Parker

Ermeto Original
High Pressure Hydraulic Flanges

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Introduction

The 4 bolt flange connections conforming to ISO 6162-1/2 (SAE J518 Code 61/62) and ISO 6164 are proven, leak-free connections, especially suited for larger sizes, high pressures and assembly in tight quarters. Threaded port connections such as SAE straight thread O-ring and ISO 6149 are reasonably easy to assemble and provide 6000 psi and higher pressure capability up to size 12 (M27). Beyond this size the pressure rating starts to decrease and assembly torques increase rapidly.

The 4 bolt flange port connections provide ability to connect larger sizes and achieve higher-pressure capability at reasonable assembly torques. Because of the lower assembly torques compared to an equivalent size threaded port, these connections are well suited for tight quarters where wrench clearances are limited.

Design and construction

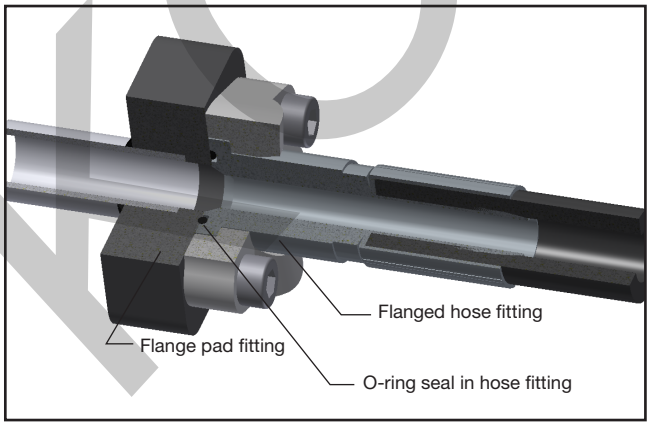
Parker 4 bolt flange products are designed to provide different methods of connecting a tube, hose, pipe or another fitting to the SAE standard 4-bolt flange port.

Flange fittings – All Parker flange fittings, except for those with square mounting hole pattern, are designed to conform to O-ring groove, bolt holes and bolt pattern dimensions of either ISO 6162-1 (SAE J518 Code 61), ISO 6162-2 (SAE J518 Code 62) and ISO 6164.

The counter fittings have a flat face (no O-ring groove) and the mounting holes are tapped. Where these fittings are used, the seal is in the mating part (flange adapter, flange hose fitting, flange block fitting, etc.) as shown in Fig. 1.

Dimensions other than the O-ring groove, bolt holes, bolt pattern, and the flange foot print are not governed by any industry standard. However, Parker product design follows common industry practice and sound engineering.

Fig. 1 – Flange pad fitting



Flange clamps – Clamps are used for providing the holding power to the 4 bolt flange connection. They are offered in split and captive (one-piece) versions. The captive ones are also offered with either drilled or tapped bolt holes. The captive flange clamp with tapped holes is used while connecting a tube to another tube or a hose.

Parker flange clamps are forged for higher strength and durability. They meet all requirements of ISO 6162-1 (SAE J518 Code 61), ISO 6162-2 (SAE J518 Code 62) and ISO 6164. The split clamps make it easy to assemble the connection in close quarters. They also make removal of the flange head component, such as a hose assembly, easy by loosening all four bolts and removing one clamp half.

Connector plate – Connector plate is used as a middle plate to connect two flange heads with O-ring grooves, such as two hose assemblies with flange connection ends. The flat surface of the plate provides sealing surface on each side for the O-ring housed in the hose ends.

Spacer plate – Spacer plate provides access to the system fluid via the gage port on the side. The plate is sandwiched in the flange connection to provide this access.

Plugs – Plugs provide a means to block off the 4 bolt flange port with and without clamps, and to plug the end of a pipe (via welding).

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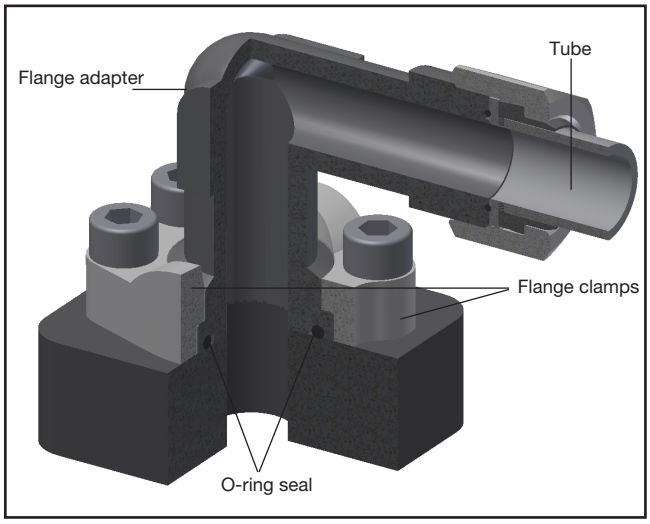
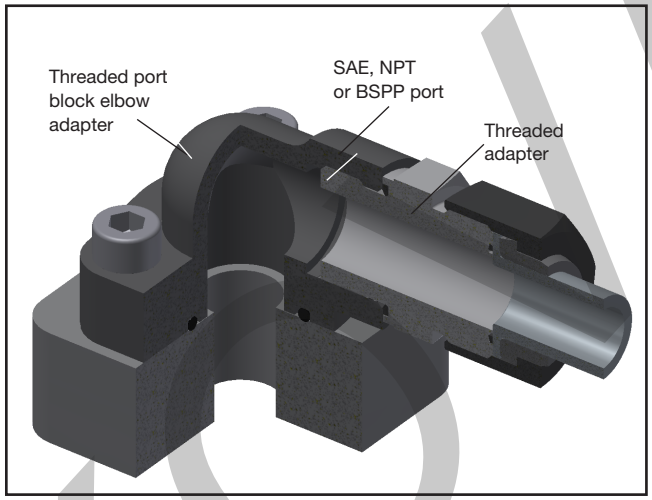
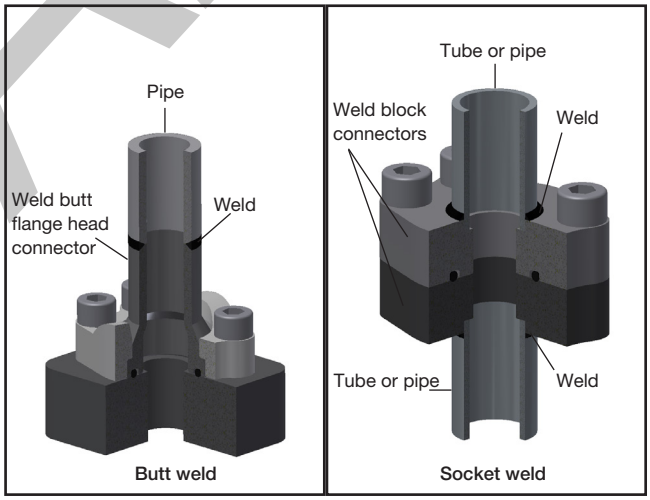
Methods of connection – Parker flange products



Connecting tube and hose via a threaded tube/hose end connection: The flange adapters provide means of connecting tubes or hoses to a 4 bolt flange port via threaded connection such as Seal-Lok (ORFS), Triple-Lok® (37° flare), etc.



Connecting tube, hose and pipe via threaded port connection. The flange head and flange block conversion adapters provide the means of converting a flange port to either SAE, NPT or BSPP port. A user can then use appropriate threaded adapters to connect tube and hose, or connect threaded pipe directly into NPT and BSPP ports.



Connecting tube and pipe via welding. The flange head and flange block weld fittings provide the means of connecting tubes and pipes to 4 bolt flange port via socket welding for tubes and socket and butt welding for pipes.

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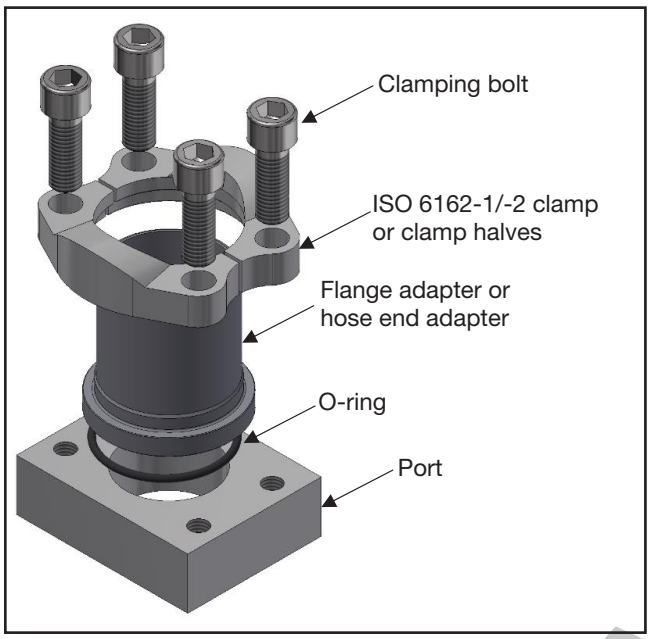
How flange connections work



4 bolt flange connection ISO 6162-1/2 (SAE J518 Code 61/62) and ISO 6164 is a proven leak-free connection, especially suited for larger sizes. As a result, it has achieved worldwide acceptance.

The connection's success is in its simplicity. It is a static face seal using a high durometer O-ring (90 shore A) for the seal and clamps and bolts for holding power as shown here.

The (O-ring) seal is compressed between the bottom of the groove in the flange head and the flat surface of the port or flange pad, providing a reliable soft seal. The alternate seal plate has a high durometer bonded rubber seal on the inside edge, which compresses between the two flat surfaces, providing a soft seal with the same reliability. A metal-to-metal contact at the outer face of the flange with the port face keeps the seal from extruding under pressure. This metal-to-metal contact is maintained by the clamping force provided by tightening of the bolts via the clamps.

This simple design provides several advantages over threaded port connections, such as NPT, SAE, BSPP, ISO 6149, etc., in larger sizes:

- Ability to connect up to 5 inch O.D. tube (ISO 6162-1 only)
- Much lower tightening torque required from the four bolts compared to that required for equivalent size threaded port.
- Less tightening torque means smaller wrenches and wrench swing clearances – providing ease of assembly in tight quarters.
- Up to 6000 psi capability through 3“ size (ISO 6162-2 only)
- Use up to 400 bar at the ISO 6164 flange sizes from 3/8"to 4".
- Single seal point between tube/pipe/hose assembly and the port
- Ease of disassembly through use of split clamps

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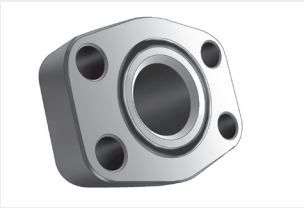
Flanges



Assembly of flanges

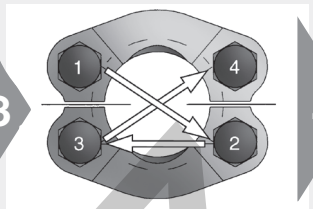
- SAE flange adapters
- SAE 4 bolt flanges
- Gear pump flanges
- ISO 6164 Square flanges

1

- Make sure sealing surfaces are free of burrs, nicks, scratches or any contamination
- Lubricate the O-ring with system fluid or compatible lubricant
- Parker recommends to lubricate the bolts on contact surface (head) and lower third of thread (MOLYKOTE G-RAPID PLUS) just before use to avoid any contamination

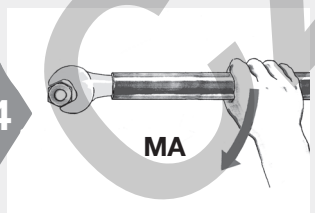
2

- Position flange or flange adapter with clamp halves
- Placement of the spring washer on the bolt and connect both to the flange (only for gear pump flanges)



3

- Hand tighten bolts
- Torque bolts in diagonal sequence in small increments to the appropriate torque level listed in chart



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- Tighten bolts according to chart

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Bolt torques for SAE-Flanges

Recommended torques for metric bolts ISO 4762-10.9 at the specified coefficient of friction μ_{tot} [1)]

for SAE Flange connections according ISO 6162-1 (3000 PSI Serie)

DN **size**	Flange **size**	Metric bolts **(ISO 4762-10.9)**	Torque μ_{tot} = 0.08 **Nm[2])**	Torque μ_{tot} = 0.14 **Nm[2])**
13	1/2	M8	23	36
19	3/4	M10	44	70
25	1	M10	44	70
32	1 1/4	M10	44	70
38	1 1/2	M12 / M14[3)]	75 / 90	120 / 140
51	2	M12 / M14[3)]	75 / 90	120 / 140
64	2 1/2	M12 / M14[3)]	75 / 90	120 / 140
76	3	M16	155	250
89	3 1/2	M16	155	250
102	4	M16	155	250
127	5	M16	155	250

for SAE Flange connections according ISO 6162-2 (6000 PSI Serie)

DN **size**	Flange **size**	Metric bolts **(ISO 4762-10.9)**	Torque μ_{tot} = 0.08 **Nm[2])**	Torque μ_{tot} = 0.14 **Nm[2])**
13	1/2	M8	23	36
19	3/4	M10	44	70
25	1	M12	75	120
32	1 1/4	M12 / M14[3)]	75 / 90	120 / 140
38	1 1/2	M16	155	250
51	2	M20	270	440
64	2 1/2	M24	450	700
76	3	M30	875	1420

Recommended torques for inch bolts (UNC thread) ANSI/ASME B18.3 at the specified coefficient of friction μ_{tot} [1)]

for SAE Flange connections according ISO 6162-1 (3000 PSI Serie)

DN **size**	Flange **size**	Inch bolts **(ANSI/ASME B18.3)**	Torque μ_{tot} = 0.17 **Nm[2])**
13	1/2	5/16-18	45
19	3/4	3/8-16	80
25	1	3/8-16	80
32	1 1/4	7/16-14	130
38	1 1/2	1/2-13	210
51	2	1/2-13	210
64	2 1/2	1/2-13	210
76	3	5/8-11	300
89	3 1/2	5/8-11	300
102	4	5/8-11	300
127	5	5/8-11	300

for SAE Flange connections according ISO 6162-2 (6000 PSI Serie)

DN **size**	Flange **size**	Inch bolts **(ANSI/ASME B18.3)**	Torque μ_{tot} = 0.17 **Nm[2])**
13	1/2	5/16-18	45
19	3/4	3/8-16	80
25	1	7/16-14	130
32	1 1/4	1/2-13	210
38	1 1/2	5/8-11	300
51	2	3/4-10	510

Gear Pump Flange recommend torque

Socket bolt bolt circle **(LK)**	Socket head cap **bolts**	Tightening torques **Nm[2])**
LK30	M6	10
LK35	M6	10
LK40	M6	10
LK51	M10	49
LK55	M8	25
LK56	M10	49
LK62	M10	49
LK72.5	M12	85

[1)] The specified friction coefficients are valid for supplied bolts by Parker.
For lubricated bolts (MOLYKOTE G-RAPIDE PLUS) the friction coefficient μ_{tot} = 0.08 has been determined.
For Zinc flaked metric bolts (...ZNFLX) as delivered the friction coefficient μ_{tot} = 0.14 has been determined.
For phosphated bolts we are refering to the ISO 6162.1 and -2 for μ_{tot} = 0.17.
[2)] Torque tolerances max. 10%, min. 0%
[3)] Bolt size M14 is no longer mentioned in the ISO 6162-1 and -2 and should not be used for new constructions.

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Technical data

Flange bolts

SAE Flanges according to ISO 6162-1 and -2 (SAE J518)

– metric bolts according to ISO 4762-10.9 (DIN 912-10.9) or higher quality

– UNC bolts according to ANSI/ASME B 18.3

UNC bolts acc. to ISO 6162-1 and -2 should not be used for new designs.

Square flanges according to ISO 6164 (1994)

– metric bolts according to ISO 4762-8.8 (DIN 912-8.8) or ISO 4762-10.9 (DIN 912-10.9)

Gear pump flanges

– metric bolts according to ISO 4762-8.8 (DIN 912-8.8)

Surface protection bolts

– ISO 4762-8.8 - zinc plated A3K (VZX)

– ISO 4762-10.9 - zinc flaked (ZNFLX)

We reserve the right to deliver black phosphated bolts ISO 4762-10.9, for achieving the best lead time if not specifically designated in the order.

Used Sealing

Materials

Flanges according **SAE J518 (ISO 6162-1 and -2), ISO 6164** and all **gear pump flanges** in this catalogue are sealed with an O-ring. The seals of our flanges are out of the following materials:

– NBR (e.g. perbunan) 90 shore A durometer is our standard seal material for hydraulic **steel** flange appplications.

– FKM 85 or 90 shore A durometer is our standard seal material for hydraulic **stainless steel** flange applications.

Perbunan = registered trademark of Bayer

Dimensions

O-ring dimensions of ISO 6164 flanges, and gear pump flanges are shown direct on the product catalogue page. For all flanges according to **ISO 6162-1/2 (SAE J518 Code 61/62)** the O-ring dimension are according to the following table:

Nominal flange size	Nominal-inch tube size (in inches)	ISO 3601-1 SAE J515 O-ring	O-ring size number
13	1/2	18.64×3.53	210
19	3/4	24.99×3.53	214
25	1	32.92×3.53	219
32	1 1/4	37.69×3.53	222
38	1 1/2	47.22×3.53	225
51	2	56.74×3.53	228
64	2 1/2	69.44×3.53	232
76	3	85.32×3.53	237
89	3 1/2	98.02×3.53	241
102	4	110.72×3.53	245
127	5	136.12×3.53	253

Pressure ratings

The maximum recommended working pressure is indicated for each article.
Before using a part, please take notice of the pressure ratings.
All pressure indications are based on a working temperature from –20° celsius up to +100° celsius (resp. ambient temperature from –40° celsius up to +120° celsius). Outside of this temperature range the physical properties of the material is affected and the maximum recommended working pressure is reduced.
The indicated working pressures refer only to the flange itself. For the tubes, fittings and connections the pressure ratings of the specific manufacturer must also be taken into account.

Materials

SAE flanges according to ISO 6162-1 and -2 (SAE 518)

Flange clamps, flange adapter and forged 4 bolt flanges are made of the material ST 52.3 or compatible for **steel** construction. For **stainless steel** constructions we are using for flange clamps, flange adapters and 4 bolt forged flanges the material 1.4401 (316) or compatible. For special applications it is also possible to get the flange adapters made from the material 1.4571 (316Ti).

Square flanges according to ISO 6164 (1994)

Steel construction:	ST52.3, C40 or compatible
Stainless steel construction:	1.4571 (316Ti) or compatible

Gear pump flanges

Cast steel construnction:	GTW40 or compatible
Steel construction:	ST52.3, 11SMnPb30 or compatible
Forged steel construction:	ST52.3 or compatible

If different materials are used for manufacturing, this will be shown on the catalogue product page.

Surface protection

All surface order possibilities are described on each catalogue page!

Surface possibilities are:

1. Oil dipped, phosphated
2. Cr(VI)-free surface protection CF (type CF, CR3, CFL) with same or better corrosion resistance than yellow zinc chromated surface protection (A3C).

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Order codes bolts and O-rings

Bolts for flanges

according ISO 6162-1 and -2 (SAE J518)

Nominal flange size			Bolts for flanges and flange halves		Bolts for full flanges	
Series	ISO	SAE	metr. Order code	UNC Order code	metr. Order code	UNC Order code
3000 PSI	13	1/2	**ZYLS8X25109ZNFLX**	**UNC5/16-18X11/4**	**ZYLS8X30109ZNFLX ***	**UNC5/16-18X11/4**
3000 PSI	19	3/4	**ZYLS10X30109ZNFLX**	**UNC3/8-16X11/4**	**ZYLS10X35109ZNFLX ***	**UNC3/8-16X11/2 ***
3000 PSI	25	1	**ZYLS10X30109ZNFLX**	**UNC3/8-16X11/4**	**ZYLS10X35109ZNFLX ***	**UNC3/8-16X11/2 ***
3000 PSI	32	1 1/4	**ZYLS10X30109ZNFLX**	**UNC7/16-14X11/2**	**ZYLS10X40109ZNFLX ***	**UNC7/16-14X11/2**
3000 PSI	32	1 1/4	**ZYLS10X35109ZNFLX ***	–	–	–
3000 PSI	32	1 1/4	**ZYLS12X35109ZNFLX ***	–	–	–
3000 PSI	38	1 1/2	**ZYLS12X35109ZNFLX**	**UNC1/2-13X11/2**	**ZYLS12X45109ZNFLX ***	**UNC1/2-13X13/4 ***
3000 PSI	38	1 1/2	**ZYLS14X35109ZNFLX ***	–	–	–
3000 PSI	51	2	**ZYLS12X35109ZNFLX**	**UNC1/2-13X11/2**	**ZYLS12X45109ZNFLX ***	**UNC1/2-13X13/4 ***
3000 PSI	51	2	**ZYLS14X35109ZNFLX ***	–	–	–
3000 PSI	64	2 1/2	**ZYLS12X40109ZNFLX**	**UNC1/2-13X13/4**	**ZYLS12X45109ZNFLX ***	**UNC1/2-13X13/4 ***
3000 PSI	64	2 1/2	**ZYLS14X35109ZNFLX ***	**UNC1/2-13X11/2 ***	–	–
3000 PSI	76	3	**ZYLS16X50109ZNFLX**	**UNC5/8-11X13/4**	**ZYLS16X55109ZNFLX ***	**UNC5/8-11X21/4 ***
3000 PSI	76	3	**ZYLS16X45109ZNFLX ***	**UNC5/8-11X2 ***	–	–
3000 PSI	89	3 1/2	**ZYLS16X50109ZNFLX**	**UNC5/8-11X2**	**ZYLS16X55109ZNFLX ***	**UNC5/8-11X21/4 ***
3000 PSI	89	3 1/2	**ZYLS16X45109ZNFLX ***	–	–	–
3000 PSI	102	4	**ZYLS16X50109ZNFLX**	**UNC5/8-11X2**	**ZYLS16X55109ZNFLX ***	**UNC5/8-11X21/4 ***
3000 PSI	102	4	**ZYLS16X45109ZNFLX ***	–	–	–
3000 PSI	127	5	**ZYLS16X55109ZNFLX**	**UNC5/8-11X21/4**	**ZYLS16X55109ZNFLX**	**UNC5/8-11X21/4**
3000 PSI	127	5	**ZYLS16X50109ZNFLX ***	**UNC5/8-11X2 ***	–	–
Serie	ISO	SAE	metr.	UNC	metr.	UNC
6000 PSI	13	1/2	**ZYLS8X30109ZNFLX**	**UNC5/16-18X11/4**	**ZYLS8X30109ZNFLX**	**UNC5/16-18X11/4**
6000 PSI	19	3/4	**ZYLS10X35109ZNFLX**	**UNC3/8-16X11/2**	**ZYLS10X35109ZNFLX**	**UNC3/8-16X11/2**
6000 PSI	25	1	**ZYLS12X45109ZNFLX**	**UNC7/16-14X13/4**	**ZYLS12X45109ZNFLX**	**UNC7/16-14X11/2 ***
6000 PSI	25	1	–	**UNC7/16-14X11/2 ***	–	–
6000 PSI	32	1 1/4	**ZYLS12X45109ZNFLX**	**UNC1/2-13X13/4**	**ZYLS12X50109ZNFLX**	**UNC1/2-13X13/4**
6000 PSI	32	1 1/4	**ZYLS14X50109ZNFLX ***	–	**ZYLS14X50109ZNFLX ***	–
6000 PSI	38	1 1/2	**ZYLS16X55109ZNFLX**	**UNC5/8-11X21/4**	**ZYLS16X55109ZNFLX**	**UNC5/8-11X21/4**
6000 PSI	38	1 1/2	–	**UNC5/8-11X2 ***	–	–
6000 PSI	51	2	**ZYLS20X70109ZNFLX**	**UNC3/4-10X23/4**	**ZYLS20X70109ZNFLX**	**UNC3/4-10X23/4**
6000 PSI	51	2	**ZYLS20X65109ZNFLX ***	**UNC3/4-10X21/2 ***	–	–
6000 PSI	64	2 1/2	**ZYLS24X75109ZNFLX ***	–	**ZYLS24X90109ZNFLX ***	–
6000 PSI	76	3	**ZYLS30X90109ZNFLX**	–	**ZYLS30X110109ZNFLX ***	–

* = are not implemented in the ISO 6162 -1 and ISO 6162-2.

Bolts for gear pump flanges

(BFG, BFW)

Typ	Bolts Order code	Description
BFG (10L-28L)	**ZYLS6X22VZX**	4 pieces
BFG (20S)	**ZYLS8X25VZX**	4 pieces

Type		LK	Bolts Order code	Order code	Description
BFW	10L	35	**ZYLS6X22VZX**	**ZYLS6X35VZX**	2 Pieces of each bolt
BFW	12L	35	**ZYLS6X22VZX**	**ZYLS6X35VZX**	2 Pieces of each bolt
BFW	15L	35	**ZYLS6X22VZX**	**ZYLS6X35VZX**	2 Pieces of each bolt
BFW	16S	35	**ZYLS6X22VZX**	**ZYLS6X40VZX**	2 Pieces of each bolt
BFW	20S	35	**ZYLS6X22VZX**	**ZYLS6X45VZX**	2 Pieces of each bolt
BFW	15L	40	**ZYLS6X22VZX**	–	4 Pieces
BFW	18L	40	**ZYLS6X22VZX**	–	4 Pieces
BFW	22L	40	**ZYLS6X22VZX**	–	4 Pieces
BFW	28L	40	**ZYLS6X20VZX**	**ZYLS6X50VZX**	2 Pieces of each bolt
BFW	35L	40	**ZYLS6X22VZX**	**ZYLS6X60VZX**	2 Pieces of each bolt
BFW	20S	40	**ZYLS6X22VZX**	**ZYLS6X45VZX**	2 Pieces of each bolt
BFW	35L	55	**ZYLS8X25VZX**	**ZYLS8X60VZX**	2 Pieces of each bolt
BFW	42L	55	**ZYLS8X25VZX**	**ZYLS8X70VZX**	2 Pieces of each bolt
BFW	20S	55	**ZYLS8X25VZX**	**ZYLS8X50VZX**	2 Pieces of each bolt
BFW	25S	55	**ZYLS8X25VZX**	**ZYLS8X55VZX**	2 Pieces of each bolt
BFW	30S	55	**ZYLS8X25VZX**	**ZYLS8X50VZX**	2 Pieces of each bolt

O-rings for flanges

SAE J518

ISO (DN)	SAE (Inch)	O-ring NBR Order code	O-ring FKM Order code
13	1/2	**OR18.64X3.53X**	**OR18.64X3.53VITX**
19	3/4	**OR25X3.53X**	**OR25X3.53VITX**
25	1	**OR32.92X3.53X**	**OR32.92X3.53VITX**
32	1 1/4	**OR37.69X3.53X**	**OR37.69X3.53VITX**
38	1 1/2	**OR47.22X3.53X**	**OR47.22X3.53VITX**
51	2	**OR56.75X3.53X**	**OR56.75X3.53VITX**
64	2 1/2	**OR69.44X3.53X**	**OR69.44X3.53VITX**
76	3	**OR85.32X3.53X**	**OR85.32X3.53VITX**
89	3 1/2	**OR98.02X3.53X**	**OR98.02X3.53VITX**
102	4	**OR110.72X3.53X**	**OR110.72X3.53VITX**
127	5	**OR136.12X3.53X**	**OR136.12X3.53VITX**

O-rings for hydraulic flanges

(BFG, BFW)

LK	O-ring size	Order code
35	20×2.5	**OR20X2.5X**
40	26×2.5	**OR26X2.5X**
55	32×2.5	**OR32X2.5X**

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Features, advantages and benefits

1. **Manufacture** – ISO 6162-1/2 fittings conform to SAE J518 and Code 61/62. This international standards controll dimensions and tolerances of high pressure hydraulic flanges.

2. **Available configurations** – Over 60 different configurations are standard in a range of sizes. The breadth of product provides flexibility in plumbing to insure the best solution possible.

3. **Materials** – All configurations are available as standard in steel, with commonly used styles available in stainless steel.

4. **Available sizes** – Most configurations are available as standard in 1/2″ through 2″ with sizes as large as 5″ available in some styles.

5. **Construction** – Parker offers a completely forged steel product line to insure our products hold up in the most rigorous applications.

6. **Envelope size** – Forged construction provides a compact design compared to flanges machined from block steel.

7. **Pressure ratings** – ISo 6162-1/2 fittings and flanges have pressure ratings up to 6000 psi. The recommended working pressure can be found directly on each catalogue page. This is a quick and easy way to verify the part in question meets the application pressure requirements.

8. **Flange kits** – To reduce ordering and assembly errors, kits that include mounting hardware (bolts, O-ring, and if needed flange halves) are available.

9. **Mounting hardware** – Bolts used in mounting kits are designated at least grade 8.8 to provide long dependable use.

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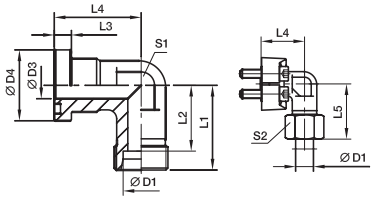
How to order

SAE Flange adapters

WFS SAE 90° Elbow flange adapter

SAE Flange / EO 24° cone end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	D1[2]	D3	D4	L1	L2	L3	L4	L5	S1	S2	Screws (metr.)	Screws (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] 71
1/2	13	12S	12	30.2	50	42.5	6.7	44	58.5	22	24	M 08×25	5/16×1 1/4	0.38	**WFS32/12S**	210	210
1/2	13	15L	12	30.2	36	29.0	6.7	36	44.0	24	27	M 08×25	5/16×1 1/4	0.40	**WFS32/15L**	315	315
1/2	13	16S	12	30.2	38	29.5	6.7	36	48.0	24	30	M 08×25	5/16×1 1/4	0.43	**WFS32/16S**	350	350
1/2	13	18L	12	30.2	50	42.5	6.7	44	59.0	22	32	M 08×25	5/16×1 1/4	0.44	**WFS32/18L**	315	315
3/4	19	16S	19	38.1	64	55.5	6.7	53	73.5	27	30	M 10×30	3/8×1 1/4	0.60	**WFS33/16S**	350	350
3/4	19	18L	19	38.1	39	31.5	6.7	42	48.0	30	32	M 10×30	3/8×1 1/4	0.66	**WFS33/18L**	315	315
3/4	19	22L	19	38.1	41	33.5	6.7	42	50.0	30	36	M 10×30	3/8×1 1/4	0.66	**WFS33/22L**	160	160
3/4	19	20S	17	38.1	43	32.5	6.7	42	54.0	30	36	M 10×30	3/8×1 1/4	0.76	**WFS34/22L**	350	350
3/4	19	25S	17	38.1	45	33.0	6.7	42	57.0	30	46	M 10×30	3/8×1 1/4	0.89	**WFS34/28L**	350	350
1	25	20S	20	44.5	65	54.5	8.0	60	77.0	34	36	M 10×30	3/8×1 1/4	0.7	**WFS34/25S**		350
1	25	22L	18	44.5	65	57.5	8.0	60	74.0	34	36	M 10×30	3/8×1 1/4	0	**WFS34/30S**		160
1	25	28L	25	44.5	44	36.5	8.0	45	53.0	36	41	M 10×30	3/8×1 1/4		**WFS35/35L/10[3]**		0
1	25	25S	20	44.5	48	36.5	8.0	45	57.0	36	46	M 10×30	3/8×1 1/4		**WFS35/25S/10**		0
1	25	30S	24	44.5	50	36.5	8.0	45	63.0	36	50	M 10×30	3/8×1 1/4		**WFS35/30S/10**		0
1 1/4	32	35L	32	50.8	57	46.5	8.0	50	68.0	41	50	M 10×35	3/8×1 1/4		**WFS35/38S/10**		0
1 1/4	32	25S	27	50.8	55	43.0	8.0	60	67.0	41	46	M 10×35	3/8×1 1/4				0
1 1/4	32	30S	28	50.8	57	43.5	8.0	50	70.0	41	50	M 10×35	3/8×1 1/4				200
1 1/4	32	38S	28	50.8	59	43.0	8.0	50	74.0	46	60	M 10×35	3/8×1 1/4	1.			200
1 1/4	32	35L	32	50.8	57	46.5	8.0	50	68.0	41	50	M 12×40	7/16×1 1/2	1.15			160
1 1/4	32	25S	27	50.8	55	43.0	8.0	50	67.0	41	46	M 12×40	7/16×1 1/2	1.35		200	200
1 1/4	32	30S	28	50.8	57	43.5	8.0	50	70.0	41	50	M 12×40	7/16×1 1/2	1.40		200	200
1 1/4	32	38S	28	50.8	59	43.0	8.0	50	74.0	41	60	M 12×40	7/16×1 1/2	1.53	**WFS35/38S**	200	200
1 1/2	38	35L	30	60.3	78	67.5	8.0	66	83.0	50	50	M 12×35	1/2×1 1/2	1.55	**WFS36/35L**	160	160
1 1/2	38	42L	36	60.3	58	47.0	8.0	55	70.0	50	60	M 12×35	1/2×1 1/2	1.60	**WFS36/42L**	160	160
1 1/2	38	38S	36	60.3	64	48.0	8.0	55	79.0	50	60	M 12×35	1/2×1 1/2	1.95	**WFS36/38S**	200	200

[1] Pressure shown = Item deliverable

[2] L = light series; S = heavy series

$\frac{PN\ (bar)}{10}$ = PN (MPa)

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page N11.

[3] Order code for the elbow flange adapter assembled with FHS35/10CFX and M10×35 screws.

Example only flange adapter

WFS32/16SCFX

WFS32/16S71X

Example incl. splitflanges, metr. screws and O-ring

WFS32/16SOMDCF

WFS32/16SOMD71

*Please add the **suffixes** below to the material/surface required

Material	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	NBR
Stainless steel	VIT

The corresponding order variant is contained in the table printed at the bottom of every page in the catalogue.

The right way to order made easy!

Step 1
Selecting order code

1. All flange sizes available in our program of supply are clearly listed in the index at the front of this catalogue.
2. Open the catalogue at the corresponding page containing detailed information of the product of your choice.
3. Select the required flange size!
   The basic order code is printed in bold type on the right-hand side of the table of dimensions.
   Example: **WFS34/30S**

Step 2
Selecting material and surface ...

Now simply add the corresponding ID code for the surface and material variant of the product you require to the basic order code.
This ID code is contained in the table printed at the bottom of every page.

Example: WFS34/30S + **CFX = WFS34/30SCFX**

4. **Ordering single parts**
   Example: single part, Cr(VI)-free galvanized
   WFS34/30S + **CFX = WFS34/30SCFX**

5. **Ordering complete types**
   Example: order incl. splitflanges, metric-bolt pack and O-ring
   WFS34/30S + **OMD**CF **= WFS34/30SOMDCF**

6. **Order containing nut and cutting ring**
   Example: flange incl. splitflanges, metric-bolt pack, O-ring, nut and cutting ring
   WFS34/30S + **CF = WFS34/30SCF**

7. **Order with functional nut**
   Example: flange incl. splitflanges, metric-bolt pack, O-ring, nut and functional nut
   WFS34/30 **(+Z)** S **+ CF = WFS34/30ZSCF**

8. **Other sealing materials**
   Example: flange made of steel incl. splitflanges, metric-bolt pack and O-ring made of **FKM**.
   WFS34/30S + **VIT**OMDCF **= WFS34/30SVITOMDCF**

   Example: flange made of stainless steel incl. splitflanges, metric-bolt pack and O-ring made of **NBR** (for example, Perbunan).
   WFS34/30S + **NBR**OMD71 **= WFS34/30SNBROMD71**

Perbunan = registered trademark of Bayer

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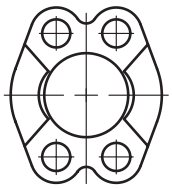
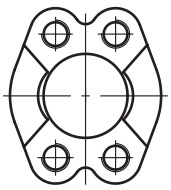
SAE Flange clamps

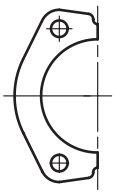
FHS – p. M16



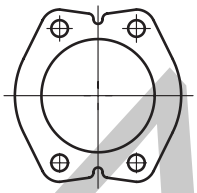
FUS – p. M17



FUSM – p. M18



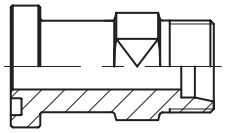
FHSF – p. M19



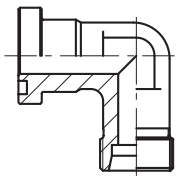
FUSF – p. M20

SAE Flange adapters

EO 24° cone end

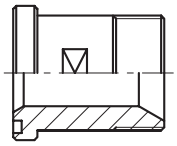


GFS – p. M21

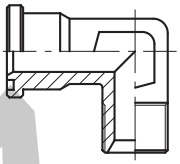


WFS – p. M23

BSPP 60° cone end

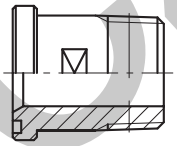


GFS-G – p. M25



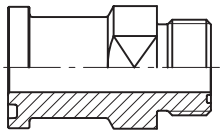
WFS-G – p. M26

Male NPT thread

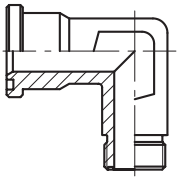


GFS-N – p. M27

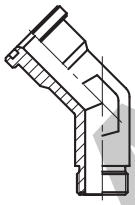
O-Lok® ORFS end



L(O)HQ – p. M28

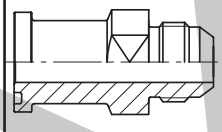


L(O)EMQ – p. M29

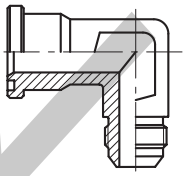


L(O)VQ – p. M30

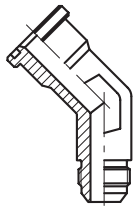
Triple-Lok® 37° flare end



XHQ – p. M31

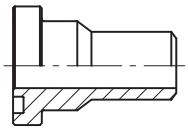


XEMQ – p. M32

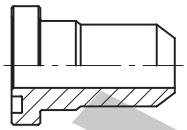


XVQ – p. M33

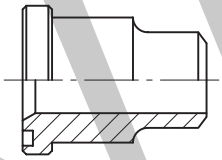
Butt weld end



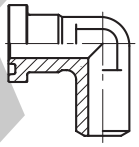
ASR – p. M34



AS – p. M35

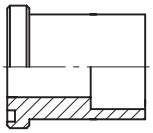


ASL – p. M37

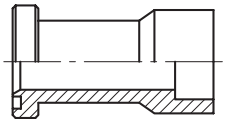


WAS – p. M38

Socket weld end



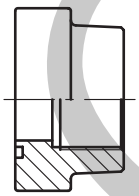
ES – p. M39



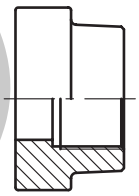
ESL – p. M41

SAE Full flanges

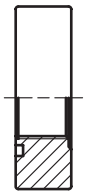
Female BSPP thread



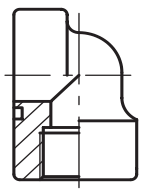
PFF-G – p. M42



PCFF-G – p. M43

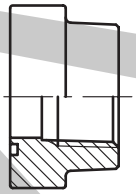


PAFSF-G – p. M44

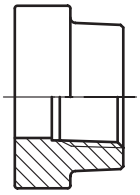


PEFF-G – p. M45

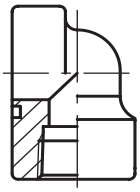
Female NPT thread



PFF-N – p. M46



PCFF-N – p. M47

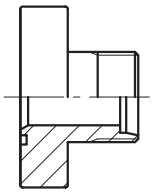


PEFF-N – p. M48

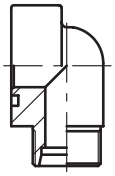
M

SAE Full flanges

EO 24° cone end

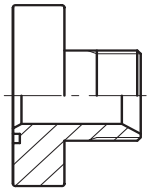


PFF-..S/L – p. M49

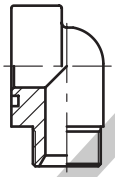


PAFG-90M – p. M50

BSPP 60° cone end

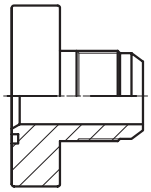


PAFG-G – p. M51

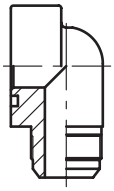


PAFG-90G – p. M52

Triple-Lok® 37° flare end

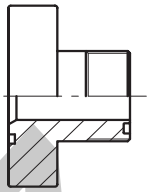


PAFG-X – p. M53



PAFG-90X – p. M54

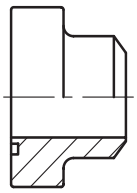
O-Lok® ORFS end



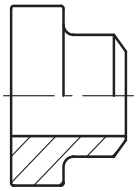
PAFG-L – p. M55

PAFG-90L – p. M56

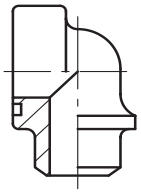
Butt weld end



PAFS-B – p. M57

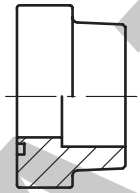


PGFS-B – p. M58

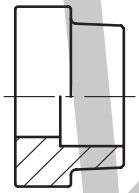


PAFS-90B – p. M59

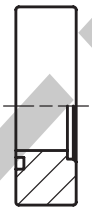
Socket weld end



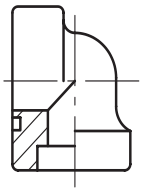
PAFS-S – p. M60



PGFS-S – p. M61

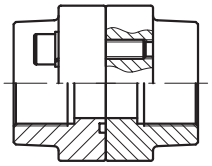


PAFSF-S – p. M62

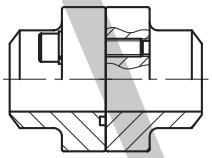


PAFS-90S – p. M63

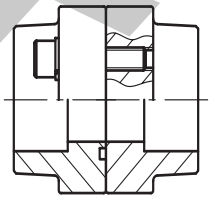
Complete flange connections



PDFS-G – p. M64

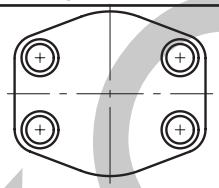


PDFS-B – p. M65

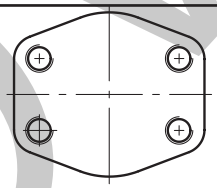


PDFS-S – p. M66

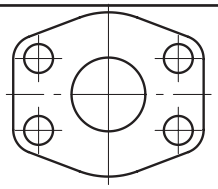
SAE Flange accessories



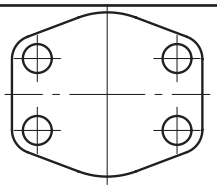
PCFF – p. M67



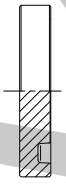
PCCFF – p. M68



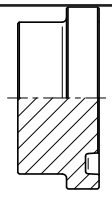
CPM – p. M69



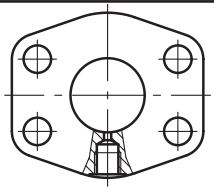
AP – p. M70



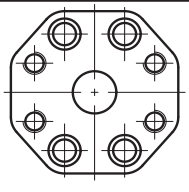
PMQ flat – p. M71



PMQ – p. M72



PAGL-(G/M) – p. M73

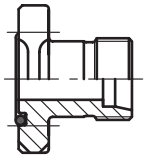


PRF – p. M74

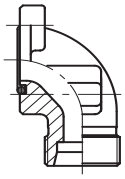
KOVAK.CZ

Gear pump flanges

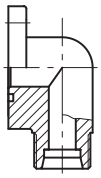
EO 24° cone end



BFG – p. M75

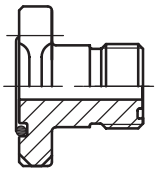


BFW – p. M76

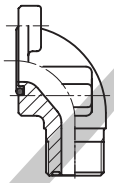


BFW3 – p. M77

O-Lok® ORFS end

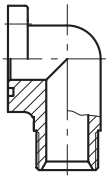


BFGL – p. M78

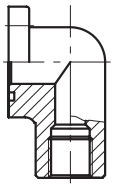


BFWL – p. M79

Male/Female BSPP thread

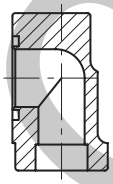


BFW-G – p. M80



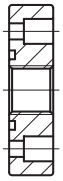
BFW-GI – p. M81

Socket weld end

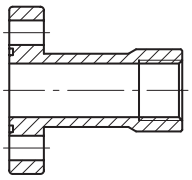


BFW-S – p. M82

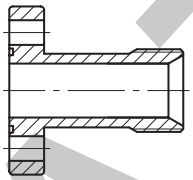
Special pump size flanges



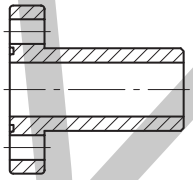
PF – p. M83



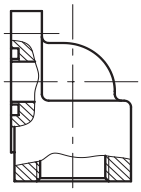
PFL – p. M83



PFE – p. M84

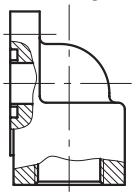


PFB – p. M84

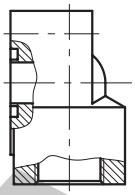


BFW3-G – p. M85

Aluminium flanges



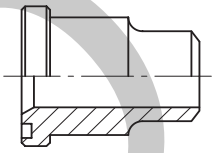
PWDS-G – p. M86



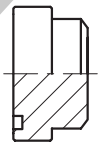
PWDA – p. M87

ISO 6164 Square flanges

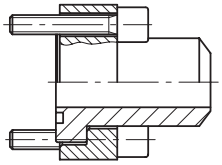
PSFC – p. M88



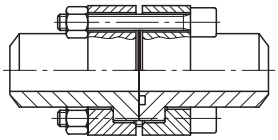
PSFA-B – p. M89



PSFP – p. M90



PSF-B – p. M91



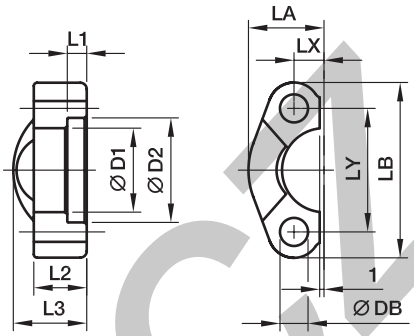
PDSF-B – p. M92

M

KOVAZ.cz

FHS SAE Split flange halves

ISO 6162-1/-2



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	24.3	31.0	6.2	13	19	23.0	54.0	8.7	38.1	8.9	M 08×25	5/16×1 1/4	0.07	**FHS32**	345	345
3/4	19	32.2	38.9	6.2	14	22	25.9	65.0	11.1	47.6	10.6	M 10×30	3/8×1 1/4	0.09	**FHS33**	345	345
1	25	38.5	45.2	7.5	16	24	29.2	69.9	13.1	52.4	10.6	M 10×30	3/8×1 1/4	0.11	**FHS34**	345	345
1 1/4	32	43.7	51.6	7.5	16	22	36.3	79.4	15.1	58.7	10.6	M 10×35	–	0.17	**FHS35/10**	276	276
1 1/4	32	43.7	51.6	7.5	16	22	36.3	79.4	15.1	58.7	12.0	–	7/16×1 1/2	0.17	**FHS35/12**	276	276
1 1/4	32	43.7	51.6	7.5	16	22	36.3	79.4	15.1	58.7	12.5	M 12×35	–	0.17	**FHS35**	276	276
1 1/2	38	50.8	61.1	7.5	16	25	41.1	93.8	17.9	69.9	13.5	M 12×35	1/2×1 1/2	0.24	**FHS36**	207	207
1 1/2	38	50.8	61.1	7.5	16	25	41.1	93.8	17.9	69.9	14.5	M 14×35	–	0.24	**FHS36/14**	207	207
2	51	62.8	72.3	9.0	16	26	48.2	101.6	21.4	77.8	13.5	M 12×35	1/2×1 1/2	0.27	**FHS38/12**	207	207
2	51	62.8	72.3	9.0	16	26	48.2	101.6	21.4	77.8	14.5	M 14×35	–	0.27	**FHS38**	207	207
2 1/2	64	74.9	84.9	9.0	19	38	54.1	114.3	25.4	88.9	13.5	M 12×40	1/2×1 3/4	0.45	**FHS310**	172	172
2 1/2	64	74.9	84.9	9.0	19	38	54.1	114.3	25.4	88.9	14.5	M 14×40	–	0.45	**FHS310/14**	172	172
3	76	90.9	102.4	9.0	22	41	65.3	135.0	31.0	106.4	16.7	M 16×45	5/8×1 3/4	0.71	**FHS312**	138	138
3 1/2	89	102.4	115.0	10.7	22	28	68.6	152.4	34.9	120.7	16.7	M 16×45	5/8×2	0.65	**FHS314**	34	34
4	102	115.1	127.8	10.7	25	35	74.9	162.0	38.9	130.2	16.7	M 16×50	5/8×2	0.87	**FHS316**	34	34
5	127	140.5	153.2	10.7	28	41	89.4	184.2	46.0	152.4	16.7	M 16×50	5/8×2 1/4	1.25	**FHS320**	34	34

6000 PSI Series

1/2	13	24.6	32.5	7.2	16	22	24.0	56.4	9.1	40.5	9.0	M 08×30	5/16×1 1/4	0.08	**FHS62**	420	420
3/4	19	32.5	42.0	8.3	19	28	30.0	72.0	11.9	50.8	11.0	M 10×35	3/8×1 1/2	0.18	**FHS63**	420	420
1	25	38.8	48.4	9.0	24	33	34.8	81.0	13.9	57.2	13.0	M 12×45	–	0.27	**FHS64**	420	420
1	25	38.9	48.4	9.0	24	33	34.8	81.0	13.9	57.2	12.0	–	7/16×1 3/4	0.27	**FHS64/12**	420	420
1 1/4	32	44.5	54.8	9.8	27	38	38.6	95.3	15.9	66.6	15.0	M 14×50	–	0.27	**FHS65**	420	420
1 1/4	32	44.5	54.8	9.8	27	38	38.6	95.3	15.9	66.6	13.0	M 12×45	1/2×1 3/4	0.27	**FHS65/12**	420	420
1 1/2	38	51.6	64.3	12.1	30	43	47.5	112.8	18.3	79.3	17.0	M 16×55	5/8×2 1/4	0.40	**FHS66**	420	420
2	51	67.6	80.2	12.1	37	52	56.9	133.4	22.2	96.8	22.0	M 20×65	3/4×2 3/4	0.40	**FHS68**	420	420
2 1/2	64	90.0	108.0	20.0	45	45	75.1	180.0	29.4	123.8	25.0	M 24×75	–	0.68	**FHS610**	420	420
3	76	115.0	132.5	25.0	55	55	99.1	215.0	35.7	152.4	31.5	M 30×90	–	1.05	**FHS612**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

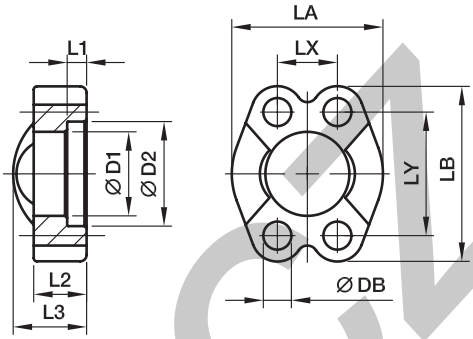
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	FHS32CFX	only flange half
Stainless steel	SS	FHS32SSX	only flange half

KOMVCI

FUS SAE Full flanges

ISO 6162-1/-2



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	24.3	31.0	6.2	13	19	46	54.0	17.5	38.1	8.9	M 08×25	5/16×1 1/4	0.13	**FUS32**	345	345
3/4	19	32.2	38.9	6.2	14	22	52	65.0	22.3	47.6	10.6	M 10×30	3/8×1 1/4	0.18	**FUS33**	345	345
1	25	38.5	45.2	7.5	16	24	59	69.9	26.2	52.4	10.6	M 10×30	3/8×1 1/4	0.22	**FUS34**	345	345
1 1/4	32	43.7	51.6	7.5	16	22	73	79.4	30.2	58.7	10.6	M 10×35	–	0.30	**FUS35/10**	276	276
1 1/4	32	43.7	51.6	7.5	16	22	73	79.4	30.2	58.7	12.0	–	7/16×1 1/2	0.29	**FUS35/12**	276	276
1 1/4	32	43.7	51.6	7.5	16	22	73	79.4	30.2	58.7	12.5	M 12×35	–	0.29	**FUS35**	276	276
1 1/2	38	50.8	61.1	7.5	16	25	83	93.8	35.8	69.9	13.5	M 12×35	1/2×1 1/2	0.45	**FUS36**	207	207
1 1/2	38	50.8	61.1	7.5	16	25	83	93.8	35.8	69.9	14.5	M 14×35	–	0.44	**FUS36/14**	207	207
2	51	62.8	72.3	9.0	16	26	97	101.6	42.8	77.8	13.5	M 12×35	1/2×1 1/2	0.53	**FUS38/12**	207	207
2	51	62.8	72.3	9.0	16	26	97	101.6	42.8	77.8	14.5	M 14×35	–	0.51	**FUS38**	207	207
2 1/2	64	74.9	84.9	9.0	19	38	109	114.3	50.8	88.9	13.5	M 12×40	1/2×1 3/4	0.85	**FUS310**	172	172
2 1/2	64	74.9	84.9	9.0	19	38	109	114.3	50.8	88.9	14.5	M 14×40	–	0.82	**FUS310/14**	172	172
3	76	90.9	102.4	9.0	22	41	131	135.0	61.9	106.4	16.7	M 16×45	5/8×1 3/4	1.30	**FUS312**	138	138
3 1/2	89	102.4	115.0	10.7	22	28	140	152.4	69.9	120.7	16.7	M 16×45	5/8×2	1.57	**FUS314**	34	34
4	102	115.1	127.8	10.7	25	35	150	162.0	77.8	130.2	16.7	M 16×50	5/8×2	1.82	**FUS316**	34	34
5	127	140.5	153.2	10.7	28	41	180	184.2	92.1	152.4	16.7	M 16×50	5/8×2 1/4	2.63	**FUS320**	34	34

6000 PSI Series

1/2	13	24.6	32.5	7.2	16	22	48	56.4	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.16	**FUS62**	420	420
3/4	19	32.5	42.0	8.3	19	28	60	71.4	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.31	**FUS63**	420	420
1	25	38.8	48.4	9.0	24	33	70	81.0	27.8	57.2	13.3	M 12×45	–	0.49	**FUS64**	420	420
1	25	38.9	48.4	9.0	24	33	70	81.0	27.8	57.2	12.0	–	7/16×1 3/4	0.51	**FUS64/12**	420	420
1 1/4	32	44.5	54.8	9.8	27	38	78	95.3	31.8	66.6	15.0	M 14×50	–	0.77	**FUS65**	420	420
1 1/4	32	44.5	54.8	9.8	27	38	78	95.3	31.8	66.6	13.3	M 12×45	1/2×1 3/4	0.81	**FUS65/12**	420	420
1 1/2	38	51.6	64.3	12.1	30	43	96	112.8	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.31	**FUS66**	420	420
2	51	67.6	80.2	12.1	37	52	114	133.4	44.5	96.8	20.6	M 20×65	3/4×2 3/4	2.00	**FUS68**	420	420
2 1/2	64	90.0	108.9	20.5	45	45	150	180.0	58.7	123.8	25.0	M 24×75	–	3.95	**FUS610**	420	420
3	76	115.0	132.5	25.5	55	55	178	215.0	71.4	152.4	31.0	M 30×90	–	6.73	**FUS612**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

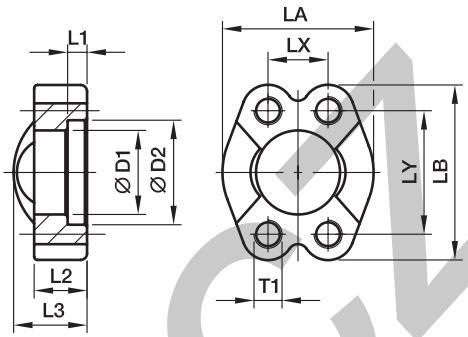
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	FUS32CFX	only flange clamp
Stainless steel	SS	FUS32SSX	only flange clamp

KOMEX

FUSM SAE Full flanges with metric tapped holes

ISO 6162-1/-2



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	T1	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	SS
1/2	13	24.3	31.0	6.2	13	20	46	54.0	17.5	38.1	**M 8**	0.13	**FUSM32**	345	345
3/4	19	32.1	38.9	6.2	14	22	52	65.0	22.3	47.6	**M10**	0.19	**FUSM33**	345	345
1	25	38.5	45.2	7.5	16	24	59	69.9	26.2	52.4	**M10**	0.23	**FUSM34**	345	345
1 1/4	32	43.7	51.6	7.5	16	22	73	79.4	30.2	58.7	**M10**	0.31	**FUSM35/10**	276	276
1 1/4	32	43.7	51.6	7.5	16	22	73	79.4	30.2	58.7	**M12**	0.30	**FUSM35/12**	276	276
1 1/2	38	50.8	61.1	7.5	16	25	83	93.8	35.7	69.9	**M12**	0.44	**FUSM36**	207	207
1 1/2	38	50.8	61.1	7.5	16	25	83	93.8	35.7	69.9	**M14**	0.47	**FUSM36/14**	207	207
2	51	62.8	72.3	9.0	16	26	97	101.6	42.9	77.8	**M12**	0.56	**FUSM38/12**	207	207
2	51	62.8	72.3	9.0	16	26	97	101.6	42.9	77.8	**M14**	0.54	**FUSM38**	207	207
2 1/2	64	74.9	84.9	9.0	19	38	109	114.3	50.8	88.9	**M12**	0.85	**FUSM310**	172	172
2 1/2	64	74.9	84.9	9.0	19	38	109	114.3	50.8	88.9	**M14**	0.73	**FUSM310/14**	172	172
3	76	90.9	102.4	9.0	22	41	131	135.0	61.9	106.4	**M16**	1.25	**FUSM312**	138	138
3 1/2	89	102.4	115.0	10.7	23	28	140	152.4	69.9	120.7	**M16**	1.66	**FUSM314**	34	34
4	102	115.1	127.8	10.7	25	35	150	162.0	77.8	130.2	**M16**	1.83	**FUSM316**	34	34
5	127	140.5	153.2	10.7	28	41	180	184.2	92.1	152.4	**M16**	2.50	**FUSM320**	34	34

6000 PSI Series

1/2	13	24.6	32.5	7.2	16	22	48	56.4	18.2	40.5	**M 8**	0.18	**FUSM62**	420	420
3/4	19	32.5	42.0	8.2	19	28	60	71.4	23.8	50.8	**M10**	0.34	**FUSM63**	420	420
1	25	38.9	48.4	9.0	24	33	70	81.0	27.8	57.2	**M12**	0.55	**FUSM64**	420	420
1 1/4	32	44.5	54.8	9.8	27	38	78	95.3	31.8	66.6	**M14**	0.87	**FUSM65**	420	420
1 1/4	32	44.5	54.8	9.8	27	38	78	95.3	31.8	66.6	**M12**	0.87	**FUSM65/12**	420	420
1 1/2	38	51.6	64.3	12.1	30	43	96	112.8	36.5	79.3	**M16**	1.33	**FUSM66**	420	420
2	51	67.6	80.2	12.1	37	52	114	133.4	44.5	96.8	**M20**	2.31	**FUSM68**	420	420
2 1/2	64	90.0	108.9	20.5	45	45	150	180.0	58.7	123.8	**M24**	4.02	**FUSM610**	420	420
3	76	115.0	132.5	25.5	55	55	178	215.0	71.4	152.4	**M30**	7.05	**FUSM612**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

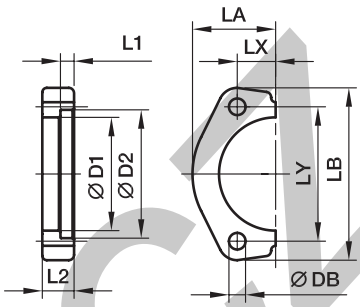
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example only flange clamp with metr. threads	Description
Steel, zinc plated, Cr(VI)-free	CF	FUSM32CFM	only flange clamp
Stainless steel	SS	FUSM32SSM	only flange clamp

KOVAK.cz

FHSF SAE Flange halves flat

ISO 6162-1/-2



3000 PSI Series

Nom. flange size											Bolts		Weight (steel)		PN (bar)[1]
SAE (in.)	ISO (DN)	D1	D2	L1	L2	LA	LB	LX	LY	DB	(metr.)	(unc.)	kg/piece	Order code*	CF
1/2	13	24.3	31.0	6.2	13	22.8	56	8.7	38.1	8.9	M 08×25	5/16×1 1/4	0.06	**FHSF32**	345
3/4	19	32.1	38.9	6.2	14	25.9	65	11.1	47.6	10.6	M 10×30	3/8×1 1/4	0.07	**FHSF33**	345
1	25	38.5	45.3	7.5	16	29.2	70	13.1	52.4	10.6	M 10×30	3/8×1 1/4	0.10	**FHSF34**	345
1 1/4	32	43.7	51.6	7.5	16	36.6	79	15.1	58.7	10.6	M 10×35	–	0.16	**FHSF35/10**	276
1 1/4	32	43.7	51.6	7.5	16	36.6	79	15.1	58.7	12.5	M 12×35	7/16×1 1/2	0.16	**FHSF35/12**	276
1 1/2	38	50.8	61.1	7.5	16	41.1	94	17.9	69.9	13.5	M 12×35	1/2×1 1/2	0.21	**FHSF36**	207
1 1/2	38	50.8	61.1	7.5	16	41.1	94	17.9	69.9	14.5	M 14×35	–	0.20	**FHSF36/14**	207
2	51	62.8	72.3	9.0	16	48.2	104	21.4	77.8	13.5	M 12×35	1/2×1 1/2	0.26	**FHSF38**	207
2	51	62.8	72.3	9.0	16	48.2	104	21.4	77.8	14.5	M 14×35	–	0.25	**FHSF38/14**	207
2 1/2	64	74.9	84.9	9.0	19	53.0	114	25.4	88.9	13.5	M 12×40	1/2×1 3/4	0.38	**FHSF310**	172
2 1/2	64	74.9	84.9	9.0	19	53.0	114	25.4	88.9	14.5	M 14×40	–	0.36	**FHSF310/14**	172
3	76	90.9	102.4	9.0	22	64.3	135	31.0	106.4	16.7	M 16×45	5/8×1 3/4	0.57	**FHSF312**	138

6000 PSI Series

1/2	13	24.6	32.5	7.2	16	23.6	56	9.1	40.5	8.9	M 08×30	5/16×1 1/4	0.08	**FHSF62**	420
3/4	19	32.5	42.0	8.3	20	30.0	71	11.9	50.8	10.6	M 10×35	3/8×1 1/2	0.14	**FHSF63**	420
1	25	38.8	48.4	9.0	25	34.8	81	13.9	57.2	13.3	M 12×45	–	0.23	**FHSF64**	420
1 1/4	32	44.5	54.8	9.8	27	38.6	95	15.9	66.6	15.0	M 14×50	–	0.34	**FHSF65**	420
1 1/4	32	44.5	54.8	9.8	27	38.6	95	15.9	66.6	13.3	M 12×50	1/2×1 3/4	0.34	**FHSF65/12**	420
1 1/2	38	51.6	64.3	12.1	30	47.5	113	18.3	79.3	16.7	M 16×55	5/8×2 1/4	0.59	**FHSF66**	420
2	51	67.6	80.2	12.1	37	56.9	133	22.2	96.8	20.6	M 20×65	3/4×2 3/4	0.93	**FHSF68**	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Material for steel: C60

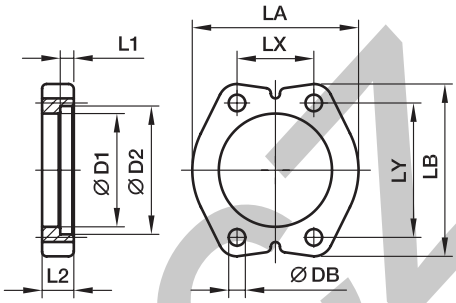
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	FHSF32CF	only flange half

KOVACH

FUSF SAE Full flanges flat

ISO 6162-1/-2



3000 PSI Series

Nom. flange size											Bolts		Weight (steel)		PN (bar)[1]
SAE (in.)	ISO (DN)	D1	D2	L1	L2	LA	LB	LX	LY	DB	(metr.)	(unc.)	kg/piece	Order code*	CF
1/2	13	24.3	31.0	6.2	13	46	56	17.4	38.1	8.9	M 08×25	5/16×1 1/4	0.12	**FUSF32**	345
3/4	19	32.1	38.9	6.2	14	52	65	22.2	47.6	10.6	M 10×30	3/8×1 1/4	0.18	**FUSF33**	345
1	25	38.5	45.3	7.5	16	59	70	26.2	52.4	10.6	M 10×30	3/8×1 1/4	0.23	**FUSF34**	345
1 1/4	32	43.7	51.6	7.5	16	73	79	30.2	58.7	10.6	M 10×35	–	0.33	**FUSF35/10**	276
1 1/4	32	43.7	51.6	7.5	16	73	79	30.2	58.7	12.5	M 12×35	7/16×1 1/2	0.32	**FUSF35/12**	276
1 1/2	38	50.8	61.1	7.5	16	83	94	35.8	69.9	13.5	M 12×35	1/2×1 1/2	0.42	**FUSF36**	207
1 1/2	38	50.8	61.1	7.5	16	83	94	35.8	69.9	14.5	M 14×35	–	0.41	**FUSF36/14**	207
2	51	62.8	72.3	9.0	16	97	104	42.8	77.8	13.5	M 12×35	1/2×1 1/2	0.56	**FUSF38/12**	207
2	51	62.8	72.3	9.0	16	97	104	42.8	77.8	14.5	M 14×35	–	0.51	**FUSF38**	207
2 1/2	64	74.9	84.9	9.0	19	109	114	50.8	88.9	13.5	M 12×40	1/2×1 3/4	0.77	**FUSF310**	172
2 1/2	64	74.9	84.9	9.0	19	109	114	50.8	88.9	14.5	M 14×40	–	0.72	**FUSF310/14**	172
3	76	90.9	102.4	9.0	22	131	135	61.9	106.4	16.7	M 16×45	5/8×1 3/4	1.13	**FUSF312**	138

6000 PSI Series

1/2	13	24.6	32.5	7.2	16	48	56	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.17	**FUSF62**	420
3/4	19	32.5	42.0	8.3	20	60	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.32	**FUSF63**	420
1	25	38.8	48.4	9.0	25	70	81	27.8	57.2	13.3	M 12×45	–	0.56	**FUSF64**	420
1	25	38.8	48.4	9.0	25	70	81	27.8	57.2	12.0	M 12×45	7/16×1 3/4	0,56	**FUSF64/12**	420
1 1/4	32	44.5	54.8	9.8	27	78	95	31.8	66.6	15.0	M 14×50	–	0.76	**FUSF65**	420
1 1/4	32	44.5	54.8	9.8	27	78	95	31.8	66.6	13.3	M 12×50	1/2×1 3/4	0.76	**FUSF65/12**	420
1 1/2	38	51.6	64.3	12.1	30	95	113	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.30	**FUSF66**	420
2	51	67.6	80.2	12.1	37	114	133	44.5	96.8	20.6	M 20×65	3/4×2 3/4	1.88	**FUSF68**	420

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Material for steel: C60

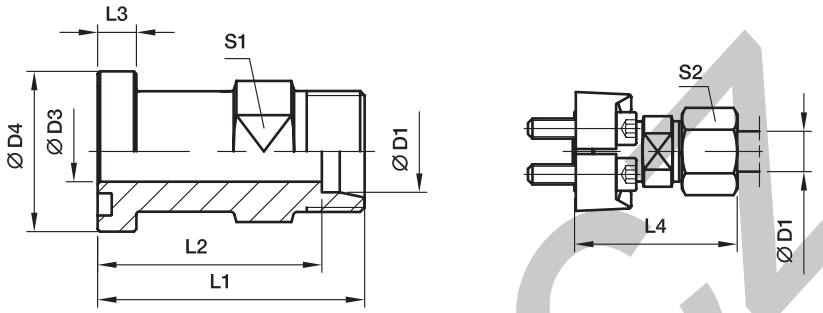
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	FUSF32CF	only flange clamp

KOVACH

GFS SAE Straight flange adapter

SAE Flange / EO 24° cone end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size		D1[2]									Bolts		Weight (steel)		PN (bar)[1]	
SAE (in.)	ISO (DN)		D3	D4	L1	L2	L3	L4	S1	S2	(metr.)	(unc.)	kg/piece	Order code*	CF	71
1/2	13	15L	12.0	30.2	48.0	41.0	6.7	56.0	24	27	M 08×25	5/16×1 1/4	0.13	**GFS32/15L**	315	315
1/2	13	16S	12.0	30.2	50.0	41.5	6.7	60.0	24	30	M 08×25	5/16×1 1/4	0.14	**GFS32/16S**	350	350
1/2	13	18L	14.0	30.2	50.0	42.5	6.7	61.0	19	32	M 08×25	5/16×1 1/4	0.12	**GFS32/18L**	315	315
3/4	19	16S	12.0	38.1	55.0	46.5	6.7	64.5	27	30	M 10×30	3/8×1 1/4	0.22	**GFS33/16S**	350	350
3/4	19	18L	17.0	38.1	53.0	45.5	6.7	62.0	30	32	M 10×30	3/8×1 1/4	0.22	**GFS33/18L**	315	315
3/4	19	22L	19.0	38.1	53.0	45.5	6.7	62.0	30	36	M 10×30	3/8×1 1/4	0.20	**GFS33/22L**	160	160
3/4	19	28L	19.0	38.1	55.0	47.5	6.7	64.0	32	41	M 10×30	3/8×1 1/4	0.23	**GFS33/28L**	160	160
3/4	19	20S	17.0	38.1	57.0	46.5	6.7	68.0	30	36	M 10×30	3/8×1 1/4	0.25	**GFS33/20S**	350	350
3/4	19	25S	17.0	38.1	57.0	45.0	6.7	69.0	30	46	M 10×30	3/8×1 1/4	0.27	**GFS33/25S**	350	350
1	25	20S	25.0	44.5	60.0	48.5	8.0	71.0	32	36	M 10×30	3/8×1 1/4	0.34	**GFS34/20S**	350	350
1	25	28L	24.0	44.5	54.0	46.5	8.0	63.0	36	41	M 10×30	3/8×1 1/4	0.28	**GFS34/28L**	160	160
1	25	25S	20.0	44.5	58.0	46.5	8.0	60.0	36	46	M 10×30	3/8×1 1/4	0.35	**GFS34/25S**	350	350
1	25	30S	24.0	44.5	63.0	49.5	8.0	76.0	36	50	M 10×30	3/8×1 1/4	0.36	**GFS34/30S**	250	250
1	25	42L	24.0	44.5	76.0	65.0	8.0	87.5	41	60	M 10×30	3/8×1 1/4	0.49	**GFS34/42L**	160	160
1 1/4	32	35L	32.0	50.8	58.0	47.5	8.0	69.0	41	50	M 10×35	–	0.36	**GFS35/35L/10[3])**	160	160
1 1/4	32	25S	27.0	50.8	60.0	48.0	8.0	72.0	41	46	M 10×35	–	0.44	**GFS35/25S/10[3])**	200	200
1 1/4	32	30S	28.5	50.8	62.0	48.5	8.0	75.0	41	50	M 10×35	–	0.44	**GFS35/30S/10[3])**	200	200
1 1/4	32	38S	28.0	50.8	66.0	50.0	8.0	81.0	46	60	M 10×35	–	0.46	**GFS35/38S/10[3])**	200	200
1 1/4	32	28L	23.0	50.8	60.0	52.5	8.0	67.0	36	41	M 12×40	7/16×1 1/2	0.41	**GFS35/28L**	160	160
1 1/4	32	35L	32.0	50.8	58.0	47.5	8.0	69.0	41	50	M 12×40	7/16×1 1/2	0.36	**GFS35/35L**	160	160
1 1/4	32	25S	27.0	50.8	60.0	48.0	8.0	72.0	41	46	M 12×40	7/16×1 1/2	0.44	**GFS35/25S**	200	200
1 1/4	32	30S	28.5	50.8	62.0	48.5	8.0	75.0	41	50	M 12×40	7/16×1 1/2	0.44	**GFS35/30S**	200	200
1 1/4	32	38S	28.0	50.8	66.0	50.0	8.0	81.0	46	60	M 12×40	7/16×1 1/2	0.46	**GFS35/38S**	200	200
1 1/2	38	35L	30.0	60.3	65.0	54.5	8.0	76.0	46	50	M 12×35	1/2×1 1/2	0.55	**GFS36/35L**	160	160
1 1/2	38	42L	36.0	60.3	64.0	53.0	8.0	76.0	46	60	M 12×35	1/2×1 1/2	0.49	**GFS36/42L**	160	160
1 1/2	38	38S	32.0	60.3	70.0	54.0	8.0	85.0	46	60	M 12×35	1/2×1 1/2	0.64	**GFS36/38S**	200	200

[1]) Pressure shown = Item deliverable

[2]) L = light series; S = heavy series

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Delivery without nut and ring.
Information on ordering complete fittings
or alternative sealing materials see page M12.

[3]) Order code for the flange adapter assembled with FHS35/10CFX and M10×35 bolts.

See pages M16 and M19 for related flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

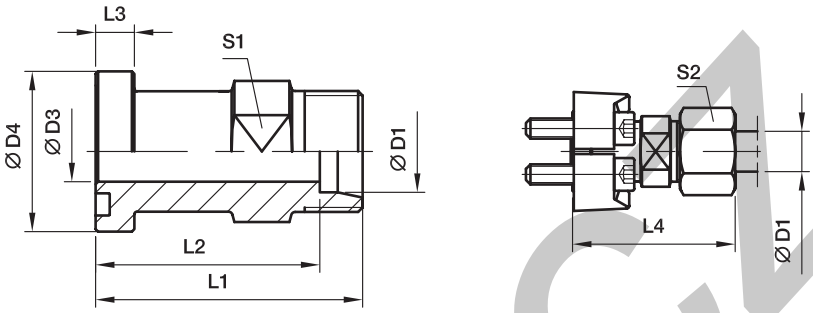
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	GFS32/16SCFX	GFS32/16SOMDCF	GFS32/16SOMDCFU	NBR
Stainless steel	71	GFS32/16S71X	GFS32/16SOMD71	–	VIT

KOMAT.CZ

GFS SAE Straight flange adapter

SAE Flange / EO 24° cone end
(ISO 6162-1/-2)



6000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	D1[2]	D3	D4	L1	L2	L3	L4	S1	S2	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] 71
1/2	13	12S	8	31.8	50.0	42.5	7.7	57.5	19	24	M 08×30	5/16×1 1/4	0.14	**GFS62/12S**	420	420
1/2	13	14S	10	31.8	50.0	42.0	7.7	59.5	19	27	M 08×30	5/16×1 1/4	0.17	**GFS62/14S**	420	420
1/2	13	16S	12	31.8	50.0	41.5	7.7	49.5	19	30	M 08×30	5/16×1 1/4	0.15	**GFS62/16S**	420	420
3/4	19	16S	17	41.3	59.0	50.5	8.7	68.5	30	30	M 10×35	3/8×1 1/2	0.28	**GFS63/16S**	420	420
3/4	19	20S	17	41.3	61.0	50.5	8.7	72.0	30	36	M 10×35	3/8×1 1/2	0.27	**GFS63/20S**	420	400
3/4	19	25S	17	41.3	63.0	51.0	8.7	75.0	30	46	M 10×35	3/8×1 1/2	0.31	**GFS63/25S**	420	400
3/4	19	30S	18	41.3	76.0	62.0	8.7	89.0	30	50	M 10×35	3/8×1 1/2	0.42	**GFS63/30S**	420	400
3/4	19	38S	19	41.3	80.0	64.0	8.7	94.5	41	60	M 10×35	3/8×1 1/2	0.57	**GFS63/38S**	420	315
1	25	20S	16	47.6	75.0	64.5	9.5	88.0	36	36	M 12×45	7/16×1 3/4	0.49	**GFS64/20S**	420	400
1	25	25S	20	47.6	72.0	60.0	9.5	84.0	36	46	M 12×45	7/16×1 3/4	0.46	**GFS64/25S**	420	400
1	25	30S	24	47.6	74.0	62.0	9.5	87.0	36	50	M 12×45	7/16×1 3/4	0.43	**GFS64/30S**	420	400
1	25	38S	25	47.6	90.0	74.0	9.5	105.0	41	60	M 12×45	7/16×1 3/4	0.65	**GFS64/38S**	420	315
1 1/4	32	25S	20	54.0	80.0	68.0	10.2	92.0	41	46	M 14×50	–	0.68	**GFS65/25S**	420	400
1 1/4	32	25S	20	54.0	80.0	68.0	10.2	92.0	41	46	M 12×50	1/2X1 3/4	0.68	**GFS65/25S/12[3])**	420	400
1 1/4	32	30S	30	54.0	79.0	65.5	10.2	92.0	41	50	M 12×50	1/2×1 3/4	0.58	**GFS65/30S/12[3])**	420	400
1 1/4	32	38S	31	54.0	80.0	64.0	10.2	94.5	46	60	M 12×50	1/2×1 3/4	0.58	**GFS65/38S/12[3])**	420	315
1 1/4	32	30S	30	54.0	79.0	65.5	10.2	92.0	41	50	M 14×50	–	0.58	**GFS65/30S**	420	400
1 1/4	32	38S	31	54.0	80.0	64.0	10.2	94.5	46	60	M 14×50	–	0.58	**GFS65/38S**	420	315
1 1/2	38	30S	30	63.5	90.0	76.5	12.5	103.0	46	50	M 16×55	5/8×2 1/4	1.00	**GFS66/30S**	420	400
1 1/2	38	38S	32	63.5	90.0	74.0	12.5	104.5	46	60	M 16×55	5/8×2 1/4	0.93	**GFS66/38S**	420	315

[1]) Pressure shown = Item deliverable

[2]) S = heavy series

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page M12.

[3]) Order code for the flange adapter assembled with FHS65/12CFX and M12×50 bolts.

See pages M16 and M19 for related flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

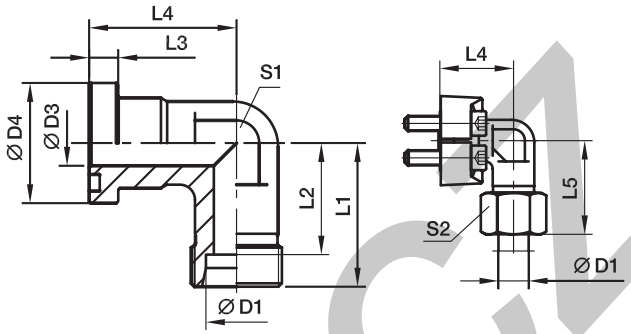
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	GFS62/16SCFX	GFS62/16SOMDCF	GFS62/16SOMDCFU	NBR
Stainless steel	71	GFS62/16S71X	GFS62/16SOMD71	–	VIT

KOVAK.CZ

WFS SAE 90° Elbow flange adapter

SAE Flange / EO 24° cone end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	D1[2]	D3	D4	L1	L2	L3	L4	L5	S1	S2	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] 71
1/2	13	12S	12	30.2	50	42.5	6.7	44	58.5	22	24	M 08×25	5/16×1 1/4	0.24	**WFS32/12S**	210	210
1/2	13	15L	12	30.2	36	29.0	6.7	36	44.0	24	27	M 08×25	5/16×1 1/4	0.16	**WFS32/15L**	315	315
1/2	13	16S	12	30.2	38	29.5	6.7	36	48.0	24	30	M 08×25	5/16×1 1/4	0.17	**WFS32/16S**	350	350
1/2	13	18L	12	30.2	50	42.5	6.7	44	59.0	22	32	M 08×25	5/16×1 1/4	0.20	**WFS32/18L**	315	315
3/4	19	16S	19	38.1	64	55.5	6.7	53	73.5	27	30	M 10×30	3/8×1 1/4	0.36	**WFS33/16S**	350	350
3/4	19	18L	19	38.1	39	31.5	6.7	42	48.0	30	32	M 10×30	3/8×1 1/4	0.30	**WFS33/18L**	315	315
3/4	19	22L	19	38.1	41	33.5	6.7	42	50.0	30	36	M 10×30	3/8×1 1/4	0.28	**WFS33/22L**	160	160
3/4	19	20S	17	38.1	43	32.5	6.7	42	54.0	30	36	M 10×30	3/8×1 1/4	0.33	**WFS33/20S**	350	350
3/4	19	25S	17	38.1	45	33.0	6.7	42	57.0	30	46	M 10×30	3/8×1 1/4	0.32	**WFS33/25S**	350	350
1	25	20S	16/23	44.5	65	54.5	8.0	60	77.0	34	36	M 10×30	3/8×1 1/4	0.55	**WFS34/20S**	350	350
1	25	22L	18	44.5	65	57.5	8.0	60	74.0	34	36	M 10×30	3/8×1 1/4	0.53	**WFS34/22L**	160	160
1	25	28L	25	44.5	44	36.5	8.0	45	53.0	36	41	M 10×30	3/8×1 1/4	0.41	**WFS34/28L**	160	160
1	25	25S	20	44.5	48	36.5	8.0	45	57.0	36	46	M 10×30	3/8×1 1/4	0.52	**WFS34/25S**	350	350
1	25	30S	24	44.5	50	36.5	8.0	45	63.0	36	50	M 10×30	3/8×1 1/4	0.48	**WFS34/30S**	250	250
1 1/4	32	35L	32	50.8	57	46.5	8.0	50	68.0	41	50	M 10×35	–	0.53	**WFS35/35L/10[3]**	160	160
1 1/4	32	25S	27	50.8	55	43.0	8.0	60	67.0	41	46	M 10×35	–	0.72	**WFS35/25S/10[3]**	200	200
1 1/4	32	30S	28	50.8	57	43.5	8.0	50	70.0	41	50	M 10×35	–	0.67	**WFS35/30S/10[3]**	200	200
1 1/4	32	38S	28	50.8	59	43.0	8.0	50	74.0	46	60	M 10×35	–	0.71	**WFS35/38S/10[3]**	200	200
1 1/4	32	35L	32	50.8	57	46.5	8.0	50	68.0	41	50	M 12×40	7/16×1 1/2	0.53	**WFS35/35L**	160	160
1 1/4	32	25S	27	50.8	55	43.0	8.0	50	67.0	41	46	M 12×40	7/16×1 1/2	0.72	**WFS35/25S**	200	200
1 1/4	32	30S	28	50.8	57	43.5	8.0	50	70.0	41	50	M 12×40	7/16×1 1/2	0.67	**WFS35/30S**	200	200
1 1/4	32	38S	28	50.8	59	43.0	8.0	50	74.0	41	60	M 12×40	7/16×1 1/2	0.71	**WFS35/38S**	200	200
1 1/2	38	35L	30	60.3	78	67.5	8.0	66	83.0	50	50	M 12×35	1/2×1 1/2	1.36	**WFS36/35L**	160	160
1 1/2	38	42L	36	60.3	58	47.0	8.0	55	70.0	50	60	M 12×35	1/2×1 1/2	0.73	**WFS36/42L**	160	160
1 1/2	38	38S	36	60.3	64	48.0	8.0	55	79.0	50	60	M 12×35	1/2×1 1/2	0.95	**WFS36/38S**	200	200

[1] Pressure shown = Item deliverable

[2] L = light series; S = heavy series

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page M12.

[3] Order code for the elbow flange adapter assembled with FHS35/10CFX and M10×35 bolts.

See pages M16 and M19 for related flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

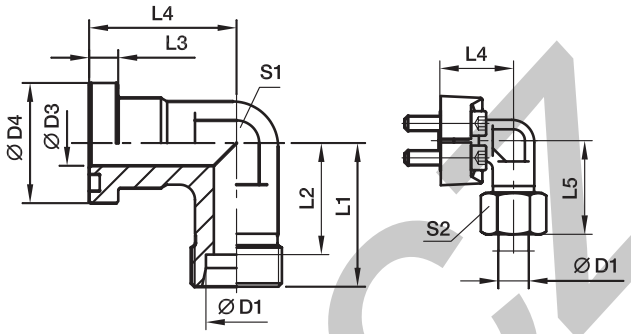
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	WFS32/16SCFX	WFS32/16SOMDCF	WFS32/16SOMDCFU	NBR
Stainless steel	71	WFS32/16S71X	WFS32/16SOMD71	–	VIT

M

WFS SAE 90° Elbow flange adapter

SAE Flange / EO 24° cone end
(ISO 6162-1/-2)



6000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	D1[2]	D3	D4	L1	L2	L3	L4	L5	S1	S2	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] 71
1/2	13	12S	12	31.8	50	42.5	7.7	44	58.5	22	24	M 08×30	5/16×1 1/4	0.22	**WFS62/12S**	420	420
1/2	13	14S	12	31.8	50	42.0	7.7	44	59.5	22	27	M 08×30	5/16×1 1/4	0.27	**WFS62/14S**	420	420
1/2	13	16S	12	31.8	38	29.5	7.7	39	48.0	24	30	M 08×30	5/16×1 1/4	0.19	**WFS62/16S**	420	420
3/4	19	16S	17	41.3	45	36.5	8.7	48	55.0	32	30	M 10×35	3/8×1 1/2	0.42	**WFS63/16S**	420	420
3/4	19	20S	17	41.3	46	35.5	8.7	48	57.0	32	36	M 10×35	3/8×1 1/2	0.42	**WFS63/20S**	420	400
3/4	19	25S	17	41.3	48	36.0	8.7	48	60.0	32	46	M 10×35	3/8×1 1/2	0.46	**WFS63/25S**	420	400
1	25	20S	16	47.6	65	54.5	9.5	62	75.0	34	36	M 12×45	7/16×1 3/4	0.60	**WFS64/20S**	420	400
1	25	25S	20	47.6	53	41.0	9.5	60	65.0	41	46	M 12×45	7/16×1 3/4	0.74	**WFS64/25S**	420	400
1	25	30S	25	47.6	55	41.5	9.5	60	68.0	41	50	M 12×45	7/16×1 3/4	0.64	**WFS64/30S**	420	400
1 1/4	32	25S	25	54.0	72	60.0	10.2	70	84.0	42	46	M 12×50	1/2×1 3/4	1.06	**WFS65/25S/12[3])**	420	400
1 1/4	32	30S	30	54.0	58	44.5	10.2	68	71.0	46	50	M 12×50	1/2×1 3/4	0.88	**WFS65/30S/12[3])**	420	400
1 1/4	32	38S	30	54.0	72	56.0	10.2	70	87.0	46	60	M 12×50	1/2×1 3/4	0.93	**WFS65/38S/12[3])**	420	315
1 1/4	32	25S	20/28	54.0	72	60.0	10.3	70	84.0	42	46	M 14×50	–	1.06	**WFS65/25S**	420	400
1 1/4	32	30S	30	54.0	58	44.5	10.2	68	71.0	46	50	M 14×50	–	0.88	**WFS65/30S**	420	400
1 1/4	32	38S	30	54.0	72	56.0	10.2	70	87.0	46	60	M 14×50	–	0.93	**WFS65/38S**	420	315
1 1/2	38	30S	25	63.5	76	63.5	12.5	77	90.0	50	50	M 16×55	5/8×2 1/4	1.75	**WFS66/30S**	420	400
1 1/2	38	38S	32	63.5	84	68.0	12.5	80	99.0	50	60	M 16×55	5/8×2 1/4	1.46	**WFS66/38S**	420	315

[1]) Pressure shown = Item deliverable

[2]) S = heavy series

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page M12.

[3]) Order code for the elbow flange adapter assembled with FHS65/12CFX and M12×50 bolts.

See pages M16 and M19 for related flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

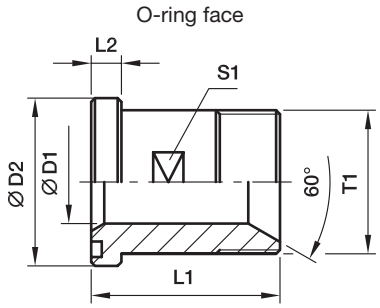
*Please add the **suffixes** below according to the material/surface required.

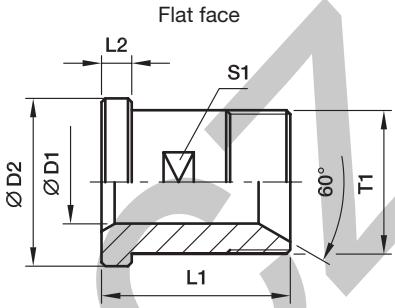
Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	WFS62/16SCFX	WFS62/16SOMDCF	WFS62/16SOMDCFU	NBR
Stainless steel	71	WFS62/16S71X	WFS62/16SOMD71	–	VIT

KOVMAT.CZ

GFS-G SAE Straight flange adapter

SAE Flange / BSPP 60° cone end
(ISO 6162-1/-2) (ISO 8434-6)





3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	D2	L1	L2	S1	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	**G 1/2**	12	30.2	50	6.7	19	0.11	**GFS32/12G**	**GFSG32/12G**	345	345
1/2	13	**G 3/8**	10	30.2	50	6.7	19	0.12	**GFS32/38G**	**GFSG32/38G**	345	345
3/4	19	**G 3/4**	17	38.1	55	6.7	27	0.18	**GFS33/34G**	**GFSG33/34G**	345	345
3/4	19	**G 1/2**	12	38.1	55	6.7	27	0.21	**GFS33/12G**	**GFSG33/12G**	345	345
1	25	**G 1**	22	44.4	60	8.0	32	0.28	**GFS34/1G**	**GFSG34/1G**	345	345
1	25	**G 3/4**	17	44.4	60	8.0	32	0.31	**GFS34/34G**	**GFSG34/34G**	345	345
1 1/4	32	**G 1 1/4**	27	50.8	65	8.0	41	0.41	**GFS35/114G**	**GFSG35/114G**	276	276
1 1/4	32	**G 1**	22	50.8	65	8.0	41	0.44	**GFS35/1G**	**GFSG35/1G**	276	276
1 1/2	38	**G 1 1/2**	32	60.3	70	8.0	46	0.58	**GFS36/112G**	**GFSG36/112G**	207	207
1 1/2	38	**G 1 1/4**	27	60.3	70	8.0	46	0.64	**GFS36/114G**	**GFSG36/114G**	207	207
2	51	**G 2**	40	71.4	75	9.5	55	0.89	**GFS38/2G**	**GFSG38/2G**	207	207
2	51	**G 1 1/2**	32	71.4	75	9.5	55	1.01	**GFS38/112G**	**GFSG38/112G**	207	207

6000 PSI Series

1/2	13	**G 1/2**	12	31.8	50	7.7	19	0.12	**GFS62/12G**	**GFSG62/12G**	420	420
1/2	13	**G 3/8**	10	31.8	50	7.7	19	0.13	**GFS62/38G**	**GFSG62/38G**	420	420
3/4	19	**G 3/4**	17	41.3	60	8.7	26	0.24	**GFS63/34G**	**GFSG63/34G**	420	420
3/4	19	**G 1/2**	12	41.3	60	8.7	26	0.22	**GFS63/12G**	**GFSG63/12G**	420	420
1	25	**G 1**	22	47.6	70	9.5	32	0.35	**GFS64/1G**	**GFSG64/1G**	420	420
1	25	**G 3/4**	17	47.6	70	9.5	32	0.40	**GFS64/34G**	**GFSG64/34G**	420	420
1 1/4	32	**G 1 1/4**	27	54.0	75	10.3	36	0.50	**GFS65/114G**	**GFSG65/114G**	420	420
1 1/4	32	**G 1 1/4**	27	54.0	75	10.3	36	0.50	**GFS65/114G/12**[3]	**GFSG65/114G/12**[3]	420	420
1 1/4	32	**G 1**	22	54.0	75	10.3	36	0.54	**GFS65/1G**	**GFSG65/1G**	420	420
1 1/4	32	**G 1**	22	54.0	75	10.3	36	0.54	**GFS65/1G/12**[3]	**GFSG65/1G/12**[3]	420	420
1 1/2	38	**G 1 1/2**	32	63.5	80	12.5	46	0.73	**GFS66/112G**	**GFSG66/112G**	420	420
1 1/2	38	**G 1 1/4**	27	63.5	80	12.5	46	0.80	**GFS66/114G**	**GFSG66/114G**	420	420
2	51	**G 2**	40	79.4	90	12.5	55	1.34	**GFS68/2G**	**GFSG68/2G**	420	420
2	51	**G 1 1/2**	32	79.4	90	12.5	55	1.54	**GFS68/112G**	**GFSG68/112G**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

[3]) Order code for the straight flange adapter assembled with FHS65/12CFX and M12×45 bolts.

See pages M16 and M19 for related flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

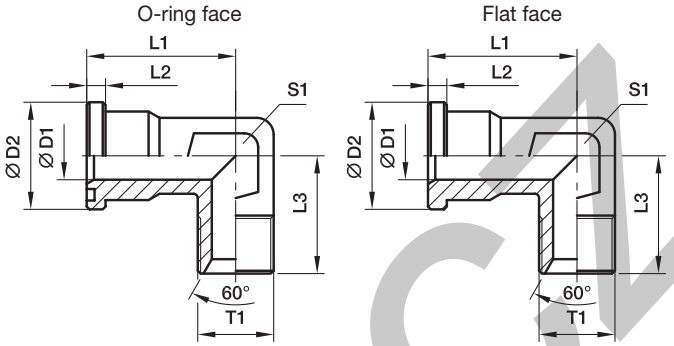
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	GFS32/12GCF	GFS32/12GCFM	GFS32/12GCFU	NBR
Stainless steel	SS	GFS32/12GSS	GFS32/12GSSM	–	VIT

KOMATSU

WFS-G SAE 90° Elbow flange adapter

SAE Flange / BSPP 60° cone end
(ISO 6162-1/-2) (ISO 8434-6)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	D2	L1	L2	L3	S1	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	**G 1/2**	12	30.2	44	6.7	50	22	0.19	**WFS32/12G**	**WFSG32/12G**	345	345
1/2	13	**G 3/8**	10	30.2	44	6.7	50	22	0.20	**WFS32/38G**	**WFSG32/38G**	345	345
3/4	19	**G 1/2**	12	38.1	53	6.7	64	27	0.42	**WFS33/12G**	**WFSG33/12G**	345	345
3/4	19	**G 3/4**	17	38.1	53	6.7	64	27	0.35	**WFS33/34G**	**WFSG33/34G**	345	345
3/4	19	**G 1**	19	38.1	53	6.7	64	27	0.36	**WFS33/1G**	**WFSG33/1G**	345	345
1	25	**G 3/4**	17	44.4	60	8.0	65	34	0.71	**WFS34/34G**	**WFSG34/34G**	345	345
1	25	**G 1**	22	44.4	60	8.0	65	34	0.52	**WFS34/1G**	**WFSG34/1G**	345	345
1	25	**G 1 1/4**	25	44.4	60	8.0	65	34	0.62	**WFS34/114G**	**WFSG34/114G**	345	345
1 1/4	32	**G 1**	22	50.8	55	8.0	64	42	0.84	**WFS35/1G**	**WFSG35/1G**	276	276
1 1/4	32	**G 1 1/4**	28	50.8	55	8.0	64	42	0.76	**WFS35/114G**	**WFSG35/114G**	276	276
1 1/2	38	**G 1 1/4**	28	60.3	66	8.0	78	50	1.49	**WFS36/114G**	**WFSG36/114G**	207	207
1 1/2	38	**G 1 1/2**	34	60.3	66	8.0	78	50	1.23	**WFS36/112G**	**WFSG36/112G**	207	207

6000 PSI Series

1/2	13	**G 1/2**	12	31.8	44	7.7	50	22	0.22	**WFS62/12G**	**WFSG62/12G**	420	420
1/2	13	**G 3/8**	10	31.8	44	7.7	50	22	0.37	**WFS62/34G**	**WFSG62/34G**	420	420
3/4	19	**G 1/2**	14	41.3	53	8.7	64	27	0.88	**WFS63/12G**	**WFSG63/12G**	420	420
3/4	19	**G 3/4**	17	41.3	53	8.7	64	27	0.37	**WFS63/34G**	**WFSG63/34G**	420	420
3/4	19	**G 1**	19	41.3	53	8.7	64	27	0.41	**WFS63/1G**	**WFSG63/1G**	420	420
1	25	**G 3/4**	17	47.6	60	9.5	62	34	0.69	**WFS64/34G**	**WFSG64/34G**	420	420
1	25	**G 1**	22	47.6	60	9.5	62	34	0.59	**WFS64/1G**	**WFSG64/1G**	420	420
1	25	**G 1 1/4**	25	47.6	60	9.5	62	34	1.70	**WFS64/114G**	**WFSG64/114G**	420	420
1 1/4	32	**G 1**	22	54.0	70	10.3	72	42	1.17	**WFS65/1G**	**WFSG65/1G**	420	420
1 1/4	32	**G 1**	22	54.0	70	10.3	72	42	1.17	**WFS65/1G/12**[3]	**WFSG65/1G/12**[3]	420	420
1 1/4	32	**G 1 1/4**	27	54.0	70	10.3	72	42	0.99	**WFS65/114G**	**WFSG65/114G**	420	420
1 1/4	32	**G 1 1/4**	27	54.0	70	10.3	72	42	0.99	**WFS65/114G/12**[3]	**WFSG65/114G/12**[3]	420	420
1 1/2	38	**G 1 1/4**	27	63.5	80	12.5	84	50	1.70	**WFS66/114G**	**WFSG66/114G**	420	420
1 1/2	38	**G 1 1/2**	32	63.5	80	12.5	84	50	1.47	**WFS66/112G**	**WFSG66/112G**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

[3]) Order code for the elbow flange adapter assembled with FHS65/12CFX and M12×45 bolts.

See pages M16 and M19 for related flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

*Please add the **suffixes** below according to the material/surface required.

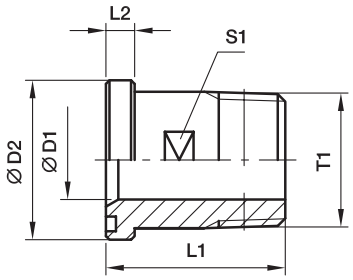
Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	WFS32/12GCF	WFS32/12GCFM	WFS32/12GCFU	NBR
Stainless steel	SS	WFS32/12GSS	WFS32/12GSSM	–	VIT

KOVAL-CZ

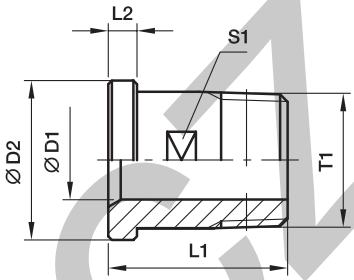
GFS-N SAE Flange adapters straight

SAE Flange / Male NPT thread
(ISO 6162-1/-2) (SAE J476)

O-ring face



Flat face



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	D2	L1	L2	S1	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	**1/2 NPT**	12	30.2	50	6.7	19	0.12	**GFS32/12N**	**GFSG32/12N**	345	345
1/2	13	**3/8 NPT**	10	30.2	50	6.7	19	0.12	**GFS32/38N**	**GFSG32/38N**	345	345
3/4	19	**3/4 NPT**	17	38.1	55	6.7	27	0.18	**GFS33/34N**	**GFSG33/34N**	345	345
3/4	19	**1/2 NPT**	12	38.1	55	6.7	27	0.16	**GFS33/12N**	**GFSG33/12N**	345	345
1	25	**1 NPT**	22	44.4	60	8.0	32	0.29	**GFS34/1N**	**GFSG34/1N**	345	345
1	25	**3/4 NPT**	17	44.4	60	8.0	32	0.32	**GFS34/34N**	**GFSG34/34N**	345	345
1 1/4	32	**1 1/4 NPT**	27	50.8	65	8.0	41	0.42	**GFS35/114N**	**GFSG35/114N**	276	276
1 1/4	32	**1 NPT**	22	50.8	65	8.0	41	0.44	**GFS35/1N**	**GFSG35/1N**	276	276
1 1/2	38	**1 1/2 NPT**	32	60.3	70	8.0	46	0.62	**GFS36/112N**	**GFSG36/112N**	207	207
1 1/2	38	**1 1/4 NPT**	27	60.3	70	8.0	46	0.66	**GFS36/114N**	**GFSG36/114N**	207	207
2	51	**2 NPT**	40	71.4	75	9.5	55	0.99	**GFS38/2N**	**GFSG38/2N**	207	207
2	51	**1 1/2 NPT**	32	71.4	75	9.5	55	1.05	**GFS38/112N**	**GFSG38/112N**	207	207

6000 PSI Series

1/2	13	**1/2 NPT**	12	31.8	50	7.7	19	0.09	**GFS62/12N**	**GFSG62/12N**	420	420
1/2	13	**3/8 NPT**	10	31.8	50	7.7	19	0.13	**GFS62/38N**	**GFSG62/38N**	420	420
3/4	19	**3/4 NPT**	17	41.3	60	8.7	26	0.24	**GFS63/34N**	**GFSG63/34N**	420	420
3/4	19	**1/2 NPT**	12	41.3	60	8.7	26	0.25	**GFS63/12N**	**GFSG63/12N**	420	420
1	25	**1 NPT**	22	47.6	70	9.5	32	0.41	**GFS64/1N**	**GFSG64/1N**	420	420
1	25	**3/4 NPT**	17	47.6	70	9.5	32	0.43	**GFS64/34N**	**GFSG64/34N**	420	420
1 1/4	32	**1 1/4 NPT**	27	54.0	75	10.3	36	0.57	**GFS65/114N**	**GFSG65/114N**	420	420
1 1/4	32	**1 1/4 NPT**	27	54.0	75	10.3	36	0.57	**GFS65/114N/12**[3]	**GFSG65/114N/12**[3]	420	420
1 1/4	32	**1 NPT**	22	54.0	75	10.3	36	0.57	**GFS65/1N**	**GFSG65/1N**	420	420
1 1/4	32	**1 NPT**	22	54.0	75	10.3	36	0.57	**GFS65/1N/12**[3]	**GFSG65/1N/12**[3]	420	420
1 1/2	38	**1 1/2 NPT**	32	63.5	80	12.5	46	0.77	**GFS66/112N**	**GFSG66/112N**	420	420
1 1/2	38	**1 1/4 NPT**	27	63.5	80	12.5	46	0.81	**GFS66/114N**	**GFSG66/114N**	420	420
2	51	**2 NPT**	40	79.4	90	12.5	55	1.41	**GFS68/2N**	**GFSG68/2N**	420	420
2	51	**1 1/2 NPT**	32	79.4	90	12.5	55	1.57	**GFS68/112N**	**GFSG68/112N**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

[3]) Order code for the straight flange adapter assembled with FHS65/12CFX and M12×45 bolts.

See pages M16 and M19 for related flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

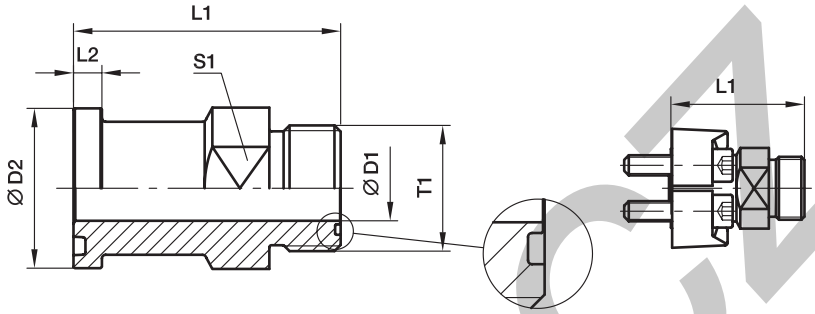
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	GFS32/12NCF	GFS32/12NCFM	GFS32/12NCFU	NBR
Stainless steel	SS	GFS32/12NSS	GFS32/12NSSM	–	VIT

KOMATSU

L(O)HQ SAE Straight flange adapter

SAE Flange / O-Lok® ORFS end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size		Tube								Weight (steel)	O-ring face without ORFS O-ring	O-ring face include ORFS O-ring	PN (bar)[1]
SAE (in.)	ISO (DN)	(metr.)	(in.)	T1	D1	D2	L1	L2	S1	kg/piece	Order code*	Order code*	S
3/4	19	18, 20	3/4	**1 3/16-12UN**	15.5	38.1	70.9	6.7	35.0	0.21	**12LHQ1**	**12LOHQ1**	350
1	25	22, 25	7/8, 1	**1 7/16-12UN**	20.6	44.5	71.4	8.0	41.0	0.30	**16LHQ1**	**16LOHQ1**	350
1 1/4	32	28, 30, 32	1 1/4	**1 11/16-12UN**	26.0	50.8	81.5	8.0	47.5	0.31	**20LHQ1**	**20LOHQ1**	280
1 1/2	38	35, 38	1 1/2	**2-12UN**	32.0	60.3	83.6	8.0	54.0	0.56	**24LHQ1**	**24LOHQ1**	210

6000 PSI Series

3/4	19	18, 20	3/4	**1 3/16-12UN**	15.5	41.3	76.7	8.8	35.0	0.21	**12LHQ2**	**12LOHQ2**	420
1	25	18, 20	3/4	**1 3/16-12UN**	15.5	47.6	84.8	9.5	35.0	0.26	**12-16LHQ2**	**12-16LOHQ2**	420
1	25	22, 27	3/4, 7/8	**1 7/16-12UN**	20.6	47.6	85.3	9.5	41.0	0.30	**16LHQ2**	**16LOHQ2**	420
1 1/4	32	28, 30, 32	1 1/4	**1 11/16-12UN**	26.0	54.0	88.4	10.3	47.5	0.31	**20LHQ2**	**20LOHQ2**	345
1 1/2	38	35, 38	1 1/2	**2-12UN**	32.0	63.5	105.2	12.6	54.0	0.56	**24LHQ2**	**24LOHQ2**	310

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel on request.

See pages M16 and M19 for related flange halves depending on bolt sets.

See page M10 for related flange port O-rings.

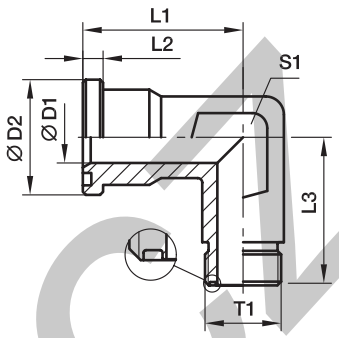
Stainless steel parts may have dimensional deviations. Additional information on request.

Order code suffixes				
Material	Suffix surface and material	Example only flange adapter without ORFS O-ring	Example only flange adapter incl. ORFS O-ring	Standard sealing material (no additional suffix needed)
Steel, oiled	S	12LHQ1-S	12LOHQ1-S	NBR

KOVAL.CZ

L(O)EMQ SAE 90° Elbow flange adapter

SAE Flange / O-Lok® ORFS end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	Tube (metr.)	Tube (in.)	T1	D1	D2	L1	L2	L3	S1	Weight (steel) kg/piece	O-ring face without ORFS O-ring Order code*	O-ring face include ORFS O-ring Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	8, 10	3/8	**11/16-16UN**	6	30.2	44	6.7	50	22	0.40	**6-8LEMQ1**	**6-8LOEMQ1**	350	350
1/2	13	12	1/2	**13/16-16UN**	9	30.2	44	6.7	50	22	0.36	**8LEMQ1**	**8LOEMQ1**	350	350
1/2	13	14, 15, 16	5/8	**1-14UN**	12	30.2	44	6.7	50	22	0.32	**10-8LEMQ1**	**10-8LOEMQ1**	350	350
3/4	19	14, 15, 16	5/8	**1-14UN**	12	38.1	53	6.7	64	27	0.47	**10-12LEMQ1**	**10-12LOEMQ1**	350	350
3/4	19	18, 20	3/4	**1 3/16-12UN**	15	38.1	53	6.7	64	27	0.44	**12LEMQ1**	**12LOEMQ1**	350	350
1	25	18, 20	3/4	**1 3/16-12UN**	15	44.4	60	8.0	65	34	0.52	**12-16LEMQ1**	**12-16LOEMQ1**	350	350
1	25	22, 25	7/8, 1	**1 7/16-12UN**	20	44.4	60	8.0	65	34	0.50	**16LEMQ1**	**16LOEMQ1**	350	350
1 1/4	32	22, 25	7/8, 1	**1 7/16-12UN**	20	50.8	55	8.0	64	42	0.48	**16-20LEMQ1**	**16-20LOEMQ1**	278	278
1 1/4	32	28, 30, 32	1 1/4	**1 11/16-12UN**	26	50.8	55	8.0	64	42	0.56	**20LEMQ1**	**20LOEMQ1**	278	278
1 1/2	38	28, 30, 32	1 1/4	**1 11/16-12UN**	26	60.3	66	8.0	78	50	0.73	**20-24LEMQ1**	**20-24LOEMQ1**	207	207
1 1/2	38	35, 38	1 1/2	**2-12UN**	32	60.3	66	8.0	78	50	0.69	**24LEMQ1**	**24LOEMQ1**	207	207

6000 PSI Series

1/2	13	8, 10	3/8	**11/16-16UN**	6	31.8	44	7.7	50	22	0.40	**6-8LEMQ2**	**6-8LOEMQ2**	420	420
1/2	13	12	1/2	**13/16-16UN**	9	31.8	44	7.7	50	22	0.36	**8LEMQ2**	**8LOEMQ2**	420	420
1/2	13	14, 15, 16	5/8	**1-14UN**	12	31.8	44	7.7	50	22	0.32	**10-8LEMQ2**	**10-8LOEMQ2**	420	420
3/4	19	14, 15, 16	5/8	**1-14UN**	12	41.3	53	8.7	64	27	0.47	**10-12LEMQ2**	**10-12LOEMQ2**	420	420
3/4	19	18, 20	3/4	**1 3/16-12UN**	15	41.3	53	8.7	64	27	0.44	**12LEMQ2**	**12LOEMQ2**	420	420
1	25	18, 20	3/4	**1 3/16-12UN**	15	47.6	60	9.5	62	34	0.52	**12-16LEMQ2**	**12-16LOEMQ2**	420	420
1	25	22, 25	7/8, 1	**1 7/16-12UN**	20	47.6	60	9.5	62	34	0.50	**16LEMQ2**	**16LOEMQ2**	420	420
1 1/4	32	22, 25	7/8, 1	**1 7/16-12UN**	20	54.0	70	10.3	72	42	0.48	**16-20LEMQ2**	**16-20LOEMQ2**	420	420
1 1/4	32	28, 30, 32	1 1/4	**1 11/16-12UN**	26	54.0	70	10.3	72	42	0.56	**20LEMQ2**	**20LOEMQ2**	345	345
1 1/2	38	28, 30, 32	1 1/4	**1 11/16-12UN**	26	63.5	80	12.5	84	50	0.73	**20-24LEMQ2**	**20-24LOEMQ2**	345	345
1 1/2	38	35, 38	1 1/2	**2-12UN**	32	63.5	80	12.5	84	50	0.69	**24LEMQ2**	**24LOEMQ2**	310	310

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

See pages M16 and M19 for related flange halves depending on bolt sets.

See page M10 for related flange port O-rings.

Stainless steel parts may have dimensional deviations. Additional information on request.

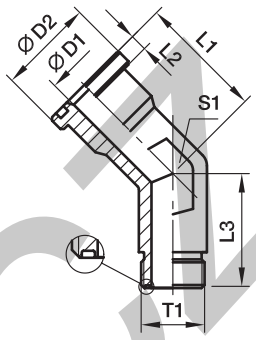
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes				
Material	Suffix surface and material	Example only flange adapter without ORFS O-ring	Example only flange adapter incl. ORFS O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	12LEMQ1CF	12LOEMQ1CF	NBR
Stainless steel	SS	12LEMQ1SS	12LOEMQ1SS	VIT

KOVAL.CZ

L(O)VQ SAE 45° Elbow flange adapter

SAE Flange / O-Lok® ORFS end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	Tube (metr.)	Tube (in.)	T1	D1	D2	L1	L2	L3	S1	Weight (steel) kg/piece	O-ring face without ORFS O-ring Order code*	O-ring face include ORFS O-ring Order code*	PN (bar)[1] S
3/4	19	18, 20	3/4	**1 3/16-12UN**	15.5	38.1	40.0	6.7	30.5	36.0	0.29	**12LVQ1**	**12LOVQ1**	350
1	25	22, 25	7/8, 1	**1 7/16-12UN**	20.5	44.5	47.0	8.0	32.0	41.0	0.39	**16LVQ1**	**16LOVQ1**	350
1 1/4	32	28, 30, 32	1 1/4	**1 11/16-12UN**	26.0	50.8	61.0	8.0	32.8	47.5	0.45	**20LVQ1**	**20LOVQ1**	280
1 1/2	38	35, 38	1 1/2	**2-12UN**	32.0	60.3	73.7	8.0	36.8	63.5	0.57	**24LVQ1**	**24LOVQ1**	210

6000 PSI Series

3/4	19	18, 20	3/4	**1 3/16-12UN**	15.5	41.3	46.5	8.8	30.5	36.0	0.29	**12LVQ2**	**12LOVQ2**	420
1	25	22, 25	7/8, 1	**1 7/16-12UN**	20.5	47.6	52.6	9.5	32.0	41.0	0.39	**16LVQ2**	**16LOVQ2**	420
1 1/4	32	28, 30, 32	1 1/4	**1 11/16-12UN**	26.0	54.0	61.0	10.3	32.8	47.5	0.45	**20LVQ2**	**20LOVQ2**	345
1 1/2	38	35, 38	1 1/2	**2-12UN**	32.0	63.5	73.7	12.6	36.8	63.5	0.57	**24LVQ2**	**24LOVQ2**	310

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel on request.

See pages M16 and M19 for related flange halves depending on bolt sets.

See page M10 for related flange port O-rings.

Stainless steel parts may have dimensional deviations. Additional information on request.

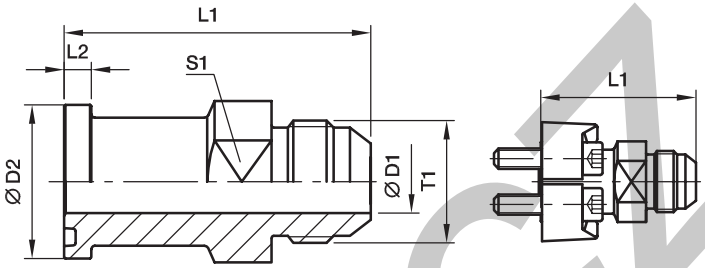
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes				
Material	Suffix surface and material	Example only flange adapter without ORFS O-ring	Example only flange adapter incl. ORFS O-ring	Standard sealing material (no additional suffix needed)
Steel, oiled	S	12LVQ1-S	12LOVQ1-S	NBR

KOVAI.CO

XHQ SAE Straight flange adapter

SAE Flange / Triple-Lok® 37° flare end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	Tube (metr.)	Tube (in.)	T1	D1	D2	L1	L2	S1	Weight (steel) kg/piece	Order code*	PN (bar)[1] S
3/4	19	18, 20	3/4	**1 1/16-12UN**	15.5	38.1	70.4	6.7	35.0	0.21	**12XHQ1**	350
1	25	22, 25	7/8, 1	**1 5/16-12UN**	21.5	44.5	73.9	8.0	41.0	0.30	**16XHQ1**	350
1 1/4	32	28, 30, 32	1 1/4	**1 5/8-12UN**	27.5	50.8	85.3	8.0	47.5	0.31	**20XHQ1**	275
1 1/2	38	35, 38	1 1/2	**1 7/8-12UN**	33.5	60.3	90.7	8.0	54.0	0.56	**24XHQ1**	210
2	51	50	2	**2 1/2-12UN**	45.0	71.4	102.6	9.5	66.5	1.10	**32XHQ1**	138

6000 PSI Series

3/4	19	18. 20	3/4	**1 1/16-12UN**	15.5	41.3	78.2	8.8	35.0	0.21	**12XHQ2**	350
1	25	22. 25	7/8, 1	**1 5/16-12UN**	21.5	47.6	87.1	9.5	41.0	0.30	**16XHQ2**	350
1 1/4	32	28, 30, 32	1 1/4	**1 5/8-12UN**	27.5	54.0	91.4	10.3	47.5	0.31	**20XHQ2**	275
1 1/2	38	35. 38	1 1/2	**1 7/8-12UN**	33.5	63.5	110.2	12.6	54.0	0.56	**24XHQ2**	210

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel on request.

See pages M16 and M19 for related flange halves depending on bolt sets.

See page M10 for related flange port O-rings.

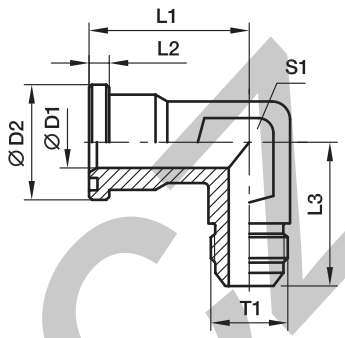
Stainless steel parts may have dimensional deviations. Additional information on request.

Order code suffixes		
Material	Suffix surface and material	Example only flange adapter
Steel, oiled	S	12XHQ1-S

KOVAX.cz

XEMQ SAE 90° Elbow flange adapter

SAE Flange / Triple-Lok® 37° flare end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	Tube (metr.)	Tube (in.)	T1	D1	D2	L1	L2	L3	S1	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	12	1/2	**3/4-16UNF**	10	30.2	44	6.7	50	22	0.20	**8XEMQ1**	350	350
1/2	13	14, 15, 16	5/8	**7/8-14UNF**	12	30.2	44	6.7	50	22	0.20	**10-8XEMQ1**	350	350
3/4	19	14, 15, 16	5/8	**7/8-14UNF**	19	38.1	53	6.7	64	27	0.29	**10-12XEMQ1**	350	350
3/4	19	18, 20	3/4	**1 1/16-12UN**	19	38.1	53	6.7	64	27	0.29	**12XEMQ1**	350	350
3/4	19	25	1	**1 5/16-12UN**	19	38.1	53	6.7	64	27	0.29	**16-12XEMQ1**	350	350
1	25	18, 20	3/4	**1 1/16-12UN**	22	44.4	60	8.0	65	34	0.39	**12-16XEMQ1**	350	350
1	25	25	1	**1 5/16-12UN**	22	44.4	60	8.0	65	34	0.39	**16XEMQ1**	350	350
1	25	30, 32	1 1/4	**1 5/8-12UN**	22	44.4	60	8.0	65	34	0.39	**20-16XEMQ1**	275	275
1 1/4	32	25	1	**1 5/16-12UN**	28	50.8	55	8.0	64	42	0.45	**16-20XEMQ1**	275	275
1 1/4	32	30, 32	1 1/4	**1 5/8-12UN**	28	50.8	55	8.0	64	42	0.45	**20XEMQ1**	275	275
1 1/2	38	30, 32	1 1/4	**1 5/8-12UN**	38	60.3	66	8.0	78	50	0.57	**20-24XEMQ1**	210	210
1 1/2	38	38	1 1/2	**1 7/8-12UN**	38	60.3	66	8.0	78	50	0.57	**24XEMQ1**	210	210

6000 PSI Series

1/2	13	12	1/2	**3/4-16UNF**	12	31.8	44	7.7	50	22	0.20	**8XEMQ2**	350	350
1/2	13	14, 15, 16	5/8	**7/8-14UNF**	12	31.8	44	7.7	50	22	0.20	**10-8XEMQ2**	350	350
3/4	19	14, 15, 16	5/8	**7/8-14UNF**	18	41.3	53	8.7	64	27	0.29	**10-12XEMQ2**	350	350
3/4	19	18, 20	3/4	**1 1/16-12UN**	18	41.3	53	8.7	64	27	0.29	**12XEMQ2**	350	350
3/4	19	25	1	**1 5/16-12UN**	18	41.3	53	8.7	64	27	0.29	**16-12XEMQ2**	350	350
1	25	18, 20	3/4	**1 1/16-12UN**	22	47.6	60	9.5	62	34	0.39	**12-16XEMQ2**	350	350
1	25	25	1	**1 5/16-12UN**	22	47.6	60	9.5	62	34	0.39	**16XEMQ2**	350	350
1	25	30, 32	1 1/4	**1 5/8-12UN**	22	47.6	60	9.5	62	34	0.39	**20-16XEMQ2**	275	275
1 1/4	32	25	1	**1 5/16-12UN**	27	54.0	70	10.3	70	42	0.45	**16-20XEMQ2**	350	350
1 1/4	32	30, 32	1 1/4	**1 5/8-12UN**	27	54.0	70	10.3	72	42	0.45	**20XEMQ2**	275	275
1 1/2	38	30, 32	1 1/4	**1 5/8-12UN**	32	63.5	80	12.5	87	50	0.57	**20-24XEMQ2**	275	275
1 1/2	38	38	1 1/2	**1 7/8-12UN**	32	63.5	80	12.5	87	50	0.57	**24XEMQ2**	210	210

[1]) Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

See pages M16 and M19 for related flange halves depending on bolt sets.

See page M10 for related flange port O-rings.

Stainless steel parts may have dimensional deviations. Additional information on request.

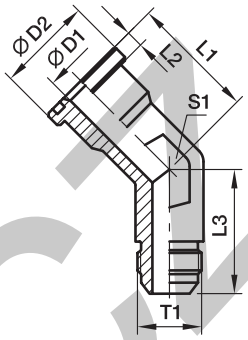
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes		
Material	Suffix surface and material	Example only flange adapter
Steel, zinc plated, Cr(VI)-free	CF	8XEMQ1CF
Stainless steel	SS	8XEMQ1SS

KOVAK.CZ

XVQ SAE 45° Elbow flange adapter

SAE Flange / Triple-Lok® 37° flare end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size		Tube									Weight (steel)		PN (bar)[1]
SAE (in.)	ISO (DN)	(metr.)	(in.)	T1	D1	D2	L1	L2	L3	S1	kg/piece	Order code*	S
3/4	19	18, 20	3/4	**1 1/16-12UN**	15.5	38.1	40.1	6.7	32.3	36.0	0.29	**12XVQ1**	350
1	25	22, 25	7/8, 1	**1 5/16-12UN**	21.4	44.5	47.0	8.0	37.3	41.0	0.39	**16XVQ1**	350
1 1/4	32	28, 30, 32	1 1/4	**1 5/8-12UN**	27.4	50.8	61.0	8.0	40.4	47.5	0.45	**20XVQ1**	275
1 1/2	38	35, 38	1 1/2	**1 7/8-12UN**	33.3	60.3	73.7	8.0	45.2	63.5	0.57	**24XVQ1**	210
2	51	50	2	**2 1/2-12UN**	45.2	71.4	76.2	9.5	56.4	73.0	1.15	**32XVQ1**	138

6000 PSI Series

3/4	19	18, 20	3/4	**1 1/16-12UN**	15.5	41.3	46.5	8.8	32.3	36.0	0.42	**12XVQ2**	350
1	25	22, 25	7/8, 1	**1 5/16-12UN**	21.4	47.6	52.6	9.5	37.3	41.0	0.52	**16XVQ2**	350
1 1/4	32	28, 30, 32	1 1/4	**1 5/8-12UN**	27.4	54.0	61.0	10.3	40.4	47.5	0.56	**20XVQ2**	275
1 1/2	38	35, 38	1 1/2	**1 7/8-12UN**	33.3	63.5	73.7	12.6	45.2	63.5	0.69	**24XVQ2**	210

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel on request.

See pages M16 and M19 for related flange halves depending on bolt sets.

See page M10 for related flange port O-rings.

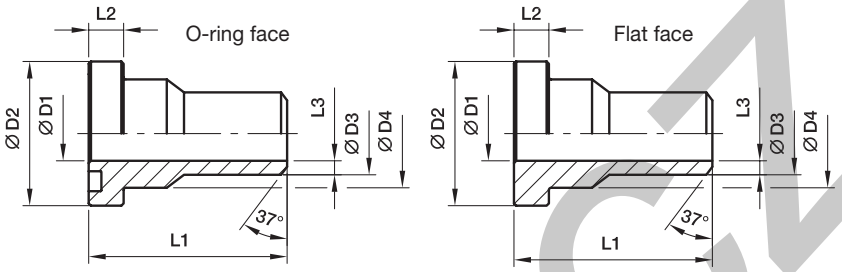
Stainless steel parts may have dimensional deviations. Additional information on request.

Order code suffixes		
Material	Suffix surface and material	Example only flange adapter
Steel, oiled	S	12XVQ1-S

KOVAX.CZ

ASR SAE Straight flange adapter

SAE Flange / Butt weld reducer tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	Tube	D1	D2	D3	D4	L1	L2	L3	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	18×4.5	10	30.2	18.0	24.0	45	6.7	4.0	0.12	**ASR32/18X4.5**	**ASRG32/18X4.5**	345	345
3/4	19	22×4.5	13	38.1	22.0	31.5	50	6.7	4.5	0.18	**ASR33/22X4.5**	**ASRG33/22X4.5**	345	345
1	25	28×4.5	19	44.4	28.0	38.0	55	8.0	4.5	0.26	**ASR34/28X4.5**	**ASRG34/28X4.5**	345	345
1 1/4	32	35×5.0	25	50.8	35.0	43.0	60	8.0	5.0	0.31	**ASR35/35X5**	**ASRG35/35X5**	276	276
1 1/2	38	43×6.0	31	60.3	43.0	50.0	65	8.0	6.0	0.51	**ASR36/43X6**	**ASRG36/43X6**	207	207
2	51	50×6.0	38	71.4	50.0	62.0	70	9.5	6.0	0.80	**ASR38/50X6**	**ASRG38/50X6**	207	207
2 1/2	64	62×7.5	47	84.1	62.0	74.0	75	9.5	7.5	1.24	**ASR310/62X7.5**	**ASRG310/62X7.5**	172	172
3	76	76×9.0	58	101.6	76.0	90.0	85	9.5	9.0	1.95	**ASR312/76X9**	**ASRG312/76X9**	138	138
3 1/2	89	90×10.0	70	114.3	90.0	102.0	90	11.2	10.0	2.15	**ASR314/90X10**	**ASRG314/90X10**	34	34
4	102	102×7.0	88	127.0	102.0	114.0	100	11.2	7.0	2.62	**ASR316/102X7**	**ASRG316/102X7**	34	34

6000 PSI Series

1/2	13	18×4.0	10	31.8	18.0	24.0	45	7.7	4.0	0.12	**ASR62/18X4**	**ASRG62/18X4**	420	420
3/4	19	22×4.5	13	41.3	22.0	32.0	50	8.7	4.5	0.20	**ASR63/22X4.5**	**ASRG63/22X4.5**	420	420
1	25	28×5.0	18	47.6	28.0	38.0	55	9.5	5.0	0.31	**ASR64/28X5**	**ASRG64/28X5**	420	420
1 1/4	32	35×6.5	22	54.0	35.0	44.0	60	10.3	6.5	0.46	**ASR65/35X6.5**	**ASRG65/35X6.5**	420	420
1 1/2	38	44×7.5	29	63.5	44.0	51.0	65	12.5	7.5	0.69	**ASR66/44X7.5**	**ASRG66/44X7.5**	420	420
2	51	51×8.0	35	79.4	51.0	67.0	70	12.5	8.0	1.24	**ASR68/51X8**	**ASRG68/51X8**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

See pages M16 - M20 for related flanges or flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

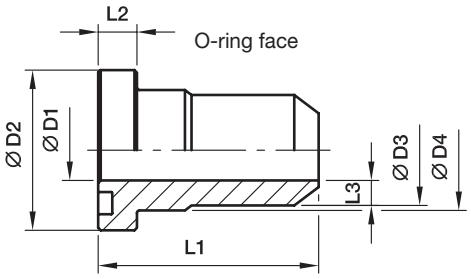
*Please add the **suffixes** below according to the material/surface required.

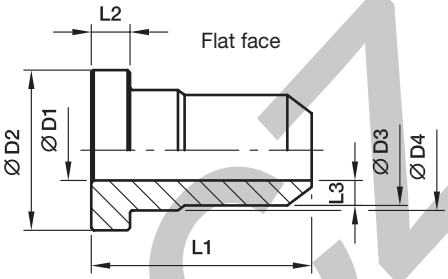
Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	ASR32/18X4.5S	ASR32/18X4.5SM	ASR32/18X4.5SU	NBR
Stainless steel	SS	ASR32/18X4.5SS	ASR32/18X4.5SSM	–	VIT

KOVAL.CZ

AS SAE Straight flange adapter

SAE Flange / Butt weld tube end
(ISO 6162-1/-2)





3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	Tube	D1	D2	D3	D4	L1	L2	L3	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	15×2.0	11	30.2	15	23.9	45	6.8	2.0	0.09	**AS32/15X2**	**ASG32/15X2**	345	345
1/2	13	16×3.0	10	30.2	16	23.9	45	6.8	3.0	0.10	**AS32/16X3**	**ASG32/16X3**	345	345
1/2	13	21.3×2.6	13	30.2	22	23.9	45	6.8	4.5	0.12	**AS32/21.3X2.6**	**ASG32/21.3X2.6**	345	345
3/4	19	18×1.5	15	38.1	18	31.5	50	6.8	1.5	0.14	**AS33/18X1.5**	**ASG33/18X1.5**	345	345
3/4	19	22×2.0	18	38.1	22	31.5	50	6.8	2.0	0.12	**AS33/22X2**	**ASG33/22X2**	345	345
3/4	19	20×3.0	14	38.1	20	31.5	50	6.8	3.0	0.14	**AS33/20X3**	**ASG33/20X3**	345	345
3/4	19	25×4.0	17	38.1	25	31.5	50	6.8	4.0	0.17	**AS33/25X4**	**ASG33/25X4**	345	345
3/4	19	26.9×2.6	19	38.1	28	31.5	50	6.8	4.5	0.18	**AS33/26.9X2.6**	**ASG33/26.9X2.6**	345	345
1	25	20×2.5	15	44.5	20	38.0	55	8.0	2.5	0.26	**AS34/20X2.5**	**ASG34/20X2.5**	345	345
1	25	28×2.0	24	44.5	28	38.0	55	8.0	2.0	0.19	**AS34/28X2**	**ASG34/28X2**	345	345
1	25	30×4.5	21	44.5	30	38.0	55	8.0	4.5	0.26	**AS34/30X4.5**	**ASG34/30X4.5**	345	345
1	25	33.7×4.0	25	44.4	35	38.0	55	8.0	5.0	0.26	**AS34/33.7X4**	**ASG34/33.7X4**	345	345
1 1/4	32	35×2.0	31	50.8	35	43.0	60	8.0	2.0	0.31	**AS35/35X2**	**ASG35/35X2**	276	276
1 1/4	32	25×3.0	19	50.8	25	43.0	60	8.0	3.0	0.45	**AS35/25X3**	**ASG35/25X3**	276	276
1 1/4	32	30×4.0	22	50.8	30	43.0	60	8.0	4.0	0.45	**AS35/30X4**	**ASG35/30X4**	276	276
1 1/4	32	38×5.0	28	50.8	38	43.0	60	8.0	5.0	0.40	**AS35/38X5**	**ASG35/38X5**	276	276
1 1/4	32	42.4×6.0	31	50.8	43	43.0	60	8.0	6.0	0.34	**AS35/42.4X5**	**ASG35/42.4X5**	276	276
1 1/2	38	42×3.0	36	60.3	42	50.0	65	8.0	3.0	0.47	**AS36/42X3**	**ASG36/42X3**	207	207
1 1/2	38	38×4.0	30	60.3	38	50.0	65	8.0	4.0	0.57	**AS36/38X4**	**ASG36/38X4**	207	207
1 1/2	38	48.3×6.0	38	60.3	50	50.0	65	8.0	6.0	0.48	**AS36/48.3X6**	**ASG36/48.3X6**	207	207
2	51	50×6.0	38	71.4	50	62.0	70	9.5	6.0	0.96	**AS38/50X6**	**ASG38/50X6**	207	207
2	51	65×8.0	49	71.4	65	62.0	70	9.5	8.0	0.64	**AS38/65X8**	**ASG38/65X8**	207	207
2	51	60.3×7.5	47	71.4	62	62.0	70	9.5	7.5	0.78	**AS38/62X7.5**	**ASG38/62X7.5**	207	207
2 1/2	64	76.1×5.5	63	84.1	74	74.0	75	9.5	5.5	0.80	**AS310/74X5.5**	**ASG310/74X5.5**	172	172
3	76	88.9×10.0	70	101.6	90	90.0	85	9.5	10.0	1.78	**AS312/90X10**	**ASG312/90X10**	138	138
3 1/2	89	101.6×7.0	88	114.3	102	102.0	90	11.2	7.0	1.65	**AS314/102X7**	**ASG314/102X7**	34	34
4	102	114×8.0	98	127.0	114	114.0	100	11.2	8.0	2.34	**AS316/115X8.5**	**ASG316/115X8.5**	34	34
5	127	139.7×10.0	120	152.4	140	140.0	100	11.2	10.0	3.61	**AS320/140X10**	**ASG320/140X10**	34	34

[1]) Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

See pages M16 - M20 for related flanges or flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

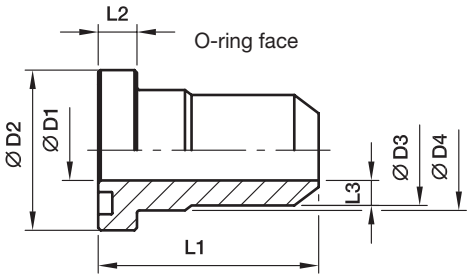
*Please add the **suffixes** below according to the material/surface required.

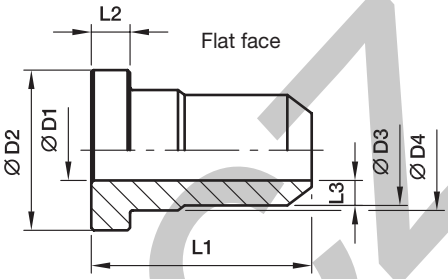
Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	AS32/15X2S	AS32/15X2SM	AS32/15X2SU	NBR
Stainless steel	SS	AS32/15X2SS	AS32/15X2SSM	–	VIT

KOMATSU

AS SAE Straight flange adapter

SAE Flange / Butt weld tube end
(ISO 6162-1/-2)





6000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	Tube	D1	D2	D3	D4	L1	L2	L3	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	16×3.0	10	31.8	16.0	24.0	41	7.8	3.0	0.12	**AS62/16X3**	**ASG62/16X3**	420	420
1/2	13	21.3×3.2	13	31.8	22.0	24.0	45	7.8	4.5	0.12	**AS62/21.3X3.2**	**ASG62/21.3X3.2**	420	420
3/4	19	16×3.0	10	41.3	16.0	31.8	50	8.8	3.0	0.20	**AS63/16X3**	**ASG63/16X3**	420	420
3/4	19	20×4.0	12	41.3	20.0	31.8	55	8.8	4.0	0.19	**AS63/20X4**	**ASG63/20X4**	420	420
3/4	19	26.9×4.0	19	41.3	27.0	32.0	50	8.8	4.0	0.21	**AS63/26.9X4**	**ASG63/26.9X4**	420	420
3/4	19	25×5.0	15	41.3	25.0	31.8	55	8.8	5.0	0.21	**AS63/25X5**	**ASG63/25X5**	420	420
1	25	25×5.0	15	47.6	25.0	38.0	67	9.5	5.0	0.30	**AS64/25X5**	**ASG64/25X5**	420	420
1	25	30×4.0	22	47.6	30.0	38.0	67	9.5	4.0	0.27	**AS64/30X4**	**ASG64/30X4**	420	420
1	25	30×6.0	18	47.6	30.0	38.0	67	9.5	6.0	0.33	**AS64/30X6**	**ASG64/30X6**	420	420
1	25	33.7×6.3	22	47.6	35.0	38.0	55	9.5	6.5	0.32	**AS64/33.7X6.3**	**ASG64/33.7X6.3**	420	420
1 1/4	32	30×4.0	22	54.0	38.0	44.0	60	10.3	8.0	0.48	**AS65/30X4**	**ASG65/30X4**	420	420
1 1/4	32	30×6.0	18	54.0	30.0	44.0	60	10.3	6.0	0.54	**AS65/30X6**	**ASG65/30X6**	420	420
1 1/4	32	38×5.0	28	54.0	38.0	44.0	78	10.3	5.0	0.45	**AS65/38X5**	**ASG65/38X5**	420	420
1 1/4	32	38×8.0	22	54.0	38.0	44.0	78	10.3	8.0	0.54	**AS65/38X8**	**ASG65/38X8**	420	420
1 1/4	32	42.4×6.3	29	54.0	44.0	44.0	60	10.3	7.5	0.48	**AS65/42.4X6.3**	**ASG65/42.4X6.3**	420	420
1 1/2	38	38×5.0	28	63.5	38.0	50.8	85	12.5	5.0	0.72	**AS66/38X5**	**ASG66/38X5**	420	420
1 1/2	38	38×8.0	22	63.5	38.0	50.8	85	12.5	8.0	0.85	**AS66/38X8**	**ASG66/38X8**	420	420
1 1/2	38	48.3×8.0	35	63.5	51.0	51.0	65	12.5	8.0	0.66	**AS66/48.3X8**	**ASG66/48.3X8**	420	420
2	51	50×9.0	32	79.4	50.0	66.6	116	12.5	9.0	1.24	**AS68/50X9**	**ASG68/50X9**	420	420
2	51	65×8.0	49	79.4	66,5	66.5	116	12.5	8.0	0.98	**AS68/65X8**	**ASG68/65X8**	420	420
2	51	60.3×10.0	43	79.4	61.0	67.0	70	12.5	9.0	1.12	**AS68/60.3X10**	**ASG68/60.3X10**	420	420
2 1/2	64	73×14.0	45	107.8	74.0	88.9	90	20.6	14.5	3.38	**AS610/73X14**	**ASG610/73X14**	420	420
3	76	88.6×16.0	58	131.7	90.0	113.8	110	25.6	16.0	6.70	**AS612/88.6X16**	**ASG612/88.6X16**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

See pages M16 - M20 for related flanges or flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

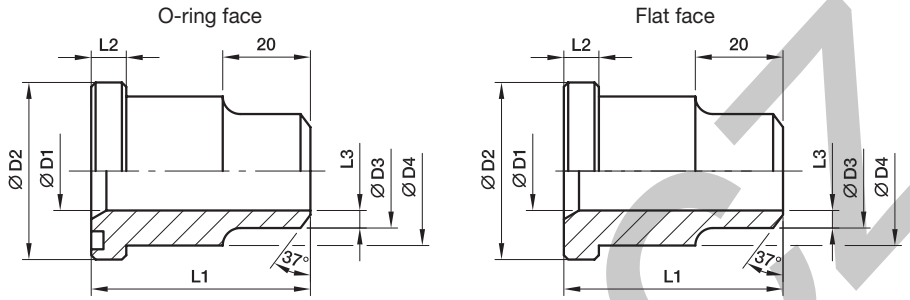
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	AS62/16X3S	AS62/16X3SM	AS62/16X3SU	NBR
Stainless steel	SS	AS62/16X3SS	AS62/16X3SSM	–	VIT

KOMATSU

ASL SAE Straight flange adapter

SAE Flange / Butt weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	Tube	D1	D2	D3	D4	L1	L2	L3	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] S	SS
1/2	13	16×2.0	12	30.2	16	23.9	41	6.7	2.5	0.26	**ASL32/16X2**	**ASLG32/16X2**	210	210
3/4	19	25×3.0	19	38.1	25	31.7	50	6.7	3.0	0.45	**ASL33/25X3**	**ASLG33/25X3**	210	210
1	25	30×4.0	22	44.4	30	38.0	50	8.0	4.0	0.25	**ASL34/30X4**	**ASLG34/30X4**	210	210
1 1/4	32	38×5.0	28	50.8	38	43.0	55	8.0	5.0	0.36	**ASL35/38X5**	**ASLG35/38X5**	210	210
1 1/2	38	45×5.0	35	60.3	45	50.0	57	8.0	5.0	0.45	**ASL36/45X5**	**ASLG36/45X5**	210	210
2	51	60×7.0	45	71.4	60	62.0	57	9.5	7.5	0.65	**ASL38/60X7**	**ASLG38/60X7**	210	210
2 1/2	64	70×7.5	55	84.1	70	74.0	58	9.5	7.5	0.89	**ASL310/70X7.5**	**ASLG310/70X7.5**	175	175
3	76	80×6.0	68	101.6	80	90.0	60	9.5	6.0	1.18	**ASL312/80X6**	**ASLG312/80X6**	138	138
3 1/2	89	100×6.0	88	114.3	100	102.0	60	11.2	6.0	1.10	**ASL314/100X6**	**ASLG314/100X6**	35	35
4	102	110×6.0	98	127.0	110	114.0	60	11.2	6.0	1.43	**ASL316/110X6**	**ASLG316/110X6**	35	35
5	127	133×6.5	120	152.4	133	140.0	60	11.2	6.5	2.22	**ASL320/133X6.5**	**ASLG320/133X6.5**	35	35

6000 PSI Series

1/2	13	16×2.0	12	31.8	17	24.0	34	7.7	2.0	0.09	**ASL62/16X2**	**ASLG62/16X2**	420	420
3/4	19	25×3.5	18	41.3	25	32.0	38	8.7	3.5	0.16	**ASL63/25X3.5**	**ASLG63/25X3.5**	420	420
1	25	30×4.0	22	47.6	30	38.5	40	9.5	4.0	0.22	**ASL64/30X4**	**ASLG64/30X4**	420	420
1 1/4	32	38×5.5	27	54.0	38	44.0	45	10.3	5.5	0.35	**ASL65/38X5.5**	**ASLG65/38X5.5**	420	420
1 1/2	38	45×6.5	32	63.5	45	51.0	50	12.5	6.5	0.53	**ASL66/45X6.5**	**ASLG66/45X6.5**	420	420
2	51	60×7.5	45	79.4	60	67.0	58	12.5	7.5	0.91	**ASL68/60X7.5**	**ASLG68/60X7.5**	420	420
2 1/2	64	74×14.5	45	107.8	74	88.9	90	20.6	14.5	3.45	**ASL610/74X14.5**	**ASLG610/74X14.5**	420	420
3	76	90×16.0	58	131.7	90	113.8	110	25.6	16.0	9.62	**ASL612/90X16**	**ASLG612/90X16**	420	420

[41]) Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

See pages M16 - M20 for related flanges or flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

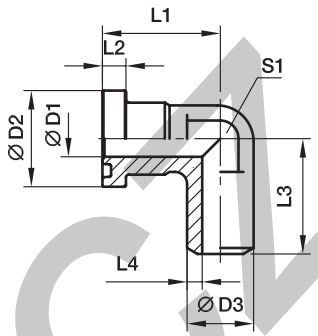
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	ASL32/16X2S	ASL32/16X2SM	ASL32/16X2SU	NBR
Stainless steel	SS	ASL32/16X2SS	ASL32/16X2SSM	–	VIT

KOVAL CZ

WAS SAE 90° Elbow flange adapter

SAE Flange / Butt weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	max.	D1	D2	D3	L1	L2	L3	L4	S1	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	21.3	13	30.2	21.6	44	6.7	50	4.3	22	0.22	**WAS32/21.6**	345	345
3/4	19	26.9	19	38.1	27.2	53	6.7	64	4.1	27	0.35	**WAS33/27.2**	345	345
1	25	33.7	25	44.4	34.5	60	8.0	65	4.7	34	0.52	**WAS34/34.5**	345	345
1 1/4	32	42.4	30	50.8	42.8	55	8.0	64	6.4	42	0.78	**WAS35/42.8**	276	276
1 1/2	38	48.3	38	60.3	48.6	66	8.0	78	5.3	50	1.04	**WAS36/48.6**	207	207

6000 PSI Series

1/2	13	21.3	13	31.8	21.6	44	7.7	50	4.3	22	0.35	**WAS62/21.6**	420	420
3/4	19	26.9	18	41.3	27.2	53	8.7	64	4.6	27	0.41	**WAS63/27.2**	420	420
1	25	33.7	22	47.6	34.5	60	9.5	62	6.3	34	0.64	**WAS64/34.5**	420	420
1 1/4	32	42.4	28	54.0	42.8	70	10.3	72	7.4	42	1.05	**WAS65/42.8**	420	420
1 1/2	38	48.3	32	63.5	48.6	80	12.5	84	8.3	50	1.58	**WAS66/48.6**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

See pages M16 - M20 for related flanges or flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

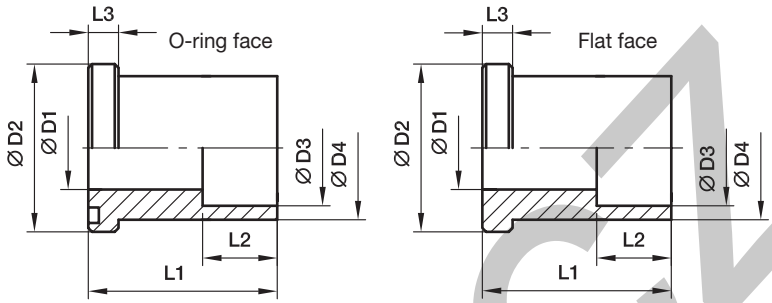
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolt and O-ring	Example incl. splitflanges, UNC bolt and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	WAS32/21.6S	WAS32/21.6SM	WAS32/21.6SU	NBR
Stainless steel	SS	WAS32/21.6SS	WAS32/21.6SSM	–	VIT

KOVA-CZ

ES SAE Straight flange adapter

SAE Flange / Socket weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	max.	D1	D2	D3	D4	L1	L2	L3	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	16.0	12.5	30.2	16.5	24.0	35	12	6.7	0.11	**ES32/16.5**	**ESG32/16.5**	345	345
1/2	13	17.3	12.5	30.2	17.6	24.0	35	12	6.7	0.12	**ES32/17.6**	**ESG32/17.6**	345	345
3/4	19	20.0	15.0	38.1	20.5	31.5	40	13	6.7	0.20	**ES33/20.5**	**ESG33/20.5**	345	345
3/4	19	21.3	15.0	38.1	21.7	31.5	40	13	6.7	0.20	**ES33/21.7**	**ESG33/21.7**	345	345
1	25	25.0	20.0	44.4	25.5	38.0	45	14	8.0	0.30	**ES34/25.5**	**ESG34/25.5**	345	345
1	25	26.9	20.0	44.4	27.3	38.0	45	14	8.0	0.28	**ES34/27.3**	**ESG34/27.3**	345	345
1 1/4	32	30.0	25.0	50.8	30.5	43.0	50	16	8.0	0.39	**ES35/30.5**	**ESG35/30.5**	276	276
1 1/4	32	32.0	25.0	50.8	32.5	43.0	50	16	8.0	0.37	**ES35/32.5**	**ESG35/32.5**	276	276
1 1/4	32	33.7	25.0	50.8	34.2	43.0	50	16	8.0	0.35	**ES35/34.2**	**ESG35/34.2**	276	276
1 1/2	38	38.0	32.0	60.3	38.5	50.0	55	18	8.0	0.52	**ES36/38.5**	**ESG36/38.5**	207	207
1 1/2	38	40.0	32.0	60.3	40.7	50.0	55	18	8.0	0.49	**ES36/40.7**	**ESG36/40.7**	207	207
1 1/2	38	42.4	32.0	60.3	43.0	50.0	55	18	8.0	0.47	**ES36/43**	**ESG36/43**	207	207
2	51	48.3	32.0	71.4	49.0	62.0	65	20	9.5	0.95	**ES38/49**	**ESG38/49**	207	207
2	51	50.0	38.0	71.4	50.7	62.0	65	20	9.5	0.87	**ES38/50.7**	**ESG38/50.7**	207	207
2 1/2	64	60.3	38.0	84.1	61.0	74.0	75	22	9.5	1.46	**ES310/61**	**ESG310/61**	172	172
2 1/2	64	63.5	47.0	84.1	64.0	74.0	75	22	9.5	1.37	**ES310/64**	**ESG310/64**	172	172
3	76	73.5	47.0	101.6	74.0	90.0	85	24	9.5	2.30	**ES312/74**	**ESG312/74**	138	138
3	76	76.1	58.0	101.6	77.0	90.0	85	24	9.5	2.23	**ES312/77**	**ESG312/77**	138	138
3	76	80.0	58.0	101.6	81.0	90.0	85	24	9.5	2.13	**ES312/81**	**ESG312/81**	138	138

[1]) Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

See pages M16 - M20 for related flanges or flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

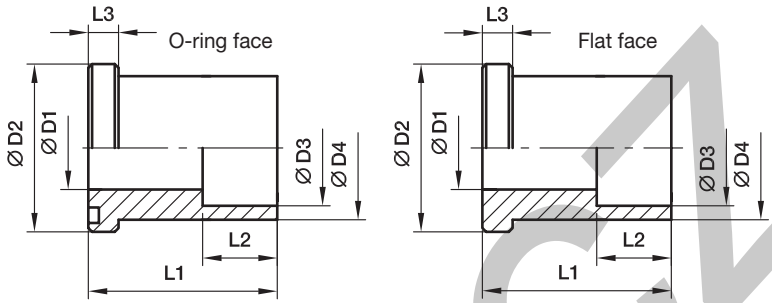
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	ES32/16.5S	ES32/16.5SM	ES32/16.5SU	NBR
Stainless steel	SS	ES32/16.5SS	ES32/16.5SSM	–	VIT

KOVAL

ES SAE Straight flange adapter

SAE Flange / Socket weld tube end
(ISO 6162-1/-2)



6000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	max.	D1	D2	D3	D4	L1	L2	L3	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	16.0	11.0	31.8	16.5	24.0	35	13	7.7	0.26	**ES62/16.5**	**ESG62/16.5**	420	420
1/2	13	17.3	11.0	31.8	17.6	24.0	35	13	7.7	0.24	**ES62/17.6**	**ESG62/17.6**	420	420
3/4	13	20.0	15.0	41.3	20.5	31.8	40	13	8.7	0.22	**ES63/20.5**	**ESG63/20.5**	420	420
3/4	19	21.3	15.0	41.3	21.7	31.8	40	13	8.7	0.19	**ES63/21.7**	**ESG63/21.7**	420	420
1	25	25.0	20.0	47.6	25.5	38.0	45	13	9.5	0.32	**ES64/25.5**	**ESG64/25.5**	420	420
1	25	26.9	20.0	47.6	27.3	38.0	45	13	9.5	0.31	**ES64/27.3**	**ESG64/27.3**	420	420
1 1/4	32	30.0	24.0	54.0	30.5	44.0	50	16	10.3	0.43	**ES65/30.5**	**ESG65/30.5**	420	420
1 1/4	32	32.0	24.0	54.0	32.5	44.0	50	16	10.3	0.43	**ES65/32.5**	**ESG65/32.5**	420	420
1 1/4	32	33.7	24.0	54.0	34.2	44.0	50	16	10.3	0.45	**ES65/34.2**	**ESG65/34.2**	420	420
1 1/2	38	38.0	31.0	63.5	38.5	51.0	55	18	12.5	0.63	**ES66/38.5**	**ESG66/38.5**	420	420
1 1/2	38	40.0	31.0	63.5	40.7	51.0	55	18	12.5	0.60	**ES66/40.7**	**ESG66/40.7**	420	420
1 1/2	38	42.4	31.0	63.5	42.8	51.0	55	18	12.5	0.57	**ES66/42.8**	**ESG66/42.8**	420	420
2	51	48.3	38.0	79.4	49.0	67.0	65	20	12.5	1.24	**ES68/49**	**ESG68/49**	420	420
2	51	50.0	38.0	79.4	50.7	67.0	65	20	12.5	1.22	**ES68/50.7**	**ESG68/50.7**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

See pages M16 - M20 for related flanges or flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

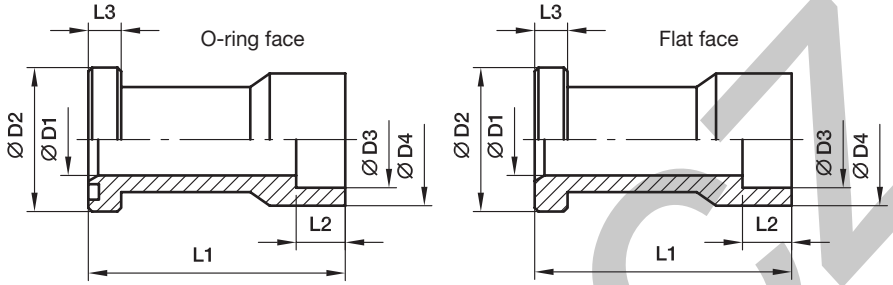
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	ES62/16.5S	ES62/16.5SM	ES62/16.5SU	NBR
Stainless steel	SS	ES62/16.5SS	ES62/16.5SSM	–	VIT

KOVA-CZ

ESL SAE Straight flange adapter

SAE Flange / Socket weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	max.	D1	D2	D3	D4	L1	L2	L3	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	20.0	15	30.2	20.5	30	60	13	6.7	0.45	**ESL32/20.5**	**ESLG32/20.5**	345	345
1/2	13	21.3	15	30.2	21.7	30	60	13	6.7	0.44	**ESL32/21.7**	**ESLG32/21.7**	345	345
3/4	19	25.0	19	38.1	25.5	35	68	13	6.7	0.60	**ESL33/25.5**	**ESLG33/25.5**	345	345
3/4	19	26.9	19	38.1	27.3	35	68	13	6.7	0.30	**ESL33/27.3**	**ESLG33/27.3**	345	345
1	25	30.0	23	44.4	30.5	44	75	16	8.0	0.75	**ESL34/30.5**	**ESLG34/30.5**	345	345
1	25	32.0	24	44.4	32.5	44	75	16	8.0	0.72	**ESL34/32.5**	**ESLG34/32.5**	345	345
1	25	33.7	25	44.4	34.0	44	75	16	8.0	0.44	**ESL34/34**	**ESLG34/34**	345	345
1	25	35.0	25	44.4	35.5	44	75	16	8.0	0.42	**ESL34/35.5**	**ESLG34/35.5**	345	345
1 1/4	32	38.0	32	50.8	38.5	55	95	18	8.0	0.67	**ESL35/38.5**	**ESLG35/38.5**	276	276
1 1/4	32	40.0	32	50.8	40.5	55	95	18	8.0	0.95	**ESL35/40.5**	**ESLG35/40.5**	276	276
1 1/4	32	42.4	32	50.8	43.0	55	95	18	8.0	0.63	**ESL35/43**	**ESLG35/43**	276	276
1 1/2	38	48.3	38	60.3	49.0	68	100	20	8.0	0.94	**ESL36/49**	**ESLG36/49**	207	207
1 1/2	38	50.0	38	60.3	50.4	68	100	20	8.0	0.88	**ESL36/50.4**	**ESLG36/50.4**	207	207
2	51	60.3	50	71.4	61.0	79	107	22	9.5	1.34	**ESL38/61**	**ESLG38/61**	207	207
2	51	65.0	50	71.4	65.8	79	107	22	9.5	1.80	**ESL38/65.8**	**ESLG38/65.8**	207	207
2 1/2	64	73.0	58	84.1	74.0	98	130	24	9.5	2.30	**ESL310/74**	**ESLG310/74**	172	172
2 1/2	64	76.1	58	84.1	77.0	98	130	24	9.5	2.25	**ESL310/77**	**ESLG310/77**	172	172
2 1/2	64	80.0	58	84.1	81.0	98	130	24	9.5	2.15	**ESL310/81**	**ESLG310/81**	172	172
3	76	88.9	70	101.6	90.5	116	150	28	9.5	3.00	**ESL312/90.5**	**ESLG312/90.5**	138	138

6000 PSI Series

1/2	13	20.0	15	31.8	20.5	32	60	13	7.7	0.45	**ESL62/20.5**	**ESLG62/20.5**	420	420
1/2	13	21.3	15	31.8	21.7	32	60	13	7.7	0.44	**ESL62/21.7**	**ESLG62/21.7**	420	420
1/2	13	22.0	15	31.8	22.5	32	60	13	7.7	0.65	**ESL62/22.5**	**ESLG62/22.5**	420	420
3/4	19	25.0	19	41.3	25.7	40	68	13	8.7	0.38	**ESL63/25.7**	**ESLG63/25.7**	420	420
3/4	19	26.9	19	41.3	27.3	40	68	13	8.7	0.61	**ESL63/27.3**	**ESLG63/27.3**	420	420
3/4	19	28.0	19	41.3	28.7	40	68	13	8.7	0.37	**ESL63/28.7**	**ESLG63/28.7**	420	420
1	25	33.7	25	47.6	34.0	48	75	16	9.5	0.75	**ESL64/34**	**ESLG64/34**	420	420
1	25	35.0	25	47.6	35.5	48	75	16	9.5	0.73	**ESL64/35.5**	**ESLG64/35.5**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

See pages M16 and M19 for related flange halves depending on bolt sets.

Stainless steel parts may have dimensional deviations. Additional information on request.

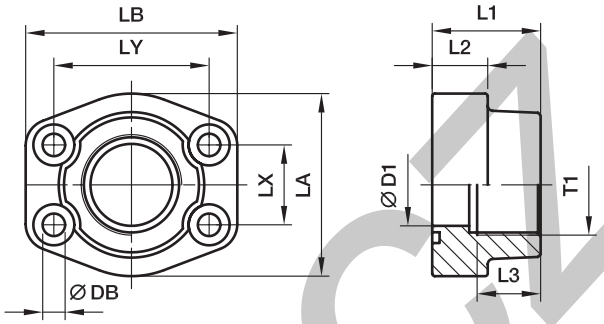
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only flange adapter	Example incl. splitflanges, metr. bolts and O-ring	Example incl. splitflanges, UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	ESL32/20.5S	ESL32/20.5SM	ESL32/20.5SU	NBR
Stainless steel	SS	ESL32/20.5SS	ESL32/20.5SSM	–	VIT

KOVAL CZ

PFF-G SAE Straight 4 bolt flange with BSPP thread

SAE Flange / Female BSPP thread
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	L1	L2	L3	LA	LB	LX	LY	DB	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	**G 3/8**	13	36	16	18	46	57	17.5	38.1	8.9	0.31	**PFF32G38**	345	345
1/2	13	**G 1/2**	13	36	16	18	46	54	17.5	38.1	8.9	0.28	**PFF32G**	345	345
3/4	19	**G 3/4**	19	36	18	18	52	65	22.2	47.6	10.6	0.39	**PFF33G**	345	345
3/4	19	**G 1/2**	13	36	18	18	52	65	22.2	47.6	10.6	0.42	**PFF33G12**	345	345
1	25	**G 1**	25	38	18	20	59	70	26.2	52.4	10.6	0.48	**PFF34G**	345	345
1	25	**G 3/4**	19	38	18	18	59	70	26.2	52.4	10.6	0.56	**PFF34G34**	345	345
1 1/4	32	**G 1 1/4**	31	41	21	22	68	79	30.2	58.7	10.6***	0.76	**PFF35G**	276	276
1 1/4	32	**G 1**	25	41	21	20	68	79	30.2	58.7	10.6***	0.89	**PFF35G1**	276	276
1 1/2	38	**G 1 1/2**	38	44	25	24	78	93	35.7	69.9	13.3	1.12	**PFF36G**	207	207
1 1/2	38	**G 1 1/4**	32	45	27	22	78	93	35.7	69.9	13.3	1.21	**PFF36G114**	207	207
2	51	**G 2**	50	45	25	26	89	103	42.9	77.8	13.5	1.32	**PFF38G**	207	207
2	51	**G 1 1/2**	38	45	25	24	89	103	42.9	77.8	13.5	1.65	**PFF38G112**	207	207
2 1/2	64	**G 2 1/2**	63	50	25	30	108	114	50.8	88.9	13.5	1.73	**PFF310G**	172	172
2 1/2	64	**G 2**	51	50	25	30	108	114	50.8	88.9	13.5	2.20	**PFF310G2**	172	172
3	76	**G 3**	73	50	27	34	124	135	61.9	106.4	17.5	2.38	**PFF312G**	138	138
3 1/2	89	**G 3 1/2**	89	48	27	34	136	152	69.9	120.7	16.7	2.50	**PFF314G**	34	34
4	102	**G 4**	99	48	27	34	146	162	77.8	130.2	16.7	2.65	**PFF316G**	34	34
4	102	**G 3 1/2**	89	48	27	34	146	162	77.8	130.2	16.7	3.30	**PFF316G312**	34	34
5	127	**G 5**	120	50	28	30	180	184	92.1	152.4	16.7	5.80	**PFF320G**	34	34
6000 PSI Series															
1/2	13	**G 3/8**	13	36	16	18	46	57	18.2	40.5	8.9	0.29	**PFF62G38**	420	420
1/2	13	**G 1/2**	13	36	16	15	46	57	18.2	40.5	8.9	0.30	**PFF62G**	420	420
3/4	19	**G 3/4**	19	36	19	18	55	71	23.8	50.8	10.6	0.53	**PFF63G**	420	420
3/4	19	**G 1/2**	13	35	21	19	55	71	23.8	50.8	10.6	0.58	**PFF63G12**	420	420
1	25	**G 1**	25	44	24	20	69	81	27.8	57.2	13.3	0.86	**PFF64G**	420	420
1	25	**G 3/4**	19	44	24	18	69	81	27.8	57.2	13.3	0.94	**PFF64G34**	420	420
1 1/4	32	**G 1 1/4**	31	44	27	22	79	95	31.8	66.7	15.0**	1.16	**PFF65G**	420	420
1 1/4	32	**G 1 1/4**	32	45	27	25	78	95	31.8	66.7	13.5	1.23	**PFF65/12G**	420	420
1 1/4	32	**G 1**	25	45	27	24	78	95	31.8	66.7	15.0**	1.26	**PFF65G1**	420	420
1 1/4	32	**G 1**	25	45	27	25	78	95	31.8	66.7	13.3	1.26	**PFF65/12G1**	420	420
1 1/2	38	**G 1 1/2**	38	51	30	24	88	107	36.5	79.4	16.7	1.98	**PFF66G**	420	420
1 1/2	38	**G 1 1/4**	32	50	30	25	95	114	36.5	79.4	16.7	2.08	**PFF66G114**	420	420
2	51	**G 2**	50	70	37	33	117	136	44.5	96.8	20.6	3.31	**PFF68G**	420	420
2	51	**G 1 1/2**	38	65	37	28	114	134	44.5	96.8	20.6	3.76	**PFF68G112**	420	420
2 1/2	64	**G 2 1/2**	63	80	45	32	152	180	58.7	123.8	25.0	3.05	**PFF610G**	420	420
3	76	**G 3**	73	90	55	40	178	208	71.4	152.4	32.0	3.45	**PFF612G**	420	420

** DB = 13.3 for UNC Bolts
*** = 12 for UNC Bolts
[1]) Pressure shown = Item deliverable

*Please add the **suffixes** below according to the material/surface required.

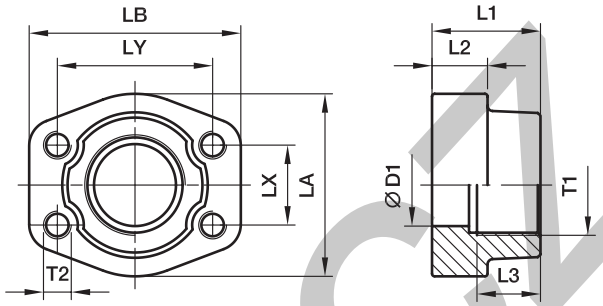
Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PFF32G38CF	PFF32G38CFM	PFF32G38CFU	NBR
Stainless steel	SS	PFF32G38SS	PFF32G38SSM	–	VIT

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

Stainless steel parts may have dimensional deviations. Additional information on request.

PCFF-G SAE Straight 4 bolt flange with BSPP thread

SAE Counter flange / Female BSPP thread
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	L1	L2	L3	LA	LB	LX	LY	T2 (metr.)	T2 (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	**G 3/8**	13	36	16	15.0	46	57	17.5	38.1	M 8	5/16	0.33	**PCFF32G38**	345	345
1/2	13	**G 1/2**	13	36	16	18.0	46	54	17.5	38.1	M 8	5/16	0.29	**PCFF32G**	345	345
3/4	19	**G 3/4**	19	36	18	19.0	52	65	22.3	47.6	M10	3/8	0.34	**PCFF33G**	345	345
3/4	19	**G 1/2**	13	36	18	19.0	50	65	22.3	47.6	M10	3/8	0.42	**PCFF33G12**	345	345
1	25	**G 1**	25	38	18	20.5	59	70	26.2	52.4	M10	3/8	0.47	**PCFF34G**	345	345
1	25	**G 3/4**	19	35	21	19.0	55	70	26.2	52.4	M10	3/8	0.56	**PCFF34G34**	345	345
1 1/4	32	**G 1 1/4**	32	40	21	22.0	68	79	30.2	58.7	M10	7/16	0.68	**PCFF35G**	276	276
1 1/4	32	**G 1**	25	42	25	22.0	65	80	30.2	58.7	M10	7/16	0.84	**PCFF35G1**	276	276
1 1/2	38	**G 1 1/2**	38	45	25	24.0	78	93	35.7	69.9	M12	1/2	1.12	**PCFF36G**	207	207
1 1/2	38	**G 1 1/4**	32	45	27	22.0	78	95	35.7	69.9	M12	1/2	1.22	**PCFF36G114**	207	207
2	51	**G 2**	50	45	25	26.0	89	103	42.9	77.8	M12	1/2	1.38	**PCFF38G**	207	207
2	51	**G 1 1/2**	38	45	25	24.0	89	103	42.9	77.8	M12	1/2	1.59	**PCFF38G112**	207	207
2 1/2	64	**G 2 1/2**	63	50	25	30.0	101	115	50.8	88.9	M12	1/2	1.66	**PCFF310G**	172	172
2 1/2	64	**G 2**	51	50	25	30.0	101	115	50.8	88.9	M12	1/2	2.09	**PCFF310G2**	172	172
3	76	**G 3**	73	50	27	30.0	124	135	61.9	106.4	M16	5/8	2.37	**PCFF312G**	138	138
3 1/2	89	**G 3 1/2**	89	50	27	30.0	136	152	69.9	120.7	M16	5/8	2.51	**PCFF314G**	34	34
4	102	**G 4**	99	50	27	30.0	146	162	77.8	130.2	M16	5/8	2.87	**PCFF316G**	34	34
4	102	**G 3 1/2**	89	48	27	34.0	146	162	77.8	130.2	M16	5/8	3.39	**PCFF316G312**	34	34
5	127	**G 5**	120	50	28	30.0	180	184	92.1	152.4	M16	5/8	5.80	**PCFF320G**	34	34
6000 PSI Series																
1/2	13	**G 3/8**	13	36	16	13.0	46	57	18.2	40.5	M 8	5/16	0.33	**PCFF62G38**	420	420
1/2	13	**G 1/2**	13	36	16	19.0	46	57	18.2	40.5	M 8	5/16	0.29	**PCFF62G**	420	420
3/4	19	**G 3/4**	19	35	21	22.0	55	71	23.8	50.8	M10	3/8	0.58	**PCFF63G**	420	420
3/4	19	**G 1/2**	13	35	21	19.0	55	71	23.8	50.8	M10	3/8	0.58	**PCFF63G12**	420	420
1	25	**G 1**	25	42	25	24.0	65	81	27.8	57.2	M12	7/16	0.82	**PCFF64G**	420	420
1	25	**G 3/4**	19	42	25	22.0	65	81	27.8	57.2	M12	7/16	0.88	**PCFF64G34**	420	420
1 1/4	32	**G 1 1/4**	32	45	27	25.0	78	95	31.8	66.6	M14	1/2	1.18	**PCFF65G**	420	420
1 1/4	32	**G 1 1/4**	32	45	27	25.0	78	95	31.8	66.6	M12	–	1.18	**PCFF65/12G**	420	420
1 1/4	32	**G 1**	25	45	27	24.0	78	95	31.8	66.6	M14	1/2	1.24	**PCFF65G1**	420	420
1 1/4	32	**G 1**	25	45	27	24.0	78	95	31.8	66.6	M12	–	1.24	**PCFF65/12G1**	420	420
1 1/2	38	**G 1 1/2**	38	50	30	28.0	94	112	36.5	79.3	M16	5/8	1.90	**PCFF66G**	420	420
1 1/2	38	**G 1 1/4**	32	50	30	25.0	94	112	36.5	79.3	M16	5/8	2.03	**PCFF66G114**	420	420
2	51	**G 2**	50	70	37	33.0	116	135	44.5	96.8	M20	3/4	3.68	**PCFF68G**	420	420
2	51	**G 1 1/2**	38	65	37	28.0	114	134	44.5	96.8	M20	3/4	3.86	**PCFF68G112**	420	420
2 1/2	64	**G 2 1/2**	63	80	45	32.0	152	180	58.7	123.8	M24	–	6.98	**PCFF610G**	420	420
3	76	**G 3**	73	90	55	40.0	178	208	71.4	152.4	M30	–	13.00	**PCFF612G**	420	420

[1]) Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

*Please add the **suffixes** below according to the material/surface required.

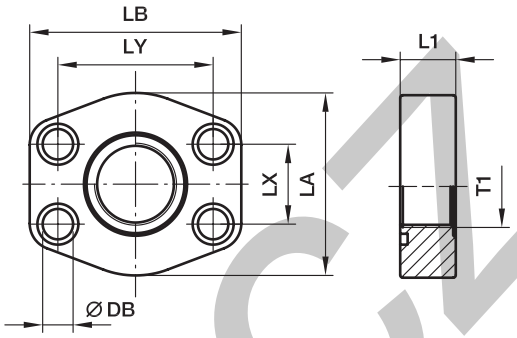
Order code suffixes				
Material	Suffix surface and material	Example 4 bolt flange with metr. threads	Example 4 bolt flange with UNC threads	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PCFF32G38CFM	PCFF32G38CFU	NBR
Stainless steel	SS	PCFF32G38SSM	PCFF32G38SSU	VIT

Stainless steel parts may have dimensional deviations. Additional information on request.

PAFSF-G SAE Straight 4 bolt flange flat with BSPP thread

SAE Flange / Female BSPP thread
(ISO 6162-1/-2)

only for low pressure applications



3000 PSI Series

Nom. flange size									Bolts			Weight (steel)		PN (bar)[1]	
SAE (in.)	ISO (DN)	T1	L1	LA	LB	LX	LY	DB	(metr.)	(unc.)	O-ring	kg/piece	Order code*	S	SS
1/2	13	**G 3/8**	16	46	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	**Standard**	0.20	**PAFSF080G38**	40	40
1/2	13	**G 1/2**	16	46	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	**OR25.07x2.62X**	0.27	**PAFSF080G**	40	40
3/4	19	**G 1/2**	18	49	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	**Standard**	0.29	**PAFSF100G12**	40	40
3/4	19	**G 3/4**	18	49	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	**OR31.34X3.53X**	0.27	**PAFSF100G**	40	40
1	25	**G 3/4**	19	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	**Standard**	0.37	**PAFSF102G34**	40	40
1	25	**G 1**	19	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	**OR37.7X3.53X**	0.32	**PAFSF102G**	40	40
1 1/4	32	**G 1**	21	69	80	30.2	58.7	10.6***	M 10×35	7/16×1 1/2	**Standard**	0.57	**PAFSF104G1**	40	40
1 1/4	32	**G 1 1/4**	21	69	80	30.2	58.7	10.6***	M 10×35	7/16×1 1/2	**OR44.45X3.53X**	0.62	**PAFSF104G**	40	40
1 1/2	38	**G 1 1/4**	24	77	95	35.7	69.9	13.3	M 12×45	1/2×1 3/4	**Standard**	0.83	**PAFSF106G114**	40	40
1 1/2	38	**G 1 1/2**	24	77	95	35.7	69.9	13.3	M 12×45	1/2×1 3/4	**OR52.39X3.53X**	0.79	**PAFSF106G**	40	40
2	51	**G 1 1/2**	24	89	103	42.9	77.8	13.5	M 12×45	1/2×1 3/4	**Standard**	1.00	**PAFSF108G112**	40	40
2	51	**G 2**	24	89	103	42.9	77.8	13.5	M 12×45	1/2×1 3/4	**OR65.09X3.53X**	0.90	**PAFSF108G**	40	40
2 1/2	64	**G 2**	25	101	116	50.8	88.9	13.5	M 12×45	1/2×1 3/4	**Standard**	1.30	**PAFSF110G2**	40	40
2 1/2	64	**G 2 1/2**	25	101	116	50.8	88.9	13.5	M 12×45	1/2×1 3/4	**OR78.97X3.53X**	1.25	**PAFSF110G**	40	40
3	76	**G 3**	25	124	136	61.9	106.4	16.7	M 16×55	5/8×2 1/4	**OR94.84X3.53X**	1.49	**PAFSF112G**	30	30
3 1/2	89	**G 3**	25	136	152	69.9	120.7	16.7	M 16×55	5/8×2 1/4	**Standard**	1.68	**PAFSF114G3**	30	30
3 1/2	89	**G 3 1/2**	25	136	152	69.9	120.7	16.7	M 16×55	5/8×2 1/4	**OR107.5X3.53X**	1.59	**PAFSF114G**	30	30
4	102	**G 3 1/2**	25	146	162	77.8	130.2	16.7	M 16×55	5/8×2 1/4	**Standard**	2.35	**PAFSF116G312**	30	30
4	102	**G 4**	25	146	162	77.8	130.2	16.7	M 16×55	5/8×2 1/4	**OR117.1X3.53X**	2.25	**PAFSF116G**	30	30
5	127	**G 4**	25	180	184	92.1	152.4	16.7	M 16×55	5/8×2 1/4	**Standard**	3.45	**PAFSF118G4**	30	30
5	127	**G 5**	25	180	184	92.1	152.4	16.7	M 16×55	5/8×2 1/4	**OR145.6X3.53X**	3.15	**PAFSF118G**	30	30
6000 PSI Series															
1/2	13	**G 3/8**	16	46	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	**Standard**	0.25	**PAFSF401G38**	40	40
1/2	13	**G 1/2**	16	46	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	**OR25.07X2.62X**	0.20	**PAFSF401G**	40	40
3/4	19	**G 1/2**	19	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	**Standard**	0.37	**PAFSF402G12**	40	40
3/4	19	**G 3/4**	19	60	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	**OR32.92X3.53X**	0.36	**PAFSF402G**	40	40
1	25	**G 3/4**	24	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	**Standard**	0.64	**PAFSF403G34**	40	40
1	25	**G 1**	24	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	**OR37.7X3.53X**	0.60	**PAFSF403G**	40	40
1 1/4	32	**G 1**	27	77	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	**Standard**	0.88	**PAFSF404G1**	40	40
1 1/4	32	**G 1**	27	77	94	31.8	66.6	13.3	M 12×50	–	**Standard**	0.88	**PAFSF404/12G1**	40	40
1 1/4	32	**G 1 1/4**	27	77	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	**OR44.45X3.53X**	0.87	**PAFSF404G**	40	40
1 1/4	32	**G 1 1/4**	27	77	94	31.8	66.6	13.3	M 12×50	–	**OR44.45X3.53X**	0.87	**PAFSF404/12G**	40	40
1 1/2	38	**G 1 1/4**	30	89	103	36.5	79.3	16.7	M 16×55	5/8×2 1/4	**Standard**	1.14	**PAFSF405G114**	40	40
1 1/2	38	**G 1 1/2**	30	89	103	36.5	79.3	16.7	M 16×55	5/8×2 1/4	**OR52.39X3.53X**	1.01	**PAFSF405G**	40	40
2	51	**G 1 1/2**	35	123	135	44.5	96.8	20.6	M 20×70	3/4×2 3/4	**Standard**	2.94	**PAFSF406G112**	40	40
2	51	**G 2**	35	123	135	44.5	96.8	20.6	M 20×70	3/4×2 3/4	**OR65.09X3.53X**	2.84	**PAFSF406G**	40	40

*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PAFSF080GCF	PAFSF080GCFM	PAFSF080GCFU	NBR
Stainless steel	SS	PAFSF080GSS	PAFSF080GSSM	–	VIT

** DB = 13.3 for UNC Bolts
*** = 12 for UNC Bolts
[1]) Pressure shown = Item deliverable

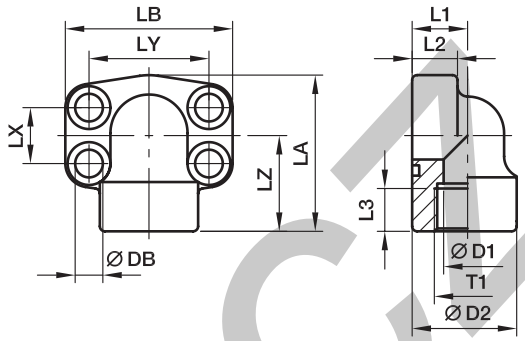
$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

Stainless steel parts may have dimensional deviations. Additional information on request.

KOVIS.CZ

PEFF-G SAE 90° 4 bolt flange with BSPP thread

SAE 90° Flange / Female BSPP thread
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size												Bolt		Weight (steel)		PN (bar)[1]	
SAE (in.)	ISO (DN)	T1	D1	D2	L1	L2	L3	LX	LY	LZ	DB	(metr.)	(unc.)	kg/piece	Order code*	S	SS
1/2	13	**G 1/2**	13	34.0	18	16	16	17.5	38.1	36	8.9	M 08×30	5/16×1 1/4	0.33	**PEFF32G**	348	348
3/4	19	**G 3/4**	19	38.5	22	18	19	22.3	47.6	38	10.6	M 10×35	3/8×1 1/2	0.52	**PEFF33G**	348	348
1	25	**G 1**	25	44.5	28	19	19	26.2	52.4	41	10.6	M 10×35	3/8×1 1/2	0.64	**PEFF34G**	348	348
1 1/4	32	**G 1 1/4**	31	53.5	30	22	22	30.2	58.7	50	10.6***	M 10×35	7/16×1 1/2	0.99	**PEFF35G**	278	278
1 1/2	38	**G 1 1/2**	38	62.5	36	25	24	35.7	69.9	58	13.3	M 12×45	1/2×1 3/4	1.42	**PEFF36G**	210	210
2	51	**G 2**	50	77.0	41	25	26	42.9	77.8	65	13.5	M 12×45	1/2×1 3/4	2.00	**PEFF38G**	210	210
2 1/2	64	**G 2 1/2**	60	89.0	50	25	30	50.8	88.9	77	13.5	M 12×45	1/2×1 3/4	2.90	**PEFF310G**	175	175

6000 PSI Series

1/2	13	**G 1/2**	13	34.0	18	16	16	18.2	40.5	36	8.9	M 08×30	5/16×1 1/4	0.33	**PEFF62G**	420	420
3/4	19	**G 3/4**	19	44.5	28	20	22	23.8	50.8	41	10.6	M 10×35	3/8×1 1/2	0.80	**PEFF63G**	420	420
1	25	**G 1**	25	53.5	30	24	24	27.8	57.2	50	13.3***	M 12×45	7/16×1 1/2	1.16	**PEFF64G**	420	420
1 1/4	32	**G 1 1/4**	31	62.5	36	25	25	31.8	66.6	58	15.0**	M 14×50	1/2×1 3/4	1.66	**PEFF65G**	420	420
1 1/4	32	**G 1 1/4**	31	62.5	36	25	25	31.8	66.6	58	13.3	M 12×50	–	1.66	**PEFF65/12G**	420	420
1 1/2	38	**G 1 1/2**	38	62.0	41	26	23	36.5	79.3	65	16.7	M 16×55	5/8×2 1/4	2.24	**PEFF66G**	420	420
2	51	**G 2**	50	87.0	45	35	34	44.5	96.8	75	20.6	M 20×70	3/4×2 3/4	3.85	**PEFF68G**	420	420

** DB = 13.3 for UNC Bolts

***DB = 12 for UNC Bolts

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

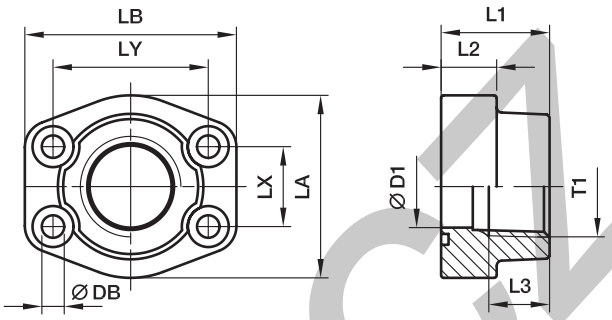
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PEFF32GCF	PEFF32GCFM	PEFF32GCFU	NBR
Stainless steel	SS	PEFF32GSS	PEFF32GSSM	–	VIT

KOVACI

PFF-N SAE Straight 4 bolt flange with NPT thread

SAE Flange / Female NPT thread
(ISO 6162-1/-2) (SAE 476)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	T1	D1	L1	L2	L3	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	**3/8 NPT**	13	36	16	15	46	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.25	**PFF32N38**	345	345
1/2	13	**1/2 NPT**	13	36	16	15	46	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.28	**PFF32N**	345	345
3/4	19	**3/4 NPT**	19	36	18	19	49	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.39	**PFF33N**	345	345
1	25	**1 NPT**	25	38	18	19	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.46	**PFF34N**	345	345
1 1/4	32	**1 1/4 NPT**	31	41	21	22	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.66	**PFF35N**	276	276
1 1/2	38	**1 1/2 NPT**	38	44	25	24	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.05	**PFF36N**	207	207
2	51	**2 NPT**	50	45	25	26	89	103	42.9	77.8	13.5	M 12×45	1/2×1 3/4	1.19	**PFF38N**	207	207
2 1/2	64	**2 1/2 NPT**	63	50	25	30	101	115	50.8	88.9	13.5	M 12×45	1/2×1 3/4	1.70	**PFF310N**	172	172
3	76	**3 NPT**	73	50	27	34	124	135	61.9	106.4	16.7	M 16×55	5/8×2 1/4	2.22	**PFF312N**	138	138
3 1/2	89	**3 1/2 NPT**	89	50	27	36	136	152	69.9	120.7	16.7	M 16×55	5/8×2 1/4	2.40	**PFF314N**	34	34
4	102	**4 NPT**	99	50	27	36	146	162	77.8	130.2	16.7	M 16×55	5/8×2 1/4	2.71	**PFF316N**	34	34
5	127	**5 NPT**	120	50	28	36	180	184	92.1	152.4	16.7	M 16×55	5/8×2 1/4	3.25	**PFF320N**	34	34

6000 PSI Series

1/2	13	**3/8 NPT**	13	36	16	15	46	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.26	**PFF62N38**	420	420
1/2	13	**1/2 NPT**	13	36	16	15	46	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.29	**PFF62N**	420	420
3/4	19	**3/4 NPT**	19	36	19	22	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.50	**PFF63N**	420	420
1	25	**1 NPT**	25	44	24	24	69	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.76	**PFF64N**	420	420
1 1/4	32	**1 1/4 NPT**	31	44	27	25	77	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.20	**PFF65N**	420	420
1 1/4	32	**1 1/4 NPT**	31	44	27	25	77	94	31.8	66.6	13.3	M 12×50	–	1.20	**PFF65/12N**	420	420
1 1/2	38	**1 1/2 NPT**	38	51	30	24	89	106	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.91	**PFF66N**	420	420
2	51	**2 NPT**	50	70	37	33	116	135	44.5	96.8	20.6	M 20×70	3/4×2 3/4	3.37	**PFF68N**	420	420
2 1/2	64	**2 1/2 NPT**	63	75	45	35	150	166	58.7	123.8	25.0	M 24×90	–	3.05	**PFF610N**	420	420
3	76	**3 NPT**	73	90	55	40	178	208	71.4	152.4	31.0	M 30×110	–	3.45	**PFF612N**	420	420

** DB = 13.3 for UNC Bolts

***DB = 12 for UNC Bolts

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

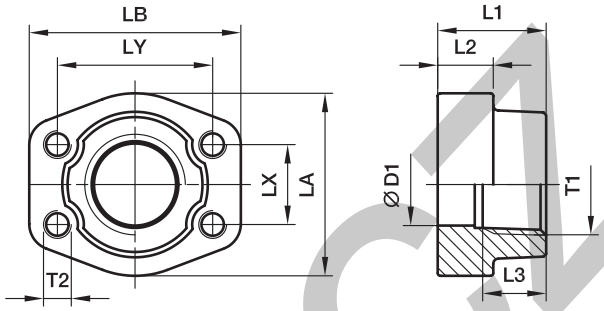
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	PFF32N38S	PFF32N38SM	PFF32N38SU	NBR
Stainless steel	SS	PFF32N38SS	PFF32N38SSM	–	VIT

KOVACH

PCFF-N SAE Straight 4 bolt flange with NPT thread

SAE Counter flange / Female NPT thread
(ISO 6162-1/-2) (SAE 476)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	L1	L2	L3	LA	LB	LX	LY	T2 (metr.)	T2 (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	**3/8 NPT**	13	36	16	19	47	57	17.5	38.1	M 8	5/16	0.25	**PCFF32N38**	345	345
1/2	13	**1/2 NPT**	13	36	16	19	47	57	17.5	38.1	M 8	5/16	0.28	**PCFF32N**	345	345
3/4	19	**3/4 NPT**	19	36	18	19	49	66	22.3	47.6	M10	3/8	0.44	**PCFF33N**	345	345
1	25	**1 NPT**	25	38	18	19	53	71	26.2	52.4	M10	3/8	0.53	**PCFF34N**	345	345
1 1/4	32	**1 1/4 NPT**	31	41	21	22	69	80	30.2	58.7	M10	7/16	0.66	**PCFF35N**	276	276
1 1/2	38	**1 1/2 NPT**	38	44	25	24	77	94	35.7	69.9	M12	1/2	1.05	**PCFF36N**	207	207
2	51	**2 NPT**	50	45	25	26	89	103	42.9	77.8	M12	1/2	1.19	**PCFF38N**	207	207
2 1/2	64	**2 1/2 NPT**	63	50	25	30	101	115	50.8	88.9	M12	1/2	1.40	**PCFF310N**	172	172
3	76	**3 NPT**	73	50	27	30	124	135	61.9	106.4	M16	5/8	2.15	**PCFF312N**	138	138
3 1/2	89	**3 1/2 NPT**	89	50	27	30	136	152	69.9	120.7	M16	5/8	2.40	**PCFF314N**	34	34
4	102	**4 NPT**	99	50	27	30	146	162	77.8	130.2	M16	5/8	2.85	**PCFF316N**	34	34
5	127	**5 NPT**	120	50	28	30	180	184	92.1	152.4	M16	5/8	3.25	**PCFF320N**	34	34

6000 PSI Series

1/2	13	**3/8 NPT**	13	36	16	19	47	57	18.2	40.5	M 8	5/16	0.26	**PCFF62N38**	420	420
1/2	13	**1/2 NPT**	13	36	16	19	47	57	18.2	40.5	M 8	5/16	0.29	**PCFF62N**	420	420
3/4	19	**3/4 NPT**	19	36	19	22	53	71	23.8	50.8	M10	3/8	0.50	**PCFF63N**	420	420
1	25	**1 NPT**	25	44	24	24	69	80	27.8	57.2	M12	7/16	0.76	**PCFF64N**	420	420
1 1/4	32	**1 1/4 NPT**	31	44	27	25	77	94	31.8	66.6	M14	1/2	1.20	**PCFF65N**	420	420
1 1/4	32	**1 1/4 NPT**	31	44	27	25	77	94	31.8	66.6	M12	–	1.20	**PCFF65/12N**	420	420
1 1/2	38	**1 1/2 NPT**	38	51	30	28	89	106	36.5	79.3	M16	5/8	1.65	**PCFF66N**	420	420
2	51	**2 NPT**	50	70	37	33	116	135	44.5	96.8	M20	3/4	2.45	**PCFF68N**	420	420
2 1/2	64	**2 1/2 NPT**	63	75	45	35	150	166	58.7	123.8	M24	–	3.05	**PCFF610N**	420	420
3	76	**3 NPT**	73	90	55	40	178	208	71.4	152.4	M30	–	3.45	**PCFF612N**	420	420

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

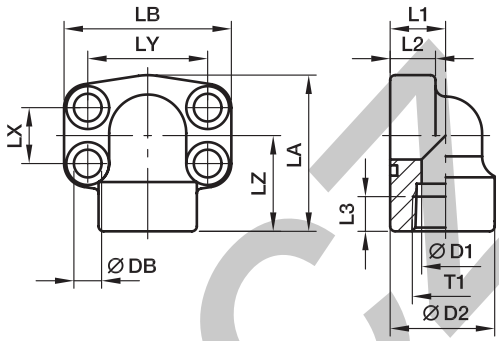
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes				
Material	Suffix surface and material	Example 4 bolt flange with metr. threads	Example 4 bolt flange with UNC threads	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	PCFF32N38SM	PCFF32N38SU	NBR
Stainless steel	SS	PCFF32N38SSM	PCFF32N38SSU	VIT

KOVACZ

PEFF-N SAE 90° 4 bolt flange with NPT thread

SAE 90° Flange / Female NPT thread
(ISO 6162-1/-2) (SAE 476)



3000 PSI Series

Nom. flange size												Bolts		Weight (steel)		PN (bar)[1]	
SAE (in.)	ISO (DN)	T1	D1	D2	L1	L2	L3	LX	LY	LZ	DB	(metr.)	(unc.)	kg/piece	Order code*	S	SS
1/2	13	**1/2 NPT**	13	34.0	18	16	16	17.5	38.1	36	8.9	M 08×30	5/16×1 1/4	0.35	**PEFF32N**	348	348
3/4	19	**3/4 NPT**	19	38.5	22	18	19	22.3	47.6	38	10.6	M 10×35	3/8×1 1/2	0.55	**PEFF33N**	348	348
1	25	**1 NPT**	25	44.5	28	19	19	26.2	52.4	41	10.6	M 10×35	3/8×1 1/2	0.80	**PEFF34N**	348	348
1 1/4	32	**1 1/4 NPT**	31	53.5	30	22	22	30.2	58.7	50	10.6***	M 10×35	7/16×1 1/2	1.30	**PEFF35N**	278	278
1 1/2	38	**1 1/2 NPT**	38	62.5	36	25	24	35.7	69.9	58	13.3	M 12×45	1/2×1 3/4	1.60	**PEFF36N**	210	210
2	51	**2 NPT**	50	77.0	41	25	26	42.9	77.8	65	13.5	M 12×45	1/2×1 3/4	2.00	**PEFF38N**	210	210
2 1/2	64	**2 1/2 NPT**	60	89.0	50	25	30	50.8	88.9	77	13.5	M 12×45	1/2×1 3/4	2.40	**PEFF310N**	175	175

6000 PSI Series

1/2	13	**1/2 NPT**	13	34.0	18	16	16	18.2	40.5	36	8.9	M 08×30	5/16×1 1/4	0.35	**PEFF62N**	420	420
3/4	19	**3/4 NPT**	19	44.5	28	20	22	23.8	50.8	41	10.6	M 10×35	3/8×1 1/2	0.80	**PEFF63N**	420	420
1	25	**1 NPT**	25	53.5	30	24	24	27.8	57.2	50	13.3***	M 12×45	7/16×1 1/2	1.30	**PEFF64N**	420	420
1 1/4	32	**1 1/4 NPT**	31	62.5	36	25	25	31.8	66.6	58	15.0**	M 14×50	1/2×1 3/4	1.60	**PEFF65N**	420	420
1 1/4	32	**1 1/4 NPT**	31	62.5	36	25	25	31.8	66.6	58	13.3	M 12×50	–	1.60	**PEFF65/12N**	420	420
1 1/2	38	**1 1/2 NPT**	38	77.0	51	26	28	36.5	79.3	65	16.7	M 16×55	5/8×2 1/4	2.00	**PEFF66N**	420	420
2	51	**2 NPT**	50	87.0	45	35	34	44.5	96.8	75	20.6	M 20×70	3/4×2 3/4	2.50	**PEFF68N**	420	420

** DB = 13.3 for UNC Bolts

***DB = 12 for UNC Bolts

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

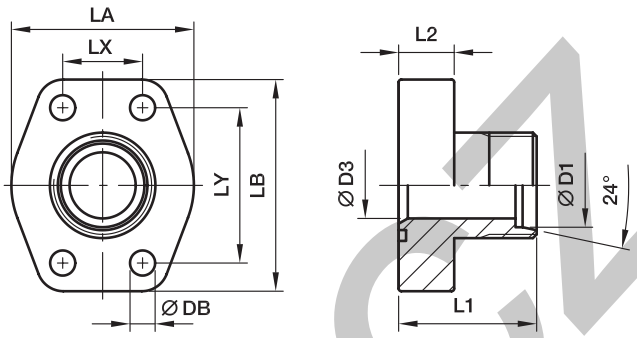
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, oil dipped	S	PEFF32NS	PEFF32NSM	PEFF32NSU	NBR
Stainless steel	SS	PEFF32NSS	PEFF32NSSM	–	VIT

KOVAL.CZ

PFF-..S/L SAE Straight 4 bolt flange with EO 24° cone end

SAE Flange / EO 24° cone end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	D1[2]	D3	L1	L2	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	12S	8	47	16	42	57	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.27	**PFF32/12S**	348	348
1/2	13	15L	11	47	16	42	57	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.27	**PFF32/15L**	348	315
1/2	13	16S	12	47	16	42	57	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.27	**PFF32/16S**	348	348
3/4	19	16S	12	52	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.42	**PFF33/16S**	348	348
3/4	19	20S	16	52	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.45	**PFF33/20S**	348	348
3/4	19	22L	18	52	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.44	**PFF33/22L**	250	160
1	25	20S	16	55	18	55	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.54	**PFF34/20S**	348	348
1	25	25S	20	55	18	55	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.55	**PFF34/25S**	348	348
1	25	28L	23	55	18	55	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.53	**PFF34/28L**	250	160
1 1/4	32	25S	20	60	21	66	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.83	**PFF35/25S**	278	278
1 1/4	32	30S	25	60	21	66	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.85	**PFF35/30S**	278	278
1 1/4	32	35L	30	60	21	66	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.79	**PFF35/35L**	278	278
1 1/2	38	35L	30	70	25	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.25	**PFF36/35L**	210	210
1 1/2	38	38S	32	70	25	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.30	**PFF36/38S**	210	210
1 1/2	38	42L	36	70	25	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.21	**PFF36/42L**	210	210
2	51	38S	32	72	25	90	103	42.9	77.8	13.3	M 12×45	1/2×1 3/4	1.80	**PFF38/38S**	210	210
2	51	42L	36	72	25	90	103	42.9	77.8	13.3	M 12×45	1/2×1 3/4	1.60	**PFF38/42L**	210	210

6000 PSI Series

1/2	13	12S	8	47	16	47	57	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.27	**PFF62/12S**	420	420
1/2	13	14S	10	47	16	47	57	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.27	**PFF62/14S**	420	420
1/2	13	16S	12	47	16	47	57	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.27	**PFF62/16S**	420	420
3/4	19	16S	12	52	18	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.50	**PFF63/16S**	420	420
3/4	19	20S	16	52	18	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.51	**PFF63/20S**	420	400
3/4	19	22L	18	52	18	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.51	**PFF63/22L**	250	160
1	25	20S	16	60	21	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.80	**PFF64/20S**	420	400
1	25	25S	20	60	21	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.80	**PFF64/25S**	420	400
1	25	28L	23	60	21	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.75	**PFF64/28L**	250	160
1 1/4	32	25S	20	68	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.15	**PFF65/25S**	420	400
1 1/4	32	25S	20	68	24	78	94	31.8	66.6	13.3	M 12×50	–	1.15	**PFF65/12/25S**	420	400
1 1/4	32	30S	25	68	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.18	**PFF65/30S**	420	400
1 1/4	32	30S	25	68	24	78	94	31.8	66.6	13.3	M 12×50	–	1.18	**PFF65/12/30S**	420	400
1 1/4	32	35L	30	68	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.15	**PFF65/35L**	250	160
1 1/4	32	35L	30	68	24	78	94	31.8	66.6	13.3	M 12×50	–	1.15	**PFF65/12/35L**	250	160
1 1/4	32	38S	32	68	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.28	**PFF65/38S**	420	315
1 1/4	32	38S	32	68	24	78	94	31.8	66.6	13.3	M 12×50	–	1.28	**PFF65/12/38S**	420	315
1 1/2	38	35L	25	72	27	90	106	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.60	**PFF66/35L**	250	160
1 1/2	38	38S	32	72	27	90	106	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.70	**PFF66/38S**	315	315
1 1/2	38	42L	36	72	27	90	106	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.60	**PFF66/42L**	250	160

[2]) L = light series; S = heavy series

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page M12.
Stainless steel parts may have dimensional deviations.
Additional information on request.

** DB = 13.3 for UNC Bolts
***DB = 12 for UNC Bolts

*Please add the **suffixes** below according to the material/surface required.

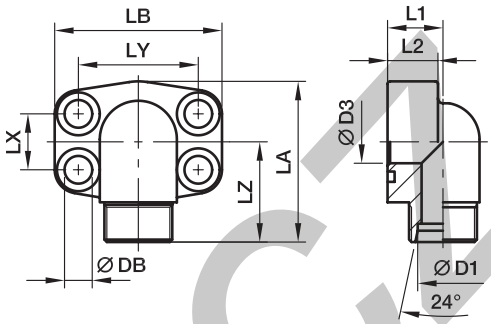
[1]) Pressure shown = Item deliverable

$$\frac{PN\ (bar)}{10} = PN\ (MPa)$$

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PF32/12SCF	PFF32/12SOMDCFM	PFF32/12SOMDCFU	NBR
Stainless steel	SS	PFF32/12S-SS	PFF32/12SOMDSSM	–	VIT

PAFG-90M SAE 90° 4 bolt flange with EO 24° cone end

SAE 90° Flange / EO 24° cone end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	D1[2]	D3	L1	L2	LX	LY	LZ	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	12S	8	18	16	17.5	38.1	36	8.9	M 08×30	5/16×1 1/4	0.31	**PAFG080/90M12S**	348	348
1/2	13	15L	11	18	16	17.5	38.1	36	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG080/90M15L**	348	315
1/2	13	16S	12	18	16	17.5	38.1	36	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG080/90M16S**	348	348
3/4	19	16S	12	22	18	22.3	47.6	38	10.6	M 10×35	3/8×1 1/2	0.48	**PAFG100/90M16S**	348	348
3/4	19	20S	16	22	18	22.3	47.6	38	10.6	M 10×35	3/8×1 1/2	0.44	**PAFG100/90M20S**	348	348
3/4	19	22L	18	22	18	22.3	47.6	38	10.6	M 10×35	3/8×1 1/2	0.45	**PAFG100/90M22L**	250	160
1	25	20S	16	28	19	26.2	52.4	42	10.6	M 10×35	3/8×1 1/2	0.68	**PAFG102/90M20S**	348	348
1	25	25S	20	28	19	26.2	52.4	42	10.6	M 10×35	3/8×1 1/2	0.64	**PAFG102/90M25S**	348	348
1	25	28L	23	28	19	26.2	52.4	42	10.6	M 10×35	3/8×1 1/2	0.62	**PAFG102/90M28L**	250	160
1 1/4	32	25S	20	30	22	30.2	58.7	50	10.6***	M 10×40	7/16×1 1/2	1.05	**PAFG104/90M25S**	278	278
1 1/4	32	30S	25	30	22	30.2	58.7	50	10.6***	M 10×40	7/16×1 1/2	1.02	**PAFG104/90M30S**	278	278
1 1/4	32	35L	30	30	22	30.2	58.7	50	10.6***	M 10×40	7/16×1 1/2	0.94	**PAFG104/90M35L**	278	278
1 1/2	38	35L	30	36	25	35.7	69.9	58	13.3	M 12×45	1/2×1 3/4	1.51	**PAFG106/90M35L**	210	210
1 1/2	38	38S	32	36	25	35.7	69.9	58	13.3	M 12×45	1/2×1 3/4	1.55	**PAFG106/90M38S**	210	210
1 1/2	38	42L	36	36	25	35.7	69.9	58	13.3	M 12×45	1/2×1 3/4	1.42	**PAFG106/90M42L**	210	210
6000 PSI Series															
1/2	13	12S	8	20	16	18.2	40.5	36	8.9	M 08×30	5/16×1 1/4	0.31	**PAFG401/90M12S**	420	420
1/2	13	14S	10	20	16	18.2	40.5	36	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG401/90M14S**	420	420
1/2	13	16S	12	20	16	18.2	40.5	36	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG401/90M16S**	420	420
3/4	19	16S	12	26	22	23.8	50.8	41	10.6	M 10×40	3/8×1 1/2	0.68	**PAFG402/90M16S**	420	420
3/4	19	20S	16	26	22	23.8	50.8	50	10.6	M 10×40	3/8×1 1/2	0.68	**PAFG402/90M20S**	420	400
3/4	19	22L	18	26	22	23.8	50.8	41	10.6	M 10×40	3/8×1 1/2	0.66	**PAFG402/90M22L**	250	160
1	25	20S	16	30	24	27.8	57.2	50	13.3***	M 12×45	7/16×1 1/2	1.11	**PAFG403/90M20S**	420	400
1	25	25S	20	30	24	27.8	57.2	50	13.3***	M 12×45	7/16×1 1/2	1.08	**PAFG403/90M25S**	420	400
1	25	28L	23	30	24	27.8	57.2	50	13.3***	M 12×45	7/16×1 1/2	1.05	**PAFG403/90M28L**	250	160
1 1/4	32	25S	20	36	25	31.8	66.6	58	15.0**	M 14×50	1/2×1 3/4	1.70	**PAFG404/90M25S**	420	400
1 1/4	32	25S	20	36	25	31.8	66.6	58	13.3	M 12×50	–	1.70	**PAFG404/12/90M25S**	420	400
1 1/4	32	30S	25	36	25	31.8	66.6	58	15.0**	M 14×50	1/2×1 3/4	1.45	**PAFG404/90M30S**	420	400
1 1/4	32	30S	25	36	25	31.8	66.6	58	13.3	M 12×50	–	1.45	**PAFG404/12/90M30S**	420	400
1 1/4	32	35L	30	36	25	31.8	66.6	58	15.0**	M 14×50	1/2×1 3/4	1.50	**PAFG404/90M35L**	250	160
1 1/4	32	35L	30	36	25	31.8	66.6	58	13.3	M 12×50	–	1.50	**PAFG404/12/90M35L**	250	160
1 1/2	38	35L	25	41	26	36.5	79.3	65	16.7	M 16×55	5/8×2 1/4	2.44	**PAFG405/90M35L**	250	160
1 1/2	38	38S	32/38	41	26	36.5	79.3	65	16.7	M 16×55	5/8×2 1/4	2.38	**PAFG405/90M38S**	315	315
1 1/2	38	42L	36	41	26	36.5	79.3	65	16.7	M 16×55	5/8×2 1/4	2.37	**PAFG405/90M42L**	250	160

[2]) L = light series; S = heavy series

*Please add the **suffixes** below according to the material/surface required.

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page M12.
Stainless steel parts may have dimensional deviations.
Additional information on request.

** DB = 13.3 for UNC Bolts
*** DB = 12 for UNC Bolts
[1]) Pressure shown = Item deliverable

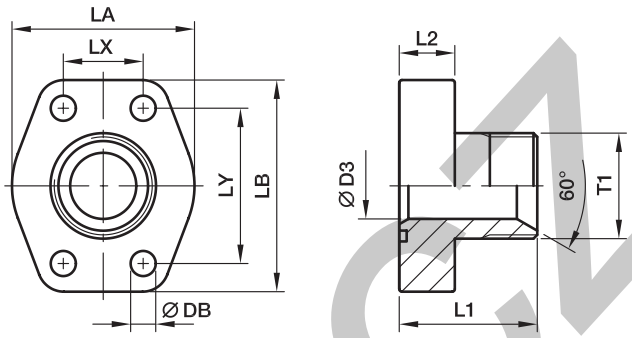
$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PAFG080/90M12SCF	PAFG080/90M12SOMDCFM	PAFG080/90M12SOMDCFU	NBR
Stainless steel	SS	PAFG080/90M12S-SS	PAFG080/90M12SOMDSSM	–	VIT

KONTAKT

PAFG-G SAE Straight 4 bolt flange with BSPP 60° cone end

SAE Flange (ISO 6162-1/-2) / BSPP 60° cone end (ISO 8434-6)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	T1	D3	L1	L2	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	**G 3/8**	10	37	16	47	56	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.25	**PAFG080G38**	348	348
1/2	13	**G 1/2**	12	39	16	47	56	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.29	**PAFG080G**	348	348
1/2	13	**G 3/4**	13	42	16	47	56	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.28	**PAFG080G34**	348	348
3/4	19	**G 1/2**	12	42	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.39	**PAFG100G12**	348	348
3/4	19	**G 3/4**	17	45	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.40	**PAFG100G**	348	348
3/4	19	**G 1**	19	47	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.43	**PAFG100G1**	348	348
1	25	**G 3/4**	17	47	18	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.44	**PAFG102G34**	348	348
1	25	**G 1**	22	49	18	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.49	**PAFG102G**	348	348
1	25	**G 1 1/4**	25	49	18	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.57	**PAFG102G114**	348	348
1 1/4	32	**G 1**	22	53	21	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.74	**PAFG104G1**	278	278
1 1/4	32	**G 1 1/4**	27	53	21	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.73	**PAFG104G**	278	278
1 1/4	32	**G 1 1/2**	31	55	21	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.90	**PAFG104G112**	278	278
1 1/2	38	**G 1 1/4**	27	59	24	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.12	**PAFG106G114**	210	210
1 1/2	38	**G 1 1/2**	34	61	24	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.10	**PAFG106G**	210	210
1 1/2	38	**G 2**	38	63	24	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.28	**PAFG106G2**	210	210
2	51	**G 1 1/2**	34	69	25	90	103	42.9	77.8	13.3	M 12×45	1/2×1 3/4	1.59	**PAFG108G112**	210	210
2	51	**G 2**	42	69	25	90	103	42.9	77.8	13.3	M 12×45	1/2×1 3/4	1.62	**PAFG108G**	210	210
6000 PSI Series																
1/2	13	**G 3/8**	10	38	16	47	56	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.24	**PAFG401G38**	420	420
1/2	13	**G 1/2**	12	40	16	47	56	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.24	**PAFG401G**	420	420
1/2	13	**G 3/4**	13	43	16	47	56	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.28	**PAFG401G34**	420	420
3/4	19	**G 1/2**	12	44	18	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.47	**PAFG402G12**	420	420
3/4	19	**G 3/4**	17	47	18	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.48	**PAFG402G**	420	420
3/4	19	**G 1**	19	49	18	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.54	**PAFG402G1**	420	420
1	25	**G 3/4**	17	54	21	68	81	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.70	**PAFG403G34**	420	420
1	25	**G 1**	22	56	21	68	81	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.78	**PAFG403G**	420	420
1	25	**G 1 1/4**	25	56	21	68	81	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.80	**PAFG403G114**	420	420
1 1/4	32	**G 1**	22	61	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.08	**PAFG404G1**	420	420
1 1/4	32	**G 1**	22	61	24	78	94	31.8	66.6	13.3	M 12×50	–	1.08	**PAFG404/12G1**	420	420
1 1/4	32	**G 1 1/4**	27	61	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.13	**PAFG404G**	420	420
1 1/4	32	**G 1 1/4**	27	61	24	78	94	31.8	66.6	13.3	M 12×50	–	1.13	**PAFG404/12G**	420	420
1 1/4	32	**G 1 1/2**	31	63	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.15	**PAFG404G112**	420	420
1 1/4	32	**G 1 1/2**	31	63	24	78	94	31.8	66.6	13.3	M 12×50	–	1.15	**PAFG404/12G112**	420	420
1 1/2	38	**G 1 1/4**	27	65	27	90	101	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.58	**PAFG405G114**	420	420
1 1/2	38	**G 1 1/2**	32	67	27	90	101	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.55	**PAFG405G**	420	420

Stainless steel parts may have dimensional deviations.
Additional information on request.

** DB = 13.3 for UNC Bolts
***DB = 12 for UNC Bolts
[1]) Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

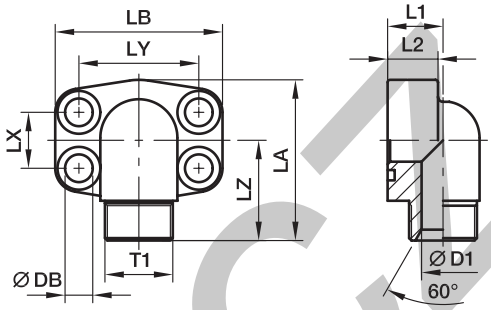
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PAFG080GCF	PAFG080GCFM	PAFG080GCFU	NBR
Stainless steel	SS	PAFG080GSS	PAFG080GSSM	–	VIT

KOVAX.CZ

PAFG-90G SAE 90° 4 bolt flange with BSPP 60° cone end

SAE 90° Flange / BSPP 60° cone end
(ISO 6162-1/-2) (ISO 8434-6)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D3	L1	L2	LX	LY	LZ	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	**G 3/8**	10	17	16	17.5	38.1	37	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG080/90G38**	348	348
1/2	13	**G 1/2**	12	17	16	17.5	38.1	39	8.9	M 08×30	5/16×1 1/4	0.33	**PAFG080/90G**	348	348
1/2	13	**G 3/4**	13	20	16	17.5	38.1	40	8.9	M 08×30	5/16×1 1/4	0.31	**PAFG080/90G34**	348	348
3/4	19	**G 1/2**	12	20	18	22.3	47.6	41	10.6	M 10×35	3/8×1 1/2	0.47	**PAFG100/90G12**	348	348
3/4	19	**G 3/4**	17	20	18	22.3	47.6	44	10.6	M 10×35	3/8×1 1/2	0.45	**PAFG100/90G**	348	348
3/4	19	**G 1**	19	25	25	22.3	47.6	45	10.6	M 10×40	3/8×1 1/2	0.60	**PAFG100/90G1**	348	348
1	25	**G 3/4**	17	20	19	26.2	52.4	47	10.6	M 10×35	3/8×1 1/2	0.68	**PAFG102/90G34**	348	348
1	25	**G 1**	22	25	19	26.2	52.4	48	10.6	M 10×35	3/8×1 1/2	0.64	**PAFG102/90G**	348	348
1	25	**G 1 1/4**	25	31	19	26.2	52.4	49	10.6	M 10×40	3/8×1 1/2	0.81	**PAFG102/90G114**	348	348
1 1/4	32	**G 1**	22	25	22	30.2	58.7	54	10.6***	M 10×40	7/16×1 1/2	1.06	**PAFG104/90G1**	278	278
1 1/4	32	**G 1 1/4**	27	31	22	30.2	58.7	55	10.6***	M 10×35	7/16×1 1/2	0.93	**PAFG104/90G**	278	278
1 1/4	32	**G 1 1/2**	31	37	22	30.2	58.7	56	10.6***	M 10×40	7/16×1 1/2	0.96	**PAFG104/90G112**	278	278
1 1/2	38	**G 1 1/4**	27	31	25	35.7	69.9	59	13.3	M 12×45	1/2×1 3/4	1.44	**PAFG106/90G114**	210	210
1 1/2	38	**G 1 1/2**	34	37	25	35.7	69.9	61	13.3	M 12×45	1/2×1 3/4	1.49	**PAFG106/90G**	210	210

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1/2	13	**G 3/8**	10	17	16	18.2	40.5	37	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG401/90G38**	420	420
1/2	13	**G 1/2**	12	17	16	18.2	40.5	39	8.9	M 08×30	5/16×1 1/4	0.32	**PAFG401/90G**	420	420
1/2	13	**G 3/4**	13	20	16	18.2	40.5	40	8.9	M 08×30	5/16×1 1/4	0.35	**PAFG401/90G34**	420	420
3/4	19	**G 1/2**	12	20	19	23.8	50.8	45	10.6	M 10×35	3/8×1 1/2	0.73	**PAFG402/90G12**	420	420
3/4	19	**G 3/4**	17	20	19	23.8	50.8	48	10.6	M 10×35	3/8×1 1/2	0.70	**PAFG402/90G**	420	420
3/4	19	**G 1**	19	25	19	23.8	50.8	50	10.6	M 10×35	3/8×1 1/2	0.75	**PAFG402/90G1**	420	420
1	25	**G 3/4**	17	25	24	27.8	57.2	52	13.3***	M 12×45	7/16×1 1/2	0.89	**PAFG403/90G34**	420	420
1	25	**G 1**	22	25	24	27.8	57.2	54	13.3***	M 12×45	7/16×1 1/2	0.90	**PAFG403/90G**	420	420
1	25	**G 1 1/4**	25	31	24	27.8	57.2	55	13.3***	M 12×45	7/16×1 1/2	1.07	**PAFG403/90G114**	420	420
1 1/4	32	**G 1**	22	31	25	31.8	66.6	59	15.0**	M 14×50	1/2×1 3/4	1.66	**PAFG404/90G1**	420	420
1 1/4	32	**G 1**	22	31	25	31.8	66.6	59	13.3	M 12×50	–	1.66	**PAFG404/12/90G1**	420	420
1 1/4	32	**G 1 1/4**	27	31	25	31.8	66.6	59	15.0**	M 14×50	1/2×1 3/4	1.59	**PAFG404/90G**	420	420
1 1/4	32	**G 1 1/4**	27	31	25	31.8	66.6	59	13.3	M 12×50	–	1.59	**PAFG404/12/90G**	420	420
1 1/4	32	**G 1 1/2**	31	37	25	31.8	66.6	61	15.0**	M 14×50	1/2×1 3/4	1.55	**PAFG404/90G112**	420	420
1 1/4	32	**G 1 1/2**	31	37	25	31.8	66.6	61	13.3	M 12×50	–	1.55	**PAFG404/12/90G112**	420	420
1 1/2	38	**G 1 1/4**	27	37	26	36.5	79.3	64	16.7	M 16×55	5/8×2 1/4	2.35	**PAFG405/90G114**	420	420
1 1/2	38	**G 1 1/2**	32	37	26	36.5	79.3	66	16.7	M 16×55	5/8×2 1/4	2.35	**PAFG405/90G**	420	420

[1] Pressure shown = Item deliverable

$\frac{PN\ (bar)}{10} = PN\ (MPa)$

** DB = 13.3 for UNC Bolts
***DB = 12 for UNC Bolts

*Please add the **suffixes** below according to the material/surface required.

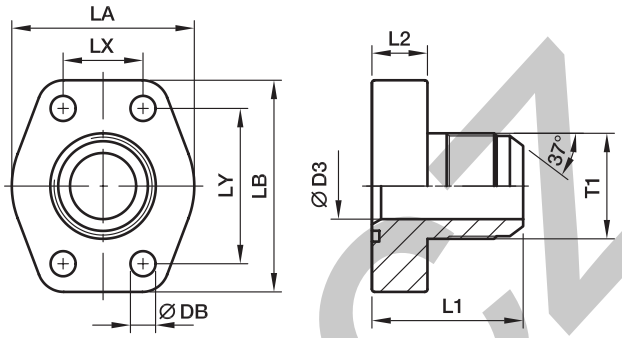
Stainless steel parts may have dimensional deviations.
Additional information on request.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PAFG080/90GCF	PAFG080/90GCFM	PAFG080/90GCFU	NBR
Stainless steel	SS	PAFG080/90GSS	PAFG080/90GSSM	–	VIT

KOMPACT

PAFG-X SAE Straight 4 bolt flange with Triple-Lok® 37° flare end

SAE Flange / Triple-Lok® 37° flare end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D3	L1	L2	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	**3/4-16UNF**	9.9	41	16	47	57	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.25	**PAFG080X-A**	348	348
1/2	13	**7/8-14UNF**	12.3	41	16	47	57	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.25	**PAFG080X-B**	348	348
1/2	13	**1 1/16-12UN**	12.3	46	16	47	57	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.28	**PAFG080X-C**	348	348
3/4	19	**7/8-14UN**	12.3	47	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.35	**PAFG100X-A**	348	348
3/4	19	**1 1/16-12UN**	15.5	49	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.40	**PAFG100X-B**	348	348
3/4	19	**1 5/16-12UN**	21.5	50	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.41	**PAFG100X-C**	348	348
1	25	**1 1/16-12UN**	15.5	51	18	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.44	**PAFG102X-A**	348	348
1	25	**1 5/16-12UN**	21.5	52	18	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.46	**PAFG102X-B**	348	348
1	25	**1 5/8-12UN**	27.5	54	18	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.56	**PAFG102X-C**	348	348
1 1/4	32	**1 5/16-12UN**	21.5	56	21	69	81	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.73	**PAFG104X-A**	278	278
1 1/4	32	**1 5/8-12UN**	27.5	58	21	69	81	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.80	**PAFG104X-B**	278	278
1 1/4	32	**1 7/8-12UN**	33.0	61	21	69	81	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.92	**PAFG104X-C**	278	278
1 1/2	38	**1 5/8-12UN**	27.5	64	24	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.17	**PAFG106X-A**	210	210
1 1/2	38	**1 7/8-12UN**	33.0	67	24	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.19	**PAFG106X-B**	210	210

6000 PSI Series

1/2	13	**3/4-16UNF**	9.9	42	16	47	57	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.26	**PAFG401X-A**	350	350
1/2	13	**7/8-14UNF**	12.3	45	16	47	57	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.26	**PAFG401X-B**	350	350
1/2	13	**1 1/16-12UN**	12.3	47	16	47	57	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.29	**PAFG401X-C**	350	350
3/4	19	**7/8-14UN**	12.3	49	18	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.45	**PAFG402X-A**	350	350
3/4	19	**1 1/16-12UN**	15.5	51	18	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.52	**PAFG402X-B**	350	350
3/4	19	**1 5/16-12UN**	21.5	52	18	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.52	**PAFG402X-C**	350	350
1	25	**1 1/16-12UN**	15.5	58	21	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.70	**PAFG403X-A**	350	350
1	25	**1 5/16-12UN**	21.5	59	21	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.71	**PAFG403X-B**	350	350
1	25	**1 5/8-12UN**	27.5	61	21	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.82	**PAFG403X-C**	275	275
1 1/4	32	**1 5/16-12UN**	21.5	64	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.07	**PAFG404X-A**	350	350
1 1/4	32	**1 5/16-12UN**	21.5	64	24	78	94	31.8	66.6	13.3	M 12×50	–	1.07	**PAFG404/12X-A**	350	350
1 1/4	32	**1 5/8-12UN**	27.5	66	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.13	**PAFG404X-B**	275	275
1 1/4	32	**1 5/8-12UN**	27.5	66	24	78	94	31.8	66.6	13.3	M 12×50	–	1.13	**PAFG404/12X-B**	275	275
1 1/4	32	**1 7/8-12UN**	33.0	69	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.10	**PAFG404X-C**	210	210
1 1/4	32	**1 7/8-12UN**	33.0	69	24	78	94	31.8	66.6	13.3	M 12×50	–	1.10	**PAFG404/12X-C**	210	210
1 1/2	38	**1 5/8-12UN**	27.5	70	27	90	106	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.60	**PAFG405X-A**	275	275
1 1/2	38	**1 7/8-12UN**	33.0	73	27	90	106	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.62	**PAFG405X-B**	210	210

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

** DB = 13.3 for UNC Bolts
***DB = 12 for UNC Bolts

*Please add the **suffixes** below according to the material/surface required.

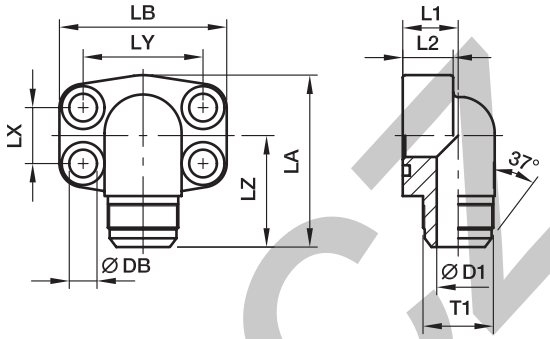
Stainless steel parts may have dimensional deviations. Additional information on request.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PAFG080X-ACF	PAFG080X-ACFM	PAFG080X-ACFU	NBR
Stainless steel	SS	PAFG080X-ASS	PAFG080X-ASSM	–	VIT

KOLFLEX.CZ

PAFG-90X SAE 90° 4 bolt flange with Triple-Lok® 37° flare end

SAE 90° Flange / Triple-Lok® 37° flare end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	L1	L2	LX	LY	LZ	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	3/4-16	9.9	17	16	17.5	38.1	40	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG080/90X-A**	348	348
1/2	13	7/8-14	12.3	17	16	17.5	38.1	42	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG080/90X-B**	348	348
1/2	13	1 1/16-12	12.3	20	16	17.5	38.1	43	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG080/90X-C**	348	348
3/4	19	7/8-14	12.3	20	18	22.3	47.6	45	10.6	M 10×35	3/8×1 1/2	0.50	**PAFG100/90X-A**	348	348
3/4	19	1 1/16-12	15.5	20	18	22.3	47.6	47	10.6	M 10×35	3/8×1 1/2	0.50	**PAFG100/90X-B**	348	348
3/4	19	1 5/16-12	21.5	25	25	22.3	47.6	48	10.6	M 10×40	3/8×1 1/2	0.58	**PAFG100/90X-C**	348	348
1	25	1 1/16-12	15.5	20	19	26.2	52.4	50	10.6	M 10×35	3/8×1 1/2	0.62	**PAFG102/90X-A**	348	348
1	25	1 5/16-12	21.5	25	19	26.2	52.4	51	10.6	M 10×35	3/8×1 1/2	0.68	**PAFG102/90X-B**	348	348
1 1/4	32	1 5/16-12	21.5	25	22	30.2	58.7	56	10.6***	M 10×40	7/16×1 1/2	1.06	**PAFG104/90X-A**	278	278
1 1/4	32	1 5/8-12	27.5	31	22	30.2	58.7	58	10.6***	M 10×40	7/16×1 1/2	1.03	**PAFG104/90X-B**	278	278
1 1/4	32	1 7/8-12	33.0	37	22	30.2	58.7	61	10.6***	M 10×40	7/16×1 1/2	0.96	**PAFG104/90X-C**	278	278
1 1/2	38	1 5/8-12	27.5	31	25	35.7	69.9	63	13.3	M 12×45	1/2×1 3/4	1.62	**PAFG106/90X-A**	210	210
1 1/2	38	1 7/8-12	33.0	37	25	35.7	69.9	66	13.3	M 12×45	1/2×1 3/4	1.53	**PAFG106/90X-B**	210	210

6000 PSI Series

1/2	13	3/4-16	9.9	17	16	18.2	40.5	40	8.9	M 08×30	5/16×1 1/4	0.30	**PAFG401/90X-A**	350	350
1/2	13	7/8-14	12.3	17	16	18.2	40.5	42	8.9	M 08×30	5/16×1 1/4	0.32	**PAFG401/90X-B**	350	350
1/2	13	1 1/16-12	12.3	20	16	18.2	40.5	43	8.9	M 08×30	5/16×1 1/4	0.35	**PAFG401/90X-C**	350	350
3/4	19	7/8-14	12.3	20	19	23.8	50.8	49	10.6	M 10×35	3/8×1 1/2	0.71	**PAFG402/90X-A**	350	350
3/4	19	1 1/16-12	15.5	20	19	23.8	50.8	51	10.6	M 10×35	3/8×1 1/2	0.67	**PAFG402/90X-B**	350	350
3/4	19	1 5/16-12	21.5	25	19	23.8	50.8	52	10.6	M 10×35	3/8×1 1/2	0.71	**PAFG402/90X-C**	350	350
1	25	1 1/16-12	15.5	25	24	27.8	57.2	55	13.3***	M 12×45	7/16×1 1/2	0.93	**PAFG403/90X-A**	350	350
1	25	1 5/16-12	25/21.5	25	24	27.8	57.2	56	13.3***	M 12×45	7/16×1 1/2	0.88	**PAFG403/90X-B**	350	350
1	25	1 5/8-12	27.5	31	24	27.8	57.2	58	13.3***	M 12×45	7/16×1 1/2	1.04	**PAFG403/90X-C**	275	275
1 1/4	32	1 5/16-12	21.5	31	25	31.8	66.6	56	15.0**	M 14×50	1/2×1 3/4	1.53	**PAFG404/90X-A**	350	350
1 1/4	32	1 5/16-12	21.5	31	25	31.8	66.6	56	13.3	M 12×50	–	1.53	**PAFG404/12/90X-A**	350	350
1 1/4	32	1 5/8-12	27.5	31	25	31.8	66.6	63	15.0**	M 14×50	1/2×1 3/4	1.56	**PAFG404/90X-B**	275	275
1 1/4	32	1 5/8-12	27.5	31	25	31.8	66.6	63	13.3	M 12×50	–	1.56	**PAFG404/12/90X-B**	275	275
1 1/4	32	1 7/8-12	33.0	37	25	31.8	66.6	63	15.0**	M 14×50	1/2×1 3/4	1.63	**PAFG404/90X-C**	210	210
1 1/4	32	1 7/8-12	33.0	37	25	31.8	66.6	63	13.3	M 12×50	–	1.63	**PAFG404/12/90X-C**	210	210
1 1/2	38	1 5/8-12	27.5	37	26	36.5	79.3	67	16.7	M 16×55	5/8×2 1/4	2.61	**PAFG405/90X-A**	275	275
1 1/2	38	1 7/8-12	33.0	37	26	36.5	79.3	70	16.7	M 16×55	5/8×2 1/4	2.49	**PAFG405/90X-B**	210	210

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

** DB = 13.3 for UNC Bolts
*** DB = 12 for UNC Bolts

*Please add the **suffixes** below according to the material/surface required.

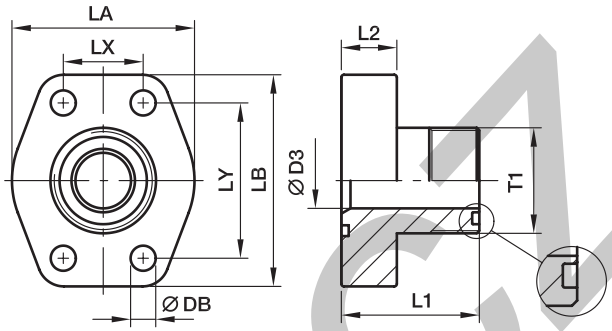
Stainless steel parts may have dimensional deviations.
Additional information on request.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PAFG080/90X-ACF	PAFG080/90X-ACFM	PAFG080/90X-ACFU	NBR
Stainless steel	SS	PAFG080/90X-ASS	PAFG080/90X-ASSM	–	VIT

KOVAI-CI

PAFG-L SAE Straight 4 bolt flange with O-Lok® ORFS end

SAE Flange / O-Lok® ORFS end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D3	L1	L2	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	**11/16-16UN**	6.0	37	16	47	56	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.24	**PAFG080L-A**	348	348
1/2	13	**13/16-16UN**	9.0	39	16	47	56	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.25	**PAFG080L-B**	348	348
1/2	13	**1-14UN**	12.0	42	16	47	56	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.27	**PAFG080L-C**	348	348
3/4	19	**1-14UN**	12.0	45	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.44	**PAFG100L-A**	348	348
3/4	19	**1 3/16-12UN**	15.0	47	18	50	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.46	**PAFG100L-B**	348	348
1	25	**1 3/16-12UN**	15.0	49	18	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.53	**PAFG102L-A**	348	348
1	25	**1 7/16-12UN**	20.0	49	18	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.54	**PAFG102L-B**	348	348
1 1/4	32	**1 7/16-12UN**	20.0	53	21	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.80	**PAFG104L-A**	278	278
1 1/4	32	**1 11/16-12UN**	26.0	53	21	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.83	**PAFG104L-B**	278	278
1 1/2	38	**1 11/16-12UN**	26.0	61	24	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.34	**PAFG106L-A**	210	210
1 1/2	38	**2-12UN**	32.0	61	24	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.20	**PAFG106L-B**	210	210

6000 PSI Series

1/2	13	**11/16-16UN**	6.0	38	16	47	57	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.25	**PAFG401L-A**	420	420
1/2	13	**13/16-16UN**	9.0	40	16	47	57	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.27	**PAFG401L-B**	420	420
1/2	13	**1-14UN**	12.5	43	16	47	57	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.28	**PAFG401L-C**	420	420
3/4	19	**1-14UN**	12.5	47	18	53	72	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.49	**PAFG402L-A**	420	420
3/4	19	**1 3/16-12UN**	15.0	49	18	53	72	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.51	**PAFG402L-B**	420	420
1	25	**1 3/16-12UN**	15.0	56	21	68	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.75	**PAFG403L-A**	420	420
1	25	**1 7/16-12UN**	20.0	56	21	68	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.77	**PAFG403L-B**	420	420
1 1/4	32	**1 7/16-12UN**	20.0	61	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.15	**PAFG404L-A**	345	345
1 1/4	32	**1 7/16-12UN**	20.0	61	24	78	94	31.8	66.6	13.3	M 12×50	–	1.15	**PAFG404/12L-A**	345	345
1 1/4	32	**1 11/16-12UN**	26.0	61	24	78	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.15	**PAFG404L-B**	345	345
1 1/4	32	**1 11/16-12UN**	26.0	61	24	78	94	31.8	66.6	13.3	M 12×50	–	1.15	**PAFG404/12L-B**	345	345
1 1/2	38	**1 11/16-12UN**	26.0	65	27	90	106	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.66	**PAFG405L-A**	310	310
1 1/2	38	**2-12UN**	32.0	67	27	90	106	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.75	**PAFG405L-B**	310	310

**DB = 13.3 for UNC Bolts
***DB = 12 for UNC Bolts

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

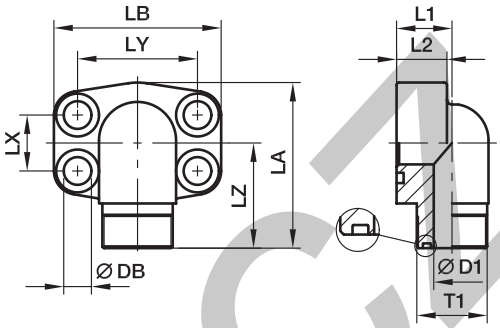
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PAFG080L-ACF	PAFG080L-ACFM	PAFG080L-ACFU	NBR
Stainless steel	SS	PAFG080L-ASS	PAFG080L-ASSM	–	VIT

KOMATSU

PAFG-90L SAE 90° 4 bolt flange with O-Lok® ORFS end

SAE 90° Flange / O-Lok® ORFS end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	L1	L2	LX	LY	LZ	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	**11/16-16UN**	6.5	17	16	17.5	38.1	37.0	8.9	M 08×30	5/16×1 1/4	0.31	**PAFG080/90L-A**	348	348
1/2	13	**13/16-16UN**	9.5	17	16	17.5	38.1	39.0	8.9	M 08×30	5/16×1 1/4	0.31	**PAFG080/90L-B**	348	348
1/2	13	**1-14UN**	12.5	20	16	17.5	38.1	36.5	8.9	M 08×30	5/16×1 1/4	0.31	**PAFG080/90L-C**	348	348
3/4	19	**1-14UN**	12.5	20	18	22.3	47.6	44.0	10.6	M 10×35	3/8×1 1/2	0.56	**PAFG100/90L-A**	348	348
3/4	19	**1 3/16-12UN**	15.5	25	24	22.3	47.6	45.0	10.6	M 10×35	3/8×1 1/2	0.60	**PAFG100/90L-B**	348	348
1	25	**1 3/16-12UN**	15.5	25	22	26.2	52.4	48.0	10.6	M 10×35	3/8×1 1/2	0.73	**PAFG102/90L-A**	348	348
1	25	**1 7/16-12UN**	20.5	31	19	26.2	52.4	42.5	10.6	M 10×35	3/8×1 1/2	0.64	**PAFG102/90L-B**	348	348
1 1/4	32	**1 7/16-12UN**	20.5	31	22	30.2	58.7	55.0	10.6***	M 10×40	7/16×1 1/2	1.15	**PAFG104/90L-A**	278	278
1 1/4	32	**1 11/16-12UN**	26.5	31	22	30.2	58.7	55.0	10.6***	M 10×40	7/16×1 1/2	1.08	**PAFG104/90L-B**	278	278
1 1/2	38	**1 11/16-12UN**	26.5	36	25	35.7	69.9	59.0	13.3	M 12×45	1/2×1 3/4	1.66	**PAFG106/90L-A**	210	210
1 1/2	38	**2-12UN**	32.5	37	25	35.7	69.9	61.0	13.3	M 12×45	1/2×1 3/4	1.60	**PAFG106/90L-B**	210	210

6000 PSI Series

1/2	13	**11/16-16UN**	16.0	17	16	18.2	40.5	37.0	8.9	M 08×30	5/16×1 1/4	0.33	**PAFG401/90L-A**	420	420
1/2	13	**13/16-16UN**	16.0	17	16	18.2	40.5	39.0	8.9	M 08×30	5/16×1 1/4	0.33	**PAFG401/90L-B**	420	420
1/2	13	**1-14UN**	16.0	20	16	18.2	40.5	40.0	8.9	M 08×30	5/16×1 1/4	0.33	**PAFG401/90L-C**	420	420
3/4	19	**1-14UN**	19.0	20	19	23.8	50.8	48.0	10.6	M 10×35	3/8×1 1/2	0.70	**PAFG402/90L-A**	420	420
3/4	19	**1 3/16-12UN**	19.0	25	19	23.8	50.8	50.0	10.6	M 10×35	3/8×1 1/2	0.73	**PAFG402/90L-B**	420	420
1	25	**1 3/16-12UN**	24.0	25	24	27.8	57.2	54.0	13.3***	M 12×45	7/16×1 1/2	0.96	**PAFG403/90L-A**	420	420
1	25	**1 7/16-12UN**	24.0	31	24	27.8	57.2	55.0	13.3***	M 12×45	7/16×1 1/2	1.14	**PAFG403/90L-B**	420	420
1 1/4	32	**1 7/16-12UN**	25.0	31	25	31.8	66.6	59.0	15.0**	M 14×50	1/2×1 3/4	1.76	**PAFG404/90L-A**	420	420
1 1/4	32	**1 7/16-12UN**	25.0	31	25	31.8	66.6	59.0	13.3	M 12×50	–	1.76	**PAFG404/12/90L-A**	420	420
1 1/4	32	**1 11/16-12UN**	25.0	31	25	31.8	66.6	59.0	15.0**	M 14×50	1/2×1 3/4	1.71	**PAFG404/90L-B**	345	345
1 1/4	32	**1 11/16-12UN**	25.0	31	25	31.8	66.6	59.0	13.3	M 12×50	–	1.71	**PAFG404/12/90L-B**	345	345
1 1/2	38	**1 11/16-12UN**	26.0	37	26	36.5	79.3	64.0	16.7	M 16×55	5/8×2 1/4	2.69	**PAFG405/90L-A**	345	345
1 1/2	38	**2-12UN**	26.0	37	26	36.5	79.3	66.0	16.7	M 16×55	5/8×2 1/4	2.50	**PAFG405/90L-B**	310	310

** DB = 13.3 for UNC Bolts
***DB = 12 for UNC Bolts
[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$

Stainless steel parts may have dimensional deviations. Additional information on request.

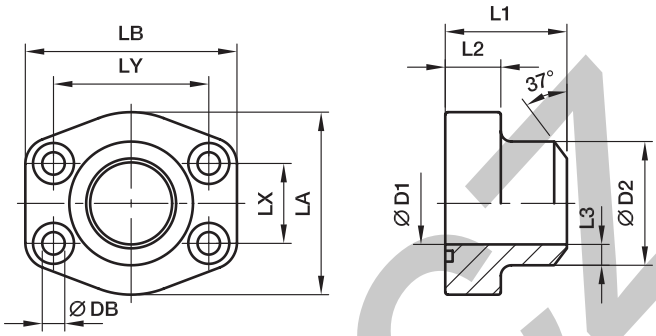
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PAFG080/90L-ACF	PAFG080/90L-ACFM	PAFG080/90L-ACFU	NBR
Stainless steel	SS	PAFG080/90L-ASS	PAFG080/90L-ASSM	–	VIT

KONAMCI

PAFS-B SAE Straight 4 bolt flange (butt weld)

SAE Flange / Butt weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	max.	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	21.3	13	21.6	36	16	4.3	46	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.28	**PAFS080B**	345	345
3/4	19	26.9	19	27.2	36	18	4.1	49	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.36	**PAFS100B**	345	345
1	25	33.7	25	34.5	38	18	4.7	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.46	**PAFS102B**	345	345
1 1/4	32	42.4	31	42.8	41	21	5.9	69	81	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.69	**PAFS104B**	276	276
1 1/2	38	48.3	38	48.6	44	25	5.3	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.01	**PAFS106B**	207	207
2	51	60.3	50	61.0	45	25	5.5	89	103	42.9	77.8	13.3	M 12×45	1/2×1 3/4	1.16	**PAFS108B**	207	207
2 1/2	64	76.1	63	76.6	50	25	6.8	101	115	50.8	88.9	13.3	M 12×45	1/2×1 3/4	1.45	**PAFS110B**	172	172
3	76	88.9	73	89.0	50	27	8.0	124	135	61.9	106.4	16.7	M 16×55	5/8×2 1/4	2.29	**PAFS112B**	138	138
3 1/2	89	101.6	89	103.0	50	27	7.0	134	153	69.9	120.7	16.7	M 16×55	5/8×2 1/4	2.80	**PAFS114B**	34	34
4	102	114.3	99	115.0	50	27	8.0	147	163	77.8	130.2	16.7	M 16×55	5/8×2 1/4	3.30	**PAFS116B**	34	34
5	127	140.0	120	141.0	50	28	10.5	180	184	92.1	152.4	16.7	M 16×55	5/8×2 1/4	4.50	**PAFS118B**	34	34

6000 PSI Series

1/2	13	17.2	10	17.5	36	16	3.7	46	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.28	**PAFS401B38**	420	420
1/2	13	21.3	13	21.6	36	16	4.3	46	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.28	**PAFS401B**	420	420
3/4	19	26.9	18	27.2	36	18	4.6	53	72	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.48	**PAFS402B**	420	420
1	25	33.7	22	34.5	44	24	6.3	68	81	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.80	**PAFS403B**	420	420
1 1/4	32	42.4	28	42.8	44	27	7.4	78	95	31.8	66.6	15.0***	M 14×50	1/2×1 3/4	1.17	**PAFS404B**	420	420
1 1/4	32	42.4	28	42.8	44	27	7.4	78	95	31.8	66.6	13.3	M 12×50	–	1.17	**PAFS404/12B**	420	420
1 1/2	38	48.3	32	48.6	51	30	8.3	89	106	36.5	79.4	16.7	M 16×55	5/8×2 1/4	1.60	**PAFS405B**	420	420
2	51	60.3	41	61.0	70	37	10.0	116	135	44.5	96.8	20.6	M 20×70	3/4×2 3/4	3.50	**PAFS406B**	420	420
2 1/2	64	76.1	50	76.6	75	45	13.0	150	166	58.7	123.8	25.0	M 24×90	–	6.25	**PAFS407B**	420	420
3	76	88.9	58	90.0	90	55	16.0	178	208	71.4	152.4	32.0	M 30×110	–	12.25	**PAFS408B**	420	420

** DB = 13.3 for UNC Bolts
***DB = 12 for UNC Bolts
[1] Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

Stainless steel parts may have dimensional deviations. Additional information on request.

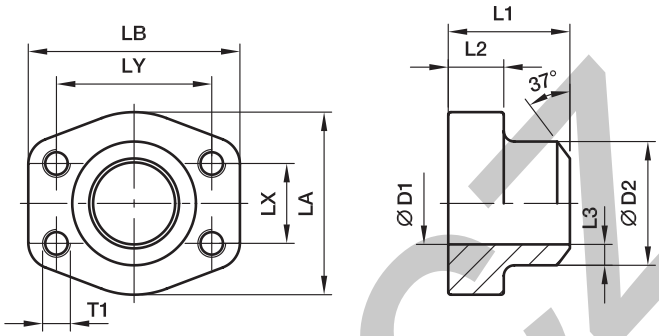
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PAFS080BS	PAFS080BSM	PAFS080BSU	NBR
Stainless steel	SS	PAFS080BSS	PAFS080BSSM	–	VIT

KOVAFCZ

PGFS-B SAE Straight 4 bolt counter flange (butt weld)

SAE Counter flange / Butt weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	max.	D1	D2	L1	L2	L3	LA	LB	LX	LY	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	21.3	13	21.6	36	16	4.3	47	57	17.5	38.1	M08	5/16	0.28	**PGFS080B**	345	345
3/4	19	26.9	19	27.2	36	18	4.1	49	66	22.3	47.6	M10	3/8	0.38	**PGFS100B**	345	345
1	25	33.7	25	34.5	38	18	4.7	53	71	26.2	52.4	M10	3/8	0.48	**PGFS102B**	345	345
1 1/4	32	42.4	31	42.8	41	21	5.9	69	80	30.2	58.7	M10	7/16	0.74	**PGFS104B**	276	276
1 1/2	38	48.3	38	48.6	44	25	5.3	77	94	35.7	69.9	M12	1/2	1.05	**PGFS106B**	207	207
2	51	60.3	50	61.0	45	25	5.5	89	103	42.9	77.8	M12	1/2	1.21	**PGFS108B**	207	207
2 1/2	64	76.1	63	76.6	50	25	6.8	101	115	50.8	88.9	M12	1/2	1.52	**PGFS110B**	172	172
3	76	88.9	73	89.0	50	27	8.0	124	135	61.9	106.4	M16	5/8	2.34	**PGFS112B**	138	138
3 1/2	89	101.6	89	103.0	50	27	7.0	134	153	69.9	120.7	M16	5/8	3.04	**PGFS114B**	34	34
4	102	114.3	99	115.0	50	27	8.0	147	163	77.8	130.2	M16	5/8	3.36	**PGFS116B**	34	34
5	127	140.0	120	141.0	50	28	10.5	180	184	92.1	152.4	M16	5/8	4.55	**PGFS118B**	34	34

6000 PSI Series

1/2	13	17.2	10	17.5	36	16	3.7	47	57	18.2	40.5	M08	5/16	0.29	**PGFS401B38**	420	420
1/2	13	21.3	13	21.6	36	16	4.3	47	57	18.2	40.5	M08	5/16	0.29	**PGFS401B**	420	420
3/4	19	26.9	18	27.2	36	19	4.6	53	71	23.8	50.8	M10	3/8	0.52	**PGFS402B**	420	420
1	25	33.7	22	34.5	44	24	6.3	66	82	27.8	57.2	M12	7/16	0.85	**PGFS403B**	420	420
1 1/4	32	42.4	28	42.8	44	27	7.4	78	95	31.8	66.6	M14	1/2	1.23	**PGFS404B**	420	420
1 1/4	32	42.4	28	42.8	44	27	7.4	78	95	31.8	66.6	M12	–	1.23	**PGFS404/12B**	420	420
1 1/2	38	48.3	32	48.6	51	30	8.3	89	106	36.5	79.3	M16	5/8	1.71	**PGFS405B**	420	420
2	51	60.3	41	61.0	70	37	10.0	116	135	44.5	96.8	M20	3/4	3.56	**PGFS406B**	420	420
2 1/2	64	76.1	50	76.6	75	45	13.0	150	166	58.7	123.8	M24	–	6.94	**PGFS407B**	420	420
3	76	88.9	58	90.0	90	55	16.0	178	208	71.4	152.4	M30	–	12.60	**PGFS408B**	420	420

[1] Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

Stainless steel parts may have dimensional deviations. Additional information on request.

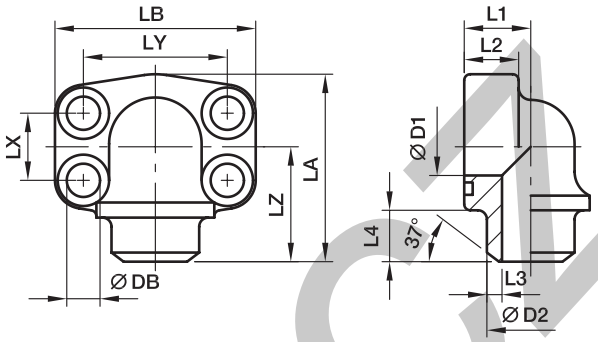
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes				
Material	Suffix surface and material	Example 4 bolt flange with metr. threads	Example 4 bolt flange with UNC threads	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PGFS080BSM	PGFS080BSU	NBR
Stainless steel	SS	PGFS080BSSM	PGFS080BSSU	VIT

KOVAL CZ

PAFS-90B SAE 90° 4 bolt flange (butt weld)

SAE 90° Flange / Butt weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	max.	D1	D2	L1	L2	L3	L4	LX	LY	LZ	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	21.3	13	21.6	18	16	4.3	12	17.5	38.1	40	8.9	M 08×30	5/16×1 1/4	0.31	**PAFS080/90B**	345	345
3/4	19	26.9	19	27.2	22	18	4.1	12	22.3	47.6	41	10.6	M 10×35	3/8×1 1/2	0.48	**PAFS100/90B**	345	345
1	25	33.7	25	34.5	28	19	4.7	13	26.2	52.4	50	10.6	M 10×35	3/8×1 1/2	0.72	**PAFS102/90B**	345	345
1 1/4	32	42.4	31	42.8	30	22	6.0	13	30.2	58.7	57	10.6***	M 10×40	7/16×1 1/2	1.01	**PAFS104/90B**	276	276
1 1/2	38	48.3	38	48.6	36	25	5.3	14	35.7	69.9	66	13.3	M 12×45	1/2×1 3/4	1.32	**PAFS106/90B**	207	207
2	51	60.3	50	61.0	41	25	5.5	15	42.9	77.8	66	13.3	M 12×45	1/2×1 3/4	1.74	**PAFS108/90B**	207	207
2 1/2	64	76.1	60	76.6	50	25	8.0	25	50.8	88.9	77	13.3	M 12×45	1/2×1 3/4	2.79	**PAFS110/90B**	172	172

6000 PSI Series

1/2	13	21.3	13	21.6	18	16	4.3	12	18.2	40.5	40	8.9	M 08×30	5/16×1 1/4	0.31	**PAFS401/90B**	420	420
3/4	19	26.9	18	27.2	28	20	4.6	12	23.8	50.8	50	10.6	M 10×35	3/8×1 1/2	0.76	**PAFS402/90B**	420	420
1	25	33.7	22	34.5	26	24	6.3	13	27.8	57.2	57	13.3***	M 12×45	7/16×1 1/2	0.91	**PAFS403/90B**	420	420
1 1/4	32	42.4	28	42.8	36	25	7.4	13	31.8	66.6	66	15.0**	M 14×50	1/2×1 3/4	1.65	**PAFS404/90B**	420	420
1 1/4	32	42.4	28	42.8	36	25	7.4	13	31.8	66.6	66	13.3*	M 12×50	–	1.65	**PAFS404/12/90B**	420	420
1 1/2	38	48.3	32	48.6	41	26	8.3	15	36.5	79.3	65	16.7	M 16×55	5/8×2 1/4	2.37	**PAFS405/90B**	420	420
2	51	60.3	41	61.0	45	35	10.0	15	44.5	96.8	75	20.6	M 20×70	3/4×2 3/4	4.06	**PAFS406/90B**	420	420

** DB = 13.3 for UNC Bolts
*** DB = 12 for UNC Bolts
[1] Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

Stainless steel parts may have dimensional deviations. Additional information on request.

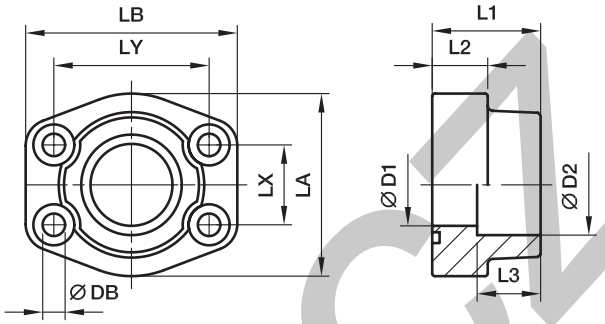
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PAFS080/90BS	PAFS080/90BSM	PAFS080/90BSU	NBR
Stainless steel	SS	PAFS080/90BSS	PAFS080/90BSSM	–	VIT

KOVAK

PAFS-S SAE Straight 4 bolt flange (socket weld)

SAE Flange / Socket weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	max.	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	17.2	13	17.5	36	16	18	47	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.30	**PAFS080S17.5**	345	345
1/2	13	21.3	13	21.6	36	16	18	47	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.28	**PAFS080S21.6**	345	345
3/4	19	26.9	19	27.2	36	18	18	49	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.40	**PAFS100S27.2**	345	345
1	25	33.7	25	34.1	38	18	18	53	70	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.50	**PAFS102S34.1**	345	345
1 1/4	32	42.4	31	42.8	41	21	20	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.72	**PAFS104S42.8**	276	276
1 1/2	38	48.3	38	48.6	44	25	22	77	94	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.08	**PAFS106S48.6**	207	207
2	51	60.3	50	61.0	45	25	24	89	103	42.9	77.8	13.3	M 12×45	1/2×1 3/4	1.16	**PAFS108S61**	207	207
2 1/2	64	76.1	63	76.6	50	25	28	101	115	50.8	88.9	13.3	M 12×45	1/2×1 3/4	1.40	**PAFS110S76.6**	172	172
3	76	88.9	73	90.5	50	27	28	124	135	61.9	106.4	16.7	M 16×55	5/8×2 1/4	2.23	**PAFS112S90.5**	138	138
3 1/2	89	101.6	89	103.0	50	27	28	137	153	69.9	120.7	16.7	M 16×55	5/8×2 1/4	2.92	**PAFS114S103**	34	34
4	102	114.3	99	115.5	50	27	28	147	163	77.8	130.2	16.7	M 16×55	5/8×2 1/4	3.05	**PAFS116S115.5**	34	34
5	127	140.0	120	142.0	50	28	28	180	184	92.1	152.4	16.7	M 16×55	5/8×2 1/4	4.21	**PAFS118S142**	34	34

6000 PSI Series

1/2	13	17.2	13	17.5	36	16	18	47	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.30	**PAFS401S17.5**	420	420
1/2	13	21.3	13	21.6	36	16	18	47	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.29	**PAFS401S21.6**	420	420
3/4	19	26.9	19	27.2	36	19	20	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.53	**PAFS402S27.2**	420	420
1	25	33.7	25	34.1	44	24	22	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.85	**PAFS403S34.1**	420	420
1 1/4	32	42.4	31	42.8	44	27	22	77	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.16	**PAFS404S42.8**	420	420
1 1/4	32	42.4	31	42.8	44	27	22	77	94	31.8	66.6	13.3	M 12×50	–	1.16	**PAFS404/12S42.8**	420	420
1 1/2	38	48.3	38	48.6	51	30	24	89	106	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.65	**PAFS405S48.6**	420	420
2	51	60.3	50	61.0	70	37	25	116	135	44.5	96.8	20.6	M 20×70	3/4×2 3/4	3.63	**PAFS406S61**	420	420
2 1/2	64	76.1	63	76.6	75	45	28	150	166	58.7	123.8	25.0	M 24×90	–	6.77	**PAFS407S76.6**	420	420
3	76	88.9	73	90.5	90	55	30	178	208	71.4	152.4	32.0	M 30×110	–	12.38	**PAFS408S90.5**	420	420

** DB = 13.3 for UNC Bolts
*** DB = 12 for UNC Bolts
[1] Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

Stainless steel parts may have dimensional deviations. Additional information on request.

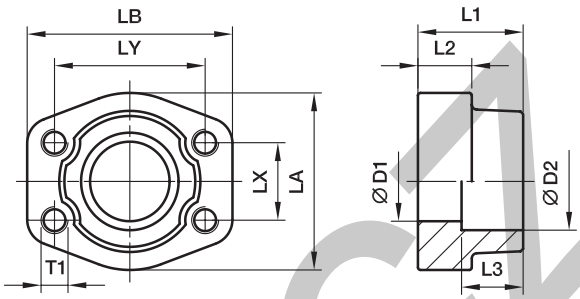
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PAFS080S17.5S	PAFS080S17.5SM	PAFS080S17.5SU	NBR
Stainless steel	SS	PAFS080S17.5SS	PAFS080S17.5SSM	–	VIT

KOMATSU

PGFS-S SAE Straight counter 4 bolt flange (socket weld)

SAE Counter flange / Socket weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	max.	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	17.2	13	17.5	36	16	18	47	58	17.5	38.1	8.9	M 8	5/16	0.33	**PGFS080S17.5**	345	345
1/2	13	21.3	13	21.6	36	16	18	47	58	17.5	38.1	8.9	M 8	5/16	0.32	**PGFS080S21.6**	345	345
3/4	19	26.9	19	27.2	36	18	18	49	66	22.3	47.6	10.6	M10	3/8	0.42	**PGFS100S27.2**	345	345
1	25	33.7	25	34.1	38	18	18	53	70	26.2	52.4	10.6	M10	3/8	0.53	**PGFS102S34.1**	345	345
1 1/4	32	42.4	31	42.8	41	21	20	69	80	30.2	58.7	10.6***	M10	7/16	0.77	**PGFS104S42.8**	276	276
1 1/2	38	48.3	38	48.6	44	25	22	77	94	35.7	69.9	13.3	M12	1/2	1.14	**PGFS106S48.6**	207	207
2	51	60.3	50	61.0	45	25	24	89	103	42.9	77.8	13.3	M12	1/2	1.22	**PGFS108S61**	207	207
2 1/2	64	76.1	63	76.6	50	25	28	101	115	50.8	88.9	13.3	M12	1/2	1.50	**PGFS110S76.6**	172	172
3	76	88.9	73	90.5	50	27	28	124	135	61.9	106.4	16.7	M16	5/8	2.30	**PGFS112S90.5**	138	138
3 1/2	89	101.6	89	103.0	50	27	28	137	153	69.9	120.7	16.7	M16	5/8	2.64	**PGFS114S103**	34	34
4	102	114.3	99	115.5	50	27	28	147	163	77.8	130.2	16.7	M16	5/8	3.11	**PGFS116S115.5**	34	34
5	127	140.0	120	142.0	50	28	28	180	184	92.1	152.4	16.7	M16	5/8	4.31	**PGFS118S142**	34	34

6000 PSI Series

1/2	13	17.2	13	17.5	36	16	18	47	58	18.2	40.5	8.9	M 8	5/16	0.33	**PGFS401S17.5**	420	420
1/2	13	21.3	13	21.6	36	16	18	47	58	18.2	40.5	8.9	M 8	5/16	0.30	**PGFS401S21.6**	420	420
3/4	19	26.9	19	27.2	36	19	20	53	71	23.8	50.8	10.6	M10	3/8	0.57	**PGFS402S27.2**	420	420
1	25	33.7	25	34.1	44	24	22	66	80	27.8	57.2	13.3***	M12	7/16	0.89	**PGFS403S34.1**	420	420
1 1/4	32	42.4	31	42.8	44	27	22	77	94	31.8	66.6	15.0**	M14	1/2	1.22	**PGFS404S42.8**	420	420
1 1/4	32	42.4	31	42.8	44	27	22	77	94	31.8	66.6	13.3	M12	–	1.22	**PGFS404/12S42.8**	420	420
1 1/2	38	48.3	38	48.6	51	30	24	89	106	36.5	79.3	16.7	M16	5/8	1.78	**PGFS405S48.6**	420	420
2	51	60.3	50	61.0	70	37	25	116	135	44.5	96.8	20.6	M20	3/4	3.76	**PGFS406S61**	420	420
2 1/2	64	76.1	63	76.6	75	45	28	150	166	58.7	123.8	25.0	M24	–	7.28	**PGFS407S76.6**	420	420
3	76	88.9	73	90.5	90	55	30	178	208	71.4	152.4	30.0	M30	–	12.60	**PGFS408S90.5**	420	420

** DB = 13.3 for UNC Bolts
*** DB = 12 for UNC Bolts
[1] Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

Stainless steel parts may have dimensional deviations. Additional information on request.

*Please add the **suffixes** below according to the material/surface required.

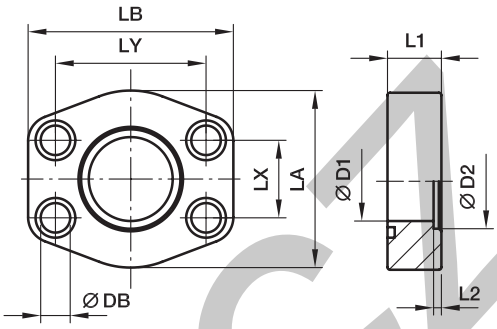
Order code suffixes				
Material	Suffix surface and material	Example 4 bolt flange with metr. threads	Example 4 bolt flange with UNC threads	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PGFS080S17.5SM	PGFS080S17.5SU	NBR
Stainless steel	SS	PGFS080S17.5SSM	PGFS080S17.5SSU	VIT

KOMATSU

PAFSF-S SAE Straight 4 bolt flange flat (socket weld)

SAE Flange / Socket weld tube end
(ISO 6162-1/-2)

only for low pressure applications



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	max.	D1	D2	L1	L2	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	17.2	13	17.5	16	3	47	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.12	**PAFSF080S17.5**	40	40
1/2	13	21.3	13	21.6	16	3	47	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.12	**PAFSF080S21.6**	40	40
3/4	19	21.3	13	21.6	18	4	49	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.20	**PAFSF100S21.6**	40	40
3/4	19	26.9	19	27.2	18	4	49	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.20	**PAFSF100S27.2**	40	40
1	25	26.9	19	27.2	19	4	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.38	**PAFSF102S27.2**	40	40
1	25	33.7	25	34.5	19	4	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.35	**PAFSF102S34.5**	40	40
1 1/4	32	33.7	25	34.5	21	4	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.40	**PAFSF104S34.5**	40	40
1 1/4	32	42.4	31	42.8	21	4	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.56	**PAFSF104S42.8**	40	40
1 1/2	38	42.4	31	42.8	25	4	77	95	35.7	69.9	13.3	M 12×45	1/2×1 3/4	0.94	**PAFSF106S42.8**	40	40
1 1/2	38	48.3	38	48.6	25	4	77	95	35.7	69.9	13.3	M 12×45	1/2×1 3/4	0.88	**PAFSF106S48.6**	40	40
2	51	48.3	38	48.6	25	4	89	103	42.9	77.8	13.3	M 12×45	1/2×1 3/4	1.08	**PAFSF108S48.6**	40	40
2	51	60.3	50	61.0	25	4	89	103	42.9	77.8	13.3	M 12×45	1/2×1 3/4	0.95	**PAFSF108S61.0**	40	40
2 1/2	64	60.3	50	61.0	25	5	101	116	50.8	88.9	13.3	M 12×45	1/2×1 3/4	1.41	**PAFSF110S61.0**	40	40
2 1/2	64	76.1	63	76.6	25	5	101	116	50.8	88.9	13.3	M 12×45	1/2×1 3/4	1.39	**PAFSF110S76.6**	40	40
3	76	76.1	63	76.6	27	5	124	136	61.9	106.4	16.7	M 16×55	5/8×2 1/4	2.12	**PAFSF112S76.6**	30	30
3	76	88.9	73	90.5	27	5	124	136	61.9	106.4	16.7	M 16×55	5/8×2 1/4	1.85	**PAFSF112S90.5**	30	30
3 1/2	89	88.9	73	90.5	27	5	136	152	69.9	120.7	16.7	M 16×55	5/8×2 1/4	2.75	**PAFSF114S90.5**	30	30
3 1/2	89	101.6	89	103.0	27	5	136	152	69.9	120.7	16.7	M 16×55	5/8×2 1/4	2.30	**PAFSF114S103**	30	30
4	102	101.6	89	103.0	27	6	146	162	77.8	130.2	16.7	M 16×55	5/8×2 1/4	2.89	**PAFSF116S103**	30	30
4	102	114.3	99	115.5	24	6	146	162	77.8	130.2	16.7	M 16×55	5/8×2 1/4	2.62	**PAFSF116S115.5**	30	30
5	127	114.3	99	115.5	28	6	180	184	92.1	152.4	16.7	M 16×55	5/8×2 1/4	3.50	**PAFSF118S115.5**	30	30
5	127	140.0	120	142.5	28	6	180	184	92.1	152.4	16.7	M 16×55	5/8×2 1/4	3.42	**PAFSF118S142.5**	30	30
6000 PSI Series																	
1/2	13	17.2	13	17.5	16	4	47	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.25	**PAFSF401S17.5**	40	40
1/2	13	21.3	13	21.6	16	4	47	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.25	**PAFSF401S21.6**	40	40
3/4	19	21.3	13	21.6	19	4	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.50	**PAFSF402S21.6**	40	40
3/4	19	26.9	19	27.2	19	4	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.50	**PAFSF402S27.2**	40	40
1	25	26.9	19	27.2	24	4	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.73	**PAFSF403S27.2**	40	40
1	25	33.7	25	34.5	24	4	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.68	**PAFSF403S34.5**	40	40
1 1/4	32	33.7	25	34.5	27	4	77	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.40	**PAFSF404S34.5**	40	40
1 1/4	32	33.7	25	34.5	27	4	77	94	31.8	66.6	13.3	M 12×50	–	1.40	**PAFSF404/12S34.5**	40	40
1 1/4	32	42.4	31	42.8	27	4	77	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.35	**PAFSF404S42.8**	40	40
1 1/4	32	42.4	31	42.8	27	4	77	94	31.8	66.6	13.3	M 12×50	–	1.35	**PAFSF404/12S42.8**	40	40
1 1/2	38	42.4	31	42.8	30	4	89	103	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.30	**PAFSF405S42.8**	40	40
1 1/2	38	48.3	38	48.6	30	4	89	103	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.27	**PAFSF405S48.6**	40	40
2	51	48.3	38	48.6	37	4	123	135	44.5	96.8	20.6	M 20×70	3/4×2 3/4	3.03	**PAFSF406S48.6**	40	40
2	51	60.3	50	61.0	37	4	123	135	44.5	96.8	20.6	M 20×70	3/4×2 3/4	2.89	**PAFSF406S61.0**	40	40

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

**DB = 13.3 for UNC Bolts
***DB = 12 for UNC Bolts
[1]) Pressure shown = Item deliverable

*Please add the **suffixes** below according to the material/surface required.

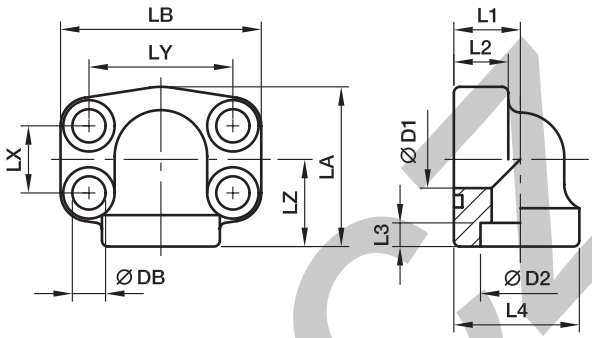
Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PAFSF080S17.5S	PAFSF080S17.5SM	PAFSF080S17.5SU	NBR
Stainless steel	SS	PAFSF080S17.5SS	PAFSF080S17.5SSM	–	VIT

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

Stainless steel parts may have dimensional deviations. Additional information on request.

PAFS-90S SAE 90° 4 bolt flange (socket weld)

SAE 90° Flange / Socket weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	max.	D1	D2	L1	L2	L3	L4	LX	LY	LZ	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	21.3	13	21.6	18	17	5	34.0	17.5	38.1	28	8.9	M 08×30	5/16×1 1/4	0.45	**PAFS080/90S21.6**	345	345
3/4	19	26.9	19	27.2	22	18	5	38.5	22.2	47.6	25	10.6	M 10×35	3/8×1 1/2	0.50	**PAFS100/90S27.2**	345	345
1	25	33.7	25	34.1	28	19	6	44.5	26.2	52.4	28	10.6	M 10×35	3/8×1 1/2	0.55	**PAFS102/90S34.1**	345	345
1 1/4	32	42.4	31	42.8	30	22	7	53.5	30.2	58.7	34	10.6***	M 10×40	7/16×1 1/2	0.88	**PAFS104/90S42.8**	276	276
1 1/2	38	48.3	38	48.6	36	25	8	62.5	35.7	69.9	43	13.3	M 12×45	1/2×1 3/4	1.28	**PAFS106/90S48.6**	207	207
2	51	60.3	50	61.0	41	25	10	77.0	42.9	77.8	50	13.3	M 12×45	1/2×1 3/4	1.72	**PAFS108/90S61**	207	207
2 1/2	64	76.1	60	76.6	50	25	28	85.0	50.8	88.9	77	13.3	M 12×45	1/2×1 3/4	3.11	**PAFS110/90S76.6**	172	172

6000 PSI Series

1/2	13	21.3	13	21.6	18	17	5	34.0	18.2	40.5	28	8.9	M 08×30	5/16×1 1/4	0.35	**PAFS401/90S21.6**	420	420
3/4	19	26.9	19	27.2	28	19	6	44.5	23.8	50.8	28	10.6	M 10×35	3/8×1 1/2	0.76	**PAFS402/90S27.2**	420	420
1	25	33.7	25	34.1	30	24	7	53.5	27.8	57.2	34	13.3***	M 12×50	7/16×1 1/2	0.96	**PAFS403/90S34.1**	420	420
1 1/4	32	42.4	31	42.8	36	25	8	62.5	31.8	66.6	43	15.0**	M 14×45	1/2×1 3/4	1.77	**PAFS404/90S42.8**	420	420
1 1/4	32	42.4	31	42.8	36	25	8	62.5	31.8	66.6	43	13.3	M 12×45	–	1.77	**PAFS404/12/90S42.8**	420	420
1 1/2	38	48.3	38	48.6	41	26	10	77.0	36.5	79.3	50	16.7	M 16×55	5/8×2 1/4	2.24	**PAFS405/90S48.6**	420	420
2	51	60.3	50	61.0	45	35	12	89.0	44.5	96.8	65	20.6	M 20×70	3/4×2 3/4	3.48	**PAFS406/90S61**	420	420

** DB = 13.3 for UNC Bolts
*** DB = 12 for UNC Bolts
[1] Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

Stainless steel parts may have dimensional deviations. Additional information on request.

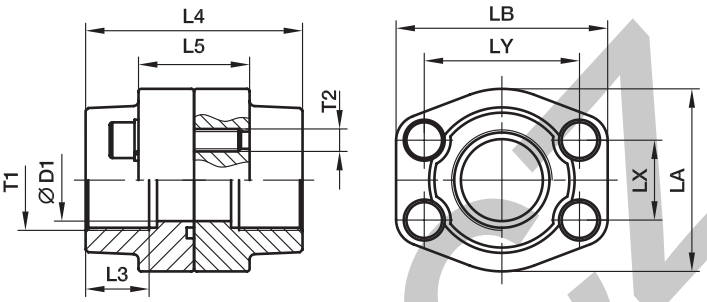
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only 4 bolt flange	Example 4 bolt flange incl. metr. bolts and O-ring	Example 4 bolt flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PAFS080/90S21.6S	PAFS080/90S21.6SM	PAFS080/90S21.6SU	NBR
Stainless steel	SS	PAFS080/90S21.6SS	PAFS080/90S21.6SSM	–	VIT

KOVAL

PDFS-G SAE Straight 4 bolt flange connection

SAE Flange / Female BSPP thread
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	L3	L4	L5	LA	LB	LX	LY	T2 (metr.)	T2 (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	**G 3/8**	13	19	72	32	47	57	17.5	38.1	M 8	5/16	0.71	**PDFS080G38**	345	345
1/2	13	**G 1/2**	13	19	72	32	47	57	17.5	38.1	M 8	5/16	0.67	**PDFS080G**	345	345
3/4	19	**G 3/4**	19	19	72	36	49	66	22.3	47.6	M10	3/8	0.97	**PDFS100G**	345	345
1	25	**G 1**	25	19	76	36	53	71	26.2	52.4	M10	3/8	1.13	**PDFS102G**	345	345
1 1/4	32	**G 1 1/4**	31	22	82	42	69	80	30.2	58.7	M10	7/16	1.63	**PDFS104G**	276	276
1 1/2	38	**G 1 1/2**	38	24	88	48	77	94	35.7	69.9	M12	1/2	2.49	**PDFS106G**	207	207
2	51	**G 2**	50	26	90	48	89	103	42.9	77.8	M12	1/2	2.68	**PDFS108G**	207	207
2 1/2	64	**G 2 1/2**	63	30	100	48	101	115	50.8	88.9	M12	1/2	3.22	**PDFS110G**	172	172
3	76	**G 3**	73	34	100	53	124	135	61.9	106.4	M16	5/8	3.10	**PDFS112G**	138	138
3 1/2	89	**G 3 1/2**	89	27	100	54	136	152	69.9	120.7	M16	5/8	4.20	**PDFS114G**	34	34
4	102	**G 4**	99	30	100	54	146	162	77.8	130.2	M16	5/8	6.76	**PDFS116G**	34	34
5	127	**G 5**	120	30	100	54	180	184	92.1	152.4	M16	5/8	7.00	**PDFS118G**	34	34

6000 PSI Series

1/2	13	**G 3/8**	13	19	72	32	47	57	18.2	40.5	M 8	5/16	0.68	**PDFS401G38**	420	420
1/2	13	**G 1/2**	13	19	72	32	47	57	18.2	40.5	M 8	5/16	0.68	**PDFS401G**	420	420
3/4	19	**G 3/4**	19	22	72	38	53	71	23.8	50.8	M10	3/8	1.23	**PDFS402G**	420	420
1	25	**G 1**	25	24	88	48	69	80	27.8	57.2	M12	7/16	1.98	**PDFS403G**	420	420
1 1/4	32	**G 1 1/4**	31	25	88	54	77	94	31.8	66.6	M14	1/2	2.71	**PDFS404G**	420	420
1 1/4	32	**G 1 1/4**	31	25	88	54	77	94	31.8	66.6	M12	–	2.71	**PDFS404/12G**	420	420
1 1/2	38	**G 1 1/2**	38	28	102	60	89	106	36.5	79.3	M16	5/8	4.25	**PDFS405G**	420	420
2	51	**G 2**	50	33	140	74	116	135	44.5	96.8	M20	3/4	8.10	**PDFS406G**	420	420
2 1/2	64	**G 2 1/2**	63	35	150	90	150	166	58.7	123.8	M24	–	15.66	**PDFS407G**	420	420
3	76	**G 3**	73	40	180	110	178	208	71.4	152.4	M30	–	20.00	**PDFS408G**	420	420

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

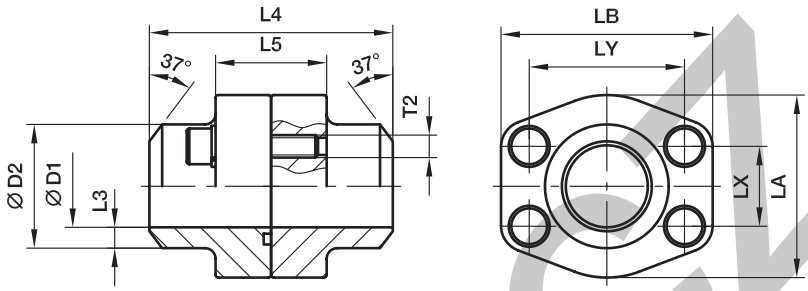
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes				
Material	Suffix surface and material	Example 4 bolt flange coupling incl. metr. bolts and O-ring	Example 4 bolt flange coupling incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PDFS080GCF	PDFS080GCFU	NBR
Stainless steel	SS	PDFS080GSS	–	VIT

KOVACI

PDFS-B SAE Straight 4 bolt flange connection (butt weld)

SAE Flange / Butt weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	max.	D1	D2	L3	L4	L5	LA	LB	LX	LY	T2 (metr.)	T2 (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	21.3	13	21.6	4.3	72	32	47	57	17.5	38.1	M 8	5/16	0.64	**PDFS080B**	345	345
3/4	19	26.9	19	27.2	4.1	72	36	49	66	22.3	47.6	M10	3/8	0.85	**PDFS100B**	345	345
1	25	33.7	25	34.5	4.7	76	36	53	71	26.2	52.4	M10	3/8	1.05	**PDFS102B**	345	345
1 1/4	32	42.4	31	42.8	6.0	82	42	69	80	30.2	58.7	M10	7/16	1.55	**PDFS104B**	276	276
1 1/2	38	48.3	38	48.6	5.3	88	48	77	94	35.7	69.9	M12	1/2	2.31	**PDFS106B**	207	207
2	51	60.3	50	61.0	5.5	90	48	89	103	42.9	77.8	M12	1/2	2.64	**PDFS108B**	207	207
2 1/2	64	76.1	63	76.6	6.8	100	48	101	115	50.8	88.9	M12	1/2	3.32	**PDFS110B**	172	172
3	76	88.9	73	89.0	8.0	100	53	124	135	61.9	106.4	M16	5/8	5.18	**PDFS112B**	138	138
3 1/2	89	101.6	89	103.0	7.0	100	54	137	153	69.9	120.7	M16	5/8	6.00	**PDFS114B**	34	34
4	102	114.3	99	115.0	8.0	100	54	147	163	77.8	130.2	M16	5/8	7.31	**PDFS116B**	34	34
5	127	140.0	120	141.0	10.5	100	54	180	184	92.1	152.4	M16	5/8	9.18	**PDFS118B**	34	34

6000 PSI Series

1/2	13	17.2	10	17.5	3.7	72	32	47	57	18.2	40.5	M 8	5/16	0.63	**PDFS401B38**	420	420
1/2	13	21.3	13	21.6	4.3	72	32	47	57	18.2	40.5	M 8	5/16	0.64	**PDFS401B**	420	420
3/4	19	26.9	18	27.2	4.6	72	38	53	71	23.8	50.8	M10	3/8	1.34	**PDFS402B**	420	420
1	25	33.7	22	34.5	6.3	88	48	66	80	27.8	57.2	M12	7/16	1.86	**PDFS403B**	420	420
1 1/4	32	42.4	28	42.8	7.4	88	54	77	94	31.8	66.5	M14	1/2	2.81	**PDFS404B**	420	420
1 1/4	32	42.4	28	42.8	7.4	88	54	77	94	31.8	66.5	M12	–	2.81	**PDFS404/12B**	420	420
1 1/2	38	48.3	32	48.6	8.3	102	60	89	106	36.5	79.3	M16	5/8	3.84	**PDFS405B**	420	420
2	51	60.3	41	61.0	10.0	140	74	116	135	44.5	96.8	M20	3/4	8.10	**PDFS406B**	420	420
2 1/2	64	76.1	50	76.6	13.0	150	90	150	166	58.7	123.8	M24	–	14.72	**PDFS407B**	420	420
3	76	88.9	58	90.0	16.0	180	110	178	208	71.4	152.4	M30	–	27.80	**PDFS408B**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

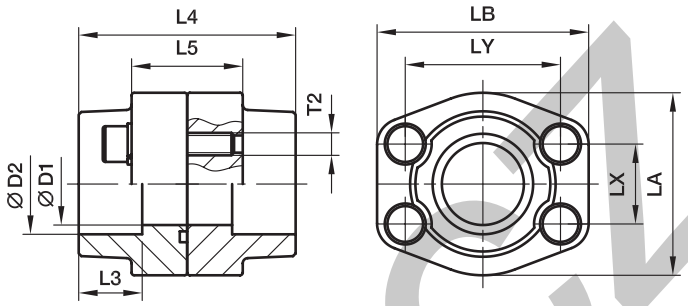
Stainless steel parts may have dimensional deviations. Additional information on request.

*Please add the **suffixes** below according to the material/surface required.

Order code suffixes				
Material	Suffix surface and material	Example 4 bolt flange coupling incl. metr. bolts and O-ring	Example 4 bolt flange coupling incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PDFS080BS	PDFS080BSU	NBR
Stainless steel	SS	PDFS080BSS	–	VIT

PDFS-S SAE Straight 4 bolt flange connection (socket weld)

SAE Flange / Socket weld tube end
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	ISO (DN)	max.	D1	D2	L3	L4	L5	LA	LB	LX	LY	T2 (metr.)	T2 (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	17.2	13	17.5	18	72	36	47	57	17.5	38.1	M 8	5/16	0.70	**PDFS080S17.5**	345	345
1/2	13	21.3	13	21.6	18	72	36	47	57	17.5	38.1	M 8	5/16	0.67	**PDFS080S21.6**	345	345
3/4	19	26.9	19	27.2	18	72	36	49	66	22.3	47.6	M10	3/8	1.00	**PDFS100S27.2**	345	345
1	25	33.7	25	34.1	18	76	36	53	71	26.2	52.4	M10	3/8	1.13	**PDFS102S34.1**	345	345
1 1/4	32	42.4	31	42.8	20	82	42	69	80	30.2	58.7	M10	7/16	1.63	**PDFS104S42.8**	276	276
1 1/2	38	48.3	38	48.6	22	88	48	77	94	35.7	69.9	M12	1/2	2.47	**PDFS106S48.6**	207	207
2	51	60.3	50	61.0	24	90	48	89	103	42.9	77.8	M12	1/2	2.60	**PDFS108S61**	207	207
2 1/2	64	76.1	63	76.6	28	100	48	101	116	50.8	88.9	M12	1/2	3.21	**PDFS110S76.6**	172	172
3	76	88.9	73	90.5	28	100	53	124	135	61.9	106.4	M16	5/8	5.08	**PDFS112S90.5**	138	138
3 1/2	89	101.6	89	103.0	28	100	54	137	153	69.9	120.7	M16	5/8	5.91	**PDFS114S103**	34	34
4	102	114.3	99	115.5	28	100	54	147	163	77.8	130.2	M16	5/8	6.50	**PDFS116S115.5**	34	34
5	127	140.0	120	142.0	28	100	54	180	184	92.1	152.4	M16	5/8	8.62	**PDFS118S142**	34	34

6000 PSI Series

1/2	13	17.2	13	17.5	18	72	32	47	57	18.2	40.5	M 8	5/16	0.66	**PDFS401S17.5**	420	420
1/2	13	21.3	13	21.6	18	72	32	47	57	18.2	40.5	M 8	5/16	0.60	**PDFS401S21.6**	420	420
3/4	19	26.9	19	27.2	20	72	38	53	71	23.8	50.8	M10	3/8	1.14	**PDFS402S27.2**	420	420
1	25	33.7	25	34.1	22	88	48	66	80	27.8	57.2	M12	7/16	1.78	**PDFS403S34.1**	420	420
1 1/4	32	42.4	31	42.8	22	88	54	77	94	31.8	66.6	M14	1/2	2.44	**PDFS404S42.8**	420	420
1 1/4	32	42.4	31	42.8	22	88	54	77	94	31.8	66.6	M12	–	2.44	**PDFS404/12S42.8**	420	420
1 1/2	38	48.3	38	48.6	24	102	60	89	106	36.5	79.3	M16	5/8	3.54	**PDFS405S48.6**	420	420
2	51	60.3	50	61.0	25	140	74	116	135	44.5	96.8	M20	3/4	7.52	**PDFS406S61**	420	420
2 1/2	64	76.1	63	76.6	28	150	90	150	166	58.7	123.8	M24	–	14.56	**PDFS407S76.6**	420	420
3	76	88.9	73	90.5	30	180	110	178	208	71.4	152.4	M30	–	25.20	**PDFS408S90.5**	420	420

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

Stainless steel parts may have dimensional deviations. Additional information on request.

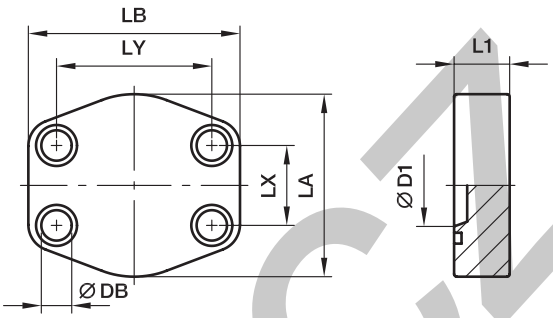
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes				
Material	Suffix surface and material	Example 4 bolt flange coupling incl. metr. bolts and O-ring	Example 4 bolt flange coupling incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PDFS080S17.5S	PDFS080S17.5SU	NBR
Stainless steel	SS	PDFS080S17.5SS	–	VIT

KOMATSU

PCFF SAE Closed flange

SAE Closed flange
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	D1	L1	LA	LB	LX	LY	DB	Bolts (metr.)	Bolts (unc.)	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1/2	13	13	16	47	58	17.5	38.1	8.9	M 08×30	5/16×1 1/4	0.25	**PCFF32**	345	345
3/4	19	16	18	49	66	22.3	47.6	10.6	M 10×35	3/8×1 1/2	0.36	**PCFF33**	345	345
1	25	25	19	53	71	26.2	52.4	10.6	M 10×35	3/8×1 1/2	0.43	**PCFF34**	345	345
1 1/4	32	25	21	69	80	30.2	58.7	10.6***	M 10×40	7/16×1 1/2	0.71	**PCFF35**	276	276
1 1/2	38	34	25	77	95	35.7	69.9	13.3	M 12×45	1/2×1 3/4	1.11	**PCFF36**	207	207
2	51	43	25	89	103	42.9	77.8	13.3	M 12×45	1/2×1 3/4	1.38	**PCFF38**	207	207
2 1/2	64	61	25	101	116	50.8	88.9	13.3	M 12×45	1/2×1 3/4	1.77	**PCFF310**	172	172
3	76	58	27	124	136	61.9	106.4	16.7	M 16×55	5/8×2 1/4	2.72	**PCFF312**	138	138
3 1/2	89	73	27	136	152	69.9	120.7	16.7	M 16×55	5/8×2 1/4	3.77	**PCFF314**	34	34
4	102	87	27	146	162	77.8	130.2	16.7	M 16×55	5/8×2 1/4	4.20	**PCFF316**	34	34
5	127	127	25	180	184	92.1	152.4	16.7	M 16×55	5/8×2 1/4	6.42	**PCFF320**	34	34

6000 PSI Series

1/2	13	13	16	47	58	18.2	40.5	8.9	M 08×30	5/16×1 1/4	0.25	**PCFF62**	420	420
3/4	19	20	19	53	71	23.8	50.8	10.6	M 10×35	3/8×1 1/2	0.46	**PCFF63**	420	420
1	25	25	24	66	80	27.8	57.2	13.3***	M 12×45	7/16×1 1/2	0.78	**PCFF64**	420	420
1 1/4	32	25	27	77	94	31.8	66.6	15.0**	M 14×50	1/2×1 3/4	1.17	**PCFF65**	420	420
1 1/4	32	25	27	77	94	31.8	66.6	13.3	M 12×50	–	1.17	**PCFF65/12**	420	420
1 1/2	38	34	30	89	107	36.5	79.3	16.7	M 16×55	5/8×2 1/4	1.62	**PCFF66**	420	420
2	51	46	37	116	135	44.5	96.8	20.6	M 20×70	3/4×2 3/4	3.40	**PCFF68**	420	420
2 1/2	64	56	45	150	166	58.7	123.8	25.0	M 24×90	–	6.77	**PCFF610**	420	420
3	76	81	55	178	208	71.4	152.4	32.0	M 30×110	–	12.36	**PCFF612**	420	420

** DB = 13.3 for UNC Bolts
***DB = 12 for UNC Bolts
[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

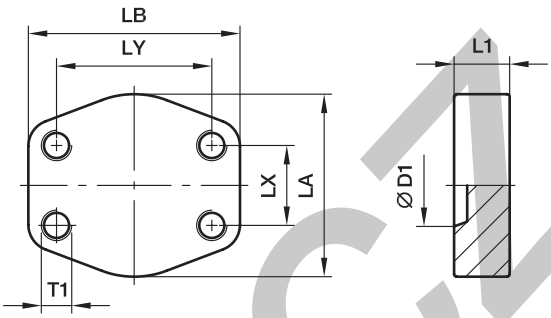
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes					
Material	Suffix surface and material	Example only closed flange	Example closed flange incl. metr. bolts and O-ring	Example closed flange incl. UNC bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PCFF32CF	PCFF32CFM	PCFF32CFU	NBR
Stainless steel	SS	PCFF32SS	PCFF32SSM	–	VIT

KOVACI

PCCFF SAE Closed counter flange

SAE Closed counter flange
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size								T1		Weight (steel)		PN (bar)[1]	
SAE (in.)	ISO (DN)	D1	L1	LA	LB	LX	LY	(metr.)	(unc.)	kg/piece	Order code*	S	SS
1/2	13	13	16	47	58	17.5	38.1	M 8	5/16	0.26	**PCCFF32**	345	345
3/4	19	16	18	49	66	22.3	47.6	M10	3/8	0.37	**PCCFF33**	345	345
1	25	25	19	53	71	26.2	52.4	M10	3/8	0.45	**PCCFF34**	345	345
1 1/4	32	25	21	69	80	30.2	58.7	M10	7/16	0.73	**PCCFF35**	276	276
1 1/2	38	34	25	77	95	35.7	69.9	M12	1/2	1.50	**PCCFF36**	207	207
2	51	43	25	89	103	42.9	77.8	M12	1/2	1.40	**PCCFF38**	207	207
2 1/2	64	61	25	101	116	50.8	88.9	M12	1/2	1.83	**PCCFF310**	172	172
3	76	60	27	124	136	61.9	106.4	M16	5/8	2.80	**PCCFF312**	138	138
3 1/2	89	73	27	136	152	69.9	120.7	M16	5/8	3.68	**PCCFF314**	34	34
4	102	87	27	146	162	77.8	130.2	M16	5/8	4.10	**PCCFF316**	34	34
5	127	127	25	180	184	92.1	152.4	M16	5/8	6.40	**PCCFF320**	34	34

6000 PSI Series

1/2	13	13	16	47	58	18.2	40.5	M 8	5/16	0.30	**PCCFF62**	420	420
3/4	19	20	19	53	71	23.8	50.8	M10	3/8	0.49	**PCCFF63**	420	420
1	25	25	24	66	80	27.8	57.2	M12	7/16	0.82	**PCCFF64**	420	420
1 1/4	32	25	27	77	94	31.8	66.6	M14	1/2	1.22	**PCCFF65**	420	420
1 1/4	32	25	27	77	94	31.8	66.6	M12	–	1.22	**PCCFF65/12**	420	420
1 1/2	38	34	30	89	103	36.5	79.3	M16	5/8	1.69	**PCCFF66**	420	420
2	51	46	37	123	135	44.5	96.8	M20	3/4	3.48	**PCCFF68**	420	420
2 1/2	64	56	45	150	166	58.7	123.8	M24	–	7.08	**PCCFF610**	420	420
3	76	71	55	178	208	71.4	152.4	M30	–	12.67	**PCCFF612**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

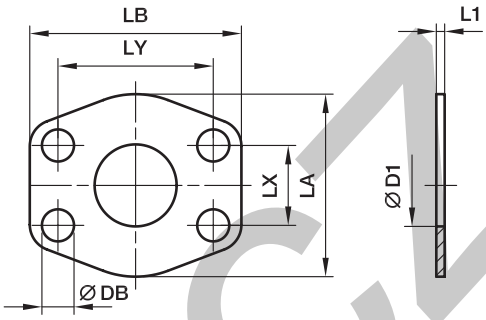
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes				
Material	Suffix surface and material	Example closed flange with metr. threads	Example closed flange with UNC threads	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	PCCF32CFM	PCCFF32CFU	NBR
Stainless steel	SS	PCCFF32SSM	PCCFF32SSU	VIT

KOVACI

CPM SAE Flange connector plate

ISO 6162-1/-2



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	D1	L1	LA	LB	LX	LY	DB	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF	PN (bar)[1] SS
1/2	13	13	3	47	57	17.5	38.1	9.0	0.05	**8CPM1**	345	345
3/4	19	19	3	49	66	22.3	47.6	11.0	0.05	**12CPM1**	345	345
1	25	25	3	53	71	26.2	52.4	11.0	0.07	**16CPM1**	345	345
1 1/4	32	32	3	69	80	30.2	58.7	11.5	0.09	**20CPM1**	276	276
1 1/2	38	38	3	77	95	35.7	69.9	13.5	0.12	**24CPM1**	207	207
2	51	51	3	89	103	42.9	77.8	13.5	0.13	**32CPM1**	207	207
2 1/2	64	63	3	101	116	50.8	88.9	13.5	0.15	**40CPM1**	172	172
3	76	73	4	124	136	61.9	106.4	17.0	0.29	**48CPM1**	138	138
3 1/2	89	89	4	136	152	69.9	120.7	17.0	0.34	**56CPM1**	34	34
4	102	99	4	146	162	77.8	130.2	17.0	0.46	**64CPM1**	34	34
5	127	120	4	180	184	92.1	152.4	17.0	0.50	**80CPM1**	34	34

6000 PSI Series

1/2	13	13	4	47	57	18.2	40.5	9.0	0.08	**8CPM2**	420	420
3/4	19	17	4	53	71	23.8	50.8	11.0	0.11	**12CPM2**	420	420
1	25	24	4	66	80	27.8	57.2	13.0	0.14	**16CPM2**	420	420
1 1/4	32	31	4	77	94	31.8	66.6	15.0	0.20	**20CPM2**	420	420
1 1/2	38	38	4	89	103	36.5	79.3	17.0	0.24	**24CPM2**	420	420
2	51	51	4	123	135	44.5	96.8	21.0	0.30	**32CPM2**	420	420
2 1/2	64	63	4	150	166	58.7	123.8	25.0	0.50	**40CPM2**	420	420
3	76	73	4	178	208	71.4	152.4	32.0	0.73	**48CPM2**	420	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

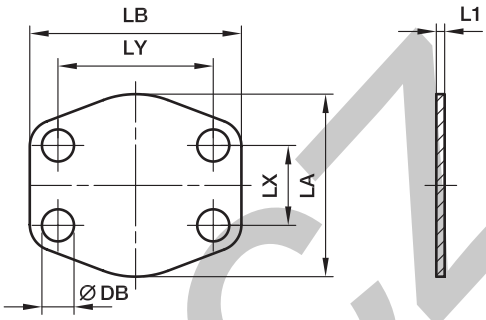
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	8CPM1CF	only connector plate
Stainless steel	SS	8CPM1SS	only connector plate

KOVAL.CZ

AP SAE Flange locking plate

ISO 6162-1/-2



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	L1	LA	LB	LX	LY	DB	Weight (steel) kg/piece	Order code*	PN (bar) CF	PN (bar) SS
1/2	13	3	47	57	17.5	38.1	9.0	0.05	**8AP1**	–	–
3/4	19	3	49	66	22.3	47.6	11.0	0.06	**12AP1**	–	–
1	25	3	59	71	26.2	52.4	11.0	0.07	**16AP1**	–	–
1 1/4	32	3	69	80	30.2	58.7	11.5	0.10	**20AP1**	–	–
1 1/2	38	3	77	95	35.7	69.9	13.5	0.15	**24AP1**	–	–
2	51	3	97	103	42.9	77.8	13.5	0.19	**32AP1**	–	–
2 1/2	64	3	109	116	50.8	89.9	13.5	0.22	**40AP1**	–	–
3	76	4	131	136	61.9	106.4	17.0	0.40	**48AP1**	–	–
3 1/2	89	4	136	152	69.9	102.7	17.0	0.53	**56AP1**	–	–
4	102	4	146	162	77.8	130.2	17.0	0.61	**64AP1**	–	–
5	127	4	181	184	92.1	152.4	17.0	0.86	**80AP1**	–	–

6000 PSI Series

1/2	13	4	48	57	18.2	40.5	9.0	0.02	**8AP2**	–	–
3/4	19	4	60	71	23.8	50.8	11.0	0.10	**12AP2**	–	–
1	25	4	70	81	27.8	57.2	13.0	0.12	**16AP2**	–	–
1 1/4	32	4	78	95	31.8	66.6	15.0	0.17	**20AP2**	–	–
1 1/2	38	4	95	113	36.5	79.4	17.0	0.22	**24AP2**	–	–
2	51	4	117	135	44.5	96.8	21.0	0.36	**32AP2**	–	–
2 1/2	64	4	150	176	58.7	123.8	25.0	0.58	**40AP2**	–	–
3	76	4	178	210	71.4	152.4	32.0	0.86	**48AP2**	–	–

This flange locking plate is not used under pressure.

Stainless steel parts may have dimensional deviations. Additional information on request.

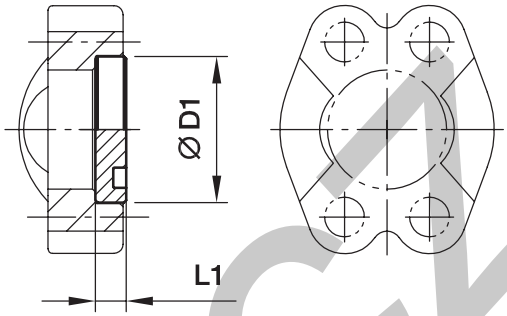
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	8AP1CF	only locking plate
Stainless steel	SS	8AP1SS	only locking plate

KOVAZ.CZ

PFMQ Flange head plug flat

(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	D1	L1	Weight (steel) kg/piece	O-ring face Order code*	PN (bar)[1] CF
1/2	30.2	6.8	0.03	**8PFMQ1**	210
3/4	38.1	6.8	0.05	**12PFMQ1**	210
1	44.5	8.0	0.09	**16PFMQ1**	210
1 1/4	50.8	8.0	0.12	**20PFMQ1**	210
1 1/2	60.3	8.0	0.17	**24PFMQ1**	160
2	71.4	9.6	0.29	**32PFMQ1**	200
2 1/2	84.1	9.6	0.39	**40PFMQ1**	–
3	101.6	9.6	0.58	**48PFMQ1**	–
3 1/2	114.3	11.3	0.86	**56PFMQ1**	–
4	127.0	11.3	1.09	**64PFMQ1**	–
5	152.4	11.3	1.96	**80PFMQ1**	–

6000 PSI Series

1/2	31.8	7.8	0.04	**8PFMQ2**	250
3/4	41.3	8.8	0.09	**12PFMQ2**	250
1	47.6	9.5	0.13	**16PFMQ2**	250
1 1/4	54.0	10.3	0.18	**20PFMQ2**	250
1 1/2	63.5	12.6	0.30	**24PFMQ2**	250
2	79.4	12.6	0.48	**32PFMQ2**	250
2 1/2	107.7	20.5	1.44	**40PFMQ2**	–
3	131.7	26.0	2.75	**48PFMQ2**	–

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Flange head plug in stainless steel on request.

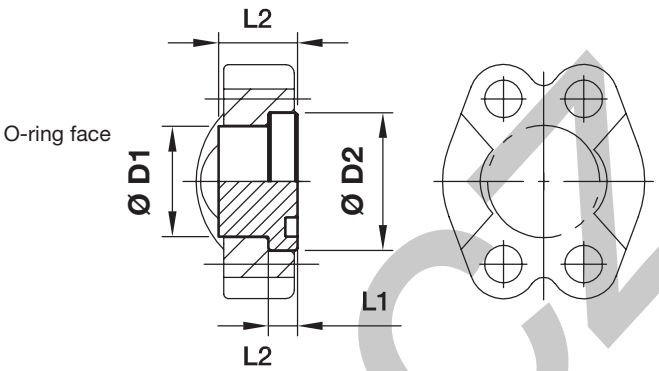
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	8PFMQ1CF	only flange head plug

KOVAZ.CZ

PMQ Flange head plug

(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	D1	D2	L1	L2	Weight (steel) kg/piece	O-ring face Order code	Flat face Order code	PN (bar)[1] CF
1/2	24.0	30.2	6.8	16	0.06	**8PMQ1**	**8PCMQ1**	350
3/4	31.8	38.1	6.8	17	0.12	**12PMQ1**	**12PCMQ1**	350
1	38.0	44.5	8.0	17	0.16	**16PMQ1**	**16PCMQ1**	315
1 1/4	43.0	50.8	8.0	17	0.22	**20PMQ1**	**20PCMQ1**	250
1 1/2	50.0	60.3	8.0	19	0.33	**24PMQ1**	**24PCMQ1**	200
2	62.0	71.4	9.6	19	0.51	**32PMQ1**	**32PCMQ1**	200
2 1/2	74.0	84.1	9.6	40	1.42	**40PMQ1**	**40PCMQ1**	160
3	90.0	101.6	9.6	45	2.35	**48PMQ1**	**48PCMQ1**	138
3 1/2	102.0	114.3	11.3	30	2.62	**56PMQ1**	**56PCMQ1**	35
4	114.5	127.0	11.3	36	3.14	**64PMQ1**	**64PCMQ1**	35
5	140.0	152.4	11.3	45	5.12	**80PMQ1**	**80PCMQ1**	35

6000 PSI Series

1/2	24.0	31.8	7.8	14	0.07	**8PMQ2**	**8PCMQ2**	400
3/4	31.8	41.3	8.8	15	0.12	**12PMQ2**	**12PCMQ2**	400
1	38.0	47.6	9.5	16	0.18	**16PMQ2**	**16PCMQ2**	400
1 1/4	44.0	54.0	10.3	16	0.24	**20PMQ2**	**20PCMQ2**	400
1 1/2	50.8	63.5	12.6	19	0.40	**24PMQ2**	**24PCMQ2**	400
2	67.0	79.4	12.6	30	0.95	**32PMQ2**	**32PCMQ2**	400
2 1/2	89.0	108.0	21.2	45	2.67	**40PMQ2**	**40PCMQ2**	400
3	114.3	132.0	26.5	55	5.11	**48PMQ2**	**48PCMQ2**	400

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Flange head plug in stainless steel on request.

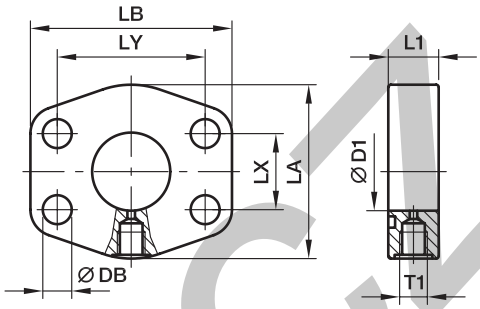
Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	8PMQ1CF	only flange head plug

KOVA.cz

PAGL-(G/M) SAE 4 bolt flange with test point port

SAE Flange with test point port
(ISO 6162-1/-2)



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	T1	D1	L1	LA	LB	LX	LY	DB	Weight (steel) kg/piece	Order code*	PN (bar)[1] S	PN (bar)[1] SS
1	25	**G 1/4**	25	22	53	71	26.2	52.4	10.6	0.43	**PAGL102G14**	348	348
1	25	**M 10×1.0**	25	19	53	71	26.2	52.4	10.6	0.50	**PAGL102M10**	348	348
1 1/4	32	**G 1/4**	31	20	69	82	30.2	58.7	10.6	0.56	**PAGL104G14**	278	278
1 1/4	32	**M 10×1.0**	31	20	69	82	30.2	58.7	10.6	0.55	**PAGL104M10**	278	278
1 1/2	38	**G 1/4**	38	25	77	94	35.7	69.9	13.3	0.86	**PAGL106G14**	210	210
1 1/2	38	**M 10×1.0**	38	25	77	94	35.7	69.9	13.3	0.90	**PAGL106M10**	210	210
2	51	**G 1/4**	50	25	89	103	42.9	77.8	13.3	0.95	**PAGL108G14**	210	210
2	51	**M 10×1.0**	50	25	89	103	42.9	77.8	13.3	0.96	**PAGL108M10**	210	210
2 1/2	64	**G 1/4**	63	25	101	115	50.8	88.9	13.3	1.21	**PAGL110G14**	175	175
2 1/2	64	**M 10×1.0**	63	25	101	115	50.8	88.9	13.3	1.23	**PAGL110M10**	175	175
3	76	**G 1/4**	73	27	124	135	61.9	106.4	16.7	2.00	**PAGL112G14**	138	138
3	76	**M 10×1.0**	73	27	124	135	61.9	106.4	16.7	2.01	**PAGL112M10**	138	138
3 1/2	89	**G 1/4**	89	27	136	152	69.9	120.7	16.7	2.42	**PAGL114G14**	35	35
3 1/2	89	**M 10×1.0**	89	27	136	152	69.9	120.7	16.7	2.43	**PAGL114M10**	35	35
4	102	**G 1/4**	99	27	146	162	77.8	130.2	16.7	2.73	**PAGL116G14**	35	35
4	102	**M 10×1.0**	99	27	146	162	77.8	130.2	16.7	2.73	**PAGL116M10**	35	35
5	127	**G 1/4**	120	28	180	184	92.1	152.4	16.7	3.76	**PAGL118G14**	35	35
5	127	**M 10×1.0**	120	28	180	184	92.1	152.4	16.7	3.76	**PAGL118M10**	35	35

6000 PSI Series

1	25	**G 1/4**	25	22	69	82	27.8	57.2	13.3	0.65	**PAGL403G14**	420	420
1	25	**M 10×1.0**	25	22	69	82	27.8	57.2	13.3	0.65	**PAGL403M10**	420	420
1 1/4	32	**G 1/4**	31	26	79	96	31.8	66.6	15.0	0.95	**PAGL404G14**	420	420
1 1/4	32	**G 1/4**	31	26	79	96	31.8	66.6	13.3	0.95	**PAGL404/12G14**	420	420
1 1/4	32	**M 10×1.0**	31	26	79	96	31.8	66.6	15.0	0.95	**PAGL404M10**	420	420
1 1/4	32	**M 10×1.0**	31	26	79	96	31.8	66.6	13.3	0.95	**PAGL404/12M10**	420	420
1 1/2	38	**G 1/4**	38	30	89	108	36.5	79.3	16.7	1.37	**PAGL405G14**	420	420
1 1/2	38	**M 10×1.0**	38	30	89	108	36.5	79.3	16.7	1.37	**PAGL405M10**	420	420
2	51	**G 1/4**	50	36	116	135	44.5	96.8	20.6	2.84	**PAGL406G14**	420	420
2	51	**M 10×1.0**	50	36	116	135	44.5	96.8	20.6	2.84	**PAGL406M10**	420	420
2 1/2	64	**G 1/4**	63	45	150	166	58.7	123.8	25.0	5.90	**PAGL408G14**	420	420
2 1/2	64	**M 10×1.0**	63	45	150	166	58.7	123.8	25.0	5.90	**PAGL408M10**	420	420
3	76	**G 1/4**	73	55	178	208	71.4	152.4	31.0	8.50	**PAGL410G14**	420	420
3	76	**M 10×1.0**	73	55	178	208	71.4	152.4	31.0	8.50	**PAGL410M10**	420	420

[1] Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

Stainless steel parts may have dimensional deviations. Additional information on request.

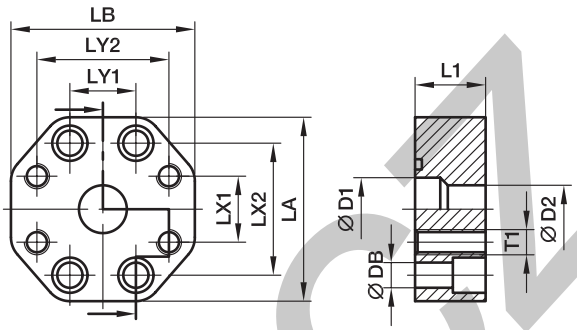
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	PAGL102G14CF	only flange
Stainless steel	SS	PAGL102G14SS	only flange

KOVAL

PRF SAE Straight reducing flange adapter

ISO 6162-1/-2



3000 PSI Series

Nom. flange size SAE (in.)	Nom. flange size ISO (DN)	D1	D2	L1	LA	LB	LX1	LX2	LY1	LY2	DB	Bolts (metr.)	T1	Weight (steel) kg/piece	Order code*	PN (bar)[1] S
1×1	25/25	25	25	28	73	73	26.2	52.4	26.2	52.4	10.6	M 10×30	**M10**	0.75	**PRF102/102**	210
1×3/4	25/19	25	19	28	73	73	22.3	52.4	26.2	47.6	10.6	M 10×30	**M10**	0.76	**PRF102/100**	210
1 1/4×1 1/4	32/32	30	30	28	80	80	30.2	58.7	30.2	58.7	10.6	M 10×30	**M10**	0.83	**PRF104/104**	210
1 1/4×1	32/25	30	25	28	80	71	26.2	58.7	30.2	52.4	10.6	M 10×30	**M10**	0.95	**PRF104/102**	210
1 1/2×1 1/2	38/38	38	38	32	94	94	35.7	69.9	35.7	69.9	13.3	M 12×35	**M12**	1.20	**PRF106/106**	210
1 1/2×1 1/4	38/32	38	30	32	94	80	30.2	69.9	35.7	58.7	13.3	M 12×35	**M10**	1.36	**PRF106/104**	210
2×2	51/51	50	50	33	103	103	42.9	77.8	42.9	77.8	13.3	M 12×35	**M12**	1.56	**PRF108/108**	210
2×1 1/2	51/38	50	38	33	103	94	35.7	77.8	42.9	70.0	13.3	M 12×35	**M12**	1.69	**PRF108/106**	210
2 1/2×2 1/2	64/64	63	63	33	115	115	50.8	88.9	50.8	88.9	13.3	M 12×35	**M12**	2.05	**PRF110/110**	175
2 1/2×2	64/51	63	50	33	115	103	42.9	88.9	50.8	77.8	13.3	M 12×35	**M12**	2.04	**PRF110/108**	175
3×3	76/76	73	73	36	135	135	61.9	106.4	61.9	106.4	16.7	M 16×40	**M16**	2.61	**PRF112/112**	138
3×2 1/2	76/64	73	63	36	135	115	50.8	106.4	61.9	89.0	16.7	M 16×40	**M12**	2.61	**PRF112/110**	138

6000 PSI Series

3/4×3/4	19/19	19	19	28	73	73	23.8	50.8	23.8	50.8	10.6	M 10×30	**M10**	0.80	**PRF402/402**	420
1×1	25/25	25	25	33	80	80	27.8	57.2	27.8	57.2	13.3	M 12×35	**M12**	1.03	**PRF403/403**	420
1×3/4	25/19	25	19	33	80	71	23.8	57.2	27.8	50.8	13.3	M 12×35	**M10**	0.98	**PRF403/402**	420
1 1/4×1 1/4	32/32	30	30	33	94	94	31.8	66.6	31.8	66.6	15.0	M 14×35	**M14**	1.47	**PRF404/404**	420
1 1/4×1 1/4	32/32	30	30	33	94	94	31.8	66.6	31.8	66.6	13.3	M 12×35	**M12**	1.47	**PRF404/12/404/12**	420
1 1/4×1	32/25	30	25	33	94	80	27.8	66.6	31.8	57.2	15.0	M 14×35	**M12**	1.26	**PRF404/403**	420
1 1/4×1	32/25	30	25	33	94	80	27.8	66.6	31.8	57.2	13.3	M 12×35	**M12**	1.26	**PRF404/12/403**	420
1 1/2×1 1/2	38/38	38	38	48	106	106	36.5	79.3	36.5	79.3	16.7	M 16×50	**M16**	1.72	**PRF405/405**	420
1 1/2×1 1/4	38/32	38	30	48	106	94	31.8	79.3	36.5	66.6	16.7	M 16×50	**M14**	2.32	**PRF405/404**	420
1 1/2×1 1/4	38/32	38	30	48	106	94	31.8	79.3	36.5	66.6	16.7	M 16×50	**M12**	2.32	**PRF405/404/12**	420
2×2	51/51	50	50	48	135	135	44.5	96.8	44.5	96.8	20.6	M 20×55	**M20**	4.20	**PRF406/406**	420
2×1 1/2	51/38	50	38	48	135	106	36.5	96.8	44.5	79.3	20.6	M 20×55	**M16**	3.35	**PRF406/405**	420
2 1/2×2	64/51	63	50	53	166	150	44.5	123.8	58.7	96.8	25.0	M 24×60	**M20**	6.40	**PRF408/406**	420
3×2	76/51	73	50	58	208	178	44.5	152.4	71.4	96.8	31.0	M 30×70	**M20**	10.40	**PRF410/406**	420

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Stainless steel parts may have dimensional deviations. Additional information on request.

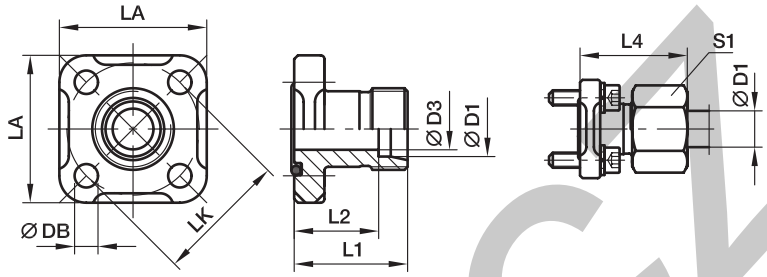
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	PRF102/102CF	only flange
Stainless steel	SS	PRF102/102SS	only flange

KOMATSU

BFG Gear pump flange straight

Hydraulic flange / EO 24° cone end



BFG Straight flange connection EO 24° cone end

LK	D1[2]	D3	L1	L2	L4	LA	S1	DB	Bolts (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
35	10L	8	30	23.0	39.0	40	19	6.4	M 06×22	20×2.5	0.15	**BFG10L/LK35**	315
35	12L	10	30	23.0	39.0	40	22	6.4	M 06×22	20×2.5	0.16	**BFG12L/LK35**	315
35	15L	12	30	23.0	38.0	40	27	6.4	M 06×22	20×2.5	0.19	**BFG15L/LK35**	250
35	16S	12	30	21.5	39.5	40	30	6.4	M 06×22	20×2.5	0.21	**BFG16S/LK35**	315
40	15L	12	35	28.0	43.0	42	27	6.4	M 06×22	26×2.5	0.17	**BFG15L/LK40**	100
40	18L	15	35	27.5	44.0	42	32	6.4	M 06×22	26×2.5	0.22	**BFG18L/LK40**	100
40	22L	19	35	27.5	44.5	42	36	6.4	M 06×22	26×2.5	0.26	**BFG22L/LK40**	100
40	28L	24	42	34.5	51.5	42	41	6.4	M 06×22	26×2.5	0.30	**BFG28L/LK40**	100
55	20S	16	40	29.5	51.0	55	36	8.4	M 08×25	32×2.5	0.49	**BFG20S/LK55**	250
55	25S	21	50	38.0	62.0	55	46	8.4	M 08x25	32x2.5	0.52	**BFG25S/LK55**	250

[1] Pressure shown = Item deliverable

[2] L = light series; S = heavy series

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page M12.

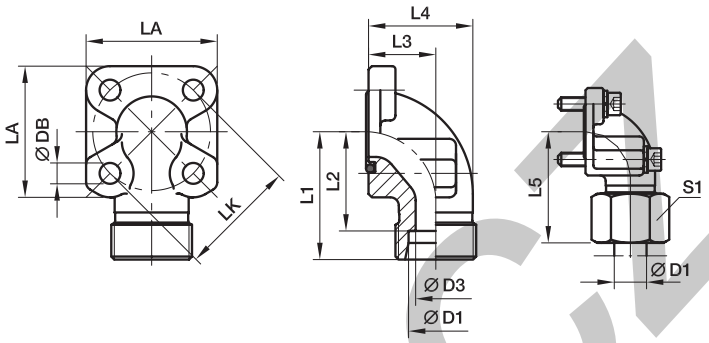
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	BFG16S/LK35OMDCF	NBR

KOVAL.cz

BFW Gear pump flange 90° elbow

Hydraulic flange / EO 24° cone end



BFW 90° Flange connection EO 24° cone end

LK	D1[2]	D3	L1	L2	L3	L4	L5	LA	S1	DB	Bolts 2 pieces (metr.)	Bolts 2 pieces (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
35	10L	8	38	31.0	16.5	26.5	47.0	40	19	6.4	M 06×22	M 06×35	20×2.5	0.23	**BFW10L/LK35**	315
35	12L	10	38	31.0	16.5	26.5	47.0	40	22	6.4	M 06×22	M 06×35	20×2.5	0.26	**BFW12L/LK35**	315
35	15L	12	38	31.0	16.5	26.5	46.0	40	27	6.4	M 06×22	M 06×35	20×2.5	0.26	**BFW15L/LK35**	250
35	16S	12	38	29.5	20.0	31.0	48.0	40	30	6.4	M 06×22	M 06×40	20×2.5	0.30	**BFW16S/LK35**	315
35	20S	16	45	34.5	25.0	38.0	56.0	40	36	6.4	M 06×22	M 06×45	20×2.5	0.40	**BFW20S/LK35**	315
35	22L	19	45	37.5	25.0	38.0	54.5	40	36	6.4	M 06×22	M 06×45	20×2.5	0.25	**BFW22L/LK35**	250
40	15L	12	38	31.0	22.5	36.5	46.0	42	27	6.4	M 06×22	M 06×22	26×2.5	0.23	**BFW15L/LK40**	100
40	18L	15	38	30.5	22.5	36.5	47.0	42	32	6.4	M 06×22	M 06×22	26×2.5	0.30	**BFW18L/LK40**	100
40	22L	19	38	30.5	22.5	36.5	47.5	42	36	6.4	M 06×22	M 06×22	26×2.5	0.30	**BFW22L/LK40**	100
40	28L	22	40	32.5	28.0	43.0	49.0	42	41	6.4	M 06×20	M 06×50	26×2.5	0.40	**BFW28L/LK40**	100
40	35L	31	41	30.5	34.0	55.0	52.0	42	50	6.4	M 06×22	M 06×60	26×2.5	0.35	**BFW35L/LK40**	100
40	20S	16	40	29.5	22.5	35.5	50.0	42	36	6.4	M 06×22	M 06×45	26×2.5	0.35	**BFW20S/LK40**	250
55	35L	31	49	38.5	32.0	51.5	62.0	58	50	8.4	M 08×25	M 08×60	32×2.5	0.74	**BFW35L/LK55**	100
55	42L	38	49	38.0	40.0	64.5	61.0	58	60	8.4	M 08×25	M 08×70	32×2.5	0.60	**BFW42L/LK55**	100
55	20S	17	45	34.5	24.0	38.0	56.0	58	36	8.4	M 08×25	M 08×50	32×2.5	0.64	**BFW20S/LK55**	250
55	25S	20	49	37.0	30.0	46.0	61.0	58	46	8.4	M 08×25	M 08×55	32×2.5	0.80	**BFW25S/LK55**	250
55	30S	26	49	35.5	32.0	50.0	62.0	58	50	8.4	M 08×25	M 08×50	32×2.5	0.81	**BFW30S/LK55**	250

[1] Pressure shown = Item deliverable

[2] L = light series; S = heavy series

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page M12.

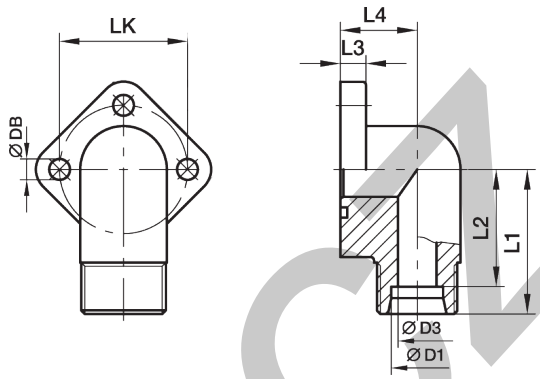
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	BFW16S/LK35OMDCF	NBR

KOVIS.cz

BFW3 Gear pump flange 90° elbow 3 holes

Hydraulic flange / EO 24° cone end



BFW-3 90° Flange connection EO 24° cone end

LK	D1[2]	D3	L1	L2	L3	L4	DB	Bolts (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
30	12L	9	31	24.0	9.0	17.0	6.5	M 06×22	16×2.5	0.20	**BFW3-12L/LK30**	250
30	15L	11	31	24.0	9.0	17.0	6.5	M 06×22	16×2.5	0.22	**BFW3-15L/LK30**	250
30	18L	12	31	23.5	9.0	17.0	6.5	M 06×22	16×2.5	0.25	**BFW3-18L/LK30**	160
40	22L	18	36	28.5	11.5	23.0	8.5	M 08×30	24×2.5	0.44	**BFW3-22L/LK40**	160
40	28L	19	36	28.5	11.5	23.0	8.5	M 08×30	24×2.5	0.45	**BFW3-28L/LK40**	160

[1]) Pressure shown = Item deliverable

[2]) L = light series

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page M12.

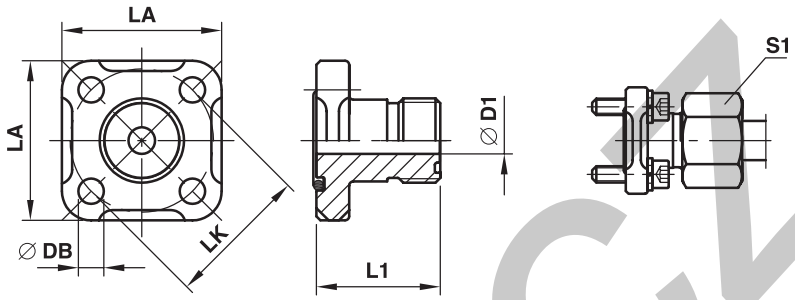
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	BFW3-12L/LK30OMDCF	NBR

KOVAL

BFGL Gear pump flange straight

Hydraulic flange / O-Lok®-connection straight



BFGL Straight flange connection O-Lok® end

LK	D1	S1	Thread UN/UNF T1	L1	LA	DB	Bolts (metr.)	O-ring 1	O-ring 2	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
35	6.5	10L	11/16-16	30	40	6.4	M 06×22	20×2.5	9.25×1.78	0.09	**6BFGL/LK35**	315
35	9.5	12L	13/16-16	30	40	6.4	M 06×22	20×2.5	12.42×1.78	0.10	**8BFGL/LK35**	315
35	12.5	15L	1-14	30	40	6.4	M 06×22	20×2.5	15.60×1.78	0.10	**10BFGL/LK35**	250
40	12.5	15L	1-14	35	42	6.4	M 06×22	26×2.5	15.60×1.78	0.10	**10BFGL/LK40**	100
40	15.5	18L	1 3/16-12	35	42	6.4	M 06×22	26×2.5	18.77×1.78	0.16	**12BFGL/LK40**	100
40	20.5	28L	1 7/16-12	35	42	6.4	M 06×22	26×2.5	23.52×1.78	0.17	**16BFGL/LK40**	100

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

Delivery without nut and ring.
Information on ordering complete fittings or alternative sealing materials see page M12.

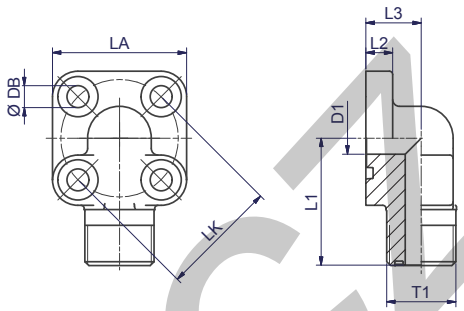
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	6BFGL/LK35OMDCF	NBR

KOVAZ.CZ

BFWL Gear pump flange 90° elbow

Hydraulic flange / O-Lok®-connection – 90°



BFWL-90° O-Lok®-connection

LK	D1	Thread UN/UNF T1	L1	L2	L3	LA	DB	Bolts 2 pieces (metr.)	Bolts 2 pieces (metr.)	O-ring 1	O-ring 2	Weight kg/piece	Order code	PN (bar)[1] CF
35	9.5	13/16-16	38	8	16.5	40	6.5	M 06×22	M 06×35	20×2.5	12.42×1.78	0.16	**8BFWL/LK35**	315
35	12.5	1-14	38	8	20.0	40	6.5	M 06×22	M 06×40	20×2.5	15.60×1.78	0.19	**10BFWL/LK35**	250
40	12.5	1-14	40	8	22.5	42	6.5	M 06×22	M 06×40	26×2.5	15.60×1.78	0.16	**10BFWL/LK40**	100
40	15.5	1 3/16-12	45	8	24.0	42	6.5	M 06×22	M 06×45	26×2.5	18.77×1.78	0.20	**12BFWL/LK40**	250

[1] Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

Material: Steel
– Complete with O-ring and metric bolts
– Single part without accessories

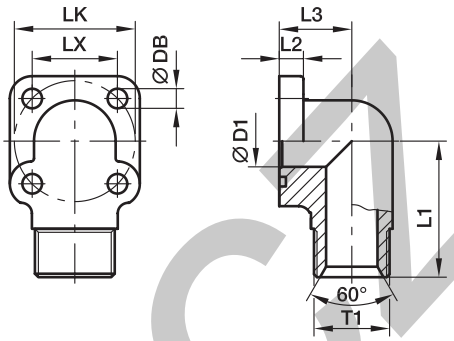
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	6BFW/L/LK35CFM	NBR

KOVAZ.CZ

BFW-G Gear pump flange 90° elbow

Hydraulic flange / BSPP 60° cone end
(ISO 8434-6)



BFW-G 90° BSPP 60° cone end

LK	T1	D1	L1	L2	L3	LX	DB	Bolts 2 pieces (metr.)	Bolts 2 pieces (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
35	**G 3/8**	10	40	8	20.0	24.8	6.5	M 06×20	M 06×35	18.72×2.62	0.20	**BFW-G38/LK35**	315
35	**G 1/2**	12	40	8	16.5	24.8	6.5	M 06×20	M 06×40	18.72×2.62	0.20	**BFW-G12/LK35**	315
35	**G 3/4**	12	40	8	20.0	24.8	6.5	M 06×20	M 06×40	18.72×2.62	0.25	**BFW-G34/LK35**	315
40	**G 3/8**	10	40	8	22.5	28.2	6.5	M 06×20	M 06×40	25.07×2.62	0.32	**BFW-G38/LK40**	250
40	**G 1/2**	12	45	8	24.0	28.2	6.5	M 06×20	M 06×40	25.07×2.62	0.26	**BFW-G12/LK40**	250
40	**G 3/4**	17	45	8	24.0	28.2	6.5	M 06×20	M 06×40	25.07×2.62	0.28	**BFW-G34/LK40**	250
40	**G 1**	19	40	8	28.0	28.2	6.5	M 06×20	M 06×50	25.07×2.62	0.30	**BFW-G1/LK40**	250
55	**G 1/2**	12	49	12	24.0	38.8	8.5	M 08×25	M 08×45	31.42×2.62	0.54	**BFW-G12/LK55**	315
55	**G 3/4**	17	46	12	31.0	38.8	8.5	M 08×25	M 08×60	31.42×2.62	0.48	**BFW-G34/LK55**	315
55	**G 1**	22	52	12	31.0	38.8	8.5	M 08×25	M 08×70	31.42×2.62	0.62	**BFW-G1/LK55**	315

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

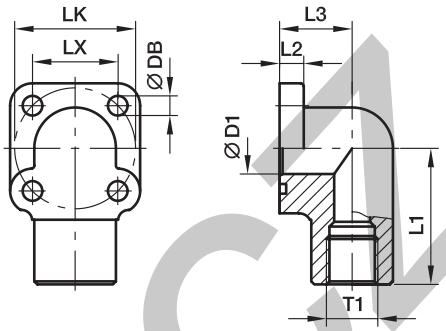
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	BFW-G38/LK35CFM	NBR

KOVACH

BFW-GI Gear pump flange 90° elbow

Hydraulic flange / Female BSPP thread



BFW-GI 90° Female BSPP thread

LK	T1	D1	L1	L2	L3	LX	DB	Bolts 2 pieces (metr.)	Bolts 2 pieces (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
35	**G 3/8**	10	40	8	20.0	24.8	6.5	M 06×20	M 06×35	18.72×2.62	0.22	**BFW-GI38/LK35**	315
35	**G 1/2**	13	40	8	20.0	24.8	6.5	M 06×20	M 06×35	18.72×2.62	0.30	**BFW-GI12/LK35**	315
40	**G 3/8**	10	45	8	24.0	28.2	6.5	M 06×20	M 06×40	25.07×2.62	0.42	**BFW-GI38/LK40**	250
40	**G 1/2**	13	45	8	24.0	28.2	6.5	M 06×20	M 06×40	25.07×2.62	0.42	**BFW-GI12/LK40**	250
40	**G 3/4**	17	45	8	24.0	28.2	6.5	M 06×20	M 06×40	25.07×2.62	0.32	**BFW-GI34/LK40**	250
55	**G 1/2**	13	46	12	24.0	38.8	8.5	M 08×25	M 08×45	31.42×2.62	0.58	**BFW-GI12/LK55**	315
55	**G 3/4**	17	49	12	31.0	38.8	8.5	M 08×25	M 08×60	31.42×2.62	0.69	**BFW-GI34/LK55**	315
55	**G 1**	22	52	12	31.0	38.8	8.5	M 08×25	M 08×70	31.42×2.62	0.81	**BFW-G I1/LK55**	315

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

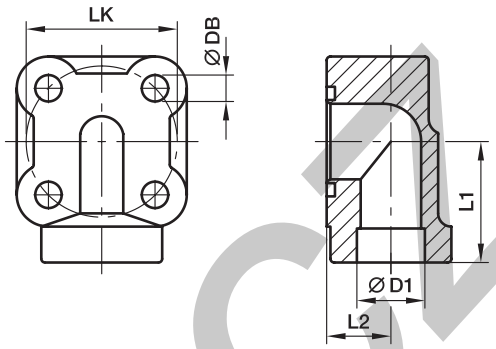
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	BFW-GI38/LK35CFM	NBR

KOVALCA

BFW-S Gear pump flange 90° elbow

Hydraulic flange / Socket weld end



BFW-S 90° Socket weld end

LK	D1	L1	L2	DB	Bolts (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] S
30	12	30	14	7.0	M 06×30	15.88×2.62	0.30	**BFW-S12/LK30/M6**	200
30	12	27	13	8.5	M 08×35	15.88×2.62	0.29	**BFW-S12/LK30/M8**	250
30	14	27	13	6.5	M 06×30	15.88×2.62	0.29	**BFW-S14/LK30/M6**	200
30	14	27	13	8.5	M 08×35	15.88×2.62	0.28	**BFW-S14/LK30/M8**	250
30	16	27	13	6.5	M 06×30	15.88×2.62	0.29	**BFW-S16/LK30/M6**	200
30	16	27	13	8.5	M 08×35	15.88×2.62	0.28	**BFW-S16/LK30/M8**	250
30	18	27	13	6.5	M 06×30	15.88×2.62	0.27	**BFW-S18/LK30/M6**	200
35	14	30	12	6.5	M 06×35	18.72×2.62	0.40	**BFW-S14/LK35/M6**	200
35	14	30	14	8.5	M 08×40	18.72×2.62	0.39	**BFW-S14/LK35/M8**	250
35	16	30	12	6.5	M 06×35	18.72×2.62	0.27	**BFW-S16/LK35/M6**	200
35	16	30	14	8.5	M 08×40	18.72×2.62	0.27	**BFW-S16/LK35/M8**	250
35	18	30	14	6.5	M 06×35	18.72×2.62	0.26	**BFW-S18/LK35/M6**	200
35	18	30	14	8.5	M 08×40	18.72×2.62	0.25	**BFW-S18/LK35/M8**	250
35	20	30	14	7.0	M 06×35	18.72×2.62	0.27	**BFW-S20/LK35/M6**	200
40	18	32	17	6.5	M 06×40	23.81×2.62	0.37	**BFW-S18/LK40/M6**	200
40	18	32	17	8.5	M 08×40	23.81×2.62	0.36	**BFW-S18/LK40/M8**	250
40	20	32	17	6.5	M 06×40	23.81×2.62	0.36	**BFW-S20/LK40/M6**	200
40	20	32	17	8.5	M 08×40	23.81×2.62	0.35	**BFW-S20/LK40/M8**	250
40	22	32	17	6.5	M 06×40	23.81×2.62	0.35	**BFW-S22/LK40/M6**	200
40	22	32	17	8.5	M 08×40	23.81×2.62	0.35	**BFW-S22/LK40/M8**	250
40	25	32	17	6.5	M 06×40	23.81×2.62	0.34	**BFW-S25/LK40/M6**	200
40	25	32	17	8.5	M 08×40	23.81×2.62	0.33	**BFW-S25/LK40/M8**	250

[1]) Pressure shown = Item deliverable

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

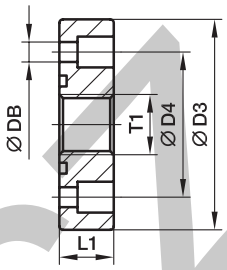
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	BFW-S16/LK30/M6SM	NBR

KOWAL

PF Gear pump flange straight

Hydraulic flange / Female BSPP thread

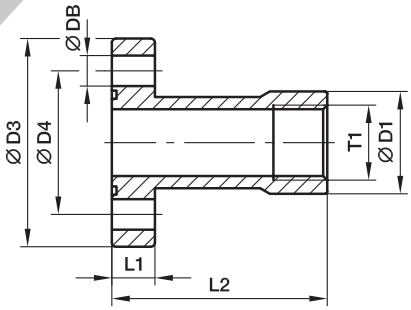


PF

Pump size	LK	T1	D3	D4	L1	DB	Bolts (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
1.0	30.0	**G 3/8**	45	30.0	13	6.5	M 06×16	18.77×1.78	0.15	**PF1**	315
2.0	40.0	**G 1/2**	58	40.0	15	8.5	M 08×20	25.12×1.78	0.29	**PF2**	315
3.0	51.0	**G 3/4**	75	51.0	18	10.5	M 10×25	31.42×2.62	0.58	**PF3**	315
3B	56.0	**G 3/4**	76	56.0	18	10.5	M 10×25	31.42×2.62	0.61	**PF3B**	315
3.5	62.0	**G 1**	88	62.0	20	10.5	M 10×25	39.69×3.53	0.84	**PF3.5**	315
3.5B	62.0	**G 1**	88	62.0	20	12.5	M 12×35	39.69×3.53	0.82	**PF3.5B**	315
4.0	72.5	**G 1 1/4**	98	72.5	22	12.5	M 12×30	47.22×3.53	1.06	**PF4**	315

PFL Gear pump flange straight

Hydraulic flange / Female BSPP thread – long version



PFL

Pump size	LK	T1	D1	D3	D4	L1	L2	DB	Bolts (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
1.0	30.0	**G 3/8**	21.0	45	30.0	10	55	6.5	M 06×20	18.77×1.78	0.20	**PFL1**	315
2.0	40.0	**G 1/2**	26.5	58	40.0	12	60	8.5	M 08×25	25.12×1.78	0.39	**PFL2**	315
3.0	51.0	**G 3/4**	33.5	76	51.0	16	72	10.5	M 10×35	31.42×2.62	0.79	**PFL3**	315
3B	56.0	**G 3/4**	33.5	76	56.0	16	72	10.5	M 10×35	31.42×2.62	0.79	**PFL3.5**	315

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

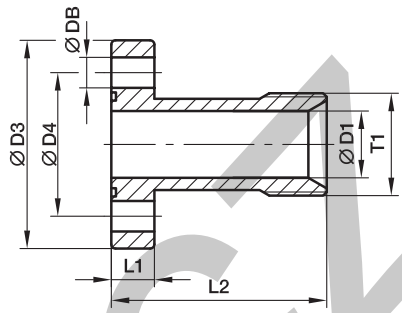
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free **PF**	CF	PF1CFM	NBR
Steel, zinc plated, Cr(VI)-free **PFL**	CF	PFL1CFM	NBR

KOVAL CZ

PFE Gear pump flange straight

Hydraulic flange / BSPP 60° cone end
(ISO 8434-6)

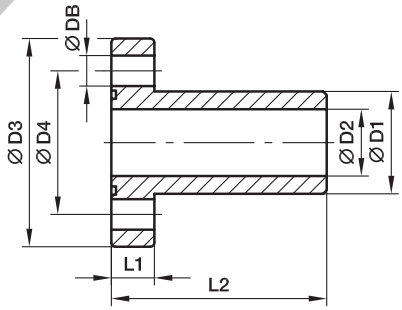


PFE

Pump size	LK	T1	D1	D3	D4	L1	L2	DB	Bolts (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
1.0	30.0	**G 1/2**	14.0	45	30.0	10	55	6.5	M 06×20	18.77×1.78	0.19	**PFE1**	315
2.0	40.0	**G 3/4**	19.0	58	40.0	12	60	8.5	M 08×25	25.12×1.78	0.37	**PFE2**	315
3.0	51.0	**G 1**	24.0	76	51.0	16	72	10.5	M 10×35	31.42×2.62	0.75	**PFE3**	315
3B	56.0	**G 1**	24.0	76	56.0	16	72	10.5	M 10×35	31.42×2.62	0.72	**PFE3.5**	315

PFB Gear pump flange straight

Hydraulic flange / Butt weld tube end



PFB

Pump size	LK	D1	D2	D3	D4	L1	L2	DB	Bolts (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] S
1.0	30.0	19.0	14.0	45	30.0	10	55	6.5	M 06×20	18.77×1.78	0.19	**PFB1**	250
2.0	40.0	25.4	19.0	58	40.0	12	60	8.5	M 08×25	25.12×1.78	0.37	**PFB2**	250
3.0	51.0	32.0	24.5	76	51.0	16	72	10.5	M 10×35	31.42×2.62	0.78	**PFB3**	250
3B	56.0	32.0	24.5	76	56.0	16	72	10.5	M 10×35	31.42×2.62	0.74	**PFB3.5**	250

[1] Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

The pressures (PFB) given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

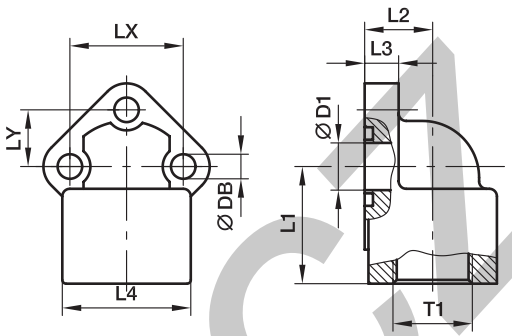
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes				
Material		Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	**PFE**	CF	PFE1CFM	NBR
Steel, blanc oil dipped	**PFB**	S	PFB1SM	NBR

KOVAZ.cz

BFW3-G Gear pump flange 90° elbow 3 holes

Hydraulic flange / Female BSPP thread



PWDS Female BSPP thread

Pump size	LK	T1	D1	L1	L2	L3	L4	LX	LY	DB	Bolts (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] CF
0.5	26.0	3/8	11	31	17	9.0	30	26.0	13.0	5.5	M 05×18	15.60×1.78	0.17	**BFW3-G38/LK26**	315
0.5	26.0	1/2	11	31	17	9.0	30	26.0	13.0	5.5	M 05×18	15.60×1.78	0.18	**BFW3-G12/LK26**	315
1.0	30.0	3/8	12	31	17	9.0	30	30.0	15.0	6.5	M 06×20	15.88×2.62	0.19	**BFW3-G38/LK30**	315
1.0	30.0	1/2	12	31	17	9.0	30	30.0	15.0	6.5	M 06×20	15.88×2.62	0.18	**BFW3-G12/LK30**	315
2.0	40.0	1/2	18	36	23	11.5	36	40.0	20.0	8.5	M 08×25	23.81×2.62	0.37	**BFW3-G12/LK40**	315
2.0	40.0	3/4	19	36	23	11.5	36	40.0	20.0	8.5	M 08×25	23.81×2.62	0.33	**BFW3-G34/LK40**	315
3.0	51.0	3/4	24	46	26	13.0	45	51.0	25.5	10.5	M 10×30	29.75×3.53	0.67	**BFW3-G34/LK51**	315
3.0	51.0	1	24	46	26	13.0	45	51.0	25.5	10.5	M 10×30	29.75×3.53	0.56	**BFW3-G1/LK51**	315
3B	56.0	3/4	24	46	26	13.0	45	56.0	28.0	10.5	M 10×30	29.75×3.53	0.61	**BFW3-G34/LK56**	315
3B	56.0	1	24	46	26	13.0	45	56.0	28.0	10.5	M 10×30	29.75×3.53	0.57	**BFW3-G1/LK56**	315
3.5	62.0	1 1/4	31	55	35	14.0	55	62.0	31.0	10.5	M 10×30	37.69×3.53	0.95	**BFW3-G114/LK62**	315
3.5	62.0	1	25	55	35	14.0	55	62.0	31.0	10.5	M 10×30	37.69×3.53	1.00	**BFW3-G1/LK62**	315
3.5	62.0	1 1/4	31	55	35	14.0	55	62.0	31.0	13.0	M 12×35	37.69×3.53	0.95	**BFW3-G114/LK62/12**	315
3.5	62.0	1	25	55	35	14.0	55	62.0	31.0	13.0	M 12×35	37.69×3.53	1.20	**BFW3-G1/LK62/12**	315
4.0	72.5	1 1/2	38	58	38	15.0	62	72.5	36.2	13.0	M 12×35	47.22×3.53	1.12	**BFW3-G112/LK72.5**	315
4.0	72.5	1 1/4	31	58	38	15.0	62	72.5	36.2	13.0	M 12×35	47.22×3.53	1.14	**BFW3-G114/LK72.5**	315

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

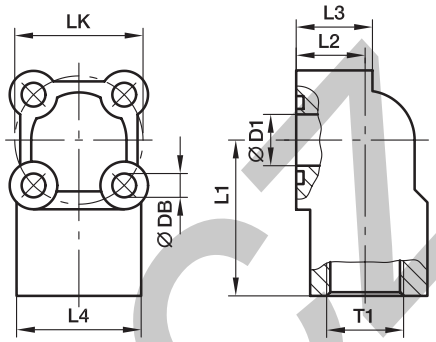
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, zinc plated, Cr(VI)-free	CF	BFW3-G38/LK26CFM	NBR

KOVRAL

PWDS-G Gear pump flange 90° elbow 4 holes – aluminium

Hydraulic flange / Female BSPP thread



PWDS-G 90° Female BSPP thread

LK	T1	D1	L1	L2	L3	L4	DB	Bolts 2 pieces (metr.)	Bolts 2 pieces (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] A
30	**G 3/8**	11.5	39.0	18	20	33	6.5	M 06×30	M 06×40	15.88×2.62	0.14	**PWDS-G38/LK30**	180
30	**G 1/2**	11.5	39.0	18	20	33	6.5	M 06×30	M 06×40	15.88×2.62	0.14	**PWDS-G12/LK30**	180
35	**G 3/8**	14.0	42.5	18	20	34	6.5	M 06×30	M 06×40	18.72×2.62	0.16	**PWDS-G38/LK35**	180
35	**G 1/2**	14.0	42.5	18	20	34	6.5	M 06×30	M 06×40	18.72×2.62	0.15	**PWDS-G12/LK35**	180
40	**G 1/2**	18.0	47.5	24	28	41	6.5	M 06×40	M 06×50	22.22×2.62	0.25	**PWDS-G12/LK40**	180
40	**G 3/4**	18.0	47.5	24	28	41	6.5	M 06×40	M 06×50	22.22×2.62	0.24	**PWDS-G34/LK40**	180
55	**G 3/4**	24.5	54.0	29	31	49	8.5	M 08×45	M 08×60	29.75×3.53	0.45	**PWDS-G34/LK55**	180
55	**G 1**	24.5	54.0	29	31	49	8.5	M 08×45	M 08×60	29.75×3.53	0.43	**PWDS-G1/LK55**	180

[1]) Pressure shown = Item deliverable

$\frac{\text{PN (bar)}}{10}$ = PN (M0Pa)

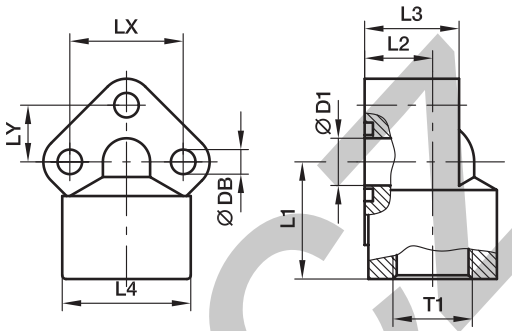
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Aluminium	A	PWDS-G38/LK30AM	NBR

KOVAL CZ

PWDA Gear pump flange 90° elbow 3 holes – aluminium

Hydraulic flange / Female BSPP thread



PWDA 90° Female BSPP thread

Pump size	LK	T1	D1	L1	L2	L3	L4	LX	LY	DB	Bolts (metr.)	O-ring	Weight (steel) kg/piece	Order code*	PN (bar)[1] A
0.5	26	**G 3/8**	10.0	31	18.0	25	31	26	13.0	5.5	M 05×35	14.00×1.78	0.10	**PWDA-05/38**	180
0.5	26	**G 1/2**	10.0	31	18.0	25	31	26	13.0	5.5	M 05×35	14.00×1.78	0.10	**PWDA-05/12**	180
1.0	30	**G 3/8**	12.5	31	18.0	26	34	30	15.0	6.5	M 06×35	15.88×2.62	0.13	**PWDA-1/38**	180
1.0	30	**G 1/2**	12.5	31	18.0	26	34	30	15.0	6.5	M 06×35	15.88×2.62	0.14	**PWDA-1/12**	180
2.0	40	**G 1/2**	18.0	40	21.5	31	42	40	20.0	8.5	M 08×45	22.22×2.62	0.26	**PWDA-2/12**	180
2.0	40	**G 3/4**	18.0	40	21.5	31	42	40	20.0	8.5	M 08×45	22.22×2.62	0.26	**PWDA-2/34**	180
3.0*	51 -56	**G 3/4**	24.5	46	26.0	42	49	51 -56	25.5 –28	11.0	M 10×60	29.75×3.53	0.52	**PWDA-3/34**	180
3.0*	51 -56	**G 1**	24.5	46	26.0	42	49	51 -56	25.5 –28	11.0	M 10×60	29.75×3.53	0.50	**PWDA-3/100**	180

[1]) Pressure shown = Item deliverable

*Oval drill hole

$\frac{\text{PN (bar)}}{10}$ = PN (MPa)

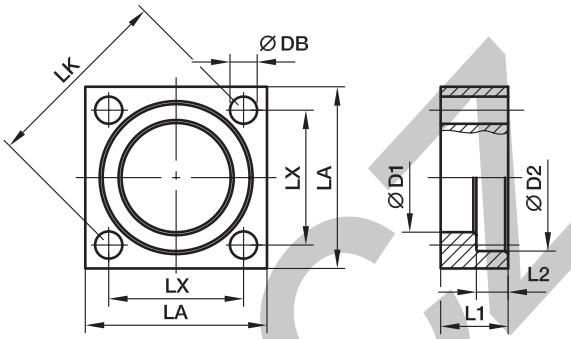
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Aluminium	A	PWDA-05/38AM	NBR

KOVACH

PSFC Square flange

ISO 6164



250 bar Series

Nom. flange size											Weight (steel)		PN (bar)[1]
Series[2]	SAE (in.)	ISO (DN)	LK	D1	D2	L1	L2	LA	LX	DB	kg/piece	Order code*	S
L	3/8	10	35	18.5	25.0	18	6.2	40	24.7	6.6	0.19	**PSFC/L/10**	250
L	1/2	13	42	24.3	31.0	20	6.2	45	29.7	9.0	0.20	**PSFC/L/13**	250
L	3/4	19	50	32.2	38.9	22	6.2	50	35.4	9.0	0.23	**PSFC/L/19**	250
L	1	25	62	38.5	45.3	25	7.5	65	43.8	11.0	0.52	**PSFC/L/25**	250
L	1 1/4	32	73	43.7	51.6	30	7.5	75	51.6	13.5	0.82	**PSFC/L/32**	250
L	1 1/2	38	85	50.8	61.1	36	7.5	90	60.1	17.5	1.40	**PSFC/L/38**	250
L	2	51	98	62.8	72.3	40	9.0	100	69.3	17.5	1.77	**PSFC/L/51**	250
L	2 1/2	56	118	76.6	88.0	45	9.0	120	83.4	22.0	2.75	**PSFC/L/56**	250
L	3	63	145	90.8	102.3	52	9.0	140	102.5	22.0	4.47	**PSFC/L/63**	250
L	4	80	160	114.5	132.0	60	21.0	160	113.5	25.0	6.00	**PSFC/L/80**	250

400 bar Series

S	3/8	10	35	18.5	26.4	18	7.2	40	24.7	6.6	0.17	**PSFC/S/10**	400
S	1/2	13	42	24.7	32.6	20	7.2	45	29.7	9.0	0.20	**PSFC/S/13**	400
S	3/4	19	50	32.5	42.1	22	8.2	50	35.4	9.0	0.23	**PSFC/S/19**	400
S	1	25	62	38.9	48.4	25	9.0	65	43.8	11.0	0.50	**PSFC/S/25**	400
S	1 1/4	32	73	44.6	54.8	30	9.8	75	51.6	13.5	0.78	**PSFC/S/32**	400
S	1 1/2	38	85	51.6	64.3	36	12.0	90	60.1	17.5	1.33	**PSFC/S/38**	400
S	2	51	98	67.6	80.2	40	12.0	100	69.3	17.5	1.59	**PSFC/S/51**	400
S	2 1/2	56	118	80.5	95.0	50	16.1	120	83.4	22.0	2.98	**PSFC/S/56**	400
S	3	63	145	90.5	111.0	52	16.1	150	102.5	26.0	5.70	**PSFC/S/63**	400
S	3 1/2	70	160	102.5	120.0	60	17.5	160	113.1	26.0	6.57	**PSFC/S/70**	400
S	4	80	175	114.5	136.0	70	21.0	180	123.7	33.0	9.70	**PSFC/S/80**	350

[1] Pressure shown = Item deliverable

[2] L = light series; S = heavy series

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

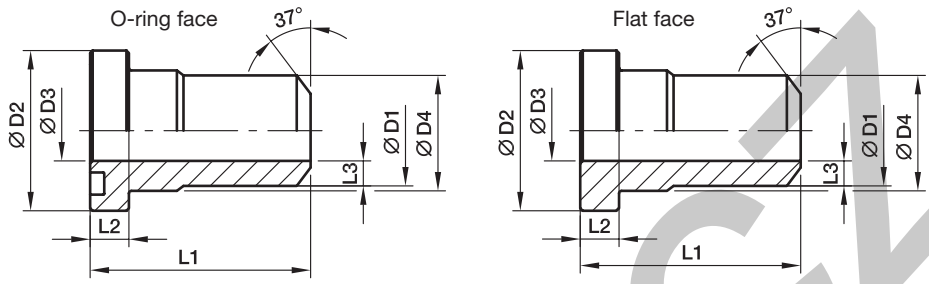
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, zinc plated, Cr(VI)-free	CF	PSFC/L/10CF	only flange clamp

KOVAL

PSFA-B Square flange adapter (butt weld)

Square flange / Butt weld end
(ISO 6164)



250 bar Series

Nom. flange size														PN
Se-ries[2])	SAE (in.)	ISO (DN)	D1	D2	D3	D4	L1	L2	L3	O-ring	Weight (steel) kg/piece	O-ring face Order code*	Flat face Order code*	(bar)[1]) S
L	3/8	10	17.5	24.5	10	18.0	40	6.8	3.75	17.13×2.62	0.09	**PSFA10/L/17.5B**	**PSCFA10/L/17.5B**	250
L	1/2	13	21.6	30.2	13	24.0	50	6.8	4.30	18.64×3.53	0.13	**PSFA13/L/21.6B**	**PSCFA13/L/21.6B**	250
L	3/4	19	27.2	38.1	19	31.5	60	6.8	4.10	24.99×3.53	0.22	**PSFA19/L/27.2B**	**PSCFA19/L/27.2B**	250
L	1	25	34.5	44.5	25	38.0	70	8.0	4.75	32.93×3.53	0.35	**PSFA25/L/34.5B**	**PSCFA25/L/34.5B**	250
L	1 1/4	32	43.0	50.8	31	43.0	80	8.0	6.00	37.89×3.53	0.50	**PSFA32/L/43B**	**PSCFA32/L/43B**	250
L	1 1/2	38	48.6	60.4	38	50.0	90	8.0	5.30	47.22×3.53	0.62	**PSFA38/L/48.6B**	**PSCFA38/L/48.6B**	250
L	2	51	61.0	71.4	50	62.0	100	9.6	5.50	56.74×3.53	0.88	**PSFA51/L/61B**	**PSCFA51/L/61B**	250
L	2 1/2	56	76.6	87.2	63	76.0	110	12.0	6.80	69.44×3.53	1.40	**PSFA56/L/76.6B**	**PSCFA56/L/76.6B**	250
L	3	63	89.0	101.6	70	90.0	120	15.0	9.50	85.32×3.53	2.57	**PSFA63/L/89B**	**PSCFA63/L/89B**	250
L	4	80	114.0	131.0	90	114.0	140	23.5	12.00	97.79×5.34	6.03	**PSFA80/L/114B**	**PSCFA80/L/114B**	250

400 bar Series

S	3/8	10	17.5	26.0	10	18.0	40	7.8	3.75	17.13×2.62	0.08	**PSFA10/S/17.5B**	**PSCFA10/S/17.5B**	400
S	1/2	13	21.6	31.8	13	24.0	50	7.8	4.30	18.64×3.53	0.14	**PSFA13/S/21.6B**	**PSCFA13/S/21.6B**	400
S	3/4	19	27.2	41.3	18	32.0	60	8.8	4.60	24.99×3.53	0.26	**PSFA19/S/27.2B**	**PSCFA19/S/27.2B**	400
S	1	25	34.5	47.6	22	38.0	70	9.5	6.25	32.93×3.53	0.45	**PSFA25/S/34.5B**	**PSCFA25/S/34.5B**	400
S	1 1/4	32	43.0	54.0	28	44.0	90	10.3	7.50	37.89×3.53	0.65	**PSFA32/S/43B**	**PSCFA32/S/43B**	400
S	1 1/2	38	48.6	63.5	32	51.0	90	12.6	8.30	47.22×3.53	0.99	**PSFA38/S/48.6B**	**PSCFA38/S/48.6B**	400
S	2	51	61.0	79.4	41	67.0	100	12.6	10.00	56.52×5.34	1.73	**PSFA51/S/61B**	**PSCFA51/S/61B**	400
S	2 1/2	56	76.6	94.2	50	90.0	110	16.5	13.30	69.22×5.34	2.70	**PSFA56/S/76.6B**	**PSCFA56/S/76.6B**	400
S	3	63	89.0	104.0	58	90.0	120	18.0	15.50	75.57×5.34	3.64	**PSFA63/S/89B**	**PSCFA63/S/89B**	400
S	3 1/2	70	102.0	119.0	63	102.0	130	20.0	19.50	85.09×5.34	5.55	**PSFA70/S/102B**	**PSCFA70/S/102B**	400
S	4	80	114.0	131.0	74	114.0	140	23.5	20.00	88.27×5.34	7.10	**PSFA80/S/114B**	**PSCFA80/S/114B**	350

[1]) Pressure shown = Item deliverable

[2]) L = light series; S = heavy series

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

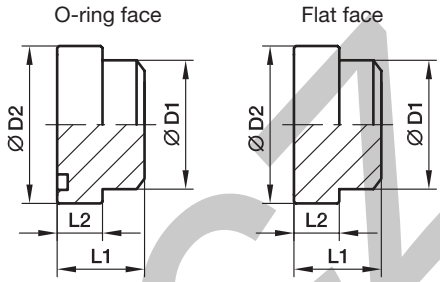
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, blanc oil dipped	S	PSFA10/L/17.5BS	only flange adapter

KOVAC.CZ

PSFP Square flange plug

ISO 6164



250 bar Series

Nom. flange size								Weight			PN
Series[2])	SAE (in.)	ISO (DN)	D1	D2	L1	L2	O-ring	(steel) kg/piece	O-ring face Order code*	Flat face Order code*	(bar)[1]) S
L	3/8	10	18.0	24.5	18.0	6.8	17.13×2.62	0.07	**PSFP10/L/18B**	**PSCFP10/L/18B**	250
L	1/2	13	24.0	30.2	20.0	6.8	18.64×3.53	0.08	**PSFP13/L/24B**	**PSCFP13/L/24B**	250
L	3/4	19	31.5	38.1	22.0	6.8	24.99×3.53	0.17	**PSFP19/L/31.5B**	**PSCFP19/L/31.5B**	250
L	1	25	38.0	44.5	25.0	8.0	32.93×3.53	0.24	**PSFP25/L/38B**	**PSCFP25/L/38B**	250
L	1 1/4	32	43.0	50.8	30.0	8.0	37.89×3.53	0.38	**PSFP32/L/43B**	**PSCFP32/L/43B**	250
L	1 1/2	38	50.0	60.4	36.0	8.0	47.22×3.53	0.63	**PSFP38/L/50B**	**PSCFP38/L/50B**	250
L	2	51	62.0	71.4	40.0	9.6	56.74×3.53	1.03	**PSFP51/L/62B**	**PSCFP51/L/62B**	250
L	2 1/2	56	76.0	87.2	45.0	12.0	69.44×3.53	1.75	**PSFP56/L/76B**	**PSCFP56/L/76B**	250
L	3	63	90.0	101.6	52.0	15.0	85.32×3.53	2.81	**PSFP63/L/90B**	**PSCFP63/L/90B**	250
L	4	80	114.0	131.0	61.5	23.5	97.79×5.34	4.50	**PSFP80/L/114B**	**PSCFP80/L/114B**	250

400 bar Series

S	3/8	10	18.0	26.0	18.0	7.8	17.13×2.62	0.08	**PSFP10/S/18B**	**PSCFP10/S/18B**	400
S	1/2	13	24.0	31.8	20.0	7.8	18.64×3.53	0.10	**PSFP13/S/24B**	**PSCFP13/S/24B**	400
S	3/4	19	32.0	41.3	22.0	8.8	24.99×3.53	0.19	**PSFP19/S/32B**	**PSCFP19/S/32B**	400
S	1	25	38.0	47.6	25.0	9.5	32.93×3.53	0.28	**PSFP25/S/38B**	**PSCFP25/S/38B**	400
S	1 1/4	32	44.0	54.0	30.0	10.3	37.89×3.53	0.43	**PSFP32/S/44B**	**PSCFP32/S/44B**	400
S	1 1/2	38	51.0	63.5	36.0	12.6	47.22×3.53	0.70	**PSFP38/S/51B**	**PSCFP38/S/51B**	400
S	2	51	67.0	79.4	40.0	12.6	56.52×5.34	1.28	**PSFP51/S/67B**	**PSCFP51/S/67B**	400
S	2 1/2	56	80.0	94.2	45.0	16.5	69.22×5.34	2.21	**PSFP56/S/80B**	**PSCFP56/S/80B**	400
S	3	63	90.0	104.0	52.0	18.0	75.57×5.34	2.80	**PSFP63/S/90B**	**PSCFP63/S/90B**	400
S	3 1/2	70	102.0	119.0	60.0	20.0	85.09×5.34	4.29	**PSFP70/S/102B**	**PSCFP70/S/102B**	400
S	4	80	114.0	131.0	70.0	23.5	88.27×5.34	4.50	**PSFP80/S/114B**	**PSCFP80/S/114B**	350

[1]) Pressure shown = Item deliverable

[2]) L = light series; S = heavy series

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

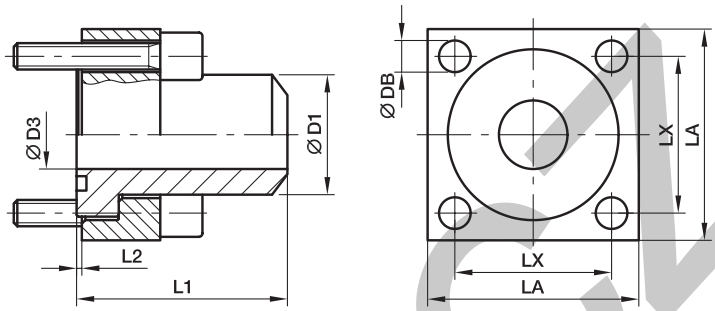
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example	Description
Steel, blanc oil dipped	S	PSFP10/L/18BS	only flange plug

KOVAL.CZ

PSF-B Square flange (butt weld adapter coupling)

Square flange / Butt weld end
(ISO 6164)



250 bar Series

Nom. flange size										Bolts		Weight (steel)		PN (bar)[1]
Series[2]	SAE (in.)	ISO (DN)	D1	D3	L1	L2	LA	LX	DB	(metr.)	O-ring	kg/piece	Order code*	S
L	3/8	10	17.5	10	40	0.4	40	24.7	6.6	M 06×30	17.13×2.62	0.25	**PSF10/L/17.5B**	250
L	1/2	13	21.6	13	50	0.4	45	29.7	9.0	M 08×35	18.64×3.53	0.30	**PSF13/L/21.6B**	250
L	3/4	19	27.2	19	60	0.4	50	35.4	9.0	M 08×35	24.99×3.53	0.53	**PSF19/L/27.2B**	250
L	1	25	34.5	25	70	0.5	65	43.8	11.0	M 10×40	32.93×3.53	0.98	**PSF25/L/34.5B**	250
L	1 1/4	32	43.0	31	80	0.5	75	51.6	13.5	M 12×50	37.89×3.53	1.53	**PSF32/L/43B**	250
L	1 1/2	38	48.6	38	90	0.5	90	60.1	17.5	M 16×60	47.22×3.53	2.52	**PSF38/L/48.6B**	250
L	2	51	61.0	50	100	0.6	100	69.3	17.5	M 16×70	56.74×3.53	3.23	**PSF51/L/61B**	250
L	2 1/2	56	76.6	63	110	3.0	120	83.4	22.0	M 20×80	69.44×3.53	5.82	**PSF56/L/76.6B**	250
L	3	63	89.0	70	120	6.0	140	102.5	22.0	M 20×90	85.32×3.53	8.19	**PSF63/L/89B**	250
L	4	80	114.0	90	140	2.5	160	113.5	25.0	M 24×100	97.79×5.34	12.45	**PSF80/L/114B**	250

400 bar Series

S	3/8	10	17.5	10	40	0.6	40	24.7	6.6	M 06×30	17.13×2.62	0.26	**PSF10/S/17.5B**	400
S	1/2	13	21.6	13	50	0.6	45	29.7	9.0	M 08×35	18.64×3.53	0.31	**PSF13/S/21.6B**	400
S	3/4	19	27.2	18	60	0.6	50	35.4	9.0	M 08×35	24.99×3.53	0.55	**PSF19/S/27.2B**	400
S	1	25	34.5	22	70	0.5	65	43.8	11.0	M 10×40	32.93×3.53	1.02	**PSF25/S/34.5B**	400
S	1 1/4	32	43.0	28	90	0.5	75	51.6	13.5	M 12×50	37.89×3.53	1.70	**PSF32/S/43B**	400
S	1 1/2	38	48.6	32	90	0.6	90	60.1	17.5	M 16×60	47.22×3.53	2.76	**PSF38/S/48.6B**	400
S	2	51	61.0	41	100	0.6	100	69.3	17.5	M 16×65	56.52×5.34	3.81	**PSF51/S/61B**	400
S	2 1/2	56	76.6	50	110	0.4	120	83.4	22.0	M 20×80	69.22×5.34	6.75	**PSF56/S/76.6B**	400
S	3	63	89.0	58	120	1.9	150	102.5	26.0	M 24×90	75.57×5.34	11.00	**PSF63/S/89B**	400
S	3 1/2	70	102.0	63	130	2.5	160	113.1	26.0	M 24×100	85.09×5.34	13.60	**PSF70/S/102B**	400
S	4	80	114.0	74	140	2.5	180	123.7	33.0	M 30×120	88.27×5.34	19.97	**PSF80/S/114B**	350

[1] Pressure shown = Item deliverable

[2] L = light series; S = heavy series

$$\frac{\text{PN (bar)}}{10} = \text{PN (MPa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

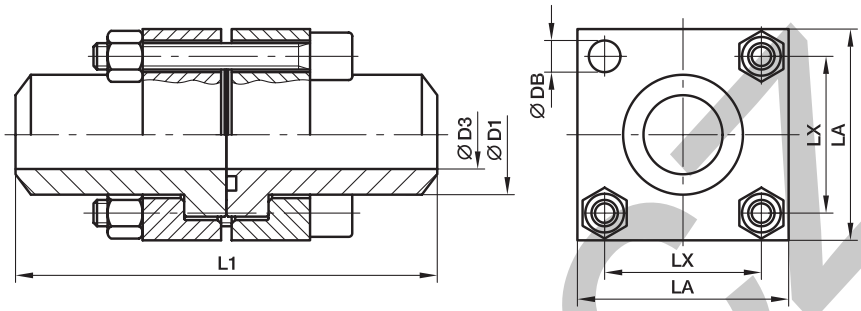
*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example incl. flange clamp, metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PSF10/L/17.5BS	NBR

KOVAL.CZ

PDSF-B Square flange (butt weld connection)

Square flange / Butt weld tube end
(ISO 6164)



250 bar Series

Nom. flange size									Bolts		Weight (steel)		PN (bar)[1]
Series[2]	SAE (in.)	ISO (DN)	D1	D3	L1	LA	LX	DB	(Metr.)	O-ring	kg/piece	Order code*	S
L	3/8	10	17.5	10	80	40	24.7	6.6	M 06×45	17.13×2.62	0.50	**PDSF10/L/17.5B**	250
L	1/2	13	21.6	13	100	45	29.7	9.0	M 08×50	18.64×3.53	0.60	**PDSF13/L/21.6B**	250
L	3/4	19	27.2	19	120	50	35.4	9.0	M 08×55	24.99×3.53	1.06	**PDSF19/L/27.2B**	250
L	1	25	34.5	25	140	65	43.8	11.0	M 10×65	32.93×3.53	1.96	**PDSF25/L/34.5B**	250
L	1 1/4	32	43.0	31	160	75	51.6	13.5	M 12×75	37.89×3.53	3.06	**PDSF32/L/43B**	250
L	1 1/2	38	48.6	38	180	90	60.1	17.5	M 16×90	47.22×3.53	5.04	**PDSF38/L/48.6B**	250
L	2	51	61.0	50	200	100	69.3	17.5	M 16×100	56.74×3.53	6.46	**PDSF51/L/61B**	250
L	2 1/2	56	76.6	63	220	120	83.4	22.0	M 20×120	69.44×3.53	11.62	**PDSF56/L/76.6B**	250
L	3	63	89.0	70	240	140	102.5	22.0	M 20×140	85.32×3.53	16.38	**PDSF63/L/89B**	250
L	4	80	114.0	90	280	160	113.5	25.0	M 24×150	97.79×5.34	24.90	**PDSF80/L/114B**	250

400 bar Series

S	3/8	10	17.5	10	80	40	24.7	6.6	M 06×45	17.13×2.62	0.52	**PDSF10/S/17.5B**	400
S	1/2	13	21.6	13	100	45	29.7	9.0	M 08×50	18.64×3.53	0.62	**PDSF13/S/21.6B**	400
S	3/4	19	27.2	18	120	50	35.4	9.0	M 08×55	24.99×3.53	1.10	**PDSF19/S/27.2B**	400
S	1	25	34.5	22	140	65	43.8	11.0	M 10×65	32.93×3.53	2.04	**PDSF25/S/34.5B**	400
S	1 1/4	32	43.0	28	180	75	51.6	13.5	M 12×75	37.89×3.53	3.40	**PDSF32/S/43B**	400
S	1 1/2	38	48.6	32	180	90	60.1	17.5	M 16×90	47.22×3.53	5.52	**PDSF38/S/48.6B**	400
S	2	51	61.0	41	200	100	69.3	17.5	M 16×100	56.52×5.34	7.62	**PDSF51/S/61B**	400
S	2 1/2	56	76.6	50	220	120	83.4	22.0	M 20×130	69.22×5.34	13.50	**PDSF56/S/76.6B**	400
S	3	63	89.0	58	240	150	102.5	26.0	M 24×140	75.57×5.34	22.00	**PDSF63/S/89B**	400
S	3 1/2	70	102.0	63	260	160	113.1	26.0	M 24×150	85.09×5.34	27.20	**PDSF70/S/102B**	400
S	4	80	114.0	74	280	180	123.7	33.0	M 30×180	88.27×5.34	39.94	**PDSF80/S/114B**	350

[1] Pressure shown = Item deliverable

[2] L = light series; S = heavy series

$$\frac{\text{PN (bar)}}{10} = \text{PN (M Pa)}$$

The pressures given here are the maximum allowable for the flange fittings. If the pipe or tube used has a lower pressure rating, then the welded assembly rating will be the lower one, assuming the weld is adequately strong.

*Please add the **suffixes** below according to the material/surface required.

Order code suffixes			
Material	Suffix surface and material	Example Flange coupling incl. flange clamps, metr. bolts and O-ring	Standard sealing material (no additional suffix needed)
Steel, blanc oil dipped	S	PDSF10/L/17.5BS	NBR

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