 14 IR 04	1.3/16" -12 UN	G 1/4" -19		19	36
UEM AJ 16 IR 04	1.5/16" -12 UN	G 1/4" -19		20	41
UEM AJ 16 IR	1.5/16" -12 UN	G 1" -11		20	41
UEM AJ 20 IR 04	1.5/8" -12 UN	G 1/4" -19		20	50
UEM AJ 24 IR 04	1.7/8" -12 UN	G 1/4" -19		24	60

SW, S1, S2 = With across flats

**GE HRED HJ****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical Shape E  
**Sealing form 1:**  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
GE HRED 02 HJ 04	G 1/8" -28	7/16"-20 UNF	14
GE HRED 02 HJ 05	G 1/8" -28	1/2"-20 UNF	14
GE HRED 02 HJ 06	G 1/8" -28	9/16"-18 UNF	19
GE HRED 04 HJ	G 1/4" -19	7/16"-20 UNF	19
GE HRED 04 HJ 05	G 1/4" -19	1/2"-20 UNF	19
GE HRED 04 HJ 06	G 1/4" -19	9/16"-18 UNF	19
GE HRED 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19
GE HRED 06 HJ 04	G 3/8" -19	7/16"-20 UNF	22
GE HRED 06 HJ 05	G 3/8" -19	1/2"-20 UNF	22
GE HRED 06 HJ	G 3/8" -19	9/16"-18 UNF	22
GE HRED 06 HJ 08	G 3/8" -19	3/4"-16 UNF	22
GE HRED 06 HJ 10	G 3/8" -19	7/8"-14 UNF	24
GE HRED 06 HJ 12	G 3/8" -19	1.1/16" -12 UN	27
GE HRED 08 HJ 04	G 1/2" -14	7/16"-20 UNF	27
GE HRED 08 HJ 06	G 1/2" -14	9/16"-18 UNF	27
GE HRED 08 HJ	G 1/2" -14	3/4"-16 UNF	27
GE HRED 08 HJ 10	G 1/2" -14	7/8"-14 UNF	27
GE HRED 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	27
GE HRED 12 HJ 08	G 3/4" -14	3/4"-16 UNF	32
GE HRED 12 HJ 10	G 3/4" -14	7/8"-14 UNF	32
GE HRED 12 HJ	G 3/4" -14	1.1/16" -12 UN	32
GE HRED 12 HJ 16	G 3/4" -14	1.5/16" -12 UN	36
GE HRED 16 HJ 12	G 1" -11	1.1/16" -12 UN	41
GE HRED 16 HJ	G 1" -11	1.5/16" -12 UN	41
GE HRED 16 HJ 20	G 1" -11	1.5/8" -12 UN	46
GE HRED 16 HJ 24	G 1" -11	1.7/8" -12 UN	50
GE HRED 20 HJ 16	G 1.1/4" -11	1.5/16" -12 UN	50
GE HRED 20 HJ	G 1.1/4" -11	1.5/8" -12 UN	50
GE HRED 20 HJ 24	G 1.1/4" -11	1.7/8" -12 UN	50
GE HRED 24 HJ 20	G 1.1/2" -11	1.5/8" -12 UN	55
GE HRED 24 HJ	G 1.1/2" -11	1.7/8" -12 UN	55

SW = Width across flats

**Product versions:**

GE HRED HJ VA - Screw-in sockets, Stainless steel

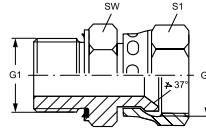
**Spare parts:**

WD - Soft seal for ED fittings



**GE HRED AJ****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
GE HRED 02 AJ 04	G 1/8" -28	7/16"-20 UNF	14	14
GE HRED 02 AJ 05	G 1/8" -28	1/2"-20 UNF	14	17
GE HRED 04 AJ 05	G 1/4" -19	1/2"-20 UNF	19	17
GE HRED 04 AJ 06	G 1/4" -19	9/16"-18 UNF	19	19
GE HRED 04 AJ 08	G 1/4" -19	3/4"-16 UNF	19	22
GE HRED 06 AJ	G 3/8" -19	9/16"-18 UNF	22	19
GE HRED 06 AJ 08	G 3/8" -19	3/4"-16 UNF	22	22
GE HRED 06 AJ 10	G 3/8" -19	7/8"-14 UNF	27	27
GE HRED 08 AJ 10	G 1/2" -14	7/8"-14 UNF	27	27
GE HRED 08 AJ 12	G 1/2" -14	1.1/16" -12 UN	27	32
GE HRED 12 AJ	G 3/4" -14	1.1/16" -12 UN	32	32
GE HRED 12 AJ 16	G 3/4" -14	1.5/16" -12 UN	32	41
GE HRED 16 AJ	G 1" -11	1.5/16" -12 UN	41	41
GE HRED 16 AJ 20	G 1" -11	1.5/8" -12 UN	41	50
GE HRED 20 AJ	G 1.1/4" -11	1.5/8" -12 UN	50	50
GE HRED 20 AJ 24	G 1.1/4" -11	1.7/8" -12 UN	50	60
GE HRED 24 AJ	G 1.1/2" -11	1.7/8" -12 UN	55	60

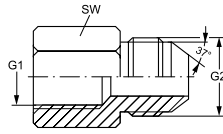
SW, S1, S2 = With across flats

**Product versions:**

**GE HRED AJ VA** - Screw-in sockets, Stainless steel

**Spare parts:**

**WD** - Soft seal for ED fittings

**G IR HJ****Connection sockets**

**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** flat sealing  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

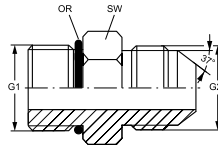
Identification	G1	G2	SW mm
G IR 02 HJ 04	G 1/8" -28	7/16"-20 UNF	16
G IR 02 HJ 05	G 1/8" -28	1/2"-20 UNF	16
G IR 04 HJ	G 1/4" -19	7/16"-20 UNF	19
G IR 04 HJ 05	G 1/4" -19	1/2"-20 UNF	19
G IR 04 HJ 06	G 1/4" -19	9/16"-18 UNF	19
G IR 04 HJ 08	G 1/4" -19	3/4"-16 UNF	22
G IR 06 HJ	G 3/8" -19	9/16"-18 UNF	22
G IR 06 HJ 08	G 3/8" -19	3/4"-16 UNF	22
G IR 08 HJ 06	G 1/2" -14	9/16"-18 UNF	30
G IR 08 HJ	G 1/2" -14	3/4"-16 UNF	30
G IR 08 HJ 10	G 1/2" -14	7/8"-14 UNF	30
G IR 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	30
G IR 12 HJ 08	G 3/4" -14	3/4"-16 UNF	36
G IR 12 HJ	G 3/4" -14	1.1/16" -12 UN	36
G IR 12 HJ 14	G 3/4" -14	1.3/16" -12 UN	41
G IR 16 HJ	G 1" -11	1.5/16" -12 UN	46
G IR 16 HJ 20	G 1" -11	1.5/8" -12 UN	50
G IR 20 HJ	G 1.1/4" -11	1.5/8" -12 UN	50
G IR 20 HJ 24	G 1.1/4" -11	1.7/8" -12 UN	55
G IR 24 HJ	G 1.1/2" -11	1.7/8" -12 UN	55
G IR 32 HJ	G 2" -11	2.1/2" -12 UN	73

SW = Width across flats

## GE HRO HJ

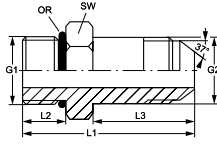
## Screw-in sockets

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR
GE HRO 02 HJ 04	G 1/8" -28	7/16"-20 UNF	16	7.65 x 1.78
GE HRO 02 HJ 05	G 1/8" -28	1/2"-20 UNF	16	7.65 x 1.78
GE HRO 04 HJ	G 1/4" -19	7/16"-20 UNF	19	10.78 x 2.62
GE HRO 04 HJ 05	G 1/4" -19	1/2"-20 UNF	19	10.78 x 2.62
GE HRO 04 HJ 06	G 1/4" -19	9/16"-18 UNF	19	10.78 x 2.62
GE HRO 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	10.78 x 2.62
GE HRO 06 HJ 04	G 3/8" -19	7/16"-20 UNF	24	13.94 x 2.62
GE HRO 06 HJ 05	G 3/8" -19	1/2"-20 UNF	24	13.94 x 2.62
GE HRO 06 HJ	G 3/8" -19	9/16"-18 UNF	24	13.94 x 2.62
GE HRO 06 HJ 08	G 3/8" -19	3/4"-16 UNF	24	13.94 x 2.62
GE HRO 06 HJ 10	G 3/8" -19	7/8"-14 UNF	24	13.94 x 2.62
GE HRO 08 HJ 04	G 1/2" -14	7/16"-20 UNF	28	17.86 x 2.62
GE HRO 08 HJ 06	G 1/2" -14	9/16"-18 UNF	28	17.86 x 2.62
GE HRO 08 HJ	G 1/2" -14	3/4"-16 UNF	28	17.86 x 2.62
GE HRO 08 HJ 10	G 1/2" -14	7/8"-14 UNF	28	17.86 x 2.62
GE HRO 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	28	17.86 x 2.62
GE HRO 12 HJ 08	G 3/4" -14	3/4"-16 UNF	35	23.47 x 2.62
GE HRO 12 HJ	G 3/4" -14	1.1/16" -12 UN	35	23.47 x 2.62
GE HRO 12 HJ 14	G 3/4" -14	1.3/16" -12 UN	35	23.47 x 2.62
GE HRO 12 HJ 16	G 3/4" -14	1.5/16" -12 UN	35	23.47 x 2.62
GE HRO 16 HJ 12	G 1" -11	1.1/16" -12 UN	43	29.74 x 3.53
GE HRO 16 HJ	G 1" -11	1.5/16" -12 UN	43	29.74 x 3.53
GE HRO 16 HJ 20	G 1" -11	1.5/8" -12 UN	43	29.74 x 3.53
GE HRO 20 HJ 16	G 1.1/4" -11	1.5/16" -12 UN	52	37.69 x 3.53
GE HRO 20 HJ	G 1.1/4" -11	1.5/8" -12 UN	52	37.69 x 3.53
GE HRO 20 HJ 24	G 1.1/4" -11	1.7/8" -12 UN	52	37.69 x 3.53
GE HRO 24 HJ	G 1.1/2" -11	1.7/8" -12 UN	58	44.04 x 3.53

SW = Width across flats

**GE HRO L HJ****Screw-in socket, long**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** G  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in socket, long  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

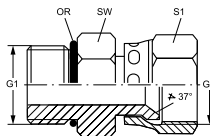
Identification	G1	G2	L1 mm	L2 mm	L3 mm	SW mm	OR
GE HRO L 02 HJ 04	G 1/8" -28	7/16"-20 UNF	50,0	8	35	16	7.65 x 1.78
GE HRO L 04 HJ	G 1/4" -19	7/16"-20 UNF	55,5	12	35	20	10.78 x 2.62
GE HRO L 04 HJ 05	G 1/4" -19	1/2"-20 UNF	57,5	12	37	20	10.78 x 2.62
GE HRO L 04 HJ 06	G 1/4" -19	9/16"-18 UNF	59,5	12	39	20	10.78 x 2.62
GE HRO L 04 HJ 08	G 1/4" -19	3/4"-16 UNF	68,5	12	48	20	10.78 x 2.62
GE HRO L 06 HJ	G 3/8" -19	9/16"-18 UNF	59,5	12	39	24	13.94 x 2.62
GE HRO L 06 HJ 05	G 3/8" -19	1/2"-20 UNF	57,5	12	37	24	13.94 x 2.62
GE HRO L 06 HJ 08	G 3/8" -19	3/4"-16 UNF	68,5	12	48	24	13.94 x 2.62
GE HRO L 06 HJ 10	G 3/8" -19	7/8"-14 UNF	74,0	12	53	24	13.94 x 2.62
GE HRO L 08 HJ	G 1/2" -14	3/4"-16 UNF	72,0	14	48	28	17.86 x 2.62
GE HRO L 08 HJ 06	G 1/2" -14	9/16"-18 UNF	63,0	14	39	28	17.86 x 2.62
GE HRO L 08 HJ 10	G 1/2" -14	7/8"-14 UNF	77,0	14	53	28	17.86 x 2.62
GE HRO L 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	88,0	14	63	28	17.86 x 2.62
GE HRO L 12 HJ	G 3/4" -14	1.1/16" -12 UN	91,0	16	63	35	23.47 x 2.62
GE HRO L 12 HJ 10	G 3/4" -14	7/8"-14 UNF	81,0	16	53	35	23.47 x 2.62
GE HRO L 12 HJ 16	G 3/4" -14	1.5/16" -12 UN	100,0	16	72	35	23.47 x 2.62
GE HRO L 16 HJ	G 1" -11	1.5/16" -12 UN	102,0	18	72	43	29.74 x 3.53
GE HRO L 16 HJ 12	G 1" -11	1.1/16" -12 UN	93,5	18	63	43	29.74 x 3.53
GE HRO L 16 HJ 20	G 1" -11	1.5/8" -12 UN	119,0	18	88	43	29.74 x 3.53
GE HRO L 20 HJ	G 1.1/4" -11	1.5/8" -12 UN	119,0	18	88	52	37.69 x 3.53
GE HRO L 20 HJ 16	G 1.1/4" -11	1.5/16" -12 UN	106,0	20	72	52	37.69 x 3.53
GE HRO L 20 HJ 24	G 1.1/4" -11	1.7/8" -12 UN	132,0	20	98	52	37.69 x 3.53
GE HRO L 24 HJ	G 1.1/2" -11	1.7/8" -12 UN	136,0	22	98	58	44.04 x 3.53

SW = Width across flats

## GE HRO AJ

## Screw-in sockets

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

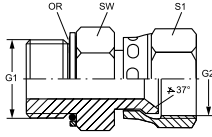


Identification	G1	G2	SW mm	S1	OR
GE HRO 02 AJ 04	G 1/8" -28	7/16"-20 UNF	16	16	8.00 x 2.00
GE HRO 04 AJ	G 1/4" -19	7/16"-20 UNF	20	16	10.77 x 2.62
GE HRO 04 AJ 05	G 1/4" -19	1/2"-20 UNF	20	17	10.77 x 2.62
GE HRO 04 AJ 08	G 1/4" -19	3/4"-16 UNF	20	22	10.77 x 2.62
GE HRO 06 AJ 04	G 3/8" -19	7/16"-20 UNF	24	16	13.94 x 2.62
GE HRO 06 AJ 05	G 3/8" -19	1/2"-20 UNF	24	17	13.94 x 2.62
GE HRO 06 AJ	G 3/8" -19	9/16"-18 UNF	24	19	13.94 x 2.62
GE HRO 06 AJ 08	G 3/8" -19	3/4"-16 UNF	24	22	13.94 x 2.62
GE HRO 06 AJ 10	G 3/8" -19	7/8"-14 UNF	24	27	13.94 x 2.62
GE HRO 08 AJ 06	G 1/2" -14	9/16"-18 UNF	28	19	17.86 x 2.62
GE HRO 08 AJ	G 1/2" -14	3/4"-16 UNF	28	22	17.86 x 2.62
GE HRO 08 AJ 10	G 1/2" -14	7/8"-14 UNF	28	27	17.86 x 2.62
GE HRO 08 AJ 12	G 1/2" -14	1.1/16" -12 UN	28	32	17.86 x 2.62
GE HRO 12 AJ 10	G 3/4" -14	7/8"-14 UNF	35	27	23.47 x 2.62
GE HRO 12 AJ	G 3/4" -14	1.1/16" -12 UN	32	35	23.47 x 2.62
GE HRO 12 AJ 16	G 3/4" -14	1.5/16" -12 UN	35	38	23.47 x 2.62
GE HRO 16 AJ 12	G 1" -11	1.1/16" -12 UN	43	32	29.74 x 3.53
GE HRO 16 AJ 20	G 1" -11	1.5/8" -12 UN	43	50	29.74 x 3.53
GE HRO 20 AJ 16	G 1.1/4" -11	1.5/16" -12 UN	52	38	37.69 x 3.53
GE HRO 20 AJ 24	G 1.1/4" -11	1.7/8" -12 UN	52	58	37.69 x 3.53

SW, S1, S2 = With across flats

## GE HROK AJ

### Screw-in sockets



**Connection 1:**  
**Sealing form 1:**

BSP external thread, cylindrical  
Thread socket with O-ring + spacer  
diaphragm ring

**Connection 2:**  
**Sealing form 2:**

UN/UNF nut threads  
74° inner cone

**Design:**

Screw-in sockets

**Construction:**

straight

**Material:**

Steel

**Surface:**

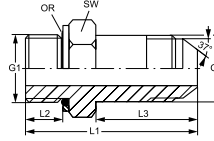
electro galvanised

Identification	Working pressure bar	G1	G2	SW mm	S1	OR
GE HROK 02 AJ 04	PN 315	G 1/8" -28	7/16"-20 UNF	16	14	7.97 x 1.88
GE HROK 02 AJ 05	PN 315	G 1/8" -28	1/2"-20 UNF	16	17	7.97 x 1.88
GE HROK 04 AJ	PN 315	G 1/4" -19	7/16"-20 UNF	19	14	10.77 x 2.62
GE HROK 04 AJ 05	PN 315	G 1/4" -19	1/2"-20 UNF	19	17	10.77 x 2.62
GE HROK 04 AJ 06	PN 250	G 1/4" -19	9/16"-18 UNF	19	19	10.77 x 2.62
GE HROK 04 AJ 08	PN 250	G 1/4" -19	3/4"-16 UNF	19	22	10.77 x 2.62
GE HROK 06 AJ 04	PN 315	G 3/8" -19	7/16"-20 UNF	22	14	13.94 x 2.62
GE HROK 06 AJ 05	PN 315	G 3/8" -19	1/2"-20 UNF	22	17	13.94 x 2.62
GE HROK 06 AJ	PN 250	G 3/8" -19	9/16"-18 UNF	22	19	13.94 x 2.62
GE HROK 06 AJ 08	PN 250	G 3/8" -19	3/4"-16 UNF	22	22	13.94 x 2.62
GE HROK 06 AJ 10	PN 200	G 3/8" -19	7/8"-14 UNF	22	27	13.94 x 2.62
GE HROK 08 AJ 06	PN 250	G 1/2" -14	9/16"-18 UNF	30	19	17.86 x 2.62
GE HROK 08 AJ	PN 250	G 1/2" -14	3/4"-16 UNF	30	22	17.86 x 2.62
GE HROK 08 AJ 10	PN 200	G 1/2" -14	7/8"-14 UNF	30	27	17.86 x 2.62
GE HROK 08 AJ 12	PN 200	G 1/2" -14	1.1/16" -12 UN	30	32	17.86 x 2.62
GE HROK 12 AJ 10	PN 200	G 3/4" -14	7/8"-14 UNF	36	27	23.47 x 2.62
GE HROK 12 AJ	PN 200	G 3/4" -14	1.1/16" -12 UN	36	32	23.47 x 2.62
GE HROK 12 AJ 16	PN 160	G 3/4" -14	1.5/16" -12 UN	36	41	23.47 x 2.62
GE HROK 16 AJ 12	PN 200	G 1" -11	1.1/16" -12 UN	46	32	29.74 x 3.53
GE HROK 16 AJ	PN 160	G 1" -11	1.5/16" -12 UN	46	41	29.74 x 3.53
GE HROK 16 AJ 20	PN 125	G 1" -11	1.5/8" -12 UN	46	50	29.74 x 3.53
GE HROK 20 AJ 16	PN 160	G 1.1/4" -11	1.5/16" -12 UN	50	41	37.69 x 3.53
GE HROK 20 AJ	PN 125	G 1.1/4" -11	1.5/8" -12 UN	50	50	37.69 x 3.53
GE HROK 20 AJ 24	PN 100	G 1.1/4" -11	1.7/8" -12 UN	50	60	37.69 x 3.53
GE HROK 24 AJ	PN 100	G 1.1/2" -11	1.7/8" -12 UN	55	60	44.04 x 3.53

SW, S1, S2 = With across flats

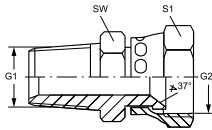
**GE HROK L HJ****Screw-in socket, long**

- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in socket, long  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	L1 mm	L2 mm	L3 mm	SW mm	OR
GE HROK L 02 HJ 04	G 1/8" -28	7/16"-20 UNF	50,0	7,0	35	16	7.65 x 1.78
GE HROK L 04 HJ	G 1/4" -19	7/16"-20 UNF	55,5	10,0	35	20	10.78 x 2.62
GE HROK L 04 HJ 05	G 1/4" -19	1/2"-20 UNF	57,5	10,0	37	20	10.78 x 2.62
GE HROK L 04 HJ 06	G 1/4" -19	9/16"-18 UNF	59,5	10,0	39	20	10.78 x 2.62
GE HROK L 04 HJ 08	G 1/4" -19	3/4"-16 UNF	68,5	10,0	48	20	10.78 x 2.62
GE HROK L 06 HJ	G 3/8" -19	9/16"-18 UNF	59,5	10,0	39	24	13.94 x 2.62
GE HROK L 06 HJ 05	G 3/8" -19	1/2"-20 UNF	57,5	10,0	37	24	13.94 x 2.62
GE HROK L 06 HJ 08	G 3/8" -19	3/4"-16 UNF	68,5	10,0	48	24	13.94 x 2.62
GE HROK L 06 HJ 10	G 3/8" -19	7/8"-14 UNF	74,0	10,0	53	24	13.94 x 2.62
GE HROK L 08 HJ	G 1/2" -14	3/4"-16 UNF	72,0	12,0	48	28	17.86 x 2.62
GE HROK L 08 HJ 06	G 1/2" -14	9/16"-18 UNF	63,0	12,0	39	28	17.86 x 2.62
GE HROK L 08 HJ 10	G 1/2" -14	7/8"-14 UNF	77,0	12,0	53	28	17.86 x 2.62
GE HROK L 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	88,0	12,0	63	28	17.86 x 2.62
GE HROK L 12 HJ	G 3/4" -14	1.1/16" -12 UN	91,0	14,0	63	35	23.47 x 2.62
GE HROK L 12 HJ 10	G 3/4" -14	7/8"-14 UNF	81,0	14,0	53	35	23.47 x 2.62
GE HROK L 12 HJ 16	G 3/4" -14	1.5/16" -12 UN	100,0	14,0	72	36	23.47 x 2.62
GE HROK L 16 HJ	G 1" -11	1.5/16" -12 UN	102,0	15,5	72	43	29.74 x 3.53
GE HROK L 16 HJ 12	G 1" -11	1.1/16" -12 UN	93,5	15,5	63	43	29.74 x 3.53
GE HROK L 16 HJ 20	G 1" -11	1.5/8" -12 UN	119,0	15,5	88	43	29.74 x 3.53
GE HROK L 20 HJ	G 1.1/4" -11	1.5/8" -12 UN	122,0	17,5	88	52	37.69 x 3.53
GE HROK L 20 HJ 16	G 1.1/4" -11	1.5/16" -12 UN	106,0	17,5	72	52	37.69 x 3.53
GE HROK L 20 HJ 24	G 1.1/4" -11	1.7/8" -12 UN	132,0	17,5	98	52	37.69 x 3.53
GE HROK L 24 HJ	G 1.1/2" -11	1.7/8" -12 UN	136,0	19,5	98	58	44.04 x 3.53

SW = Width across flats

**GE HRK AJ****Screw-in sockets**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1
GE HRK 02 AJ 04	R 1/8" K	7/16"-20 UNF	13	16
GE HRK 02 AJ 05	R 1/8" K	1/2"-20 UNF	13	17
GE HRK 04 AJ	R 1/4" K	7/16"-20 UNF	14	16
GE HRK 04 AJ 05	R 1/4" K	1/2"-20 UNF	14	17
GE HRK 04 AJ 06	R 1/4" K	9/16"-18 UNF	14	19
GE HRK 04 AJ 08	R 1/4" K	3/4"-16 UNF	19	22
GE HRK 06 AJ 05	R 3/8" K	1/2"-20 UNF	19	17
GE HRK 06 AJ	R 3/8" K	9/16"-18 UNF	19	19
GE HRK 06 AJ 08	R 3/8" K	3/4"-16 UNF	19	22
GE HRK 06 AJ 10	R 3/8" K	7/8"-14 UNF	22	27
GE HRK 08 AJ	R 1/2" K	3/4"-16 UNF	27	32
GE HRK 08 AJ 10	R 1/2" K	7/8"-14 UNF	22	27
GE HRK 08 AJ 12	R 1/2" K	1.1/16" -12 UN	27	32
GE HRK 12 AJ 10	R 3/4" K	7/8"-14 UNF	27	27
GE HRK 12 AJ	R 3/4" K	1.1/16" -12 UN	27	32
GE HRK 12 AJ 14	R 3/4" K	1.3/16" -12 UN	27	32
GE HRK 12 AJ 16	R 3/4" K	1.5/16" -12 UN	32	38
GE HRK 16 AJ	R 1" K	1.5/16" -12 UN	36	38
GE HRK 16 AJ 12	R 1" K	1.1/16" -12 UN	36	38
GE HRK 20 AJ	R 1.1/4" K	1.5/8" -12 UN	46	50
GE HRK 24 AJ	R 1.1/2" K	1.7/8" -12 UN	54	55

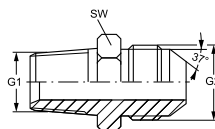
SW, S1, S2 = With across flats



## GE HRK HJ

## Screw-in sockets

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
GE HRK 02 HJ 04	R 1/8" K	7/16"-20 UNF	14
GE HRK 02 HJ 05	R 1/8" K	1/2"-20 UNF	14
GE HRK 04 HJ	R 1/4" K	7/16"-20 UNF	14
GE HRK 04 HJ 05	R 1/4" K	1/2"-20 UNF	14
GE HRK 04 HJ 06	R 1/4" K	9/16"-18 UNF	19
GE HRK 04 HJ 08	R 1/4" K	3/4"-16 UNF	22
GE HRK 06 HJ 04	R 3/8" K	7/16"-20 UNF	19
GE HRK 06 HJ 05	R 3/8" K	1/2"-20 UNF	19
GE HRK 06 HJ	R 3/8" K	9/16"-18 UNF	19
GE HRK 06 HJ 08	R 3/8" K	3/4"-16 UNF	22
GE HRK 06 HJ 10	R 3/8" K	7/8"-14 UNF	24
GE HRK 06 HJ 12	R 3/8" K	1.1/16" -12 UN	27
GE HRK 08 HJ 06	R 1/2" K	9/16"-18 UNF	22
GE HRK 08 HJ	R 1/2" K	3/4"-16 UNF	22
GE HRK 08 HJ 10	R 1/2" K	7/8"-14 UNF	24
GE HRK 08 HJ 12	R 1/2" K	1.1/16" -12 UN	27
GE HRK 08 HJ 16	R 1/2" K	1.5/16" -12 UN	36
GE HRK 10 HJ	R 5/8" K	7/8"-14 UNF	24
GE HRK 12 HJ 06	R 3/4" K	9/16"-18 UNF	27
GE HRK 12 HJ 08	R 3/4" K	3/4"-16 UNF	27
GE HRK 12 HJ 10	R 3/4" K	7/8"-14 UNF	27
GE HRK 12 HJ	R 3/4" K	1.1/16" -12 UN	27
GE HRK 12 HJ 16	R 3/4" K	1.5/16" -12 UN	36
GE HRK 12 HJ 20	R 3/4" K	1.5/8" -12 UN	46
GE HRK 16 HJ 08	R 1" K	3/4"-16 UNF	36
GE HRK 16 HJ 10	R 1" K	7/8"-14 UNF	36
GE HRK 16 HJ 12	R 1" K	1.1/16" -12 UN	36
GE HRK 16 HJ	R 1" K	1.5/16" -12 UN	36
GE HRK 16 HJ 20	R 1" K	1.5/8" -12 UN	46
GE HRK 20 HJ 12	R 1.1/4" K	1.1/16" -12 UN	46
GE HRK 20 HJ 16	R 1.1/4" K	1.5/16" -12 UN	46
GE HRK 20 HJ	R 1.1/4" K	1.5/8" -12 UN	46
GE HRK 20 HJ 24	R 1.1/4" K	1.7/8" -12 UN	50
GE HRK 24 HJ 16	R 1.1/2" K	1.5/16" -12 UN	50
GE HRK 24 HJ 20	R 1.1/2" K	1.5/8" -12 UN	50
GE HRK 24 HJ	R 1.1/2" K	1.7/8" -12 UN	50
GE HRK 24 HJ 32	R 1.1/2" K	2.1/2" -12 UN	65
GE HRK 32 HJ	R 2" K	2.1/2" -12 UN	65
GE HRK 40 HJ	R 2.1/2" K	3" -11 UN	70

SW = Width across flats

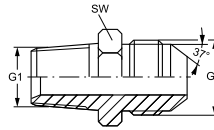
**GE HRK HJ****Screw-in sockets****(Continued)**

Identification	G1	G2	SW mm
GE HRK 48 HJ	R 3" K	3.1/2" -11 UN	80
SW = Width across flats			

**Product versions:****GE HRK HJ VA** - Screw-in sockets, Stainless steel

**GE HN HJ****Screw-in sockets**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
GE HN 02 HJ 03	1/8" -27 NPT	3/8"-24 UNF	12
GE HN 02 HJ 04	1/8" -27 NPT	7/16"-20 UNF	12
GE HN 02 HJ 05	1/8" -27 NPT	1/2"-20 UNF	14
GE HN 02 HJ 06	1/8" -27 NPT	9/16"-18 UNF	17
GE HN 02 HJ 08	1/8" -27 NPT	3/4"-16 UNF	19
GE HN 04 HJ	1/4" -18 NPT	7/16"-20 UNF	14
GE HN 04 HJ 05	1/4" -18 NPT	1/2"-20 UNF	14
GE HN 04 HJ 06	1/4" -18 NPT	9/16"-18 UNF	17
GE HN 04 HJ 08	1/4" -18 NPT	3/4"-16 UNF	19
GE HN 06 HJ	3/8" -18 NPT	9/16"-18 UNF	19
GE HN 06 HJ 04	3/8" -18 NPT	7/16"-20 UNF	19
GE HN 06 HJ 05	3/8" -18 NPT	1/2"-20 UNF	19
GE HN 06 HJ 08	3/8" -18 NPT	3/4"-16 UNF	19
GE HN 06 HJ 10	3/8" -18 NPT	7/8"-14 UNF	24
GE HN 06 HJ 12	3/8" -18 NPT	1.1/16" -12 UN	27
GE HN 08 HJ 04	1/2" -14 NPT	7/16"-20 UNF	24
GE HN 08 HJ 05	1/2" -14 NPT	1/2"-20 UNF	24
GE HN 08 HJ 06	1/2" -14 NPT	9/16"-18 UNF	24
GE HN 08 HJ	1/2" -14 NPT	3/4"-16 UNF	24
GE HN 08 HJ 10	1/2" -14 NPT	7/8"-14 UNF	24
GE HN 08 HJ 12	1/2" -14 NPT	1.1/16" -12 UN	27
GE HN 08 HJ 16	1/2" -14 NPT	1.5/16" -12 UN	36
GE HN 12 HJ 04	3/4" -14 NPT	7/16"-20 UNF	27
GE HN 12 HJ 06	3/4" -14 NPT	9/16"-18 UNF	27
GE HN 12 HJ 08	3/4" -14 NPT	3/4"-16 UNF	27
GE HN 12 HJ 10	3/4" -14 NPT	7/8"-14 UNF	27
GE HN 12 HJ	3/4" -14 NPT	1.1/16" -12 UN	27
GE HN 12 HJ 14	3/4" -14 NPT	1.3/16" -12 UN	32
GE HN 12 HJ 16	3/4" -14 NPT	1.5/16" -12 UN	36
GE HN 16 HJ	1" -11.5 NPT	1.5/16" -12 UN	36
GE HN 16 HJ 12	1" -11.5 NPT	1.1/16" -12 UN	36
GE HN 16 HJ 20	1" -11.5 NPT	1.5/8" -12 UN	46
GE HN 16 HJ 24	1" -11.5 NPT	1.7/8" -12 UN	50
GE HN 20 HJ 12	1.1/4" -11.5 NPT	1.1/16" -12 UN	46
GE HN 20 HJ 16	1.1/4" -11.5 NPT	1.5/16" -12 UN	46
GE HN 20 HJ	1.1/4" -11.5 NPT	1.5/8" -12 UN	46
GE HN 20 HJ 24	1.1/4" -11.5 NPT	1.7/8" -12 UN	50
GE HN 20 HJ 32	1.1/4" -11.5 NPT	2.1/2" -12 UN	65
GE HN 24 HJ 12	1.1/2" -11.5 NPT	1.1/16" -12 UN	50
GE HN 24 HJ 16	1.1/2" -11.5 NPT	1.5/16" -12 UN	50
GE HN 24 HJ 20	1.1/2" -11.5 NPT	1.5/8" -12 UN	50

SW = Width across flats

**GE HN HJ****Screw-in sockets****(Continued)**

Identification	G1	G2	SW mm
GE HN 24 HJ	1.1/2" -11.5 NPT	1.7/8" -12 UN	50
GE HN 24 HJ 32	1.1/2" -11.5 NPT	2.1/2" -12 UN	65
GE HN 32 HJ 24	2" -11.5 NPT	1.7/8" -12 UN	65
GE HN 32 HJ	2" -11.5 NPT	2.1/2" -12 UN	65

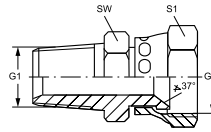
SW = Width across flats

**Product versions:****GE HN HJ VA** - Screw-in sockets, Stainless steel

## GE HN AJ

## Screw-in sockets

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

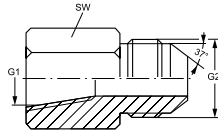


Identification	G1	G2	SW mm	S1
GE HN 02 AJ 04	1/8" -27 NPT	7/16"-20 UNF	14	14
GE HN 02 AJ 05	1/8" -27 NPT	1/2"-20 UNF	14	17
GE HN 02 AJ 06	1/8" -27 NPT	9/16"-18 UNF	17	14
GE HN 04 AJ	1/4" -18 NPT	7/16"-20 UNF	14	14
GE HN 04 AJ 05	1/4" -18 NPT	1/2"-20 UNF	16	16
GE HN 04 AJ 06	1/4" -18 NPT	9/16"-18 UNF	17	17
GE HN 04 AJ 08	1/4" -18 NPT	3/4"-16 UNF	19	22
GE HN 06 AJ	3/8" -18 NPT	9/16"-18 UNF	19	17
GE HN 06 AJ 08	3/8" -18 NPT	3/4"-16 UNF	22	22
GE HN 06 AJ 10	3/8" -18 NPT	7/8"-14 UNF	22	27
GE HN 08 AJ 06	1/2" -14 NPT	9/16"-18 UNF	25	19
GE HN 08 AJ	1/2" -14 NPT	3/4"-16 UNF	22	22
GE HN 08 AJ 10	1/2" -14 NPT	7/8"-14 UNF	25	25
GE HN 08 AJ 12	1/2" -14 NPT	1.1/16" -12 UN	27	32
GE HN 12 AJ 08	3/4" -14 NPT	3/4"-16 UNF	27	22
GE HN 12 AJ 10	3/4" -14 NPT	7/8"-14 UNF	32	27
GE HN 12 AJ	3/4" -14 NPT	1.1/16" -12 UN	27	32
GE HN 12 AJ 14	3/4" -14 NPT	1.3/16" -12 UN	27	32
GE HN 12 AJ 16	3/4" -14 NPT	1.5/16" -12 UN	32	38
GE HN 16 AJ	1" -11.5 NPT	1.5/16" -12 UN	36	38
GE HN 16 AJ 20	1" -11.5 NPT	1.5/8" -12 UN	36	50
GE HN 20 AJ	1.1/4" -11.5 NPT	1.5/8" -12 UN	46	50
GE HN 24 AJ	1.1/2" -11.5 NPT	1.7/8" -12 UN	58	58

SW, S1, S2 = With across flats

## Product versions:

GE HN AJ VA - Screw-in sockets, Stainless steel

**G IN HJ****Connection sockets**

**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
G IN 02 HJ 04	1/8" -27 NPT	7/16"-20 UNF	14
G IN 02 HJ 05	1/8" -27 NPT	1/2"-20 UNF	14
G IN 04 HJ	1/4" -18 NPT	7/16"-20 UNF	19
G IN 04 HJ 05	1/4" -18 NPT	1/2"-20 UNF	19
G IN 04 HJ 06	1/4" -18 NPT	9/16"-18 UNF	19
G IN 04 HJ 08	1/4" -18 NPT	3/4"-16 UNF	21
G IN 06 HJ	3/8" -18 NPT	9/16"-18 UNF	22
G IN 06 HJ 08	3/8" -18 NPT	3/4"-16 UNF	22
G IN 06 HJ 10	3/8" -18 NPT	7/8"-14 UNF	29
G IN 08 HJ	1/2" -14 NPT	3/4"-16 UNF	29
G IN 08 HJ 10	1/2" -14 NPT	7/8"-14 UNF	29
G IN 08 HJ 12	1/2" -14 NPT	1.1/16"-12 UN	29
G IN 12 HJ	3/4" -14 NPT	1.1/16"-12 UN	35
G IN 12 HJ 14	3/4" -14 NPT	1.3/16"-12 UN	35
G IN 16 HJ	1" -11.5 NPT	1.5/16"-12 UN	41
G IN 20 HJ	1.1/4" -11.5 NPT	1.5/8"-12 UN	51
G IN 24 HJ	1.1/2" -11.5 NPT	1.7/8"-12 UN	60
G IN 32 HJ	2" -11.5 NPT	2.1/2"-12 UN	73

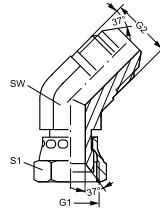
SW = Width across flats

**Product versions:**

G IN HJ VA - Connection sockets, Stainless steel

**W45 AJ HJ****Screw-on socket, angle 45°**

**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-on socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

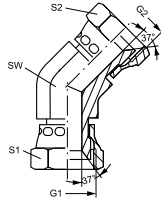


Identification	Working pressure bar	G1	G2	SW mm	S1
W45 AJ 04 HJ	PN 350	7/16"-20 UNF	7/16"-20 UNF	12	14
W45 AJ 05 HJ	PN 350	1/2"-20 UNF	1/2"-20 UNF	14	16
W45 AJ 06 HJ	PN 250	9/16"-18 UNF	9/16"-18 UNF	14	19
W45 AJ 08 HJ	PN 250	3/4"-16 UNF	3/4"-16 UNF	19	22
W45 AJ 10 HJ	PN 200	7/8"-14 UNF	7/8"-14 UNF	22	27
W45 AJ 12 HJ	PN 200	1.1/16" -12 UN	1.1/16" -12 UN	27	32
W45 AJ 14 HJ	PN 160	1.3/16" -12 UN	1.3/16" -12 UN	32	36
W45 AJ 16 HJ	PN 160	1.5/16" -12 UN	1.5/16" -12 UN	33	41
W45 AJ 20 HJ	PN 125	1.5/8" -12 UN	1.5/8" -12 UN	41	50
W45 AJ 24 HJ	PN 100	1.7/8" -12 UN	1.7/8" -12 UN	48	60
W45 AJ 32 HJ	PN 80	2.1/2" -12 UN	2.1/2" -12 UN	65	75

SW, S1, S2 = With across flats

**Product versions:**

**W45 AJ HJ VA** - Screw-on socket, angle 45°, Stainless steel

**W45 AJ****Connection socket, angle 45°**

**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Connection sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

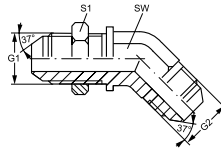
Identification	G1 + G2	S2	S1
W45 AJ 04	7/16"-20 UNF	17	17
W45 AJ 05	1/2"-20 UNF	17	17
W45 AJ 06	9/16"-18 UNF	19	19
W45 AJ 08	3/4"-16 UNF	24	24
W45 AJ 10	7/8"-14 UNF	27	27
W45 AJ 12	1.1/16"-12 UN	32	32
W45 AJ 16	1.5/16"-12 UN	41	41

SW, S1, S2 = With across flats



**SW 45 HJ****Bulkhead fitting socket, angle 45°**

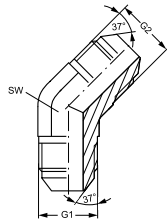
**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Bulkhead fitting socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1
SW 45 HJ 04	7/16"-20 UNF	11	17
SW 45 HJ 05	1/2"-20 UNF	14	19
SW 45 HJ 06	9/16"-18 UNF	14	21
SW 45 HJ 08	3/4"-16 UNF	19	25
SW 45 HJ 10	7/8"-14 UNF	22	29
SW 45 HJ 12	1.1/16"-12 UN	27	35
SW 45 HJ 16	1.5/16"-12 UN	33	41
SW 45 HJ 20	1.5/8"-12 UN	41	48
SW 45 HJ 24	1.7/8"-12 UN	48	55
SW, S1, S2 = With across flats			

**Product versions:**

**SW 45 HJ VA** - Bulkhead fitting socket, angle 45°, Stainless steel

**W45 HJ****Fitting socket, angle 45°**

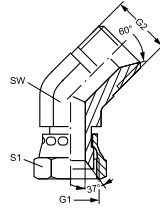
**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Fitting socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm
W45 HJ 04	7/16"-20 UNF	11
W45 HJ 05	1/2"-20 UNF	13
W45 HJ 06	9/16"-18 UNF	14
W45 HJ 08	3/4"-16 UNF	19
W45 HJ 10	7/8"-14 UNF	22
W45 HJ 12	1.1/16" -12 UN	27
W45 HJ 16	1.5/16" -12 UN	33

SW = Width across flats

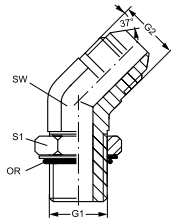
**W45 AJ HB****Connection socket, angle 45°**

**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connection sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
W45 AJ 04 HB	7/16"-20 UNF	G 1/4" -19	14	17
W45 AJ 06 HB	9/16"-18 UNF	G 3/8" -19	17	19
W45 AJ 08 HB	3/4"-16 UNF	G 1/2" -14	19	24
W45 AJ 10 HB	7/8"-14 UNF	G 5/8" -14	24	27
W45 AJ 12 HB	1.1/16" -12 UN	G 3/4" -14	27	32
W45 AJ 16 HB	1.5/16" -12 UN	G 1" -11	36	41

SW, S1, S2 = With across flats

**W45 O HJ****Screw-in socket, angle 45°**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
W45 O 04 HJ	7/16"-20 UNF	7/16"-20 UNF	11	14	8.92 x 1.83
W45 O 05 HJ 04	1/2"-20 UNF	7/16"-20 UNF	13	16	10.52 x 1.83
W45 O 05 HJ	1/2"-20 UNF	1/2"-20 UNF	13	16	10.52 x 1.83
W45 O 06 HJ	9/16"-18 UNF	9/16"-18 UNF	14	17	11.90 x 1.98
W45 O 06 HJ 08	9/16"-18 UNF	3/4"-16 UNF	19	17	11.90 x 1.98
W45 O 08 HJ 06	3/4"-16 UNF	9/16"-18 UNF	19	22	16.36 x 2.20
W45 O 08 HJ	3/4"-16 UNF	3/4"-16 UNF	19	22	16.36 x 2.20
W45 O 08 HJ 10	3/4"-16 UNF	7/8"-14 UNF	22	22	16.36 x 2.20
W45 O 08 HJ 12	3/4"-16 UNF	1.1/16" -12 UN	22	27	16.36 x 2.20
W45 O 10 HJ 08	7/8"-14 UNF	3/4"-16 UNF	22	25	19.18 x 2.46
W45 O 10 HJ	7/8"-14 UNF	7/8"-14 UNF	22	27	19.18 x 2.46
W45 O 10 HJ 12	7/8"-14 UNF	1.1/16" -12 UN	27	25	19.18 x 2.46
W45 O 12 HJ 08	1.1/16" -12 UN	3/4"-16 UNF	22	32	23.47 x 2.95
W45 O 12 HJ 10	1.1/16" -12 UN	7/8"-14 UNF	32	22	23.47 x 2.95
W45 O 12 HJ	1.1/16" -12 UN	1.1/16" -12 UN	27	32	23.47 x 2.95
W45 O 12 HJ 16	1.1/16" -12 UN	1.5/16" -12 UN	33	32	23.47 x 2.95
W45 O 16 HJ 12	1.5/16" -12 UN	1.1/16" -12 UN	38	27	29.74 x 2.95
W45 O 16 HJ	1.5/16" -12 UN	1.5/16" -12 UN	33	38	29.74 x 2.95
W45 O 16 HJ 20	1.5/16" -12 UN	1.5/8" -12 UN	41	38	29.74 x 2.95
W45 O 20 HJ 16	1.5/8" -12 UN	1.5/16" -12 UN	33	48	37.47 x 3.00
W45 O 20 HJ	1.5/8" -12 UN	1.5/8" -12 UN	41	48	37.47 x 3.00
W45 O 24 HJ	1.7/8" -12 UN	1.7/8" -12 UN	48	54	43.69 x 3.00
W45 O 32 HJ	2.1/2" -12 UN	2.1/2" -12 UN	66	70	59.36 x 3.00

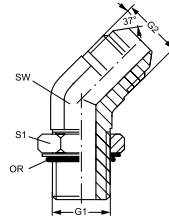
SW, S1, S2 = With across flats

**Product versions:**

**W45 O HJ VA** - Screw-in socket, angle 45°, Stainless steel

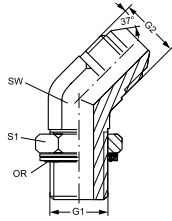
**W45 HMO HJ****Screw-in socket, angle 45°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
W45 HMO 10 HJ 04	M 10 x 1	7/16"-20 UNF	11	14	8.2 x 1.5
W45 HMO 10 HJ 05	M 10 x 1	1/2"-20 UNF	13	14	8.2 x 1.5
W45 HMO 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	13	17	9.4 x 2.1
W45 HMO 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	13	17	9.4 x 2.1
W45 HMO 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	13	19	11.4 x 2.1
W45 HMO 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	14	19	11.4 x 2.1
W45 HMO 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	19	22	13.4 x 2.1
W45 HMO 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	19	22	13.4 x 2.1
W45 HMO 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	19	24	15.4 x 2.1
W45 HMO 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	22	24	15.4 x 2.1
W45 HMO 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	22	27	19.4 x 2.1
W45 HMO 22 HJ 12	M 22 x 1.5	1.1/16"-12 UN	27	27	19.4 x 2.1
W45 HMO 27 HJ 12	M 27 x 2	1.1/16"-12 UN	27	32	23.7 x 2.8
W45 HMO 27 HJ 16	M 27 x 2	1.5/16"-12 UN	33	32	23.7 x 2.8
W45 HMO 33 HJ 16	M 33 x 2	1.5/16"-12 UN	33	41	29.7 x 2.8

SW, S1, S2 = With across flats

**W45 HMOK HJ****Screw-in socket, angle 45°**

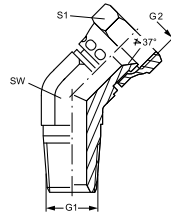
- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring
- Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
W45 HMOK 10 HJ 04	M 10 x 1	7/16"-20 UNF	11	13	8.00 x 1.50
W45 HMOK 10 HJ 05	M 10 x 1	1/2"-20 UNF	13	13	8.00 x 1.50
W45 HMOK 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	13	17	9.30 x 2.30
W45 HMOK 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	13	17	9.30 x 2.30
W45 HMOK 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	14	17	11.30 x 2.30
W45 HMOK 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	14	17	11.30 x 2.30
W45 HMOK 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	19	19	13.30 x 2.30
W45 HMOK 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	19	19	13.30 x 2.30
W45 HMOK 18 HJ 06	M 18 x 1.5	9/16"-18 UNF	19	22	15.30 x 2.30
W45 HMOK 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	19	22	15.30 x 2.30
W45 HMOK 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	22	22	15.30 x 2.30
W45 HMOK 20 HJ 10	M 20 x 1.5	7/8"-14 UNF	22	27	17.30 x 2.30
W45 HMOK 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	22	27	19.30 x 2.30
W45 HMOK 22 HJ 12	M 22 x 1.5	1.1/16" -12 UN	27	27	19.30 x 2.30
W45 HMOK 26 HJ 14	M 26 x 1.5	1.3/16" -12 UN	27	35	23.50 x 2.60
W45 HMOK 27 HJ 12	M 27 x 2	1.1/16" -12 UN	27	32	23.47 x 2.95
W45 HMOK 27 HJ 16	M 27 x 2	1.5/16" -12 UN	33	32	23.47 x 2.95
W45 HMOK 33 HJ 16	M 33 x 2	1.5/16" -12 UN	33	38	29.74 x 2.95
W45 HMOK 42 HJ 20	M 42 x 2	1.5/8" -12 UN	41	50	38.00 x 3.00

SW, S1, S2 = With across flats

**W45 HRK AJ****Screw-in socket, angle 45°**

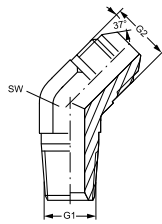
**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
W45 HRK 04 AJ	R 1/4" K	7/16"-20 UNF	14	16
W45 HRK 06 AJ	R 3/8" K	9/16"-18 UNF	19	19
W45 HRK 08 AJ	R 1/2" K	3/4"-16 UNF	22	22
W45 HRK 08 AJ 10	R 1/2" K	7/8"-14 UNF	22	27
W45 HRK 12 AJ	R 3/4" K	1.1/16" -12 UN	32	27

SW = Width across flats

3

**W45 HRK HJ****Screw-in socket, angle 45°**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

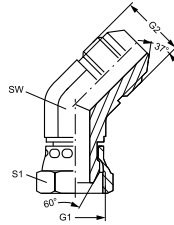
Identification	G1	G2	SW mm
W45 HRK 02 HJ 04	R 1/8" K	7/16"-20 UNF	11
W45 HRK 02 HJ 05	R 1/8" K	1/2"-20 UNF	13
W45 HRK 02 HJ 06	R 1/8" K	9/16"-18 UNF	14
W45 HRK 04 HJ	R 1/4" K	7/16"-20 UNF	14
W45 HRK 04 HJ 05	R 1/4" K	1/2"-20 UNF	22
W45 HRK 04 HJ 06	R 1/4" K	9/16"-18 UNF	14
W45 HRK 04 HJ 08	R 1/4" K	3/4"-16 UNF	19
W45 HRK 06 HJ 04	R 3/8" K	7/16"-20 UNF	19
W45 HRK 06 HJ 05	R 3/8" K	1/2"-20 UNF	14
W45 HRK 06 HJ	R 3/8" K	9/16"-18 UNF	19
W45 HRK 06 HJ 08	R 3/8" K	3/4"-16 UNF	19
W45 HRK 06 HJ 10	R 3/8" K	7/8"-14 UNF	22
W45 HRK 08 HJ 04	R 1/2" K	7/16"-20 UNF	22
W45 HRK 08 HJ 06	R 1/2" K	9/16"-18 UNF	22
W45 HRK 08 HJ	R 1/2" K	3/4"-16 UNF	22
W45 HRK 08 HJ 10	R 1/2" K	7/8"-14 UNF	22
W45 HRK 08 HJ 12	R 1/2" K	1.1/16" -12 UN	27
W45 HRK 12 HJ	R 3/4" K	1.1/16" -12 UN	37
W45 HRK 12 HJ 10	R 3/4" K	7/8"-14 UNF	27
W45 HRK 12 HJ 16	R 3/4" K	1.5/16" -12 UN	33
W45 HRK 16 HJ 10	R 1" K	7/8"-14 UNF	33
W45 HRK 16 HJ 12	R 1" K	1.1/16" -12 UN	33
W45 HRK 16 HJ	R 1" K	1.5/16" -12 UN	33
W45 HRK 16 HJ 20	R 1" K	1.5/8" -12 UN	41
W45 HRK 20 HJ	R 1.1/4" K	1.5/8" -12 UN	41
W45 HRK 24 HJ	R 1.1/2" K	1.7/8" -12 UN	48
W45 HRK 32 HJ	R 2" K	2.1/2" -12 UN	66

SW = Width across flats



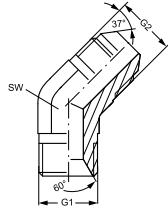
**W45 AB HJ****Connector, angle 45°**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° inner cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connectors  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
W45 AB 04 HJ	G 1/4" -19	7/16"-20 UNF	11	19
W45 AB 06 HJ	G 3/8" -19	9/16"-18 UNF	14	12
W45 AB 08 HJ	G 1/2" -14	3/4"-16 UNF	19	27
W45 AB 10 HJ	G 5/8" -14	7/8"-14 UNF	22	27
W45 AB 12 HJ	G 3/4" -14	1.1/16" -12 UN	27	32

SW, S1, S2 = With across flats

**W45 HB HJ****Connection socket, angle 45°**

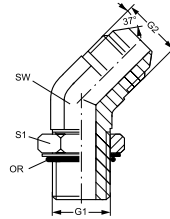
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
W45 HB 04 HJ	G 1/4" -19	7/16"-20 UNF	14
W45 HB 04 HJ 05	G 1/4" -19	1/2"-20 UNF	13
W45 HB 06 HJ	G 3/8" -19	9/16"-18 UNF	19
W45 HB 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19
W45 HB 08 HJ	G 1/2" -14	3/4"-16 UNF	22
W45 HB 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22
W45 HB 10 HJ	G 5/8" -14	7/8"-14 UNF	27
W45 HB 12 HJ	G 3/4" -14	1.1/16" -12 UN	27
W45 HB 16 HJ	G 1" -11	1.5/16" -12 UN	33

SW = Width across flats

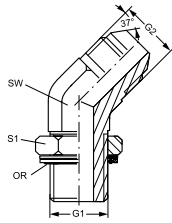
**W45 HRO HJ****Screw-in socket, angle 45°**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
W45 HRO 02 HJ 05	G 1/8" -28	1/2"-20 UNF	13	14	8.00 x 2.00
W45 HRO 04 HJ	G 1/4" -19	7/16"-20 UNF	14	19	10.77 x 2.62
W45 HRO 04 HJ 05	G 1/4" -19	1/2"-20 UNF	14	19	10.77 x 2.62
W45 HRO 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	19	10.77 x 2.62
W45 HRO 06 HJ 04	G 3/8" -19	7/16"-20 UNF	19	22	13.94 x 2.62
W45 HRO 06 HJ 05	G 3/8" -19	1/2"-20 UNF	19	22	13.94 x 2.62
W45 HRO 06 HJ	G 3/8" -19	9/16"-18 UNF	19	22	13.94 x 2.62
W45 HRO 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	22	13.94 x 2.62
W45 HRO 08 HJ 04	G 1/2" -14	7/16"-20 UNF	22	27	17.86 x 2.62
W45 HRO 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	27	17.86 x 2.62
W45 HRO 08 HJ	G 1/2" -14	3/4"-16 UNF	22	27	17.86 x 2.62
W45 HRO 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	27	27	17.86 x 2.62
W45 HRO 12 HJ 08	G 3/4" -14	3/4"-16 UNF	27	36	23.47 x 2.62
W45 HRO 12 HJ 10	G 3/4" -14	7/8"-14 UNF	27	36	23.47 x 2.62
W45 HRO 24 HJ	G 1.1/2" -11	1.7/8" -12 UN	48	55	44.04 x 3.53

SW, S1, S2 = With across flats

**W45 HROK HJ****Screw-in socket, angle 45°**

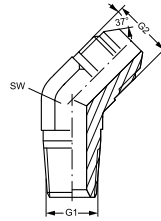
- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring
- Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone
- Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
W45 HROK 02 HJ 04	G 1/8" -28	7/16"-20 UNF	11	14	8.00 x 2.00
W45 HROK 02 HJ 05	G 1/8" -28	1/2"-20 UNF	13	14	8.00 x 2.00
W45 HROK 04 HJ	G 1/4" -19	7/16"-20 UNF	19	14	10.77 x 2.62
W45 HROK 04 HJ 05	G 1/4" -19	1/2"-20 UNF	14	19	10.77 x 2.62
W45 HROK 04 HJ 06	G 1/4" -19	9/16"-18 UNF	14	19	10.77 x 2.62
W45 HROK 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	19	10.77 x 2.62
W45 HROK 06 HJ 04	G 3/8" -19	7/16"-20 UNF	19	22	13.94 x 2.62
W45 HROK 06 HJ 05	G 3/8" -19	1/2"-20 UNF	19	22	13.94 x 2.62
W45 HROK 06 HJ	G 3/8" -19	9/16"-18 UNF	19	22	13.94 x 2.62
W45 HROK 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19	22	13.94 x 2.62
W45 HROK 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	22	13.94 x 2.62
W45 HROK 08 HJ 04	G 1/2" -14	7/16"-20 UNF	22	27	17.86 x 2.62
W45 HROK 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	27	17.86 x 2.62
W45 HROK 08 HJ	G 1/2" -14	3/4"-16 UNF	22	27	17.86 x 2.62
W45 HROK 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22	27	17.86 x 2.62
W45 HROK 08 HJ 12	G 1/2" -14	1.1/16"-12 UN	27	27	17.86 x 2.62
W45 HROK 10 HJ	G 5/8" -14	7/8"-14 UNF	22	27	19.70 x 2.62
W45 HROK 10 HJ 12	G 5/8" -14	1.1/16"-12 UN	27	36	19.70 x 2.62
W45 HROK 12 HJ 08	G 3/4" -14	3/4"-16 UNF	27	36	23.47 x 2.62
W45 HROK 12 HJ 10	G 3/4" -14	7/8"-14 UNF	27	36	23.47 x 2.62
W45 HROK 12 HJ	G 3/4" -14	1.1/16"-12 UN	27	36	23.47 x 2.62
W45 HROK 12 HJ 16	G 3/4" -14	1.5/16"-12 UN	33	36	23.47 x 2.62
W45 HROK 16 HJ 12	G 1" -11	1.1/16"-12 UN	33	41	29.74 x 3.53
W45 HROK 16 HJ	G 1" -11	1.5/16"-12 UN	33	41	23.47 x 3.53
W45 HROK 16 HJ 20	G 1" -11	1.5/8"-12 UN	41	41	29.74 x 3.53
W45 HROK 20 HJ 16	G 1.1/4" -11	1.5/16"-12 UN	33	50	37.69 x 3.53
W45 HROK 20 HJ	G 1.1/4" -11	1.5/8"-12 UN	41	50	37.96 x 3.53
W45 HROK 20 HJ 24	G 1.1/4" -11	1.7/8"-12 UN	48	50	37.69 x 3.53
W45 HROK 24 HJ	G 1.1/2" -11	1.7/8"-12 UN	48	55	44.04 x 3.53

SW, S1, S2 = With across flats

**W45 HN HJ****Screw-in socket, angle 45°**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

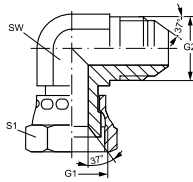


Identification	G1	G2	SW mm
W45 HN 02 HJ 04	1/8" -27 NPT	7/16"-20 UNF	11
W45 HN 02 HJ 05	1/8" -27 NPT	1/2"-20 UNF	13
W45 HN 02 HJ 06	1/8" -27 NPT	9/16"-18 UNF	14
W45 HN 04 HJ	1/4" -18 NPT	7/16"-20 UNF	14
W45 HN 04 HJ 05	1/4" -18 NPT	1/2"-20 UNF	14
W45 HN 04 HJ 06	1/4" -18 NPT	9/16"-18 UNF	14
W45 HN 04 HJ 08	1/4" -18 NPT	3/4"-16 UNF	19
W45 HN 06 HJ	3/8" -18 NPT	9/16"-18 UNF	19
W45 HN 06 HJ 08	3/8" -18 NPT	3/4"-16 UNF	19
W45 HN 06 HJ 10	3/8" -18 NPT	7/8"-14 UNF	22
W45 HN 08 HJ	1/2" -14 NPT	3/4"-16 UNF	22
W45 HN 08 HJ 06	1/2" -14 NPT	9/16"-18 UNF	22
W45 HN 08 HJ 10	1/2" -14 NPT	7/8"-14 UNF	22
W45 HN 08 HJ 12	1/2" -14 NPT	1.1/16" -12 UN	27
W45 HN 12 HJ	3/4" -14 NPT	1.1/16" -12 UN	27
W45 HN 12 HJ 08	3/4" -14 NPT	3/4"-16 UNF	27
W45 HN 12 HJ 10	3/4" -14 NPT	7/8"-14 UNF	27
W45 HN 12 HJ 14	3/4" -14 NPT	1.3/16" -12 UN	33
W45 HN 12 HJ 16	3/4" -14 NPT	1.5/16" -12 UN	33
W45 HN 16 HJ	1" -11.5 NPT	1.5/16" -12 UN	33
W45 HN 16 HJ 12	1" -11.5 NPT	1.1/16" -12 UN	33
W45 HN 16 HJ 20	1" -11.5 NPT	1.5/8" -12 UN	41
W45 HN 20 HJ	1.1/4" -11.5 NPT	1.5/8" -12 UN	41
W45 HN 24 HJ	1.1/2" -11.5 NPT	1.7/8" -12 UN	48
W45 HN 32 HJ	2" -11.5 NPT	2.1/2" -12 UN	55

SW = Width across flats

**Product versions:**

**W45 HN HJ VA** - Screw-in socket, angle 45°, Stainless steel

**W90 AJ HJ****Screw-on socket, angle 90°**

**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-on socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm	S1
W90 AJ 04 HJ	7/16"-20 UNF	12	14
W90 AJ 05 HJ	1/2"-20 UNF	13	17
W90 AJ 06 HJ	9/16"-18 UNF	14	19
W90 AJ 08 HJ	3/4"-16 UNF	19	22
W90 AJ 10 HJ	7/8"-14 UNF	22	27
W90 AJ 12 HJ	1.1/16"-12 UN	27	32
W90 AJ 14 HJ	1.3/16"-12 UN	33	36
W90 AJ 16 HJ	1.5/16"-12 UN	33	41
W90 AJ 20 HJ	1.5/8"-12 UN	41	50
W90 AJ 24 HJ	1.7/8"-12 UN	48	60
W90 AJ 32 HJ	2.1/2"-12 UN	65	75

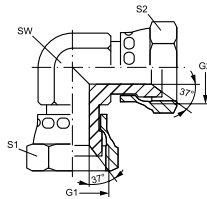
SW, S1, S2 = With across flats

**Product versions:**

**W90 AJ HJ VA** - Screw-on socket, angle 90°, Stainless steel

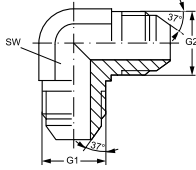
**W90 AJ****Connection socket, angle 90°**

**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Connection sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1 + S2 mm
W90 AJ 04	7/16"-20 UNF	12	17
W90 AJ 05	1/2"-20 UNF	13	17
W90 AJ 06	9/16"-18 UNF	14	19
W90 AJ 08	3/4"-16 UNF	19	24
W90 AJ 10	7/8"-14 UNF	24	27
W90 AJ 12	1.1/16"-12 UN	24	32
W90 AJ 16	1.5/16" -12 UN	33	41

SW, S1, S2 = With across flats

**W90 HJ****Fitting socket, angle 90°**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Fitting socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm
W90 HJ 04	7/16"-20 UNF	11
W90 HJ 05	1/2"-20 UNF	13
W90 HJ 06	9/16"-18 UNF	14
W90 HJ 08	3/4"-16 UNF	19
W90 HJ 10	7/8"-14 UNF	22
W90 HJ 12	1.1/16" -12 UN	27
W90 HJ 14	1.3/16" -12 UN	30
W90 HJ 16	1.5/16" -12 UN	33
W90 HJ 20	1.5/8" -12 UN	41
W90 HJ 24	1.7/8" -12 UN	48
W90 HJ 32	2.1/2" -12 UN	64

SW = Width across flats

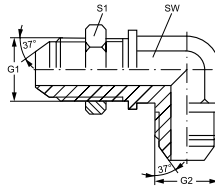
**Product versions:**

**W90 HJ VA** - Fitting socket, angle 90°, Stainless steel



**SW 90 HJ****Bulkhead fitting socket, angle 90°**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Bulkhead fitting socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

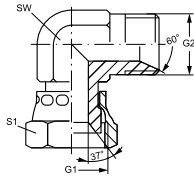


Identification	G1 + G2	SW mm	S1
SW 90 HJ 04	7/16"-20 UNF	11	17
SW 90 HJ 05	1/2"-20 UNF	13	19
SW 90 HJ 06	9/16"-18 UNF	14	22
SW 90 HJ 08	3/4"-16 UNF	19	24
SW 90 HJ 10	7/8"-14 UNF	22	30
SW 90 HJ 12	1.1/16" -12 UN	27	36
SW 90 HJ 14	1.3/16" -12 UN	41	38
SW 90 HJ 16	1.5/16" -12 UN	41	41
SW 90 HJ 20	1.5/8" -12 UN	41	48
SW 90 HJ 24	1.7/8" -12 UN	55	55

SW, S1, S2 = With across flats

**Product versions:**

**SW 90 HJ VA** - Bulkhead fitting socket, angle 90°, Stainless steel

**W90 AJ HB****Connection socket, angle 90°**

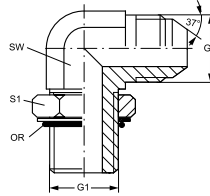
<b>Connection 1:</b>	UN/UNF nut threads
<b>Sealing form 1:</b>	74° inner cone
<b>Connection 2:</b>	BSP cylindrical external threads
<b>Sealing form 2:</b>	60° inner cone
<b>Design:</b>	Connection sockets
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2	SW mm	S1
W90 AJ 04 HB	7/16"-20 UNF	G 1/4" -19	17	17
W90 AJ 06 HB	9/16"-18 UNF	G 3/8" -19	19	14
W90 AJ 08 HB	3/4"-16 UNF	G 1/2" -14	22	19
W90 AJ 10 HB	7/8"-14 UNF	G 5/8" -14	27	22
W90 AJ 12 HB	1.1/16" -12 UN	G 3/4" -14	32	27

SW, S1, S2 = With across flats

**W90 O HJ****Screw-in socket, AGJ, angle 90°**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

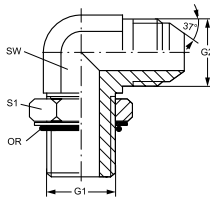


Identification	G1	G2	SW mm	S1	OR
W90 O 04 HJ	7/16"-20 UNF	7/16"-20 UNF	12	14	9.17 x 1.63
W90 O 04 HJ 05	7/16"-20 UNF	1/2"-20 UNF	12	14	9.17 x 1.63
W90 O 04 HJ 06	7/16"-20 UNF	9/16"-18 UNF	12	14	9.17 x 1.63
W90 O 05 HJ 04	1/2"-20 UNF	7/16"-20 UNF	13	17	10.52 x 1.83
W90 O 05 HJ	1/2"-20 UNF	1/2"-20 UNF	13	17	10.52 x 1.83
W90 O 05 HJ 06	1/2"-20 UNF	9/16"-18 UNF	13	17	10.52 x 1.83
W90 O 06 HJ 04	9/16"-18 UNF	7/16"-20 UNF	14	17	11.90 x 1.98
W90 O 06 HJ 05	9/16"-18 UNF	1/2"-20 UNF	14	17	11.90 x 1.98
W90 O 06 HJ	9/16"-18 UNF	9/16"-18 UNF	14	17	11.90 x 1.98
W90 O 06 HJ 08	9/16"-18 UNF	3/4"-16 UNF	14	17	11.90 x 1.98
W90 O 08 HJ	3/4"-16 UNF	3/4"-16 UNF	19	22	16.36 x 2.20
W90 O 08 HJ 06	3/4"-16 UNF	9/16"-18 UNF	19	22	16.36 x 2.20
W90 O 08 HJ 10	3/4"-16 UNF	7/8"-14 UNF	19	22	16.36 x 2.20
W90 O 08 HJ 12	3/4"-16 UNF	1.1/16"-12 UN	19	22	16.36 x 2.20
W90 O 10 HJ 08	7/8"-14 UNF	3/4"-16 UNF	22	27	19.18 x 2.46
W90 O 10 HJ 06	7/8"-14 UNF	9/16"-18 UNF	22	27	19.18 x 2.46
W90 O 10 HJ	7/8"-14 UNF	7/8"-14 UNF	22	27	19.18 x 2.46
W90 O 10 HJ 12	7/8"-14 UNF	1.1/16"-12 UN	22	27	19.18 x 2.46
W90 O 12 HJ 08	1.1/16"-12 UN	3/4"-16 UNF	27	32	23.47 x 2.95
W90 O 12 HJ	1.1/16"-12 UN	1.1/16"-12 UN	27	32	23.47 x 2.95
W90 O 12 HJ 16	1.1/16"-12 UN	1.5/16"-12 UN	27	32	23.47 x 2.95
W90 O 12 HJ 10	1.1/16"-12 UN	7/8"-14 UNF	27	32	23.47 x 2.95
W90 O 16 HJ	1.5/16"-12 UN	1.5/16"-12 UN	33	41	29.74 x 2.95
W90 O 16 HJ 12	1.5/16"-12 UN	1.1/16"-12 UN	33	41	29.74 x 2.95
W90 O 16 HJ 20	1.5/16"-12 UN	1.5/8"-12 UN	33	41	29.74 x 2.95
W90 O 20 HJ 16	1.5/8"-12 UN	1.5/16"-12 UN	41	50	37.47 x 3.00
W90 O 20 HJ	1.5/8"-12 UN	1.5/8"-12 UN	41	50	37.47 x 3.00
W90 O 24 HJ	1.7/8"-12 UN	1.7/8"-12 UN	48	55	43.69 x 3.00
W90 O 32 HJ	2.1/2"-12 UN	2.1/2"-12 UN	65	70	59.36 x 3.00

SW, S1, S2 = With across flats

**Product versions:**

**W90 O HJ VA** - Screw-in socket, AGJ, angle 90°, Stainless steel

**W90 HMO HJ****Screw-in socket, angle 90°**

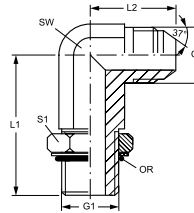
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
W90 HMO 10 HJ 04	M 10 x 1	7/16"-20 UNF	11	14	8.2 x 1.5
W90 HMO 10 HJ 05	M 10 x 1	1/2"-20 UNF	13	14	8.2 x 1.5
W90 HMO 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	13	17	9.4 x 2.1
W90 HMO 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	13	17	9.4 x 2.1
W90 HMO 14 HJ 04	M 14 x 1.5	7/16"-20 UNF	19	19	11.4 x 2.1
W90 HMO 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	13	19	11.4 x 2.1
W90 HMO 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	14	19	11.4 x 2.1
W90 HMO 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	19	22	13.4 x 2.1
W90 HMO 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	19	22	13.4 x 2.1
W90 HMO 18 HJ 06	M 18 x 1.5	9/16"-18 UNF	22	22	15.4 x 2.1
W90 HMO 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	19	24	15.4 x 2.1
W90 HMO 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	22	24	15.4 x 2.1
W90 HMO 20 HJ 08	M 20 x 1.5	3/4"-16 UNF	19	24	17.3 x 2.4
W90 HMO 20 HJ 10	M 20 x 1.5	7/8"-14 UNF	22	24	17.3 x 2.4
W90 HMO 22 HJ 08	M 22 x 1.5	3/4"-16 UNF	19	27	19.4 x 2.1
W90 HMO 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	22	27	19.4 x 2.1
W90 HMO 22 HJ 12	M 22 x 1.5	1.1/16"-12 UN	27	27	19.4 x 2.1
W90 HMO 27 HJ 12	M 27 x 2	1.1/16"-12 UN	27	32	23.7 x 2.8
W90 HMO 27 HJ 16	M 27 x 2	1.5/16"-12 UN	33	32	23.7 x 2.8
W90 HMO 33 HJ 16	M 33 x 2	1.5/16"-12 UN	33	41	29.7 x 2.8
W90 HMO 42 HJ 20	M 42 x 2	1.5/8"-12 UN	41	50	38.7 x 2.8
W90 HMO 48 HJ 24	M 48 x 2	1.7/8"-12 UN	48	55	46.7 x 2.8

SW, S1, S2 = With across flats

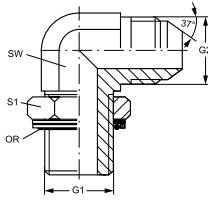
**W90 HMO L HJ****Screw-in socket, long, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in socket, long  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	L1 mm	L2 mm	SW mm	S1	OR
W90 HMO L 10 HJ 05	M 10 x 1	1/2"-20 UNF	49,5	24,0	13	15	8.0 x 1.5
W90 HMO L 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	53,5	27,0	13	18	9.3 x 2.4
W90 HMO L 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	56,5	27,0	14	20	11.3 x 2.4
W90 HMO L 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	67,0	28,5	19	20	13.3 x 2.4
W90 HMO L 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	67,0	31,5	19	25	15.3 x 2.4
W90 HMO L 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	75,0	36,5	22	25	15.3 x 2.4
W90 HMO L 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	78,0	36,5	22	28	19.3 x 2.4

SW, S1, S2 = With across flats

**W90 HMOK HJ****Screw-in socket, angle 90°**

**Connection 1:**  
**Sealing form 1:**

metric cylindrical outer thread  
Thread socket with O-ring + spacer  
diaphragm ring

**Connection 2:**  
**Sealing form 2:**

UN/UNF external threads  
74° outer cone

**Design:**

Adjustable direction screw-in socket  
Angle 90°

**Construction:**

Angle 90°

**Material:**

Steel

**Surface:**

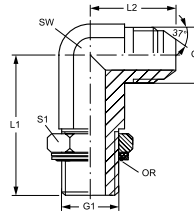
electro galvanised

Identification	G1	G2	SW mm	S1	OR
W90 HMOK 10 HJ 04	M 10 x 1	7/16"-20 UNF	11	13	8.0 x 1.5
W90 HMOK 10 HJ 05	M 10 x 1	1/2"-20 UNF	13	13	8.0 x 1.5
W90 HMOK 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	13	17	9.4 x 2.1
W90 HMOK 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	13	17	9.4 x 2.1
W90 HMOK 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	14	17	11.4 x 2.1
W90 HMOK 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	14	17	11.4 x 2.1
W90 HMOK 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	19	19	13.4 x 2.1
W90 HMOK 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	19	19	13.4 x 2.1
W90 HMOK 18 HJ 06	M 18 x 1.5	9/16"-18 UNF	22	22	15.4 x 2.1
W90 HMOK 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	19	22	15.4 x 2.1
W90 HMOK 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	22	22	15.4 x 2.1
W90 HMOK 20 HJ 10	M 20 x 1.5	7/8"-14 UNF	22	24	17.3 x 2.4
W90 HMOK 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	22	27	19.4 x 2.1
W90 HMOK 22 HJ 12	M 22 x 1.5	1.1/16"-12 UN	27	27	19.4 x 2.1
W90 HMOK 26 HJ 14	M 26 x 1.5	1.3/16"-12 UN	33	32	23.5 x 2.6
W90 HMOK 27 HJ 12	M 27 x 2	1.1/16"-12 UN	27	32	23.7 x 2.8
W90 HMOK 27 HJ 16	M 27 x 2	1.5/16"-12 UN	33	32	23.7 x 2.8
W90 HMOK 33 HJ 16	M 33 x 2	1.5/16"-12 UN	33	38	29.7 x 2.8
W90 HMOK 42 HJ 20	M 42 x 2	1.5/8"-12 UN	41	50	38.7 x 2.8
W90 HMOK 48 HJ 24	M 48 x 2	1.7/8"-12 UN	48	55	46.7 x 2.8

SW, S1, S2 = With across flats

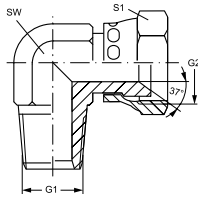
**W90 HMOK L HJ****Screw-in socket, long, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in socket, long  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	L1 mm	L2 mm	SW mm	S1	OR
W90 HMOK L 10 HJ 05	M 10 x 1	1/2"-20 UNF	49,5	24,0	13	15	8.0 x 1.5
W90 HMOK L 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	53,5	27,0	13	18	9.3 x 2.4
W90 HMOK L 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	56,5	27,0	14	20	11.3 x 2.4
W90 HMOK L 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	67,0	28,5	19	22	13.3 x 2.4
W90 HMOK L 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	67,0	31,5	19	25	15.3 x 2.4
W90 HMOK L 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	75,0	36,5	22	25	15.3 x 2.4
W90 HMOK L 20 HJ 10	M 20 x 1.5	7/8"-14 UNF	78,0	36,5	22	28	17.3 x 2.4
W90 HMOK L 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	78,0	36,5	22	28	19.3 x 2.4

SW, S1, S2 = With across flats

**W90 HRK AJ****Screw-in socket, angle 90°**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

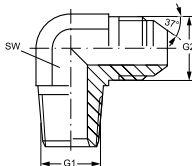
Identification	G1	G2	SW mm	S1	S2
W90 HRK 04 AJ	R 1/4" K	7/16"-20 UNF	14	16	18
W90 HRK 06 AJ	R 3/8" K	9/16"-18 UNF	19	19	22
W90 HRK 08 AJ	R 1/2" K	3/4"-16 UNF	22	22	32
W90 HRK 08 AJ 10	R 1/2" K	7/8"-14 UNF	22	27	25
W90 HRK 12AJ	R 3/4" K	1.1/16" -12 UN	27	32	21

SW, S1, S2 = With across flats



**W90 HRK HJ****Screw-in socket, angle 90°**

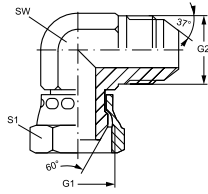
**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
W90 HRK 02 HJ 04	R 1/8" K	7/16"-20 UNF	11
W90 HRK 02 HJ 05	R 1/8" K	1/2"-20 UNF	13
W90 HRK 02 HJ 06	R 1/8" K	9/16"-18 UNF	14
W90 HRK 04 HJ	R 1/4" K	7/16"-20 UNF	14
W90 HRK 04 HJ 05	R 1/4" K	1/2"-20 UNF	14
W90 HRK 04 HJ 06	R 1/4" K	9/16"-18 UNF	14
W90 HRK 04 HJ 08	R 1/4" K	3/4"-16 UNF	19
W90 HRK 06 HJ 04	R 3/8" K	7/16"-20 UNF	19
W90 HRK 06 HJ 05	R 3/8" K	1/2"-20 UNF	19
W90 HRK 06 HJ	R 3/8" K	9/16"-18 UNF	19
W90 HRK 06 HJ 08	R 3/8" K	3/4"-16 UNF	19
W90 HRK 06 HJ 10	R 3/8" K	7/8"-14 UNF	22
W90 HRK 08 HJ 04	R 1/2" K	7/16"-20 UNF	22
W90 HRK 08 HJ 06	R 1/2" K	9/16"-18 UNF	22
W90 HRK 08 HJ	R 1/2" K	3/4"-16 UNF	22
W90 HRK 08 HJ 10	R 1/2" K	7/8"-14 UNF	22
W90 HRK 08 HJ 12	R 1/2" K	1.1/16" -12 UN	27
W90 HRK 12 HJ 08	R 3/4" K	3/4"-16 UNF	27
W90 HRK 12 HJ 10	R 3/4" K	7/8"-14 UNF	27
W90 HRK 12 HJ	R 3/4" K	1.1/16" -12 UN	27
W90 HRK 12 HJ 16	R 3/4" K	1.5/16" -12 UN	33
W90 HRK 16 HJ 10	R 1" K	7/8"-14 UNF	33
W90 HRK 16 HJ 12	R 1" K	1.1/16" -12 UN	33
W90 HRK 16 HJ	R 1" K	1.5/16" -12 UN	33
W90 HRK 16 HJ 20	R 1" K	1.5/8" -12 UN	41
W90 HRK 20 HJ 16	R 1.1/4" K	1.5/16" -12 UN	41
W90 HRK 20 HJ	R 1.1/4" K	1.5/8" -12 UN	41
W90 HRK 24 HJ	R 1.1/2" K	1.7/8" -12 UN	48
W90 HRK 32 HJ	R 2" K	2.1/2" -12 UN	66

SW = Width across flats

3

**W90 AB HJ****Connector, angle 90°**

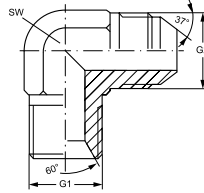
**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° inner cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connectors  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1
W90 AB 04 HJ	G 1/4" -19	7/16"-20 UNF	11	14
W90 AB 06 HJ	G 3/8" -19	9/16"-18 UNF	14	19
W90 AB 08 HJ	G 1/2" -14	3/4"-16 UNF	19	22
W90 AB 10 HJ	G 5/8" -14	7/8"-14 UNF	22	22
W90 AB 12 HJ	G 3/4" -14	1.1/16" -12 UN	27	27

SW, S1, S2 = With across flats

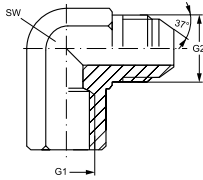
**W90 HB HJ****Connection socket, angle 90°**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
W90 HB 04 HJ	G 1/4" -19	7/16"-20 UNF	14
W90 HB 04 HJ 05	G 1/4" -19	1/2"-20 UNF	14
W90 HB 04 HJ 06	G 1/4" -19	9/16"-18 UNF	14
W90 HB 06 HJ	G 3/8" -19	9/16"-18 UNF	19
W90 HB 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19
W90 HB 08 HJ	G 1/2" -14	3/4"-16 UNF	22
W90 HB 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22
W90 HB 10 HJ	G 5/8" -14	7/8"-14 UNF	22
W90 HB 12 HJ	G 3/4" -14	1.1/16" -12 UN	27
W90 HB 16 HJ	G 1" -11	1.5/16" -12 UN	33

SW = Width across flats

**W90 IR HJ****Connection socket, IGR AGJ, angle 90°**

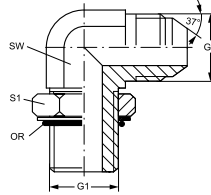
**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** flat sealing  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
W90 IR 02 HJ 04	G 1/8" -28	7/16"-20 UNF	14
W90 IR 02 HJ 05	G 1/8" -28	1/2"-20 UNF	14
W90 IR 04 HJ	G 1/4" -19	7/16"-20 UNF	19
W90 IR 04 HJ 05	G 1/4" -19	1/2"-20 UNF	19
W90 IR 04 HJ 06	G 1/4" -19	9/16"-18 UNF	19
W90 IR 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19
W90 IR 06 HJ	G 3/8" -19	9/16"-18 UNF	22
W90 IR 06 HJ 08	G 3/8" -19	3/4"-16 UNF	22
W90 IR 08 HJ	G 1/2" -14	3/4"-16 UNF	27
W90 IR 08 HJ 10	G 1/2" -14	7/8"-14 UNF	27
W90 IR 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	27
W90 IR 12 HJ	G 3/4" -14	1.1/16" -12 UN	33
W90 IR 16 HJ	G 1" -11	1.5/16" -12 UN	41
W90 IR 16 HJ 20	G 1" -11	1.5/8" -12 UN	48
W90 IR 20 HJ	G 1.1/4" -11	1.5/8" -12 UN	48

SW = Width across flats

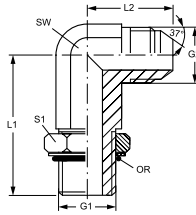
**W90 HRO HJ****Screw-in socket, angle 90°**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
W90 HRO 02 HJ 05	G 1/8" -28	1/2"-20 UNF	13	14	8.00 x 2.00
W90 HRO 06 HJ 04	G 3/8" -19	7/16" -20 UN	19	22	13.94 x 2.62
W90 HRO 06 HJ 05	G 3/8" -19	1/2"-20 UNF	19	22	13.94 x 2.62
W90 HRO 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19	22	13.94 x 2.62
W90 HRO 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	22	13.94 x 2.62
W90 HRO 08 HJ 04	G 1/2" -14	7/16"-20 UNF	22	22	17.86 x 2.62
W90 HRO 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	27	17.86 x 2.62
W90 HRO 12 HJ	G 3/4" -14	1.1/16" -12 UN	27	36	23.47 x 2.62
W90 HRO 12 HJ 14	G 3/4" -14	1.3/16" -12 UN	33	36	23.47 x 2.62
W90 HRO 12 HJ 16	G 3/4" -14	1.5/16" -12 UN	33	36	23.47 x 2.62
W90 HRO 16 HJ 12	G 1" -11	1.1/16" -12 UN	33	41	29.74 x 3.53
W90 HRO 20 HJ 16	G 1.1/4" -11	1.5/16" -12 UN	33	36	37.69 x 3.53
W90 HRO 20 HJ 24	G 1.1/4" -11	1.7/8" -12 UN	48	50	37.69 x 3.53
W90 HRO 24 HJ	G 1.1/2" -11	1.7/8" -12 UN	48	55	44.04 x 3.53

SW, S1, S2 = With across flats

**W90 HRO L HJ****Screw-in socket, long, angle 90°**

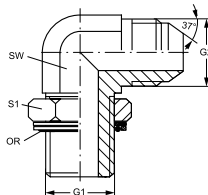
**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:**  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in socket, long  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	L1 mm	L2 mm	S1	OR
W90 HRO L 04 HJ 06	G 1/4" -19	9/16"-18 UNF	14	56,5	27,0	19	8.00 x 2.00
W90 HRO L 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	64,0	31,5	19	8.00 x 2.00
W90 HRO L 06 HJ	G 3/8" -19	9/16"-18 UNF	19	67,0	28,5	22	13.94 x 2.62
W90 HRO L 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19	67,0	31,5	22	13.94 x 2.62
W90 HRO L 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	75,0	36,5	22	17.86 x 2.62
W90 HRO L 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	78,0	31,0	27	17.86 x 2.62
W90 HRO L 08 HJ	G 1/2" -14	3/4"-16 UNF	22	78,0	34,0	27	17.86 x 2.62
W90 HRO L 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22	78,0	36,5	27	17.86 x 2.62
W90 HRO L 08 HJ 12	G 1/2" -14	1.1/16"-12 UN	27	88,0	42,0	27	17.86 x 2.62
W90 HRO L 12 HJ 10	G 3/4" -14	7/8"-14 UNF	27	92,0	39,5	36	23.47 x 2.62
W90 HRO L 12 HJ	G 3/4" -14	1.1/16"-12 UN	27	92,0	42,0	36	23.47 x 2.62
W90 HRO L 12 HJ 16	G 3/4" -14	1.5/16"-12 UN	33	105,0	46,0	36	23.47 x 2.62
W90 HRO L 16 HJ 12	G 1" -11	1.1/16"-12 UN	33	105,0	44,5	41	29.74 x 3.53
W90 HRO L 16 HJ	G 1" -11	1.5/16"-12 UN	33	105,0	46,0	41	29.74 x 3.53
W90 HRO L 16 HJ 20	G 1" -11	1.5/8"-12 UN	41	124,0	52,0	41	29.74 x 3.53

SW, S1, S2 = With across flats

**W90 HROK HJ****Screw-in socket, angle 90°**

- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

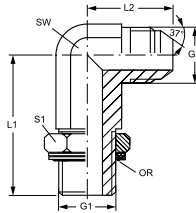


Identification	G1	G2	SW mm	S1	OR
W90 HROK 02 HJ 04	G 1/8" -28	7/16"-20 UNF	12	14	7.97 x 1.88
W90 HROK 02 HJ 05	G 1/8" -28	1/2"-20 UNF	14	14	7.97 x 1.88
W90 HROK 04 HJ	G 1/4" -19	7/16"-20 UNF	14	19	10.77 x 2.62
W90 HROK 04 HJ 05	G 1/4" -19	1/2"-20 UNF	14	19	10.77 x 2.62
W90 HROK 04 HJ 06	G 1/4" -19	9/16"-18 UNF	14	19	10.77 x 2.62
W90 HROK 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	19	10.77 x 2.62
W90 HROK 06 HJ 04	G 3/8" -19	7/16"-20 UNF	19	22	13.94 x 2.62
W90 HROK 06 HJ 05	G 3/8" -19	1/2"-20 UNF	19	22	13.94 x 2.62
W90 HROK 06 HJ	G 3/8" -19	9/16"-18 UNF	19	22	13.94 x 2.62
W90 HROK 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19	22	13.94 x 2.62
W90 HROK 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	22	13.94 x 2.62
W90 HROK 08 HJ 04	G 1/2" -14	7/16"-20 UNF	19	27	17.86 x 2.62
W90 HROK 08 HJ	G 1/2" -14	3/4"-16 UNF	22	27	17.86 x 2.62
W90 HROK 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	27	17.86 x 2.62
W90 HROK 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22	27	17.86 x 2.62
W90 HROK 08 HJ 12	G 1/2" -14	1.1/16"-12 UN	27	27	17.86 x 2.62
W90 HROK 10 HJ	G 5/8" -14	7/8"-14 UNF	22	30	19.70 x 2.62
W90 HROK 12 HJ 08	G 3/4" -14	3/4"-16 UNF	27	36	23.47 x 2.62
W90 HROK 12 HJ 10	G 3/4" -14	7/8"-14 UNF	27	36	23.47 x 2.62
W90 HROK 12 HJ	G 3/4" -14	1.1/16"-12 UN	27	36	23.47 x 2.62
W90 HROK 12 HJ 14	G 3/4" -14	1.3/16"-12 UN	33	36	23.47 x 2.62
W90 HROK 12 HJ 16	G 3/4" -14	1.5/16"-12 UN	33	36	23.47 x 2.62
W90 HROK 16 HJ 12	G 1" -11	1.1/16"-12 UN	33	41	29.74 x 3.53
W90 HROK 16 HJ	G 1" -11	1.5/16"-12 UN	33	41	29.74 x 3.53
W90 HROK 16 HJ 20	G 1" -11	1.5/8"-12 UN	41	41	29.74 x 3.53
W90 HROK 20 HJ 16	G 1.1/4" -11	1.5/16"-12 UN	41	50	37.69 x 3.53
W90 HROK 20 HJ	G 1.1/4" -11	1.5/8"-12 UN	41	50	37.69 x 3.53
W90 HROK 20 HJ 24	G 1.1/4" -11	1.7/8"-12 UN	48	50	37.69 x 3.53
W90 HROK 24 HJ	G 1.1/2" -11	1.7/8"-12 UN	48	55	44.04 x 3.53

SW, S1, S2 = With across flats

**Product versions:**

**W90 HROK HJ VA** - Screw-in socket, angle 90°, Stainless steel

**W90 HROK L HJ****Screw-in socket, long, angle 90°**

**Connection 1:**  
**Sealing form 1:**

BSP external thread, cylindrical  
Thread socket with O-ring + spacer  
diaphragm ring

**Connection 2:**  
**Sealing form 2:**

UN/UNF external threads  
74° outer cone

**Design:**

Screw-in socket, long

**Construction:**

Angle 90°

**Material:**

Steel

**Surface:**

electro galvanised

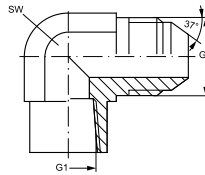
Identification	G1	G2	SW mm	L1 mm	L2 mm	S1	OR
W90 HROK L 04 HJ 06	G 1/4" -19	9/16"-18 UNF	14	56,5	27,0	19	10.78 x 2.62
W90 HROK L 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	64,0	31,5	19	10.78 x 2.62
W90 HROK L 06 HJ	G 3/8" -19	9/16"-18 UNF	19	67,0	28,5	22	13.94 x 2.62
W90 HROK L 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19	67,0	31,5	22	13.94 x 2.62
W90 HROK L 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	75,0	36,5	22	13.94 x 2.62
W90 HROK L 08 HJ	G 1/2" -14	3/4"-16 UNF	22	78,0	34,0	27	17.86 x 2.62
W90 HROK L 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	78,0	31,0	27	17.86 x 2.62
W90 HROK L 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22	78,0	36,5	27	17.86 x 2.62
W90 HROK L 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	27	88,0	42,0	27	17.86 x 2.62
W90 HROK L 12 HJ	G 3/4" -14	1.1/16" -12 UN	27	92,0	42,0	36	23.47 x 2.62
W90 HROK L 12 HJ 10	G 3/4" -14	7/8"-14 UNF	27	92,0	39,5	36	23.47 x 2.62
W90 HROK L 12 HJ 16	G 3/4" -14	1.5/16" -12 UN	33	105,0	46,0	36	23.47 x 2.62
W90 HROK L 16 HJ	G 1" -11	1.5/16" -12 UN	33	105,0	44,5	41	29.74 x 3.53
W90 HROK L 16 HJ 12	G 1" -11	1.1/16" -12 UN	33	105,0	44,5	41	29.74 x 3.53
W90 HROK L 16 HJ 20	G 1" -11	1.5/8" -12 UN	41	124,0	52,0	41	29.74 x 3.53

SW, S1, S2 = With across flats



**W90 IN HJ****Screw-on socket, IGN AGJ angle 90°**

**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-on socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

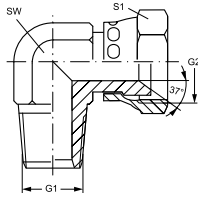


Identification	G1	G2	SW mm
W90 IN 02 HJ 04	1/8" -27 NPT	7/16"-20 UNF	14
W90 IN 02 HJ 05	1/8" -27 NPT	1/2"-20 UNF	14
W90 IN 02 HJ 06	1/8" -27 NPT	9/16"-18 UNF	14
W90 IN 04 HJ	1/4" -18 NPT	7/16"-20 UNF	19
W90 IN 04 HJ 05	1/4" -18 NPT	1/2"-20 UNF	19
W90 IN 04 HJ 06	1/4" -18 NPT	9/16"-18 UNF	19
W90 IN 04 HJ 08	1/4" -18 NPT	3/4"-16 UNF	19
W90 IN 06 HJ	3/8" -18 NPT	9/16"-18 UNF	22
W90 IN 06 HJ 08	3/8" -18 NPT	3/4"-16 UNF	22
W90 IN 08 HJ	1/2" -14 NPT	3/4"-16 UNF	27
W90 IN 08 HJ 10	1/2" -14 NPT	7/8"-14 UNF	27
W90 IN 08 HJ 12	1/2" -14 NPT	1.1/16"-12 UN	27
W90 IN 12 HJ	3/4" -14 NPT	1.1/16"-12 UN	33
W90 IN 16 HJ	1" -11.5 NPT	1.5/16"-12 UN	41
W90 IN 20 HJ	1.1/4" -11.5 NPT	1.5/8"-12 UN	48
W90 IN 24 HJ	1.1/2" -11.5 NPT	1.7/8"-12 UN	64

SW = Width across flats

**Product versions:**

**W90 IN HJ VA** - Screw-on socket, IGN AGJ angle 90°, Stainless steel

**W90 HN AJ****Screw-in socket, angle 90°**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1
W90 HN 02 AJ 04	1/8" -27 NPT	7/16"-20 UNF	13	14
W90 HN 02 AJ 05	1/8" -27 NPT	1/2"-20 UNF	14	16
W90 HN 04 AJ	1/4" -18 NPT	7/16"-20 UNF	14	14
W90 HN 04 AJ 06	1/4" -18 NPT	9/16"-18 UNF	16	19
W90 HN 06 AJ	3/8" -18 NPT	9/16"-18 UNF	19	19
W90 HN 06 AJ 08	3/8" -18 NPT	3/4"-16 UNF	19	22
W90 HN 08 AJ 10	1/2" -14 NPT	7/8"-14 UNF	24	27
W90 HN 12 AJ	3/4" -14 NPT	1.1/16" -12 UN	27	32
W90 HN 16 AJ	1" -11.5 NPT	1.5/16" -12 UN	36	38

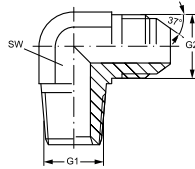
SW, S1, S2 = With across flats

**Product versions:**

**W90 HN AJ VA** - Screw-in socket, angle 90°, Stainless steel

**W90 HN HJ****Screw-in socket, angle 90°**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

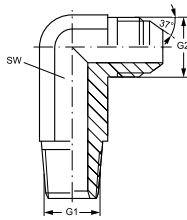


Identification	G1	G2	SW mm
W90 HN 02 HJ	1/8" -27 NPT	5/16" -24 UN	8
W90 HN 02 HJ 04	1/8" -27 NPT	7/16" -20 UNF	11
W90 HN 02 HJ 05	1/8" -27 NPT	1/2" -20 UNF	13
W90 HN 02 HJ 06	1/8" -27 NPT	9/16" -18 UNF	14
W90 HN 04 HJ	1/4" -18 NPT	7/16" -20 UNF	14
W90 HN 04 HJ 05	1/4" -18 NPT	1/2" -20 UNF	14
W90 HN 04 HJ 06	1/4" -18 NPT	9/16" -18 UNF	14
W90 HN 04 HJ 08	1/4" -18 NPT	3/4" -16 UNF	19
W90 HN 06 HJ 04	3/8" -18 NPT	7/16" -20 UNF	19
W90 HN 06 HJ	3/8" -18 NPT	9/16" -18 UNF	19
W90 HN 06 HJ 05	3/8" -18 NPT	1/2" -20 UNF	19
W90 HN 06 HJ 08	3/8" -18 NPT	3/4" -16 UNF	19
W90 HN 06 HJ 10	3/8" -18 NPT	7/8" -14 UNF	22
W90 HN 08 HJ 04	1/2" -14 NPT	7/16" -20 UNF	22
W90 HN 08 HJ	1/2" -14 NPT	3/4" -16 UNF	22
W90 HN 08 HJ 05	1/2" -14 NPT	1/2" -20 UNF	19
W90 HN 08 HJ 06	1/2" -14 NPT	9/16" -18 UNF	22
W90 HN 08 HJ 10	1/2" -14 NPT	7/8" -14 UNF	22
W90 HN 08 HJ 12	1/2" -14 NPT	1.1/16" -12 UN	27
W90 HN 12 HJ	3/4" -14 NPT	1.1/16" -12 UN	27
W90 HN 12 HJ 06	3/4" -14 NPT	9/16" -18 UNF	27
W90 HN 12 HJ 08	3/4" -14 NPT	3/4" -16 UNF	27
W90 HN 12 HJ 10	3/4" -14 NPT	7/8" -14 UNF	27
W90 HN 12 HJ 14	3/4" -14 NPT	1.3/16" -12 UN	31
W90 HN 12 HJ 16	3/4" -14 NPT	1.5/16" -12 UN	33
W90 HN 16 HJ	1" -11.5 NPT	1.5/16" -12 UN	33
W90 HN 16 HJ 12	1" -11.5 NPT	1.1/16" -12 UN	33
W90 HN 16 HJ 20	1" -11.5 NPT	1.5/8" -12 UN	41
W90 HN 20 HJ 16	1.1/4" -11.5 NPT	1.5/16" -12 UN	45
W90 HN 20 HJ	1.1/4" -11.5 NPT	1.5/8" -12 UN	45
W90 HN 20 HJ 24	1.1/4" -11.5 NPT	1.7/8" -12 UN	48
W90 HN 24 HJ 20	1.1/2" -11.5 NPT	1.5/8" -12 UN	48
W90 HN 24 HJ	1.1/2" -11.5 NPT	1.7/8" -12 UN	48
W90 HN 32 HJ	2" -11.5 NPT	2.1/2" -12 UN	64

SW = Width across flats

**Product versions:**

**W90 HN HJ VA** - Screw-in socket, angle 90°, Stainless steel

**W90 HN L HJ****Screw-in socket, long, angle 90°**

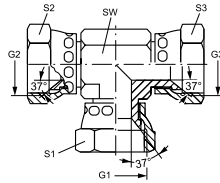
**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Screw-in socket, long  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
W90 HN L 02 HJ 04	1/8" -27 NPT	7/16" -20 UN	11
W90 HN L 04 HJ	1/4" -18 NPT	7/16" -20 UNF	14
W90 HN L 04 HJ 06	1/4" -18 NPT	9/16" -18 UNF	14
W90 HN L 06 HJ	3/8" -18 NPT	9/16" -18 UNF	19
W90 HN L 06 HJ 08	3/8" -18 NPT	3/4" -16 UNF	19
W90 HN L 08 HJ 10	1/2" -14 NPT	7/8" -14 UNF	22
W90 HN L 12 HJ	3/4" -14 NPT	1.1/16" -12 UN	27
W90 HN L 16 HJ	1" -11.5 NPT	1.5/16" -12 UN	33
W90 HN L 20 HJ	1.1/4" -11.5 NPT	1.5/8" -12 UN	41

SW = Width across flats

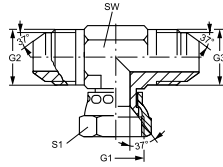
**T AJ****Connection socket, T shaped**

**Connection 1 - 3:** UN/UNF nut threads  
**Sealing form 1 - 3:** 74° inner cone  
**Design:** Connection sockets  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 - G3	SW mm	S1 - S3 mm
T AJ 04	7/16"-20 UNF	11	14
T AJ 05	1/2"-20 UNF	13	17
T AJ 06	9/16"-18 UNF	14	18
T AJ 08	3/4"-16 UNF	19	22
T AJ 10	7/8"-14 UNF	19	25
T AJ 12	1.1/16"-12 UN	27	32
T AJ 16	1.5/16" -12 UN	30	41
T AJ 20	1.5/8" -12 UN	41	50

SW, S1, S2 = With across flats

**T AJ HJ****Screw-on socket, T shaped**

<b>Connection 1:</b>	UN/UNF nut threads
<b>Sealing form 1:</b>	74° inner cone
<b>Connection 2 + 3:</b>	UN/UNF external threads
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	74° outer cone
<b>Design:</b>	Adjustable direction screw-on socket
<b>Construction:</b>	T shaped
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2 + G3	SW mm	S1
T AJ 04 HJ	7/16"-20 UNF	7/16"-20 UNF	11	16
T AJ 05 HJ	1/2"-20 UNF	1/2"-20 UNF	13	17
T AJ 06 HJ	9/16"-18 UNF	9/16"-18 UNF	14	19
T AJ 08 HJ	3/4"-16 UNF	3/4"-16 UNF	19	22
T AJ 10 HJ	7/8"-14 UNF	7/8"-14 UNF	22	27
T AJ 12 HJ	1.1/16"-12 UN	1.1/16"-12 UN	27	32
T AJ 16 HJ	1.5/16"-12 UN	1.5/16"-12 UN	33	38
T AJ 20 HJ	1.5/8"-12 UN	1.5/8"-12 UN	41	50
T AJ 24 HJ	1.7/8"-12 UN	1.7/8"-12 UN	48	55

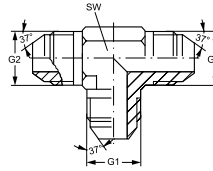
SW, S1, S2 = With across flats

**Product versions:**

T AJ HJ VA - Screw-on socket, T shaped, Stainless steel

**T HJ****Connection socket, T shaped**

**Connection 1 - 3:** UN/UNF external threads  
**Sealing form 1 - 3:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

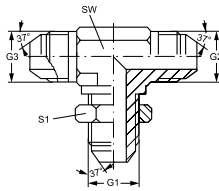


Identification	G1 - G3	SW mm
T HJ 04	7/16"-20 UNF	11
T HJ 05	1/2"-20 UNF	13
T HJ 06	9/16"-18 UNF	14
T HJ 08	3/4"-16 UNF	19
T HJ 10	7/8"-14 UNF	22
T HJ 12	1.1/16"-12 UN	27
T HJ 14	1.3/16"-12 UN	33
T HJ 16	1.5/16"-12 UN	33
T HJ 20	1.5/8"-12 UN	41
T HJ 24	1.7/8"-12 UN	48
T HJ 32	2.1/2"-12 UN	66

SW = Width across flats

**Product versions:**

**T HJ VA** - Connection socket, T shaped, Stainless steel

**TSV HJ****Bulkhead fitting socket, T shaped**

**Connection 1 - 3:** UN/UNF external threads  
**Sealing form 1 - 3:** 74° outer cone  
**Design:** Bulkhead fitting socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 - G3	SW mm	S1
T SV 04 HJ	7/16"-20 UNF	11	17
T SV 05 HJ	1/2"-20 UNF	14	19
T SV 06 HJ	9/16"-18 UNF	14	21
T SV 08 HJ	3/4"-16 UNF	19	25
T SV 10 HJ	7/8"-14 UNF	22	29
T SV 12 HJ	1.1/16" -12 UN	27	35

SW, S1, S2 = With across flats

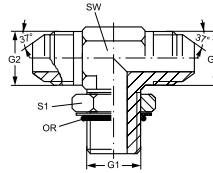
**Product versions:**

**TSV HJ VA** - Bulkhead fitting socket, T shaped, Stainless steel



**TOHJ****Screw-in socket, T shaped**

<b>Connection 1:</b>	UN/UNF external threads
<b>Sealing form 1:</b>	O-ring seal on screw-in socket
<b>Connection 2 + 3:</b>	UN/UNF external threads
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	74° outer cone
<b>Design:</b>	Adjustable direction screw-in socket
<b>Construction:</b>	T shaped
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

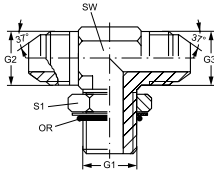


Identification	G1	G2 + G3	SW mm	S1	OR
T O 04 HJ	7/16"-20 UNF	7/16"-20 UNF	11	14	8.92 x 1.83
T O 05 HJ	1/2"-20 UNF	1/2"-20 UNF	14	16	10.52 x 1.83
T O 06 HJ	9/16"-18 UNF	9/16"-18 UNF	14	17	11.90 x 1.98
T O 08 HJ	3/4"-16 UNF	3/4"-16 UNF	19	22	16.36 x 2.20
T O 10 HJ	7/8"-14 UNF	7/8"-14 UNF	22	27	19.18 x 2.46
T O 12 HJ	1.1/16" -12 UN	1.1/16" -12 UN	27	32	23.47 x 2.95
T O 16 HJ	1.5/16" -12 UN	1.5/16" -12 UN	33	38	29.74 x 2.95
T O 20 HJ	1.5/8" -12 UN	1.5/8" -12 UN	42	48	37.47 x 3.00

SW, S1, S2 = With across flats

**Product versions:**

**T O HJ VA** - Screw-in socket, T shaped, Stainless steel

**T HMO HJ****Screw-in socket, T shaped**

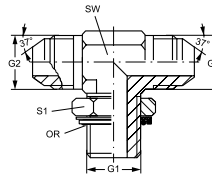
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape F  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:**  
**3:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR
T HMO 10 HJ 04	M 10 x 1	7/16"-20 UNF	11	14	8.2 x 1.5
T HMO 10 HJ 05	M 10 x 1	1/2"-20 UNF	13	14	8.2 x 1.5
T HMO 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	13	17	9.4 x 2.1
T HMO 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	13	17	9.4 x 2.1
T HMO 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	14	17	11.3 x 2.4
T HMO 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	14	19	11.3 x 2.4
T HMO 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	19	22	13.4 x 2.1
T HMO 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	19	22	13.4 x 2.1
T HMO 18 HJ 06	M 18 x 1.5	9/16"-18 UNF	22	19	15.4 x 2.1
T HMO 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	19	24	15.4 x 2.1
T HMO 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	22	24	15.4 x 2.1
T HMO 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	22	27	19.4 x 2.1
T HMO 22 HJ 12	M 22 x 1.5	1.1/16" -12 UN	27	27	19.4 x 2.1
T HMO 27 HJ 12	M 27 x 2	1.1/16" -12 UN	27	32	23.7 x 2.8
T HMO 27 HJ 16	M 27 x 2	1.5/16" -12 UN	33	32	23.7 x 2.8
T HMO 33 HJ 16	M 33 x 2	1.5/16" -12 UN	33	41	29.7 x 2.8
T HMO 42 HJ 20	M 42 x 2	1.5/8" -12 UN	41	50	38.7 x 2.8
T HMO 48 HJ 24	M 48 x 2	1.7/8" -12 UN	48	55	46.7 x 2.8

SW, S1, S2 = With across flats

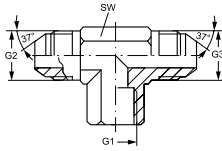
**T HMOK HJ****Screw-in socket, T shaped**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR
T HMOK 10 HJ 04	M 10 x 1	7/16"-20 UNF	11	13	8.00 x 1.50
T HMOK 10 HJ 05	M 10 x 1	1/2"-20 UNF	13	14	8.00 x 1.50
T HMOK 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	13	17	9.25 x 1.78
T HMOK 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	13	17	9.25 x 1.78
T HMOK 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	14	17	10.82 x 1.78
T HMOK 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	14	17	10.82 x 1.78
T HMOK 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	19	22	13.46 x 2.08
T HMOK 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	19	19	13.46 x 2.08
T HMOK 18 HJ 06	M 18 x 1.5	9/16"-18 UNF	19	24	15.54 x 2.62
T HMOK 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	22	24	15.54 x 2.62
T HMOK 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	22	27	18.77 x 1.78
T HMOK 22 HJ 12	M 22 x 1.5	1.1/16"-12 UN	27	27	18.77 x 1.78
T HMOK 27 HJ 12	M 27 x 2	1.1/16"-12 UN	27	32	23.47 x 2.62
T HMOK 27 HJ 16	M 27 x 2	1.5/16"-12 UN	33	32	23.47 x 2.62
T HMOK 33 HJ 16	M 33 x 2	1.5/16"-12 UN	33	38	28.24 x 2.62
T HMOK 42 HJ 20	M 42 x 2	1.5/8"-12 UN	41	50	37.77 x 2.62
T HMOK 48 HJ 24	M 48 x 2	1.7/8"-12 UN	48	55	44.12 x 2.62

SW, S1, S2 = With across flats

**T IR HJ****Connection socket, T shaped**

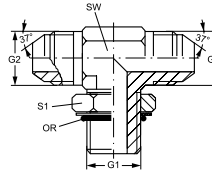
**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** Shape A  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:**  
**3:** 74° outer cone  
**Design:** Connection sockets  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm
T IR 02 HJ 05	G 1/8" -28	1/2"-20 UNF	14
T IR 04 HJ	G 1/4" -19	9/16"-18 UNF	19
T IR 04 HJ 05	G 1/4" -19	1/2"-20 UNF	19
T IR 04 HJ 06	G 1/4" -19	9/16"-18 UNF	19
T IR 04 HJ 08	G 1/4" -19	3/4"-16 UNF	22
T IR 06 HJ 04	G 3/8" -19	7/16"-20 UNF	22
T IR 06 HJ	G 3/8" -19	9/16"-18 UNF	22
T IR 06 HJ 08	G 3/8" -19	3/4"-16 UNF	22
T IR 08 HJ	G 1/2" -14	3/4"-16 UNF	27
T IR 08 HJ 10	G 1/2" -14	7/8"-14 UNF	27
T IR 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	33
T IR 12 HJ	G 3/4" -14	1.1/16" -12 UN	33
T IR 16 HJ	G 1" -11	1.5/16" -12 UN	41

SW = Width across flats

**T HRO HJ****Screw-in socket, T shaped**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:**  
**3:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

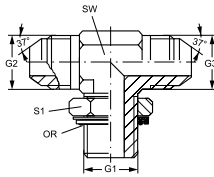


Identification	G1	G2 + G3	SW mm	S1	OR
T HRO 02 HJ 04	G 1/8" -28	7/16"-20 UNF	11	14	8.00 x 2.00
T HRO 02 HJ 05	G 1/8" -28	1/2"-20 UNF	14	14	8.00 x 2.00
T HRO 04 HJ	G 1/4" -19	7/16"-20 UNF	11	19	10.77 x 2.62
T HRO 04 HJ 05	G 1/4" -19	1/2"-20 UNF	14	19	10.77 x 2.62
T HRO 04 HJ 06	G 1/4" -19	9/16"-18 UNF	14	19	10.77 x 2.62
T HRO 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	19	10.77 x 2.62
T HRO 06 HJ 04	G 3/8" -19	7/16"-20 UNF	19	22	13.94 x 2.62
T HRO 06 HJ 05	G 3/8" -19	1/2"-20 UNF	19	22	13.94 x 2.62
T HRO 06 HJ	G 3/8" -19	9/16"-18 UNF	19	22	13.94 x 2.62
T HRO 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19	22	13.94 x 2.62
T HRO 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	22	13.94 x 2.62
T HRO 08 HJ 04	G 1/2" -14	7/16"-20 UNF	22	27	17.86 x 2.62
T HRO 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	27	17.86 x 2.62
T HRO 08 HJ	G 1/2" -14	3/4"-16 UNF	22	27	17.86 x 2.62
T HRO 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22	27	17.86 x 2.62
T HRO 08 HJ 12	G 1/2" -14	1.1/16"-12 UN	27	27	17.86 x 2.62
T HRO 12 HJ 08	G 3/4" -14	3/4"-16 UNF	27	36	23.47 x 2.62
T HRO 12 HJ 10	G 3/4" -14	7/8"-14 UNF	27	36	23.47 x 2.62
T HRO 12 HJ	G 3/4" -14	1.1/16"-12 UN	27	36	23.47 x 2.62
T HRO 12 HJ 16	G 3/4" -14	1.5/16"-12 UN	33	36	23.47 x 2.62
T HRO 16 HJ 12	G 1" -11	1.1/16"-12 UN	33	41	29.74 x 3.53
T HRO 16 HJ	G 1" -11	1.5/16"-12 UN	33	41	29.74 x 3.53
T HRO 16 HJ 20	G 1" -11	1.5/8"-12 UN	41	41	29.74 x 3.53
T HRO 20 HJ 16	G 1.1/4" -11	1.5/16"-12 UN	41	50	37.69 x 3.53
T HRO 20 HJ	G 1.1/4" -11	1.5/8"-12 UN	41	50	37.69 x 3.53
T HRO 20 HJ 24	G 1.1/4" -11	1.7/8"-12 UN	48	50	37.69 x 3.53
T HRO 24 HJ	G 1.1/2" -11	1.7/8"-12 UN	48	60	44.04 x 3.53

SW, S1, S2 = With across flats

## T HROK HJ

### Screw-in socket, T shaped



**Connection 1:**  
**Sealing form 1:**

BSP external thread, cylindrical  
Thread socket with O-ring + spacer  
diaphragm ring

**Connection 2 + 3:**  
**Sealing form 2 +**

UN/UNF external threads

**3:**

74° outer cone

**Design:**

Adjustable direction screw-in socket

**Construction:**

T shaped

**Material:**

Steel

**Surface:**

electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR
T HROK 02 HJ 04	G 1/8" -28	7/16"-20 UNF	11	14	8.00 x 2.00
T HROK 02 HJ 05	G 1/8" -28	1/2"-20 UNF	14	14	8.00 x 2.00
T HROK 04 HJ	G 1/4" -19	7/16"-20 UNF	14	19	10.77 x 2.62
T HROK 04 HJ 05	G 1/4" -19	1/2"-20 UNF	14	14	10.77 x 2.62
T HROK 04 HJ 06	G 1/4" -19	9/16"-18 UNF	14	19	10.77 x 2.62
T HROK 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	19	10.77 x 2.62
T HROK 06 HJ 04	G 3/8" -19	7/16"-20 UNF	19	22	13.94 x 2.62
T HROK 06 HJ 05	G 3/8" -19	1/2"-20 UNF	19	22	13.94 x 2.62
T HROK 06 HJ	G 3/8" -19	9/16"-18 UNF	19	22	13.94 x 2.62
T HROK 06 HJ 08	G 3/8" -19	3/4"-16 UNF	22	22	13.94 x 2.62
T HROK 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	22	13.94 x 2.62
T HROK 08 HJ 04	G 1/2" -14	7/16"-20 UNF	22	27	17.86 x 2.62
T HROK 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	27	17.86 x 2.62
T HROK 08 HJ	G 1/2" -14	3/4"-16 UNF	22	27	17.86 x 2.62
T HROK 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22	27	17.86 x 2.62
T HROK 08 HJ 12	G 1/2" -14	1.1/16"-12 UN	27	27	17.86 x 2.62
T HROK 12 HJ 08	G 3/4" -14	3/4"-16 UNF	27	36	23.47 x 2.62
T HROK 12 HJ 10	G 3/4" -14	7/8"-14 UNF	27	36	23.47 x 2.62
T HROK 12 HJ	G 3/4" -14	1.1/16"-12 UN	27	36	23.47 x 2.62
T HROK 12 HJ 16	G 3/4" -14	1.5/16"-12 UN	33	36	23.47 x 2.62
T HROK 16 HJ 12	G 1" -11	1.1/16"-12 UN	33	41	29.74 x 3.53
T HROK 16 HJ	G 1" -11	1.5/16"-12 UN	33	41	29.74 x 3.53
T HROK 16 HJ 20	G 1" -11	1.5/8"-12 UN	41	41	29.74 x 3.53
T HROK 20 HJ 16	G 1.1/4" -11	1.5/16"-12 UN	41	50	37.69 x 3.53
T HROK 20 HJ	G 1.1/4" -11	1.5/8"-12 UN	41	50	37.69 x 3.53
T HROK 20 HJ 24	G 1.1/4" -11	1.7/8"-12 UN	48	50	37.69 x 3.53
T HROK 24 HJ	G 1.1/2" -11	1.7/8"-12 UN	48	60	44.04 x 3.53

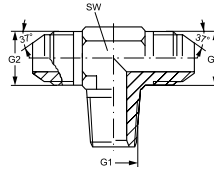
SW, S1, S2 = With across flats

#### Product versions:

T HROK HJ VA - Screw-in socket, T shaped, Stainless steel

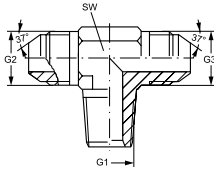
**T HRK HJ****Screw-in socket, T shaped**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:**  
**3:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm
T HRK 02 HJ 04	R 1/8" K	7/16"-20 UNF	11
T HRK 02 HJ 05	R 1/8" K	1/2"-20 UNF	13
T HRK 04 HJ	R 1/4" K	7/16"-20 UNF	14
T HRK 04 HJ 05	R 1/4" K	1/2"-20 UNF	14
T HRK 04 HJ 06	R 1/4" K	9/16"-18 UNF	14
T HRK 06 HJ	R 3/8" K	9/16"-18 UNF	19
T HRK 06 HJ 08	R 3/8" K	3/4"-16 UNF	19
T HRK 06 HJ 10	R 3/8" K	7/8"-14 UNF	19
T HRK 08 HJ	R 1/2" K	3/4"-16 UNF	22
T HRK 08 HJ 10	R 1/2" K	7/8"-14 UNF	22
T HRK 08 HJ 12	R 1/2" K	1.1/16"-12 UN	27
T HRK 12 HJ	R 3/4" K	1.1/16"-12 UN	27
T HRK 12 HJ 10	R 3/4" K	7/8"-14 UNF	27
T HRK 16 HJ	R 1" K	1.5/16"-12 UN	33

SW = Width across flats

**T HN HJ****Screw-in socket, T shaped**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:**  
**3:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm
T HN 02 HJ 04	1/8" -27 NPT	7/16"-20 UNF	11
T HN 02 HJ 05	1/8" -27 NPT	1/2"-20 UNF	14
T HN 02 HJ 06	1/8" -27 NPT	9/16"-18 UNF	14
T HN 04 HJ	1/4" -18 NPT	7/16"-20 UNF	14
T HN 04 HJ 05	1/4" -18 NPT	1/2"-20 UNF	14
T HN 04 HJ 06	1/4" -18 NPT	9/16"-18 UNF	14
T HN 04 HJ 08	1/4" -18 NPT	3/4"-16 UNF	19
T HN 06 HJ	3/8" -18 NPT	9/16"-18 UNF	19
T HN 06 HJ 08	3/8" -18 NPT	3/4"-16 UNF	19
T HN 06 HJ 10	3/8" -18 NPT	7/8"-14 UNF	22
T HN 08 HJ 06	1/2" -14 NPT	9/16"-18 UNF	22
T HN 08 HJ	1/2" -14 NPT	3/4"-16 UNF	22
T HN 08 HJ 10	1/2" -14 NPT	7/8"-14 UNF	22
T HN 08 HJ 12	1/2" -14 NPT	1.1/16" -12 UN	27
T HN 12 HJ	3/4" -14 NPT	1.1/16" -12 UN	27
T HN 12 HJ 16	3/4" -14 NPT	1.5/16" -12 UN	33
T HN 16 HJ	1" -11.5 NPT	1.5/16" -12 UN	33
T HN 20 HJ	1.1/4" -11.5 NPT	1.5/8" -12 UN	41
T HN 24 HJ	1.1/2" -11.5 NPT	1.7/8" -12 UN	48

SW = Width across flats

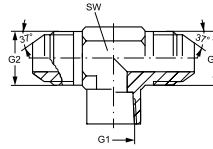
**Product versions:**

T HN HJ VA - Screw-in socket, T shaped, Stainless steel



**T IN HJ****Screw-on socket, T shaped**

**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:**  
**3:** 74° outer cone  
**Design:** Screw-on socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

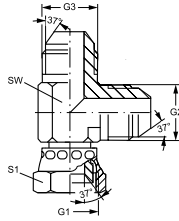


Identification	G1	G2 + G3	SW mm
T IN 02 HJ 04	1/8" -27 NPT	7/16"-20 UNF	14
T IN 02 HJ 05	1/8" -27 NPT	1/2"-20 UNF	14
T IN 04 HJ	1/4" -18 NPT	7/16"-20 UNF	19
T IN 04 HJ 05	1/4" -18 NPT	1/2"-20 UNF	19
T IN 04 HJ 06	1/4" -18 NPT	9/16"-18 UNF	19
T IN 04 HJ 08	1/4" -18 NPT	3/4"-16 UNF	19
T IN 06 HJ	3/8" -18 NPT	9/16"-18 UNF	22
T IN 06 HJ 08	3/8" -18 NPT	3/4"-16 UNF	22
T IN 08 HJ 10	1/2" -14 NPT	7/8"-14 UNF	27
T IN 08 HJ 12	1/2" -14 NPT	1.1/16"-12 UN	27
T IN 12 HJ	3/4" -14 NPT	1.1/16"-12 UN	33
T IN 16 HJ	1" -11.5 NPT	1.5/16"-12 UN	41
T IN 20 HJ	1.1/4" -11.5 NPT	1.5/8"-12 UN	48
T IN 24 HJ	1.1/2" -11.5 NPT	1.7/8"-12 UN	64

SW = Width across flats

**Product versions:**

**T IN HJ VA** - Screw-on socket, T shaped, Stainless steel

**L AJ HJ****Screw-on socket, L shaped**

<b>Connection 1:</b>	UN/UNF nut threads
<b>Sealing form 1:</b>	74° inner cone
<b>Connection 2 + 3:</b>	UN/UNF external threads
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	74° outer cone
<b>Design:</b>	Adjustable direction screw-on socket
<b>Construction:</b>	L shaped
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2 + G3	SW mm	S1
L AJ 04 HJ	7/16"-20 UNF	7/16"-20 UNF	12	14
L AJ 05 HJ	1/2"-20 UNF	1/2"-20 UNF	13	17
L AJ 06 HJ	9/16"-18 UNF	9/16"-18 UNF	14	19
L AJ 08 HJ	3/4"-16 UNF	3/4"-16 UNF	19	22
L AJ 10 HJ	7/8"-14 UNF	7/8"-14 UNF	22	17
L AJ 12 HJ	1.1/16" -12 UN	1.1/16" -12 UN	27	32
L AJ 14 HJ	1.3/16" -12 UN	1.3/16" -12 UN	33	36
L AJ 16 HJ	1.5/16" -12 UN	1.5/16" -12 UN	33	41
L AJ 20 HJ	1.5/8" -12 UN	1.5/8" -12 UN	41	50
L AJ 24 HJ	1.7/8" -12 UN	1.7/8" -12 UN	48	60

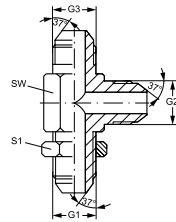
SW, S1, S2 = With across flats

**Product versions:**

L AJ HJ VA - Screw-on socket, L shaped, Stainless steel

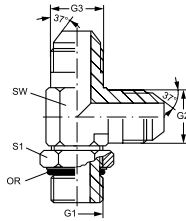
**L SV HJ****Bulkhead fitting socket, L shape**

**Connection 1 - 3:** UN/UNF external threads  
**Sealing form 1 - 3:** 74° outer cone  
**Design:** Bulkhead fitting socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 - G3	SW mm	S1
L SV 04 HJ	7/16"-20 UNF	11	17
L SV 05 HJ	1/2"-20 UNF	14	19
L SV 06 HJ	9/16"-18 UNF	14	21
L SV 08 HJ	3/4"-16 UNF	19	25
L SV 10 HJ	7/8"-14 UNF	22	29
L SV 12 HJ	1,1/16"-12 UN	27	35

SW, S1, S2 = With across flats

**LOHJ****Screw-in socket, L shaped**

<b>Connection 1:</b>	UN/UNF external threads
<b>Sealing form 1:</b>	O-ring seal on screw-in socket
<b>Connection 2 + 3:</b>	UN/UNF external threads
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	74° outer cone
<b>Design:</b>	Adjustable direction screw-in socket
<b>Construction:</b>	L shaped
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR
LO 04 HJ	7/16"-20 UNF	7/16"-20 UNF	11	14	8.92 x 1.83
LO 05 HJ	1/2"-20 UNF	1/2"-20 UNF	14	16	10.52 x 1.83
LO 06 HJ	9/16"-18 UNF	9/16"-18 UNF	14	17	15.40 x 2.10
LO 08 HJ	3/4"-16 UNF	3/4"-16 UNF	19	22	16.36 x 2.20
LO 08 HJ 06	3/4"-16 UNF	9/16"-18 UNF	19	22	16.36 x 2.20
LO 10 HJ	7/8"-14 UNF	7/8"-14 UNF	22	25	19.18 x 2.46
LO 10 HJ 12	7/8"-14 UNF	1.1/16" -12 UN	27	25	19.18 x 2.46
LO 12 HJ	1.1/16" -12 UN	1.1/16" -12 UN	27	32	23.47 x 2.95
LO 12 HJ 16	1.1/16" -12 UN	1.5/16" -12 UN	33	32	23.47 x 2.95
LO 16 HJ	1.5/16" -12 UN	1.5/16" -12 UN	33	38	29.74 x 2.95
LO 16 HJ 12	1.5/16" -12 UN	1.1/16" -12 UN	27	38	29.74 x 2.95
LO 20 HJ	1.5/8" -12 UN	1.5/8" -12 UN	41	48	37.47 x 3.00
LO 24 HJ	1.7/8" -12 UN	1.7/8" -12 UN	48	54	43.69 x 3.00

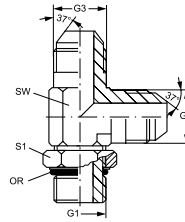
SW = Width across flats

**Product versions:**

LO HJ VA - Screw-in socket, L shaped, Stainless steel

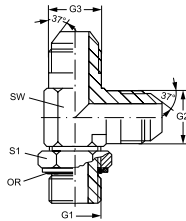
**L HMO HJ****Screw-in socket, L shaped**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:**  
**3:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR
L HMO 10 HJ 04	M 10 x 1	7/16"-20 UNF	11	13	8.2 x 1.5
L HMO 10 HJ 05	M 10 x 1	1/2"-20 UNF	13	14	8.2 x 1.5
L HMO 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	13	17	9.4 x 2.1
L HMO 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	13	17	9.4 x 2.1
L HMO 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	14	19	11.4 x 2.1
L HMO 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	19	22	13.4 x 2.1
L HMO 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	19	22	13.4 x 2.1
L HMO 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	19	24	15.4 x 2.1
L HMO 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	22	24	15.4 x 2.1
L HMO 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	22	27	19.4 x 2.1
L HMO 22 HJ 12	M 22 x 1.5	1.1/16"-12 UN	27	27	19.4 x 2.1
L HMO 27 HJ 12	M 27 x 2	1.1/16"-12 UN	27	32	23.7 x 2.8
L HMO 27 HJ 16	M 27 x 2	1.5/16"-12 UN	27	32	23.7 x 2.8
L HMO 33 HJ 16	M 33 x 2	1.5/16"-12 UN	33	41	29.7 x 2.8
L HMO 42 HJ 20	M 42 x 2	1.5/8"-12 UN	41	50	38.7 x 2.8
L HMO 48 HJ 24	M 48 x 2	1.7/8"-12 UN	48	55	46.7 x 2.8

SW, S1, S2 = With across flats

**L HMOK HJ****Screw-in socket, L shaped**

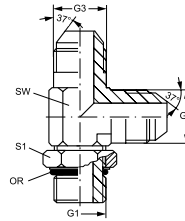
- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR
L HMOK 10 HJ 04	M 10 x 1	7/16"-20 UNF	11	13	8.00 x 1.50
L HMOK 10 HJ 05	M 10 x 1	1/2"-20 UNF	13	14	8.00 x 1.50
L HMOK 12 HJ 04	M 12 x 1.5	7/16"-20 UNF	17	14	9.25 x 1.78
L HMOK 12 HJ 05	M 12 x 1.5	1/2"-20 UNF	13	17	9.25 x 1.78
L HMOK 14 HJ 05	M 14 x 1.5	1/2"-20 UNF	14	17	10.82 x 1.78
L HMOK 14 HJ 06	M 14 x 1.5	9/16"-18 UNF	14	17	10.82 x 1.78
L HMOK 16 HJ 06	M 16 x 1.5	9/16"-18 UNF	19	17	13.46 x 2.08
L HMOK 16 HJ 08	M 16 x 1.5	3/4"-16 UNF	19	19	13.46 x 2.08
L HMOK 18 HJ 06	M 18 x 1.5	9/16"-18 UNF	19	17	15.54 x 2.62
L HMOK 18 HJ 08	M 18 x 1.5	3/4"-16 UNF	19	22	15.54 x 2.62
L HMOK 18 HJ 10	M 18 x 1.5	7/8"-14 UNF	22	24	15.54 x 2.62
L HMOK 22 HJ 10	M 22 x 1.5	7/8"-14 UNF	22	27	18.77 x 1.78
L HMOK 22 HJ 12	M 22 x 1.5	1.1/16"-12 UN	27	27	18.77 x 1.78
L HMOK 27 HJ 12	M 27 x 2	1.1/16"-12 UN	27	32	23.47 x 2.62
L HMOK 27 HJ 16	M 27 x 2	1.5/16"-12 UN	32	27	23.47 x 2.62
L HMOK 33 HJ 16	M 33 x 2	1.5/16"-12 UN	33	38	28.24 x 2.62
L HMOK 42 HJ 20	M 42 x 2	1.5/8"-12 UN	41	50	37.77 x 2.62
L HMOK 48 HJ 24	M 48 x 2	1.7/8"-12 UN	48	55	44.12 x 2.62

SW, S1, S2 = With across flats

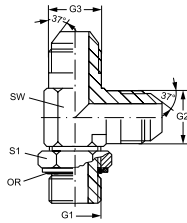
**L HRO HJ****Screw-in socket, L shaped**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:**  
**3:** 74° outer cone  
**Design:** Screw-in socket, straight  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR
L HRO 02 HJ 04	G 1/8" -28	7/16"-20 UNF	11	16	7.65 x 1.78
L HRO 02 HJ 05	G 1/8" -28	1/2"-20 UNF	14	16	7.65 x 1.78
L HRO 04 HJ	G 1/4" -19	7/16"-20 UNF	14	20	10.78 x 2.62
L HRO 04 HJ 05	G 1/4" -19	1/2"-20 UNF	14	20	10.78 x 2.62
L HRO 04 HJ 06	G 1/4" -19	9/16"-18 UNF	14	20	10.78 x 2.62
L HRO 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	20	10.78 x 2.62
L HRO 06 HJ 04	G 3/8" -19	7/16"-20 UNF	19	24	13.94 x 2.62
L HRO 06 HJ 05	G 3/8" -19	1/2"-20 UNF	19	24	13.94 x 2.62
L HRO 06 HJ	G 3/8" -19	9/16"-18 UNF	19	24	13.94 x 2.62
L HRO 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19	24	13.94 x 2.62
L HRO 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	24	13.94 x 2.62
L HRO 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	28	17.86 x 2.62
L HRO 08 HJ	G 1/2" -14	3/4"-16 UNF	22	28	17.86 x 2.62
L HRO 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22	28	17.86 x 2.62
L HRO 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	27	28	17.86 x 2.62
L HRO 12 HJ 08	G 3/4" -14	3/4"-16 UNF	27	35	23.47 x 2.62
L HRO 12 HJ	G 3/4" -14	1.1/16" -12 UN	27	35	23.47 x 2.62
L HRO 12 HJ 10	G 3/4" -14	7/8"-14 UNF	27	35	23.47 x 2.62
L HRO 12 HJ 16	G 3/4" -14	1.5/16" -12 UN	27	35	23.47 x 2.62
L HRO 16 HJ 12	G 1" -11	1.1/16" -12 UN	33	43	29.74 x 3.53
L HRO 16 HJ 20	G 1" -11	1.5/8" -12 UN	41	43	29.74 x 3.53
L HRO 20 HJ 16	G 1.1/4" -11	1.5/16" -12 UN	41	52	37.69 x 3.53
L HRO 20 HJ	G 1.1/4" -11	1.5/8" -12 UN	41	52	37.69 x 3.53
L HRO 20 HJ 24	G 1.1/4" -11	1.7/8" -12 UN	48	52	37.69 x 3.53
L HRO 24 HJ	G 1.1/2" -11	1.7/8" -12 UN	48	58	44.04 x 3.53

SW = Width across flats

**L HROK HJ****Screw-in socket, L shaped**

- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring
- Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:** 74° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR
L HROK 02 HJ 04	G 1/8" -28	7/16"-20 UNF	11	14	8.00 x 2.00
L HROK 02 HJ 05	G 1/8" -28	1/2"-20 UNF	13	14	8.00 x 2.00
L HROK 04 HJ	G 1/4" -19	7/16"-20 UNF	14	19	10.77 x 2.62
L HROK 04 HJ 05	G 1/4" -19	1/2"-20 UNF	14	19	10.77 x 2.62
L HROK 04 HJ 06	G 1/4" -19	9/16"-18 UNF	14	19	10.77 x 2.62
L HROK 04 HJ 08	G 1/4" -19	3/4"-16 UNF	19	19	10.77 x 2.62
L HROK 06 HJ 04	G 3/8" -19	7/16"-20 UNF	19	22	13.94 x 2.62
L HROK 06 HJ 05	G 3/8" -19	1/2"-20 UNF	19	22	13.94 x 2.62
L HROK 06 HJ	G 3/8" -19	9/16"-18 UNF	19	22	13.94 x 2.62
L HROK 06 HJ 08	G 3/8" -19	3/4"-16 UNF	19	22	13.94 x 2.62
L HROK 06 HJ 10	G 3/8" -19	7/8"-14 UNF	22	22	13.94 x 2.62
L HROK 08 HJ 06	G 1/2" -14	9/16"-18 UNF	22	27	17.86 x 2.62
L HROK 08 HJ	G 1/2" -14	3/4"-16 UNF	22	27	17.86 x 2.62
L HROK 08 HJ 10	G 1/2" -14	7/8"-14 UNF	22	27	17.86 x 2.62
L HROK 08 HJ 12	G 1/2" -14	1.1/16" -12 UN	27	27	17.86 x 2.62
L HROK 12 HJ 08	G 3/4" -14	3/4"-16 UNF	27	36	23.47 x 2.62
L HROK 12 HJ 10	G 3/4" -14	7/8"-14 UNF	27	36	23.47 x 2.62
L HROK 12 HJ	G 3/4" -14	1.1/16" -12 UN	27	36	23.47 x 2.62
L HROK 12 HJ 16	G 3/4" -14	1.5/16" -12 UN	33	36	23.47 x 2.62
L HROK 16 HJ 12	G 1" -11	1.1/16" -12 UN	33	41	29.74 x 3.53
L HROK 16 HJ	G 1" -11	1.5/16" -12 UN	33	41	29.74 x 3.53
L HROK 16 HJ 20	G 1" -11	1.5/8" -12 UN	41	41	29.74 x 3.53
L HROK 20 HJ 16	G 1.1/4" -11	1.5/16" -12 UN	41	41	37.69 x 3.53
L HROK 20 HJ	G 1.1/4" -11	1.5/8" -12 UN	41	50	37.69 x 3.53
L HROK 20 HJ 24	G 1.1/4" -11	1.7/8" -12 UN	48	50	37.69 x 3.53
L HROK 24 HJ	G 1.1/2" -11	1.7/8" -12 UN	48	55	44.04 x 3.53

SW, S1, S2 = With across flats

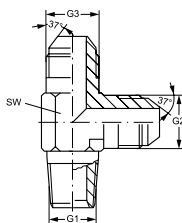
**Product versions:**

L HROK HJ VA - Screw-in socket, L shaped, Stainless steel



**L HN HJ****Screw-in socket, L shaped**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** UN/UNF external threads  
**Sealing form 2 + 3:**  
**3:** 74° outer cone  
**Design:** Screw-in sockets  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

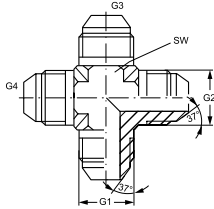


Identification	G1	G2 + G3	SW mm
L HN 02 HJ 04	1/8" -27 NPT	7/16"-20 UNF	11
L HN 02 HJ 05	1/8" -27 NPT	1/2"-20 UNF	14
L HN 02 HJ 06	1/8" -27 NPT	9/16"-18 UNF	14
L HN 04 HJ	1/4" -18 NPT	7/16"-20 UNF	14
L HN 04 HJ 05	1/4" -18 NPT	1/2"-20 UNF	14
L HN 04 HJ 06	1/4" -18 NPT	9/16"-18 UNF	14
L HN 06 HJ	3/8" -18 NPT	9/16"-18 UNF	19
L HN 06 HJ 08	3/8" -18 NPT	3/4"-16 UNF	19
L HN 08 HJ	1/2" -14 NPT	3/4"-16 UNF	22
L HN 08 HJ 10	1/2" -14 NPT	7/8"-14 UNF	22
L HN 08 HJ 12	1/2" -14 NPT	1.1/16" -12 UN	27
L HN 12 HJ 10	3/4" -14 NPT	7/8"-14 UNF	27
L HN 12 HJ	3/4" -14 NPT	1.1/16" -12 UN	27
L HN 12 HJ 14	3/4" -14 NPT	1.3/16" -12 UN	33
L HN 12 HJ 16	3/4" -14 NPT	1.5/16" -12 UN	33
L HN 16 HJ	1" -11.5 NPT	1.5/16" -12 UN	33
L HN 20 HJ	1.1/4" -11.5 NPT	1.5/8" -12 UN	41

SW = Width across flats

**Product versions:**

**L HN HJ VA** - Screw-in socket, L shaped, Stainless steel

**K HJ****Fitting socket, cross shaped**

**Connection 1 - 4:** UN/UNF external threads  
**Sealing form 1 - 4:** 74° outer cone  
**Design:** Fitting socket  
**Construction:** K shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 - G4	SW mm
K HJ 04	7/16"-20 UNF	11
K HJ 05	1/2"-20 UNF	14
K HJ 06	9/16"-18 UNF	14
K HJ 08	3/4"-16 UNF	19
K HJ 10	7/8"-14 UNF	22
K HJ 12	1.1/16"-12 UN	27
K HJ 16	1.5/16"-12 UN	33
K HJ 20	1.5/8"-12 UN	41
K HJ 24	1.7/8"-12 UN	48

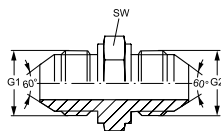
SW = Width across flats

**Product versions:**

**K HJ VA** - Fitting socket, cross shaped, Stainless steel

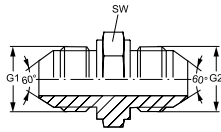
**G HJL****Connection sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 60° outer cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 60° outer cone  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm
G NW 06 HJL	M 14 x 1.5	19
G NW 08 HJL	M 16 x 1.5	22
G NW 10 HJL	M 18 x 1.5	22
G NW 13 HJL	M 22 x 1.5	27
G NW 16 HJL	M 24 x 1.5	32
G NW 20 HJL	M 30 x 1.5	37
G NW 25 HJL	M 33 x 1.5	41

SW = Width across flats

**G HJR****Connection sockets**

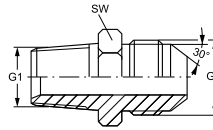
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° outer cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° outer cone  
**Design:** Connection sockets  
**Construction:** straight  
**Standard connection 2:** JIS B 8363  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm
G HJR 04	G 1/4" -19	19
G HJR 06	G 3/8" -19	22
G HJR 08	G 1/2" -14	27
G HJR 12	G 3/4" -14	32
G HJR 16	G 1" -11	41

SW = Width across flats

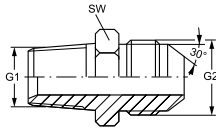
**GE HRK HJL****Screw-in sockets**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 60° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
GE HRK 04 NW 06 HJL	R 1/4" K	M 14 x 1.5	19
GE HRK 06 NW 08 HJL	R 3/8" K	M 16 x 1.5	22
GE HRK 06 NW 10 HJL	R 3/8" K	M 18 x 1.5	22
GE HRK 08 NW 13 HJL	R 1/2" K	M 22 x 1.5	27
GE HRK 08 NW 16 HJL	R 1/2" K	M 24 x 1.5	27
GE HRK 12 NW 20 HJL	R 3/4" K	M 30 x 1.5	37
GE HRK 16 NW 25 HJL	R 1" K	M 33 x 1.5	41

SW = Width across flats

**GE HRK HJR****Screw-in sockets**

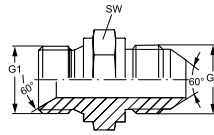
**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Standard connection 2:** JIS B 8363  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
GE HRK 02 HJR	R 1/8" K	G 1/8" -28	14
GE HRK 04 HJR	R 1/4" K	G 1/4" -19	19
GE HRK 06 HJR	R 3/8" K	G 3/8" -19	22
GE HRK 08 HJR	R 1/2" K	G 1/2" -14	27
GE HRK 12 HJR	R 3/4" K	G 3/4" -14	37
GE HRK 16 HJR	R 1" K	G 1" -11	41
GE HRK 20 HJR	R 1.1/4" K	G 1.1/4" -11	50
GE HRK 24 HJR	R 1.1/2" K	G 1.1/2" -11	55

SW = Width across flats

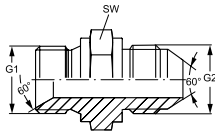
**G HB HJL****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 60° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
G HB 04 NW 06 HJL	G 1/4" -19	M 14 x 1.5	19
G HB 06 NW 10 HJL	G 3/8" -19	M 18 x 1.5	22
G HB 06 NW 13 HJL	G 3/8" -19	M 22 x 1.5	22
G HB 08 NW 08 HJL 20	G 1/2" -14	M 20 x 1.5	27
G HB 08 NW 13 HJL	G 1/2" -14	M 22 x 1.5	27
G HB 10 NW 16 HJL	G 5/8" -14	M 24 x 1.5	32
G HB 12 NW 20 HJL	G 3/4" -14	M 30 x 1.5	37
G HB 16 NW 25 HJL	G 1" -11	M 33 x 1.5	41

SW = Width across flats

**G HB HJR****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Standard connection 2:** JIS B 8363  
**Material:** Steel  
**Surface:** electro galvanised

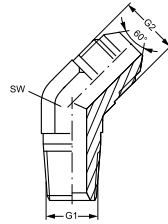
Identification	G1 + G2	SW mm
G HB 04 HJR	G 1/4" -19	19
G HB 06 HJR	G 3/8" -19	22
G HB 08 HJR	G 1/2" -14	27
G HB 12 HJR	G 3/4" -14	32
G HB 16 HJR	G 1" -11	41

SW = Width across flats



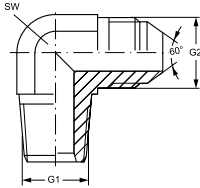
**W45 HRK HJR****Screw-in socket, angle 45°**

<b>Connection 1:</b>	BSPT conical external threads
<b>Sealing form 1:</b>	thread seal
<b>Connection 2:</b>	BSP cylindrical external threads
<b>Sealing form 2:</b>	60° outer cone
<b>Design:</b>	Screw-in sockets
<b>Construction:</b>	Angle 45°
<b>Standard connection 2:</b>	JIS B 8363
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1	G2	SW mm
W45 HRK 04 HJR	R 1/4" K	G 1/4" -19	14
W45 HRK 06 HJR	R 3/8" K	G 3/8" -19	19
W45 HRK 08 HJR	R 1/2" K	G 1/2" -14	22
W45 HRK 12 HJR	R 3/4" K	G 3/4" -14	27
W45 HRK 16 HJR	R 1" K	G 1" -11	33

SW = Width across flats

**W90 HRK HJL****Screw-in socket, angle 90°**

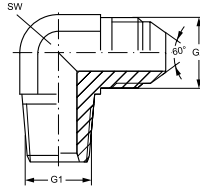
<b>Connection 1:</b>	BSPT conical external threads
<b>Sealing form 1:</b>	thread seal
<b>Connection 2:</b>	metric cylindrical outer thread
<b>Sealing form 2:</b>	60° outer cone
<b>Design:</b>	Screw-in sockets
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2	SW mm
W90 HRK 04 NW 06 HJL	R 1/4" K	M 14 x 1.5	14
W90 HRK 06 NW 08 HJL	R 3/8" K	M 16 x 1.5	19
W90 HRK 06 NW 10 HJL	R 3/8" K	M 18 x 1.5	19
W90 HRK 08 NW 13 HJL	R 1/2" K	M 22 x 1.5	22
W90 HRK 08 NW 16 HJL	R 1/2" K	M 24 x 1.5	22
W90 HRK 12 NW 20 HJL	R 3/4" K	M 30 x 1.5	27
W90 HRK 16 NW 25 HJL	R 1" K	M 33 x 1.5	33

SW = Width across flats

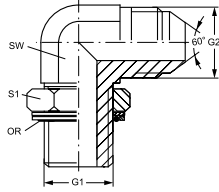
**W90 HRK HJR****Screw-in socket, angle 90°**

<b>Connection 1:</b>	BSPT conical external threads
<b>Sealing form 1:</b>	thread seal
<b>Connection 2:</b>	BSP cylindrical external threads
<b>Sealing form 2:</b>	60° outer cone
<b>Design:</b>	Screw-in sockets
<b>Construction:</b>	Angle 90°
<b>Standard connection 2:</b>	JIS B 8363
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1	G2	SW mm
W90 HRK 04 HJR	R 1/4" K	G 1/4" -19	14
W90 HRK 06 HJR	R 3/8" K	G 3/8" -19	19
W90 HRK 08 HJR	R 1/2" K	G 1/2" -14	22
W90 HRK 12 HJR	R 3/4" K	G 3/4" -14	27
W90 HRK 16 HJR	R 1" K	G 1" -11	33

SW = Width across flats

**W90 HROK HJL****Screw-in socket, angle 90°**

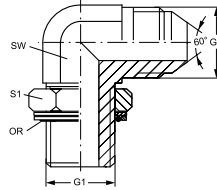
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 60° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
W90 HROK 04 NW 06 HJL	G 1/4" -19	M 14 x 1.5	14	17	10.78 x 2.62
W90 HROK 06 NW 08 HJL	G 3/8" -19	M 16 x 1.5	19	19	13.94 x 2.62
W90 HROK 06 NW 10 HJL	G 3/8" -19	M 18 x 1.5	19	22	13.94 x 2.62
W90 HROK 08 NW 13 HJL	G 1/2" -14	M 22 x 1.5	22	27	17.86 x 2.62
W90 HROK 12 NW 20 HJL	G 3/4" -14	M 30 x 1.5	27	32	23.47 x 2.62
W90 HROK 16 NW 25 HJL	G 1" -11	M 33 x 1.5	33	38	29.74 x 3.53

SW, S1, S2 = With across flats

**W90 HROK HJR****Screw-in socket, angle 90°**

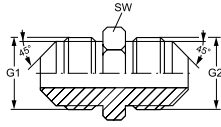
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° outer cone  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Standard connection 2:** JIS B 8363  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1	OR
W90 HROK 04 HJR	G 1/4" -19	19	14	10.77 x 2.62
W90 HROK 06 HJR	G 3/8" -19	22	19	13.94 x 2.62
W90 HROK 08 HJR	G 1/2" -14	27	22	17.86 x 2.62
W90 HROK 12 HJR	G 3/4" -14	36	27	23.47 x 2.62
W90 HROK 16 HJR	G 1" -11	41	33	29.74 x 3.53

SW, S1, S2 = With across flats

3

**G HSA****Connection sockets**

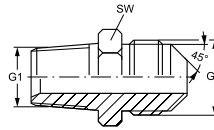
**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 45° outer cone  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 45° outer cone  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm
G HSA 06	5/8"-18 UNF	16
SW = Width across flats		

3

**GE HN HSA****Screw-in sockets**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 45° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

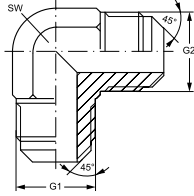


Identification	G1	G2	SW mm
GE HN 04 HSA 06	1/4" -18 NPT	5/8" -18 UNF	16
GE HN 06 HSA	3/8" -18 NPT	5/8" -18 UNF	19
GE HN 08 HSA 06	1/2" -14 NPT	5/8" -18 UNF	22
SW = Width across flats			

3

## W90 HSA

### Fitting socket, angle 90°



- Connection 1:** UN/UNF external threads
- Sealing form 1:** 45° outer cone
- Connection 2:** UN/UNF external threads
- Sealing form 2:** 45° outer cone
- Design:** Fitting socket
- Construction:** Angle 90°
- Material:** Steel
- Surface:** electro galvanised

#### Identification

G1 + G2

W90 HSA 06

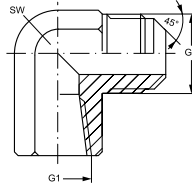
5/8"-18 UNF

3

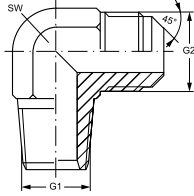


**W90 IN HSA****Screw-on socket, IGN HSA angle 90°**

<b>Connection 1:</b>	NPT internal thread
<b>Sealing form 1:</b>	thread seal
<b>Connection 2:</b>	UN/UNF external threads
<b>Sealing form 2:</b>	45° outer cone
<b>Design:</b>	Screw-on socket
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1	G2	SW mm
W90 IN 04 HSA 06	1/4" -18 NPT	5/8"-18 UNF	19
SW = Width across flats			

**W90 HN HSA****Screw-in socket, angle 90°**

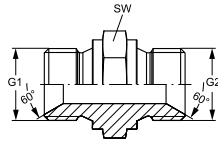
**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 45° outer cone  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Brass

Identification	G1	G2	SW mm
W90 HN 04 HSA 06	1/4" -18 NPT	5/8" -18 UNF	19
SW = Width across flats			

## GH

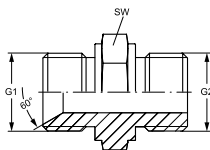
## Connectors

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 60° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
G 04 H 02	M 12 x 1.5	M 10 x 1	17
G H 04	M 12 x 1.5	M 12 x 1.5	17
G 06 H 04	M 14 x 1.5	M 12 x 1.5	19
G H 06	M 14 x 1.5	M 14 x 1.5	19
G 08 H 04	M 16 x 1.5	M 12 x 1.5	22
G 08 H 06	M 16 x 1.5	M 14 x 1.5	22
G H 08	M 16 x 1.5	M 16 x 1.5	22
G H 10	M 18 x 1.5	M 18 x 1.5	24
G 13 H 10	M 22 x 1.5	M 18 x 1.5	27
G H 13	M 22 x 1.5	M 22 x 1.5	27
G H 16	M 26 x 1.5	M 26 x 1.5	32
G H 20	M 30 x 1.5	M 30 x 1.5	36
G H 25	M 38 x 1.5	M 38 x 1.5	46
G 25 H 20	M 38 x 1.5	M 30 x 1.5	46
G 32 H 25	M 45 x 1.5	M 38 x 1.5	55
G H 32	M 45 x 1.5	M 45 x 1.5	55
G 40 H 32	M 52 x 1.5	M 45 x 1.5	55
G H 40	M 52 x 1.5	M 52 x 1.5	55
G 50 H 40	M 65 x 2	M 52 x 1.5	65
G H 50	M 65 x 2	M 65 x 2	65
G H 60	M 78 x 2	M 78 x 2	80

SW = Width across flats

**GE H M****Screw-in sockets**

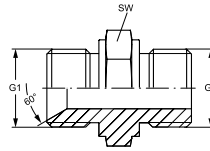
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 60° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** Shape A  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
GE H 08 M 16	M 16 x 1.5	M 16 x 1.5	22
GE H 10 M 16	M 18 x 1.5	M 16 x 1.5	22
GE H 13 M 18	M 22 x 1.5	M 18 x 1.5	24
GE H 16 M 22	M 26 x 1.5	M 22 x 1.5	32
GE H 16 M 26	M 26 x 1.5	M 26 x 1.5	32
GE H 20 M 26	M 30 x 1.5	M 26 x 1.5	36

SW = Width across flats

**GE H R****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** Shape A  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

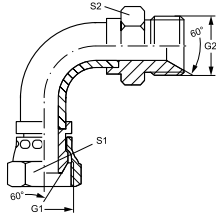


Identification	G1	G2	SW mm
GE H 06 R	M 14 x 1.5	G 1/4" -19	19
GE H 08 R 06	M 16 x 1.5	G 1/4" -19	22
GE H 08 R 10	M 16 x 1.5	G 3/8" -19	22
GE H 10 R	M 18 x 1.5	G 3/8" -19	24
GE H 10 R 13	M 18 x 1.5	G 1/2" -14	27
GE H 13 R	M 22 x 1.5	G 1/2" -14	27
GE H 13 R 20	M 22 x 1.5	G 3/4" -14	32
GE H 16 R 13	M 26 x 1.5	G 1/2" -14	27
GE H 16 R 20	M 26 x 1.5	G 3/4" -14	32
GE H 20 R	M 30 x 1.5	G 3/4" -14	32
GE H 20 R 25	M 30 x 1.5	G 1" -11	41
GE H 25 R	M 38 x 1.5	G 1" -11	41
GE H 32 R	M 45 x 1.5	G 1.1/4" -11	50
GE H 40 R	M 52 x 1.5	G 1.1/2" -11	55
GE H 50 R	M 65 x 2	G 2" -11	70
GE H 60 R	M 78 x 2	G 2.1/2" -11	85

SW = Width across flats

**Product versions:**

**GE H R VA** - Screw-in sockets, Stainless steel

**W90 A H****Connection socket, angle 90°**

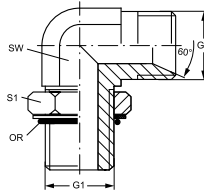
**Connection 1:** metric nut thread  
**Sealing form 1:** 60° sealing head  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 60° inner cone  
**Design:** Connecting socket (short pipe bend)  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	S1	S2
W90 A 06 H	M 14 x 1.5	M 14 x 1.5	14	19
W90 A 08 H	M 16 x 1.5	M 16 x 1.5	17	22
W90 A 10 H	M 18 x 1.5	M 18 x 1.5	19	24
W90 A 13 H	M 22 x 1.5	M 22 x 1.5	22	27
W90 A 16 H	M 26 x 1.5	M 26 x 1.5	27	32
W90 A 20 H	M 30 x 1.5	M 30 x 1.5	30	36
W90 A 25 H	M 38 x 1.5	M 38 x 1.5	41	46

SW, S1, S2 = With across flats

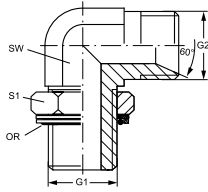
**W90 HMO HB****Screw-in socket, angle 90°**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
W90 HMO 10 HB 02	M 10 x 1	G 1/8" -28	11	14	8.00 x 1.50
W90 HMO 12 HB 02	M 12 x 1.5	G 1/8" -28	18	14	9.30 x 2.40
W90 HMO 12 HB 04	M 12 x 1.5	G 1/4" -19	14	17	9.30 x 2.40
W90 HMO 14 HB 04	M 14 x 1.5	G 1/4" -19	17	19	11.30 x 2.40
W90 HMO 14 HB 06	M 14 x 1.5	G 3/8" -19	24	19	11.30 x 2.40
W90 HMO 16 HB 04	M 16 x 1.5	G 1/4" -19	17	20	13.30 x 2.40
W90 HMO 16 HB 06	M 16 x 1.5	G 3/8" -19	17	20	13.30 x 2.40
W90 HMO 18 HB 06	M 18 x 1.5	G 3/8" -19	19	24	15.30 x 2.40
W90 HMO 18 HB 08	M 18 x 1.5	G 1/2" -14	19	24	15.30 x 2.40
W90 HMO 20 HB 08	M 20 x 1.5	G 1/2" -14	19	27	17.30 x 2.40
W90 HMO 22 HB 08	M 22 x 1.5	G 1/2" -14	19	27	19.30 x 2.40
W90 HMO 22 HB 12	M 22 x 1.5	G 3/4" -14	27	27	19.30 x 2.40
W90 HMO 33 HB 16	M 33 x 2	G 1" -11	33	41	29.74 x 2.95
W90 HMO 42 HB 20	M 42 x 2	G 1.1/4" -11	41	50	38.00 x 3.00
W90 HMO 48 HB 24	M 48 x 2	G 1.1/2" -11	48	55	44.00 x 3.00

SW, S1, S2 = With across flats

**W90 HMOK HB****Screw-in socket, angle 90°**

**Connection 1:**  
**Sealing form 1:**

metric cylindrical outer thread  
Thread socket with O-ring + spacer  
diaphragm ring

**Connection 2:**  
**Sealing form 2:**

BSP cylindrical external threads  
60° inner cone

**Design:**

Adjustable direction screw-in socket  
Angle 90°

**Construction:**

Angle 90°

**Material:**

Steel

**Surface:**

electro galvanised

Identification	G1	G2	SW mm	S1	OR
W90 HMOK 10 HB 02	M 10 x 1	G 1/8" -28	11	15	8.00 x 1.50
W90 HMOK 12 HB 02	M 12 x 1.5	G 1/8" -28	14	18	9.30 x 2.40
W90 HMOK 12 HB 04	M 12 x 1.5	G 1/4" -19	14	18	9.30 x 2.40
W90 HMOK 14 HB 04	M 14 x 1.5	G 1/4" -19	14	20	11.30 x 2.40
W90 HMOK 14 HB 06	M 14 x 1.5	G 3/8" -19	14	20	11.30 x 2.40
W90 HMOK 16 HB 04	M 16 x 1.5	G 1/4" -19	19	20	13.30 x 2.40
W90 HMOK 16 HB 06	M 16 x 1.5	G 3/8" -19	19	20	13.30 x 2.40
W90 HMOK 18 HB 06	M 18 x 1.5	G 3/8" -19	19	25	15.30 x 2.40
W90 HMOK 18 HB 08	M 18 x 1.5	G 1/2" -14	19	25	15.30 x 2.40
W90 HMOK 20 HB 08	M 20 x 1.5	G 1/2" -14	27	28	17.30 x 2.40
W90 HMOK 22 HB 08	M 22 x 1.5	G 1/2" -14	27	28	19.30 x 2.40
W90 HMOK 22 HB 10	M 22 x 1.5	G 5/8" -14	27	28	19.30 x 2.40
W90 HMOK 22 HB 12	M 22 x 1.5	G 3/4" -14	27	28	19.30 x 2.40
W90 HMOK 26 HB 12	M 26 x 1.5	G 3/4" -14	30	33	23.50 x 2.60
W90 HMOK 27 HB 12	M 27 x 2	G 3/4" -14	30	33	23.47 x 2.95
W90 HMOK 33 HB 16	M 33 x 2	G 1" -11	36	42	29.74 x 2.95
W90 HMOK 42 HB 20	M 42 x 2	G 1.1/4" -11	41	50	38.00 x 3.00
W90 HMOK 48 HB 24	M 48 x 2	G 1.1/2" -11	50	56	44.00 x 3.00

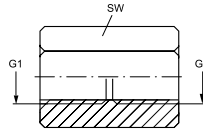
SW, S1, S2 = With across flats



## G IR

## Connection sockets

**Connection 1:** BSP cylindrical internal threads  
**Connection 2:** BSP cylindrical internal threads  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

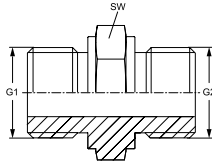


Identification	G1	G2	SW mm
G IR 02	G 1/8" -28	G 1/8" -28	14
G IR 04 IR 02	G 1/4" -19	G 1/8" -28	17
G IR 04	G 1/4" -19	G 1/4" -19	17
G IR 06 IR 04	G 3/8" -19	G 1/4" -19	22
G IR 06	G 3/8" -19	G 3/8" -19	22
G IR 08 IR 04	G 1/2" -14	G 1/4" -19	27
G IR 08 IR 06	G 1/2" -14	G 3/8" -19	27
G IR 08	G 1/2" -14	G 1/2" -14	27
G IR 10 IR 08	G 5/8" -14	G 1/2" -14	32
G IR 10	G 5/8" -14	G 5/8" -14	32
G IR 12	G 3/4" -14	G 3/4" -14	32
G IR 12 IR 08	G 3/4" -14	G 1/2" -14	32
G IR 16 IR 12	G 1" -11	G 3/4" -14	43
G IR 16	G 1" -11	G 1" -11	43
G IR 20 IR 12	G 1.1/4" -11	G 3/4" -14	50
G IR 20 IR 16	G 1.1/4" -11	G 1" -11	50
G IR 20	G 1.1/4" -11	G 1.1/4" -11	50
G IR 24 IR 20	G 1.1/2" -11	G 1.1/4" -11	55
G IR 24	G 1.1/2" -11	G 1.1/2" -11	55
G IR 32 IR 24	G 2" -11	G 1.1/2" -11	70
G IR 32	G 2" -11	G 2" -11	70

SW = Width across flats

**Product versions:**

**G IR VA** - Connection sockets, Stainless steel

**GE HR****Screw-in sockets**

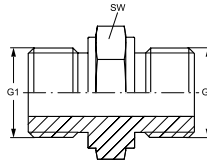
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape A  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** Shape A  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
GE HR 04	G 1/4" -19	G 1/4" -19	19
GE HR 06 HR 04	G 3/8" -19	G 1/4" -19	22
GE HR 06	G 3/8" -19	G 3/8" -19	22
GE HR 08 HR 06	G 1/2" -14	G 3/8" -19	27
GE HR 08	G 1/2" -14	G 1/2" -14	27
GE HR 12 HR 08	G 3/4" -14	G 1/2" -14	32
GE HR 12	G 3/4" -14	G 3/4" -14	32

SW = Width across flats

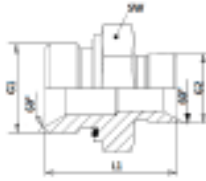
**G HR VA****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal + shape B  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** flat seal + shape B  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Stainless steel



Identification	G1 + G2	SW mm
G HR 02 VA	G 1/8" -28	14
G HR 04 VA	G 1/4" -19	19
G HR 06 VA	G 3/8" -19	22
G HR 08 VA	G 1/2" -14	27
G HR 10 VA	G 5/8" -14	30
G HR 12 VA	G 3/4" -14	32
G HR 16 VA	G 1" -11	41
G HR 20 VA	G 1.1/4" -11	50
G HR 24 VA	G 1.1/2" -11	55
G HR 32 VA	G 2" -11	70

SW = Width across flats

**GE HRED HB****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical Shape E  
**Sealing form 1:**  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Can be used as a screwing agent with ED and as a connector with 60° inside taper

Identification	G1	G2	L1 mm	SW mm
GE HRED 02 HB	G 1/8" -28	G 1/8" -28	24,0	14
GE HRED 04 HB 02	G 1/4" -19	G 1/8" -28	28,5	19
GE HRED 04 HB	G 1/4" -19	G 1/4" -19	33,0	19
GE HRED 04 HB 06	G 1/4" -19	G 3/8" -19	34,5	19
GE HRED 06 HB 04	G 3/8" -19	G 1/4" -19	33,5	22
GE HRED 06 HB	G 3/8" -19	G 3/8" -19	35,0	22
GE HRED 06 HB 08	G 3/8" -19	G 1/2" -14	38,5	22
GE HRED 08 HB 06	G 1/2" -14	G 3/8" -19	37,5	27
GE HRED 08 HB	G 1/2" -14	G 1/2" -14	41,0	27
GE HRED 08 HB 10	G 1/2" -14	G 5/8" -14	43,0	27
GE HRED 08 HB 12	G 1/2" -14	G 3/4" -14	45,0	32
GE HRED 12 HB 08	G 3/4" -14	G 1/2" -14	43,0	32
GE HRED 12 HB	G 3/4" -14	G 3/4" -14	47,0	32
GE HRED 12 HB 16	G 3/4" -14	G 1" -11	51,0	32
GE HRED 16 HB 12	G 1" -11	G 3/4" -14	49,0	41
GE HRED 16 HB	G 1" -11	G 1" -11	53,0	41
GE HRED 20 HB 16	G 1.1/4" -11	G 1" -11	55,0	50
GE HRED 20 HB	G 1.1/4" -11	G 1.1/4" -11	58,0	50
GE HRED 24 HB	G 1.1/2" -11	G 1.1/2" -11	64,0	55

SW = Width across flats

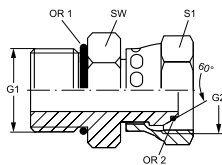
**Spare parts:**

**WD** - Soft seal for ED fittings

## GE HRO AOB

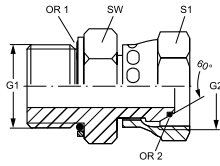
## Screw-in sockets

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° outer cone with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1	OR1	OR2
GE HRO 04 AOB	G 1/4" -19	20	17	10.77 x 2.62	6.0 x 1.0
GE HRO 06 AOB	G 3/8" -19	24	22	13.94 x 2.62	8.1 x 1.6
GE HRO 08 AOB	G 1/2" -14	28	27	17.86 x 2.62	12.1 x 1.6
GE HRO 12 AOB	G 3/4" -14	35	32	23.47 x 2.62	17.1 x 1.6
GE HRO 16 AOB	G 1" -11	43	41	29.75 x 3.53	22.1 x 1.6
GE HRO 20 AOB	G 1.1/4" -11	52	50	37.69 x 3.53	29.1 x 1.6
GE HRO 24 AOB	G 1.1/2" -11	58	60	44.04 x 3.53	35.1 x 1.6

SW, S1, S2 = With across flats

**GE HROK AOB****Screw-in sockets**

**Connection 1:**  
**Sealing form 1:**

BSP external thread, cylindrical  
Thread socket with O-ring + spacer  
diaphragm ring

**Connection 2:**  
**Sealing form 2:**

BSP nut thread  
60° outer cone with O-ring

**Design:**

Screw-in sockets

**Construction:**

straight

**Material:**

Steel

**Surface:**

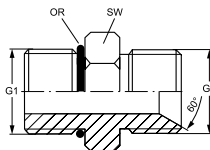
electro galvanised

Identification	G1 + G2	SW mm	S1	OR1	OR2
GE HROK 04 AOB	G 1/4" -19	20	17	10.77 x 2.62	6.0 x 1.0
GE HROK 06 AOB	G 3/8" -19	24	22	13.94 x 2.62	8.1 x 1.6
GE HROK 08 AOB	G 1/2" -14	28	27	17.86 x 2.62	12.1 x 1.6
GE HROK 12 AOB	G 3/4" -14	35	32	23.47 x 2.62	17.1 x 1.6
GE HROK 16 AOB	G 1" -11	43	41	29.75 x 3.53	22.1 x 1.6
GE HROK 20 AOB	G 1.1/4" -11	52	50	37.69 x 3.53	29.1 x 1.6
GE HROK 24 AOB	G 1.1/2" -11	58	60	44.04 x 3.53	35.1 x 1.6

SW, S1, S2 = With across flats

**GE HRO HB****Screw-in sockets**

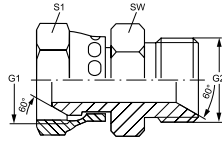
**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** BSP cylindrical external threads  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR
GE HRO 02 HB	G 1/8" -28	G 1/8" -28	20	7.65 x 1.78
GE HRO 04 HB 02	G 1/4" -19	G 1/8" -28	20	10.78 x 2.62
GE HRO 04 HB	G 1/4" -19	G 1/4" -19	20	10.78 x 2.62
GE HRO 04 HB 06	G 1/4" -19	G 3/8" -19	24	10.78 x 2.62
GE HRO 06 HB 04	G 3/8" -19	G 1/4" -19	24	13.94 x 2.62
GE HRO 06 HB	G 3/8" -19	G 3/8" -19	24	13.94 x 2.62
GE HRO 06 HB 08	G 3/8" -19	G 1/2" -14	29	13.94 x 2.62
GE HRO 08 HB 06	G 1/2" -14	G 3/8" -19	29	17.86 x 2.62
GE HRO 08 HB	G 1/2" -14	G 1/2" -14	28	17.86 x 2.62
GE HRO 08 HB 10	G 1/2" -14	G 5/8" -14	29	17.86 x 2.62
GE HRO 08 HB 12	G 1/2" -14	G 3/4" -14	29	17.86 x 2.62
GE HRO 12 HB 08	G 3/4" -14	G 1/2" -14	35	23.47 x 2.62
GE HRO 12 HB	G 3/4" -14	G 3/4" -14	35	23.47 x 2.62
GE HRO 12 HB 16	G 3/4" -14	G 1" -11	43	23.47 x 2.62
GE HRO 16 HB 12	G 1" -11	G 3/4" -14	43	29.74 x 3.53
GE HRO 16 HB	G 1" -11	G 1" -11	43	29.74 x 3.53
GE HRO 20 HB 16	G 1.1/4" -11	G 1" -11	53	37.69 x 3.53
GE HRO 20 HB	G 1.1/4" -11	G 1.1/4" -11	53	37.69 x 3.53
GE HRO 24 HB	G 1.1/2" -11	G 1.1/2" -11	58	44.04 x 3.53

SW = Width across flats

3

**G AB HB****Connectors**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1
G AB 02 HB	G 1/8" -28	G 1/8" -28	14	14
G AB 02 HB 04	G 1/8" -28	G 1/4" -19	19	19
G AB 04 HB 02	G 1/4" -19	G 1/8" -28	19	19
G AB 04 HB	G 1/4" -19	G 1/4" -19	19	19
G AB 04 HB 06	G 1/4" -19	G 3/8" -19	22	19
G AB 04 HB 08	G 1/4" -19	G 1/2" -14	27	19
G AB 06 HB 04	G 3/8" -19	G 1/4" -19	19	22
G AB 06 HB	G 3/8" -19	G 3/8" -19	22	22
G AB 06 HB 08	G 3/8" -19	G 1/2" -14	27	22
G AB 06 HB 12	G 3/8" -19	G 3/4" -14	27	27
G AB 08 HB 04	G 1/2" -14	G 1/4" -19	19	27
G AB 08 HB 06	G 1/2" -14	G 3/8" -19	22	27
G AB 08 HB	G 1/2" -14	G 1/2" -14	27	27
G AB 08 HB 10	G 1/2" -14	G 5/8" -14	27	32
G AB 08 HB 12	G 1/2" -14	G 3/4" -14	32	27
G AB 08 HB 16	G 1/2" -14	G 1" -11	27	41
G AB 10 HB 06	G 5/8" -14	G 3/8" -19	32	22
G AB 10 HB 08	G 5/8" -14	G 1/2" -14	32	32
G AB 10 HB	G 5/8" -14	G 5/8" -14	32	32
G AB 10 HB 12	G 5/8" -14	G 3/4" -14	32	32
G AB 10 HB 16	G 5/8" -14	G 1" -11	32	41
G AB 12 HB 06	G 3/4" -14	G 3/8" -19	27	32
G AB 12 HB 08	G 3/4" -14	G 1/2" -14	27	32
G AB 12 HB 10	G 3/4" -14	G 5/8" -14	32	32
G AB 12 HB	G 3/4" -14	G 3/4" -14	32	32
G AB 12 HB 16	G 3/4" -14	G 1" -11	41	32
G AB 12 HB 20	G 3/4" -14	G 1.1/4" -11	41	46
G AB 16 HB 08	G 1" -11	G 1/2" -14	41	32
G AB 16 HB 10	G 1" -11	G 5/8" -14	41	32
G AB 16 HB 12	G 1" -11	G 3/4" -14	41	36
G AB 16 HB	G 1" -11	G 1" -11	41	41
G AB 16 HB 20	G 1" -11	G 1.1/4" -11	41	46
G AB 20 HB 12	G 1.1/4" -11	G 3/4" -14	50	41
G AB 20 HB 16	G 1.1/4" -11	G 1" -11	46	41
G AB 20 HB	G 1.1/4" -11	G 1.1/4" -11	50	50
G AB 20 HB 24	G 1.1/4" -11	G 1.1/2" -11	50	55
G AB 24 HB 20	G 1.1/2" -11	G 1.1/4" -11	55	50
G AB 24 HB	G 1.1/2" -11	G 1.1/2" -11	55	55
G AB 24 HB 32	G 1.1/2" -11	G 2" -11	55	70
G AB 32 HB 24	G 2" -11	G 1.1/2" -11	70	55

SW, S1, S2 = With across flats



**G AB HB**

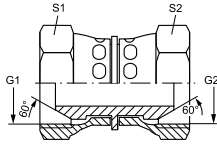
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**Connectors**

Identification	G1	G2	SW mm	S1
G AB 32 HB	G 2" -11	G 2" -11	70	70

SW, S1, S2 = With across flats

**Product versions:****G AB HB VA** - Connectors, Stainless steel

**G AB****Connectors**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° outer cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	S1	S2
G AB 02	G 1/8" -28	G 1/8" -28	14	14
G AB 04 AB 02	G 1/4" -19	G 1/8" -28	19	14
G AB 04	G 1/4" -19	G 1/4" -19	19	19
G AB 06 AB 04	G 3/8" -19	G 1/4" -19	22	19
G AB 06	G 3/8" -19	G 3/8" -19	22	22
G AB 08 AB 04	G 1/2" -14	G 1/4" -19	27	19
G AB 08 AB 06	G 1/2" -14	G 3/8" -19	27	22
G AB 08	G 1/2" -14	G 1/2" -14	27	27
G AB 10 AB 06	G 5/8" -14	G 3/8" -19	30	22
G AB 10 AB 08	G 5/8" -14	G 1/2" -14	30	27
G AB 10	G 5/8" -14	G 5/8" -14	30	30
G AB 12 AB 06	G 3/4" -14	G 3/8" -19	32	22
G AB 12 AB 08	G 3/4" -14	G 1/2" -14	32	27
G AB 12 AB 10	G 3/4" -14	G 5/8" -14	32	30
G AB 12	G 3/4" -14	G 3/4" -14	32	32
G AB 16 AB 06	G 1" -11	G 3/8" -19	41	22
G AB 16 AB 08	G 1" -11	G 1/2" -14	41	27
G AB 16 AB 12	G 1" -11	G 3/4" -14	41	32
G AB 16	G 1" -11	G 1" -11	41	41
G AB 20 AB 16	G 1.1/4" -11	G 1" -11	50	41
G AB 20	G 1.1/4" -11	G 1.1/4" -11	50	50
G AB 24	G 1.1/2" -11	G 1.1/2" -11	60	60
G AB 32	G 2" -11	G 2" -11	70	70

SW, S1, S2 = With across flats

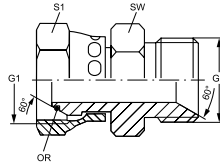
**Product versions:**

**G AB VA** - Connectors, Stainless steel

## G AOB HB

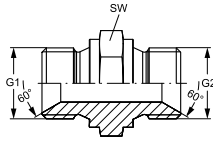
### Connectors

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone with O-ring  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1	OR
G AOB 02 HB	G 1/8" -28	16	14	4.5 x 1.5
G AOB 04 HB	G 1/4" -19	20	17	6.5 x 1.0
G AOB 06 HB	G 3/8" -19	24	22	8.1 x 1.6
G AOB 08 HB	G 1/2" -14	28	27	12.1 x 1.6
G AOB 12 HB	G 3/4" -14	35	32	17.1 x 1.6
G AOB 16 HB	G 1" -11	43	41	22.1 x 1.6
G AOB 20 HB	G 1.1/4" -11	52	50	29.1 x 1.6
G AOB 24 HB	G 1.1/2" -11	58	60	35.1 x 1.6

SW, S1, S2 = With across flats

**G HB****Connection sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
G HB 02	G 1/8" -28	G 1/8" -28	14
G HB 02 HB 04	G 1/8" -28	G 1/4" -19	19
G HB 02 HB 06	G 1/8" -28	G 3/8" -19	22
G HB 02 HB 08	G 1/8" -28	G 1/2" -14	27
G HB 04	G 1/4" -19	G 1/4" -19	19
G HB 04 HB 06	G 1/4" -19	G 3/8" -19	22
G HB 04 HB 08	G 1/4" -19	G 1/2" -14	27
G HB 04 HB 10	G 1/4" -19	G 5/8" -14	30
G HB 04 HB 12	G 1/4" -19	G 3/4" -14	32
G HB 04 HB 16	G 1/4" -19	G 1" -11	41
G HB 04 HB 20	G 1/4" -19	G 1.1/4" -11	50
G HB 06	G 3/8" -19	G 3/8" -19	22
G HB 06 HB 08	G 3/8" -19	G 1/2" -14	27
G HB 06 HB 10	G 3/8" -19	G 5/8" -14	32
G HB 06 HB 12	G 3/8" -19	G 3/4" -14	32
G HB 06 HB 16	G 3/8" -19	G 1" -11	41
G HB 06 HB 20	G 3/8" -19	G 1.1/4" -11	50
G HB 08	G 1/2" -14	G 1/2" -14	27
G HB 08 HB 10	G 1/2" -14	G 5/8" -14	30
G HB 08 HB 12	G 1/2" -14	G 3/4" -14	32
G HB 08 HB 16	G 1/2" -14	G 1" -11	41
G HB 08 HB 20	G 1/2" -14	G 1.1/4" -11	50
G HB 08 HB 24	G 1/2" -14	G 1.1/2" -11	55
G HB 08 HB 32	G 1/2" -14	G 2" -11	70
G HB 10	G 5/8" -14	G 5/8" -14	30
G HB 10 HB 12	G 5/8" -14	G 3/4" -14	32
G HB 10 HB 16	G 5/8" -14	G 1" -11	41
G HB 10 HB 20	G 5/8" -14	G 1.1/4" -11	50
G HB 12	G 3/4" -14	G 3/4" -14	32
G HB 12 HB 16	G 3/4" -14	G 1" -11	41
G HB 12 HB 20	G 3/4" -14	G 1.1/4" -11	50
G HB 12 HB 24	G 3/4" -14	G 1.1/2" -11	55
G HB 12 HB 32	G 3/4" -14	G 2" -11	70
G HB 16	G 1" -11	G 1" -11	41
G HB 16 HB 20	G 1" -11	G 1.1/4" -11	50
G HB 16 HB 24	G 1" -11	G 1.1/2" -11	55
G HB 16 HB 32	G 1" -11	G 2" -11	70
G HB 20	G 1.1/4" -11	G 1.1/4" -11	50
G HB 20 HB 24	G 1.1/4" -11	G 1.1/2" -11	55
G HB 20 HB 32	G 1.1/4" -11	G 2" -11	70
G HB 24	G 1.1/2" -11	G 1.1/2" -11	55

SW = Width across flats

(Continued)

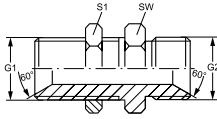
Connection sockets

Identification	G1	G2	SW mm
G HB 24 HB 32	G 1.1/2" -11	G 2" -11	70
G HB 32	G 2" -11	G 2" -11	70
G HB 40 HB 48	G 2.1/2" -11	G 3" -11	100
G HB 48	G 3" -11	G 3" -11	110

SW = Width across flats

**Product versions:**

G HB VA - Connection sockets, Stainless steel

**SV HB****Bulkhead fitting socket**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Bulkhead fitting socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm	S1
SV HB 02	G 1/8" -28	14	14
SV HB 04	G 1/4" -19	19	19
SV HB 06	G 3/8" -19	22	22
SV HB 08	G 1/2" -14	27	27
SV HB 10	G 5/8" -14	30	30
SV HB 12	G 3/4" -14	32	32
SV HB 16	G 1" -11	41	41
SV HB 20	G 1.1/4" -11	50	50
SV HB 24	G 1.1/2" -11	55	55
SV HB 32	G 2" -11	70	70

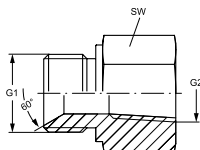
SW, S1, S2 = With across flats

**Product versions:**

**SV HB VA** - Bulkhead fitting socket, Stainless steel

**G HB IRK****Screw-on socket**

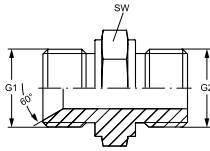
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** thread seal  
**Connection 2:** BSPT conical inner thread  
**Sealing form 2:** thread seal  
**Design:** Screw-on socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
G HB 04 IRK	G 1/4" -19	R 1/4" K	19
G HB 06 IRK	G 3/8" -19	R 3/8" K	22
G HB 08 IRK	G 1/2" -14	R 1/2" K	27

SW = Width across flats

3

**GE HB HR****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
GE HB 04 HR 02	G 1/4" -19	G 1/8" -28	14
GE HB 04 HR	G 1/4" -19	G 1/4" -19	19
GE HB 04 HR 06	G 1/4" -19	G 3/8" -19	22
GE HB 06 HR 04	G 3/8" -19	G 1/4" -19	19
GE HB 06 HR	G 3/8" -19	G 3/8" -19	22
GE HB 08 HR 06	G 1/2" -14	G 3/8" -19	22
GE HB 08 HR	G 1/2" -14	G 1/2" -14	27
GE HB 08 HR 12	G 1/2" -14	G 3/4" -14	27
GE HB 10 HR 08	G 5/8" -14	G 1/2" -14	27
GE HB 10 HR	G 5/8" -14	G 5/8" -14	30
GE HB 10 HR 12	G 5/8" -14	G 3/4" -14	32
GE HB 12 HR 08	G 3/4" -14	G 1/2" -14	27
GE HB 12 HR 10	G 3/4" -14	G 5/8" -14	30
GE HB 12 HR	G 3/4" -14	G 3/4" -14	32
GE HB 16 HR 12	G 1" -11	G 3/4" -14	36
GE HB 16 HR	G 1" -11	G 1" -11	41
GE HB 20 HR 16	G 1.1/4" -11	G 1" -11	46
GE HB 20 HR	G 1.1/4" -11	G 1.1/4" -11	50
GE HB 24 HR 20	G 1.1/2" -11	G 1.1/4" -11	50
GE HB 24 HR	G 1.1/2" -11	G 1.1/2" -11	55

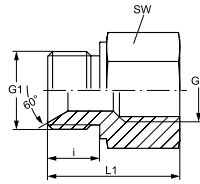
SW = Width across flats



## G HB IR

## Screw-on socket

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-on socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
G HB 02 IR	G 1/8" -28	G 1/8" -28	17
G HB 02 IR 04	G 1/8" -28	G 1/4" -19	19
G HB 04 IR 02	G 1/4" -19	G 1/8" -28	19
G HB 04 IR	G 1/4" -19	G 1/4" -19	19
G HB 04 IR 06	G 1/4" -19	G 3/8" -19	24
G HB 04 IR 08	G 1/4" -19	G 1/2" -14	27
G HB 06 IR 02	G 3/8" -19	G 1/8" -28	24
G HB 06 IR 04	G 3/8" -19	G 1/4" -19	22
G HB 06 IR	G 3/8" -19	G 3/8" -19	24
G HB 06 IR 08	G 3/8" -19	G 1/2" -14	27
G HB 08 IR 02	G 1/2" -14	G 1/8" -28	27
G HB 08 IR 04	G 1/2" -14	G 1/4" -19	27
G HB 08 IR 06	G 1/2" -14	G 3/8" -19	27
G HB 08 IR	G 1/2" -14	G 1/2" -14	27
G HB 08 IR 12	G 1/2" -14	G 3/4" -14	36
G HB 12 IR 04	G 3/4" -14	G 1/4" -19	32
G HB 12 IR 06	G 3/4" -14	G 3/8" -19	32
G HB 12 IR 08	G 3/4" -14	G 1/2" -14	32
G HB 12 IR	G 3/4" -14	G 3/4" -14	36
G HB 12 IR 16	G 3/4" -14	G 1" -11	41
G HB 16 IR 06	G 1" -11	G 3/8" -19	41
G HB 16 IR 08	G 1" -11	G 1/2" -14	41
G HB 16 IR 12	G 1" -11	G 3/4" -14	41
G HB 16 IR	G 1" -11	G 1" -11	41
G HB 16 IR 20	G 1" -11	G 1.1/4" -11	50
G HB 20 IR 04	G 1.1/4" -11	G 1/8" -28	50
G HB 20 IR 08	G 1.1/4" -11	G 1/2" -14	50
G HB 20 IR 12	G 1.1/4" -11	G 3/4" -14	50
G HB 20 IR 16	G 1.1/4" -11	G 1" -11	41
G HB 20 IR	G 1.1/4" -11	G 1.1/4" -11	50
G HB 20 IR 24	G 1.1/4" -11	G 1.1/2" -11	55
G HB 24 IR 12	G 1.1/2" -11	G 3/4" -14	55
G HB 24 IR 20	G 1.1/2" -11	G 1.1/4" -11	55
G HB 24 IR	G 1.1/2" -11	G 1.1/2" -11	55
G HB 24 IR 16	G 1.1/2" -11	G 1" -11	55
G HB 24 IR 32	G 1.1/2" -11	G 2" -11	70
G HB 32 IR 16	G 2" -11	G 1" -11	70
G HB 32 IR 20	G 2" -11	G 1.1/4" -11	70
G HB 32 IR 24	G 2" -11	G 1.1/2" -11	70

SW = Width across flats

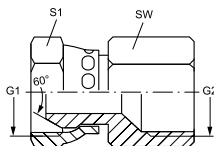
**G HB IR****Screw-on socket****(Continued)**

Identification	G1	G2	SW mm
G HB 32 IR	G 2" -11	G 2" -11	70
SW = Width across flats			

**Product versions:****G HB IR VA** - Screw-on socket, Stainless steel

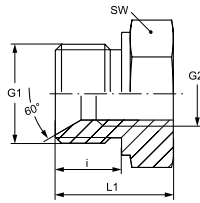
**G AB IR****Screw-on connector**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-on connector  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1
G AB 02 IR	G 1/8" -28	14	14
G AB 04 IR	G 1/4" -19	17	19
G AB 06 IR	G 3/8" -19	22	22
G AB 08 IR	G 1/2" -14	27	27
G AB 12 IR	G 3/4" -14	32	32
G AB 16 IR	G 1" -11	43	41
G AB 20 IR	G 1.1/4" -11	50	50
G AB 24 IR	G 1.1/2" -11	60	60

SW, S1, S2 = With across flats

**G HB IR L****Screw-on socket**

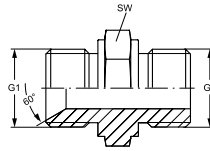
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-on socket, long straight  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	i mm	L1 mm	SW mm
G HB 06 IR 04 L	G 3/8" -19	G 1/4" -19	12,0	30,5	22
G HB 08 IR 06 L	G 1/2" -14	G 3/8" -19	16,0	38,0	30
G HB 16 IR 08 L	G 1" -11	G 1/2" -14	19,0	50,0	41
G HB 16 IR 12 L	G 1" -11	G 3/4" -14	20,5	47,5	41
G HB 20 IR 16 L	G 1.1/4" -11	G 1" -11	20,0	48,0	50
G HB 24 IR 20 L	G 1.1/2" -11	G 1.1/4" -11	22,0	54,5	55

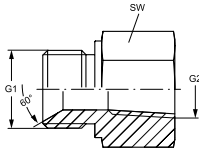
SW = Width across flats

**GE HB M****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** Shape A  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
GE HB 08 M 18	G 1/2" - 14	M 18 x 1.5	27
SW = Width across flats			

**G HB IN****Screw-on socket**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Screw-on socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
G HB 02 IN	G 1/8" -28	1/8" -27 NPT	14
G HB 02 IN 04	G 1/8" -28	1/4" -18 NPT	19
G HB 04 IN	G 1/4" -19	1/4" -18 NPT	19
G HB 04 IN 06	G 1/4" -19	3/8" -18 NPT	24
G HB 06 IN 04	G 3/8" -19	1/4" -18 NPT	22
G HB 06 IN	G 3/8" -19	3/8" -18 NPT	24
G HB 08 IN	G 1/2" -14	1/2" -14 NPT	27
G HB 12 IN	G 3/4" -14	3/4" -14 NPT	36
G HB 16 IN	G 1" -11	1" -11.5 NPT	41
G HB 20 IN	G 1.1/4" -11	1.1/4" -11.5 NPT	50
G HB 24 IN	G 1.1/2" -11	1.1/2" -11.5 NPT	55

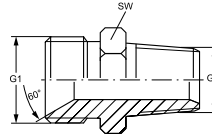
SW = Width across flats

**Product versions:**

**G HB IN VA** - Screw-on socket, Stainless steel

**GE HB HN****Screw-in sockets**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** NPT external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm
GE HB 02 HN	G 1/8" -28	1/8" -27 NPT	11
GE HB 02 HN 04	G 1/8" -28	1/4" -18 NPT	17
GE HB 04 HN 02	G 1/4" -19	1/8" -27 NPT	17
GE HB 04 HN	G 1/4" -19	1/4" -18 NPT	17
GE HB 04 HN 06	G 1/4" -19	3/8" -18 NPT	17
GE HB 04 HN 08	G 1/4" -19	1/2" -14 NPT	22
GE HB 04 HN 12	G 1/4" -19	3/4" -14 NPT	27
GE HB 06 HN 02	G 3/8" -19	1/8" -27 NPT	17
GE HB 06 HN 04	G 3/8" -19	1/4" -18 NPT	17
GE HB 06 HN	G 3/8" -19	3/8" -18 NPT	17
GE HB 06 HN 08	G 3/8" -19	1/2" -14 NPT	22
GE HB 06 HN 12	G 3/8" -19	3/4" -14 NPT	27
GE HB 06 HN 16	G 3/8" -19	1" -11.5 NPT	36
GE HB 08 HN 04	G 1/2" -14	1/4" -18 NPT	22
GE HB 08 HN 06	G 1/2" -14	3/8" -18 NPT	22
GE HB 08 HN	G 1/2" -14	1/2" -14 NPT	22
GE HB 08 HN 12	G 1/2" -14	3/4" -14 NPT	27
GE HB 08 HN 16	G 1/2" -14	1" -11.5 NPT	36
GE HB 10 HN 08	G 5/8" -14	1/2" -14 NPT	27
GE HB 10 HN 12	G 5/8" -14	3/4" -14 NPT	27
GE HB 12 HN 04	G 3/4" -14	1/4" -18 NPT	27
GE HB 12 HN 06	G 3/4" -14	3/8" -18 NPT	27
GE HB 12 HN 08	G 3/4" -14	1/2" -14 NPT	27
GE HB 12 HN	G 3/4" -14	3/4" -14 NPT	27
GE HB 12 HN 16	G 3/4" -14	1" -11.5 NPT	36
GE HB 12 HN 20	G 3/4" -14	1.1/4" -11.5 NPT	46
GE HB 16 HN 08	G 1" -11	1/2" -14 NPT	36
GE HB 16 HN 12	G 1" -11	3/4" -14 NPT	36
GE HB 16 HN	G 1" -11	1" -11.5 NPT	36
GE HB 16 HN 20	G 1" -11	1.1/4" -11.5 NPT	46
GE HB 16 HN 24	G 1" -11	1.1/2" -11.5 NPT	50
GE HB 16 HN 32	G 1" -11	2" -11.5 NPT	65
GE HB 20 HN 12	G 1.1/4" -11	3/4" -14 NPT	46
GE HB 20 HN 16	G 1.1/4" -11	1" -11.5 NPT	46
GE HB 20 HN	G 1.1/4" -11	1.1/4" -11.5 NPT	46
GE HB 20 HN 24	G 1.1/4" -11	1.1/2" -11.5 NPT	50
GE HB 24 HN 16	G 1.1/2" -11	1" -11.5 NPT	50
GE HB 24 HN 20	G 1.1/2" -11	1.1/4" -11.5 NPT	50
GE HB 24 HN	G 1.1/2" -11	1.1/2" -11.5 NPT	50
GE HB 24 HN 32	G 1.1/2" -11	2" -11.5 NPT	65
GE HB 32 HN 20	G 2" -11	1.1/4" -11.5 NPT	65

SW = Width across flats

**GE HB HN****Screw-in sockets****(Continued)**

Identification	G1	G2	SW mm
GE HB 32 HN 24	G 2" -11	1.1/2" -11.5 NPT	65
GE HB 32 HN	G 2" -11	2" -11.5 NPT	65

SW = Width across flats

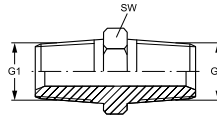
**Product versions:**

GE HB HN VA - Screw-in sockets, Stainless steel



**G HRK****Screw-in sockets**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSPT conical external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

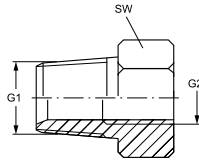


Identification	G1	G2	SW mm
G HRK 02	R 1/8" K	R 1/8" K	12
G 02 HRK 04	R 1/8" K	R 1/4" K	14
G 02 HRK 06	R 1/8" K	R 3/8" K	17
G HRK 04	R 1/4" K	R 1/4" K	14
G 04 HRK 06	R 1/4" K	R 3/8" K	17
G 04 HRK 08	R 1/4" K	R 1/2" K	22
G HRK 06	R 3/8" K	R 3/8" K	17
G 06 HRK 08	R 3/8" K	R 1/2" K	22
G 06 HRK 12	R 3/8" K	R 3/4" K	27
G 06 HRK 16	R 3/8" K	R 1" K	36
G HRK 08	R 1/2" K	R 1/2" K	22
G 08 HRK 10	R 1/2" K	R 5/8" K	24
G 08 HRK 12	R 1/2" K	R 3/4" K	27
G 08 HRK 16	R 1/2" K	R 1" K	36
G HRK 10	R 5/8" K	R 5/8" K	24
G HRK 12	R 3/4" K	R 3/4" K	27
G 12 HRK 16	R 3/4" K	R 1" K	36
G HRK 16	R 1" K	R 1" K	36
G 16 HRK 20	R 1" K	R 1.1/4" K	46
G HRK 20	R 1.1/4" K	R 1.1/4" K	46
G 20 HRK 24	R 1.1/4" K	R 1.1/2" K	50
G HRK 24	R 1.1/2" K	R 1.1/2" K	50
G 24 HRK 32	R 1.1/2" K	R 2" K	65
G HRK 32	R 2" K	R 2" K	65

SW = Width across flats

**Product versions:**

**G HRK VA** - Screw-in sockets, Stainless steel

**GE HRK IR****Screw-in sockets**

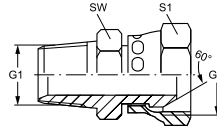
**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
GE HRK 02 IR 04	R 1/8" K	G 1/4" -19	19
GE HRK 02 IR 06	R 1/8" K	G 3/8" -19	22
GE HRK 02 IR 08	R 1/8" K	G 1/2" -14	27
GE HRK 04 IR 02	R 1/4" K	G 1/8" -28	14
GE HRK 04 IR	R 1/4" K	G 1/4" -19	19
GE HRK 04 IR 06	R 1/4" K	G 3/8" -19	22
GE HRK 04 IR 08	R 1/4" K	G 1/2" -14	27
GE HRK 06 IR 02	R 3/8" K	G 1/8" -28	19
GE HRK 06 IR 04	R 3/8" K	G 1/4" -19	19
GE HRK 06 IR	R 3/8" K	G 3/8" -19	22
GE HRK 06 IR 08	R 3/8" K	G 1/2" -14	27
GE HRK 08 IR 04	R 1/2" K	G 1/4" -19	22
GE HRK 08 IR 06	R 1/2" K	G 3/8" -19	22
GE HRK 08 IR	R 1/2" K	G 1/2" -14	27
GE HRK 08 IR 12	R 1/2" K	G 3/4" -14	36
GE HRK 08 IR 16	R 1/2" K	G 1" -11	41
GE HRK 12 IR 04	R 3/4" K	G 1/4" -19	27
GE HRK 12 IR 06	R 3/4" K	G 3/8" -19	27
GE HRK 12 IR 08	R 3/4" K	G 1/2" -14	27
GE HRK 12 IR	R 3/4" K	G 3/4" -14	32
GE HRK 12 IR 16	R 3/4" K	G 1" -11	41
GE HRK 16 IR 08	R 1" K	G 1/2" -14	36
GE HRK 16 IR 12	R 1" K	G 3/4" -14	36
GE HRK 16 IR	R 1" K	G 1" -11	41
GE HRK 16 IR 20	R 1" K	G 1.1/4" -11	50
GE HRK 20 IR 08	R 1.1/4" K	G 1/2" -14	50
GE HRK 20 IR 12	R 1.1/4" K	G 3/4" -14	50
GE HRK 20 IR 16	R 1.1/4" K	G 1" -11	50
GE HRK 20 IR 24	R 1.1/4" K	G 1.1/2" -11	55
GE HRK 24 IR 16	R 1.1/2" K	G 1" -11	55
GE HRK 24 IR 20	R 1.1/2" K	G 1.1/4" -11	55
GE HRK 24 IR 32	R 1.1/2" K	G 2" -11	70
GE HRK 32 IR 20	R 2" K	G 1.1/4" -11	70
GE HRK 32 IR 24	R 2" K	G 1.1/2" -11	70

SW = Width across flats

**GE HRK AB****Screw-in sockets**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
GE HRK 02 AB	R 1/8" K	G 1/8" -28	14	14
GE HRK 04 AB	R 1/4" K	G 1/4" -19	19	19
GE HRK 06 AB	R 3/8" K	G 3/8" -19	22	22
GE HRK 06 AB 08	R 3/8" K	G 1/2" -14	22	27
GE HRK 08 AB 06	R 1/2" K	G 3/8" -19	27	22
GE HRK 08 AB	R 1/2" K	G 1/2" -14	27	27
GE HRK 10 AB	R 5/8" K	G 5/8" -14	30	30
GE HRK 12 AB 08	R 3/4" K	G 1/2" -14	37	27
GE HRK 12 AB	R 3/4" K	G 3/4" -14	37	37
GE HRK 16 AB 12	R 1" K	G 3/4" -14	41	37
GE HRK 16 AB	R 1" K	G 1" -11	41	41
GE HRK 20 AB	R 1.1/4" K	G 1.1/4" -11	50	50
GE HRK 24 AB	R 1.1/2" K	G 1.1/2" -11	55	60
GE HRK 32 AB	R 2" K	G 2" -11	64	67

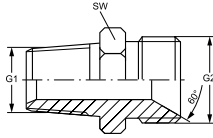
SW, S1, S2 = With across flats

**Product versions:**

**GE HRK AB VA** - Screw-in sockets, Stainless steel

## GE HRK HB

### Screw-in sockets



**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
GE HRK 02 HB	R 1/8" K	G 1/8" -28	14
GE HRK 02 HB 04	R 1/8" K	G 1/4" -19	14
GE HRK 02 HB 06	R 1/8" K	G 3/8" -19	19
GE HRK 04 HB 02	R 1/4" K	G 1/8" -28	14
GE HRK 04 HB	R 1/4" K	G 1/4" -19	19
GE HRK 04 HB 06	R 1/4" K	G 3/8" -19	22
GE HRK 04 HB 08	R 1/4" K	G 1/2" -14	27
GE HRK 04 HB 12	R 1/4" K	G 3/4" -14	32
GE HRK 06 HB 02	R 3/8" K	G 1/8" -28	19
GE HRK 06 HB 04	R 3/8" K	G 1/4" -19	19
GE HRK 06 HB	R 3/8" K	G 3/8" -19	22
GE HRK 06 HB 08	R 3/8" K	G 1/2" -14	27
GE HRK 06 HB 10	R 3/8" K	G 5/8" -14	30
GE HRK 06 HB 12	R 3/8" K	G 3/4" -14	32
GE HRK 08 HB 04	R 1/2" K	G 1/4" -19	22
GE HRK 08 HB 06	R 1/2" K	G 3/8" -19	22
GE HRK 08 HB	R 1/2" K	G 1/2" -14	27
GE HRK 08 HB 10	R 1/2" K	G 5/8" -14	30
GE HRK 08 HB 12	R 1/2" K	G 3/4" -14	32
GE HRK 08 HB 16	R 1/2" K	G 1" -11	41
GE HRK 10 HB 08	R 5/8" K	G 1/2" -14	30
GE HRK 10 HB	R 5/8" K	G 5/8" -14	30
GE HRK 10 HB 12	R 5/8" K	G 3/4" -14	32
GE HRK 12 HB 04	R 3/4" K	G 1/4" -19	30
GE HRK 12 HB 06	R 3/4" K	G 3/8" -19	30
GE HRK 12 HB 08	R 3/4" K	G 1/2" -14	30
GE HRK 12 HB 10	R 3/4" K	G 5/8" -14	30
GE HRK 12 HB	R 3/4" K	G 3/4" -14	32
GE HRK 12 HB 16	R 3/4" K	G 1" -11	41
GE HRK 12 HB 20	R 3/4" K	G 1.1/4" -11	50
GE HRK 16 HB 06	R 1" K	G 3/8" -19	36
GE HRK 16 HB 08	R 1" K	G 1/2" -14	36
GE HRK 16 HB 12	R 1" K	G 3/4" -14	36
GE HRK 16 HB	R 1" K	G 1" -11	36
GE HRK 16 HB 20	R 1" K	G 1.1/4" -11	50
GE HRK 16 HB 24	R 1" K	G 1.1/2" -11	55
GE HRK 20 HB 12	R 1.1/4" K	G 3/4" -14	50
GE HRK 20 HB 16	R 1.1/4" K	G 1" -11	50
GE HRK 20 HB	R 1.1/4" K	G 1.1/4" -11	50
GE HRK 20 HB 24	R 1.1/4" K	G 1.1/2" -11	55
GE HRK 20 HB 32	R 1.1/4" K	G 2" -11	60

SW = Width across flats

**GE HRK HB**

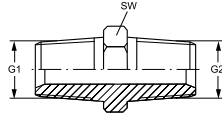
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Screw-in sockets

Identification	G1	G2	SW mm
GE HRK 24 HB 16	R 1.1/2" K	G 1" -11	55
GE HRK 24 HB 20	R 1.1/2" K	G 1.1/4" -11	55
GE HRK 24 HB	R 1.1/2" K	G 1.1/2" -11	55
GE HRK 24 HB 32	R 1.1/2" K	G 2" -11	60
GE HRK 32 HB 16	R 2" K	G 1" -11	65
GE HRK 32 HB 20	R 2" K	G 1.1/4" -11	65
GE HRK 32 HB 24	R 2" K	G 1.1/2" -11	65
GE HRK 32 HB	R 2" K	G 2" -11	65
GE HRK 40 HB	R 2.1/2" K	G 2.1/2" -11	70
SW = Width across flats			

**Product versions:**

GE HRK HB VA - Screw-in sockets, Stainless steel

**GE HRK HN****Screw-in sockets**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** 60° inner cone  
**Connection 2:** NPT external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

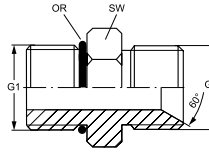
Identification	G1	G2	SW mm
GE HRK 02 HN	R 1/8" K	1/8" -27 NPT	14
GE HRK 04 HN	R 1/4" K	1/4" -18 NPT	19
GE HRK 04 HN 06	R 1/4" K	3/8" -18 NPT	19
GE HRK 06 HN	R 3/8" K	3/8" -18 NPT	22
GE HRK 06 HN 04	R 3/8" K	1/4" -18 NPT	22
GE HRK 08 HN	R 1/2" K	1/2" -14 NPT	27
GE HRK 12 HN	R 3/4" K	3/4" -14 NPT	32
GE HRK 16 HN	R 1" K	1" -11.5 NPT	41
GE HRK 16 HN 12	R 1" K	3/4" -14 NPT	41
GE HRK 20 HN	R 1.1/4" K	1.1/4" -11.5 NPT	50
GE HRK 20 HN 16	R 1.1/4" K	1" -11.5 NPT	50
GE HRK 24 HN	R 1.1/2" K	1.1/2" -11.5 NPT	55
GE HRK 32 HN	R 2" K	2" -11.5 NPT	70

SW = Width across flats

## GEO HB

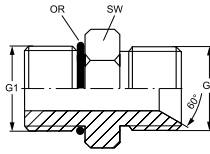
## Screw-in sockets

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR
GE O 04 HB 02	7/16"-20 UNF	G 1/8" -28	17	8.92 x 1.83
GE O 04 HB	7/16"-20 UNF	G 1/4" -19	17	8.92 x 1.83
GE O 04 HB 06	7/16"-20 UNF	G 3/8" -19	21	8.92 x 1.83
GE O 05 HB 02	1/2"-20 UNF	G 1/8" -28	19	10.52 x 1.83
GE O 05 HB 04	1/2"-20 UNF	G 1/4" -19	19	10.52 x 1.83
GE O 05 HB 06	1/2"-20 UNF	G 3/8" -19	21	10.52 x 1.83
GE O 06 HB 04	9/16"-18 UNF	G 1/4" -19	21	11.90 x 1.98
GE O 06 HB	9/16"-18 UNF	G 3/8" -19	21	11.90 x 1.98
GE O 06 HB 08	9/16"-18 UNF	G 1/2" -14	28	11.90 x 1.98
GE O 08 HB 04	3/4"-16 UNF	G 1/4" -19	26	16.36 x 2.20
GE O 08 HB 06	3/4"-16 UNF	G 3/8" -19	26	16.36 x 2.20
GE O 08 HB	3/4"-16 UNF	G 1/2" -14	28	16.36 x 2.20
GE O 08 HB 10	3/4"-16 UNF	G 5/8" -14	30	16.36 x 2.20
GE O 08 HB 12	3/4"-16 UNF	G 3/4" -14	36	16.36 x 2.20
GE O 10 HB 06	7/8"-14 UNF	G 3/8" -19	30	19.18 x 2.46
GE O 10 HB 08	7/8"-14 UNF	G 1/2" -14	30	19.18 x 2.46
GE O 10 HB	7/8"-14 UNF	G 5/8" -14	30	19.18 x 2.46
GE O 10 HB 12	7/8"-14 UNF	G 3/4" -14	36	19.18 x 2.46
GE O 10 HB 16	7/8"-14 UNF	G 1" -11	40	19.18 x 2.46
GE O 12 HB 08	1.1/16" -12 UN	G 1/2" -14	36	23.47 x 2.95
GE O 12 HB 10	1.1/16" -12 UN	G 5/8" -14	36	23.47 x 2.95
GE O 12 HB	1.1/16" -12 UN	G 3/4" -14	36	23.47 x 2.95
GE O 12 HB 16	1.1/16" -12 UN	G 1" -11	45	23.47 x 2.95
GE O 16 HB 12	1.5/16" -12 UN	G 3/4" -14	45	29.74 x 2.95
GE O 16 HB	1.5/16" -12 UN	G 1" -11	45	29.74 x 2.95
GE O 16 HB 20	1.5/16" -12 UN	G 1.1/4" -11	55	29.74 x 2.95
GE O 20 HB 16	1.5/8" -12 UN	G 1" -11	55	37.47 x 3.00
GE O 20 HB	1.5/8" -12 UN	G 1.1/4" -11	55	37.47 x 3.00
GE O 24 HB 20	1.7/8" -12 UN	G 1.1/4" -11	62	43.69 x 3.00
GE O 24 HB	1.7/8" -12 UN	G 1.1/2" -11	62	43.69 x 3.00

SW = Width across flats

**GE HMO HB****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

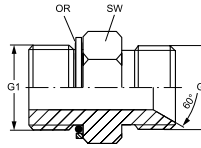
Identification	G1	G2	SW mm	OR
GE HMO 10 HB 02	M 10 x 1	G 1/8" -28	15	8.00 x 1.50
GE HMO 12 HB 02	M 12 x 1.5	G 1/8" -28	18	9.30 x 2.30
GE HMO 12 HB 04	M 12 x 1.5	G 1/4" -19	18	9.30 x 2.30
GE HMO 14 HB 04	M 14 x 1.5	G 1/4" -19	20	11.30 x 2.30
GE HMO 14 HB 06	M 14 x 1.5	G 3/8" -19	20	11.30 x 2.30
GE HMO 16 HB 04	M 16 x 1.5	G 1/4" -19	22	13.30 x 2.30
GE HMO 16 HB 06	M 16 x 1.5	G 3/8" -19	22	13.30 x 2.30
GE HMO 18 HB 06	M 18 x 1.5	G 3/8" -19	24	15.30 x 2.30
GE HMO 18 HB 08	M 18 x 1.5	G 1/2" -14	24	15.30 x 2.30
GE HMO 20 HB 08	M 20 x 1.5	G 1/2" -14	28	17.30 x 2.30
GE HMO 22 HB 08	M 22 x 1.5	G 1/2" -14	28	19.30 x 2.30
GE HMO 22 HB 10	M 22 x 1.5	G 5/8" -14	28	19.30 x 2.30
GE HMO 22 HB 12	M 22 x 1.5	G 3/4" -14	28	19.30 x 2.30
GE HMO 27 HB 12	M 27 x 2	G 3/4" -14	33	23.47 x 2.95
GE HMO 27 HB 16	M 27 x 2	G 1" -11	33	23.47 x 2.95
GE HMO 33 HB 16	M 33 x 2	G 1" -11	42	29.74 x 2.95
GE HMO 42 HB 20	M 42 x 2	G 1.1/4" -11	50	38.00 x 3.00
GE HMO 48 HB 24	M 48 x 2	G 1.1/2" -11	56	44.00 x 3.00

SW = Width across flats



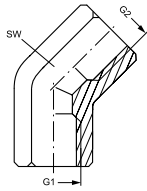
**GE HMOK HB****Screw-in sockets**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	OR
GE HMOK 10 HB 02	M 10 x 1	G 1/8" -28	14	8.1 x 1.6
GE HMOK 12 HB 02	M 12 x 1.5	G 1/8" -28	17	9.3 x 2.2
GE HMOK 12 HB 04	M 12 x 1.5	G 1/4" -19	19	9.3 x 2.2
GE HMOK 14 HB 04	M 14 x 1.5	G 1/4" -19	19	11.3 x 2.2
GE HMOK 14 HB 06	M 14 x 1.5	G 3/8" -19	22	11.3 x 2.2
GE HMOK 16 HB 04	M 16 x 1.5	G 1/4" -19	22	13.3 x 2.2
GE HMOK 16 HB 06	M 16 x 1.5	G 3/8" -19	22	13.3 x 2.2
GE HMOK 18 HB 06	M 18 x 1.5	G 3/8" -19	24	15.3 x 2.2
GE HMOK 18 HB 08	M 18 x 1.5	G 1/2" -14	24	15.3 x 2.2
GE HMOK 20 HB 08	M 20 x 1.5	G 1/2" -14	27	17.3 x 2.2
GE HMOK 22 HB 08	M 22 x 1.5	G 1/2" -14	27	19.3 x 2.2
GE HMOK 22 HB 10	M 22 x 1.5	G 5/8" -14	27	19.3 x 2.2
GE HMOK 22 HB 12	M 22 x 1.5	G 3/4" -14	32	19.3 x 2.2
GE HMOK 26 HB 12	M 26 x 1.5	G 3/4" -14	32	23.6 x 2.9
GE HMOK 27 HB 12	M 27 x 2	G 3/4" -14	32	23.6 x 2.9
GE HMOK 27 HB 16	M 27 x 2	G 1" -11	41	23.6 x 2.9
GE HMOK 33 HB 16	M 33 x 2	G 1" -11	41	29.6 x 2.9
GE HMOK 42 HB 20	M 42 x 2	G 1.1/4" -11	50	38.6 x 2.9
GE HMOK 48 HB 24	M 48 x 2	G 1.1/2" -11	55	44.6 x 2.9

SW = Width across flats

**W45 IR****Connection socket, angle 45°**

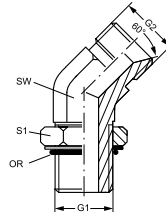
**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** flat sealing  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Connection sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm
W45 IR 02	G 1/8" -28	17
W45 IR 04	G 1/4" -19	19
W45 IR 06	G 3/8" -19	22
W45 IR 08	G 1/2" -14	27
W45 IR 12	G 3/4" -14	33
W45 IR 16	G 1" -11	41

SW = Width across flats

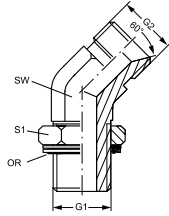
**W45 HRO HB****Screw-in socket, angle 45°**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
W45 HRO 02 HB	G 1/8" -28	G 1/8" -28	11	16	7.65 x 1.78
W45 HRO 04 HB 02	G 1/4" -19	G 1/8" -28	14	20	10.78 x 2.62
W45 HRO 04 HB	G 1/4" -19	G 1/4" -19	14	20	10.78 x 2.62
W45 HRO 06 HB 04	G 3/8" -19	G 1/4" -19	14	24	13.94 x 2.62
W45 HRO 06 HB	G 3/8" -19	G 3/8" -19	19	24	13.94 x 2.62
W45 HRO 06 HB 08	G 3/8" -19	G 1/2" -14	22	24	13.94 x 2.62
W45 HRO 08 HB 06	G 1/2" -14	G 3/8" -19	22	28	17.86 x 2.62
W45 HRO 08 HB	G 1/2" -14	G 1/2" -14	22	28	17.86 x 2.62
W45 HRO 08 HB 10	G 1/2" -14	G 5/8" -14	22	28	17.86 x 2.62
W45 HRO 08 HB 12	G 1/2" -14	G 3/4" -14	27	28	17.86 x 2.62
W45 HRO 12 HB 08	G 3/4" -14	G 1/2" -14	27	35	23.47 x 2.62
W45 HRO 12 HB	G 3/4" -14	G 3/4" -14	27	35	23.47 x 2.62
W45 HRO 12 HB 16	G 3/4" -14	G 1" -11	27	35	23.47 x 2.62
W45 HRO 16 HB 12	G 1" -11	G 3/4" -14	33	43	29.74 x 3.53
W45 HRO 16 HB	G 1" -11	G 1" -11	33	43	29.74 x 3.53
W45 HRO 20 HB	G 1.1/4" -11	G 1.1/4" -11	41	52	37.69 x 3.53
W45 HRO 24 HB	G 1.1/2" -11	G 1.1/2" -11	48	58	44.04 x 3.53

SW, S1, S2 = With across flats

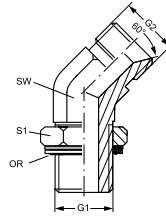
**W45 HMOK HB****Screw-in socket, angle 45°**

- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring
- Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone
- Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
W45 HMOK 48 HB 24	M 48 x 2	G 1.1/2" -11	50	55	44.0 x 3.0
SW, S1, S2 = With across flats					

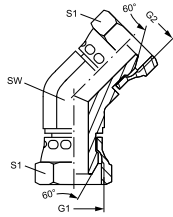
**W45 HROK HB****Screw-in socket, angle 45°**

- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring
- Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone
- Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
W45 HROK 02 HB	G 1/8" -28	G 1/8" -28	11	16	7.65 x 1.78
W45 HROK 04 HB	G 1/4" -19	G 1/4" -19	14	20	10.78 x 2.62
W45 HROK 04 HB 02	G 1/4" -19	G 1/8" -28	14	20	10.78 x 2.62
W45 HROK 04 HB 06	G 1/4" -19	G 3/8" -19	14	16	10.78 x 2.62
W45 HROK 06 HB	G 3/8" -19	G 3/8" -19	22	24	13.94 x 2.62
W45 HROK 06 HB 04	G 3/8" -19	G 1/4" -19	14	24	13.94 x 2.62
W45 HROK 06 HB 08	G 3/8" -19	G 1/2" -14	22	24	13.94 x 2.62
W45 HROK 08 HB	G 1/2" -14	G 1/2" -14	22	28	17.86 x 2.62
W45 HROK 08 HB 06	G 1/2" -14	G 3/8" -19	22	28	17.86 x 2.62
W45 HROK 08 HB 10	G 1/2" -14	G 5/8" -14	22	28	17.86 x 2.62
W45 HROK 08 HB 12	G 1/2" -14	G 3/4" -14	27	28	17.86 x 2.62
W45 HROK 12 HB	G 3/4" -14	G 3/4" -14	27	35	23.47 x 2.62
W45 HROK 12 HB 06	G 3/4" -14	G 3/8" -19	27	35	23.47 x 2.62
W45 HROK 12 HB 16	G 3/4" -14	G 1" -11	33	35	23.47 x 2.62
W45 HROK 16 HB	G 1" -11	G 1" -11	33	43	29.74 x 3.53
W45 HROK 16 HB 12	G 1" -11	G 3/4" -14	33	43	29.74 x 3.53
W45 HROK 20 HB	G 1.1/4" -11	G 1.1/4" -11	41	52	37.69 x 3.53
W45 HROK 20 HB 16	G 1.1/4" -11	G 1" -11	41	52	37.69 x 3.53
W45 HROK 24 HB	G 1.1/2" -11	G 1.1/2" -11	48	58	44.04 x 3.53

SW, S1, S2 = With across flats

**W45 AB****Connector, angle 45°**

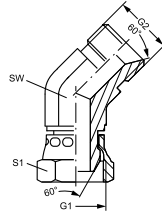
**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° outer cone  
**Design:** Connectors  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm	S1	S2
W45 AB 04	G 1/4" -19	14	19	19
W45 AB 06	G 3/8" -19	19	22	22
W45 AB 08	G 1/2" -14	22	27	27
W45 AB 12	G 3/4" -14	27	32	32
W45 AB 16	G 1" -11	33	41	41

SW, S1, S2 = With across flats

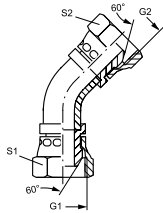
**W45 AB HB****Connector, angle 45°**

<b>Connection 1:</b>	BSP nut thread
<b>Sealing form 1:</b>	60° outer cone
<b>Connection 2:</b>	BSP cylindrical external threads
<b>Sealing form 2:</b>	60° inner cone
<b>Design:</b>	Connectors
<b>Construction:</b>	Angle 45°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1 + G2	SW mm	S1
W45 AB 04 HB	G 1/4" -19	14	19
W45 AB 06 HB	G 3/8" -19	17	22
W45 AB 08 HB	G 1/2" -14	22	27
W45 AB 12 HB	G 3/4" -14	27	32
W45 AB 16 HB	G 1" -11	36	41
W45 AB 20 HB	G 1.1/4" -11	46	50
W45 AB 24 HB	G 1.1/2" -11	50	55
W45 AB 32 HB	G 2" -11	60	70

SW, S1, S2 = With across flats

**WB45 AB****Connector, angle 45°**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° outer cone  
**Design:** Connectors  
**Construction:** Angle 45°  
**Supplementary design information:** Pipe elbow  
**Material:** Steel  
**Surface:** electro galvanised

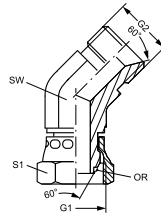
Identification	G1 + G2	S1	S2
WB45 AB 04	G 1/4" -19	19	19
WB45 AB 06	G 3/8" -19	22	22
WB45 AB 08	G 1/2" -14	27	27
WB45 AB 10	G 5/8" -14	30	30
WB45 AB 12	G 3/4" -14	32	32
WB45 AB 16	G 1" -11	41	41
WB45 AB 20	G 1.1/4" -11	50	50
WB45 AB 24	G 1.1/2" -11	55	55
WB45 AB 32	G 2" -11	70	70

SW, S1, S2 = With across flats



**W45 AOB HB****Connector, angle 45°**

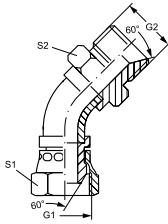
**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone with O-ring  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** W45AOB02HB is without O-ring

Identification	G1 + G2	SW mm	S1	OR
W45 AOB 02 HB	G 1/8" -28	11	14	-
W45 AOB 04 HB	G 1/4" -19	14	17	6.5 x 1.0
W45 AOB 06 HB	G 3/8" -19	19	22	8.1 x 1.6
W45 AOB 08 HB	G 1/2" -14	22	27	12.1 x 1.6
W45 AOB 10 HB	G 5/8" -14	25	27	13.0 x 1.6
W45 AOB 12 HB	G 3/4" -14	37	32	17.1 x 1.6
W45 AOB 16 HB	G 1" -11	33	41	22.1 x 1.6
W45 AOB 20 HB	G 1.1/4" -11	41	50	29.1 x 1.6
W45 AOB 24 HB	G 1.1/2" -11	50	60	35.1 x 1.6

SW, S1, S2 = With across flats

**WB45 AB HB****Connector, angle 45°**

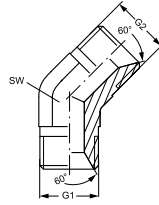
<b>Connection 1:</b>	BSP nut thread
<b>Sealing form 1:</b>	60° outer cone
<b>Connection 2:</b>	BSP cylindrical external threads
<b>Sealing form 2:</b>	60° inner cone
<b>Design:</b>	Connectors
<b>Construction:</b>	Angle 45°
<b>Supplementary design information:</b>	Pipe elbow
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2	S1	S2
WB45 AB 04 HB	G 1/4" -19	G 1/4" -19	19	19
WB45 AB 06 HB	G 3/8" -19	G 3/8" -19	22	22
WB45 AB 08 HB	G 1/2" -14	G 1/2" -14	27	27
WB45 AB 10 HB	G 5/8" -14	G 5/8" -14	30	30
WB45 AB 12 HB	G 3/4" -14	G 3/4" -14	32	32
WB45 AB 16 HB	G 1" -11	G 1" -11	38	41
WB45 AB 20 HB	G 1.1/4" -11	G 1.1/4" -11	50	50
WB45 AB 24 HB	G 1.1/2" -11	G 1.1/2" -11	55	55
WB45 AB 32 HB	G 2" -11	G 2" -11	70	65

SW, S1, S2 = With across flats

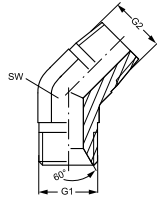
**W45 HB****Connector, angle 45°**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm
W45 HB 04	G 1/4" -19	14
W45 HB 06	G 3/8" -19	19
W45 HB 08	G 1/2" -14	22
W45 HB 12	G 3/4" -14	27
W45 HB 16	G 1" -11	33
W45 HB 20	G 1.1/4" -11	41
W45 HB 24	G 1.1/2" -11	50

SW = Width across flats

**W45 HB HN****Screw-in socket, angle 45°**

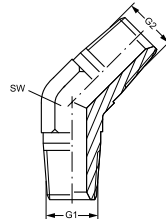
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** NPT external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
W45 HB 04 HN	G 1/4" -19	1/4" -18 NPT	14
W45 HB 06 HN	G 3/8" -19	3/8" -18 NPT	19
W45 HB 08 HN	G 1/2" -14	1/2" -14 NPT	22
W45 HB 20 HN	G 1.1/4" -11	1.1/4" -11.5 NPT	41
W45 HB 24 HN	G 1.1/2" -11	1.1/2" -11.5 NPT	50

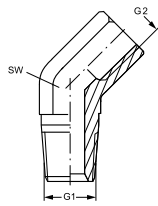
SW = Width across flats

**W45 HRK****Screw-in socket, angle 45°**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSPT conical external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm
W45 HRK 04	R 1/4" K	14
W45 HRK 06	R 3/8" K	19
W45 HRK 08	R 1/2" K	22
W45 HRK 12	R 3/4" K	27
W45 HRK 16	R 1" K	33
SW = Width across flats		

**W45 HRK IR****Screw-in socket, angle 45°**

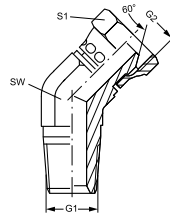
**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
W45 HRK 02 IR	R 1/8" K	G 1/8" -28	14
W45 HRK 04 IR	R 1/4" K	G 1/4" -19	19
W45 HRK 06 IR	R 3/8" K	G 3/8" -19	22
W45 HRK 08 IR	R 1/2" K	G 1/2" -14	27
W45 HRK 12 IR	R 3/4" K	G 3/4" -14	32
W45 HRK 16 IR	R 1" K	G 1" -11	41

SW = Width across flats

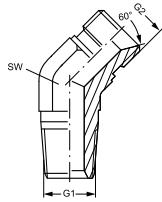
**W45 HRK AB****Screw-in socket, angle 45°**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
W45 HRK 04 AB	R 1/4" K	G 1/4" -19	19	19
W45 HRK 06 AB	R 3/8" K	G 3/8" -19	22	22
W45 HRK 08 AB	R 1/2" K	G 1/2" -14	27	27
W45 HRK 12 AB	R 3/4" K	G 3/4" -14	32	32
W45 HRK 16 AB	R 1" K	G 1" -11	41	41
W45 HRK 20 AB	R 1.1/4" K	G 1.1/4" -11	50	50

SW = Width across flats

**W45 HRK HB****Screw-in socket, angle 45°**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

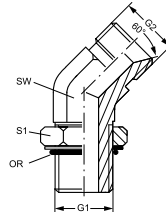
Identification	G1	G2	SW mm
W45 HRK 04 HB	R 1/4" K	G 1/4" -19	14
W45 HRK 04 HB 06	R 1/4" K	G 3/8" -19	19
W45 HRK 06 HB 04	R 3/8" K	G 1/4" -19	19
W45 HRK 06 HB	R 3/8" K	G 3/8" -19	19
W45 HRK 06 HB 08	R 3/8" K	G 1/2" -14	22
W45 HRK 08 HB 06	R 1/2" K	G 3/8" -19	22
W45 HRK 08 HB	R 1/2" K	G 1/2" -14	22
W45 HRK 08 HB 12	R 1/2" K	G 3/4" -14	27
W45 HRK 12 HB 08	R 3/4" K	G 1/2" -14	27
W45 HRK 12 HB	R 3/4" K	G 3/4" -14	27
W45 HRK 12 HB 16	R 3/4" K	G 1" -11	33
W45 HRK 16 HB 12	R 1" K	G 3/4" -14	33
W45 HRK 16 HB	R 1" K	G 1" -11	33
W45 HRK 16 HB 20	R 1" K	G 1.1/4" -11	41
W45 HRK 20 HB 16	R 1.1/4" K	G 1" -11	41
W45 HRK 20 HB	R 1.1/4" K	G 1.1/4" -11	41
W45 HRK 20 HB 24	R 1.1/4" K	G 1.1/2" -11	48
W45 HRK 24 HB 20	R 1.1/2" K	G 1.1/4" -11	48
W45 HRK 24 HB	R 1.1/2" K	G 1.1/2" -11	48
W45 HRK 32 HB 24	R 2" K	G 1.1/2" -11	64
W45 HRK 32 HB	R 2" K	G 2" -11	64

SW = Width across flats



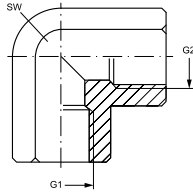
**W45 O HB****Screw-in socket, angle 45°**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
W45 O 04 HB 02	7/16"-20 UNF	G 1/8" -28	11	14	8.92 x 1.83
W45 O 04 HB	7/16"-20 UNF	G 1/4" -19	11	14	8.92 x 1.83
W45 O 04 HB 06	7/16"-20 UNF	G 3/8" -19	14	14	8.92 x 1.83
W45 O 05 HB 02	1/2"-20 UNF	G 1/8" -28	13	16	10.52 x 1.83
W45 O 05 HB 04	1/2"-20 UNF	G 1/4" -19	13	16	10.52 x 1.83
W45 O 06 HB 04	9/16"-18 UNF	G 1/4" -19	14	17	11.90 x 1.98
W45 O 06 HB	9/16"-18 UNF	G 3/8" -19	14	17	11.90 x 1.98
W45 O 08 HB 04	3/4"-16 UNF	G 1/4" -19	19	22	16.36 x 2.20
W45 O 08 HB 06	3/4"-16 UNF	G 3/8" -19	19	22	16.36 x 2.20
W45 O 08 HB	3/4"-16 UNF	G 1/2" -14	19	22	16.36 x 2.20
W45 O 08 HB 12	3/4"-16 UNF	G 3/4" -14	27	22	16.36 x 2.20
W45 O 10 HB 06	7/8"-14 UNF	G 3/8" -19	22	25	19.18 x 2.46
W45 O 10 HB 08	7/8"-14 UNF	G 1/2" -14	22	25	19.18 x 2.46
W45 O 10 HB 12	7/8"-14 UNF	G 3/4" -14	27	25	19.18 x 2.46
W45 O 12 HB 08	1.1/16" -12 UN	G 1/2" -14	27	32	23.47 x 2.95
W45 O 12 HB	1.1/16" -12 UN	G 3/4" -14	27	32	23.47 x 2.95
W45 O 12 HB 16	1.1/16" -12 UN	G 1" -11	33	32	23.47 x 2.95
W45 O 16 HB 12	1.5/16" -12 UN	G 3/4" -14	33	38	29.74 x 2.95
W45 O 16 HB	1.5/16" -12 UN	G 1" -11	33	38	29.74 x 2.95

SW, S1, S2 = With across flats

**W90 IR****Connection socket, IGR, angle 90°**

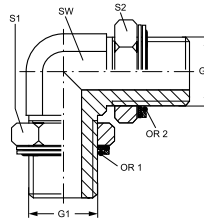
**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** flat sealing  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Connection sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm
W90 IR 02	G 1/8" -28	17
W90 IR 04	G 1/4" -19	19
W90 IR 06	G 3/8" -19	22
W90 IR 08	G 1/2" -14	27
W90 IR 12	G 3/4" -14	33
W90 IR 16	G 1" -11	41
W90 IR 20	G 1.1/4" -11	48
W90 IR 24	G 1.1/2" -11	64
W90 IR 32	G 2" -11	73

SW = Width across flats

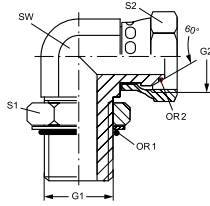
**W90 HROK****Screw-in socket, angle 90°**

**Connection 1 + 2:** BSP cylindrical external threads  
**Sealing form 1 + 2:** Thread socket with O-ring + spacer diaphragm ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1 + S2 mm	S1	S2	OR	OR1 + OR2
W90 HROK 08	G 1/2" -14	22	27	27	27	17.86 x 2.62	17.96 x 2.62

SW, S1, S2 = With across flats

**W90 HRO AOB****Screw-in socket, angle 90°**

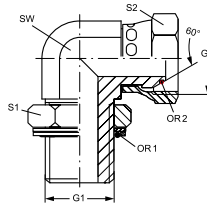
**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** BSP nut thread  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° outer cone with O-ring  
**Design:** Adjustable direction screw-in socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	S2	OR1	OR2
W90 HRO 04 AOB 02	G 1/4" -19	G 1/8" -28	14	20	14	10.77 x 2.62	4.5 x 1.5
W90 HRO 04 AOB	G 1/4" -19	G 1/4" -19	14	20	17	10.77 x 2.62	6.5 x 1.0
W90 HRO 06 AOB 04	G 3/8" -19	G 1/4" -19	19	17	24	13.94 x 2.62	6.5 x 1.0
W90 HRO 06 AOB	G 3/8" -19	G 3/8" -19	19	24	22	13.94 x 2.62	8.1 x 1.6
W90 HRO 08 AOB 06	G 1/2" -14	G 3/8" -19	22	28	22	17.86 x 2.62	8.1 x 1.6
W90 HRO 08 AOB	G 1/2" -14	G 1/2" -14	22	28	27	17.86 x 2.62	12.1 x 1.6
W90 HRO 08 AOB 12	G 1/2" -14	G 3/4" -14	30	28	32	17.86 x 2.62	17.1 x 1.6
W90 HRO 12 AOB 08	G 3/4" -14	G 1/2" -14	30	35	27	23.47 x 2.62	12.1 x 1.6
W90 HRO 12 AOB	G 3/4" -14	G 3/4" -14	30	35	32	23.47 x 2.62	17.1 x 1.6
W90 HRO 16 AOB	G 1" -11	G 1" -11	36	43	41	29.75 x 3.53	22.1 x 1.6
W90 HRO 20 AOB	G 1.1/4" -11	G 1.1/4" -11	50	52	50	37.69 x 3.53	29.1 x 1.6
W90 HRO 24 AOB	G 1.1/2" -11	G 1.1/2" -11	50	58	60	44.04 x 3.53	35.1 x 1.6

SW, S1, S2 = With across flats

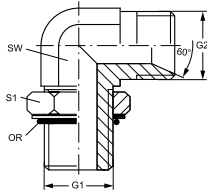
**W90 HROK AOB****Screw-in socket, angle 90°**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** O-ring and spacer diaphragm ring  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° outer cone with O-ring  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	S2	OR1	OR2
W90 HROK 04 AOB 02	G 1/4" -19	G 1/8" -28	14	20	14	10.77 x 2.62	4.5 x 1.5
W90 HROK 04 AOB	G 1/4" -19	G 1/4" -19	14	20	17	10.77 x 2.62	6.5 x 1.0
W90 HROK 06 AOB 04	G 3/8" -19	G 1/4" -19	19	24	17	13.94 x 2.62	6.5 x 1.0
W90 HROK 06 AOB	G 3/8" -19	G 3/8" -19	19	24	22	13.94 x 2.62	8.1 x 1.6
W90 HROK 08 AOB 06	G 1/2" -14	G 3/8" -19	22	28	27	17.86 x 2.62	8.1 x 1.6
W90 HROK 08 AOB	G 1/2" -14	G 1/2" -14	22	28	27	17.86 x 2.62	12.1 x 1.6
W90 HROK 08 AOB 12	G 1/2" -14	G 3/4" -14	27	28	32	17.86 x 2.62	17.1 x 1.6
W90 HROK 12 AOB 08	G 3/4" -14	G 1/2" -14	30	35	27	23.47 x 2.62	12.1 x 1.6
W90 HROK 12 AOB	G 3/4" -14	G 3/4" -14	30	35	32	23.47 x 2.62	17.1 x 1.6
W90 HROK 16 AOB	G 1" -11	G 1" -11	36	43	32	29.75 x 3.53	22.1 x 1.6
W90 HROK 20 AOB	G 1.1/4" -11	G 1.1/4" -11	50	52	50	37.69 x 3.53	29.1 x 1.6
W90 HROK 24 AOB	G 1.1/2" -11	G 1.1/2" -11	50	58	60	44.04 x 3.53	35.1 x 1.6

SW, S1, S2 = With across flats

**W90 HRO HB****Screw-in socket, angle 90°**

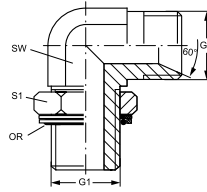
**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** BSP cylindrical external threads  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	OR
W90 HRO 02 HB	G 1/8" -28	G 1/8" -28	14	16	7.65 x 1.78
W90 HRO 04 HB 02	G 1/4" -19	G 1/8" -28	14	20	10.78 x 2.62
W90 HRO 06 HB 04	G 3/8" -19	G 1/4" -19	19	24	13.94 x 2.62
W90 HRO 08 HB 06	G 1/2" -14	G 3/8" -19	22	28	17.86 x 2.62
W90 HRO 08 HB 10	G 1/2" -14	G 5/8" -14	22	28	17.86 x 2.62
W90 HRO 12 HB 08	G 3/4" -14	G 1/2" -14	27	35	23.47 x 2.62
W90 HRO 16 HB 12	G 1" -11	G 3/4" -14	27	43	29.74 x 3.53
W90 HRO 16 HB 20	G 1" -11	G 1.1/4" -11	33	43	29.74 x 3.53
W90 HRO 20 HB 16	G 1.1/4" -11	G 1" -11	41	52	37.69 x 3.53
W90 HRO 24 HB	G 1.1/2" -11	G 1.1/2" -11	48	58	44.04 x 3.53

SW, S1, S2 = With across flats

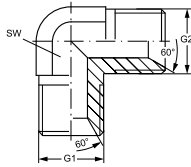
**W90 HROK HB****Screw-in socket, angle 90°**

- Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring
- Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone
- Design:** Adjustable direction screw-in socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
W90 HROK 02 HB	G 1/8" -28	G 1/8" -28	11	14	7.97 x 1.88
W90 HROK 04 HB 02	G 1/4" -19	G 1/8" -28	14	19	10.77 x 2.62
W90 HROK 04 HB	G 1/4" -19	G 1/4" -19	14	19	10.77 x 2.62
W90 HROK 04 HB 06	G 1/4" -19	G 3/8" -19	14	19	10.77 x 2.62
W90 HROK 06 HB 04	G 3/8" -19	G 1/4" -19	19	22	13.94 x 2.62
W90 HROK 06 HB	G 3/8" -19	G 3/8" -19	19	22	13.94 x 2.62
W90 HROK 06 HB 08	G 3/8" -19	G 1/2" -14	19	22	13.94 x 2.62
W90 HROK 08 HB 06	G 1/2" -14	G 3/8" -19	22	27	17.86 x 2.62
W90 HROK 08 HB	G 1/2" -14	G 1/2" -14	22	27	17.86 x 2.62
W90 HROK 08 HB 10	G 1/2" -14	G 5/8" -14	22	27	17.86 x 2.62
W90 HROK 08 HB 12	G 1/2" -14	G 3/4" -14	27	27	17.86 x 2.62
W90 HROK 12 HB 08	G 3/4" -14	G 1/2" -14	27	35	23.47 x 2.62
W90 HROK 12 HB	G 3/4" -14	G 3/4" -14	27	36	23.47 x 2.62
W90 HROK 12 HB 16	G 3/4" -14	G 1" -11	33	36	23.47 x 2.62
W90 HROK 16 HB 12	G 1" -11	G 3/4" -14	33	41	29.74 x 3.53
W90 HROK 16 HB	G 1" -11	G 1" -11	33	41	29.74 x 3.53
W90 HROK 20 HB 16	G 1.1/4" -11	G 1" -11	41	50	37.69 x 3.53
W90 HROK 20 HB	G 1.1/4" -11	G 1.1/4" -11	41	50	37.69 x 3.53
W90 HROK 24 HB	G 1.1/2" -11	G 1.1/2" -11	48	55	44.04 x 3.53

SW, S1, S2 = With across flats

**W90 HB****Connector, angle 90°**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
W90 HB 02	G 1/8" -28	G 1/8" -28	11
W90 HB 04 HB 02	G 1/4" -19	G 1/8" -28	14
W90 HB 04	G 1/4" -19	G 1/4" -19	14
W90 HB 06 HB 04	G 3/8" -19	G 1/4" -19	19
W90 HB 06	G 3/8" -19	G 3/8" -19	19
W90 HB 08 HB 06	G 1/2" -14	G 3/8" -19	22
W90 HB 08	G 1/2" -14	G 1/2" -14	22
W90 HB 10	G 5/8" -14	G 5/8" -14	22
W90 HB 12 HB 08	G 3/4" -14	G 1/2" -14	27
W90 HB 12	G 3/4" -14	G 3/4" -14	27
W90 HB 16 HB 12	G 1" -11	G 3/4" -14	33
W90 HB 16	G 1" -11	G 1" -11	33
W90 HB 20 HB 16	G 1.1/4" -11	G 1" -11	41
W90 HB 20	G 1.1/4" -11	G 1.1/4" -11	41
W90 HB 24	G 1.1/2" -11	G 1.1/2" -11	50
W90 HB 32	G 2" -11	G 2" -11	55

SW = Width across flats

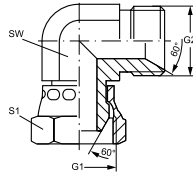
**Product versions:**

**W90 HB VA** - Fitting socket, angle 90°, Stainless steel



**W90 AB HB****Connector, angle 90°**

<b>Connection 1:</b>	BSP nut thread
<b>Sealing form 1:</b>	60° outer cone
<b>Connection 2:</b>	BSP cylindrical external threads
<b>Sealing form 2:</b>	60° inner cone
<b>Design:</b>	Connectors
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

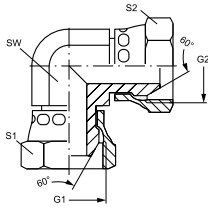


Identification	G1 + G2	SW mm	S1
W90 AB 02 HB	G 1/8" -28	10	14
W90 AB 04 HB	G 1/4" -19	14	19
W90 AB 06 HB	G 3/8" -19	17	22
W90 AB 08 HB	G 1/2" -14	22	27
W90 AB 10 HB	G 5/8" -14	24	30
W90 AB 12 HB	G 3/4" -14	27	32
W90 AB 16 HB	G 1" -11	36	41
W90 AB 20 HB	G 1.1/4" -11	46	50
W90 AB 24 HB	G 1.1/2" -11	50	55
W90 AB 32 HB	G 2" -11	60	70

SW, S1, S2 = With across flats

**Product versions:**

**W90 AB HB VA** - Screw-on socket, angle 90°, Stainless steel

**W90 AB****Connector, angle 90°**

<b>Connection 1:</b>	BSP nut thread
<b>Sealing form 1:</b>	60° outer cone
<b>Connection 2:</b>	BSP nut thread
<b>Design:</b>	Connectors
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1 + G2	SW mm	S1 + S2 mm
W90 AB 02	G 1/8" -28	11	14
W90 AB 04	G 1/4" -19	14	19
W90 AB 06	G 3/8" -19	19	22
W90 AB 08	G 1/2" -14	22	27
W90 AB 10	G 5/8" -14	25	27
W90 AB 12	G 3/4" -14	27	32
W90 AB 16	G 1" -11	33	41
W90 AB 20	G 1.1/4" -11	41	50
W90 AB 24	G 1.1/2" -11	48	60
W90 AB 32	G 2" -11	67	70

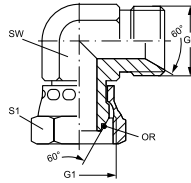
SW, S1, S2 = With across flats

**Product versions:**

**W90 AB VA** - Screw-on socket, angle 90°, Stainless steel

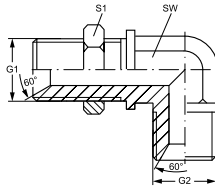
**W90 AOB HB****Connector, angle 90°**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone with O-ring  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm	S1	OR
W90 AOB 02 HB	G 1/8" -28	11	14	4.5 x 1.5
W90 AOB 04 HB	G 1/4" -19	14	17	6.5 x 1.0
W90 AOB 06 HB	G 3/8" -19	19	22	8.1 x 1.6
W90 AOB 08 HB	G 1/2" -14	22	27	12.1 x 1.6
W90 AOB 10 HB	G 5/8" -14	25	27	13.1 x 1.6
W90 AOB 12 HB	G 3/4" -14	27	32	17.1 x 1.6
W90 AOB 16 HB	G 1" -11	33	41	22.1 x 1.6
W90 AOB 20 HB	G 1.1/4" -11	41	50	29.1 x 1.6
W90 AOB 24 HB	G 1.1/2" -11	50	60	35.1 x 1.6

SW, S1, S2 = With across flats

**SW HB****Bulkhead fitting socket, angle 90°**

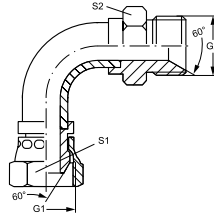
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Bulkhead fitting socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm	S1
SW HB 02	G 1/8" -28	11	14
SW HB 04	G 1/4" -19	14	19
SW HB 06	G 3/8" -19	19	22
SW HB 08	G 1/2" -14	22	27
SW HB 10	G 5/8" -14	22	30
SW HB 12	G 3/4" -14	27	32
SW HB 16	G 1" -11	33	41
SW HB 20	G 1.1/4" -11	41	50
SW HB 24	G 1.1/2" -11	50	55

SW, S1, S2 = With across flats

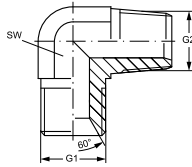
**WB90 AB HB****Connection socket, angle 90°**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connecting socket (short pipe bend)  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	S1	S2
WB90 AB 02 HB	G 1/8" -28	14	14
WB90 AB 04 HB	G 1/4" -19	19	19
WB90 AB 06 HB	G 3/8" -19	22	22
WB90 AB 08 HB	G 1/2" -14	27	27
WB90 AB 10 HB	G 5/8" -14	30	30
WB90 AB 12 HB	G 3/4" -14	32	32
WB90 AB 16 HB	G 1" -11	38	41
WB90 AB 20 HB	G 1.1/4" -11	50	50
WB90 AB 24 HB	G 1.1/2" -11	55	55
WB90 AB 32 HB	G 2" -11	70	65

SW, S1, S2 = With across flats

**W90 HB HN****Screw-in socket, angle 90°**

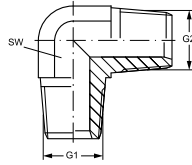
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2:** NPT external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
W90 HB 02 HN	G 1/8" -28	1/8" -27 NPT	11
W90 HB 04 HN 02	G 1/4" -19	1/8" -27 NPT	14
W90 HB 04 HN	G 1/4" -19	1/4" -18 NPT	14
W90 HB 06 HN 04	G 3/8" -19	1/4" -18 NPT	19
W90 HB 06 HN	G 3/8" -19	3/8" -18 NPT	19
W90 HB 06 HN 08	G 3/8" -19	1/2" -14 NPT	22
W90 HB 08 HN 06	G 1/2" -14	3/8" -18 NPT	22
W90 HB 08 HN	G 1/2" -14	1/2" -14 NPT	22
W90 HB 12 HN 08	G 3/4" -14	1/2" -14 NPT	27
W90 HB 12 HN	G 3/4" -14	3/4" -14 NPT	27
W90 HB 16 HN	G 1" -11	1" -11.5 NPT	33
W90 HB 20 HN	G 1.1/4" -11	1.1/4" -11.5 NPT	41
W90 HB 24 HN	G 1.1/2" -11	1.1/2" -11.5 NPT	50
W90 HB 32 HN	G 2" -11	2" -11.5 NPT	55

SW = Width across flats

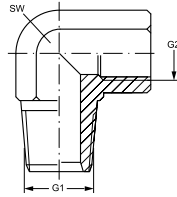
**W90 HRK****Screw-in socket, angle 90°**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSPT conical external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm
W90 HRK 02	R 1/8" K	11
W90 HRK 04	R 1/4" K	14
W90 HRK 06	R 3/8" K	19
W90 HRK 08	R 1/2" K	22
W90 HRK 12	R 3/4" K	27
W90 HRK 16	R 1" K	33

SW = Width across flats

**W90 HRK IR****Screw-in socket, angle 90°**

<b>Connection 1:</b>	BSPT conical external threads
<b>Sealing form 1:</b>	thread seal
<b>Connection 2:</b>	BSP cylindrical internal threads
<b>Sealing form 2:</b>	Flat seal
<b>Design:</b>	Screw-in sockets
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

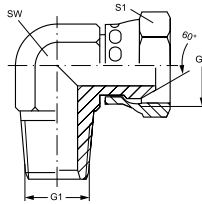
Identification	G1	G2	SW mm
W90 HRK 02 IR	R 1/8" K	G 1/8" -28	14
W90 HRK 04 IR	R 1/4" K	G 1/4" -19	19
W90 HRK 06 IR	R 3/8" K	G 3/8" -19	22
W90 HRK 08 IR	R 1/2" K	G 1/2" -14	27
W90 HRK 12 IR	R 3/4" K	G 3/4" -14	32
W90 HRK 16 IR	R 1" K	G 1" -11	41

SW = Width across flats



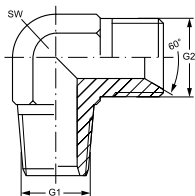
**W90 HRK AB****Screw-in socket, angle 90°**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	S2
W90 HRK 04 AB	R 1/4" K	G 1/4" -19	14	19	19
W90 HRK 06 AB	R 3/8" K	G 3/8" -19	19	22	22
W90 HRK 08 AB	R 1/2" K	G 1/2" -14	22	27	27
W90 HRK 12 AB	R 3/4" K	G 3/4" -14	27	32	32
W90 HRK 16 AB	R 1" K	G 1" -11	33	41	41
W90 HRK 20 AB	R 1.1/4" K	G 1.1/4" -11	41	50	50
W90 HRK 24 AB	R 1.1/2" K	G 1.1/2" -11	48	60	60

SW, S1, S2 = With across flats

**W90 HRK HB****Screw-in socket, angle 90°**

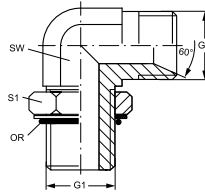
**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
W90 HRK 02 HB	R 1/8" K	G 1/8" -28	11
W90 HRK 02 HB 04	R 1/8" K	G 1/4" -19	11
W90 HRK 04 HB 02	R 1/4" K	G 1/8" -28	14
W90 HRK 04 HB	R 1/4" K	G 1/4" -19	14
W90 HRK 04 HB 06	R 1/4" K	G 3/8" -19	14
W90 HRK 06 HB 04	R 3/8" K	G 1/4" -19	14
W90 HRK 06 HB	R 3/8" K	G 3/8" -19	17
W90 HRK 06 HB 08	R 3/8" K	G 1/2" -14	19
W90 HRK 08 HB 06	R 1/2" K	G 3/8" -19	19
W90 HRK 08 HB	R 1/2" K	G 1/2" -14	19
W90 HRK 08 HB 12	R 1/2" K	G 3/4" -14	27
W90 HRK 12 HB 08	R 3/4" K	G 1/2" -14	27
W90 HRK 12 HB	R 3/4" K	G 3/4" -14	27
W90 HRK 12 HB 16	R 3/4" K	G 1" -11	33
W90 HRK 16 HB 12	R 1" K	G 3/4" -14	33
W90 HRK 16 HB	R 1" K	G 1" -11	36
W90 HRK 20 HB	R 1.1/4" K	G 1.1/4" -11	41
W90 HRK 24 HB	R 1.1/2" K	G 1.1/2" -11	48
W90 HRK 32 HB	R 2" K	G 2" -11	64

SW = Width across flats

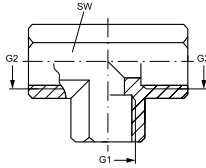
**W90 O HB****Screw-in socket, AGR, angle 90°**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
W90 O 04 HB 02	7/16"-20 UNF	G 1/8" -28	11	17	8.92 x 1.83
W90 O 04 HB	7/16"-20 UNF	G 1/4" -19	11	17	8.92 x 1.83
W90 O 04 HB 06	7/16"-20 UNF	G 3/8" -19	14	17	8.92 x 1.83
W90 O 05 HB 02	1/2"-20 UNF	G 1/8" -28	14	19	10.52 x 1.83
W90 O 05 HB 04	1/2"-20 UNF	G 1/4" -19	14	19	10.52 x 1.83
W90 O 06 HB 04	9/16"-18 UNF	G 1/4" -19	14	21	11.90 x 1.98
W90 O 06 HB	9/16"-18 UNF	G 3/8" -19	14	21	11.90 x 1.98
W90 O 08 HB 04	3/4"-16 UNF	G 1/4" -19	19	25	16.36 x 2.20
W90 O 08 HB 06	3/4"-16 UNF	G 3/8" -19	19	25	16.36 x 2.20
W90 O 08 HB	3/4"-16 UNF	G 1/2" -14	19	25	16.36 x 2.20
W90 O 08 HB 12	3/4"-16 UNF	G 3/4" -14	22	25	16.36 x 2.20
W90 O 10 HB 06	7/8"-14 UNF	G 3/8" -19	22	30	19.18 x 2.46
W90 O 10 HB 08	7/8"-14 UNF	G 1/2" -14	22	30	19.18 x 2.46
W90 O 10 HB	7/8"-14 UNF	G 5/8" -14	22	30	19.18 x 2.46
W90 O 10 HB 12	7/8"-14 UNF	G 3/4" -14	22	30	19.18 x 2.46
W90 O 12 HB 08	1.1/16" -12 UN	G 1/2" -14	27	36	23.47 x 2.95
W90 O 12 HB	1.1/16" -12 UN	G 3/4" -14	27	36	23.47 x 2.95
W90 O 12 HB 16	1.1/16" -12 UN	G 1" -11	33	36	23.47 x 2.95
W90 O 16 HB 12	1.5/16" -12 UN	G 3/4" -14	33	45	29.74 x 2.95
W90 O 16 HB	1.5/16" -12 UN	G 1" -11	33	45	29.74 x 2.95
W90 O 16 HB 20	1.5/16" -12 UN	G 1.1/4" -11	41	45	29.74 x 2.95
W90 O 20 HB 16	1.5/8" -12 UN	G 1" -11	41	55	37.47 x 3.00
W90 O 20 HB	1.5/8" -12 UN	G 1.1/4" -11	41	55	37.47 x 3.00

SW, S1, S2 = With across flats

**T IR****Screw-on socket, T shaped**

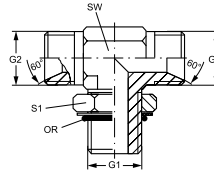
**Connection 1 - 3:** BSP cylindrical internal threads  
**Sealing form 1 - 3:** Shape A  
**Design:** Screw-on socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 - G3	SW mm
T IR 02	G 1/8" -28	14
T IR 04	G 1/4" -19	19
T IR 06	G 3/8" -19	22
T IR 08	G 1/2" -14	27
T IR 12	G 3/4" -14	33
T IR 16	G 1" -11	41
T IR 20	G 1.1/4" -11	50
T IR 24	G 1.1/2" -11	60
T IR 32	G 2" -11	70

SW = Width across flats

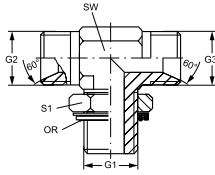
**T HRO HB****Screw-in socket, T shaped**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Connection 2 + 3:** BSP cylindrical external threads  
**Sealing form 2 + 3:**  
**3:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR
T HRO 02 HB	G 1/8" -28	G 1/8" -28	11	16	7.65 x 1.78
T HRO 04 HB 02	G 1/4" -19	G 1/8" -28	14	20	10.78 x 2.62
T HRO 04 HB	G 1/4" -19	G 1/4" -19	19	20	10.78 x 2.62
T HRO 04 HB 06	G 1/4" -19	G 3/8" -19	14	20	10.78 x 2.62
T HRO 06 HB 04	G 3/8" -19	G 1/4" -19	19	24	13.94 x 2.62
T HRO 06 HB	G 3/8" -19	G 3/8" -19	19	24	13.94 x 2.62
T HRO 06 HB 08	G 3/8" -19	G 1/2" -14	19	24	13.94 x 2.62
T HRO 08 HB 06	G 1/2" -14	G 3/8" -19	22	28	17.86 x 2.62
T HRO 08 HB	G 1/2" -14	G 1/2" -14	22	28	17.86 x 2.62
T HRO 08 HB 10	G 1/2" -14	G 5/8" -14	22	28	17.86 x 2.62
T HRO 08 HB 12	G 1/2" -14	G 3/4" -14	27	28	17.86 x 2.62
T HRO 12 HB 08	G 3/4" -14	G 1/2" -14	27	35	23.47 x 2.62
T HRO 12 HB	G 3/4" -14	G 3/4" -14	27	35	23.47 x 2.62
T HRO 12 HB 16	G 3/4" -14	G 1" -11	33	35	23.47 x 2.62
T HRO 16 HB 12	G 1" -11	G 3/4" -14	33	43	29.74 x 3.53
T HRO 16 HB	G 1" -11	G 1" -11	33	43	29.74 x 3.53
T HRO 20 HB 16	G 1.1/4" -11	G 1" -11	41	52	37.69 x 3.53
T HRO 20 HB	G 1.1/4" -11	G 1.1/4" -11	41	52	37.69 x 3.53
T HRO 24 HB	G 1.1/2" -11	G 1.1/2" -11	50	58	44.04 x 3.53

SW, S1, S2 = With across flats

**T HROK HB****Screw-in socket, T shaped**

**Connection 1:**  
**Sealing form 1:**

BSP external thread, cylindrical  
Thread socket with O-ring + spacer  
diaphragm ring

**Connection 2 + 3:**  
**Sealing form 2 +**

BSP cylindrical external threads

**3:**

60° inner cone

**Design:**

Adjustable direction screw-in socket

**Construction:**

T shaped

**Material:**

Steel

**Surface:**

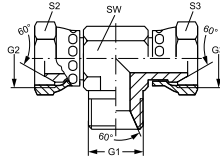
electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR
T HROK 02 HB	G 1/8" -28	G 1/8" -28	14	14	7.65 x 1.78
T HROK 04 HB 02	G 1/4" -19	G 1/8" -28	14	19	10.78 x 2.62
T HROK 04 HB	G 1/4" -19	G 1/4" -19	19	19	10.78 x 2.62
T HROK 04 HB 06	G 1/4" -19	G 3/8" -19	19	19	10.78 x 2.62
T HROK 06 HB 04	G 3/8" -19	G 1/4" -19	19	22	13.94 x 2.62
T HROK 06 HB	G 3/8" -19	G 3/8" -19	19	22	13.94 x 2.62
T HROK 06 HB 08	G 3/8" -19	G 1/2" -14	19	22	13.94 x 2.62
T HROK 08 HB 06	G 1/2" -14	G 3/8" -19	27	27	17.86 x 2.62
T HROK 08 HB	G 1/2" -14	G 1/2" -14	27	27	17.86 x 2.62
T HROK 08 HB 10	G 1/2" -14	G 5/8" -14	27	27	17.86 x 2.62
T HROK 08 HB 12	G 1/2" -14	G 3/4" -14	30	27	17.86 x 2.62
T HROK 12 HB 08	G 3/4" -14	G 1/2" -14	30	36	23.47 x 2.62
T HROK 12 HB	G 3/4" -14	G 3/4" -14	30	36	23.47 x 2.62
T HROK 12 HB 16	G 3/4" -14	G 1" -11	36	36	23.47 x 2.62
T HROK 16 HB 12	G 1" -11	G 3/4" -14	36	41	29.74 x 3.53
T HROK 16 HB	G 1" -11	G 1" -11	36	41	29.74 x 3.53
T HROK 20 HB 16	G 1.1/4" -11	G 1" -11	41	50	37.69 x 3.53
T HROK 20 HB	G 1.1/4" -11	G 1.1/4" -11	51	50	37.69 x 3.53
T HROK 24 HB	G 1.1/2" -11	G 1.1/2" -11	50	55	44.04 x 3.53

SW, S1, S2 = With across flats

**T HB AB****Screw-in socket, T shaped**

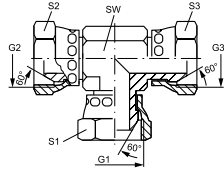
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2 + 3:** BSP nut thread  
**Sealing form 2 + 3:**  
**3:** 60° outer cone  
**Design:** Screw-in sockets  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S2 + S3
T HB 04 AB	G 1/4" -19	G 1/4" -19	14	19
T HB 06 AB	G 3/8" -19	G 3/8" -19	19	22
T HB 08 AB	G 1/2" -14	G 1/2" -14	22	27
T HB 12 AB	G 3/4" -14	G 3/4" -14	27	32
T HB 16 AB	G 1" -11	G 1" -11	33	41

SW, S1, S2 = With across flats

3

**T AB****Screw-on socket, T shaped**

**Connection 1 - 3:** BSP nut thread  
**Sealing form 1 - 3:** 60° outer cone  
**Design:** Adjustable direction screw-on socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 - G3	SW mm	S1 - S3 mm
T AB 02	G 1/8" -28	11	14
T AB 04	G 1/4" -19	14	19
T AB 06	G 3/8" -19	19	22
T AB 08	G 1/2" -14	22	27
T AB 10	G 5/8" -14	22	30
T AB 12	G 3/4" -14	27	32
T AB 16	G 1" -11	33	41
T AB 20	G 1.1/4" -11	41	50
T AB 24	G 1.1/2" -11	48	60
T AB 32	G 2" -11	64	70

SW, S1, S2 = With across flats

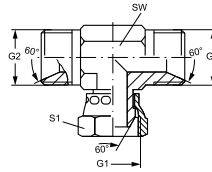
**Product versions:**

T AB VA - Screw-on socket, T shaped, Stainless steel



**T AB HB****Screw-on socket, T shaped**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Connection 2 + 3:** BSP cylindrical external threads  
**Sealing form 2 + 3:**  
**3:** 60° inner cone  
**Design:** Adjustable direction screw-on socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

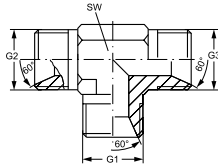


Identification	G1	G2 + G3	SW mm	S1
T AB 04 HB	G 1/4" -19	G 1/4" -19	14	19
T AB 06 HB	G 3/8" -19	G 3/8" -19	17	22
T AB 08 HB	G 1/2" -14	G 1/2" -14	22	27
T AB 10 HB	G 5/8" -14	G 5/8" -14	24	30
T AB 12 HB	G 3/4" -14	G 3/4" -14	27	32
T AB 16 HB	G 1" -11	G 1" -11	36	41
T AB 20 HB	G 1.1/4" -11	G 1.1/4" -11	46	50
T AB 24 HB	G 1.1/2" -11	G 1.1/2" -11	50	55

SW, S1, S2 = With across flats

**Product versions:**

**T AB HB VA** - Screw-on socket, T shaped, Stainless steel

**T HB****Connection socket, T shaped**

**Connection 1 - 3:** BSP cylindrical external threads  
**Sealing form 1 - 3:** 60° inner cone  
**Design:** Connection sockets  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 - G3	SW mm
T HB 02	G 1/8" -28	11
T HB 04	G 1/4" -19	14
T HB 06	G 3/8" -19	19
T HB 08	G 1/2" -14	22
T HB 10	G 5/8" -14	22
T HB 12	G 3/4" -14	27
T HB 16	G 1" -11	33
T HB 20	G 1.1/4" -11	41
T HB 24	G 1.1/2" -11	48
T HB 32	G 2" -11	64

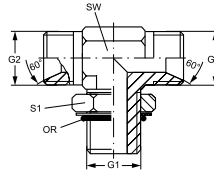
SW = Width across flats

**Product versions:**

T HB VA - Connection socket, T shaped, Stainless steel

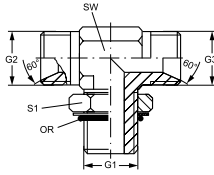
**TOHB****Screw-in socket, T shaped**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2 + 3:** BSP cylindrical external threads  
**Sealing form 2 + 3:**  
**3:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR
T O 06 HB 04	9/16"-18 UNF	G 1/4" -19	14	17	11.90 x 1.98
T O 06 HB	9/16"-18 UNF	G 3/8" -19	14	17	11.90 x 1.98
T O 08 HB	3/4"-16 UNF	G 1/2" -14	19	22	16.36 x 2.20
T O 10 HB 12	7/8"-14 UNF	G 3/4" -14	22	27	19.18 x 2.46
T O 12 HB	1.1/16" -12 UN	G 3/4" -14	27	32	23.47 x 2.95
T O 16 HB 12	1.5/16" -12 UN	G 3/4" -14	33	38	29.74 x 2.95

SW, S1, S2 = With across flats

**T HMO HB****Screw-in socket, T shaped**

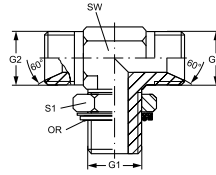
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape F  
**Connection 2 + 3:** BSP cylindrical external threads  
**Sealing form 2 + 3:**  
**3:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR
T HMO 12 HB 04	M 12 x 1.5	G 1/4" -19	13	18	9.3 x 2.4
T HMO 14 HB 04	M 14 x 1.5	G 1/4" -19	14	20	11.3 x 2.4
T HMO 14 HB 06	M 14 x 1.5	G 3/8" -19	19	20	11.3 x 2.4
T HMO 16 HB 06	M 16 x 1.5	G 3/8" -19	19	22	13.3 x 2.4
T HMO 18 HB 06	M 18 x 1.5	G 3/8" -19	19	24	15.3 x 2.4
T HMO 18 HB 08	M 18 x 1.5	G 1/2" -14	19	24	15.3 x 2.4
T HMO 22 HB 12	M 22 x 1.5	G 3/4" -14	27	28	19.3 x 2.4

SW, S1, S2 = With across flats

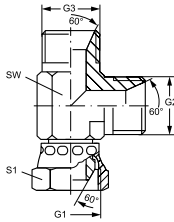
**T HMOK HB****Screw-in socket, T shaped**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2 + 3:** BSP cylindrical external threads  
**Sealing form 2 + 3:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR
T HMOK 12 HB 04	M 12 x 1.5	G 1/4" -19	13	18	9.3 x 2.4
T HMOK 14 HB 04	M 14 x 1.5	G 1/4" -19	14	20	11.3 x 2.4
T HMOK 14 HB 06	M 14 x 1.5	G 3/8" -19	14	20	11.3 x 2.4
T HMOK 16 HB 06	M 16 x 1.5	G 3/8" -19	19	22	13.3 x 2.4
T HMOK 18 HB 06	M 18 x 1.5	G 3/8" -19	19	24	15.3 x 2.4
T HMOK 18 HB 08	M 18 x 1.5	G 1/2" -14	19	24	15.3 x 2.4
T HMOK 22 HB 12	M 22 x 1.5	G 3/4" -14	22	28	19.3 x 2.4
T HMOK 26 HB 12	M 26 x 1.5	G 3/4" -14	32	28	23.5 x 2.6

SW, S1, S2 = With across flats

**L AB HB****Screw-on socket, L shaped**

<b>Connection 1:</b>	BSP nut thread
<b>Sealing form 1:</b>	60° outer cone
<b>Connection 2 + 3:</b>	BSP cylindrical external threads
<b>Sealing form 2 + 3:</b>	
<b>3:</b>	60° inner cone
<b>Design:</b>	Adjustable direction screw-on socket
<b>Construction:</b>	L shaped
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2 + G3	SW mm	S1
L AB 04 HB	G 1/4" -19	G 1/4" -19	14	19
L AB 06 HB	G 3/8" -19	G 3/8" -19	17	22
L AB 08 HB	G 1/2" -14	G 1/2" -14	22	27
L AB 10 HB	G 5/8" -14	G 5/8" -14	24	30
L AB 12 HB	G 3/4" -14	G 3/4" -14	27	32
L AB 16 HB	G 1" -11	G 1" -11	36	41
L AB 20 HB	G 1.1/4" -11	G 1.1/4" -11	46	50
L AB 24 HB	G 1.1/2" -11	G 1.1/2" -11	50	55
L AB 32 HB	G 2" -11	G 2" -11	60	70

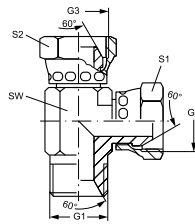
SW, S1, S2 = With across flats

**Product versions:**

L AB HB VA - Screw-on socket, L shaped, Stainless steel

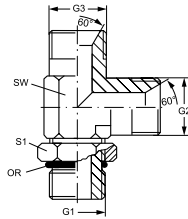
**L HB AB****Screw-in socket, L shaped**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Connection 2 + 3:** BSP nut thread  
**Sealing form 2 + 3:** 60° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1 + S2 mm
L HB 04 AB	G 1/4" -19	G 1/4" -19	14	19
L HB 06 AB	G 3/8" -19	G 3/8" -19	19	22
L HB 08 AB	G 1/2" -14	G 1/2" -14	22	27
L HB 12 AB	G 3/4" -14	G 3/4" -14	27	32
L HB 16 AB	G 1" -11	G 1" -11	33	38

SW, S1, S2 = With across flats

**L HRO HB****Screw-in socket, L shaped**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** BSP cylindrical external threads  
**Connection 2 + 3:** BSP cylindrical external threads  
**Sealing form 2 + 3:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

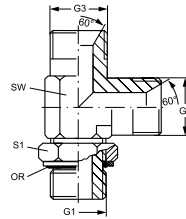
Identification	G1	G2 + G3	SW mm	S1	OR
L HRO 02 HB	G 1/8" -28	G 1/8" -28	11	16	7.65 x 1.78
L HRO 04 HB 02	G 1/4" -19	G 1/8" -28	14	20	10.78 x 2.62
L HRO 04 HB	G 1/4" -19	G 1/4" -19	14	20	10.78 x 2.62
L HRO 04 HB 06	G 1/4" -19	G 3/8" -19	19	20	10.78 x 2.62
L HRO 06 HB 04	G 3/8" -19	G 1/4" -19	19	24	13.94 x 2.62
L HRO 06 HB	G 3/8" -19	G 3/8" -19	19	24	13.94 x 2.62
L HRO 06 HB 08	G 3/8" -19	G 1/2" -14	22	24	13.94 x 2.62
L HRO 08 HB 06	G 1/2" -14	G 3/8" -19	22	28	17.86 x 2.62
L HRO 08 HB	G 1/2" -14	G 1/2" -14	22	28	17.86 x 2.62
L HRO 08 HB 10	G 1/2" -14	G 5/8" -14	22	28	17.86 x 2.62
L HRO 08 HB 12	G 1/2" -14	G 3/4" -14	27	28	17.86 x 2.62
L HRO 12 HB 08	G 3/4" -14	G 1/2" -14	27	35	23.47 x 2.62
L HRO 12 HB	G 3/4" -14	G 3/4" -14	27	35	23.47 x 2.62
L HRO 12 HB 16	G 3/4" -14	G 1" -11	33	35	23.47 x 2.62
L HRO 16 HB 12	G 1" -11	G 3/4" -14	33	43	29.74 x 3.53
L HRO 16 HB	G 1" -11	G 1" -11	33	43	29.74 x 3.53
L HRO 20 HB 16	G 1.1/4" -11	G 1" -11	41	52	37.69 x 3.53
L HRO 20 HB	G 1.1/4" -11	G 1.1/4" -11	41	52	37.69 x 3.53
L HRO 24 HB	G 1.1/2" -11	G 1.1/2" -11	48	58	44.04 x 3.53

SW = Width across flats



**L HROK HB****Screw-in socket, L shaped**

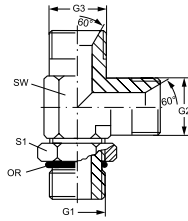
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2 + 3:** BSP cylindrical external threads  
**Sealing form 2 + 3:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR
L HROK 02 HB	G 1/8" -28	G 1/8" -28	11	16	7.65 x 1.78
L HROK 04 HB 02	G 1/4" -19	G 1/8" -28	14	20	10.78 x 2.62
L HROK 04 HB	G 1/4" -19	G 1/4" -19	14	20	10.78 x 2.62
L HROK 04 HB 06	G 1/4" -19	G 3/8" -19	19	20	10.78 x 2.62
L HROK 06 HB 04	G 3/8" -19	G 1/4" -19	19	24	13.94 x 2.62
L HROK 06 HB	G 3/8" -19	G 3/8" -19	19	24	13.94 x 2.62
L HROK 06 HB 08	G 3/8" -19	G 1/2" -14	22	24	13.94 x 2.62
L HROK 08 HB 06	G 1/2" -14	G 3/8" -19	22	28	17.86 x 2.62
L HROK 08 HB	G 1/2" -14	G 1/2" -14	22	28	17.86 x 2.62
L HROK 08 HB 10	G 1/2" -14	G 5/8" -14	22	28	17.86 x 2.62
L HROK 08 HB 12	G 1/2" -14	G 3/4" -14	27	28	17.86 x 2.62
L HROK 12 HB 08	G 3/4" -14	G 1/2" -14	27	35	23.47 x 2.62
L HROK 12 HB	G 3/4" -14	G 3/4" -14	27	35	23.47 x 2.62
L HROK 12 HB 16	G 3/4" -14	G 1" -11	33	35	23.47 x 2.62
L HROK 16 HB 12	G 1" -11	G 3/4" -14	33	43	29.74 x 3.53
L HROK 16 HB	G 1" -11	G 1" -11	33	45	29.74 x 3.53
L HROK 20 HB 16	G 1.1/4" -11	G 1" -11	41	52	37.69 x 3.53
L HROK 20 HB	G 1.1/4" -11	G 1.1/4" -11	41	52	37.69 x 3.53
L HROK 24 HB	G 1.1/2" -11	G 1.1/2" -11	48	58	44.04 x 3.53

SW, S1, S2 = With across flats

3

**L HMO HB****Screw-in socket, L shaped**

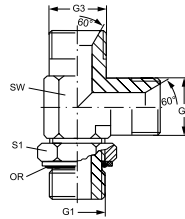
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2 + 3:** BSP cylindrical external threads  
**Sealing form 2 + 3:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm	S1	OR
L HMO 12 HB 02	M 12 x 1.5	G 1/8" -28	14	18	9.3 x 2.4
L HMO 12 HB 04	M 12 x 1.5	G 1/4" -19	14	18	9.3 x 2.4
L HMO 14 HB 04	M 14 x 1.5	G 1/4" -19	14	20	11.3 x 2.4
L HMO 14 HB 06	M 14 x 1.5	G 3/8" -19	19	20	11.3 x 2.4
L HMO 16 HB 04	M 16 x 1.5	G 1/4" -19	19	22	13.3 x 2.4
L HMO 16 HB 06	M 16 x 1.5	G 3/8" -19	19	22	13.3 x 2.4
L HMO 18 HB 06	M 18 x 1.5	G 3/8" -19	19	24	15.3 x 2.4
L HMO 18 HB 08	M 18 x 1.5	G 1/2" -14	19	24	15.3 x 2.4
L HMO 20 HB 08	M 20 x 1.5	G 1/2" -14	27	28	17.3 x 2.4
L HMO 22 HB 08	M 22 x 1.5	G 1/2" -14	22	28	19.3 x 2.4
L HMO 22 HB 12	M 22 x 1.5	G 3/4" -14	22	28	19.3 x 2.4

SW, S1, S2 = With across flats

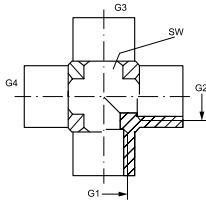
**L HMOK HB****Screw-in socket, L shaped**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Thread socket with O-ring + spacer diaphragm ring  
**Connection 2 + 3:** BSP cylindrical external threads  
**Sealing form 2 + 3:** 60° inner cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm	S1	OR
L HMOK 12 HB 02	M 12 x 1.5	G 1/8" -28	13	18	9.3 x 2.4
L HMOK 12 HB 04	M 12 x 1.5	G 1/4" -19	14	18	9.3 x 2.4
L HMOK 14 HB 04	M 14 x 1.5	G 1/4" -19	14	20	11.3 x 2.4
L HMOK 14 HB 06	M 14 x 1.5	G 3/8" -19	19	20	11.3 x 2.4
L HMOK 16 HB 04	M 16 x 1.5	G 1/4" -19	19	22	13.3 x 2.4
L HMOK 16 HB 06	M 16 x 1.5	G 3/8" -19	19	22	13.3 x 2.4
L HMOK 18 HB 06	M 18 x 1.5	G 3/8" -19	22	24	15.3 x 2.4
L HMOK 18 HB 08	M 18 x 1.5	G 1/2" -14	22	24	15.3 x 2.4
L HMOK 20 HB 08	M 20 x 1.5	G 1/2" -14	22	28	17.3 x 2.4
L HMOK 22 HB 08	M 22 x 1.5	G 1/2" -14	22	28	19.3 x 2.4
L HMOK 22 HB 12	M 22 x 1.5	G 3/4" -14	27	28	19.3 x 2.4

SW, S1, S2 = With across flats

**KIR****Connector, cross shaped**

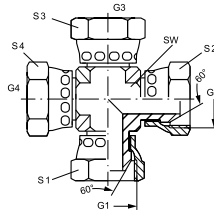
**Connection 1 - 4:** BSP cylindrical internal threads  
**Sealing form 1 - 4:** Shape A  
**Design:** Screw-on socket  
**Construction:** K shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 - G4	SW mm
K IR 02	G 1/8" -28	14
K IR 04	G 1/4" -19	19
K IR 06	G 3/8" -19	22
K IR 08	G 1/2" -14	27
K IR 12	G 3/4" -14	33
K IR 16	G 1" -11	41

SW = Width across flats

**K AB****Connector, cross shaped**

**Connection 1 - 4:** BSP nut thread  
**Sealing form 1 - 4:** 60° outer cone  
**Design:** Connectors  
**Construction:** K shaped  
**Material:** Steel  
**Surface:** electro galvanised



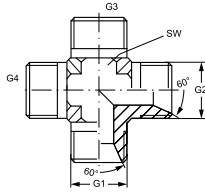
Identification	G1 - G4	SW mm	S1 - S4 mm
K AB 02	G 1/8" -28	11	14
K AB 04	G 1/4" -19	14	19
K AB 06	G 3/8" -19	19	22
K AB 08	G 1/2" -14	22	27
K AB 10	G 5/8" -14	22	30
K AB 12	G 3/4" -14	27	32
K AB 16	G 1" -11	33	41
K AB 20	G 1.1/4" -11	41	50
K AB 24	G 1.1/2" -11	48	60
K AB 32	G 2" -11	64	70

SW, S1, S2 = With across flats

**Product versions:**

**K AB VA** - Connector, cross shaped, Stainless steel

3

**K HB****Connector, cross shaped**

**Connection 1 - 4:** BSP cylindrical external threads  
**Sealing form 1 - 4:** 60° inner cone  
**Design:** Connectors  
**Construction:** K shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 - G4	SW mm
K HB 02	G 1/8" -28	11
K HB 04	G 1/4" -19	14
K HB 06	G 3/8" -19	19
K HB 08	G 1/2" -14	22
K HB 10	G 5/8" -14	22
K HB 12	G 3/4" -14	27
K HB 16	G 1" -11	33
K HB 20	G 1.1/4" -11	41
K HB 24	G 1.1/2" -11	48
K HB 32	G 2" -11	64

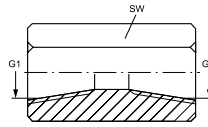
SW = Width across flats

**Product versions:**

**K HB VA** - Connector, cross shaped, Stainless steel

**G IN****Connection sockets**

**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel

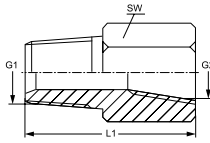


Identification	G1	G2	SW mm
G IN 02	1/8" -27 NPT	1/8" -27 NPT	16
G 04 IN 02	1/4" -18 NPT	1/8" -27 NPT	19
G IN 04	1/4" -18 NPT	1/4" -18 NPT	19
G 06 IN 04	3/8" -18 NPT	1/4" -18 NPT	22
G IN 06	3/8" -18 NPT	3/8" -18 NPT	22
G 08 IN 04	1/2" -14 NPT	1/4" -18 NPT	29
G 08 IN 06	1/2" -14 NPT	3/8" -18 NPT	29
G IN 08	1/2" -14 NPT	1/2" -14 NPT	30
G 12 IN 08	3/4" -14 NPT	1/2" -14 NPT	36
G IN 12	3/4" -14 NPT	3/4" -14 NPT	36
G 16 IN 12	1" -11.5 NPT	3/4" -14 NPT	46
G IN 16	1" -11.5 NPT	1" -11.5 NPT	46
G IN 20	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	51
G IN 24	1.1/2" -11.5 NPT	1.1/2" -11.5 NPT	60
G IN 32	2" -11.5 NPT	2" -11.5 NPT	73

SW = Width across flats

**Product versions:**

G IN VA - Connection sockets, Stainless steel

**G HN IN****Connection sockets**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
G HN 02 IN	1/8" -27 NPT	1/8" -27 NPT	16
G HN 02 IN 04	1/8" -27 NPT	1/4" -18 NPT	19
G HN 02 IN 06	1/8" -27 NPT	3/8" -18 NPT	22
G HN 02 IN 08	1/8" -27 NPT	1/2" -14 NPT	29
G HN 04 IN 02	1/4" -18 NPT	1/8" -27 NPT	19
G HN 04 IN	1/4" -18 NPT	1/4" -18 NPT	19
G HN 04 IN 06	1/4" -18 NPT	3/8" -18 NPT	22
G HN 04 IN 08	1/4" -18 NPT	1/2" -14 NPT	29
G HN 04 IN 12	1/4" -18 NPT	3/4" -14 NPT	35
G HN 06 IN 02	3/8" -18 NPT	1/8" -27 NPT	22
G HN 06 IN 04	3/8" -18 NPT	1/4" -18 NPT	22
G HN 06 IN	3/8" -18 NPT	3/8" -18 NPT	22
G HN 06 IN 08	3/8" -18 NPT	1/2" -14 NPT	29
G HN 08 IN 02	1/2" -14 NPT	1/8" -27 NPT	29
G HN 08 IN 04	1/2" -14 NPT	1/4" -18 NPT	29
G HN 08 IN 06	1/2" -14 NPT	3/8" -18 NPT	29
G HN 08 IN	1/2" -14 NPT	1/2" -14 NPT	29
G HN 08 IN 12	1/2" -14 NPT	3/4" -14 NPT	35
G HN 08 IN 16	1/2" -14 NPT	1" -11.5 NPT	41
G HN 12 IN 04	3/4" -14 NPT	1/4" -18 NPT	35
G HN 12 IN 06	3/4" -14 NPT	3/8" -18 NPT	35
G HN 12 IN 08	3/4" -14 NPT	1/2" -14 NPT	35
G HN 12 IN	3/4" -14 NPT	3/4" -14 NPT	35
G HN 12 IN 16	3/4" -14 NPT	1" -11.5 NPT	41
G HN 12 IN 20	3/4" -14 NPT	1.1/4" -11.5 NPT	51
G HN 16 IN 04	1" -11.5 NPT	1/4" -18 NPT	42
G HN 16 IN 06	1" -11.5 NPT	3/8" -18 NPT	42
G HN 16 IN 08	1" -11.5 NPT	1/2" -14 NPT	42
G HN 16 IN 12	1" -11.5 NPT	3/4" -14 NPT	42
G HN 16 IN 20	1" -11.5 NPT	1.1/4" -11.5 NPT	48
G HN 20 IN 08	1.1/4" -11.5 NPT	1/2" -14 NPT	64
G HN 20 IN 12	1.1/4" -11.5 NPT	3/4" -14 NPT	51
G HN 20 IN 16	1.1/4" -11.5 NPT	1" -11.5 NPT	51
G HN 20 IN 24	1.1/4" -11.5 NPT	1.1/2" -11.5 NPT	64
G HN 24 IN 16	1.1/2" -11.5 NPT	1" -11.5 NPT	64
G HN 24 IN 20	1.1/2" -11.5 NPT	1.1/4" -11.5 NPT	64
G HN 24 IN 12	1.1/2" -11.5 NPT	3/4" -14 NPT	64
G HN 32 IN 16	2" -11.5 NPT	1" -11.5 NPT	64
G HN 32 IN 20	2" -11.5 NPT	1.1/4" -11.5 NPT	64

SW = Width across flats



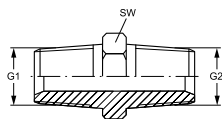
**G HN IN**

(Continued)

Connection sockets

Identification	G1	G2	SW mm
G HN 32 IN 24	2" -11.5 NPT	1.1/2" -11.5 NPT	64
SW = Width across flats			

**Product versions:****G HN IN VA** - Connection sockets, Stainless steel

**G HN****Connection sockets**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** NPT external threads  
**Sealing form 2:** thread seal  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
G HN 02	1/8" -27 NPT	1/8" -27 NPT	11
G 04 HN 02	1/4" -18 NPT	1/8" -27 NPT	14
G HN 04	1/4" -18 NPT	1/4" -18 NPT	14
G 06 HN 02	3/8" -18 NPT	1/8" -27 NPT	19
G 06 HN 04	3/8" -18 NPT	1/4" -18 NPT	19
G HN 06	3/8" -18 NPT	3/8" -18 NPT	19
G 08 HN 04	1/2" -14 NPT	1/4" -18 NPT	22
G 08 HN 06	1/2" -14 NPT	3/8" -18 NPT	22
G HN 08	1/2" -14 NPT	1/2" -14 NPT	22
G 12 HN 04	3/4" -14 NPT	1/4" -18 NPT	27
G 12 HN 06	3/4" -14 NPT	3/8" -18 NPT	27
G 12 HN 08	3/4" -14 NPT	1/2" -14 NPT	27
G HN 12	3/4" -14 NPT	3/4" -14 NPT	27
G 12 HN 16	3/4" -14 NPT	1" -11.5 NPT	36
G 16 HN 08	1" -11.5 NPT	1/2" -14 NPT	36
G HN 16	1" -11.5 NPT	1" -11.5 NPT	36
G 20 HN 16	1.1/4" -11.5 NPT	1" -11.5 NPT	46
G HN 20	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	46
G 24 HN 08	1.1/2" -11.5 NPT	1/2" -14 NPT	50
G 24 HN 16	1.1/2" -11.5 NPT	1" -11.5 NPT	50
G 24 HN 20	1.1/2" -11.5 NPT	1.1/4" -11.5 NPT	50
G HN 24	1.1/2" -11.5 NPT	1.1/2" -11.5 NPT	50
G 32 HN 24	2" -11.5 NPT	1.1/2" -11.5 NPT	65
G HN 32	2" -11.5 NPT	2" -11.5 NPT	65
G HN 40	2.1/2" -8 NPT	2.1/2" -8 NPT	70

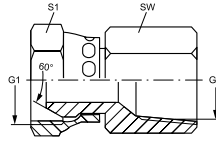
SW = Width across flats

**Product versions:**

**G HN VA** - Connection sockets, Stainless steel

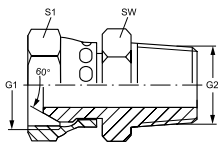
**G AN IN****Screw-on socket**

**Connection 1:** NPT nut thread (NPSM)  
**Sealing form 1:** 60° outer cone  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Screw-on socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
G AN 02 IN	1/8" -27 NPT	1/8" -27 NPT	14	14
G AN 04 IN	1/4" -18 NPT	1/4" -18 NPT	18	18
G AN 06 IN	3/8" -18 NPT	3/8" -18 NPT	22	22
G AN 06 IN 04	3/8" -18 NPT	1/4" -18 NPT	22	22
G AN 08 IN 06	1/2" -14 NPT	3/8" -18 NPT	25	22
G AN 08 IN	1/2" -14 NPT	1/2" -14 NPT	25	25
G AN 08 IN 12	1/2" -14 NPT	3/4" -14 NPT	32	25
G AN 12 IN	3/4" -14 NPT	3/4" -14 NPT	32	32
G AN 16 IN	1" -11.5 NPT	1" -11.5 NPT	38	38
G AN 20 IN	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	48	48
G AN 24 IN	1.1/2" -11.5 NPT	1.1/2" -11.5 NPT	54	54
G AN 32 IN	2" -11.5 NPT	2" -11.5 NPT	67	67

SW, S1, S2 = With across flats

**G AN HN****Screw-in sockets**

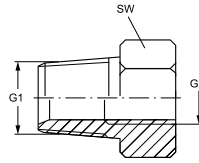
**Connection 1:** NPT nut thread (NPSM)  
**Sealing form 1:** 60° outer cone  
**Connection 2:** NPT external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1
G AN 02 HN	1/8" -27 NPT	1/8" -27 NPT	14	14
G AN 04 HN	1/4" -18 NPT	1/4" -18 NPT	18	18
G AN 04 HN 02	1/4" -18 NPT	1/8" -27 NPT	16	18
G AN 04 HN 06	1/4" -18 NPT	3/8" -18 NPT	18	18
G AN 06 HN	3/8" -18 NPT	3/8" -18 NPT	22	22
G AN 06 HN 04	3/8" -18 NPT	1/4" -18 NPT	21	22
G AN 06 HN 08	3/8" -18 NPT	1/2" -14 NPT	22	22
G AN 08 HN	1/2" -14 NPT	1/2" -14 NPT	25	25
G AN 08 HN 04	1/2" -14 NPT	1/4" -18 NPT	24	25
G AN 08 HN 06	1/2" -14 NPT	3/8" -18 NPT	24	25
G AN 08 HN 12	1/2" -14 NPT	3/4" -14 NPT	29	25
G AN 12 HN	3/4" -14 NPT	3/4" -14 NPT	32	32
G AN 12 HN 08	3/4" -14 NPT	1/2" -14 NPT	32	32
G AN 12 HN 16	3/4" -14 NPT	1" -11.5 NPT	35	38
G AN 16 HN	1" -11.5 NPT	1" -11.5 NPT	38	38
G AN 16 HN 12	1" -11.5 NPT	3/4" -14 NPT	38	38
G AN 20 HN	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	48	48
G AN 24 HN 16	1.1/2" -11.5 NPT	1" -11.5 NPT	45	54
G AN 24 HN	1.1/2" -11.5 NPT	1.1/2" -11.5 NPT	54	54
G AN 32 HN	2" -11.5 NPT	2" -11.5 NPT	67	67

SW, S1, S2 = With across flats

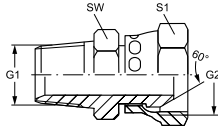
**GE HN IR VA****Screw-in sockets**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP cylindrical internal threads  
**Sealing form 2:** Flat seal  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Stainless steel



Identification	G1	G2	SW mm
GE HN 02 IR VA	1/8" -27 NPT	G 1/8" -28	14
GE HN 02 IR 04 VA	1/8" -27 NPT	G 1/4" -19	19
GE HN 04 IR 02 VA	1/4" -18 NPT	G 1/8" -28	14
GE HN 04 IR VA	1/4" -18 NPT	G 1/4" -19	19
GE HN 04 IR 06 VA	1/4" -18 NPT	G 3/8" -19	24
GE HN 04 IR 08 VA	1/4" -18 NPT	G 1/2" -14	27
GE HN 06 IR 04 VA	3/8" -18 NPT	G 1/4" -19	19
GE HN 06 IR VA	3/8" -18 NPT	G 3/8" -19	24
GE HN 06 IR 08 VA	3/8" -18 NPT	G 1/2" -14	27
GE HN 08 IR 04 VA	1/2" -14 NPT	G 1/4" -19	24
GE HN 08 IR 06 VA	1/2" -14 NPT	G 3/8" -19	24
GE HN 08 IR VA	1/2" -14 NPT	G 1/2" -14	27
GE HN 08 IR 12 VA	1/2" -14 NPT	G 3/4" -14	32
GE HN 12 IR 06 VA	3/4" -14 NPT	G 3/8" -19	27
GE HN 12 IR 08 VA	3/4" -14 NPT	G 1/2" -14	27
GE HN 12 IR VA	3/4" -14 NPT	G 3/4" -14	32
GE HN 12 IR 16 VA	3/4" -14 NPT	G 1" -11	41
GE HN 16 IR 08 VA	1" -11.5 NPT	G 1/2" -14	36
GE HN 16 IR 12VA	1" -11.5 NPT	G 3/4" -14	36
GE HN 16 IR VA	1" -11.5 NPT	G 1" -11	41
GE HN 20 IR VA	1.1/4" -11.5 NPT	G 1.1/4" -11	55
GE HN 24 IR VA	1.1/2" -11.5 NPT	G 1.1/2" -11	55

SW = Width across flats

**GE HN AB****Screw-in sockets**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** BSP nut thread  
**Sealing form 2:** 60° inner cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1
GE HN 04 AB	1/4" -18 NPT	G 1/4" -19	16	19
GE HN 04 AB 06	1/4" -18 NPT	G 3/8" -19	18	22
GE HN 06 AB 04	3/8" -18 NPT	G 1/4" -19	21	19
GE HN 06 AB	3/8" -18 NPT	G 3/8" -19	22	22
GE HN 06 AB 08	3/8" -18 NPT	G 1/2" -14	25	22
GE HN 08 AB 06	1/2" -14 NPT	G 3/8" -19	22	22
GE HN 08 AB	1/2" -14 NPT	G 1/2" -14	25	27
GE HN 08 AB 10	1/2" -14 NPT	G 5/8" -14	27	30
GE HN 12 AB 08	3/4" -14 NPT	G 1/2" -14	33	27
GE HN 12 AB	3/4" -14 NPT	G 3/4" -14	33	32
GE HN 16 AB	1" -11.5 NPT	G 1" -11	38	41
GE HN 16 AB 12	1" -11.5 NPT	G 3/4" -14	35	32

SW, S1, S2 = With across flats

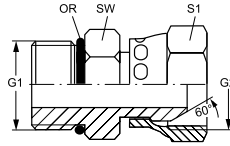
**Product versions:**

**GE HN AB VA** - Screw-in sockets, Stainless steel

## GEO AN

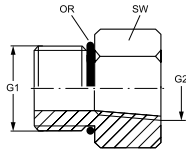
## Screw-in sockets

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** NPSM nut thread  
**Sealing form 2:** 60° outer cone  
**Design:** Screw-in sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1	OR
GEO 04 AN	7/16"-20 UNF	1/4" -18 NPT	14	18	8.92 x 1.83
GEO 06 AN	9/16"-18 UNF	3/8" -18 NPT	18	22	11.90 x 1.98
GEO 06 AN 08	9/16"-18 UNF	1/2" -14 NPT	19	25	11.90 x 1.98
GEO 08 AN	3/4"-16 UNF	1/2" -14 NPT	22	25	16.36 x 2.20
GEO 08 AN 12	3/4"-16 UNF	3/4" -14 NPT	25	32	16.36 x 2.20
GEO 10 AN 06	7/8"-14 UNF	3/8" -18 NPT	22	25	19.18 x 2.46
GEO 10 AN 08	7/8"-14 UNF	1/2" -14 NPT	25	25	19.18 x 2.46
GEO 12 AN 08	1.1/16" -12 UN	1/2" -14 NPT	32	25	23.47 x 2.95
GEO 12 AN	1.1/16" -12 UN	3/4" -14 NPT	32	32	23.47 x 2.95
GEO 16 AN	1.5/16" -12 UN	1" -11.5 NPT	38	38	29.74 x 2.95

SW, S1, S2 = With across flats

**GE O IN****Screw-on fitting**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Screw-on fitting  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

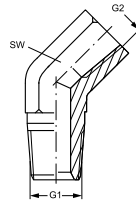
Identification	G1	G2	SW mm	OR
GE O 06 IN 04	9/16"-18 UNF	1/4" -18 NPT	19	11.90 x 1.98
GE O 08 IN 04	3/4"-16 UNF	1/4" -18 NPT	22	16.36 x 2.20
GE O 08 IN 06	3/4"-16 UNF	3/8" -18 NPT	22	16.36 x 2.20
GE O 08 IN	3/4"-16 UNF	1/2" -14 NPT	29	16.36 x 2.20
GE O 10 IN 04	7/8"-14 UNF	1/4" -18 NPT	25	19.18 x 2.46
GE O 10 IN 06	7/8"-14 UNF	3/8" -18 NPT	25	19.18 x 2.46
GE O 10 IN 08	7/8"-14 UNF	1/2" -14 NPT	29	19.18 x 2.46
GE O 12 IN 08	1.1/16"-12 UN	1/2" -14 NPT	32	23.47 x 2.95
GE O 12 IN	1.1/16" -12 UN	3/4" -14 NPT	35	23.47 x 2.95

SW = Width across flats



**W45 HN IN****Screw-in socket, angle 45°**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

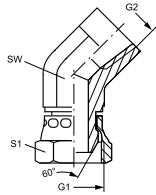


Identification	G1 + G2	SW mm
W45 HN 02 IN	1/8" -27 NPT	14
W45 HN 04 IN	1/4" -18 NPT	19
W45 HN 06 IN	3/8" -18 NPT	22
W45 HN 08 IN	1/2" -14 NPT	27
W45 HN 12 IN	3/4" -14 NPT	33
W45 HN 16 IN	1" -11.5 NPT	41
W45 HN 20 IN	1.1/4" -11.5 NPT	48
W45 HN 24 IN	1.1/2" -11.5 NPT	64

SW = Width across flats

**Product versions:**

**W45 HN IN VA** - Screw-in socket, angle 45°, Stainless steel

**W45 AN IN****Screw-on socket, angle 45°**

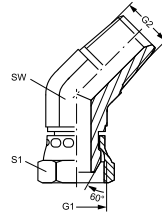
**Connection 1:** NPT nut thread (NPSM)  
**Sealing form 1:** 60° inner cone  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Screw-on socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1 + G2	SW mm	S1
W45 AN 02 IN	1/8" -27 NPT	14	14
W45 AN 04 IN	1/4" -18 NPT	19	19
W45 AN 06 IN	3/8" -18 NPT	22	22
W45 AN 08 IN	1/2" -14 NPT	27	25
W45 AN 12 IN	3/4" -14 NPT	33	32
W45 AN 16 IN	1" -11.5 NPT	41	38
W45 AN 20 IN	1.1/4" -11.5 NPT	48	48
W45 AN 24 IN	1.1/2" -11.5 NPT	64	54

SW, S1, S2 = With across flats

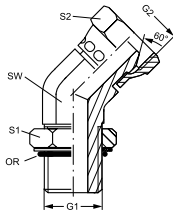
**W45 AN HN****Screw-in socket, angle 45°**

**Connection 1:** NPT nut thread (NPSM)  
**Sealing form 1:** 60° outer cone  
**Connection 2:** NPT external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
W45 AN 02 HN	1/8" -27 NPT	1/8" -27 NPT	11	14
W45 AN 04 HN	1/4" -18 NPT	1/4" -18 NPT	14	18
W45 AN 06 HN	3/8" -18 NPT	3/8" -18 NPT	19	22
W45 AN 06 HN 08	3/8" -18 NPT	1/2" -14 NPT	22	22
W45 AN 08 HN	1/2" -14 NPT	1/2" -14 NPT	22	25
W45 AN 08 HN 12	1/2" -14 NPT	3/4" -14 NPT	27	25
W45 AN 12 HN	3/4" -14 NPT	3/4" -14 NPT	27	32
W45 AN 12 HN 16	3/4" -14 NPT	1" -11.5 NPT	33	32
W45 AN 16 HN 12	1" -11.5 NPT	3/4" -14 NPT	33	38
W45 AN 16 HN	1" -11.5 NPT	1" -11.5 NPT	33	38
W45 AN 20 HN	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	41	48
W45 AN 24 HN	1.1/2" -11.5 NPT	1.1/2" -11.5 NPT	48	54
W45 AN 32 HN	2" -11.5 NPT	2" -11.5 NPT	64	67

SW, S1, S2 = With across flats

**W45 O AN****Screw-in socket, angle 45°**

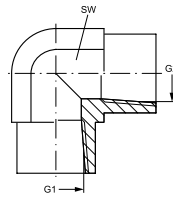
**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** NPSM nut thread  
**Sealing form 2:** 60° outer cone  
**Design:** Adjustable direction screw-in socket  
**Construction:** Angle 45°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm	S1	S2	OR
W45 O 04 AN	7/16"-20 UNF	1/4" -18 NPT	11	14	18	8.92 x 1.83
W45 O 06 AN 04	9/16"-18 UNF	1/4" -18 NPT	14	22	14	11.90 x 1.98
W45 O 06 AN	9/16"-18 UNF	3/8" -18 NPT	14	18	22	11.90 x 1.98
W45 O 08 AN 06	3/4"-16 UNF	3/8" -18 NPT	19	22	22	16.36 x 2.20
W45 O 08 AN	3/4"-16 UNF	1/2" -14 NPT	19	22	25	16.36 x 2.20
W45 O 08 AN 12	3/4"-16 UNF	3/4" -14 NPT	19	22	32	16.36 x 2.20
W45 O 10 AN 08	7/8"-14 UNF	1/2" -14 NPT	22	25	25	19.18 x 2.46
W45 O 12 AN	1.1/16"-12 UN	3/4" -14 NPT	27	32	32	23.47 x 2.95

SW, S1, S2 = With across flats

**W90 IN****Screw-on socket, IGN angle 90°**

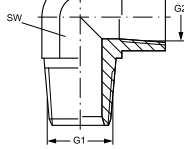
**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Screw-on socket  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 + G2	SW mm
W90 IN 02	1/8" -27 NPT	14
W90 IN 04	1/4" -18 NPT	19
W90 IN 06	3/8" -18 NPT	22
W90 IN 08	1/2" -14 NPT	27
W90 IN 12	3/4" -14 NPT	41
W90 IN 16	1" -11.5 NPT	48
W90 IN 20	1.1/4" -11.5 NPT	48
W90 IN 24	1.1/2" -11.5 NPT	64
W90 IN 32	2" -11.5 NPT	64
SW = Width across flats		

**Product versions:**

**W90 IN VA** - Screw-on socket, IGN angle 90°, Stainless steel

**W90 HN IN****Screw-in socket, angle 90°**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2	SW mm
W90 HN 02 IN	1/8" -27 NPT	1/8" -27 NPT	14
W90 HN 04 IN 02	1/4" -18 NPT	1/8" -27 NPT	14
W90 HN 04 IN	1/4" -18 NPT	1/4" -18 NPT	19
W90 HN 06 IN	3/8" -18 NPT	3/8" -18 NPT	22
W90 HN 08 IN	1/2" -14 NPT	1/2" -14 NPT	27
W90 HN 12 IN 08	3/4" -14 NPT	1/2" -14 NPT	27
W90 HN 12 IN	3/4" -14 NPT	3/4" -14 NPT	33
W90 HN 16 IN	1" -11.5 NPT	1" -11.5 NPT	41

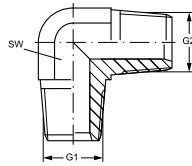
SW = Width across flats

**Product versions:**

**W90 HN IN VA** - Screw-in socket, angle 90°, Stainless steel

**W90 HN****Screw-in socket, angle 90°**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** NPT external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

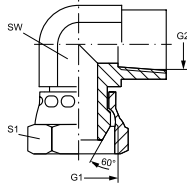


Identification	G1	G2	SW mm
W90 HN 02	1/8" -27 NPT	1/8" -27 NPT	11
W90 HN 04	1/4" -18 NPT	1/4" -18 NPT	14
W90 HN 06 HN 04	3/8" -18 NPT	1/4" -18 NPT	19
W90 HN 06	3/8" -18 NPT	3/8" -18 NPT	19
W90 HN 08	1/2" -14 NPT	1/2" -14 NPT	22
W90 HN 12	3/4" -14 NPT	3/4" -14 NPT	27
W90 HN 16	1" -11.5 NPT	1" -11.5 NPT	41
W90 HN 20	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	48
W90 HN 24	1.1/2" -11.5 NPT	1.1/2" -11.5 NPT	48
W90 HN 32	2" -11.5 NPT	2" -11.5 NPT	50

SW = Width across flats

**Product versions:**

**W90 HN VA** - Screw-in socket, angle 90°, Stainless steel

**W90 AN IN****Connection socket, angle 90°**

**Connection 1:** NPT nut thread (NPSM)  
**Sealing form 1:** 60° outer cone  
**Connection 2:** NPT internal thread  
**Sealing form 2:** thread seal  
**Design:** Connection sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised

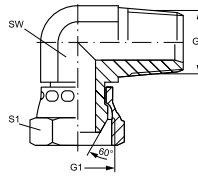
Identification	G1 + G2	SW mm	S1
W90 AN 02 IN	1/8" -27 NPT	14	14
W90 AN 04 IN	1/4" -18 NPT	19	18
W90 AN 06 IN	3/8" -18 NPT	22	22
W90 AN 08 IN	1/2" -14 NPT	27	25
W90 AN 12 IN	3/4" -14 NPT	33	32
W90 AN 16 IN	1" -11.5 NPT	41	38
W90 AN 20 IN	1.1/4" -11.5 NPT	48	48
W90 AN 24 IN	1.1/2" -11.5 NPT	64	54

SW, S1, S2 = With across flats



**W90 AN HN****Screw-in socket, angle 90°**

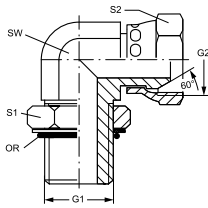
**Connection 1:** NPT nut thread (NPSM)  
**Sealing form 1:** 60° outer cone  
**Connection 2:** NPT external threads  
**Sealing form 2:** thread seal  
**Design:** Screw-in sockets  
**Construction:** Angle 90°  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	SW mm	S1
W90 AN 02 HN	1/8" -27 NPT	1/8" -27 NPT	11	14
W90 AN 04 HN 02	1/4" -18 NPT	1/8" -27 NPT	14	18
W90 AN 04 HN	1/4" -18 NPT	1/4" -18 NPT	14	18
W90 AN 04 HN 06	1/4" -18 NPT	3/8" -18 NPT	19	18
W90 AN 04 HN 08	1/4" -18 NPT	1/2" -14 NPT	19	18
W90 AN 06 HN 04	3/8" -18 NPT	1/4" -18 NPT	19	22
W90 AN 06 HN	3/8" -18 NPT	3/8" -18 NPT	19	22
W90 AN 06 HN 08	3/8" -18 NPT	1/2" -14 NPT	22	22
W90 AN 06 HN 12	3/8" -18 NPT	3/4" -14 NPT	25	22
W90 AN 08 HN 06	1/2" -14 NPT	3/8" -18 NPT	22	25
W90 AN 08 HN	1/2" -14 NPT	1/2" -14 NPT	22	25
W90 AN 08 HN 12	1/2" -14 NPT	3/4" -14 NPT	27	25
W90 AN 12 HN 08	3/4" -14 NPT	1/2" -14 NPT	27	32
W90 AN 12 HN	3/4" -14 NPT	3/4" -14 NPT	27	32
W90 AN 12 HN 16	3/4" -14 NPT	1" -11.5 NPT	33	32
W90 AN 16 HN 12	1" -11.5 NPT	3/4" -14 NPT	33	38
W90 AN 16 HN	1" -11.5 NPT	1" -11.5 NPT	33	38
W90 AN 20 HN	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	41	48
W90 AN 20 HN 24	1.1/4" -11.5 NPT	1.1/2" -11.5 NPT	48	48
W90 AN 24 HN	1.1/2" -11.5 NPT	1.1/2" -11.5 NPT	48	54
W90 AN 32 HN	2" -11.5 NPT	2" -11.5 NPT	64	67

SW, S1, S2 = With across flats

3

**W90 O AN****Screw-in socket, DKN, angle 90°**

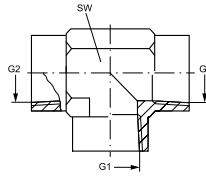
<b>Connection 1:</b>	UN/UNF external threads
<b>Sealing form 1:</b>	O-ring seal on screw-in socket
<b>Connection 2:</b>	NPSM nut thread
<b>Sealing form 2:</b>	60° outer cone
<b>Design:</b>	Adjustable direction screw-in socket
<b>Construction:</b>	Angle 90°
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

Identification	G1	G2	SW mm	S1	S2	OR
W90 O 04 AN	7/16"-20 UNF	1/4" -18 NPT	11	14	18	8.92 x 1.83
W90 O 06 AN 04	9/16"-18 UNF	1/4" -18 NPT	14	18	18	11.90 x 1.98
W90 O 06 AN	9/16"-18 UNF	3/8" -18 NPT	14	18	25	11.90 x 1.98
W90 O 08 AN	3/4"-16 UNF	1/2" -14 NPT	19	22	25	16.36 x 2.20
W90 O 08 AN 12	3/4"-16 UNF	3/4" -14 NPT	19	22	32	16.36 x 2.20
W90 O 10 AN 06	7/8"-14 UNF	3/8" -18 NPT	22	25	22	19.18 x 2.46
W90 O 10 AN 08	7/8"-14 UNF	1/2" -14 NPT	22	25	25	19.18 x 2.46
W90 O 10 AN 12	7/8"-14 UNF	3/4" -14 NPT	22	25	32	19.18 x 2.46
W90 O 12 AN 08	1.1/16"-12 UN	1/2" -14 NPT	27	32	25	23.47 x 2.95
W90 O 12 AN	1.1/16"-12 UN	3/4" -14 NPT	27	32	32	23.47 x 2.95
W90 O 16 AN	1.5/16"-12 UN	1" -11.5 NPT	33	38	38	29.74 x 2.95

SW, S1, S2 = With across flats

**T IN****Screw-on socket, T shaped**

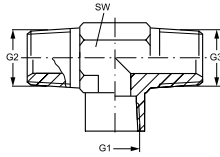
**Connection 1 - 3:** NPT internal thread  
**Sealing form 1 - 3:** thread seal  
**Design:** Screw-on socket  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 - G3	SW mm
T IN 02	1/8" -27 NPT	14
T IN 04	1/4" -18 NPT	19
T IN 06	3/8" -18 NPT	22
T IN 08	1/2" -14 NPT	27
T IN 12	3/4" -14 NPT	33
T IN 16	1" -11.5 NPT	41
T IN 20	1.1/4" -11.5 NPT	48
T IN 24	1.1/2" -11.5 NPT	64
SW = Width across flats		

**Product versions:**

**T IN VA** - Screw-on socket, T shaped, Stainless steel

**T IN HN****Screw-on socket, T shaped**

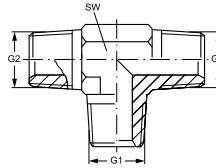
**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** NPT external threads  
**Sealing form 2 + 3:** thread seal  
**Design:** Screw-in sockets  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm
T IN 02 HN	1/8" -27 NPT	1/8" -27 NPT	14
T IN 04 HN	1/4" -18 NPT	1/4" -18 NPT	19
T IN 06 HN	3/8" -18 NPT	3/8" -18 NPT	22
T IN 08 HN	1/2" -14 NPT	1/2" -14 NPT	27
T IN 12 HN	3/4" -14 NPT	3/4" -14 NPT	33
T IN 16 HN	1" -11.5 NPT	1" -11.5 NPT	41
T IN 20 HN	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	48

SW = Width across flats

**T HN****Screw-in socket, T shaped**

**Connection 1 - 3:** NPT external threads  
**Sealing form 1 - 3:** thread seal  
**Design:** Screw-in sockets  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

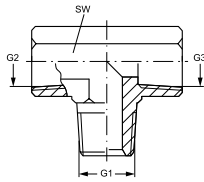


Identification	G1 - G3	SW mm
T HN 02	1/8" -27 NPT	11
T HN 04	1/4" -18 NPT	14
T HN 06	3/8" -18 NPT	19
T HN 08	1/2" -14 NPT	22
T HN 12	3/4" -14 NPT	27
T HN 16	1" -11.5 NPT	41
T HN 20	1.1/4" -11.5 NPT	48

SW = Width across flats

**Product versions:**

**T HN VA** - Screw-in socket, T shaped, Stainless steel

**T HN IN****Screw-in socket, T shaped**

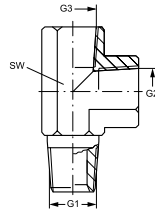
**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** NPT internal thread  
**Sealing form 2 + 3:** thread seal  
**Design:** Screw-in sockets  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	SW mm
T HN 02 IN	1/8" -27 NPT	1/8" -27 NPT	14
T HN 04 IN	1/4" -18 NPT	1/4" -18 NPT	19
T HN 06 IN	3/8" -18 NPT	3/8" -18 NPT	22
T HN 08 IN	1/2" -14 NPT	1/2" -14 NPT	27
T HN 12 IN	3/4" -14 NPT	3/4" -14 NPT	33
T HN 16 IN	1" -11.5 NPT	1" -11.5 NPT	41
T HN 20 IN	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	48

SW = Width across flats

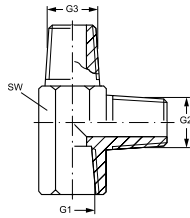
**L HN IN****Screw-in socket, L shaped**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** NPT internal thread  
**Sealing form 2 + 3:** thread seal  
**Design:** Screw-in sockets  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2 + G3	SW mm
L HN 02 IN	1/8" -27 NPT	1/8" -27 NPT	14
L HN 04 IN	1/4" -18 NPT	1/4" -18 NPT	19
L HN 06 IN	3/8" -18 NPT	3/8" -18 NPT	22
L HN 08 IN	1/2" -14 NPT	1/2" -14 NPT	27
L HN 12 IN	3/4" -14 NPT	3/4" -14 NPT	33
L HN 16 IN	1" -11.5 NPT	1" -11.5 NPT	41
L HN 20 IN	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	48

SW = Width across flats

**L IN HN****Screw-in socket, L shaped**

**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Connection 2 + 3:** NPT external threads  
**Sealing form 2 + 3:** thread seal  
**Design:** Screw-in sockets  
**Construction:** L shaped  
**Material:** Steel  
**Surface:** electro galvanised

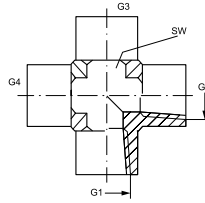
Identification	G1	G2 + G3	SW mm
L IN 02 HN	1/8" -27 NPT	1/8" -27 NPT	14
L IN 04 HN	1/4" -18 NPT	1/4" -18 NPT	19
L IN 06 HN	3/8" -18 NPT	3/8" -18 NPT	22
L IN 08 HN	1/2" -14 NPT	1/2" -14 NPT	27
L IN 12 HN	3/4" -14 NPT	3/4" -14 NPT	33
L IN 16 HN	1" -11.5 NPT	1" -11.5 NPT	41
L IN 20 HN	1.1/4" -11.5 NPT	1.1/4" -11.5 NPT	48

SW = Width across flats



**K IN****Connector, cross shaped**

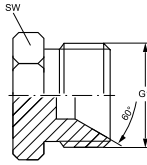
**Connection 1 - 4:** NPT internal thread  
**Sealing form 1 - 4:** thread seal  
**Design:** Screw-on socket  
**Construction:** K shaped  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1 - G4	SW mm
K IN 02	1/8" -27 NPT	14
K IN 04	1/4" -18 NPT	19
K IN 06	3/8" -18 NPT	22
K IN 08	1/2" -14 NPT	29
K IN 12	3/4" -14 NPT	35
K IN 16	1" -11.5 NPT	41
K IN 20	1.1/4" -11.5 NPT	51
K IN 24	1.1/2" -11.5 NPT	60

SW = Width across flats

3

**VERSCHLUSS HB****Blanking socket**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° inner cone  
**Design:** Blanking socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	SW mm
VERSCHLUSS HB 02	G 1/8" -28	14
VERSCHLUSS HB 04	G 1/4" -19	19
VERSCHLUSS HB 06	G 3/8" -19	22
VERSCHLUSS HB 08	G 1/2" -14	27
VERSCHLUSS HB 10	G 5/8" -14	30
VERSCHLUSS HB 12	G 3/4" -14	32
VERSCHLUSS HB 16	G 1" -11	41
VERSCHLUSS HB 20	G 1.1/4" -11	50
VERSCHLUSS HB 24	G 1.1/2" -11	55
VERSCHLUSS HB 32	G 2" -11	70

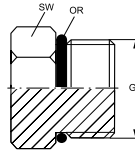
SW, S1, S2 = With across flats

**Product versions:**

**VERSCHLUSS HB VA** - Blanking socket, Stainless steel

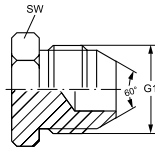
**VERSCHLUSS HRO****Blanking socket, with hexagon head**

**Connection 1:** BSP external thread, cylindrical form G  
**Sealing form 1:** form G  
**Design:** Blanking socket, with hexagon head straight  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	SW mm	OR
VERSCHLUSS HRO 02	G 1/8" -28	14	7.65 x 1.78
VERSCHLUSS HRO 04	G 1/4" -19	19	10.78 x 2.62
VERSCHLUSS HRO 06	G 3/8" -19	22	13.94 x 2.62
VERSCHLUSS HRO 08	G 1/2" -14	27	17.86 x 2.62
VERSCHLUSS HRO 12	G 3/4" -14	36	23.47 x 2.62
VERSCHLUSS HRO 16	G 1" -11	41	29.74 x 3.53
VERSCHLUSS HRO 20	G 1.1/4" -11	50	37.69 x 3.53
VERSCHLUSS HRO 24	G 1.1/2" -11	55	44.04 x 3.53

SW, S1, S2 = With across flats

**VERSCHLUSS HJR****Blanking socket**

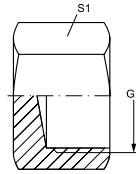
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** 60° outer cone  
**Design:** Blanking socket  
**Construction:** straight  
**Standard connection 2:**  
**Material:** JIS B 8363  
**Surface:** Steel  
 electro galvanised

Identification	G1	SW mm
VERSCHLUSS HJR 04	G 1/4" -19	14
VERSCHLUSS HJR 06	G 3/8" -19	17
VERSCHLUSS HJR 08	G 1/2" -14	22
VERSCHLUSS HJR 12	G 3/4" -14	27
VERSCHLUSS HJR 16	G 1" -11	36

SW, S1, S2 = With across flats

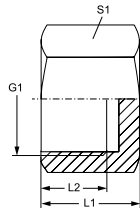
**VERSCHLUSS IR****Blanking nut**

**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** flat sealing  
**Design:** Blanking nut  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	S1
VERSCHLUSS IR 02	G 1/8" -28	14
VERSCHLUSS IR 04	G 1/4" -19	19
VERSCHLUSS IR 06	G 3/8" -19	22
VERSCHLUSS IR 08	G 1/2" -14	27
VERSCHLUSS IR 12	G 3/4" -14	32
VERSCHLUSS IR 16	G 1" -11	41
VERSCHLUSS IR 20	G 1.1/4" -11	50
VERSCHLUSS IR 24	G 1.1/2" -11	55
VERSCHLUSS IR 32	G 2" -11	70

SW, S1, S2 = With across flats

**VSSK IR VA****Blanking nut**

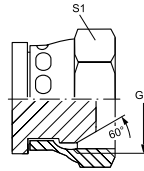
**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** flat sealing  
**Design:** Blanking nut  
**Material:** Stainless steel

Identification	G1	L1 mm	L2 mm	S1
VSSK IR 02 VA	G 1/8" -28	15,0	10,0	14
VSSK IR 04 VA	G 1/4" -19	18,0	12,5	17
VSSK IR 06 VA	G 3/8" -19	19,0	13,0	22
VSSK IR 08 VA	G 1/2" -14	21,0	14,5	27
VSSK IR 12 VA	G 3/4" -14	24,5	18,5	32
VSSK IR 16 VA	G 1" -11	25,0	19,0	41
VSSK IR 20 VA	G 1.1/4" -11	29,0	22,0	50
VSSK IR 24 VA	G 1.1/2" -11	31,0	23,5	55
VSSK IR 32 VA	G 2" -11	32,0	24,5	70

SW, S1, S2 = With across flats

**VERSCHLUSS AB****Blanking nut**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Design:** Blanking nut  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

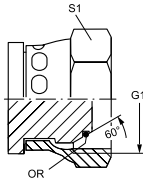


Identification	G1	S1
VERSCHLUSS AB 02	G 1/8" -28	14
VERSCHLUSS AB 04	G 1/4" -19	19
VERSCHLUSS AB 06	G 3/8" -19	22
VERSCHLUSS AB 08	G 1/2" -14	27
VERSCHLUSS AB 10	G 5/8" -14	30
VERSCHLUSS AB 12	G 3/4" -14	32
VERSCHLUSS AB 16	G 1" -11	38
VERSCHLUSS AB 20	G 1.1/4" -11	50
VERSCHLUSS AB 24	G 1.1/2" -11	55
VERSCHLUSS AB 32	G 2" -11	70

SW, S1, S2 = With across flats

**Product versions:**

**VERSCHLUSS AB VA** - Blanking nut, Stainless steel

**VERSCHLUSS AOB****Blanking nut**

**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone with O-ring  
**Design:** Blanking nut  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

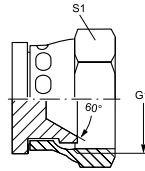
Identification	G1	S1	OR
VERSCHLUSS AOB 02	G 1/8" -28	14	4.5 x 1.5
VERSCHLUSS AOB 04	G 1/4" -19	17	6.5 x 1.0
VERSCHLUSS AOB 06	G 3/8" -19	22	8.1 x 1.6
VERSCHLUSS AOB 08	G 1/2" -14	27	12.1 x 1.6
VERSCHLUSS AOB 10	G 5/8" -14	27	13.1 x 1.6
VERSCHLUSS AOB 12	G 3/4" -14	32	17.1 x 1.6
VERSCHLUSS AOB 16	G 1" -11	41	22.1 x 1.6

SW, S1, S2 = With across flats



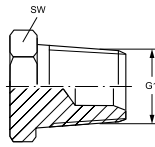
**VERSCHLUSS ARI****Blanking nut**

**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** 60° inner cone  
**Design:** Blanking nut  
**Construction:** straight  
**Standard connection 2:** JIS B 8363  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	S1
VERSCHLUSS ARI 04	G 1/4" -19	19
VERSCHLUSS ARI 06	G 3/8" -19	22
VERSCHLUSS ARI 08	G 1/2" -14	27
VERSCHLUSS ARI 12	G 3/4" -14	37
VERSCHLUSS ARI 16	G 1" -11	41
SW, S1, S2 = With across flats		

3

**VERSCHLUSS HRK****Blanking socket, with hexagon head**

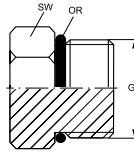
**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Design:** Blanking socket, with hexagon head straight  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	SW mm
VERSCHLUSS HRK 02	R 1/8" K	12
VERSCHLUSS HRK 04	R 1/4" K	14
VERSCHLUSS HRK 06	R 3/8" K	17
VERSCHLUSS HRK 08	R 1/2" K	22
VERSCHLUSS HRK 10	R 5/8" K	30
VERSCHLUSS HRK 12	R 3/4" K	27
VERSCHLUSS HRK 16	R 1" K	36
VERSCHLUSS HRK 20	R 1.1/4" K	46
VERSCHLUSS HRK 24	R 1.1/2" K	50
VERSCHLUSS HRK 32	R 2" K	70
VERSCHLUSS HRK 40	R 2.1/2" K	70

SW, S1, S2 = With across flats

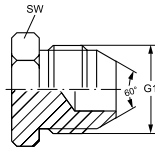
**VERSCHLUSS HMO****Blanking socket, with hexagon head**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape F  
**Design:** Blanking socket, with hexagon head straight  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	OR
VERSCHLUSS HMO 10	M 10 x 1	8.00 x 1.50
VERSCHLUSS HMO 12	M 12 x 1.5	9.30 x 2.30
VERSCHLUSS HMO 14	M 14 x 1.5	11.30 x 2.30
VERSCHLUSS HMO 16	M 16 x 1.5	13.30 x 2.30
VERSCHLUSS HMO 18	M 18 x 1.5	15.30 x 2.30
VERSCHLUSS HMO 20	M 20 x 1.5	17.30 x 2.30
VERSCHLUSS HMO 22	M 22 x 1.5	19.30 x 2.30
VERSCHLUSS HMO 27	M 27 x 2	23.47 x 2.95
VERSCHLUSS HMO 33	M 33 x 2	29.74 x 2.95
VERSCHLUSS HMO 42	M 42 x 2	38.00 x 3.00
VERSCHLUSS HMO 48	M 48 x 2	44.00 x 3.00

SW, S1, S2 = With across flats

**VERSCHLUSS HJL****Blanking socket**

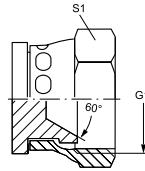
**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** 60° outer cone  
**Design:** Blanking socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	SW mm
VERSCHLUSS HJL 14	M 14 x 1.5	14
VERSCHLUSS HJL 16	M 16 x 1.5	17
VERSCHLUSS HJL 18	M 18 x 1.5	19
VERSCHLUSS HJL 22	M 22 x 1.5	22
VERSCHLUSS HJL 24	M 24 x 1.5	24
VERSCHLUSS HJL 30	M 30 x 1.5	30
VERSCHLUSS HJL 33	M 33 x 1.5	36

SW, S1, S2 = With across flats

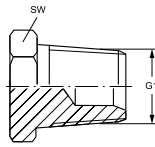
**VERSCHLUSS ALI****Blanking nut**

**Connection 1:** metric nut thread  
**Sealing form 1:** 60° inner cone  
**Design:** Blanking nut  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	S1
VERSCHLUSS ALI 14	M 14 x 1.5	19
VERSCHLUSS ALI 16	M 16 x 1.5	22
VERSCHLUSS ALI 18	M 18 x 1.5	24
VERSCHLUSS ALI 22	M 22 x 1.5	27
VERSCHLUSS ALI 24	M 24 x 1.5	32
VERSCHLUSS ALI 30	M 30 x 1.5	36
VERSCHLUSS ALI 33	M 33 x 1.5	41

SW, S1, S2 = With across flats

**VERSCHLUSS HN****Blanking socket**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Design:** Blanking socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	SW mm
VERSCHLUSS HN 02	1/8" -27 NPT	12
VERSCHLUSS HN 04	1/4" -18 NPT	17
VERSCHLUSS HN 06	3/8" -18 NPT	19
VERSCHLUSS HN 08	1/2" -14 NPT	22
VERSCHLUSS HN 12	3/4" -14 NPT	27
VERSCHLUSS HN 16	1" -11.5 NPT	36
VERSCHLUSS HN 20	1.1/4" -11.5 NPT	46
VERSCHLUSS HN 24	1.1/2" -11.5 NPT	50
VERSCHLUSS HN 32	2" -11.5 NPT	65

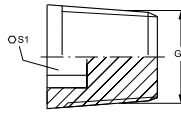
SW, S1, S2 = With across flats

**Product versions:**

**VERSCHLUSS HN VA** - Blanking socket, Stainless steel

**VERSCHLUSS HN IS****Blanking socket, with hexagon socket**

<b>Connection 1:</b>	NPT external threads
<b>Sealing form 1:</b>	thread seal
<b>Design:</b>	Blanking socket, with hexagon socket
<b>Construction:</b>	straight
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

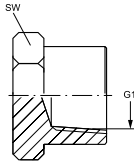


Identification	G1	S1
VERSCHLUSS HN 02 IS	1/8" -27 NPT	5
VERSCHLUSS HN 04 IS	1/4" -18 NPT	6
VERSCHLUSS HN 06 IS	3/8" -18 NPT	8
VERSCHLUSS HN 08 IS	1/2" -14 NPT	10
VERSCHLUSS HN 12 IS	3/4" -14 NPT	12
VERSCHLUSS HN 16 IS	1" -11.5 NPT	17
VERSCHLUSS HN 20 IS	1.1/4" -11.5 NPT	22
VERSCHLUSS HN 24 IS	1.1/2" -11.5 NPT	24
VERSCHLUSS HN 32 IS	2" -11.5 NPT	27

SW, S1, S2 = With across flats

## VERSCHLUSS IN

### Blanking nut



**Connection 1:** NPT internal thread  
**Sealing form 1:** thread seal  
**Design:** Blanking nut straight  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

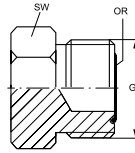
Identification	G1	SW mm
VERSCHLUSS IN 02	1/8" -27 NPT	14
VERSCHLUSS IN 04	1/4" -18 NPT	17
VERSCHLUSS IN 06	3/8" -18 NPT	22
VERSCHLUSS IN 08	1/2" -14 NPT	27
VERSCHLUSS IN 12	3/4" -14 NPT	32
VERSCHLUSS IN 16	1" -11.5 NPT	43
VERSCHLUSS IN 20	1.1/4" -11.5 NPT	50
VERSCHLUSS IN 24	1.1/2" -11.5 NPT	60
VERSCHLUSS IN 32	2" -11.5 NPT	73

SW, S1, S2 = With across flats



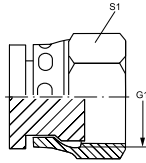
**VERSCHLUSS HJOF****Blanking socket**

**Connection 1:** ORFS external threads  
**Sealing form 1:** flat seal with O-ring  
**Design:** Blanking socket  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	i mm	L1 mm	SW mm	OR
VERSCHLUSS HJOF 04	9/16"-18 UNF	10,0	16,5	17	7.65 x 1.78
VERSCHLUSS HJOF 06	11/16" -16 UN	11,0	19,0	19	9.25 x 1.78
VERSCHLUSS HJOF 08	13/16" -16 UN	13,0	22,0	22	12.42 x 1.78
VERSCHLUSS HJOF 10	1" -14 UNS	15,5	26,0	27	15.60 x 1.78
VERSCHLUSS HJOF 12	1.3/16" -12 UN	17,0	27,5	32	18.77 x 1.78
VERSCHLUSS HJOF 16	1.7/16" -12 UN	17,5	28,0	41	23.52 x 1.78
VERSCHLUSS HJOF 20	1.11/16" -12 UN	17,5	28,0	46	29.87 x 1.78
VERSCHLUSS HJOF 24	2" -12 UN	17,5	28,0	55	37.82 x 1.78

SW, S1, S2 = With across flats

**VERSCHLUSS AJF****Blanking nut**

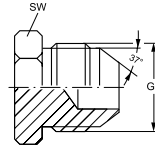
**Connection 1:** ORFS nut threads  
**Sealing form 1:** flat sealing  
**Design:** Blanking nut  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	S1
VERSCHLUSS AJF 04	9/16"-18 UNF	17
VERSCHLUSS AJF 06	11/16" -16 UN	22
VERSCHLUSS AJF 08	13/16" -16 UN	24
VERSCHLUSS AJF 10	1" -14 UNS	30
VERSCHLUSS AJF 12	1.3/16" -12 UN	36
VERSCHLUSS AJF 16	1.7/16" -12 UN	41
VERSCHLUSS AJF 20	1.11/16" -12 UN	50
VERSCHLUSS AJF 24	2" -12 UN	60
VERSCHLUSS AJF 32	2.1/2" -12 UN	75

SW, S1, S2 = With across flats

**VERSCHLUSS HJ****Blanking socket**

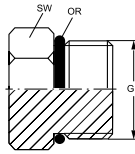
**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Design:** Blanking socket  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	SW mm
VERSCHLUSS HJ 04	7/16"-20 UNF	12
VERSCHLUSS HJ 05	1/2"-20 UNF	14
VERSCHLUSS HJ 06	9/16"-18 UNF	19
VERSCHLUSS HJ 08	3/4"-16 UNF	19
VERSCHLUSS HJ 10	7/8"-14 UNF	24
VERSCHLUSS HJ 12	1.1/16" -12 UN	27
VERSCHLUSS HJ 14	1.3/16" -12 UN	32
VERSCHLUSS HJ 16	1.5/16" -12 UN	36
VERSCHLUSS HJ 20	1.5/8" -12 UN	46
VERSCHLUSS HJ 24	1.7/8" -12 UN	50
VERSCHLUSS HJ 32	2.1/2" -12 UN	65
SW, S1, S2 = With across flats		

**Product versions:**

**VERSCHLUSS HJ VA** - Blanking socket, Stainless steel

**VERSCHLUSS O****Blanking socket**

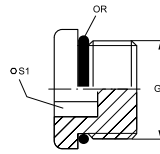
**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal  
**Design:** Blanking socket  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	SW mm	OR
VERSCHLUSS O 02	5/16"-24 UNF	11	6.07 x 1.63
VERSCHLUSS O 03	3/8"-24 UNF	13	7.65 x 1.78
VERSCHLUSS O 04	7/16"-20 UNF	14	8.92 x 1.83
VERSCHLUSS O 05	1/2"-20 UNF	16	10.52 x 1.83
VERSCHLUSS O 06	9/16"-18 UNF	18	11.90 x 1.98
VERSCHLUSS O 08	3/4"-16 UNF	22	16.36 x 2.20
VERSCHLUSS O 10	7/8"-14 UNF	25	19.18 x 2.46
VERSCHLUSS O 12	1.1/16" -12 UN	32	23.47 x 2.95
VERSCHLUSS O 14	1.3/16" -12 UN	35	26.59 x 2.95
VERSCHLUSS O 16	1.5/16" -12 UN	38	29.74 x 2.95
VERSCHLUSS O 20	1.5/8" -12 UN	48	37.47 x 3.00
VERSCHLUSS O 24	1.7/8" -12 UN	54	43.69 x 3.00
VERSCHLUSS O 32	2.1/2" -12 UN	70	59.36 x 3.00

SW, S1, S2 = With across flats

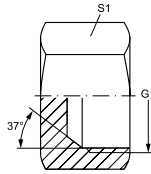
**VERSCHLUSS O IS****Blanking socket, with hexagon socket**

<b>Connection 1:</b>	UN/UNF external threads
<b>Sealing form 1:</b>	O-ring seal
<b>Design:</b>	Blanking socket, with hexagon socket
<b>Construction:</b>	straight
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1	S1	OR
VERSCHLUSS O 02 IS	5/16"-24 UNF	3	6.07 x 1.63
VERSCHLUSS O 03 IS	3/8"-24 UNF	4	7.65 x 1.78
VERSCHLUSS O 04 IS	7/16"-20 UNF	5	8.92 x 1.83
VERSCHLUSS O 05 IS	1/2"-20 UNF	5	10.52 x 1.83
VERSCHLUSS O 06 IS	9/16"-18 UNF	6	11.90 x 1.98
VERSCHLUSS O 08 IS	3/4"-16 UNF	8	16.36 x 2.20
VERSCHLUSS O 10 IS	7/8"-14 UNF	10	19.18 x 2.46
VERSCHLUSS O 12 IS	1.1/16" -12 UN	14	23.47 x 2.95
VERSCHLUSS O 14 IS	1.3/16" -12 UN	14	26.59 x 2.95
VERSCHLUSS O 16 IS	1.5/16" -12 UN	17	29.74 x 2.95
VERSCHLUSS O 20 IS	1.5/8" -12 UN	22	37.47 x 3.00
VERSCHLUSS O 24 IS	1.7/8" -12 UN	22	43.69 x 3.00
VERSCHLUSS O 32 IS	2.1/2" -12 UN	22	59.36 x 3.00

SW, S1, S2 = With across flats

**VERSCHLUSS IJ****Blanking nut**

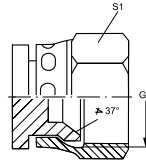
**Connection 1:** UN/UNF inner thread  
**Sealing form 1:** 74° inner cone  
**Design:** Blanking nut straight  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	S1
VERSCHLUSS IJ 04	7/16"-20 UNF	14
VERSCHLUSS IJ 05	1/2"-20 UNF	17
VERSCHLUSS IJ 06	9/16"-18 UNF	19
VERSCHLUSS IJ 08	3/4"-16 UNF	22
VERSCHLUSS IJ 10	7/8"-14 UNF	27
VERSCHLUSS IJ 12	1.1/16" -12 UN	32
VERSCHLUSS IJ 16	1.5/16" -12 UN	41
VERSCHLUSS IJ 20	1.5/8" -12 UN	50
VERSCHLUSS IJ 24	1.7/8" -12 UN	60
VERSCHLUSS IJ 32	2.1/2" -12 UN	73

SW, S1, S2 = With across flats

**VERSCHLUSS AJ****Blanking nut**

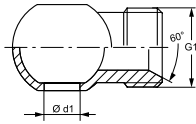
**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Design:** Blanking nut  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	S1
VERSCHLUSS AJ 04	7/16"-20 UNF	14
VERSCHLUSS AJ 05	1/2"-20 UNF	17
VERSCHLUSS AJ 06	9/16"-18 UNF	19
VERSCHLUSS AJ 08	3/4"-16 UNF	22
VERSCHLUSS AJ 10	7/8"-14 UNF	27
VERSCHLUSS AJ 12	1.1/16" -12 UN	32
VERSCHLUSS AJ 14	1.3/16" -12 UN	35
VERSCHLUSS AJ 16	1.5/16" -12 UN	41
VERSCHLUSS AJ 20	1.5/8" -12 UN	50
VERSCHLUSS AJ 24	1.7/8" -12 UN	60
VERSCHLUSS AJ 32	2.1/2" -12 UN	75
SW, S1, S2 = With across flats		

**Product versions:**

**VERSCHLUSS AJ VA** - Blanking nut, Stainless steel

**G BR HB****Connectors, banjo**

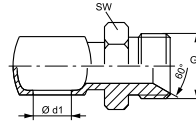
**Connection 1:** Imperial ring eye  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** 60° inner cone  
**Design:** Connectors, ring thread piece  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	Ø d1 mm	for hollow screw
G BR 02 HB	G 1/8" -28	9,8	R 1/8"
G BR 04 HB	G 1/4" -19	13,2	R 1/4"
G BR 06 HB	G 3/8" -19	16,7	R 3/8"
G BR 08 HB	G 1/2" -14	21,0	R 1/2"
G BR 10 HB	G 5/8" -14	23,0	R 5/8"
G BR 12 HB	G 3/4" -14	26,5	R 3/4"



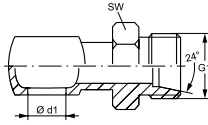
**GBH****Connection sockets**

**Connection 1:** Metric banjos  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 60° inner cone  
**Design:** Connection sockets  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	Ø d1 mm	for hollow screw	SW mm
G B 02 H	M 10 x 1	8	M 8	14
G B 04 H	M 12 x 1.5	10	M 10	17
G B 04 H 06	M 14 x 1.5	10	M 10	19
G B 06 H	M 14 x 1.5	12	M 12	19
G B 08 H 06	M 14 x 1.5	14	M 14	19
G B 08 H	M 16 x 1.5	14	M 14	22
G B 10 H	M 18 x 1.5	16	M 16	24
G B 13 H	M 22 x 1.5	18	M 18	27
G B 16 H	M 26 x 1.5	22	M 22	27
G B 20 H	M 30 x 1.5	26	M 26	36
G B 25 H	M 38 x 1.5	30	M 30	41

SW = Width across flats

**GB HL****Connectors, banjo**

**Connection 1:** Metric banjos  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Connectors, ring thread piece straight  
**Construction:** straight  
**Material:** Steel  
**Surface:** electro galvanised

Identification	External pipe Ø mm	G1	Ø d1 mm	for hollow screw	SW mm
GB 04 HL	6	M 12 x 1.5	10	M 10	17
GB 06 HL	8	M 14 x 1.5	12	M 12	19
GB 08 HL 06	8	M 14 x 1.5	14	M 14	19
GB 08 HL	10	M 16 x 1.5	14	M 14	22
GB 10 HL	12	M 18 x 1.5	16	M 16	24
GB 13 HL 10	12	M 18 x 1.5	18	M 18	24
GB 13 HL	15	M 22 x 1.5	18	M 18	27
GB 16 HL 13	15	M 22 x 1.5	22	M 22	27
GB 16 HL	18	M 26 x 1.5	22	M 22	32

SW = Width across flats

**V KAE****Connector**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** flat sealing  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** Flat seal  
**Material:** MS/ST-NI



Identification	G1	G2	SW mm
V NW 10 KAE 97	M 22 x 1.5	M 22 x 1.5	27
SW = Width across flats			

**V WAP****Connector**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** flat sealing  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** Flat seal  
**Material:** MS/ST-NI

Identification	G1	G2	SW mm
V NW 10 WAP	M 21 x 1.5		22
SW = Width across flats			

3

**WEO SB G****WEO socket**

**Connection 1:** WEO socket  
**Sealing form 1:** O-ring seal  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** Shape A  
**Material:** Steel



Identification	Size	Working pressure bar	G1	Ø D1 mm	i mm	L1 mm	S1
WEO 10 SB G1/4	1/4"	PN 350	G 1/4" -19	10	12	38	19
WEO 13 SB G3/8	3/8"	PN 350	G 3/8" -19	13	12	41	22
WEO 16 SB G1/2	1/2"	PN 350	G 1/2" -14	16	14	43	27
WEO 23 SB G3/4	3/4"	PN 350	G 3/4" -14	23	16	56	36
WEO 30 SB G1	1"	PN 250	G 1" -11	30	18	67	41

SW, S1, S2 = With across flats

**Spare parts:**

**WEO B DISA - WEO sealing set**

**WEO SB G ED****WEO socket**

**Connection 1:** WEO socket  
**Sealing form 1:** O-ring seal  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** Shape E  
**Material:** Steel

Identification	Size	Working pressure bar	G1	Ø D1 mm	i mm	L1 mm	S1
WEO 10 SB G1/4 ED	1/4"	PN 350	G 1/4" -19	10	12	38	19
WEO 13 SB G3/8 ED	3/8"	PN 350	G 3/8" -19	13	12	41	22
WEO 16 SB G1/2 ED	1/2"	PN 350	G 1/2" -14	16	14	43	27

SW, S1, S2 = With across flats

**Spare parts:**

**WD** - Soft seal for ED fittings

**WEO B DISA** - WEO sealing set

**WEO SB M S****WEO socket**

**Connection 1:** WEO screw-in bushing  
**Sealing form 1:** O-ring seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** special screw-in hole  
**Material:** Steel



Identification	Size	Working pressure bar	G1	Ø D1 mm	L1 mm	S1
WEO 13 SB M24-1.5 S	3/8"	PN 350	M 24 x 1.5	13	23,5	24
WEO 16 SB M27-1.5 S	1/2"	PN 350	M 27 x 1.5	16	23,7	27
WEO 23 SB M36-1.5 S	3/4"	PN 350	M 36 x 1.5	23	33,5	36

SW, S1, S2 = With across flats

**Spare parts:**

**WEO B DISA** - WEO sealing set

**WEO SB HL / WEO SB HS****WEO socket**

**Connection 1:** WEO socket  
**Sealing form 1:** O-ring seal  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Material:** Steel

Identification	Series	Ø d2 mm	Size	Working pressure bar	G1	Ø D1 mm	L1 mm	S1
WEO 10 SB NW 06 HL	L	8	1/4"	PN 250	M 14 x 1.5	10	36	19
WEO 13 SB NW 10 HL	L	12	3/8"	PN 250	M 18 x 1.5	13	40	22
WEO 16 SB NW 13 HL	L	15	1/2"	PN 250	M 22 x 1.5	16	41	27
WEO 23 SB NW 20 HL	L	22	3/4"	PN 160	M 30 x 2	23	54	32
WEO 10 SB NW 04 HS	S	8	1/4"	PN 350	M 16 x 1.5	10	38	19
WEO 13 SB NW 08 HS	S	12	3/8"	PN 350	M 20 x 1.5	13	41	22
WEO 16 SB NW 13 HS	S	16	1/2"	PN 350	M 24 x 1.5	16	43	27
WEO 23 SB NW 20 HS	S	25	3/4"	PN 250	M 36 x 2	23	58	41

Ø d2 = External pipe diameter SW, S1, S2 = With across flats

**Spare parts:****WEO B DISA** - WEO sealing set



**WEO SB FL / WEO SB FS****WEO socket**

**Connection 1:** WEO socket  
**Sealing form 1:** O-ring seal  
**Connection 2:** Pipe sockets  
**Sealing form 2:** Pipe socket with cutting ring  
**Material:** Steel



Identification	Series	Ø d2 mm	Size	Working pressure bar	Ø D1 mm	L1 mm	S1
WEO 10 SB NW 06 FL	L	8	1/4"	PN 250	10	48	19
WEO 13 SB NW 10 FL	L	12	3/8"	PN 250	13	51	22
WEO 16 SB NW 13 FL	L	15	1/2"	PN 250	16	54	27
WEO 23 SB NW 20 FL	L	22	3/4"	PN 250	23	68	32
WEO 16 SB NW 13 FS	S	16	1/2"	PN 350	16	59	27
Ø d2 = External pipe diameter		SW, S1, S2 = With across flats					

**Spare parts:**

**WEO B DISA** - WEO sealing set

**WEO SB HJ****WEO socket**

**Connection 1:** WEO socket  
**Sealing form 1:** O-ring seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Material:** Steel

Identification	Size	Working pressure bar	G1	Ø D1 mm	L1 mm	S1
WEO 10 SB HJ 04	1/4"	PN 350	7/16"-20 UNF	10	40,0	19
WEO 13 SB HJ 06	3/8"	PN 200	9/16"-18 UNF	13	43,1	22
WEO 16 SB HJ 08	1/2"	PN 200	3/4"-16 UNF	16	45,7	27
WEO 16 SB HJ 10	1/2"	PN 200	7/8"-14 UNF	16	48,3	27
WEO 16 SB HJ 12	1/2"	PN 250	1.1/16" -12 UN	16	50,9	30
WEO 23 SB HJ 12	3/4"	PN 250	1.1/16" -12 UN	23	61,9	32

SW, S1, S2 = With across flats

**Spare parts:**

**WEO B DISA** - WEO sealing set

**WEO SB O****WEO socket**

**Connection 1:** WEO socket  
**Sealing form 1:** O-ring seal  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** Shape F  
**Material:** Steel



Identification	Size	Working pressure bar	G1	Ø D1 mm	i mm	L1 mm	S1	OR
WEO 10 SB O 04	1/4"	PN 350	7/16"-20 UNF	10	9	35	19	8.92 x 1.83
WEO 13 SB O 06	3/8"	PN 350	9/16"-18 UNF	13	10	39	22	11.90 x 1.98
WEO 16 SB O 08	1/2"	PN 350	3/4"-16 UNF	16	11	40	27	16.36 x 2.20
WEO 23 SB O 12	3/4"	PN 350	1.1/16"-12 UN	23	15	55	32	23.47 x 2.95
WEO 30 SB O 16	1"	PN 250	1.5/16"-12 UN	30	15	64	41	29.74 x 2.95

SW, S1, S2 = With across flats

**Spare parts:**

**WEO B DISA** - WEO sealing set

3

**WEO S G****WEO plug**

**Connection 1:** WEO plug  
**Sealing form 1:** O-ring sealed socket  
**Connection 2:** BSP cylindrical external threads  
**Sealing form 2:** Shape A  
**Material:** Steel

Identification	Size	Working pressure bar	G1	Ø D1 mm	i mm	L1 mm	S1
WEO 10 S G1/4	1/4"	PN 350	G 1/4" -19	10	19,0	43,0	19
WEO 13 S G3/8	3/8"	PN 350	G 3/8" -19	13	22,0	48,5	22
WEO 16 S G1/2	1/2"	PN 350	G 1/2" -14	16	22,0	52,0	27
WEO 30 S G1	1"	PN 250	G 1" -11	30	38,5	77,0	41

SW, S1, S2 = With across flats

**Spare parts:**

WEO S DEMORING - WEO disassembly ring

WEO S M ANSCHLAG - WEO fitting stop

**WEO S HL / WEO S HS****WEO plug**

**Connection 1:** WEO plug  
**Sealing form 1:** O-ring sealed socket  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Material:** Steel



Identification	Series	Ø d2 mm	Size	Working pressure bar	G1	Ø D1 mm	L1 mm	S1
WEO 10 S NW 04 HS	S	8	1/4"	PN 350	M 16 x 1.5	10	40,0	17
WEO 13 S NW 08 HS	S	12	3/8"	PN 350	M 20 x 1.5	13	45,0	21

Ø d2 = External pipe diameter SW, S1, S2 = With across flats

**Spare parts:**

**WEO S DEMORING** - WEO disassembly ring

**WEO S M ANSCHLAG** - WEO fitting stop

3

**WEO VB SB****WEO double coupling**

**Connection 1:** WEO socket  
**Sealing form 1:** O-ring seal  
**Connection 2:** WEO socket  
**Sealing form 2:** O-ring sealed socket  
**Material:** Steel

Identification	Size	Working pressure bar	G	Ø D1 mm	L1 mm	SW mm
WEO VB 10 SB	1/4"	PN 350	M 21 x 1.5	10	42,8	22
WEO VB 13 SB	3/8"	PN 350	M 26 x 1.5	13	50,8	27
WEO VB 16 SB	1/2"	PN 350	M 30 x 2	16	50,0	32

SW = Width across flats

**Spare parts:**

**WEO B DISA** - WEO sealing set

**WEO VS SB****WEO locking socket**

**Connection 1:** WEO socket  
**Sealing form 1:** O-ring seal  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Size	Working pressure bar	Ø D1 mm	L1 mm	SW mm	S1
WEO VS 10 SB	1/4"	PN 350	10	28,0	20	19
WEO VS 13 SB	3/8"	PN 350	13	31,0	24	22
WEO VS 16 SB	1/2"	PN 350	16	32,0	28	27
WEO VS 23 SB	3/4"	PN 350	23	44,0	32	32
WEO VS 30 SB	1"	PN 250	30	55,0	41	41

SW, S1, S2 = With across flats

3

**WEO VS S****WEO locking plug**

**Connection 1:** WEO plug  
**Sealing form 1:** O-ring sealed socket  
**Material:** Steel  
**Surface:** electro galvanised

Identification	Size	Working pressure bar	Ø D1 mm	Ø D2 mm	L1 mm	L2 mm
WEO VS 10 S	1/4"	PN 350	10	12	43,0	19,0
WEO VS 13 S	3/8"	PN 350	13	16	50,0	22,0
WEO VS 16 S	1/2"	PN 350	16	19	50,0	22,0
WEO VS 23 S	3/4"	PN 350	23	25	59,0	31,0
WEO VS 30 S	1"	PN 250	30	33	75,0	38,5

**Spare parts:**

WEO S DEMORING - WEO disassembly ring

WEO S M ANSCHLAG - WEO fitting stop



**WEO B DISA****WEO sealing set****Included in scope****of supply:**

O-ring and support ring

**Material:**

NBR



Identification	Size
WEO 10 B DISA	1/4"
WEO 13 B DISA	3/8"
WEO 16 B DISA	1/2"
WEO 23 B DISA	3/4"
WEO 30 B DISA	1"

**Spare part for following products:****WEO SB G** - WEO socket**WEO SB G ED** - WEO socket**WEO SB HJ** - WEO socket**WEO SB FL / WEO SB FS** - WEO socket**WEO SB O** - WEO socket**WEO SB M S** - WEO socket**WEO SB HL / WEO SB HS** - WEO socket**WEO VS SB** - WEO locking socket**WEO VB SB** - WEO double coupling

**WEO S DEMORING****WEO disassembly ring****Material:** Plastic

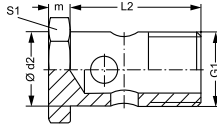
Identification	Size
WEO 10 S DEMORING	1/4"
WEO 13 S DEMORING	3/8"
WEO 16 S DEMORING	1/2"
WEO 23 S DEMORING	3/4"
WEO 30 S DEMORING	1"

**Spare part for following products:****WEO S G** - WEO plug**WEO S HL / WEO S HS** - WEO plug**WEO VS S** - WEO locking plug

**WEO S M ANSCHLAG****WEO fitting stop****Material:** Plastic

Identification	Size
WEO 10 S M ANSCHLAG	1/4"
WEO 13 S M ANSCHLAG	3/8"
WEO 16 S M ANSCHLAG	1/2"
WEO 23 S M ANSCHLAG	3/4"
WEO 30 S M ANSCHLAG	1"

**Spare part for following products:****WEO S G** - WEO plug**WEO S HL / WEO S HS** - WEO plug**WEO VS S** - WEO locking plug

**HS R****Hollow screw**

**Connection 1:** BSP external thread, cylindrical  
**Design:** Hollow screw  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	Ø d2 mm	L2 mm	m mm	S1
HS R 1/8	G 1/8" -28	9,9	19,0	5	14
HS R 1/4	G 1/4" -19	13,1	25,5	5	17
HS R 3/8	G 3/8" -19	16,6	31,0	7	22
HS R 1/2	G 1/2" -14	20,9	40,0	8	27
HS R 5/8	G 5/8" -14	22,9	47,0	9	32
HS R 3/4	G 3/4" -14	26,4	47,0	10	32
HS R 1	G 1" -11	33,2	58,0	10	41

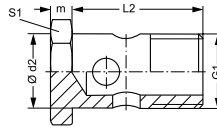
SW, S1, S2 = With across flats

**Product versions:**

**HS R VA** - Hollow screw, Stainless steel

**HS M****Hollow screw**

**Connection 1:** metric cylindrical outer thread  
**Design:** Hollow screw  
**Material:** Steel  
**Surface:** electro galvanised

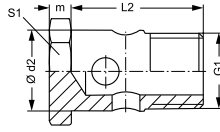


Identification	G1	Ø d2 mm	L2 mm	m mm	S1
HS M 06	M 6 x 1	6	17	4	11
HS M 08	M 8 x 1	8	17	5	12
HS M 10	M 10 x 1	10	19	6	14
HS M 12	M 12 x 1.5	12	24	6	17
HS M 14	M 14 x 1.5	14	26	6	19
HS M 16	M 16 x 1.5	16	28	6	22
HS M 18	M 18 x 1.5	18	32	6	24
HS M 22	M 22 x 1.5	22	39	7	27
HS M 26	M 26 x 1.5	26	45	7	32
HS M 30	M 30 x 1.5	30	51	7	36
HS M 38	M 38 x 1.5	38	61	8	46

SW, S1, S2 = With across flats

**Product versions:**

**HS M VA** - Hollow screw, Stainless steel

**HSM R****Hollow screw**

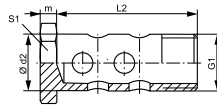
**Connection 1:** BSP external thread, cylindrical  
**Design:** Hollow screw  
**Supplementary design information:** Metric banjo  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	Ø d2 mm	L2 mm	S1
HSM R 1/8	G 1/8" -28	10,0	19	14
HSM R 1/4	G 1/4" -19	14,0	26	19
HSM R 1/2	G 1/2" -14	22,0	39	27

SW, S1, S2 = With across flats

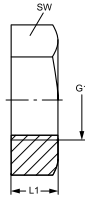
**DHS M / DHS R****Double hollow screw**

**Connection 1:** metric / BSP external thread  
**Design:** Double hollow screw  
**Standard:** DIN 7643  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	Ø d2 mm	L2 mm	m mm	S1
DHS M 06	M 6 x 1	6	25	5	11
DHS M 08	M 8 x 1	8	27	5	12
DHS M 10	M 10 x 1	10	30	6	14
DHS M 12	M 12 x 1.5	12	38	6	17
DHS M 14	M 14 x 1.5	14	42	6	19
DHS M 16	M 16 x 1.5	16	46	6	22
DHS M 18	M 18 x 1.5	18	54	6	24
DHS M 22	M 22 x 1.5	22	69	7	27
DHS M 26	M 26 x 1.5	26	77	8	32
DHS M 30	M 30 x 1.5	30	86	8	36
DHS R 1/4	G 1/4" -19	13	41	6	19

SW, S1, S2 = With across flats

**KM UNF****Counter nut**

**Connection 1:** UN/UNF inner thread  
**Design:** Counter nut  
**Standard:** ISO 8434-2  
**Material:** Steel  
**Surface:** electro galvanised

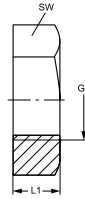
Identification	G1	L1 mm	SW mm
KM 04 UNF	7/16"-20 UNF	6,4	17
KM 05 UNF	1/2"-20 UNF	6,4	19
KM 06 UNF	9/16"-18 UNF	6,9	22
KM 08 UNF	3/4"-16 UNF	7,9	24
KM 10 UNF	7/8"-14 UNF	9,1	30
KM 12 UNF	1.1/16" -12 UN	10,4	36
KM 16 UNF	1.5/16" -12 UN	10,4	41
KM 20 UNF	1.5/8" -12 UN	10,4	50
KM 24 UNF	1.7/8" -12 UN	10,4	55
KM 32 UNF	2.1/2" -12 UN	10,4	70

SW = Width across flats



**KM JF****Counter nut**

**Connection 1:** ORFS inner thread  
**Design:** Counter nut  
**Standard:** ISO 8434-2  
**Material:** Steel  
**Surface:** electro galvanised

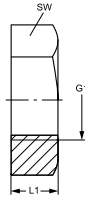


Identification	G1	L1 mm	SW mm
KM 04 JF	9/16"-18 UNF	7	22
KM 06 JF	11/16"-16 UN	8	27
KM 08 JF	13/16"-16 UN	9	30
KM 10 JF	1" -14 UNS	11	32
KM 12 JF	1.3/16" -12 UN	11	38
KM 16 JF	1.7/16" -12 UN	11	46
KM 20 JF	1.11/16" -12 UN	10	51
KM 24 JF	2" -12 UN	10	60

SW = Width across flats

**Product versions:**

**KM JF VA** - Counter nut, Stainless steel

**KM BSP****Counter nut**

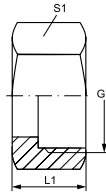
**Connection 1:** BSP cylindrical internal threads  
**Design:** Counter nut  
**Standard:** ISO 8434-3  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	L1 mm	SW mm
KM 02 BSP	G 1/8" -28	5	14
KM 04 BSP	G 1/4" -19	6	19
KM 06 BSP	G 3/8" -19	7	22
KM 08 BSP	G 1/2" -14	8	27
KM 10 BSP	G 5/8" -14	7	30
KM 12 BSP	G 3/4" -14	9	32
KM 16 BSP	G 1" -11	10	41
KM 20 BSP	G 1.1/4" -11	13	50
KM 24 BSP	G 1.1/2" -11	15	55
KM 32 BSP	G 2" -11	15	70

SW = Width across flats

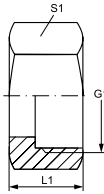
**UEM AB****Union nut AB**

**Connection 1:** BSP nut thread  
**Design:** Union nut  
**Standard:** ISO 8434-6  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	L1 mm	S1
UEM AB 02	G 1/8" -28	15,0	14
UEM AB 04	G 1/4" -19	15,0	17
UEM AB 06	G 3/8" -19	18,0	22
UEM AB 08	G 1/2" -14	20,0	27
UEM AB 10	G 5/8" -14	23,0	27
UEM AB 12	G 3/4" -14	23,0	32
UEM AB 16	G 1" -11	26,0	41
UEM AB 20	G 1.1/4" -11	28,0	50
UEM AB 24	G 1.1/2" -11	32,5	60

SW, S1, S2 = With across flats

**UEM AJF****Union nut AJF**

**Connection 1:** ORFS nut threads  
**Sealing form 1:** flat sealing  
**Design:** Union nut  
**Standard:** ISO 8434-3  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	L1 mm	S1
UEM AJF 04	9/16"-18 UNF	15,0	17
UEM AJF 06	11/16"-16 UN	17,0	22
UEM AJF 08	13/16"-16 UN	20,0	24
UEM AJF 10	1" -14 UNS	24,0	30
UEM AJF 12	1.3/16" -12 UN	26,5	36
UEM AJF 16	1.7/16" -12 UN	27,5	41
UEM AJF 20	1.11/16" -12 UN	27,5	50
UEM AJF 24	2" -12 UN	27,5	60

SW, S1, S2 = With across flats

**Product versions:**

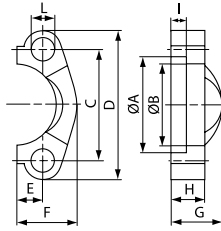
**UEM AJF VA** - Union nut AJF, Stainless steel





## Flanges

<b>SAE high pressure flanges</b>		<b>SAE high pressure flanges (SAE T block)</b>	
SAE flange halves	674	Flange	744
SAE flange half, flat	676	Counter flanges	745
SAE full flanges	678		
<b>SAE high pressure flanges (straight)</b>		<b>Pump flanges (straight)</b>	
Stub ends	681	Pump connections (4 hole)	746
Flange connector stub ends	683		
Welded on flanges	685	<b>Pump flanges (angle 90°)</b>	
Socket weld flanges	693	Pump connections (2 hole)	751
Flange heads	696	Pump connections (3 hole)	752
Screw-in flanges	697	Pump connections (4 hole)	755
External thread flanges	704		
Reductions	710	<b>Cetop flanges (straight)</b>	
Adapter flanges with measuring connection	711	Welded on flanges	757
Shims	712	Short stub end with O-ring groove	759
End plates	713	Short stub end without O-ring groove	761
Blind plates	714	Square flanges	763
Locking flanges	717		
Flare flanges	719	<b>Individual parts</b>	
Flare flange connectors	720	Screw sets	765
Socket weld flanges ND 40	721	Hexagon socket screws	767
Socket weld flange connectors ND 40	723	Lock washers	768
		Flange seals	769
<b>SAE high pressure flanges (angle 90°)</b>			
Welded on flanges	724		
Socket weld flanges	730		
Screw-in flanges	732		
Soldered connecting piece flange adapters	736		
Forged connecting piece flange adapters	738		
Block flanges	742		
Reduction block flanges	743		

**FH (3000 PSI)****SAE flange half**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J518, ISO 6162-1 /-2
<b>Construction:</b>	straight
<b>Design:</b>	SAE flange half
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	electro galvanised

**Note:** Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	L mm	M metr.	M unc
FH 3001	350	1/2"	31,0	24,3	38,1	54	8,7	22,8	19	13	6,2	8,7	M 8 x 25	5/16" x 1.1/4"
FH 3002	350	3/4"	38,9	32,1	47,6	65	11,1	25,9	22	14	6,2	10,7	M 10 x 30	3/8" x 1.1/4"
FH 3003	315	1"	45,2	38,5	52,4	70	13,1	29,2	24	16	7,5	10,7	M 10 x 30	3/8" x 1.1/4"
FH 3004	250	1.1/4"	51,6	43,7	58,7	79	15,1	36,3	22	16	7,5	12,0	M 10 x 30	7/16" x 1.1/2"
FH 3014	250	1.1/4"	51,6	43,7	58,7	79	15,1	36,3	22	16	7,5	10,7	M 10 x 30	-
FH 3044	250	1.1/4"	51,6	43,7	58,7	79	15,1	36,3	22	16	7,5	12,7	M 12 x 35	-
FH 3005	200	1.1/2"	61,1	50,8	69,9	94	17,9	41,1	25	16	7,5	13,5	M 12 x 35	1/2" x 1.1/2"
FH 3006	200	2"	72,2	62,7	77,8	102	21,4	48,2	26	16	9,0	13,5	M 12 x 35	1/2" x 1.1/2"
FH 3007	160	2.1/2"	84,9	74,9	88,9	114	25,4	54,1	38	19	9,0	13,5	M 12 x 40	1/2" x 1.1/2"
FH 3008	160	3"	102,4	90,9	106,4	135	31,0	65,3	41	22	9,0	17,0	M 16 x 50	5/8" x 2"
FH 3009	35	3.1/2"	115,1	102,4	120,7	152	34,9	69,5	28	22	10,7	17,0	M 16 x 50	5/8" x 2"
FH 3010	35	4"	127,8	115,1	130,2	162	38,9	76,0	35	25	10,7	17,0	M 16 x 50	5/8" x 2"
FH 3011	35	5"	153,2	140,5	152,4	184	46,0	90,0	41	28	10,7	17,0	M 16 x 55	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø = External pipe diameter

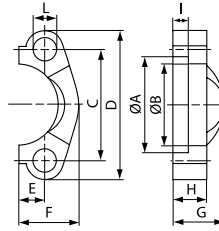
**Product versions:**

**SFH (3000 PSI / 6000 PSI) VA** - SAE flange half, Stainless steel



**FH (6000 PSI)****SAE flange half**

**Pressure series:** 6000 psi  
**Standard:** SAE J518, ISO 6162-1 /-2  
**Construction:** straight  
**Design:** SAE flange half  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** electro galvanised



**Note:** Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	L mm	M metr.	M unc
FH 6001	400	1/2"	32,5	24,6	40,5	56	9,1	23,6	22	16	7,2	8,7	M 8 x 30	5/16" x 1.1/4"
FH 6002	400	3/4"	42,1	32,5	50,8	71	11,9	30,0	28	19	8,3	10,7	M 10 x 35	3/8" x 1.1/2"
FH 6003	400	1"	48,4	38,9	57,2	81	13,9	34,8	33	24	9,0	13,0	M 12 x 45	-
FH 6013	400	1"	48,4	38,9	57,2	81	13,9	34,8	33	24	9,0	12,0	-	7/16" x 1.3/4"
FH 6004	400	1.1/4"	54,8	44,5	66,7	95	15,9	38,6	38	27	9,8	14,7	M 14 x 45	-
FH 6044	400	1.1/4"	54,8	44,5	66,7	95	15,9	38,6	38	27	9,8	13,5	-	1/2" x 1.3/4"
FH 6005	400	1.1/2"	64,3	51,6	79,4	113	18,3	47,5	43	30	12,1	17,0	M 16 x 55	5/8" x 2"
FH 6006	400	2"	80,2	67,6	96,8	133	22,2	56,9	52	37	12,1	21,0	M 20 x 70	3/4" x 2.1/2"

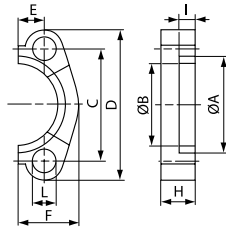
Ø = External pipe diameter    Series: LL = Very light    L = Light    S = Heavy    PN = Nominal pressure    PB = Max. operating pressure

**Product versions:**

SFH (3000 PSI / 6000 PSI) VA - SAE flange half, Stainless steel

## HF (3000 PSI)

### SAE flange half, flat



<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Supplementary design information:</b>	Flat
<b>Construction:</b>	straight
<b>Design:</b>	SAE flange half
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	Steel C 60
<b>Surface:</b>	electro galvanised

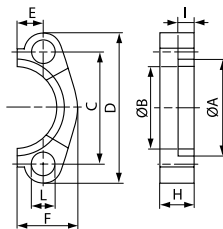
**Note:** Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A mm	B mm	C mm	D mm	E mm	F mm	H mm	I mm	L mm	M metr.	M unc
HF 3001	350	1/2"	31,0	24,3	38,1	54	8,7	22,8	13	6,2	9	M 8 x 25	5/16" x 1.1/4"
HF 3002	350	3/4"	38,9	32,1	47,6	65	11,1	25,9	14	6,2	11	M 10 x 30	3/8" x 1.1/4"
HF 3003	315	1"	45,2	38,5	52,4	70	13,1	29,2	16	7,5	11	M 10 x 30	3/8" x 1.1/4"
HF 3004	250	1.1/4"	51,6	43,7	58,7	79	15,1	36,6	16	7,5	11	M 10 x 35	
HF 3005	200	1.1/2"	61,1	50,8	69,9	94	17,9	41,1	16	7,5	13	M 12 x 35	1/2" x 1.1/2"
HF 3006	200	2"	72,2	62,7	77,8	102	21,4	48,2	16	9,0	13	M 12 x 35	1/2" x 1.1/2"

PN = Nominal pressure PB = Max. operating pressure

**HF (6000 PSI)****SAE flange half, flat**

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Supplementary design information:</b>	Flat
<b>Construction:</b>	straight
<b>Design:</b>	SAE flange half
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	Steel C 60
<b>Surface:</b>	electro galvanised



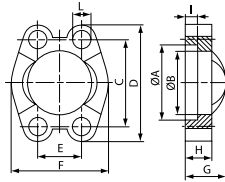
**Note:** Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A mm	B mm	C mm	D mm	E mm	F mm	H mm	I mm	L mm	M metr.	M unc
HF 6001	400	1/2"	32,5	24,6	40,5	56	9,1	23,6	16	7,2	9	M 8 x 30	5/16" x 1.1/4"
HF 6002	400	3/4"	42,1	32,5	50,8	71	11,9	30,0	20	8,3	11	M 10 x 35	3/8" x 1.1/2"
HF 6003	400	1"	48,4	38,9	57,2	81	13,9	34,8	25	9,0	13	M 12 x 45	7/16" x 1.3/4"
HF 6004	400	1.1/4"	54,8	44,5	66,7	95	15,9	38,6	27	9,8	15	M 14 x 45	1/2" x 1.3/4"
HF 6005	400	1.1/2"	64,3	51,6	79,4	113	18,3	47,5	30	12,1	17	M 16 x 50	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

## VF (3000 PSI)

### SAE full flange



<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J518, ISO 6162-1 /-2
<b>Construction:</b>	straight
<b>Design:</b>	SAE full flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	electro galvanised

**Note:** Recommended screws are listed in the columns M (metr) and M (unc).

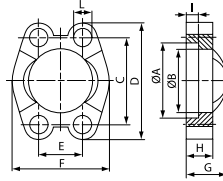
Identification	PB 10.9 bar	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	L mm	M metr.	M unc
VF 3001	350	1/2"	31,0	24,3	38,1	54	17,5	45,6	19	13	6,2	8,7	M 8 x 25	5/16" x 1.1/4"
VF 3002	350	3/4"	38,9	32,1	47,6	65	22,2	51,8	22	14	6,2	10,7	M 10 x 30	3/8" x 1.1/4"
VF 3003	315	1"	45,2	38,5	52,4	70	26,2	58,4	24	16	7,5	10,7	M 10 x 30	3/8" x 1.1/4"
VF 3004	250	1.1/4"	51,6	43,7	58,7	79	30,2	72,6	22	16	7,5	12,0	M 10 x 30	7/16" x 1.1/2"
VF 3004-6000	400	1.1/4"	51,6	43,7	58,7	80	30,2	73,0	33	24	7,5	12,5	M 12 x 45	-
VF 3005	200	1.1/2"	61,1	50,8	69,9	94	35,7	82,2	25	16	7,5	13,5	M 12 x 35	1/2" x 1.1/2"
VF 3006	200	2"	72,2	62,7	77,8	102	42,9	96,4	26	16	9,0	13,5	M 12 x 35	1/2" x 1.1/2"
VF 3006-6000	400	2"	72,2	62,7	77,8	103	42,9	97,0	43	30	9,0	13,5	M 12 x 50	-
VF 3007	160	2.1/2"	84,9	74,9	88,9	114	50,8	108,2	38	19	9,0	13,5	M 12 x 40	1/2" x 1.1/2"
VF 3008	160	3"	102,4	90,9	106,4	135	61,9	130,6	41	22	9,0	17,0	M 16 x 50	5/8" x 2"
VF 3009	35	3.1/2"	115,1	102,4	120,7	152	69,9	139,0	28	22	10,7	17,0	M 16 x 50	5/8" x 2"
VF 3010	35	4"	127,8	115,1	130,2	162	77,8	152,0	35	25	10,7	17,0	M 16 x 50	5/8" x 2"
VF 3011	35	5"	153,2	140,5	152,4	184	92,1	180,0	41	28	10,7	17,0	M 16 x 55	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

## VF (6000 PSI)

## SAE full flange

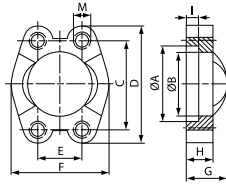
**Pressure series:** 6000 psi  
**Standard:** SAE J518, ISO 6162-1 /-2  
**Construction:** straight  
**Design:** SAE full flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** electro galvanised



**Note:** Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	L mm	M metr.	M unc
VF 6001	400	1/2"	32,5	24,6	40,5	56	18,2	47,2	22	16	7,2	8,7	M 8 x 30	5/16" x 1.1/4"
VF 6002	400	3/4"	42,1	32,5	50,8	71	23,8	60,0	28	19	8,3	10,7	M 10 x 35	3/8" x 1.1/2"
VF 6003	400	1"	48,4	38,9	57,2	81	27,8	69,9	33	24	9,0	13,0	M 12 x 45	-
VF 6003-12	400	1"	48,4	38,9	57,2	81	27,8	69,9	33	24	9,0	12,0	-	7/16" x 1.3/4"
VF 6004	400	1.1/4"	54,8	44,5	66,7	95	31,8	77,2	38	27	9,8	14,7	M 14 x 45	1/2" x 1.3/4"
VF 6005	400	1.1/2"	64,3	51,6	79,4	113	36,5	95,0	43	30	12,1	17,0	M 16 x 55	5/8" x 2"
VF 6006	400	2"	80,2	67,6	96,8	133	44,5	113,8	52	37	12,1	21,0	M 20 x 70	3/4" x 2.1/2"

PN = Nominal pressure PB = Max. operating pressure

**VFG (3000 / 6000 PSI)****SAE full flange with thread**

<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE full flange
<b>Mounting:</b>	Inner thread for metric screws
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	electro galvanised

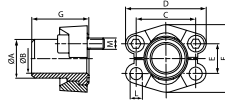
Identification	Pressure series	PB 10.9 bar	Size	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	M metr.
VFG 3001	3000 PSI	350	1/2"	31,0	24,3	38,1	54	17,5	45,6	19	13	6,2	M 8
VFG 3002	3000 PSI	350	3/4"	38,9	32,1	47,6	65	22,3	51,8	22	14	6,2	M 10
VFG 3003	3000 PSI	315	1"	45,2	38,5	52,4	70	26,2	58,4	24	16	7,5	M 10
VFG 3004	3000 PSI	250	1.1/4"	51,6	43,7	58,7	79	30,2	72,6	22	14	7,5	M 10
VFG 3005	3000 PSI	200	1.1/2"	61,1	50,8	69,9	94	35,7	82,2	25	16	7,5	M 12
VFG 3006	3000 PSI	200	2"	72,2	62,7	77,8	102	42,9	96,4	26	16	9,0	M 12
VFG 3007	3000 PSI	160	2.1/2"	84,9	74,9	88,9	114	50,8	108,2	38	19	9,0	M 12
VFG 3008	3000 PSI	160	3"	102,4	90,9	106,4	135	61,9	130,6	41	22	9,0	M 16
VFG 3009	3000 PSI	35	3.1/2"	115,1	102,4	120,7	152	69,9	139,0	28	22	10,7	M 16
VFG 3010	3000 PSI	35	4"	127,8	115,1	130,2	162	77,8	152,0	35	25	10,7	M 16
VFG 3011	3000 PSI	35	5"	153,2	140,5	152,4	184	92,1	180,0	41	28	10,7	M 16
VFG 6001	6000 PSI	400	1/2"	32,5	24,6	40,5	56	18,2	47,2	22	16	7,2	M 8
VFG 6002	6000 PSI	400	3/4"	42,1	32,5	50,8	71	23,8	60,0	28	19	8,3	M 10
VFG 6003	6000 PSI	400	1"	48,4	38,9	57,2	81	27,8	69,9	33	24	9,0	M 12
VFG 6004	6000 PSI	400	1.1/4"	54,8	44,5	66,7	95	31,8	77,2	38	27	9,8	M 14
VFG 6005	6000 PSI	400	1.1/2"	64,3	51,6	79,4	113	36,5	95,0	43	30	12,1	M 16
VFG 6006	6000 PSI	400	2"	80,2	67,6	96,8	133	44,5	113,8	52	37	12,1	M 20

PN = Nominal pressure PB = Max. operating pressure

## SFS (3000 PSI)

## SAE stub end

**Pressure series:** 3000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE stub end  
**Included in scope of supply:** short stub end only  
**Material:** S355J2G3 (ST52.3)



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	Pipe	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	L mm	M metr.	M unc
SFS 3001 S 16	350	1/2"	16 x 2	16,0	12,0	38,1	54	17,5	45,6	41	8,5	M 8 x 30	5/16" x 1.1/4"
SFS 3001-21.3	350	1/2"	21.3 x 4.7	22,0	15,5	38,1	54	17,5	45,6	41	8,5	M 8 x 30	5/16" x 1.1/4"
SFS 3002-25	350	3/4"	25 x 3	27,0	18,9	47,6	65	22,2	51,8	50	10,5	M 10 x 30	3/8" x 1.1/4"
SFS 3002-26.9	350	3/4"	26.9 x 3.9	27,0	18,9	47,6	65	22,2	51,8	50	10,5	M 10 x 30	3/8" x 1.1/4"
SFS 3003-28	315	1"	28 x 3	28,0	22,0	52,4	70	26,2	58,4	50	10,5	M 10 x 35	3/8" x 1.1/4"
SFS 3003-30	315	1"	30 x 4	30,0	22,0	52,4	70	26,2	58,4	50	10,5	M 10 x 35	3/8" x 1.1/4"
SFS 3003-33.7	315	1"	33.7 x 4.5	35,0	24,7	52,4	70	26,2	58,4	50	10,5	M 10 x 35	3/8" x 1.1/4"
SFS 3003-38	315	1"	38 x 5	38,0	28,0	52,4	70	26,2	58,4	50	10,5	M 10 x 35	3/8" x 1.1/4"
SFS 3004-38	250	1.1/4"	38 x 5	38,0	28,0	58,7	79	30,2	72,6	55	*1	*2	7/16" x 1.1/2"
SFS 3004-42.4	250	1.1/4"	42.4 x 6.3	43,0	29,7	58,7	79	30,2	72,6	55	*1	*2	7/16" x 1.1/2"
SFS 3005-38	200	1.1/2"	38 x 4	38,0	30,0	69,9	94	35,7	82,2	57	13,5	M 12 x 35	1/2" x 1.1/2"
SFS 3005-42	200	1.1/2"	42 x 5	42,0	32,0	69,9	94	35,7	82,2	57	13,5	M 12 x 35	1/2" x 1.1/2"
SFS 3005-45	200	1.1/2"	45 x 5	45,0	35,0	69,9	94	35,7	82,2	57	13,5	M 12 x 35	1/2" x 1.1/2"
SFS 3005-48.3	200	1.1/2"	48.3 x 7.1	49,0	34,0	69,9	94	35,7	82,2	57	13,5	M 12 x 35	1/2" x 1.1/2"
SFS 3006-55	200	2"	55 x 5	55,0	45,0	77,8	102	42,9	96,4	57	13,5	M 12 x 35	1/2" x 1.1/2"
SFS 3006-60.3	200	2"	60.3 x 8	60,3	44,0	77,8	102	42,9	96,4	57	13,5	M 12 x 35	1/2" x 1.1/2"
SFS 3007-65	160	2.1/2"	65 x 6	65,0	53,0	88,9	114	50,8	108,2	58	13,5	M 12 x 40	1/2" x 1.3/4"
SFS 3007-70	160	2.1/2"	70 x 7.5	70,0	55,0	88,9	114	50,8	108,2	58	13,5	M 12 x 40	1/2" x 1.3/4"
SFS 3007-76.1	160	2.1/2"	76.1 x 7.1	74,0	62,0	88,9	114	50,8	108,2	58	13,5	M 12 x 40	1/2" x 1.3/4"
SFS 3008-80	138	3"	80 x 6	80,0	68,0	106,4	135	61,9	130,6	60	16,7	M 16 x 45	5/8" x 2"
SFS 3008-88.9	138	3"	88.9 x 8	90,0	73,0	106,4	135	61,9	130,6	60	16,7	M 16 x 45	5/8" x 2"
SFS 3009-100	35	3.1/2"	100 x 6	100,0	88,0	120,7	152	69,9	139,0	60	17,0	M 16 x 45	5/8" x 2"
SFS 3009-88.9	35	3.1/2"	88.9 x 8	90,0	73,0	120,7	152	69,9	139,0	60	17,0	M 16 x 45	5/8" x 2"
SFS 3010-110	35	4"	110 x 6	110,0	98,0	130,2	162	77,8	152,0	60	17,0	M 16 x 50	5/8" x 2"
SFS 3010-114.3	35	4"	114.3 x 8.8	115,0	96,7	130,2	162	77,8	152,0	60	17,0	M 16 x 50	5/8" x 2"
SFS 3011-133	35	5"	133 x 6.5	133,0	120,0	152,4	184	92,1	180,0	60	17,0	M 16 x 50	5/8" x 2"
SFS 3011-139.7	35	5"	139.7 x 10	140,0	120,0	152,4	184	92,1	180,0	60	17,0	M 16 x 50	5/8" x 2"

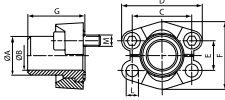
PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of 10.5 or 12.5

#### Product versions:

SFS M (3000 PSI) - SAE stub end, with 2 flange halves, screw set and O-ring

SFS U (3000 PSI) - SAE stub end, with 2 flange halves, screw set and O-ring

**SFS (6000 PSI)****SAE stub end**

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE stub end  
**Included in scope of supply:** short stub end only  
**Material:** S355J2G3 (ST52.3)

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	Pipe	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	L mm	M metr.	M unc
SFS 6001-16	400	1/2"	16 x 2	16,0	12,0	40,5	56	18,2	47,2	34	8,5	M 8 x 30	5/16" x 1.1/4"
SFS 6001-21.3	400	1/2"	21.3 x 4.5	21,3	11,9	40,5	56	18,2	47,2	34	8,5	M 8 x 30	5/16" x 1.1/4"
SFS 6002-20	400	3/4"	20 x 2.5	20,0	15,0	50,8	71	23,8	60,0	38	10,5	M 10 x 35	3/8" x 1.1/2"
SFS 6002-25	400	3/4"	25 x 3.5	25,0	18,0	50,8	71	23,8	60,0	38	10,5	M 10 x 35	3/8" x 1.1/2"
SFS 6002-26.9	400	3/4"	26.9 x 5.6	26,9	15,7	50,8	71	23,8	60,0	38	10,5	M 10 x 35	3/8" x 1.1/2"
SFS 6003-30	400	1"	30 x 4	30,0	22,0	57,2	81	27,8	69,6	40	*1	M 12 x 45	7/16" x 1.3/4"
SFS 6003-33.7	400	1"	33.7 x 7.1	35,0	19,0	57,2	81	27,8	69,6	40	*1	M 12 x 45	7/16" x 1.3/4"
SFS 6003-38	400	1"	38 x 5	38,0	28,0	57,2	81	27,8	69,6	40	*1	M 12 x 45	7/16" x 1.3/4"
SFS 6004-38	400	1.1/4"	38 x 5.5	38,0	27,0	66,7	95	31,8	77,2	45	*2	M 14 x 50	1/2" x 1.3/4"
SFS 6004-42.4	400	1.1/4"	42.4 x 6.3	42,4	35,8	66,7	95	31,8	77,2	45	14,5	M 14 x 50	1/2" x 1.3/4"
SFS 6005-45	400	1.1/2"	45 x 6.5	45,0	32,0	79,4	113	36,5	95,0	50	16,7	M 16 x 55	5/8" x 2"
SFS 6005-48.3	400	1.1/2"	48.3 x 8.8	48,3	30,7	79,4	113	36,5	95,0	50	17,0	M 16 x 55	5/8" x 2"
SFS 6006-65	400	2"	65 x 8	65,0	46,0	96,8	133	44,5	113,8	58	21,0	M 20 x 65	3/4" x 2.1/2"

PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of 12.0 or 12.5

**Product versions:**

**SFS M (6000 PSI)** - SAE stub end, with 2 flange halves, screw set and O-ring

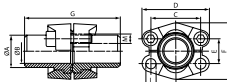
**SFS U (6000 PSI)** - SAE stub end, with 2 flange halves, screw set and O-ring



## DSFS (3000 PSI)

## SAE stub end flange connector

**Pressure series:** 3000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE stub end flange connector  
**Mounting:** with metric screw set  
**Included in scope of supply:** with 2 flange halves, screw set and O-ring  
**Material:** S355J2G3 (ST52.3)  
**Surface:** electro galvanised



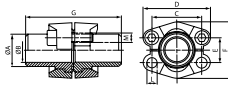
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	Pipe	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	L mm	M metr.	M unc
DSFS 3001-16	350	1/2"	16 x 2	16,0	12,0	38,1	54	17,5	45,6	82	8,5	M 8 x 30	5/16" x 1.1/4"
DSFS 3001-21.3	350	1/2"	21.3 x 4.7	22,0	15,5	38,1	54	17,5	45,6	82	8,5	M 8 x 30	5/16" x 1.1/4"
DSFS 3002-25	350	3/4"	25 x 3	27,0	18,9	47,6	65	22,2	51,8	100	10,5	M 10 x 30	3/8" x 1.1/4"
DSFS 3002-26.9	350	3/4"	26.9 x 3.9	27,0	18,9	47,6	65	22,2	51,8	100	10,5	M 10 x 30	3/8" x 1.1/4"
DSFS 3003-28	315	1"	28 x 3	28,0	22,0	52,4	70	26,2	58,4	100	10,5	M 10 x 35	3/8" x 1.1/4"
DSFS 3003-30	315	1"	30 x 4	30,0	22,0	52,4	70	26,2	58,4	100	10,5	M 10 x 35	3/8" x 1.1/4"
DSFS 3003-33.7	315	1"	33.7 x 4.5	34,0	24,7	52,4	70	26,2	58,4	100	10,5	M 10 x 35	3/8" x 1.1/4"
DSFS 3003-38	315	1"	38 x 5	38,0	28,0	52,4	70	26,2	58,4	100	10,5	M 10 x 35	3/8" x 1.1/4"
DSFS 3004-38	250	1.1/4"	38 x 5	38,0	28,0	58,7	79	30,2	72,6	110	11,0	*1	7/16" x 1.1/2"
DSFS 3004-42.4	250	1.1/4"	42.4 x 6.3	43,0	29,7	58,7	79	30,2	72,6	110	11,0	*1	7/16" x 1.1/2"
DSFS 3005-38	200	1.1/2"	38 x 4	38,0	30,0	69,9	94	35,7	82,2	114	13,5	M 12 x 35	1/2" x 1.1/2"
DSFS 3005-42	200	1.1/2"	42 x 5	42,0	32,0	69,9	94	35,7	82,2	114	13,5	M 12 x 35	1/2" x 1.1/2"
DSFS 3005-45	200	1.1/2"	45 x 5	45,0	35,0	69,9	94	35,7	82,2	114	13,5	M 12 x 35	1/2" x 1.1/2"
DSFS 3005-48.3	200	1.1/2"	48.3 x 7.1	49,0	34,0	69,9	94	35,7	82,2	114	13,5	M 12 x 35	1/2" x 1.1/2"
DSFS 3006-55	200	2"	55 x 5	55,0	45,0	77,8	102	42,9	96,4	114	13,5	M 12 x 35	1/2" x 1.1/2"
DSFS 3006-60.3	200	2"	60.3 x 8	60,3	44,0	77,8	102	42,9	96,4	114	13,5	M 12 x 35	1/2" x 1.1/2"
DSFS 3007-65	160	2"	65 x 6	65,0	53,0	88,9	114	50,8	108,2	116	13,5	M 12 x 40	1/2" x 1.3/4"
DSFS 3007-70	160	2.1/2"	70 x 7.5	70,0	55,0	88,9	114	50,8	108,2	116	13,5	M 12 x 40	1/2" x 1.3/4"
DSFS 3007-76.1	160	2.1/2"	76.1 x 7.1	74,0	62,0	88,9	114	50,8	108,2	116	13,5	M 12 x 40	1/2" x 1.3/4"
DSFS 3008-80	138	2.1/2"	80 x 6	80,0	68,0	106,4	135	61,9	130,6	120	16,7	M 16 x 45	5/8" x 2"
DSFS 3008-88.9	138	3"	88.9 x 8	90,0	73,0	106,4	135	61,9	130,6	120	16,7	M 16 x 45	5/8" x 2"
DSFS 3009-100	35	3.1/2"	100 x 6	100,0	88,0	120,7	152	69,9	139,0	120	17,0	M 16 x 45	5/8" x 2"
DSFS 3009-88.9	35	3"	88.9 x 8	90,0	73,0	120,7	152	69,9	139,0	120	17,0	M 16 x 45	5/8" x 2"
DSFS 3010-110	35	3.1/2"	110 x 6	110,0	98,0	130,2	162	77,8	152,0	120	17,0	M 16 x 50	5/8" x 2"
DSFS 3010-114.3	35	4"	114.3 x 8.8	115,0	96,7	130,2	162	77,8	152,0	120	17,0	M 16 x 50	5/8" x 2"
DSFS 3011-133	35	5"	133 x 6.5	133,0	120,0	152,4	184	92,1	180,0	120	17,0	M 16 x 50	5/8" x 2"
DSFS 3011-139.7	35	5"	139.7 x 10	140,0	120,0	152,4	184	92,1	180,0	120	17,0	M 16 x 50	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of M 10 x 30 or M 12 x 35

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**DSFS (6000 PSI)****SAE stub end flange connector**

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE stub end flange connector
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with 2 flange halves, screw set and O-ring
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

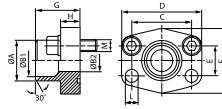
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	Pipe	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	L mm	M metr.	M unc
DSFS 6001-16	400	1/2"	16 x 2	16,0	12,0	40,5	56	18,2	47,2	68	8,5	M 8 x 30	5/16" x 1.1/4"
DSFS 6001-21.3	400	1/2"	21.3 x 4.5	21,3	11,9	40,5	56	18,2	47,2	68	8,5	M 8 x 30	5/16" x 1.1/4"
DSFS 6002-25	400	3/4"	25 x 3.5	25,0	18,0	50,8	71	23,8	60,0	76	10,5	M 10 x 35	3/8" x 1.1/2"
DSFS 6002-26.9	400	3/4"	26.9 x 5.6	26,9	15,7	50,8	71	23,8	60,0	76	10,5	M 10 x 35	3/8" x 1.1/2"
DSFS 6003-30	400	1"	30 x 4	30,0	22,0	57,2	81	27,8	69,6	80	13,5	M 12 x 45	7/16" x 1.3/4"
DSFS 6003-33.7	400	1"	33.7 x 7.1	34,0	19,0	57,2	81	27,8	69,6	80	13,5	M 12 x 45	7/16" x 1.3/4"
DSFS 6003-38	400	1"	38 x 5	38,0	28,0	57,2	81	27,8	69,6	80	13,5	M 12 x 45	7/16" x 1.3/4"
DSFS 6004-30	400	1.1/4"	30 x 4	30,0	22,0	66,7	95	31,8	77,2	90	14,5	M 14 x 50	1/2" x 1.3/4"
DSFS 6004-38	400	1.1/4"	38 x 5.5	38,0	27,0	66,7	95	31,8	77,2	90	14,5	M 14 x 50	1/2" x 1.3/4"
DSFS 6004-42.4	400	1.1/4"	42.4 x 6.3	42,4	29,8	66,7	95	31,8	77,2	90	14,5	M 14 x 50	1/2" x 1.3/4"
DSFS 6005-45	400	1.1/2"	45 x 6.5	45,0	32,0	79,4	113	36,5	95,0	100	16,7	M 16 x 55	5/8" x 2"
DSFS 6005-48.3	400	1.1/2"	48.3 x 8.8	50,0	30,7	79,4	113	36,5	95,0	100	16,7	M 16 x 55	5/8" x 2"
DSFS 6006-60.3	400	2"	60.3 x 13.4	60,3	33,7	96,8	133	44,5	113,8	116	21,0	M 20 x 65	3/4" x 2.1/2"
DSFS 6006-65	400	2"	65 x 8	65,0	46,0	96,8	133	44,5	113,8	116	21,0	M 20 x 65	3/4" x 2.1/2"

PN = Nominal pressure PB = Max. operating pressure

**AFS SRE (3000 PSI)****SAE stub end**

**Pressure series:** 3000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE stub end  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

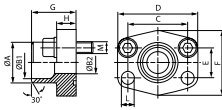
Identification	PB 10.9 bar	Size	Pipe	A mm	B1 mm	B2 mm	G mm	C mm	E mm	H mm	L mm	M metr.	M unc
AFS 80 SRE 20	350	1/2"	20 x 3	20	14,0	14	35,0	38,1	17,5	16,0	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 80 SRE 22	350	1/2"	22 x 3	22	16,0	13	35,0	38,1	17,5	16,0	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 100 SRE 25	350	3/4"	25 x 3	25	19,0	19	36,0	47,6	22,2	18,0	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 100 SRE 28	350	3/4"	28 x 3	28	21,5	19	36,0	47,6	22,2	18,0	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 SRE 30	315	1"	30 x 4	30	22,0	22	38,0	52,4	26,2	18,0	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 SRE 35	315	1"	35 x 4	35	27,0	25	38,0	52,4	26,2	18,0	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 104 SRE 38	250	1.1/4"	38 x 4	38	30,0	30	41,0	58,7	30,2	21,0	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 104 SRE 42	250	1.1/4"	42 x 3	43	36,0	31	41,0	58,7	30,2	21,0	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 106 SRE 38	200	1.1/2"	38 x 4	38	30,0	30	44,5	69,9	35,7	24,5	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 106 SRE 42	200	1.1/2"	42 x 3	42	36,0	36	44,5	69,9	35,7	24,5	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 106 SRE 48.3	200	1.1/2"	48.3 x 4.5	49	38,0	38	44,5	69,9	35,7	24,5	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 SRE 60	200	2"	60.3 x 5.6	61	49,0	49	45,0	77,8	42,9	25,0	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 110 SRE 76	160	2.1/2"	76.1 x 7.1	77	62,0	62	50,0	88,9	50,8	25,0	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 112 SRE 76	160	3"	76.1 x 7.1	77	62,0	62	51,0	106,4	61,9	26,0	17,5	M 16 x 50	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**AFS SRE M (3000 / 6000 PSI)** - SAE stub end, with metric screw set and O-ring

**AFS SRE U (3000 / 6000 PSI)** - SAE stub end, with UNC screw set and O-ring

**AFS SRE (6000 PSI)****SAE stub end**

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE stub end
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	Pipe	A mm	B1 mm	B2 mm	G mm	C mm	E mm	H mm	L mm	M metr.	M unc
AFS 401 SRE 20	400	1/2"	20 x 3	20	14,0	14	34,0	40,5	18,2	16,0	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 402 SRE 20	400	3/4"	20 x 3	20	14,0	14	35,0	50,8	23,8	21,0	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 402 SRE 25	400	3/4"	25 x 4	25	17,0	17	35,0	50,8	23,8	21,0	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 403 SRE 25	400	1"	25 x 4	25	17,0	17	42,0	57,2	27,8	25,0	13,0	M 12 x 45	7/16" x 1.1/2"
AFS 403 SRE 30	400	1"	30 x 4	30	22,0	22	42,0	57,2	27,8	25,0	13,0	M 12 x 45	7/16" x 1.1/2"
AFS 404 SRE 30	400	1.1/4"	30 x 4	30	22,0	22	44,0	66,7	31,8	25,0	15,0	M 14 x 50	1/2" x 1.3/4"
AFS 404 SRE 38	400	1.1/4"	38 x 6	38	26,0	26	44,0	66,7	31,8	25,0	15,0	M 14 x 50	1/2" x 1.3/4"
AFS 405 SRE 38	400	1.1/2"	38 x 6	38	26,0	26	56,0	49,4	36,5	28,0	17,0	M 16 x 50	5/8" x 2"
AFS 405 SRE 48	400	1.1/2"	48.3 x 8	49	32,0	32	56,0	79,4	36,5	28,0	17,0	M 16 x 50	5/8" x 2"
AFS 405 SRE 60	400	1.1/2"	60.3 x 10	61	40,0	40	56,0	79,4	36,5	27,0	17,0	M 16 x 50	5/8" x 2"
AFS 406 SRE 60	400	2"	60.3 x 10	61	40,0	40	65,0	96,8	44,5	37,0	21,0	M 20 x 70	3/4" x 2.1/2"
AFS 406 SRE 76	400	2"	76.1 x 12.5	76	50,0	48	80,0	96,8	44,5	33,0	21,0	M 20 x 65	3/4" x 2.1/2"

PN = Nominal pressure PB = Max. operating pressure

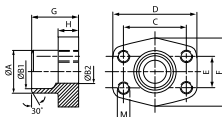
**Product versions:**

**AFS SRE M (3000 / 6000 PSI)** - SAE stub end, with metric screw set and O-ring

**AFS SRE U (3000 / 6000 PSI)** - SAE stub end, with UNC screw set and O-ring

**GFS SRE (3000 / 6000 PSI)****SAE welded on counter flange**

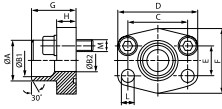
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE welded on counter flange  
**Mounting:** Inner thread for metric screws  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	Pipe	A mm	B1 mm	B2 mm	G mm	C mm	D mm	E mm	F mm	H mm	M metr.
GFS 80 SRE 20	350	1/2"	20 x 3	20	14,0	14	35,0	38,1	54	17,5	46	16,0	M 8
GFS 80 SRE 22	350	1/2"	22 x 3	22	16,0	13	35,0	38,1	54	17,5	46	16,0	M 8
GFS 100 SRE 25	350	3/4"	25 x 3	25	19,0	19	36,0	47,6	65	22,2	50	18,0	M 10
GFS 100 SRE 28	350	3/4"	28 x 3	28	21,5	19	36,0	47,6	65	22,2	50	18,0	M 10
GFS 102 SRE 30	315	1"	30 x 4	30	22,0	22	38,0	52,4	70	26,2	55	18,0	M 10
GFS 102 SRE 35	315	1"	35 x 4	35	27,0	25	38,0	52,4	70	26,2	55	18,0	M 10
GFS 104 SRE 38	250	1.1/4"	38 x 4	38	30,0	30	41,0	58,7	79	30,2	68	21,0	M 10
GFS 104 SRE 42	250	1.1/4"	42 x 3	43	36,0	31	41,0	58,7	79	30,2	68	21,0	M 10
GFS 106 SRE 38	200	1.1/2"	38 x 4	38	30,0	30	44,5	69,9	93	35,7	78	24,5	M 12
GFS 106 SRE 42	200	1.1/2"	42 x 3	42	36,0	36	44,5	69,9	93	35,7	78	24,5	M 12
GFS 106 SRE 48	200	1.1/2"	48.3 x 4.5	49	38,0	38	44,5	69,9	93	35,7	78	24,5	M 12
GFS 108 SRE 60	200	2"	60.3 x 5.6	61	49,0	49	45,0	77,8	102	42,9	90	25,0	M 12
GFS 110 SRE 76	160	2.1/2"	76.1 x 7.1	77	62,0	62	50,0	88,9	114	50,8	105	25,0	M 12
GFS 112 SRE 76	138	3"	76.1 x 7.1	77	62,0	62	51,0	106,4	134	61,9	125	26,0	M 16
GFS 401 SRE 20	400	1/2"	20 x 3	20	14,0	14	34,0	40,5	54	18,2	46	16,0	M 8
GFS 402 SRE 20	400	3/4"	20 x 3	20	14,0	14	35,0	50,8	71	23,8	55	21,0	M 10
GFS 402 SRE 25	400	3/4"	25 x 4	25	17,0	17	35,0	50,8	71	23,8	55	21,0	M 10
GFS 403 SRE 25	400	1"	25 x 4	25	17,0	17	42,0	57,2	81	27,8	65	25,0	M 12
GFS 403 SRE 30	400	1"	30 x 4	30	22,0	22	42,0	57,2	81	27,8	65	25,0	M 12
GFS 404 SRE 30	400	1.1/4"	30 x 4	30	22,0	22	44,0	66,7	95	31,8	78	25,0	M 14
GFS 404 SRE 38	400	1.1/4"	38 x 6	38	26,0	26	44,0	66,7	95	31,8	78	25,0	M 14
GFS 405 SRE 38	400	1.1/2"	38 x 6	38	26,0	26	56,0	79,4	112	36,5	94	28,0	M 16
GFS 405 SRE 48	400	1.1/2"	48.3 x 8	49	32,0	32	56,0	79,4	112	36,5	94	28,0	M 16
GFS 405 SRE 60	400	1.1/2"	60.3 x 10	61	40,0	40	56,0	79,4	112	36,5	94	28,0	M 16
GFS 406 SRE 60	400	2"	60.3 x 10	61	40,0	40	65,0	96,8	134	44,5	114	33,0	M 20
GFS 406 SRE 76	400	2"	76.1 x 12.5	76	48,0	48	80,0	96,8	134	44,5	114	33,0	M 20

PN = Nominal pressure PB = Max. operating pressure

**AFS STRE (3000 PSI)****SAE stub end**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Supplementary design information:</b>	ND 40
<b>Construction:</b>	straight
<b>Design:</b>	SAE stub end
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	Pipe	A mm	B1 mm	B2 mm	G mm	C mm	E mm	H mm	L mm	M metr.	M unc
AFS 80 STRE 21.3	350	1/2"	21.3 x 2.6	22	16,0	13	35,0	38,1	17,5	16,0	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 100 STRE 26.9	350	3/4"	26.9 x 2.6	28	21,5	19	36,0	47,6	50,0	18,0	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 STRE 33.7	315	1"	33.7 x 3.2	35	27,0	25	38,0	52,4	26,2	18,0	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 104 STRE 42.2	250	1.1/4"	42.4 x 3.2	43	36,0	31	41,0	58,7	30,2	21,0	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 106 STRE 48.3	200	1.1/2"	48.3 x 3.2	49	42,0	38	44,5	69,9	35,7	24,5	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 STRE 48.3	200	2"	48.3 x 3.2	49	42,0	42	45,0	77,8	42,9	25,0	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 STRE 60.3	200	2"	60.3 x 3.6	61	53,0	49	45,0	77,8	42,9	25,0	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 110 STRE 60.3	160	2.1/2"	60.3 x 3.6	61	53,0	53	50,0	88,9	50,8	25,0	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 110 STRE 76.1	160	2.1/2"	76.1 x 3.6	77	70,0	62	50,0	88,9	50,8	25,0	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 112 STRE 88.9	138	3"	88.9 x 3.6	90	82,0	74	51,0	106,4	61,9	26,0	17,5	M 16 x 50	5/8" x 2"
AFS 114 STRE 76.1	35	3.1/2"	76.1 x 3.6	77	70,0	70	48,0	120,7	69,9	26,0	17,5	M 16 x 50	5/8" x 2"
AFS 114 STRE 88.9	35	3.1/2"	88.9 x 3.6	90	82,0	82	48,0	120,7	69,9	26,0	17,5	M 16 x 50	5/8" x 2"
AFS 116 STRE 114.3	35	4"	114 x 3.6	115	107,0	102	48,0	130,2	77,8	26,0	17,5	M 16 x 50	5/8" x 2"
AFS 116 STRE 88.9	35	4"	88.9 x 3.6	90	82,0	82	48,0	130,2	77,8	26,0	17,5	M 16 x 50	5/8" x 2"
AFS 118 STRE 139.7 *	35	5"	139.7 x 4	131	120,0	131	28,0	152,4	92,1	28,0	17,5	M 16 x 55	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure \*) AFS 118 STRE 139.7: Design as socket weld flat flange.

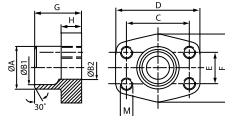
**Product versions:**

**AFS STRE M (3000 PSI)** - SAE stub end, with metric screw set and O-ring

**AFS STRE U (3000 PSI)** - SAE stub end, with UNC screw set and O-ring

**GFS STRE (3000 PSI)****SAE welded on counter flange**

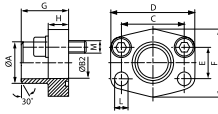
**Pressure series:** 3000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Supplementary design information:**  
**Design:** ND 40  
**Construction:** straight  
**Design:** SAE welded on counter flange  
**Mounting:** Inner thread for metric screws  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	Pipe	A mm	B1 mm	B2 mm	G mm	C mm	D mm	E mm	F mm	H mm	M metr.
GFS 80 STRE 21.3	350	1/2"	21.3 x 2.6	22,0	16,0	13	35,0	38,1	54	17,5	46	16,0	M 8
GFS 100 STRE 26.9	350	3/4"	26.9 x 2.6	28,0	21,5	19	35,0	47,6	65	22,2	50	18,0	M 10
GFS 102 STRE 33.7	315	1"	33.7 x 3.2	35,0	27,0	25	38,0	52,4	70	26,2	55	18,0	M 10
GFS 104 STRE 42.4	250	1.1/4"	42.4 x 3.2	43,0	36,0	31	41,0	58,7	79	30,2	68	21,0	M 10
GFS 106 STRE 48.3	200	1.1/2"	48.3 x 3.2	49,0	42,0	38	44,5	69,9	93	35,7	78	24,5	M 12
GFS 108 STRE 48.3	200	2"	48.3 x 3.2	49,0	42,0	42	45,0	77,8	102	42,9	90	25,0	M 12
GFS 108 STRE 60.3	200	2"	60.3 x 3.6	61,0	53,0	49	45,0	77,8	102	42,9	90	25,0	M 12
GFS 110 STRE 60.3	160	2.1/2"	60.3 x 3.6	61,0	53,0	53	50,0	88,9	114	50,8	105	25,0	M 12
GFS 110 STRE 76.1	160	2.1/2"	76.1 x 3.6	77,0	70,0	62	50,0	88,9	114	50,8	105	25,0	M 12
GFS 112 STRE 88.9	138	3"	88.9 x 3.6	90,0	82,0	74	51,0	106,4	134	61,9	124	26,0	M 16
GFS 114 STRE 76.1	35	3.1/2"	76.1 x 3.6	77,0	70,0	70	48,0	120,7	152	69,9	136	26,0	M 16
GFS 114 STRE 88.9	35	3.1/2"	88.9 x 3.6	90,0	82,0	82	48,0	120,7	152	69,9	136	26,0	M 16
GFS 116 STRE 114	35	4"	114.3 x 3.6	115,0	107,0	102	48,0	130,2	162	77,8	146	26,0	M 16
GFS 116 STRE 88.9	35	4"	88.9 x 3.6	90,0	82,0	82	48,0	130,2	162	77,8	146	26,0	M 16
GFS 118 STRE 139	35	5"	139.7 x 4	140,2	131,0	120	50,0	152,4	184	92,1	180	28,0	M 16

PN = Nominal pressure PB = Max. operating pressure

**AFS ST (3000 PSI)****SAE welded on flange - imperial**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE welded on flange - imperial
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A mm	ØB mm	C mm	D mm	E mm	F mm	G mm	H mm	L mm	M metr.	M unc
AFS 80 ST	350	1/2"	21,6	13	38,1	54	17,5	46	36	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 80 ST 038	350	1/2"	17,5	13	38,1	54	17,5	46	36	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 100 ST	350	3/4"	28,0	19	47,6	65	22,2	50	36	18	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 ST	315	1"	34,0	25	52,4	70	26,2	55	38	18	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 104 ST	250	1.1/4"	42,8	32	58,7	79	30,2	68	41	21	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 106 ST	200	1.1/2"	48,6	38	69,9	93	35,7	78	44	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 ST	200	2"	61,0	51	77,8	102	42,9	90	45	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 110 ST	160	2.1/2"	77,0	63	88,9	114	50,8	105	50	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 112 ST	138	3"	92,0	73	106,4	134	61,9	124	50	27	17,5	M 16 x 50	5/8" x 2"
AFS 114 ST	35	3.1/2"	103,0	89	120,7	152	69,9	136	48	27	17,5	M 16 x 50	5/8" x 2"
AFS 116 ST	35	4"	115,1	99	130,2	162	77,8	146	48	27	17,5	M 16 x 50	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

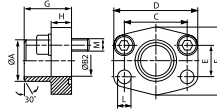
**AFS ST M (3000 / 6000 PSI)** - SAE welded on flange - imperial, with metric screw set and O-ring

**AFS ST U (3000 / 6000 PSI)** - SAE welded on flange - imperial, with UNC screw set and O-ring



## AFS ST (6000 PSI)

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE welded on flange - imperial  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

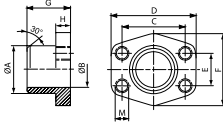
Identification	PB 10.9 bar	Size	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	L mm	M metr.	M unc
AFS 401 ST 012	400	1/2"	21,5	13	40,5	54	18,2	46	36	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 401 ST 038	400	1/2"	17,5	13	40,5	54	18,2	46	36	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 402 ST	400	3/4"	28,0	19	50,8	71	23,8	55	35	21	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 403 ST	400	1"	34,0	25	57,2	79	27,8	68	41	21	13,0	M 12 x 45	7/16" x 1.3/4"
AFS 404 ST	375	1.1/4"	42,8	32	66,7	93	31,8	78	44	25	15,0	M 14 x 45	1/2" x 1.3/4"
AFS 405 ST	250	1.1/2"	48,6	38	79,4	112	36,5	94	55	30	17,0	M 16 x 50	5/8" x 2"
AFS 406 ST	250	2"	61,0	51	96,8	134	44,5	114	65	37	21,0	M 20 x 65	3/4" x 2.1/2"

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**AFS ST M (3000 / 6000 PSI)** - SAE welded on flange - imperial, with metric screw set and O-ring

**AFS ST U (3000 / 6000 PSI)** - SAE welded on flange - imperial, with UNC screw set and O-ring

**GFS ST M (3000 / 6000 PSI)****SAE welded on counter flange**

<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Supplementary design information:</b>	for imperial pipes
<b>Construction:</b>	straight
<b>Design:</b>	SAE welded on counter flange
<b>Mounting:</b>	Inner thread for metric screws
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure series	PB 10.9 bar	Size	A mm	ØB mm	C mm	D mm	E mm	F mm	G mm	H mm	M metr.
GFS 80 ST M	3000 PSI	350	1/2"	21,5	13	38,1	54	17,5	46	36	16	M 8
GFS 80 ST 038 M	3000 PSI	350	1/2"	17,5	13	38,1	54	17,5	46	36	16	M 8
GFS 100 ST M	3000 PSI	350	3/4"	28,0	19	47,6	65	22,2	50	36	18	M 10
GFS 102 ST M	3000 PSI	315	1"	35,0	25	52,4	70	26,2	55	38	18	M 10
GFS 104 ST M	3000 PSI	250	1.1/4"	42,8	32	58,7	79	30,2	68	41	21	M 10
GFS 106 ST M	3000 PSI	200	1.1/2"	48,6	38	69,9	93	35,7	78	44	25	M 12
GFS 108 ST M	3000 PSI	200	2"	61,0	51	77,8	102	42,9	90	45	25	M 12
GFS 110 ST M	3000 PSI	160	2.1/2"	77,0	63	88,9	114	50,8	105	50	25	M 12
GFS 112 ST M	3000 PSI	138	3"	92,0	73	106,4	134	61,9	124	50	27	M 16
GFS 114 ST M	3000 PSI	35	3.1/2"	103,0	89	120,7	152	69,9	136	48	27	M 16
GFS 116 ST M	3000 PSI	35	4"	115,1	99	130,2	162	77,8	146	48	27	M 16
GFS 401 ST 012 M	6000 PSI	400	1/2"	21,5	13	40,5	54	18,2	46	36	16	M 8
GFS 401 ST 038 M	6000 PSI	400	1/2"	17,5	13	40,5	54	18,2	46	36	16	M 8
GFS 402 ST M	6000 PSI	400	3/4"	28,0	19	50,8	71	23,8	55	35	21	M 10
GFS 403 ST M	6000 PSI	400	1"	35,0	25	57,2	79	27,8	68	41	21	M 12
GFS 404 ST M	6000 PSI	375	1.1/4"	42,8	32	66,7	93	31,8	78	44	25	M 14
GFS 405 ST M	6000 PSI	250	1.1/2"	48,6	38	79,4	112	36,5	94	55	30	M 16
GFS 406 ST M	6000 PSI	250	2"	61,0	51	96,8	134	44,5	114	65	37	M 20

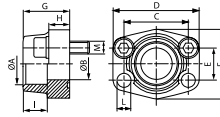
PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

GFS ST U (3000 / 6000 PSI) - SAE welded on counter flange,

**AFS S (3000 PSI)****SAE socket weld flange**

**Pressure series:** 3000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE socket weld flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

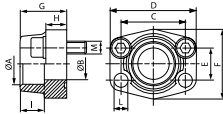
Identification	PB 10.9 bar	Size	A mm	ØB mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	L mm	M metr.	M unc
AFS 80 S	350	1/2"	21,6	13	38,1	54	17,5	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 80 S 3/8	350	1/2"	17,5	13	38,1	54	17,5	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 80 S A20	350	1/2"	20,3	13	38,1	54	17,5	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 100 S	350	3/4"	27,2	19	47,6	65	22,2	50	36	18	19	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 100 S A25	350	3/4"	25,3	19	47,6	65	22,2	50	36	18	19	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 S	315	1"	34,0	25	52,4	70	26,2	55	38	18	19	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 S A30	315	1"	30,3	25	52,4	70	26,2	55	38	18	19	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 104 S	250	1.1/4"	42,8	32	58,7	79	30,2	68	41	21	22	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 104 S A38	250	1.1/4"	38,3	32	58,7	79	30,2	68	41	21	22	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 106 S	200	1.1/2"	48,6	38	69,9	93	35,7	78	45	25	24	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 106 S A50	200	1.1/2"	50,5	38	69,9	93	35,7	78	45	25	24	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 S	200	2"	61,0	51	77,8	102	42,9	90	45	25	26	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 110 S	160	2.1/2"	76,6	63	88,9	114	50,8	105	50	25	30	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 112 S	138	3"	90,5	73	106,4	134	61,9	124	50	27	34	17,5	M 16 x 50	5/8" x 2"
AFS 114 S	35	3.1/2"	103,0	89	120,7	152	69,9	136	48	27	34	17,5	M 16 x 50	5/8" x 2"
AFS 116 S	35	4"	115,1	99	130,2	162	77,8	146	48	27	34	17,5	M 16 x 50	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**AFS S M (3000 / 6000 PSI)** - SAE socket weld flange, with metric screw set and O-ring

**AFS S U (3000 / 6000 PSI)** - SAE socket weld flange, with UNC screw set and O-ring

**AFS S (6000 PSI)****SAE socket weld flange**

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE socket weld flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	L mm	M metr.	M unc
AFS 401 S	400	1/2"	21,6	13	40,5	54	18,2	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 401 S 3/8	400	1/2"	17,5	13	40,5	54	18,2	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 401 S A20	400	1/2"	20,3	13	40,5	54	18,2	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 402 S	400	3/4"	27,2	19	50,8	71	23,8	55	35	21	22	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 402 S A25	400	3/4"	25,3	19	50,8	71	23,8	55	35	21	22	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 403 S	400	1"	34,0	25	57,2	81	27,8	65	42	25	22	13,0	M 12 x 45	7/16" x 1.3/4"
AFS 403 S A30	400	1"	30,3	25	57,2	81	27,8	65	42	25	22	13,0	M 12 x 45	7/16" x 1.3/4"
AFS 404 S	400	1.1/4"	42,8	32	66,7	95	31,8	78	45	27	25	*1	M 14 x 45	1/2" x 1.3/4"
AFS 404 S A38	400	1.1/4"	38,3	32	66,7	95	31,8	78	45	27	25	*1	M 14 x 45	1/2" x 1.3/4"
AFS 405 S	400	1.1/2"	48,6	38	79,4	112	36,5	94	50	30	28	17,5	M 16 x 50	5/8" x 2"
AFS 405 S A50	400	1.1/2"	50,5	38	79,4	112	36,5	94	50	30	28	17,5	M 16 x 50	5/8" x 2"
AFS 406 S	400	2"	61,0	51	96,8	134	44,5	114	65	37	24	21,0	M 20 x 65	3/4" x 2.1/2"

PN = Nominal pressure PB = Max. operating pressure

\*1) = 15.0 for metric screws; 13.5 for UNC screws

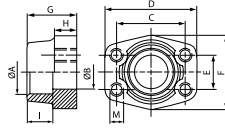
**Product versions:**

**AFS S M (3000 / 6000 PSI)** - SAE socket weld flange, with metric screw set and O-ring

**AFS S U (3000 / 6000 PSI)** - SAE socket weld flange, with UNC screw set and O-ring

**GFS S M (3000 / 6000 PSI)****SAE socket weld counter flange**

**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE socket weld counter flange  
**Mounting:** Inner thread for metric screws  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure series	PB 10.9 bar	Size	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	M metr.
GFS 80 S	3000 PSI	350	1/2"	21,6	13	38,1	54	17,5	46	36	16	19	M 8
GFS 80 S 3/8	3000 PSI	350	1/2"	17,5	13	38,1	54	17,5	46	36	16	19	M 8
GFS 80 S A20	3000 PSI	350	1/2"	20,3	13	38,1	54	17,5	46	36	16	19	M 8
GFS 100 S	3000 PSI	350	3/4"	27,2	19	47,6	65	22,2	50	36	18	19	M 10
GFS 100 S A25	3000 PSI	350	3/4"	25,3	19	47,6	65	22,2	50	36	18	19	M 10
GFS 102 S	3000 PSI	315	1"	35,0	25	52,4	70	26,2	55	38	18	19	M 10
GFS 102 S A30	3000 PSI	315	1"	30,3	25	52,4	70	26,2	55	38	18	19	M 10
GFS 104 S	3000 PSI	250	1.1/4"	42,8	32	58,7	79	30,2	68	41	21	22	M 10
GFS 104 S A38	3000 PSI	250	1.1/4"	38,3	32	58,7	79	30,2	68	41	21	22	M 10
GFS 106 S	3000 PSI	200	1.1/2"	48,6	38	69,9	93	35,7	78	45	25	24	M 12
GFS 106 S A50	3000 PSI	200	1.1/2"	50,5	38	69,9	93	35,7	78	45	25	24	M 12
GFS 108 S	3000 PSI	200	2"	61,0	51	77,8	102	42,9	90	45	25	26	M 12
GFS 110 S	3000 PSI	160	2.1/2"	76,6	63	88,9	114	50,8	105	50	25	30	M 12
GFS 112 S	3000 PSI	138	3"	90,5	73	106,4	134	61,9	124	50	27	34	M 16
GFS 114 S	3000 PSI	35	3.1/2"	103,0	89	120,7	152	69,9	136	48	27	34	M 16
GFS 116 S	3000 PSI	35	4"	115,1	99	130,2	162	77,8	146	48	27	34	M 16
GFS 401 S	6000 PSI	400	1/2"	21,6	13	40,5	54	18,2	46	36	16	19	M 8
GFS 401 S 3/8	6000 PSI	400	1/2"	17,5	13	40,5	54	18,2	46	36	16	19	M 8
GFS 401 S A20	6000 PSI	400	1/2"	20,3	13	40,5	54	18,2	46	36	16	19	M 8
GFS 402 S	6000 PSI	400	3/4"	27,2	19	50,8	71	23,8	55	35	21	22	M 10
GFS 402 S A25	6000 PSI	400	3/4"	25,3	19	50,8	71	23,8	55	35	21	22	M 10
GFS 403 S	6000 PSI	400	1"	35,0	25	57,2	81	27,8	65	42	25	22	M 12
GFS 403 S A30	6000 PSI	400	1"	30,3	25	57,2	81	27,8	65	42	25	22	M 12
GFS 404 S	6000 PSI	400	1.1/4"	42,8	32	66,7	95	31,8	78	45	27	25	M 14
GFS 404 S A38	6000 PSI	400	1.1/4"	38,3	32	66,7	95	31,8	78	45	27	25	M 14
GFS 405 S	6000 PSI	400	1.1/2"	48,6	38	79,4	112	36,5	94	50	30	28	M 16
GFS 405 S A50	6000 PSI	400	1.1/2"	50,5	38	79,4	112	36,5	94	50	30	28	M 16
GFS 406 S	6000 PSI	400	2"	61,0	51	96,8	134	44,5	114	65	37	24	M 20

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**GFS S U (3000 / 6000 PSI)** - SAE socket weld counter flange, flange only

**FT (3000 PSI / 6000 PSI)****SAE flange heads**

<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE flange heads
<b>Included in scope of supply:</b>	flange head only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure series	PB 10.9 bar	Size	A1 mm	A2 mm	ØB mm	C mm	D mm	E mm	F mm	G mm	H mm	L mm
FT 3001	3000 PSI	350	1/2"	30,2	23,9	10	38,1	54	17,5	45,6	16	6,9	8,7
FT 3002	3000 PSI	350	3/4"	38,1	31,7	15	47,6	65	22,2	51,8	17	6,9	10,7
FT 3003	3000 PSI	315	1"	44,4	38,1	20	52,4	70	26,2	58,4	17	8,1	10,7
FT 3004	3000 PSI	250	1.1/4"	50,8	43,2	27	58,7	79	30,2	72,6	17	8,1	*1
FT 3005	3000 PSI	200	1.1/2"	60,3	50,3	32	69,9	94	35,7	82,2	19	8,1	13,5
FT 3006	3000 PSI	200	2"	71,4	62,2	40	77,8	102	42,9	96,4	19	9,7	13,5
FT 3007	3000 PSI	160	2.1/2"	84,1	74,0	50	88,9	114	50,8	108,2	30	9,7	13,5
FT 6001	6000 PSI	400	1/2"	31,7	23,9	10	40,5	56	18,2	47,2	16	7,9	8,7
FT 6002	6000 PSI	400	3/4"	41,3	31,7	15	50,8	71	23,8	60,0	20	8,9	10,7
FT 6003	6000 PSI	400	1"	47,6	38,1	20	57,2	81	27,8	69,6	22	9,7	*2
FT 6004	6000 PSI	400	1.1/4"	54,0	43,7	27	66,7	95	31,8	77,2	27	10,4	*3
FT 6005	6000 PSI	400	1.1/2"	63,5	50,8	32	79,4	113	36,5	95,0	32	12,7	17,0
FT 6006	6000 PSI	400	2"	79,4	66,5	40	96,8	133	44,5	113,8	40	12,7	21,0

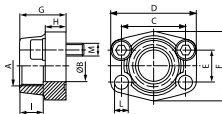
PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of 10.75 or 12.0 or 12.75

## AFS G (3000 PSI)

## SAE screw-in flange, BSP

**Pressure series:** 3000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE screw-in flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

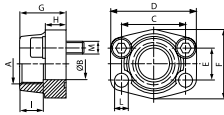
Identification	PB 10.9 bar	Size	A	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	L mm	M metr.	M unc
AFS 80 G 3/8	350	1/2"	G 3/8" -19	13	38,1	54	17,5	46	36	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 80 G 1/2	350	1/2"	G 1/2" -14	13	38,1	54	17,5	46	36	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 100 G 1/2	350	3/4"	G 1/2" -14	13	47,6	65	22,2	50	36	18	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 100 G 3/4	350	3/4"	G 3/4" -14	19	47,6	65	22,2	50	36	18	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 G 1/2	315	1"	G 1/2" -14	13	52,4	70	26,2	55	38	18	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 G 3/4	315	1"	G 3/4" -14	19	52,4	70	26,2	55	35	21	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 G 1	315	1"	G 1" -11	25	52,4	70	26,2	55	38	18	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 104 G 3/4	250	1.1/4"	G 3/4" -14	19	58,7	79	30,2	68	41	21	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 104 G 1 M10	250	1.1/4"	G 1" -11	25	58,7	81	30,2	65	42	25	11,5	M 10 x 40	
AFS 104 G 1 M12	250	1.1/4"	G 1" -11	25	58,7	81	30,2	65	42	25	13,0	M 12 x 40	
AFS 104 G 1 1/4 M10	250	1.1/4"	G 1.1/4" -11	32	58,7	79	30,2	68	41	21	11,5	M 10 x 40	
AFS 104 G 1 1/4 M12	250	1.1/4"	G 1.1/4" -11	32	58,7	79	30,2	68	41	21	13,0	M 12 x 40	
AFS 106 G 3/4	200	1.1/2"	G 3/4" -14	19	69,9	93	35,7	78	45	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 106 G 1	200	1.1/2"	G 1" -11	25	69,9	93	35,7	78	45	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 106 G 1 1/4	200	1.1/2"	G 1.1/4" -11	32	69,9	95	35,7	78	45	27	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 106 G 1 1/2	200	1.1/2"	G 1.1/2" -11	38	69,9	93	35,7	78	45	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 G 1	200	2"	G 1" -11	25	77,8	102	42,9	90	45	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 G 1 1/4	200	2"	G 1.1/4" -11	32	77,8	102	42,9	90	45	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 G 1 1/2	200	2"	G 1.1/2" -11	38	77,8	102	42,9	90	45	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 G 2	200	2"	G 2" -11	51	77,8	102	42,9	90	45	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 110 G 1 1/2	160	2.1/2"	G 1.1/2" -11	38	88,9	114	50,8	105	50	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 110 G 2	160	2.1/2"	G 2" -11	51	88,9	114	50,8	105	50	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 110 G 2 1/2	160	2.1/2"	G 2.1/2" -11	63	88,9	114	50,8	105	50	25	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 112 G 2 1/2	138	3"	G 2.1/2" -11	63	106,4	134	61,9	124	50	27	17,5	M 16 x 50	5/8" x 2"
AFS 112 G 3	138	3"	G 3" -11	73	106,4	134	61,9	124	50	27	17,5	M 16 x 50	5/8" x 2"
AFS 114 G 3	35	3.1/2"	G 3" -11	73	120,7	152	69,9	136	48	27	17,5	M 16 x 50	5/8" x 2"
AFS 114 G 3 1/2	35	3.1/2"	G 3.1/2" -11	89	120,7	152	69,9	136	48	27	17,5	M 16 x 50	5/8" x 2"
AFS 116 G 3 1/2	35	4"	G 3.1/2" -11	89	130,2	162	77,8	146	48	27	17,5	M 16 x 50	5/8" x 2"
AFS 116 G 4	35	4"	G 4" -11	99	130,2	162	77,8	146	48	27	17,5	M 16 x 50	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**AFS G M (3000 PSI)** - SAE screw-in flange, BSP, with metric screw set and O-ring

**AFS G U (3000 PSI)** - SAE screw-in flange, BSP, with UNC screw set and O-ring

**AFS G (6000 PSI)****SAE screw-in flange, BSP**

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE screw-in flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	L mm	M metr.	M unc
AFS 401 G 1/2	400	1/2"	G 1/2" -14	13	40,5	54	18,2	46	36	16	9	M 8 x 30	5/16" x 1.1/4"
AFS 401 G 3/8	400	1/2"	G 3/8" -19	13	40,5	54	18,2	46	36	16	9	M 8 x 30	5/16" x 1.1/4"
AFS 402 G 1/2	400	3/4"	G 1/2" -14	13	50,8	71	23,8	55	35	21	11	M 10 x 35	3/8" x 1.1/2"
AFS 402 G 3/4	400	3/4"	G 3/4" -14	19	50,8	71	23,8	55	35	21	11	M 10 x 35	3/8" x 1.1/2"
AFS 403 G 3/4	400	1"	G 3/4" -14	19	57,2	81	27,8	65	42	25	13	M 12 x 45	7/16" x 1.3/4"
AFS 403 G 1	400	1"	G 1" -11	25	57,2	81	27,8	65	42	25	13	M 12 x 45	7/16" x 1.3/4"
AFS 404 G 1	400	1.1/4"	G 1" -11	25	66,7	95	31,8	78	45	27	*1	M 14 x 45	1/2" x 1.3/4"
AFS 404 G 1 1/4	400	1.1/4"	G 1.1/4" -11	32	66,7	95	31,8	78	45	27	*1	M 14 x 45	1/2" x 1.3/4"
AFS 405 G 1 1/4	400	1.1/2"	G 1.1/4" -11	32	79,4	112	36,5	94	50	30	17	M 16 x 50	5/8" x 2"
AFS 405 G 1 1/2	400	1.1/2"	G 1.1/2" -11	38	79,4	112	36,5	94	50	30	17	M 16 x 50	5/8" x 2"
AFS 406 G 1 1/2	400	2"	G 1.1/2" -11	38	96,8	134	44,5	114	65	37	21	M 20 x 65	3/4" x 2.1/2"
AFS 406 G 2	400	2"	G 2" -11	51	96,8	134	44,5	114	65	37	21	M 20 x 65	3/4" x 2.1/2"

PN = Nominal pressure PB = Max. operating pressure

\*1) = 15.0 for metric screws; 13.5 for UNC screws

**Product versions:**

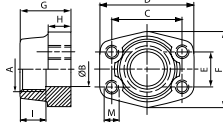
**AFS G M (6000 PSI)** - SAE screw-in flange, BSP, with metric screw set and O-ring

**AFS G U (6000 PSI)** - SAE screw-in flange, BSP, with UNC screw set and O-ring



**GFS G M (3000 / 6000 PSI)****SAE screw-in counter flange, BSP**

**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE screw-in counter flange  
**Mounting:** Inner thread for metric screws  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



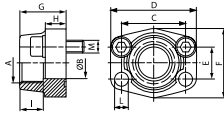
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure series	PB 10.9 bar	Size	A	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	M metr.
GFS 80 G	3000 PSI	350	1/2"	G 1/2"-14	13	38,1	54	17,5	46	36	16	19	M 8
GFS 80 G 3/8	3000 PSI	350	1/2"	G 3/8"-19	13	38,1	54	17,5	46	36	16	19	M 8
GFS 100 G	3000 PSI	350	3/4"	G 3/4"-14	19	47,6	65	22,2	50	36	18	19	M 10
GFS 100 G 1/2	3000 PSI	350	3/4"	G 1/2"-14	13	47,6	65	22,2	50	36	18	19	M 10
GFS 102 G	3000 PSI	315	1"	G 1"-11	25	52,4	70	26,2	55	38	18	22	M 10
GFS 102 G 3/4	3000 PSI	315	1"	G 3/4"-14	19	52,4	70	26,2	55	35	21	19	M 10
GFS 104 G	3000 PSI	250	1.1/4"	G 1.1/4"-11	32	58,7	79	30,2	68	41	21	22	M 10
GFS 104 G 1	3000 PSI	250	1.1/4"	G 1"-11	25	58,7	81	30,2	65	42	25	22	M 10
GFS 106 G	3000 PSI	200	1.1/2"	G 1.1/2"-11	38	69,9	93	35,7	78	45	25	24	M 12
GFS 106 G 1 1/4	3000 PSI	200	1.1/2"	G 1.1/4"-11	32	69,9	95	35,7	78	45	27	24	M 12
GFS 108 G	3000 PSI	200	2"	G 2"-11	51	77,8	102	42,9	90	45	25	30	M 12
GFS 108 G 1 1/2	3000 PSI	200	2"	G 1.1/2"-11	38	77,8	102	42,9	90	45	25	26	M 12
GFS 110 G	3000 PSI	160	2.1/2"	G 2.1/2"-11	63	88,9	114	50,8	105	50	25	30	M 12
GFS 110 G 2	3000 PSI	160	2.1/2"	G 2"-11	51	88,9	114	50,8	105	50	25	30	M 12
GFS 112 G	3000 PSI	138	3"	G 3"-11	73	106,4	134	61,9	124	50	27	34	M 16
GFS 112 G 2 1/2	3000 PSI	138	3"	G 2.1/2"-11	63	106,4	134	61,9	124	50	27	30	M 16
GFS 114 G	3000 PSI	35	3.1/2"	G 3.1/2"-11	89	120,7	152	69,9	136	48	27	34	M 16
GFS 114 G 3	3000 PSI	35	3.1/2"	G 3"-11	73	120,7	152	69,9	136	48	27	34	M 16
GFS 116 G	3000 PSI	35	4"	G 4"-11	99	130,2	162	77,8	146	48	27	34	M 16
GFS 116 G 3 1/2	3000 PSI	35	4"	G 3.1/2"-11	89	130,2	162	77,8	146	48	27	34	M 16
GFS 401 G	6000 PSI	400	1/2"	G 1/2"-14	13	40,5	54	18,2	46	36	16	19	M 8
GFS 401 G 3/8	6000 PSI	400	1/2"	G 3/8"-19	13	40,5	54	18,2	46	36	16	19	M 8
GFS 402 G	6000 PSI	400	3/4"	G 3/4"-14	19	50,8	71	23,8	55	35	21	22	M 10
GFS 402 G 1/2	6000 PSI	400	3/4"	G 1/2"-14	13	50,8	71	23,8	55	35	21	22	M 10
GFS 403 G	6000 PSI	400	1"	G 1"-11	25	57,2	81	27,8	65	42	25	24	M 12
GFS 403 G 3/4	6000 PSI	400	1"	G 3/4"-14	19	57,2	81	27,8	65	42	25	24	M 12
GFS 404 G	6000 PSI	400	1.1/4"	G 1.1/4"-11	32	66,7	95	31,8	78	45	27	25	M 14
GFS 404 G 1	6000 PSI	400	1.1/4"	G 1"-11	25	66,7	95	31,8	78	45	27	25	M 14
GFS 405 G	6000 PSI	400	1.1/2"	G 1.1/2"-11	38	79,4	112	36,5	94	50	30	28	M 16
GFS 405 G 1 1/4	6000 PSI	400	1.1/2"	G 1.1/4"-11	32	79,4	112	36,5	94	50	30	28	M 16
GFS 406 G	6000 PSI	400	2"	G 2"-11	51	96,8	134	44,5	114	65	37	30	M 20
GFS 406 G 1 1/2	6000 PSI	400	2"	G 1.1/2"-11	38	96,8	134	44,5	114	65	37	30	M 20

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**GFS G U (3000 / 6000 PSI)** - SAE screw-in counter flange, BSP, flange only

**AFS N (3000 PSI)****SAE screw-in flange, NPT**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE screw-in flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	L mm	M metr.	M unc
AFS 80 N 1/2	350	1/2"	NPT 1/2" -14	13	38,1	54	17,5	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 80 N 3/8	350	1/2"	NPT 3/8" -18	13	38,1	54	17,5	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 100 N 1/2	350	3/4"	NPT 1/2" -14	13	47,6	65	22,2	50	36	18	19	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 100 N 3/4	350	3/4"	NPT 3/4" -14	19	47,6	65	22,2	50	36	18	19	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 N 3/4	315	1"	NPT 3/4" -14	19	52,4	70	26,2	55	35	21	19	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102 N 1	315	1"	NPT 1" -11.5	25	52,4	70	26,2	55	38	18	22	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 104 N 1	250	1.1/4"	NPT 1" -11.5	25	58,7	81	30,2	65	42	25	22	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 104 N1 1/4	250	1.1/4"	NPT 1.1/4" -11.5	32	58,7	79	30,2	68	41	21	22	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 106 N1 1/4	200	1.1/2"	NPT 1.1/4" -11.5	32	69,9	95	35,7	78	45	27	24	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 106 N1 1/2	200	1.1/2"	NPT 1.1/2" -11.5	38	69,9	93	35,7	78	45	25	24	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 N1 1/2	200	2"	NPT 1.1/2" -11.5	38	77,8	102	42,9	90	45	25	26	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108 N 2	200	2"	NPT 2" -11.5	51	77,8	102	42,9	90	45	25	30	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 110 N2 1/2	160	2.1/2"	NPT 2.1/2" -11.5	63	88,9	114	50,8	105	50	25	30	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 112 N	138	3"	NPT 3" -11.5	73	106,4	134	61,9	124	50	27	34	17,5	M 16 x 50	5/8" x 2"
AFS 114 N	35	3.1/2"	NPT 3.1/2" -11.5	89	120,7	152	69,9	136	48	27	34	17,5	M 16 x 50	5/8" x 2"
AFS 116 N	35	4"	NPT 4" -11.5	99	130,2	162	77,8	146	48	27	34	17,5	M 16 x 50	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

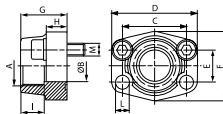
**AFS N M (3000 / 6000 PSI)** - SAE screw-in flange, NPT, with metric screw set and O-ring

**AFS N U (3000 / 6000 PSI)** - SAE screw-in flange, NPT, with UNC screw set and O-ring

## AFS N (6000 PSI)

## SAE screw-in flange, NPT

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE screw-in flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	L mm	M metr.	M unc
AFS 401 N	400	1/2"	NPT 1/2" -14	13	40,5	54	18,2	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 401 N 3/8	400	1/2"	NPT 3/8" -18	13	40,5	54	18,2	46	36	16	19	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 402 N	400	3/4"	NPT 3/4" -14	19	50,8	71	23,8	55	35	21	22	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 402 N 1/2	400	3/4"	NPT 1/2" -14	13	50,8	71	23,8	55	35	21	22	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 403 N	400	1"	NPT 1" -11.5	25	57,2	81	27,8	65	42	25	24	13,0	M 12 x 45	7/16" x 1.3/4"
AFS 403 N 3/4	400	1"	NPT 3/4" -14	19	57,2	81	27,8	65	42	25	24	13,0	M 12 x 45	7/16" x 1.3/4"
AFS 404 N	400	1.1/4"	NPT 1.1/4" -11.5	32	66,7	95	31,8	78	45	27	25	*1	M 14 x 45	1/2" x 1.3/4"
AFS 404 N 1	400	1.1/4"	NPT 1" -11.5	25	66,7	95	31,8	78	45	27	25	*1	M 14 x 45	1/2" x 1.3/4"
AFS 405 N	400	1.1/2"	NPT 1.1/2" -11.5	38	79,4	112	36,5	94	50	30	28	17,0	M 16 x 50	5/8" x 2"
AFS 405 N 1 1/4	400	1.1/2"	NPT 1.1/4" -11.5	32	79,4	112	36,5	94	50	30	28	17,0	M 16 x 50	5/8" x 2"
AFS 406 N	400	2"	NPT 2" -11.5	51	96,8	134	44,5	114	65	37	30	21,0	M 20 x 65	3/4" x 2.1/2"
AFS 406 N 1 1/2	400	2"	NPT 1.1/2" -11.5	38	96,8	134	44,5	114	65	37	30	21,0	M 20 x 65	3/4" x 2.1/2"

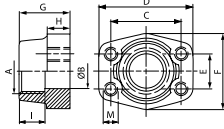
PN = Nominal pressure PB = Max. operating pressure

\*1) = 15.0 for metric screws; 13.5 for UNC screws

#### Product versions:

AFS N M (3000 / 6000 PSI) - SAE screw-in flange, NPT, with metric screw set and O-ring

AFS N U (3000 / 6000 PSI) - SAE screw-in flange, NPT, with UNC screw set and O-ring

**GFS N M (3000 / 6000 PSI)****SAE screw-in counter flange, NPT**

**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE screw-in counter flange  
**Mounting:** Inner thread for metric screws  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure series	PB 10.9 bar	Size	A	Ø B	C	D	E	F	G	H	I	M metr.
					mm	mm	mm	mm	mm	mm	mm	mm	
GFS 80 N	3000 PSI	350	1/2"	NPT 1/2" -14	13	38,1	54	17,5	46	36	16	19	M 8
GFS 80 N 3/8	3000 PSI	350	1/2"	NPT 3/8" -18	13	38,1	54	17,5	46	36	16	19	M 8
GFS 100 N	3000 PSI	350	3/4"	NPT 3/4" -14	19	47,6	65	22,2	50	36	18	19	M 10
GFS 100 N 1/2	3000 PSI	350	3/4"	NPT 1/2" -14	13	47,6	65	22,2	50	36	18	19	M 10
GFS 102 N	3000 PSI	315	1"	NPT 1" -11.5	25	52,4	70	26,2	55	38	18	22	M 10
GFS 102 N 3/4	3000 PSI	315	1"	NPT 3/4" -14	19	52,4	70	26,2	55	35	21	19	M 10
GFS 104 N	3000 PSI	250	1.1/4"	NPT 1.1/4" -11.5	32	58,7	79	30,2	68	41	21	22	M 10
GFS 104 N 1	3000 PSI	250	1.1/4"	NPT 1" -11.5	25	58,7	81	30,2	65	42	25	22	M 10
GFS 106 N	3000 PSI	200	1.1/2"	NPT 1.1/2" -11.5	38	69,9	93	35,7	78	45	25	24	M 12
GFS 106 N 1 1/4	3000 PSI	200	1.1/2"	NPT 1.1/4" -11.5	32	69,9	95	35,7	78	45	27	24	M 12
GFS 108 N	3000 PSI	200	2"	NPT 2" -11.5	51	77,8	102	42,9	90	45	25	30	M 12
GFS 108 N 1 1/2	3000 PSI	200	2"	NPT 1.1/2" -11.5	38	77,8	102	42,9	90	45	25	26	M 12
GFS 110 N	3000 PSI	160	2.1/2"	NPT 2.1/2" -11.5	63	88,9	114	50,8	105	50	25	30	M 12
GFS 112 N	3000 PSI	138	3"	NPT 3" -11.5	73	106,4	134	61,9	124	50	27	34	M 16
GFS 114 N	3000 PSI	35	3.1/2"	NPT 3.1/2" -11.5	89	120,7	152	69,9	136	48	27	34	M 16
GFS 116 N	3000 PSI	35	4"	NPT 4" -11.5	99	130,2	162	77,8	146	48	27	34	M 16
GFS 401 N	6000 PSI	400	1/2"	NPT 1/2" -14	13	40,5	54	18,2	46	36	16	19	M 8
GFS 401 N 3/8	6000 PSI	400	1/2"	NPT 3/8" -18	13	40,5	54	18,2	46	36	16	19	M 8
GFS 402 N	6000 PSI	400	3/4"	NPT 3/4" -14	19	50,8	71	23,8	55	35	21	22	M 10
GFS 402 N 1/2	6000 PSI	400	3/4"	NPT 1/2" -14	13	50,8	71	23,8	55	35	21	22	M 10
GFS 403 N	6000 PSI	400	1"	NPT 1" -11.5	25	57,2	81	27,8	65	42	25	24	M 12
GFS 403 N 3/4	6000 PSI	400	1"	NPT 3/4" -14	19	57,2	81	27,8	65	42	25	24	M 12
GFS 404 N	6000 PSI	400	1.1/4"	NPT 1.1/4" -11.5	32	66,7	95	31,8	78	45	27	25	M 14
GFS 404 N 1	6000 PSI	400	1.1/4"	NPT 1" -11.5	25	66,7	95	31,8	78	45	27	25	M 14
GFS 405 N	6000 PSI	400	1.1/2"	NPT 1.1/2" -11.5	38	79,4	112	36,5	94	50	30	28	M 16
GFS 405 N 1 1/4	6000 PSI	400	1.1/2"	NPT 1.1/4" -11.5	32	79,4	112	36,5	94	50	30	28	M 16
GFS 406 N	6000 PSI	400	2"	NPT 2" -11.5	51	96,8	134	44,5	114	65	37	30	M 20
GFS 406 N 1 1/2	6000 PSI	400	2"	NPT 1.1/2" -11.5	38	96,8	134	44,5	114	65	37	30	M 20

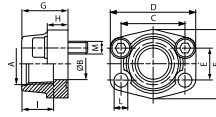
PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**GFS N U (3000 / 6000 PSI)** - SAE screw-in counter flange, NPT, flange only

**AFS T (3000 / 6000 PSI)****SAE screw-in flange, UN/UNF**

**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE screw-in flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure series	PB 10.9 bar	Size	A	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	L mm
AFS 80 T	3000 PSI	350	1/2"	UNF 3/4" -16	13	38,1	54	17,5	46	36	16	17	9,0
AFS 100 T	3000 PSI	350	3/4"	UNF 1 1/16" -12	19	47,6	65	22,3	50	36	18	23	11,0
AFS 102 T	3000 PSI	315	1"	UN 1.5/16" -12	25	52,4	70	26,2	55	38	18	23	11,0
AFS 104 T	3000 PSI	250	1.1/4"	UN 1.5/8" -12	32	58,7	79	30,2	68	41	21	23	11,5
AFS 106 T	3000 PSI	200	1.1/2"	UN 1.7/8" -12	38	69,9	93	35,7	78	45	25	23	13,5
AFS 401 T	6000 PSI	400	1/2"	UNF 3/4" -16	13	40,5	54	18,2	46	36	16	17	9,0
AFS 402 T	6000 PSI	400	3/4"	UNF 1 1/16" -12	19	50,8	71	23,8	55	35	21	23	11,0
AFS 403 T	6000 PSI	400	1"	UN 1.5/16" -12	25	57,2	81	27,8	65	42	25	23	13,0
AFS 404 T	6000 PSI	400	1.1/4"	UN 1.5/8" -12	32	66,7	95	31,8	78	45	27	23	*1
AFS 405 T	6000 PSI	400	1.1/2"	UN 1.7/8" -12	38	79,4	112	36,5	94	50	30	23	17,0

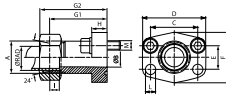
PN = Nominal pressure PB = Max. operating pressure

\*1) = 15.0 for metric screws; 13.5 for UNC screws

**Product versions:**

**AFS T M (3000 / 6000 PSI)** - SAE screw-in flange, UN/UNF, with metric screw set and O-ring

**AFS T U (3000 / 6000 PSI)** - SAE screw-in flange, UN/UNF, with UNC screw set and O-ring

**AFG M (3000 PSI)****SAE external thread flange**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	DIN 3901/3902
<b>Construction:</b>	straight
<b>Design:</b>	SAE external thread flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** In accordance with SAE J 518 C, the specified nominal pressure is defined by the flange or based on the pipe to be welded on. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	Series	Ø RAD mm	PB 10.9 bar	Size	A	Ø B mm	C mm	E mm	G1 mm	I mm	L mm	M metr.	M unc
AFG 80 M/L15	L	15	315	1/2"	M22x1,5	12	38,1	17,5	52	7,0	9,0	M 8 x 30	5/16" x 1.1/4"
AFG 100 M/L22	L	22	160	3/4"	M30x2	19	47,6	22,2	60	7,5	11,5	M 10 x 30	3/8" x 1.1/4"
AFG 100 M/S20	S	20	345	3/4"	M30x2	16	47,6	22,2	60	10,5	11,5	M 10 x 30	3/8" x 1.1/4"
AFG 102 M/L22	L	22	160	1"	M30x2	19	52,4	26,2	63	7,5	11,5	M 10 x 30	3/8" x 1.1/4"
AFG 102 M/L28	L	28	160	1"	M36x2	24	52,4	26,2	63	7,5	11,5	M 10 x 30	3/8" x 1.1/4"
AFG 102 M/S20	S	20	315	1"	M30x2	16	52,4	26,2	63	10,5	11,5	M 10 x 30	3/8" x 1.1/4"
AFG 102 M/S25	S	25	315	1"	M36x2	20	52,4	26,2	63	12,0	11,5	M 10 x 30	3/8" x 1.1/4"
AFG 104 M/L28	L	28	160	1.1/4"	M36x2	24	58,7	30,2	65	7,5	11,5	M 10 x 35	7/16" x 1.1/2"
AFG 104 M/L35	L	35	160	1.1/4"	M45x2	29	58,7	30,2	65	10,5	11,5	M 10 x 35	7/16" x 1.1/2"
AFG 104 M/S30	S	30	250	1.1/4"	M42x2	25	58,7	30,2	65	13,5	11,5	M 10 x 35	7/16" x 1.1/2"
AFG 106 M/L42	L	42	160	1.1/2"	M52x2	36	69,9	35,7	70	11,0	13,5	M 12 x 35	1/2" x 1.1/2"
AFG 106 M/S38	S	38	200	1.1/2"	M52x2	32	69,9	35,7	70	16,0	13,5	M 12 x 35	1/2" x 1.1/2"

PN = Nominal pressure    PB = Max. operating pressure    Ø = External pipe diameter    Series: LL = Very light    L = Light    S = Heavy

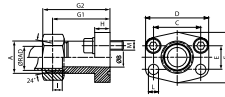
**Product versions:**

**AFG M M (3000 / 6000 PSI)** - SAE external thread flange, with metric screw set and O-ring

**AFG M U (3000 / 6000 PSI)** - SAE external thread flange, with UNC screw set and O-ring

**AFG M (6000 PSI)****SAE external thread flange**

**Pressure series:** 6000 psi  
**Standard:** DIN 3901/3902  
**Construction:** straight  
**Design:** SAE external thread flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** In accordance with SAE J 518 C, the specified nominal pressure is defined by the flange or based on the pipe to be welded on. Recommended screws are listed in the columns M (metr) and M (unc).

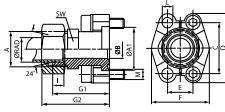
Identification	Series	Ø RAD mm	PB 10.9 bar	Size	A	Ø B mm	C mm	E mm	G1 mm	I mm	L mm	M metr.	M unc
AFG 401 M/S16	S	16	400	1/2"	M24x1,5	12	40,5	18,2	60	8,5	9,0	M 8 x 30	5/16" x 1.1/4"
AFG 402 M/S25	S	25	400	3/4"	M36x2	19	50,8	23,8	73	12,0	11,5	M 10 x 35	3/8" x 1.1/2"
AFG 403 M/S30	S	30	400	1"	M42x2	25	57,2	27,8	82	13,5	13,0	M 12 x 45	7/16" x 1.3/4"
AFG 404 M/S30	S	30	400	1.1/4"	M42x2	25	66,7	31,8	92	13,5	*1	M 14 x 50	1/2" x 1.3/4"
AFG 404 M/S38	S	38	400	1.1/4"	M52x2	29	66,7	31,8	92	16,0	*1	M 14 x 50	1/2" x 1.3/4"
AFG 405 M/S38	S	38	400	1.1/2"	M52x2	32	79,4	36,5	96	16,0	17,5	M 16 x 50	5/8" x 2"

PN = Nominal pressure    PB = Max. operating pressure    Ø = External pipe diameter    Series: LL = Very light    L = Light    S = Heavy  
 \*1) = 15.0 for metric screws; 13.5 for UNC screws

**Product versions:**

**AFG M M (3000 / 6000 PSI)** - SAE external thread flange, with metric screw set and O-ring

**AFG M U (3000 / 6000 PSI)** - SAE external thread flange, with UNC screw set and O-ring

**SFCE (3000 PSI)****SAE external thread flange**

**Pressure series:** 3000 psi  
**Standard:** DIN 3901/3902  
**Construction:** straight  
**Design:** SAE external thread flange  
**Included in scope of supply:** connecting piece only  
**Material:** S355J2G3 (C22)  
**Surface:** electro galvanised

**Note:** In accordance with SAE J 518 C, the specified nominal pressure is defined by the flange or based on the pipe to be welded on. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	Series	Ø RAD mm	PB 10.9 bar	Size	A	A1 mm	Ø B mm	C mm	E mm	G1 mm	I mm	L mm	M metr.	M unc
SFCE 3001 L15	L	15	315	1/2"	M22x1,5	30,2	16/20	38,1	17,5	48,2	7,0	8,7	M 8 x 30	5/16" x 1.1/4"
SFCE 3002 L18	L	18	315	3/4"	M26x1,5	38,1	15/20	47,6	22,2	53,2	7,5	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3002 L22	L	22	160	3/4"	M30x2	38,1	19	47,6	22,2	53,2	7,5	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3002 L28	L	28	160	3/4"	M36x2	38,1	19	47,6	22,2	53,2	7,5	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3003 L28	L	28	160	1"	M36x2	44,4	24	52,4	26,2	54,2	7,5	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3004 L28	L	28	160	1.1/4"	M36x2	50,8	22	58,7	30,2	58,6	7,5	*1	*2	7/16" x 1.1/2"
SFCE 3004 L35	L	35	160	1.1/4"	M45x2	50,8	30/32	58,7	30,2	58,2	10,5	*1	*2	7/16" x 1.1/2"
SFCE 3005 L42	L	42	160	1.1/2"	M52x2	60,3	36	69,9	35,7	64,2	11,0	13,5	M 12 x 40	1/2" x 1.1/2"
SFCE 3001 S16	S	16	350	1/2"	M24x1,5	30,2	13	38,1	17,5	50,2	8,5	8,7	M 8 x 30	5/16" x 1.1/4"
SFCE 3002 S20	S	20	350	3/4"	M30x2	38,1	16/20	47,6	22,2	57,2	10,5	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3002 S25	S	25	350	3/4"	M36x2	38,1	17	47,6	22,2	57,2	12,0	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3003 S25	S	25	315	1"	M36x2	44,4	20	52,4	26,2	58,2	12,0	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3003 S30	S	30	315	1"	M42x2	44,4	24	52,4	26,2	63,2	13,5	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3004 S25	S	25	250	1.1/4"	M36x2	50,8	20/27	58,7	30,2	60,2	12,0	*1	*2	7/16" x 1.1/2"
SFCE 3004 S30	S	30	250	1.1/4"	M42x2	50,8	25/28	58,7	30,2	62,2	13,5	*1	*2	7/16" x 1.1/2"
SFCE 3004 S38	S	38	250	1.1/4"	M52x2	50,8	28	58,7	30,2	66,6	16,0	*1	*2	7/16" x 1.1/2"
SFCE 3005 S38	S	38	200	1.1/2"	M52x2	60,3	32	69,9	35,7	70,2	16,0	13,5	M 12 x 40	1/2" x 1.1/2"

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø RAD = External pipe diameter

\*1) = Choice of 10.5, 12.0 or 12.5

**Product versions:**

**SFCE M (3000 / 6000 PSI)** - SAE external thread flange, with 2 flange halves, screw set, O-ring, nut and cutting ring

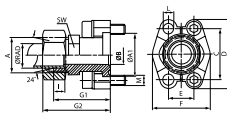
**SFCE U (3000 / 6000 PSI)** - SAE external thread flange, with 2 flange halves, screw set, O-ring, nut and cutting ring



## SFCE (6000 PSI)

## SAE external thread flange

**Pressure series:** 6000 psi  
**Standard:** DIN 3901/3902  
**Construction:** straight  
**Design:** SAE external thread flange  
**Included in scope of supply:** connecting piece only  
**Material:** S355J2G3 (C22)  
**Surface:** electro galvanised



**Note:** In accordance with SAE J 518 C, the specified nominal pressure is defined by the flange or based on the pipe to be welded on. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	Series	Ø RAD mm	PB 10.9 bar	Size	A	A1 mm	Ø B mm	G1 mm	G2 mm	I mm	L mm	M metr.	M unc
SFCE 6001 S16	S	16	400	1/2"	M24x1,5	31,7	12	53,2	63	8,5	8,5	M 8 x 30	5/16" x 1.1/4"
SFCE 6002 S16	S	16	400	3/4"	M24x1,5	41,3	12	59,2	69	8,5	10,5	M 10 x 35	3/8" x 1.1/2"
SFCE 6002 S20	S	20	400	3/4"	M30x2	41,3	16	61,2	72	10,5	10,5	M 10 x 35	3/8" x 1.1/2"
SFCE 6002 S25	S	25	400	3/4"	M36x2	41,3	17	63,2	75	12,0	10,5	M 10 x 35	3/8" x 1.1/2"
SFCE 6002 S30	S	30	400	3/4"	M42x2	41,3	18	64,0	77	13,5	10,5	M 10 x 35	3/8" x 1.1/2"
SFCE 6003 S25	S	25	400	1"	M36x2	47,6	20	72,2	84	12,0	*1	M 12 x 45	7/16" x 1.3/4"
SFCE 6003 S30	S	30	400	1"	M42x2	47,6	24	74,0	87	13,5	*1	M 12 x 45	7/16" x 1.3/4"
SFCE 6004 S30	S	30	400	1.1/4"	M42x2	54,0	25/30	79,2	92	13,5	*2	M 14 x 50	1/2" x 1.3/4"
SFCE 6004 S38	S	38	350	1.1/4"	M52x2	54,0	30	83,2	98	16,0	*2	M 14 x 50	1/2" x 1.3/4"
SFCE 6005 S38	S	38	350	1.1/2"	M52x2	63,5	30	89,2	104	16,0	16,7	M 16 x 55	1/2" x 1.3/4"

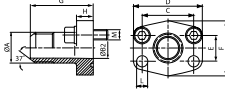
PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy

\*1) = Choice of 12.0 or 12.5

**Product versions:**

**SFCE M (3000 / 6000 PSI)** - SAE external thread flange, with 2 flange halves, screw set, O-ring, nut and cutting ring

**SFCE U (3000 / 6000 PSI)** - SAE external thread flange, with 2 flange halves, screw set, O-ring, nut and cutting ring

**AFG JIC (3000 PSI)****SAE external thread flange**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE external thread flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	L mm	M metr.	M unc
AFG 80 JIC 3/4	350	1/2"	UNF 3/4" -16	9,9	38,1	54	17,5	46	52	13	9,0	M 8 x 30	5/16" x 1.1/4"
AFG 80 JIC 7/8	350	1/2"	UNF 7/8" -14	12,3	38,1	54	17,5	46	52	13	9,0	M 8 x 30	3/8" x 1.1/4"
AFG 100 JIC 1 1/16	350	3/4"	UNF 1 1/16" -12	15,5	47,6	65	22,2	50	60	14	11,5	M 10 x 30	3/8" x 1.1/4"
AFG 102 JIC 1 5/16	315	1"	UN 1.5/16" -12	21,5	52,4	70	26,2	55	63	16	11,5	M 10 x 30	3/8" x 1.1/4"
AFG 104 JIC 1 5/16	250	1.1/4"	UN 1.5/16" -12	21,5	58,7	79	30,2	68	65	14	11,5	M 10 x 30	7/16" x 1.1/2"
AFG 104 JIC 1 5/8	250	1.1/4"	UN 1.5/8" -12	27,5	58,7	79	30,2	68	65	14	11,5	M 10 x 30	7/16" x 1.1/2"
AFG 106 JIC 1 7/8	200	1.1/2"	UN 1.7/8" -12	33,0	69,9	94	35,7	78	70	16	13,5	M 12 x 35	1/2" x 1.1/2"

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy Ø = External pipe diameter

**Product versions:**

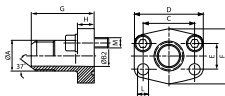
**AFG JIC U (3000 / 6000 PSI)** - SAE external thread flange, with UNC screw set and O-ring

**AFG JIC M (3000 / 6000 PSI)** - SAE external thread flange, with metric screw set and O-ring

## AFG JIC (6000 PSI)

## SAE external thread flange

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE external thread flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

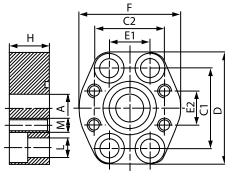
Identification	PB 10.9 bar	Size	A	Ø B mm	C mm	D mm	E mm	F mm	G mm	H mm	L mm	M metr.	M unc
AFG 401 JIC 3/4	400	1/2"	UNF 3/4" -16	9,9	40,5	56	18,2	48	60	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFG 401 JIC 7/8	400	1/2"	UNF 7/8" -14	12,3	40,5	56	18,2	48	60	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFG 402 JIC 1 1/16	400	3/4"	UNF 1 1/16" -12	15,5	50,8	71	23,8	60	73	19	11,5	M 10 x 35	3/8" x 1.1/2"
AFG 403 JIC 1 5/16	400	1"	UN 1.5/16" -12	21,5	57,2	81	27,8	70	82	24	13,0	M 12 x 45	7/16" x 1.3/4"
AFG 404 JIC 1 5/8	400	1.1/4"	UN 1.5/8" -12	27,5	66,7	95	31,8	78	92	27	*1	M 14 x 50	1/2" x 1.3/4"
AFG 404 JIC 1 5/16	400	1.1/4"	UN 1.5/16" -12	21,5	66,7	95	31,8	78	92	27	*1	M 14 x 50	1/2" x 1.3/4"
AFG 405 JIC 1 7/8	400	1.1/2"	UN 1.7/8" -12	33,0	79,4	113	36,5	95	96	30	17,5	M 16 x 50	5/8" x 2"

Series: LL = Very light L = Light S = Heavy Ø = External pipe diameter PN = Nominal pressure PB = Max. operating pressure  
\*1) = 15.0 for metric screws; 13.5 for UNC screws

**Product versions:**

**AFG JIC U (3000 / 6000 PSI)** - SAE external thread flange, with UNC screw set and O-ring

**AFG JIC M (3000 / 6000 PSI)** - SAE external thread flange, with metric screw set and O-ring

**GAF (6000 PSI)****SAE reduction**

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE reduction  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled

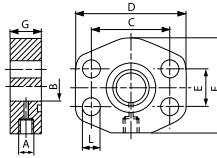
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A mm	C1 mm	C2 mm	D mm	E1 mm	E2 mm	F mm	H mm	L mm	M metr.	Screws
GAF 602-602	400	3/4" x 3/4"	19	50,8	50,8	70	23,8	23,8	70	28	11	M 10	M 10 x 35
GAF 603-602	400	1" x 3/4"	19	57,2	50,8	80	27,8	23,8	70	30	13	M 10	M 12 x 40
GAF 603-603	400	1" x 1"	25	57,2	57,2	80	27,8	27,8	75	36	13	M 12	M 12 x 45
GAF 604-603	400	1.1/4" x 1"	23	68,7	57,2	100	31,8	27,8	83	25	15	M 12	M 14 x 40
GAF 604-604	400	1.1/4" x 1.1/4"	31	68,7	68,7	100	31,8	31,8	90	35	15	M 14	M 14 x 50
GAF 605-604	400	1.1/2" x 1.1/4"	32	79,4	68,7	113	36,5	31,8	95	48	17	M 14	M 16 x 55
GAF 605-605	400	1.1/2" x 1.1/2"	38	79,4	79,4	113	36,5	36,5	105	50	17	M 16	M 16 x 55

PN = Nominal pressure PB = Max. operating pressure

**AGL (3000 PSI / 6000 PSI)****SAE adapter flange with measuring connection**

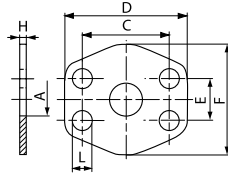
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE adapter flange with measuring connection  
**Mounting:** Screw bore hole  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure series	PB 10.9 bar	Size	A	G mm	ØB mm	C mm	D mm	E mm	F mm	L mm
AGL 80	3000 PSI	350	1/2"	G 1/4" -19	24	12	38,1	55	17,5	38	9,0
AGL 100	3000 PSI	350	3/4"	G 1/4" -19	24	19	47,6	65	22,3	50	11,0
AGL 102	3000 PSI	315	1"	G 1/4" -19	24	24	52,4	70	26,2	50	11,0
AGL 104	3000 PSI	250	1.1/4"	G 1/4" -19	23	32	58,7	81	30,2	70	12,5
AGL 106	3000 PSI	200	1.1/2"	G 1/4" -19	24	38	69,9	95	35,7	78	13,5
AGL 108	3000 PSI	200	2"	G 1/4" -19	24	50	77,8	102	42,9	90	13,5
AGL 401	6000 PSI	400	1/2"	G 1/4" -19	24	12	40,5	55	18,2	38	9,0
AGL 402	6000 PSI	400	3/4"	G 1/4" -19	24	19	50,8	70	23,8	50	11,0
AGL 403	6000 PSI	400	1"	G 1/4" -19	23	24	57,2	81	27,8	70	13,0
AGL 404	6000 PSI	400	1.1/4"	G 1/4" -19	24	32	66,7	95	31,8	78	15,0
AGL 405	6000 PSI	400	1.1/2"	G 1/4" -19	24	38	79,4	112	36,5	94	17,0
AGL 406	6000 PSI	400	2"	G 1/4" -19	24	51	96,8	134	44,5	114	21,0

PN = Nominal pressure PB = Max. operating pressure

**ZP (3000 PSI / 6000 PSI)****SAE shim**

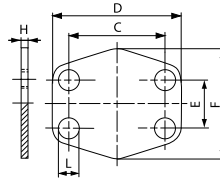
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE shim  
**Mounting:** Screw bore hole  
**Material:** Steel ST 35  
**Surface:** black oiled

Identification	Pressure series	Size	A mm	C mm	D mm	E mm	F mm	H mm	L mm
ZP 80	3000 PSI	1/2"	13	38,1	54	17,5	45,6	3	9
ZP 100	3000 PSI	3/4"	19	47,6	65	22,2	51,8	3	11
ZP 102	3000 PSI	1"	25	52,4	70	26,2	58,4	3	11
ZP 104	3000 PSI	1.1/4"	32	58,7	79	30,2	72,6	3	11
ZP 106	3000 PSI	1.1/2"	38	69,9	94	35,7	82,2	3	13
ZP 108	3000 PSI	2"	51	77,8	102	42,9	90,0	3	13
ZP 110	3000 PSI	2.1/2"	63	88,9	114	50,8	108,0	3	13
ZP 112	3000 PSI	3"	73	106,4	135	61,9	130,6	4	17
ZP 114	3000 PSI	3.1/2"	89	120,7	152	69,9	139,0	4	17
ZP 116	3000 PSI	4"	99	130,2	162	77,8	152,0	4	17
ZP 118	3000 PSI	5"	120	152,4	184	92,1	180,0	4	17
ZP 401	6000 PSI	1/2"	13	40,5	56	18,2	47,2	4	9
ZP 402	6000 PSI	3/4"	17	50,8	71	23,8	60,0	4	11
ZP 403	6000 PSI	1"	24	57,2	81	27,8	69,6	4	13
ZP 404	6000 PSI	1.1/4"	31	66,7	95	31,8	77,2	4	15
ZP 405	6000 PSI	1.1/2"	38	79,4	113	36,5	95,0	4	17
ZP 406	6000 PSI	2"	51	96,8	133	44,5	113,8	4	21

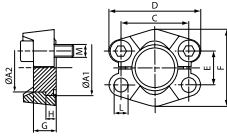
## AP (3000 / 6000 PSI)

## SAE end plate

**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE end plate  
**Mounting:** Screw bore hole  
**Material:** Steel ST 35  
**Surface:** black oiled



Identification	Pressure series	Size	C mm	D mm	E mm	F mm	H mm	L mm
AP 80	3000 PSI	1/2"	38,1	54	17,5	45,6	3	9
AP 100	3000 PSI	3/4"	47,6	65	22,3	51,8	3	11
AP 102	3000 PSI	1"	52,4	70	26,2	58,4	3	11
AP 104	3000 PSI	1.1/4"	58,7	79	30,2	72,6	3	11
AP 106	3000 PSI	1.1/2"	69,9	94	35,7	82,2	3	13
AP 108	3000 PSI	2"	77,8	102	42,9	90,0	3	13
AP 110	3000 PSI	2.1/2"	88,9	114	50,8	108,1	3	13
AP 112	3000 PSI	3"	106,4	135	61,9	130,6	4	17
AP 114	3000 PSI	3.1/2"	120,7	152	69,9	139,0	4	17
AP 116	3000 PSI	4"	130,2	162	77,8	152,0	4	17
AP 118	3000 PSI	5"	152,4	184	92,1	180,0	4	17
AP 401	6000 PSI	1/2"	40,5	56	18,2	47,2	4	9
AP 402	6000 PSI	3/4"	50,8	71	23,8	60,0	4	11
AP 403	6000 PSI	1"	57,2	81	27,8	69,6	4	13
AP 404	6000 PSI	1.1/4"	66,7	95	31,8	77,2	4	15
AP 405	6000 PSI	1.1/2"	79,4	113	36,5	95,0	4	17
AP 406	6000 PSI	2"	96,8	133	44,5	113,8	4	21

**BL (3000 PSI)****SAE blind plate**

**Pressure series:** 3000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE blind plate  
**Included in scope of supply:** blind plate only  
**Material:** S355J2G3 (C22)  
**Surface:** electro galvanised

Identification	PB 10.9 bar	Size	A1 mm	A2 mm	G mm	C mm	D mm	E mm	F mm	H mm	L mm	M metr.	M unc
BL 3001	350	1/2"	30,2	24,0	16	38,1	54	17,5	46	6,8	8,7	M 8 x 25	5/16" x 1.1/4"
BL 3002	350	3/4"	38,1	31,8	17	47,6	65	22,3	52	6,8	10,7	M 10 x 30	3/8" x 1.1/4"
BL 3003	315	1"	44,5	38,0	17	52,4	70	26,2	59	8,0	10,7	M 10 x 30	3/8" x 1.1/4"
BL 3004	250	1.1/4"	50,8	43,0	17	58,7	79	30,2	73	8,0	*1	*2	7/16" x 1.1/2"
BL 3005	200	1.1/2"	60,3	50,0	19	69,9	94	35,7	83	8,0	13,5	M 12 x 35	1/2" x 1.1/2"
BL 3006	200	2"	71,4	62,0	19	77,8	102	42,9	97	9,6	13,5	M 12 x 35	1/2" x 1.1/2"

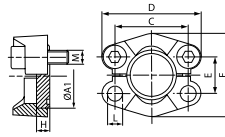
PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of 10.75 or 12.0 or 12.75



**BL (6000 PSI)****SAE blind plate**

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE blind plate  
**Included in scope of supply:** blind plate only  
**Material:** S355J2G3 (C22)  
**Surface:** electro galvanised



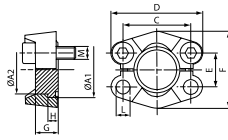
Identification	PB 10.9 bar	Size	A1 mm	G mm	C mm	D mm	E mm	F mm	H mm	L mm	M metr.	M unc
BL 6001	250	1/2"	31,8	14	40,5	56	18,2	48	7,8	8,7	M 8 x 30	5/16" x 1.1/4"
BL 6002	250	3/4"	41,3	15	50,8	71	23,8	60	8,8	10,5	M 10 x 35	3/8" x 1.1/2"
BL 6003	250	1"	47,6	16	57,2	81	27,8	70	9,5	*1	M 12 x 45	7/16" x 1.3/4"
BL 6004	250	1.1/4"	54,0	16	66,6	95	31,8	78	10,4	*2	M 14 x 45	1/2" x 1.3/4"
BL 6005	250	1.1/2"	63,5	19	79,3	113	36,5	95	12,6	17,0	M 16 x 55	5/8" x 2"
BL 6006	250	2"	79,4	30	96,8	133	44,5	114	12,6	21,0	M 20 x 70	3/4" x 2.1/2"

PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of 12.0 or 12.5

## BS (6000 PSI)

### SAE blind plate



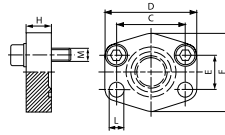
**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE blind plate  
**Included in scope of supply:** blind plate only  
**Material:** Steel 9SMnPb28K / C15  
**Surface:** electro galvanised

Identification	PB 10.9 bar	Size	A1 mm	A2 mm	G mm	C mm	D mm	E mm	F mm	H mm	L mm
BS 6001	400	1/2"	31,8	24,0	14	40,5	56	18,2	48	7,8	8,7
BS 6002	400	3/4"	41,3	31,8	15	50,8	71	23,8	60	8,8	10,7
BS 6003	400	1"	47,6	38,0	16	57,2	81	27,8	70	9,5	*1
BS 6004	400	1.1/4"	54,0	44,0	16	66,6	95	31,8	78	10,3	*2
BS 6005	400	1.1/2"	63,5	50,8	19	79,3	113	36,5	95	12,6	17,0
BS 6006	400	2"	79,4	67,0	30	96,8	133	44,5	114	12,6	21,0

PN = Nominal pressure    PB = Max. operating pressure  
 \*1) = Choice of 12.0 or 12.5

**AFC (3000 / 6000 PSI)****SAE sealing flange**

**Standard:** SAE J 518 C, ISO 6162  
**Construction:** straight  
**Design:** SAE sealing flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	Pressure series	PB 10.9 bar	Size	C mm	D mm	E mm	F mm	H mm	L mm	M metr.	M unc
AFC 80	3000 PSI	350	1/2"	38,1	56	17,5	48	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFC 100	3000 PSI	350	3/4"	47,6	65	22,2	50	16	11,0	M 10 x 35	3/8" x 1.1/2"
AFC 102	3000 PSI	315	1"	52,4	70	26,2	60	19	11,0	M 10 x 35	3/8" x 1.1/2"
AFC 104	3000 PSI	250	1.1/4"	58,7	79	30,2	68	18	11,5	M 10 x 40	7/16" x 1.1/2"
AFC 106	3000 PSI	200	1.1/2"	69,9	93	35,7	78	20	13,5	M 12 x 45	7/16" x 1.1/2"
AFC 108	3000 PSI	200	2"	77,8	102	42,9	90	20	13,5	M 12 x 45	7/16" x 1.1/2"
AFC 110	3000 PSI	160	2.1/2"	88,9	114	50,8	105	20	13,5	M 12 x 45	7/16" x 1.1/2"
AFC 112	3000 PSI	138	3"	106,4	134	61,9	124	24	17,5	M 16 x 50	5/8" x 2"
AFC 114	3000 PSI	35	3.1/2"	120,7	152	69,9	136	22	17,5	M 16 x 50	5/8" x 2"
AFC 116	3000 PSI	35	4"	130,2	162	77,8	146	25	17,5	M 16 x 50	5/8" x 2"
AFC 118	3000 PSI	35	5"	152,4	190	92,1	170	28	17,5	M 16 x 50	5/8" x 2"
AFC 401	6000 PSI	400	1/2"	40,5	56	18,2	48	16	9,0	M 8 x 30	5/16" x 1.1/4"
AFC 402	6000 PSI	400	3/4"	50,8	71	23,8	60	19	11,0	M 10 x 35	3/8" x 1.1/2"
AFC 403	6000 PSI	400	1"	57,2	81	27,8	70	24	13,0	M 12 x 45	7/16" x 1.1/2"
AFC 404	6000 PSI	400	1.1/4"	66,7	95	31,8	78	27	*1	M 14 x 45	1/2" x 1.3/4"
AFC 405	6000 PSI	400	1.1/2"	79,4	112	36,5	94	30	17,0	M 16 x 50	5/8" x 2"
AFC 406	6000 PSI	400	2"	96,8	134	44,5	114	28	21,0	M 20 x 65	3/4" x 2.1/2"

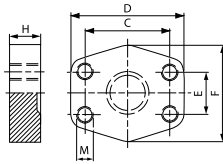
PN = Nominal pressure PB = Max. operating pressure

\*1) = 15.0 for metric screws; 13.5 for UNC screws

**Product versions:**

**AFC U (3000 / 6000 PSI)** - SAE sealing flange, with UNC screw set and O-ring

**AFC M (3000 / 6000 PSI)** - SAE sealing flange, with metric screw set and O-ring

**GFC (3000 / 6000 PSI)****SAE sealing counter flange**

<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE sealing counter flange
<b>Mounting:</b>	Inner thread for metric screws
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

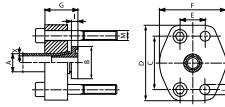
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure series	PB 10.9 bar	Size	C mm	D mm	E mm	F mm	H mm	M metr.
GFC 80	3000 PSI	350	1/2"	38,1	56	17,5	48	16	M 8
GFC 100	3000 PSI	350	3/4"	47,6	65	22,2	50	16	M 10
GFC 102	3000 PSI	315	1"	52,4	70	26,2	60	19	M 10
GFC 104	3000 PSI	250	1.1/4"	58,7	79	30,2	68	18	M 10
GFC 106	3000 PSI	200	1.1/2"	69,9	93	35,7	78	20	M 12
GFC 108	3000 PSI	200	2"	77,8	102	42,9	90	20	M 12
GFC 110	3000 PSI	160	2.1/2"	88,9	114	50,8	105	20	M 12
GFC 112	3000 PSI	138	3"	106,4	134	61,9	124	24	M 16
GFC 114	3000 PSI	35	3.1/2"	120,7	152	69,9	136	22	M 16
GFC 116	3000 PSI	35	4"	130,2	162	77,8	146	25	M 16
GFC 118	3000 PSI	35	5"	152,4	190	92,1	170	28	M 16
GFC 401	6000 PSI	400	1/2"	40,5	56	18,2	48	16	M 8
GFC 402	6000 PSI	400	3/4"	50,8	71	23,8	60	19	M 10
GFC 403	6000 PSI	400	1"	57,2	81	27,8	70	24	M 12
GFC 404	6000 PSI	400	1.1/4"	66,7	95	31,8	78	27	M 14
GFC 405	6000 PSI	400	1.1/2"	79,4	112	36,5	94	30	M 16
GFC 406	6000 PSI	400	2"	96,8	134	44,5	114	28	M 20

PN = Nominal pressure PB = Max. operating pressure

**BF (6000 PSI)****SAE flare flange**

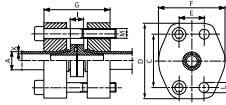
<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE flare flange
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with metric screw set and O-ring
<b>Material:</b>	Flange: Steel C 45, flared part: 42CrMo4V
<b>Surface:</b>	black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	Ø B mm	C mm	D mm	E mm	F mm	G mm	I mm	L mm	Screws
BF 402-25-3	400	3/4"	38,1	50,8	71	23,8	60	37,5	8,3	11	(4 x) M 10 x 40
BF 402-25-4	400	3/4"	38,1	50,8	71	23,8	60	37,5	8,3	11	(4 x) M 10 x 40
BF 403-30-4	400	1"	47,6	57,2	81	27,8	71	42,5	8,7	13	(4 x) M 12 x 40
BF 403-30-5	400	1"	47,6	57,2	81	27,8	71	42,5	8,7	13	(4 x) M 12 x 40
BF 404-38-5	400	1.1/4"	53,9	66,7	95	31,8	81	44,0	9,2	15	(4 x) M 14 x 45
BF 404-38-6	400	1.1/4"	53,9	66,7	95	31,8	81	44,0	9,2	15	(4 x) M 14 x 45
BF 405-50-6	400	1.1/2"	63,5	79,4	114	36,5	96	57,0	10,3	17	(4 x) M 16 x 60
BF 405-50-8	400	1.1/2"	63,5	79,4	114	36,5	96	57,0	10,3	17	(4 x) M 16 x 60
BF 406-65-8	400	2"	75,2	96,8	134	44,5	114	65,0	11,2	21	(4 x) M 20 x 90

PN = Nominal pressure PB = Max. operating pressure

**BFK (6000 PSI)****SAE flare flange connector**

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	straight
<b>Design:</b>	SAE flare flange connector
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with screw set, flare coupling and O-ring
<b>Material:</b>	Flange: Steel C 45, flared part: 42CrMo4V
<b>Surface:</b>	black oiled

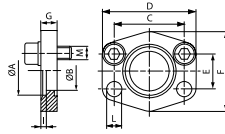
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	C mm	D mm	E mm	F mm	G mm	I mm	L mm	Screws
BFK 402-25-3	400	3/4"	50,8	71	23,8	60	75	16,5	11	(4 x) M 10 x 60
BFK 402-25-4	400	3/4"	50,8	71	23,8	60	75	16,5	11	(4 x) M 10 x 60
BFK 403-30-4	400	1"	57,2	81	27,8	71	85	17,4	13	(4 x) M 12 x 70
BFK 403-30-5	400	1"	57,2	81	27,8	71	85	17,4	13	(4 x) M 12 x 70
BFK 404-38-5	400	1.1/4"	66,7	95	31,8	81	88	18,4	15	(4 x) M 14 x 80
BFK 404-38-6	400	1.1/4"	66,7	95	31,8	81	88	18,4	15	(4 x) M 14 x 80
BFK 405-50-6	400	1.1/2"	79,4	114	36,5	96	114	20,6	17	(4 x) M 16 x 90
BFK 405-50-8	400	1.1/2"	79,4	114	36,5	96	114	20,6	17	(4 x) M 16 x 90
BFK 406-65-8	400	2"	96,8	134	44,5	114	130	22,4	21	(4 x) M 20 x 120

PN = Nominal pressure PB = Max. operating pressure

**AFC S (3000 PSI)****SAE socket weld flange, ND 40**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Supplementary design information:</b>	ND 40
<b>Construction:</b>	straight
<b>Design:</b>	SAE socket weld flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled



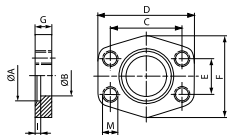
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	Pipe	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	I mm	L mm	M metr.
AFC 80 S	40	1/2"	22 x 2	22,5	15	38,1	56	17,5	46	10	3	9,0	M 8 x 25
AFC 100 S	40	3/4"	28 x 2	28,5	20	47,6	65	22,2	50	12	4	11,0	M 10 x 30
AFC 102 S	40	1"	35 x 2	35,5	29	52,4	70	26,2	55	12	4	11,0	M 10 x 30
AFC 104 S	40	1.1/4"	42 x 2	42,5	34	58,7	79	30,2	68	12	4	11,5	M 10 x 30
AFC 106 S	40	1.1/2"	48.3 x 3.25	49,0	42	69,9	93	35,7	78	15	4	13,5	M 12 x 35
AFC 108 S	40	2"	60.3 x 3.65	61,0	53	77,8	102	42,9	90	15	4	13,5	M 12 x 35
AFC 110 S	40	2.1/2"	76.1 x 3.65	77,0	64	88,9	114	50,8	105	15	4	13,5	M 12 x 35
AFC 112 S	40	3"	88.9 x 4.05	90,0	80	106,4	134	61,9	124	20	5	17,5	M 16 x 40
AFC 114 S	35	3.1/2"	101.6 x 4.5	103,0	93	120,7	152	69,9	136	20	5	17,5	M 16 x 40
AFC 116 S	35	4"	114.3 x 4.5	116,0	105	130,2	162	77,8	146	25	6	17,5	M 16 x 45
AFC 118 S	35	5"	139.7 x 4.85	141,0	126	152,4	190	92,1	170	28	8	17,5	M 16 x 45

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**AFC S M (3000 PSI)** - SAE socket weld flange, ND 40, with metric screw set and O-ring

**GFC S (3000 PSI)****SAE socket weld counter flange, ND 40**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Supplementary design information:</b>	ND 40
<b>Construction:</b>	straight
<b>Design:</b>	SAE socket weld counter flange
<b>Mounting:</b>	Inner thread for metric screws
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	Pipe	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	I mm	M metr.
GFC 80 S	40	1/2"	22 x 2	22,5	15	38,1	56	17,5	46	10	3	M 8
GFC 100 S	40	3/4"	28 x 2	28,5	20	47,6	65	22,2	50	12	4	M 10
GFC 102 S	40	1"	35 x 2	35,5	29	52,4	70	26,2	55	12	4	M 10
GFC 104 S	40	1.1/4"	42 x 2	42,5	34	58,7	79	30,2	68	12	4	M 10
GFC 106 S	40	1.1/2"	48.3 x 3.25	42,0	42	69,9	93	35,7	78	15	4	M 12
GFC 108 S	40	2"	60.3 x 3.65	61,0	53	77,8	102	42,9	90	15	4	M 12
GFC 110 S	40	2.1/2"	76.1 x 3.65	77,0	64	88,9	114	50,8	105	15	4	M 12
GFC 112 S	40	3"	88.9 x 4.05	90,0	80	106,4	134	61,9	124	20	5	M 16
GFC 114 S	35	3.1/2"	101.6 x 4.5	103,0	93	120,7	152	69,9	136	20	5	M 16
GFC 116 S	35	4"	114.3 x 4.5	116,0	105	130,2	162	77,8	146	25	6	M 16
GFC 118 S	35	5"	139.7 x 4.85	141,0	126	152,4	190	92,1	170	28	8	M 16

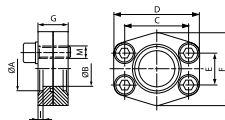
PN = Nominal pressure PB = Max. operating pressure



## DFC S M (3000 PSI)

## SAE socket weld flange connector, ND 40

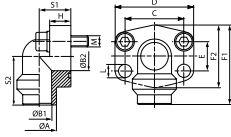
<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Supplementary design information:</b>	ND 40
<b>Construction:</b>	straight
<b>Design:</b>	SAE socket weld flange connector
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with metric screw set and O-ring
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	Pipe	A mm	Ø B mm	C mm	D mm	E mm	F mm	G mm	I mm	M metr.
DFC 100 S M	40	3/4"	28 x 2	28,5	20	47,6	65	22,2	50	24	4	M 10 x 30
DFC 102 S M	40	1"	35 x 2	35,5	29	52,4	70	26,2	55	24	4	M 10 x 30
DFC 104 S M	40	1.1/4"	42 x 2	42,5	34	58,7	79	30,2	68	24	4	M 10 x 30
DFC 106 S M	40	1.1/2"	48.3 x 3.25	49,0	42	69,9	93	35,7	78	30	4	M 12 x 35
DFC 108 S M	40	2"	60.3 x 3.65	61,0	53	77,8	102	42,9	90	30	4	M 12 x 35
DFC 110 S M	40	2.1/2"	76.1 x 3.65	77,0	64	88,9	114	50,8	105	30	4	M 12 x 35
DFC 112 S M	40	3"	88.9 x 4.05	90,0	80	106,4	134	61,9	124	40	5	M 16 x 40
DFC 114 S M	35	3.1/2"	101.6 x 4.5	103,0	93	120,7	152	69,9	136	40	5	M 16 x 40
DFC 116 S M	35	4"	114.3 x 4.5	116,0	105	130,2	162	77,8	146	50	6	M 16 x 45
DFC 118 S M	35	5"	139.7 x 4.85	141,0	126	152,4	190	92,1	170	56	8	M 16 x 45

PN = Nominal pressure PB = Max. operating pressure

**AFS 90 SRE (3000 PSI)****SAE welded on flange, angle 90°**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE welded on flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	Pipe	A mm	B1 mm	B2 mm	C mm	E mm	F1 mm	S1 mm	S2 mm	L mm
AFS 80/90 SRE 20	250	1/2"	20 x 3	20	14	13	38,1	17,5	60	20	37	9,0
AFS 80/90 SRE 22	160	1/2"	22 x 2	22	18	13	38,1	17,5	60	20	37	9,0
AFS 80/90 SRE 25	250	1/2"	25 x 3	25	19	13	38,1	17,5	60	20	37	9,0
AFS 80/90 SRE 28	160	1/2"	28 x 3	28	22	13	38,1	17,5	60	20	37	9,0
AFS 100/90 SRE 25	250	3/4"	25 x 3	25	19	19	47,6	22,3	63	24	38	11,0
AFS 100/90 SRE 28	160	3/4"	28 x 3	28	22	19	47,6	22,3	63	24	38	11,0
AFS 100/90 SRE 30	250	3/4"	30 x 4	30	22	19	47,6	22,3	63	24	38	11,0
AFS 100/90 SRE 35	160	3/4"	35 x 4	35	27	19	47,6	22,3	63	24	38	11,0
AFS 102/90 SRE 30	250	1"	30 x 4	30	22	25	52,4	26,2	70	28	43	11,0
AFS 102/90 SRE 35	160	1"	35 x 4	35	27	25	52,4	26,2	70	28	43	11,0
AFS 102/90 SRE 38	250	1"	38 x 4	38	30	25	52,4	26,2	70	28	43	11,0
AFS 102/90 SRE 42	160	1"	42 x 3	42	36	25	52,4	26,2	70	28	43	11,0
AFS 104/90 SRE 38	250	1.1/4"	38 x 4	38	30	32	58,7	30,2	85	34	51	11,5
AFS 104/90 SRE 42	160	1.1/4"	42 x 3	42	36	32	58,7	30,2	85	34	51	11,5
AFS 104/90 SRE 48	160	1.1/4"	48.3 x 4.5	49	39	32	58,7	30,2	85	34	51	11,5
AFS 106/90 SRE 38	210	1.1/2"	38 x 4	38	30	38	69,9	35,7	95	38	56	13,5
AFS 106/90 SRE 42	160	1.1/2"	42 x 3	42	36	38	69,9	35,7	95	38	56	13,5
AFS 106/90 SRE 48	160	1.1/2"	48.3 x 4.5	49	39	38	69,9	35,7	95	38	56	13,5
AFS 108/90 SRE 60	200	2"	60.3 x 5.6	61	49	51	77,8	42,9	110	42	65	13,5
AFS 108/90 SRE 76	200	2"	76.1 x 7.1	77	62	51	77,8	42,9	110	42	65	13,5

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

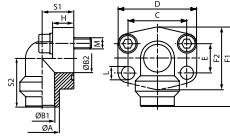
**AFS 90 SRE M (3000 / 6000 PSI)** - SAE welded on flange, angle 90°, with metric screw set and O-ring

**AFS 90 SRE U (3000 / 6000 PSI)** - SAE welded on flange, angle 90°, with UNC screw set and O-ring

**AFS 90 SRE (6000 PSI)**

SAE welded on flange, angle 90°

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** Angle 90°  
**Design:** SAE welded on flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	Pipe	A mm	B1 mm	B2 mm	C mm	E mm	F1 mm	S1 mm	S2 mm	L mm
AFS 401/90 SRE 20	315	1/2"	20 x 3	20	14	13	40,5	18,2	60	20	37	9,0
AFS 401/90 SRE 25	315	1/2"	25 x 4	25	17	13	40,5	18,2	60	20	37	9,0
AFS 402/90 SRE 25	315	3/4"	25 x 4	25	17	19	50,8	23,8	70	28	43	11,0
AFS 402/90 SRE 30	315	3/4"	30 x 4	30	22	19	50,8	23,8	70	28	43	11,0
AFS 403/90 SRE 30	315	1"	30 x 4	30	22	25	57,2	27,8	85	34	51	13,0
AFS 403/90 SRE 38	315	1"	38 x 5	38	28	25	57,2	27,8	85	34	51	13,0
AFS 404/90 SRE 38	315	1.1/4"	38 x 5	38	28	32	66,6	31,8	95	38	56	*1
AFS 404/90 SRE 48	315	1.1/4"	48.3 x 8	49	32	32	66,6	31,8	95	38	56	*1
AFS 405/90 SRE 38	315	1.1/2"	38 x 5	38	28	38	79,3	36,5	110	42	65	17,0
AFS 405/90 SRE 48	315	1.1/2"	48.3 x 8	49	32	38	79,3	36,5	110	42	65	17,0
AFS 405/90 SRE 60	315	1.1/2"	60.3 x 10	61	40	38	79,3	36,5	110	42	65	17,0
AFS 406/90 SRE 60	315	2"	60.3 x 10	61	40	51	96,8	44,5	133	45	75	21,0
AFS 406/90 SRE 76	315	2"	76.1 x 12.5	74	50	51	96,8	44,5	150	45	92	21,0

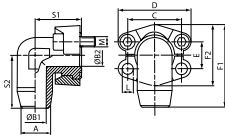
PN = Nominal pressure PB = Max. operating pressure

\*1) = 14.5 for metric screws; 13.5 for UNC screws

**Product versions:**

**AFS 90 SRE M (3000 / 6000 PSI)** - SAE welded on flange, angle 90°, with metric screw set and O-ring

**AFS 90 SRE U (3000 / 6000 PSI)** - SAE welded on flange, angle 90°, with UNC screw set and O-ring

**WFS (3000 PSI)****SAE flange adapter, welded on, angle 90°**

**Pressure series:** 3000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** Angle 90°  
**Design:** SAE flange adapter welded on connecting piece

**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled

**Note:** In accordance with SAE J 518 C, the specified nominal pressure is defined by the flange or based on the pipe to be welded on.

Identification	PB 10.9 bar	Size	A mm	B1 mm	B2 mm	C mm	D mm	E mm	F1 mm	F2 mm	S1 mm	S2 mm	L mm
WFS 3001-15	350	1/2"	15	11	11	38,1	54,0	17,5	60,8	45,6	39	38	8,7
WFS 3001-16	350	1/2"	16	10	10	38,1	54,0	17,5	60,8	45,6	39	38	8,7
WFS 3002-18	350	3/4"	18	15	19	47,6	64,9	22,2	70,9	51,8	42	45	10,7
WFS 3002-20	350	3/4"	20	14	17	47,6	64,9	22,2	70,9	51,8	42	45	10,7
WFS 3002-22	350	3/4"	22	18	19	47,6	64,9	22,2	70,9	51,8	42	45	10,7
WFS 3002-25	350	3/4"	25	17	17	47,6	64,3	22,2	70,9	51,8	42	45	10,7
WFS 3003-25	315	1"	25	19	21	52,4	69,9	26,2	79,2	58,4	45	50	10,7
WFS 3003-28	315	1"	28	24	25	52,4	69,9	26,2	79,2	58,4	45	50	10,7
WFS 3003-30	315	1"	30	21	21	52,4	69,9	26,2	79,2	58,4	45	50	10,7
WFS 3004-25	250	1.1/4"	25	19	27	58,7	79,4	30,2	85,3	72,6	50	59	*1
WFS 3004-30	250	1.1/4"	30	22	27	58,7	79,4	30,2	85,3	72,6	50	50	*1
WFS 3004-35	250	1.1/4"	35	31	32	58,7	79,4	30,2	85,3	72,6	50	59	*1
WFS 3004-38	250	1.1/4"	38	28	27	56,7	79,4	30,2	85,3	72,6	50	59	*1
WFS 3005-38	200	1.1/2"	38	30	32	69,9	93,8	35,7	117,1	82,2	76	76	13,5
WFS 3005-42	200	1.1/2"	42	36	36	69,9	93,8	35,7	117,1	82,2	76	76	13,5

PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of 10.5, 12.0 or 12.5

**Product versions:**

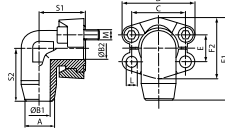
**WFS M (3000 / 6000 PSI)** - SAE flange adapter, welded on, angle 90°, with 2 flange halves, screw set and O-ring

**WFS U (3000 / 6000 PSI)** - SAE flange adapter, welded on, angle 90°, with 2 flange halves, screw set and O-ring

**WFS (6000 PSI)****SAE flange adapter, welded on, angle 90°**

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** Angle 90°  
**Design:** SAE flange adapter welded on connecting piece

**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** In accordance with SAE J 518 C, the specified nominal pressure is defined by the flange or based on the pipe to be welded on.

Identification	PB 10.9 bar	Size	A mm	B1 mm	B2 mm	C mm	D mm	E mm	F1 mm	F2 mm	S1 mm	S2 mm	L mm
WFS 6001-16	400	1/2"	16	10	10	40,5	56,0	18,2	61,6	47,2	39	38	8,7
WFS 6002-16	400	3/4"	16	10	17	50,8	71,0	23,8	78,0	60,0	48	48	10,7
WFS 6002-20	400	3/4"	20	12	17	50,8	71,0	23,8	78,0	60,0	48	48	10,7
WFS 6002-25	400	3/4"	25	15	17	50,8	71,0	23,8	78,0	60,0	48	48	10,7
WFS 6003-25	400	1"	25	15	20	57,2	81,0	27,8	94,0	69,6	60	60	*1
WFS 6003-30	400	1"	30	22	25	57,2	81,0	27,8	94,0	69,6	60	60	*1
WFS 6004-30	315	1.1/4"	30	22	27	66,7	95,0	31,8	106,6	77,2	68	68	*2
WFS 6004-38	315	1.1/4"	38	28	30	66,7	95,0	31,8	106,6	77,2	68	68	*2
WFS 6005-38	315	1.1/2"	38	28	32	79,4	113,0	36,5	123,5	95,0	76	76	17,0

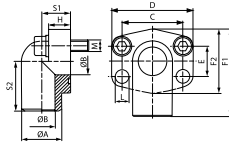
PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of 12.0 or 12.5

**Product versions:**

**WFS M (3000 / 6000 PSI)** - SAE flange adapter, welded on, angle 90°, with 2 flange halves, screw set and O-ring

**WFS U (3000 / 6000 PSI)** - SAE flange adapter, welded on, angle 90°, with 2 flange halves, screw set and O-ring

**AFS 90 ST (3000 PSI)****SAE welded on flange, angle 90°**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE welded on flange
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	Ø A mm	Ø B mm	C mm	D mm	E mm	F1 mm	F2 mm	H mm	S1 mm	S2 mm	L mm	M metr.
AFS 200/90 ST	350	3/4"	27,0	19	47,6	70	22,2	63	50	21,0	23,0	41	11,0	M 10 x 40
AFS 202/90 ST	315	1"	34,5	23	52,4	75	26,2	72	60	24,0	25,0	48	11,0	M 10 x 45
AFS 204/90 ST	250	1.1/4"	43,0	31	58,7	86	30,2	82	68	25,0	27,0	54	11,5	M 10 x 45
AFS 206/90 ST	200	1.1/2"	50,0	35	69,9	97	35,7	92	78	29,0	31,5	57	14,0	M 12 x 50
AFS 208/90 ST	200	2"	65,0	48	77,8	100	42,9	99	90	50,0	37,5	63	14,0	M 12 x 70

PN = Nominal pressure PB = Max. operating pressure

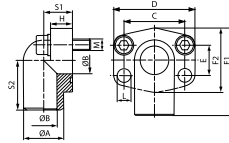
**Product versions:**

**AFS 90 ST M (3000 / 6000 PSI)** - SAE welded on flange, angle 90°, with metric screw set and O-ring

**AFS 90 ST (6000 PSI)**

SAE welded on flange, angle 90°

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** Angle 90°  
**Design:** SAE welded on flange  
**Mounting:** with metric screw set  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



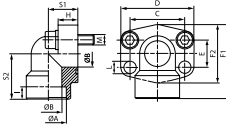
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	Ø A mm	Ø B mm	C mm	D mm	E mm	F1 mm	F2 mm	H mm	S1 mm	S2 mm	L mm	M metr.
AFS 700/90 ST	400	3/4"	28,0	19	50,8	71	23,8	70	60	19,0	22,0	40	11,0	M 10 x 35
AFS 702/90 ST	400	1"	35,0	25	57,2	81	27,8	82	70	24,0	27,0	47	13,0	M 10 x 45
AFS 704/90 ST	375	1.1/4"	42,0	32	66,7	95	31,8	95	78	27,0	32,0	56	15,0	M 14 x 50
AFS 706/90 ST	320	1.1/2"	48,0	38	79,4	113	36,5	115	94	30,0	40,0	68	17,0	M 16 x 60

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

**AFS 90 ST M (3000 / 6000 PSI)** - SAE welded on flange, angle 90°, with metric screw set and O-ring

**AFS 90 S (3000 PSI)****SAE socket weld flange, angle 90**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE socket weld flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	Ø A mm	Ø B mm	C mm	E mm	F1 mm	I mm	S1 mm	S2 mm	L mm	M metr.	M unc
AFS 80/90 S	350	1/2"	21,6	13	38,1	17,5	60	10	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 80/90 S 038	350	1/2"	17,5	13	38,1	17,5	60	10	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 100/90 S	350	3/4"	27,2	19	47,6	22,2	63	10	24	38	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102/90 S	315	1"	35,0	25	52,4	26,2	70	12	28	43	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 104/90 S	250	1.1/4"	42,8	32	58,7	30,2	85	14	34	51	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 106/90 S	200	1.1/2"	48,6	38	69,9	35,7	95	16	38	56	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108/90 S	200	2"	61,0	51	77,8	42,9	110	18	42	65	13,5	M 12 x 45	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

**Product versions:**

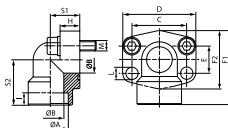
**AFS 90 S M (3000 / 6000 PSI)** - SAE socket weld flange, angle 90, with metric screw set and O-ring

**AFS 90 S U (3000 / 6000 PSI)** - SAE socket weld flange, angle 90, with UNC screw set and O-ring



**AFS 90 S (6000 PSI)****SAE socket weld flange, angle 90**

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE socket weld flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	Ø A mm	Ø B mm	C mm	E mm	F1 mm	I mm	S1 mm	S2 mm	L mm	M metr.	M unc
AFS 401/90 S	400	1/2"	21,6	13	40,5	18,2	60	10	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 401/90 S 038	400	1/2"	17,5	13	40,5	18,2	60	10	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 402/90 S	400	3/4"	27,2	19	50,8	23,8	70	12	28	43	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 403/90 S	400	1"	35,0	25	57,2	27,8	85	14	34	51	13,0	M 12 x 45	7/16" x 1.3/4"
AFS 404/90 S	400	1.1/4"	42,8	32	66,7	31,8	95	16	38	56	*1	M 14 x 50	1/2" x 1.3/4"
AFS 405/90 S	400	1.1/2"	48,6	38	79,4	36,5	110	18	42	65	17,5	M 16 x 50	5/8" x 2"
AFS 406/90 S	400	2"	61,0	51	96,8	44,5	150	18	60	92	21,0	M 20 x 110	

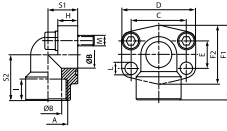
PN = Nominal pressure PB = Max. operating pressure

\*1) = 15.0 for metric screws; 13.5 for UNC screws

**Product versions:**

**AFS 90 S M (3000 / 6000 PSI)** - SAE socket weld flange, angle 90, with metric screw set and O-ring

**AFS 90 S U (3000 / 6000 PSI)** - SAE socket weld flange, angle 90, with UNC screw set and O-ring

**AFS 90 G (3000 PSI)****SAE screw-in flange, BSP, angle 90°**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE screw-in flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	ØB mm	C mm	E mm	F1 mm	I mm	S1 mm	S2 mm	L mm	M metr.	M unc
AFS 80/90 G	350	1/2"	G 1/2" -14	13	38,1	17,5	60	19	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 80/90 G 038	350	1/2"	G 3/8" -19	13	38,1	17,5	60	19	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 100/90 G	350	3/4"	G 3/4" -14	19	47,6	22,2	63	19	24	38	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102/90 G	315	1"	G 1" -11	25	52,4	26,2	70	20	28	43	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 104/90 G	250	1.1/4"	G 1.1/4" -11	32	58,7	30,2	85	22	34	51	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 106/90 G	200	1.1/2"	G 1.1/2" -11	38	69,9	35,7	95	25	38	56	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108/90 G	200	2"	G 2" -11	51	77,8	42,9	110	28	42	65	13,5	M 12 x 45	5/8" x 2"

PN = Nominal pressure    PB = Max. operating pressure

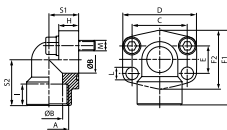
**Product versions:**

**AFS 90 G M (3000 / 6000 PSI)** - SAE screw-in flange, BSP, angle 90°, with metric screw set and O-ring

**AFS 90 G U (3000 / 6000 PSI)** - SAE screw-in flange, BSP, angle 90°, with UNC screw set and O-ring

**AFS 90 G (6000 PSI)****SAE screw-in flange, BSP, angle 90°**

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE screw-in flange
<b>Mounting:</b>	Screw bore hole
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	Ø B mm	C mm	E mm	F1 mm	I mm	S1 mm	S2 mm	L mm	M metr.	M unc
AFS 401/90 G 012	400	1/2"	G 1/2" -14	13	40,5	18,2	60	19	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 401/90 G 038	400	1/2"	G 3/8" -19	13	40,5	18,2	60	19	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 402/90 G	400	3/4"	G 3/4" -14	19	50,8	23,8	70	20	28	43	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 403/90 G	400	1"	G 1" -11	25	57,2	27,8	85	22	34	51	13,0	M 12 x 45	7/16" x 1.3/4"
AFS 404/90 G	400	1.1/4"	G 1.1/4" -11	32	66,7	31,8	95	25	38	56	*1	M 14 x 50	1/2" x 1.3/4"
AFS 405/90 G	400	1.1/2"	G 1.1/2" -11	38	79,4	36,5	110	28	42	65	17,0	M 16 x 50	5/8" x 2"
AFS 406/90 G	400	2"	G 2" -11	51	96,8	44,5	132	33	45	75	21,0	M 20 x 70	

PN = Nominal pressure PB = Max. operating pressure

\*1) = 15.0 for metric screws; 13.5 for UNC screws

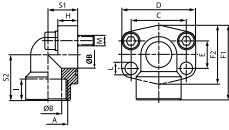
**Product versions:**

**AFS 90 G M (3000 / 6000 PSI)** - SAE screw-in flange, BSP, angle 90°, with metric screw set and O-ring

**AFS 90 G U (3000 / 6000 PSI)** - SAE screw-in flange, BSP, angle 90°, with UNC screw set and O-ring

**AFS 90 N (3000 PSI)**

SAE screw-in flange, NPT, angle 90°



**Pressure series:** 3000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** Angle 90°  
**Design:** SAE screw-in flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	Ø B mm	C mm	E mm	F1 mm	H mm	I mm	S1 mm	S2 mm	L mm	M metr.	M unc
AFS 80/90 N	350	1/2"	NPT 1/2" -14	13	38,1	17,5	60	16	19	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 80/90 N 038	350	1/2"	NPT 3/8" -18	13	38,1	17,5	60	16	19	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 100/90 N	350	3/4"	NPT 3/4" -14	19	47,6	22,2	63	18	19	24	38	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 102/90 N	315	1"	NPT 1" -11.5	25	52,4	26,2	70	19	20	28	43	11,0	M 10 x 35	5/16" x 1.1/4"
AFS 104/90 N	250	1.1/4"	NPT 1.1/4" -11.5	32	58,7	30,2	85	21	22	34	51	11,5	M 10 x 40	7/16" x 1.1/2"
AFS 106/90 N	200	1.1/2"	NPT 1.1/2" -11.5	38	69,9	35,7	95	25	25	38	56	13,5	M 12 x 45	1/2" x 1.3/4"
AFS 108/90 N	200	2"	NPT 2" -11.5	51	77,8	42,9	110	25	28	42	65	13,5	M 12 x 45	5/8" x 2"

PN = Nominal pressure PB = Max. operating pressure

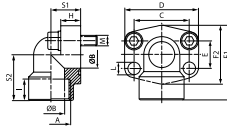
**Product versions:**

**AFS 90 N M (3000 / 6000 PSI)** - SAE screw-in flange, NPT, angle 90°, with metric screw set and O-ring

**AFS 90 N U (3000 / 6000 PSI)** - SAE screw-in flange, NPT, angle 90°, with UNC screw set and O-ring

**AFS 90 N (6000 PSI)****SAE screw-in flange, NPT, angle 90°**

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** Angle 90°  
**Design:** SAE screw-in flange  
**Mounting:** Screw bore hole  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	Ø B mm	C mm	E mm	F1 mm	H mm	I mm	S1 mm	S2 mm	L mm	M metr.	M unc
AFS 401/90 N	400	1/2"	NPT 1/2" -14	13	40,5	18,2	60	16	19	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 401/90 N 038	400	1/2"	NPT 3/8" -18	13	40,5	18,2	60	16	19	20	37	9,0	M 8 x 30	5/16" x 1.1/4"
AFS 402/90 N	400	3/4"	NPT 3/4" -14	19	50,8	23,8	70	19	20	28	43	11,0	M 10 x 35	3/8" x 1.1/2"
AFS 403/90 N	400	1"	NPT 1" -11.5	25	57,2	27,8	85	21	22	34	51	13,0	M 12 x 45	7/16" x 1.3/4"
AFS 404/90 N	400	1.1/4"	NPT 1.1/4" -11.5	32	66,7	31,8	95	25	25	38	56	*1	M 14 x 45	1/2" x 1.3/4"
AFS 405/90 N	400	1.1/2"	NPT 1.1/2" -11.5	38	79,4	36,5	110	25	28	42	65	17,0	M 16 x 50	5/8" x 2"

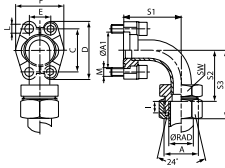
PN = Nominal pressure PB = Max. operating pressure

\*1) = 15.0 for metric screws; 13.5 for UNC screws

**Product versions:**

**AFS 90 N M (3000 / 6000 PSI)** - SAE screw-in flange, NPT, angle 90°, with metric screw set and O-ring

**AFS 90 N U (3000 / 6000 PSI)** - SAE screw-in flange, NPT, angle 90°, with UNC screw set and O-ring

**SFCE 90 (3000 PSI)****SAE flange adapter, soldered**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	DIN 3901/3902
<b>Supplementary design information:</b>	soldered
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE flange adapter
<b>Included in scope of supply:</b>	connecting piece only
<b>Material:</b>	S355J2G3 (C22)
<b>Surface:</b>	electro galvanised

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	Series	Ø RAD mm	PB 10.9 bar	Size	A	A1 mm	I mm	S1 mm	S2 mm	S3 mm	SW mm	L mm	M metr.	M unc
SFCE 3001-90 L15	L	15	315	1/2"	M22x1,5	30,2	7,0	40	43,0	58	22	8,7	M 8 x 30	5/16" x 1.1/4"
SFCE 3001-90 S16	L	16	350	1/2"	M24x1,5	30,2	7,5	40	42,5	60	24	8,7	M 8 x 30	5/16" x 1.1/4"
SFCE 3002-90 L22	L	22	160	3/4"	M30x2	38,1	7,5	59	63,5	80	30	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3003-90 L28	L	28	160	1"	M36x2	44,4	7,5	68	75,5	80	36	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3003-90 S25	L	25	315	1"	M36x2	44,4	12,0	68	71,0	95	36	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3003-90 S30	L	30	315	1"	M42x2	44,4	13,5	68	69,5	96	46	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 3004-90 L35	L	35	160	1.1/4"	M45x2	50,8	10,5	86	94,5	116	46	*1	*2	7/16" x 1.1/2"
SFCE 3005-90 L42	L	42	160	1.1/2"	M52x2	60,3	11,0	98	104,0	127	55	13,5	M 12 x 35	1/2" x 1.1/2"
SFCE 3005-90 S38	L	38	210	1.1/2"	M52x2	60,3	16,0	98	99,0	130	55	13,5	M 12 x 35	1/2" x 1.1/2"

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø RAD = External pipe diameter

\*1) = Choice of 10,5, 12,0 or 12,5

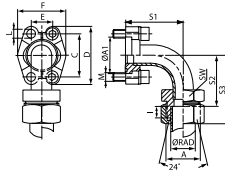
**Product versions:**

**SFCE 90 M (3000 / 6000 PSI)** - SAE flange adapter, soldered, with 2 flange halves, screw set and O-ring

**SFCE 90 U (3000 / 6000 PSI)** - SAE flange adapter, soldered, with 2 flange halves, screw set and O-ring

**SFCE 90 (6000 PSI)****SAE flange adapter, soldered**

**Pressure series:** 6000 psi  
**Standard:** DIN 3901/3902  
**Supplementary design information:** soldered  
**Construction:** Angle 90°  
**Design:** SAE flange adapter  
**Included in scope of supply:** connecting piece only  
**Material:** S355J2G3 (C22)  
**Surface:** electro galvanised



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	Series	Ø RAD mm	PB 10.9 bar	Size	A	A1 mm	I mm	S1 mm	S2 mm	S3 mm	SW mm	L mm	M metr.	M unc
SFCE 6002-90 S25	S	25	400	3/4"	M36x2	41,3	12,0	62	59,0	83	36	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 6002-90 S30	S	30	400	3/4"	M42x2	41,3	13,5	62	57,5	84	46	10,7	M 10 x 35	3/8" x 1.1/2"
SFCE 6003-90 S25	S	25	400	1"	M36x2	47,6	12,0	74	73,0	97	36	*1	M 12 x 45	7/16" x 1.3/4"
SFCE 6003-90 S30	S	30	400	1"	M42x2	47,6	13,5	74	71,5	98	46	*1	M 12 x 45	7/16" x 1.3/4"
SFCE 6004-90 S38	S	38	315	1.1/4"	M52x2	54,0	16,0	96	91,0	122	55	*2	M 14 x 50	1/2" x 1.3/4"
SFCE 6005-90 S38	S	38	315	1.1/2"	M52x2	63,5	16,0	111	91,0	122	55	17,0	M 16 x 55	5/8" x 2"

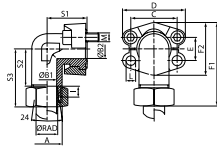
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø RAD = External pipe diameter

\*1) = Choice of 12.0 or 12.5

**Product versions:**

**SFCE 90 M (3000 / 6000 PSI)** - SAE flange adapter, soldered, with 2 flange halves, screw set and O-ring

**SFCE 90 U (3000 / 6000 PSI)** - SAE flange adapter, soldered, with 2 flange halves, screw set and O-ring

**WFG (6000 PSI)****SAE flange adapter, forged**

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	DIN 3901/3902
<b>Supplementary design information:</b>	forged
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE flange adapter
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	electro galvanised

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	Series	Ø RAD mm	PB 10,9 bar	Size	A	B1 mm	B2 mm	F1 mm	I mm	S1 mm	S2 mm	S3 mm	L mm	M metr.
WFG 6001/S 16	S	16	400	1/2"	M24x1,5	12	12	71,6	8,5	39	29,4	48	8,7	M 8 x 30
WFG 6002/S 16	S	16	400	3/4"	M24x1,5	12	17	85,0	8,5	48	36,5	55	10,7	M 10 x 35
WFG 6002/S 20	S	20	400	3/4"	M30x2	16	17	87,0	10,5	48	35,5	57	10,7	M 10 x 35
WFG 6002/S 25	S	25	400	3/4"	M36x2	17	17	90,0	12,0	48	36,0	60	10,7	M 10 x 35
WFG 6003/S 25	S	25	400	1"	M36x2	20	24	99,8	12,0	60	41,0	65	13,0	M 12 x 45
WFG 6003/S 30	S	30	400	1"	M42x2	24	24	102,9	13,5	60	41,5	68	13,0	M 12 x 45
WFG 6004/S 30	S	30	400	1.1/4"	M42x2	25	31	109,6	13,5	68	44,5	71	14,7	M 14 x 50
WFG 6004/S 38	S	38	350	1.1/4"	M52x2	28	31	114,6	16,0	68	45,0	76	14,7	M 14 x 50
WFG 6005/S 38	S	38	350	1.1/2"	M52x2	30	36	134,5	16,0	76	56,0	87	17,0	M 16 x 55

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø RAD = External pipe diameter

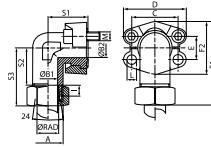
**Product versions:**

**WFG M (3000 / 6000 PSI)** - SAE flange adapter, forged, with 2 flange halves, screw set and O-ring



**WFG (3000 PSI)****SAE flange adapter, forged**

**Pressure series:** 3000 psi  
**Standard:** DIN 3901/3902  
**Supplementary design information:** forged  
**Construction:** Angle 90°  
**Design:** SAE flange adapter  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** electro galvanised



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

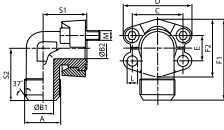
Identification	Series	Ø RAD mm	PB 10.9 bar	Size	A	B1 mm	B2 mm	F1 mm	I mm	S1 mm	S2 mm	S3 mm	L mm	M metr.
WFG 3001/L 15	L	15	315	1/2"	M22x1,5	12	11	66,8	7,0	39	29,0	44	8,7	M 8 x 25
WFG 3002/L 18	L	18	315	3/4"	M26x1,5	15	19	73,9	7,5	42	31,5	48	10,7	M 10 x 35
WFG 3002/L 22	L	22	160	3/4"	M30x2	19	19	75,9	7,5	42	33,5	50	10,7	M 10 x 35
WFG 3003/L 28	L	28	160	1"	M36x2	24	25	82,2	7,5	45	36,5	53	10,7	M 10 x 35
WFG 3004/L 35	L	35	160	1.1/4"	M45x2	30	27	104,3	10,5	50	46,5	68	*1	*2
WFG 3005/L 42	L	42	160	1.1/2"	M52x2	36	36	118,2	11,0	55	47,0	57	13,5	M 12 x 40
WFG 3001/S 16	S	16	350	1/2"	M24x1,5	12	11	70,8	8,5	39	29,5	48	8,7	M 8 x 25
WFG 3002/S 20	S	20	350	3/4"	M30x2	16	19	79,9	10,5	42	32,5	54	10,7	M 10 x 35
WFG 3002/S 25	S	25	350	3/4"	M36x2	17	19	82,9	12,0	42	33,0	57	10,7	M 10 x 35
WFG 3003/S 25	S	25	315	1"	M36x2	20	25	91,2	12,0	45	38,0	62	10,7	M 10 x 35
WFG 3003/S 30	S	30	315	1"	M42x2	24	25	92,2	13,5	45	36,5	63	10,7	M 10 x 35
WFG 3004/S 25	S	25	250	1.1/4"	M36x2	20	27	103,3	12,0	50	43,0	67	*1	*2
WFG 3004/S 30	S	30	250	1.1/4"	M42x2	25	27	106,3	13,5	50	43,5	70	*1	*2
WFG 3004/S 38	S	38	250	1.1/4"	M52x2	28	27	110,3	16,0	50	43,0	74	*1	*2
WFG 3005/S 38	S	38	200	1.1/2"	M52x2	32	36	128,2	16,0	55	48,0	58	13,5	M 12 x 40

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø RAD = External pipe diameter

\*1) = Choice of 10.5 or 12.5

**Product versions:**

**WFG M (3000 / 6000 PSI)** - SAE flange adapter, forged, with 2 flange halves, screw set and O-ring

**WFG JIC (3000 PSI)****SAE flange adapter, forged**

<b>Pressure series:</b>	3000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Supplementary design information:</b>	forged
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE flange adapter
<b>Included in scope of supply:</b>	flange only
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	electro galvanised

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	B1 mm	B2 mm	E mm	F1 mm	S1 mm	S2 mm	L mm	M metr.	M unc
WFG 3001 JIC 3/4	350	1/2"	UNF 3/4" -16	9,9	13	17,5	60,8	38	38	8,7	M 8 x 25	5/16" x 1.1/4"
WFG 3001 JIC 7/8	350	1/2"	UNF 7/8" -14	12,3	13	17,5	60,8	38	38	8,7	M 8 x 25	5/16" x 1.1/4"
WFG 3002 JIC 1 1/16	350	3/4"	UNF 1 1/16" -12	15,5	19	22,2	70,9	42	45	10,7	M 10 x 30	3/8" x 1.1/2"
WFG 3002 JIC 1 5/16	350	3/4"	UN 1.5/16" -12	21,5	19	22,2	70,9	42	45	10,7	M 10 x 30	3/8" x 1.1/2"
WFG 3002 JIC 7/8	350	3/4"	UNF 7/8" -14	12,3	19	22,2	70,9	42	45	10,7	M 10 x 30	3/8" x 1.1/2"
WFG 3003 JIC 1 1/16	315	1"	UNF 1 1/16" -12	15,5	24	26,2	79,2	45	50	10,7	M 10 x 30	3/8" x 1.1/2"
WFG 3003 JIC 1 5/16	315	1"	UN 1.5/16" -12	21,5	24	26,2	79,2	45	50	10,7	M 10 x 30	3/8" x 1.1/2"
WFG 3003 JIC 1 5/8	315	1"	UN 1.5/8" -12	27,5	24	26,2	79,2	45	50	10,7	M 10 x 30	3/8" x 1.1/2"
WFG 3004 JIC 1 5/16	250	1.1/4"	UN 1.5/16" -12	21,5	31	30,2	85,3	50	59	*1	*2	7/16" x 1.1/2"
WFG 3004 JIC 1 5/8	250	1.1/4"	UN 1.5/8" -12	27,5	31	30,2	85,3	50	59	*1	*2	7/16" x 1.1/2"
WFG 3005 JIC 1 5/8	200	1.1/2"	UN 1.5/8" -12	27,5	38	35,7	117,1	76	76	13,5	M 12 x 35	1/2" x 1.1/2"
WFG 3005 JIC 1 7/8	200	1.1/2"	UN 1.7/8" -12	33,0	38	35,7	117,1	76	76	13,5	M 12 x 35	1/2" x 1.1/2"

PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of 10.5, 12.0 or 12.5

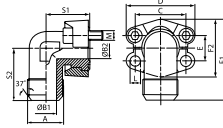
**Product versions:**

**WFG JIC U (3000 / 6000 PSI)** - SAE flange adapter, forged, with 2 flange halves, screw set and O-ring

**WFG JIC M (3000 / 6000 PSI)** - SAE flange adapter, forged, with 2 flange halves, screw set and O-ring

**WFG JIC (6000 PSI)****SAE flange adapter, forged**

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Supplementary design information:**  
**Construction:** Angle 90°  
**Design:** SAE flange adapter  
**Included in scope of supply:** flange only  
**Material:** S355J2G3 (ST52.3)  
**Surface:** electro galvanised



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	PB 10.9 bar	Size	A	B1 mm	B2 mm	E mm	F1 mm	S1 mm	S2 mm	L mm	M metr.	M unc
WFG 6001 JIC 3/4	400	1/2"	UNF 3/4" -16	9,9	13	18,2	61,6	39	38	8,7	M 8 x 30	5/16" x 1.1/4"
WFG 6001 JIC 7/8	400	1/2"	UNF 7/8" -14	12,3	13	18,2	61,6	39	38	8,7	M 8 x 35	5/16" x 1.1/4"
WFG 6002 JIC 1 1/16	400	3/4"	UNF 1 1/16" -12	15,5	17	23,8	78,0	48	48	10,7	M 10 x 35	3/8" x 1.1/2"
WFG 6002 JIC 1 5/16	400	3/4"	UN 1.5/16" -12	21,5	17	23,8	78,0	48	48	10,7	M 10 x 35	3/8" x 1.1/2"
WFG 6002 JIC 7/8	400	3/4"	UNF 7/8" -14	12,3	17	23,8	78,0	48	48	10,7	M 10 x 35	3/8" x 1.1/2"
WFG 6003 JIC 1 1/16	400	1"	UNF 1 1/16" -12	15,5	24	27,8	99,0	60	60	*1	M 12 x 45	7/16" x 1.3/4"
WFG 6003 JIC 1 5/16	400	1"	UN 1.5/16" -12	21,5	24	27,8	99,0	60	60	*1	M 12 x 45	7/16" x 1.3/4"
WFG 6003 JIC 1 5/8	400	1"	UN 1.5/8" -12	27,5	24	27,8	99,0	60	60	*1	M 12 x 45	7/16" x 1.1/2"
WFG 6004 JIC 1 5/16	400	1.1/4"	UN 1.5/16" -12	21,5	30	31,8	115,5	68	68	*2	M 14 x 50	1/2" x 1.3/4"
WFG 6004 JIC 1 5/8	400	1.1/4"	UN 1.5/8" -12	27,5	30	31,8	115,5	68	68	*2	M 14 x 50	1/2" x 1.3/4"
WFG 6004 JIC 1 7/8	400	1.1/4"	UN 1.7/8" -12	33,0	30	31,8	115,5	68	68	*2	M 14 x 50	1/2" x 1.3/4"
WFG 6005 JIC 1 5/8	400	1.1/2"	UN 1.5/8" -12	27,5	32	36,5	133,0	76	76	17,0	M 16 x 55	5/8" x 2"
WFG 6005 JIC 1 7/8	400	1.1/2"	UN 1.7/8" -12	33,0	32	36,5	133,0	76	76	17,0	M 16 x 55	5/8" x 2"

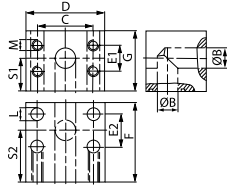
PN = Nominal pressure PB = Max. operating pressure

\*1) = Choice of 12.0 or 12.5

**Product versions:**

**WFG JIC U (3000 / 6000 PSI)** - SAE flange adapter, forged, with 2 flange halves, screw set and O-ring

**WFG JIC M (3000 / 6000 PSI)** - SAE flange adapter, forged, with 2 flange halves, screw set and O-ring

**GD (3000 / 6000 PSI)****SAE block flange, angle 90°**

<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE block flange
<b>Mounting:</b>	Inner thread for metric screws
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	black oiled

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

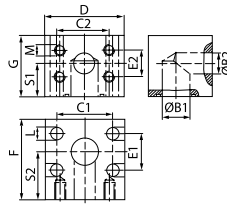
Identification	Pressure series	PB 10.9 bar	Size	Ø B mm	C mm	D mm	E1 mm	E2 mm	F mm	G mm	L mm	S1 mm	S2 mm	M metr.
GD 304	3000 PSI	250	1.1/4"	32	58,7	82	30,2	30,2	82	80	13,0	39	38	M 10
GD 305	3000 PSI	200	1.1/2"	38	69,9	98	35,7	35,7	92	92	13,5	51	59	M 12
GD 306	3000 PSI	200	2"	46	77,8	102	42,9	42,9	85	87	14,0	51	48	M 12
GD 602	6000 PSI	400	3/4"	19	50,8	72	23,8	23,8	60	55	11,0	32	36	M 10
GD 603	6000 PSI	400	1"	23	57,2	82	27,8	27,8	68	64	14,0	37	40	M 12
GD 604	6000 PSI	400	1.1/4"	30	66,7	96	31,8	31,8	76	72	16,0	41	46	M 14
GD 605	6000 PSI	400	1.1/2"	38	79,4	114	36,5	36,5	86	89	18,0	50	52	M 16
GD 606	6000 PSI	400	2"	50	96,8	133	44,5	44,5	110	105	21,0	59	70	M 20

PN = Nominal pressure PB = Max. operating pressure

## RED GD

## SAE block flange reduction, angle 90°

<b>Pressure series:</b>	6000 psi
<b>Standard:</b>	SAE J 518 C, ISO 6162
<b>Construction:</b>	Angle 90°
<b>Design:</b>	SAE block flange reduction
<b>Mounting:</b>	Inner thread for metric screws
<b>Material:</b>	S355J2G3 (ST52.3)
<b>Surface:</b>	electro galvanised



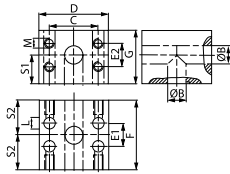
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	PB 10.9 bar	Size	B1 mm	B2 mm	C1 mm	C2 mm	D mm	E1 mm	E2 mm	F mm	G mm	L mm	S1 mm	S2 mm	M metr.
RED GD 603-602	400	1"	23	19	57,2	50,8	82	27,8	23,8	68	64	14	37	40	M 10
RED GD 604-602	400	1.1/4"	30	19	66,7	50,8	96	31,8	23,8	76	72	16	41	46	M 10
RED GD 604-603	400	1.1/4"	30	23	66,7	57,2	96	31,8	27,8	76	72	16	41	46	M 12
RED GD 605-604	400	1.1/2"	38	30	79,4	66,7	114	36,5	31,8	86	89	19	50	52	M 14
RED GD 606-605	400	2"	50	38	96,8	79,4	133	44,5	36,5	110	110	22	59	70	M 16

PN = Nominal pressure PB = Max. operating pressure

## T-GD

### SAE block flange, T shaped



**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** T shaped  
**Design:** SAE block flange  
**Mounting:** Inner thread for metric screws  
**Material:** S355J2G3 (ST52.3)  
**Surface:** electro galvanised

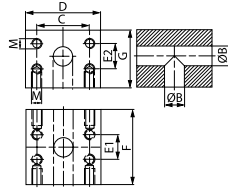
Identification	PB 10.9 bar	Size	Ø B mm	C mm	D mm	E1 mm	E2 mm	F mm	G mm	S1 mm	S2 mm	L mm	M metr.
T GD 602-602	400	3/4"	19	50,8	72	23,8	23,8	72	55	32	36	11	M 10
T GD 603-603	400	1"	23	57,2	82	27,8	27,8	80	64	37	40	14	M 12
T GD 604-604	400	1.1/4"	30	66,7	100	31,8	31,8	92	72	41	46	16	M 14
T GD 605-605	400	1.1/2"	38	79,4	114	36,5	36,5	104	89	50	52	18	M 16
T GD 606-606	400	2"	50	96,8	133	44,5	44,5	140	105	59	70	22	M 20

PN = Nominal pressure PB = Max. operating pressure

## T BL

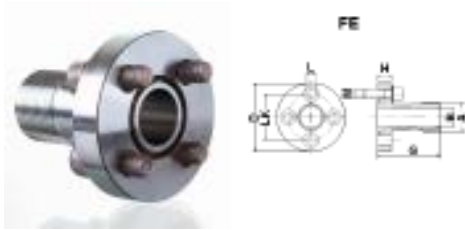
## SAE block flange, T shaped

**Pressure series:** 6000 psi  
**Standard:** SAE J 518 C, ISO 6162  
**Construction:** T shaped  
**Design:** SAE block flange  
**Mounting:** Inner thread for metric screws  
**Material:** S355J2G3 (ST52.3)



Identification	PB 10.9 bar	Size	Ø B mm	C mm	D mm	E1 mm	E2 mm	F mm	G mm	M metr.
T BL 602-602	400	3/4"	19	50,8	72	23,8	23,8	72	55	M 10
T BL 603-603	400	1"	23	57,2	82	27,8	27,8	82	64	M 12
T BL 604-604	400	1.1/4"	30	66,7	100	31,8	31,8	92	72	M 14
T BL 605-605	400	1.1/2"	38	79,4	110	36,5	36,5	98	98	M 16
T BL 606-606	400	2"	50	96,8	133	44,5	44,5	140	105	M 20

PN = Nominal pressure PB = Max. operating pressure

**FE****Pump connection (4 hole)**

<b>Design:</b>	Pump connection (4 hole)
<b>Construction:</b>	straight
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with screw set and O-ring
<b>Material:</b>	Steel ST 42.3
<b>Surface:</b>	electro galvanised

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

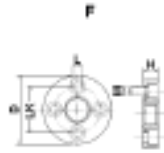
Identification	Pressure PB bar	LK mm	A	ØB mm	D mm	G mm	H mm	L mm	Screws	OR
FE 1	250	30	G 1/2" -14	14	45	55	10	6,5	(4 x) M 6 x 20	18.77 x 1.78
FE 2	250	40	G 3/4" -14	19	58	60	12	8,5	(4 x) M 8 x 25	25.12 x 1.78
FE 3 A	250	51	G 1" -11	24	76	72	16	10,5	(4 x) M 10 x 30	31.42 x 2.62
FE 3 B	250	56	G 1" -11	24	76	72	16	10,5	(4 x) M 10 x 30	31.42 x 2.62

PN = Nominal pressure PB = Max. operating pressure



## Pump connection (4 hole)

<b>Design:</b>	Pump connection (4 hole)
<b>Construction:</b>	straight
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with screw set and O-ring
<b>Material:</b>	Steel ST 42.3
<b>Surface:</b>	electro galvanised



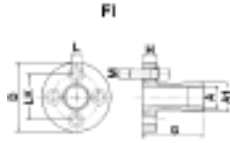
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure PB bar	LK mm	A	D mm	H mm	L mm	Screws	OR
F 1	250	30,0	G 3/8" -19	45	11,5	6,5	(4 x) M 6 x 20	18.77 x 1.78
F 2	250	40,0	G 1/2" -14	58	14,0	8,5	(4 x) M 8 x 25	25.12 x 1.78
F 3 A	250	51,0	G 3/4" -14	76	16,0	10,5	(4 x) M 10 x 30	31.42 x 2.62
F 3 B	250	56,0	G 3/4" -14	76	16,0	10,5	(4 x) M 10 x 30	31.42 x 2.62
F 3.5 A	180	62,0	G 1" -11	88	20,0	10,5	(4 x) M 10 x 35	39.70 x 3.53
F 3.5 B	180	62,0	G 1" -11	88	20,0	12,5	(4 x) M 12 x 35	39.70 x 3.53
F 4	180	72,5	G 1.1/4" -11	98	20,0	12,5	(4 x) M 12 x 35	47.22 x 3.53

PN = Nominal pressure PB = Max. operating pressure

## FI (Flansche)

### Pump connection (4 hole)



<b>Design:</b>	Pump connection (4 hole)
<b>Construction:</b>	straight
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with screw set and O-ring
<b>Material:</b>	Steel ST 42.3
<b>Surface:</b>	electro galvanised

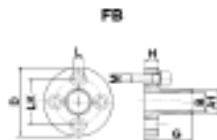
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure PB bar	LK mm	A	A1 mm	D mm	G mm	H mm	L mm	Screws	OR
FI 1	250	30	G 3/8" -19	21,0	45	55	10	6,5	(4 x) M 6 x 20	18.77 x 1.78
FI 2	250	40	G 1/2" -14	26,5	58	60	12	8,5	(4 x) M 8 x 25	25.12 x 1.78
FI 3 A	250	51	G 3/4" -14	33,5	76	72	16	10,5	(4 x) M 10 x 30	31.42 x 2.62
FI 3 B	250	56	G 3/4" -14	33,5	76	72	16	10,5	(4 x) M 10 x 30	31.42 x 2.62

PN = Nominal pressure PB = Max. operating pressure

## Pump connection (4 hole)

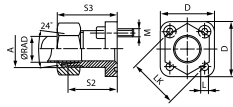
<b>Design:</b>	Pump connection (4 hole)
<b>Construction:</b>	straight
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with metric screw set and O-ring
<b>Material:</b>	Steel ST 42.3
<b>Surface:</b>	electro galvanised



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure PB bar	LK mm	A1 mm	Ø B mm	D mm	G mm	H mm	L mm	Screws	OR
FB 1	250	30	19,0	14,0	45	55	10	6,5	(4 x) M 6 x 20	18.77 x 1.78
FB 2	250	40	25,4	19,0	58	60	12	8,5	(4 x) M 8 x 25	25.12 x 1.78
FB 3 B	250	56	32,0	24,5	76	72	16	10,5	(4 x) M 10 x 35	31.42 x 2.62

PN = Nominal pressure PB = Max. operating pressure

**GF LK****Pump connection (4 hole)**

<b>Design:</b>	Pump connection (4 hole)
<b>Construction:</b>	straight
<b>Standard:</b>	ISO/DIS 6164
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with metric screw set and O-ring
<b>Material:</b>	A 105
<b>Surface:</b>	electro galvanised

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Series	Ø RAD mm	Pressure PB bar	LK mm	A	Ø B mm	D mm	L mm	S2 mm	S3 mm	Screws	OR
GF 35 LK L 10 315	L	10	315	35	M16x1,5	11	39	6,4	30	39,0	(4 x) M 6 x 22	20,0 x 2,5
GF 35 LK L 12 315	L	12	315	35	M18x1,5	11	39	6,4	30	39,0	(4 x) M 6 x 22	20,0 x 2,5
GF 35 LK L 15 250	L	15	250	35	M22x1,5	12	39	6,4	30	38,0	(4 x) M 6 x 22	20,0 x 2,5
GF 40 LK L 15 100	L	15	100	40	M22x1,5	13	42	6,4	35	43,0	(4 x) M 6 x 22	26,0 x 2,5
GF 40 LK L 18 100	L	18	100	40	M26x1,5	16	42	6,4	35	44,0	(4 x) M 6 x 22	26,0 x 2,5
GF 40 LK L 22 100	L	22	100	40	M30x2	20	42	6,4	35	44,5	(4 x) M 6 x 22	26,0 x 2,5
GF 40 LK L 28 100	L	28	100	40	M36x2	20	42	6,4	35	44,5	(4 x) M 6 x 22	26,0 x 2,5
GF 35 LK S 16 315	S	16	315	35	M24x1,5	12	39	6,4	30	39,5	(4 x) M 6 x 22	20,0 x 2,5
GF 55 LK S 20 250	S	20	250	55	M30x2	14	55	8,4	35	51,0	(4 x) M 8 x 25	32,0 x 2,5

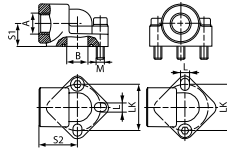
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø RAD = External pipe diameter

**Product versions:**

GF LK M - Pump connection (4 hole), with screw set, O-ring, nut and cutting ring, A 105

**WA****Pump connection (2 hole), angle 90°**

**Design:** Pump connection (2 hole)  
**Construction:** Angle 90°  
**Mounting:** with metric screw set  
**Included in scope of supply:** with metric screw set and O-ring  
**Material:** Aluminium



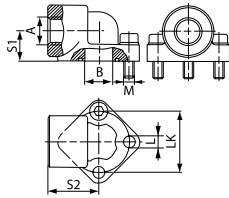
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure PB bar	LK mm	A	Ø B mm	S1 mm	S2 mm	L mm	Screws	OR
WA 3.5 114	120	62,0	G 1.1/4" - 11	32	33,5	57	13	(2 x) M 12 x 35	35.80 x 3.53

PN = Nominal pressure PB = Max. operating pressure

## WDS

### Pump connection (3 hole), angle 90°



**Design:** Pump connection (3 hole)  
**Construction:** Angle 90°  
**Mounting:** with metric screw set  
**Included in scope of supply:** with metric screw set and O-ring  
**Material:** Steel ST 42.3  
**Surface:** electro galvanised

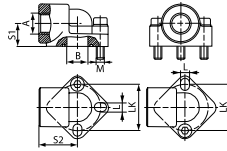
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure PB bar	LK mm	A	B mm	S1 mm	S2 mm	L mm	Screws	OR
WDS 3 B 100	315	56	G 1" -11	26,0	26	45	10,5	(3 x) M 10 x 30	31.42 x 2.62

PN = Nominal pressure PB = Max. operating pressure

**WDA****Pump connection (3 hole), angle 90°**

**Design:** Pump connection (3 hole)  
**Construction:** Angle 90°  
**Mounting:** with metric screw set  
**Included in scope of supply:** with metric screw set and O-ring  
**Material:** Aluminium

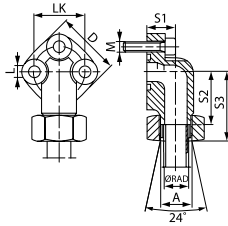


**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure PB bar	LK mm	A	B mm	S1 mm	S2 mm	L mm	Screws	OR
WDA 0.5 12	180	26	G 1/2" -14	10,0	18	31	5,3	(3 x) M 5 x 35	14.00 x 1.78
WDA 0.5 38	180	26	G 3/8" -19	10,0	18	31	5,3	(3 x) M 5 x 35	14.00 x 1.78
WDA 1 12	180	30	G 1/2" -14	12,5	18	30	6,5	(3 x) M 6 x 35	15.88 x 2.62
WDA 1 38	180	30	G 3/8" -19	12,5	18	30	6,5	(3 x) M 6 x 35	15.88 x 2.62
WDA 2 12	180	40	G 1/2" -14	18,5	20	40	8,5	(3 x) M 8 x 45	22.22 x 2.62
WDA 2 34	180	40	G 3/4" -14	18,5	20	40	8,5	(3 x) M 8 x 45	22.22 x 2.62
WDA 3 34	180	51	G 3/4" -14	25,0	26	46	10,5	(3 x) M 10 x 60	29.74 x 3.53
WDA 3 100	180	56	G 1" -11	25,0	26	46	10,5	(3 x) M 10 x 60	29.74 x 3.53

PN = Nominal pressure PB = Max. operating pressure

4

**WF LK 3****Pump connection (3 hole), angle 90°**

**Design:** Pump connection (3 hole)  
**Construction:** Angle 90°  
**Mounting:** with metric screw set  
**Included in scope of supply:** with metric screw set and O-ring  
**Material:** Malleable cast iron GTW 40  
**Surface:** electro galvanised

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Series	Ø RAD mm	Pressure PB bar	LK mm	A	D mm	S1 mm	S2 mm	S3 mm	L mm	Screws	OR
WF 30 LK L 12-3	L	12	250	30	M18x1,5	38	19	30,0	46,5	6,4	(3 x) M 6 x 25	16,0 x 2,5
WF 30 LK L 15-3	L	15	250	30	M22x1,5	38	19	30,0	46,0	6,4	(3 x) M 6 x 25	16,0 x 2,5
WF 40 LK L 22-3	L	22	160	40	M30x2	48	25	35,5	52,5	8,4	(3 x) M 8 x 30	24,0 x 2,5
WF 40 LK L 28-3	L	28	160	40	M36x2	48	25	35,5	52,5	8,4	(3 x) M 8 x 30	24,0 x 2,5

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø RAD = External pipe diameter

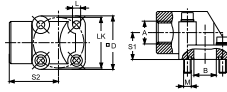
**Product versions:**

**WF LK 3 M** - Pump connection (3 hole), angle 90°, with screw set, O-ring, nut and cutting ring, Malleable cast iron GTW 40



**WVA****Pump connection (4 hole), aluminium, angle 90°**

**Design:** Pump connection (4 hole)  
**Construction:** Angle 90°  
**Mounting:** with metric screw set  
**Included in scope of supply:** with metric screw set and O-ring  
**Material:** Aluminium

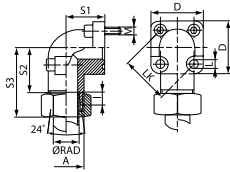


**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure PB bar	A	B mm	LK mm	S1 mm	S2 mm	L mm	Screws 1	Screws 2	OR
WVA 100 55	120	G 1" -11	25,0	55	29	54,0	8,5	(2x) M 8 x 45	(2x) M 8 x 60	29.74 x 3.53
WVA 12 30	180	G 1/2" -14	11,5	30	18	40,0	6,5	(2x) M 6 x 30	(2x) M 6 x 45	15.88 x 2.62
WVA 12 35	180	G 1/2" -14	14,0	35	18	42,5	6,5	(2x) M 6 x 30	(2x) M 6 x 45	18.72 x 2.62
WVA 12 40	180	G 1/2" -14	17,0	40	24	47,5	6,5	(2x) M 6 x 35	(2x) M 6 x 55	22.22 x 2.62
WVA 34 40	180	G 3/4" -14	17,0	40	24	47,5	6,5	(2x) M 6 x 35	(2x) M 6 x 55	22.22 x 2.62
WVA 34 55	180	G 3/4" -14	25,0	55	29	54,0	8,5	(2x) M 8 x 45	(2x) M 8 x 60	29.74 x 3.53
WVA 38 30	180	G 3/8" -19	11,5	30	18	40,0	6,5	(2x) M 6 x 30	(2x) M 6 x 45	15.88 x 2.62
WVA 38 35	180	G 3/8" -19	14,0	35	18	42,5	6,5	(2x) M 6 x 30	(2x) M 6 x 45	18.72 x 2.62

PN = Nominal pressure PB = Max. operating pressure

4

**WF LK****Pump connection (4 hole), angle 90°**

<b>Design:</b>	Pump connection (4 hole)
<b>Construction:</b>	Angle 90°
<b>Standard:</b>	DIN 3901/3902
<b>Mounting:</b>	with metric screw set
<b>Included in scope of supply:</b>	with metric screw set and O-ring
<b>Material:</b>	Malleable cast iron GTW 40
<b>Surface:</b>	electro galvanised

**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Series	I mm	Ø RAD mm	Pressure PB bar	A	LK mm	D mm	S1 mm	S2 mm	L mm	Screws 1	Screws 2	OR
WF 35 LK L 10 315	L	14,0	10	315	M16x1,5	35	39	16,5	30,5	6,4	(2x) M 6 x 22	(2x) M 6 x 35	20,0 x 2,5
WF 35 LK L 12 315	L	14,0	12	315	M18x1,5	35	39	16,5	30,5	6,4	(2x) M 6 x 22	(2x) M 6 x 35	20,0 x 2,5
WF 35 LK L 15 250	L	14,0	15	250	M22x1,5	35	39	16,5	30,0	6,4	(2x) M 6 x 22	(2x) M 6 x 35	20,0 x 2,5
WF 35 LK L 18 250	L	15,0	18	250	M26x1,5	35	39	20,0	30,0	6,4	(2x) M 6 x 22	(2x) M 6 x 40	20,0 x 2,5
WF 40 LK L 15 100	L	20,0	15	100	M22x1,5	40	42	22,5	30,0	6,4	(2x) M 6 x 22	(2x) M 6 x 45	26,0 x 2,5
WF 40 LK L 18 100	L	20,0	18	100	M26x1,5	40	42	22,5	30,5	6,4	(2x) M 6 x 22	(2x) M 6 x 45	26,0 x 2,5
WF 40 LK L 22 100	L	20,0	22	100	M30x2	40	42	22,5	30,5	6,4	(2x) M 6 x 22	(2x) M 6 x 45	26,0 x 2,5
WF 40 LK L 28 100	L	20,0	28	100	M36x2	40	42	28,0	32,5	6,4	(2x) M 6 x 22	(2x) M 6 x 50	26,0 x 2,5
WF 40 LK L 35 100	L	20,0	35	100	M45x2	40	42	34,0	30,5	6,4	(2x) M 6 x 22	(2x) M 6 x 60	26,0 x 2,5
WF 55 LK L 35 100	L	26,0	35	100	M45x2	55	58	32,0	38,5	8,4	(2x) M 8 x 25	(2x) M 8 x 60	32,0 x 2,5
WF 55 LK L 42 100	L	26,0	42	100	M52x2	55	58	40,0	38,0	8,4	(2x) M 8 x 25	(2x) M 8 x 70	32,0 x 2,5
WF 35 LK S 16 315	S	15,0	16	315	M24x1,5	35	39	20,0	29,5	6,4	(2x) M 6 x 22	(2x) M 6 x 40	20,0 x 2,5
WF 35 LK S 20 315	S	15,0	20	315	M30x2	35	39	25,0	34,5	6,4	(2x) M 6 x 22	(2x) M 6 x 45	20,0 x 2,5
WF 40 LK S 20 250	S	20,0	20	250	M30x2	40	42	22,5	29,5	6,4	(2x) M 6 x 22	(2x) M 6 x 45	26,0 x 2,5
WF 55 LK S 20 250	S	18,0	20	250	M30x2	55	58	30,0	34,5	8,4	(2x) M 8 x 25	(2x) M 8 x 55	32,0 x 2,5
WF 55 LK S 25 250	S	20,0	25	250	M36x2	55	58	30,0	37,0	8,4	(2x) M 8 x 25	(2x) M 8 x 55	32,0 x 2,5
WF 55 LK S 30 250	S	26,0	30	250	M42x2	55	58	32,0	35,5	8,4	(2x) M 8 x 25	(2x) M 8 x 50	32,0 x 2,5

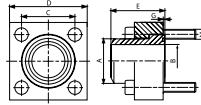
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø RAD = External pipe diameter

**Product versions:**

**WF LK M** - Pump connection (4 hole), angle 90°, with screw set, O-ring, nut and cutting ring, Malleable cast iron GTW 40

**CET ST 250****Cetop square flange, welded on flanges**

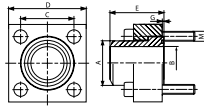
**Design:** Cetop square flange  
**Construction:** straight  
**Standard:** CETOP RP 63H, ISO 6164  
**Mounting:** with metric screw set  
**Included in scope of supply:** with metric screw set and O-ring  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure PB bar	Size	A mm	Ø B mm	C mm	D mm	E mm	G mm	M metr.
CET 38 ST 250	250	3/8"	18	12,5	24,7	40	30	1,0	M 6 x 25
CET 12 ST 250	250	1/2"	22	15,0	29,7	45	30	1,0	M 8 x 30
CET 34 ST 250	250	3/4"	28	20,0	35,3	50	35	1,0	M 8 x 30
CET 1 ST 250	250	1"	35	25,0	43,8	65	40	1,0	M 10 x 35
CET 114 ST 250	250	1.1/4"	43	32,0	51,6	75	45	1,0	M 12 x 40
CET 112 ST 250	250	1.1/2"	50	38,0	60,0	85	50	1,0	M 14 x 45
CET 2 ST 250	250	2"	62	47,0	69,4	100	60	1,5	M 16 x 55
CET 212 ST 250	250	2.1/2"	76	58,0	83,4	120	70	1,5	M 20 x 65
CET 3 ST 250	250	3"	90	70,0	102,5	140	80	1,5	M 20 x 75
CET 312 ST 250	250	3.1/2"	102	80,0	102,5	140	90	1,5	M 20 x 90
CET 4 ST 250	250	4"	114	90,0	113,2	160	105	1,5	M 24 x 100

PN = Nominal pressure PB = Max. operating pressure

**CET ST 400****Cetop square flange, welded on flanges**

**Design:** Cetop square flange  
**Construction:** straight  
**Standard:** CETOP RP 63H, ISO 6164  
**Mounting:** with metric screw set  
**Included in scope of supply:** with metric screw set and O-ring  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled

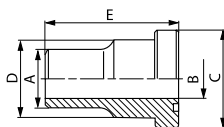
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe.

Identification	Pressure PB bar	Size	A mm	Ø B mm	C mm	D mm	E mm	G mm	M metr.
CET 38 ST 400	400	3/8"	18	11,0	24,7	40	35	1,0	M 6 x 25
CET 12 ST 400	400	1/2"	22	14,0	29,7	45	40	1,0	M 8 x 30
CET 34 ST 400	400	3/4"	28	18,0	35,3	50	45	1,0	M 8 x 35
CET 1 ST 400	400	1"	35	22,0	43,8	65	50	1,0	M 10 x 40
CET 114 ST 400	400	1.1/4"	44	29,0	51,6	75	55	1,0	M 12 x 45
CET 112 ST 400	400	1.1/2"	51	35,0	60,0	85	60	1,0	M 14 x 55
CET 2 ST 400	400	2"	61	43,0	69,4	100	70	1,5	M 16 x 65
CET 212 ST 400	400	2.1/2"	80	53,0	83,4	120	80	1,5	M 20 x 75
CET 3 ST 400	400	3"	90	58,0	102,5	140	90	1,5	M 20 x 90
CET 312 ST 400	400	3.1/2"	102	63,0	102,5	140	95	1,5	M 20 x 90
CET 4 ST 400	400	4"	114	74,0	113,2	160	105	1,5	M 24 x 100

PN = Nominal pressure PB = Max. operating pressure

**VKS ST 250****Cetop square flange, short stub end**

**Design:** Cetop square flange  
**Construction:** straight  
**Standard:** CETOP RP 63H, ISO 6164  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled

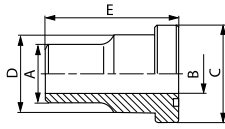


Identification	Pressure PB bar	Size	A mm	Ø B mm	C mm	D mm	E mm
VKS 114 ST 250	250	1.1/4"	43	32	50,8	43	45
VKS 2 ST 250	250	2"	62	47	71,4	62	60

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy

## VKS ST 400

### Cetop square flange, short stub end



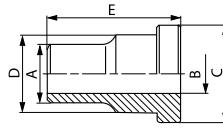
**Design:** Cetop square flange  
**Construction:** straight  
**Standard:** CETOP RP 63H, ISO 6164  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled

Identification	Pressure PB bar	Size	A mm	Ø B mm	C mm	D mm	E mm
VKS 34 ST 400	400	3/4"	28	18	39,5	32	45
VKS 114 ST 400	400	1.1/4"	44	29	54,0	44	55
VKS 2 ST 400	400	2"	61	43	79,4	67	70
VKS 212 ST 400	400	2.1/2"	80	53	94,2	60	80
VKS 3 ST 400	400	3"	90	58	104,0	90	90

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure

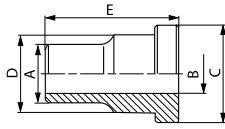
**G VKS ST 250****Cetop square flange, short stub end**

**Design:** Cetop square flange  
**Construction:** straight  
**Standard:** CETOP RP 63H, ISO 6164  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled



Identification	Pressure PB bar	Size	A mm	Ø B mm	C mm	D mm	E mm
G VKS 38 ST 250	250	3/8"	18	12,5	24,5	18,0	30
G VKS 12 ST 250	250	1/2"	22	15,0	30,2	24,0	30
G VKS 34 ST 250	250	3/4"	28	20,0	38,1	31,5	35
G VKS 1 ST 250	250	1"	35	25,0	44,4	38,0	40
G VKS 114 ST 250	250	1.1/4"	43	32,0	50,8	43,0	45
G VKS 112 ST 250	250	1.1/2"	50	38,0	60,3	50,0	50
G VKS 2 ST 250	250	2"	62	47,0	71,4	62,0	60
G VKS 212 ST 250	250	2.1/2"	76	58,0	87,2	76,0	70
G VKS 3 ST 250	250	3"	90	70,0	101,6	90,0	80
G VKS 312 ST 250	250	3.1/2"	102	80,0	119,0	102,0	90
G VKS 4 ST 250	250	4"	114	90,0	131,0	114,0	105

PN = Nominal pressure PB = Max. operating pressure Series: LL = Very light L = Light S = Heavy

**G VKS ST 400****Cetop square flange, short stub end**

**Design:** Cetop square flange  
**Construction:** straight  
**Standard:** CETOP RP 63H, ISO 6164  
**Material:** S355J2G3 (ST52.3)  
**Surface:** black oiled

Identification	Pressure PB bar	Size	A mm	Ø B mm	C mm	D mm	E mm
G VKS 38 ST 400	400	3/8"	18	11,0	26,0	18	35
G VKS 12 ST 400	400	1/2"	22	14,0	31,8	24	40
G VKS 34 ST 400	400	3/4"	28	18,0	39,5	32	45
G VKS 1 ST 400	400	1"	35	22,0	47,6	38	50
G VKS 114 ST 400	400	1.1/4"	44	29,0	54,0	44	55
G VKS 112 ST 400	400	1.1/2"	51	35,0	63,5	51	60
G VKS 2 ST 400	400	2"	61	43,0	79,4	67	70
G VKS 212 ST 400	400	2.1/2"	80	53,0	94,2	80	80
G VKS 3 ST 400	400	3"	90	58,0	104,0	90	90
G VKS 312 ST 400	400	3.1/2"	102	63,0	119,0	102	90
G VKS 4 ST 400	400	4"	114	74,0	131,0	114	105

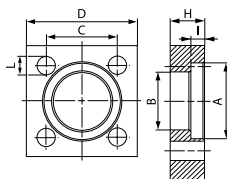
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure



## VK ST 250

## Cetop square flange

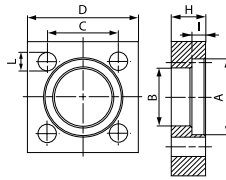
**Pressure series:** 3000 psi  
**Design:** Cetop square flange  
**Construction:** straight  
**Standard:** CETOP RP 63H, ISO 6164  
**Mounting:** Screw bore hole  
**Material:** S355J2G3 (C45)  
**Surface:** black oiled



**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	Pressure PB bar	Size	A mm	H mm	I mm	Ø B mm	C mm	D mm	L mm	M metr.
VK 38 ST 250	250	3/8"	25,1	14	6,3	18,5	24,7	40	6,5	M 6 x 25
VK 12 ST 250	250	1/2"	31,0	15	6,3	24,3	29,7	45	8,5	M 8 x 30
VK 34 ST 250	250	3/4"	38,9	16	6,3	32,1	35,3	50	8,5	M 8 x 30
VK 1 ST 250	250	1"	45,3	18	7,6	38,5	43,8	65	11,0	M 10 x 35
VK 112 ST 250	250	1.1/2"	61,1	25	7,6	50,8	60,0	85	15,0	M 14 x 45
VK 114 ST 250	250	1.1/4"	51,6	22	7,6	43,7	51,6	75	13,0	M 12 x 40
VK 2 ST 250	250	2"	72,2	30	9,1	62,7	69,4	100	17,0	M 16 x 55
VK 212 ST 250	250	2.1/2"	88,0	35	9,1	76,6	83,4	120	21,0	M 20 x 65
VK 3 ST 250	250	3"	102,3	40	9,1	90,8	102,5	140	21,0	M 20 x 75

PN = Nominal pressure PB = Max. operating pressure

**VK ST 400****Cetop square flange**

<b>Pressure series:</b>	6000 psi
<b>Design:</b>	Cetop square flange
<b>Construction:</b>	straight
<b>Standard:</b>	CETOP RP 63H, ISO 6164
<b>Mounting:</b>	Screw bore hole
<b>Material:</b>	S355J2G3 (C45)
<b>Surface:</b>	black oiled

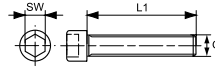
**Note:** The stated maximum working pressure relates to the flange. The actual working pressure is determined by the pipe (wall thickness) and the quality of the pipe. Recommended screws are listed in the columns M (metr) and M (unc).

Identification	Pressure PB bar	Size	A mm	H mm	I mm	Ø B mm	C mm	D mm	L mm	M metr.
VK 12 ST 400	400	1/2"	32,5	17	7,4	24,6	29,7	45	8,5	M 8 x 30
VK 1 ST 400	400	1"	48,4	24	9,1	38,5	43,8	65	11,0	M 10 x 40
VK 112 ST 400	400	1.1/2"	64,3	32	12,2	51,6	60,0	85	15,0	M 14 x 55
VK 114 ST 400	400	1.1/4"	54,8	28	9,9	44,5	51,6	75	13,0	M 12 x 50
VK 2 ST 400	400	2"	80,2	40	12,2	67,6	69,4	100	17,0	M 16 x 65
VK 212 ST 400	400	2.1/2"	95,0	45	16,1	80,5	83,4	120	21,0	M 20 x 75
VK 312 ST 400	400	3.1/2"	120,0	52	17,5	102,5	102,5	140	21,0	M 20 x 90

PN = Nominal pressure PB = Max. operating pressure

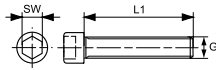
**AFS SCHR M****Metric screw set, hexagon socket**

**Design:** Screw set  
**Standard:** DIN 912 (ISO 4762)  
**Included in scope of supply:** 4 screws + 4 lock washers  
**Material:** Steel 10.9  
**Surface:** black oiled



Identification	G1	L1 mm	SW mm
AFS 80 SCHR M	M 8 x 1.25	30	6
AFS 100 SCHR M	M 10 x 1.5	35	8
AFS 104 SCHR M	M 10 x 1.5	40	8
AFS 106 SCHR M	M 12 x 1.75	45	10
AFS 112 SCHR M	M 16 x 2	50	14
AFS 404 SCHR M	M 14 x 2	45	12
AFS 406 SCHR M	M 20 x 2.5	70	17

SW = Width across flats

**AFS SCHR U****UNC screw set, hexagon socket**

**Design:** Screw set  
**Standard:** ASA B 18.3  
**Included in scope of supply:** 4 screws + 4 lock washers  
**Material:** Steel 10.9  
**Surface:** black oiled

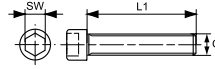
Identification	G1	L1 mm	SW
AFS 80 SCHR U	5/16" x 1.1/4" UNC	31,8	7/32"
AFS 100 SCHR U	3/8" x 1.1/2" UNC	38,1	5/16"
AFS 104 SCHR U	7/16" x 1.1/2" UNC	38,1	5/16"
AFS 106 SCHR U	1/2" x 1.3/4" UNC	44,5	3/8"
AFS 112 SCHR U	5/8" x 2" UNC	50,8	1/2"
AFS 403 SCHR U	7/16" x 1.3/4" UNC	44,5	5/16"
AFS 406 SCHR U	3/4" x 2.1/2" UNC	63,5	9/16"

SW = Width across flats

**AFS SCHRAUBE**

## Hexagon socket screw

**Design:** Hexagon socket screw  
**Standard:** DIN 912 (ISO 4762)  
**Material:** Steel 10.9  
**Surface:** black oiled

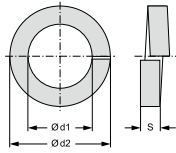


Identification	G1	L1 mm	SW mm
AFS SCHRAUBE 1	M 8 x 1.25	25	6
AFS SCHRAUBE 2	M 8 x 1.25	30	6
AFS SCHRAUBE 3	M 10 x 1.5	35	8
AFS SCHRAUBE 4	M 10 x 1.5	40	8
AFS SCHRAUBE 5	M 12 x 1.75	45	10
AFS SCHRAUBE 6	M 14 x 2	45	12
AFS SCHRAUBE 7	M 16 x 2	50	14
AFS SCHRAUBE 8	M 20 x 2.5	65	17

SW = Width across flats

## FEDERRING

### Lock washer



**Design:**  
**Standard:**  
**Material:**

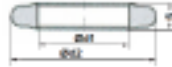
Lock washer  
 DIN 127 Shape B  
 Spring steel

Identification	$\varnothing d1$ mm	$\varnothing d2$ mm	S mm
FEDERRING M8	8,1	14,8	2,0
FEDERRING M10	10,2	18,1	2,2
FEDERRING M12	12,2	21,1	2,5
FEDERRING M14	14,2	24,1	3,0
FEDERRING M16	16,2	27,4	3,5
FEDERRING M20	20,2	33,6	4,0

**FS-Box****Seal box for SAE and ISO flanges, SET**

**Working pressure:** up to 500 bar  
**Temp. min.:** -40 °C  
**Temp. max.:** 120 °C  
**Media:** Mineral oils  
**Material:** Polyurethane 93 Shore A

	ØD1	ØD2	Ø	Stange/Quantity
FS-08	18.43	19.45	3,53	6
FS-12	24.80	25.80	3,53	6
FS-16	32.78	33.70	3,53	6
FS-20	37.50	44.50	3,53	6
FS-24	44.80	51.80	3,53	6
FS-32	58.43	63.80	3,53	6

**Identification**

FS-BOX

**Flange size**

## FS

### Seal for SAE and ISO flanges



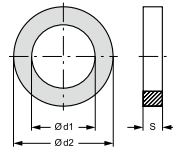
**Working pressure:** up to 500 bar  
**Temp. min.:** -40 °C  
**Temp. max.:** 120 °C  
**Media:** Mineral oils  
**Material:** Polyurethane 93 Shore A

Identification	Flange size	d1 mm	d2 mm	S mm
FS-08	1/2"	18,40	25,40	3,53
FS-12	3/4"	24,80	31,80	3,53
FS-16	1"	32,70	39,70	3,53
FS-20	1.1/4"	37,50	44,50	3,53
FS-24	1.1/2"	46,80	53,80	3,53
FS-32	2"	56,40	63,40	3,53
FS-40	2.1/2"	69,40	76,20	3,53
FS-48	3"	85,30	91,90	3,53



**SF O-RING****O-ring for SAE flange connection**

**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** NBR 90 Shore A



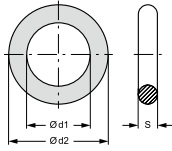
**Note:** The SFORING75 is made from the material NBR 70 Shore A.

Identification	DN*	Size	Inches	Ø d1 mm	Ø d2 mm	S mm
SF ORING 13	12	8	1/2"	18,66	25,72	3,53
SF ORING 20	19	12	3/4"	24,99	32,05	3,53
SF ORING 25	25	16	1"	32,92	39,98	3,53
SF ORING 32	31	20	1.1/4"	37,70	44,76	3,53
SF ORING 40	38	24	1.1/2"	47,22	54,28	3,53
SF ORING 50	51	32	2"	56,74	63,80	3,53
SF ORING 75	76	48	3"	85,32	92,38	3,53

**Product versions:**

**SF O-RING PU** - O-ring for SAE flange connection, Polyurethane 93 Shore A

**SF O-RING V** - O-ring, 90SH FKM (FPM), FKM SH 90 (Viton)

**SAE O-RING****SAE O-ring**

**Design:**  
**Standard:**  
**Material:**

SAE O-ring  
 SAE J518  
 NBR SH 90

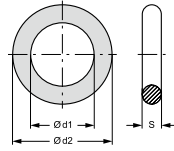
Identification	Ø d1 mm	Ø d2 mm	S mm
SAE O-RING 1/2	18,66	25,72	3,53
SAE O-RING 3/4	25,00	32,06	3,53
SAE O-RING 1	32,92	39,98	3,53
SAE O-RING 1 1/4	37,70	44,76	3,53
SAE O-RING 1 1/2	47,22	54,28	3,53
SAE O-RING 2	56,75	63,81	3,53
SAE O-RING 2 1/2	69,45	76,51	3,53
SAE O-RING 3	85,32	92,38	3,53
SAE O-RING 3 1/2	98,02	105,08	3,53
SAE O-RING 4	110,72	117,78	3,53

**Product versions:**

SAE O-RING V - , FKM SH 90 (Viton)

## SAE O-RING V

Temp. min.: -15 °C  
 Temp. max.: 200 °C  
 Material: FKM SH 90 (Viton)



Identification	Flange size	Ø d1 mm	S mm
SAE O-RING 1/2 V	1/2"	18,64	3,53
SAE O-RING 3/4 V	3/4"	24,99	3,53
SAE O-RING 1 V	1"	32,92	3,53
SAE O-RING 1 1/4 V	1.1/4"	37,69	3,53
SAE O-RING 1 1/2 V	1.1/2"	47,22	3,53
SAE O-RING 2 V	2"	56,74	3,53
SAE O-RING 2 1/2 V	2.1/2"	69,44	3,53
SAE O-RING 3 V	3"	85,32	3,53
SAE O-RING 3 1/2 V	3.1/2"	98,02	3,53
SAE O-RING 4 V	4"	110,72	3,53

**Product versions:**

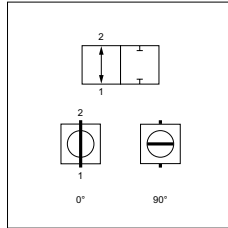
SAE O-RING - SAE O-ring, NBR SH 90



## Ball valves

**Ball valves (high pressure)**

2-way	776
3-way (L hole)	785
3-way (T hole)	790
4-way (L hole)	795
4-way (T hole)	797
4-way (X hole)	799
Spare parts	801

**BKR****2-way ball valve in block design**

**Connection 1 + 2:** BSP cylindrical internal threads  
**Sealing form 1 + 2:** for screw-in pins with shapes A, B and if necessary E  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, Polyamide ball seal, NBR O-ring  
**Surface:** burnished

**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Connecting thread	LW mm	Working pressure bar	SW mm	SF*
BKR 04	4	G 1/8" -28	5	PN 500	9	1,5
BKR 06	6	G 1/4" -19	6	PN 500	9	1,5
BKR 10	10	G 3/8" -19	10	PN 500	9	1,5
BKR 13	12	G 1/2" -14	13	PN 500	9	1,5
BKR 20	19	G 3/4" -14	20	PN 400	14	1,5
BKR 25	25	G 1" -11	24	PN 350	14	1,5
BKR 32	31	G 1.1/4" -11	24	PN 350	14	1,5
BKR 40	38	G 1.1/2" -11	24	PN 350	14	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

**Product versions:**

**BKR VZ** - 2-way ball valve in block design, Steel housing, ball and operating shaft, electro galvanised

**BKR VA** - 2-way ball valve in block design, Stainless steel housing, ball and operating shaft

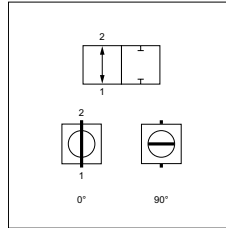
**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**BKN****2-way ball valve in block design**

**Connection 1 + 2:** NPT internal thread  
**Sealing form 1 + 2:** thread seal  
**2:** thread seal  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, Polyamide ball seal, NBR O-ring  
**Surface:** Steel housing, ball and operating shaft, Polyamide ball seal, NBR O-ring burnished



**Note:** Note the permissible pressure limits for the connecting elements. Please refer to the operating instructions for ball valves.

Identification	DN*	Connecting thread	LW mm	Working pressure bar	SW mm	SF*
BKN 06	6	NPT 1/4" -18	6	PN 500	9	1,5
BKN 10	10	NPT 3/8" -18	10	PN 500	9	1,5
BKN 13	12	NPT 1/2" -14	13	PN 500	9	1,5
BKN 20	19	NPT 3/4" -14	20	PN 400	14	1,5
BKN 25	25	NPT 1" -11.5	24	PN 350	14	1,5
BKN 32	31	NPT 1.1/4" -11.5	24	PN 350	14	1,5

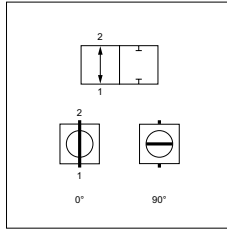
DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

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**BKHL / BKHS****2-way ball valve in block design**

**Connection 1 + 2:** metric cylindrical outer thread  
**Sealing form 1 + 2:** 24° inner cone  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, Polyamide ball seal, NBR O-ring  
**Surface:** burnished

**Note:** Note the permissible pressure limits for the connecting elements. Please refer to the operating instructions for ball valves.

Identification	DN*	Series	for external pipe Ø mm	Connecting thread	LW mm	Working pressure bar	SW mm	SF*
BKHL 04	4	L	6	M 12 x 1.5	5	PN 500	9	1,5
BKHL 06	6	L	8	M 14 x 1.5	6	PN 500	9	1,5
BKHL 08	8	L	10	M 16 x 1.5	8	PN 500	9	1,5
BKHL 10	10	L	12	M 18 x 1.5	10	PN 500	9	1,5
BKHL 13	12	L	15	M 22 x 1.5	13	PN 500	9	1,5
BKHL 16	16	L	18	M 26 x 1.5	13	PN 500	12	1,5
BKHL 20	19	L	22	M 30 x 2	20	PN 400	14	1,5
BKHL 25	25	L	28	M 36 x 2	24	PN 350	14	1,5
BKHL 32	31	L	35	M 45 x 2	24	PN 350	14	1,5
BKHL 40	38	L	42	M 52 x 2	24	PN 350	14	1,5
BKHS 04	4	S	8	M 16 x 1.5	5	PN 500	9	1,5
BKHS 06	6	S	10	M 18 x 1.5	6	PN 500	9	1,5
BKHS 08	8	S	12	M 20 x 1.5	8	PN 500	9	1,5
BKHS 10	10	S	14	M 22 x 1.5	10	PN 500	9	1,5
BKHS 13	12	S	16	M 24 x 1.5	13	PN 500	9	1,5
BKHS 16	16	S	20	M 30 x 2	15	PN 500	12	1,5
BKHS 20	19	S	25	M 36 x 2	20	PN 400	14	1,5
BKHS 20 - 600 BAR	19	S	25	M 36 x 2	20	PN 600	14	1,5
BKHS 25	25	S	30	M 42 x 2	24	PN 350	14	1,5
BKHS 25 - 600 BAR	25	S	30	M 42 x 2	24	PN 600	14	1,5
BKHS 32	31	S	38	M 52 x 2	24	PN 350	14	1,5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy    LW = Clearance

**Product versions:**

**BKHL VZ / BKHS VZ** - 2-way ball valve in block design, Steel housing, ball and operating shaft, electro galvanised

**BKHL VA / BKHS VA** - 2-way ball valve in block design, Stainless steel housing, ball and operating shaft

**Spare parts:**

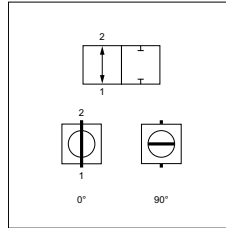
**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve



**BK SF / BK SF6****2-way ball valve in block design**

<b>Connection 1 + 2:</b>	SAE flange
<b>Sealing form 1 + 2:</b>	flat seal with SF O-ring
<b>Contact travel:</b>	0°; 90°
<b>Temp. min.:</b>	-10 °C
<b>Temp. max.:</b>	80 °C
<b>Material:</b>	Steel housing, ball and operating shaft, POM ball seal, NBR O-ring
<b>Surface:</b>	burnished



**Note:** Note the permissible pressure limits for the connecting elements. Please refer to the operating instructions for ball valves.

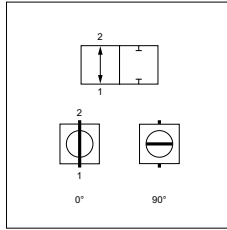
Identification	DN*	Pressure series	Flange size	LW mm	Pressure PN	SW mm	SF*
BK SF 20	19	3000 PSI	3/4"	20	315 bar	14	1,5
BK SF 25	25	3000 PSI	1"	24	315 bar	14	1,5
BK SF6 20	19	6000 PSI	3/4"	20	400 bar	14	1,5
BK SF6 25	25	6000 PSI	1"	24	400 bar	14	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**SK SF / SK SF6****2-way ball valve, in forged design**

**Connection 1 + 2:** SAE flange  
**Sealing form 1 + 2:** flat seal with SF O-ring  
**2:** 0°; 90°  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Forged steel housing, Steel ball and operating shaft, POM ball seal, NBR O-ring.  
**Surface:** burnished

**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Pressure series	Flange size	LW mm	Pressure PN	SW mm	SF*
SK SF 32	31	3000 PSI	1.1/4"	32,0	250 bar	17	1,5
SK SF 40	38	3000 PSI	1.1/2"	38,0	200 bar	17	1,5
SK SF 50	51	3000 PSI	2"	47,5	200 bar	17	1,5
SK SF6 32	31	6000 PSI	1.1/4"	32,0	400 bar	17	1,5
SK SF6 40	38	6000 PSI	1.1/2"	38,0	400 bar	17	1,5
SK SF6 50	51	6000 PSI	2"	47,5	400 bar	17	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

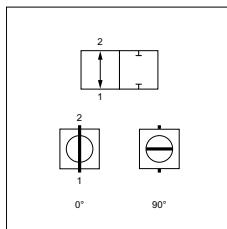
**Spare parts:**

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**BK ANSCHLAG** - Stop washers for ball valve

**BK SF GFS****2-way ball valve in block design**

<b>Connection 1:</b>	SAE flange
<b>Connection 2:</b>	SAE counter flange
<b>Sealing form 1 + 2:</b>	flat seal with SF O-ring
<b>Contact travel:</b>	0°; 90°
<b>Temp. min.:</b>	-10 °C
<b>Temp. max.:</b>	80 °C
<b>Material:</b>	Steel housing, ball and operating shaft, POM ball seal, NBR O-ring
<b>Surface:</b>	burnished



**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

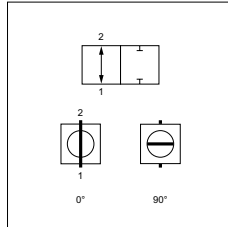
Identification	DN*	Pressure series	Flange size	LW mm	Pressure PN	SW mm	SF*
BK SF 20 GFS	19	3000 PSI	3/4"	20	315 bar	14	1,5
BK SF 25 GFS	25	3000 PSI	1"	24	315 bar	14	1,5
BK SF 620 GFS	19	6000 PSI	3/4"	20	400 bar	14	1,5
BK SF 625 GFS	25	6000 PSI	1"	24	400 bar	14	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**SK SF GFS****2-way ball valve, in forged design**

<b>Connection 1:</b>	SAE flange
<b>Connection 2:</b>	SAE counter flange
<b>Sealing form 1 + 2:</b>	flat seal with SF O-ring
<b>Contact travel:</b>	0°; 90°
<b>Temp. min.:</b>	-10 °C
<b>Temp. max.:</b>	80 °C
<b>Material:</b>	Forged steel housing, Steel ball and operating shaft, POM ball seal, NBR O-ring.
<b>Surface:</b>	burnished

**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Pressure series	Flange size	LW mm	Pressure PN	SW mm	SF*
SK SF 32 GFS	31	3000 PSI	1.1/4"	32,0	250 bar	17	1,5
SK SF 40 GFS	38	3000 PSI	1.1/2"	38,0	200 bar	17	1,5
SK SF 50 GFS	51	3000 PSI	2"	47,5	200 bar	17	1,5
SK SF 632 GFS	31	6000 PSI	1.1/4"	32,0	400 bar	17	1,5
SK SF 640 GFS	38	6000 PSI	1.1/2"	38,0	400 bar	17	1,5
SK SF 650 GFS	51	6000 PSI	2"	47,5	400 bar	17	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

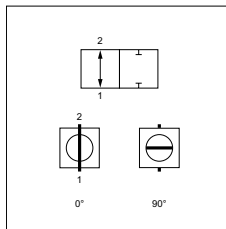
**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**BK GFS****2-way ball valve in block design**

<b>Connection 1 + 2:</b>	SAE counter flange
<b>Sealing form 1 + 2:</b>	flat seal with SF O-ring
<b>Contact travel:</b>	0°; 90°
<b>Temp. min.:</b>	-10 °C
<b>Temp. max.:</b>	80 °C
<b>Material:</b>	Steel housing, ball and operating shaft, POM ball seal, NBR O-ring
<b>Surface:</b>	burnished



**Note:** Note the permissible pressure limits for the connecting elements. Please refer to the operating instructions for ball valves.

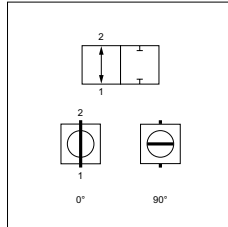
Identification	DN*	Pressure series	Flange size	LW mm	Pressure PN	SW mm	SF*
BK GFS 20	19	3000 PSI	3/4"	20	315 bar	14	1,5
BK GFS 25	25	3000 PSI	1"	24	315 bar	14	1,5
BK GFS 6 20	19	6000 PSI	3/4"	20	400 bar	14	1,5
BK GFS 6 25	25	6000 PSI	1"	24	400 bar	14	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**SK GFS****2-way ball valve, in forged design**

**Connection 1 + 2:** SAE counter flange  
**Sealing form 1 + 2:** flat seal with SF O-ring  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Forged steel housing, Steel ball and operating shaft, POM ball seal, NBR O-ring.  
**Surface:** burnished

**Note:** Note the permissible pressure limits for the connecting elements. Please refer to the operating instructions for ball valves.

Identification	DN*	Pressure series	Flange size	LW mm	Pressure PN	SW mm	SF*
SK GFS 32	31	3000 PSI	1.1/4"	32,0	250 bar	17	1,5
SK GFS 40	38	3000 PSI	1.1/2"	38,0	200 bar	17	1,5
SK GFS 50	51	3000 PSI	2"	47,5	200 bar	17	1,5
SK GFS 6 32	31	6000 PSI	1.1/4"	32,0	400 bar	17	1,5
SK GFS 6 40	38	6000 PSI	1.1/2"	38,0	400 bar	17	1,5
SK GFS 6 50	51	6000 PSI	2"	47,5	400 bar	17	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

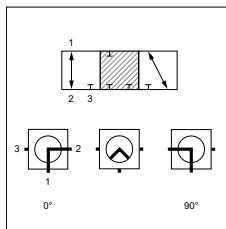
**Spare parts:**

BK ANSCHLAG - Stop washers for ball valve

BK GEKR GRIFF SW - Handle (offset) for ball valve

**3 BKR L****3-way ball valve in block design**

**Connection 1 - 3:** BSP cylindrical internal threads  
**Sealing form 1 - 3:** for screw-in pins with shapes A, B and if necessary E.  
**Bore:** L shaped  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished



**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 BKR 04 L	4	G 1/8" -28	positive (closed)	5,0	PN 500	12	1,5
3 BKR 06 L	6	G 1/4" -19	positive (closed)	6,0	PN 500	12	1,5
3 BKR 10 L	10	G 3/8" -19	positive (closed)	9,0	PN 500	14	1,5
3 BKR 13 L	12	G 1/2" -14	positive (closed)	11,5	PN 400	14	1,5
3 BKR 20 L	19	G 3/4" -14	positive (closed)	18,0	PN 400	17	1,5
3 BKR 25 L	25	G 1" -11	positive (closed)	22,0	PN 350	17	1,5
3 BKR 32 L	31	G 1.1/4" -11	positive (closed)	22,0	PN 350	17	1,5
3 BKR 40 L	38	G 1.1/2" -11	positive (closed)	22,0	PN 63	22	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

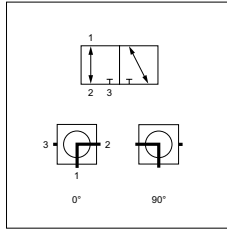
**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

## 3 BKR LK

### 3-way ball valve in block design



**Connection 1 - 3:** BSP cylindrical internal threads  
**Sealing form 1 - 3:** for screw-in pins with shapes A, B and if necessary E.

**Construction:** Compact construction  
**Bore:** L shaped

**Contact travel:** 0°; 90°

**Temp. min.:** -10 °C

**Temp. max.:** 80 °C

**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring

**Surface:** burnished

**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 BKR 04 LK	4	G 1/8" -28	negative (open)	5,0	PN 400	9	1,5
3 BKR 06 LK	6	G 1/4" -19	negative (open)	6,0	PN 400	9	1,5
3 BKR 10 LK	10	G 3/8" -19	negative (open)	9,0	PN 400	9	1,5
3 BKR 13 LK	12	G 1/2" -14	negative (open)	11,5	PN 350	9	1,5
3 BKR 20 LK	19	G 3/4" -14	negative (open)	18,0	PN 350	14	1,5
3 BKR 25 LK	25	G 1" -11	negative (open)	22,0	PN 350	14	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

#### Product versions:

3 BKR LK VZ - 3-way ball valve in block design, electro galvanised

#### Spare parts:

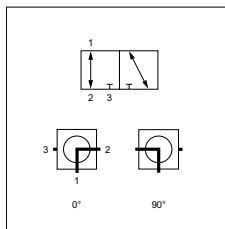
BK ANSCHLAG - Stop washers for ball valve

BK GEKR GRIFF SW - Handle (offset) for ball valve



**3 SKR LK VZ****3-way ball valve, in forged design**

**Connection 1 - 3:** BSP cylindrical internal threads  
**Sealing form 1 - 3:** for screw-in pins with shapes A, B and if necessary E.  
**Construction:** Compact construction  
**Bore:** L shaped  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Forged steel housing, Steel ball and operating shaft, POM ball seal, NBR O-ring.  
**Surface:** electro galvanised



**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

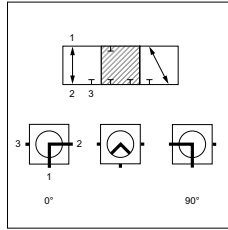
Identification	DN*	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 SKR 20 LK VZ	19	G 3/4" -14	negative (open)	18	PN 350	14	1,5
3 SKR 25 LK VZ	25	G 1" -11	negative (open)	22	PN 350	14	1,5

DN = Nominal diameter, nominal width    PN = Nominal pressure    PB = Max. operating pressure    LW = Clearance

**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**3 BKHL L / 3 BKHS L****3-way ball valve in block design**

**Connection 1 - 3:** metric cylindrical outer thread  
**Sealing form 1 - 3:** 24° inner cone  
**Bore:** L shaped  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished

**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

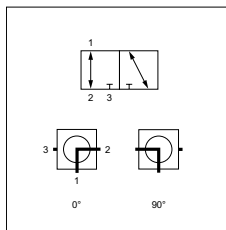
Identification	DN*	Series	for external pipe Ø mm	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 BKHL 04 L	4	L	6	M 12 x 1.5	positive (closed)	5,0	PN 500	12	1,5
3 BKHL 06 L	6	L	8	M 14 x 1.5	positive (closed)	6,0	PN 500	12	1,5
3 BKHL 08 L	8	L	10	M 16 x 1.5	positive (closed)	9,0	PN 500	14	1,5
3 BKHL 10 L	10	L	12	M 18 x 1.5	positive (closed)	9,0	PN 500	14	1,5
3 BKHL 13 L	12	L	15	M 22 x 1.5	positive (closed)	12,5	PN 400	14	1,5
3 BKHL 16 L	16	L	18	M 26 x 1.5	positive (closed)	12,5	PN 400	17	1,5
3 BKHL 20 L	19	L	22	M 30 x 2	positive (closed)	19,0	PN 400	17	1,5
3 BKHL 25 L	25	L	28	M 36 x 2	positive (closed)	24,0	PN 350	17	1,5
3 BKHL 32 L	31	L	35	M 45 x 2	positive (closed)	24,0	PN 350	17	1,5
3 BKHL 40 L	38	L	42	M 52 x 2	positive (closed)	36,0	PN 63	22	1,5
3 BKHS 04 L	4	S	8	M 16 x 1.5	positive (closed)	5,0	PN 500	12	1,5
3 BKHS 06 L	6	S	10	M 18 x 1.5	positive (closed)	6,0	PN 500	12	1,5
3 BKHS 08 L	8	S	12	M 20 x 1.5	positive (closed)	7,0	PN 500	14	1,5
3 BKHS 10 L	10	S	14	M 22 x 1.5	positive (closed)	9,0	PN 500	14	1,5
3 BKHS 13 L	12	S	16	M 24 x 1.5	positive (closed)	11,5	PN 400	14	1,5
3 BKHS 16 L	16	S	20	M 30 x 2	positive (closed)	11,5	PN 400	17	1,5
3 BKHS 20 L	19	S	25	M 36 x 2	positive (closed)	18,0	PN 400	17	1,5
3 BKHS 25 L	25	S	30	M 42 x 2	positive (closed)	22,0	PN 350	17	1,5
3 BKHS 32 L	31	S	38	M 52 x 2	positive (closed)	30,0	PN 350	17	1,5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy    LW = Clearance

**Spare parts:****BK ANSCHLAG** - Stop washers for ball valve**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**3 BKHL LK / 3 BKHS LK****3-way ball valve in block design**

**Connection 1 - 3:** metric cylindrical outer thread  
**Sealing form 1 - 3:** 24° inner cone  
**Construction:** Compact construction  
**Bore:** L shaped  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished



**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Series	for external pipe Ø mm	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 BKHL 04 LK	4	L	6	M 12 x 1.5	negative (open)	5,0	PN 400	9	1,5
3 BKHL 06 LK	6	L	8	M 14 x 1.5	negative (open)	6,0	PN 400	9	1,5
3 BKHL 08 LK	8	L	10	M 16 x 1.5	negative (open)	7,0	PN 400	9	1,5
3 BKHL 10 LK	10	L	12	M 18 x 1.5	negative (open)	9,0	PN 400	9	1,5
3 BKHL 13 LK	12	L	15	M 22 x 1.5	negative (open)	11,5	PN 350	9	1,5
3 BKHL 16 LK	16	L	18	M 26 x 1.5	negative (open)	14,0	PN 350	12	1,5
3 BKHL 20 LK	19	L	22	M 30 x 2	negative (open)	18,0	PN 350	14	1,5
3 BKHL 25 LK	25	L	28	M 36 x 2	negative (open)	22,0	PN 350	14	1,5
3 BKHS 04 LK	4	S	8	M 16 x 1.5	negative (open)	5,0	PN 400	9	1,5
3 BKHS 06 LK	6	S	10	M 18 x 1.5	negative (open)	6,0	PN 400	9	1,5
3 BKHS 08 LK	8	S	12	M 20 x 1.5	negative (open)	7,0	PN 400	9	1,5
3 BKHS 10 LK	10	S	14	M 22 x 1.5	negative (open)	9,0	PN 400	9	1,5
3 BKHS 13 LK	12	S	16	M 24 x 1.5	negative (open)	11,5	PN 350	9	1,5
3 BKHS 16 LK	16	S	20	M 30 x 2	negative (open)	14,0	PN 350	12	1,5
3 BKHS 20 LK	19	S	25	M 36 x 2	negative (open)	18,0	PN 350	14	1,5
3 BKHS 25 LK	25	S	30	M 42 x 2	negative (open)	22,0	PN 350	14	1,5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy    LW = Clearance

**Product versions:**

**3 BKHL LK VZ / 3 BKHS LK VZ** - 3-way ball valve in block design, electro galvanised

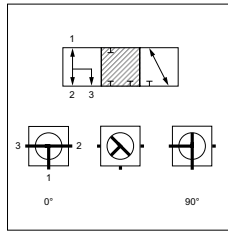
**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

## 3 BKR T

### 3-way ball valve in block design



**Connection 1 - 3:** BSP cylindrical internal threads  
**Sealing form 1 - 3:** for screw-in pins with shapes A, B and if necessary E.

**Bore:** T shaped

**Contact travel:** 0°; 90°

**Temp. min.:** -10 °C

**Temp. max.:** 80 °C

**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring

**Surface:** burnished

**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 BKR 04 T	4	G 1/8" -28	positive (closed)	5,0	PN 500	12	1,5
3 BKR 06 T	6	G 1/4" -19	positive (closed)	5,0	PN 500	12	1,5
3 BKR 10 T	10	G 3/8" -19	positive (closed)	7,5	PN 500	14	1,5
3 BKR 13 T	12	G 1/2" -14	positive (closed)	11,5	PN 400	14	1,5
3 BKR 20 T	19	G 3/4" -14	positive (closed)	18,0	PN 400	17	1,5
3 BKR 25 T	25	G 1" -11	positive (closed)	22,0	PN 350	17	1,5
3 BKR 32 T	31	G 1.1/4" -11	positive (closed)	22,0	PN 350	17	1,5
3 BKR 40 T	38	G 1.1/2" -11	positive (closed)	33,0	PN 63	22	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

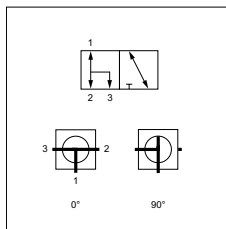
#### Spare parts:

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**3 BKR TK****3-way ball valve in block design**

**Connection 1 - 3:** BSP cylindrical internal threads  
**Sealing form 1 - 3:** for screw-in pins with shapes A, B and if necessary E.  
**Construction:** Compact construction  
**Bore:** T shaped  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished



**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 BKR 04 TK	4	G 1/8" -28	negative (open)	5,0	PN 400	9	1,5
3 BKR 06 TK	6	G 1/4" -19	negative (open)	6,0	PN 400	9	1,5
3 BKR 10 TK	10	G 3/8" -19	negative (open)	9,0	PN 400	9	1,5
3 BKR 13 TK	12	G 1/2" -14	negative (open)	11,5	PN 350	9	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

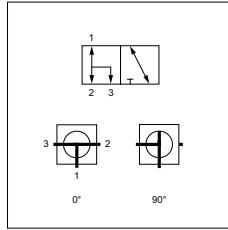
**Product versions:**

**3 BKR TK VZ** - 3-way ball valve in block design, electro galvanised

**Spare parts:**

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**BK ANSCHLAG** - Stop washers for ball valve

**3 SKR TK****3-way ball valve, in forged design**

**Connection 1 - 3:** BSP cylindrical internal threads  
**Sealing form 1 - 3:** for screw-in pins with shapes A, B and if necessary E.

**Design:** 3-way ball valve, in forged design  
**Bore:** T shaped

**Contact travel:** 0°; 90°

**Temp. min.:** -10 °C

**Temp. max.:** 80 °C

**Material:** Forged steel housing, Steel ball and operating shaft, POM ball seal, NBR O-ring.

**Surface:** burnished

**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 SKR 20 TK	19	G 3/4" -14	negative (open)	20	PN 350	14	1,5
3 SKR 25 TK	25	G 1" -11	negative (open)	24	PN 350	14	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

**Product versions:**

**3 SKR TK VZ** - 3-way ball valve, in forged design, electro galvanised

**Spare parts:**

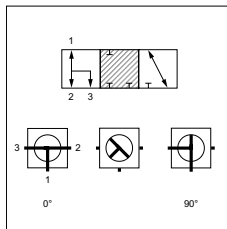
**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

## 3 BKHL T / 3 BKHS T

## 3-way ball valve in block design

**Connection 1 - 3:** metric cylindrical outer thread  
**Sealing form 1 - 3:** 24° inner cone  
**Bore:** T shaped  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished



**Note:** Note the permissible pressure limits for the connecting elements. Please refer to the operating instructions for ball valves.

Identification	DN*	Series	for external pipe Ø mm	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 BKHL 04 T	4	L	6	M 12 x 1.5	positive (closed)	5,0	PN 500	12	1,5
3 BKHL 06 T	6	L	8	M 14 x 1.5	positive (closed)	6,0	PN 500	12	1,5
3 BKHL 08 T	8	L	10	M 16 x 1.5	positive (closed)	9,0	PN 500	14	1,5
3 BKHL 10 T	10	L	12	M 18 x 1.5	positive (closed)	9,0	PN 500	14	1,5
3 BKHL 13 T	12	L	15	M 22 x 1.5	positive (closed)	12,5	PN 400	14	1,5
3 BKHL 16 T	16	L	18	M 26 x 1.5	positive (closed)	12,5	PN 400	17	1,5
3 BKHL 20 T	19	L	22	M 30 x 2	positive (closed)	19,0	PN 400	17	1,5
3 BKHL 25 T	25	L	28	M 36 x 2	positive (closed)	24,0	PN 350	17	1,5
3 BKHL 32 T	31	L	35	M 45 x 2	positive (closed)	24,0	PN 350	17	1,5
3 BKHL 40 T	38	L	42	M 52 x 2	positive (closed)	36,0	PN 63	22	1,5
3 BKHS 04 T	4	S	8	M 16 x 1.5	positive (closed)	5,0	PN 500	12	1,5
3 BKHS 06 T	6	S	10	M 18 x 1.5	positive (closed)	6,0	PN 500	12	1,5
3 BKHS 08 T	8	S	12	M 20 x 1.5	positive (closed)	9,0	PN 500	14	1,5
3 BKHS 10 T	10	S	14	M 22 x 1.5	positive (closed)	9,0	PN 500	14	1,5
3 BKHS 13 T	12	S	16	M 24 x 1.5	positive (closed)	12,5	PN 400	14	1,5
3 BKHS 16 T	16	S	20	M 30 x 2	positive (closed)	12,5	PN 400	17	1,5
3 BKHS 20 T	19	S	25	M 36 x 2	positive (closed)	19,0	PN 400	17	1,5
3 BKHS 25 T	25	S	30	M 42 x 2	positive (closed)	24,0	PN 350	17	1,5
3 BKHS 32 T	31	S	38	M 52 x 2	positive (closed)	24,0	PN 350	17	1,5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy    LW = Clearance

**Spare parts:**

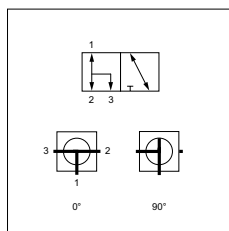
**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

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## 3 BKHL TK

### 3-way ball valve in block design



<b>Connection 1 - 3:</b>	metric cylindrical outer thread
<b>Sealing form 1 - 3:</b>	24° inner cone
<b>Construction:</b>	Compact construction
<b>Bore:</b>	T shaped
<b>Contact travel:</b>	0°; 90°
<b>Temp. min.:</b>	-10 °C
<b>Temp. max.:</b>	80 °C
<b>Material:</b>	Steel housing, ball and operating shaft, POM ball seal, NBR O-ring
<b>Surface:</b>	burnished

**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Series	for external pipe Ø mm	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
3 BKHL 04 TK	4	L	6	M 14 x 1.5	negative (open)	5,0	PN 400	9	1,5
3 BKHL 06 TK	6	L	8	M 14 x 1.5	negative (open)	6,0	PN 400	9	1,5
3 BKHL 08 TK	8	L	10	M 16 x 1.5	negative (open)	7,0	PN 400	9	1,5
3 BKHL 10 TK	10	L	12	M 18 x 1.5	negative (open)	9,0	PN 400	9	1,5
3 BKHL 13 TK	12	L	15	M 22 x 1.5	negative (open)	11,5	PN 350	9	1,5
3 BKHL 16 TK	16	L	18	M 26 x 1.5	negative (open)	14,0	PN 350	12	1,5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy    LW = Clearance

#### Product versions:

3 BKHL TK VZ / 3 BKHS TK VZ - 3-way ball valve in block design, electro galvanised

#### Spare parts:

BK ANSCHLAG - Stop washers for ball valve

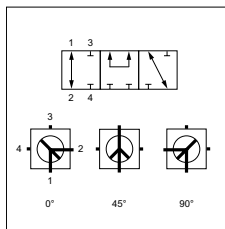
BK GEKR GRIFF SW - Handle (offset) for ball valve



## 4 BKR L

## 4-way ball valve

**Connection 1 - 4:** BSP cylindrical internal threads  
**Sealing form 1 - 4:** for screw-in pins with shapes A, B and if necessary E  
**Bore:** L shaped and strain relief hole  
**Contact travel:** 0°; 45°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished



**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

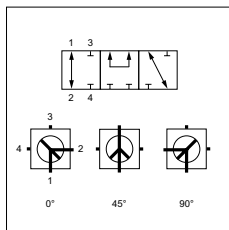
Identification	DN*	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
4 BKR 04 L	4	G 1/8" -28	negative (open)	5,0	PN 500	12	1,5
4 BKR 06 L	6	G 1/4" -19	negative (open)	6,0	PN 500	12	1,5
4 BKR 10 L	10	G 3/8" -19	negative (open)	9,0	PN 500	14	1,5
4 BKR 13 L	12	G 1/2" -14	negative (open)	12,5	PN 400	14	1,5
4 BKR 20 L	19	G 3/4" -14	negative (open)	19,0	PN 400	17	1,5
4 BKR 25 L	25	G 1" -11	negative (open)	24,0	PN 350	17	1,5
4 BKR 32 L	31	G 1.1/4" -11	negative (open)	24,0	PN 350	17	1,5
4 BKR 40 L	38	G 1.1/2" -11	negative (open)	36,0	PN 63	22	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**4 BKHL L / 4 BKHS L****4-way ball valve**

**Connection 1 - 4:** metric cylindrical outer thread  
**Sealing form 1 - 4:** 24° inner cone  
**Bore:** L shaped and strain relief hole  
**Contact travel:** 0°; 45°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished

**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

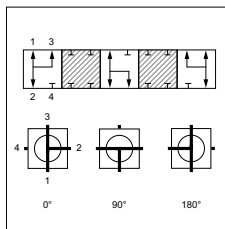
Identification	DN*	Series	for external pipe Ø mm	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
4 BKHL 04 L	4	L	6	M 12 x 1,5	negative (open)	5,0	PN 500	12	1,5
4 BKHL 06 L	6	L	8	M 14 x 1,5	negative (open)	6,0	PN 500	12	1,5
4 BKHL 08 L	8	L	10	M 16 x 1,5	negative (open)	9,0	PN 500	14	1,5
4 BKHL 10 L	10	L	12	M 18 x 1,5	negative (open)	9,0	PN 500	14	1,5
4 BKHL 13 L	12	L	15	M 22 x 1,5	negative (open)	12,5	PN 400	14	1,5
4 BKHL 16 L	16	L	18	M 26 x 1,5	negative (open)	12,5	PN 400	17	1,5
4 BKHL 20 L	19	L	22	M 30 x 2	negative (open)	19,0	PN 400	17	1,5
4 BKHL 25 L	25	L	28	M 36 x 2	negative (open)	24,0	PN 350	17	1,5
4 BKHL 32 L	31	L	35	M 45 x 2	negative (open)	24,0	PN 350	17	1,5
4 BKHL 40 L	38	L	42	M 52 x 2	negative (open)	36,0	PN 63	22	1,5
4 BKHS 04 L	4	S	8	M 16 x 1,5	negative (open)	5,0	PN 500	12	1,5
4 BKHS 06 L	6	S	10	M 18 x 1,5	negative (open)	6,0	PN 500	12	1,5
4 BKHS 08 L	8	S	12	M 20 x 1,5	negative (open)	9,0	PN 500	14	1,5
4 BKHS 10 L	10	S	14	M 22 x 1,5	negative (open)	9,0	PN 500	14	1,5
4 BKHS 13 L	12	S	16	M 24 x 1,5	negative (open)	12,5	PN 400	14	1,5
4 BKHS 16 L	16	S	20	M 30 x 2	negative (open)	12,5	PN 400	17	1,5
4 BKHS 20 L	19	S	25	M 36 x 2	negative (open)	19,0	PN 400	17	1,5
4 BKHS 25 L	25	S	30	M 42 x 2	negative (open)	24,0	PN 350	17	1,5
4 BKHS 32 L	31	S	38	M 52 x 2	negative (open)	24,0	PN 350	17	1,5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy    LW = Clearance

**Spare parts:****BK ANSCHLAG** - Stop washers for ball valve**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**4 BKR T****4-way ball valve**

**Connection 1 - 4:** BSP cylindrical internal threads  
**Sealing form 1 - 4:** for screw-in pins with shapes A, B and if necessary E  
**Bore:** T shaped  
**Contact travel:** 0°; 90°; 180°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished



**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
4 BKR 04 T	4	G 1/8" -28	positive (closed)	5,0	PN 500	12	1,5
4 BKR 06 T	6	G 1/4" -19	positive (closed)	6,0	PN 500	12	1,5
4 BKR 10 T	10	G 3/8" -19	positive (closed)	9,0	PN 500	14	1,5
4 BKR 13 T	12	G 1/2" -14	positive (closed)	12,5	PN 400	14	1,5
4 BKR 20 T	19	G 3/4" -14	positive (closed)	19,0	PN 400	17	1,5
4 BKR 25 T	25	G 1" -11	positive (closed)	24,0	PN 350	17	1,5
4 BKR 32 T	31	G 1.1/4" -11	positive (closed)	24,0	PN 350	17	1,5
4 BKR 40 T	38	G 1.1/2" -11	positive (closed)	36,0	PN 63	22	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

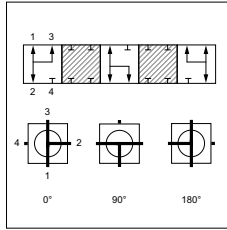
**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

## 4 BKHL T / 4 BKHS T

### 4-way ball valve



**Connection 1 - 4:** metric cylindrical outer thread  
**Sealing form 1 - 4:** 24° inner cone  
**Bore:** T shaped  
**Contact travel:** 0°; 90°; 180°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished

**Note:** Note the permissible pressure limits for the connecting elements. Please refer to the operating instructions for ball valves.

Identification	DN*	Series	for external pipe Ø mm	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
4 BKHL 04 T	4	L	6	M 12 x 1.5	positive (closed)	5,0	PN 500	12	1,5
4 BKHL 06 T	6	L	8	M 14 x 1.5	positive (closed)	6,0	PN 500	12	1,5
4 BKHL 08 T	8	L	10	M 16 x 1.5	positive (closed)	9,0	PN 500	14	1,5
4 BKHL 10 T	10	L	12	M 18 x 1.5	positive (closed)	9,0	PN 500	14	1,5
4 BKHL 13 T	12	L	15	M 22 x 1.5	positive (closed)	12,5	PN 400	14	1,5
4 BKHL 16 T	16	L	18	M 26 x 1.5	positive (closed)	12,5	PN 400	17	1,5
4 BKHL 20 T	19	L	22	M 30 x 2	positive (closed)	19,0	PN 400	17	1,5
4 BKHL 25 T	25	L	28	M 36 x 2	positive (closed)	24,0	PN 350	17	1,5
4 BKHL 32 T	31	L	35	M 45 x 2	positive (closed)	24,0	PN 350	17	1,5
4 BKHL 40 T	38	L	42	M 52 x 2	positive (closed)	36,0	PN 63	22	1,5
4 BKHS 04 T	4	S	8	M 16 x 1.5	positive (closed)	5,0	PN 500	12	1,5
4 BKHS 06 T	6	S	10	M 18 x 1.5	positive (closed)	6,0	PN 500	12	1,5
4 BKHS 08 T	8	S	12	M 20 x 1.5	positive (closed)	9,0	PN 500	14	1,5
4 BKHS 10 T	10	S	14	M 22 x 1.5	positive (closed)	9,0	PN 500	14	1,5
4 BKHS 13 T	12	S	16	M 24 x 1.5	positive (closed)	12,5	PN 400	14	1,5
4 BKHS 16 T	16	S	20	M 30 x 2	positive (closed)	12,5	PN 400	17	1,5
4 BKHS 20 T	19	S	25	M 36 x 2	positive (closed)	19,0	PN 400	17	1,5
4 BKHS 25 T	25	S	30	M 42 x 2	positive (closed)	24,0	PN 350	17	1,5
4 BKHS 32 T	38	S	38	M 52 x 2	positive (closed)	24,0	PN 350	17	1,5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy    LW = Clearance

#### Spare parts:

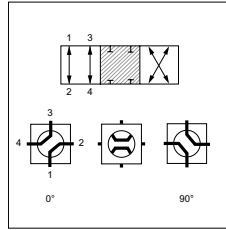
**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

## 4 BKR X

## 4-way ball valve

**Connection 1 - 4:** BSP cylindrical internal threads  
**Sealing form 1 - 4:** for screw-in pins with shapes A, B and if necessary E  
**Bore:** X shaped  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished



**Note:** Please refer to the operating instructions for ball valves. Note the permissible pressure limits for the connecting elements.

Identification	DN*	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
4 BKR 04 X	4	G 1/8" -28	positive (closed)	5,0	PN 500	12	1,5
4 BKR 06 X	6	G 1/4" -19	positive (closed)	5,0	PN 500	12	1,5
4 BKR 10 X	10	G 3/8" -19	positive (closed)	7,5	PN 500	14	1,5
4 BKR 13 X	12	G 1/2" -14	positive (closed)	11,5	PN 400	14	1,5
4 BKR 20 X	19	G 3/4" -14	positive (closed)	18,0	PN 400	17	1,5
4 BKR 25 X	25	G 1" -11	positive (closed)	22,0	PN 350	17	1,5
4 BKR 32 X	31	G 1.1/4" -11	positive (closed)	22,0	PN 350	17	1,5
4 BKR 40 X	38	G 1.1/2" -11	positive (closed)	33,0	PN 63	22	1,5

DN = Nominal diameter, nominal width    LW = Clearance    PN = Nominal pressure    PB = Max. operating pressure

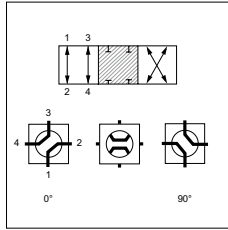
**Spare parts:**

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

## 4 BKHL X / 4 BKHS X

### 4-way ball valve



**Connection 1 - 4:** metric cylindrical outer thread  
**Sealing form 1 - 4:** 24° inner cone  
**Bore:** X shaped  
**Contact travel:** 0°; 90°  
**Temp. min.:** -10 °C  
**Temp. max.:** 80 °C  
**Material:** Steel housing, ball and operating shaft, POM ball seal, NBR O-ring  
**Surface:** burnished

**Note:** Note the permissible pressure limits for the connecting elements. Please refer to the operating instructions for ball valves.

Identification	DN*	Series	for external pipe Ø mm	Connecting thread	Overlap	LW mm	Working pressure bar	SW mm	SF*
4 BKHL 04 X	4	L	6	M 12 x 1,5	positive (closed)	5,0	PN 500	12	1,5
4 BKHL 06 X	6	L	8	M 14 x 1,5	positive (closed)	5,0	PN 500	12	1,5
4 BKHL 08 X	8	L	10	M 16 x 1,5	positive (closed)	7,5	PN 500	14	1,5
4 BKHL 10 X	10	L	12	M 18 x 1,5	positive (closed)	7,5	PN 500	14	1,5
4 BKHL 13 X	12	L	15	M 22 x 1,5	positive (closed)	11,5	PN 400	14	1,5
4 BKHL 16 X	16	L	18	M 26 x 1,5	positive (closed)	11,5	PN 400	17	1,5
4 BKHL 20 X	19	L	22	M 30 x 2	positive (closed)	18,0	PN 400	17	1,5
4 BKHL 25 X	25	L	28	M 36 x 2	positive (closed)	22,0	PN 350	17	1,5
4 BKHL 32 X	31	L	35	M 45 x 2	positive (closed)	22,0	PN 350	17	1,5
4 BKHL 40 X	38	L	42	M 52 x 2	positive (closed)	33,0	PN 63	22	1,5
4 BKHS 04 X	4	S	8	M 16 x 1,5	positive (closed)	5,0	PN 500	12	1,5
4 BKHS 06 X	6	S	10	M 18 x 1,5	positive (closed)	5,0	PN 500	12	1,5
4 BKHS 08 X	8	S	12	M 20 x 1,5	positive (closed)	7,5	PN 500	14	1,5
4 BKHS 10 X	10	S	14	M 22 x 1,5	positive (closed)	7,5	PN 500	14	1,5
4 BKHS 13 X	12	S	16	M 24 x 1,5	positive (closed)	11,5	PN 400	14	1,5
4 BKHS 16 X	16	S	20	M 30 x 2	positive (closed)	11,5	PN 400	17	1,5
4 BKHS 20 X	19	S	25	M 36 x 2	positive (closed)	18,0	PN 400	17	1,5
4 BKHS 25 X	25	S	30	M 42 x 2	positive (closed)	22,0	PN 350	17	1,5
4 BKHS 32 X	31	S	38	M 52 x 2	positive (closed)	22,0	PN 350	17	1,5

DN = Nominal diameter, nominal width      Series: LL = Very light    L = Light    S = Heavy    PN = Nominal pressure    PB = Max. operating pressure

#### Spare parts:

**BK ANSCHLAG** - Stop washers for ball valve

**BK GEKR GRIFF SW** - Handle (offset) for ball valve

**BK ANSCHLAG**

## Stop washers for ball valve

**Material:** Steel  
**Surface:** electro galvanised  
**suitable for:** Block ball valves



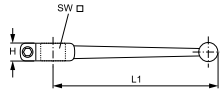
Identification	for width across flat mm	Strength mm
BK ANSCHLAG SW 09	9	3,00
BK ANSCHLAG SW 12	12	3,50
BK ANSCHLAG SW 14	14	4,00
BK ANSCHLAG SW 17	17	5,00
BK ANSCHLAG SW 19	19	5,00

**Spare part for following products:**

3 BKHL LK / 3 BKHS LK - 3-way ball valve in block design  
 BKN - 2-way ball valve in block design  
 3 BKR L - 3-way ball valve in block design  
 3 BKR T - 3-way ball valve in block design  
 BKHL / BKHS - 2-way ball valve in block design  
 4 BKHL T / 4 BKHS T - 4-way ball valve  
 3 BKR LK - 3-way ball valve in block design  
 4 BKHL X / 4 BKHS X - 4-way ball valve  
 4 BKHL L / 4 BKHS L - 4-way ball valve  
 3 BKR TK - 3-way ball valve in block design  
 BK GFS - 2-way ball valve in block design  
 BKR - 2-way ball valve in block design  
 3 SKR LK VZ - 3-way ball valve, in forged design  
 SK SF / SK SF6 - 2-way ball valve, in forged design  
 SK SF GFS - 2-way ball valve, in forged design  
 3 BKHL T / 3 BKHS T - 3-way ball valve in block design  
 3 BKHL L / 3 BKHS L - 3-way ball valve in block design  
 3 SKR TK - 3-way ball valve, in forged design  
 SK GFS - 2-way ball valve, in forged design  
 4 BKR X - 4-way ball valve  
 4 BKR L - 4-way ball valve  
 4 BKR T - 4-way ball valve  
 BK SF / BK SF6 - 2-way ball valve in block design  
 BK SF GFS - 2-way ball valve in block design  
 3 BKHL TK - 3-way ball valve in block design

## BK ALU GRIFF SW

### Handle for ball valve



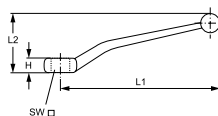
**Construction:** straight  
**Material:** Aluminium  
**suitable for:** Block ball valves

Identification	H mm	L1 mm	SW mm
BK ALU GRIFF SW 9	11,0	150,0	9
BK ALU GRIFF SW 12	12,0	175,0	12
BK ALU GRIFF SW 14	12,0	200,0	14
BK ALU GRIFF SW 17	16,0	280,0	17
BK ALU GRIFF SW 19		300,0	19



**BK GEKR GRIFF SW****Handle (offset) for ball valve**

**Construction:** offset  
**Material:** above SW 17 steel, up to SW 17 die-cast zinc  
**suitable for:** Block ball valves



Identification	H mm	L1 mm	L2 mm	SW mm
BK GEKR GRIFF SW 9	8,7	107,0	36,0	9
BK GEKR GRIFF SW 12	12,0	165,0	65,0	12
BK GEKR GRIFF SW 14	12,0	165,0	65,0	14
BK GEKR GRIFF SW 17	14,0	211,0	66,0	17

**Spare part for following products:**

- 4 BKHL T / 4 BKHS T - 4-way ball valve
- 3 BKHL LK / 3 BKHS LK - 3-way ball valve in block design
- 3 BKHL T / 3 BKHS T - 3-way ball valve in block design
- 3 BKHL L / 3 BKHS L - 3-way ball valve in block design
- 3 BKHL TK - 3-way ball valve in block design
- SK SF GFS - 2-way ball valve, in forged design
- SK SF / SK SF6 - 2-way ball valve, in forged design
- 3 BKR L - 3-way ball valve in block design
- 3 BKR LK - 3-way ball valve in block design
- 3 BKR T - 3-way ball valve in block design
- 3 BKR TK - 3-way ball valve in block design
- BK GFS - 2-way ball valve in block design
- 4 BKHL L / 4 BKHS L - 4-way ball valve
- BKHL / BKHS - 2-way ball valve in block design
- 4 BKHL X / 4 BKHS X - 4-way ball valve
- BKN - 2-way ball valve in block design
- BKR - 2-way ball valve in block design
- 3 SKR LK VZ - 3-way ball valve, in forged design
- 3 SKR TK - 3-way ball valve, in forged design
- 4 BKR L - 4-way ball valve
- 4 BKR T - 4-way ball valve
- 4 BKR X - 4-way ball valve
- BK SF / BK SF6 - 2-way ball valve in block design
- BK SF GFS - 2-way ball valve in block design
- SK GFS - 2-way ball valve, in forged design



## Measuring equipment

<b>Measuring hoses</b>		<b>Pressure gauge</b>	
Hose lines	806	Nominal size 40 mm	882
Hoses	811	Nominal size 50 mm	886
<b>Measuring hose fittings</b>		Nominal size 63 mm	894
Hose ferrules	812	Nominal size 80 mm	904
Metric series	813	Nominal size 100 mm	912
BSP	819	Nominal size 160 mm	920
NPT	822	Accessories	925
JIC	823	<b>Pressure gauges with front ring mounting</b>	
Banjos	825	Nominal size 40 mm	926
<b>Measuring systems</b>		Nominal size 50 mm	928
Measuring couplings (series S 12,65 x 1.5)	828	Nominal size 63 mm	930
Measuring couplings (series M 16 x 1.5)	837	Nominal size 100 mm	934
Measuring couplings (series M 16 x 2)	847	<b>Pressure gauges with clamping ring mounting</b>	
Measuring couplings (plug-in series DN 2)	859	Nominal size 40 mm	936
Measuring couplings (adapters with measuring sockets)	866	Nominal size 50 mm	938
Measuring couplings (spare parts)	867	Nominal size 63 mm	940
Hose connectors	869	Nominal size 100 mm	944
Measuring case	870		
<b>Pressure gauge fittings</b>			
Straight	873		
Accessories	881		

**HFM SKE 12****Measuring hose line**

<b>Application:</b>	Measuring equipment
<b>Design:</b>	Hose line DN 2 with M 12.65 x 1.5 measuring connections
<b>Inner layer:</b>	Polyamide
<b>Insert:</b>	one aramide braided insert
<b>Outer layer:</b>	Polyurethane
<b>Included in scope of supply:</b>	with dust protection
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Media:</b>	Liquids based on mineral oil and glycol

Identification	External Ø mm	Internal Ø mm	Max. working pressure bar	Min. bending radius mm	Length mm
HFM SKE 200-12	5,5	2	630	35	200
HFM SKE 300-12	5,5	2	630	35	300
HFM SKE 400-12	5,5	2	630	35	400
HFM SKE 630-12	5,5	2	630	35	630
HFM SKE 800-12	5,5	2	630	35	800
HFM SKE 1000-12	5,5	2	630	35	1000
HFM SKE 1500-12	5,5	2	630	35	1500
HFM SKE 2000-12	5,5	2	630	35	2000
HFM SKE 2500-12	5,5	2	630	35	2500
HFM SKE 3200-12	5,5	2	630	35	3200
HFM SKE 4000-12	5,5	2	630	35	4000

**HFM SKE 16****Measuring hose line**

<b>Application:</b>	Measuring equipment
<b>Design:</b>	Hose line DN 2 with M 16 x 1.5 measuring connections
<b>Inner layer:</b>	Polyamide
<b>Insert:</b>	one aramide braided insert
<b>Outer layer:</b>	Polyurethane
<b>Included in scope of supply:</b>	with dust protection
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Media:</b>	Liquids based on mineral oil and glycol



Identification	External Ø mm	Internal Ø mm	Max. working pressure bar	Min. bending radius mm	Length mm
HFM SKE 400-16	5,5	2	630	35	400
HFM SKE 630-16	5,5	2	630	35	630
HFM SKE 800-16	5,5	2	630	35	800
HFM SKE 1000-16	5,5	2	630	35	1000
HFM SKE 1500-16	5,5	2	630	35	1500
HFM SKE 2000-16	5,5	2	630	35	2000
HFM SKE 2500-16	5,5	2	630	35	2500
HFM SKE 3200-16	5,5	2	630	35	3200
HFM SKE 4000-16	5,5	2	630	35	4000

**HFM SKE****Measuring hose line**

<b>Application:</b>	Measuring equipment
<b>Design:</b>	Hose line DN 2 with M 16 x 2 measuring connections
<b>Inner layer:</b>	Polyamide
<b>Insert:</b>	one aramide braided insert
<b>Outer layer:</b>	Polyurethane
<b>Included in scope of supply:</b>	with dust protection
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Media:</b>	Liquids based on mineral oil and glycol

Identification	External Ø mm	Internal Ø mm	Max. working pressure bar	Min. bending radius mm	Length mm
HFM SKE 200	5,5	2	630	35	200
HFM SKE 300	5,5	2	630	35	300
HFM SKE 400	5,5	2	630	35	400
HFM SKE 630	5,5	2	630	35	630
HFM SKE 800	5,5	2	630	35	800
HFM SKE 1000	5,5	2	630	35	1000
HFM SKE 1500	5,5	2	630	35	1500
HFM SKE 2000	5,5	2	630	35	2000
HFM SKE 2500	5,5	2	630	35	2500
HFM SKE 3200	5,5	2	630	35	3200
HFM SKE 4000	5,5	2	630	35	4000

**Product versions:**

HFM SKE VA - Measuring hose line,

**HFM MK ST****Measuring hose line**

<b>Application:</b>	Measuring equipment
<b>Design:</b>	Hose line DN 2 with plug-in measuring connections
<b>Inner layer:</b>	Polyamide
<b>Insert:</b>	one aramide braided insert
<b>Outer layer:</b>	Polyurethane
<b>Included in scope of supply:</b>	with dust protection
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Media:</b>	Liquids based on mineral oil and glycol



Identification	External Ø mm	Internal Ø mm	Max. working pressure bar	Min. bending radius mm	Length mm
HFM MK 300 S	5,5	2	400	35	300
HFM MK 400 S	5,5	2	400	35	400
HFM MK 630 S	5,5	2	400	35	630
HFM MK 800 S	5,5	2	400	35	800
HFM MK 1000 S	5,5	2	400	35	1000
HFM MK 1500 S	5,5	2	400	35	1500
HFM MK 2000 S	5,5	2	400	35	2000
HFM MK 2500 S	5,5	2	400	35	2500
HFM MK 3200 S	5,5	2	400	35	3200
HFM MK 4000 S	5,5	2	400	35	4000

**HFM ADA****Measuring hose line**

<b>Application:</b>	Measuring equipment
<b>Design:</b>	Hose line DN 2 with measuring connections M 16 x 2 and plug-in
<b>Inner layer:</b>	Polyamide
<b>Insert:</b>	one aramide braided insert
<b>Outer layer:</b>	Polyurethane
<b>Included in scope of supply:</b>	with dust protection
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Media:</b>	Liquids based on mineral oil and glycol

Identification	External Ø mm	Internal Ø mm	Max. working pressure bar	Min. bending radius mm	Length mm
HFM ADA 300	5,5	2	400	35	300
HFM ADA 400	5,5	2	400	35	400
HFM ADA 630	5,5	2	400	35	630
HFM ADA 800	5,5	2	400	35	800
HFM ADA 1000	5,5	2	400	35	1000
HFM ADA 1500	5,5	2	400	35	1500
HFM ADA 2000	5,5	2	400	35	2000
HFM ADA 2500	5,5	2	400	35	2500
HFM ADA 3200	5,5	2	400	35	3200
HFM ADA 4000	5,5	2	400	35	4000



**HM****High pressure measuring hose**

<b>Application:</b>	Measuring equipment
<b>Inner layer:</b>	Polyamide
<b>Insert:</b>	one aramide braided insert
<b>Outer layer:</b>	Polyurethane
<b>Colour:</b>	black
<b>Temp. min.:</b>	-35 °C
<b>Temp. max.:</b>	100 °C
<b>Media:</b>	Liquids based on mineral oil and glycol

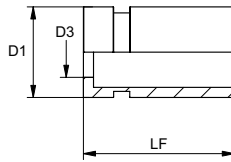


Identification	DN*	Size	Inches	Internal Ø mm	External Ø mm	Working pressure bar	Burst pressure bar	Min. bending radius mm
HM 102	2	1	5/64"	2,0	5,1	630	2000	35

DN = Nominal diameter, nominal width

## PMH 100

### Swage ferrule for measuring hose HM 102



**Ferrule type:**

**Material:**

**Surface:**

Non-skive ferrule

Steel

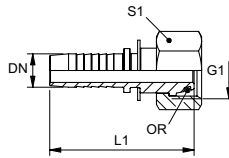
electro galvanised

Identification	DN*	Size	Inches	D1 mm	D3 mm	LF mm
PMH 102	2	1	5/64"	8	4,8	15,3

DN = Nominal diameter, nominal width

**PN 02 AOL / PN 02 AOS****Swage nipple, DKOL / DKOS**

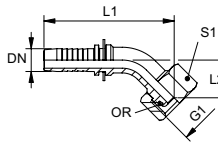
**Application:** Measuring equipment  
**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Short code:** DKOL  
**Standard:** ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	Series	for external pipe Ø mm	G1	L1 mm	S1	OR
PN 02 AOL 04	2	1	5/64"	L	6	M 12 x 1.5	35,0	14	4.0 x 1.5
PN 02 AOL 06	2	1	5/64"	L	8	M 14 x 1.5	35,0	17	6.0 x 1.5
PN 02 AOL 08	2	1	5/64"	L	10	M 16 x 1.5	36,5	19	7.5 x 1.5
PN 02 AOL 10	2	1	5/64"	L	12	M 18 x 1.5	37,5	22	9.0 x 1.5
PN 02 AOS 03	2	1	5/64"	S	6	M 14 x 1.5	35,0	17	4.0 x 1.5
PN 02 AOS 04	2	1	5/64"	S	8	M 16 x 1.5	35,0	19	6.0 x 1.5
PN 02 AOS 06	2	1	5/64"	S	10	M 18 x 1.5	36,5	22	7.5 x 1.5
PN 02 AOS 08	2	1	5/64"	S	12	M 20 x 1.5	37,5	24	9.0 x 1.5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy

**PN 02 AOL 45 / PN 02 AOS 45**
**Swage nipple, DKOL angle 45° / DKOS angle 45°**


**Application:** Measuring equipment  
**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Short code:** DKOL  
**Standard:** ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised

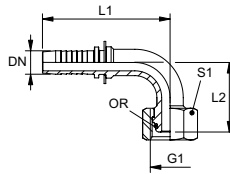
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	Series	for external pipe Ø mm	G1	L1 mm	L2 mm	S1	OR
PN 02 AOL 04 45	2	1	5/64"	L	6	M 12 x 1.5	46,0	15,8	14	4.0 x 1.5
PN 02 AOL 06 45	2	1	5/64"	L	8	M 14 x 1.5	50,5	18,0	17	6.0 x 1.5
PN 02 AOL 08 45	2	1	5/64"	L	10	M 16 x 1.5	56,0	22,5	19	7.5 x 1.5
PN 02 AOS 03 45	2	1	5/64"	S	6	M 14 x 1.5	46,0	15,8	17	4.0 x 1.5
PN 02 AOS 04 45	2	1	5/64"	S	8	M 16 x 1.5	50,5	18,0	19	6.0 x 1.5
PN 02 AOS 06 45	2	1	5/64"	S	10	M 18 x 1.5	56,0	22,5	22	7.5 x 1.5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy

**PN 02 AOL 90 / PN 02 AOS 90****Swage nipple, DKOL angle 90° / DKOS angle 90°**

**Application:** Measuring equipment  
**Connection 1:** metric nut thread  
**Sealing form 1:** 24° outer cone with O-ring  
**Short code:** DKOL  
**Standard:** ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised



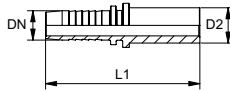
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	Series	for external pipe Ø mm	G1	L1 mm	L2 mm	S1	OR
PN 02 AOL 04 90	2	1	5/64"	L	6	M 12 x 1.5	35,5	27	14	4.0 x 1.5
PN 02 AOL 06 90	2	1	5/64"	L	8	M 14 x 1.5	38,0	30	17	6.0 x 1.5
PN 02 AOL 08 90	2	1	5/64"	L	10	M 16 x 1.5	41,5	40	19	7.5 x 1.5
PN 02 AOS 03 90	2	1	5/64"	S	6	M 14 x 1.5	35,5	27	17	4.0 x 1.5
PN 02 AOS 04 90	2	1	5/64"	S	8	M 16 x 1.5	38,0	30	19	6.0 x 1.5
PN 02 AOS 06 90	2	1	5/64"	S	10	M 18 x 1.5	41,5	40	22	7.5 x 1.5

DN = Nominal diameter, nominal width    Series: LL = Very light    L = Light    S = Heavy

## PN 02 FL

### Swage nipple, BEL



<b>Application:</b>	Measuring equipment
<b>Series:</b>	light
<b>Connection 1:</b>	Pipe sockets
<b>Sealing form 1:</b>	Cutting ring connection
<b>Short code:</b>	BEL
<b>Standard:</b>	ISO 8434-1
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

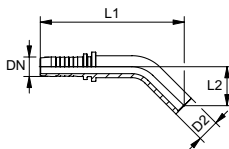
**Note:** Appropriate ferrule: PMH 102. Do not use for new designs; we recommend: PN 02 AOL. Final cutting ring assembly must be carried out in the hardened pre-assembly socket (VOM...).

Identification	DN	Size	Inches	Ø D2 mm	L1 mm
PN 02 FL	2	1	5/64"	4	36,0
PN 02 FL 04	2	1	5/64"	6	36,0
PN 02 FL 06	2	1	5/64"	8	37,5

DN = Nominal diameter, nominal width

**PN 02 FL 45****Swage nipple, BEL angle 45°**

**Application:** Measuring equipment  
**Series:** light  
**Connection 1:** Pipe sockets  
**Sealing form 1:** Cutting ring connection  
**Short code:** BEL  
**Standard:** ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised



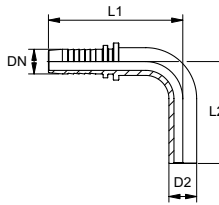
**Note:** Appropriate ferrule: PMH 102. Do not use for new designs; we recommend: PN 02 AOL...45. Final cutting ring assembly must be carried out in the hardened pre-assembly socket (VOM...).

Identification	DN	Size	Inches	Ø D2 mm	L1 mm	L2 mm
PN 02 FL 45	2	1	5/64"	4	43	14,5
PN 02 FL 04 45	2	1	5/64"	6	44	16,5
PN 02 FL 06 45	2	1	5/64"	8	52	20,0

DN = Nominal diameter, nominal width

## PN 02 FL 90

### Swage nipple, BEL angle 90°



**Application:** Measuring equipment  
**Series:** light  
**Connection 1:** Pipe sockets  
**Sealing form 1:** Cutting ring connection  
**Short code:** BEL  
**Standard:** ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Appropriate ferrule: PMH 102. Do not use for new designs; we recommend: PN 02 AOL...90. Final cutting ring assembly must be carried out in the hardened pre-assembly socket (VOM...).

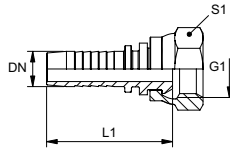
Identification	DN	Size	Inches	Ø D2 mm	L1 mm	L2 mm
PN 02 FL 90	2	1	5/64"	4	33	25,5
PN 02 FL 04 90	2	1	5/64"	6	32	28,0
PN 02 FL 06 90	2	1	5/64"	8	41	37,0

DN = Nominal diameter, nominal width



**PN 02 AB****Swage nipple, DKR**

**Application:** Measuring equipment  
**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Short code:** DKR  
**Standard:** BS 5200, ISO 228-1  
**Material:** Steel  
**Surface:** electro galvanised



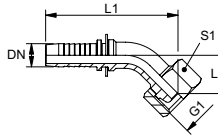
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	G1	L1 mm	S1
PN 02 AB	2	1	5/64"	G 1/8" -28	27,5	14
PN 02 AB 06	2	1	5/64"	G 1/4" -19	29,0	17

DN = Nominal diameter, nominal width

## PN 02 AB 45

### Swage nipple, DKR angle 45°



**Application:** Measuring equipment  
**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Short code:** DKR  
**Standard:** BS 5200, ISO 228-1  
**Material:** Steel  
**Surface:** electro galvanised

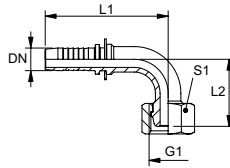
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	G1	L1 mm	L2 mm	S1
PN 02 AB 45	2	1	5/64"	G 1/8" -28	44,5	15,0	14
PN 02 AB 06 45	2	1	5/64"	G 1/4" -19	47,5	16,0	17

DN = Nominal diameter, nominal width

**PN 02 AB 90****Swage nipple, DKR angle 90°**

**Application:** Measuring equipment  
**Connection 1:** BSP nut thread  
**Sealing form 1:** 60° outer cone  
**Short code:** DKR  
**Standard:** BS 5200, ISO 228-1  
**Material:** Steel  
**Surface:** electro galvanised



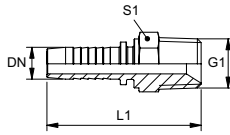
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	G1	L1 mm	L2 mm	S1
PN 02 AB 90	2	1	5/64"	G 1/8" -28	34,0	26,0	14
PN 02 AB 06 90	2	1	5/64"	G 1/4" -19	36,5	27,5	17

DN = Nominal diameter, nominal width

## PN 02 HN

### Swage nipple, AGN



**Application:** Measuring equipment  
**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal, additional 60° inner cone.  
**Short code:** AGN  
**Material:** Steel  
**Surface:** electro galvanised

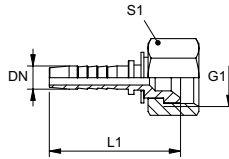
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	G1	L1 mm	S1
PN 02 HN	2	1	5/64"	1/8" -27 NPT	30,0	12
PN 02 HN 06	2	1	5/64"	1/4" -18 NPT	35,5	17

DN = Nominal diameter, nominal width

**PN 02 AJ****Swage nipple, DKJ**

**Application:** Measuring equipment  
**Connection 1:** UN/UNF nut threads  
**Sealing form 1:** 74° inner cone  
**Short code:** DKJ  
**Standard:** ISO 8434-2  
**Material:** Steel  
**Surface:** electro galvanised



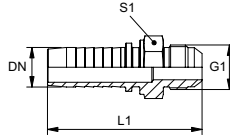
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	G1	L1 mm	S1
PN 02 AJ 04	2	1	5/64"	3/8"-24 UNF	24,5	12
PN 02 AJ 06	2	1	5/64"	7/16"-20 UNF		14
PN 02 AJ 08	2	1	5/64"	1/2"-20 UNF	28,5	17
PN 02 AJ 10	2	1	5/64"	9/16"-18 UNF	28,5	19

DN = Nominal diameter, nominal width

## PN 02 HJ

### Swage nipple, AGJ



**Application:** Measuring equipment  
**Connection 1:** UN/UNF external threads  
**Sealing form 1:** 74° outer cone  
**Short code:** AGJ  
**Standard:** ISO 8434-2  
**Material:** Steel  
**Surface:** electro galvanised

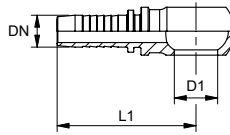
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	G1	L1 mm	S1
PN 02 HJ 04	2	1	5/64"	3/8"-24 UNF	34,0	12
PN 02 HJ 06	2	1	5/64"	7/16"-20 UNF	34,5	12
PN 02 HJ 08	2	1	5/64"	1/2"-20 UNF	36,0	14

DN = Nominal diameter, nominal width

**PN 02 B****Swage nipple, RGN**

**Application:** Measuring equipment  
**Connection 1:** Banjo for metric hollow screw  
**Sealing form 1:** Sealed by copper ring  
**Short code:** RGN  
**Standard:** DIN 7642  
**Material:** Steel  
**Surface:** electro galvanised



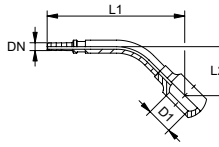
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	D1 mm	for hollow screw	L1 mm
PN 02 B	2	1	5/64"	8,1	M 8	29,5
PN 02 B 04	2	1	5/64"	10,1	M 10	31,5

DN = Nominal diameter, nominal width

## PN 02 B 45

### Swage nipple, RGN angle 45°



**Application:** Measuring equipment  
**Connection 1:** Banjo for metric hollow screw  
**Sealing form 1:** Sealed by copper ring  
**Short code:** RGN  
**Standard:** DIN 7642  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Appropriate ferrule: PMH 102.

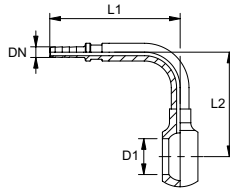
Identification	DN	Size	Inches	D1 mm	for hollow screw	L1 mm	L2 mm
PN 02 B 45	2	1	5/64"	8,1	M 8	46,5	15,0
PN 02 B 04 45	2	1	5/64"	10,1	M 10	51,0	23,5

DN = Nominal diameter, nominal width



**PN 02 B 90****Swage nipple, RGN angle 90°**

**Application:** Measuring equipment  
**Connection 1:** Banjo for metric hollow screw  
**Sealing form 1:** Sealed by copper ring  
**Short code:** RGN  
**Standard:** DIN 7642  
**Material:** Steel  
**Surface:** electro galvanised



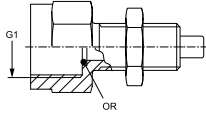
**Note:** Appropriate ferrule: PMH 102.

Identification	DN	Size	Inches	D1 mm	for hollow screw	L1 mm	L2 mm
PN 02 B 90	2	1	5/64"	8,1	M 8	36,0	26,0
PN 02 B 04 90	2	1	5/64"	10,1	M 10	32,0	38,0

DN = Nominal diameter, nominal width

## HFM MMA 12

### Measuring connection, S12.65 x 1.5 series



**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** O-ring seal  
**Connection 2:** Measuring connection S 12.65 x 1.5  
**Design:** Screw-on socket with measuring connector

**Supplementary design information:** for bulkhead mounting

**Included in scope of supply:** with lock nut and O-ring

**Temp. min.:** -25 °C

**Temp. max.:** 100 °C

**Material:** Steel

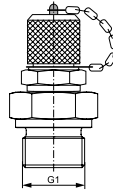
**Surface:** electro galvanised

Identification	G1	Max. working pressure bar	OR
HFM MMA 1/4-12	G 1/4" -19	630	5.0 x 1.5
HFM MMA 1/2-12	G 1/2" -14	630	9.0 x 1.8

**HFM MKR 12****Measuring connection, S12.65 x 1.5 series**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape B  
**Connection 2:** Measuring connection S 12.65 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -25 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

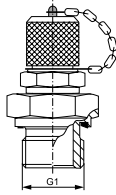


Identification	G1	Max. working pressure bar
HFM MKR 1/8-12	G 1/8" -28	400
HFM MKR 1/4-12	G 1/4" -19	630

**Spare parts:**  
HFM VK - Cap

## HFM MKR 12 ED

### Measuring connection, S12.65 x 1.5 series



**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** Measuring connection S 12.65 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -25 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

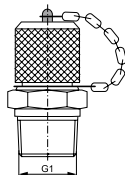
Identification	G1	Max. working pressure bar
HFM MKR 1/8-12 ED	G 1/8" -28	400

**Spare parts:**  
**HFM VK - Cap**

**HFM MKRK 12****Measuring connection, S12.65 x 1.5 series**

**Connection 1:** BSPT conical external threads  
**Sealing form 1:** thread seal  
**Connection 2:** Measuring connection S 12.65 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -25 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

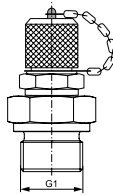


Identification	G1	Max. working pressure bar
HFM MKR K 1/8-12	R 1/8" K	400
HFM MKR K 1/4-12	R 1/4" K	630

**Spare parts:**  
HFM VK - Cap

## HFM MK 12

### Measuring connection, S12.65 x 1.5 series



**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Connection 2:** Measuring connection S 12.65 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -25 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

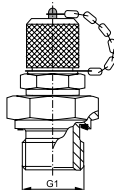
Identification	G1	Max. working pressure bar
HFM MK 08-1-12	M 8 x 1	250
HFM MK 10-1-12	M 10 x 1	630
HFM MK 12-1.5-12	M 12 x 1.5	630
HFM MK 16-1.5-12	M 16 x 1.5	630

**Spare parts:**  
**HFM VK - Cap**

**HFM MK 12 ED****Measuring connection, S12.65 x 1.5 series**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** Measuring connection S 12.65 x 1.5  
**Design:** Screw-in socket with measurement connection

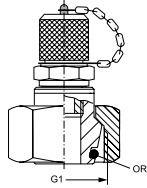
**Included in scope of supply:** with cap  
**Temp. min.:** -25 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	Max. working pressure bar
HFM MK 12-1.5-12 ED	M 12 x 1.5	630
HFM MK 14-1.5-12 ED	M 14 x 1.5	630
HFM MK 16-1.5-12 ED	M 16 x 1.5	630

## HFM KL 12 / HFM KS 12

### Measuring connection, S12.65 x 1.5 series



<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	Measuring connection S 12.65 x 1.5
<b>Design:</b>	Measuring connection with 24° sealing head (DKO)
<b>Series:</b>	light and heavy
<b>Standard:</b>	ISO 8434-1
<b>Included in scope of supply:</b>	with cap
<b>Temp. min.:</b>	-25 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	G1	Max. working pressure bar	OR
HFM KL 06-12	L	6	M 12 x 1.5	315	4.0 x 1.5
HFM KL 08-12	L	8	M 14 x 1.5	315	6.0 x 1.5
HFM KL 10-12	L	10	M 16 x 1.5	315	7.5 x 1.5
HFM KL 12-12	L	12	M 18 x 1.5	315	9.0 x 1.5
HFM KL 15-12	L	15	M 22 x 1.5	315	12.0 x 2.0
HFM KL 18-12	L	18	M 26 x 1.5	315	15.0 x 2.0
HFM KL 22-12	L	22	M 30 x 2	160	16.3 x 2.4
HFM KL 35-12	L	35	M 45 x 2	160	32.0 x 2.5
HFM KS 06-12	S	6	M 14 x 1.5	630	6.0 x 1.5
HFM KS 08-12	S	8	M 16 x 1.5	630	7.5 x 1.5
HFM KS 10-12	S	10	M 18 x 1.5	630	9.0 x 1.5
HFM KS 12-12	S	12	M 20 x 1.5	630	9.0 x 1.5
HFM KS 14-12	S	14	M 22 x 1.5	630	12.0 x 2.0
HFM KS 16-12	S	16	M 24 x 1.5	400	12.0 x 2.0
HFM KS 20-12	S	20	M 30 x 2	400	16.3 x 2.4
HFM KS 30-12	S	30	M 42 x 2	400	25.3 x 2.4
HFM KS 38-12	S	38	M 52 x 2	315	38.0 x 2.5

Series: LL = Very light L = Light S = Heavy

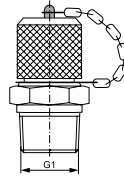
**Spare parts:**  
HFM VK - Cap



**HFM MKN 12****Measuring connection, S12.65 x 1.5 series**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** Measuring connection S 12.65 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -25 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

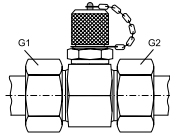


Identification	G1	Max. working pressure bar
HFM MKN 1/8-12	1/8" -27 NPT	400
HFM MKN 1/4-12	1/4" -18 NPT	630

**Spare parts:**  
HFM VK - Cap

## HFM T HL 12 / HFM T HS 12

### Measuring connection, S12.65 x 1.5 series



- Connection 1 + 2:** metric cylindrical outer thread  
**Sealing form 1 + 2:** 24° inner cone  
**Connection 3:** Measuring connection S 12.65 x 1.5  
**Construction:** T shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** with cap  
**Temp. min.:** -25 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	G1 + G2	Max. working pressure bar
HFM T HL 04-12	L	6	M 12 x 1.5	315
HFM T HL 06-12	L	8	M 14 x 1.5	315
HFM T HL 08-12	L	10	M 16 x 1.5	315
HFM T HL 10-12	L	12	M 18 x 1.5	315
HFM T HL 13-12	L	15	M 22 x 1.5	315
HFM T HL 16-12	L	18	M 26 x 1.5	315
HFM T HL 20-12	L	22	M 30 x 2	160
HFM T HL 25-12	L	28	M 36 x 2	160
HFM T HL 32-12	L	35	M 45 x 2	160
HFM T HL 40-12	L	42	M 52 x 2	160
HFM T HS 03-12	S	6	M 14 x 1.5	630
HFM T HS 04-12	S	8	M 16 x 1.5	630
HFM T HS 06-12	S	10	M 18 x 1.5	630
HFM T HS 08-12	S	12	M 20 x 1.5	630
HFM T HS 10-12	S	14	M 22 x 1.5	630
HFM T HS 13-12	S	16	M 24 x 1.5	400
HFM T HS 16-12	S	20	M 30 x 2	400
HFM T HS 20-12	S	25	M 36 x 2	400
HFM T HS 25-12	S	30	M 42 x 2	400
HFM T HS 32-12	S	38	M 52 x 2	315

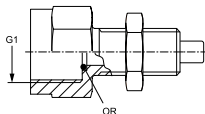
Series: LL = Very light L = Light S = Heavy

**Spare parts:**  
**HFM VK - Cap**

**HFM MMA 16**
**Measuring connection, M16 x 1.5 series**

**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** O-ring seal  
**Connection 2:** Measuring connection M 16 x 1.5  
**Design:** Screw-on socket with measuring connector

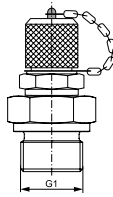
**Supplementary design information:** for bulkhead mounting  
**Included in scope of supply:** with lock nut and O-ring  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	Max. working pressure bar	OR
HFM MMA 1/4-16	G 1/4" -19	630	5.0 x 1.5
HFM MMA 1/2-16	G 1/2" -14	630	9.0 x 1.8

## HFM MKR 16

### Measuring connection, M16 x 1.5 series



**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape B  
**Connection 2:** Measuring connection M 16 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

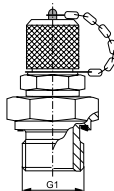
Identification	G1	Max. working pressure bar
HFM MKR 1/4-16	G 1/4" -19	630
HFM MKR 3/8-16	G 3/8" -19	630
HFM MKR 1/2-16	G 1/2" -14	630

**Spare parts:**  
HFM VK - Cap

**HFM MKR 16 ED**
**Measuring connection, M16 x 1.5 series**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** Measuring connection M 16 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

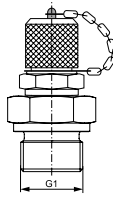


Identification	G1	Max. working pressure bar
HFM MKR 1/4-16 ED	G 1/4" -19	630
HFM MKR 3/8-16 ED	G 3/8" -19	630
HFM MKR 1/2-16 ED	G 1/2" -14	630

**Spare parts:**  
 HFM VK - Cap

## HFM MK 16

### Measuring connection, M16 x 1.5 series



**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Connection 2:** Measuring connection M 16 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

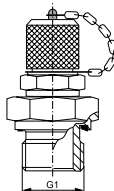
Identification	G1	Max. working pressure bar
HFM MK 12-1.5-16	M 12 x 1.5	630
HFM MK 14-1.5-16	M 14 x 1.5	630
HFM MK 16-1.5-16	M 16 x 1.5	630
HFM MK 18-1.5-16	M 18 x 1.5	400
HFM MK 20-1.5-16	M 20 x 1.5	400

**Spare parts:**  
**HFM VK - Cap**

**HFM MK 16 ED**
**Measuring connection, M16 x 1.5 series**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** Measuring connection M 16 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -25 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

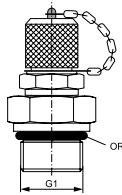


Identification	G1	Max. working pressure bar
HFM MK 12-1.5-16 ED	M 12 x 1.5	630
HFM MK 18-1.5-16 ED	M 18 x 1.5	630
HFM MK 20-1.5-16 ED	M 20 x 1.5	630

**Spare parts:**  
 HFM VK - Cap

## HFM MK 16 OR

### Measuring connection, M16 x 1.5 series



**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** Measuring connection M 16 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	Max. working pressure bar	OR
HFM MK 10-1-16 OR	M 10 x 1	630	8.0 x 1.5

**Product versions:**

HFM MK 16 OR VA - Measuring connection, M16 x 1.5 series, Stainless steel

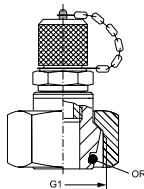
**Spare parts:**

HFM VK - Cap



**HFM KL 16 / HFM KS 16**
**Measuring connection, M16 x 1.5 series**

<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	Measuring connection M 16 x 1.5
<b>Design:</b>	Measuring connection with 24° sealing head (DKO)
<b>Series:</b>	light and heavy
<b>Standard:</b>	ISO 8434-1
<b>Included in scope of supply:</b>	with cap
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	G1	Max. working pressure bar	OR
HFM KL 06-16	L	6	M 12 x 1.5	315	4.0 x 1.5
HFM KL 08-16	L	8	M 14 x 1.5	315	6.0 x 1.5
HFM KL 10-16	L	10	M 16 x 1.5	315	7.5 x 1.5
HFM KL 12-16	L	12	M 18 x 1.5	315	9.0 x 1.5
HFM KL 15-16	L	15	M 22 x 1.5	315	12.0 x 2.0
HFM KL 18-16	L	18	M 26 x 1.5	315	15.0 x 2.0
HFM KL 22-16	L	22	M 30 x 2	160	16.3 x 2.4
HFM KL 28-16	L	28	M 36 x 2	160	26.0 x 2.0
HFM KL 35-16	L	35	M 45 x 2	160	32.0 x 2.5
HFM KL 42-16	L	42	M 52 x 2	160	38.0 x 2.5
HFM KS 06-16	S	6	M 14 x 1.5	630	6.0 x 1.5
HFM KS 08-16	S	8	M 16 x 1.5	630	7.5 x 1.5
HFM KS 10-16	S	10	M 18 x 1.5	630	9.0 x 1.5
HFM KS 12-16	S	12	M 20 x 1.5	630	9.0 x 1.5
HFM KS 14-16	S	14	M 22 x 1.5	630	12.0 x 2.0
HFM KS 16-16	S	16	M 24 x 1.5	630	12.0 x 2.0
HFM KS 20-16	S	20	M 30 x 2	400	16.3 x 2.4
HFM KS 25-16	S	25	M 36 x 2	400	26.0 x 2.0
HFM KS 30-16	S	30	M 42 x 2	400	25.3 x 2.4
HFM KS 38-16	S	38	M 52 x 2	315	38.0 x 2.5

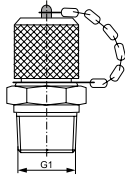
Series: LL = Very light L = Light S = Heavy

**Spare parts:**

HFM VK - Cap

## HFM MKN 16

### Measuring connection, M16 x 1.5 series



**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** Measuring connection M 16 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

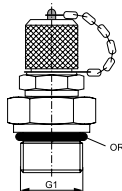
Identification	G1	Max. working pressure bar
HFM MKN 1/4-16	1/4" -18 NPT	630

**Spare parts:**  
HFM VK - Cap

**HFM MKU-16****Measuring connection, M16 x 1.5 series**

**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** Measuring connection M 16 x 1.5  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

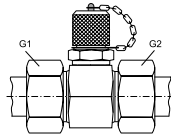


Identification	G1	Max. working pressure bar	OR
HFM MKU 9/16-16	9/16"-18 UNF	630	11.90 x 1.98

**Spare parts:**  
HFM VK - Cap

## HFM T HL 16 / HFM T HS 16

### Measuring connection, M16 x 1.5 series



**Connection 1 + 2:** metric cylindrical outer thread  
**Sealing form 1 + 2:** 24° inner cone  
**Connection 3:** Measuring connection M 16 x 1.5  
**Construction:** T shaped  
**Standard:** DIN 2353, ISO 8434-1  
**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	G1 + G2	Max. working pressure bar
HFM T HL 04-16	L	6	M 12 x 1.5	315
HFM T HL 06-16	L	8	M 14 x 1.5	315
HFM T HL 08-16	L	10	M 16 x 1.5	315
HFM T HL 10-16	L	12	M 18 x 1.5	315
HFM T HL 13-16	L	15	M 22 x 1.5	315
HFM T HL 16-16	L	18	M 26 x 1.5	315
HFM T HL 20-16	L	22	M 30 x 2	160
HFM T HL 25-16	L	28	M 36 x 2	160
HFM T HL 32-16	L	35	M 45 x 2	160
HFM T HL 40-16	L	42	M 52 x 2	160
HFM T HS 03-16	S	6	M 14 x 1.5	630
HFM T HS 04-16	S	8	M 16 x 1.5	630
HFM T HS 06-16	S	10	M 18 x 1.5	630
HFM T HS 08-16	S	12	M 20 x 1.5	630
HFM T HS 10-16	S	14	M 22 x 1.5	630
HFM T HS 13-16	S	16	M 24 x 1.5	400
HFM T HS 16-16	S	20	M 30 x 2	400
HFM T HS 20-16	S	25	M 36 x 2	400
HFM T HS 25-16	S	30	M 42 x 2	400
HFM T HS 32-16	S	38	M 52 x 2	315

Series: LL = Very light L = Light S = Heavy

**Spare parts:**  
**HFM VK - Cap**

**HFM MMA****Measuring connection, M16 x 2 series**

**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** O-ring seal  
**Connection 2:** Measuring connection M 16 x 2  
**Design:** Screw-on socket with measuring connector

**Supplementary design information:** for bulkhead mounting

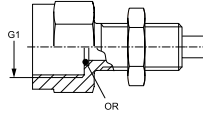
**Included in scope of supply:** with lock nut and O-ring

**Temp. min.:** -20 °C

**Temp. max.:** 100 °C

**Material:** Steel

**Surface:** electro galvanised



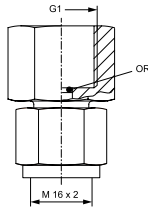
Identification	G1	Max. working pressure bar	OR
HFM MMA 1/4	G 1/4" -19	630	5.0 x 1.5
HFM MMA 1/2	G 1/2" -14	630	9.0 x 1.8

**Product versions:**

**HFM MMA VA** - Pressure gauge connection, Stainless steel

## HFM MMD

### Measuring connection, M16 x 2 series



**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** O-ring seal  
**Connection 2:** Metric nut thread M 16 x 2  
**Design:** Direct pressure gauge connection  
**Included in scope of supply:** with O-ring  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	Max. working pressure bar	OR
HFM MMD 1/4	G 1/4" -19	630	5.0 x 1.5
HFM MMD 1/2	G 1/2" -14	630	9.0 x 1.8

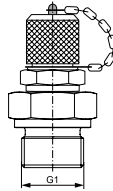
**Product versions:**

HFM MMD VA - Measuring connection, M16 x 2 series, Stainless steel

**HFM MKR****Measuring connection, M16 x 2 series**

**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape B  
**Connection 2:** Measuring connection M 16 x 2  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -25 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

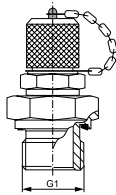


Identification	G1	Max. working pressure bar
HFM MKR 1/8	G 1/8" -28	400
HFM MKR 1/4	G 1/4" -19	630
HFM MKR 3/8	G 3/8" -19	630
HFM MKR 1/2	G 1/2" -14	630
HFM MKR 3/4	G 3/4" -14	400
HFM MKR 1	G 1" -11	400
HFM MKR 1 1/4	G 1.1/4" -11	250
HFM MKR 1 1/2	G 1.1/2" -11	250

**Spare parts:**  
**HFM VK - Cap**

## HFM MKR ED

### Measuring connection, M16 x 2 series



**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** Shape E  
**Connection 2:** Measuring connection M 16 x 2  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	Max. working pressure bar
HFM MKR 1/8 ED	G 1/8" -28	400
HFM MKR 1/4 ED	G 1/4" -19	630
HFM MKR 3/8 ED	G 3/8" -19	630
HFM MKR 1/2 ED	G 1/2" -14	630

**Product versions:**

HFM MKR ED VA - Measuring connection, M16 x 2 series, Stainless steel

**Spare parts:**

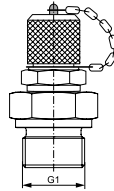
HFM VK - Cap



**HFM MK****Measuring connection, M16 x 2 series**

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Connection 2:** Measuring connection M 16 x 2  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

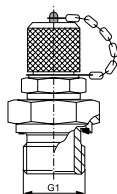


Identification	G1	Max. working pressure bar
HFM MK 08-1	M 8 x 1	400
HFM MK 10-1	M 10 x 1	630
HFM MK 12-1.5	M 12 x 1.5	630
HFM MK 14-1.5	M 14 x 1.5	630
HFM MK 16-1.5	M 16 x 1.5	630
HFM MK 18-1.5	M 18 x 1.5	400
HFM MK 20-1.5	M 20 x 1.5	400
HFM MK 22-1.5	M 22 x 1.5	400
HFM MK 26-1.5	M 26 x 1.5	400
HFM MK 27-2	M 27 x 2	400
HFM MK 33-2	M 33 x 2	400
HFM MK 42-2	M 42 x 2	250
HFM MK 48-2	M 48 x 2	250

**Spare parts:**  
**HFM VK - Cap**

## HFM MK ED

### Measuring connection, M16 x 2 series



**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape E  
**Connection 2:** Measuring connection M 16 x 2  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	Max. working pressure bar
HFM MK 10-1 ED	M 10 x 1	400
HFM MK 12-1.5 ED	M 12 x 1.5	630
HFM MK 14-1.5 ED	M 14 x 1.5	630
HFM MK 16-1.5 ED	M 16 x 1.5	630
HFM MK 18-1.5 ED	M 18 x 1.5	630
HFM MK 20-1.5 ED	M 20 x 1.5	630
HFM MK 22-1.5 ED	M 22 x 1.5	630
HFM MK 27-2 ED	M 27 x 2	630

**Product versions:**

HFM MK ED VA - Measuring connection, M16 x 2 series, Stainless steel

**Spare parts:**

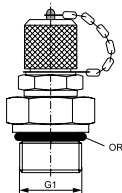
HFM VK - Cap

## HFM MK OR VA

### Measuring connection, M16 x 2 series

**Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** Measuring connection M 16 x 2  
**Design:** Screw-in socket with measurement connection

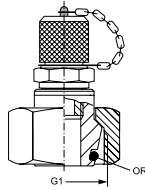
**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Stainless steel



Identification	G1	Max. working pressure bar	OR
HFM MK 08-1 OR VA	M 8 x 1	630	6.1 x 1.6
HFM MK 10-1 OR VA	M 10 x 1	630	8.0 x 1.5

## HFM KL / HFM KS

### Measuring connection, M16 x 2 series



<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	Measuring connection M 16 x 2
<b>Design:</b>	Measuring connection with 24° sealing head (DKO)
<b>Standard:</b>	ISO 8434-1
<b>Series:</b>	light and heavy
<b>Included in scope of supply:</b>	with cap
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	G1	Max. working pressure bar	OR
HFM KL 06	L	6	M 12 x 1.5	315	4.0 x 1.5
HFM KL 08	L	8	M 14 x 1.5	315	6.0 x 1.5
HFM KL 10	L	10	M 16 x 1.5	315	7.5 x 1.5
HFM KL 12	L	12	M 18 x 1.5	315	9.0 x 1.5
HFM KL 15	L	15	M 22 x 1.5	315	12.0 x 2.0
HFM KL 18	L	18	M 26 x 1.5	315	15.0 x 2.0
HFM KL 22	L	22	M 30 x 2	160	16.3 x 2.4
HFM KL 28	L	28	M 36 x 2	160	26.0 x 2.0
HFM KL 35	L	35	M 45 x 2	160	32.0 x 2.5
HFM KL 42	L	42	M 52 x 2	160	38.0 x 2.5
HFM KS 06	S	6	M 14 x 1.5	630	6.0 x 1.5
HFM KS 08	S	8	M 16 x 1.5	630	7.5 x 1.5
HFM KS 10	S	10	M 18 x 1.5	630	9.0 x 1.5
HFM KS 12	S	12	M 20 x 1.5	630	9.0 x 1.5
HFM KS 14	S	14	M 22 x 1.5	630	12.0 x 2.0
HFM KS 16	S	16	M 24 x 1.5	400	12.0 x 2.0
HFM KS 20	S	20	M 30 x 2	400	16.3 x 2.4
HFM KS 25	S	25	M 36 x 2	400	26.0 x 2.0
HFM KS 30	S	30	M 42 x 2	400	25.3 x 2.4
HFM KS 38	S	38	M 52 x 2	315	38.0 x 2.5

Series: LL = Very light L = Light S = Heavy

#### Product versions:

HFM KL VA / HFM KS VA - Measuring connection, M16 x 2 series, Stainless steel

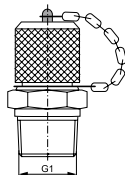
#### Spare parts:

HFM VK - Cap

**HFM MKN****Measuring connection, M16 x 2 series**

**Connection 1:** NPT external threads  
**Sealing form 1:** thread seal  
**Connection 2:** Measuring connection M 16 x 2  
**Design:** Screw-in socket with measurement connection

**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	Max. working pressure bar
HFM MKN 1/8	1/8" -27 NPT	400
HFM MKN 1/4	1/4" -18 NPT	630
HFM MKN 3/8	3/8" -18 NPT	400

**Product versions:**

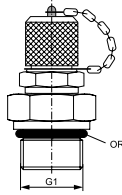
**HFM MKN VA** - Measuring connection, M16 x 2 series, Stainless steel

**Spare parts:**

**HFM VK** - Cap

## HFM MKU

### Measuring connection, M16 x 2 series



**Connection 1:** UN/UNF external threads  
**Sealing form 1:** O-ring seal on screw-in socket  
**Connection 2:** Measuring connection M 16 x 2  
**Design:** Screw-in socket with measurement connection

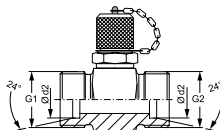
**Included in scope of supply:** with cap  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	Max. working pressure bar	OR
HFM MKU 7/16	7/16"-20 UNF	630	8.92 x 1.83
HFM MKU 9/16	9/16"-18 UNF	630	11.90 x 1.98

**Spare parts:**  
**HFM VK** - Cap

**XHFM T HL / XHFM T HS****Measuring connection, M16 x 2 series**

<b>Connection 1 + 2:</b>	metric cylindrical outer thread
<b>Sealing form 1 + 2:</b>	24° inner cone
<b>Connection 3:</b>	Measuring connection M 16 x 2
<b>Construction:</b>	T shaped
<b>Standard:</b>	DIN 2353, ISO 8434-1
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Ø d2 mm	G1 + G2	Max. working pressure bar
XHFM T HL 04	L	6	M 12 x 1.5	315
XHFM T HL 06	L	8	M 14 x 1.5	315
XHFM T HL 08	L	10	M 16 x 1.5	315
XHFM T HL 10	L	12	M 18 x 1.5	315
XHFM T HL 13	L	15	M 22 x 1.5	315
XHFM T HL 16	L	18	M 26 x 1.5	315
XHFM T HL 20	L	22	M 30 x 2	160
XHFM T HL 25	L	28	M 36 x 2	160
XHFM T HL 32	L	35	M 45 x 2	160
XHFM T HL 40	L	42	M 52 x 2	160
XHFM T HS 03	S	6	M 14 x 1.5	630
XHFM T HS 04	S	8	M 16 x 1.5	630
XHFM T HS 06	S	10	M 18 x 1.5	630
XHFM T HS 08	S	12	M 20 x 1.5	630
XHFM T HS 10	S	14	M 22 x 1.5	630
XHFM T HS 13	S	16	M 24 x 1.5	400
XHFM T HS 16	S	20	M 30 x 2	400
XHFM T HS 20	S	25	M 36 x 2	400
XHFM T HS 25	S	30	M 42 x 2	400
XHFM T HS 32	S	38	M 52 x 2	315

Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

**Product versions:**

XHFM T HL VA / XHFM T HS VA - Measuring connection, M16 x 2 series, Stainless steel

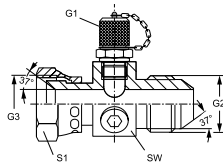
HFM T HL / HFM T HS - Measuring connection, M16 x 2 series, Steel

**Spare parts:**

HFM VK - Cap

## HFM T AJ HJ

### Measuring connection, M16 x 2 series



<b>Connection 1:</b>	Measuring connection M 16 x 2
<b>Connection 2:</b>	UN/UNF nut threads
<b>Sealing form 2:</b>	74° inner cone
<b>Connection 3:</b>	UN/UNF external threads
<b>Sealing form 3:</b>	74° outer cone
<b>Design:</b>	Adapter for test connection
<b>Construction:</b>	T shaped
<b>Included in scope of supply:</b>	with cap
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

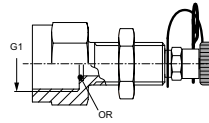
Identification	G1	G2 + G3	Max. working pressure bar	SW mm	S1
HFM T AJ 05 HJ	M 16 x 2	1/2"-20 UNF	420	36	17
HFM T AJ 06 HJ	M 16 x 2	9/16"-18 UNF	350	36	19
HFM T AJ 08 HJ	M 16 x 2	3/4"-16 UNF	350	36	22
HFM T AJ 10 HJ	M 16 x 2	7/8"-14 UNF	350	36	27
HFM T AJ 12 HJ	M 16 x 2	1.1/16" -12 UN	350	41	32
HFM T AJ 16 HJ	M 16 x 2	1.5/16" -12 UN	250	46	38

**Spare parts:**  
HFM VK - Cap



**HFM MMA S****Pressure gauge connection**

<b>Connection 1:</b>	BSP cylindrical internal threads
<b>Sealing form 1:</b>	O-ring seal
<b>Connection 2:</b>	Plug connection for measuring technology
<b>Design:</b>	Screw-on socket with measuring connector
<b>Supplementary design information:</b>	for bulkhead mounting
<b>Included in scope of supply:</b>	with lock nut and O-ring
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1	Max. working pressure bar	OR
HFM MMA 1/4 S	G 1/4" -19	400	5.0 x 1.5
HFM MMA 1/2 S	G 1/2" -14	400	9.0 x 1.8

**Product versions:**

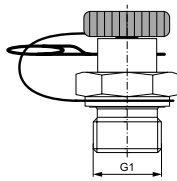
HFM MMA S VA - Pressure gauge connection, Stainless steel

**Spare parts:**

HFM ST - Locking connector for plug-in coupling DN 2

## HFM MKR S

### Measuring connection, plug-in series



- Connection 1:** BSP external thread, cylindrical Shape B  
**Sealing form 1:** Shape B  
**Connection 2:** Plug connection for measuring technology  
**Design:** Screw-in socket with measurement connection  
**Included in scope of supply:** with locking connector and retaining pin  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

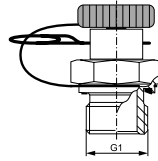
Identification	G1	Max. working pressure bar
HFM MKR 1/8 S	G 1/8" -28	400
HFM MKR 1/4 S	G 1/4" -19	400
HFM MKR 3/8 S	G 3/8" -19	400
HFM MKR 1/2 S	G 1/2" -14	400
HFM MKR 3/4 S	G 3/4" -14	400
HFM MKR 1 S	G 1" -11	400
HFM MKR 1 1/4 S	G 1.1/4" -11	400
HFM MKR 1 1/2 S	G 1.1/2" -11	400

**Spare parts:**

**HFM ST** - Locking connector for plug-in coupling DN 2

**HFM MKR S ED****Measuring connection, plug-in series**

<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	Shape E
<b>Connection 2:</b>	Plug connection for measuring technology
<b>Design:</b>	Screw-in socket with measurement connection
<b>Included in scope of supply:</b>	with locking connector and retaining pin
<b>Temp. min.:</b>	-25 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



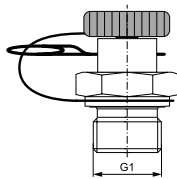
Identification	G1	Max. working pressure bar
HFM MKR 3/8 S ED	G 3/8" -19	400

**Spare parts:**

HFM ST - Locking connector for plug-in coupling DN 2

## HFM MK S

### Measuring connection, plug-in series



- Connection 1:** metric cylindrical outer thread  
**Sealing form 1:** Shape B  
**Connection 2:** Plug connection for measuring technology  
**Design:** Screw-in socket with measurement connection  
**Included in scope of supply:** with locking connector and retaining pin  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised

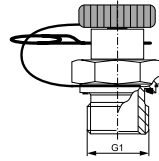
Identification	G1	Max. working pressure bar
HFM MK 08-1 S	M 8 x 1	400
HFM MK 10-1 S	M 10 x 1	400
HFM MK 12-1.5 S	M 12 x 1.5	400
HFM MK 14-1.5 S	M 14 x 1.5	400
HFM MK 18-1.5 S	M 18 x 1.5	400
HFM MK 20-1.5 S	M 20 x 1.5	400
HFM MK 22-1.5 S	M 22 x 1.5	400
HFM MK 26-1.5 S	M 26 x 1.5	400
HFM MK 27-2 S	M 27 x 2	400
HFM MK 33-2 S	M 33 x 2	400
HFM MK 42-2 S	M 42 x 2	250
HFM MK 48-2 S	M 48 x 2	250

#### Spare parts:

HFM ST - Locking connector for plug-in coupling DN 2

**HFM MK S ED****Measuring connection, plug-in series**

<b>Connection 1:</b>	metric cylindrical outer thread
<b>Sealing form 1:</b>	Shape E
<b>Connection 2:</b>	Plug connection for measuring technology
<b>Design:</b>	Screw-in socket with measurement connection
<b>Included in scope of supply:</b>	with locking connector and retaining pin
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



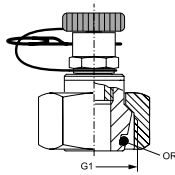
Identification	G1	Max. working pressure bar
HFM MK 12-1.5 S ED	M 12 x 1.5	400
HFM MK 14-1.5 S ED	M 14 x 1.5	400
HFM MK 16-1.5 S ED	M 16 x 1.5	400
HFM MK 18-1.5 S ED	M 18 x 1.5	400

**Spare parts:**

HFM ST - Locking connector for plug-in coupling DN 2

## HFM KL S / HFM KS S

### Measuring connection, plug-in series



<b>Connection 1:</b>	metric nut thread
<b>Sealing form 1:</b>	24° outer cone with O-ring
<b>Connection 2:</b>	Plug connection for measuring technology
<b>Design:</b>	Measuring connection with 24° sealing head (DKO)
<b>Standard:</b>	DIN 3865
<b>Series:</b>	light and heavy
<b>Included in scope of supply:</b>	with locking connector and retaining pin
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	External pipe Ø mm	G1	Max. working pressure bar	OR
HFM KL 06 S	L	6	M 12 x 1.5	315	4.0 x 1.5
HFM KL 08 S	L	8	M 14 x 1.5	315	6.0 x 1.5
HFM KL 10 S	L	10	M 16 x 1.5	315	7.5 x 1.5
HFM KL 12 S	L	12	M 18 x 1.5	315	9.0 x 1.5
HFM KL 15 S	L	15	M 22 x 1.5	315	12.0 x 2.0
HFM KL 18 S	L	18	M 26 x 1.5	315	15.0 x 2.0
HFM KL 22 S	L	22	M 30 x 2	160	20.0 x 2.0
HFM KL 28 S	L	28	M 36 x 2	160	26.0 x 2.0
HFM KL 35 S	L	35	M 45 x 2	160	32.0 x 2.5
HFM KL 42 S	L	42	M 52 x 2	160	38.0 x 2.5
HFM KS 06 S	S	6	M 14 x 1.5	400	6.0 x 1.5
HFM KS 08 S	S	8	M 16 x 1.5	400	7.5 x 1.5
HFM KS 10 S	S	10	M 18 x 1.5	400	9.0 x 1.5
HFM KS 12 S	S	12	M 20 x 1.5	400	9.0 x 1.5
HFM KS 14 S	S	14	M 22 x 1.5	400	12.0 x 2.0
HFM KS 16 S	S	16	M 24 x 1.5	400	12.0 x 2.0
HFM KS 20 S	S	20	M 30 x 2	400	20.0 x 2.0
HFM KS 25 S	S	25	M 36 x 2	400	26.0 x 2.0
HFM KS 30 S	S	30	M 42 x 2	400	25.3 x 2.4
HFM KS 38 S	S	38	M 52 x 2	315	38.0 x 2.5

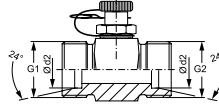
Series: LL = Very light L = Light S = Heavy

#### Spare parts:

**HFM ST** - Locking connector for plug-in coupling DN 2

**XHFM T HL S / XHFM T HS S**
**Measuring connection, plug-in series**

<b>Connection 1 + 2:</b>	metric cylindrical outer thread
<b>Sealing form 1 + 2:</b>	24° inner cone
<b>Connection 3:</b>	Plug connection for measuring technology
<b>Construction:</b>	T shaped
<b>Standard:</b>	DIN 2353, ISO 8434-1
<b>Included in scope of supply:</b>	Socket (without union nut and cutting ring)
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Ø d2 mm	G1 + G2	Max. working pressure bar
XHFM T HL 04 S	L	6	M 12 x 1.5	315
XHFM T HL 06 S	L	8	M 14 x 1.5	315
XHFM T HL 08 S	L	10	M 16 x 1.5	315
XHFM T HL 10 S	L	12	M 18 x 1.5	315
XHFM T HL 13 S	L	15	M 22 x 1.5	315
XHFM T HL 16 S	L	18	M 26 x 1.5	315
XHFM T HL 20 S	L	22	M 30 x 2	160
XHFM T HS 03 S	S	6	M 14 x 1.5	400
XHFM T HS 04 S	S	8	M 16 x 1.5	400
XHFM T HS 06 S	S	10	M 18 x 1.5	400
XHFM T HS 08 S	S	12	M 20 x 1.5	400
XHFM T HS 10 S	S	14	M 22 x 1.5	400
XHFM T HS 13 S	S	16	M 24 x 1.5	400
XHFM T HS 16 S	S	20	M 30 x 2	400

Series: LL = Very light L = Light S = Heavy Ø d2 = External pipe diameter

**Product versions:**

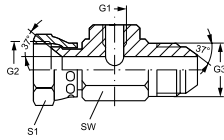
**HFM T HL S / HFM T HS S** - Measuring connection, plug-in series, with locking connector and retaining pin, Steel

**Spare parts:**

**HFM ST** - Locking connector for plug-in coupling DN 2

## T IR AJ HJ

### Adapter for test connection



**Connection 1:** BSP cylindrical internal threads  
**Connection 2:** UN/UNF nut threads  
**Sealing form 2:** 74° inner cone  
**Connection 3:** UN/UNF external threads  
**Sealing form 3:** 74° outer cone  
**Design:** Adapter for test connection  
**Construction:** T shaped  
**Material:** Steel  
**Surface:** electro galvanised

Identification	G1	G2 + G3	Max. working pressure bar	SW mm	S1
T 04 IR AJ 05 HJ	G 1/4" -19	1/2"-20 UNF	420	36	17
T 04 IR AJ 08 HJ	G 1/4" -19	3/4"-16 UNF	350	36	22
T 04 IR AJ 10 HJ	G 1/4" -19	7/8"-14 UNF	350	36	27
T 04 IR AJ 12 HJ	G 1/4" -19	1.1/16"-12 UN	350	41	32
T 04 IR AJ 16 HJ	G 1/4" -19	1.5/16"-12 UN	250	46	38
T 04 IR AJ 20 HJ	G 1/4" -19	1.5/8"-12 UN	250	50	50
T 04 IR AJ 24 HJ	G 1/4" -19	1.7/8"-12 UN	170	60	60



**HFM VK****Cap**

<b>suitable for:</b>	Measuring technology screw couplings
<b>Temp. min.:</b>	-20 °C
<b>Temp. max.:</b>	100 °C
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



Identification	G1	Max. working pressure bar
HFM VK 12	S 12.65 x 1.5	630
HFM VK 16	M 16 x 1.5	630
HFM VK	M 16 x 2	630

**Spare part for following products:**

**HFM KL 12 / HFM KS 12** - Measuring connection, S12.65 x 1.5 series  
**HFM KL 16 / HFM KS 16** - Measuring connection, M16 x 1.5 series  
**HFM KL / HFM KS** - Measuring connection, M16 x 2 series  
**HFM MKN** - Measuring connection, M16 x 2 series  
**HFM MKN 12** - Measuring connection, S12.65 x 1.5 series  
**HFM MKN 16** - Measuring connection, M16 x 1.5 series  
**HFM T HL 16 / HFM T HS 16** - Measuring connection, M16 x 1.5 series  
**HFM T HL 12 / HFM T HS 12** - Measuring connection, S12.65 x 1.5 series  
**HFM T AJ HJ** - Measuring connection, M16 x 2 series  
**HFM MK** - Measuring connection, M16 x 2 series  
**HFM MK ED** - Measuring connection, M16 x 2 series  
**HFM MK 16** - Measuring connection, M16 x 1.5 series  
**XHFM T HL / XHFM T HS** - Measuring connection, M16 x 2 series  
**HFM MK 16 ED** - Measuring connection, M16 x 1.5 series  
**HFM MK 12 ED** - Measuring connection, S12.65 x 1.5 series  
**HFM MK 12** - Measuring connection, S12.65 x 1.5 series  
**HFM MKRK 12** - Measuring connection, S12.65 x 1.5 series  
**HFM MK 16 OR** - Measuring connection, M16 x 1.5 series  
**HFM MKU-16** - Measuring connection, M16 x 1.5 series  
**HFM MKU** - Measuring connection, M16 x 2 series  
**HFM MKR ED** - Measuring connection, M16 x 2 series  
**HFM MKR 16 ED** - Measuring connection, M16 x 1.5 series  
**HFM MKR 16** - Measuring connection, M16 x 1.5 series  
**HFM MKR** - Measuring connection, M16 x 2 series  
**HFM MKR 12 ED** - Measuring connection, S12.65 x 1.5 series  
**HFM MKR 12** - Measuring connection, S12.65 x 1.5 series

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**HFM ST****Locking connector for plug-in coupling DN 2**

**suitable for:** Measuring technology plug-in couplings  
**Included in scope**  
**of supply:** with retaining pin  
**Material:** Plastic / steel

Identification	DN*
HFM ST	2
DN = Nominal diameter, nominal width	

**Spare part for following products:**

**HFM KL S / HFM KS S** - Measuring connection, plug-in series  
**HFM MKR S** - Measuring connection, plug-in series  
**XHFM T HL S / XHFM T HS S** - Measuring connection, plug-in series  
**HFM MKR S ED** - Measuring connection, plug-in series  
**HFM MK S** - Measuring connection, plug-in series  
**HFM MK S ED** - Measuring connection, plug-in series  
**HFM MMA S** - Pressure gauge connection

**HFM VB M****Connectors**

**Connection 1 + 2:** Measuring connection M 16 x 2  
**Design:** Connector for measuring hose lines  
**Temp. min.:** -20 °C  
**Temp. max.:** 100 °C  
**Material:** Steel  
**Surface:** electro galvanised



Identification	G1	G2	Max. working pressure bar
HFM VB M16	M 16 x 2	M 16 x 2	630

## HFM M BOX

### Measuring case with screw connections



**Material:**

Plastic

**Description:**

Fully equipped measuring case with range of measuring connections (M 16 x 2 and M 16 x 2 and plug-in).

**Note:** Specify desired pressure range for pressure gauges when ordering.

**Identification**

HFM M BOX 1

HFM M BOX 2

**Additional info:** HFM M BOX 1 - consisting of: 1 x pressure gauge Ø 63 according to choice, 1 x HFM SKE 2000, 1 x RIK NW 10 M 10-1, 1 x RIK NW 13 M 10-1, 1 x HFM D 08, 1 x HFM D 10, 1 x HFM MMA 1/4, 1 x HFM MMD 1/4, 1 x HFM MKO 10-1, 1 x HFM MKR 1/4, 2 blowers for pressure gauges HFM M BOX 2 - consisting of: 2 x pressure gauge Ø 63 according to choice, 1 HFM SKE 1500, 1 x HFM MMA 1/4, 1 x HFM MK 10-1, 1 x HFM MKR 1/4 ED, 1 x HFM MMD 1/4, 1 x HFM ADA 1500, 1 x HFM KL 08, 1 x HFM KL 10, 1 x HFM KL 12, 1 x HFM KS 10, 1 x adapter 1/2" male thread x 1/4" female thread, 1 x adapter 3/8" male thread x 1/4" female thread, 1 x adapter M 16 x 1.5" male thread x M 16 x 2 female thread, 3 blowers for pressure gauges.

**HFM M BOX S****Measuring case with plug in connections**

<b>Material:</b>	Plastic
<b>Description:</b>	Fully equipped measuring case with range of measuring connections (plug in or plug in and M 16 x 2).



**Note:** Specify desired pressure range for pressure gauges when ordering.

**Identification**

HFM M BOX 1 S

HFM M BOX 2 S

**Additional info:** HFM M BOX 1 S - consisting of: 1 x pressure gauge  $\varnothing$  63 according to choice, 1 x HFM MK 2000 S, 1 x HFM MMA 1/4 S, 1 x HFM MMD 1/4 S, 1 x HFM MKR 1/4 S, 1 x HFM MK 10-1 S, 1 x RIK NW 10 M 10-1, 1 x RIK NW 13 M 10-1, 1 x HFM D 08, 1 x HFM D 10, 2 blowers for pressure gauges HFM M BOX 2 S - consisting of: 2 x pressure gauge  $\varnothing$  63 according to choice, 1 x HFM MK 1000 S, 1 x HFM MK 10-1 S., 1 x HFM MKR 1/4 ED, 1 x HFM MMA 1/4 S, 1 x HFM ADA 1000, 1 x HFM KL 08 S, 1 x HFM KL 10 S, 1 x HFM KL 12 S, 1 x HFM KS 10 S, 1 x adapter 1/2" male thread x 1/4" female thread, 1 x adapter 3/8" male thread x 1/4" female thread, 1 x adapter M16 x 1.5 male thread plug on, 3 blowers for pressure gauges.

## HFM BOX

### Measuring case with pressure gauge bracket



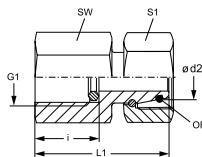
**Material:** Plastic

**Note:** The pressure gauges should be ordered separately.

Identification	G1 - G4
HFM BOX 63-4	M 16 x 2
<b>Additional info:</b> HFM BOX - consisting of: 4 x HFM MMA 1/4", 1 x HFM VB M 16, 1 x magnetic disc for 4 pressure gauges, 4 x HFM SKE 2000.	

## Pressure gauge connection fitting

**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric nut thread  
**Sealing form 2:** 24° outer cone with O-ring  
**Design:** Pressure gauge connection fitting  
**Included in scope of supply:** with edge sealing ring  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Ø d2 mm	Working pressure bar	G1	i mm	L1 mm	SW mm	S1	OR
MVO NW 04 L	L	6	PN 315	G 1/4" -19	14,5	36,5	19	14	4.0 x 1.5
MVO NW 06 L	L	8	PN 315	G 1/4" -19	14,5	36,5	19	17	6.0 x 1.5
MVO NW 08 L	L	10	PN 315	G 1/4" -19	14,5	36,0	19	19	7.5 x 1.5
MVO NW 10 L	L	12	PN 315	G 1/4" -19	14,5	37,5	19	22	9.0 x 1.5
MVO NW 03 S 1/4	S	6	PN 630	G 1/4" -19	14,5	35,5	19	17	4.0 x 1.5
MVO NW 03 S	S	6	PN 630	G 1/2" -14	20,0	43,5	27	17	4.0 x 1.5
MVO NW 04 S 1/4	S	8	PN 630	G 1/4" -19	14,5	35,5	19	19	6.0 x 1.5
MVO NW 04 S	S	8	PN 630	G 1/2" -14	20,0	43,0	27	19	6.0 x 1.5
MVO NW 06 S 1/4	S	10	PN 630	G 1/4" -19	14,5	36,0	19	22	7.5 x 1.5
MVO NW 06 S	S	10	PN 630	G 1/2" -14	20,0	45,0	27	22	7.5 x 1.5
MVO NW 08 S 1/4	S	12	PN 630	G 1/4" -19	14,5	39,0	19	24	9.0 x 1.5
MVO NW 08 S	S	12	PN 630	G 1/2" -14	20,0	44,5	27	24	9.0 x 1.5

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø d2 = External pipe diameter

**Product versions:**

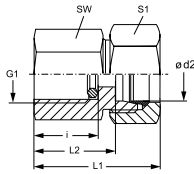
**MVO VA** - Pressure gauge connection fitting, Stainless steel

**Spare parts:**

**DKI** - Edge sealing ring for internal thread

## MVR MG

### Pressure gauge connection fitting



**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Pressure gauge connection fitting  
**Included in scope of supply:** with edge sealing ring  
**Material:** Brass

Identification	Series	Ø d2 mm	Working pressure bar	G1	i mm	L1 mm	L2 mm	SW mm	S1
MVR NW 04 HL MG	L	6	PN 315	G 1/4" -19	14,5	37	22,0	19	14
MVR NW 06 HL MG	L	8	PN 315	G 1/4" -19	14,5	37	22,0	19	17
MVR NW 08 HL MG	L	10	PN 315	G 1/4" -19	14,5	38	23,0	19	19
MVR NW 10 HL MG	L	12	PN 315	G 1/4" -19	14,5	38	23,0	19	22
MVR NW 03 HS MG	S	6	PN 630	G 1/2" -14	20,0	46	31,0	27	17
MVR NW 04 HS MG	S	8	PN 630	G 1/2" -14	20,0	46	31,0	27	19
MVR NW 06 HS MG	S	10	PN 630	G 1/2" -14	20,0	47	30,5	27	22
MVR NW 08 HS MG	S	12	PN 630	G 1/2" -14	20,0	47	30,5	27	24

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

#### Product versions:

**MVR** - Pressure gauge connection fitting, Steel

**MVR VA** - Pressure gauge connection fitting, Stainless steel

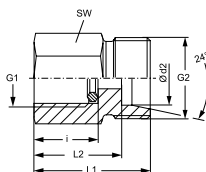
#### Spare parts:

**DKI** - Edge sealing ring for internal thread



## Pressure gauge connection fitting

**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Pressure gauge connection fitting  
**Included in scope of supply:** with edge sealing ring (socket without union nut and cutting ring)  
**Material:** Steel  
**Surface:** electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Ø d2 mm	Working pressure bar	G1	G2	i mm	L1 mm	L2 mm	SW mm
XMVR 04 LL	LL	4	PN 100	G 1/4" -19	M 8 x 1	14,5	27	23,0	19
XMVR NW 04 HL	L	6	PN 315	G 1/4" -19	M 12 x 1.5	14,5	29	22,0	19
XMVR NW 06 HL	L	8	PN 315	G 1/4" -19	M 14 x 1.5	14,5	29	22,0	19
XMVR NW 08 HL	L	10	PN 315	G 1/4" -19	M 16 x 1.5	14,5	30	23,0	19
XMVR NW 10 HL	L	12	PN 315	G 1/4" -19	M 18 x 1.5	14,5	30	23,0	19
XMVR NW 03 HS	S	6	PN 630	G 1/2" -14	M 14 x 1.5	20,0	38	31,0	27
XMVR NW 04 HS	S	8	PN 630	G 1/2" -14	M 16 x 1.5	20,0	38	31,0	27
XMVR NW 06 HS	S	10	PN 630	G 1/2" -14	M 18 x 1.5	20,0	38	30,5	27
XMVR NW 08 HS	S	12	PN 630	G 1/2" -14	M 20 x 1.5	20,0	38	30,5	27

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**Product versions:**

**XMVR VA** - Pressure gauge connection fitting, Stainless steel

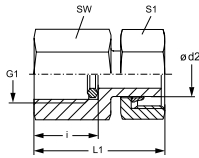
**MVR** - Pressure gauge connection fitting, Steel

**Spare parts:**

**DKI** - Edge sealing ring for internal thread

## MVE MG

### Pressure gauge connection fitting



**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric nut thread  
**Sealing form 2:** Pipe socket with cutting ring  
**Design:** Pressure gauge connection fitting  
**Included in scope of supply:** with edge sealing ring  
**Material:** Brass

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Ø d2 mm	Working pressure bar	G1	i mm	L1 mm	SW mm	S1
MVE NW 04 L MG	L	6	PN 400	G 1/4" -19	14,5	38,0	19	14
MVE NW 08 L MG	L	10	PN 400	G 1/4" -19	14,5	39,5	19	19
MVE NW 10 L MG	L	12	PN 400	G 1/4" -19	14,5	40,5	19	22

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

#### Product versions:

MVE - Pressure gauge connection fitting, Steel

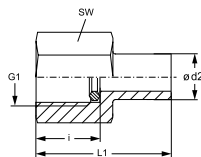
MVE VA - Pressure gauge connection fitting, Stainless steel

#### Spare parts:

DKI - Edge sealing ring for internal thread

## Pressure gauge connection fitting

<b>Connection 1:</b>	BSP cylindrical internal threads
<b>Sealing form 1:</b>	Edge sealing ring
<b>Connection 2:</b>	Pipe socket not pre-assembled
<b>Sealing form 2:</b>	Pipe socket with cutting ring
<b>Design:</b>	Pressure gauge connection fitting
<b>Included in scope of supply:</b>	with edge sealing ring (socket without union nut and cutting ring)
<b>Material:</b>	Steel
<b>Surface:</b>	electro galvanised



**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Ø d2 mm	Working pressure bar	G1	i mm	L1 mm	SW mm
XMVE NW 04 L	L	6	PN 400	G 1/4" -19	14,5	38,0	19
XMVE NW 06 L	L	8	PN 400	G 1/4" -19	14,5	38,0	19
XMVE NW 08 L	L	10	PN 400	G 1/4" -19	14,5	39,5	19
XMVE NW 10 L	L	12	PN 400	G 1/4" -19	14,5	40,5	19
XMVE NW 03 S	S	6	PN 630	G 1/2" -14	20,0	45,0	27
XMVE NW 04 S	S	8	PN 630	G 1/2" -14	20,0	45,0	27
XMVE NW 06 S	S	10	PN 630	G 1/2" -14	20,0	47,0	27
XMVE NW 08 S	S	12	PN 630	G 1/2" -14	20,0	47,5	27

Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

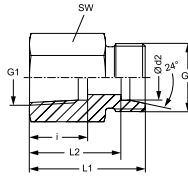
**Product versions:**

**XMVE VA** - Pressure gauge connection fitting, Stainless steel

**MVE** - Pressure gauge connection fitting, Steel

**Spare parts:**

**DKI** - Edge sealing ring for internal thread

**XMVN VA****Pressure gauge connection fitting**

**Connection 1:** NPT internal thread  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** metric cylindrical outer thread  
**Sealing form 2:** 24° inner cone  
**Design:** Pressure gauge connection fitting  
**Included in scope of supply:** with edge sealing ring (socket without union nut and cutting ring)  
**Material:** Stainless steel

**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Ø d2 mm	Working pressure bar	G1	G2	i mm	L1 mm	L2 mm	SW mm
XMVN NW 04 HL VA	L	6	PN 315	1/4" -18 NPT	M 12 x 1.5	16,4	30,5	23,5	19
XMVN NW 04 HL 1/2 VA	L	6	PN 315	1/2" -14 NPT	M 12 x 1.5	22,5	38,0	31,0	27
XMVN NW 06 HL VA	L	8	PN 315	1/4" -18 NPT	M 14 x 1.5	16,4	30,5	23,5	19
XMVN NW 06 HL 1/2 VA	L	8	PN 315	1/2" -14 NPT	M 14 x 1.5	22,6	38,0	31,0	27
XMVN NW 08 HL VA	L	10	PN 315	1/4" -18 NPT	M 16 x 1.5	16,4	31,0	24,0	19
XMVN NW 08 HL 1/2 VA	L	10	PN 315	1/2" -14 NPT	M 16 x 1.5	22,6	39,0	32,0	27
XMVN NW 10 HL VA	L	12	PN 315	1/4" -18 NPT	M 18 x 1.5	16,4	31,0	24,0	19
XMVN NW 10 HL 1/2 VA	L	12	PN 315	1/2" -14 NPT	M 18 x 1.5	22,6	39,0	32,0	27
XMVN NW 03 HS VA	S	6	PN 630	1/2" -14 NPT	M 14 x 1.5	22,6	40,0	33,0	27
XMVN NW 04 HS VA	S	8	PN 630	1/2" -14 NPT	M 16 x 1.5	22,6	40,0	33,0	27
XMVN NW 06 HS VA	S	10	PN 630	1/2" -14 NPT	M 18 x 1.5	22,6	40,0	32,5	27
XMVN NW 08 HS VA	S	12	PN 630	1/2" -14 NPT	M 20 x 1.5	22,6	40,0	32,5	27

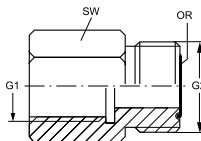
Series: LL = Very light L = Light S = Heavy PN = Nominal pressure PB = Max. operating pressure Ø = External pipe diameter

**Product versions:**

**MVN VA** - Pressure gauge connection fitting, with edge sealing ring, Stainless steel

**MVR HJOF**
**Pressure gauge connection sockets**

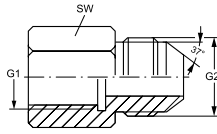
**Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** Sealed by copper ring  
**Connection 2:** ORFS external threads  
**Sealing form 2:** flat seal with O-ring  
**Design:** Pressure gauge connection sockets  
**Included in scope of supply:** with copper ring  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Max. working pressure bar	G1	G2	SW mm	OR
MVR 04 HJOF	400	G 1/4" -19	9/16"-18 UNF	17	7.65 x 1.78
MVR 04 HJOF 06	400	G 1/4" -19	11/16" -16 UN	19	9.25 x 1.78
MVR 04 HJOF 08	280	G 1/4" -19	13/16" -16 UN	22	12.42 x 1.78

## MVR HJ

### Pressure gauge connection sockets



- Connection 1:** BSP cylindrical internal threads  
**Sealing form 1:** Edge sealing ring  
**Connection 2:** UN/UNF external threads  
**Sealing form 2:** 74° outer cone  
**Design:** Pressure gauge connection sockets  
**Included in scope of supply:** with edge sealing ring  
**Material:** Steel  
**Surface:** electro galvanised

Identification	Max. working pressure bar	G1	G2	SW mm
MVR 04 HJ	350	G 1/4" -19	7/16"-20 UNF	17
MVR 04 HJ 05	350	G 1/4" -19	1/2"-20 UNF	27
MVR 04 HJ 06	350	G 1/4" -19	9/16"-18 UNF	17
MVR 04 HJ 08	400	G 1/4" -19	3/4"-16 UNF	19
MVR 08 HJ 04	315	G 1/2" -14	7/16"-20 UNF	27
MVR 08 HJ 05	315	G 1/2" -14	1/2"-20 UNF	27
MVR 08 HJ 06	315	G 1/2" -14	9/16"-18 UNF	27
MVR 08 HJ	315	G 1/2" -14	3/4"-16 UNF	27
MVR 08 HJ 10	200	G 1/2" -14	7/8"-14 UNF	29
MVR 08 HJ 12	200	G 1/2" -14	1.1/16" -12 UN	35

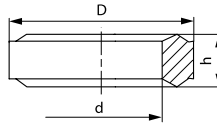
#### Spare parts:

DKI - Edge sealing ring for internal thread

DKI

## Edge sealing ring for internal thread

**Design:** Edge sealing ring  
**Standard:** DIN 2353, ISO 8434-1  
**Material:** Steel  
**Surface:** electro galvanised



Identification	for thread	D mm	d mm	h mm
DKI 1/4	G 1/4"	11,0	6,0	4,5
DKI 1/2	G 1/2"	18,3	12,5	5,0

**Product versions:**

DKI VA - Edge sealing ring for internal thread, Stainless steel

**Spare part for following products:**

MVE MG - Pressure gauge connection fitting  
MVR MG - Pressure gauge connection fitting  
XMVR - Pressure gauge connection fitting  
MVR HJ - Pressure gauge connection sockets  
XMVE - Pressure gauge connection fitting  
MVO - Pressure gauge connection fitting

## RMM 40

### Pressure gauges without glycerine filling



<b>Design:</b>	Pipe spring pressure gauge without glycerine filling
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	at bottom
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 40-1-1/8	40	0...1	2,5	G 1/8" -28
RMM 40-1.6-1/8	40	0...1,6	2,5	G 1/8" -28
RMM 40-2.5-1/8	40	0...2,5	2,5	G 1/8" -28
RMM 40-4-1/8	40	0...4	2,5	G 1/8" -28
RMM 40-6-1/8	40	0...6	2,5	G 1/8" -28
RMM 40-10-1/8	40	0...10	2,5	G 1/8" -28
RMM 40-16-1/8	40	0...16	2,5	G 1/8" -28
RMM 40-25-1/8	40	0...25	2,5	G 1/8" -28
RMM 40-40-1/8	40	0...40	2,5	G 1/8" -28
RMM 40-60-1/8	40	0...60	2,5	G 1/8" -28
RMM 40-100-1/8	40	0...100	2,5	G 1/8" -28
RMM 40-160-1/8	40	0...160	2,5	G 1/8" -28
RMM 40-250-1/8	40	0...250	2,5	G 1/8" -28
RMM 40-315-1/8	40	0...315	2,5	G 1/8" -28
RMM 40-400-1/8	40	0...400	2,5	G 1/8" -28
RMM 40-1	40	0...1	2,5	G 1/4" -19
RMM 40-1.6	40	0...1,6	2,5	G 1/4" -19
RMM 40-2.5	40	0...2,5	2,5	G 1/4" -19
RMM 40-4	40	0...4	2,5	G 1/4" -19
RMM 40-6	40	0...6	2,5	G 1/4" -19
RMM 40-10	40	0...10	2,5	G 1/4" -19
RMM 40-16	40	0...16	2,5	G 1/4" -19
RMM 40-25	40	0...25	2,5	G 1/4" -19
RMM 40-40	40	0...40	2,5	G 1/4" -19
RMM 40-60	40	0...60	2,5	G 1/4" -19
RMM 40-100	40	0...100	2,5	G 1/4" -19
RMM 40-160	40	0...160	2,5	G 1/4" -19
RMM 40-250	40	0...250	2,5	G 1/4" -19
RMM 40-315	40	0...315	2,5	G 1/4" -19
RMM 40-400	40	0...400	2,5	G 1/4" -19



**RMM 40 H****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 40-1-1/8 H	40	0...1	2,5	G 1/8" -28
RMM 40-1.6-1/8 H	40	0...1,6	2,5	G 1/8" -28
RMM 40-2.5-1/8 H	40	0...2,5	2,5	G 1/8" -28
RMM 40-4-1/8 H	40	0...4	2,5	G 1/8" -28
RMM 40-6-1/8 H	40	0...6	2,5	G 1/8" -28
RMM 40-10-1/8 H	40	0...10	2,5	G 1/8" -28
RMM 40-16-1/8 H	40	0...16	2,5	G 1/8" -28
RMM 40-25-1/8 H	40	0...25	2,5	G 1/8" -28
RMM 40-40-1/8 H	40	0...40	2,5	G 1/8" -28
RMM 40-60-1/8 H	40	0...60	2,5	G 1/8" -28
RMM 40-100-1/8 H	40	0...100	2,5	G 1/8" -28
RMM 40-160-1/8 H	40	0...160	2,5	G 1/8" -28
RMM 40-250-1/8 H	40	0...250	2,5	G 1/8" -28
RMM 40-315-1/8 H	40	0...315	2,5	G 1/8" -28
RMM 40-400-1/8 H	40	0...400	2,5	G 1/8" -28
RMM 40-1 H	40	0...1	2,5	G 1/4" -19
RMM 40-1.6 H	40	0...1,6	2,5	G 1/4" -19
RMM 40-2.5 H	40	0...2,5	2,5	G 1/4" -19
RMM 40-4 H	40	0...4	2,5	G 1/4" -19
RMM 40-6 H	40	0...6	2,5	G 1/4" -19
RMM 40-10 H	40	0...10	2,5	G 1/4" -19
RMM 40-16 H	40	0...16	2,5	G 1/4" -19
RMM 40-25 H	40	0...25	2,5	G 1/4" -19
RMM 40-40 H	40	0...40	2,5	G 1/4" -19
RMM 40-60 H	40	0...60	2,5	G 1/4" -19
RMM 40-100 H	40	0...100	2,5	G 1/4" -19
RMM 40-160 H	40	0...160	2,5	G 1/4" -19
RMM 40-250 H	40	0...250	2,5	G 1/4" -19
RMM 40-315 H	40	0...315	2,5	G 1/4" -19
RMM 40-400 H	40	0...400	2,5	G 1/4" -19

**RVM 40****Vacuum pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling.  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal without pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 40 -1 +0-1/8	40	-1...0	2,5	G 1/8" -28
RVM 40 -1 +0.6-1/8	40	-1...+0,6	2,5	G 1/8" -28
RVM 40 -1 +1.5-1/8	40	-1...+1,5	2,5	G 1/8" -28
RVM 40 -1 +3-1/8	40	-1...+3	2,5	G 1/8" -28
RVM 40 -1 +5-1/8	40	-1...+5	2,5	G 1/8" -28
RVM 40 -1 +9-1/8	40	-1...+9	2,5	G 1/8" -28
RVM 40 -1 +15-1/8	40	-1...+15	2,5	G 1/8" -28
RVM 40 -1 +0	40	-1...0	2,5	G 1/4" -19
RVM 40 -1 +0.6	40	-1...+0,6	2,5	G 1/4" -19
RVM 40 -1 +1.5	40	-1...+1,5	2,5	G 1/4" -19
RVM 40 -1 +3	40	-1...+3	2,5	G 1/4" -19
RVM 40 -1 +5	40	-1...+5	2,5	G 1/4" -19
RVM 40 -1 +9	40	-1...+9	2,5	G 1/4" -19
RVM 40 -1 +15	40	-1...+15	2,5	G 1/4" -19

**RVM 40 H****Vacuum pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling.  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal without pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 40 -1 +0H 1/8	40	-1...0	2,5	G 1/8" -28
RVM 40 -1 +0.6 H 1/8	40	-1...+0,6	2,5	G 1/8" -28
RVM 40 -1 +1.5 H 1/8	40	-1...+1,5	2,5	G 1/8" -28
RVM 40 -1 +3 H 1/8	40	-1...+3	2,5	G 1/8" -28
RVM 40 -1 +5 H 1/8	40	-1...+5	2,5	G 1/8" -28
RVM 40 -1 +9 H 1/8	40	-1...+9	2,5	G 1/8" -28
RVM 40 -1 +15 H 1/8	40	-1...+15	2,5	G 1/8" -28
RVM 40 -1 +0H	40	-1...0	2,5	G 1/4" -19
RVM 40 -1 +0.6 H	40	-1...+0,6	2,5	G 1/4" -19
RVM 40 -1 +1.5 H	40	-1...+1,5	2,5	G 1/4" -19
RVM 40 -1 +3 H	40	-1...+3	2,5	G 1/4" -19
RVM 40 -1 +5 H	40	-1...+5	2,5	G 1/4" -19
RVM 40 -1 +9 H	40	-1...+9	2,5	G 1/4" -19
RVM 40 -1 +15 H	40	-1...+15	2,5	G 1/4" -19

**GMM 50****Pressure gauges with glycerine filling**

- Design:**  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Damping:** due to glycerine filling  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 50-1	50	0...1	2,5	G 1/4" -19
GMM 50-1.6	50	0...1,6	2,5	G 1/4" -19
GMM 50-2.5	50	0...2,5	2,5	G 1/4" -19
GMM 50-4	50	0...4	2,5	G 1/4" -19
GMM 50-6	50	0...6	2,5	G 1/4" -19
GMM 50-10	50	0...10	2,5	G 1/4" -19
GMM 50-16	50	0...16	2,5	G 1/4" -19
GMM 50-25	50	0...25	2,5	G 1/4" -19
GMM 50-40	50	0...40	2,5	G 1/4" -19
GMM 50-60	50	0...60	2,5	G 1/4" -19
GMM 50-100	50	0...100	2,5	G 1/4" -19
GMM 50-160	50	0...160	2,5	G 1/4" -19
GMM 50-250	50	0...250	2,5	G 1/4" -19
GMM 50-400	50	0...400	2,5	G 1/4" -19

**GMM 50 H****Pressure gauges with glycerine filling**

**Design:**  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Damping:** due to glycerine filling  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 50-1 H	50	0...1	2,5	G 1/4" -19
GMM 50-1.6 H	50	0...1,6	2,5	G 1/4" -19
GMM 50-2.5 H	50	0...2,5	2,5	G 1/4" -19
GMM 50-4 H	50	0...4	2,5	G 1/4" -19
GMM 50-6 H	50	0...6	2,5	G 1/4" -19
GMM 50-10 H	50	0...10	2,5	G 1/4" -19
GMM 50-16 H	50	0...16	2,5	G 1/4" -19
GMM 50-25 H	50	0...25	2,5	G 1/4" -19
GMM 50-40 H	50	0...40	2,5	G 1/4" -19
GMM 50-60 H	50	0...60	2,5	G 1/4" -19
GMM 50-100 H	50	0...100	2,5	G 1/4" -19
GMM 50-160 H	50	0...160	2,5	G 1/4" -19
GMM 50-250 H	50	0...250	2,5	G 1/4" -19
GMM 50-400 H	50	0...400	2,5	G 1/4" -19

**RMM 50****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 50-0.6	50	0...0,6	2,5	G 1/4" -19
RMM 50-1	50	0...1	2,5	G 1/4" -19
RMM 50-1.6	50	0...1,6	2,5	G 1/4" -19
RMM 50-2.5	50	0...2,5	2,5	G 1/4" -19
RMM 50-4	50	0...4	2,5	G 1/4" -19
RMM 50-6	50	0...6	2,5	G 1/4" -19
RMM 50-10	50	0...10	2,5	G 1/4" -19
RMM 50-16	50	0...16	2,5	G 1/4" -19
RMM 50-25	50	0...25	2,5	G 1/4" -19
RMM 50-40	50	0...40	2,5	G 1/4" -19
RMM 50-60	50	0...60	2,5	G 1/4" -19
RMM 50-100	50	0...100	2,5	G 1/4" -19
RMM 50-160	50	0...160	2,5	G 1/4" -19
RMM 50-250	50	0...250	2,5	G 1/4" -19
RMM 50-315	50	0...315	2,5	G 1/4" -19
RMM 50-400	50	0...400	2,5	G 1/4" -19

**RMM 50 H****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 50-0.6 H	50	0...0,6	2,5	G 1/4" -19
RMM 50-1 H	50	0...1	2,5	G 1/4" -19
RMM 50-1.6 H	50	0...1,6	2,5	G 1/4" -19
RMM 50-2.5 H	50	0...2,5	2,5	G 1/4" -19
RMM 50-4 H	50	0...4	2,5	G 1/4" -19
RMM 50-6 H	50	0...6	2,5	G 1/4" -19
RMM 50-10 H	50	0...10	2,5	G 1/4" -19
RMM 50-16 H	50	0...16	2,5	G 1/4" -19
RMM 50-25 H	50	0...25	2,5	G 1/4" -19
RMM 50-40 H	50	0...40	2,5	G 1/4" -19
RMM 50-60 H	50	0...60	2,5	G 1/4" -19
RMM 50-100 H	50	0...100	2,5	G 1/4" -19
RMM 50-160 H	50	0...160	2,5	G 1/4" -19
RMM 50-250 H	50	0...250	2,5	G 1/4" -19
RMM 50-315 H	50	0...315	2,5	G 1/4" -19
RMM 50-400 H	50	0...400	2,5	G 1/4" -19

**GVM 50****Vacuum pressure gauges with glycerine filling**

- Design:**  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Damping:** due to glycerine filling  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 50 -1+0	50	-1...0	2,5	G 1/4" -19
GVM 50 -1+0,6	50	-1...+0,6	2,5	G 1/4" -19
GVM 50 -1+1,5	50	-1...+1,5	2,5	G 1/4" -19
GVM 50 -1+3	50	-1...+3	2,5	G 1/4" -19
GVM 50 -1+5	50	-1...+5	2,5	G 1/4" -19
GVM 50 -1+9	50	-1...+9	2,5	G 1/4" -19
GVM 50 -1+15	50	-1...+15	2,5	G 1/4" -19



**GVM 50 H****Vacuum pressure gauges with glycerine filling**

<b>Design:</b>	
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin on back, centric
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 50 -1+0 H	50	-1...0	2,5	G 1/4" -19
GVM 50 -1+0.6 H	50	-1...+0,6	2,5	G 1/4" -19
GVM 50 -1+1.5 H	50	-1...+1,5	2,5	G 1/4" -19
GVM 50 -1+3 H	50	-1...+3	2,5	G 1/4" -19
GVM 50 -1+5 H	50	-1...+5	2,5	G 1/4" -19
GVM 50 -1+9 H	50	-1...+9	2,5	G 1/4" -19
GVM 50 -1+15 H	50	-1...+15	2,5	G 1/4" -19

**RVM 50****Vacuum pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling.
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	at bottom
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 50 -1 +0	50	-1...0	2,5	G 1/4" -19
RVM 50 -1 +0.6	50	-1...+0,6	2,5	G 1/4" -19
RVM 50 -1 +1.5	50	-1...+1,5	2,5	G 1/4" -19
RVM 50 -1 +3	50	-1...+3	2,5	G 1/4" -19
RVM 50 -1 +5	50	-1...+5	2,5	G 1/4" -19
RVM 50 -1 +9	50	-1...+9	2,5	G 1/4" -19
RVM 50 -1 +15	50	-1...+15	2,5	G 1/4" -19

**RVM 50 H****Vacuum pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling.  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal without pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 50 -1 +0 H	50	-1...0	2,5	G 1/4" -19
RVM 50 -1 +0,6 H	50	-1...+0,6	2,5	G 1/4" -19
RVM 50 -1 +1,5 H	50	-1...+1,5	2,5	G 1/4" -19
RVM 50 -1 +3 H	50	-1...+3	2,5	G 1/4" -19
RVM 50 -1 +5 H	50	-1...+5	2,5	G 1/4" -19
RVM 50 -1 +9 H	50	-1...+9	2,5	G 1/4" -19
RVM 50 -1 +15 H	50	-1...+15	2,5	G 1/4" -19

**GMM 63****Pressure gauges with glycerine filling**

<b>Design:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	at bottom
<b>Connection:</b>	EN 837-1
<b>Standard:</b>	due to glycerine filling
<b>Damping:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 63-1	63	0...1	1,6	G 1/4" -19
GMM 63-1.5	63	0...1,5	1,6	G 1/4" -19
GMM 63-2.5	63	0...2,5	1,6	G 1/4" -19
GMM 63-4	63	0...4	1,6	G 1/4" -19
GMM 63-06	63	0...6	1,6	G 1/4" -19
GMM 63-10	63	0...10	1,6	G 1/4" -19
GMM 63-16	63	0...16	1,6	G 1/4" -19
GMM 63-25	63	0...25	1,6	G 1/4" -19
GMM 63-40	63	0...40	1,6	G 1/4" -19
GMM 63-60	63	0...60	1,6	G 1/4" -19
GMM 63-100	63	0...100	1,6	G 1/4" -19
GMM 63-160	63	0...160	1,6	G 1/4" -19
GMM 63-250	63	0...250	1,6	G 1/4" -19
GMM 63-400	63	0...400	1,6	G 1/4" -19
GMM 63-600	63	0...600	1,6	G 1/4" -19
GMM 63-1000	63	0...1000	1,6	G 1/4" -19

**Accessories:**

**GMM SCHUTZ** - Rubber cap for pressure gauge

**GMM 63 H****Pressure gauges with glycerine filling**

**Design:**  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin on back, centric  
**Connection:**  
**Standard:** EN 837-1  
**Damping:** due to glycerine filling  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 63-1 H	63	0...1	1,6	G 1/4" -19
GMM 63-1.6 H	63	0...1,6	1,6	G 1/4" -19
GMM 63-2.5 H	63	0...2,5	1,6	G 1/4" -19
GMM 63-04 H	63	0...4	1,6	G 1/4" -19
GMM 63-06 H	63	0...6	1,6	G 1/4" -19
GMM 63-10 H	63	0...10	1,6	G 1/4" -19
GMM 63-16 H	63	0...16	1,6	G 1/4" -19
GMM 63-25 H	63	0...25	1,6	G 1/4" -19
GMM 63-40 H	63	0...40	1,6	G 1/4" -19
GMM 63-60 H	63	0...60	1,6	G 1/4" -19
GMM 63-100 H	63	0...100	1,6	G 1/4" -19
GMM 63-160 H	63	0...160	1,6	G 1/4" -19
GMM 63-250 H	63	0...250	1,6	G 1/4" -19
GMM 63-400 H	63	0...400	1,6	G 1/4" -19
GMM 63-600 H	63	0...600	1,6	G 1/4" -19

**RMM 63 H****Pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 63-0.6 H	63	0...0,6	2,5	G 1/4" -19
RMM 63-1 H	63	0...1	2,5	G 1/4" -19
RMM 63-1.6 H	63	0...1,6	2,5	G 1/4" -19
RMM 63-2.5 H	63	0...2,5	2,5	G 1/4" -19
RMM 63-4 H	63	0...4	2,5	G 1/4" -19
RMM 63-6 H	63	0...6	2,5	G 1/4" -19
RMM 63-10 H	63	0...10	2,5	G 1/4" -19
RMM 63-16 H	63	0...16	2,5	G 1/4" -19
RMM 63-25 H	63	0...25	2,5	G 1/4" -19
RMM 63-40 H	63	0...40	2,5	G 1/4" -19
RMM 63-60 H	63	0...60	2,5	G 1/4" -19
RMM 63-100 H	63	0...100	2,5	G 1/4" -19
RMM 63-160 H	63	0...160	2,5	G 1/4" -19
RMM 63-250 H	63	0...250	2,5	G 1/4" -19
RMM 63-315 H	63	0...315	2,5	G 1/4" -19
RMM 63-400 H	63	0...400	2,5	G 1/4" -19

**RMM 63****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 63-0.6	63	0...0,6	2,5	G 1/4" -19
RMM 63-1	63	0...1	2,5	G 1/4" -19
RMM 63-1.6	63	0...1,6	2,5	G 1/4" -19
RMM 63-2.5	63	0...2,5	2,5	G 1/4" -19
RMM 63-4	63	0...4	2,5	G 1/4" -19
RMM 63-06	63	0...6	2,5	G 1/4" -19
RMM 63-10	63	0...10	2,5	G 1/4" -19
RMM 63-16	63	0...16	2,5	G 1/4" -19
RMM 63-25	63	0...25	2,5	G 1/4" -19
RMM 63-40	63	0...40	2,5	G 1/4" -19
RMM 63-60	63	0...60	2,5	G 1/4" -19
RMM 63-100	63	0...100	2,5	G 1/4" -19
RMM 63-160	63	0...160	2,5	G 1/4" -19
RMM 63-250	63	0...250	2,5	G 1/4" -19
RMM 63-315	63	0...315	2,5	G 1/4" -19
RMM 63-400	63	0...400	2,5	G 1/4" -19

**RMM 63 KO**

## Pressure gauges without glycerine filling



<b>Design:</b>	Pipe spring pressure gauge without glycerine filling
<b>Connection 1:</b>	BSPT conical external threads
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	at bottom
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 63-4 KO	63	0...4	2,5	R 1/4" -19 K
RMM 63-6 KO	63	0...6	2,5	R 1/4" -19 K
RMM 63-10 KO	63	0...10	2,5	R 1/4" -19 K
RMM 63-16 KO	63	0...16	2,5	R 1/4" -19 K



**RMM 63 HKO****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSPT conical external threads  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 63-4 HKO	63	0...4	2,5	R 1/4" -19 K
RMM 63-6 HKO	63	0...6	2,5	R 1/4" -19 K
RMM 63-10 HKO	63	0...10	2,5	R 1/4" -19 K
RMM 63-16 HKO	63	0...16	2,5	R 1/4" -19 K

**GVM 63****Vacuum pressure gauges with glycerine filling****Design:****Connection 1:** BSP external thread, cylindrical**Sealing form 1:** flat seal with pin**Connection:** at bottom**Standard:** EN 837-1**Damping:** due to glycerine filling**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 63 -1+0	63	-1...0	1,6	G 1/4" -19
GVM 63 -1+0,6	63	-1...+0,6	1,6	G 1/4" -19
GVM 63 -1+1,5	63	-1...+1,5	1,6	G 1/4" -19
GVM 63 -1+3	63	-1...+3	1,6	G 1/4" -19
GVM 63 -1+5	63	-1...+5	1,6	G 1/4" -19
GVM 63 -1+9	63	-1...+9	1,6	G 1/4" -19
GVM 63 -1+15	63	-1...+15	1,6	G 1/4" -19

**Accessories:****GMM SCHUTZ** - Rubber cap for pressure gauge

**GVM 63 H****Vacuum pressure gauges with glycerine filling**

**Design:**  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Damping:** due to glycerine filling  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 63 -1+0 H	63	-1...0	1,6	G 1/4" -19
GVM 63 -1+0.6 H	63	-1...+0,6	1,6	G 1/4" -19
GVM 63 -1+1.5 H	63	-1...+1,5	1,6	G 1/4" -19
GVM 63 -1+3 H	63	-1...+3	1,6	G 1/4" -19
GVM 63 -1+5 H	63	-1...+5	1,6	G 1/4" -19
GVM 63 -1+9 H	63	-1...+9	1,6	G 1/4" -19
GVM 63 -1+15 H	63	-1...+15	1,6	G 1/4" -19

**RVM 63****Vacuum pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling.
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	at bottom
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 63 -1 +0	63	-1...0	2,5	G 1/4" -19
RVM 63 -1 +0,6	63	-1...+0,6	2,5	G 1/4" -19
RVM 63 -1 +1,5	63	-1...+1,5	2,5	G 1/4" -19
RVM 63 -1 +3	63	-1...+3	2,5	G 1/4" -19
RVM 63 -1 +5	63	-1...+5	2,5	G 1/4" -19
RVM 63 -1 +9	63	-1...+9	2,5	G 1/4" -19
RVM 63 -1 +15	63	-1...+15	2,5	G 1/4" -19

**RVM 63 H****Vacuum pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling.  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 63 -1 +0 H	63	-1...0	2,5	G 1/4" -19
RVM 63 -1 +0,6 H	63	-1...+0,6	2,5	G 1/4" -19
RVM 63 -1 +1,5 H	63	-1...+1,5	2,5	G 1/4" -19
RVM 63 -1 +3 H	63	-1...+3	2,5	G 1/4" -19
RVM 63 -1 +5 H	63	-1...+5	2,5	G 1/4" -19
RVM 63 -1 +9 H	63	-1...+9	2,5	G 1/4" -19
RVM 63 -1 +15 H	63	-1...+15	2,5	G 1/4" -19

**GMM 80****Pressure gauges with glycerine filling**

<b>Design:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	at bottom
<b>Connection:</b>	EN 837-1
<b>Standard:</b>	due to glycerine filling
<b>Damping:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 80-1	80	0...1	1,6	G 1/2" -14
GMM 80-1.6	80	0...1,6	1,6	G 1/2" -14
GMM 80-2.5	80	0...2,5	1,6	G 1/2" -14
GMM 80-4	80	0...4	1,6	G 1/2" -14
GMM 80-6	80	0...6	1,6	G 1/2" -14
GMM 80-10	80	0...10	1,6	G 1/2" -14
GMM 80-16	80	0...16	1,6	G 1/2" -14
GMM 80-25	80	0...25	1,6	G 1/2" -14
GMM 80-40	80	0...40	1,6	G 1/2" -14
GMM 80-60	80	0...60	1,6	G 1/2" -14
GMM 80-100	80	0...100	1,6	G 1/2" -14
GMM 80-160	80	0...160	1,6	G 1/2" -14
GMM 80-250	80	0...250	1,6	G 1/2" -14
GMM 80-400	80	0...400	1,6	G 1/2" -14
GMM 80-600	80	0...600	1,6	G 1/2" -14

**GMM 80 H****Pressure gauges with glycerine filling**

<b>Design:</b>	
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin on back, centric
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 80-1 H	80	0...1	1,6	G 1/4" -19
GMM 80-1.6 H	80	0...1,6	1,6	G 1/4" -19
GMM 80-2.5 H	80	0...2,5	1,6	G 1/4" -19
GMM 80-4 H	80	0...4	1,6	G 1/4" -19
GMM 80-6 H	80	0...6	1,6	G 1/4" -19
GMM 80-10 H	80	0...10	1,6	G 1/4" -19
GMM 80-16 H	80	0...16	1,6	G 1/4" -19
GMM 80-25 H	80	0...25	1,6	G 1/4" -19
GMM 80-40 H	80	0...40	1,6	G 1/4" -19
GMM 80-60 H	80	0...60	1,6	G 1/4" -19
GMM 80-100 H	80	0...100	1,6	G 1/4" -19
GMM 80-160 H	80	0...160	1,6	G 1/4" -19
GMM 80-250 H	80	0...250	1,6	G 1/4" -19
GMM 80-400 H	80	0...400	1,6	G 1/4" -19
GMM 80-600 H	80	0...600	1,6	G 1/4" -19

**RMM 80****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 80-0.6	80	0...0,6	1,6	G 1/2" -14
RMM 80-1	80	0...1	1,6	G 1/2" -14
RMM 80-1.6	80	0...1,6	1,6	G 1/2" -14
RMM 80-2.5	80	0...2,5	1,6	G 1/2" -14
RMM 80-4	80	0...4	1,6	G 1/2" -14
RMM 80-6	80	0...6	1,6	G 1/2" -14
RMM 80-10	80	0...10	1,6	G 1/2" -14
RMM 80-16	80	0...16	1,6	G 1/2" -14
RMM 80-25	80	0...25	1,6	G 1/2" -14
RMM 80-40	80	0...40	1,6	G 1/2" -14
RMM 80-60	80	0...60	1,6	G 1/2" -14
RMM 80-100	80	0...100	1,6	G 1/2" -14
RMM 80-160	80	0...160	1,6	G 1/2" -14
RMM 80-250	80	0...250	1,6	G 1/2" -14
RMM 80-315	80	0...315	1,6	G 1/2" -14
RMM 80-400	80	0...400	1,6	G 1/2" -14



**RMM 80 H 1/4****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 80-0.6 H 1/4	80	0...0,6	1,6	G 1/4" -19
RMM 80-1 H 1/4	80	0...1	1,6	G 1/4" -19
RMM 80-1.6 H 1/4	80	0...1,6	1,6	G 1/4" -19
RMM 80-2.5 H 1/4	80	0...2,5	1,6	G 1/4" -19
RMM 80-4 H 1/4	80	0...4	1,6	G 1/4" -19
RMM 80-6 H 1/4	80	0...6	1,6	G 1/4" -19
RMM 80-10 H 1/4	80	0...10	1,6	G 1/4" -19
RMM 80-16 H 1/4	80	0...16	1,6	G 1/4" -19
RMM 80-25 H 1/4	80	0...25	1,6	G 1/4" -19
RMM 80-40 H 1/4	80	0...40	1,6	G 1/4" -19
RMM 80-60 H 1/4	80	0...60	1,6	G 1/4" -19
RMM 80-160 H 1/4	80	0...160	1,6	G 1/4" -19
RMM 80-250 H 1/4	80	0...250	1,6	G 1/4" -19
RMM 80-315 H 1/4	80	0...315	1,6	G 1/4" -19
RMM 80-400 H 1/4	80	0...400	1,6	G 1/4" -19

**GVM 80****Vacuum pressure gauges with glycerine filling**

<b>Design:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	at bottom
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 80 -0.6+0	80	-0,6...0	1,6	G 1/2" -14
GVM 80 -1+0	80	-1...0	1,6	G 1/2" -14
GVM 80 -1+0.6	80	-1...+0,6	1,6	G 1/2" -14
GVM 80 -1+1.5	80	-1...+1,5	1,6	G 1/2" -14
GVM 80 -1+3	80	-1...+3	1,6	G 1/2" -14
GVM 80 -1+5	80	-1...+5	1,6	G 1/2" -14
GVM 80 -1+9	80	-1...+9	1,6	G 1/2" -14
GVM 80 -1+15	80	-1...+15	1,6	G 1/2" -14

**GVM 80 H****Vacuum pressure gauges with glycerine filling**

<b>Design:</b>	
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin on back, centric
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 80 -0.6+0 H	80	-0,6...0	1,6	G 1/4" -19
GVM 80 -1+0 H	80	-1...0	1,6	G 1/4" -19
GVM 80 -1+0.6 H	80	-1...+0,6	1,6	G 1/4" -19
GVM 80 -1+1.5 H	80	-1...+1,5	1,6	G 1/4" -19
GVM 80 -1+3 H	80	-1...+3	1,6	G 1/4" -19
GVM 80 -1+5 H	80	-1...+5	1,6	G 1/4" -19
GVM 80 -1+9 H	80	-1...+9	1,6	G 1/4" -19
GVM 80 -1+15 H	80	-1...+15	1,6	G 1/4" -19

**RVM 80****Vacuum pressure gauges without glycerine filling**

- Design:** Pipe spring pressure gauge without glycerine filling.  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 80 -1 +0	80	-1...0	1,6	G 1/2" -14
RVM 80 -1 +0.6	80	-1...+0,6	1,6	G 1/2" -14
RVM 80 -1 +1.5	80	-1...+1,5	1,6	G 1/2" -14
RVM 80 -1 +3	80	-1...+3	1,6	G 1/2" -14
RVM 80 -1 +5	80	-1...+5	1,6	G 1/2" -14
RVM 80 -1 +9	80	-1...+9	1,6	G 1/2" -14
RVM 80 -1 +15	80	-1...+15	1,6	G 1/2" -14

**RVM 80 H 1/4****Vacuum pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling.  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 80 -1 +0 H 1/4	80	-1...0	1,6	G 1/4" -19
RVM 80 -1 +0.6 H 1/4	80	-1...+0,6	1,6	G 1/4" -19
RVM 80 -1 +1.5 H 1/4	80	-1...+1,5	1,6	G 1/4" -19
RVM 80 -1 +3 H 1/4	80	-1...+3	1,6	G 1/4" -19
RVM 80 -1 +5 H 1/4	80	-1...+5	1,6	G 1/4" -19
RVM 80 -1 +9 H 1/4	80	-1...+9	1,6	G 1/4" -19
RVM 80 -1 +15 H 1/4	80	-1...+15	1,6	G 1/4" -19

**GMM 100**

## Pressure gauges with glycerine filling



<b>Design:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	at bottom
<b>Connection:</b>	EN 837-1
<b>Standard:</b>	due to glycerine filling
<b>Damping:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 100-0.6	100	0...0,6	1,0	G 1/2" -14
GMM 100-1	100	0...1	1,0	G 1/2" -14
GMM 100-1.6	100	0...1,6	1,0	G 1/2" -14
GMM 100-2.5	100	0...2,5	1,0	G 1/2" -14
GMM 100-4	100	0...4	1,0	G 1/2" -14
GMM 100-6	100	0...6	1,0	G 1/2" -14
GMM 100-10	100	0...10	1,0	G 1/2" -14
GMM 100-16	100	0...16	1,0	G 1/2" -14
GMM 100-25	100	0...25	1,0	G 1/2" -14
GMM 100-40	100	0...40	1,0	G 1/2" -14
GMM 100-60	100	0...60	1,0	G 1/2" -14
GMM 100-100	100	0...100	1,0	G 1/2" -14
GMM 100-160	100	0...160	1,0	G 1/2" -14
GMM 100-250	100	0...250	1,0	G 1/2" -14
GMM 100-400	100	0...400	1,0	G 1/2" -14
GMM 100-600	100	0...600	1,0	G 1/2" -14
GMM 100-1000	100	0...1000	1,0	G 1/2" -14

**Accessories:**

**GMM SCHUTZ** - Rubber cap for pressure gauge

**GMM 100 H****Pressure gauges with glycerine filling**

**Design:**  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin on back, eccentric  
**Connection:** on back, eccentric  
**Standard:** EN 837-1  
**Damping:** due to glycerine filling  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 100-0.6 H	100	0...0,6	1,0	G 1/2" -14
GMM 100-1 H	100	0...1	1,0	G 1/2" -14
GMM 100-1.6 H	100	0...1,6	1,0	G 1/2" -14
GMM 100-2.5 H	100	0...2,5	1,0	G 1/2" -14
GMM 100-04 H	100	0...4	1,0	G 1/2" -14
GMM 100-06 H	100	0...6	1,0	G 1/2" -14
GMM 100-10 H	100	0...10	1,0	G 1/2" -14
GMM 100-16 H	100	0...16	1,0	G 1/2" -14
GMM 100-25 H	100	0...25	1,0	G 1/2" -14
GMM 100-40 H	100	0...40	1,0	G 1/2" -14
GMM 100-60 H	100	0...60	1,0	G 1/2" -14
GMM 100-100 H	100	0...100	1,0	G 1/2" -14
GMM 100-160 H	100	0...160	1,0	G 1/2" -14
GMM 100-250 H	100	0...250	1,0	G 1/2" -14
GMM 100-400 H	100	0...400	1,0	G 1/2" -14
GMM 100-600 H	100	0...600	1,0	G 1/2" -14

**RMM 100****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 100-0.6	100	0...0,6	1,6	G 1/2" -14
RMM 100-1	100	0...1	1,6	G 1/2" -14
RMM 100-1.6	100	0...1,6	1,6	G 1/2" -14
RMM 100-2.5	100	0...2,5	1,6	G 1/2" -14
RMM 100-4	100	0...4	1,6	G 1/2" -14
RMM 100-6	100	0...6	1,6	G 1/2" -14
RMM 100-10	100	0...10	1,6	G 1/2" -14
RMM 100-16	100	0...16	1,6	G 1/2" -14
RMM 100-25	100	0...25	1,6	G 1/2" -14
RMM 100-40	100	0...40	1,6	G 1/2" -14
RMM 100-60	100	0...60	1,6	G 1/2" -14
RMM 100-100	100	0...100	1,6	G 1/2" -14
RMM 100-160	100	0...160	1,6	G 1/2" -14
RMM 100-250	100	0...250	1,6	G 1/2" -14
RMM 100-315	100	0...315	1,6	G 1/2" -14
RMM 100-400	100	0...400	1,6	G 1/2" -14



**RMM 100 H 1/4****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, eccentric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 100-0.6 H 1/4	100	0...0,6	1,6	G 1/4" -19
RMM 100-1 H 1/4	100	0...1	1,6	G 1/4" -19
RMM 100-1.6 H 1/4	100	0...1,6	1,6	G 1/4" -19
RMM 100-2.5 H 1/4	100	0...2,5	1,6	G 1/4" -19
RMM 100-4 H 1/4	100	0...4	1,6	G 1/4" -19
RMM 100-6 H 1/4	100	0...6	1,6	G 1/4" -19
RMM 100-10 H 1/4	100	0...10	1,6	G 1/4" -19
RMM 100-16 H 1/4	100	0...16	1,6	G 1/4" -19
RMM 100-25 H 1/4	100	0...25	1,6	G 1/4" -19
RMM 100-40 H 1/4	100	0...40	1,6	G 1/4" -19
RMM 100-60 H 1/4	100	0...60	1,6	G 1/4" -19
RMM 100-100 H 1/4	100	0...100	1,6	G 1/4" -19
RMM 100-160 H 1/4	100	0...160	1,6	G 1/4" -19
RMM 100-250 H 1/4	100	0...250	1,6	G 1/4" -19
RMM 100-315 H 1/4	100	0...315	1,6	G 1/4" -19
RMM 100-400 H 1/4	100	0...400	1,6	G 1/4" -19

**GVM 100****Vacuum pressure gauges with glycerine filling**

<b>Design:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	at bottom
<b>Connection:</b>	EN 837-1
<b>Standard:</b>	due to glycerine filling
<b>Damping:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 100 -0.6+0	100	-0,6...0	1,0	G 1/2" -14
GVM 100 -1+0	100	-1...0	1,0	G 1/2" -14
GVM 100 -1+0.6	100	-1...+0,6	1,0	G 1/2" -14
GVM 100 -1+1.5	100	-1...+1,5	1,0	G 1/2" -14
GVM 100 -1+3	100	-1...+3	1,0	G 1/2" -14
GVM 100 -1+5	100	-1...+5	1,0	G 1/2" -14
GVM 100 -1+9	100	-1...+9	1,0	G 1/2" -14
GVM 100 -1+15	100	-1...+15	1,0	G 1/2" -14

**Accessories:**

**GMM SCHUTZ** - Rubber cap for pressure gauge

**GVM 100 H****Vacuum pressure gauges with glycerine filling**

<b>Design:</b>	
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin on back, eccentric
<b>Connection:</b>	on back, eccentric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 100 -0.6+0 H	100	-0,6...0	1,0	G 1/2" -14
GVM 100 -1+0 H	100	-1...0	1,0	G 1/2" -14
GVM 100 -1+0.6 H	100	-1...+0,6	1,0	G 1/2" -14
GVM 100 -1+1.5 H	100	-1...+1,5	1,0	G 1/2" -14
GVM 100 -1+3 H	100	-1...+3	1,0	G 1/2" -14
GVM 100 -1+5 H	100	-1...+5	1,0	G 1/2" -14
GVM 100 -1+9 H	100	-1...+9	1,0	G 1/2" -14
GVM 100 -1+15 H	100	-1...+15	1,0	G 1/2" -14

**RVM 100****Vacuum pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling.  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 100 -1 +0	100	-1...0	1,6	G 1/2" -14
RVM 100 -1 +0.6	100	-1...+0,6	1,6	G 1/2" -14
RVM 100 -1 +1.5	100	-1...+1,5	1,6	G 1/2" -14
RVM 100 -1 +3	100	-1...+3	1,6	G 1/2" -14
RVM 100 -1 +5	100	-1...+5	1,6	G 1/2" -14
RVM 100 -1 +9	100	-1...+9	1,6	G 1/2" -14
RVM 100 -1 +15	100	-1...+15	1,6	G 1/2" -14

**RVM 100 H 1/4****Vacuum pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling.
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, eccentric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 100 -1 +0 H 1/4	100	-1...0	1,6	G 1/4" -19
RVM 100 -1 +0.6 H 1/4	100	-1...+0,6	1,6	G 1/4" -19
RVM 100 -1 +1.5 H 1/4	100	-1...+1,5	1,6	G 1/4" -19
RVM 100 -1 +3 H 1/4	100	-1...+3	1,6	G 1/4" -19
RVM 100 -1 +5 H 1/4	100	-1...+5	1,6	G 1/4" -19
RVM 100 -1 +9 H 1/4	100	-1...+9	1,6	G 1/4" -19
RVM 100 -1 +15 H 1/4	100	-1...+15	1,6	G 1/4" -19

**GMM 160**

## Pressure gauges with glycerine filling



<b>Design:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	at bottom
<b>Connection:</b>	EN 837-1
<b>Standard:</b>	due to glycerine filling
<b>Damping:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 160-0.6	160	0...0,6	1,0	G 1/2" -14
GMM 160-1	160	0...1	1,0	G 1/2" -14
GMM 160-1.6	160	0...1,6	1,0	G 1/2" -14
GMM 160-2.5	160	0...2,5	1,0	G 1/2" -14
GMM 160-4	160	0...4	1,0	G 1/2" -14
GMM 160-6	160	0...6	1,0	G 1/2" -14
GMM 160-10	160	0...10	1,0	G 1/2" -14
GMM 160-16	160	0...16	1,0	G 1/2" -14
GMM 160-25	160	0...25	1,0	G 1/2" -14
GMM 160-40	160	0...40	1,0	G 1/2" -14
GMM 160-60	160	0...60	1,0	G 1/2" -14
GMM 160-100	160	0...100	1,0	G 1/2" -14
GMM 160-160	160	0...160	1,0	G 1/2" -14
GMM 160-250	160	0...250	1,0	G 1/2" -14
GMM 160-400	160	0...400	1,0	G 1/2" -14
GMM 160-600	160	0...600	1,0	G 1/2" -14
GMM 160-1000	160	0...1000	1,0	G 1/2" -14

**GMM 160 H**

## Pressure gauges with glycerine filling

<b>Design:</b>	
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, eccentric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 160-1 H	160	0...1	1,0	G 1/2" -14
GMM 160-1.6 H	160	0...1,6	1,0	G 1/2" -14
GMM 160-2.5 H	160	0...2,5	1,0	G 1/2" -14
GMM 160-4 H	160	0...4	1,0	G 1/2" -14
GMM 160-6 H	160	0...6	1,0	G 1/2" -14
GMM 160-10 H	160	0...10	1,0	G 1/2" -14
GMM 160-16 H	160	0...16	1,0	G 1/2" -14
GMM 160-25 H	160	0...25	1,0	G 1/2" -14
GMM 160-40 H	160	0...40	1,0	G 1/2" -14
GMM 160-60 H	160	0...60	1,0	G 1/2" -14
GMM 160-100 H	160	0...100	1,0	G 1/2" -14
GMM 160-160 H	160	0...160	1,0	G 1/2" -14
GMM 160-250 H	160	0...250	1,0	G 1/2" -14
GMM 160-400 H	160	0...400	1,0	G 1/2" -14
GMM 160-600 H	160	0...600	1,0	G 1/2" -14
GMM 160-1000 H	160	0...1000	1,0	G 1/2" -14

**RMM 160****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** at bottom  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 160-0.6	160	0...0,6	1,6	G 1/2" -14
RMM 160-1	160	0...1	1,6	G 1/2" -14
RMM 160-1.6	160	0...1,6	1,6	G 1/2" -14
RMM 160-2.5	160	0...2,5	1,6	G 1/2" -14
RMM 160-4	160	0...4	1,6	G 1/2" -14
RMM 160-6	160	0...6	1,6	G 1/2" -14
RMM 160-10	160	0...10	1,6	G 1/2" -14
RMM 160-16	160	0...16	1,6	G 1/2" -14
RMM 160-25	160	0...25	1,6	G 1/2" -14
RMM 160-40	160	0...40	1,6	G 1/2" -14



**GVM 160****Vacuum pressure gauges with glycerine filling**

<b>Design:</b>	
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	at bottom
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 160 -1+0	160	-1...0	1,0	G 1/2" -14
GVM 160 -1+0.6	160	-1...+0,6	1,0	G 1/2" -14
GVM 160 -1+1.5	160	-1...+1,5	1,0	G 1/2" -14
GVM 160 -1+3	160	-1...+3	1,0	G 1/2" -14
GVM 160 -1+5	160	-1...+5	1,0	G 1/2" -14
GVM 160 -1+9	160	-1...+9	1,0	G 1/2" -14
GVM 160 -1+15	160	-1...+15	1,0	G 1/2" -14

**GVM 160 H**

## Vacuum pressure gauges with glycerine filling



<b>Design:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	on back, centric
<b>Connection:</b>	EN 837-1
<b>Standard:</b>	due to glycerine filling
<b>Damping:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 160 -1+0 H	160	-1...0	1,0	G 1/2" -14
GVM 160 -1+0.6 H	160	-1...+0,6	1,0	G 1/2" -14
GVM 160 -1+1.5 H	160	-1...+1,5	1,0	G 1/2" -14
GVM 160 -1+3 H	160	-1...+3	1,0	G 1/2" -14
GVM 160 -1+5 H	160	-1...+5	1,0	G 1/2" -14
GVM 160 -1+9 H	160	-1...+9	1,0	G 1/2" -14
GVM 160 -1+15 H	160	-1...+15	1,0	G 1/2" -14

**GMM SCHUTZ****Rubber cap for pressure gauge**

**Application:** Rubber protective cap for pressure gauge with bottom connection.  
**Standard:** EN 837-1  
**Colour:** blue  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C  
**Material:** Rubber



Identification	Nominal size Ø
GMM SCHUTZ 63	63
GMM SCHUTZ 100	100

**Accessory for following products:**

**GMM 100** - Pressure gauges with glycerine filling

**GVM 63** - Vacuum pressure gauges with glycerine filling

**GVM 100** - Vacuum pressure gauges with glycerine filling

**GMM 63** - Pressure gauges with glycerine filling

**RMM 40 HFR**

## Pressure gauges without glycerine filling



<b>Design:</b>	Pipe spring pressure gauge without glycerine filling
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 40-1 HFR	40	0...1	2,5	G 1/4" -19
RMM 40-1.6 HFR	40	0...1,6	2,5	G 1/4" -19
RMM 40-2.5 HFR	40	0...2,5	2,5	G 1/4" -19
RMM 40-4 HFR	40	0...4	2,5	G 1/4" -19
RMM 40-6 HFR	40	0...6	2,5	G 1/4" -19
RMM 40-10 HFR	40	0...10	2,5	G 1/4" -19
RMM 40-16 HFR	40	0...16	2,5	G 1/4" -19
RMM 40-25 HFR	40	0...25	2,5	G 1/4" -19
RMM 40-40 HFR	40	0...40	2,5	G 1/4" -19
RMM 40-60 HFR	40	0...60	2,5	G 1/4" -19
RMM 40-100 HFR	40	0...100	2,5	G 1/4" -19
RMM 40-160 HFR	40	0...160	2,5	G 1/4" -19
RMM 40-250 HFR	40	0...250	2,5	G 1/4" -19
RMM 40-315 HFR	40	0...315	2,5	G 1/4" -19
RMM 40-400 HFR	40	0...400	2,5	G 1/4" -19

**RVM 40 HFR****Vacuum pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling.
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 40 -1 +0 HFR	40	-1...0	2,5	G 1/4" -19
RVM 40 -1 +0.6 HFR	40	-1...+0,6	2,5	G 1/4" -19
RVM 40 -1 +1.5 HFR	40	-1...+1,5	2,5	G 1/4" -19
RVM 40 -1 +3 HFR	40	-1...+3	2,5	G 1/4" -19
RVM 40 -1 +5 HFR	40	-1...+5	2,5	G 1/4" -19
RVM 40 -1 +9 HFR	40	-1...+9	2,5	G 1/4" -19
RVM 40 -1 +15 HFR	40	-1...+15	2,5	G 1/4" -19

**RMM 50 HFR**

## Pressure gauges without glycerine filling



<b>Design:</b>	Pipe spring pressure gauge without glycerine filling
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 50-0.6 HFR	50	0...0,6	2,5	G 1/4" -19
RMM 50-1 HFR	50	0...1	2,5	G 1/4" -19
RMM 50-1.6 HFR	50	0...1,6	2,5	G 1/4" -19
RMM 50-2.5 HFR	50	0...2,5	2,5	G 1/4" -19
RMM 50-4 HFR	50	0...4	2,5	G 1/4" -19
RMM 50-6 HFR	50	0...6	2,5	G 1/4" -19
RMM 50-10 HFR	50	0...10	2,5	G 1/4" -19
RMM 50-16 HFR	50	0...16	2,5	G 1/4" -19
RMM 50-25 HFR	50	0...25	2,5	G 1/4" -19
RMM 50-40 HFR	50	0...40	2,5	G 1/4" -19
RMM 50-60 HFR	50	0...60	2,5	G 1/4" -19
RMM 50-100 HFR	50	0...100	2,5	G 1/4" -19
RMM 50-160 HFR	50	0...160	2,5	G 1/4" -19
RMM 50-250 HFR	50	0...250	2,5	G 1/4" -19
RMM 50-315 HFR	50	0...315	2,5	G 1/4" -19
RMM 50-400 HFR	50	0...400	2,5	G 1/4" -19

**RVM 50 HFR****Vacuum pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling.
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 50 -1 +0 HFR	50	-1...0	2,5	G 1/4" -19
RVM 50 -1 +0.6 HFR	50	-1...+0,6	2,5	G 1/4" -19
RVM 50 -1 +1.5 HFR	50	-1...+1,5	2,5	G 1/4" -19
RVM 50 -1 +3 HFR	50	-1...+3	2,5	G 1/4" -19
RVM 50 -1 +5 HFR	50	-1...+5	2,5	G 1/4" -19
RVM 50 -1 +9 HFR	50	-1...+9	2,5	G 1/4" -19
RVM 50 -1 +15 HFR	50	-1...+15	2,5	G 1/4" -19

**GMM 63 HFR**

## Pressure gauges with glycerine filling



<b>Design:</b>	
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 63-1 HFR	63	0...1	1,6	G 1/4" -19
GMM 63-1.6 HFR	63	0...1,6	1,6	G 1/4" -19
GMM 63-2.5 HFR	63	0...2,5	1,6	G 1/4" -19
GMM 63-4 HFR	63	0...4	1,6	G 1/4" -19
GMM 63-6 HFR	63	0...6	1,6	G 1/4" -19
GMM 63-10 HFR	63	0...10	1,6	G 1/4" -19
GMM 63-16 HFR	63	0...16	1,6	G 1/4" -19
GMM 63-25 HFR	63	0...25	1,6	G 1/4" -19
GMM 63-40 HFR	63	0...40	1,6	G 1/4" -19
GMM 63-60 HFR	63	0...60	1,6	G 1/4" -19
GMM 63-100 HFR	63	0...100	1,6	G 1/4" -19
GMM 63-160 HFR	63	0...160	1,6	G 1/4" -19
GMM 63-250 HFR	63	0...250	1,6	G 1/4" -19
GMM 63-400 HFR	63	0...400	1,6	G 1/4" -19
GMM 63-600 HFR	63	0...600	1,6	G 1/4" -19



**RMM 63 HFR****Pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 63-0.6 HFR	63	0...0,6	2,5	G 1/4" -19
RMM 63-1 HFR	63	0...1	2,5	G 1/4" -19
RMM 63-1.6 HFR	63	0...1,6	2,5	G 1/4" -19
RMM 63-2.5 HFR	63	0...2,5	2,5	G 1/4" -19
RMM 63-4 HFR	63	0...4	2,5	G 1/4" -19
RMM 63-6 HFR	63	0...6	2,5	G 1/4" -19
RMM 63-10 HFR	63	0...10	2,5	G 1/4" -19
RMM 63-16 HFR	63	0...16	2,5	G 1/4" -19
RMM 63-25 HFR	63	0...25	2,5	G 1/4" -19
RMM 63-40 HFR	63	0...40	2,5	G 1/4" -19
RMM 63-60 HFR	63	0...60	2,5	G 1/4" -19
RMM 63-100 HFR	63	0...100	2,5	G 1/4" -19
RMM 63-160 HFR	63	0...160	2,5	G 1/4" -19
RMM 63-250 HFR	63	0...250	2,5	G 1/4" -19
RMM 63-315 HFR	63	0...315	2,5	G 1/4" -19
RMM 63-400 HFR	63	0...400	2,5	G 1/4" -19

**GVM 63 HFR**

## Vacuum pressure gauges with glycerine filling



<b>Design:</b>	
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load =  $3/4$  x full scale. Application range with alternating load =  $2/3$  x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 63 -1+0 HFR	63	-1...0	1,6	G 1/4" -19
GVM 63 -1+0,6 HFR	63	-1...+0,6	1,6	G 1/4" -19
GVM 63 -1+1,5 HFR	63	-1...+1,5	1,6	G 1/4" -19
GVM 63 -1+3 HFR	63	-1...+3	1,6	G 1/4" -19
GVM 63 -1+5 HFR	63	-1...+5	1,6	G 1/4" -19
GVM 63 -1+9 HFR	63	-1...+9	1,6	G 1/4" -19
GVM 63 -1+15 HFR	63	-1...+15	1,6	G 1/4" -19

**RVM 63 HFR****Vacuum pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling.
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 63 -1 +0 HFR	63	-1...0	2,5	G 1/4" -19
RVM 63 -1 +0.6 HFR	63	-1...+0,6	2,5	G 1/4" -19
RVM 63 -1 +1.5 HFR	63	-1... +1,5	2,5	G 1/4" -19
RVM 63 -1 +3 HFR	63	-1...+3	2,5	G 1/4" -19
RVM 63 -1 +5 HFR	63	-1...+5	2,5	G 1/4" -19
RVM 63 -1 +9 HFR	63	-1...+9	2,5	G 1/4" -19
RVM 63 -1 +15 HFR	63	-1...+15	2,5	G 1/4" -19

**GMM 100 HFR**

## Pressure gauges with glycerine filling



<b>Design:</b>	
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, eccentric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 100-0.6 HFR	100	0...0,6	1,0	G 1/2" -14
GMM 100-1 HFR	100	0...1	1,0	G 1/2" -14
GMM 100-1.6 HFR	100	0...1,6	1,0	G 1/2" -14
GMM 100-2.5 HFR	100	0...2,5	1,0	G 1/2" -14
GMM 100-4 HFR	100	0...4	1,0	G 1/2" -14
GMM 100-6 HFR	100	0...6	1,0	G 1/2" -14
GMM 100-10 HFR	100	0...10	1,0	G 1/2" -14
GMM 100-16 HFR	100	0...16	1,0	G 1/2" -14
GMM 100-25 HFR	100	0...25	1,0	G 1/2" -14
GMM 100-40 HFR	100	0...40	1,0	G 1/2" -14
GMM 100-60 HFR	100	0...60	1,0	G 1/2" -14
GMM 100-100 HFR	100	0...100	1,0	G 1/2" -14
GMM 100-160 HFR	100	0...160	1,0	G 1/2" -14
GMM 100-250 HFR	100	0...250	1,0	G 1/2" -14
GMM 100-400 HFR	100	0...400	1,0	G 1/2" -14
GMM 100-600 HFR	100	0...600	1,0	G 1/2" -14
GMM 100-1000 HFR	100	0...1000	1,0	G 1/2" -14

**GVM 100 HFR****Vacuum pressure gauges with glycerine filling**

<b>Design:</b>	
<b>Mounting:</b>	Front ring with mounting bores
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, eccentric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 100 -0.6+0 HFR	100	-0,6...0	1,0	G 1/2" -14
GVM 100 -1+0 HFR	100	-1...0	1,0	G 1/2" -14
GVM 100 -1+0.6 HFR	100	-1...+0,6	1,0	G 1/2" -14
GVM 100 -1+1.5 HFR	100	-1...+1,5	1,0	G 1/2" -14
GVM 100 -1+3 HFR	100	-1...+3	1,0	G 1/2" -14
GVM 100 -1+5 HFR	100	-1...+5	1,0	G 1/2" -14
GVM 100 -1+9 HFR	100	-1...+9	1,0	G 1/2" -14
GVM 100 -1+15 HFR	100	-1...+15	1,0	G 1/2" -14

**RMM 40 HKR**

## Pressure gauges without glycerine filling



<b>Design:</b>	Pipe spring pressure gauge without glycerine filling
<b>Mounting:</b>	Clamping ring
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 40-1 HKR	40	0...1	2,5	G 1/4" -19
RMM 40-1.6 HKR	40	0...1,6	2,5	G 1/4" -19
RMM 40-2.5 HKR	40	0...2,5	2,5	G 1/4" -19
RMM 40-4 HKR	40	0...4	2,5	G 1/4" -19
RMM 40-6 HKR	40	0...6	2,5	G 1/4" -19
RMM 40-10 HKR	40	0...10	2,5	G 1/4" -19
RMM 40-16 HKR	40	0...16	2,5	G 1/4" -19
RMM 40-25 HKR	40	0...25	2,5	G 1/4" -19
RMM 40-40 HKR	40	0...40	2,5	G 1/4" -19
RMM 40-60 HKR	40	0...60	2,5	G 1/4" -19
RMM 40-100 HKR	40	0...100	2,5	G 1/4" -19
RMM 40-160 HKR	40	0...160	2,5	G 1/4" -19
RMM 40-250 HKR	40	0...250	2,5	G 1/4" -19
RMM 40-315 HKR	40	0...315	2,5	G 1/4" -19
RMM 40-400 HKR	40	0...400	2,5	G 1/4" -19

**RVM 40 HKR****Vacuum pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling.
<b>Mounting:</b>	Clamping ring
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 40 -1 +0 HKR	40	-1...0	2,5	G 1/4" -19
RVM 40 -1 +0.6 HKR	40	-1...+0,6	2,5	G 1/4" -19
RVM 40 -1 +1.5 HKR	40	-1...+1,5	2,5	G 1/4" -19
RVM 40 -1 +3 HKR	40	-1...+3	2,5	G 1/4" -19
RVM 40 -1 +5 HKR	40	-1...+5	2,5	G 1/4" -19
RVM 40 -1 +9 HKR	40	-1...+9	2,5	G 1/4" -19
RVM 40 -1 +15 HKR	40	-1...+15	2,5	G 1/4" -19

**RMM 50 HKR**

## Pressure gauges without glycerine filling



<b>Design:</b>	Pipe spring pressure gauge without glycerine filling
<b>Mounting:</b>	Clamping ring
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 50-0.6 HKR	50	0...0,6	2,5	G 1/4" -19
RMM 50-1 HKR	50	0...1	2,5	G 1/4" -19
RMM 50-2.5 HKR	50	0...2,5	2,5	G 1/4" -19
RMM 50-4 HKR	50	0...4	2,5	G 1/4" -19
RMM 50-6 HKR	50	0...6	2,5	G 1/4" -19
RMM 50-10 HKR	50	0...10	2,5	G 1/4" -19
RMM 50-16 HKR	50	0...16	2,5	G 1/4" -19
RMM 50-25 HKR	50	0...25	2,5	G 1/4" -19
RMM 50-40 HKR	50	0...40	2,5	G 1/4" -19
RMM 50-60 HKR	50	0...60	2,5	G 1/4" -19
RMM 50-100 HKR	50	0...100	2,5	G 1/4" -19
RMM 50-160 HKR	50	0...160	2,5	G 1/4" -19
RMM 50-250 HKR	50	0...250	2,5	G 1/4" -19
RMM 50-315 HKR	50	0...315	2,5	G 1/4" -19
RMM 50-400 HKR	50	0...400	2,5	G 1/4" -19



**RVM 50 HKR****Vacuum pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling.
<b>Mounting:</b>	Clamping ring
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 50 -1 +0 HKR	50	-1...0	2,5	G 1/4" -19
RVM 50 -1 +0.6 HKR	50	-1...+0,6	2,5	G 1/4" -19
RVM 50 -1 +1.5 HKR	50	-1...+1,5	2,5	G 1/4" -19
RVM 50 -1 +3 HKR	50	-1...+3	2,5	G 1/4" -19
RVM 50 -1 +5 HKR	50	-1...+5	2,5	G 1/4" -19
RVM 50 -1 +9 HKR	50	-1...+9	2,5	G 1/4" -19
RVM 50 -1 +15 HKR	50	-1...+15	2,5	G 1/4" -19

**GMM 63 HKR**

## Pressure gauges with glycerine filling



<b>Design:</b>	Clamping ring
<b>Mounting:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	on back, centric
<b>Connection:</b>	EN 837-1
<b>Standard:</b>	due to glycerine filling
<b>Damping:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 63-1 HKR	63	0...1	1,6	G 1/4" -19
GMM 63-1.6 HKR	63	0...1,6	1,6	G 1/4" -19
GMM 63-2.5 HKR	63	0...2,5	1,6	G 1/4" -19
GMM 63-4 HKR	63	0...4	1,6	G 1/4" -19
GMM 63-06 HKR	63	0...6	1,6	G 1/4" -19
GMM 63-10 HKR	63	0...10	1,6	G 1/4" -19
GMM 63-16 HKR	63	0...16	1,6	G 1/4" -19
GMM 63-25 HKR	63	0...25	1,6	G 1/4" -19
GMM 63-40 HKR	63	0...40	1,6	G 1/4" -19
GMM 63-60 HKR	63	0...60	1,6	G 1/4" -19
GMM 63-100 HKR	63	0...100	1,6	G 1/4" -19
GMM 63-160 HKR	63	0...160	1,6	G 1/4" -19
GMM 63-250 HKR	63	0...250	1,6	G 1/4" -19
GMM 63-400 HKR	63	0...400	1,6	G 1/4" -19
GMM 63-600 HKR	63	0...600	1,6	G 1/4" -19
GMM 63-1000 HKR	63	0...1000	1,6	G 1/4" -19

**RMM 63 HKR****Pressure gauges without glycerine filling**

**Design:** Pipe spring pressure gauge without glycerine filling  
**Mounting:** Clamping ring  
**Connection 1:** BSP external thread, cylindrical  
**Sealing form 1:** flat seal with pin  
**Connection:** on back, centric  
**Standard:** EN 837-1  
**Temp. range:** medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RMM 63-0.6 HKR	63	0...0,6	2,5	G 1/4" -19
RMM 63-1 HKR	63	0...1	2,5	G 1/4" -19
RMM 63-1.6 HKR	63	0...1,6	2,5	G 1/4" -19
RMM 63-2.5 HKR	63	0...2,5	2,5	G 1/4" -19
RMM 63-4 HKR	63	0...4	2,5	G 1/4" -19
RMM 63-6 HKR	63	0...6	2,5	G 1/4" -19
RMM 63-10 HKR	63	0...10	2,5	G 1/4" -19
RMM 63-16 HKR	63	0...16	2,5	G 1/4" -19
RMM 63-25 HKR	63	0...25	2,5	G 1/4" -19
RMM 63-40 HKR	63	0...40	2,5	G 1/4" -19
RMM 63-60 HKR	63	0...60	2,5	G 1/4" -19
RMM 63-100 HKR	63	0...100	2,5	G 1/4" -19
RMM 63-160 HKR	63	0...160	2,5	G 1/4" -19
RMM 63-250 HKR	63	0...250	2,5	G 1/4" -19
RMM 63-315 HKR	63	0...315	2,5	G 1/4" -19
RMM 63-400 HKR	63	0...400	2,5	G 1/4" -19

**GVM 63 HKR**

## Vacuum pressure gauges with glycerine filling



<b>Design:</b>	Clamping ring
<b>Mounting:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	on back, centric
<b>Connection:</b>	EN 837-1
<b>Standard:</b>	due to glycerine filling
<b>Damping:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C
<b>Temp. range:</b>	

**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 63 -1+0 HKR	63	-1...0	1,6	G 1/4" -19
GVM 63 -1+0.6 HKR	63	-1...+0,6	1,6	G 1/4" -19
GVM 63 -1+1.5 HKR	63	-1...+1,5	1,6	G 1/4" -19
GVM 63 -1+3 HKR	63	-1...+3	1,6	G 1/4" -19
GVM 63 -1+5 HKR	63	-1...+5	1,6	G 1/4" -19
GVM 63 -1+9 HKR	63	-1...+9	1,6	G 1/4" -19
GVM 63 -1+15 HKR	63	-1...+15	1,6	G 1/4" -19

**RVM 63 HKR****Vacuum pressure gauges without glycerine filling**

<b>Design:</b>	Pipe spring pressure gauge without glycerine filling.
<b>Mounting:</b>	Clamping ring
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, centric
<b>Standard:</b>	EN 837-1
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = 3/4 x full scale. Application range with alternating load = 2/3 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
RVM 63 -1 +0 HKR	63	-1...0	2,5	G 1/4" -19
RVM 63 -1 +0.6 HKR	63	-1...+0,6	2,5	G 1/4" -19
RVM 63 -1 +1.5 HKR	63	-1...+1,5	2,5	G 1/4" -19
RVM 63 -1 +3 HKR	63	-1...+3	2,5	G 1/4" -19
RVM 63 -1 +5 HKR	63	-1...+5	2,5	G 1/4" -19
RVM 63 -1 +9 HKR	63	-1...+9	2,5	G 1/4" -19
RVM 63 -1 +15 HKR	63	-1...+15	2,5	G 1/4" -19

**GMM 100 HKR**

## Pressure gauges with glycerine filling



<b>Design:</b>	Clamping ring
<b>Mounting:</b>	BSP external thread, cylindrical
<b>Connection 1:</b>	flat seal with pin
<b>Sealing form 1:</b>	on back, eccentric
<b>Connection:</b>	EN 837-1
<b>Standard:</b>	due to glycerine filling
<b>Damping:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C
<b>Temp. range:</b>	

**Note:** Application range at idle load = Up to full scale. Application range with alternating load = Up to 0.9 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GMM 100-0.6 HKR	100	0...0,6	1,0	G 1/2" -14
GMM 100-1 HKR	100	0...1	1,0	G 1/2" -14
GMM 100-1.6 HKR	100	0...1,6	1,0	G 1/2" -14
GMM 100-2.5 HKR	100	0...2,5	1,0	G 1/2" -14
GMM 100-4 HKR	100	0...4	1,0	G 1/2" -14
GMM 100-6 HKR	100	0...6	1,0	G 1/2" -14
GMM 100-10 HKR	100	0...10	1,0	G 1/2" -14
GMM 100-16 HKR	100	0...16	1,0	G 1/2" -14
GMM 100-25 HKR	100	0...25	1,0	G 1/2" -14
GMM 100-40 HKR	100	0...40	1,0	G 1/2" -14
GMM 100-60 HKR	100	0...60	1,0	G 1/2" -14
GMM 100-100 HKR	100	0...100	1,0	G 1/2" -14
GMM 100-160 HKR	100	0...160	1,0	G 1/2" -14
GMM 100-250 HKR	100	0...250	1,0	G 1/2" -14
GMM 100-400 HKR	100	0...400	1,0	G 1/2" -14
GMM 100-600 HKR	100	0...600	1,0	G 1/2" -14
GMM 100-1000 HKR	100	0...1000	1,0	G 1/2" -14

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**GVM 100 HKR****Vacuum pressure gauges with glycerine filling**

<b>Design:</b>	
<b>Mounting:</b>	Clamping ring
<b>Connection 1:</b>	BSP external thread, cylindrical
<b>Sealing form 1:</b>	flat seal with pin
<b>Connection:</b>	on back, eccentric
<b>Standard:</b>	EN 837-1
<b>Damping:</b>	due to glycerine filling
<b>Temp. range:</b>	medium max. +60 °C, Ambient -20 °C to +60 °C



**Note:** Application range at idle load = Up to full scale. Application range with alternating load = Up to 0.9 x full scale.

Identification	Nominal size Ø	Scale range	Quality class	Connection
GVM 100 -0.6+0 HKR	100	-0,6...0	1,0	G 1/2" -14
GVM 100 -1+0 HKR	100	-1...0	1,0	G 1/2" -14
GVM 100 -1+0.6 HKR	100	-1...+0,6	1,0	G 1/2" -14
GVM 100 -1+1.5 HKR	100	-1...+1,5	1,0	G 1/2" -14
GVM 100 -1+3 HKR	100	-1...+3	1,0	G 1/2" -14
GVM 100 -1+5 HKR	100	-1...+5	1,0	G 1/2" -14
GVM 100 -1+9 HKR	100	-1...+9	1,0	G 1/2" -14
GVM 100 -1+15 HKR	100	-1...+15	1,0	G 1/2" -14



## Mounting technology

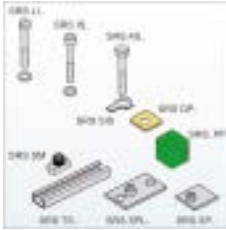


**Pipe clamps**

Pipe clamps, light series	948
Twin pipe clamps	986
Pipe clamps, heavy series	1000
Light construction pipe clamps	1024
Steel pipe clamps	1027

## A 0

### Configuration of group A 0



**Description:**

The clamp size is the crucial selection criterion for the configuration. Can either be fitted on welding plates or on mounting rails.

#### Identification

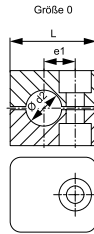
A 0

**Additional elements:**

- SRS 0 PP - Pipe clamp, light series
- SRS 0 LI - Slotted screw for single pipe clamp
- SRS 0 IS - Hexagon socket screw, single pipe clamp
- SRS 0 AS - Hexagon screw for single pipe clamp
- SRS 0 SIS - Lock washer for single pipe clamp
- SRS 0 DP - Cover plate for single pipe clamp
- SRS 0 TS - Mounting rail, single and double pipe clamp
- SRS 0 SM - Mounting rail nut, single pipe clamp
- SRS 0 SP - Welded on base plate, single pipe clamp, short
- SRS 0 SP L - Welded on and screw-on base plate, long
- SRS 0 D SP - Double welded on base plate, single pipe clamp
- SRS 0 SP R - Series welded on base plate, single pipe clamp
- SRS 0 SPW - Angle welded on and screw-on base plates

**SRS 0 PP****Pipe clamp, light series**

<b>Design:</b>	Pipe clamp
<b>Supplementary design information:</b>	Inside of clamp with web light
<b>Series:</b>	light
<b>Standard:</b>	DIN 3015-1
<b>Temp. min.:</b>	-30 °C
<b>Temp. max.:</b>	90 °C
<b>Material:</b>	Polypropylene
<b>Description:</b>	Webs in the inner surface of the clamps dampen impacts and vibrations and absorb forces along the pipe axis. A gap between the two halves pretensions the pipe.



Identification	External pipe Ø d2 mm	External pipe Ø d2	Clamp size	e1 mm	H mm	L mm	S1 mm
SRS 0106 PP	6,0	-	0	10	27	28	0,6
SRS 0106.4 PP	6,4	1/4"	0	10	27	28	0,6
SRS 0108 PP	8,0	5/16"	0	10	27	28	0,6
SRS 0109.5 PP	9,5	3/8"	0	10	27	28	0,6
SRS 0110 PP	10,0	-	0	10	27	28	0,6
SRS 0112 PP	12,0	-	0	10	27	28	0,6

**Product versions:**

**SRS 0 PA** - Pipe clamp, light series, Polyamide 6

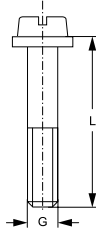
**Additional element for following products:**

**A 0** - Configuration of group A 0

**A 0 A** - Configuration of group A 0 composition

## SRS 0 LI

### Slotted screw for single pipe clamp



**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 84 (ISO 1207)  
**Included in scope of supply:** with plain washer  
**Material:** Steel  
**Surface:** electro galvanised

Identification	Clamp size	G
SRS LI 1	0 - 1	M 6

**Product versions:**

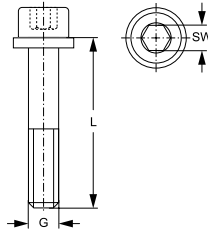
SRS 0 LI V4 - Slotted screw for single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

A 0 - Configuration of group A 0

**SRS 0 IS****Hexagon socket screw, single pipe clamp**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 912 (ISO 4762)  
**Included in scope of supply:** with plain washer  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Clamp size	G	L mm	SW mm
SRS IS 1	0 - 1	M 6	20	5

**Product versions:**

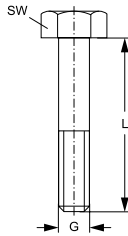
**SRS 0 IS V4** - Hexagon socket screw, single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

**A 0** - Configuration of group A 0

## SRS 0 AS

### Hexagon screw for single pipe clamp



**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 931 (ISO 4014) or DIN 933 (ISO 4017)  
**Material:** Steel  
**Surface:** electro galvanised

Identification	Clamp size	G	L mm	SW mm
SRS AS 1	0 - 1	M 6	30	10

**Product versions:**

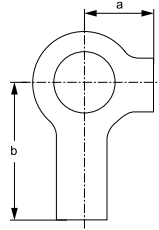
SRS 0 AS V4 - Hexagon screw for single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

A 0 - Configuration of group A 0

**SRS 0 SIS****Lock washer for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** for all clamp sizes from light series and the double pipe clamp.



Identification	a mm	B mm
SRS SIS	9	18

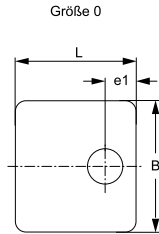
**Additional element for following products:**

A 1-6 - Configuration of group A 1-6

A 0 - Configuration of group A 0

## SRS 0 DP

### Cover plate for single pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**

for single pipe clamps  
 light  
 DIN 3015-1  
 Steel  
 electro galvanised

Identification	Clamp size	B mm	e1 mm	L mm
SRS DP 1	0	30,0	9,5	28

**Product versions:**

SRS 0 DP V4 - Cover plate for single pipe clamp, Stainless steel 1.4571

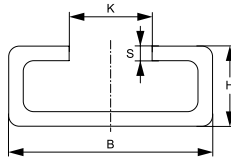
**Additional element for following products:**

A 0 - Configuration of group A 0



**SRS 0 TS****Mounting rail, single and double pipe clamp**

**Design:** for single and twin pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel (bright)  
**Description:** for all clamp sizes from light series and the double pipe clamp.



Identification	B mm	H mm	K mm	S mm	Length m
SRS TS 11-1	28	11	11,4	2	1,00
SRS TS 11-2	28	11	11,4	2	2,00
SRS TS 14-1	28	14	11,4	2	1,00
SRS TS 14-2	28	14	11,4	2	2,00
SRS TS 14-3	28	14	11,4	2	3,00
SRS TS 30-1	28	30	11,4	2	1,00
SRS TS 30-2	28	30	11,4	2	2,00

**Product versions:**

**SRS TS V4** - Mounting rail, single and double pipe clamp, Stainless steel 1.4571

**SRS TS VZ** - Mounting rail, single and double pipe clamp, Steel, electro galvanised

**Additional element for following products:**

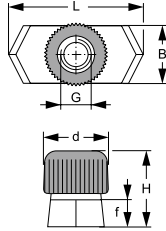
**B** - Configuration of group B

**A 1-6** - Configuration of group A 1-6

**A 0** - Configuration of group A 0

## SRS 0 SM

### Mounting rail nut, single pipe clamp



**Design:**

**Series:**

**Standard:**

**Material:**

**Surface:**

**Description:**

for single and twin pipe clamps  
light

DIN 3015-1

Steel and rubber

electro galvanised

for all clamp sizes from light series  
and clamp size 1 of the double pipe  
clamp.

Identification	Clamp size	B mm	e1 mm	f mm	G	H mm	L mm
SRS SM	0 - 6	10,4	12	5	M 6	14,5	25,4

**Product versions:**

SRS SM V4 - Mounting rail nut, Stainless steel 1.4571

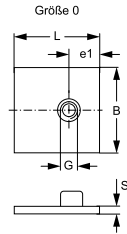
**Additional element for following products:**

A 1-6 - Configuration of group A 1-6

A 0 - Configuration of group A 0

**SRS 0 SP****Welded on base plate, single pipe clamp, short**

**Design:** Welded-on base plate  
**Supplementary design information:** short  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** phosphate treated



Identification	Clamp size	B mm	e1 mm	G	L mm	S mm
SRS SP 1	0	30	10,5	M 6	30	3

**Product versions:**

**SRS 0 SP V4** - Welded on base plate, single pipe clamp, short, Stainless steel 1.4571

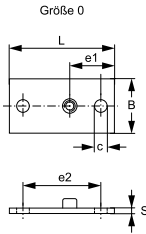
**SRS 0 SP VZ** - Welded on base plate, single pipe clamp, short, Steel, electro galvanised

**Additional element for following products:**

**A 0** - Configuration of group A 0

## SRS 0 SP L

### Welded on and screw-on base plate, long



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**

for single pipe clamps  
 light  
 DIN 3015-1  
 Steel  
 phosphate treated

Identification	Clamp size	B mm	c mm	e1 mm	e2 mm	G	L mm	S mm
SRS SP L 1	0	30	7	24,5	44	M 6	58	3

**Product versions:**

SRS 0 SP L VZ - Welded on and screw-on base plate, long, Steel, electro galvanised

SRS 0 SP L V4 - Welded on and screw-on base plate, long, Stainless steel 1.4571

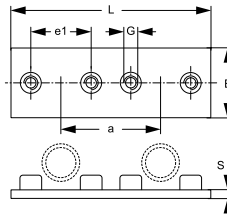
**Additional element for following products:**

A 0 - Configuration of group A 0

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**SRS 0 D SP****Double welded on base plate, single pipe clamp**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** phosphate treated



Identification	Clamp size	B mm	G	L mm	S mm
SRS D SP 1	0	30,0	M 6	61	3

**Product versions:**

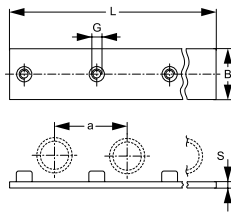
**SRS 0 D SP VZ** - Double welded on base plate, single pipe clamp, Steel, electro galvanised

**Additional element for following products:**

**A 0** - Configuration of group A 0

## SRS 0 SP R

### Series welded on base plate, single pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**  
**Description:**

for single pipe clamps  
 light  
 DIN 3015-1  
 Steel  
 phosphate treated  
 Number of mountings: for 10  
 clamps.

Identification	Clamp size	a mm	B mm	G	L mm	S mm
SRS SP R 1	0	30	30	M 6	298	3

**Product versions:**

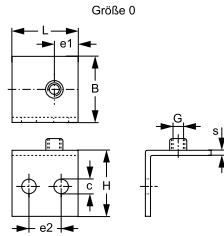
SRS 0 SP R VZ - Series welded on base plate, single pipe clamp, Steel, electro galvanised

**Additional element for following products:**

A 0 - Configuration of group A 0

**SRS 0 SPW****Angle welded on and screw-on base plates**

**Construction:** Angle 90°  
**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** phosphate treated



Identification	Clamp size	B mm	c mm	e1 mm	e2 mm	G	H mm	L mm	S mm
SRS SPW 1	0	30	6,6	10,5	14	M 6	30	30	3

**Product versions:**

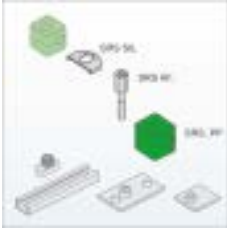
SRS 0 SPW V4

**Additional element for following products:**

A 0 - Configuration of group A 0

## A 0 A

### Configuration of group A 0 composition



**Description:** The clamp size is the crucial selection criterion for the configuration.

#### Identification

A 0 A

#### Additional elements:

SRS 0 PP - Pipe clamp, light series

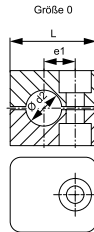
SRS 0 AF - Stacking bolt for single pipe clamp

SRS SIL - Lock washer for single pipe clamp



**SRS 0 PP****Pipe clamp, light series**

<b>Design:</b>	Pipe clamp
<b>Supplementary design information:</b>	Inside of clamp with web light
<b>Series:</b>	light
<b>Standard:</b>	DIN 3015-1
<b>Temp. min.:</b>	-30 °C
<b>Temp. max.:</b>	90 °C
<b>Material:</b>	Polypropylene
<b>Description:</b>	Webs in the inner surface of the clamps dampen impacts and vibrations and absorb forces along the pipe axis. A gap between the two halves pretensions the pipe.



Identification	External pipe Ø d2 mm	External pipe Ø d2	Clamp size	e1 mm	H mm	L mm	S1 mm
SRS 0106 PP	6,0	-	0	10	27	28	0,6
SRS 0106.4 PP	6,4	1/4"	0	10	27	28	0,6
SRS 0108 PP	8,0	5/16"	0	10	27	28	0,6
SRS 0109.5 PP	9,5	3/8"	0	10	27	28	0,6
SRS 0110 PP	10,0	-	0	10	27	28	0,6
SRS 0112 PP	12,0	-	0	10	27	28	0,6

**Product versions:**

**SRS 0 PA** - Pipe clamp, light series, Polyamide 6

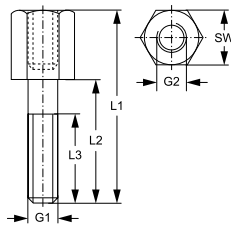
**Additional element for following products:**

**A 0** - Configuration of group A 0

**A 0 A** - Configuration of group A 0 composition

## SRS 0 AF

### Stacking bolt for single pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**

for single pipe clamps  
 light  
 DIN 3015-1  
 Steel  
 electro galvanised

Identification	Clamp size	G1	G2	L1 mm	L2 mm	L3 mm	SW mm
SRS AF 1	0 - 1	M 6	M 6	34	20	18	11

**Product versions:**

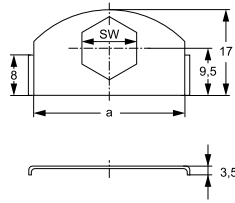
SRS 0 AF V4 - Stacking bolt for single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

A 0 A - Configuration of group A 0 composition

**SRS SIL****Lock washer for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** for all clamp sizes from light series and the double pipe clamp.



Identification	a mm	SW mm
SRS SIL	30	11

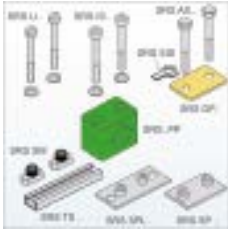
**Additional element for following products:**

A 0 A - Configuration of group A 0 composition

A 1-6 A - Configuration of group A 1-6 composition

## A 1-6

### Configuration of group A 1-6



**Description:**

Can either be fitted on welding plates or on mounting rails. The clamp size is the crucial selection criterion for the configuration.

#### Identification

A 1-6

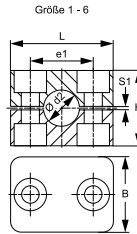
**Additional elements:**

- SRS 1-6 PP - Pipe clamp, light series
- SRS 1-6 LI - Slotted screw for single pipe clamp
- SRS 1-6 IS - Hexagon socket screw, single pipe clamp
- SRS 1-6 AS - Hexagon screw for single pipe clamp
- SRS SIS - Lock washer for single pipe clamp
- SRS 1-6 DP - Cover plate for single pipe clamp
- SRS TS - Mounting rail, single and double pipe clamp
- SRS SM - Mounting rail nut
- SRS 1-6 SP - Welded on base plate, single pipe clamp, short
- SRS 1-6 SP L - Welded on and screw-on base plate, long
- SRS 1-6 D SP - Double welded on base plate, single pipe clamp
- SRS 1-6 SP R - Series welded on base plate, single pipe clamp
- SRS 1-6 SP W - Angle welded on and screw-on base plates

## SRS 1-6 PP

## Pipe clamp, light series

<b>Design:</b>	Single pipe clamp
<b>Supplementary design information:</b>	Inside of clamp with web light
<b>Series:</b>	light
<b>Standard:</b>	DIN 3015-1
<b>Temp. min.:</b>	-30 °C
<b>Temp. max.:</b>	90 °C
<b>Material:</b>	Polypropylene
<b>Description:</b>	Webs in the inner surface of the clamps dampen impacts and vibrations and absorb forces along the pipe axis. A gap between the two halves pretensions the pipe.



**Note:** The use of clamps with a smooth inner surface is recommended for retaining hoses and cables. No pretension is applied when fitting and the block height H is reduced to the gap width S1.

Identification	External pipe Ø d2 mm	External pipe Ø d2	Clamp size	e1 mm	H mm	L mm	S1 mm
SRS 106 A PP	6,0	-	1	20	27	34	0,6
SRS 106.4 A PP	6,4	1/4"	1	20	27	34	0,6
SRS 108 A PP	8,0	5/16"	1	20	27	34	0,6
SRS 109.5 A PP	9,5	3/8"	1	20	27	34	0,6
SRS 110 A PP	10,0	-	1	20	27	34	0,6
SRS 112 A PP	12,0	-	1	20	27	34	0,6
SRS 0212.7 PP	12,7	1/2"	2	26	33	40	0,8
SRS 0213.5 PP	13,5	-	2	26	33	40	0,8
SRS 0214 PP	14,0	-	2	26	33	40	0,8
SRS 0215 PP	15,0	-	2	26	33	40	0,8
SRS 0216 PP	16,0	5/8"	2	26	33	40	0,8
SRS 0217.2 PP	17,2	-	2	26	33	40	0,8
SRS 0218 PP	18,0	-	2	26	33	40	0,8
SRS 0319 PP	19,0	3/4"	3	33	35	48	1,0
SRS 0320 PP	20,0	-	3	33	35	48	1,0
SRS 0321.3 PP	21,3	-	3	33	35	48	1,0
SRS 0322 PP	22,0	-	3	33	35	48	1,0
SRS 0323 PP	23,0	-	3	33	35	48	1,0
SRS 0325 PP	25,0	1"	3	33	35	48	1,0
SRS 0426.9 PP	26,9	-	4	40	42	57	1,2
SRS 0428 PP	28,0	-	4	40	42	57	1,2
SRS 0430 PP	30,0	-	4	40	42	57	1,2
SRS 0532 PP	32,0	1.1/4"	5	52	58	70	1,2
SRS 0533.7 PP	33,7	-	5	52	58	70	1,2
SRS 0535 PP	35,0	-	5	52	58	70	1,2
SRS 0538 PP	38,0	1.1/2"	5	52	58	70	1,2
SRS 0540 PP	40,0	-	5	52	58	70	1,2
SRS 0542 PP	42,0	-	5	52	58	70	1,2
SRS 0542.4 PP	42,4	-	5	52	58	70	1,2
SRS 0644.5 PP	44,5	1.3/4"	6	66	66	86	1,2
SRS 0645 PP	45,0	-	6	66	66	86	1,2
SRS 0648 PP	48,0	-	6	66	66	86	1,2
SRS 0650 PP	50,0	-	6	66	66	86	1,2
SRS 0650.8 PP	50,8	2"	6	66	66	86	1,2
SRS 0652 PP	52,0	-	6	66	66	86	1,2
SRS 0655 PP	55,0	-	6	66	66	86	1,2

**SRS 1-6 PP****Pipe clamp, light series****(Continued)**

Identification	External pipe Ø d2 mm	External pipe Ø d2	Clamp size	e1 mm	H mm	L mm	S1 mm
SRS 0657 PP	57,0	2.1/4"	6	66	66	86	1,2

**Product versions:**

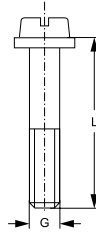
- SRS 1-6 AL - Pipe clamp, light series, Aluminium, Inside of clamp with web
- SRS 1-6 PA - Pipe clamp, light series, Polyamide 6, Inside of clamp with web
- SRS 1-6 PA G - Pipe clamp, light series, Polyamide 6, Inside of clamp, smooth
- SRS 1-6 PP G - Pipe clamp, light series, Polypropylene, Inside of clamp, smooth
- SRS 1-6 VG - Pipe clamp, light series, Solid rubber Shore 64°/73°, Inside of clamp, smooth

**Additional element for following products:**

- A 1-6 A - Configuration of group A 1-6 composition
- A 1-6 - Configuration of group A 1-6

**SRS 1-6 LI****Slotted screw for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 84 (ISO 1207)  
**Included in scope of supply:** with plain washer  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Clamp size	G	L mm
SRS LI 1	0 - 1	M 6	20
SRS LI 2	2	M 6	25
SRS LI 3	3	M 6	30
SRS LI 4	4	M 6	35
SRS LI 5	5	M 6	50
SRS LI 6	6	M 6	60

**Product versions:**

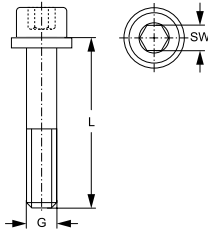
**SRS 1-6 LI V4** - Slotted screw for single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

A 1-6 - Configuration of group A 1-6

## SRS 1-6 IS

### Hexagon socket screw, single pipe clamp



**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 912 (ISO 4762)  
**Included in scope of supply:** with plain washer  
**Material:** Steel  
**Surface:** electro galvanised

Identification	Clamp size	G	L mm	SW mm
SRS IS 1	0 - 1	M 6	20	5
SRS IS 2	2	M 6	25	5
SRS IS 3	3	M 6	30	5
SRS IS 4	4	M 6	35	5
SRS IS 5	5	M 6	50	5
SRS IS 6	6	M 6	60	5

**Product versions:**

SRS 1-6 IS V4 - Hexagon socket screw, single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

A 1-6 - Configuration of group A 1-6



**SRS 1-6 AS****Hexagon screw for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 931 (ISO 4014) or DIN 933 (ISO 4017)  
**Material:** Steel  
**Surface:** electro galvanised



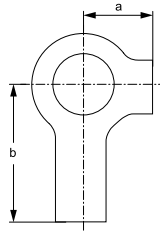
Identification	Clamp size	G	L mm	SW mm
SRS AS 1	0 - 1	M 6	30	10
SRS AS 2	2	M 6	35	10
SRS AS 3	3	M 6	40	10
SRS AS 4	4	M 6	45	10
SRS AS 5	5	M 6	60	10
SRS AS 6	6	M 6	70	10

**Product versions:**

**SRS 1-6 AS V4** - Hexagon screw for single pipe clamp, Stainless steel 1.4571

## SRS SIS

### Lock washer for single pipe clamp



**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** for all clamp sizes from light series and the double pipe clamp.

Identification	a mm	b mm
SRS SIS	9	18

**Additional element for following products:**

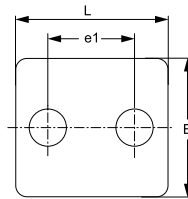
A 1-6 - Configuration of group A 1-6

A 0 - Configuration of group A 0

**SRS 1-6 DP****Cover plate for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** electro galvanised

Größe 1 - 6



Identification	Clamp size	B mm	e1 mm	L mm
SRS DP 1 A	1	30	20	34
SRS DP 2	2	30	26	40
SRS DP 3	3	30	33	48
SRS DP 4	4	30	40	57
SRS DP 5	5	30	52	70
SRS DP 6	6	30	66	86

**Product versions:**

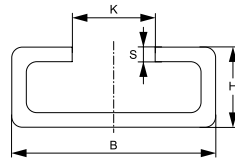
**SRS 1-6 DP V4** - Cover plate for single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

A 1-6 - Configuration of group A 1-6

## SRS TS

### Mounting rail, single and double pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Description:**

for single and twin pipe clamps  
 light  
 DIN 3015-1  
 Steel (bright)  
 for all clamp sizes from light series  
 and the double pipe clamp.

Identification	B mm	H mm	K mm	S mm	Length m
SRS TS 11-1	28	11	11,4	2	1,00
SRS TS 11-2	28	11	11,4	2	2,00
SRS TS 14-1	28	14	11,4	2	1,00
SRS TS 14-2	28	14	11,4	2	2,00
SRS TS 14-3	28	14	11,4	2	3,00
SRS TS 30-1	28	30	11,4	2	1,00
SRS TS 30-2	28	30	11,4	2	2,00

**Product versions:**

SRS TS V4 - Mounting rail, single and double pipe clamp, Stainless steel 1.4571

SRS TS VZ - Mounting rail, single and double pipe clamp, Steel, electro galvanised

**Additional element for following products:**

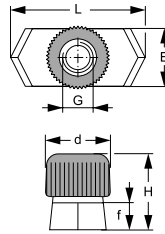
B - Configuration of group B

A 1-6 - Configuration of group A 1-6

A 0 - Configuration of group A 0

**SRS SM****Mounting rail nut**

**Design:** for single and twin pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel and rubber  
**Surface:** electro galvanised  
**Description:** for all clamp sizes from light series and clamp size 1 of the double pipe clamp.



Identification	Clamp size	B mm	d mm	f mm	G	H mm	L mm
SRS SM	0 - 6	10,4	12	5	M 6	14,5	25,4

**Product versions:**

**SRS SM V4** - Mounting rail nut, Stainless steel 1.4571

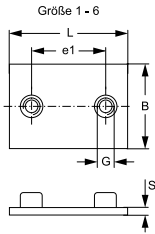
**Additional element for following products:**

A 1-6 - Configuration of group A 1-6

A 0 - Configuration of group A 0

## SRS 1-6 SP

### Welded on base plate, single pipe clamp, short



**Design:** for single pipe clamps  
**Supplementary design information:**  
**Series:** short  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** phosphate treated

Identification	Clamp size	B mm	e1 mm	G	L mm	S mm
SRS SP 1 A	1	30	20	M 6	36	3
SRS SP 2	2	30	26	M 6	42	3
SRS SP 3	3	30	33	M 6	50	3
SRS SP 4	4	30	40	M 6	59	3
SRS SP 5	5	30	52	M 6	72	3
SRS SP 6	6	30	66	M 6	88	3

**Product versions:**

**SRS 1-6 SP V4** - Welded on base plate, single pipe clamp, short, Stainless steel 1.4571

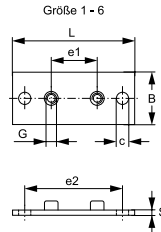
**SRS 1-6 SP VZ** - Welded on base plate, single pipe clamp, short, Steel, electro galvanized

**Additional element for following products:**

**A 1-6** - Configuration of group A 1-6

**SRS 1-6 SP L****Welded on and screw-on base plate, long**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** phosphate treated



Identification	Clamp size	B mm	c mm	e1 mm	e2 mm	G	L mm	S mm
SRS SP L 1 A	1	30	7	20	50	M 6	64	3
SRS SP L 2	2	30	7	26	46	M 6	70	3
SRS SP L 3	3	30	7	33	64	M 6	78	3
SRS SP L 4	4	30	7	40	73	M 6	87	3
SRS SP L 5	5	30	7	52	86	M 6	100	3
SRS SP L 6	6	30	7	66	100	M 6	116	3

**Product versions:**

**SRS 1-6 SP L V4** - Welded on and screw-on base plate, long, Stainless steel 1.4571

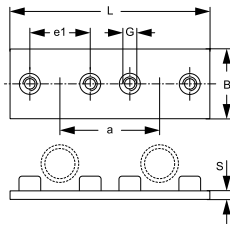
**SRS 1-6 SP L VZ** - Welded on and screw-on base plate, long, Steel, electro galvanised

**Additional element for following products:**

A 1-6 - Configuration of group A 1-6

## SRS 1-6 D SP

Double welded on base plate, single pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**

for single pipe clamps  
 light  
 DIN 3015-1  
 Steel  
 phosphate treated

Identification	Clamp size	a mm	B mm	e1 mm	G	L mm	S mm
SRS D SP 1 A	1	35	30	20	M 6	69	3
SRS D SP 2	2	43	30	26	M 6	86	3
SRS D SP 3	3	52	30	33	M 6	104	3
SRS D SP 4	4	60	30	40	M 6	117	3
SRS D SP 5	5	75	30	52	M 6	145	3
SRS D SP 6	6	90	30	66	M 6	176	3

**Product versions:**

SRS 1-6 D SP VZ - Double cover plate, single pipe clamp, Steel, electro galvanised

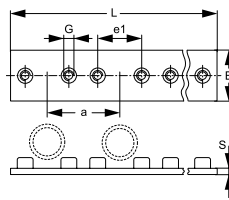
**Additional element for following products:**

A 1-6 - Configuration of group A 1-6



**SRS 1-6 SP R****Series welded on base plate, single pipe clamp**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** phosphate treated  
**Description:** Number of mountings: Clamp sizes 1-3 = for 10 clamps; clamp sizes 4-6 = for 5 clamps.



Identification	Clamp size	a mm	B mm	e1 mm	G	L mm	S mm
SRS SP R 1 A	1	35	30	20	M 6	349	3
SRS SP R 2	2	43	30	26	M 6	427	3
SRS SP R 3	3	52	30	33	M 6	516	3
SRS SP R 4	4	60	30	40	M 6	297	3
SRS SP R 5	5	75	30	52	M 6	370	3
SRS SP R 6	6	90	30	66	M 6	446	3

**Product versions:**

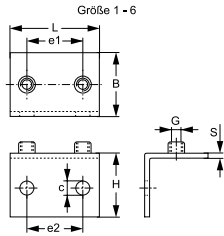
**SRS 1-6 SP R VZ** - Series welded on base plate, single pipe clamp, electro galvanised

**Additional element for following products:**

A 1-6 - Configuration of group A 1-6

## SRS 1-6 SPW

### Angle welded on and screw-on base plates



**Construction:** Angle 90°  
**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** phosphate treated

Identification	Clamp size	B mm	c mm	e1 mm	e2 mm	G	H mm	L mm	S mm
SRS SPW 1 A	1	30	6,6	20,0	20	M 6	30	36,0	3
SRS SPW 2	2	30	6,6	26,0	26	M 6	30	42,0	3
SRS SPW 3	3	30	6,6	33,0	33	M 6	30	50,0	3
SRS SPW 4	4	30	6,6	40,0	40	M 6	30	59,0	3
SRS SPW 5	5	30	6,6	52,0	52	M 6	30	72,0	3
SRS SPW 6	6	30	6,6	66,0	66	M 6	30	88,0	3

**Product versions:**

SRS 1-6 SPW V4 - Angle welded on and screw-on base plates, Stainless steel 1.4571

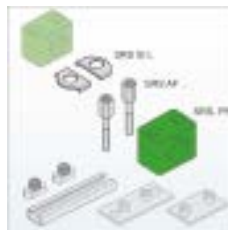
**Additional element for following products:**

A 1-6 - Configuration of group A 1-6

7

**A 1-6 A****Configuration of group A 1-6 composition****Description:**

This configuration is for fitting on the components from group A 1-6. The clamp size is the crucial selection criterion for the configuration.

**Identification**

A 1-6 A

**Additional elements:**

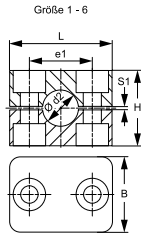
SRS 1-6 PP - Pipe clamp, light series

SRS 1-6 AF - Stacking bolt for single pipe clamp

SRS SIL - Lock washer for single pipe clamp

## SRS 1-6 PP

### Pipe clamp, light series



**Design:**  
**Supplementary design information:**  
**Series:**  
**Standard:**  
**Temp. min.:**  
**Temp. max.:**  
**Material:**  
**Description:**

Single pipe clamp

Inside of clamp with web light

DIN 3015-1

-30 °C

90 °C

Polypropylene

Webs in the inner surface of the clamps dampen impacts and vibrations and absorb forces along the pipe axis. A gap between the two halves pretensions the pipe.

**Note:** The use of clamps with a smooth inner surface is recommended for retaining hoses and cables. No pretension is applied when fitting and the block height H is reduced to the gap width S1.

Identification	External pipe Ø d2 mm	External pipe Ø d2	Clamp size	e1 mm	H mm	L mm	S1 mm
SRS 106 A PP	6,0	-	1	20	27	34	0,6
SRS 106.4 A PP	6,4	1/4"	1	20	27	34	0,6
SRS 108 A PP	8,0	5/16"	1	20	27	34	0,6
SRS 109.5 A PP	9,5	3/8"	1	20	27	34	0,6
SRS 110 A PP	10,0	-	1	20	27	34	0,6
SRS 110.2 A PP	10,2	1/8"	1	20	27	34	0,6
SRS 112 A PP	12,0	-	1	20	27	34	0,6
SRS 0212.7 PP	12,7	1/2"	2	26	33	40	0,8
SRS 0213 PP	13,0	-	2	26	33	40	0,8
SRS 0213.5 PP	13,5	-	2	26	33	40	0,8
SRS 0214 PP	14,0	-	2	26	33	40	0,8
SRS 0215 PP	15,0	-	2	26	33	40	0,8
SRS 0216 PP	16,0	5/8"	2	26	33	40	0,8
SRS 0217.2 PP	17,2	-	2	26	33	40	0,8
SRS 0218 PP	18,0	-	2	26	33	40	0,8
SRS 0319 PP	19,0	3/4"	3	33	35	48	1,0
SRS 0320 PP	20,0	-	3	33	35	48	1,0
SRS 0321.3 PP	21,3	-	3	33	35	48	1,0
SRS 0322 PP	22,0	-	3	33	35	48	1,0
SRS 0323 PP	23,0	-	3	33	35	48	1,0
SRS 0325 PP	25,0	1"	3	33	35	48	1,0
SRS 0426.9 PP	26,9	-	4	40	42	57	1,2
SRS 0428 PP	28,0	-	4	40	42	57	1,2
SRS 0430 PP	30,0	-	4	40	42	57	1,2
SRS 0532 PP	32,0	1.1/4"	5	52	58	70	1,2
SRS 0533.7 PP	33,7	-	5	52	58	70	1,2
SRS 0535 PP	35,0	-	5	52	58	70	1,2
SRS 0538 PP	38,0	1.1/2"	5	52	58	70	1,2
SRS 0540 PP	40,0	-	5	52	58	70	1,2
SRS 0542 PP	42,0	-	5	52	58	70	1,2
SRS 0542.4 PP	42,4	-	5	52	58	70	1,2
SRS 0644.5 PP	44,5	1.3/4"	6	66	66	86	1,2
SRS 0645 PP	45,0	-	6	66	66	86	1,2
SRS 0648 PP	48,0	-	6	66	66	86	1,2
SRS 0648.3 PP	48,3	-	6	66	66	86	1,2
SRS 0650 PP	50,0	-	6	66	66	86	1,2
SRS 0650.8 PP	50,8	2"	6	66	66	86	1,2
SRS 0652 PP	52,0	-	6	66	66	86	1,2
SRS 0655 PP	55,0	-	6	66	66	86	1,2

**SRS 1-6 PP**

(Continued)

**Pipe clamp, light series**

Identification	External pipe Ø d2 mm	External pipe Ø d2	Clamp size	e1 mm	H mm	L mm	S1 mm
SRS 0657 PP	57,0	2.1/4"	6	66	66	86	1,2

**Product versions:**

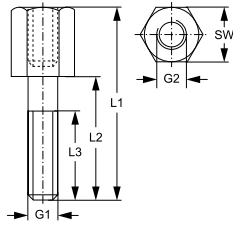
- SRS 1-6 AL - Pipe clamp, light series, Aluminium, Inside of clamp with web
- SRS 1-6 PA - Pipe clamp, light series, Polyamide 6, Inside of clamp with web
- SRS 1-6 PA G - Pipe clamp, light series, Polyamide 6, Inside of clamp, smooth
- SRS 1-6 PP G - Pipe clamp, light series, Polypropylene, Inside of clamp, smooth
- SRS 1-6 VG - Pipe clamp, light series, Solid rubber Shore 64°/73°, Inside of clamp, smooth

**Additional element for following products:**

- A 1-6 A - Configuration of group A 1-6 composition
- A 1-6 - Configuration of group A 1-6

## SRS 1-6 AF

### Stacking bolt for single pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**

for single pipe clamps  
 light  
 DIN 3015-1  
 Steel  
 electro galvanised

Identification	Clamp size	G1	G2	L1 mm	L2 mm	L3 mm	SW mm
SRS AF 1	0 - 1	M 6	M 6	34	20	18	11
SRS AF 2	2	M 6	M 6	39	25	18	11
SRS AF 3	3	M 6	M 6	44	28	18	11
SRS AF 4	4	M 6	M 6	49	35	18	11
SRS AF 5	5	M 6	M 6	64	50	18	11
SRS AF 6	6	M 6	M 6	74	60	18	11

**Product versions:**

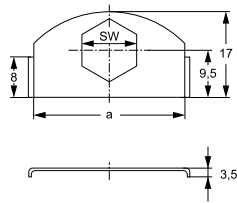
SRS 1-6 AF V4 - Stacking bolt for single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

A 1-6 A - Configuration of group A 1-6 composition

**SRS SIL****Lock washer for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** light  
**Standard:** DIN 3015-1  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** for all clamp sizes from light series and the double pipe clamp.



Identification	a mm	SW mm
SRS SIL	30	11

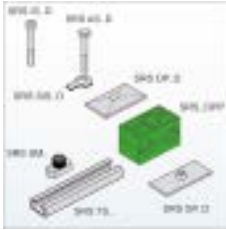
**Additional element for following products:**

A 0 A - Configuration of group A 0 composition

A 1-6 A - Configuration of group A 1-6 composition

## B

### Configuration of group B



**Description:**

The clamp size is the crucial selection criterion for the configuration. Can either be fitted on welding plates or on mounting rails.

#### Identification

B

**Additional elements:**

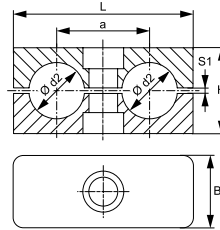
- SRS 1-5 D PP - Pipe clamp, double pipes
- SRS IS D - Hexagon socket screw, double pipe clamp
- SRS AS D - Hexagon screw for double pipe clamp
- SRS SIS D - Lock washer for double pipe clamp
- SRS DP D - Cover plate for double pipe clamp
- SRS TS - Mounting rail, single and double pipe clamp
- SRS SMD - Mounting rail nut, double pipe clamp
- SRS SP D - Welded on base plate for double pipe clamp
- SRS SPR D - Series welded on base plate, double pipe clamp



## SRS 1-5 D PP

## Pipe clamp, double pipes

**Design:** Double pipe clamp  
**Supplementary design information:** Inside of clamp with web  
**Standard:** DIN 3015-3  
**Temp. min.:** -30 °C  
**Temp. max.:** 90 °C  
**Material:** Polypropylene  
**Description:** Webs in the inner surface of the clamps dampen impacts and vibrations and absorb forces along the pipe axis. A gap between the two halves pretensions the pipe.



**Note:** The use of clamps with a smooth inner surface is recommended for retaining hoses and cables. No pretension is applied when fitting and the block height H is reduced to the gap width S1.

Identification	Clamp size	External pipe Ø d2 mm	External pipe Ø d2 mm	a mm	B mm	H mm	L mm	S1 mm
SRS 106 D PP	1	6,0	-	20	30	27	36	1,0
SRS 106.4 D PP	1	6,4	1/4"	20	30	27	36	1,0
SRS 108 D PP	1	8,0	5/16"	20	30	27	36	1,0
SRS 109.5 D PP	1	9,5	3/8"	20	30	27	36	1,0
SRS 110 D PP	1	10,0	-	20	30	27	36	1,0
SRS 112 D PP	1	12,0	-	20	30	27	36	1,0
SRS 212.7 D PP	2	12,7	1/2"	29	30	26	53	1,2
SRS 213.5 D PP	2	13,5	-	29	30	26	53	1,2
SRS 214 D PP	2	14,0	-	29	30	26	53	1,2
SRS 215 D PP	2	15,0	-	29	30	26	53	1,2
SRS 216 D PP	2	16,0	5/8"	29	30	26	53	1,2
SRS 217.2 D PP	2	17,2	-	29	30	26	53	1,2
SRS 218 D PP	2	18,0	-	29	30	26	53	1,2
SRS 319 D PP	3	19,0	3/4"	36	30	37	67	1,6
SRS 320 D PP	3	20,0	-	36	30	37	67	1,6
SRS 321.3 D PP	3	21,3	-	36	30	37	67	1,6
SRS 322 D PP	3	22,0	-	36	30	37	67	1,6
SRS 325 D PP	3	25,0	1"	36	30	37	67	1,6
SRS 426.9 D PP	4	26,9	-	45	30	42	82	2,0
SRS 428 D PP	4	28,0	-	45	30	42	82	2,0
SRS 430 D PP	4	30,0	-	45	30	42	82	2,0
SRS 532 D PP	5	32,0	1.1/4"	56	30	54	106	2,0
SRS 533.7 D PP	5	33,7	-	56	30	54	106	2,0
SRS 535 D PP	5	35,0	-	56	30	54	106	2,0
SRS 538 D PP	5	38,0	1.1/2"	56	30	54	106	2,0
SRS 542 D PP	5	42,0	-	56	30	54	106	2,0

**Product versions:**

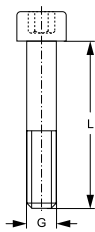
- SRS 1-5 D PP G - Pipe clamp, double pipes, Polypropylene, Inside of clamp, smooth
- SRS 1-5 D PA - Pipe clamp, double pipes, Polyamide 6, Inside of clamp with web
- SRS 1-5 D VG - Pipe clamp, double pipes, Solid rubber Shore 64°/73°, Inside of clamp, smooth

**Additional element for following products:**

- B A - Configuration of group B composition
- B - Configuration of group B

## SRS IS D

### Hexagon socket screw, double pipe clamp



**Design:**  
**Standard:**  
**Material:**  
**Surface:**

for twin pipe clamps  
 DIN 912 (ISO 4762)  
 Steel  
 electro galvanised

Identification	Clamp size	G	L mm	SW mm
SRS IS 1 D	1	M 6	35	5
SRS IS 2 D	2	M 8	35	6
SRS IS 3 D	3	M 8	45	6
SRS IS 4 D	4	M 8	50	6
SRS IS 5 D	5	M 8	60	6

**Additional element for following products:**

**B** - Configuration of group B

**SRS AS D****Hexagon screw for double pipe clamp**

**Design:** for twin pipe clamps  
**Standard:** DIN 931 (ISO 4014) or DIN 933 (ISO 4017)  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Clamp size	G	L mm	SW mm
SRS AS 1 D	1	M 6	35	10
SRS AS 2 D	2	M 8	35	13
SRS AS 3 D	3	M 8	45	13
SRS AS 4 D	4	M 8	50	13
SRS AS 5 D	5	M 8	60	13

**Product versions:**

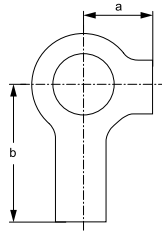
**SRS AS D V4** - Hexagon screw for double pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

**B** - Configuration of group B

## SRS SIS D

### Lock washer for double pipe clamp



**Design:**  
**Standard:**  
**Material:**  
**Surface:**

for twin pipe clamps  
 DIN 3015-1  
 Steel  
 electro galvanised

Identification	Clamp size	a mm	b mm
SRS SIS 1 D	1	9	18
SRS SIS 2 D	2 - 5	11	20

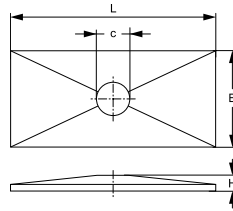
**Additional element for following products:**

B - Configuration of group B

7

**SRS DP D****Cover plate for double pipe clamp**

**Design:** for twin pipe clamps  
**Standard:** DIN 3015-3  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Clamp size	B mm	C mm	H mm	L mm
SRS DP 1 D	1	30	6,8	6,5	34
SRS DP 2 D	2	30	9,0	6,5	51
SRS DP 3 D	3	30	8,6	6,5	64
SRS DP 4 D	4	30	8,6	6,5	78
SRS DP 5 D	5	30	8,5	6,5	102

**Product versions:**

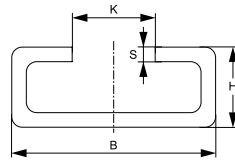
**SRS DP D V4** - Cover plate for double pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

**B** - Configuration of group B

## SRS TS

### Mounting rail, single and double pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Description:**

for single and twin pipe clamps  
 light  
 DIN 3015-1  
 Steel (bright)  
 for all clamp sizes from light series  
 and the double pipe clamp.

Identification	B mm	H mm	K mm	Length m	S mm
SRS TS 11-1	28,0	11	11,4	1,00	2,0
SRS TS 11-2	28,0	11	11,4	2,00	2,0
SRS TS 14-1	28,0	14	11,4	1,00	2,0
SRS TS 14-2	28,0	14	11,4	2,00	2,0
SRS TS 14-3	28,0	14	11,4	3,00	2,0
SRS TS 30-1	28,0	30	11,4	1,00	2,0
SRS TS 30-2	28,0	30	11,4	2,00	2,0

**Product versions:**

SRS TS V4 - Mounting rail, single and double pipe clamp, Stainless steel 1.4571

SRS TS VZ - Mounting rail, single and double pipe clamp, Steel, electro galvanised

**Additional element for following products:**

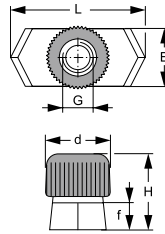
B - Configuration of group B

A 1-6 - Configuration of group A 1-6

A 0 - Configuration of group A 0

**SRS SMD****Mounting rail nut, double pipe clamp**

**Design:** for twin pipe clamps  
**Standard:** DIN 3015-3  
**Material:** Steel and rubber  
**Surface:** electro galvanised



Identification	Clamp size	B mm	d mm	f mm	G	H mm	L mm
SRS SMD	2 - 5	10,4	14	5	M 8	13,0	25,4

**Product versions:**

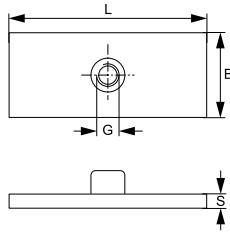
**SRS SMD V4** - Mounting rail nut, double pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

**B** - Configuration of group B

## SRS SP D

### Welded on base plate for double pipe clamp



**Design:**  
**Standard:**  
**Material:**  
**Surface:**

for twin pipe clamps  
 DIN 3015-3  
 Steel  
 phosphate treated

Identification	Clamp size	B mm	G	L mm	S mm
SRS SP 1 D	1	30	M 6	37	3
SRS SP 2 D	2	30	M 8	55	5
SRS SP 3 D	3	30	M 8	70	5
SRS SP 4 D	4	30	M 8	85	5
SRS SP 5 D	5	30	M 8	110	5

**Product versions:**

SRS SP D V4 - Welded on base plate for double pipe clamp, Stainless steel 1.4571

SRS SP D VZ - Welded on base plate for double pipe clamp, Steel, electro galvanised

**Additional element for following products:**

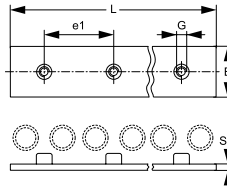
B - Configuration of group B



**SRS SPR D**

## Series welded on base plate, double pipe clamp

**Design:** for twin pipe clamps  
**Standard:** DIN 3015-3  
**Material:** Steel  
**Surface:** phosphate treated  
**Description:** Number of mountings: for 5 clamps.



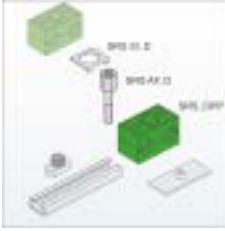
Identification	Clamp size	B mm	e1 mm	G	L mm	S mm
SRS SPR 1 D	1	30	40	M 6	196	3
SRS SPR 2 D	2	30	58	M 8	288	5
SRS SPR 3 D	3	30	72	M 8	358	5
SRS SPR 4 D	4	30	90	M 8	446	5
SRS SPR 5 D	5	30	112	M 8	558	5

**Additional element for following products:**

**B** - Configuration of group B

## BA

### Configuration of group B composition



**Description:**

The clamp size is the crucial selection criterion for the configuration. This configuration is for fitting on the components from group B.

#### Identification

B A

**Additional elements:**

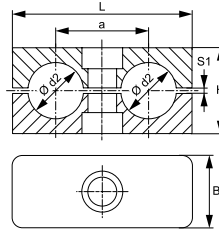
SRS 1-5 D PP - Pipe clamp, double pipes

SRS AF D - Mounting screw for double pipe clamp

SRS SI - Lock washer for double pipe clamp

**SRS 1-5 D PP****Pipe clamp, double pipes**

**Design:** Double pipe clamp  
**Supplementary design information:** Inside of clamp with web  
**Standard:** DIN 3015-3  
**Temp. min.:** -30 °C  
**Temp. max.:** 90 °C  
**Material:** Polypropylene  
**Description:** Webs in the inner surface of the clamps dampen impacts and vibrations and absorb forces along the pipe axis. A gap between the two halves pretensions the pipe.



**Note:** The use of clamps with a smooth inner surface is recommended for retaining hoses and cables. No pretension is applied when fitting and the block height H is reduced to the gap width S1.

Identification	Clamp size	External pipe Ø d2 mm	External pipe Ø d2 mm	a mm	B mm	H mm	L mm	S1 mm
SRS 106 D PP	1	6,0	-	20	30	27	36	1,0
SRS 106.4 D PP	1	6,4	1/4"	20	30	27	36	1,0
SRS 108 D PP	1	8,0	5/16"	20	30	27	36	1,0
SRS 109.5 D PP	1	9,5	3/8"	20	30	27	36	1,0
SRS 110 D PP	1	10,0	-	20	30	27	36	1,0
SRS 112 D PP	1	12,0	-	20	30	27	36	1,0
SRS 212.7 D PP	2	12,7	1/2"	29	30	26	53	1,2
SRS 213.5 D PP	2	13,5	-	29	30	26	53	1,2
SRS 214 D PP	2	14,0	-	29	30	26	53	1,2
SRS 215 D PP	2	15,0	-	29	30	26	53	1,2
SRS 216 D PP	2	16,0	5/8"	29	30	26	53	1,2
SRS 217.2 D PP	2	17,2	-	29	30	26	53	1,2
SRS 218 D PP	2	18,0	-	29	30	26	53	1,2
SRS 319 D PP	3	19,0	3/4"	36	30	37	67	1,6
SRS 320 D PP	3	20,0	-	36	30	37	67	1,6
SRS 321.3 D PP	3	21,3	-	36	30	37	67	1,6
SRS 322 D PP	3	22,0	-	36	30	37	67	1,6
SRS 325 D PP	3	25,0	1"	36	30	37	67	1,6
SRS 426.9 D PP	4	26,9	-	45	30	42	82	2,0
SRS 428 D PP	4	28,0	-	45	30	42	82	2,0
SRS 430 D PP	4	30,0	-	45	30	42	82	2,0
SRS 532 D PP	5	32,0	1.1/4"	56	30	54	106	2,0
SRS 533.7 D PP	5	33,7	-	56	30	54	106	2,0
SRS 535 D PP	5	35,0	-	56	30	54	106	2,0
SRS 538 D PP	5	38,0	1.1/2"	56	30	54	106	2,0
SRS 542 D PP	5	42,0	-	56	30	54	106	2,0

**Product versions:**

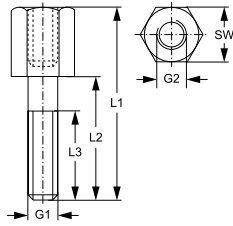
SRS 1-5 D PP G - Pipe clamp, double pipes, Polypropylene, Inside of clamp, smooth  
 SRS 1-5 D PA - Pipe clamp, double pipes, Polyamide 6, Inside of clamp with web  
 SRS 1-5 D VG - Pipe clamp, double pipes, Solid rubber Shore 64°/73°, Inside of clamp, smooth

**Additional element for following products:**

**B A** - Configuration of group B composition  
**B** - Configuration of group B

## SRS AF D

### Mounting screw for double pipe clamp



**Design:**  
**Standard:**  
**Material:**  
**Surface:**

for twin pipe clamps  
 DIN 3015-3  
 Steel  
 electro galvanised

Identification	Clamp size	G1	G2	L1 mm	L2 mm	L3 mm	SW mm
SRS AF 1 D	1	M 6	M 6	34	20	16	11
SRS AF 2 D	2	M 8	M 8	33	20	16	12
SRS AF 3 D	3	M 8	M 8	45	30	16	12
SRS AF 4 D	4	M 8	M 8	50	35	16	12
SRS AF 5 D	5	M 8	M 8	62	47	16	12

**Product versions:**

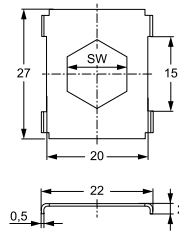
**SRS AF D V4** - Mounting screw for double pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

**B A** - Configuration of group B composition

**SRS SI****Lock washer for double pipe clamp**

**Design:** for twin pipe clamps  
**Standard:** DIN 3015-3  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Clamp size	SW mm
SRS SI 1 D	1	11
SRS SI 2 D	2 - 5	12

**Product versions:**

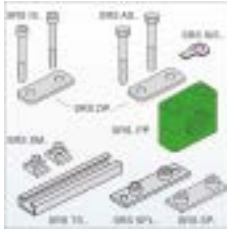
**SRS SI V4** - Lock washer for double pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

**B A** - Configuration of group B composition

## C

### Configuration of group C



**Description:**

The clamp size is the crucial selection criterion for the configuration. Can either be fitted on welding plates or on mounting rails.

#### Identification

C

**Additional elements:**

- SRS 30-100 PP - Pipe clamp, heavy series
- SRS IS 30-100 - Hexagon socket screw, single pipe clamp
- SRS AS 30-100 - Hexagon screw for single pipe clamp
- SRS SIS 30-100 - Lock washer for single pipe clamp
- SRS DP 30-100 - Cover plate for single pipe clamp
- SRS TS 40 - Mounting rail, single pipe clamp
- SRS SM 30-60 - Mounting rail nut, single pipe clamp
- SRS SP 30-100 - Welded on base plate for single pipe clamp
- SRS SPL 30-100 - Welded on and screw-on base plate, long

## SRS 30-100 PP

## Pipe clamp, heavy series

**Design:** Single pipe clamp

**Supplementary design information:** Inside of clamp with web heavy

**Series:** DIN 3015-2

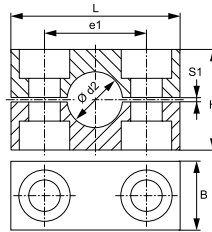
**Standard:** -30 °C

**Temp. min.:** 90 °C

**Temp. max.:** Polypropylene

**Material:** Webs in the inner surface of the clamps dampen impacts and vibrations and absorb forces along the pipe axis. A gap between the two halves pretensions the pipe.

**Description:**



**Note:** The use of clamps with a smooth inner surface is recommended for retaining hoses and cables. No pretension is applied when fitting and the block height H is reduced to the gap width S1.

Identification	Clamp size	External pipe Ø d2 mm	External pipe Ø d2	B mm	e1 mm	H mm	L mm	S1 mm
SRS 3006 PP	1	6,0	-	30	33	32	56	2
SRS 3008 PP	1	8,0	5/16"	30	33	32	56	2
SRS 3010 PP	1	10,0	-	30	33	32	56	2
SRS 3012 PP	1	12,0	-	30	33	32	56	2
SRS 3012.7 PP	1	12,7	1/2"	30	33	32	56	2
SRS 3013.5 PP	1	13,5	-	30	33	32	56	2
SRS 3014 PP	1	14,0	-	30	33	32	56	2
SRS 3015 PP	1	15,0	-	30	33	32	56	2
SRS 3016 PP	1	16,0	5/8"	30	33	32	56	2
SRS 3017.2 PP	1	17,2	-	30	33	32	56	2
SRS 3018 PP	1	18,0	-	30	33	32	56	2
SRS 4019 PP	2	19,0	3/4"	30	45	48	71	2
SRS 4020 PP	2	20,0	-	30	45	48	71	2
SRS 4021.3 PP	2	21,3	-	30	45	48	71	2
SRS 4022 PP	2	22,0	-	30	45	48	71	2
SRS 4023 PP	2	23,0	-	30	45	48	71	2
SRS 4025 PP	2	25,0	1"	30	45	48	71	2
SRS 4026.9 PP	2	26,9	-	30	45	48	71	2
SRS 4028 PP	2	28,0	-	30	45	48	71	2
SRS 4030 PP	2	30,0	-	30	45	48	71	2
SRS 5030 PP	3	30,0	-	30	60	60	86	2
SRS 5032 PP	3	32,0	1.1/4"	30	60	60	86	2
SRS 5033.7 PP	3	33,7	-	30	60	60	86	2
SRS 5035 PP	3	35,0	-	30	60	60	86	2
SRS 5038 PP	3	38,0	1.1/2"	30	60	60	86	2
SRS 5040 PP	3	40,0	-	30	60	60	86	2
SRS 5042 PP	3	42,0	-	30	60	60	86	2
SRS 6038 PP	4	38,0	1.1/2"	45	90	90	117	3
SRS 6040 PP	4	40,0	-	45	90	90	117	3
SRS 6042 PP	4	42,0	-	45	90	90	117	3
SRS 6045 PP	4	45,0	-	45	90	90	117	3
SRS 6048.3 PP	4	48,3	-	45	90	90	117	3
SRS 6050 PP	4	50,0	-	45	90	90	117	3
SRS 6051 PP	4	51,0	2"	45	90	90	117	3
SRS 6052 PP	4	52,0	-	45	90	90	117	3
SRS 6055 PP	4	55,0	-	45	90	90	117	3
SRS 6057 PP	4	57,0	2.1/4"	45	90	90	117	3
SRS 6060.3 PP	4	60,3	-	45	90	90	117	3
SRS 6063 PP	4	63,0	2.1/2"	45	90	90	117	3
SRS 6065 PP	4	65,0	-	45	90	90	117	3
SRS 6070 PP	4	70,0	-	45	90	90	117	3
SRS 7070 PP	5	70,0	-	60	122	120	154	5

**SRS 30-100 PP****Pipe clamp, heavy series****(Continued)**

Identification	Clamp size	External pipe Ø d2 mm	External pipe Ø d2	B mm	e1 mm	H mm	L mm	S1 mm
SRS 7073 PP	5	73,0	-	60	122	120	154	5
SRS 7075 PP	5	75,0	-	60	122	120	154	5
SRS 7076.1 PP	5	76,1	3"	60	122	120	154	5
SRS 7080 PP	5	80,0	-	60	122	120	154	5
SRS 7082.5 PP	5	82,5	3.1/4"	60	122	120	154	5
SRS 7088.9 PP	5	88,9	3.1/2"	60	122	120	154	5
SRS 7090 PP	5	90,0	-	60	122	120	154	5
SRS 8090 PP	6	90,0	-	80	168	170	205	6
SRS 8097 PP	6	97,0	-	80	168	170	205	6
SRS 8100 PP	6	100,0	-	80	168	170	205	6
SRS 8101.6 PP	6	101,6	4"	80	168	170	205	6
SRS 8108 PP	6	108,0	4.1/4"	80	168	170	205	6
SRS 8114.3 PP	6	114,3	4.1/2"	80	168	170	205	6
SRS 8127 PP	6	127,0	5"	80	168	170	205	6
SRS 9127 PP	7	127,0	5"	90	205	200	250	6
SRS 9133 PP	7	133,0	5.1/4"	90	205	200	250	6
SRS 9140 PP	7	140,0	5.1/2"	90	205	200	250	6
SRS 9150 PP	7	150,0	-	90	205	200	250	6
SRS 9152.4 PP	7	152,4	6"	90	205	200	250	6
SRS 9159 PP	7	159,0	6.1/4"	90	205	200	250	6
SRS 9165.1 PP	7	165,1	6.1/2"	90	205	200	250	6
SRS 9168.3 PP	7	168,3	6.5/8"	90	205	200	250	6
SRS 10168.3 PP	8	168,3	6.5/8"	120	265	270	320	6
SRS 10177.8 PP	8	177,8	7"	120	265	270	320	6
SRS 10193.7 PP	8	193,7	7.5/8"	120	265	270	320	6
SRS 10203 PP	8	203,0	-	120	265	270	320	6
SRS 10219.1 PP	8	219,1	8.5/8"	120	265	270	320	6
SRS 10220 PP	8	220,0	-	120	265	270	320	6

**Product versions:**

SRS 30-100 AL - Pipe clamp, heavy series, Aluminium, Inside of clamp with web

SRS 30-100 PA - Pipe clamp, heavy series, Polyamide 6, Inside of clamp with web

SRS 30-100 PP G - Pipe clamp, heavy series, Polypropylene, Inside of clamp, smooth

SRS 30-100 VG - Pipe clamp, heavy series, Solid rubber Shore 64°/73°, Inside of clamp with web

**Additional element for following products:**

C D - Configuration of group C double

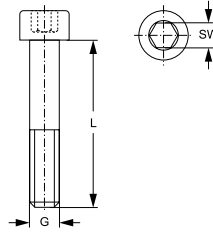
C A - Configuration of group C composition

C - Configuration of group C



**SRS IS 30-100****Hexagon socket screw, single pipe clamp**

**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 912 (ISO 4762)  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Clamp size	G	L mm	SW mm
SRS IS 30	1	M 10	40	8
SRS IS 40	2	M 10	60	8
SRS IS 50	3	M 10	70	8
SRS IS 60	4	M 12	100	10
SRS IS 70	5	M 16	130	14
SRS IS 80	6	M 20	190	17
SRS IS 90	7	M 24	220	19
SRS IS 100	8	M 30	300	22

**Product versions:**

**SRS IS 30-100 V4** - Hexagon socket screw, single pipe clamp, Stainless steel 1.4571

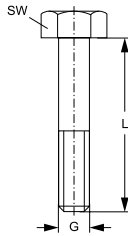
**Additional element for following products:**

C - Configuration of group C

C D - Configuration of group C double

## SRS AS 30-100

### Hexagon screw for single pipe clamp



**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 931 (ISO 4014) or DIN 933 (ISO 4017)  
**Material:** Steel  
**Surface:** electro galvanised

Identification	Clamp size	G	L mm	SW mm
SRS AS 30	1	M 10	40	17
SRS AS 40	2	M 10	60	17
SRS AS 50	3	M 10	70	17
SRS AS 60	4	M 12	100	19
SRS AS 70	5	M 16	130	24
SRS AS 80	6	M 20	190	30
SRS AS 90	7	M 24	220	36
SRS AS 100	8	M 30	300	46

**Product versions:**

SRS AS 30-100 V4 - Hexagon screw for single pipe clamp, Stainless steel 1.4571

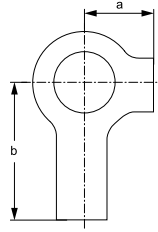
**Additional element for following products:**

C D - Configuration of group C double

C - Configuration of group C

**SRS SIS 30-100****Lock washer for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 3015-2  
**Material:** Steel  
**Surface:** Size 1 to size 4 electro galvanised,  
 uncoated from size 5



Identification	Clamp size	a mm	b mm
SRS SIS 30	1	13	22
SRS SIS 60	4	15	28
SRS SIS 70	5	18	32
SRS SIS 80	6	21	36

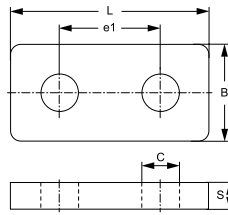
**Additional element for following products:**

C D - Configuration of group C double

C - Configuration of group C

## SRS DP 30-100

### Cover plate for single pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**

for single pipe clamps  
 heavy  
 DIN 3015-2  
 Steel  
 Size 1 to size 4 electro galvanised,  
 uncoated from size 5

Identification	Clamp size	B mm	C mm	e1 mm	L mm	S mm
SRS DP 30	1	30	11,0	33	55	8
SRS DP 40	2	30	11,0	45	70	8
SRS DP 50	3	30	11,0	60	85	8
SRS DP 60	4	45	14,0	90	115	10
SRS DP 70	5	60	18,0	122	152	10
SRS DP 80	6	80	22,0	168	205	15
SRS DP 90	7	90	28,0	205	250	15
SRS DP 100	8	120	34,0	265	322	25

**Product versions:**

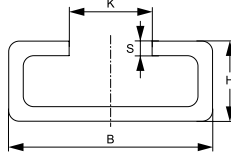
SRS DP 30-100 V4 - Cover plate for single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

C - Configuration of group C

**SRS TS 40****Mounting rail, single pipe clamp**

**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 3015-2  
**Material:** Steel (bright)  
**Description:** for clamp sizes 1-4 from heavy series.



Identification	B mm	H mm	K mm	S mm	Length m
SRS TS 40-1	40	22	12,5	5	1,00
SRS TS 40-2	40	22	12,5	5	2,00

**Product versions:**

**SRS TS 40 VZ** - Mounting rail, single pipe clamp, Steel, electro galvanised

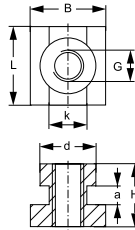
**SRS TS 40 V4** - Mounting rail, single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

**C** - Configuration of group C

## SRS SM 30-60

### Mounting rail nut, single pipe clamp



**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 3015  
**Material:** Steel  
**Surface:** electro galvanised  
**Description:** for clamp sizes 1-4 from heavy series.

Identification	Clamp size	a mm	B mm	d mm	G	H mm	K mm	L mm
SRS SM 60	4	6	24	19,8	M 12	23	12,0	25

**Product versions:**

SRS SM 30-60 V4 - Mounting rail nut, single pipe clamp, Stainless steel 1.4571

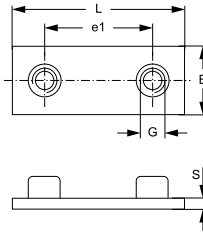
SRS SM 30-60 VZ - Mounting rail nut, single pipe clamp, Steel, electro galvanised

**Additional element for following products:**

C - Configuration of group C

**SRS SP 30-100****Welded on base plate for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 3015-2  
**Material:** Steel  
**Surface:** phosphate treated



Identification	Clamp size	B mm	e1 mm	G	L mm	S mm
SRS SP 30	1	30	33	M 10	73	8
SRS SP 40	2	30	45	M 10	84	8
SRS SP 50	3	30	60	M 10	100	8
SRS SP 60	4	45	90	M 12	140	10
SRS SP 70	5	60	122	M 16	180	10
SRS SP 80	6	80	168	M 20	225	15
SRS SP 90	7	90	205	M 24	270	15
SRS SP 100	8	120	265	M 30	340	25

**Product versions:**

**SRS SP 30-100 V4** - Welded on base plate for single pipe clamp, Stainless steel 1.4571

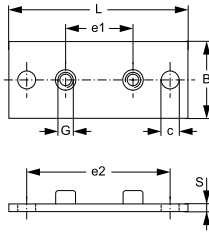
**SRS SP 30-100 VZ** - Welded on base plate for single pipe clamp, Steel, electro galvanised

**Additional element for following products:**

C - Configuration of group C

## SRS SPL 30-100

### Welded on and screw-on base plate, long



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**

for single pipe clamps  
 heavy  
 DIN 3015-2  
 Steel  
 phosphate treated

Identification	Clamp size	B mm	c mm	e1 mm	e2 mm	G	L mm	S mm
SRS SPL 30	1	30	11	33	85	M 10	113	8
SRS SPL 40	2	30	11	45	97	M 10	125	8
SRS SPL 50	3	30	11	60	112	M 10	140	8
SRS SPL 60	4	45	14	90	160	M 12	190	10
SRS SPL 70	5	60	18	122	205	M 16	240	10
SRS SPL 80	6	80	22	168	270	M 20	310	15
SRS SPL 90	7	90	26	205	320	M 24	370	15
SRS SPL 100	8	120	33	265	390	M 30	450	25

**Additional element for following products:**  
 C - Configuration of group C

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## Configuration of group C composition

**Description:**

This configuration is for fitting on the components from group C. The clamp size is the crucial selection criterion for the configuration.

**Identification**

C A

**Additional elements:**

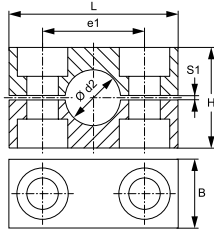
SRS 30-100 PP - Pipe clamp, heavy series

SRS AF 30-100 - Stacking bolt for single pipe clamp

SRS SIP - Locking plate for single pipe clamp

## SRS 30-100 PP

### Pipe clamp, heavy series



**Design:**  
**Supplementary design information:**  
**Series:**  
**Standard:**  
**Temp. min.:**  
**Temp. max.:**  
**Material:**  
**Description:**

Single pipe clamp

Inside of clamp with web heavy  
 DIN 3015-2  
 -30 °C  
 90 °C  
 Polypropylene

Webs in the inner surface of the clamps dampen impacts and vibrations and absorb forces along the pipe axis. A gap between the two halves pretensions the pipe.

**Note:** The use of clamps with a smooth inner surface is recommended for retaining hoses and cables. No pretension is applied when fitting and the block height H is reduced to the gap width S1.

Identification	Clamp size	External pipe $\varnothing d_2$ mm	External pipe $\varnothing d_2$	B mm	e1 mm	H mm	L mm	S1 mm
SRS 3006 PP	1	6,0	-	30	33	32	56	2
SRS 3008 PP	1	8,0	5/16"	30	33	32	56	2
SRS 3010 PP	1	10,0	-	30	33	32	56	2
SRS 3012 PP	1	12,0	-	30	33	32	56	2
SRS 3012.7 PP	1	12,7	1/2"	30	33	32	56	2
SRS 3013.5 PP	1	13,5	-	30	33	32	56	2
SRS 3014 PP	1	14,0	-	30	33	32	56	2
SRS 3015 PP	1	15,0	-	30	33	32	56	2
SRS 3016 PP	1	16,0	5/8"	30	33	32	56	2
SRS 3017.2 PP	1	17,2	-	30	33	32	56	2
SRS 3018 PP	1	18,0	-	30	33	32	56	2
SRS 4019 PP	2	19,0	3/4"	30	45	48	71	2
SRS 4020 PP	2	20,0	-	30	45	48	71	2
SRS 4021.3 PP	2	21,3	-	30	45	48	71	2
SRS 4022 PP	2	22,0	-	30	45	48	71	2
SRS 4023 PP	2	23,0	-	30	45	48	71	2
SRS 4025 PP	2	25,0	1"	30	45	48	71	2
SRS 4026.9 PP	2	26,9	-	30	45	48	71	2
SRS 4028 PP	2	28,0	-	30	45	48	71	2
SRS 4030 PP	2	30,0	-	30	45	48	71	2
SRS 5030 PP	3	30,0	-	30	60	60	86	2
SRS 5032 PP	3	32,0	1.1/4"	30	60	60	86	2
SRS 5033.7 PP	3	33,7	-	30	60	60	86	2
SRS 5035 PP	3	35,0	-	30	60	60	86	2
SRS 5038 PP	3	38,0	1.1/2"	30	60	60	86	2
SRS 5040 PP	3	40,0	-	30	60	60	86	2
SRS 5042 PP	3	42,0	-	30	60	60	86	2
SRS 6038 PP	4	38,0	1.1/2"	45	90	90	117	3
SRS 6040 PP	4	40,0	-	45	90	90	117	3
SRS 6042 PP	4	42,0	-	45	90	90	117	3
SRS 6045 PP	4	45,0	-	45	90	90	117	3
SRS 6048.3 PP	4	48,3	-	45	90	90	117	3
SRS 6050 PP	4	50,0	-	45	90	90	117	3
SRS 6051 PP	4	51,0	2"	45	90	90	117	3
SRS 6052 PP	4	52,0	-	45	90	90	117	3
SRS 6055 PP	4	55,0	-	45	90	90	117	3
SRS 6057 PP	4	57,0	2.1/4"	45	90	90	117	3
SRS 6060.3 PP	4	60,3	-	45	90	90	117	3
SRS 6063 PP	4	63,0	2.1/2"	45	90	90	117	3
SRS 6065 PP	4	65,0	-	45	90	90	117	3
SRS 6070 PP	4	70,0	-	45	90	90	117	3
SRS 7070 PP	5	70,0	-	60	122	120	154	5

**SRS 30-100 PP**

(Continued)

Pipe clamp, heavy series

Identification	Clamp size	External pipe Ø d2 mm	External pipe Ø d2	B mm	e1 mm	H mm	L mm	S1 mm
SRS 7073 PP	5	73,0	-	60	122	120	154	5
SRS 7075 PP	5	75,0	-	60	122	120	154	5
SRS 7076.1 PP	5	76,1	3"	60	122	120	154	5
SRS 7080 PP	5	80,0	-	60	122	120	154	5
SRS 7082.5 PP	5	82,5	3.1/4"	60	122	120	154	5
SRS 7088.9 PP	5	88,9	3.1/2"	60	122	120	154	5
SRS 7090 PP	5	90,0	-	60	122	120	154	5
SRS 8090 PP	6	90,0	-	80	168	170	205	6
SRS 8097 PP	6	97,0	-	80	168	170	205	6
SRS 8100 PP	6	100,0	-	80	168	170	205	6
SRS 8101.6 PP	6	101,6	4"	80	168	170	205	6
SRS 8108 PP	6	108,0	4.1/4"	80	168	170	205	6
SRS 8114.3 PP	6	114,3	4.1/2"	80	168	170	205	6
SRS 8127 PP	6	127,0	5"	80	168	170	205	6
SRS 9127 PP	7	127,0	5"	90	205	200	250	6
SRS 9133 PP	7	133,0	5.1/4"	90	205	200	250	6
SRS 9140 PP	7	140,0	5.1/2"	90	205	200	250	6
SRS 9150 PP	7	150,0	-	90	205	200	250	6
SRS 9152.4 PP	7	152,4	6"	90	205	200	250	6
SRS 9159 PP	7	159,0	6.1/4"	90	205	200	250	6
SRS 9165.1 PP	7	165,1	6.1/2"	90	205	200	250	6
SRS 9168.3 PP	7	168,3	6.5/8"	90	205	200	250	6
SRS 10168.3 PP	8	168,3	6.5/8"	120	265	270	320	6
SRS 10177.8 PP	8	177,8	7"	120	265	270	320	6
SRS 10193.7 PP	8	193,7	7.5/8"	120	265	270	320	6
SRS 10203 PP	8	203,0	-	120	265	270	320	6
SRS 10219.1 PP	8	219,1	8.5/8"	120	265	270	320	6
SRS 10220 PP	8	220,0	-	120	265	270	320	6

**Product versions:****SRS 30-100 AL** - Pipe clamp, heavy series, Aluminium, Inside of clamp with web**SRS 30-100 PA** - Pipe clamp, heavy series, Polyamide 6, Inside of clamp with web**SRS 30-100 PP G** - Pipe clamp, heavy series, Polypropylene, Inside of clamp, smooth**SRS 30-100 VG** - Pipe clamp, heavy series, Solid rubber Shore 64°/73°, Inside of clamp with web**Additional element for following products:**

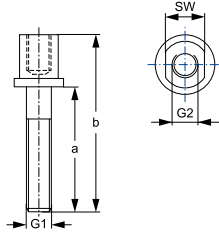
C D - Configuration of group C double

C A - Configuration of group C composition

C - Configuration of group C

## SRS AF 30-100

### Stacking bolt for single pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**

for single pipe clamps  
 heavy  
 DIN 3015-2  
 Steel  
 electro galvanised

Identification	Clamp size	a mm	b mm	G1 + G2	SW mm
SRS AF 30	1	25	51	M 10	15
SRS AF 40	2	40	65	M 10	15
SRS AF 50	3	50	76	M 10	15
SRS AF 60	4	85	112	M 12	17
SRS AF 70	5	110	146	M 16	21
SRS AF 80	6	155	206	M 20	27
SRS AF 90	7	185	245	M 24	30
SRS AF 100	8	250	330	M 30	36

**Product versions:**

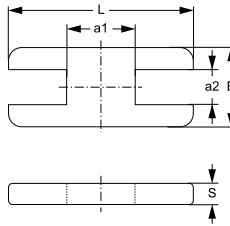
SRS AF 30-100 V4 - Stacking bolt for single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

C A - Configuration of group C composition

**SRS SIP****Locking plate for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 3015-2  
**Material:** Steel  
**Surface:** Size 1 to size 4 electro galvanised, uncoated from size 5



Identification	Clamp size	a1 mm	a2 mm	B mm	L mm	S mm
SRS SIP 30	1	14,0	15,5	30	55	8
SRS SIP 40	2	26,0	15,5	30	70	8
SRS SIP 50	3	41,0	15,5	30	85	8
SRS SIP 60	4	69,0	17,5	45	115	10
SRS SIP 70	5	97,0	21,5	60	152	10
SRS SIP 80	6	137,0	27,5	80	205	15
SRS SIP 90	7	169,0	30,5	90	250	15
SRS SIP 100	8	219,0	36,5	120	320	25

**Product versions:**

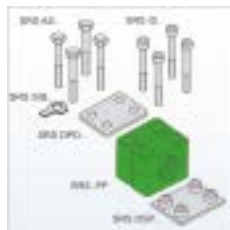
**SRS SIP V4** - Locking plate for single pipe clamp, Stainless steel 1.4571

**Additional element for following products:**

**C A** - Configuration of group C composition

## CD

### Configuration of group C double



**Description:** The clamp size is the crucial selection criterion for the configuration. Can either be fitted on welding plates or on mounting rails.

#### Identification

C D

#### Additional elements:

- SRS 30-100 PP - Pipe clamp, heavy series
- SRS IS 30-100 - Hexagon socket screw, single pipe clamp
- SRS AS 30-100 - Hexagon screw for single pipe clamp
- SRS SIS 30-100 - Lock washer for single pipe clamp
- SRS DPD 30-100 - Double cover plate for single pipe clamp
- SRS D SP 30-100 - Double welded on base plate, single pipe clamp

## SRS 30-100 PP

## Pipe clamp, heavy series

**Design:** Single pipe clamp

**Supplementary design information:** Inside of clamp with web heavy

**Series:** DIN 3015-2

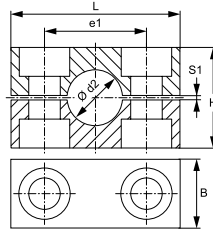
**Standard:** -30 °C

**Temp. min.:** 90 °C

**Temp. max.:** Polypropylene

**Material:** Webs in the inner surface of the clamps dampen impacts and vibrations and absorb forces along the pipe axis. A gap between the two halves pretensions the pipe.

**Description:**



**Note:** The use of clamps with a smooth inner surface is recommended for retaining hoses and cables. No pretension is applied when fitting and the block height H is reduced to the gap width S1.

Identification	Clamp size	External pipe Ø d2 mm	External pipe Ø d2	B mm	e1 mm	H mm	L mm	S1 mm
SRS 3006 PP	1	6,0	-	30	33	32	56	2
SRS 3008 PP	1	8,0	5/16"	30	33	32	56	2
SRS 3010 PP	1	10,0	-	30	33	32	56	2
SRS 3012 PP	1	12,0	-	30	33	32	56	2
SRS 3012.7 PP	1	12,7	1/2"	30	33	32	56	2
SRS 3013.5 PP	1	13,5	-	30	33	32	56	2
SRS 3014 PP	1	14,0	-	30	33	32	56	2
SRS 3015 PP	1	15,0	-	30	33	32	56	2
SRS 3016 PP	1	16,0	5/8"	30	33	32	56	2
SRS 3017.2 PP	1	17,2	-	30	33	32	56	2
SRS 3018 PP	1	18,0	-	30	33	32	56	2
SRS 4019 PP	2	19,0	3/4"	30	45	48	71	2
SRS 4020 PP	2	20,0	-	30	45	48	71	2
SRS 4021.3 PP	2	21,3	-	30	45	48	71	2
SRS 4022 PP	2	22,0	-	30	45	48	71	2
SRS 4023 PP	2	23,0	-	30	45	48	71	2
SRS 4025 PP	2	25,0	1"	30	45	48	71	2
SRS 4026.9 PP	2	26,9	-	30	45	48	71	2
SRS 4028 PP	2	28,0	-	30	45	48	71	2
SRS 4030 PP	2	30,0	-	30	45	48	71	2
SRS 5030 PP	3	30,0	-	30	60	60	86	2
SRS 5032 PP	3	32,0	1.1/4"	30	60	60	86	2
SRS 5033.7 PP	3	33,7	-	30	60	60	86	2
SRS 5035 PP	3	35,0	-	30	60	60	86	2
SRS 5038 PP	3	38,0	1.1/2"	30	60	60	86	2
SRS 5040 PP	3	40,0	-	30	60	60	86	2
SRS 5042 PP	3	42,0	-	30	60	60	86	2
SRS 6038 PP	4	38,0	1.1/2"	45	90	90	117	3
SRS 6040 PP	4	40,0	-	45	90	90	117	3
SRS 6042 PP	4	42,0	-	45	90	90	117	3
SRS 6045 PP	4	45,0	-	45	90	90	117	3
SRS 6048.3 PP	4	48,3	-	45	90	90	117	3
SRS 6050 PP	4	50,0	-	45	90	90	117	3
SRS 6051 PP	4	51,0	2"	45	90	90	117	3
SRS 6052 PP	4	52,0	-	45	90	90	117	3
SRS 6055 PP	4	55,0	-	45	90	90	117	3
SRS 6057 PP	4	57,0	2.1/4"	45	90	90	117	3
SRS 6060.3 PP	4	60,3	-	45	90	90	117	3
SRS 6063 PP	4	63,0	2.1/2"	45	90	90	117	3
SRS 6065 PP	4	65,0	-	45	90	90	117	3
SRS 6070 PP	4	70,0	-	45	90	90	117	3
SRS 7070 PP	5	70,0	-	60	122	120	154	5

**SRS 30-100 PP****Pipe clamp, heavy series****(Continued)**

Identification	Clamp size	External pipe Ø d2 mm	External pipe Ø d2	B mm	e1 mm	H mm	L mm	S1 mm
SRS 7073 PP	5	73,0	-	60	122	120	154	5
SRS 7075 PP	5	75,0	-	60	122	120	154	5
SRS 7076.1 PP	5	76,1	3"	60	122	120	154	5
SRS 7080 PP	5	80,0	-	60	122	120	154	5
SRS 7082.5 PP	5	82,5	3.1/4"	60	122	120	154	5
SRS 7088.9 PP	5	88,9	3.1/2"	60	122	120	154	5
SRS 7090 PP	5	90,0	-	60	122	120	154	5
SRS 8090 PP	6	90,0	-	80	168	170	205	6
SRS 8097 PP	6	97,0	-	80	168	170	205	6
SRS 8100 PP	6	100,0	-	80	168	170	205	6
SRS 8101.6 PP	6	101,6	4"	80	168	170	205	6
SRS 8108 PP	6	108,0	4.1/4"	80	168	170	205	6
SRS 8114.3 PP	6	114,3	4.1/2"	80	168	170	205	6
SRS 8127 PP	6	127,0	5"	80	168	170	205	6
SRS 9127 PP	7	127,0	5"	90	205	200	250	6
SRS 9133 PP	7	133,0	5.1/4"	90	205	200	250	6
SRS 9140 PP	7	140,0	5.1/2"	90	205	200	250	6
SRS 9150 PP	7	150,0	-	90	205	200	250	6
SRS 9152.4 PP	7	152,4	6"	90	205	200	250	6
SRS 9159 PP	7	159,0	6.1/4"	90	205	200	250	6
SRS 9165.1 PP	7	165,1	6.1/2"	90	205	200	250	6
SRS 9168.3 PP	7	168,3	6.5/8"	90	205	200	250	6
SRS 10168.3 PP	8	168,3	6.5/8"	120	265	270	320	6
SRS 10177.8 PP	8	177,8	7"	120	265	270	320	6
SRS 10193.7 PP	8	193,7	7.5/8"	120	265	270	320	6
SRS 10203 PP	8	203,0	-	120	265	270	320	6
SRS 10219.1 PP	8	219,1	8.5/8"	120	265	270	320	6
SRS 10220 PP	8	220,0	-	120	265	270	320	6

**Product versions:**

SRS 30-100 AL - Pipe clamp, heavy series, Aluminium, Inside of clamp with web

SRS 30-100 PA - Pipe clamp, heavy series, Polyamide 6, Inside of clamp with web

SRS 30-100 PP G - Pipe clamp, heavy series, Polypropylene, Inside of clamp, smooth

SRS 30-100 VG - Pipe clamp, heavy series, Solid rubber Shore 64°/73°, Inside of clamp with web

**Additional element for following products:**

C D - Configuration of group C double

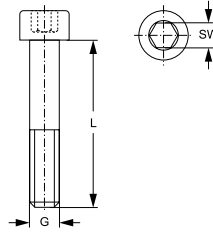
C A - Configuration of group C composition

C - Configuration of group C



**SRS IS 30-100****Hexagon socket screw, single pipe clamp**

**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 912 (ISO 4762)  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Clamp size	G	L mm	SW mm
SRS IS 30	1	M 10	40	8
SRS IS 40	2	M 10	60	8
SRS IS 50	3	M 10	70	8
SRS IS 60	4	M 12	100	10
SRS IS 70	5	M 16	130	14
SRS IS 80	6	M 20	190	17
SRS IS 90	7	M 24	220	19
SRS IS 100	8	M 30	300	22

**Product versions:**

**SRS IS 30-100 V4** - Hexagon socket screw, single pipe clamp, Stainless steel 1.4571

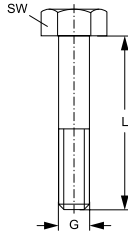
**Additional element for following products:**

**C** - Configuration of group C

**C D** - Configuration of group C double

## SRS AS 30-100

### Hexagon screw for single pipe clamp



**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 931 (ISO 4014) or DIN 933 (ISO 4017)  
**Material:** Steel  
**Surface:** electro galvanised

Identification	Clamp size	G	L mm	SW mm
SRS AS 30	1	M 10	40	17
SRS AS 40	2	M 10	60	17
SRS AS 50	3	M 10	70	17
SRS AS 60	4	M 12	100	19
SRS AS 70	5	M 16	130	24
SRS AS 80	6	M 20	190	30
SRS AS 90	7	M 24	220	36
SRS AS 100	8	M 30	300	46

**Product versions:**

**SRS AS 30-100 V4** - Hexagon screw for single pipe clamp, Stainless steel 1.4571

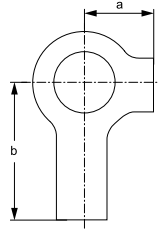
**Additional element for following products:**

**C D** - Configuration of group C double

**C** - Configuration of group C

**SRS SIS 30-100****Lock washer for single pipe clamp**

**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 3015-2  
**Material:** Steel  
**Surface:** electro galvanised



Identification	Clamp size	a mm	b mm
SRS SIS 30	1	13	22
SRS SIS 60	4	15	28
SRS SIS 70	5	18	32
SRS SIS 80	6	21	36

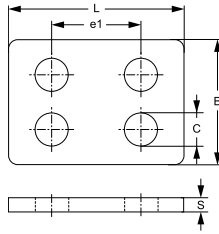
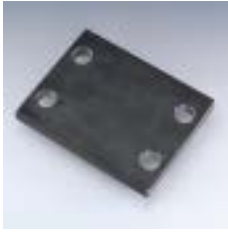
**Additional element for following products:**

C D - Configuration of group C double

C - Configuration of group C

## SRS DPD 30-100

### Double cover plate for single pipe clamp



**Design:**  
**Series:**  
**Standard:**  
**Material:**  
**Surface:**

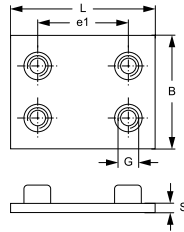
for single pipe clamps  
 heavy  
 DIN 3015-2  
 Steel  
 Size 1 to size 7 electro galvanised,  
 uncoated size 8

Identification	Clamp size	B mm	C mm	e1 mm	L mm	S mm
SRS DPD 30	1	60	11,0	33	55	8
SRS DPD 40	2	60	11,0	45	70	8
SRS DPD 50	3	60	11,0	60	85	8
SRS DPD 60	4	90	14,0	90	115	10
SRS DPD 70	5	120	18,0	122	152	10
SRS DPD 80	6	160	24,0	168	205	15
SRS DPD 90	7	180	28,0	205	250	15
SRS DPD 100	8	240	34,0	265	322	25

**Additional element for following products:**  
 C D - Configuration of group C double

**SRS D SP 30-100****Double welded on base plate, single pipe clamp**

**Design:** for single pipe clamps  
**Series:** heavy  
**Standard:** DIN 3015-2  
**Material:** Steel  
**Surface:** phosphate treated



Identification	Clamp size	B mm	e1 mm	G	L mm	S mm
SRS D SP 30	1	60	33	M 10	73	8
SRS D SP 40	2	60	45	M 10	84	8
SRS D SP 50	3	60	60	M 10	100	8
SRS D SP 60	4	90	90	M 12	140	10
SRS D SP 70	5	120	122	M 16	180	10
SRS D SP 80	6	160	168	M 20	225	15
SRS D SP 90	7	180	205	M 24	270	15
SRS D SP 100	8	240	265	M 30	340	25

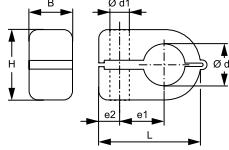
**Additional element for following products:**

**C D** - Configuration of group C double

**C** - Configuration of group C

## LBS

### Light construction pipe clamp



**Design:**  
**Temp. min.:**  
**Temp. max.:**  
**Material:**  
**Description:**

Single pipe clamp  
 -30 °C  
 90 °C  
 Polypropylene  
 for quick installation of cables,  
 hoses, oil and lubrication lines.  
 Screw mounting.

Identification	Clamp size	Ø d1 mm	External pipe Ø d2 mm	External pipe Ø d2	B mm	e1 mm	e2 mm	H mm	L mm
LBS 106	1	6,5	6,0	-	14,5	9	7	13,5	23
LBS 106.4	1	6,5	6,4	1/4"	14,5	9	7	13,5	23
LBS 108	1	6,5	8,0	-	14,5	9	7	13,5	23
LBS 208	2	6,5	8,0	-	14,5	11	7	18,5	27
LBS 209.5	2	6,5	9,5	3/8"	14,5	11	7	18,5	27
LBS 210	2	6,5	10,0	-	14,5	11	7	18,5	27
LBS 212	2	6,5	12,0	-	14,5	11	7	18,5	27
LBS 212.7	2	6,5	12,7	1/2"	14,5	11	7	18,5	27
LBS 310	3	6,5	10,0	-	14,5	15	7	23,5	34
LBS 312	3	6,5	12,0	-	14,5	15	7	23,5	34
LBS 312.7	3	6,5	12,7	1/2"	14,5	15	7	23,5	34
LBS 313.5	3	6,5	13,5	-	14,5	15	7	23,5	34
LBS 314	3	6,5	14,0	-	14,5	15	7	23,5	34
LBS 315	3	6,5	15,0	-	14,5	15	7	23,5	34
LBS 316	3	6,5	16,0	5/8"	14,5	15	7	23,5	34
LBS 414	4	6,5	14,0	-	14,5	19	6	30,5	40
LBS 415	4	6,5	15,0	-	14,5	19	6	30,5	40
LBS 416	4	6,5	16,0	5/8"	14,5	19	6	30,5	40
LBS 417.2	4	6,5	17,2	-	14,5	19	6	30,5	40
LBS 418	4	6,5	18,0	-	14,5	19	6	30,5	40
LBS 419	4	6,5	19,0	3/4"	14,5	19	6	30,5	40
LBS 420	4	6,5	20,0	-	14,5	19	6	30,5	40
LBS 421.3	4	6,5	21,3	-	14,5	19	6	30,5	40
LBS 422	4	6,5	22,0	-	14,5	19	6	30,5	40

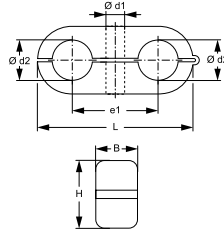
#### Product versions:

LBS PA - Light construction PA pipe clamp, Polyamide

## LBS D

## Light construction double pipe clamp

**Design:** Double pipe clamp  
**Temp. min.:** -30 °C  
**Temp. max.:** 90 °C  
**Material:** Polypropylene  
**Description:** for quick installation of cables, hoses, oil and lubrication lines. Screw mounting.



Identification	Clamp size	$\phi d_1$ mm	External pipe $\phi d_2$ mm	External pipe $\phi d_2$	B mm	e1 mm	H mm	L mm
LBS 106 D	1	6,5	6,0	-	14,5	18	13,5	32
LBS 106.4 D	1	6,5	6,4	1/4"	14,5	18	13,5	32
LBS 108 D	1	6,5	8,0	-	14,5	18	13,5	32
LBS 208 D	2	6,5	8,0	-	14,5	22	18,5	41
LBS 209.5 D	2	6,5	9,5	3/8"	14,5	22	18,5	41
LBS 210 D	2	6,5	10,0	-	14,5	22	18,5	41
LBS 212 D	2	6,5	12,0	-	14,5	22	18,5	41
LBS 212.7 D	2	6,5	12,7	1/2"	14,5	22	18,5	41
LBS 310 D	3	6,5	10,0	-	14,5	30	23,5	54
LBS 312 D	3	6,5	12,0	-	14,5	30	23,5	54
LBS 312.7 D	3	6,5	12,7	1/2"	14,5	30	23,5	54
LBS 313.5 D	3	6,5	13,6	-	14,5	30	23,5	54
LBS 314 D	3	6,5	14,0	-	14,5	30	23,5	54
LBS 315 D	3	6,5	15,0	-	14,5	30	23,5	54
LBS 316 D	3	6,5	16,0	5/8"	14,5	30	23,5	54
LBS 318 D	3	6,5	18,0	-	14,5	30	23,5	54
LBS 414 D	4	6,5	14,0	-	14,5	38	30,5	69
LBS 415 D	4	6,5	15,0	-	14,5	38	30,5	69
LBS 416 D	4	6,5	16,0	5/8"	14,5	38	30,5	69
LBS 417.2 D	4	6,5	17,2	-	14,5	38	30,5	69
LBS 418 D	4	6,5	18,0	-	14,5	38	30,5	69
LBS 419 D	4	6,5	19,0	3/4"	14,5	38	30,5	69
LBS 420 D	4	6,5	20,0	-	14,5	38	30,5	69
LBS 421.3 D	4	6,5	21,3	-	14,5	38	30,5	69
LBS 422 D	4	6,5	22,0	-	14,5	38	30,5	69
LBS 425.4 D	4	6,5	25,0	-	14,5	38	30,5	69

**Product versions:**

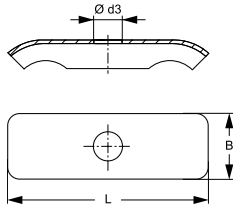
LBS D PA - Light construction PA double pipe clamp, Polyamide

**Accessories:**

LBS DP D - Cover plate for light construction double pipe clamp

## LBS DP D

### Cover plate for light construction double pipe clamp



**Material:**

Steel

**Surface:**

electro galvanised

**Description:**

The cover plate provides stable fitting of the lightweight double pipe clamp LBS D and LBS D PA.

Identification	Clamp size	$\varnothing d3$ mm	B mm	L mm
LBS DP 1 D	1	6,5	16,3	29,0
LBS DP 2 D	2	6,5	16,3	40,0
LBS DP 3 D	3	6,5	16,5	50,5
LBS DP 4 D	4	6,5	16,5	63,0

**Accessory for following products:**

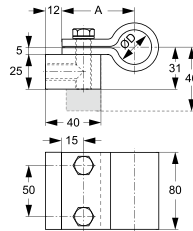
LBS D - Light construction double pipe clamp



## HSRS

## Steel pipe clamp

- Application:** primarily in the construction machinery sector
- Description:** The steel pipe clamp is used for (subsequent) installation of hydraulic pipes and hose lines.



- Note:** Installation: The retaining piece is welded or screwed upright or horizontally flat onto the machine body. The two halves of the clamp are screwed onto the retaining piece.

Identification	A mm	Ø D mm
HSRS 25	52,5	25
HSRS 30	55,0	30
HSRS 35	57,5	35
HSRS 38	59,0	38
HSRS 42	61,0	42
HSRS 50	65,0	50

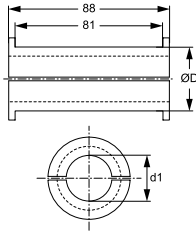
- Additional info:** The robust construction of the clamp dampens impacts and vibrations. It can be supplemented with an elastomer insert (HSRS EE).

**Accessories:**

HSRS EE - Elastomer insert for steel pipe clamp

## HSRS EE

### Elastomer insert for steel pipe clamp



**Design:**

**suitable for:**

**Temp. min.:**

**Temp. max.:**

**Material:**

**Special features:**

Elastomer insert

HSRS steel pipe clamps

-40 °C

125 °C

Santoprene 64° Shore A

Excellent oil and weather resistance, secure mounting of pipes and hose lines, Improved noise and vibration damping

Identification	d1 mm	Ø D mm
HSRS 25-12 EE	12,00	25
HSRS 25-15 EE	15,00	25
HSRS 30-20 EE	20,00	30
HSRS 35-25 EE	25,00	35
HSRS 42-30 EE	30,00	42
HSRS 50-35 EE	35,00	50
HSRS 50-38 EE	38,00	50
HSRS 50-42 EE	42,00	50

**Accessory for following products:**

HSRS - Steel pipe clamp





## Accessories and Tools

**Tools**

Pipe bending equipment	1032
Pipe bending and sawing equipment	1033
Pipe cutting equipment	1035
Pipe deburrers	1036
Pre-assembly sockets	1037

**BV****Pipe bending equipment**

Design:

Pipe bending equipment

Identification	for external pipe Ø mm	Packaging
BV 06-18	06 - 18	in the box
BV 06-18 M	06 - 18	in the metal case
BV 20-25	20 - 25	in the box

**BVA****Pipe bending and sawing equipment**

**Design:** Pipe bending and sawing equipment  
**Included in scope of supply:**

6 x bending rollers for tube outer Ø 6/8, 10/ 12, 14, 15, 16, 18 mm, 1 x hand lever with extension, 1 x pipe cutting equipment to pipe ext. diameters 6 - 42 mm, 1 x two-piece bending device



Identification	Bend for external pipe diameter min. mm	Bend for external pipe diameter max. mm	Saws for external pipe diameter
BVA 06-18-42	6	18	06 - 42

## BAV

### Pipe bending and sawing equipment



**Design:** Pipe bending and sawing equipment

Identification	Bend for external pipe diameter min. mm	Bend for external pipe diameter max. mm	Saws for external pipe diameter
BAV 06-12	6	12	06 -12



**AV****Pipe cutting equipment**

**Design:** Pipe cutting equipment  
**Material:** Steel



Identification	for external pipe Ø mm
AV 06-42	6 - 42

**ROHR ENTGRATER**

## Pipe deburrers



**Design:**  
**Supplementary design information:**  
**Construction:**

Pipe deburrers

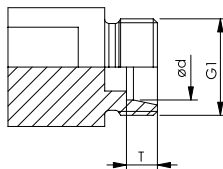
Universal pipe deburrer with diameter 12 – 54 mm for internal and external deburring

Identification	for external pipe Ø mm	for internal pipe Ø mm	Ø D mm	Length mm
ROHRENTGRATER	12 - 54	12 - 54	80	60

## VOM

## Pre-assembly sockets

**Design:** Pre-assembly sockets  
**Material:** Hardened tool steel  
**Surface:** phosphate treated  
**Description:** for manual fitting



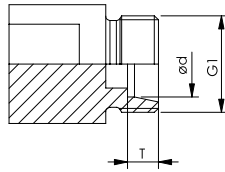
**Note:** Information about fitting, installation, pressure loads and permissible operating temperatures can be found in the technical information for pipe fittings.

Identification	Series	Ø d mm	G1	T +/- 0.05 mm
VOM 04 LL	LL	4	M 8 x 1	4,0
VOM 06 LL	LL	6	M 10 x 1	5,5
VOM 08 LL	LL	8	M 12 x 1	5,5
VOM 10 LL	LL	10	M 14 x 1	7,0
VOM 12 LL	LL	12	M 16 x 1	7,0
VOM NW 04 HL	L	6	M 12 x 1.5	7,0
VOM NW 06 HL	L	8	M 14 x 1.5	7,0
VOM NW 08 HL	L	10	M 16 x 1.5	7,0
VOM NW 10 HL	L	12	M 18 x 1.5	7,0
VOM NW 13 HL	L	15	M 22 x 1.5	7,0
VOM NW 16 HL	L	18	M 26 x 1.5	7,5
VOM NW 20 HL	L	22	M 30 x 2	7,5
VOM NW 25 HL	L	28	M 36 x 2	7,5
VOM NW 32 HL	L	35	M 45 x 2	10,5
VOM NW 40 HL	L	42	M 52 x 2	11,0
VOM NW 03 HS	S	6	M 14 x 1.5	7,0
VOM NW 04 HS	S	8	M 16 x 1.5	7,0
VOM NW 06 HS	S	10	M 18 x 1.5	7,5
VOM NW 08 HS	S	12	M 20 x 1.5	7,5
VOM NW 10 HS	S	14	M 22 x 1.5	8,0
VOM NW 13 HS	S	16	M 24 x 1.5	8,5
VOM NW 16 HS	S	20	M 30 x 2	10,5
VOM NW 20 HS	S	25	M 36 x 2	12,0
VOM NW 25 HS	S	30	M 42 x 2	13,5
VOM NW 32 HS	S	38	M 52 x 2	16,0

Series: LL = Very light L = Light S = Heavy

## VOM WR

### Pre-assembly sockets



**Design:**  
**Material:**  
**Surface:**

Pre-assembly sockets  
Hardened tool steel  
phosphate treated

**Note:** The VOM WR is used for assembling the UEM WR

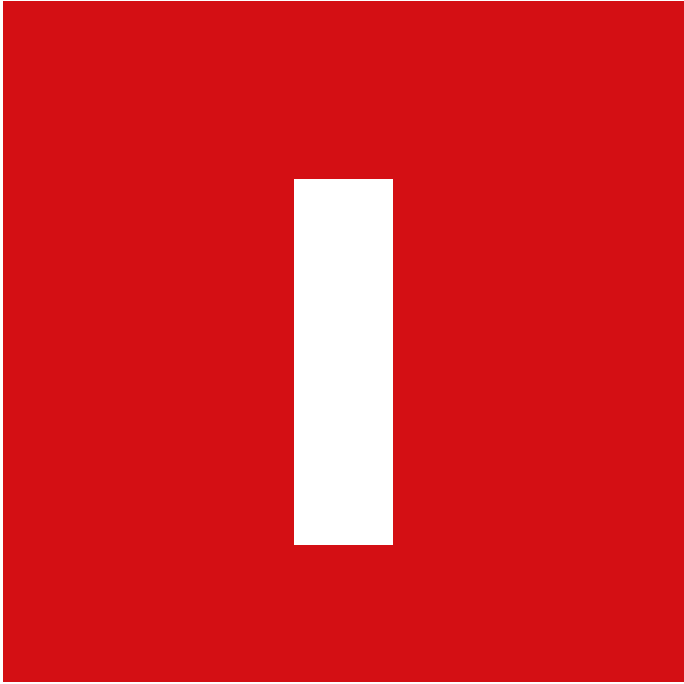
Identification	Series	Ø d mm	G1	T mm
VOM NW 04 HL WR	L	6	M 12 x 1.5	7,0
VOM NW 06 HL WR	L	8	M 14 x 1.5	7,0
VOM NW 08 HL WR	L	10	M 16 x 1.5	7,0
VOM NW 10 HL WR	L	12	M 18 x 1.5	7,0
VOM NW 13 HL WR	L	15	M 22 x 1.5	7,0
VOM NW 16 HL WR	L	18	M 26 x 1.5	7,5
VOM NW 20 HL WR	L	22	M 30 x 2	7,5
VOM NW 25 HL WR	L	28	M 36 x 2	7,5
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Series: LL = Very light L = Light S = Heavy

**Accessory for following products:**

UEM FM L WR / UEM FM S WR - WALRING union nut





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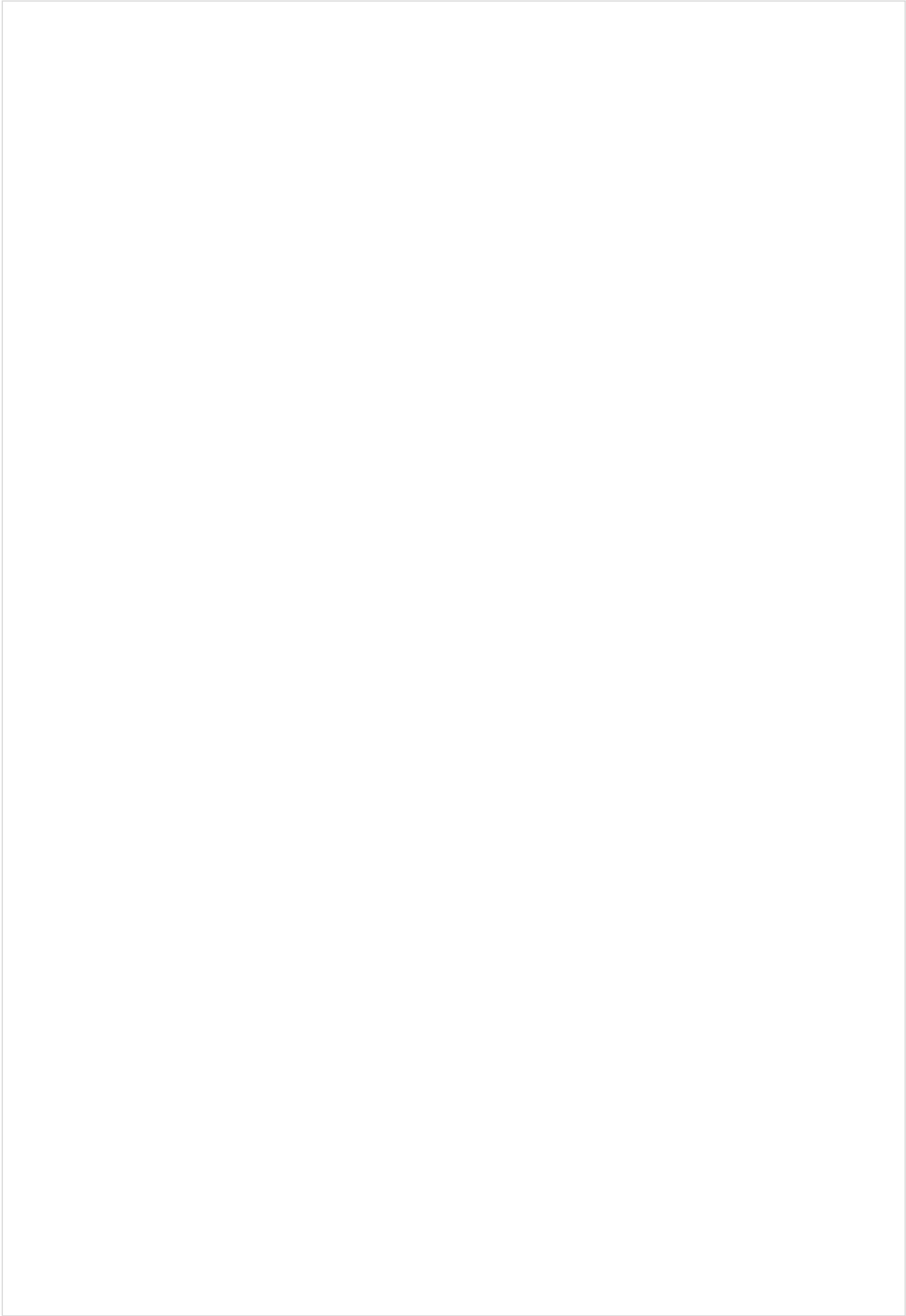
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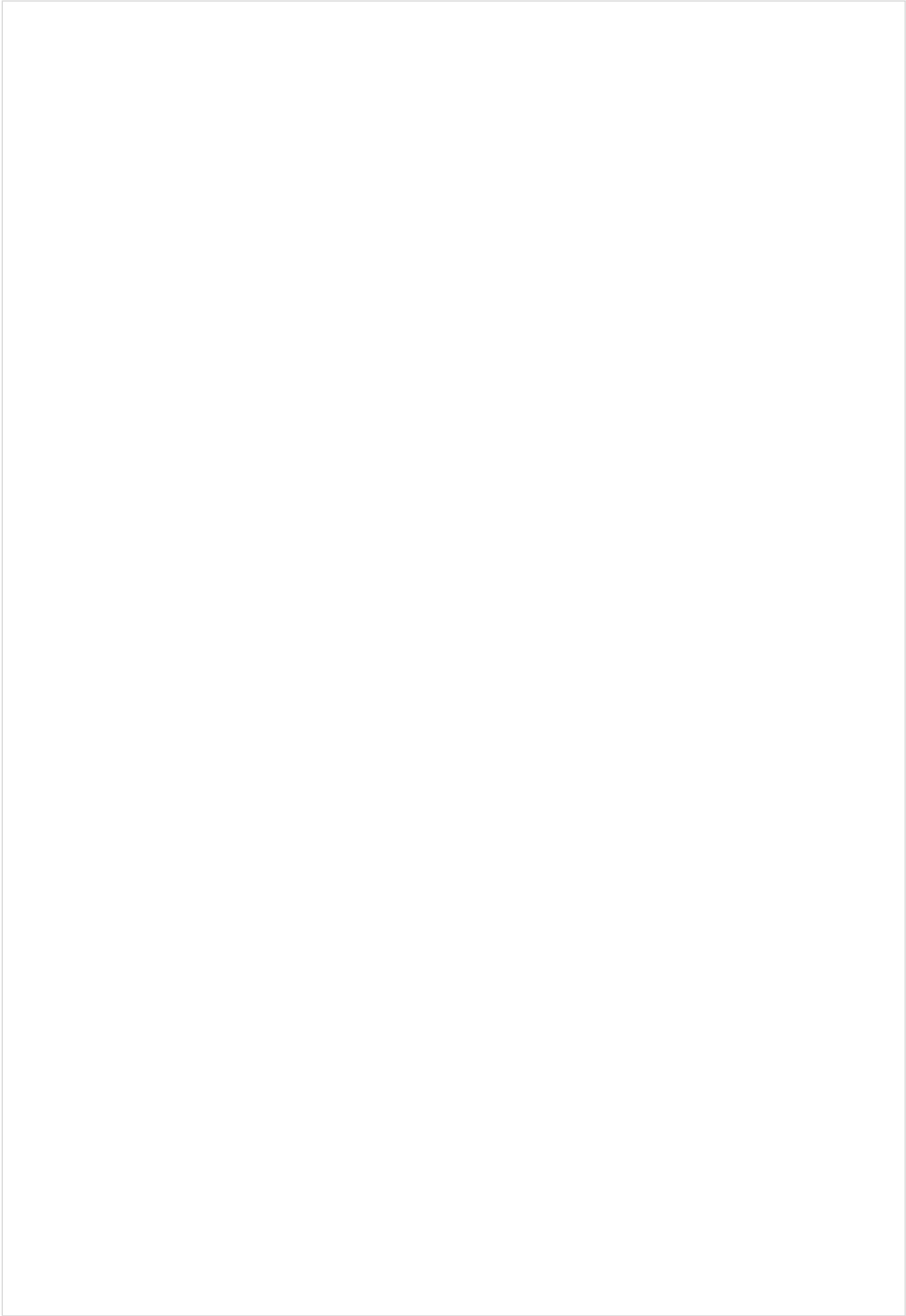
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**Catalogue 1:  
Hose Technology**



Hoses



Hose fittings



Couplings



Measuring equipment

**Catalogue 2:  
Connection Technology**



Pipe fittings ISO 8434-1



Pipes



Adapters



Flanges



Ball valves



Measuring equipment



Mounting technology



Accessories and tools

**Catalogue 3:  
Industrial Technology**



Hoses



Hose fittings



Couplings



Ball valves



Mounting technology



Water technology



Compressed air technology



Fluid service














Accessories and tools



### Metallschläuche

	Ringwellschläuche
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	Erklärung zur Verwendung von Materialien im Lebensmittelbereich
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	PTFE-Schläuche
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	Dichtsätze und Messmittel
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	Dichtungsprofile
	Werkstoffdaten



HANSA-FLEX AG  
Zum Panrepel 44  
28307 Bremen  
Tel.: +49 421 489070  
Fax: +49 421 4890748  
[info@hansa-flex.com](mailto:info@hansa-flex.com)