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Flange connections ISO 6162 / SAE J518



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Used standards

Havit flanges are based on the following standards:

- SAE-flanges	standard:	SAE J 518 C, ISO 6162
- Cetop-flanges	standard:	CETOP RP 63H, ISO 6164
- 4-bolt square flanges	standard:	ISO/DIS 6164

Pressure rates

The maximum recommended working pressure is indicated with each article.

Please note the appropriate pressure directives before using a part.

All pressure directives are based on a working temperature from -40° celsius up to +90° celsius. Beyond this temperature range, the physical properties of the used material are effected and the maximum recommended working pressure is reduced accordingly.

The indicated working pressure refers only to the flange itself.

For used tubes, fittings and connections, the pressure directives of the respective manufacturer are the determining factor.

Used materials

Materials used for each product group are given.

The manufacturer can within reason determine freely whether varying materials are to be implemented.

Flange kits

If required, all flange connections can be supplied with accessories (bolt set and o-ring).

The respective order code is then to be given as shown in the attached example.

Used bolts		
<p>SAE-Flanges</p> <p>The ISO 6162 indicates the maximum operating pressure for bolts with a strength class of 10.9. The working pressures are given with the respective articles.</p> <p>Havit supplies:</p> <ol style="list-style-type: none"> blank bolts <ul style="list-style-type: none"> - 10.9 bolts with surface <ul style="list-style-type: none"> - bolts grade 10.9: FIZn 480h L stainless steel <ul style="list-style-type: none"> when using the stainless steel screw with a strength of A4-80, the maximum permissible operating pressure is reduced by around 25 percent. - A4-80 		
metric bolts:		DIN 912-10.9 (ISO 4762-10.9) -FIZn 480h L
UNC bolts:		ASA B 18.3 - grade 10
gear pump flanges	metric bolts	DIN 912-8.8 (ISO 4762-8.8) ZnNi
4-Bolt square flanges	metric bolts	DIN 912 / 931/933-8.8 (ISO 4762 / 4014 / 4017-8.8) or DIN 912 / 931/933-10.9 (ISO 4762 / 4014 / 4017-10.9)
Cetop flanges	metric bolts	DIN 912 / 931/933-8.8 (ISO 4762 / 4014 / 4017-8.8) or DIN 912 / 931/933-10.9 (ISO 4762 / 4014 / 4017-10.9)

Seals

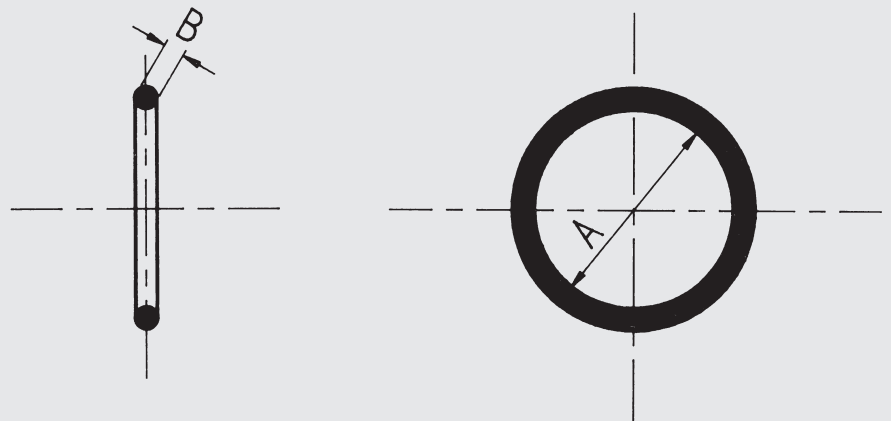
All flange connections shown in this catalogue are sealed using o-rings. The o-rings supplied by Havit are made from the following materials:

- buna 90 shore (standard)
- viton 85-90 shore (option)

For all SAE flanges and Cetop flanges, the o-ring dimensions are to be read as according to the following table.

O-rings differing from these dimensions are listed with the respective article showing their exact dimensions accordingly.

size	A	B
3/8"	17,12	2,62
1/2"	18,66	3,53
3/4"	25,00	3,53
1"	32,92	3,53
1 1/4"	37,70	3,53
1 1/2"	47,22	3,53
2"	56,75	3,53
2 1/2"	69,45	3,53
3"	85,32	3,53
3 1/2"	98,02	3,53
4"	110,72	3,53
5"	136,12	3,53



Surface protection

As far as no special directives exist on a product range, all flanges are delivered in blank steel and coated to protect against corrosion.

Flange tube connections

For tube connections with our flanges we recommend tubes which meet with the following standards:

- seamless precision steel pipes to DIN EN 10305-1, grade C materials ST 37-4 or ST 52-4
- seamless boiling tubes to DIN EN 10220, group 1 and 2 from materials ST 37-4 and ST 52-4
- tubes according to ASME B36.10M

For the flange sizes and pressure rates we recommend the following tube dimensions:

flange size	tubes to DIN EN 10305-1					tubes to DIN EN 10220		tubes to ASME B36.10M			
	series					series		series			
inch	100 bar	160 bar	250 bar	315 bar	400 bar	250 bar	400 bar	schedule	250 bar	schedule	400 bar
1/2"	15 x 1	18 x 1,5	16 x 2	16 x 2,5	16 x 3	21,3 x 2,6	21,3 x 3,2	40	21,3 x 2,8	80	21,3 x 3,7
	18 x 1		20 x 2,5	20 x 3	20 x 3,5						
3/4"	-	-	25 x 3	25 x 3,5	25 x 4	26,9 x 2,6	26,9 x 4	40	26,7 x 2,9	80	26,7 x 3,9
1"	28 x 2	-	28 x 3	30 x 5	30 x 6	33,7 x 4	33,7 x 6,3	40	33,7 x 4,8	160	33,7 x 6,4
			30 x 4								
1 1/4"	35 x 2	-	35 x 4	38 x 6	38 x 7	42,4 x 5	42,4 x 6,3	80	42,4 x 4,8	160	42,4 x 6,4
			38 x 5								
1 1/2"	42 x 3	-	42 x 5	50 x 8	50 x 9	48,3 x 5	48,3 x 8	80	48,3 x 5,1	160	48,3 x 7,1
			50 x 6								
2"	-	-	-	65 x 8	65 x 10	60,3 x 6,3	60,3 x 10	160	60,3 x 8,7	200	60,3 x 11,1
2 1/2"	-	-	-	80 x 10	80 x 12	76,1 x 8	76,1 x 12,5	160	73 x 9,5	200	73 x 14
3"	-	-	-	-	-	88,9 x 10	88,9 x 16	160	88,9 x 11,1	200	88,9 x 15,2
3 1/2"	-	-	-	-	-	101,6 x 10	101,6 x 16	-	-	-	-
4"	-	-	-	-	-	114,3 x 12,5	114,3 x 20	160	114,3 x 13,5	200	114,3 x 17,1

Used Bolts: Screw torques and pressures of flanged port assemblies

Bolts 10.9				
nominal size		diameter	tightening torques	maximum recommended working pressure
ISO [DN]	SAE [inch]		$\begin{matrix} +10\% \\ 0 \end{matrix} [NM]$	[bar]
Standard pressure series (according to ISO 6162-1)				3.000 PSI
13	1/2"	M 8	32	350
19	3/4"	M 10	70	350
25	1"	M 10	70	320
32	1 1/4"	M 10	70	280
38	1 1/2"	M 12	130	210
51	2"	M 12	130	210
64	2 1/2"	M 12	130	175
76	3"	M 16	295	160
89	3 1/2"	M 16	295	35
102	4"	M 16	295	35
127	5"	M 16	295	35
High pressure series (according to ISO 6162-2)				6.000 PSI
13	1/2"	M 8	32	420
19	3/4"	M 10	70	420
25	1"	M 12	130	420
32	1 1/4"	M 12	130	420
32	1 1/4"	M 14 ^{*1}	180	420
38	1 1/2"	M 16	295	420
51	2"	M 20	550	420

Bolts UNC grade 8				
nominal size		diameter	tightening torques	maximum recommended working pressure
ISO [DN]	SAE [inch]		$\begin{matrix} +10\% \\ 0 \end{matrix} [NM]$	[bar]
Standard pressure series (according to ISO 6162-1)				3.000 PSI
13	1/2"	5/16-18	32	350
19	3/4"	3/8-16	60	350
25	1"	3/8-16	60	315
32	1 1/4"	7/16-14	92	250
38	1 1/2"	1/2-13	150	200
51	2"	1/2-13	150	200
64	2 1/2"	1/2-13	150	160
76	3"	5/8-11	295	160
89	3 1/2"	5/8-11	295	35
102	4"	5/8-11	295	35
127	5"	5/8-11	295	35
High pressure series (according to ISO 6162-2)				6.000 PSI
13	1/2"	5/16-18	32	400
19	3/4"	3/8-16	60	400
25	1"	7/16-14	92	400
32	1 1/4"	1/2-13	150	400
38	1 1/2"	5/8-11	295	400
51	2"	3/4-10	450	400

Hinweise

*1 Not to be used for new constructions.

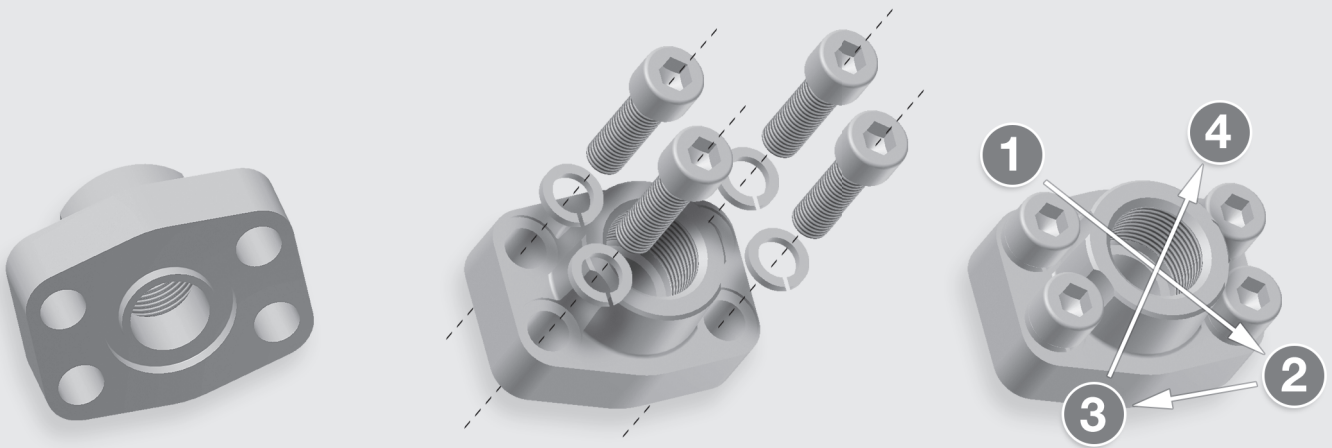
*2 Die angegebenen Anzugsmomente für UNC-Schrauben sind der Norm ISO 6162-1/2 entnommen und beziehen sich auf die Festigkeitsklasse "Grade 8". Verfügbar sind jedoch nur Schrauben der höheren Festigkeitsklasse "Grade 10".

The tightening torques for UNC bolts as stated on the left apply to "grade 8" UNC bolts according to ISO 6162-1/2. Please note that we only have UNC bolts of the higher "grade 10" available.

Attention: All bolts have to be pre-tightened before applying the full tightening torque to the bolts. Otherwise, the flange may break.

Please note that the tightening torques as stated above are only recommendations. These values correspond to oiled bolts with a friction coefficient of 0,17 and the material combination steel/steel. The exact tightening torques depend on factors like material, finishing, coating and lubrication of the components used, and have to be determined by the user himself.

Mounting instructions - flanges



- Step 1**
- Check the connecting surface and the O-ring groove. Both must be free of all scratches, particles and any damage
 - Smear the O-ring with system fluid and place it in the O-ring groove
- Step 2**
- Position the flange against the matching component
 - Mount the bolts and initially tighten per hand (spring washer is optional)
- Step 3**
- Tighten the bolts in the displayed sequence according to the recommended torque
 - **IMPORTANT:** To avoid damage, tighten each bolt lightly in sequence before administrating the recommended torque

normal size		Bolts 10.9			Bolts UNC grade 8 ^{*2}		
ISO [DN]	SAE [inch]	diameter	tightening torques ^{+10%} ₀ [NM]	max. recomm. working pressure [bar]	diameter	tightening torques ^{+10%} ₀ [NM]	max. recomm. working pressure [bar]
Standard pressure series (according to ISO 6162-1)							
							3.000 PSI
13	1/2"	M 8	32	350	5/16-18	32	350
19	3/4"	M 10	70	350	3/8-16	60	350
25	1"	M 10	70	320	3/8-16	60	320
32	1 1/4"	M 10	70	280	7/16-14	92	280
38	1 1/2"	M 12	130	210	1/2-13	150	210
51	2"	M 12	130	210	1/2-13	150	210
64	2 1/2"	M 12	130	175	1/2-13	150	175
76	3"	M 16	295	160	5/8-11	295	160
89	3 1/2"	M 16	295	35	5/8-11	295	35
102	4"	M 16	295	35	5/8-11	295	35
127	5"	M 16	295	35	5/8-11	295	35
High pressure series (according to ISO 6162-2)							6.000 PSI
13	1/2"	M 8	32	420	5/16-18	32	420
19	3/4"	M 10	70	420	3/8-16	60	420
25	1"	M 12	130	420	7/16-14	92	420
32	1 1/4"	M 12	130	420	1/2-13	150	420
32	1 1/4"	M 14 ^{*1}	180	420	-	-	-
38	1 1/2"	M 16	295	420	5/8-11	295	420
51	2"	M 20	550	420	3/4-10	450	420
64	2 1/2"	M 24	550	420			
76	3"	M 30	650	420			

*1 Not to be used for new constructions.

*2 The tightening torques for UNC bolts as stated on the left apply to "grade 8" UNC bolts according to ISO 6162-1/2. Please note that we only have UNC bolts of the higher "grade 10" available.

Torque and max. working pressure according to ISO 6162

steel								
nominal size		Bolts 10.9			Bolts UNC grade 8 **			
ISO [DN]	SAE [inch]	diameter	tightening torques*	max. recomm. working pressure	diameter	tightening torques*	max. recomm. working pressure	
			${}^0_{+10\%}$ [NM]	[bar]		${}^0_{+10\%}$ [NM]	[bar]	
standard pressure series (ISO 6162-1)								
13	1/2"	M 8	32	350	5/16-18	32	350	
19	3/4"	M 10	70	350	3/8-16	60	350	
25	1"	M 10	70	320	3/8-16	60	320	
32	1 1/4"	M 10	70	280	7/16-14	92	280	
38	1 1/2"	M 12	130	210	1/2-13	150	210	
51	2"	M 12	130	210	1/2-13	150	210	
64	2 1/2"	M 12	130	175	1/2-13	150	175	
76	3"	M 16	295	160	5/8-11	295	160	
89	3 1/2"	M 16	295	35	5/8-11	295	35	
102	4"	M 16	295	35	5/8-11	295	35	
127	5"	M 16	295	35	5/8-11	295	35	
high pressure series (ISO 6162-2)								
13	1/2"	M 8	32	420	5/16-18	32	420	
19	3/4"	M 10	70	420	3/8-16	60	420	
25	1"	M 12	130	420	7/16-14	92	420	
32	1 1/4"	M 12	130	420	1/2-13	150	420	
38	1 1/2"	M 16	295	420	5/8-11	295	420	
51	2"	M 20	550	420	3/4-10	450	420	
64	2 1/2"	M 24	550	420	-	-	-	
76	3"	M 30	650	420	-	-	-	

Notes

Important: To avoid damage, tighten each bolt lightly before administrating the recommended torque.

* These torque values are only a guide when using lubricated screws, calculated with a coefficient of friction 0,17. Net tightening torque depends on many factors, including lubrication, coating and surface finish.

** The tightening torques for UNC bolts as stated on the left apply to "grade 8" UNC bolts according to ISO 6162-1/2. Please note that we only have UNC bolts of the higher "grade 10" available.

Torque and max. working pressure according to ISO 6164

steel								
nominal size		Bolts 8.8			Bolts 10.9 **			
		diameter	tightening torques*	max. recomm. working pressure	diameter	tightening torques*	max. recomm. working pressure	
			Nm	[bar]		Nm	[bar]	
ISO [DN]		ISO 6164						Bolt manufacturer $\mu_{ges.}=0,14$
10	4x	M 6	10	250	M 6	13	400	17
13	4x	M 8	25	250	M 8	31	400	40
19	4x	M 8	25	250	M 8	31	400	40
25	4x	M 10	53	250	M 10	66	400	79
32	4x	M 12	95	250	M 12	119	400	137
38	4x	M 16	220	250	M 16	275	400	338
51	4x	M 16	220	250	M 16	275	400	338
56	4x	M 20	390	250	M 20	488	400	661
63	4x	M 20	390	250	M 24	1.000	400	1.136
70	4x	–	–	–	M 24	1.000	400	1.136
80	4x	–	–	–	M 30	2.000	400	2.274
100	8x		–	–	M 24	1.136	–	
125	8x		–	–	M 30	2.274	–	
150	8x		–	–	M 36	3.957	–	

Notes

* These torque values are only a guide when using lubricated screws, calculated with a coefficient of friction 0,2. Net tightening torque depends on many factors, including lubrication, coating and surface finish.

** When the strength class 10.9 is used, the tightening torque is calculated from the strength class 8.8 + 25%.

gear pumps (8.8 - ZN)			
WDS,WF-	LK-30-ORS	M 5	4,82
	LK-30/35/40	M 6	8,37
	LK-40	M 8	20,17
	LK-55	M 8	20,17
WDS	LK-51/56	M 10	39,7
WDA, F	LK-62/72,5	M 12	68,3

Torque and max. working pressure according to CETOP (RP 63 H)

steel							
nominal size		Bolts 8.8			Bolts 10.9		
		diameter	tightening torques*	max. recomm. working pressure	diameter	tightening torques*	max. recomm. working pressure
			$\begin{matrix} +10\% \\ 0 \end{matrix} [NM]$	[bar]		$\begin{matrix} +10\% \\ 0 \end{matrix} [NM]$	[bar]
tube	inch	CETOP (RP 63 H)					
16		M 6	10	100 / 250 / 400	M 6	13	400
20		M 8	25	100 / 250 / 400	M 8	31	400
25		M 8	25	100 / 250 / 400	M 8	31	400
30		M 10	49	100 / 250 / 400	M 10	66	400
32	400						
38		M 12	86	100 / 250 / 400	M 12	119	400
40	400						
48,3		M 14	135	100 / 250 / 400	M 14	218	400
50	400						
60,3		M 16	210	100 / 250 / 400	M 16	275	400
76,1		M 20	410	100 / 250 / 400	M 20	488	400
88,9		M 20	410	100 / 250 / 400	M 20	488	400
101,6		M 24	710	100 / 250 / 400	M 24	1.000	400
114,3		M 24	710	100 / 250 / 400	M 24	1.000	400

Notes

* These torque values are only a guide when using lubricated screws, calculated with a coefficient of friction 0,14. Net tightening torque depends on many factors, including lubrication, coating and surface finish.

Torque according to bolt manufacturer

Ø	torque in Nm (metric bolts)					
	steel			stainless steel		
	8.8 ZN	10.9 FLZN	10.9 blank	A4-80		
Coefficient of friction	$\mu_{ges.}=0,09$	$\mu_{ges.}=0,09$	$\mu_{ges.}=0,14$	$\mu_{ges.}=0,2$	$\mu_{ges.}=0,3$	$\mu_{ges.}=0,4$
M 5	4,82	7,08	9,5	7,4	9,1	10,2
M 6	8,37	12,3	16,5	12,9	15,8	17,7
M 8	20,17	29,63	40,1	31,5	38,8	43,4
M 10	39,7	58,3	79	62,4	77,1	86,2
M 12	68,3	100	137	108	133,6	149,5
M 14	–	160	218	172	212	238,5
M 16	–	245	338	269	334	375
M 20	–	480	661	527	656	736
M 24	–	825	1136	680*	848*	–
M 30	–	1644	2274	1373*	1715*	–
M 36	–	2850	3957	1117*	1398*	–

Notes

* M24, M30 tightening torque for strength 70

* M36 tightening torque for strength 50

Additional lubrication of the thread changes the coefficient of friction considerably and leads to undetermined tightening conditions.

All given values serve purely as a guide.

The specified tightening torques are to be interpreted as estimations and are intended only as a guide.

surface	ordering code	with UNC thread *	with metr. screws	with UNC screws
blank	...-BL	...-U-BL	...-BL-M	...-BL-U
zinc-nickel	...-ZN	...-U-ZN	...-ZN-M	...-ZN-U
chrome3	...-CR3	...-U-CR3	...-CR3-M	...-CR3-U

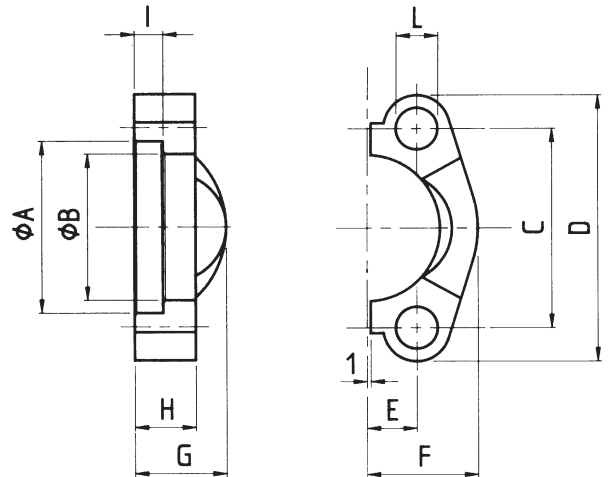
The order designations given above should be written behind the individually original ordering code, depending on the surface.

* This version only applies to counterflanges (GFS-..., GFC-.... ec.)

Viton O-RING included in the attachments available if requested

Ordering code:

...-MV

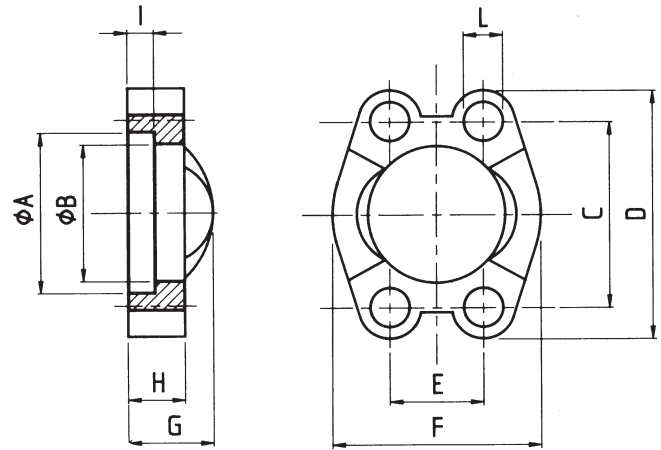


Ordering code:	S355J2^{*1} C45	1.4404^{*1} 316L
• flange half only	FH-...	FH-X-...
• 2 pcs. flange halves	SATZ-FH-...	SATZ-FH-X-...
• 2 pcs. flange halves, 4 pcs. screws with spring washer, o-ring	SATZ-FH-...-M (-U)	SATZ-FH-X-...-MX (-UX)
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts		Weight (flange only)
			A	B	C	D	E	F	G	H	I	L	M	lb	
kg/cm ²	inch												metr.	unc.	
Strength class		Standard pressure													
10.9															
350	1/2"	FH 3001	1,22	0,96	1,50	2,13	0,34	0,91	0,75	0,51	0,24	0,33	M 8x25	5/16 x 1 1/4	0,15
350	3/4"	FH 3002	1,53	1,27	1,87	2,56	0,44	1,02	0,87	0,55	0,24	0,41	M 10x30	3/8 x 1 1/4	0,20
320	1"	FH 3003	1,78	1,52	2,06	2,76	0,52	1,14	0,94	0,63	0,30	0,41	M 10x30	3/8 x 1 1/4	0,24
280	1 1/4"	FH 3004	2,03	1,72	2,31	3,11	0,59	1,46	0,87	0,55	0,30	0,47	M 10x30	7/16 x 1 1/2	0,33
280	1 1/4"	FH 3014	2,03	1,72	2,31	3,11	0,59	1,46	0,87	0,55	0,30	0,41	M 10x30	-	0,33
280	1 1/4"	FH 3044	2,03	1,72	2,31	3,11	0,59	1,46	0,87	0,55	0,30	0,50	M 12x35	-	0,33
210	1 1/2"	FH 3005	2,41	2,00	2,75	3,70	0,70	1,61	0,98	0,63	0,30	0,52	M 12x35	1/2 x 1 1/2	0,51
210	2"	FH 3006	2,85	2,47	3,06	4,02	0,84	1,93	1,02	0,63	0,35	0,52	M 12x35	1/2 x 1 1/2	0,55
175	2 1/2"	FH 3007	3,34	2,95	3,50	4,49	1,00	2,13	1,50	0,75	0,35	0,52	M 12x40	1/2 x 1 3/4	0,82
175	2 1/2"	FH 3007-B 76,6	3,34	3,02	3,50	4,49	1,00	2,13	1,50	0,75	0,35	0,52	M 12x40	1/2 x 1 3/4	0,82
160	3"	FH 3008	4,03	3,58	4,19	5,31	1,22	2,60	1,61	0,87	0,35	0,67	M 16x50	5/8 x 2	1,43
35	3 1/2"	FH 3009	4,53	4,03	4,75	5,98	1,38	2,76	1,10	0,87	0,42	0,67	M 16x50	5/8 x 2	1,65
35	4"	FH 3010	5,03	4,53	5,13	6,38	1,53	2,99	1,38	0,98	0,42	0,67	M 16x50	5/8 x 2	1,85
35	5"	FH 3011	6,03	5,53	6,00	7,24	1,81	3,54	1,61	1,10	0,42	0,67	M 16x55	5/8 x 2	2,76
Strength class		High pressure													
10.9															
420	1/2"	FH 6001	1,28	0,97	1,59	2,20	0,36	0,94	0,87	0,63	0,28	0,33	M 8x30	5/16 x 1 1/4	0,18
420	3/4"	FH 6002	1,65	1,28	2,00	2,80	0,47	1,18	1,10	0,75	0,32	0,41	M 10x35	3/8 x 1 1/2	0,40
420	1"	FH 6003	1,91	1,53	2,25	3,19	0,55	1,38	1,30	0,94	0,35	0,52	M 12x45	-	0,60
420	1"	FH 6013	1,91	1,53	2,25	3,19	0,55	1,38	1,30	0,94	0,35	0,47	-	7/16 x 1 3/4	0,60
420	1 1/4"	FH 6004	2,16	1,75	2,62	3,74	0,63	1,54	1,50	1,06	0,39	0,57	M 14x50	-	0,88
420	1 1/4"	FH 6044	2,16	1,75	2,62	3,74	0,63	1,54	1,50	1,06	0,39	0,52	M 12x45	1/2 x 1 3/4	0,88
420	1 1/2"	FH 6005	2,53	2,03	3,12	4,45	0,72	1,89	1,69	1,18	0,47	0,66	M 16x55	5/8 x 2	1,50
420	2"	FH 6006	3,16	2,66	3,81	5,24	0,88	2,24	2,05	1,46	0,47	0,83	M 20x70	3/4 x 2 1/2	2,31

*1 or comparable material

*2 dimension G alternatively 24, dimension H alternatively 16

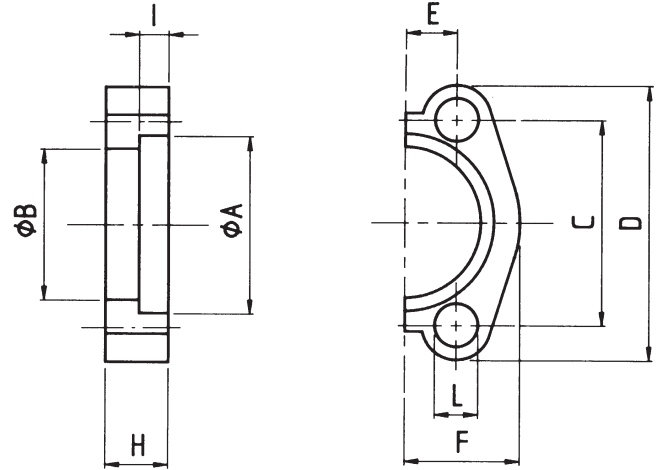
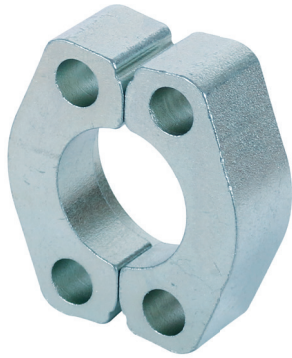


Ordering code:	S355J2^{*1} C45	1.4404^{*1} 316L
• one piece flange clamp only	VF-...	VF-X-...
• 1 pcs. one piece flange clamp, 4 pcs. screws with spring washer, o-ring	SATZ-VF-...-M (-U)	SATZ-VF-X-...-MX (-UX)
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts		Weight (flange only)		
			A	B	C	D	E	F	G	H	I	L	metr.	unc.		lb	
kg/cm ²	inch																
Strength class		Standard pressure															
10.9																	
350	1/2"	VF 3001	1,22	0,96	1,50	2,13	0,69	1,81	0,75	0,51	0,24	0,33	M 8x25	5/16 x 1 1/4		0,31	
350	3/4"	VF 3002	1,53	1,27	1,87	2,56	0,88	2,05	0,87	0,55	0,24	0,41	M 10x30	3/8 x 1 1/4		0,37	
320	1"	VF 3003	1,78	1,52	2,06	2,76	1,03	2,32	0,94	0,63	0,30	0,41	M 10x30	3/8 x 1 1/4		0,49	
280	1 1/4"	VF 3004	2,03	1,72	2,31	3,11	1,19	2,87	0,87	0,55	0,30	0,47	M 10x30	7/16 x 1 1/2		0,66	
400	1 1/4"	VF 3004-6000	2,03	1,72	2,31	3,11	1,19	2,87	1,30	0,94	0,30	0,49	M 12x45	-		1,10	
210	1 1/2"	VF 3005	2,41	2,00	2,75	3,70	1,41	3,27	0,98	0,63	0,30	0,52	M 12x35	1/2 x 1 1/2		0,99	
210	2"	VF 3006	2,85	2,47	3,06	4,02	1,69	3,82	1,02	0,63	0,35	0,52	M 12x35	1/2 x 1 1/2		1,10	
400	2"	VF 3006-6000	2,85	2,47	3,06	4,02	1,69	3,82	1,69	1,18	0,35	0,53	M 12x50	-		3,04	
175	2 1/2"	VF 3007	3,34	2,95	3,50	4,49	2,00	4,29	1,50	0,75	0,35	0,52	M 12x40	1/2 x 1 3/4		1,63	
175	2 1/2"	VF 3007 B-76,6	3,34	3,02	3,50	4,49	2,00	4,29	1,50	0,75	0,35	0,52	M 12x40	1/2 x 1 3/4		1,76	
160	3"	VF 3008	4,03	3,58	4,19	5,31	2,44	5,16	1,61	0,87	0,35	0,67	M 16x50	5/8 x 2		2,87	
35	3 1/2"	VF 3009	4,53	4,03	4,75	5,98	2,75	5,51	1,10	0,87	0,42	0,67	M 16x50	5/8 x 2		3,31	
35	4"	VF 3010	5,03	4,53	5,13	6,38	3,06	5,98	1,38	0,98	0,42	0,67	M 16x50	5/8 x 2		3,64	
35	5"	VF 3011	6,03	5,53	6,00	7,24	3,63	7,13	1,61	1,10	0,42	0,67	M 16x55	5/8 x 2		5,51	
Strength class		High pressure															
10.9																	
420	1/2"	VF 6001	1,28	0,97	1,59	2,20	0,72	1,89	0,87	0,63	0,28	0,33	M 8x30	5/16 x 1 1/4		0,35	
420	3/4"	VF 6002	1,65	1,28	2,00	2,80	0,94	2,36	1,10	0,75	0,32	0,41	M 10x35	3/8 x 1 1/2		0,77	
420	1"	VF 6003	1,91	1,53	2,25	3,19	1,09	2,76	1,30	0,94	0,35	0,52	M 12x45	-		1,17	
420	1"	VF 6013	1,91	1,53	2,25	3,19	1,09	2,76	1,30	0,94	0,35	0,47	-	7/16 x 1 3/4		1,17	
420	1 1/4"	VF 6004	2,16	1,75	2,62	3,74	1,25	3,07	1,50	1,06	0,39	0,57	M 14x50	-		1,76	
420	1 1/4"	VF 6044	2,16	1,75	2,62	3,74	1,25	3,07	1,50	1,06	0,39	0,52	M 12x45	1/2 x 1 3/4		1,76	
420	1 1/2"	VF 6005	2,53	2,03	3,12	4,45	1,44	3,74	1,69	1,18	0,47	0,66	M 16x55	5/8 x 2		2,98	
420	2"	VF 6006	3,16	2,66	3,81	5,24	1,75	4,49	2,05	1,46	0,47	0,83	M 20x70	3/4 x 2 1/2		4,63	
420	2 1/2"	VF 6007	4,29	3,56	4,87	7,09	2,31	5,98	1,77	1,77	0,81	1,02	M 24x80	-		9,04	
420	3"	VF 6008	5,22	4,55	6,00	8,46	2,82	7,80	2,17	2,17	1,00	1,26	M 30x90	-		18,96	

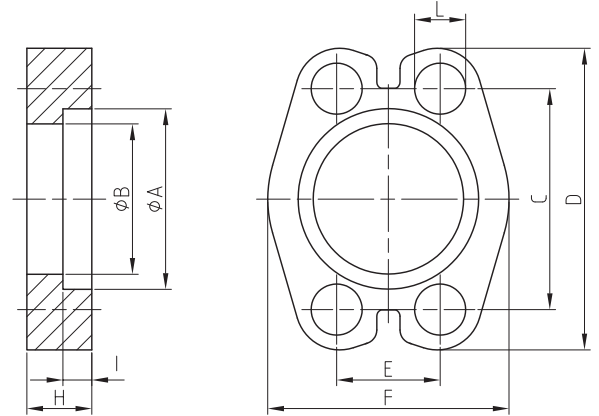
*1 or comparable material

*2 dimension G alternatively 24, dimension H alternatively 16



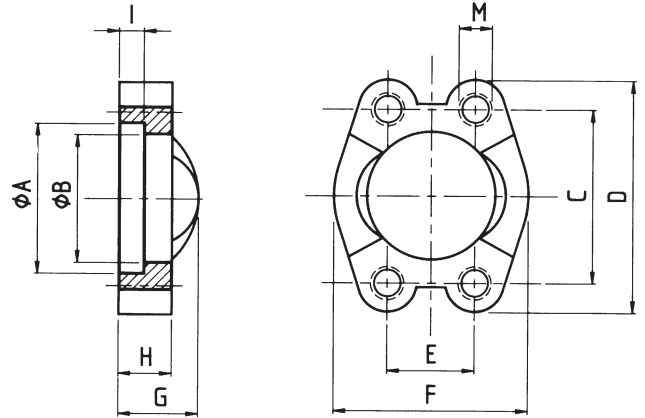
Ordering code: C60	
• flange half flat only	HF-...
• 2 pcs. flange halvesflat	SATZ-HF-...
• 2 pcs. flange halves flat, 4 pcs. screws with spring washer, o-ring	SATZ-HF-...-M (-U)
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)	

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts		Weight (flange only)
			A	B	C	D	E	F	H	I	L	metr.	unc.	lb	
kg/cm ²	inch														
Strength class		Standard pressure										<i>metr.</i>	<i>unc.</i>		
10.9															
350	1/2"	HF 3001	1,22	0,96	1,50	2,13	0,34	0,91	0,51	0,24	0,35	M 8x25	5/16 x 1 1/4	0,13	
350	3/4"	HF 3002	1,53	1,28	1,87	2,56	0,44	1,02	0,55	0,24	0,43	M 10x30	3/8 x 1 1/4	0,15	
320	1"	HF 3003	1,78	1,52	2,06	2,76	0,52	1,14	0,63	0,30	0,43	M 10x30	3/8 x 1 1/4	0,22	
280	1 1/4"	HF 3004	2,03	1,72	2,31	3,11	0,59	1,40	0,63	0,30	0,43	M 10x30	–	0,33	
210	1 1/2"	HF 3005	2,41	2,00	2,75	3,70	0,70	1,52	0,63	0,30	0,51	M 12x35	1/2 x 1 1/2	0,40	
210	2"	HF 3006	2,85	2,47	3,06	4,21	0,84	1,88	0,63	0,35	0,51	M 12x35	1/2 x 1 1/2	0,49	
Strength class		High pressure										<i>metr.</i>	<i>unc.</i>		
10.9															
420	1/2"	HF 6001	1,28	0,96	1,59	2,20	0,36	0,93	0,63	0,28	0,35	M 8x30	5/16 x 1 1/4	0,18	
420	3/4"	HF 6002	1,65	1,28	2,00	2,72	0,47	1,14	0,79	0,32	0,43	M 10x35	3/8 x 1 1/2	0,35	
420	1"	HF 6003	1,91	1,53	2,25	3,07	0,55	1,40	0,98	0,35	0,51	M 12x45	7/16 x 1 3/4	0,55	
420	1 1/4"	HF 6004	2,16	1,75	2,62	3,62	0,63	1,52	1,06	0,39	0,59	M 14x50	1/2 x 1 3/4	0,75	
420	1 1/2"	HF 6005	2,53	2,03	3,12	4,21	0,72	1,88	1,18	0,47	0,67	M 16x55	5/8 x 2	1,21	
420	2"	HF 6006	3,16	2,66	3,81	5,24	0,88	2,24	1,46	0,47	0,83	M 20x70	3/4 x 2 1/2	2,25	
420	2 1/2"	HF 6007	4,29	3,56	4,87	7,09	1,16	2,95	1,77	0,81	1,02	M 24x80	–	4,52	
420	3"	HF 6008	5,22	4,55	6,00	8,46	1,41	3,90	2,17	1,00	1,26	M 30x90	–	9,48	



Ordering code:	C60
• one piece flange clamp flat only	VFH-...
• 1 pcs. one piece flange clamp - flat, 4 pcs. screws with spring washer, o-ring	SATZ-VFH-...-M (-U)
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)	

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts		Weight (flange only)	
			A	B	C	D	E	F	H	I	L	M	lb			
kg/cm ²	inch															
Strength class													<i>metr.</i>	<i>unc.</i>		
10.9		Standard pressure														
350	1/2"	VFH 3001	1,22	0,96	1,50	2,13	0,69	1,81	0,51	0,24	0,34	M 8x25	5/16 x 1 1/4	0,33		
350	3/4"	VFH 3002	1,53	1,27	1,87	2,56	0,88	2,05	0,55	0,24	0,42	M 10x30	3/8 x 1 1/4	0,37		
320	1"	VFH 3003	1,78	1,52	2,06	2,76	1,03	2,32	0,63	0,30	0,42	M 10x30	3/8 x 1 1/4	0,49		
280	1 1/4"	VFH 3004	2,03	1,72	2,31	3,11	1,19	2,87	0,63	0,30	0,47	M 10x30	7/16 x 1 1/2	0,66		
210	1 1/2"	VFH 3005	2,41	2,00	2,75	3,70	1,41	3,27	0,63	0,30	0,53	M 12x35	1/2 x 1 1/2	0,99		
210	2"	VFH 3006	2,85	2,47	3,06	4,02	1,69	3,82	0,63	0,35	0,53	M 12x35	1/2 x 1 1/2	1,10		
Strength class		High pressure											<i>metr.</i>	<i>unc.</i>		
10.9																
420	1/2"	VFH 6001	1,28	0,97	1,59	2,20	0,72	1,89	0,63	0,28	0,34	M 8x30	5/16 x 1 1/4	0,35		
420	3/4"	VFH 6002	1,65	1,28	2,00	2,80	0,94	2,36	0,79	0,32	0,42	M 10x35	3/8 x 1 1/2	0,77		
420	1"	VFH 6003	1,91	1,53	2,25	3,19	1,09	2,76	0,98	0,35	0,51	M 12x45	-	1,17		
420	1 1/4"	VFH 6004	2,16	1,75	2,62	3,74	1,25	3,07	1,06	0,39	0,58	M 14x50	1/2 x 1 3/4	1,76		
420	1 1/2"	VFH 6005	2,53	2,03	3,12	4,45	1,44	3,74	1,18	0,47	0,67	M 16x55	5/8 x 2	2,98		
420	2"	VFH 6006	3,16	2,66	3,81	5,24	1,75	4,49	1,46	0,47	0,83	M 20x70	3/4 x 2 1/2	4,63		

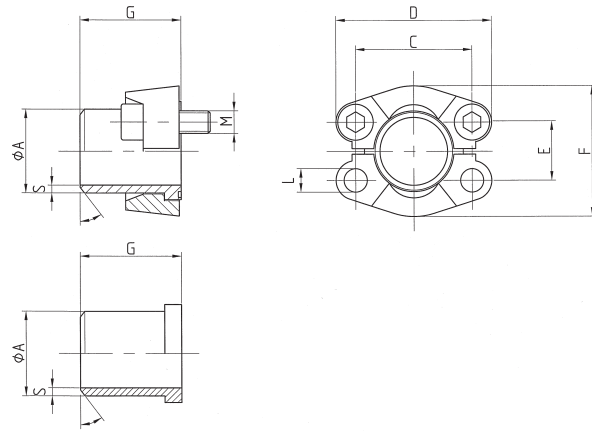


Ordering code:	S355J2^{*1} C45	1.4404^{*1} 316L
• flange only	VFG-...	VFG-X-...
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Thread	Weight (flange only)	
			A	B	C	D	E	F	G	H	I	M			
kg/cm ²	inch														lb
Strength class		Standard pressure													
10.9															
350	1/2"	VFG 3001	1,22	0,96	1,50	2,13	0,69	1,81	0,75	0,51	0,24	M 8	0,33		
350	3/4"	VFG 3002	1,53	1,27	1,87	2,56	0,88	2,05	0,87	0,55	0,24	M 10	0,37		
320	1"	VFG 3003	1,78	1,52	2,06	2,76	1,03	2,32	0,94	0,63	0,30	M 10	0,49		
280	1 1/4"	VFG 3004	2,03	1,72	2,31	3,11	1,19	2,87	^{0,87}	0,55	0,30	M 10	0,66		
210	1 1/2"	VFG 3005	2,41	2,00	2,75	3,70	1,41	3,27	0,98	0,63	0,30	M 12	0,99		
210	2"	VFG 3006	2,85	2,47	3,06	4,02	1,69	3,82	1,02	0,63	0,35	M 12	1,10		
175	2 1/2"	VFG 3007	3,34	2,95	3,50	4,49	2,00	4,29	1,50	0,75	0,35	M 12	1,94		
175	2 1/2"	VFG 3007-B 76,6	3,34	3,02	3,50	4,49	2,00	4,29	1,50	0,75	0,35	M 12	1,94		
160	3"	VFG 3008	4,03	3,58	4,19	5,31	2,44	5,16	1,61	0,87	0,35	M 16	2,87		
35	3 1/2"	VFG 3009	4,53	4,03	4,75	5,98	2,75	5,51	1,10	0,87	0,42	M 16	2,84		
35	4"	VFG 3010	5,03	4,53	5,13	6,38	3,06	5,98	1,38	0,98	0,42	M 16	3,64		
35	5"	VFG 3011	6,03	5,53	6,00	7,24	3,63	7,13	1,61	1,10	0,42	M 16	5,51		
Strength class		High pressure													
10.9															
420	1/2"	VFG 6001	1,28	0,97	1,59	2,20	0,72	1,89	0,87	0,63	0,28	M 8	0,35		
420	3/4"	VFG 6002	1,65	1,28	2,00	2,80	0,94	2,36	1,10	0,75	0,32	M 10	0,77		
420	1"	VFG 6003	1,91	1,53	2,25	3,19	1,09	2,76	1,30	0,94	0,35	M 12	1,17		
420	1 1/4"	VFG 6004	2,16	1,75	2,62	3,74	1,25	3,07	1,50	1,06	0,39	M 14	1,76		
420	1 1/4"	VFG 6004-M12	2,16	1,75	2,62	3,74	1,25	3,07	1,50	1,06	0,39	M 12	1,76		
420	1 1/2"	VFG 6005	2,53	2,03	3,12	4,45	1,44	3,74	1,69	1,18	0,47	M 16	2,98		
420	2"	VFG 6006	3,16	2,66	3,81	5,24	1,75	4,49	2,05	1,46	0,47	M 20	4,63		
420	2 1/2"	VFG 6007	4,29	3,56	4,87	7,09	2,31	5,98	1,77	1,77	0,81	M 24	9,04		
420	3"	VFG 6008	5,22	4,55	6,00	8,46	2,82	7,80	2,17	2,17	1,00	M 30	18,96		

*1 or comparable material

*2 dimension G alternatively 24, dimension H alternatively 16



Ordering code:		S355J2^{*1} 1.4404^{*1} 316L
• flange head only	SFS-...	SFX-...
• butt weld flange with accessories including split flanges (or complete flange), metric bolts and o-ring	SFS-...-M	SFX-...-MX SFX-...-M
• including split flanges (or complete flange), UNC-bolts and o-ring	SFS-...-U	SFX-...-UX SFX-...-U
Ordering code flange head as counterflange (without o-ring groove).		
• flange head without o-ring groove	GSFS-...	GSFX-...
Surface only blanc available		

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions						Bolts		Weight (flange only)	
				C	D	E	F	G	L	M			
kg/cm ²	inch											lb	
Strength class	Standard pressure										metr.	unc.	
10.9													
350	1/2"		SFS 3001 16x2	1,50	2,13	0,69	1,80	1,61	0,33	M 8x25	5/16 x 1 1/4	0,17	
350	1/2"		SFS 3001 20x2,5	1,50	2,13	0,69	1,80	1,61	0,33	M 8x25	5/16 x 1 1/4	0,20	
350	1/2"	1370-08-08 / 1371-08-08 (counterflange)	SFS 3001 21,3x2,9	1,50	2,13	0,69	1,80	1,61	0,33	M 8x25	5/16 x 1 1/4	0,20	
350	1/2"	1372-08-08 / 1373-08-08 (counterflange)	SFS 3001 21,3x3,8	1,50	2,13	0,69	1,80	1,61	0,33	M 8x25	5/16 x 1 1/4	0,20	
350	1/2"		SFS 3001 21,3x4,7	1,50	2,13	0,69	1,80	1,61	0,33	M 8x25	5/16 x 1 1/4	0,23	
350	3/4"		SFS 3002 25x3	1,87	2,56	0,88	2,04	1,97	0,41	M 10x30	3/8 x 1 1/4	0,36	
350	3/4"		SFS 3002 26,9x3,6	1,87	2,56	0,88	2,04	1,97	0,41	M 10x30	3/8 x 1 1/4	0,40	
350	3/4"	1372-12-12 / 1373-12-12 (counterflange)	SFS 3002 26,9x3,9	1,87	2,56	0,88	2,04	1,97	0,41	M 10x30	3/8 x 1 1/4	0,39	
320	1"		SFS 3003 25x3	2,06	2,76	1,03	2,30	1,97	0,41	M 10 x30	3/8 x 1 1/4	0,55	
320	1"		SFS 3003 28x3	2,06	2,76	1,03	2,30	1,97	0,41	M 10 x30	3/8 x 1 1/4	0,30	
320	1"		SFS 3003 30x3	2,06	2,76	1,03	2,30	1,97	0,41	M 10 x30	3/8 x 1 1/4	0,49	
320	1"		SFS 3003 30x4	2,06	2,76	1,03	2,30	1,97	0,41	M 10 x30	3/8 x 1 1/4	0,54	
320	1"	1372-16-16 / 1373-16-16 (counterflange)	SFS 3003 33,7x4,5	2,06	2,76	1,03	2,30	1,97	0,41	M 10 x30	3/8 x 1 1/4	0,52	
320	1"		SFS 3003 38x4	2,06	2,76	1,03	2,30	1,97	0,41	M 10 x30	3/8 x 1 1/4	0,53	
320	1"		SFS 3003 38x5	2,06	2,76	1,03	2,30	1,97	0,41	M 10 x30	3/8 x 1 1/4	0,47	
280	1 1/4"		SFS 3004 25x3	2,31	3,11	1,19	2,86	2,17	*3	*4	7/16 x 1 1/2	0,79	
280	1 1/4"		SFS 3004 30x3	2,31	3,11	1,19	2,86	2,17	*3	*4	7/16 x 1 1/2	0,75	
280	1 1/4"		SFS 3004 38x3	2,31	3,11	1,19	2,86	2,17	*3	*4	7/16 x 1 1/2	0,55	
280	1 1/4"		SFS 3004 38x4	2,31	3,11	1,19	2,86	2,17	*3	*4	7/16 x 1 1/2	0,65	
280	1 1/4"		SFS 3004 38x5	2,31	3,11	1,19	2,86	2,17	*3	*4	7/16 x 1 1/2	0,47	
280	1 1/4"	1370-20-20 / 1371-20-20 (counterflange)	SFS 3004 42,4x3,6	2,31	3,11	1,19	2,86	2,17	*3	*4	7/16 x 1 1/2	0,60	
280	1 1/4"	1372-20-20 / 1373-20-20 (counterflange)	SFS 3004 42,4x4,5	2,31	3,11	1,19	2,86	2,17	*3	*4	7/16 x 1 1/2	0,58	
280	1 1/4"		SFS 3004 42,4x6,3	2,31	3,11	1,19	2,86	2,17	*3	*4	7/16 x 1 1/2	0,74	

*1 or a comparable material

*2 Pipe diameter 3" according to ISO 6162 max. 2,91"

*3 choice of 0,41", 0,47" or 0,5"

*4 choice of M 10x30 or M 12x35

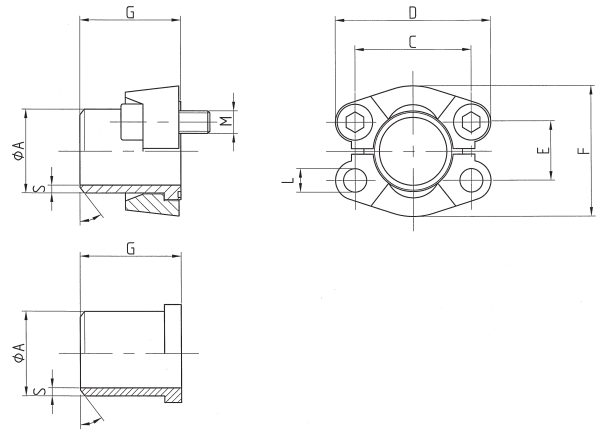
maximum recommended working pressure*	nominal flange size	Part no.	Type	Dimensions						Bolts		Weight (flange only)
				C	D	E	F	G	L	M	lb	
kg/cm ²	inch											
210	1½"		SFS 3005 38x4	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	1,04
210	1½"		SFS 3005 42x3	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	0,83
210	1½"		SFS 3005 42x5	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	1,03
210	1½"		SFS 3005 45x5	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	0,94
210	1½"		SFS 3005 48,3x2,6	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	0,79
210	1½"	1370-24-24 / 1371-20-20 (counterflange)	SFS 3005 48,3x3,6	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	0,82
210	1½"	1372-24-24 / 1373-24-24 (counterflange)	SFS 3005 48,3x5	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	0,84
210	1½"		SFS 3005 48,3x6,3	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	0,97
210	1½"		SFS 3005 48,3x7,1	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	1,05
210	1½"		SFS 3005 50x6	2,75	3,70	1,41	3,24	2,24	0,52	M 12x35	½ x 1½	0,88
210	2"		SFS 3006 48,3x5	3,06	4,02	1,69	3,80	2,24	0,52	M 12x35	½ x 1½	1,50
210	2"		SFS 3006 55x5	3,06	4,02	1,69	3,80	2,24	0,52	M 12x35	½ x 1½	1,33
210	2"		SFS 3006 60,3x2,9	3,06	4,02	1,69	3,80	2,24	0,52	M 12x35	½ x 1½	0,97
210	2"	1370-32-32 / 1371-32-32 (counterflange)	SFS 3006 60,3x3,9	3,06	4,02	1,69	3,80	2,24	0,52	M 12x35	½ x 1½	0,99
210	2"	1372-32-32 / 1373-32-32 (counterflange)	SFS 3006 60,3x5	3,06	4,02	1,69	3,80	2,24	0,52	M 12x35	½ x 1½	1,08
210	2"		SFS 3006 60,3x6,3	3,06	4,02	1,69	3,80	2,24	0,52	M 12x35	½ x 1½	1,28
210	2"		SFS 3006 60,3x8	3,06	4,02	1,69	3,80	2,24	0,52	M 12x35	½ x 1½	1,47
175	2½"		SFS 3007 65x6	3,50	4,49	2,00	4,26	2,28	0,52	M 12x40	½ x 1¾	1,85
175	2½"		SFS 3007 70x7,5	3,50	4,49	2,00	4,26	2,28	0,52	M 12x40	½ x 1¾	1,85
175	2½"		SFS 3007 76,1x5,5 (74x4,5)*2	3,50	4,49	2,00	4,26	2,28	0,52	M 12x40	½ x 1¾	1,14
175	2½"		SFS 3007 76,1x7,1 (74x6,1)*2	3,50	4,49	2,00	4,26	2,28	0,52	M 12x40	½ x 1¾	1,41
175	2½"		SFS 3007 76,1x5,5*2	3,50	4,49	2,00	4,26	2,28	0,52	M 12x40	½ x 1¾	1,50
175	2½"		SFS 3007 76,1x7,1*2	3,50	4,49	2,00	4,26	2,28	0,52	M 12x40	½ x 1¾	1,60
160	3"		SFS 3008 80x6	4,19	5,31	2,44	5,14	2,28	0,67	M 16x50	⅝ x 2	2,45
160	3"		SFS 3008 88,9x3,2	4,19	5,31	2,44	5,14	2,28	0,67	M 16x50	⅝ x 2	2,05
160	3"		SFS 3008 88,9x3,9	4,19	5,31	2,44	5,14	2,28	0,67	M 16x50	⅝ x 2	2,04
160	3"		SFS 3008 88,9x7	4,19	5,31	2,44	5,14	2,28	0,67	M 16x50	⅝ x 2	2,19
160	3"	1372-48-48 / 1373-48-48 (counterflange)	SFS 3008 88,9x8	4,19	5,31	2,44	5,14	2,28	0,67	M 16x50	⅝ x 2	2,30
35	3½"		SFS 3009 100x6	4,75	5,98	2,75	5,47	2,36	0,67	M 16x50	⅝ x 2	2,36
35	3½"		SFS 3009 88,9x3,6	4,75	5,98	2,75	5,47	2,36	0,67	M 16x50	⅝ x 2	2,64
35	3½"		SFS 3009 88,9x8	4,75	5,98	2,75	5,47	2,36	0,67	M 16x50	⅝ x 2	3,46
35	4"		SFS 3010 110x6	5,13	6,38	3,06	5,98	2,36	0,67	M 16x50	⅝ x 2	2,91
35	4"		SFS 3010 114,3x3,6	5,13	6,38	3,06	5,98	2,36	0,67	M 16x50	⅝ x 2	2,25
35	4"	1370-64-64 / 1371-64-64 (counterflange)	SFS 3010 114,3x6,02	5,13	6,38	3,06	5,98	2,36	0,67	M 16x50	⅝ x 2	2,55
35	4"	1372-64-64 / 1373-64-64 (counterflange)	SFS 3010 114,3x8,8	5,13	6,38	3,06	5,98	2,36	0,67	M 16x50	⅝ x 2	3,28
35	5"		SFS 3011 133x6,5	6,00	7,24	3,63	7,09	2,36	0,67	M 16x55	⅝ x 2	4,06
35	5"		SFS 3011 139,7x4	6,00	7,24	3,63	7,09	2,36	0,67	M 16x55	⅝ x 2	2,72
35	5"	1372-72-72 / 1373-72-72 (counterflange)	SFS 3011 139,7x10	6,00	7,24	3,63	7,09	2,36	0,67	M 16x55	⅝ x 2	4,41

*1 or a comparable material

*2 Pipe diameter 3" according to ISO 6162 max. 2,91"

*3 choice of 0,41", 0,47" or 0,5"

*4 choice of M 10x30 or M 12x35



Ordering code:		S355J2^{*1} 1.4404^{*1} 316L
• flange head only	SFS-...	SFX-...
• butt weld flange with accessories including split flanges (or complete flange), metric bolts and o-ring	SFS-...-M	SFX-...-MX SFX-...-M
• including split flanges (or complete flange), UNC-bolts and o-ring	SFS-...-U	SFX-...-UX SFX-...-U
Ordering code flange head as counterflange (without o-ring groove).		
• flange head without o-ring groove	GSFS-...	GSFX-...
Surface only blanc available		

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions						Bolts		Weight (flange only)
				C	D	E	F	G	L	M	lb	
kg/cm ²	inch											
Strength class 10.9	High pressure											
										metr.	unc.	
420	1/2"		SFS 6001 16x2	1,59	2,20	0,72	1,86	1,34	0,33	M 8x30	5/16 x 1 1/4	0,21
420	1/2"		SFS 6001 20x2,5	1,59	2,20	0,72	1,86	1,34	0,33	M 8x30	5/16 x 1 1/4	0,16
420	1/2"		SFS 6001 21,3x3,8	1,59	2,20	0,72	1,86	1,34	0,33	M 8x30	5/16 x 1 1/4	0,20
420	1/2"	1674-08-08 / 1675-08-08 (counterflange)	SFS 6001 21,3x4,5	1,59	2,20	0,72	1,86	1,34	0,33	M 8x30	5/16 x 1 1/4	0,20
420	3/4"		SFS 6002 16x2	2,00	2,80	0,94	2,36	1,50	0,41	M 10x35	3/8 x 1 1/2	0,31
420	3/4"		SFS 6002 20x2,5	2,00	2,80	0,94	2,36	1,50	0,41	M 10x35	3/8 x 1 1/2	0,33
420	3/4"		SFS 6002 25x3	2,00	2,80	0,94	2,36	1,50	0,41	M 10x35	3/8 x 1 1/2	0,29
420	3/4"		SFS 6002 25x3,5	2,00	2,80	0,94	2,36	1,50	0,41	M 10x35	3/8 x 1 1/2	0,31
420	3/4"		SFS 6002 25x4	2,00	2,80	0,94	2,36	1,50	0,41	M 10x35	3/8 x 1 1/2	0,34
420	3/4"	1674-12-12 / 1675-12-12 (counterflange)	SFS 6002 26,9x5,6	2,00	2,80	0,94	2,36	1,50	0,41	M 10x35	3/8 x 1 1/2	0,39
420	1"		SFS 6003 25x3	2,25	3,19	1,09	2,74	1,57	*2	M 12x45	7/16 x 1 3/4	0,49
420	1"		SFS 6003 30x3	2,25	3,19	1,09	2,74	1,57	*2	M 12x45	7/16 x 1 3/4	0,41
420	1"		SFS 6003 30x4	2,25	3,19	1,09	2,74	1,57	*2	M 12x45	7/16 x 1 3/4	0,45
420	1"		SFS 6003 33,7x6,3	2,25	3,19	1,09	2,74	1,57	*2	M 12x45	7/16 x 1 3/4	0,53
420	1"		SFS 6003 33,7x7,1	2,25	3,19	1,09	2,74	1,57	*2	M 12x45	7/16 x 1 3/4	0,57
420	1"		SFS 6003 38x4	2,25	3,19	1,09	2,74	1,57	*2	M 12x45	7/16 x 1 3/4	0,46
420	1"		SFS 6003 38x5	2,25	3,19	1,09	2,74	1,57	*2	M 12x45	7/16 x 1 3/4	0,49

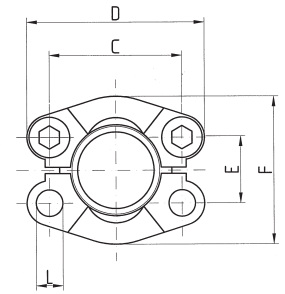
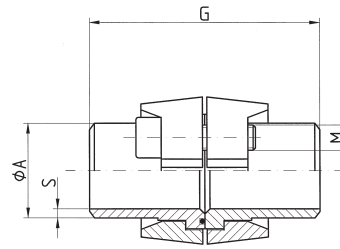
*1 or a comparable material
*2 choice of 0,47" or 0,52"

*3 choice of 0,52" or 0,57"
*4 choice of M 12x45 or M 14x50

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions						Bolts		Weight (flange only)
				C	D	E	F	G	L	M	lb	
kg/cm ²	inch											
420	1 1/4"		SFS 6004 25x3	2,62	3,74	1,25	3,04	1,77	*3	*4	1/2 x 1 1/4	0,66
420	1 1/4"		SFS 6004 30x4	2,62	3,74	1,25	3,04	1,77	*3	*4	1/2 x 1 1/4	0,75
420	1 1/4"		SFS 6004 38x4	2,62	3,74	1,25	3,04	1,77	*3	*4	1/2 x 1 1/4	0,62
420	1 1/4"		SFS 6004 38x5	2,62	3,74	1,25	3,04	1,77	*3	*4	1/2 x 1 1/4	0,68
420	1 1/4"		SFS 6004 38x5,5	2,62	3,74	1,25	3,04	1,77	*3	*4	1/2 x 1 1/4	0,71
420	1 1/4"		SFS 6004 38x6	2,62	3,74	1,25	3,04	1,77	*3	*4	1/2 x 1 1/4	0,75
420	1 1/4"	1674-20-20 / 1675-20-20 (counterflange)	SFS 6004 42,4x6,3	2,62	3,74	1,25	3,04	1,77	*3	*4	1/2 x 1 1/4	0,71
420	1 1/2"		SFS 6005 38x5	3,12	4,45	1,44	3,74	1,97	0,66	M 16x55	5/8 x 2	1,12
420	1 1/2"		SFS 6005 45x6,5	3,12	4,45	1,44	3,74	1,97	0,66	M 16x55	5/8 x 2	1,09
420	1 1/2"		SFS 6005 48,3x5	3,12	4,45	1,44	3,74	1,97	0,66	M 16x55	5/8 x 2	0,93
420	1 1/2"		SFS 6005 48,3x6,3	3,12	4,45	1,44	3,74	1,97	0,66	M 16x55	5/8 x 2	1,01
420	1 1/2"	1674-24-24 / 1675-24-24 (counterflange)	SFS 6005 48,3x7,1	3,12	4,45	1,44	3,74	1,97	0,66	M 16x55	5/8 x 2	1,08
420	1 1/2"		SFS 6005 48,3x8	3,12	4,45	1,44	3,74	1,97	0,66	M 16x55	5/8 x 2	1,15
420	1 1/2"		SFS 6005 48,3x8,8	3,12	4,45	1,44	3,74	1,97	0,66	M 16x55	5/8 x 2	1,20
420	1 1/2"		SFS 6005 50x6	3,12	4,45	1,44	3,74	1,97	0,66	M 16x55	5/8 x 2	0,97
420	2"		SFS 6006 48,3x6,3	3,81	5,24	1,75	4,48	2,28	0,83	M 20x70	3/4 x 2 1/2	2,12
420	2"		SFS 6006 60,3x6,3	3,81	5,24	1,75	4,48	2,28	0,83	M 20x70	3/4 x 2 1/2	1,79
420	2"		SFS 6006 60,3x7,5	3,81	5,24	1,75	4,48	2,28	0,83	M 20x70	3/4 x 2 1/2	1,91
420	2"		SFS 6006 60,3x8	3,81	5,24	1,75	4,48	2,28	0,83	M 20x70	3/4 x 2 1/2	2,18
420	2"	1674-32-32 / 1675-32-32 (counterflange)	SFS 6006 60,3x8,75	3,81	5,24	1,75	4,48	2,28	0,83	M 20x70	3/4 x 2 1/2	2,06
420	2"		SFS 6006 60,3x10	3,81	5,24	1,75	4,48	2,28	0,83	M 20x70	3/4 x 2 1/2	2,19
420	2"		SFS 6006 60,3x13,4	3,81	5,24	1,75	4,48	2,28	0,83	M 20x70	3/4 x 2 1/2	2,45
420	2"		SFS 6006 65x8	3,81	5,24	1,75	4,48	2,28	0,83	M 20x70	3/4 x 2 1/2	1,81
420	2 1/2"		SFS 6007 76,1x8	4,87	7,09	2,31	5,91	2,95	1,02	M 24x80	-	2,79
420	2 1/2"		SFS 6007 76,1x10	4,87	7,09	2,31	5,91	2,95	1,02	M 24x80	-	5,21
420	2 1/2"		SFS 6007 76,1x12,5	4,87	7,09	2,31	5,91	2,95	1,02	M 24x80	-	5,62
420	2 1/2"		SFS 6007 88,9x10	4,87	7,09	2,31	5,91	2,95	1,02	M 24x80	-	5,02
420	2 1/2"		SFS 6007 88,9x11,1	4,87	7,09	2,31	5,91	2,95	1,02	M 24x80	-	5,09
420	2 1/2"		SFS 6007 88,9x14,2	4,87	7,09	2,31	5,91	2,95	1,02	M 24x80	-	5,16
420	2 1/2"		SFS 6007 88,9x17	4,87	7,09	2,31	5,91	2,95	1,02	M 24x80	-	5,74
420	3"		SFS 6008 88,9x10	6,00	8,46	2,82	7,80	3,15	1,26	M 30x90	-	9,06
420	3"	1674-48-48 / 1675-48-48 (counterflange)	SFS 6008 88,9x11,1	6,00	8,46	2,82	7,80	3,15	1,26	M 30x90	-	9,26
420	3"		SFS 6008 88,9x14,2	6,00	8,46	2,82	7,80	3,15	1,26	M 30x90	-	9,92
420	3"		SFS 6008 114,3x11	6,00	8,46	2,82	7,80	3,15	1,26	M 30x90	-	8,45
420	3"		SFS 6008 114,3x17,5	6,00	8,46	2,82	7,80	3,15	1,26	M 30x90	-	8,83

*1 or a comparable material
*2 choice of 0,47" or 0,52"

*3 choice of 0,52" or 0,57"
*4 choice of M 12x45 or M 14x50



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• welding head-coupling	DSFS-...-M	DSFX-...-MX
	DSFS-...-U	DSFX-...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

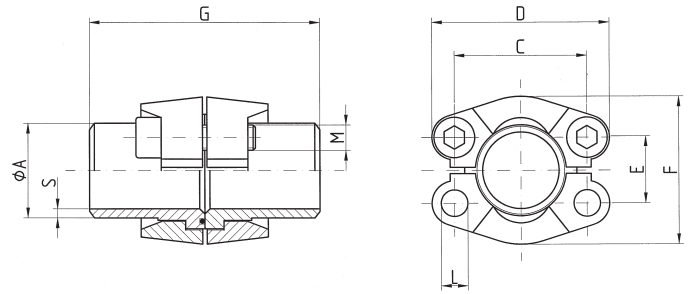
maximum recommended working pressure*	Nominal flange size	Type	pipe diameter	Dimensions						Bolts		Weight (flange only)
				C	D	E	F	G	L	M		
kg/cm ²	inch									M		lb
Strength class		Standard pressure										
10.9										metr.	unc.	
350	1/2"	DSFS 3001 16x2	0,63 x 0,08	1,50	2,13	0,69	1,80	3,23	0,33	M 8x30	5/16 x 1 1/4	1,00
350	1/2"	DSFS 3001 20x2,5	0,79 x 0,1	1,50	2,13	0,69	1,80	3,23	0,33	M 8x30	5/16 x 1 1/4	1,03
350	1/2"	DSFS 3001 21,3x2,9	0,84 x 0,11	1,50	2,13	0,69	1,80	3,23	0,33	M 8x30	5/16 x 1 1/4	1,05
350	1/2"	DSFS 3001 21,3x3,8	0,84 x 1,5	1,50	2,13	0,69	1,80	3,23	0,33	M 8x30	5/16 x 1 1/4	1,06
350	1/2"	DSFS 3001 21,3x4,7	0,84 x 0,19	1,50	2,13	0,69	1,80	3,23	0,33	M 8x30	5/16 x 1 1/4	1,30
350	3/4"	DSFS 3002 25x3	0,98 x 0,12	1,87	2,56	0,88	2,04	3,94	0,41	M 10x30	3/8 x 1 1/4	1,51
350	3/4"	DSFS 3002 26,9x3,6	1,06 x 0,14	1,87	2,56	0,88	2,04	3,94	0,41	M 10x30	3/8 x 1 1/4	1,61
350	3/4"	DSFS 3002 26,9x3,9	1,06 x 0,15	1,87	2,56	0,88	2,04	3,94	0,41	M 10x30	3/8 x 1 1/4	1,57
320	1"	DSFS 3003 25x3	0,98 x 0,12	2,06	2,76	1,03	2,30	3,94	0,41	M 10x35	3/8 x 1 1/4	2,09
320	1"	DSFS 3003 30x3	1,18 x 0,12	2,06	2,76	1,03	2,30	3,94	0,41	M 10x35	3/8 x 1 1/4	1,76
320	1"	DSFS 3003 30x4	1,18 x 0,16	2,06	2,76	1,03	2,30	3,94	0,41	M 10x35	3/8 x 1 1/4	2,01
320	1"	DSFS 3003 33,7x4,5	1,33 x 0,18	2,06	2,76	1,03	2,30	3,94	0,41	M 10x35	3/8 x 1 1/4	2,00
320	1"	DSFS 3003 38x4	1,5 x 0,16	2,06	2,76	1,03	2,30	3,94	0,41	M 10x35	3/8 x 1 1/4	2,03
320	1"	DSFS 3003 38x5	1,5 x 0,2	2,06	2,76	1,03	2,30	3,94	0,41	M 10x35	3/8 x 1 1/4	2,00
280	1 1/4"	DSFS 3004 25x3	0,98 x 0,12	2,31	3,11	1,19	2,86	4,33	*3	*4	7/16 x 1 1/2	2,93
280	1 1/4"	DSFS 3004 30x3	1,18 x 0,12	2,31	3,11	1,19	2,86	4,33	*3	*4	7/16 x 1 1/2	2,83
280	1 1/4"	DSFS 3004 38x3	1,5 x 0,12	2,31	3,11	1,19	2,86	4,33	*3	*4	7/16 x 1 1/2	2,47
280	1 1/4"	DSFS 3004 38x4	1,5 x 0,16	2,31	3,11	1,19	2,86	4,33	*3	*4	7/16 x 1 1/2	2,56
280	1 1/4"	DSFS 3004 38x5	1,5 x 0,2	2,31	3,11	1,19	2,86	4,33	*3	*4	7/16 x 1 1/2	2,38
280	1 1/4"	DSFS 3004 42,4x3,6	1,67 x 0,14	2,31	3,11	1,19	2,86	4,33	*3	*4	7/16 x 1 1/2	2,54
280	1 1/4"	DSFS 3004 42,4x4,5	1,67 x 0,18	2,31	3,11	1,19	2,86	4,33	*3	*4	7/16 x 1 1/2	2,51
280	1 1/4"	DSFS 3004 42,4x6,3	1,67 x 0,25	2,31	3,11	1,19	2,86	4,33	*3	*4	7/16 x 1 1/2	2,83
210	1 1/2"	DSFS 3005 38x4	1,5 x 0,16	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	4,10
210	1 1/2"	DSFS 3005 42x3	1,65 x 0,12	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	3,69
210	1 1/2"	DSFS 3005 42x5	1,65 x 0,2	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	4,07
210	1 1/2"	DSFS 3005 45x5	1,77 x 0,2	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	3,97
210	1 1/2"	DSFS 3005 48,3x2,6	1,90 x 0,1	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	3,62
210	1 1/2"	DSFS 3005 48,3x3,6	1,90 x 0,14	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	3,66
210	1 1/2"	DSFS 3005 48,3x5	1,9 x 0,2	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	3,73
210	1 1/2"	DSFS 3005 48,3x6,3	1,9 x 0,25	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	5,05
210	1 1/2"	DSFS 3005 48,3x7,1	1,9 x 0,28	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	4,95
210	1 1/2"	DSFS 3005 50x6	1,97 x 0,24	2,75	3,70	1,41	3,24	4,49	0,52	M 12x35	1/2 x 1 1/2	3,81

*1 or a comparable material

*2 Pipe diameter 3" according to ISO 6162 max. 2,91"

*3 choice of 0,41", 0,47" or 0,5"

*4 choice of M 10x35 or M 12x40



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• welding head-coupling	DSFS-...-M DSFS-...-U	DSFX-...-MX DSFX-...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

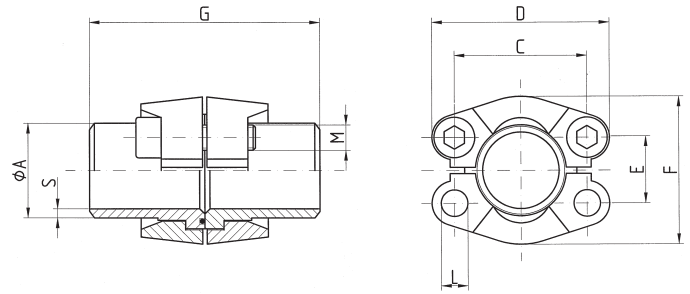
maximum recommended working pressure*	nominal flange size	Type	pipe diameter	Dimensions						Bolts		Weight (flange only)
				C	D	E	F	G	L	M		
kg/cm ²	inch										M	lb
210	2"	DSFS 3006 48,3x5	1,9 x 0,2	3,06	4,02	1,69	3,80	4,49	0,52	M 12x35	1/2 x 1 1/2	5,22
210	2"	DSFS 3006 55x5	2,17 x 0,2	3,06	4,02	1,69	3,80	4,49	0,52	M 12x35	1/2 x 1 1/2	4,87
210	2"	DSFS 3006 60,3x2,9	2,37 x 0,11	3,06	4,02	1,69	3,80	4,49	0,52	M 12x35	1/2 x 1 1/2	4,17
210	2"	DSFS 3006 60,3x3,9	2,37 x 0,15	3,06	4,02	1,69	3,80	4,49	0,52	M 12x35	1/2 x 1 1/2	4,22
210	2"	DSFS 3006 60,3x5	2,37 x 0,2	3,06	4,02	1,69	3,80	4,49	0,52	M 12x35	1/2 x 1 1/2	4,41
210	2"	DSFS 3006 60,3x6,3	2,37 x 0,25	3,06	4,02	1,69	3,80	4,49	0,52	M 12x35	1/2 x 1 1/2	4,78
210	2"	DSFS 3006 60,3x8	2,37 x 0,31	3,06	4,02	1,69	3,80	4,49	0,52	M 12x35	1/2 x 1 1/2	5,18
175	2 1/2"	DSFS 3007 65x6	A= 2,91 ; 2,56 x 0,24	3,50	4,49	2,00	4,26	4,57	0,52	M 12x45	1/2 x 1 3/4	7,30
175	2 1/2"	DSFS 3007 70x7,5	A= 2,91 ; 2,76 x 0,3	3,50	4,49	2,00	4,26	4,57	0,52	M 12x45	1/2 x 1 3/4	7,33
175	2 1/2"	DSFS 3007 76,1x5,5 (74x4,5)*2	A= 2,91 ; 3 x 0,22 (2,91 x 0,18)*2	3,50	4,49	2,00	4,26	4,57	0,52	M 12x45	1/2 x 1 3/4	5,89
175	2 1/2"	DSFS 3007 76,1x7,1 (74x6,1)*2	A= 2,91 ; 3 x 0,28 (2,91 x 0,24)*2	3,50	4,49	2,00	4,26	4,57	0,52	M 12x45	1/2 x 1 3/4	6,44
175	2 1/2"	DSFS 3007 76,1x5,5*2	A= 3 ; 3 x 0,22*2	3,50	4,49	2,00	4,26	4,57	0,52	M 12x45	1/2 x 1 3/4	6,44
175	2 1/2"	DSFS 3007 76,1x7,1*2	A= 3 ; 3 x 0,28*2	3,50	4,49	2,00	4,26	4,57	0,52	M 12x45	1/2 x 1 3/4	6,87
160	3"	DSFS 3008 80x6	3,15 x 0,24	4,19	5,31	2,44	5,14	4,57	0,67	M 16x50	5/8 x 2	10,80
160	3"	DSFS 3008 88,9x3,2	3,5 x 0,13	4,19	5,31	2,44	5,14	4,57	0,67	M 16x50	5/8 x 2	9,81
160	3"	DSFS 3008 88,9x3,6	3,5 x 0,15	4,19	5,31	2,44	5,14	4,57	0,67	M 16x50	5/8 x 2	9,83
160	3"	DSFS 3008 88,9x7	3,5 x 0,28	4,19	5,31	2,44	5,14	4,57	0,67	M 16x50	5/8 x 2	10,11
160	3"	DSFS 3008 88,9x8	3,5 x 0,31	4,19	5,31	2,44	5,14	4,57	0,67	M 16x50	5/8 x 2	10,42
35	3 1/2"	DSFS 3009 100x6	3,94 x 0,24	4,75	5,98	2,75	5,47	4,72	0,67	M 16x50	5/8 x 2	10,95
35	3 1/2"	DSFS 3009 88,9x3,6	3,5 x 0,14	4,75	5,98	2,75	5,47	4,72	0,67	M 16x50	5/8 x 2	15,37
35	3 1/2"	DSFS 3009 88,9x8	3,5 x 0,31	4,75	5,98	2,75	5,47	4,72	0,67	M 16x50	5/8 x 2	13,34
35	4"	DSFS 3010 110x6	4,33 x 0,24	5,13	6,38	3,06	5,98	4,72	0,67	M 16x50	5/8 x 2	13,23
35	4"	DSFS 3010 114,3x3,6	4,5 x 0,14	5,13	6,38	3,06	5,98	4,72	0,67	M 16x50	5/8 x 2	11,88
35	4"	DSFS 3010 114,3x6,02	4,5 x 0,24	5,13	6,38	3,06	5,98	4,72	0,67	M 16x50	5/8 x 2	12,75
35	4"	DSFS 3010 114,3x8,8	4,5 x 0,35	5,13	6,38	3,06	5,98	4,72	0,67	M 16x50	5/8 x 2	14,00
35	5"	DSFS 3011 133x6,5	5,24 x 0,26	6,00	7,24	3,63	7,09	4,72	0,67	M 16x60	5/8 x 2	19,22
35	5"	DSFS 3011 139,7x4	5,5 x 0,16	6,00	7,24	3,63	7,09	4,72	0,67	M 16x60	5/8 x 2	16,57
35	5"	DSFS 3011 139,7x10	5,5 x 0,39	6,00	7,24	3,63	7,09	4,72	0,67	M 16x60	5/8 x 2	19,93

*1 or a comparable material

*2 Pipe diameter 3" according to ISO 6162 max. 2,91"

*3 choice of 0,41", 0,47" or 0,5"

*4 choice of M 10x35 or M 12x40



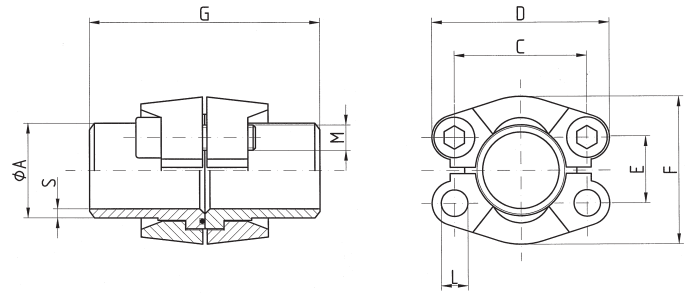
Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• welding head-coupling	DSFS-...-M	DSFX-...-MX
	DSFS-...-U	DSFX-...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	pipe diameter	Dimensions						Bolts		Weight (flange only)	
				C	D	E	F	G	L	M			
kg/cm ²	inch											lb	
Strength class	High pressure										<i>metr.</i>	<i>unc.</i>	
10.9													
420	1/2"	DSFS 6001 16x2	0,63 x 0,08	1,59	2,20	0,72	1,86	2,68	0,33	M 8x35	5/16 x 1 1/4		1,07
420	1/2"	DSFS 6001 20x2,5	0,79 x 0,10	1,59	2,20	0,72	1,86	2,68	0,33	M 8x35	5/16 x 1 1/4		1,02
420	1/2"	DSFS 6001 21,3x3,8	0,84 x 0,15	1,59	2,20	0,72	1,86	2,68	0,33	M 8x35	5/16 x 1 1/4		1,10
420	1/2"	DSFS 6001 21,3x4,5	0,84 x 0,18	1,59	2,20	0,72	1,86	2,68	0,33	M 8x35	5/16 x 1 1/4		1,10
420	3/4"	DSFS 6002 16x2	0,63 x 0,08	2,00	2,80	0,94	2,36	2,99	0,41	M 10x40	3/8 x 1 1/2		2,18
420	3/4"	DSFS 6002 20x2,5	0,79 x 0,10	2,00	2,80	0,94	2,36	2,99	0,41	M 10x40	3/8 x 1 1/2		2,25
420	3/4"	DSFS 6002 25x3	0,98 x 0,12	2,00	2,80	0,94	2,36	2,99	0,41	M 10x40	3/8 x 1 1/2		2,16
420	3/4"	DSFS 6002 25x3,5	0,98 x 0,14	2,00	2,80	0,94	2,36	2,99	0,41	M 10x40	3/8 x 1 1/2		2,18
420	3/4"	DSFS 6002 25x4	0,98 x 0,16	2,00	2,80	0,94	2,36	2,99	0,41	M 10x40	3/8 x 1 1/2		2,26
420	3/4"	DSFS 6002 26,9x5,6	1,06 x 0,22	2,00	2,80	0,94	2,36	2,99	0,41	M 10x40	3/8 x 1 1/2		2,38
420	1"	DSFS 6003 25x3	0,98 x 0,12	2,25	3,19	1,09	2,74	3,15	*2	M 12x50	7/16 x 1 3/4		3,33
420	1"	DSFS 6003 30x3	1,18 x 0,12	2,25	3,19	1,09	2,74	3,15	*2	M 12x50	7/16 x 1 3/4		3,20
420	1"	DSFS 6003 30x4	1,18 x 0,16	2,25	3,19	1,09	2,74	3,15	*2	M 12x50	7/16 x 1 3/4		3,28
420	1"	DSFS 6003 33,7x6,3	1,33 x 0,25	2,25	3,19	1,09	2,74	3,15	*2	M 12x50	7/16 x 1 3/4		3,44
420	1"	DSFS 6003 33,7x7,1	1,33 x 0,28	2,25	3,19	1,09	2,74	3,15	*2	M 12x50	7/16 x 1 3/4		3,51
420	1"	DSFS 6003 38x4	1,5 x 0,16	2,25	3,19	1,09	2,74	3,15	*2	M 12x50	7/16 x 1 3/4		3,31
420	1"	DSFS 6003 38x5	1,5 x 0,2	2,25	3,19	1,09	2,74	3,15	*2	M 12x50	7/16 x 1 3/4		3,35
420	1 1/4"	DSFS 6004 25x3	0,98 x 0,12	2,62	3,74	1,25	3,04	3,54	*3	*4	1/2 x 1 3/4		4,94
420	1 1/4"	DSFS 6004 30x4	1,18 x 0,16	2,62	3,74	1,25	3,04	3,54	*3	*4	1/2 x 1 3/4		5,00
420	1 1/4"	DSFS 6004 38x4	1,5 x 0,16	2,62	3,74	1,25	3,04	3,54	*3	*4	1/2 x 1 3/4		4,81
420	1 1/4"	DSFS 6004 38x5	1,5 x 0,2	2,62	3,74	1,25	3,04	3,54	*3	*4	1/2 x 1 3/4		4,96
420	1 1/4"	DSFS 6004 38x5,5	1,5 x 0,22	2,62	3,74	1,25	3,04	3,54	*3	*4	1/2 x 1 3/4		4,95
420	1 1/4"	DSFS 6004 38x6	1,5 x 0,24	2,62	3,74	1,25	3,04	3,54	*3	*4	1/2 x 1 3/4		5,04
420	1 1/4"	DSFS 6004 42,4x6,3	1,67 x 0,25	2,62	3,74	1,25	3,04	3,54	*3	*4	1/2 x 1 3/4		4,96

*1 or a comparable material
*2 choice of 0,47" or 0,52"

*3 choice of 0,52" or 0,57"
*4 choice of M 12x50 or M 14x55



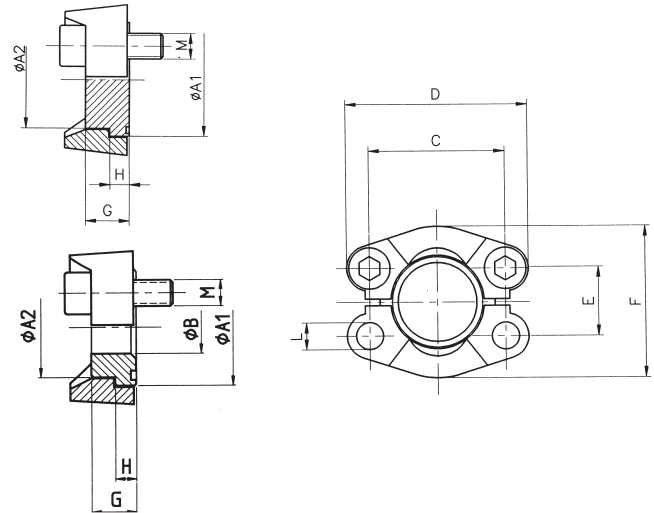
Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• welding head-coupling	DSFS-...-M DSFS-...-U	DSFX-...-MX DSFX-...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	pipe diameter	Dimensions						Bolts		Weight (flange only)
				C	D	E	F	G	L	M		
kg/cm ²	inch											lb
420	1½"	DSFS 6005 38x5	1,5 x 0,2	3,12	4,45	1,44	3,74	3,94	0,66	M 16x60	⅝ x 2	8,22
420	1½"	DSFS 6005 45x6,5	1,77 x 0,26	3,12	4,45	1,44	3,74	3,94	0,66	M 16x60	⅝ x 2	8,23
420	1½"	DSFS 6005 48,3x5	1,90 x 0,2	3,12	4,45	1,44	3,74	3,94	0,66	M 16x60	⅝ x 2	7,83
420	1½"	DSFS 6005 48,3x6,3	1,90 x 0,25	3,12	4,45	1,44	3,74	3,94	0,66	M 16x60	⅝ x 2	8,05
420	1½"	DSFS 6005 48,3x7,1	1,90 x 0,28	3,12	4,45	1,44	3,74	3,94	0,66	M 16x60	⅝ x 2	8,17
420	1½"	DSFS 6005 48,3x8	1,90 x 0,31	3,12	4,45	1,44	3,74	3,94	0,66	M 16x60	⅝ x 2	8,30
420	1½"	DSFS 6005 48,3x8,8	1,90 x 0,35	3,12	4,45	1,44	3,74	3,94	0,66	M 16x60	⅝ x 2	8,42
420	1½"	DSFS 6005 50x6	1,97 x 0,24	3,12	4,45	1,44	3,74	3,94	0,66	M 16x60	⅝ x 2	7,95
420	2"	DSFS 6006 48,3x6,3	1,90 x 0,25	3,81	5,24	1,75	4,48	4,57	0,83	M 20x75	¾ x 2½	13,54
420	2"	DSFS 6006 60,3x6,3	2,37 x 0,25	3,81	5,24	1,75	4,48	4,57	0,83	M 20x75	¾ x 2½	12,83
420	2"	DSFS 6006 60,3x7,5	2,37 x 0,30	3,81	5,24	1,75	4,48	4,57	0,83	M 20x75	¾ x 2½	13,13
420	2"	DSFS 6006 60,3x8	2,37 x 0,31	3,81	5,24	1,75	4,48	4,57	0,83	M 20x75	¾ x 2½	13,43
420	2"	DSFS 6006 60,3x8,75	2,37 x 0,34	3,81	5,24	1,75	4,48	4,57	0,83	M 20x75	¾ x 2½	13,41
420	2"	DSFS 6006 60,3x10	2,37 x 0,39	3,81	5,24	1,75	4,48	4,57	0,83	M 20x75	¾ x 2½	13,68
420	2"	DSFS 6006 60,3x13,4	2,37 x 0,53	3,81	5,24	1,75	4,48	4,57	0,83	M 20x75	¾ x 2½	14,20
420	2"	DSFS 6006 65x8	2,56 x 0,31	3,81	5,24	1,75	4,48	4,57	0,83	M 20x75	¾ x 2½	12,91
420	2½"	DSFS 6007 76,1x8	3 x 0,31	4,87	7,09	2,31	5,91	5,91	1,02	M 24x90	-	25,73
420	2½"	DSFS 6007 76,1x10	3 x 0,39	4,87	7,09	2,31	5,91	5,91	1,02	M 24x90	-	28,30
420	2½"	DSFS 6007 76,1x12,5	3 x 0,49	4,87	7,09	2,31	5,91	5,91	1,02	M 24x90	-	29,38
420	2½"	DSFS 6007 88,9x10	3,5 x 0,39	4,87	7,09	2,31	5,91	5,91	1,02	M 24x90	-	28,10
420	2½"	DSFS 6007 88,9x11	3,5 x 0,44	4,87	7,09	2,31	5,91	5,91	1,02	M 24x90	-	28,31
420	2½"	DSFS 6007 88,9x14,2	3,5 x 0,56	4,87	7,09	2,31	5,91	5,91	1,02	M 24x90	-	28,46
420	2½"	DSFS 6007 88,9x17	3,5 x 0,67	4,87	7,09	2,31	5,91	5,91	1,02	M 24x90	-	29,04
420	3"	DSFS 6008 88,9x10	3,5 x 0,39	6,00	8,46	2,82	7,80	6,30	1,26	M 30x110	-	56,11
420	3"	DSFS 6008 88,9x11	3,5 x 0,44	6,00	8,46	2,82	7,80	6,30	1,26	M 30x110	-	56,53
420	3"	DSFS 6008 88,9x14,2	3,5 x 0,56	6,00	8,46	2,82	7,80	6,30	1,26	M 30x110	-	57,76
420	3"	DSFS 6008 114,3x11	4,5 x 0,43	6,00	8,46	2,82	7,80	6,30	1,26	M 30x110	-	54,88
420	3"	DSFS 6008 114,3x17,5	4,5 x 0,69	6,00	8,46	2,82	7,80	6,30	1,26	M 30x110	-	55,58

*1 or a comparable material
*2 choice of 0,47" or 0,52"

*3 choice of 0,52" or 0,57"
*4 choice of M 12x50 or M 14x55



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange head only	FT-...	FT-X-...
• including split flanges (or complete flange), metric bolts and o-ring	FT-...-M	FT-X-...-MX
• including split flanges (or complete flange), UNC bolts and o-ring	FT-...-U	FT-X-...-UX
Surface only blanc available		

maximum recom- mended working pressure	Nominal flange size	Part no.	Type	Dimensions										Bolts		weight (flange only)	
				A1	A2	B	C	D	E	F	G	H	L	M		lb	
<i>kg/cm²</i>	<i>inch</i>																
Strength class	Standard pressure													<i>metr.</i>	<i>unc.</i>		
10.9																	
350	1/2"	1390-08-08	FT 3001 (B0)	1,19	0,94	0/0,39	1,50	2,13	0,69	1,81	0,63	0,27	0,33	M 8x25	5/16 x 1 1/4	0,11	
350	3/4"	1390-12-12	FT 3002 (B0)	1,50	1,25	0/0,59	1,87	2,56	0,88	2,05	0,67	0,27	0,41	M 10x30	3/8 x 1 1/4	0,18	
320	1"	1390-16-16	FT 3003 (B0)	1,75	1,50	0/0,79	2,06	2,76	1,03	2,32	0,67	0,31	0,41	M 10x30	3/8 x 1 1/2	0,26	
280	1 1/4"	1390-20-20	FT 3004 (B0)	2,00	1,69	0/1,06	2,31	3,11	1,19	2,87	0,67	0,31	*2	*3	7/16 x 1 1/2	0,29	
210	1 1/2"	1390-24-24	FT 3005 (B0)	2,37	1,97	0/1,26	2,75	3,70	1,41	3,27	0,75	0,31	0,52	M 12x35	1/2 x 1 1/2	0,44	
210	2"	1390-32-32	FT 3006 (B0)	2,81	2,44	0/1,57	3,06	4,02	1,69	3,82	0,75	0,38	0,52	M 12x35	1/2 x 1 1/2	0,68	
175	2 1/2"	1390-40-40	FT 3007 (B0)	3,31	2,91	0/1,97	3,50	4,49	2,00	4,29	1,18	0,38	0,52	M 12x40	1/2 x 1 3/4	1,04	
Strength class	High pressure													<i>metr.</i>	<i>unc.</i>		
10.9																	
420	1/2"		FT 6001 (B0)	1,25	0,94	0/0,39	1,59	2,20	0,72	1,89	0,63	0,31	0,33	M 8x30	5/16 x 1 1/4	0,13	
420	3/4"	1690-12-12	FT 6002 (B0)	1,63	1,25	0/0,59	2,00	2,80	0,94	2,36	0,79	0,35	0,41	M 10x35	3/8 x 1 1/2	0,26	
420	1"	1690-16-16	FT 6003 (B0)	1,87	1,50	0/0,79	2,25	3,19	1,09	2,76	0,87	0,37	*4	M 12x45	7/16 x 1 3/4	0,37	
420	1 1/4"	1690-20-20	FT 6004 (B0)	2,13	1,73	0/1,06	2,62	3,74	1,25	3,07	1,06	0,41	*5	*6	1/2 x 1 3/4	0,49	
420	1 1/2"	1690-24-24	FT 6005 (B0)	2,50	2,00	0/1,26	3,12	4,45	1,44	3,74	1,26	0,50	0,66	M 16x55	5/8 x 2	0,86	
420	2"	1690-32-32	FT 6006 (B0)	3,13	2,64	0/1,57	3,81	5,24	1,75	4,49	1,57	0,50	0,83	M 20x70	3/4 x 2 1/2	1,74	

*1 or a comparable material

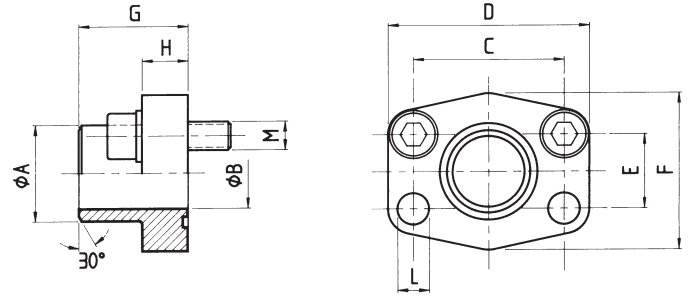
*2 choice of 0,41"; 0,47" or 0,5"

*3 choice of M 10x30 or M 12x35

*4 choice of 0,47" or 0,52"

*5 choice of 0,52" or 0,57"

*6 choice of M 12x45 or M 14x50

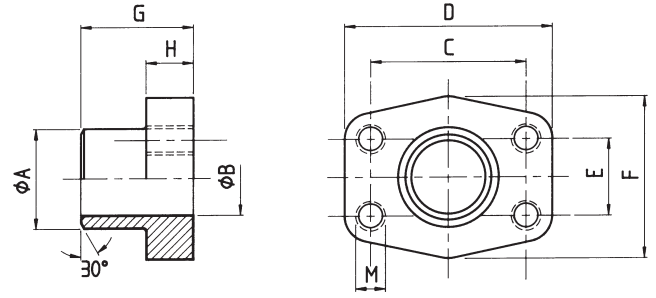


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...ST	AFX-...ST
• including metric bolts and o-ring	AFS-...ST-M	AFX-...ST-MX
• including UNC bolts and o-ring	AFS-...ST-U	AFX-...ST-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions										Bolts		Weight (flange only)
			A	B	C	D	E	F	G	H	L	M	lb		
kg/cm ²	inch												metr.	unc.	
Strength class		Standard pressure													
10.9															
350	1/2"	AFS 080ST-038	0,69	0,39	1,50	2,13	0,69	1,81	1,42	0,63	0,35	M 8x30	5/16 x 1 1/4	0,55	
350	1/2"	AFS 080ST	0,85	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,35	M 8x30	5/16 x 1 1/4	0,62	
350	3/4"	AFS 100ST	1,10	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,43	M 10x35	3/8 x 1 1/2	0,77	
320	1"	AFS 102ST	1,34	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,43	M 10x35	3/8 x 1 1/2	0,90	
280	1 1/4"	AFS 104ST	1,69	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,45	M 10x40	7/16 x 1 1/2	1,46	
210	1 1/2"	AFS 106ST	1,91	1,50	2,75	3,66	1,41	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,31	
210	2"	AFS 108ST	2,40	1,94	3,06	4,02	1,69	3,54	1,77	0,98	0,53	M 12x45	1/2 x 1 3/4	2,62	
175	2 1/2"	AFS 110ST	3,03	2,48	3,50	4,49	2,00	4,13	1,97	0,98	0,53	M 12x45	1/2 x 1 3/4	3,09	
160	3"	AFS 112ST	3,62	2,87	4,19	5,28	2,44	4,88	1,97	1,06	0,69	M 16x50	5/8 x 2	4,74	
35	3 1/2"	AFS 114ST	4,06	3,50	4,75	5,98	2,75	5,35	1,89	1,06	0,69	M 16x50	5/8 x 2	5,29	
35	4"	AFS 116ST	4,55	3,90	5,13	6,38	3,06	5,75	1,89	1,06	0,69	M 16x50	5/8 x 2	6,28	
35	5"	AFS 118ST	5,59	4,72	6,00	7,24	3,63	7,09	1,97	1,10	0,69	M 16x55	5/8 x 2	9,11	
Strength class		High pressure													
10.9															
420	1/2"	AFS 401ST-038	0,69	0,39	1,59	2,13	0,72	1,81	1,42	0,63	0,35	M 8x30	5/16 x 1 1/4	0,53	
420	1/2"	AFS 401ST	0,85	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,35	M 8x30	5/16 x 1 1/4	0,53	
420	3/4"	AFS 402ST	1,10	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,43	M 10x35	3/8 x 1 1/2	1,04	
420	1"	AFS 403ST	1,34	0,98	2,25	3,11	1,09	2,68	1,61	0,83	0,51	M 12x45	7/16 x 1 3/4	1,39	
375	1 1/4"	AFS 404ST	1,69	1,26	2,62	3,66	1,25	3,07	1,73	0,98	0,59	M 14x50	–	2,27	
375	1 1/4"	AFS 404STL 13,5	1,69	1,26	2,62	3,66	1,25	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,27	
250	1 1/2"	AFS 405ST	1,91	1,50	3,12	4,41	1,44	3,70	2,17	1,18	0,67	M 16x50	5/8 x 2	3,84	
420	2"	AFS 406ST	2,40	1,94	3,81	5,28	1,75	4,49	2,56	1,46	0,83	M 20x70	3/4 x 2 1/2	6,48	
420	2 1/2"	AFS 407ST 76	3,00	2,01	4,87	7,09	2,31	5,98	3,15	1,77	1,02	M 24x80	–	15,87	
420	2 1/2"	AFS 407ST 88	3,54	2,38	4,87	7,09	2,31	5,98	3,15	1,77	1,02	M 24x80	–	15,65	

*1 or comparable material

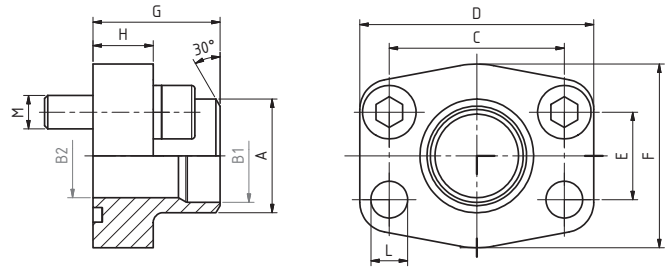


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...ST	GFX-...ST
• flange with UNC threads	GFS-...ST-U	GFX-...ST-U
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions								Thread		Weight (flange only)	
			A	B	C	D	E	F	G	H	M			lb
kg/cm ²	inch													
Strength class		Standard pressure										<i>metr.</i>	<i>unc.</i>	
10.9														
350	1/2"	GFS 080ST-038	0,69	0,39	1,50	2,13	0,69	1,81	1,42	0,63	M 8	5/16	0,62	
350	1/2"	GFS 080ST	0,85	0,51	1,50	2,13	0,69	1,81	1,42	0,63	M 8	5/16	0,55	
350	3/4"	GFS 100ST	1,10	0,75	1,87	2,56	0,88	1,97	1,42	0,71	M 10	3/8	0,86	
320	1"	GFS 102ST	1,34	0,98	2,06	2,76	1,03	2,17	1,50	0,71	M 10	3/8	1,01	
280	1 1/4"	GFS 104ST	1,69	1,26	2,31	3,11	1,19	2,68	1,61	0,83	M 10	7/16	1,46	
210	1 1/2"	GFS 106ST	1,91	1,50	2,75	3,66	1,41	3,07	1,73	0,98	M 12	1/2	2,31	
210	2"	GFS 108ST	2,40	1,94	3,06	4,02	1,69	3,54	1,77	0,98	M 12	1/2	2,62	
175	2 1/2"	GFS 110ST	3,03	2,48	3,50	4,49	2,00	4,13	1,97	0,98	M 12	1/2	3,09	
160	3"	GFS 112ST	3,62	2,87	4,19	5,28	2,44	4,88	1,97	1,06	M 16	5/8	4,74	
35	3 1/2"	GFS 114ST	4,06	3,50	4,75	5,98	2,75	5,35	1,89	1,06	M 16	5/8	5,29	
35	4"	GFS 116ST	4,55	3,90	5,13	6,38	3,06	5,75	1,89	1,06	M 16	5/8	6,28	
35	5"	GFS 118ST	5,59	4,72	6,00	7,24	3,63	7,09	1,97	1,10	M 16	5/8	9,37	
Strength class		High pressure										<i>metr.</i>	<i>unc.</i>	
10.9														
420	1/2"	GFS 401ST-038	0,69	0,39	1,59	2,13	0,72	1,81	1,42	0,63	M 8	5/16	0,57	
420	1/2"	GFS 401ST	0,85	0,51	1,59	2,13	0,72	1,81	1,42	0,63	M 8	5/16	0,57	
420	3/4"	GFS 402ST	1,10	0,75	2,00	2,80	0,94	2,17	1,38	0,83	M 10	3/8	1,10	
420	1"	GFS 403ST	1,34	0,98	2,25	3,11	1,09	2,68	1,61	0,83	M 12	7/16	1,48	
375	1 1/4"	GFS 404ST	1,69	1,26	2,62	3,66	1,25	3,07	1,73	0,98	M 14	–	2,36	
375	1 1/4"	GFS 404ST-M12	1,69	1,26	2,62	3,66	1,25	3,07	1,73	0,98	M 12	1/2	2,31	
250	1 1/2"	GFS 405ST	1,91	1,50	3,12	4,41	1,44	3,70	2,17	1,18	M 16	5/8	4,01	
420	2"	GFS 406ST	2,40	1,94	3,81	5,28	1,75	4,49	2,56	1,46	M 20	3/4	6,81	
420	2 1/2"	GFS 407ST 76	3,00	2,01	4,87	7,09	2,31	5,98	3,15	1,77	M 24	–	16,47	
420	2 1/2"	GFS 407ST 88	3,54	2,38	4,87	7,09	2,31	5,98	3,15	1,77	M 24	–	16,31	

*1 or comparable material

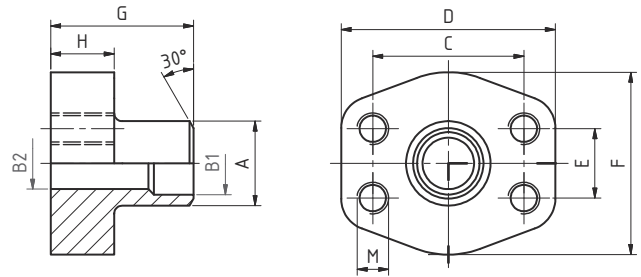
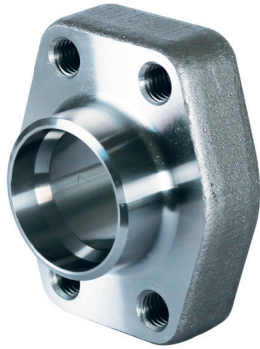


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...ST10	AFX-...ST10
• including metric bolts and o-ring	AFS-...ST10-M	AFX-...ST10-MX
• including unc bolts and o-ring	AFS-...ST10-U	AFX-...ST10-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions											Bolts		Weight (flange only)		
			pipe diameter	A	B1	B2	C	D	E	F	G	H	L	M				
kg/cm ²	inch																	
Strength class	Standard pressure														<i>metr.</i>	<i>unc.</i>		
10.9																		
320	1"	AFS-102ST10	1,31x0,11	1,34	1,09	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,43	M 10x35	3/8 x 1 1/2		0,88	
280	1 1/4"	AFS-104ST10	1,66x0,11	1,69	1,44	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,45	M 10x40	7/16 x 1 1/2		1,34	
210	1 1/2"	AFS-106ST10	1,90x0,11	1,91	1,68	1,50	2,75	3,66	1,41	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4		2,12	
210	2"	AFS-108ST10	2,37x0,11	2,40	2,15	2,01	3,06	4,02	1,69	3,54	1,77	0,98	0,53	M 12x45	1/2 x 1 3/4		2,45	
175	2 1/2"	AFS-110ST10	2,87x0,11	2,87	2,64	2,48	3,50	4,49	2,00	4,13	1,97	0,98	0,53	M 12x45	1/2 x 1 3/4		3,33	
160	3"	AFS-112ST10	3,5x0,11	3,62	3,26	2,87	4,19	5,28	2,44	4,88	1,97	1,06	0,69	M 16x50	5/8 x 2		4,83	
35	4"	AFS-116ST10	4,5x0,11	4,55	4,26	3,90	5,13	6,38	3,06	5,75	1,89	1,06	0,69	M 16x50	5/8 x 2		6,11	
35	5"	AFS-118ST10	5,56x0,13	5,59	5,30	4,72	6,00	7,24	3,63	7,09	1,97	1,10	0,69	M 16x55	5/8 x 2		8,49	

*1 or comparable material

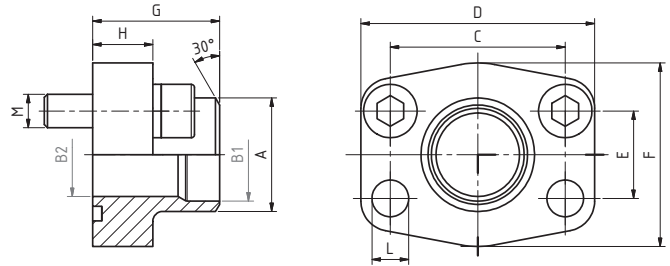


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...ST10	GFX-...ST10
• flange with unc threads	GFS-...ST10-U	GFX-...ST10-U
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions										Thread		Weight (flange only)		
			pipe diameter	A	B1	B2	C	D	E	F	G	H	M	lb			
kg/cm ²	inch																
Strength class	Standard pressure													<i>metr.</i>	<i>unc.</i>		
10.9																	
320	1"	GFS-102ST10	1,31x0,11	1,34	1,09	0,98	2,06	2,76	1,03	2,17	1,50	0,71	M 10	3/8-16	0,97		
280	1 1/4"	GFS-104ST10	1,66x0,11	1,69	1,44	1,26	2,31	3,11	1,19	2,68	1,61	0,83	M 10	7/16-14	1,43		
210	1 1/2"	GFS-106ST10	1,90x0,11	1,91	1,68	1,50	2,75	3,66	1,41	3,07	1,73	0,98	M 12	1/2-13	2,27		
210	2"	GFS-108ST10	2,37x0,11	2,40	2,15	2,01	3,06	4,02	1,69	3,54	1,77	0,98	M 12	1/2-13	2,60		
175	2 1/2"	GFS-110ST10	2,87x0,11	2,87	2,64	2,48	3,50	4,49	2,00	4,13	1,97	0,98	M 12	1/2-13	3,31		
160	3"	GFS-112ST10	3,50x0,11	3,62	3,26	2,87	4,19	5,28	2,44	4,88	1,97	1,06	M 16	5/8-11	5,05		
35	4"	GFS-116ST10	4,50x0,11	4,55	4,26	3,90	5,13	6,38	3,06	5,75	1,89	1,06	M 16	5/8-11	6,35		
35	5"	GFS-118ST10	5,56x0,13	5,59	5,30	4,72	6,00	7,24	3,63	7,09	1,97	1,10	M 16	5/8-11	8,75		

*1 or comparable material

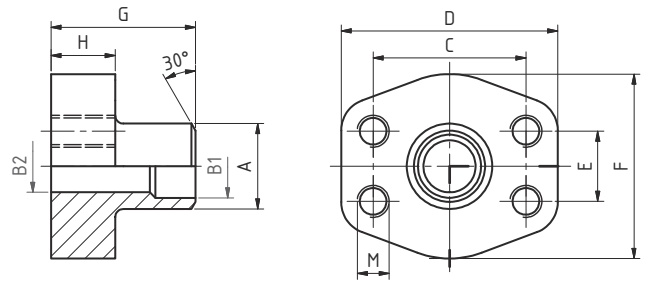


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...ST40	AFX-...ST40
• including metric bolts and o-ring	AFS-...ST40-M	AFX-...ST40-MX
• including unc bolts and o-ring	AFS-...ST40-U	AFX-...ST40-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions											Bolts		Weight (flange only)		
				pipe diameter	A	B1	B2	C	D	E	F	G	H	L	M	lb			
kg/cm ²	inch																M		
Strength class	Standard pressure															<i>metr.</i>	<i>unc.</i>		
10.9																			
350	1/2"	1322-08-08	AFS-080ST40	0,84x0,11	0,85	0,62	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,35	M 8x30	5/16 x 1 1/4	0,53		
350	3/4"	1322-12-12	AFS-100ST40	1,05x0,11	1,10	0,82	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,43	M 10x35	3/8 x 1 1/2	0,77		
320	1"	1322-16-16	AFS-102ST40	1,31x0,13	1,34	1,05	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,43	M 10x35	3/8 x 1 1/2	0,90		
280	1 1/4"	1322-20-20	AFS-104ST40	1,67x0,14	1,69	1,38	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,45	M 10x40	7/16 x 1 1/2	1,37		
210	1 1/2"	1322-24-24	AFS-106ST40	1,90x0,15	1,91	1,61	1,50	2,75	3,66	1,41	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,14		
210	2"	1322-32-32	AFS-108ST40	2,37x0,15	2,40	2,07	2,01	3,06	4,02	1,69	3,54	1,77	0,98	0,53	M 12x45	1/2 x 1 3/4	2,49		
175	2 1/2"	1322-40-40	AFS-110ST40	2,87x0,20	2,87	2,47	2,47	3,50	4,49	2,00	4,13	1,97	0,98	0,53	M 12x45	1/2 x 1 3/4	3,40		
160	3"	1322-48-48	AFS-112ST40	3,50x0,22	3,62	3,07	2,87	4,19	5,28	2,44	4,88	1,97	1,06	0,69	M 16x50	5/8 x 2	4,96		
35	3 1/2"	1322-56-56	AFS-114ST40	4,00x0,22	4,06	3,55	3,50	4,75	5,98	2,75	5,35	1,89	1,06	0,69	M 16x50	5/8 x 2	5,67		
35	4"	1322-64-64	AFS-116ST40	4,50x0,24	4,55	4,03	3,90	5,13	6,38	3,06	5,75	1,89	1,06	0,69	M 16x50	5/8 x 2	6,33		
35	5"		AFS-118ST40	5,56x0,26	5,59	5,04	4,72	6,00	7,24	3,63	7,09	1,97	1,10	0,69	M 16x55	5/8 x 2	8,88		

*1 or comparable material

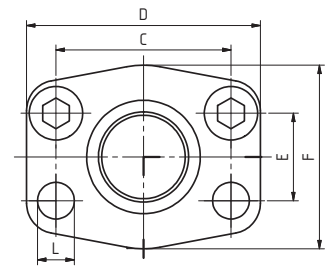
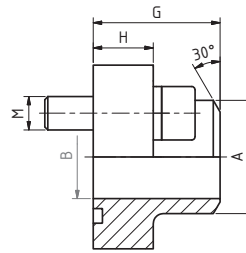


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...ST40	GFX-...ST40
• flange with unc threads	GFS-...ST40-U	GFX-...ST40-U
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions										Thread		Weight (flange only)		
				pipe diameter	A	B1	B2	C	D	E	F	G	H	M	lb			
<i>kg/cm²</i>	<i>inch</i>															<i>metr.</i>	<i>unc.</i>	
Strength class	Standard pressure																	
10.9																		
350	1/2"	1323-08-08	GFS-080ST40	0,84x0,11	0,85	0,62	0,51	1,50	2,13	0,69	1,81	1,42	0,63	M 8	5/16-18	0,57		
350	3/4"	1323-12-12	GFS-100ST40	1,05x0,11	1,10	0,82	0,75	1,87	2,56	0,88	1,97	1,42	0,71	M 10	3/8-16	0,84		
320	1"	1323-16-16	GFS-102ST40	1,31x0,13	1,34	1,05	0,98	2,06	2,76	1,03	2,17	1,50	0,71	M 10	3/8-16	0,97		
280	1 1/4"	1323-20-20	GFS-104ST40	1,67x0,14	1,69	1,38	1,26	2,31	3,11	1,19	2,68	1,61	0,83	M 10	7/16-14	1,43		
210	1 1/2"	1323-24-24	GFS-106ST40	1,90x0,15	1,91	1,61	1,50	2,75	3,66	1,41	3,07	1,73	0,98	M 12	1/2-13	2,29		
210	2"	1323-32-32	GFS-108ST40	2,37x0,15	2,40	2,07	2,01	3,06	4,02	1,69	3,54	1,77	0,98	M 12	1/2-13	2,65		
175	2 1/2"	1323-40-40	GFS-110ST40	2,87x0,20	2,87	2,47	2,47	3,50	4,49	2,00	4,13	1,97	0,98	M 12	1/2-13	3,40		
160	3"	1323-48-48	GFS-112ST40	3,50x0,22	3,62	3,07	2,87	4,19	5,28	2,44	4,88	1,97	1,06	M 16	5/8-11	5,20		
35	3 1/2"	1323-56-56	GFS-114ST40	4,00x0,22	4,06	3,55	3,50	4,75	5,98	2,75	5,35	1,89	1,06	M 16	5/8-11	5,91		
35	4"	1323-64-64	GFS-116ST40	4,50x0,24	4,55	4,03	3,90	5,13	6,38	3,06	5,75	1,89	1,06	M 16	5/8-11	6,57		
35	5"		GFS-118ST40	5,56x0,26	5,59	5,04	4,72	6,00	7,24	3,63	7,09	1,97	1,10	M 16	5/8-11	9,15		

*1 or comparable material

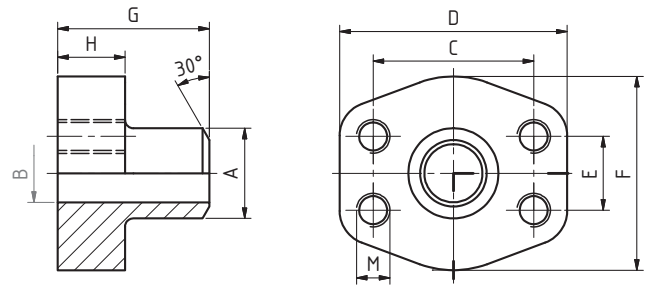


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...ST80	AFX-...ST80
• including metric bolts and o-ring	AFS-...ST80-M	AFX-...ST80-MX
• including unc bolts and o-ring	AFS-...ST80-U	AFX-...ST80-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions										Bolts		Weight (flange only)		
				pipe diameter	A	B	C	D	E	F	G	H	L	M			lb	
kg/cm ²	inch																	
Strength class		Standard pressure													<i>metr.</i>	<i>unc.</i>		
10.9																		
350	1/2"	1324-08-08	AFS-080ST80	0,84x0,15	0,85	0,54	1,50	2,13	0,69	1,81	1,42	0,63	0,35	M 8x30	5/16 x 1 1/4	0,53		
350	3/4"	1324-12-12	AFS-100ST80	1,05x0,15	1,10	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,43	M 10x35	3/8 x 1 1/2	0,77		
320	1"	1324-16-16	AFS-102ST80	1,31x0,18	1,34	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,43	M 10x35	3/8 x 1 1/2	0,90		
280	1 1/4"	1324-20-20	AFS-104ST80	1,66x0,19	1,69	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,45	M 10x40	7/16 x 1 1/2	1,39		
210	1 1/2"	1324-24-24	AFS-106ST80	1,90x0,20	1,91	1,50	2,75	3,66	1,41	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,20		
210	2"	1324-32-32	AFS-108ST80	2,37x0,22	2,40	1,94	3,06	4,02	1,69	3,54	1,77	0,98	0,53	M 12x45	1/2 x 1 3/4	2,62		
175	2 1/2"	1324-40-40	AFS-110ST80	2,87x0,28	2,88	2,32	3,50	4,49	2,00	4,13	1,97	0,98	0,53	M 12x45	1/2 x 1 3/4	3,53		
160	3"	1324-48-48	AFS-112ST80	3,50x0,30	3,62	2,87	4,19	5,28	2,44	4,88	1,97	1,06	0,69	M 16x50	5/8 x 2	5,05		
35	3 1/2"	1324-56-56	AFS-114ST80	4,00x0,31	4,06	3,37	4,75	5,98	2,75	5,35	1,89	1,06	0,69	M 16x50	5/8 x 2	6,04		
35	4"	1324-64-64	AFS-116ST80	4,50x0,34	4,55	3,83	5,13	6,38	3,06	5,75	1,89	1,06	0,69	M 16x50	5/8 x 2	6,59		
35	5"		AFS-118ST80	5,56x0,37	5,59	4,81	6,00	7,24	3,63	7,09	1,97	1,10	0,69	M 16x55	5/8 x 2	8,77		
Strength class		High pressure													<i>metr.</i>	<i>unc.</i>		
10.9																		
420	1/2"		AFS-401ST80	0,84x0,15	0,85	0,55	1,59	2,13	0,72	1,81	1,42	0,63	0,35	M 8x30	5/16 x 1 1/4	0,53		
420	3/4"		AFS-402ST80	1,05x0,15	1,10	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,43	M 10x35	3/8 x 1 1/2	1,04		
420	1"		AFS-403ST80	1,31x0,18	1,34	0,98	2,25	3,11	1,09	2,68	1,61	0,83	0,51	M 12x45	7/16 x 1 3/4	1,39		
420	1 1/4"		AFS-404ST80	1,66x0,19	1,69	1,26	2,62	3,66	1,25	3,07	1,73	0,98	0,59	M 14x50	–	2,23		
420	1 1/4"		AFS-404ST80L 13,5	1,66x0,19	1,69	1,26	2,62	3,66	1,25	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,20		
420	1 1/2"		AFS-405ST80	1,90x0,20	1,91	1,50	3,12	4,41	1,44	3,70	2,17	1,18	0,67	M 16x50	5/8 x 2	3,84		
420	2"		AFS-406ST80	2,37x0,22	2,40	1,94	3,81	5,28	1,75	4,49	2,56	1,46	0,83	M 20x70	3/4 x 2 1/2	6,33		
420	2 1/2"		AFS-407ST80	2,87x0,28	2,91	2,31	4,87	7,09	2,31	5,98	3,15	1,77	1,02	M 24x80	–	14,84		

*1 or comparable material

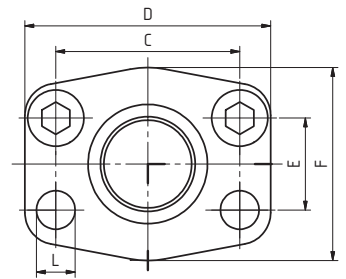
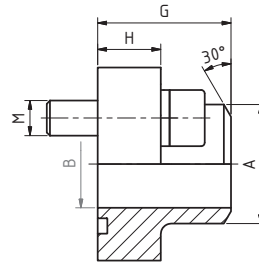


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...ST80	GFX-...ST80
• flange with unc threads	GFS-...ST80-U	GFX-...ST80-U
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions										Thread		Weight (flange only)	
				pipe diameter	A	B	C	D	E	F	G	H	M	lb			
kg/cm ²	inch														metr.	unc.	
Strength class	Standard pressure																
10.9																	
350	1/2"	1325-08-08	GFS-080ST80	0,84x0,15	0,85	0,54	1,50	2,13	0,69	1,81	1,42	0,63	M 8	5/16-18	0,57		
350	3/4"	1325-12-12	GFS-100ST80	1,05x0,15	1,10	0,75	1,87	2,56	0,88	1,97	1,42	0,71	M 10	3/8-16	0,84		
320	1"	1325-16-16	GFS-102ST80	1,31x0,18	1,34	0,98	2,06	2,76	1,03	2,17	1,50	0,71	M 10	3/8-16	0,90		
280	1 1/4"	1325-20-20	GFS-104ST80	1,66x0,19	1,69	1,26	2,31	3,11	1,19	2,68	1,61	0,83	M 10	7/16-14	1,39		
210	1 1/2"	1325-24-24	GFS-106ST80	1,90x0,20	1,91	1,50	2,75	3,66	1,41	3,07	1,73	0,98	M 12	1/2-13	2,20		
210	2"	1325-32-32	GFS-108ST80	2,37x0,22	2,40	1,94	3,06	4,02	1,69	3,54	1,77	0,98	M 12	1/2-13	2,76		
175	2 1/2"	1325-40-40	GFS-110ST80	2,87x0,28	2,88	2,32	3,50	4,49	2,00	4,13	1,97	0,98	M 12	1/2-13	3,70		
160	3"	1325-48-48	GFS-112ST80	3,50x0,30	3,62	2,87	4,19	5,28	2,44	4,88	1,97	1,06	M 16	5/8-11	5,05		
35	3 1/2"	1325-56-56	GFS-114ST80	4,00x0,31	4,06	3,37	4,75	5,98	2,75	5,35	1,89	1,06	M 16	5/8-11	6,26		
35	4"	1325-64-64	GFS-116ST80	4,50x0,34	4,55	3,83	5,13	6,38	3,06	5,75	1,89	1,06	M 16	5/8-11	6,83		
35	5"		GFS-118ST80	5,56x0,37	5,59	4,81	6,00	7,24	3,63	7,09	1,97	1,10	M 16	5/8-11	9,04		
Strength class	High pressure																
10.9																	
420	1/2"		GFS-401ST80	0,84x0,15	0,85	0,55	1,59	2,13	0,72	1,81	1,42	0,63	M 8	5/16-18	0,57		
420	3/4"		GFS-402ST80	1,05x0,15	1,10	0,75	2,00	2,80	0,94	2,17	1,38	0,83	M 10	3/8-16	1,04		
420	1"		GFS-403ST80	1,31x0,18	1,34	0,98	2,25	3,11	1,09	2,68	1,61	0,83	M 12	7/16-14	1,48		
420	1 1/4"		GFS-404ST80	1,66x0,19	1,69	1,26	2,62	3,66	1,25	3,07	1,73	0,98	M 14	–	2,23		
420	1 1/4"		GFS-404ST80-M12	1,66x0,19	1,69	1,26	2,62	3,66	1,25	3,07	1,73	0,98	M 12	1/2-13	2,31		
420	1 1/2"		GFS-405ST80	1,90x0,20	1,91	1,50	3,12	4,41	1,44	3,70	2,17	1,18	M 16	5/8-11	4,01		
420	2"		GFS-406ST80	2,37x0,22	2,40	1,94	3,81	5,28	1,75	4,49	2,56	1,46	M 20	3/4-10	6,81		
420	2 1/2"		GFS-407ST80	2,87x0,28	2,91	2,31	4,87	7,09	2,31	5,98	3,15	1,77	M 24	–	15,57		

*1 or comparable material

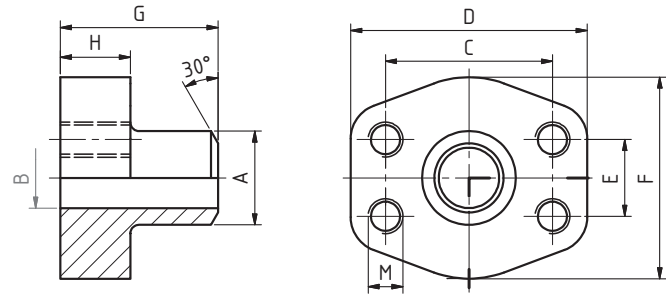


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...ST160	AFX-...ST160
• including metric bolts and o-ring	AFS-...ST160-M	AFX-...ST160-MX
• including unc bolts and o-ring	AFS-...ST160-U	AFX-...ST160-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions										Bolts		Weight (flange only)		
				pipe diameter	A	B	C	D	E	F	G	H	L	M				
kg/cm ²	inch																	lb
Strength class	High pressure														<i>metr.</i>	<i>unc.</i>		
10.9																		
420	1/2"	1626-08-08	AFS-401ST160	0,84x0,19	0,85	0,46	1,59	2,13	0,72	1,81	1,42	0,63	0,35	M 8x30	5/16 x 1 1/4		0,55	
420	3/4"	1626-12-12	AFS-402ST160	1,05x0,22	1,06	0,62	2,00	2,80	0,94	2,17	1,38	0,83	0,43	M 10x35	3/8 x 1 1/2		1,06	
420	1"	1626-16-16	AFS-403ST160	1,31x0,25	1,34	0,81	2,25	3,11	1,09	2,68	1,61	0,83	0,51	M 12x45	7/16 x 1 3/4		1,48	
420	1 1/4"	1626-20-20	AFS-404ST160	1,66x0,25	1,69	1,16	2,62	3,66	1,25	3,07	1,73	0,98	0,59	M 14x50	–		2,31	
420	1 1/4"		AFS-404ST160L13,5	1,66x0,25	1,69	1,16	2,62	3,66	1,25	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4		2,36	
420	1 1/2"	1626-24-24	AFS-405ST160	1,90x0,28	1,91	1,34	3,12	4,41	1,44	3,70	2,17	1,18	0,67	M 16x50	5/8 x 2		4,03	
420	2"	1626-32-32	AFS-406ST160	2,37x0,34	2,40	1,69	3,81	5,28	1,75	4,49	2,56	1,46	0,83	M 20x70	3/4 x 2 1/2		6,94	
420	2 1/2"		AFS-407ST160	2,87x0,37	2,91	2,13	4,87	7,09	2,31	5,98	3,15	1,77	1,02	M 24x80	–		15,37	
420	3"		AFS-408ST160	3,50x0,44	3,54	2,62	6,00	8,19	2,82	7,01	3,54	2,17	1,30	M 30x90	–		25,86	

*1 or comparable material

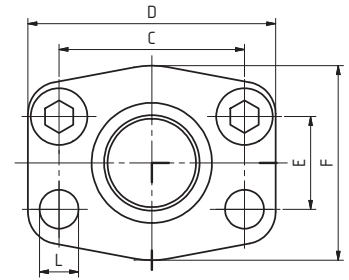
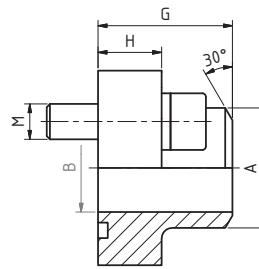
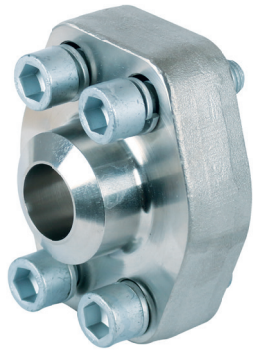


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...ST160	GFX-...ST160
• flange with unc threads	GFS-...ST160-U	GFX-...ST160-U
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recom- mended working pressure*	Nominal flange size	Part no.	Type	Dimensions										Thread		Weight (flange only)	
				pipe diameter	A	B	C	D	E	F	G	H	M		lb		
kg/cm ²	inch														M		
Strength class	High pressure													<i>metr.</i>	<i>unc.</i>		
10.9																	
420	1/2"	1627-08-08	GFS-401ST160	0,84x0,19	0,85	0,46	1,59	2,13	0,72	1,81	1,42	0,63	M 8	5/16-18	0,60		
420	3/4"	1627-12-12	GFS-402ST160	1,05x0,22	1,06	0,62	2,00	2,80	0,94	2,17	1,38	0,83	M 10	3/8-16	1,15		
420	1"	1627-16-16	GFS-403ST160	1,31x0,25	1,34	0,81	2,25	3,11	1,09	2,68	1,61	0,83	M 12	7/16-14	1,59		
420	1 1/4"	1627-20-20	GFS-404ST160	1,66x0,25	1,69	1,16	2,62	3,66	1,25	3,07	1,73	0,98	M 14	–	2,47		
420	1 1/4"		GFS-404ST160-M12	1,66x0,25	1,69	1,16	2,62	3,66	1,25	3,07	1,73	0,98	M 12	1/2-13	2,47		
420	1 1/2"	1627-24-24	GFS-405ST160	1,90x0,28	1,91	1,34	3,12	4,41	1,44	3,70	2,17	1,18	M 16	5/8-11	4,21		
420	2"	1627-32-32	GFS-406ST160	2,37x0,34	2,40	1,69	3,81	5,28	1,75	4,49	2,56	1,46	M 20	3/4-10	7,28		
420	2 1/2"		GFS-407ST160	2,87x0,37	2,91	2,13	4,87	7,09	2,31	5,98	3,15	1,77	M 24	–	16,12		
420	3"		GFS-408ST160	3,50x0,44	3,54	2,62	6,00	8,19	2,82	7,01	3,54	2,17	M 30	–	25,62		

*1 or comparable material

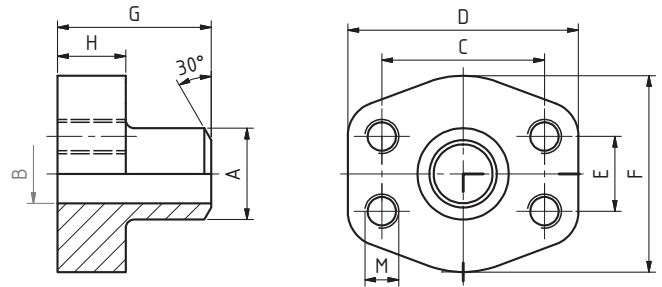
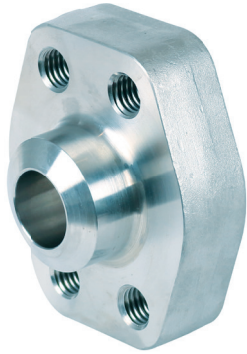


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...ST-XX	AFX-...ST-XX
• including metric bolts and o-ring	AFS-...ST-XX-M	AFX-...ST-XX-MX
• including unc bolts and o-ring	AFS-...ST-XX-U	AFX-...ST-XX-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions										Bolts		Weight (flange only)	
				pipe diameter	A	B	C	D	E	F	G	H	L	M	lb		
kg/cm ²	inch																
Strength class	High pressure														<i>metr.</i>	<i>unc.</i>	
10.9																	
420	1/2"	1628-08-08	AFS-401ST-XX	0,84x0,29	0,85	0,25	1,59	2,13	0,72	1,81	1,42	0,63	0,35	M 8x30	5/16 x 1 1/4	0,57	
420	3/4"	1628-12-12	AFS-402ST-XX	1,05x0,31	1,06	0,43	2,00	2,80	0,94	2,17	1,38	0,83	0,43	M 10x35	3/8 x 1 1/2	1,12	
420	1"	1628-16-16	AFS-403ST-XX	1,31x0,36	1,34	0,60	2,25	3,11	1,09	2,68	1,61	0,83	0,51	M 12x45	7/16 x 1 3/4	1,59	
420	1 1/4"	1628-20-20	AFS-404ST-XX	1,66x0,38	1,69	0,90	2,62	3,66	1,25	3,07	1,73	0,98	0,59	M 14x50	–	2,56	
420	1 1/4"		AFS-404ST-XXL 13,5	1,66x0,38	1,69	0,90	2,62	3,66	1,25	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,56	
420	1 1/2"	1628-24-24	AFS-405ST-XX	1,90x0,40	1,91	1,10	3,12	4,41	1,44	3,70	2,17	1,18	0,67	M 16x50	5/8 x 2	4,30	
420	2"	1628-32-32	AFS-406ST-XX	2,37x0,44	2,40	1,50	3,81	5,28	1,75	4,49	2,56	1,46	0,83	M 20x70	3/4 x 2 1/2	7,25	
420	2 1/2"		AFS-407ST-XX	2,87x0,55	2,91	1,77	4,87	7,09	2,31	5,98	3,15	1,77	1,02	M 24x80	–	16,25	
420	3"		AFS-408ST-XX	3,50x0,60	3,54	2,30	6,00	8,19	2,82	7,01	3,54	2,17	1,30	M 30x90	–	25,49	

*1 or comparable material

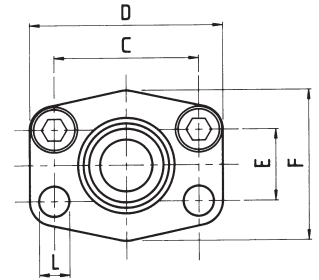
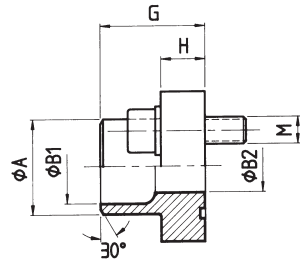


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...ST-XX	GFX-...ST-XX
• flange with unc threads	GFS-...ST-XX-U	GFX-...ST-XX-U
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions										Thread		Weight (flange only)	
				pipe diameter	A	B	C	D	E	F	G	H	M		lb		
kg/cm ²	inch														M		
Strength class	High pressure													<i>metr.</i>	<i>unc.</i>		
10.9																	
420	1/2"	1629-08-08	GFS-401ST-XX	0,84x0,29	0,85	0,25	1,59	2,13	0,72	1,81	1,42	0,63	M 8	5/16-18	0,64		
420	3/4"	1629-12-12	GFS-402ST-XX	1,05x0,31	1,06	0,43	2,00	2,80	0,94	2,17	1,38	0,83	M 10	3/8-16	1,19		
420	1"	1629-16-16	GFS-403ST-XX	1,31x0,36	1,34	0,60	2,25	3,11	1,09	2,68	1,61	0,83	M 12	7/16-14	1,68		
420	1 1/4"	1629-20-20	GFS-404ST-XX	1,66x0,38	1,69	0,90	2,62	3,66	1,25	3,07	1,73	0,98	M 14	–	2,65		
420	1 1/4"		GFS-404ST-XX-M12	1,66x0,38	1,69	0,90	2,62	3,66	1,25	3,07	1,73	0,98	M 12	1/2-13	2,76		
420	1 1/2"	1629-24-24	GFS-405ST-XX	1,90x0,40	1,91	1,10	3,12	4,41	1,44	3,70	2,17	1,18	M 16	5/8-11	4,45		
420	2"	1629-32-32	GFS-406ST-XX	2,37x0,44	2,40	1,50	3,81	5,28	1,75	4,49	2,56	1,46	M 20	3/4-10	7,58		
420	2 1/2"		GFS-407ST-XX	2,87x0,55	2,91	1,77	4,87	7,09	2,31	5,98	3,15	1,77	M 24	–	17,00		
420	3"		GFS-408ST-XX	3,50x0,60	3,54	2,30	6,00	8,19	2,82	7,01	3,54	2,17	M 30	–	26,76		

*1 or comparable material



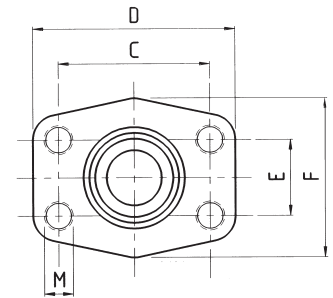
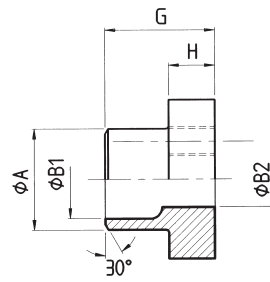
Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...STRE	AFX-... STRE
• including metric bolts and o-ring	AFS-...STRE...-M	AFX-...STRE...-MX
• including UNC bolts and o-ring	AFS-...STRE...-U	AFX-...STRE...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	nominal flange size	Part no.	Type	Dimensions											Bolts		Weight (flange only)
				pipe diameter	A	B1	B2	C	D	E	F	G	H	L	M		
kg/cm ²	inch																
Standard pressure																	
															metr.	unc.	
10.9																	
350	1/2"		AFS 080 STRE 21,3	0,84x0,10	0,87	0,63	0,51	1,50	2,13	0,69	1,81	1,38	0,63	0,35	M 8x30	5/16 x 1 1/4	0,62
350	3/4"	1396-12-12	AFS 100 STRE 26,9	1,06x0,10	1,10	0,85	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,43	M 10x35	3/8 x 1 1/2	0,86
320	1"	1396-16-16	AFS 102 STRE 33,7	1,33x0,13	1,38	1,06	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,43	M 10x35	3/8 x 1 1/2	1,01
280	1 1/4"	1396-20-20	AFS 104 STRE 42,4	1,67x0,13	1,69	1,42	1,22	2,31	3,11	1,19	2,68	1,61	0,83	0,45	M 10x40	7/16 x 1 1/2	1,46
210	1 1/2"	1396-24-24	AFS 106 STRE 48,3	1,90x0,13	1,93	1,65	1,50	2,75	3,66	1,41	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,09
210	2"		AFS 108 STRE 48,3	1,90x0,13	1,93	1,65	1,65	3,06	4,02	1,69	3,54	1,77	0,98	0,53	M 12x45	1/2 x 1 3/4	2,60
210	2"	1396-32-32	AFS 108 STRE 60,3	2,37x0,14	2,40	2,09	1,93	3,06	4,02	1,69	3,54	1,77	0,98	0,53	M 12x45	1/2 x 1 3/4	2,49
175	2 1/2"		AFS 110 STRE 60,3	2,37x0,14	2,40	2,09	2,09	3,50	4,49	2,00	4,13	1,97	0,98	0,53	M 12x45	1/2 x 1 3/4	3,40
175	2 1/2"		AFS 110 STRE 76,1	3,00x0,14	3,03	2,76	2,44	3,50	4,49	2,00	4,13	1,97	0,98	0,53	M 12x45	1/2 x 1 3/4	3,28
160	3"		AFS 112 STRE 76,1	3,00x0,14	3,03	2,72	2,72	4,19	5,28	2,44	4,88	2,01	1,02	0,69	M 16x50	5/8 x 2	4,52
160	3"		AFS 112 STRE 88,9	3,50x0,14	3,54	3,23	2,91	4,19	5,28	2,44	4,88	2,01	1,02	0,69	M 16x50	5/8 x 2	4,45
35	3 1/2"		AFS 114 STRE 88,9	3,50x0,14	3,54	3,23	3,23	4,75	5,98	2,75	5,35	1,89	1,02	0,69	M 16x50	5/8 x 2	5,29
35	3 1/2"		AFS 114 STRE 76,1	3,00x0,14	3,03	2,76	2,76	4,75	5,98	2,75	5,35	1,89	1,02	0,69	M 16x50	5/8 x 2	5,69
35	4"		AFS 116 STRE 88,9	3,50x0,14	3,54	3,23	3,23	5,13	6,38	3,06	5,75	1,89	1,02	0,69	M 16x50	5/8 x 2	6,06
35	4"		AFS 116 STRE 114	4,49x0,14	4,53	4,21	4,02	5,13	6,38	3,06	5,75	1,89	1,02	0,69	M 16x50	5/8 x 2	5,56
35	5"		AFS 118 STRE 139,7FL ^{*2}	5,50x0,16	5,55	5,16	5,16	6,00	7,48	3,63	6,69	1,10	1,10	0,69	M 16x55	5/8 x 2	6,17
35	5"		AFS 118 STRE 139,7	5,50x0,16	5,52	5,16	4,72	6,00	7,24	3,63	7,09	1,97	1,10	0,69	M 16x55	5/8 x 2	8,40

*1 or comparable material

*2 Type AFS-118 STRE 193FL as flat flange for welding

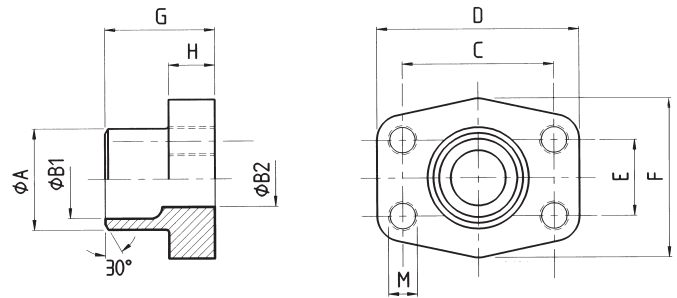


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	GFS-...STRE...	GFX-...STRE...
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions											Thread	Weight (flange only)
				pipe diameter	A	B1	B2	C	D	E	F	G	H	M		
kg/cm ²	inch															
Strength class	Standard pressure															
10.9																
350	1/2"		GFS 080 STRE 21,3	0,84x0,10	0,87	0,63	0,51	1,50	2,13	0,69	1,81	1,38	0,63	M 8	0,55	
350	3/4"	1397-12-12	GFS 100 STRE 26,9	1,06x0,10	1,10	0,85	0,75	1,87	2,56	0,88	1,97	1,42	0,71	M 10	0,86	
320	1"	1397-16-16	GFS 102 STRE 33,7	1,33x0,13	1,38	1,06	0,98	2,06	2,76	1,03	2,17	1,50	0,71	M 10	1,01	
280	1 1/4"	1397-20-20	GFS 104 STRE 42,4	1,67x0,13	1,69	1,42	1,22	2,31	3,11	1,19	2,68	1,61	0,83	M 10	1,46	
210	1 1/2"	1397-24-24	GFS 106 STRE 48,3	1,90x0,13	1,93	1,65	1,50	2,75	3,66	1,41	3,07	1,73	0,98	M 12	2,31	
210	2"		GFS 108 STRE 48,3	1,90x0,13	1,93	1,65	1,65	3,06	4,02	1,69	3,54	1,77	0,98	M 12	2,65	
210	2"	1397-32-32	GFS 108 STRE 60,3	2,37x0,14	2,40	2,09	1,93	3,06	4,02	1,69	3,54	1,77	0,98	M 12	2,76	
175	2 1/2"		GFS 110 STRE 60,3	2,37x0,14	2,40	2,09	2,09	3,50	4,49	2,00	4,13	1,97	0,98	M 12	3,51	

*1 or comparable material



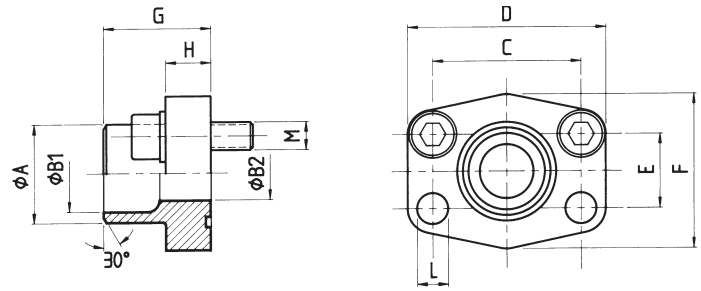
Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	GFS-...STRE...	GFX-...STRE...
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions										Thread	Weight (flange only)	
			pipe diameter	A	B1	B2	C	D	E	F	G	H			M
kg/cm ²	inch														
Strength class	Standard pressure														
10.9															
175	2½"	GFS 110 STRE 76,1	3,00x0,14	3,03	2,76	2,44	3,50	4,49	2,00	4,13	1,97	0,98	M 12	3,37	
160	3"	GFS 112 STRE 88,9	3,50x0,14	3,54	3,23	2,91	4,19	5,28	2,44	4,88	2,01	1,02	M 16	4,74	
160	3"	GFS-112 STRE 76,1	3,00x0,14	3,03	2,72	2,72	4,19	5,28	2,44	4,88	2,01	1,02	M 16	4,63	
35	3½"	GFS 114 STRE 88,9	3,50x0,14	3,54	3,23	3,23	4,75	5,98	2,75	5,35	1,89	1,02	M 16	5,64	
35	3½"	GFS 114 STRE 76,1	3,00x0,14	3,03	2,76	2,76	4,75	5,98	2,75	5,35	1,89	1,02	M 16	5,29	
35	4"	GFS 116 STRE 88,9	3,50x0,14	3,54	3,23	3,23	5,13	6,38	3,06	5,75	1,89	1,02	M 16	5,93	
35	4"	GFS 116 STRE 114	4,50x0,14	4,53	4,21	4,02	5,13	6,38	3,06	5,75	1,89	1,02	M 16	5,73	
35	5"	GFS 118 STRE 139FL ^{*2}	5,50x0,16	5,55	5,16	5,16	6,00	7,48	3,63	6,69	1,10	1,10	M 16	6,17	
35	5"	GFS 118 STRE 139	5,50x0,16	5,52	5,16	4,72	6,00	7,24	3,63	7,09	1,97	1,10	M 16	8,66	

*1 or comparable material

*2 Type GFS-118 STRE 139FL as flat flange for welding

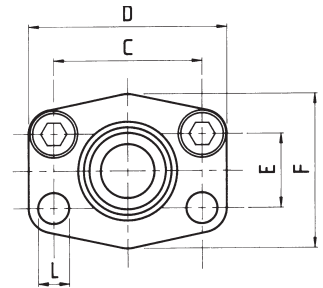
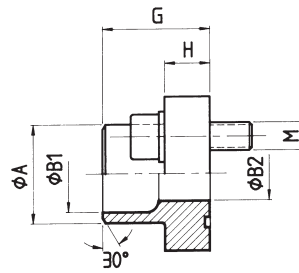


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...SRE...	AFX-...SRE...
• including metric bolts and o-ring	AFS-...SRE...-M	AFX-...SRE...-MX
• including UNC bolts and o-ring	AFS-...SRE...-U	AFX-...SRE...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions											Bolts		Weight (flange only)	
				pipe diameter	A	B1	B2	C	D	E	F	G	H	L	M			lb
kg/cm ²	inch																	
Strength class	Standard pressure																<i>metr.</i>	<i>unc.</i>
10.9																		
350	1/2"		AFS 080 SRE 20	0,79x0,12	0,79	0,55	0,55	1,50	2,13	0,69	1,81	1,38	0,63	0,35	M 8x30	5/16 x 1 1/4	0,49	
350	1/2"		AFS 080 SRE 22	0,87x0,12	0,87	0,63	0,51	1,50	2,13	0,69	1,81	1,38	0,63	0,35	M 8x30	5/16 x 1 1/4	0,51	
350	3/4"	1398-12-12	AFS 100 SRE 25	0,98x0,12	0,98	0,75	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,43	M 10x35	3/8 x 1 1/2	0,73	
350	3/4"		AFS 100 SRE 28	1,10x0,12	1,10	0,85	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,43	M 10x35	3/8 x 1 1/2	0,75	
320	1"		AFS 102 SRE 30	1,18x0,16	1,18	0,87	0,87	2,06	2,76	1,03	2,17	1,50	0,71	0,43	M 10x35	3/8 x 1 1/2	0,88	
320	1"	1398-16-16	AFS 102 SRE 35	1,38x0,16	1,38	1,06	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,43	M 10x35	3/8 x 1 1/2	0,90	
280	1 1/4"		AFS 104 SRE 38	1,50x0,16	1,50	1,18	1,18	2,31	3,11	1,19	2,68	1,61	0,83	0,45	M 10x40	7/16 x 1 1/2	1,32	
280	1 1/4"	1398-20-20	AFS 104 SRE 42	1,65x0,12	1,69	1,42	1,22	2,31	3,11	1,19	2,68	1,61	0,83	0,45	M 10x40	7/16 x 1 1/2	1,34	
210	1 1/2"		AFS 106 SRE 38	1,50x0,16	1,50	1,18	1,18	2,75	3,66	1,41	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,18	
210	1 1/2"		AFS 106 SRE 42	1,65x0,12	1,65	1,42	1,42	2,75	3,66	1,41	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,07	
210	1 1/2"	1398-24-24	AFS 106 SRE 48	1,90x0,20	1,93	1,50	1,50	2,75	3,66	1,41	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,14	
210	2"	1398-32-32	AFS 108 SRE 60	2,37x0,22	2,40	1,93	1,93	3,06	4,02	1,69	3,54	1,77	0,98	0,53	M 12x45	1/2 x 1 3/4	2,65	
175	2 1/2"		AFS 110 SRE 76	3,00x0,28	3,03	2,44	2,44	3,50	4,49	2,00	4,13	1,97	0,98	0,53	M 12x45	1/2 x 1 3/4	3,42	
160	3"		AFS 112 SRE 76	3,00x0,28	3,03	2,44	2,44	4,19	5,28	2,44	4,88	2,01	1,02	0,69	M 16x50	5/8 x 2	5,11	

*1 or comparable material

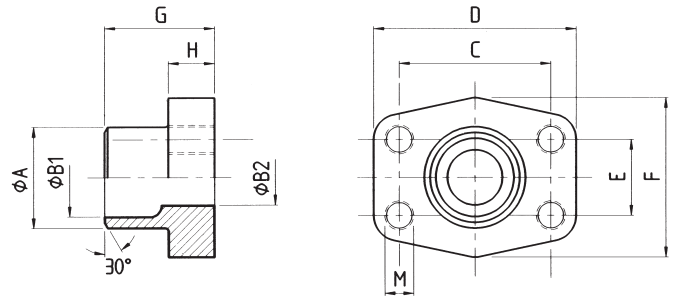


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...SRE...	AFX-...SRE...
• including metric bolts and o-ring	AFS-...SRE...-M	AFX-...SRE...-MX
• including UNC bolts and o-ring	AFS-...SRE...-U	AFX-...SRE...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions											Bolts		Weight (flange only)
			pipe diameter	A	B1	B2	C	D	E	F	G	H	L	M	lb	
kg/cm ²	inch															
Strength class		High pressure												<i>metr.</i>	<i>unc.</i>	
10.9																
420	1/2"	AFS 401 SRE 20	0,79x0,12	0,79	0,55	0,55	1,59	2,13	0,72	1,81	1,34	0,63	0,35	M 8x30	5/16 x 1 1/4	0,64
420	3/4"	AFS 402 SRE 20	0,79x0,12	0,79	0,55	0,55	2,00	2,80	0,94	2,17	1,38	0,83	0,43	M 10x35	3/8 x 1 1/2	1,10
420	3/4"	AFS 402 SRE 25	0,98x0,16	0,98	0,67	0,67	2,00	2,80	0,94	2,17	1,38	0,83	0,43	M 10x35	3/8 x 1 1/2	1,01
420	1"	AFS 403 SRE 25	0,98x0,16	0,98	0,67	0,67	2,25	3,19	1,09	2,56	1,65	0,98	0,51	M 12x45	7/16 x 1 1/2	1,68
420	1"	AFS 403 SRE 30	1,18x0,16	1,18	0,87	0,87	2,25	3,19	1,09	2,56	1,65	0,98	0,51	M 12x45	7/16 x 1 1/2	1,61
420	1 1/4"	AFS 404 SRE 30	1,18x0,16	1,18	0,87	0,87	2,62	3,74	1,25	3,07	1,73	0,98	0,59	M 14x50	–	2,27
420	1 1/4"	AFS 404 SRE 30L 13,5	1,18x0,16	1,18	0,87	0,87	2,62	3,74	1,25	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,29
420	1 1/4"	AFS 404 SRE 38	1,50x0,24	1,50	1,02	1,02	2,62	3,74	1,25	3,07	1,73	0,98	0,59	M 14x50	–	2,29
420	1 1/4"	AFS 404 SRE 38L 13,5	1,50x0,24	1,50	1,02	1,02	2,62	3,74	1,25	3,07	1,73	0,98	0,53	M 12x45	1/2 x 1 3/4	2,34
420	1 1/2"	AFS 405 SRE 38	1,50x0,24	1,50	1,02	1,02	3,12	4,41	1,44	3,70	2,20	1,10	0,67	M 16x50	5/8 x 2	3,75
420	1 1/2"	AFS 405 SRE 48	1,90x0,31	1,93	1,26	1,26	3,12	4,41	1,44	3,70	2,20	1,10	0,67	M 16x50	5/8 x 2	3,86
420	1 1/2"	AFS 405 SRE 60	2,37x0,39	2,40	1,57	1,50	3,12	4,41	1,44	3,70	2,20	1,10	0,67	M 16x50	5/8 x 2	3,99
420	2"	AFS 406 SRE 60	2,37x0,39	2,40	1,57	1,57	3,81	5,28	1,75	4,49	2,56	1,46	0,83	M 20x70	3/4 x 2 1/2	6,99
420	2"	AFS 406 SRE 76	3,00x0,49	3,03	2,01	1,89	3,81	5,28	1,75	4,49	3,15	1,30	0,83	M 20x65	3/4 x 2 1/2	7,03

*1 or comparable material

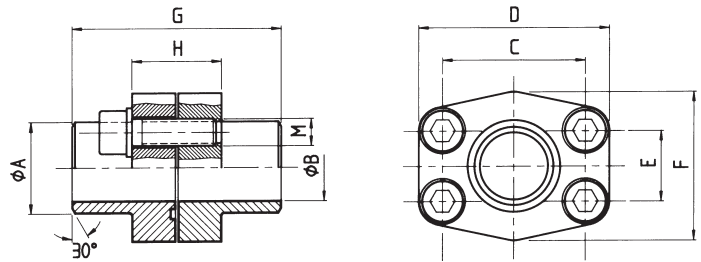


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	GFS-...SRE...	GFX-...SRE...
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Part no.	Type	Dimensions										Thread	Weight (flange only)	
				Pipe diameter	A	B1	B2	C	D	E	F	G	H			M
Strength class		Standard pressure														
10.9																
350	1/2"		GFS 080 SRE 20	0,79x0,12	0,79	0,55	0,55	1,50	2,13	0,69	1,81	1,38	0,63	M 8	0,53	
350	1/2"		GFS 080 SRE 22	0,87x0,12	0,87	0,63	0,51	1,50	2,13	0,69	1,81	1,38	0,63	M 8	0,55	
350	3/4"	1399-12-12	GFS 100 SRE 25	0,98x0,12	0,98	0,75	0,75	1,87	2,56	0,88	1,97	1,42	0,71	M 10	0,86	
350	3/4"		GFS 100 SRE 28	1,10x0,12	1,10	0,85	0,75	1,87	2,56	0,88	1,97	1,42	0,71	M 10	0,86	
320	1"		GFS 102 SRE 30	1,18x0,16	1,18	0,87	0,87	2,06	2,76	1,03	2,17	1,50	0,71	M 10	1,01	
320	1"	1399-16-16	GFS 102 SRE 35	1,38x0,16	1,38	1,06	0,98	2,06	2,76	1,03	2,17	1,50	0,71	M 10	1,04	
280	1 1/4"		GFS 104 SRE 38	1,50x0,16	1,50	1,18	1,18	2,31	3,11	1,19	2,68	1,61	0,83	M 10	1,46	
280	1 1/4"	1399-20-20	GFS 104 SRE 42	1,65x0,12	1,69	1,42	1,22	2,31	3,11	1,19	2,68	1,61	0,83	M 10	1,46	
210	1 1/2"		GFS 106 SRE 38	1,50x0,16	1,50	1,18	1,18	2,75	3,66	1,41	3,07	1,73	0,98	M 12	2,31	
210	1 1/2"		GFS 106 SRE 42	1,65x0,12	1,65	1,42	1,42	2,75	3,66	1,41	3,07	1,73	0,98	M 12	2,31	
210	1 1/2"	1399-24-24	GFS 106 SRE 48	1,90x0,20	1,93	1,50	1,50	2,75	3,66	1,41	3,07	1,73	0,98	M 12	2,31	
210	2"	1399-32-32	GFS 108 SRE 60	2,37x0,22	2,40	1,93	1,93	3,06	4,02	1,69	3,54	1,77	0,98	M 12	2,65	
175	2 1/2"		GFS 110 SRE 76	3,00x0,28	3,03	2,44	2,44	3,50	4,49	2,00	4,13	1,97	0,98	M 12	3,57	
160	3"		GFS 112 SRE 76	3,00x0,28	3,03	2,44	2,44	4,19	5,28	2,44	4,88	2,01	1,02	M 16	5,31	
Strength class		High pressure														
10.9																
420	1/2"		GFS 401 SRE 20	0,79x0,12	0,79	0,55	0,55	1,59	2,13	0,72	1,81	1,34	0,63	M 8	0,53	
420	3/4"		GFS 402 SRE 20	0,79x0,12	0,79	0,55	0,55	2,00	2,80	0,94	2,17	1,38	0,83	M 10	1,10	
420	3/4"		GFS 402 SRE 25	0,98x0,16	0,98	0,67	0,67	2,00	2,80	0,94	2,17	1,38	0,83	M 10	1,17	
420	1"		GFS 403 SRE 25	0,98x0,16	0,98	0,67	0,67	2,25	3,19	1,09	2,56	1,65	0,98	M 12	1,68	
420	1"		GFS 403 SRE 30	1,18x0,16	1,18	0,87	0,87	2,25	3,19	1,09	2,56	1,65	0,98	M 12	1,76	
420	1 1/4"		GFS 404 SRE 30	1,18x0,16	1,18	0,87	0,87	2,62	3,74	1,25	3,07	1,73	0,98	M 14	2,14	
420	1 1/4"		GFS 404 SRE 30-M12	1,18x0,16	1,18	0,87	0,87	2,62	3,74	1,25	3,07	1,73	0,98	M 12	2,40	
420	1 1/4"		GFS 404 SRE 38	1,50x0,24	1,50	1,02	1,02	2,62	3,74	1,25	3,07	1,73	0,98	M 14	2,38	
420	1 1/4"		GFS 404 SRE 38-M12	1,50x0,24	1,50	1,02	1,02	2,62	3,74	1,25	3,07	1,73	0,98	M 12	2,43	
420	1 1/2"		GFS 405 SRE 38	1,50x0,24	1,50	1,02	1,02	3,12	4,41	1,44	3,70	2,20	1,10	M 16	3,90	
420	1 1/2"		GFS 405 SRE 48	1,90x0,31	1,93	1,26	1,26	3,12	4,41	1,44	3,70	2,20	1,10	M 16	4,01	
420	1 1/2"		GFS 405 SRE 60	2,37x0,39	2,40	1,57	1,50	3,12	4,41	1,44	3,70	2,20	1,10	M 16	4,14	
420	2"		GFS 406 SRE 60	2,37x0,39	2,40	1,57	1,57	3,81	5,28	1,75	4,49	2,56	1,46	M 20	7,30	
420	2"		GFS 406 SRE 76	3,00x0,49	3,03	2,01	1,89	3,81	5,28	1,75	4,49	3,15	1,30	M 20	7,28	

*1 or comparable material

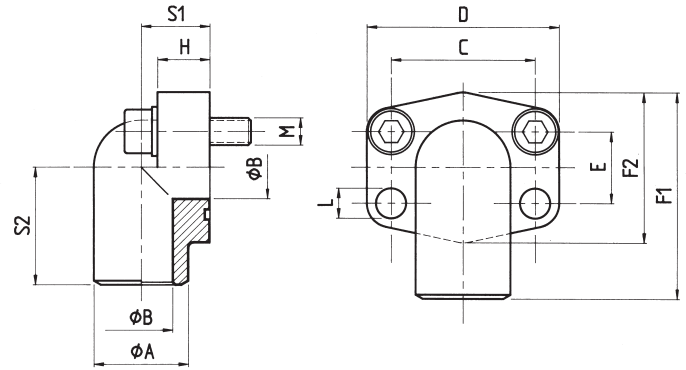


Ordering code:	S355J2^{*1}	1.4404^{*1}
		316L
• flange with metric bolts and o-ring	DFS-...ST-M	DFX-...ST-M
• flange with UNC bolts and o-ring	DFS-...ST-U	DFX-...ST-U
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions								Bolts		Weight (flange only)	
			A	B	C	D	E	F	G	H	M	lb		
kg/cm ²	inch													
Strength class		Standard pressure										<i>metr.</i>	<i>unc.</i>	
10.9														
350	1/2"	DFS 080 ST-038	0,69	0,39	1,50	2,13	0,69	1,81	2,83	1,26	M 8x30	5/16 x 1 1/4	1,10	
350	1/2"	DFS 080 ST	0,85	0,51	1,50	2,13	0,69	1,81	2,83	1,26	M 8x30	5/16 x 1 1/4	1,23	
350	3/4"	DFS 100 ST	1,10	0,75	1,87	2,56	0,88	1,97	2,83	1,42	M 10x40	3/8 x 1 1/2	1,72	
320	1"	DFS 102 ST	1,34	0,98	2,06	2,76	1,03	2,17	2,99	1,42	M 10x40	3/8 x 1 1/2	2,03	
280	1 1/4"	DFS 104 ST	1,69	1,26	2,31	3,11	1,19	2,68	3,23	1,65	M 10x45	7/16 x 1 1/2	2,91	
210	1 1/2"	DFS 106 ST	1,91	1,50	2,75	3,66	1,41	3,07	3,46	1,97	M 12x50	1/2 x 1 3/4	4,63	
210	2"	DFS 108 ST	2,40	1,94	3,06	4,02	1,69	3,54	3,54	1,97	M 12x50	1/2 x 1 3/4	5,25	
175	2 1/2"	DFS 110 ST	3,03	2,48	3,50	4,49	2,00	4,13	3,94	1,97	M 12x50	1/2 x 1 3/4	6,17	
160	3"	DFS 112 ST	3,62	2,87	4,19	5,28	2,44	4,88	3,94	2,13	M 16x55	5/8 x 2	9,48	
35	3 1/2"	DFS 114 ST	4,06	3,50	4,75	5,98	2,75	5,35	3,78	2,13	M 16x55	5/8 x 2	10,58	
35	4"	DFS 116 ST	4,55	3,90	5,13	6,38	3,06	5,75	3,78	2,13	M 16x55	5/8 x 2	12,57	
35	5"	DFS 118 ST	5,52	4,72	6,00	7,24	3,63	7,09	3,94	2,20	M 16x60	5/8 x 2	18,47	
Strength class		High pressure									<i>metr.</i>	<i>unc.</i>		
10.9														
420	1/2"	DFS 401 ST-038	0,69	0,39	1,59	2,13	0,72	1,81	2,83	1,26	M 8x30	5/16 x 1 1/4	1,15	
420	1/2"	DFS 401 ST	0,85	0,51	1,59	2,13	0,72	1,81	2,83	1,26	M 8x30	5/16 x 1 1/4	1,10	
420	3/4"	DFS 402 ST	1,10	0,75	2,00	2,80	0,94	2,17	2,76	1,65	M 10x45	3/8 x 1 1/2	2,20	
420	1"	DFS 403 ST	1,34	0,98	2,25	3,11	1,09	2,68	3,23	1,65	M 12x45	7/16 x 1 3/4	2,87	
375	1 1/4"	DFS 404 ST	1,69	1,26	2,62	3,66	1,25	3,07	3,46	1,97	M 14x50	–	4,63	
375	1 1/4"	DFS 404 ST-M12	1,69	1,26	2,62	3,66	1,25	3,07	3,46	1,97	M 12x45	1/2 x 1 3/4	4,59	
420	1 1/4"	DFS 404 ST 160	1,69	1,14	2,62	3,66	1,25	3,07	3,46	1,97	M 14x50	–	4,78	
420	1 1/4"	DFS 404 ST 160-M12	1,69	1,14	2,62	3,66	1,25	3,07	3,46	1,97	M 12x45	1/2 x 1 3/4	4,83	
250	1 1/2"	DFS 405 ST	1,91	1,50	3,12	4,49	1,44	3,70	4,33	2,36	M 16x60	5/8 x 2	7,85	
420	1 1/2"	DFS 405 ST 160	1,91	1,34	3,12	4,49	1,44	3,70	4,33	2,36	M 16x60	5/8 x 2	8,25	
250	2"	DFS 406 ST	2,40	1,94	3,81	5,28	1,75	4,49	5,12	2,91	M 20x75	3/4 x 2 1/2	13,29	
420	2"	DFS 406 ST 160	2,40	1,69	3,81	5,28	1,75	4,49	5,12	2,91	M 20x75	3/4 x 2 1/2	14,22	
420	2 1/2"	DFS 407 ST 76	3,00	2,01	4,87	7,09	2,31	5,98	6,30	3,54	M 24x90	–	32,34	
420	2 1/2"	DFS 407 ST 88	3,50	2,38	4,87	7,09	2,31	5,98	6,30	3,54	M 24x90	–	31,97	

*1 or comparable material

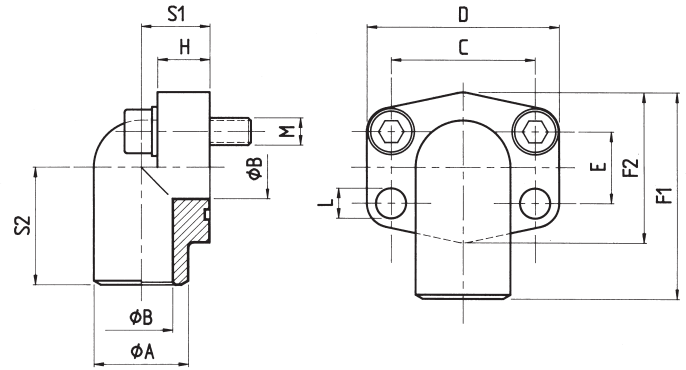


Ordering code:	S355J2^{*1}
• flange only	AFS-.../90ST
• including metric bolts and o-ring	AFS-.../90ST-M
Surface only blanc available	

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions											Bolts		Weight (flange only)			
			A	B	C	D	E	F1	F2	H	L	S1	S2	M	lb				
<i>kg/cm²</i>	<i>inch</i>																<i>M</i>		
Strength class		Standard pressure															<i>metr.</i>	<i>unc.</i>	
10.9																			
350	¾"	AFS 200/90 ST	1,06	0,75	1,87	2,76	0,88	2,48	1,97	0,83	0,43	0,91	1,61	M 10x40	–	1,32			
320	1"	AFS 202/90 ST	1,36	0,91	2,06	2,95	1,03	2,83	2,36	0,94	0,43	0,98	1,89	M 10x45	–	1,32			
280	1¼"	AFS 204/90 ST	1,69	1,22	2,31	3,39	1,19	3,23	2,68	0,98	0,45	1,06	2,13	M 10x45	–	2,87			
210	1½"	AFS 206/90 ST	1,97	1,38	2,75	3,82	1,41	3,62	2,64	1,14	0,55	1,24	2,28	M 12x50	–	4,19			
210	2"	AFS 208/90 ST	2,56	1,89	3,06	3,94	1,69	3,90	3,54	1,97	0,55	1,48	2,48	M 12x70	–	4,74			

*1 or comparable material



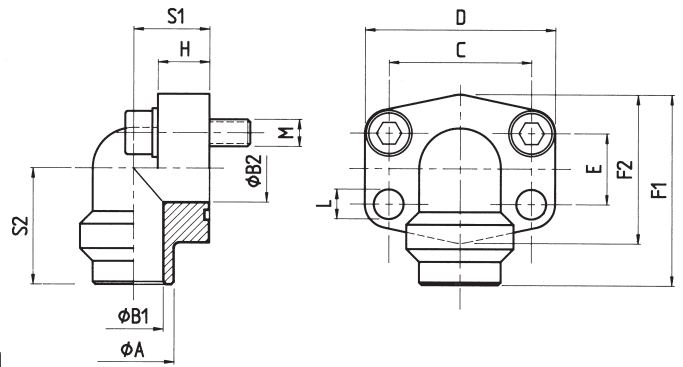
Ordering code:	S355J2^{*1}
• flange only	AFS-.../90ST
• including metric bolts and o-ring	AFS-.../90ST-M
Surface only blanc available	

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions											Bolts		Weight (flange only)	
			A	B	C	D	E	F1	F2	H	L	S1	S2	M	unc.	lb	
kg/cm ²	inch													metr.	unc.		
Strength class		High pressure															
10.9																	
420	¾"	AFS 700/90 ST	1,10	0,75	2,00	2,80	0,94	2,76	2,36	0,75	0,43	0,87	1,57	M 10x35	–	0,50	
420	1"	AFS 702/90 ST	1,34	0,98	2,25	3,19	1,09	3,23	2,76	0,94	0,51	1,06	1,85	M 12x45	–	0,80	
420	1"	AFS 702/90 ST-30x4 ^{*2}	1,18	0,87	2,25	3,19	1,09	3,27	2,76	0,94	0,51	1,06	1,89	M 12x45	–	0,88	
375	1¼"	AFS 704/90 ST	1,65	1,26	2,62	3,74	1,25	3,74	3,07	1,06	0,59	1,26	2,20	M 14x50	–	1,70	
320	1½"	AFS 706/90 ST	1,89	1,50	3,12	4,45	1,44	4,53	3,70	1,18	0,67	1,57	2,68	M 16x50	–	2,00	

*1 or comparable material

*2 welding nose v-seam

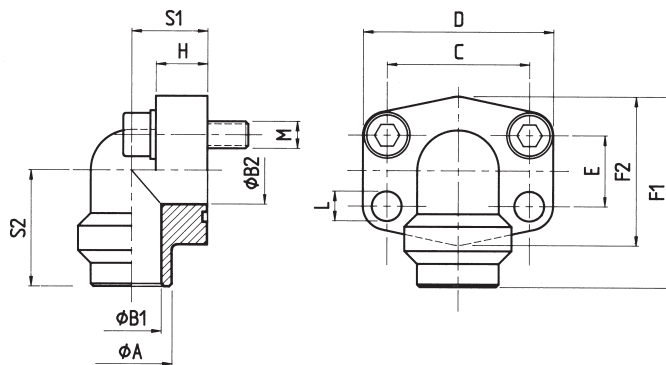


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-.../90SRE...	AFX-...
• including metric bolts and o-ring	AFS-.../90SRE...-M	AFX-.../90SRE...-MX
• including UNC bolts and o-ring	AFS-.../90SRE...-U	AFX-.../90SRE...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	nominal flange size	Type	Dimensions													Bolts		Weight (flange only)		
			pipe diameter	A	B1	B2	C	D	E	F1	F2	H	S1	S2	L	M	lb			
kg/cm²	inch																			
Strength class		Standard pressure															<i>metr.</i>	<i>unc.</i>		
10.9																				
250	1/2"	AFS 080/90 SRE 20	0,79x0,12	0,79	0,55	0,51	1,50	2,13	0,69	2,36	1,69	0,63	0,79	1,46	0,35	M 8x30	5/16 x 1 1/4	0,60		
160	1/2"	AFS 080/90 SRE 22	0,87x0,08	0,87	0,71	0,51	1,50	2,13	0,69	2,36	1,69	0,63	0,79	1,46	0,35	M 8x30	5/16 x 1 1/4	0,60		
250	1/2"	AFS 080/90 SRE 25	0,98x0,12	0,98	0,75	0,51	1,50	2,13	0,69	2,36	1,69	0,63	0,79	1,46	0,35	M 8x30	5/16 x 1 1/4	0,77		
160	1/2"	AFS 080/90 SRE 28	1,10x0,12	1,10	0,87	0,51	1,50	2,13	0,69	2,36	1,69	0,63	0,79	1,46	0,35	M 8x30	5/16 x 1 1/4	0,64		
250	3/4"	AFS 100/90 SRE 25	0,98x0,12	0,98	0,75	0,75	1,87	2,56	0,88	2,48	1,97	0,71	0,94	1,50	0,43	M 10x35	3/8 x 1 1/2	0,95		
160	3/4"	AFS 100/90 SRE 28	1,10x0,12	1,10	0,87	0,75	1,87	2,56	0,88	2,48	1,97	0,71	0,94	1,50	0,43	M 10x35	3/8 x 1 1/2	0,93		
250	3/4"	AFS 100/90 SRE 30	1,18x0,16	1,18	0,87	0,75	1,87	2,56	0,88	2,48	1,97	0,71	0,94	1,50	0,43	M 10x35	3/8 x 1 1/2	0,93		
160	3/4"	AFS 100/90 SRE 35	1,38x0,16	1,38	1,06	0,75	1,87	2,56	0,88	2,48	1,97	0,71	0,94	1,50	0,43	M 10x35	3/8 x 1 1/2	0,95		
250	1"	AFS 102/90 SRE 30	1,18x0,16	1,18	0,87	0,98	2,06	2,76	1,03	2,76	2,36	0,75	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,23		
160	1"	AFS 102/90 SRE 35	1,38x0,16	1,38	1,06	0,98	2,06	2,76	1,03	2,76	2,36	0,75	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,19		
250	1"	AFS 102/90 SRE 38	1,50x0,16	1,50	1,18	0,98	2,06	2,76	1,03	2,76	2,36	0,75	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,23		
160	1"	AFS 102/90 SRE 42	1,65x0,12	1,65	1,42	0,98	2,06	2,76	1,03	2,76	2,36	0,75	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,12		
280	1 1/4"	AFS 104/90 SRE 38	1,50x0,16	1,50	1,18	1,26	2,31	3,11	1,19	3,35	2,68	0,83	1,34	2,01	0,45	M 10x40	7/16 x 1 1/2	1,85		
160	1 1/4"	AFS 104/90 SRE 42	1,65x0,12	1,65	1,42	1,26	2,31	3,11	1,19	3,35	2,68	0,83	1,34	2,01	0,45	M 10x40	7/16 x 1 1/2	1,96		
160	1 1/4"	AFS 104/90 SRE 48,3	1,93x0,18	1,93	1,54	1,26	2,31	3,11	1,19	3,35	2,68	0,83	1,34	2,01	0,45	M 10x40	7/16 x 1 1/2	1,85		
210	1 1/2"	AFS 106/90 SRE 38	1,50x0,16	1,50	1,18	1,50	2,75	3,66	1,41	3,74	3,07	0,98	1,50	2,20	0,53	M 12x45	1/2 x 1 3/4	3,11		
160	1 1/2"	AFS 106/90 SRE 42	1,65x0,12	1,65	1,42	1,50	2,75	3,66	1,41	3,74	3,07	0,98	1,50	2,20	0,53	M 12x45	1/2 x 1 3/4	2,82		
160	1 1/2"	AFS 106/90 SRE 48,3	1,93x0,18	1,93	1,54	1,50	2,75	3,66	1,41	3,74	3,07	0,98	1,50	2,20	0,53	M 12x45	1/2 x 1 3/4	3,31		
210	2"	AFS 108/90 SRE 60,3	2,40x0,22	2,40	1,93	2,01	3,06	4,33	1,69	4,33	3,54	0,98	1,65	2,56	0,53	M 12x45	1/2 x 1 3/4	3,97		
210	2"	AFS 108/90 SRE 76,1	3,00x0,28	2,87	2,44	2,01	3,06	4,33	1,69	4,33	3,54	0,98	1,65	2,56	0,53	M 12x45	1/2 x 1 3/4	4,08		
175	2 1/2"	AFS 110/90 SRE 76,1	3,00x0,28	3,00	2,24	2,36	3,50	4,53	2,00	5,00	3,78	0,98	1,97	3,03	0,53	M 12x45	1/2 x 1 3/4	6,02		

*1 or comparable material



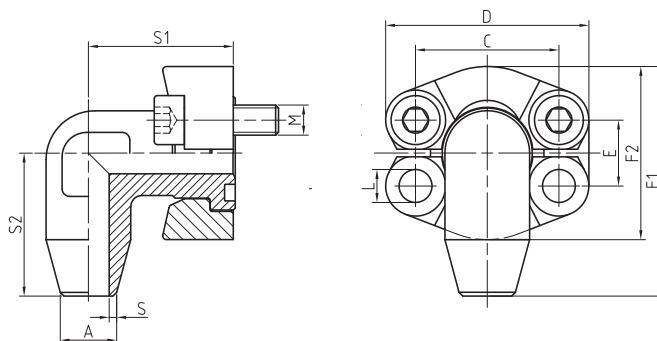
Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...	AFX-...
• including metric bolts and o-ring	AFS-...-M	AFX-...-MX
• including UNC bolts and o-ring	AFS-...-U	AFX-...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	Nominal flange size	Type	Dimensions													Bolts		Weight (flange only)		
			pipe diameter	A	B1	B2	C	D	E	F1	F2	H	S1	S2	L	M	lb			
kg/cm ²	inch																			
Strength class	High pressure															<i>metr.</i>	<i>unc.</i>			
10.9																				
315	1/2"	AFS 401/90 SRE 20	0,79x0,12	0,79	0,55	0,51	1,59	2,22	0,72	2,36	1,69	0,63	0,79	1,46	0,35	M 8x30	5/16 x 1 1/4	0,60		
315	1/2"	AFS 401/90 SRE 25	0,98x0,16	0,98	0,67	0,51	1,59	2,22	0,72	2,36	1,69	0,63	0,79	1,46	0,35	M 8x30	5/16 x 1 1/4	0,62		
315	3/4"	AFS 402/90 SRE 25	0,98x0,16	0,98	0,67	0,75	2,00	2,81	0,94	2,76	2,36	0,75	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,37		
315	3/4"	AFS 402/90 SRE 30	1,18x0,16	1,18	0,87	0,75	2,00	2,81	0,94	2,76	2,36	0,75	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,26		
320	1"	AFS 403/90 SRE 30	1,18x0,16	1,18	0,87	0,98	2,25	3,19	1,09	3,35	2,76	0,83	1,34	2,01	0,51	M 12x45	7/16 x 1 3/4	1,94		
320	1"	AFS 403/90 SRE 38	1,50x0,20	1,50	1,10	0,98	2,25	3,19	1,09	3,35	2,76	0,83	1,34	2,01	0,51	M 12x45	7/16 x 1 3/4	2,07		
315	1 1/4"	AFS 404/90 SRE 38	1,50x0,20	1,50	1,10	1,26	2,62	3,75	1,25	3,74	3,07	0,98	1,50	2,20	0,57	M 14x50	–	3,24		
315	1 1/4"	AFS 404/90 SRE 48,3	1,90x0,31	1,93	1,26	1,26	2,62	3,75	1,25	3,74	3,07	0,98	1,50	2,20	0,57	M 14x50	–	3,22		
315	1 1/2"	AFS 405/90 SRE 38	1,50x0,20	1,50	1,10	1,50	3,12	4,33	1,44	4,33	3,70	0,98	1,65	2,56	0,67	M 16x50	5/8 x 2	5,25		
315	1 1/2"	AFS 405/90 SRE 48,3	1,90x0,31	1,93	1,26	1,50	3,12	4,33	1,44	4,33	3,70	0,98	1,65	2,56	0,67	M 16x50	5/8 x 2	5,34		
315	1 1/2"	AFS 405/90 SRE 50x6*2		1,97	1,50	1,50	3,12	4,33	1,44	4,25	3,35	1,18	1,85	2,48	0,67	M 16x55	–	5,45		
315	1 1/2"	AFS 405/90 SRE 50x7*2		1,97	1,42	1,50	3,12	4,41	1,44	4,41	3,35	1,18	1,85	2,60	0,67	M 16x55	–	5,86		
315	1 1/2"	AFS 405/90 SRE 60,3	2,37x0,39	2,40	1,57	1,50	3,12	4,33	1,44	4,33	3,70	0,98	1,65	2,56	0,67	M 16x50	5/8 x 2	5,27		
315	2"	AFS 406/90 SRE 60,3	2,37x0,39	2,40	1,57	2,01	3,81	5,35	1,75	5,24	4,25	1,38	1,77	2,95	0,83	M 20x70	–	9,26		
315	2"	AFS 406/90 SRE 76,1	3,00x0,49	2,99	1,97	2,01	3,81	5,28	1,75	5,20	4,21	1,38	1,77	2,95	0,83	M 20x70	–	8,47		

*1 or comparable material

*2 welding nose v-seam



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• only 90° elbow	WFS-...	WFS-X-...
• including split flanges, metric bolts and o-ring	WFS-...-M	WFS-X-...-MX
• including split flanges, UNC bolts and o-ring	WFS-...-U	WFS-X-...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	nominal flange size	Part no.	Type	Dimensions							Bolts		Weight (flange only)
				pipe diameter	C	D	E	F1/F2	S1/S2	L	M		
kg/cm ²	inch												lb
Strength class													
10.9	Standard pressure												
											metr.	unc.	
350	1/2		WFS-3001-15x2	0,59 x 0,08	1,50	2,13	0,69	2,39/1,80	1,54/1,50	0,33	M 8x25	5/16 x 1 1/4	0,39
350	1/2		WFS-3001-16x2	0,63 x 0,08	1,50	2,13	0,69	2,39/1,80	1,54/1,50	0,33	M 8x25	5/16 x 1 1/4	0,42
350	1/2	1364-08-08 / 1365-08-08 (counterflange)	WFS-3001-21,3x3,8	0,84 x 0,15	1,50	2,13	0,69	2,39/1,80	1,54/1,50	0,33	M 8x25	5/16 x 1 1/4	0,37
350	3/4		WFS-3002-18x1,5	0,71 x 0,06	1,87	2,56	0,88	2,79/2,04	1,65/1,77	0,41	M 10x30	3/8 x 1 1/4	0,77
350	3/4		WFS-3002-20x3	0,79 x 0,12	1,87	2,56	0,88	2,79/2,04	1,65/1,77	0,41	M 10x30	3/8 x 1 1/4	0,77
350	3/4		WFS-3002-22x3	0,87 x 0,12	1,87	2,56	0,88	2,79/2,04	1,65/1,77	0,41	M 10x30	3/8 x 1 1/4	0,67
350	3/4		WFS-3002-25x3	0,98 x 0,12	1,87	2,56	0,88	2,79/2,04	1,65/1,77	0,41	M 10x30	3/8 x 1 1/4	0,67
350	3/4	1364-12-12 / 1365-12-12 (counterflange)	WFS-3002-26,9x3,9	1,06 x 0,15	1,87	2,56	0,88	2,79/2,04	1,65/1,77	0,41	M 10x30	3/8 x 1 1/4	0,71
320	1		WFS-3003-25x3	0,98 x 0,12	2,06	2,76	1,03	3,12/2,30	1,77/1,97	0,41	M 10x30	3/8 x 1 1/4	1,05
320	1		WFS-3003-30x4	1,18 x 0,16	2,06	2,76	1,03	3,12/2,30	1,77/1,97	0,41	M 10x30	3/8 x 1 1/4	1,15
320	1	1364-16-16 / 1365-16-16 (counterflange)	WFS-3003-33,7x4,5	1,33 x 0,18	2,06	2,76	1,03	3,12/2,30	1,77/1,97	0,41	M 10x30	3/8 x 1 1/4	1,03
280	1 1/4		WFS-3004-25x3	0,98 x 0,12	2,31	3,11	1,19	3,36/2,86	1,97/2,32	*3	*4	7/16 x 1 1/2	1,61
280	1 1/4		WFS-3004-30x4	1,18 x 0,16	2,31	3,11	1,19	3,36/2,86	1,97/2,32	*3	*4	7/16 x 1 1/2	1,16
280	1 1/4		WFS-3004-35x2	1,38 x 0,08	2,31	3,11	1,19	3,36/2,86	1,97/2,32	*3	*4	7/16 x 1 1/2	1,63
280	1 1/4		WFS-3004-38x5	1,50 x 0,02	2,31	3,11	1,19	3,36/2,86	1,97/2,32	*3	*4	7/16 x 1 1/2	1,43
280	1 1/4	1364-20-20 / 1365-20-20 (counterflange)	WFS-3004-42,4x5	1,67 x 0,02	2,31	3,11	1,19	3,36/2,86	1,97/2,32	*3	*4	7/16 x 1 1/2	1,09
210	1 1/2		WFS-3005-38x5	1,50 x 0,02	2,75	3,70	1,41	4,61/3,24	2,99/2,20	0,52	M 12x35	1/2 x 1 1/2	2,25
210	1 1/2		WFS-3005-42x3	1,65 x 0,12	2,75	3,70	1,41	4,61/3,24	2,99/2,20	0,52	M 12x35	1/2 x 1 1/2	2,25
210	1 1/2	1364-24-24 / 1365-24-24 (counterflange)	WFS-3005-48,3x5	1,90 x 0,2	2,75	3,70	1,41	4,61/3,24	2,99/2,20	0,52	M 12x35	1/2 x 1 1/2	2,36
210	2		WFS-3006-60,3x3,9	2,37 x 0,15	3,06	4,00	1,69	5,06/3,81	4,25/3,15	0,52	M 12x35	1/2 x 1 1/2	3,25
210	2		WFS-3006-60,3x5,6	2,37 x 0,22	3,06	4,00	1,69	5,06/3,81	4,25/3,15	0,52	M 12x35	1/2 x 1 1/2	5,72

*1 or comparable material

*2 implemented pipe dimensions 1,50x0,31 for max. working pressure 350/400

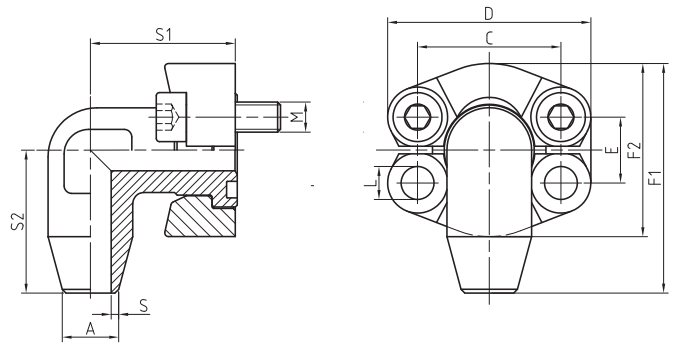
*3 choice of 0,41", 0,47" or 0,50"

*4 choice of M 10x30 or M 12x35

*5 choice of 0,47" or 0,52"

*6 choice of 0,52" or 0,57"

*7 choice of M 12x45 or M 14x50



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• only 90° elbow	WFS-...	WFS-X-...
• including split flanges, metric bolts and o-ring	WFS-...-M	WFS-X-...-MX
• including split flanges, UNC bolts and o-ring	WFS-...-U	WFS-X-...-UX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure*	nominal flange size	Part no.	Type	Dimensions							Bolts		Weight (flange only)	
				pipe diameter	C	D	E	F1/F2	S1/S2	L	M			
kg/cm ²	inch													lb
Strength class	High pressure													
10.9												metr.	unc.	
420	1/2		WFS-6001-16x3	0,63 x 0,12	40,5	56	18,2	61,6/47,2	39/38	8,5	M 8x30	5/16 x 1 1/4	0,44	
420	1/2	1666-08-08 / 1667-08-08 (counterflange)	WFS-6001-21,3x4,5	0,84 x 0,18	40,5	56	18,2	61,6/47,2	39/38	8,5	M 8x30	5/16 x 1 1/4	0,42	
420	3/4		WFS-6002-16x3	0,63 x 0,12	50,8	71	23,8	78/60	48/48	10,5	M 10x35	3/8 x 1 1/2	1,01	
420	3/4		WFS-6002-20x4	0,79 x 0,16	50,8	71	23,8	78/60	48/48	10,5	M 10x35	3/8 x 1 1/2	0,98	
420	3/4		WFS-6002-25x4	0,98 x 0,16	50,8	71	23,8	78/60	48/48	10,5	M 10x35	3/8 x 1 1/2	0,97	
420	3/4	1666-12-12 / 1667-12-12 (counterflange)	WFS-6002-26,9x5,6	1,06 x 0,22	50,8	71	23,8	78/60	48/48	10,5	M 10x35	3/8 x 1 1/2	0,98	
420	1		WFS-6003-25x4	0,98 x 0,16	57,2	81	27,8	94/69,6	60/60	*5	M 12x45	7/16 x 1 3/4	1,80	
420	1		WFS-6003-30x4	1,18 x 0,16	57,2	81	27,8	94/69,6	60/60	*5	M 12x45	7/16 x 1 3/4	1,51	
420	1		WFS-6003-33,7x4,5	1,33 x 0,18	57,2	81	27,8	94/69,6	60/60	*5	M 12x45	7/16 x 1 3/4	1,61	
420	1	1666-16-16 / 1667-16-16 (counterflange)	WFS-6003-33,7x6,3	1,33 x 0,25	57,2	81	27,8	94/69,6	60/60	*5	M 12x45	7/16 x 1 3/4	1,72	
315	1 1/4		WFS-6004-30x4	1,18 x 0,16	66,6	95	31,8	106,6//77,2	68/62	*6	*7	1/2 x 1 3/4	2,31	
315	1 1/4		WFS-6004-38x5	1,50 x 0,20	66,6	95	31,8	106,6//77,2	68/62	*6	*7	1/2 x 1 3/4	1,98	
315	1 1/4	1666-20-20 / 1667-20-20 (counterflange)	WFS-6004-42,4x6,3	1,67 x 0,25	66,6	95	31,8	106,6//77,2	68/62	*6	*7	1/2 x 1 3/4	1,90	
315	1 1/4		WFS-6004-38x8 ^{*2}	1,50 x 0,31 ^{*2}	66,6	95	31,8	106,6//77,2	68/62	*6	*7	1/2 x 1 3/4	2,43	
315	1 1/2		WFS-6005-38x5	1,50 x 0,20	79,3	113	36,5	123,5/95	76/76	16,8	M 16x55	5/8 x 2	3,44	
315	1 1/2		WFS-6005-38x8 ^{*2}	1,50 x 0,31 ^{*2}	79,3	113	36,5	123,5/95	76/76	16,8	M 16x55	5/8 x 2	3,66	
315	1 1/2	1666-24-24 / 1667-24-24 (counterflange)	WFS-6005-48,3x7,14	1,90 x 0,28	79,3	113	36,5	123,5/95	76/76	16,8	M 16x55	5/8 x 2	3,17	
315	1 1/2		WFS-6005-48,3x8	1,90 x 0,31	79,3	113	36,5	123,5/95	76/76	16,8	M 16x55	5/8 x 2	3,25	
420	2		WFS-6006-60,3x8	2,37 x 0,31	96,8	133,4	44,5	137,2/114,3	108/80	21	M 20x70	3/4 x 2 1/2	3,25	
420	2		WFS-6006-60,3x8,7	2,37 x 0,34	96,8	133,4	44,5	137,2/114,3	108/80	21	M 20x70	3/4 x 2 1/2	3,25	
420	2		WFS-6006-60,3x10	2,37 x 0,39	96,8	133,4	44,5	137,2/114,3	108/80	21	M 20x70	3/4 x 2 1/2	3,25	

*1 or comparable material

*2 implemented pipe dimensions 1,50x0,31 for max. working pressure 350/400

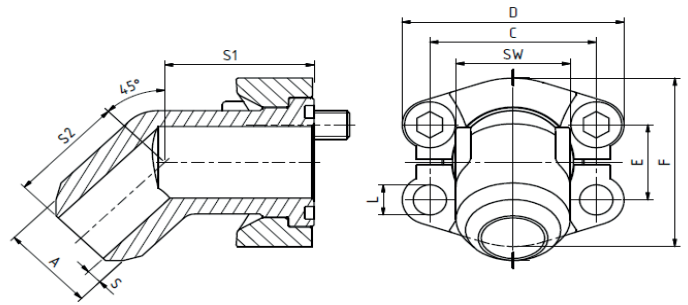
*3 choice of 0,41", 0,47" or 0,50"

*4 choice of M 10x30 or M 12x35

*5 choice of 0,47" or 0,52"

*6 choice of 0,52" or 0,57"

*7 choice of M 12x45 or M 14x50

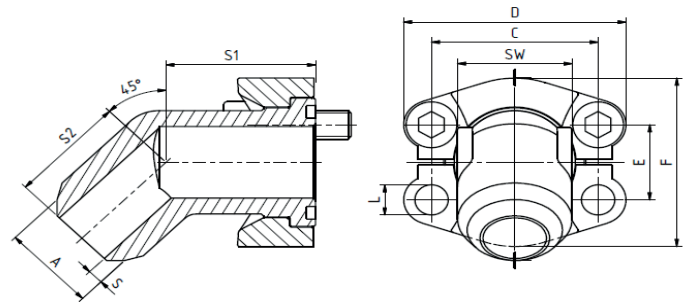


Ordering code:	S355J2^{*1}	1.4404^{*1}
• only 45° flange-adapter	WFS-...-45-...	WFS-X-...-45-...
• including split flanges, bolts and o-ring	WFS-...-45-...-M	WFS-X-...-45-...-MX
Surface only blanc available		

maximum recommended working pressure*	nominal flange size	Type	Dimensions									Bolts	Weight (flange only)		
			pipe diameter	C	D	E	F	L	S1	S2	SW			M	lb
kg/cm ²	inch														
Strength class	Standard pressure														
10.9															
350	1/2"	WFS-3001-45-15x2	0,59 x 0,08	1,50	2,13	0,69	1,81	0,33	1,54	1,28	0,94	M 8x25	-		
350	1/2"	WFS-3001-45-16x2	0,63 x 0,08	1,50	2,13	0,69	1,81	0,33	1,54	1,28	0,94	M 8x25	-		
350	1/2"	WFS-3001-45-21,3x3,8	0,84 x 0,15	1,50	2,13	0,69	1,81	0,33	1,54	1,28	0,94	M 8x25	-		
350	3/4"	WFS-3002-45-18x1,5	0,71 x 0,06	1,87	2,56	0,87	2,05	0,41	1,58	1,28	1,18	M 10x30	-		
350	3/4"	WFS-3002-45-20x3	0,79 x 0,12	1,87	2,56	0,87	2,05	0,41	1,58	1,28	1,18	M 10x30	-		
350	3/4"	WFS-3002-45-22x3	0,87 x 0,12	1,87	2,56	0,87	2,05	0,41	1,58	1,28	1,18	M 10x30	-		
350	3/4"	WFS-3002-45-25x3	0,98 x 0,12	1,87	2,56	0,87	2,05	0,41	1,58	1,28	1,18	M 10x30	-		
350	3/4"	WFS-3002-45-26,9x3,9	1,06 x 0,15	1,87	2,56	0,87	2,05	0,41	1,58	1,28	1,18	M 10x30	-		
320	1"	WFS-3003-45-25x3	0,98 x 0,12	2,06	2,76	1,03	2,32	0,41	1,85	1,47	1,42	M 10x30	-		
320	1"	WFS-3003-45-30x4	1,18 x 0,16	2,06	2,76	1,03	2,32	0,41	1,85	1,47	1,42	M 10x30	-		
320	1"	WFS-3003-45-33,7x4,5	1,33 x 0,18	2,06	2,76	1,03	2,32	0,41	1,85	1,47	1,42	M 10x30	-		
280	1 1/4"	WFS-3004-45-25x3	0,98 x 0,12	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	-		
280	1 1/4"	WFS-3004-45-30x4	1,18 x 0,16	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	-		
280	1 1/4"	WFS-3004-45-35x2	1,38 x 0,08	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	-		
280	1 1/4"	WFS-3004-45-38x5	1,50 x 0,02	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	-		
280	1 1/4"	WFS-3004-45-42,4x5	1,67 x 0,02	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	-		
210	1 1/2"	WFS-3005-45-38x5	1,50 x 0,02	2,75	3,70	1,41	3,27	0,52	2,38	1,78	1,97	M 12x35	-		
210	1 1/2"	WFS-3005-45-42x3	1,65 x 0,12	2,75	3,70	1,41	3,27	0,52	2,38	1,78	1,97	M 12x35	-		
210	1 1/2"	WFS-3005-45-48,3x5	1,90 x 0,2	2,75	3,70	1,41	3,27	0,52	2,38	1,78	1,97	M 12x35	-		

*1 or comparable material
 *2 choice of 0,41", 0,47" or 0,50"
 *3 choice of M 10x30 or M 12x35

*4 choice of 0,57" or 0,52"
 *5 choice of M 12x45 or M 14x50
 *6 Implemented pipe dimensions 1,50x0,31 for max. working pressure 420

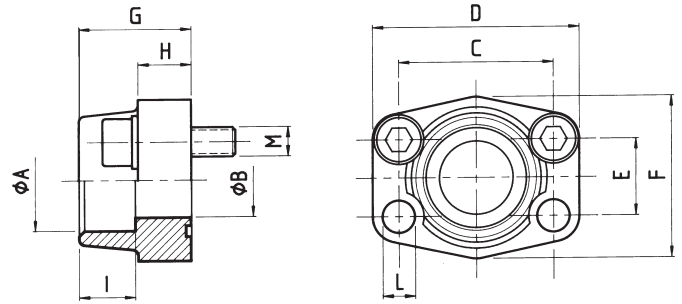
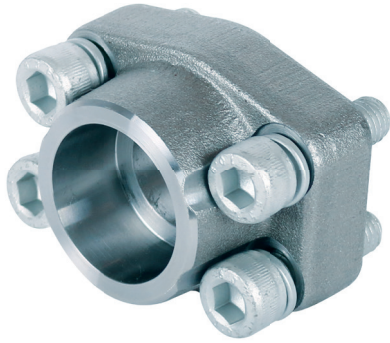


Ordering code:	S355J2¹	1.4404¹
• only 45° flange-adapter	WFS-...-45-...	WFS-X-...-45-...
• including split flanges, bolts and o-ring	WFS-...-45-...-M	WFS-X-...-45-...-MX
Surface only blanc available		

maximum recommended working pressure*	nominal flange size	Type	Dimensions										Bolts	Weight (flange only)	
			pipe diameter	C	D	E	F	L	S1	S2	SW	M			lb
kg/cm ²	inch														
Strength class	High pressure														
10.9															
420	1/2"	WFS-6001-45-16x3	0,63 x 0,12	1,59	2,22	0,72	1,88	0,33	1,54	1,28	0,94	M 8x30	-		
420	1/2"	WFS-6001-45-21,3x4,5	0,84 x 0,18	1,59	2,22	0,72	1,88	0,33	1,54	1,28	0,94	M 8x30	0,44		
420	3/4"	WFS-6002-45-16x3	0,63 x 0,12	2,00	2,80	0,94	2,40	0,41	1,58	1,28	1,26	M 10x35	-		
420	3/4"	WFS-6002-45-20x4	0,79 x 0,16	2,00	2,80	0,94	2,40	0,41	1,58	1,28	1,26	M 10x35	-		
420	3/4"	WFS-6002-45-25x4	0,98 x 0,16	2,00	2,80	0,94	2,40	0,41	1,58	1,28	1,26	M 10x35	-		
420	3/4"	WFS-6002-45-26,9x5,6	1,06 x 0,22	2,00	2,80	0,94	2,40	0,41	1,58	1,28	1,26	M 10x35	-		
420	1"	WFS-6003-45-25x4	0,98 x 0,16	2,25	3,19	1,09	2,76	0,52	1,85	1,47	1,61	M 12x45	-		
420	1"	WFS-6003-45-30x4	1,18 x 0,16	2,25	3,19	1,09	2,76	0,52	1,85	1,47	1,61	M 12x45	-		
420	1"	WFS-6003-33,7x4,5	1,33 x 0,18	2,25	3,19	1,09	2,76	0,52	1,85	1,47	1,61	M 12x45	-		
420	1"	WFS-6003-33,7x6,3	1,33 x 0,25	2,25	3,19	1,09	2,76	0,52	1,85	1,47	1,61	M 12x45	1,23		
315	1 1/4"	WFS-6004-45-30x4	1,18 x 0,16	2,63	3,74	1,25	3,07	*4	2,04	1,59	1,81	*5	-		
315	1 1/4"	WFS-6004-45-38x5	1,50 x 0,20	2,63	3,74	1,25	3,07	*4	2,04	1,59	1,81	*5	1,53		
315	1 1/4"	WFS-6004-45-42,4x6,3	1,67 x 0,25	2,63	3,74	1,25	3,07	*4	2,04	1,59	1,81	*5	-		
315	1 1/4"	WFS-6004-45-38x8 ⁶	1,50 x 0,31*6	2,63	3,74	1,25	3,07	*4	2,04	1,59	1,81	*5	-		
315	1 1/2"	WFS-6005-45-38x5	1,50 x 0,20	3,13	4,45	1,44	3,74	0,66	2,38	1,78	1,97	M 16x55	-		
315	1 1/2"	WFS-6005-45-38x8 ⁶	1,50 x 0,31*6	3,13	4,45	1,44	3,74	0,66	2,38	1,78	1,97	M 16x55	-		
315	1 1/2"	WFS-6005-45-48,3x7,14	1,90 x 0,28	3,13	4,45	1,44	3,74	0,66	2,38	1,78	1,97	M 16x55	-		
315	1 1/2"	WFS-6005-45-48,3x8	1,90 x 0,31	3,13	4,45	1,44	3,74	0,66	2,38	1,78	1,97	M 16x55	-		

*1 or comparable material
 *2 choice of 0,41", 0,47" or 0,50"
 *3 choice of M 10x30 or M 12x35

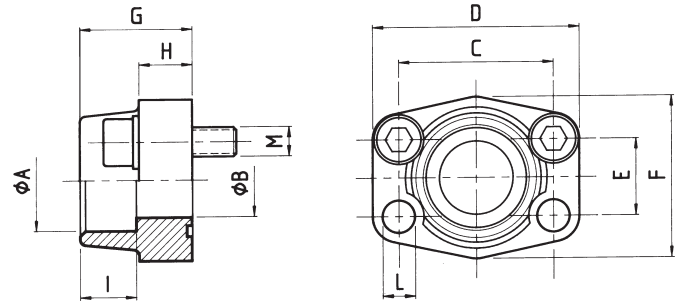
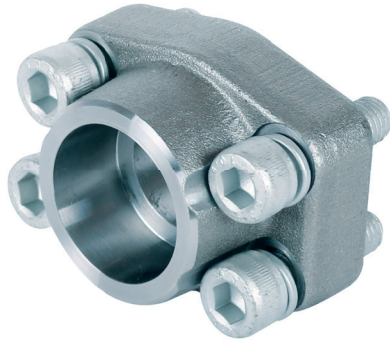
*4 choice of 0,57" or 0,52"
 *5 choice of M 12x45 or M 14x50
 *6 Implemented pipe dimensions 1,50x0,31 for max. working pressure 420



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...S	AFX-...S
• including metric bolts and o-ring	AFS-...S-M	AFX-...S-MX
• including UNC bolts and o-ring	AFS-...S-U	AFX-...S-UX
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions										Bolts		weight (flansch only)		
				A	B	C	D	E	F	G	H	I	L	M	lb			
kg/cm ²	inch																	
Strength class	Standard pressure															<i>metr.</i>	<i>unc.</i>	
10.9																		
350	1/2"	1316-08-08	AFS 080 S	0,85	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4		0,55	
350	1/2"		AFS 080 S-038	0,69	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4		0,62	
350	1/2"		AFS 080 S A20	0,80	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4		0,55	
350	3/4"	1316-12-12	AFS 100 S	1,07	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,75	0,43	M 10x35	3/8 x 1 1/2		0,86	
350	3/4"		AFS 100 S A25	1,00	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,75	0,43	M 10x35	3/8 x 1 1/2		0,86	
320	1"	1316-16-16	AFS 102 S	1,34	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,75	0,43	M 10x35	3/8 x 1 1/2		1,01	
320	1"		AFS 102 S A30	1,19	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,75	0,43	M 10x35	3/8 x 1 1/2		1,01	
280	1 1/4"	1316-20-20	AFS 104 S	1,69	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,45	M 10x40	7/16 x 1 1/2		1,46	
280	1 1/4"		AFS 104 S A38	1,51	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,45	M 10x40	7/16 x 1 1/2		1,46	
210	1 1/2"	1316-24-24	AFS 106 S	1,91	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	M 12x45	1/2 x 1 3/4		2,31	
210	1 1/2"		AFS 106 S A50	1,99	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	M 12x45	1/2 x 1 3/4		2,31	
210	2"	1316-32-32	AFS 108 S	2,40	2,01	3,06	4,02	1,69	3,54	1,77	0,98	1,02	0,53	M 12x45	1/2 x 1 3/4		2,62	
175	2 1/2"	1316-40-40	AFS 110 S	3,02	2,48	3,50	4,49	2,00	4,13	1,97	0,98	1,18	0,53	M 12x45	1/2 x 1 3/4		3,09	
160	3"	1316-48-48	AFS 112 S	3,56	2,87	4,19	5,28	2,44	4,88	1,97	1,06	1,34	0,69	M 16x50	5/8 x 2		4,74	
35	3 1/2"	1316-56-56	AFS 114 S	4,06	3,50	4,75	5,98	2,75	5,35	1,89	1,06	1,34	0,69	M 16x50	5/8 x 2		5,29	
35	4"		AFS 116 S	4,55	3,90	5,13	6,38	3,06	5,75	1,89	1,06	1,34	0,69	M 16x50	5/8 x 2		5,60	
35	5"		AFS 118 S	5,59	4,72	6,00	7,24	3,63	7,13	1,97	1,10	1,10	0,69	M 16x55	5/8 x 2		7,89	

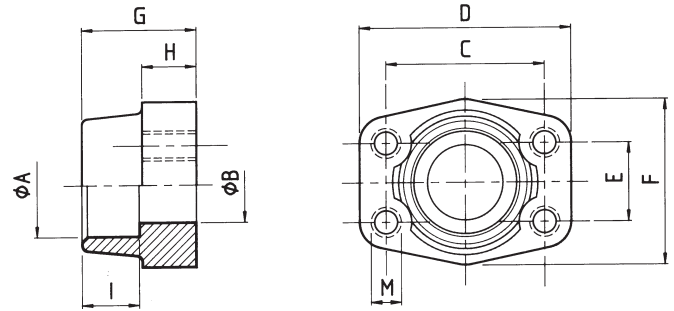
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...S	AFX-...S
• including metric bolts and o-ring	AFS-...S-M	AFX-...S-MX
• including UNC bolts and o-ring	AFS-...S-U	AFX-...S-UX
Surface only blanc available		

maximum recommended working pressure	nominal flange size	Part no.	Type	Dimensions										Bolts		weight (flansch only)
				A	B	C	D	E	F	G	H	I	L	M	lb	
kg/cm ²	inch															
Strength class	High pressure															
10.9														metr.	unc.	
420	1/2"	1616-08-08	AFS 401 S	0,85	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4	0,57
420	1/2"		AFS 401 S-038	0,69	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4	0,51
420	1/2"		AFS 401 S A20	0,80	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4	0,57
420	3/4"	1616-12-12	AFS 402 S	1,07	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,87	0,43	M 10x35	3/8 x 1 1/2	1,10
420	3/4"		AFS 402 S A25	1,00	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,87	0,43	M 10x35	3/8 x 1 1/2	1,10
420	1"	1616-16-16	AFS 403 S	1,34	0,98	2,25	3,19	1,09	2,56	1,65	0,98	0,87	0,51	M 12x45	7/16 x 1 3/4	1,68
420	1"		AFS 403 S A30	1,19	0,98	2,25	3,19	1,09	2,56	1,65	0,98	0,87	0,51	M 12x45	7/16 x 1 3/4	1,83
420	1 1/4"	1616-20-20	AFS 404 S	1,69	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	^{0,59}	M 14x50	–	2,49
420	1 1/4"		AFS 404 SL 13,5	1,69	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	^{0,53}	M 12x45	1/2 x 1 3/4	2,47
420	1 1/4"		AFS 404 S A38	1,51	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	^{0,59}	M 14x50	1/2 x 1 3/4	2,65
420	1 1/2"	1616-24-24	AFS 405 S	1,91	1,50	3,12	4,41	1,44	3,70	1,97	1,18	1,10	0,69	M 16x50	5/8 x 2	4,10
420	1 1/2"		AFS 405 S A50	1,99	1,50	3,12	4,41	1,44	3,70	1,97	1,18	1,10	0,69	M 16x50	5/8 x 2	4,01
420	2"	1616-32-32	AFS 406 S	2,40	2,01	3,81	5,28	1,75	4,49	2,56	1,46	0,94	0,83	M 20x70	3/4 x 2 1/2	7,23
420	2 1/2"		AFS 407 S	3,02	2,48	4,87	7,09	2,31	5,98	3,15	1,77	1,18	1,02	M 24x80	–	15,12
420	3"		AFS 408 S	3,56	2,87	6,00	8,19	2,82	7,01	3,54	2,17	1,30	1,30	M 30x90	–	26,04

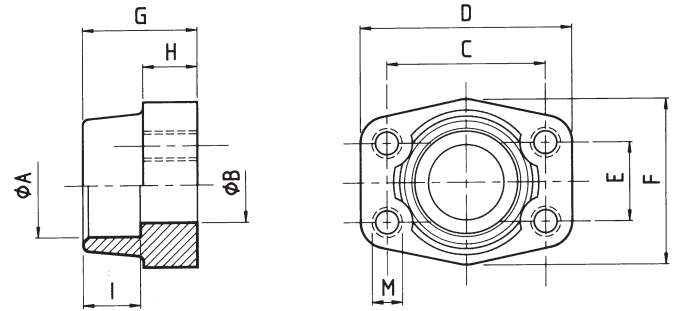
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...S-M	GFX-...S-M
• flange with UNC threads	GFS-...S-U	GFX-...S-U
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions									Thread		Weight (flange only)	
				A	B	C	D	E	F	G	H	I	M	lb		
<i>kg/cm²</i>	<i>inch</i>															
Strength class	Standard pressure											<i>metr.</i>	<i>unc.</i>			
10.9																
350	1/2"	1317-08-08	GFS 080 S	0,85	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	M 8	5/16	0,60	
350	1/2"		GFS 080 S-038	0,69	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	M 8	5/16	0,57	
350	1/2"		GFS 080 S-A20	0,80	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	M 8	5/16	0,60	
350	3/4"	1317-12-12	GFS 100 S	1,07	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,75	M 10	3/8	0,86	
350	3/4"		GFS 100 S-A25	1,00	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,75	M 10	3/8	0,86	
320	1"	1317-16-16	GFS 102 S	1,34	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,75	M 10	3/8	1,01	
320	1"		GFS 102 S-A30	1,19	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,75	M 10	3/8	1,15	
280	1 1/4"	1317-20-20	GFS 104 S	1,69	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	M 10	7/16	1,46	
280	1 1/4"		GFS 104 S-A38	1,51	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	M 10	7/16	1,65	
210	1 1/2"	1317-24-24	GFS 106 S	1,91	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	M 12	1/2	2,49	
210	1 1/2"		GFS 106 S-A50	1,99	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	M 12	1/2	2,31	
210	2"	1317-32-32	GFS 108 S	2,40	2,01	3,06	4,02	1,69	3,54	1,77	0,98	1,02	M 12	1/2	2,80	
175	2 1/2"	1317-40-40	GFS 110 S	3,02	2,48	3,50	4,49	2,00	4,13	1,97	0,98	1,18	M 12	1/2	3,42	
160	3"	1317-48-48	GFS 112 S	3,56	2,87	4,19	5,28	2,44	4,88	1,97	1,06	1,34	M 16	5/8	4,74	
35	3 1/2"	1317-56-56	GFS 114 S	4,06	3,50	4,75	5,98	2,75	5,35	1,89	1,06	1,34	M 16	5/8	5,29	
35	4"	1317-64-64	GFS 116 S	4,55	3,90	5,13	6,38	3,06	5,75	1,89	1,06	1,34	M 16	5/8	5,86	
35	5"		GFS 118 S	5,59	4,72	6,00	7,24	3,63	7,13	1,97	1,10	1,10	M 16	5/8	8,16	

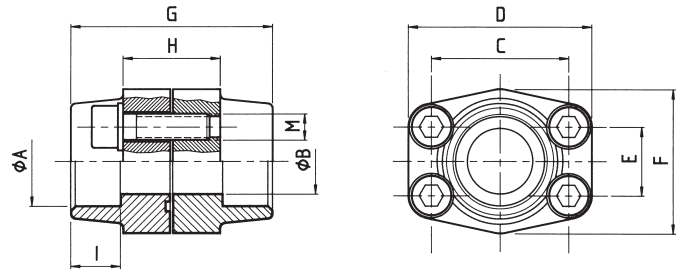
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...S-M	GFX-...S-M
• flange with UNC threads	GFS-...S-U	GFX-...S-U
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions									Thread		Weight (flange only)	
				A	B	C	D	E	F	G	H	I	M	lb		
<i>kg/cm²</i>	<i>inch</i>												<i>M</i>		<i>lb</i>	
Strength class	High pressure													<i>metr.</i>	<i>unc.</i>	
10.9																
420	1/2"	1617-08-08	GFS 401 S	0,85	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	M 8	5/16	0,57	
420	1/2"		GFS 401 S-038	0,69	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	M 8	5/16	0,73	
420	1/2"		GFS 401 S-A20	0,80	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	M 8	5/16	0,57	
420	3/4"	1617-12-12	GFS 402 S	1,07	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,87	M 10	3/8	1,10	
420	3/4"		GFS 402 S-A25	1,00	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,87	M 10	3/8	1,19	
420	1"	1617-16-16	GFS 403 S	1,34	0,98	2,25	3,19	1,09	2,56	1,65	0,98	0,87	M 12	7/16	1,87	
420	1"		GFS 403 S-A30	1,19	0,98	2,25	3,19	1,09	2,56	1,65	0,98	0,87	M 12	7/16	1,94	
420	1 1/4"	1617-20-20	GFS 404 S	1,69	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 14	–	2,65	
420	1 1/4"		GFS 404 S-M12	1,69	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 12	1/2	2,65	
420	1 1/4"		GFS 404 S-A38	1,51	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 14	1/2	2,65	
420	1 1/2"	1617-24-24	GFS 405 S	1,91	1,50	3,12	4,41	1,44	3,70	1,97	1,18	1,10	M 16	5/8	4,30	
420	1 1/2"		GFS 405 S-A50	1,99	1,50	3,12	4,41	1,44	3,70	1,97	1,18	1,10	M 16	5/8	4,19	
420	2"	1617-32-32	GFS 406 S	2,40	2,01	3,81	5,28	1,75	4,49	2,56	1,46	0,94	M 20	3/4	7,61	
420	2 1/2"		GFS 407 S	3,02	2,48	4,87	7,09	2,31	5,98	3,15	1,77	1,18	M 24	–	15,76	
420	3"		GFS 408 S	3,56	2,87	6,00	8,19	2,82	7,01	3,54	2,17	1,30	M 30	–	27,09	

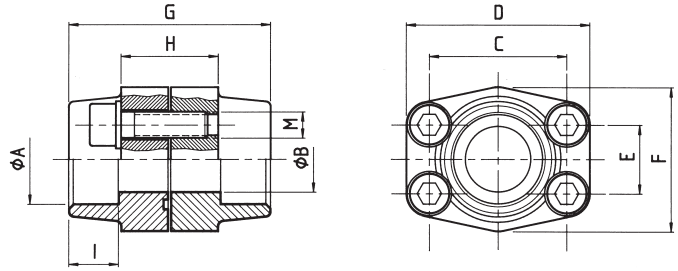
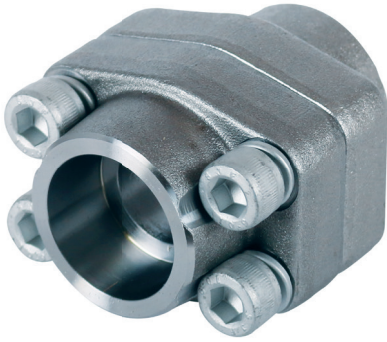
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange including metric bolts and o-ring	DFS-...S-M	DFX-...S-MX
• flange with UNC bolts and o-ring	DFS-...S-U	DFX-...S-UX
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Type	Dimensions									Bolts		Weight (flange only)	
			A	B	C	D	E	F	G	H	I	M	lb		
kg/cm ²	inch														
Strength class		Standard pressure											<i>metr.</i>	<i>unc.</i>	
10.9															
350	1/2"	DFS 080 S	0,85	0,51	1,50	2,13	0,69	1,81	2,83	1,26	0,75	M 8x30	5/16 x 1 1/4	1,10	
350	1/2"	DFS 080 S-038	0,69	0,51	1,50	2,13	0,69	1,81	2,83	1,26	0,75	M 8x30	5/16 x 1 1/4	1,23	
350	1/2"	DFS 080 S-A20	0,80	0,51	1,50	2,13	0,69	1,81	2,83	1,26	0,75	M 8x30	5/16 x 1 1/4	1,15	
350	3/4"	DFS 100 S	1,07	0,75	1,87	2,56	0,88	1,97	2,83	1,42	0,75	M 10x40	3/8 x 1 1/2	1,72	
350	3/4"	DFS 100 S-A25	1,00	0,75	1,87	2,56	0,88	1,97	2,83	1,42	0,75	M 10x40	3/8 x 1 1/2	1,72	
320	1"	DFS 102 S	1,34	0,98	2,06	2,76	1,03	2,17	2,99	1,42	0,75	M 10x40	3/8 x 1 1/2	2,03	
320	1"	DFS 102 S-A30	1,19	0,98	2,06	2,76	1,03	2,17	2,99	1,42	0,75	M 10x40	3/8 x 1 1/2	2,03	
280	1 1/4"	DFS 104 S	1,69	1,26	2,31	3,11	1,19	2,68	3,23	1,65	0,87	M 10x45	7/16 x 1 1/2	2,91	
280	1 1/4"	DFS 104 S-A38	1,51	1,26	2,31	3,11	1,19	2,68	3,23	1,65	0,87	M 10x45	7/16 x 1 1/2	3,11	
210	1 1/2"	DFS 106 S	1,91	1,50	2,75	3,66	1,41	3,07	3,54	1,97	0,94	M 12x50	1/2 x 1 3/4	4,63	
210	1 1/2"	DFS 106 S-A50	1,99	1,50	2,75	3,66	1,41	3,07	3,54	1,97	0,94	M 12x50	1/2 x 1 3/4	4,63	
210	2"	DFS 108 S	2,40	2,01	3,06	4,02	1,69	3,54	3,54	1,97	1,02	M 12x50	1/2 x 1 3/4	5,25	
175	2 1/2"	DFS 110 S	3,02	2,48	3,50	4,49	2,00	4,13	3,94	1,97	1,18	M 12x50	1/2 x 1 3/4	6,50	
160	3"	DFS 112 S	3,56	2,87	4,19	5,28	2,44	4,88	3,94	2,13	1,34	M 16x55	5/8 x 2	9,48	
35	3 1/2"	DFS 114 S	4,06	3,50	4,75	5,98	2,75	5,35	3,78	2,13	1,34	M 16x55	5/8 x 2	10,58	
35	4"	DFS 116 S	4,55	3,90	5,13	6,38	3,06	5,75	3,78	2,13	1,34	M 16x55	5/8 x 2	11,46	
35	5"	DFS 118 S	5,59	4,72	6,00	7,24	3,63	7,13	3,94	2,20	1,10	M 16x60	5/8 x 2	16,05	

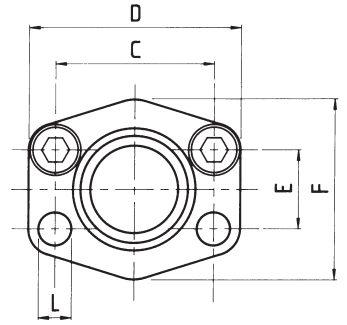
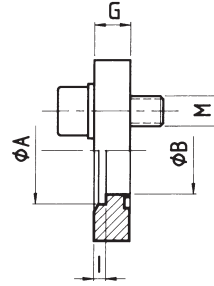
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange including metric bolts and o-ring	DFS-...S-M	DFX-...S-MX
• flange with UNC bolts and o-ring	DFS-...S-U	DFX-...S-UX
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Type	Dimensions									Bolts		weight without bolts	
			A	B	C	D	E	F	G	H	I	M	lb		
<i>kg/cm²</i>	<i>inch</i>														
Strength class															
10.9	High pressure											<i>metr.</i>	<i>unc.</i>		
420	1/2"	DFS 401S	0,85	0,51	1,59	2,13	0,72	1,81	2,83	1,26	0,75	M 8x30	5/16 x 1 1/4	1,15	
420	1/2"	DFS 401S-038	0,69	0,51	1,59	2,13	0,72	1,81	2,83	1,26	0,75	M 8x30	5/16 x 1 1/4	1,28	
420	1/2"	DFS 401S-A20	0,80	0,51	1,59	2,13	0,72	1,81	2,83	1,26	0,75	M 8x30	5/16 x 1 1/4	1,15	
420	3/4"	DFS 402 S	1,07	0,75	2,00	2,80	0,94	2,17	2,76	1,65	0,87	M 10x45	3/8 x 1 1/2	2,20	
420	3/4"	DFS 402 S-A25	1,00	0,75	2,00	2,80	0,94	2,17	2,76	1,65	0,87	M 10x45	3/8 x 1 1/2	2,20	
420	1"	DFS 403 S	1,34	0,98	2,25	3,19	1,09	2,56	3,31	1,97	0,87	M 12x50	7/16 x 1 3/4	3,55	
420	1"	DFS 403 S-A30	1,19	0,98	2,25	3,19	1,09	2,56	3,31	1,97	0,87	M 12x50	7/16 x 1 3/4	3,77	
420	1 1/4"	DFS 404 S	1,69	1,26	2,62	3,74	1,25	3,07	3,54	2,13	0,98	M 14x55	–	5,29	
420	1 1/4"	DFS 404 S-M12	1,69	1,26	2,62	3,74	1,25	3,07	3,54	2,13	0,98	M 12x45	1/2 x 1 3/4	5,29	
420	1 1/4"	DFS 404 S-A38	1,51	1,26	2,62	3,74	1,25	3,07	3,54	2,13	0,98	M 14x55	1/2 x 1 3/4	5,29	
420	1 1/2"	DFS 405 S	1,91	1,50	3,12	4,41	1,44	3,70	3,94	2,36	1,10	M 16x60	5/8 x 2	8,40	
420	1 1/2"	DFS 405 S-A50	1,99	1,50	3,12	4,41	1,44	3,70	3,94	2,36	1,10	M 16x60	5/8 x 2	7,28	
420	2"	DFS 406 S	2,40	2,01	3,81	5,28	1,75	4,49	5,12	2,91	0,94	M 20x75	3/4 x 2 1/2	14,84	
420	2 1/2"	DFS 407 S	3,02	2,48	4,87	7,09	2,31	5,98	6,30	3,54	1,18	M 24x90	–	30,89	
420	3"	DFS 408 S	3,56	2,87	6,00	8,19	2,82	7,01	7,09	4,33	1,30	M 30x110	–	52,07	

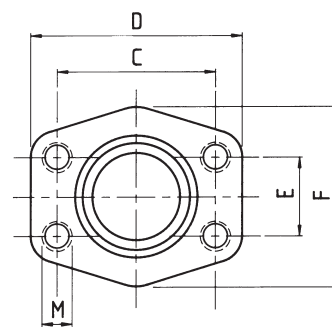
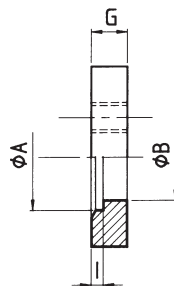
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFC-...S	AFC-X-...S
• including metric bolts and o-ring	AFC-...S-M	AFC-X-...S-MX
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions										Bolts		Weight (flange only)		
				pipe diameter	A	B	C	D	E	F	G	I	L	M	lb			
<i>kg/cm²</i>	<i>inch</i>																	
Strength class	Standard pressure															metr.	unc.	
10.9																		
40	1/2"	1320-08-08	AFC 080 S	0,87x0,08	0,89	0,59	1,50	2,20	0,69	1,81	0,39	0,12	0,35	M 8x25	–	0,26		
40	3/4"	1320-12-12	AFC 100 S	1,10x0,08	1,12	0,79	1,87	2,56	0,88	1,97	0,47	0,16	0,43	M 10x30	–	0,40		
40	1"	1320-16-16	AFC 102 S	1,38x0,08	1,40	1,14	2,06	2,76	1,03	^{2,17} 0,47	0,16	0,43	M 10x30	–	0,46			
40	1 1/4"	1320-20-20	AFC 104 S	1,65x0,08	1,67	1,34	2,31	3,11	1,19	2,68	0,47	0,16	0,45	M 10x30	–	0,60		
40	1 1/2"	1320-24-24	AFC 106 S	1,90x0,13	1,93	1,65	2,75	3,66	1,41	3,07	0,59	0,16	0,53	M 12x35	–	1,10		
40	2"	1320-32-32	AFC 108 S	2,37x0,14	2,40	2,09	3,06	4,02	1,69	3,54	0,59	0,16	0,53	M 12x35	–	1,30		
40	2 1/2"	1320-40-40	AFC 110 S	3,00x0,14	3,03	2,52	3,50	4,49	2,00	4,13	0,59	0,16	0,53	M 12x35	–	1,59		
40	3"	1320-48-48	AFC 112 S	3,50x0,16	3,54	3,15	4,19	5,28	2,44	4,88	0,79	0,20	0,69	M 16x40	–	2,76		
35	3 1/2"	1320-56-56	AFC 114 S	4,00x0,18	4,06	3,66	4,75	5,98	2,75	5,35	0,79	0,20	0,69	M 16x40	–	3,31		
35	4"	1320-64-64	AFC 116 S	3,50x0,18	4,57	4,13	5,13	6,38	3,06	5,75	0,98	0,24	0,69	M 16x50	–	4,41		
35	5"	1320-72-72	AFC 118 S	5,50x0,19	5,55	4,96	6,00	7,48	3,63	6,69	1,10	0,31	0,69	M 16x55	–	6,11		

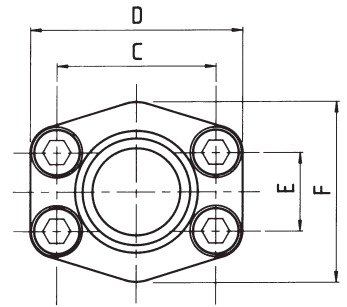
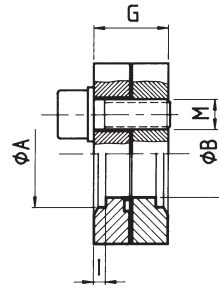
*1 or comparable material



Ordering code:	S355J2 ^{*1}	1.4404 ^{*1} 316L
• flange only	GFC-...S	GFC-X-...S
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions										Thread	Weight (flange only)	
				pipe diameter	A	B	C	D	E	F	G	I	M			lb
<i>kg/cm²</i>	<i>inch</i>															
Strength class	Standard pressure															
10.9																
40	1/2"	1321-08-08	GFC 080 S	0,87x0,08	0,89	0,59	1,50	2,20	0,69	1,81	0,39	0,12	M 8	0,33		
40	3/4"	1321-12-12	GFC 100 S	1,10x0,08	1,12	0,79	1,87	2,56	0,88	1,97	0,47	0,16	M 10	0,44		
40	1"	1321-16-16	GFC 102 S	1,38x0,08	1,40	1,14	2,06	2,76	1,03	2,17	0,47	0,16	M 10	0,55		
40	1 1/4"	1321-20-20	GFC 104 S	1,65x0,08	1,67	1,34	2,31	3,11	1,19	2,68	0,47	0,16	M 10	0,68		
40	1 1/2"	1321-24-24	GFC 106 S	1,90x0,13	1,93	1,65	2,75	3,66	1,41	3,07	0,59	0,16	M 12	1,10		
40	2"	1321-32-32	GFC 108 S	2,37x0,14	2,40	2,09	3,06	4,02	1,69	3,54	0,59	0,16	M 12	1,30		
40	2 1/2"	1321-40-40	GFC 110 S	3,00x0,14	3,03	2,52	3,50	4,49	2,00	4,13	0,59	0,16	M 12	1,59		
40	3"	1321-48-48	GFC 112 S	3,50x0,16	3,54	3,15	4,19	5,28	2,44	4,88	0,79	0,20	M 16	2,76		
35	3 1/2"	1321-56-56	GFC 114 S	4,00x0,18	4,06	3,66	4,75	5,98	2,75	5,35	0,79	0,20	M 16	3,53		
35	4"	1321-64-64	GFC 116 S	3,50x0,18	4,57	4,13	5,13	6,38	3,06	5,75	0,98	0,24	M 16	4,74		
35	5"	1321-72-72	GFC 118 S	5,50x0,19	5,55	4,96	6,00	7,48	3,63	6,69	1,10	0,31	M 16	6,61		

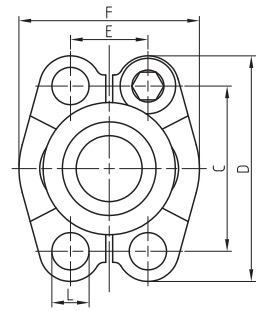
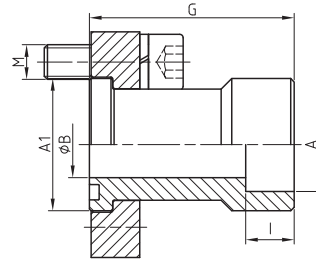
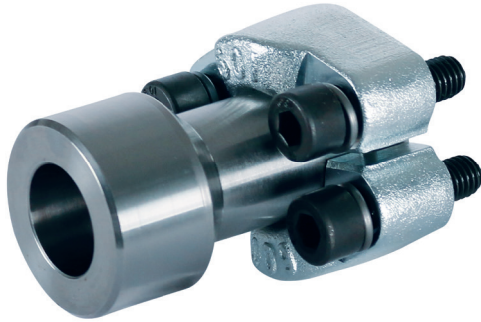
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange including bolts and o-ring	DFC-...S-M	DFC-X... S-MX
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts	Weight (flange only)	
			pipe diameter	A	B	C	D	E	F	G	I	M			lb
<i>kg/cm²</i>	<i>inch</i>														
Strength class	Standard pressure														
10.9															
40	1/2"	DFC 080 S	0,87x0,08	0,89	0,59	1,50	2,20	0,69	1,81	0,79	0,12	M 8x25	0,60		
40	3/4"	DFC 100 S	1,10x0,08	1,12	0,79	1,87	2,56	0,88	1,97	0,94	0,16	M 10x30	0,88		
40	1"	DFC 102 S	1,38x0,08	1,40	1,14	2,06	2,76	1,03	2,17	0,94	0,16	M 10x30	1,01		
40	1 1/4"	DFC 104 S	1,65x0,08	1,67	1,34	2,31	3,11	1,19	2,68	0,94	0,16	M 10x30	1,37		
40	1 1/2"	DFC 106 S	1,90x0,13	1,93	1,65	2,75	3,66	1,41	3,07	1,18	0,16	M 12x35	2,20		
40	2"	DFC 108 S	2,37x0,14	2,40	2,09	3,06	4,02	1,69	3,54	1,18	0,16	M 12x35	2,60		
40	2 1/2"	DFC 110 S	3,00x0,14	3,03	2,52	3,50	4,49	2,00	4,13	1,18	0,16	M 12x35	3,17		
40	3"	DFC 112 S	3,50x0,16	3,54	3,15	4,19	5,28	2,44	4,88	1,57	0,20	M 16x40	5,51		
35	3 1/2"	DFC 114 S	4,00x0,18	4,06	3,66	4,75	5,98	2,75	5,35	1,57	0,20	M 16x40	6,61		
35	4"	DFC 116 S	3,50x0,18	4,57	4,13	5,13	6,38	3,06	5,75	1,97	0,24	M 16x50	9,15		
35	5"	DFC 118 S	5,50x0,19	5,55	4,96	6,00	7,48	3,63	6,69	2,20	0,31	M 16x60	12,72		

*1 or comparable material

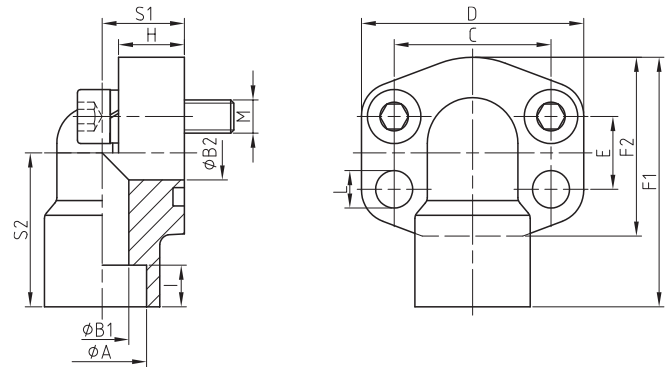


Ordering code:	S355J2^{*1}
• adaptor only	SWA-...
• including split flanges, metric bolts and o-ring	SWA-...-M
• including split flanges, UNC bolts and o-ring (nut and cutting ring)	SWA-...-U
Surface only blanc available	

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions										Bolts		Weight (flange only)	
				A	A1	B	C	D	E	F	G	I	L	M	lb		
kg/cm ²	inch																
Strength class		Standard pressure													<i>metr.</i>	<i>unc.</i>	
10.9																	
350	1/2"		SWA-3001-20	0,80	1,19	0,51	1,50	2,13	0,69	1,81	1,97	0,59	0,33	M 8x25	5/16 x 1 1/4	0,33	
350	1/2"		SWA-3001-21,3	0,85	1,19	0,51	1,50	2,13	0,69	1,81	1,97	0,59	0,33	M 8x25	5/16 x 1 1/4	0,33	
350	3/4"		SWA-3002-25	1,00	1,50	0,75	1,87	2,56	0,88	2,05	2,36	0,58	0,41	M 10x30	3/8 x 1 1/4	0,62	
350	3/4"	1378-12-12	SWA-3002-26,7	1,06	1,50	0,75	1,87	2,56	0,88	2,05	2,36	0,58	0,41	M 10x30	3/8 x 1 1/4	0,60	
320	1"		SWA-3003-30	1,19	1,75	0,94	2,06	2,76	1,03	2,32	2,36	0,61	0,41	M 10x30	3/8 x 1 1/4	0,82	
320	1"	1378-16-16	SWA-3003-33,4	1,33	1,75	0,94	2,06	2,76	1,03	2,32	2,36	0,61	0,41	M 10x30	3/8 x 1 1/4	0,77	
280	1 1/4"		SWA-3004-38	1,51	2,00	1,26	2,31	3,11	1,19	2,87	2,60	0,66	*2	*3	7/16 x 1 1/2	0,90	
280	1 1/4"	1378-20-20	SWA-3004-42,2	1,67	2,00	1,26	2,31	3,11	1,19	2,87	2,60	0,66	*2	*3	7/16 x 1 1/2	0,84	
210	1 1/2"	1378-24-24	SWA-3005-48,3	1,92	2,37	1,50	2,75	3,70	1,41	3,27	2,87	0,76	0,52	M 12x35	1/2 x 1 1/2	1,28	
210	1 1/2"		SWA-3005-50	1,98	2,37	1,50	2,75	3,70	1,41	3,27	2,87	0,76	0,52	M 12x35	1/2 x 1 1/2	1,23	
210	2"	1378-32-32	SWA-3006-60,3	2,41	2,81	2,01	3,06	4,02	1,69	3,82	2,99	0,87	0,52	M 12x35	1/2 x 1 1/2	1,52	
175	2 1/2"		SWA-3007-76,1	3,01	3,31	2,44	3,50	4,49	2,00	4,29	3,94	0,98	0,52	M 12x40	1/2 x 1 1/2	2,71	
160	3"		SWA-3008-88,9	3,56	4,00	2,87	4,19	5,31	2,44	5,16	4,92	1,10	0,67	M 16x50	5/8 x 2	5,20	
Strength class		High pressure													<i>metr.</i>	<i>unc.</i>	
10.9																	
420	1/2"		SWA-6001-20	0,80	1,25	0,47	1,59	2,20	0,72	1,89	2,56	0,55	0,33	M 8x30	5/16 x 1 1/4	0,60	
420	1/2"		SWA-6001-21,3	0,85	1,25	0,47	1,59	2,20	0,72	1,89	2,56	0,55	0,33	M 8x30	5/16 x 1 1/4	0,57	
420	3/4"		SWA-6002-25	1,00	1,63	0,67	2,00	2,80	0,94	2,36	2,76	0,61	0,41	M 10x35	3/8 x 1 1/2	1,04	
420	3/4"		SWA-6002-26,7	1,06	1,63	0,67	2,00	2,80	0,94	2,36	2,76	0,61	0,41	M 10x35	3/8 x 1 1/2	1,04	
420	1"		SWA-6003-30	1,19	1,87	0,87	2,25	3,19	1,09	2,76	3,07	0,64	*4	M 12x45	7/16 x 1 3/4	1,37	
420	1"	1678-16-16	SWA-6003-33,4	1,33	1,87	0,98	2,25	3,19	1,09	2,76	3,07	0,64	*4	M 12x45	7/16 x 1 3/4	1,19	
420	1 1/4"		SWA-6004-38	1,51	2,13	1,10	2,62	3,74	1,25	3,07	3,31	0,69	0,57	M 14x50	-	1,76	
420	1 1/4"		SWA-6004-38-M12	1,51	2,13	1,10	2,62	3,74	1,25	3,07	3,31	0,69	0,52	M 12x45	1/2 x 1 3/4	1,76	
420	1 1/4"	1678-20-20	SWA-6004-42,2	1,67	2,13	1,10	2,62	3,74	1,25	3,07	3,31	0,69	0,57	M 14x50	-	1,65	
420	1 1/4"		SWA-6004-42,2-M12	1,67	2,13	1,10	2,62	3,74	1,25	3,07	3,31	0,69	0,52	M 12x45	1/2 x 1 3/4	1,65	
420	1 1/2"		SWA-6005-50	1,98	2,50	1,38	3,12	4,45	1,44	3,74	3,94	0,76	0,66	M 16x55	5/8 x 2	2,58	
420	1 1/2"	1678-24-24	SWA-6005-48,3	1,92	2,50	1,38	3,12	4,45	1,44	3,74	3,94	0,76	0,66	M 16x55	5/8 x 2	2,60	
420	2"	1678-32-32	SWA-6006-60,3	2,41	3,13	1,89	3,81	5,24	1,75	4,49	4,06	0,87	0,83	M 20x70	3/4 x 2 1/2	3,75	

*1 or comparable material
 *2 choice of 0,41", 0,47" or 0,50"

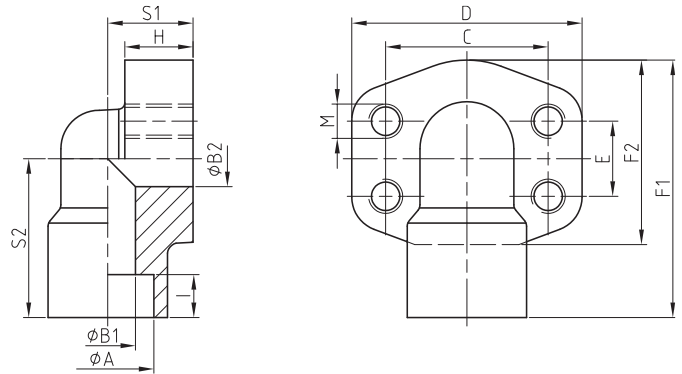
*3 choice of M 10x30 or M 12x35
 *4 choice of 0,47" or 0,52"



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-.../90S	AFX-.../90S
• including metric bolts and o-ring	AFS-.../90S-M	AFX-.../90S-MX
• including UNC bolts and o-ring	AFS-.../90S-U	AFX-.../90S-UX
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions												Bolts		Weight (flange only)
				A	B1/B2	C	D	E	F1	F2	H	I	L	S1	S2	M	lb	
kg/cm ²	inch															metr.	unc.	
Strength class				Standard pressure														
10.9																metr.	unc.	
350	1/2"		AFS 080/90 S-038	0,69	0,51	1,50	2,13	0,69	2,36	1,69	0,63	0,39	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,66
350	1/2"	1318-08-08	AFS 080/90 S	0,85	0,51	1,50	2,13	0,69	2,36	1,69	0,63	0,39	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,66
350	3/4"	1318-12-12	AFS 100/90 S	1,07	0,75	1,87	2,56	0,88	2,48	1,85	0,71	0,39	0,43	0,94	1,50	M 10x35	3/8 x 1 1/2	1,06
320	1"	1318-16-16	AFS 102/90 S	1,34	0,98	2,06	2,76	1,03	2,76	2,01	0,75	0,47	0,43	1,10	1,69	M 10x35	3/8 x 1 1/2	1,28
280	1 1/4"	1318-20-20	AFS 104/90 S	1,69	1,06/1,26	2,31	3,11	1,19	3,35	2,52	0,83	0,55	0,45	1,34	2,01	M 10x40	7/16 x 1 1/2	2,14
210	1 1/2"	1318-24-24	AFS 106/90 S	1,91	1,34/1,50	2,75	3,66	1,41	3,74	2,91	0,98	0,63	0,53	1,50	2,20	M 12x45	1/2 x 1 3/4	3,09
210	2"	1318-32-32	AFS 108/90 S	2,40	1,93/2,01	3,06	4,33	1,69	4,33	3,35	0,98	0,71	0,53	1,65	2,56	M 12x45	1/2 x 1 3/4	4,41
175	2 1/2"		AFS 110/90 S	3,02	2,24/2,36	3,50	4,53	2,00	5,00	3,78	0,98	1,18	0,53	1,97	3,03	M 12x45	1/2 x 1 3/4	5,95
Strength class				High pressure														
10.9																metr.	unc.	
420	1/2"		AFS 401/90 S-038	0,69	0,51	1,59	2,13	0,72	2,36	1,69	0,63	0,39	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,64
420	1/2"	1618-08-08	AFS 401/90 S	0,85	0,51	1,59	2,13	0,72	2,36	1,69	0,63	0,39	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,64
420	3/4"		AFS 402/90 S 20	0,80	0,63/0,75	2,00	2,76	0,94	2,76	2,01	0,75	0,55	0,43	1,10	1,69	M 10x35	3/8 x 1 1/2	1,65
420	3/4"		AFS 402/90 S 25	0,99	0,75	2,00	2,76	0,94	2,76	2,01	0,75	0,55	0,43	1,10	1,69	M 10x35	3/8 x 1 1/2	1,57
420	3/4"	1618-12-12	AFS 402/90 S	1,07	0,75	2,00	2,76	0,94	2,76	2,01	0,75	0,47	0,43	1,10	1,69	M 10x35	3/8 x 1 1/2	1,57
420	3/4"		AFS 402/90 S 30	1,19	0,98/0,75	2,00	2,76	0,94	2,76	2,01	0,75	0,55	0,43	1,10	1,69	M 10x35	3/8 x 1 1/2	1,54
420	1"		AFS 403/90 S 30	1,19	0,87/0,98	2,25	3,11	1,09	3,35	2,52	0,83	0,55	0,51	1,34	2,01	M 12x45	7/16 x 1 3/4	2,31
420	1"	1618-16-16	AFS 403/90 S	1,34	0,98	2,25	3,11	1,09	3,35	2,52	0,83	0,55	0,51	1,34	2,01	M 12x45	7/16 x 1 3/4	2,45
420	1 1/4"		AFS 404/90 S 30	1,19	0,87/1,26	2,62	3,66	1,25	3,74	2,91	0,98	0,55	0,59	1,50	2,20	M 14x50	–	3,86
420	1 1/4"		AFS 404/90 S 38	1,50	1,06/1,26	2,62	3,66	1,25	3,74	2,91	0,98	0,55	0,59	1,50	2,20	M 14x50	–	3,62
420	1 1/4"	1618-20-20	AFS 404/90 S	1,69	1,26	2,62	3,66	1,25	3,74	2,91	0,98	0,63	0,59	1,50	2,20	M 14x50	–	3,53
420	1 1/2"	1618-24-24	AFS 405/90 S	1,91	1,50	3,12	4,33	1,44	4,33	3,35	0,98	0,71	0,69	1,65	2,56	M 16x50	5/8 x 2	5,60
420	2"		AFS 406/90 S	2,40	2,01	3,81	5,28	1,75	5,20	4,21	1,38	0,98	0,83	1,77	2,95	M 20x70	–	8,88

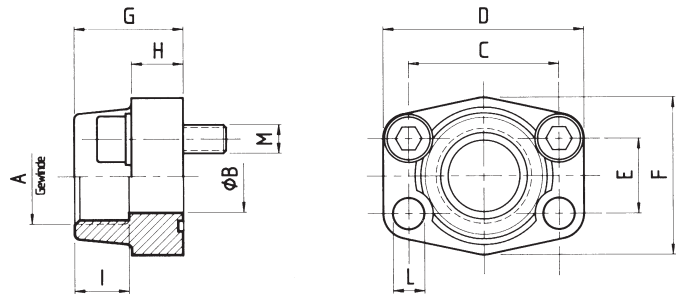
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	GFS-.../90S	GFX-.../90S
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions											Thread		Weight (flange only)		
				A	B1/B2	C	D	E	F1	F2	H	I	S1	S2	M	unc.	lb		
<i>kg/cm²</i>	<i>inch</i>																<i>metr.</i>	<i>unc.</i>	
Strength class	Standard pressure															<i>metr.</i>	<i>unc.</i>		
10.9																			
350	1/2"		GFS 080/90 S-038	0,69	0,51	1,50	2,13	0,69	2,36	1,89	0,63	0,39	0,79	1,46	M 8	5/16	0,77		
350	1/2"	1319-08-08	GFS 080/90 S	0,85	0,51	1,50	2,13	0,69	2,36	1,89	0,63	0,39	0,79	1,46	M 8	5/16	0,68		
350	3/4"	1319-12-12	GFS 100/90 S	1,07	0,75	1,87	2,56	0,88	2,48	1,97	0,71	0,39	0,94	1,50	M 10	3/8	1,21		
320	1"	1319-16-16	GFS 102/90 S	1,34	0,98	2,06	2,76	1,03	2,76	2,36	0,75	0,47	1,10	1,69	M 10	3/8	1,39		
280	1 1/4"	1319-20-20	GFS 104/90 S	1,69	1,06/1,26	2,31	3,11	1,19	3,35	2,68	0,83	0,55	1,34	2,01	M 10	7/16	2,25		
210	1 1/2"	1319-24-24	GFS 106/90 S	1,91	1,34/1,50	2,75	3,66	1,41	3,74	3,07	0,98	0,63	1,50	2,20	M 12	1/2	3,24		
210	2"	1319-32-32	GFS 108/90 S	2,40	1,93/2,01	3,06	4,33	1,69	4,33	3,54	0,98	0,71	1,65	2,56	M 12	1/2	4,41		
Strength class	High pressure															<i>metr.</i>	<i>unc.</i>		
10.9																			
420	1/2"		GFS 401/90 S-038	0,69	0,51	1,59	2,13	0,72	2,36	1,89	0,63	0,39	0,79	1,46	M 8	5/16	0,77		
420	1/2"	1619-08-08	GFS 401/90 S	0,85	0,51	1,59	2,13	0,72	2,36	1,89	0,63	0,39	0,79	1,46	M 8	5/16	0,77		
420	3/4"		GFS 402/90 S-25	0,99	0,75	2,00	2,76	0,94	2,76	2,01	0,75	0,55	1,10	1,69	M 10	3/8	1,65		
420	3/4"	1619-12-12	GFS 402/90 S	1,07	0,75	2,00	2,76	0,94	2,76	2,36	0,75	0,47	1,10	1,69	M 10	3/8	1,76		
420	1"		GFS 403/90 S-30	1,19	0,87/0,98	2,25	3,11	1,09	3,35	2,91	0,83	0,55	1,34	2,01	M 12	7/16	2,60		
420	1"	1619-16-16	GFS 403/90 S	1,34	0,98	2,25	3,11	1,09	3,35	2,76	0,83	0,55	1,34	2,01	M 12	7/16	2,56		
420	1 1/4"		GFS 404/90 S-38	1,50	1,06/1,26	2,62	3,66	1,25	3,74	2,91	0,98	0,55	1,50	2,20	M 14	1/2	3,59		
420	1 1/4"	1619-20-20	GFS 404/90 S	1,69	1,26	2,62	3,66	1,25	3,74	3,07	0,98	0,63	1,50	2,20	M 14	1/2	3,53		
420	1 1/2"	1619-24-24	GFS 405/90 S	1,91	1,50	3,12	4,33	1,44	4,33	3,70	0,98	0,71	1,65	2,56	M 16	5/8	5,78		
420	2"		GFS 406/90 S	2,40	2,01	3,81	5,28	1,75	5,20	4,21	1,38	0,98	1,77	2,95	M 20	-	8,95		

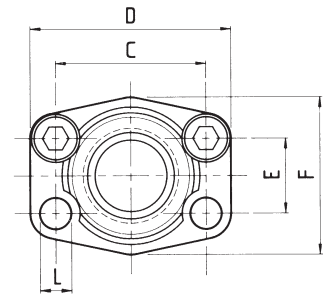
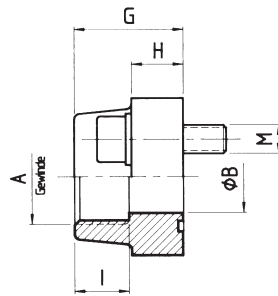
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...G	AFX-...G
• flange including metric bolts and o-ring	AFS-...G-M	AFX-...G-MX
• flange including UNC bolts and o-ring	AFS-...G-U	AFX-...G-UX
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts		Weight (flange only)
			A	B	C	D	E	F	G	H	I	L	M		
kg/cm ²	inch														
Strength class	Standard pressure												<i>metr.</i>	<i>unc.</i>	
10.9															
350	1/2"	AFS 080 G-038	G 3/8"	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4	0,62
350	1/2"	AFS 080 G	G 1/2"	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4	0,55
350	3/4"	AFS 100 G-012	G 1/2"	0,51	1,87	2,56	0,88	1,97	1,42	0,71	0,75	0,43	M 10x35	3/8 x 1 1/2	0,93
350	3/4"	AFS 100 G	G 3/4"	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,75	0,43	M 10x35	3/8 x 1 1/2	0,86
320	1"	AFS 102 G-012	G 1/2"	0,51	2,06	2,76	1,03	2,17	1,50	0,71	0,87	0,43	M 10x35	3/8 x 1 1/2	1,30
320	1"	AFS 102 G-034	G 3/4"	0,75	2,06	2,76	1,03	2,17	1,50	0,71	0,75	0,43	M 10x35	3/8 x 1 1/2	1,08
320	1"	AFS 102 G	G 1"	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,87	0,43	M 10x35	3/8 x 1 1/2	1,01
280	1 1/4"	AFS 104 G-034	G 3/4"	0,75	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,45	M 10x40	7/16 x 1 1/2	1,92
280	1 1/4"	AFS 104 G-100	G 1"	0,98	2,31	3,19	1,19	2,56	1,65	0,98	0,87	0,45	M 10x40	7/16 x 1 3/4	1,85
280	1 1/4"	AFS 104 G-100 L 13	G 1"	0,98	2,31	3,19	1,19	2,56	1,65	0,98	0,87	0,51	M 12x40	-	1,81
280	1 1/4"	AFS 104 G	G 1 1/4"	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,45	M 10x40	7/16 x 1 1/2	1,46
280	1 1/4"	AFS 104 G L 13	G 1 1/4"	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,51	M 12x40	-	1,46
210	1 1/2"	AFS 106 G-034	G 3/4"	0,75	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	M 12x45	1/2 x 1 3/4	2,71
210	1 1/2"	AFS 106 G-100	G 1"	0,98	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	M 12x45	1/2 x 1 3/4	2,56
210	1 1/2"	AFS 106 G-114	G 1 1/4"	1,26	2,75	3,74	1,41	3,07	1,77	1,06	0,94	0,53	M 12x45	1/2 x 1 3/4	2,43
210	1 1/2"	AFS 106 G	G 1 1/2"	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	M 12x45	1/2 x 1 3/4	2,31
210	2"	AFS 108 G-100	G 1"	0,98	3,06	4,02	1,69	3,54	1,77	0,98	0,87	0,53	M 12x45	1/2 x 1 3/4	3,75
210	2"	AFS 108 G-114	G 1 1/4"	1,26	3,06	4,02	1,69	3,54	1,77	0,98	0,94	0,53	M 12x45	1/2 x 1 3/4	3,44
210	2"	AFS 108 G-112	G 1 1/2"	1,50	3,06	4,02	1,69	3,54	1,77	0,98	1,02	0,53	M 12x45	1/2 x 1 3/4	3,44
210	2"	AFS 108 G	G 2"	2,01	3,06	4,02	1,69	3,54	1,77	0,98	1,18	0,53	M 12x45	1/2 x 1 3/4	2,73
175	2 1/2"	AFS 110 G-200	G 2"	2,01	3,50	4,49	2,00	4,13	1,97	0,98	1,18	0,53	M 12x45	1/2 x 1 3/4	4,65
175	2 1/2"	AFS 110 G	G 2 1/2"	2,48	3,50	4,49	2,00	4,13	1,97	0,98	1,18	0,53	M 12x45	1/2 x 1 3/4	3,44
160	3"	AFS 112 G-112	G 1 1/2"	1,50	4,19	5,28	2,44	4,88	1,97	1,06	0,98	0,69	M 16x50	5/8 x 2	8,16
160	3"	AFS 112 G-212	G 2 1/2"	2,48	4,19	5,28	2,44	4,88	1,97	1,06	1,18	0,69	M 16x50	5/8 x 2	6,13
160	3"	AFS 112 G	G 3"	2,87	4,19	5,28	2,44	4,88	1,97	1,06	1,34	0,69	M 16x50	5/8 x 2	4,74
35	3 1/2"	AFS 114 G-300	G 3"	2,87	4,75	5,98	2,75	5,35	1,89	1,06	1,34	0,69	M 16x50	5/8 x 2	7,08
35	3 1/2"	AFS 114 G	G 3 1/2"	3,50	4,75	5,98	2,75	5,35	1,89	1,06	1,34	0,69	M 16x50	5/8 x 2	5,29
35	4"	AFS 116 G-312	G 3 1/2"	3,50	5,13	6,38	3,06	5,75	1,89	1,06	1,34	0,69	M 16x50	5/8 x 2	7,65
35	4"	AFS 116 G	G 4"	3,90	5,13	6,38	3,06	5,75	1,89	1,06	1,34	0,69	M 16x50	5/8 x 2	6,28
35	5"	AFS 118 G	G 5"	4,72	6,00	7,24	3,63	7,09	1,97	1,10	1,18	0,69	M 16x55	5/8 x 2	8,09

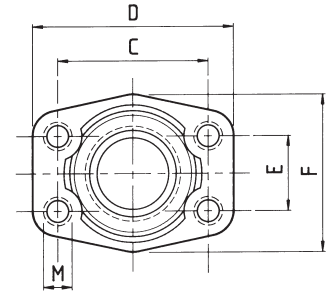
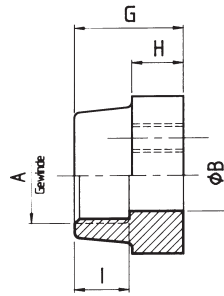
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...G	AFX-...G
• flange including metric bolts and o-ring	AFS-...G-M	AFX-...G-MX
• flange including UNC bolts and o-ring	AFS-...G-U	AFX-...G-UX
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts		Weight (flange only)
			A	B	C	D	E	F	G	H	I	L	M	lb	
kg/cm ²	inch												metr.	unc.	
Strength class 10.9	High pressure														
420	1/2"	AFS 401G-038	G 3/8"	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4	G 3/4 "
420	1/2"	AFS 401G	G 1/2"	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4	0,57
420	3/4"	AFS 402 G-012	G 1/2"	0,51	2,00	2,80	0,94	2,17	1,38	0,83	0,75	0,43	M 10x35	3/8 x 1 1/2	1,21
420	3/4"	AFS 402 G	G 3/4"	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,75	0,43	M 10x35	3/8 x 1 1/2	1,10
420	1"	AFS 403 G-034	G 3/4"	0,75	2,25	3,19	1,09	2,56	1,65	0,98	0,87	0,51	M 12x45	7/16 x 1 3/4	1,94
420	1"	AFS 403 G	G 1"	0,98	2,25	3,19	1,09	2,56	1,65	0,98	0,87	0,51	M 12x45	7/16 x 1 3/4	1,68
420	1 1/4"	AFS 404 G-100	G 1"	0,98	2,62	3,74	1,25	3,07	1,77	1,06	0,91	0,59	M 14x50	-	2,67
420	1 1/4"	AFS 404 G-100L 13	G 1"	0,98	2,62	3,74	1,25	3,07	1,77	1,06	0,91	0,53	M 12x45	1/2 x 1 3/4	2,69
420	1 1/4"	AFS 404 G	G 1 1/4"	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,91	0,59	M 14x50	-	2,65
420	1 1/4"	AFS 404 G 13	G 1 1/4"	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	0,53	M 12x45	1/2 x 1 3/4	2,58
420	1 1/2"	AFS 405 G-114	G 1 1/4"	1,26	3,12	4,41	1,44	3,70	1,97	1,18	1,02	0,67	M 16 x50	5/8 x 2	4,52
420	1 1/2"	AFS 405 G	G 1 1/2"	1,50	3,12	4,41	1,44	3,70	1,97	1,18	1,02	0,67	M 16x50	5/8 x 2	4,21
420	2"	AFS 406 G-112	G 1 1/2"	1,50	3,81	5,28	1,75	4,49	2,56	1,46	1,18	0,83	M 20x70	3/4 x 2 1/2	8,31
420	2"	AFS 406 G	G 2"	2,01	3,81	5,28	1,75	4,49	2,56	1,46	1,18	0,83	M 20x70	3/4 x 2 1/2	7,32
420	2 1/2"	AFS 407 G	G 2 1/2"	2,48	4,87	7,09	2,31	5,98	3,15	1,77	1,54	1,02	M 24x80	-	14,88
420	3"	AFS 408 G	G 3"	2,87	6,00	8,19	2,82	7,01	3,54	2,17	1,57	1,30	M 30x90	-	24,23

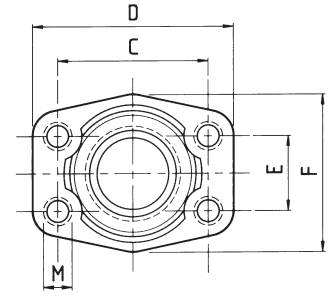
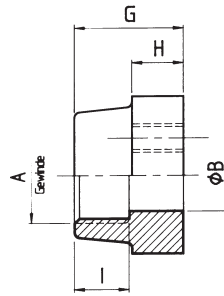
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...G-M	GFX-...G-M
• flange with UNC threads	GFS-...G-U	GFX-...G-U
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions									Thread		Weight (flange only)	
			A	B	C	D	E	F	G	H	I	M			
kg/cm ²	inch														lb
Strength class	Standard pressure												<i>metr.</i>	<i>unc.</i>	
10.9															
350	1/2"	GFS 080 G-038	G 3/8"	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	M 8	5/16		0,62
350	1/2"	GFS 080 G	G 1/2"	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	M 8	5/16		0,62
350	3/4"	GFS 100 G-012	G 1/2"	0,51	1,87	2,56	0,88	1,97	1,42	0,71	0,75	M 10	3/8		0,93
350	3/4"	GFS 100 G	G 3/4"	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,75	M 10	3/8		0,93
320	1"	GFS 102 G-034	G 3/4"	0,75	2,06	2,76	1,03	2,17	1,38	0,71	0,75	M 10	3/8		1,23
320	1"	GFS 102 G	G 1"	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,87	M 10	3/8		1,12
280	1 1/4"	GFS 104 G-100	G 1"	0,98	2,31	3,19	1,19	2,56	1,65	0,98	0,87	M 10	7/16		1,98
280	1 1/4"	GFS 104 G	G 1 1/4"	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	M 10	7/16		1,61
210	1 1/2"	GFS 106 G-114	G 1 1/4"	1,26	2,75	3,74	1,41	3,07	1,77	1,06	0,94	M 12	1/2		2,78
210	1 1/2"	GFS 106 G	G 1 1/2"	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	M 12	1/2		2,56
210	2"	GFS 108 G -112	G 1 1/2"	1,50	3,06	4,02	1,69	3,54	1,77	0,98	1,02	M 12	1/2		3,62
210	2"	GFS 108 G	G 2"	2,01	3,06	4,02	1,69	3,54	1,77	0,98	1,18	M 12	1/2		2,91
175	2 1/2"	GFS 110 G-200	G 2"	2,01	3,50	4,49	2,00	4,13	1,97	0,98	1,18	M 12	1/2		3,20
175	2 1/2"	GFS 110 G	G 2 1/2"	2,48	3,50	4,49	2,00	4,13	1,97	0,98	1,18	M 12	1/2		3,62
160	3"	GFS 112 G-212	G 2 1/2"	2,48	4,19	5,28	2,44	4,88	1,97	1,06	1,18	M 16	5/8		4,96
160	3"	GFS 112 G	G 3"	2,87	4,19	5,28	2,44	4,88	1,97	1,06	1,34	M 16	5/8		4,74
35	3 1/2"	GFS 114 G -300	G 3"	2,87	4,75	5,98	2,75	5,35	1,89	1,06	1,34	M 16	5/8		5,51
35	3 1/2"	GFS 114 G	G 3 1/2"	3,50	4,75	5,98	2,75	5,35	1,89	1,06	1,34	M 16	5/8		5,29
35	4"	GFS 116 G-312	G 3 1/2"	3,50	5,13	6,38	3,06	5,75	1,89	1,06	1,34	M 16	5/8		7,91
35	4"	GFS 116 G	G 4"	3,90	5,13	6,38	3,06	5,75	1,89	1,06	1,34	M 16	5/8		6,28
35	5"	GFS 118 G	G 5"	4,72	6,00	7,24	3,63	7,09	1,97	1,10	1,18	M 16	5/8		12,79

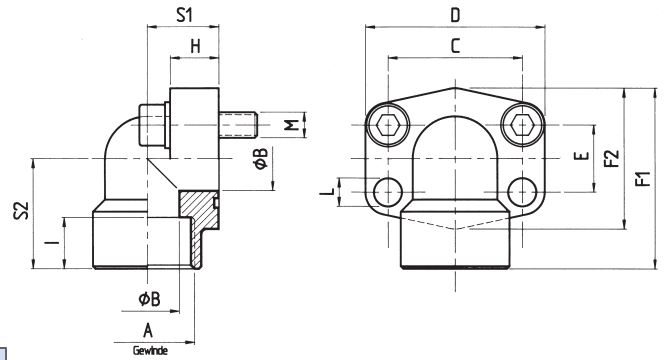
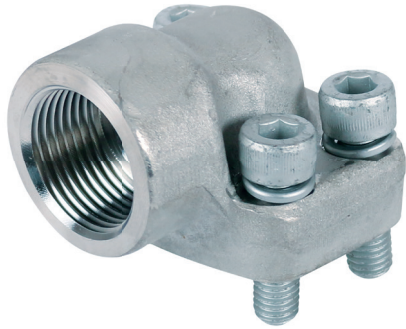
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...G-M	GFX-...G-M
• flange with UNC threads	GFS-...G-U	GFX-...G-U
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions									Thread		Weight (flange only)	
			A	B	C	D	E	F	G	H	I	M	lb		
kg/cm ²	inch														
Strength class	High pressure											<i>metr.</i>	<i>unc.</i>		
10.9															
420	1/2"	GFS 401G-038	G 3/8"	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	M 8	5/16	0,64	
420	1/2"	GFS 401G	G 1/2"	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	M 8	5/16	0,66	
420	3/4"	GFS 402 G-012	G 1/2"	0,51	2,00	2,80	0,94	2,17	1,38	0,83	0,87	M 10	3/8	1,21	
420	3/4"	GFS 402 G	G 3/4"	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,87	M 10	3/8	1,21	
420	1"	GFS 403 G-034	G 3/4"	0,75	2,25	3,19	1,09	2,56	1,65	0,98	0,94	M 12	7/16	2,12	
420	1"	GFS 403 G	G 1"	0,98	2,25	3,19	1,09	2,56	1,65	0,98	0,94	M 12	7/16	1,92	
420	1 1/4"	GFS 404 G-100	G 1"	0,98	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 14	1/2	2,87	
420	1 1/4"	GFS 404 G-100-M12	G 1"	0,98	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 12	1/2	2,87	
420	1 1/4"	GFS 404 G	G 1 1/4"	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 14	1/2	2,65	
420	1 1/4"	GFS 404 G M12	G 1 1/4"	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 12	1/2	2,65	
420	1 1/2"	GFS 405 G-114	G 1 1/4"	1,26	3,12	4,41	1,44	3,70	1,97	1,18	1,10	M 16	5/8	4,72	
420	1 1/2"	GFS 405 G	G 1 1/2"	1,50	3,12	4,41	1,44	3,70	1,97	1,18	1,10	M 16	5/8	4,41	
420	2"	GFS 406 G-112	G 1 1/2"	1,50	3,81	5,28	1,75	4,49	2,56	1,46	1,18	M 20	3/4	5,62	
420	2"	GFS 406 G	G 2"	2,01	3,81	5,28	1,75	4,49	2,56	1,46	1,18	M 20	3/4	7,67	
420	2 1/2"	GFS 407 G	G 2 1/2"	2,48	4,87	7,09	2,31	5,98	3,15	1,77	1,26	M 24	-	15,39	
420	3"	GFS 408 G	G 3"	2,87	6,00	8,19	2,82	7,01	3,54	2,17	1,57	M 30	-	25,49	

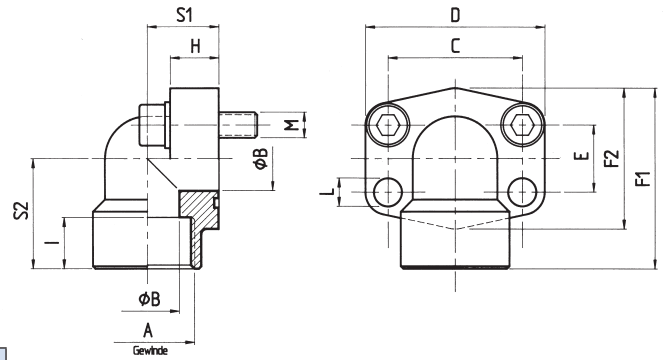
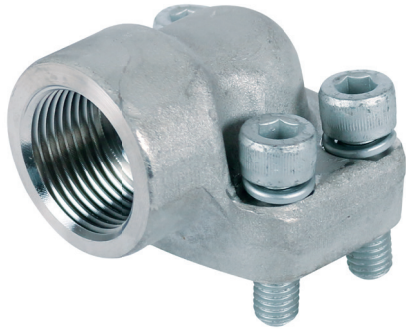
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-.../90G	AFX-.../90G
• including metric bolts and o-ring	AFS-.../90G-M	AFX-.../90G-MX
• including UNC bolts and o-ring	AFS-.../90G-U	AFX-.../90G-UX
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions													Bolts		Weight (flange only)
			A	B	C	D	E	F1	F2	H	I	L	S1	S2	M	lb		
kg/cm ²	inch															metr.	unc.	
Strength class	Standard pressure																	
10.9																		
350	1/2"	AFS 080/90 G-038	G 3/8"	0,51	1,50	2,13	0,69	2,36	1,89	0,63	0,75	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,66	
350	1/2"	AFS 080/90 G	G 1/2"	0,51	1,50	2,13	0,69	2,36	1,89	0,63	0,75	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,64	
350	3/4"	AFS 100/90 G	G 3/4"	0,75	1,87	2,56	0,88	2,48	2,05	0,71	0,75	0,43	0,94	1,50	M 10x35	3/8 x 1 1/2	1,04	
320	1"	AFS 102/90 G	G 1"	0,87	2,06	2,76	1,03	2,80	2,01	0,75	0,79	0,43	1,10	1,69	M 10x35	3/8 x 1 1/2	1,41	
280	1 1/4"	AFS 104/90 G	G 1 1/4"	1,26	2,31	3,11	1,19	3,35	2,87	0,83	0,87	0,45	1,34	2,01	M 10x40	7/16 x 1 1/2	2,12	
210	1 1/2"	AFS 106/90 G	G 1 1/2"	1,50	2,75	3,66	1,41	3,74	3,27	0,98	0,98	0,53	1,50	2,20	M 12x45	1/2 x 1 3/4	3,02	
210	2"	AFS 108/90 G	G 2"	2,01	3,06	4,33	1,69	4,33	3,70	0,98	1,10	0,53	1,65	2,56	M 12x45	1/2 x 1 3/4	4,41	
175	2 1/2"	AFS 110/90 G	G 2 1/2"	2,36/2,24	3,50	4,53	2,00	5,00	3,78	0,98	1,18	0,53	1,97	3,03	M 12x45	1/2 x 1 3/4	5,95	

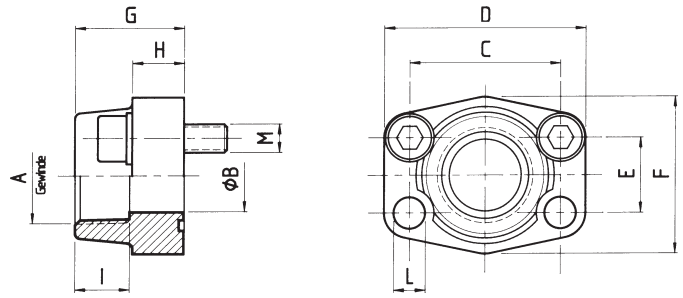
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-.../90 G	AFX-.../90 G
• including metric bolts and o-ring	AFS-.../90 GM	AFX-.../90 GMX
• including UNC bolts and o-ring	AFS-.../90 GU	AFX-.../90 GUX
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions													Bolts		Weight (flange only)	
			A	B	C	D	E	F1	F2	H	I	L	S1	S2	M	lb			
kg/cm ²	inch															metr.	unc.		
Strength class	High pressure																		
10.9																			
420	1/2"	AFS 401/90 G-038	G 3/8"	0,51	1,59	2,13	0,72	2,36	1,81	0,63	0,75	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,66		
420	1/2"	AFS 401/90 G	G 1/2"	0,51	1,59	2,13	0,72	2,36	1,81	0,63	0,75	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,64		
420	3/4"	AFS 402/90 G	G 3/4"	0,75	2,00	2,76	0,94	2,76	2,20	0,75	0,79	0,43	1,10	1,69	M 10x35	3/8 x 1 1/2	1,57		
420	1"	AFS 403/90 G	G 1"	0,98	2,25	3,11	1,09	3,35	2,83	0,83	0,87	0,51	1,34	2,01	M 12x45	7/16 x 1 3/4	2,45		
420	1 1/4"	AFS 404/90 G	G 1 1/4"	1,26	2,62	3,66	1,25	3,74	2,95	0,98	0,98	0,59	1,50	2,20	M 14x50	-	3,53		
420	1 1/4"	AFS 404/90 G	G 1 1/4"	1,50	3,12	4,33	1,44	4,33	3,70	0,98	1,10	0,67	1,65	2,56	M 12x45	1/2 x 1 3/4	5,62		
420	1 1/2"	AFS 405/90 G	G 1 1/2"	2,01	3,81	5,28	1,75	5,20	4,21	1,38	1,30	0,83	1,77	2,95	M 16x50	5/8 x 2	9,04		
420	2"	AFS 406/90 G	G 2"	51	96,8	134	44,5	132	107	35	33	21,0	45	75	M 20x70	-	4,10		

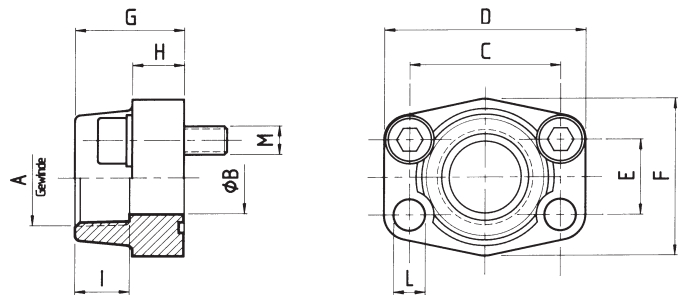
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...N	AFX-...N
• including metric bolts and o-ring	AFS-...N-M	AFX-...N-MX
• including unc bolts and o-ring	AFS-...N-U	AFX-...N-UX
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions										Bolts		Weight (flange only)	
				A	B	C	D	E	F	G	H	I	L	M	lb		
<i>kg/cm²</i>	<i>inch</i>																
Strength class	Standard pressure													<i>metr.</i>	<i>unc.</i>		
10.9																	
350	1/2"		AFS 080 N-038	3/8" NPT	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4	0,62	
350	1/2"	1308-08-08	AFS 080 N	1/2" NPT	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4	0,55	
350	3/4"		AFS 100 N-012	1/2" NPT	0,51	1,87	2,56	0,88	1,97	1,42	0,71	0,75	0,43	M 10x35	3/8 x 1 1/2	0,93	
350	3/4"	1308-12-12	AFS 100 N	3/4" NPT	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,75	0,43	M 10x35	3/8 x 1 1/2	0,86	
320	1"		AFS 102 N-034	3/4" NPT	0,75	2,06	2,76	1,03	2,17	1,38	0,83	0,75	0,43	M 10x35	3/8 x 1 1/2	1,08	
320	1"	1308-16-16	AFS 102 N	1" NPT	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,87	0,43	M 10x35	3/8 x 1 1/2	1,01	
280	1 1/4"		AFS 104 N-100	1" NPT	0,98	2,31	3,19	1,19	2,56	1,65	0,98	0,87	0,45	M 10x40	7/16 x 1 1/2	1,65	
280	1 1/4"	1308-20-20	AFS 104 N	1 1/4" NPT	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,45	M 10x40	7/16 x 1 1/2	1,46	
210	1 1/2"		AFS 106 N-114	1 1/4" NPT	1,26	2,75	3,74	1,41	3,07	1,77	1,06	0,94	0,53	M 12x45	1/2 x 1 3/4	2,43	
210	1 1/2"	1308-24-24	AFS 106 N	1 1/2" NPT	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	M 12x45	1/2 x 1 3/4	2,31	
210	2"		AFS 108 N-112	1 1/2" NPT	1,50	3,06	4,02	1,69	3,54	1,77	0,98	1,02	0,53	M 12x45	1/2 x 1 3/4	2,76	
210	2"	1308-32-32	AFS 108 N	2" NPT	2,01	3,06	4,02	1,69	3,54	1,77	0,98	1,18	0,53	M 12x45	1/2 x 1 3/4	2,62	
175	2 1/2"	1308-40-40	AFS 110 N	2 1/2" NPT	2,48	3,50	4,49	2,00	4,13	1,97	0,98	1,18	0,53	M 12x45	1/2 x 1 3/4	3,44	
160	3"	1308-48-48	AFS 112 N	3" NPT	2,87	4,19	5,28	2,44	4,88	1,97	1,06	1,34	0,69	M 16x50	5/8 x 2	4,74	
35	3 1/2"	1308-56-56	AFS 114 N	3 1/2" NPT	3,50	4,75	5,98	2,75	5,35	1,89	1,06	1,34	0,69	M 16x50	5/8 x 2	6,92	
35	4"	1308-64-64	AFS 116 N	4" NPT	3,90	5,13	6,38	3,06	5,75	1,89	1,06	1,34	0,69	M 16x50	5/8 x 2	6,28	

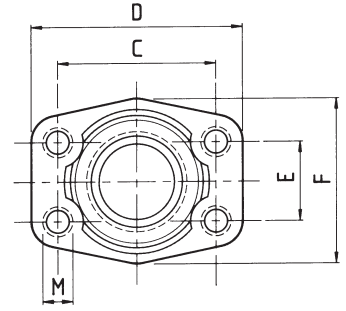
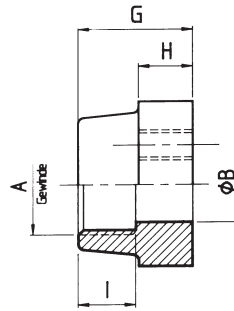
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...N	AFX-...N
• including metric bolts and o-ring	AFS-...N-M	AFX-...N-MX
• including unc bolts and o-ring	AFS-...N-U	AFX-...N-UX
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions										Bolts		Weight (flange only)		
				A	B	C	D	E	F	G	H	I	L	M	unc.		lb	
kg/cm ²	inch																	
Strength class	High pressure															<i>metr.</i>	<i>unc.</i>	
10.9																		
420	1/2"		AFS 401 N-038	3/8" NPT	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4		0,64	
420	1/2"	1608-08-08	AFS 401 N	1/2" NPT	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	0,35	M 8x30	5/16 x 1 1/4		0,57	
420	3/4"		AFS 402 N-012	1/2" NPT	0,51	2,00	2,80	0,94	2,17	1,38	0,83	0,87	0,43	M 10x35	3/8 x 1 1/2		1,21	
420	3/4"	1608-12-12	AFS 402 N	3/4" NPT	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,87	0,43	M 10x35	3/8 x 1 1/2		1,10	
420	1"		AFS 403 N-034	3/4" NPT	0,75	2,25	3,19	1,09	2,56	1,65	0,98	0,94	0,49	M 12x45	7/16 x 1 3/4		1,96	
420	1"	1608-16-16	AFS 403 N	1" NPT	0,98	2,25	3,19	1,09	2,56	1,65	0,98	0,94	0,49	M 12x45	7/16 x 1 3/4		1,81	
420	1 1/4"		AFS 404 N-100	1" NPT	0,98	2,62	3,74	1,25	3,07	1,77	1,06	0,98	0,59	M 14x50	-		2,87	
420	1 1/4"		AFS 404 N-100L 13.5	1" NPT	0,98	2,62	3,74	1,25	3,07	1,77	1,06	0,98	0,53	M 12x45	1/2 x 1 3/4		2,87	
420	1 1/4"	1608-20-20	AFS 404 N	1 1/4" NPT	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	0,59	M 14x50	-		2,65	
420	1 1/4"		AFS 404 NL 13.5	1 1/4" NPT	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	0,53	M 12x45	1/2 x 1 3/4		2,65	
420	1 1/2"		AFS 405 N-114	1 1/4" NPT	1,26	3,12	4,41	1,44	3,70	1,97	1,18	1,10	0,67	M 16x50	5/8 x 2		4,34	
420	1 1/2"	1608-24-24	AFS 405 N	1 1/2" NPT	1,50	3,12	4,41	1,44	3,70	1,97	1,18	1,10	0,67	M 16x50	5/8 x 2		4,14	
420	2"		AFS 406 N-112	1 1/2" NPT	1,50	3,81	5,28	1,75	4,49	2,56	1,46	1,18	0,83	M 20x65	3/4 x 2 1/2		8,31	
420	2"	1608-32-32	AFS 406 N	2" NPT	2,01	3,81	5,28	1,75	4,49	2,56	1,46	1,18	0,83	M 20x70	3/4 x 2 1/2		7,32	

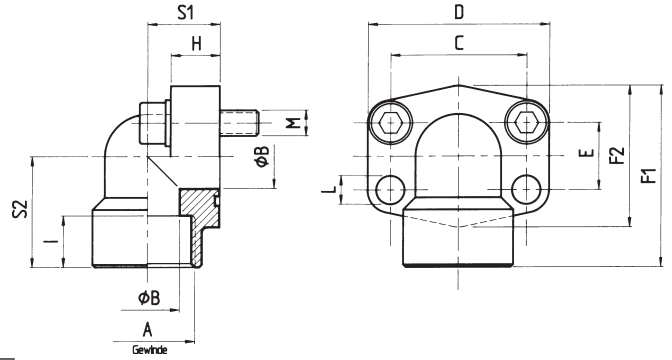
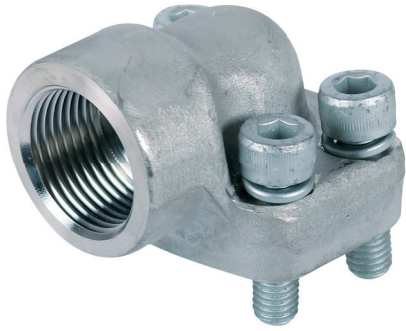
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange with metric threads	GFS-...N-M	GFX-...N-M
• flange with UNC threads	GFS-...N-U	GFX-...N-U
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions									Thread		Weight (flange only)
				A	B	C	D	E	F	G	H	I	M	lb	
kg/cm ²	inch														
Strength class													<i>metr.</i>	<i>unc.</i>	
10.9	Standard pressure														
350	1/2"		GFS 080 N	1/2" NPT	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	M 8	5/16	0,62
350	1/2"	1309-08-08	GFS 080 N-038	3/8" NPT	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,75	M 8	5/16	0,55
350	3/4"		GFS 100 N-012	1/2" NPT	0,51	1,87	2,56	0,88	1,97	1,42	0,71	0,75	M 10	3/8	0,93
350	3/4"	1309-12-12	GFS 100 N	3/4" NPT	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,75	M 10	3/8	0,86
320	1"		GFS 102 N-034	3/4" NPT	0,75	2,06	2,76	1,03	2,17	1,38	0,83	0,75	M 10	3/8	1,08
320	1"	1309-16-16	GFS 102 N	1" NPT	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,87	M 10	3/8	1,12
280	1 1/4"		GFS 104 N-100	1" NPT	0,98	2,31	3,19	1,19	2,56	1,65	0,98	0,87	M 10	7/16	1,65
280	1 1/4"	1309-20-20	GFS 104 N	1 1/4" NPT	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	M 10	7/16	1,46
210	1 1/2"		GFS 106 N-114	1 1/4" NPT	1,26	2,75	3,74	1,41	3,07	1,77	1,06	0,94	M 12	1/2	2,43
210	1 1/2"	1309-24-24	GFS 106 N	1 1/2" NPT	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	M 12	1/2	2,31
210	2"		GFS 108 N-112	1 1/2" NPT	1,50	3,06	4,02	1,69	3,54	1,77	0,98	1,02	M 12	1/2	2,76
210	2"	1309-32-32	GFS 108 N	2" NPT	2,01	3,06	4,02	1,69	3,54	1,77	0,98	1,18	M 12	1/2	2,89
175	2 1/2"	1309-40-40	GFS 110 N	2 1/2" NPT	2,48	3,50	4,49	2,00	4,13	1,97	0,98	1,18	M 12	1/2	3,09
160	3"	1309-48-48	GFS 112 N	3" NPT	2,87	4,19	5,28	2,44	4,88	1,97	1,06	1,34	M 16	5/8	4,74
35	3 1/2"	1309-56-56	GFS 114 N	3 1/2" NPT	3,50	4,75	5,98	2,75	5,35	1,89	1,06	1,34	M 16	5/8	5,29
35	4"	1309-64-64	GFS 116 N	4" NPT	3,90	5,13	6,38	3,06	5,75	1,89	1,06	1,34	M 16	5/8	6,28
Strength class													<i>metr.</i>	<i>unc.</i>	
10.9	High pressure														
420	1/2"		GFS 401 N-038	3/8" NPT	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	M 8	5/16	0,64
420	1/2"	1609-08-08	GFS 401 N	1/2" NPT	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,75	M 8	5/16	0,62
420	3/4"		GFS 402 N-012	1/2" NPT	0,51	2,00	2,80	0,94	2,17	1,38	0,83	0,87	M 10	3/8	1,21
420	3/4"	1609-12-12	GFS 402 N	3/4" NPT	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,87	M 10	3/8	1,10
420	1"		GFS 403 N-034	3/4" NPT	0,75	2,25	3,19	1,09	2,56	1,65	0,98	0,94	M 12	7/16	2,07
420	1"	1609-16-16	GFS 403 N	1" NPT	0,98	2,25	3,19	1,09	2,56	1,65	0,98	0,94	M 12	7/16	1,92
420	1 1/4"		GFS 404 N-100	1" NPT	0,98	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 14	1/2	2,87
420	1 1/4"		GFS 404 N-100-M12	1" NPT	0,98	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 12	1/2	2,87
420	1 1/4"	1609-20-20	GFS 404 N	1 1/4" NPT	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 14	1/2	2,65
420	1 1/4"		GFS 404 N-M12	1 1/4" NPT	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,98	M 12	1/2	2,65
420	1 1/2"		GFS 405 N-114	1 1/4" NPT	1,26	3,12	4,41	1,44	3,70	1,97	1,18	1,10	M 16	5/8	3,86
420	1 1/2"	1609-24-24	GFS 405 N	1 1/2" NPT	1,50	3,12	4,41	1,44	3,70	1,97	1,18	1,10	M 16	5/8	4,41
420	2"		GFS 406 N -112	1 1/2" NPT	1,50	3,81	5,28	1,75	4,49	2,56	1,46	1,18	M 20	3/4	5,62
420	2"	1609-32-32	GFS 406 N	2" NPT	2,01	3,81	5,28	1,75	4,49	2,56	1,46	1,18	M 20	3/4	5,40

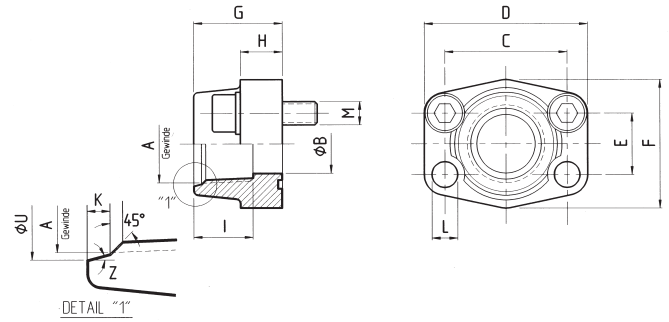
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-.../90-N	AFX-...90-N
• including metric bolts and o-ring	AFS-.../90-NM	AFX-...90N-MX
• including UNC bolts and o-ring	AFS-.../90-NU	AFX-...90N-UX
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions												Bolts		Weight (flange only)	
				A	B	C	D	E	F1	F2	H	I	L	S1	S2	M	lb		
kg/cm ²	inch																	M	lb
Strength class		Standard pressure															<i>metr.</i>	<i>unc.</i>	
10.9																			
350	1/2"		AFS 080/90 N-038	3/8" NPT	0,51	1,50	2,13	0,69	2,36	1,89	0,63	0,75	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,77	
350	1/2"	1310-08-08	AFS 080/90 N	1/2" NPT	0,51	1,50	2,13	0,69	2,36	1,89	0,63	0,75	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,77	
350	3/4"	1310-12-12	AFS 100/90 N	3/4" NPT	0,75	1,87	2,56	0,88	2,48	2,05	0,71	0,75	0,43	0,94	1,50	M 10x35	3/8 x 1 1/2	1,21	
320	1"	1310-16-16	AFS 102/90 N	1" NPT	0,98	2,06	2,76	1,03	2,76	2,36	0,75	0,79	0,43	1,10	1,69	M 10x35	3/8 x 1 1/2	1,41	
280	1 1/4"	1310-20-20	AFS 104/90 N	1 1/4" NPT	1,26	2,31	3,11	1,19	3,35	2,87	0,83	0,87	0,45	1,34	2,01	M 10x40	7/16 x 1 1/2	2,14	
210	1 1/2"	1310-24-24	AFS 106/90 N	1 1/2" NPT	1,50	2,75	3,66	1,41	3,74	3,27	0,98	0,98	0,53	1,50	2,20	M 12x45	1/2 x 1 3/4	3,02	
210	2"	1310-32-32	AFS 108/90 N	2" NPT	2,01	3,06	4,33	1,69	4,33	3,70	0,98	1,10	0,53	1,65	2,56	M 12x45	1/2 x 1 3/4	4,41	
Strength class		High pressure															<i>metr.</i>	<i>unc.</i>	
10.9																			
420	1/2"		AFS 401/90 N-038	3/8" NPT	0,51	1,59	2,13	0,72	2,36	1,81	0,63	0,75	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,77	
420	1/2"	1610-08-08	AFS 401/90 N	1/2" NPT	0,51	1,59	2,13	0,72	2,36	1,81	0,63	0,75	0,35	0,79	1,46	M 8x30	5/16 x 1 1/4	0,77	
420	3/4"	1610-12-12	AFS 402/90 N	3/4" NPT	0,75	2,00	2,76	0,94	2,76	2,17	0,75	0,79	0,43	1,10	1,69	M 10x35	3/8 x 1 1/2	1,76	
420	1"	1610-16-16	AFS 403/90 N	1" NPT	0,98	2,25	3,11	1,09	3,35	2,83	0,83	0,87	0,51	1,34	2,01	M 12x45	7/16 x 1 3/4	2,47	
420	1 1/4"	1610-20-20	AFS 404/90 N	1 1/4" NPT	1,26	2,62	3,66	1,25	3,74	2,95	0,98	0,98	^{0.59}	1,50	2,20	M 14x50	-	3,53	
420	1 1/2"	1610-24-24	AFS 405/90 N	1 1/2" NPT	1,50	3,12	4,33	1,44	4,33	3,70	0,98	1,10	0,67	1,65	2,56	M 16x50	5/8 x 2	4,41	

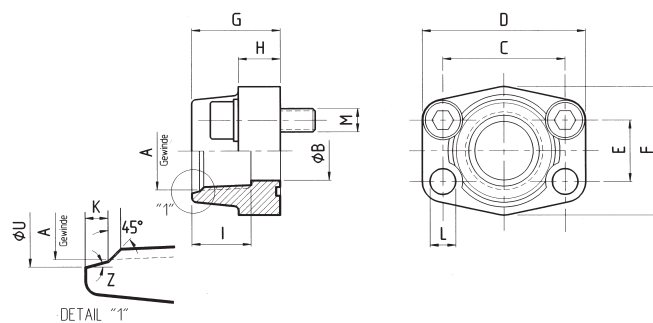
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...T	AFX-...T
• including metric bolts and o-ring	AFS-...T-M	AFX-...T-MX
• including UNC bolts and o-ring	AFS-...T-U	AFX-...T-UX
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions													Bolts		Weight (flange only)	
				A	B	C	D	E	F	G	H	I	L	U	K	Z	M			
kg/cm ²	inch																			
Strength class			Standard pressure																	
10.9																metr.		unc.		
350	1/2"	1312-08-08	AFS 080 T	3/4"-16UNF	0,51	1,50	2,13	0,69	1,81	1,42	0,63	0,67	0,35	0,81	0,10	15°	M 8x30	5/16 x 1 1/4	0,55	
350	3/4"	1312-12-12	AFS 100 T	1 1/16"-12UN	0,75	1,87	2,56	0,88	1,97	1,42	0,71	0,91	0,43	1,15	0,13	15°	M 10x35	3/8 x 1 1/2	0,79	
320	1"	1312-16-16	AFS 102 T	1 5/16"-12UN	0,98	2,06	2,76	1,03	2,17	1,50	0,71	0,91	0,43	1,40	0,13	15°	M 10x35	3/8 x 1 1/2	1,01	
280	1 1/4"	1312-20-20	AFS 104 T	1 5/8"-12UN	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,91	0,45	1,71	0,13	15°	M 10x40	7/16 x 1 1/2	1,46	
210	1 1/2"	1312-24-24	AFS 106 T	1 7/8"-12UN	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,91	0,53	1,96	0,13	15°	M 12x45	1/2 x 1 3/4	2,31	

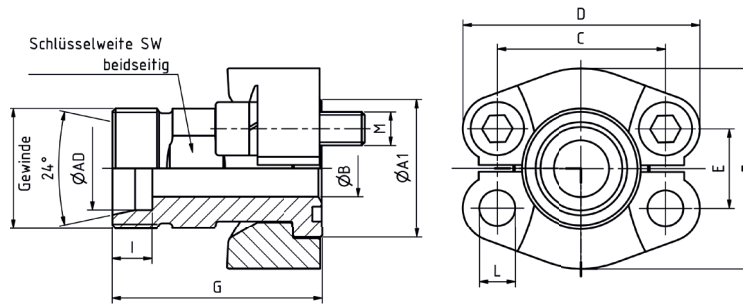
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...T	AFX-...T
• including metric bolts and o-ring	AFS-...T-M	AFX-...T-MX
• including UNC bolts and o-ring	AFS-...T-U	AFX-...T-UX
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions													Bolts		Weight (flange only)
				A	B	C	D	E	F	G	H	I	L	U	K	Z	M		
kg/cm ²	inch																		
Strength class	High pressure																metr.	unc.	
10.9																			
420	1/2"	1612-08-08	AFS 401 T	3/4"-16UNF	0,51	1,59	2,13	0,72	1,81	1,42	0,63	0,67	0,35	0,81	0,10	15°	M 8x30	5/16 x 1 1/4	0,57
420	3/4"	1612-12-12	AFS 402 T	1 1/16"-12UN	0,75	2,00	2,80	0,94	2,17	1,38	0,83	0,91	0,43	1,15	0,13	15°	M 10x35	3/8 x 1 1/2	1,10
420	1"	1612-16-16	AFS 403 T	1 5/16"-12UN	0,98	2,25	3,19	1,09	2,56	1,65	0,98	0,91	0,51	1,40	0,13	15°	M 12x45	7/16 x 1 3/4	1,68
420	1 1/4"	1612-20-20	AFS 404 T	1 5/8"-12UN	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,91	0,59	1,71	0,13	15°	M 14x50	—	2,65
420	1 1/4"		AFS 404 TL 13,5	1 5/8"-12UN	1,26	2,62	3,74	1,25	3,07	1,77	1,06	0,91	0,53	1,71	0,13	15°	M 12x45	1/2 x 1 3/4	2,56
420	1 1/2"	1612-24-24	AFS 405 T	1 7/8"-12UN	1,50	3,12	4,41	1,44	3,70	1,97	1,18	0,91	0,67	1,96	0,13	15°	M 16x50	5/8 x 2	4,23

*1 or comparable material

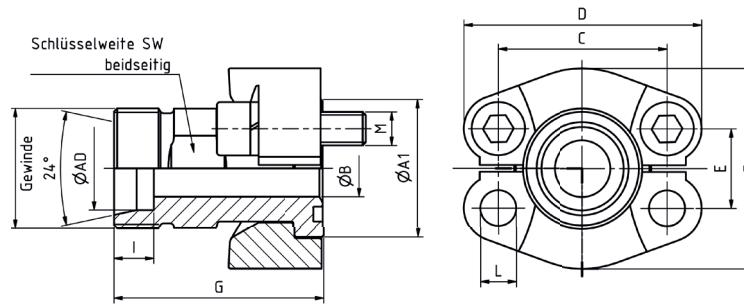


Ordering code:	S355J2^{*1} C22	1.4404^{*1} 316L
• adaptor only	SFCE-...	SFCE-X-...
• including split flanges, metric bolts and o-ring (nut and cutting ring)	SFCE-...-M(M)	SFCE-X-...-MX(M)
• including split flanges, UNC bolts and o-ring (nut and cutting ring)	SFCE-...-U(M)	SFCE-X-...-UX(M)
Surface only available in zinc-nickel		

**DIN 3901
Drill form W**

maximum recommended working pressure	Nominal flange size	Type													Bolts		Weight (flange only)
			A	AD	A1	B	C	D	E	F	G	I	SW	L	M	lb	
kg/cm ²	inch														metr.	unc.	
Strength class			Standard pressure														
10.9																	
315	1/2"	SFCE 3001/L15	M 22x1,5	0,59	1,19	0,47	1,50	2,13	0,69	1,81	1,90	0,28	0,94	0,33	M 8x25	5/16 x 1 1/4	0,29
350	1/2"	SFCE 3001/S16	M 24x1,5	0,63	1,19	0,47	1,50	2,13	0,69	1,81	1,98	0,33	0,94	0,33	M 8x25	5/16 x 1 1/4	0,31
315	3/4"	SFCE 3002/L18	M 26x1,5	0,71	1,50	0,59/0,67	1,87	2,56	0,88	2,05	2,09	0,30	1,18	0,41	M 10x30	3/8 x 1 1/2	0,51
160	3/4"	SFCE 3002/L22	M 30x2	0,87	1,50	0,75	1,87	2,56	0,88	2,05	2,09	0,30	1,18	0,41	M 10x30	3/8 x 1 1/2	0,46
160	3/4"	SFCE 3002/L28	M 36x2	1,10	1,50	0,75	1,87	2,56	0,88	2,05	2,09	0,30	1,18	0,41	M 10x30	3/8 x 1 1/2	0,51
350	3/4"	SFCE-3002/S16	M 24x1,5	0,63	1,50	0,47/0,67	1,87	2,56	0,88	2,05	2,25	0,33	1,18	0,41	M10x30	3/8 x 1 1/2	0,57
350	3/4"	SFCE 3002/S20	M 30x2	0,79	1,50	0,63/0,67	1,87	2,56	0,88	2,05	2,25	0,41	1,18	0,41	M 10x30	3/8 x 1 1/2	0,55
350	3/4"	SFCE 3002/S25	M 36x2	0,98	1,50	0,67	1,87	2,56	0,88	2,05	2,25	0,47	1,18	0,41	M 10x30	3/8 x 1 1/2	0,62
160	1"	SFCE 3003/L28	M 36x2	1,10	1,75	0,94	2,06	2,76	1,03	2,32	2,13	0,30	1,42	0,41	M 10x30	3/8 x 1 1/2	0,64
320	1"	SFCE 3003/S25	M 36x2	0,98	1,75	0,79	2,06	2,76	1,03	2,32	2,29	0,47	1,42	0,41	M 10x30	3/8 x 1 1/2	0,79
320	1"	SFCE 3003/S30	M 42x2	1,18	1,75	0,94	2,06	2,76	1,03	2,32	2,49	0,53	1,42	0,41	M 10x30	3/8 x 1 1/2	0,82
160	1 1/4"	SFCE 3004/L28	M 36x2	1,10	2,00	0,94/1,06	2,31	3,11	1,19	2,87	2,29	0,30	1,42	*2	*3	7/16 x 1 1/2	0,88
160	1 1/4"	SFCE 3004/L35	M 45x2	1,38	2,00	1,18/1,26	2,31	3,11	1,19	2,87	2,29	0,41	1,61	*2	*3	7/16 x 1 1/2	0,79
280	1 1/4"	SFCE 3004/S25	M 36x2	0,98	2,00	0,79/1,06	2,31	3,11	1,19	2,87	2,37	0,47	1,61	*2	*3	7/16 x 1 1/2	0,99
280	1 1/4"	SFCE 3004/S30	M 42x2	1,18	2,00	0,98/1,10	2,31	3,11	1,19	2,87	2,45	0,53	1,61	*2	*3	7/16 x 1 1/2	0,99
280	1 1/4"	SFCE 3004/S38	M 52x2	1,50	2,00	1,10	2,31	3,11	1,19	2,87	2,61	0,63	1,81	*2	*3	7/16 x 1 1/2	1,17
160	1 1/2"	SFCE 3005/L42	M 52x2	1,65	2,37	1,42	2,75	3,70	1,41	3,27	2,53	0,43	1,81	0,52	M 12x35	1/2 x 1 1/2	1,10
210	1 1/2"	SFCE 3005/S38	M 52x2	1,50	2,37	1,26	2,75	3,70	1,41	3,27	2,76	0,63	1,81	0,52	M 12x35	1/2 x 1 1/2	1,43
160	2"	SFCE 3006/L42	M 52x2	1,65	2,81	1,42/2,01	3,06	4,02	1,69	3,82	3,15	0,43	1,81	0,52	M 12x35	1/2 x 1 1/2	1,68
210	2"	SFCE 3006/S38	M 52x2	1,50	2,81	1,26/2,01	3,06	4,02	1,69	3,82	3,15	0,63	1,81	0,52	M 12x35	1/2 x 1 1/2	3,33

*1 or comparable material
 *2 choice of 0,41", 0,47" or 0,50"
 *3 choice of M 10x30 or M 12x35

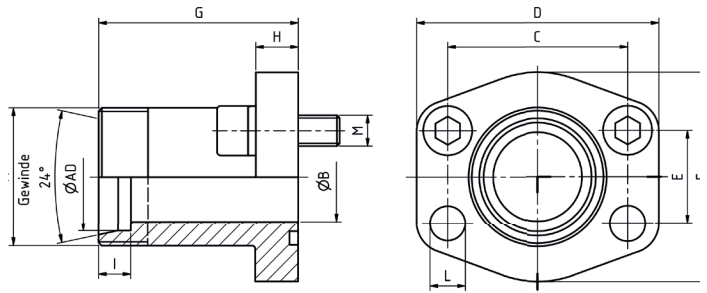


Ordering code:	S355J2^{*1} C22	1.4404^{*1} 316L
• adaptor only	SFCE-...	SFCE-X-...
• including split flanges, metric bolts and o-ring (nut and cutting ring)	SFCE-...-M(M)	SFCE-X-...-MX(M)
• including split flanges, UNC bolts and o-ring (nut and cutting ring)	SFCE-...-U(M)	SFCE-X-...-UX(M)
Surface only available in zinc-nickel		

**DIN 3901
Drill form W**

maximum recommended working pressure	Nominal flange size	Type														Bolts		Weight (flange only)
			A	AD	A1	B	C	D	E	F	G	I	SW	L	M	lb		
kg/cm ²	inch																	
Strength class	High pressure														metr.	unc.		
10.9																		
420	1/2"	SFCE 6001/S16	M 24x1,5	0,63	1,25	0,47	1,59	2,20	0,72	1,89	2,09	0,33	0,94	0,33	M 8x30	5/16 x 1 1/4	0,35	
420	3/4"	SFCE 6002/L22	M 30x2	0,87	1,63	0,75	2,00	2,80	0,94	2,36	2,40	0,30	1,18	0,41	M 10x35	3/8 x 1 1/2	0,60	
420	3/4"	SFCE 6002/S16	M 24x1,5	0,63	1,63	0,47/0,67	2,00	2,80	0,94	2,36	2,33	0,33	1,18	0,41	M 10x35	3/8 x 1 1/2	0,62	
420	3/4"	SFCE 6002/S20	M 30x2	0,79	1,63	0,63	2,00	2,80	0,94	2,36	2,41	0,41	1,18	0,41	M 10x35	3/8 x 1 1/2	0,66	
420	3/4"	SFCE 6002/S25	M 36x2	0,98	1,63	0,67	2,00	2,80	0,94	2,36	2,49	0,47	1,18	0,41	M 10x35	3/8 x 1 1/2	0,71	
420	3/4"	SFCE 6002/S30	M 42x2	1,18	1,63	0,94/0,71	2,00	2,80	0,94	2,36	2,52	0,53	1,42	0,41	M 10x35	3/8 x 1 1/2	0,82	
420	1"	SFCE 6003/S25	M 36x2	0,98	1,87	0,79	2,25	3,19	1,09	2,76	2,84	0,47	1,42	*2	M 12x45	7/16 x 1 3/4	1,04	
420	1"	SFCE 6003/S30	M 42x2	1,18	1,87	0,94	2,25	3,19	1,09	2,76	2,91	0,53	1,42	*2	M 12x45	7/16 x 1 3/4	0,99	
350	1"	SFCE 6003/S38	M 52x2	1,50	1,87	0,94	2,25	3,19	1,09	2,76	3,54	0,63	1,81	*2	M 12x45	7/16 x 1 3/4	1,57	
420	1 1/4"	SFCE 6004/S25	M 36x2	0,98	2,13	0,79/1,18	2,62	3,74	1,25	3,07	3,12	0,53	1,61	0,57	M 14x50	-	1,34	
420	1 1/4"	SFCE 6004/S25-M12	M 36x2	0,98	2,13	0,79/1,18	2,62	3,74	1,25	3,07	3,12	0,53	1,61	0,52	M 12x45	1/2 x 1 3/4	1,34	
420	1 1/4"	SFCE 6004/S30	M 42x2	1,18	2,13	0,98/1,18	2,62	3,74	1,25	3,07	3,12	0,53	1,61	0,57	M 14x50	-	1,30	
420	1 1/4"	SFCE 6004/S30-M12	M 42x2	1,18	2,13	0,98/1,18	2,62	3,74	1,25	3,07	3,12	0,53	1,61	0,52	M 12x45	1/2 x 1 3/4	1,30	
350	1 1/4"	SFCE 6004/S38	M 52x2	1,50	2,13	1,18	2,62	3,74	1,25	3,07	3,28	0,63	1,81	0,57	M 14x50	-	1,50	
350	1 1/4"	SFCE 6004/S38-M12	M 52x2	1,50	2,13	1,18	2,62	3,74	1,25	3,07	3,28	0,63	1,81	0,52	M 12x45	1/2 x 1 3/4	1,50	
350	1 1/2"	SFCE 6005/S38	M 52x2	1,50	2,50	1,18	3,12	4,45	1,44	3,74	3,51	0,63	1,81	0,66	M 16x55	5/8 x 2	2,12	
350	2"	SFCE 6006/S38	M 52x2	1,50	3,13	1,18/1,85	3,81	5,24	1,75	4,49	3,35	0,63	1,81	0,83	M 20x70	3/4 x 2 1/2	2,76	

*1 or comparable material
*2 choice of 0,47" or 0,52"



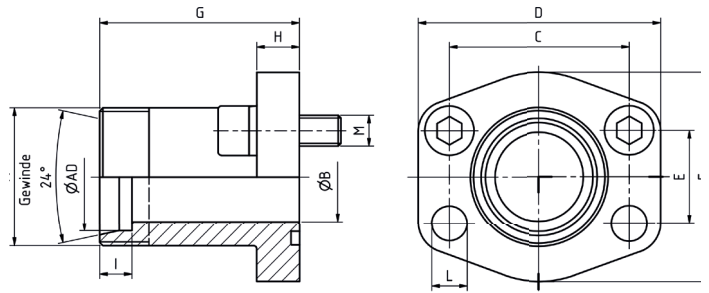
Ordering code:	S355J2^{*1}
• flange only	AFG-...
• including metric bolts and o-ring	AFG-...-M
• including UNC bolts and o-ring	AFG-...-U
• including bolts (metr. or UNC), o-ring, cutting ring and nut	AFG-...-MM (UM)
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)	

**DIN 3901
Drill form W**

maximum recommended working pressure	Nominal flange size	Type												Bolts		Weight (flange only)	
			A	AD	B	C	D	E	F	G	H	I	L	M	unc.	lb	
kg/cm ²	inch													metr.	unc.		
Strength class	Standard pressure																
10.9																	
315	1/2"	AFG 080 M/L 15	M 22x1,5	0,59	0,47	1,50	2,13	0,69	1,81	2,05	0,51	0,28	0,35	M 8x25	5/16 x 1 1/4	0,55	
315	1/2"	AFG 080 M/S 16	M 24x1,5	0,63	0,47	1,50	2,13	0,69	1,81	2,05	0,51	0,33	0,35	M 8x25	5/16 x 1 1/4	0,55	
160	3/4"	AFG 100 M/L 22	M 30x2	0,87	0,75	1,87	2,56	0,88	1,97	2,36	0,55	0,30	0,45	M 10x30	3/8 x 1 1/4	0,84	
345	3/4"	AFG 100 M/S 20	M 30x2	0,79	0,63	1,87	2,56	0,88	1,97	2,36	0,55	0,41	0,45	M 10x30	3/8 x 1 1/4	0,90	
160	1"	AFG 102 M/L 22	M 30x2	0,87	0,75	2,06	2,76	1,03	2,17	2,48	0,63	0,30	0,45	M 10x30	3/8 x 1 1/4	0,97	
160	1"	AFG 102 M/L 28	M 36x2	1,10	0,94	2,06	2,76	1,03	2,17	2,48	0,63	0,30	0,45	M 10x30	3/8 x 1 1/4	1,10	
320	1"	AFG 102 M/S 20	M 30x2	0,79	0,63	2,06	2,76	1,03	2,17	2,48	0,63	0,41	0,45	M 10x30	3/8 x 1 1/4	1,12	
320	1"	AFG 102 M/S 25	M 36x2	0,98	0,79	2,06	2,76	1,03	2,17	2,48	0,63	0,47	0,45	M 10x30	3/8 x 1 1/4	1,23	
160	1 1/4"	AFG 104 M/L 28	M 36x2	1,10	0,94	2,31	3,11	1,19	2,68	2,56	0,55	0,30	0,45	M 10x30	7/16 x 1 1/2	1,50	
160	1 1/4"	AFG 104 M/L 35	M 45x2	1,38	1,14	2,31	3,11	1,19	2,68	2,56	0,55	0,41	0,45	M 10x30	7/16 x 1 1/2	1,59	
280	1 1/4"	AFG 104 M/S 30	M 42x2	1,18	0,98	2,31	3,11	1,19	2,68	2,56	0,55	0,53	0,45	M 10x30	7/16 x 1 1/2	1,54	
210	1 1/2"	AFG 106 M/L 35	M 45x2	1,38	1,14	2,75	3,70	1,41	3,07	2,76	0,63	0,41	0,53	M 12x35	1/2 x 1 1/2	2,12	
160	1 1/2"	AFG 106 M/L 42	M 52x2	1,65	1,42	2,75	3,70	1,41	3,07	2,76	0,63	0,43	0,53	M 12x35	1/2 x 1 1/2	2,20	
210	1 1/2"	AFG 106 M/S 38	M 52x2	1,50	1,26	2,75	3,70	1,41	3,07	2,76	0,63	0,63	0,53	M 12x35	1/2 x 1 1/2	2,45	
210	2"	AFG 108 M/L 42 - H 74	M 52x2	1,65	1,42	3,06	4,02	1,69	3,54	2,91	0,98	0,43	0,53	M 12x45	1/2 x 1 3/4	3,99	
210	2"	AFG 108 M/S 38 - H 74	M 52x2	1,50	1,26	3,06	4,02	1,69	3,54	2,91	0,98	0,63	0,53	M 12x45	1/2 x 1 3/4	4,23	

*1 or comparable material

Please note: The maximum working pressure is fixed by SAE J 518 C on flange side or by the thread side to DIN 3861.

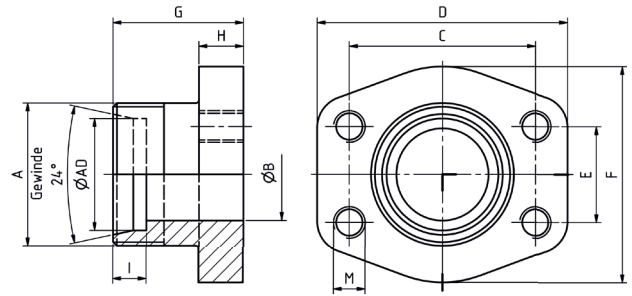


Ordering code:	S355J2^{*1}
• flange only	AFG-...
• including metric bolts and o-ring	AFG-...-M
• including UNC bolts and o-ring	AFG-...-U
• including bolts (metr. or UNC), o-ring, cutting ring and nut	AFG-...-MM (UM)
Surface optionally in zinc-nickel, chrome3 or blank (ordering code -> Page XIV)	

maximum recommended working pressure	Nominal flange size	Type												Bolts		Weight (flange only)		
			A	AD	B	C	D	E	F	G	H	I	L	M	lb			
kg/cm ²	inch													metr.	unc.			
Strength class	High pressure																	
10.9																		
420	1/2"	AFG 401 M/S 16	M 24x1,5	0,63	0,47	1,59	2,20	0,72	1,89	2,36	0,63	0,33	0,35	M 8x30	5/16 x 1 1/4	0,66		
420	3/4"	AFG 402 M/S 16-50	M 24x1,5	0,63	0,47	2,00	2,80	0,94	1,97	2,05	0,75	0,33	0,45	M 10x35	3/8 x 1 1/2	1,15		
420	3/4"	AFG 402 M/S 20-50	M 30x2	0,79	0,63	2,00	2,80	0,94	1,97	2,05	0,75	0,41	0,45	M 10x35	3/8 x 1 1/2	1,06		
420	3/4"	AFG 402 M/S 25-50	M 36x2	0,98	0,71	2,00	2,80	0,94	1,97	2,05	0,75	0,47	0,45	M 10x35	3/8 x 1 1/2	1,19		
420	3/4"	AFG 402 M/S 25	M 36x2	0,98	0,75	2,00	2,80	0,94	2,36	2,87	0,75	0,47	0,45	M 10x35	3/8 x 1 1/2	1,50		
420	1"	AFG 403 M/S 20-60	M 30x2	0,79	0,63	2,25	3,19	1,09	2,76	2,36	0,94	0,41	0,51	M 12x45	7/16 x 1 3/4	2,07		
420	1"	AFG 403 M/S 25	M 36x2	0,98	0,75/1,02	2,25	3,19	1,09	2,76	3,23	0,94	0,47	0,51	M 12x45	7/16 x 1 3/4	2,58		
420	1"	AFG 403 M/S 30	M 42x2	1,18	0,98	2,25	3,19	1,09	2,76	3,23	0,94	0,53	0,51	M 12x45	7/16 x 1 3/4	2,20		
420	1"	AFG 403 M/S 38	M 52x2	1,50	0,98	2,25	3,19	1,09	2,56	3,62	0,83	0,63	0,51	M 12x45	7/16 x 1 3/4	2,43		
420	1 1/4"	AFG 404 M/S 30	M 42x2	1,18	0,98	2,62	3,74	1,25	3,07	3,62	1,06	0,53	0,59 ^{*2}	M 14x50	1/2 x 1 3/4	3,70		
420	1 1/4"	AFG 404 M/S 30-68	M 42x2	1,18	0,98	2,62	3,74	1,25	3,07	2,68	1,06	0,53	0,59 ^{*2}	M 14x50	1/2 x 1 3/4	3,37		
420	1 1/4"	AFG 404 M/S 38	M 52x2	1,50	1,14	2,62	3,74	1,25	3,07	3,62	1,06	0,63	0,59 ^{*2}	M 14x50	1/2 x 1 3/4	3,75		
420	1 1/4"	AFG 404 M/S 38-60	M 52x2	1,50	1,10	2,62	3,74	1,25	3,07	2,36	0,94	0,63	0,59 ^{*2}	M 14x50	1/2 x 1 3/4	2,73		
420	1 1/2"	AFG 405 M/S 38	M 52x2	1,50	1,26	3,12	4,45	1,44	3,74	3,78	1,18	0,63	0,69	M 16x55	5/8 x 2	5,07		
420	1 1/2"	AFG 405 M/S 38-72	M 52x2	1,50	1,26	3,12	4,45	1,44	3,74	2,83	1,18	0,63	0,69	M 16x55	5/8 x 2	4,52		

*1 or comparable material
 *2 L= 0,53" with UNC-bolts

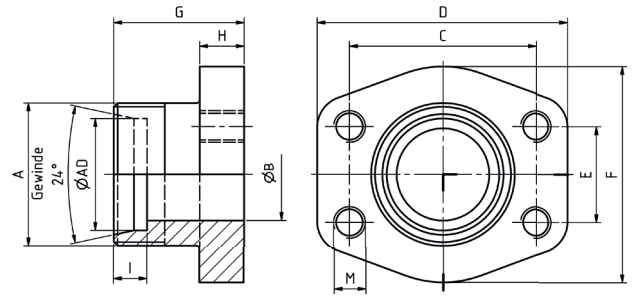
Please note: The maximum working pressure is fixed by SAE J 518 C on flange side or by the thread side to DIN 3861.



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• Flange with metric threads	GFG-...	GFG-X-...
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Type											Thread		Weight (flange only)		
			A	AD	B	C	D	E	F	G	H	I	M	unc.	lb		
kg/cm ²	inch												metr.	unc.			
Strength class		Standard pressure															
10.9																	
315	1/2"	GFG-080M/L15	M 22x1,5	0,59	0,47	1,50	2,13	0,69	1,81	1,42	0,51	0,28	M 8	5/16	0,51		
350	1/2"	GFG-080M/S16	M 24x1,5	0,63	0,47	1,50	2,13	0,69	1,81	1,42	0,51	0,33	M 8	5/16	0,53		
160	3/4"	GFG-100M/L22	M 30x2	0,87	0,75	1,87	2,56	0,88	1,97	1,42	0,55	0,30	M 10	3/8	0,73		
345	3/4"	GFG-100M/S20	M 30x2	0,79	0,63	1,87	2,56	0,88	1,97	1,42	0,55	0,41	M 10	3/8	0,77		
160	1"	GFG-102M/L22	M 30x2	0,87	0,75	2,06	2,76	1,03	2,17	1,50	0,63	0,30	M 10	3/8	0,95		
160	1"	GFG-102M/L28	M 36x2	1,10	0,94	2,06	2,76	1,03	2,17	1,50	0,63	0,30	M 10	3/8	0,95		
320	1"	GFG-102M/S20	M 30x2	0,79	0,63/0,98	2,06	2,76	1,03	2,17	1,50	0,63	0,41	M 10	3/8	0,97		
320	1"	GFG-102M/S25	M 36x2	0,98	0,79/0,98	2,06	2,76	1,03	2,17	1,50	0,63	0,47	M 10	3/8	1,01		
160	1 1/4"	GFG-104M/L28	M 36x2	1,10	0,94	2,31	3,11	1,19	2,68	1,61	0,55	0,30	M 10	7/16	1,17		
160	1 1/4"	GFG-104M/L35	M 45x2	1,38	1,14	2,31	3,11	1,19	2,68	1,61	0,55	0,41	M 10	7/16	1,23		
280	1 1/4"	GFG-104M/S30	M 42x2	1,18	0,98	2,31	3,11	1,19	2,68	1,61	0,55	0,53	M 10	7/16	1,28		
160	1 1/2"	GFG-106M/L42	M 52x2	1,65	1,42	2,75	3,66	1,41	3,07	1,77	0,63	0,43	M 12	1/2	1,83		
210	1 1/2"	GFG-106M/S38	M 52x2	1,50	1,26/1,42	2,75	3,66	1,41	3,07	1,77	0,63	0,63	M 12	1/2	1,96		

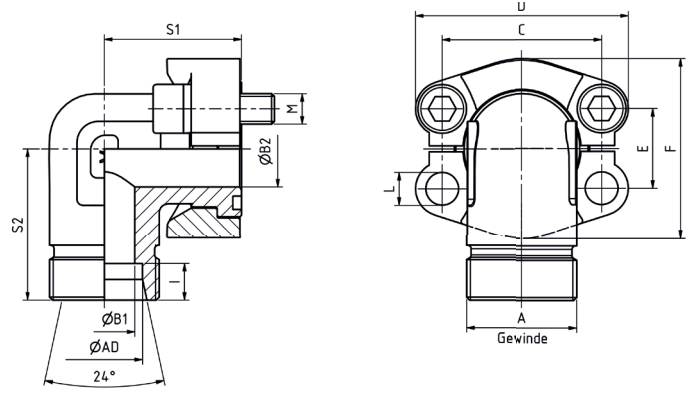
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• Flange with metric threads	GFG-...	GFG-X-...
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Type												Thread		Weight (flange only)		
			A	AD	B	C	D	E	F	G	H	I	M	lb				
kg/cm ²	inch													metr.	unc.			
Strength class	High pressure																	
10.9																		
420	1/2"	GFG-401M/S16	M 24x1,5	0,63	0,47	1,59	2,13	0,72	1,81	1,42	0,63	0,33	M 8	5/16	0,60			
420	3/4"	GFG-402M/S16	M 24x1,5	0,63	0,47	2,00	2,76	0,94	2,17	1,50	0,75	0,33	M 10	3/8	1,10			
420	3/4"	GFG-402M/S20	M 30x2	0,79	0,63	2,00	2,76	0,94	2,17	1,50	0,75	0,41	M 10	3/8	1,12			
420	3/4"	GFG-402M/S25	M 36x2	0,98	0,75	2,00	2,76	0,94	2,17	1,57	0,75	0,47	M 10	3/8	1,17			
420	1"	GFG-403M/S20	M 30x2	0,79	0,63	2,25	3,19	1,09	2,56	1,65	0,94	0,41	M 12	7/16	1,81			
420	1"	GFG-403M/S30	M 42x2	1,18	0,98	2,25	3,19	1,09	2,56	1,65	0,91	0,53	M 12	7/16	1,72			
420	1 1/4"	GFG-404M/S30	M 42x2	1,18	0,98	2,62	3,74	1,25	3,07	2,36	0,94	0,53	M 14	1/2	2,71			
420	1 1/4"	GFG-404M/S38	M 52x2	1,50	1,14	2,62	3,74	1,25	3,07	2,36	0,94	0,63	M 14	1/2	2,91			
420	1 1/2"	GFG-405M/S38	M 52x2	1,50	1,26	3,12	4,41	1,44	3,70	2,17	1,18	0,63	M 16	5/8	4,32			

*1 or comparable material

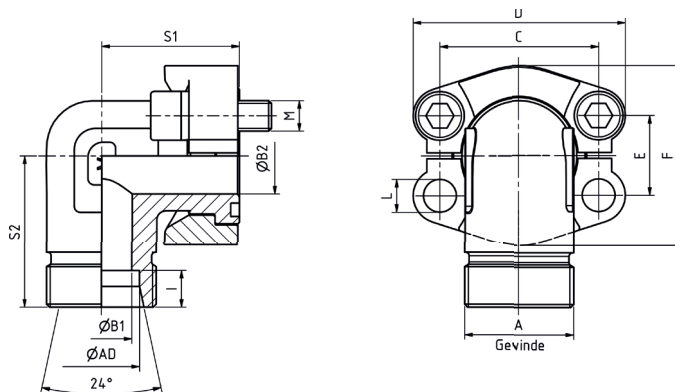


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• only 90° elbow	WFG-...	WFG-X-...
• including split flanges, bolts and o-ring	WFG-...-M	WFG-X-...-MX
• including split flanges, bolts, o-ring, cutting ring and nut	WFG-...-MM	WFG-X-...-MMX
Surface only available in zinc-nickel		

**DIN 3901
Drill form W**

maximum recommended working pressure	Nominal flange size	Type														Bolts	Weight (flange only)
			A	AD	B1	B2	C	D	E	F	I	L	S1	S2	M		
kg/cm ²	inch																
Strength class		Standard pressure															
10.9																	
315	1/2"	WFG 3001/L15	M 22x1,5	0,59	0,47	0,43	1,50	2,13	0,69	1,81	0,28	0,33	1,54	1,42	M 8x25	0,40	
350	1/2"	WFG 3001/S16	M 24x1,5	0,63	0,47	0,47	1,50	2,13	0,69	1,81	0,33	0,33	1,54	1,50	M 8x25	0,40	
315	3/4"	WFG 3002/L18	M 26x1,5	0,71	0,59	0,75	1,87	2,56	0,88	2,05	0,30	0,41	1,65	1,54	M 10x30	0,64	
160	3/4"	WFG 3002/L22	M 30x2	0,87	0,75	0,75	1,87	2,56	0,88	2,05	0,30	0,41	1,65	1,61	M 10x30	0,64	
350	3/4"	WFG 3002/S20	M 30x2	0,79	0,63	0,75	1,87	2,56	0,88	2,05	0,41	0,41	1,65	1,69	M 10x30	0,68	
350	3/4"	WFG 3002/S25	M 36x2	0,98	0,67	0,75	1,87	2,56	0,88	2,05	0,47	0,41	1,65	1,77	M 10x30	0,75	
160	1"	WFG 3003/L28	M 36x2	1,10	0,94	0,98	2,06	2,76	1,03	2,32	0,30	0,41	1,77	1,73	M 10x30	0,88	
320	1"	WFG 3003/S25	M 36x2	0,98	0,79	0,98	2,06	2,76	1,03	2,32	0,47	0,41	1,77	1,97	M 10x30	1,04	
320	1"	WFG 3003/S30	M 42x2	1,18	0,94	0,98	2,06	2,76	1,03	2,32	0,53	0,41	1,77	1,85	M 10x30	0,99	
160	1 1/4"	WFG 3004/L35	M 45x2	1,38	1,18	1,06	2,31	3,11	1,19	2,87	0,41	*2	1,97	2,24	*3	1,46	
280	1 1/4"	WFG 3004/S25	M 36x2	0,98	0,79	1,06	2,31	3,11	1,19	2,87	0,47	*2	1,97	2,17	*3	1,59	
280	1 1/4"	WFG 3004/S30	M 42x2	1,18	0,98	1,06	2,31	3,11	1,19	2,87	0,53	*2	1,97	2,24	*3	1,57	
280	1 1/4"	WFG 3004/S38	M 52x2	1,50	1,10	1,06	2,31	3,11	1,19	2,87	0,63	*2	1,97	2,32	*3	1,74	
160	1 1/2"	WFG 3005/L42	M 52x2	1,65	1,42	1,42	2,75	3,70	1,41	3,27	0,43	0,52	2,17	2,28	M 12x35	1,65	
210	1 1/2"	WFG 3005/S38	M 52x2	1,50	1,26	1,26	2,75	3,70	1,41	3,27	0,63	0,52	2,17	2,52	M 12x35	2,16	
160	2"	WFG 3006/L42	M 52x2	1,65	1,42	1,77	3,06	4,02	1,69	3,82	0,43	0,52	4,25	3,15	M 12x35	4,76	
200	2"	WFG 3006/S38	M 52x2	1,50	1,26	1,77	3,06	4,02	1,69	3,82	0,63	0,52	4,25	3,15	M 12x35	4,72	

*1 or comparable material
 *2 choice of 0,41", 0,47" or 0,50"
 *3 choice of M 10x30 or M 12x35

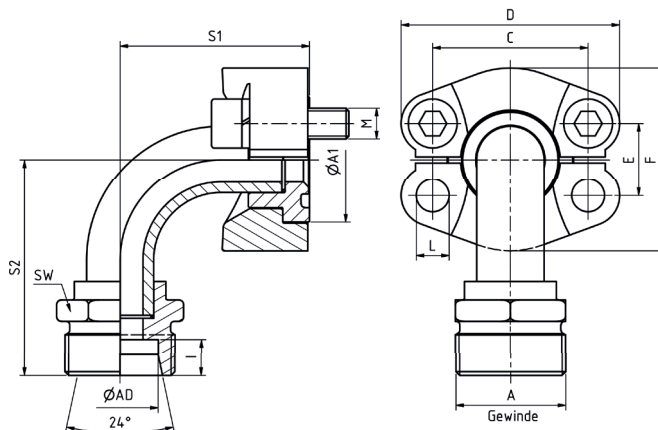


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• only 90° elbow	WFG-...	WFG-X-...
• including split flanges, bolts and o-ring	WFG-...-M	WFG-X-...-MX
• including split flanges, bolts, o-ring, cutting ring and nut	WFG-...-MM	WFG-X-...-MMX
Surface only available in zinc-nickel		

DIN 3901
Drill form W

maximum recommended working pressure	Nominal flange size	Type														Bolts	Weight (flange only)
			A	AD	B1	B2	C	D	E	F	I	L	S1	S2	M		
kg/cm ²	inch																
Strength class	High pressure																
10.9																	
420	1/2"	WFG 6001/S16	M 24x1,5	0,63	0,47	0,47	1,59	2,20	0,72	1,89	0,33	0,33	1,54	1,50	M 8x30	0,42	
420	3/4"	WFG 6002/S16	M 24x1,5	0,63	0,47	0,67	2,00	2,80	0,94	2,36	0,33	0,41	1,89	1,77	M 10x35	0,97	
420	3/4"	WFG 6002/S20	M 30x2	0,79	0,63	0,67	2,00	2,80	0,94	2,36	0,41	0,41	1,89	1,81	M 10x35	0,95	
420	3/4"	WFG 6002/S25	M 36x2	0,98	0,67	0,67	2,00	2,80	0,94	2,36	0,47	0,41	1,89	1,89	M 10x35	1,01	
420	1"	WFG 6003/S20	M 30x2	0,79	0,63	0,94	2,25	3,19	1,09	2,76	0,41	0,52	2,36	2,09	M 12x45	1,54	
420	1"	WFG 6003/S25	M 36x2	0,98	0,79	0,94	2,25	3,19	1,09	2,76	0,47	0,52	2,36	2,09	M 12x45	1,52	
420	1"	WFG 6003/S30	M 42x2	1,18	0,94	0,94	2,25	3,19	1,09	2,76	0,53	0,52	2,36	2,17	M 12x45	1,54	
420	1 1/4"	WFG 6004/S25	M 36x2	0,98	0,79	1,22	2,63	3,74	1,25	3,07	0,47	0,57	2,68	2,28	M 14x50	1,94	
420	1 1/4"	WFG 6004/S25-M12	M 36x2	0,98	0,79	1,22	2,63	3,74	1,25	3,07	0,47	0,52	2,68	2,28	M 12x45	1,94	
420	1 1/4"	WFG 6004/S30	M 42x2	1,18	0,98	1,22	2,62	3,74	1,25	3,07	0,53	0,57	2,68	2,28	M 14x50	1,87	
420	1 1/4"	WFG 6004/S30-M12	M 42x2	1,18	0,98	1,22	2,62	3,74	1,25	3,07	0,53	0,52	2,68	2,28	M 12x45	1,87	
350	1 1/4"	WFG 6004/S38	M 52x2	1,50	1,10	1,22	2,62	3,74	1,25	3,07	0,63	0,57	2,68	2,48	M 14x50	2,07	
350	1 1/4"	WFG 6004/S38-M12	M 52x2	1,50	1,10	1,22	2,62	3,74	1,25	3,07	0,63	0,52	2,68	2,48	M 12x45	2,07	
350	1 1/2"	WFG 6005/S30	M 42x2	1,18	0,98	1,42	3,12	4,45	1,44	3,74	0,53	0,66	2,99	2,83	M 16x55	2,89	
350	1 1/2"	WFG 6005/S38	M 52x2	1,50	1,18	1,42	3,12	4,45	1,44	3,74	0,63	0,66	2,99	2,83	M 16x55	2,87	
315	2"	WFG 6006/S38	M 52x2	1,50	1,26	1,77	3,81	5,24	1,75	4,49	0,53	0,83	4,25	3,15	M 20x70	2,93	

*1 or comparable material

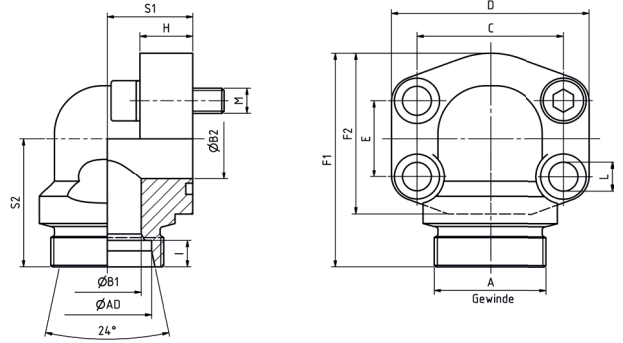


Ordering code:	9SMPb28K^{*1} ST37^{*1}
• adapter only	SFCE-.../90...
• including split flanges, metric bolts and o-ring (nut and cutting ring)	SFCE-.../90...-M(M)
• including split flanges, UNC bolts and o-ring (nut and cutting ring)	SFCE-.../90...-U(M)
Surface only available in chrome3	

maximum recommended working pressure	Nominal flange size	type/RAD														Bolts		Weight (adapter only)
			A	AD	A1	C	D	E	F	I	S1	S2	SW	L	M	lb		
kg/cm ²	inch																	
Strength class			Standard pressure													<i>metr.</i>	<i>unc.</i>	
10.9																		
315	1/2"	SFCE 3001/90-L15	M 22x1,5	0,59	1,19	1,50	2,13	0,69	1,81	0,28	1,57	1,97	0,87	0,33	M 8x25	5/16 x 1 1/4	0,31	
350	1/2"	SFCE 3001/90-S16	M 24x1,5	0,63	1,19	1,50	2,13	0,69	1,81	0,33	1,57	1,97	0,94	0,33	M 8x25	5/16 x 1 1/4	0,33	
160	3/4"	SFCE 3002/90-L22	M 30x2	0,87	1,50	1,87	2,56	0,88	2,05	0,30	2,32	2,80	1,26	0,41	M 10x30	3/8 x 1 1/4	0,53	
160	1"	SFCE 3003/90-L28	M 36x2	1,10	1,75	2,06	2,76	1,03	2,32	0,30	2,68	3,27	1,42	0,41	M 10x30	3/8 x 1 1/4	0,95	
320	1"	SFCE 3003/90-S25	M 36x2	0,98	1,75	2,06	2,76	1,03	2,32	0,47	2,68	3,27	1,42	0,41	M 10x30	3/8 x 1 1/4	0,84	
320	1"	SFCE 3003/90-S30	M 42x2	1,18	1,75	2,06	2,76	1,03	2,32	0,53	2,68	3,27	1,81	0,41	M 10x30	3/8 x 1 1/4	1,21	
160	1 1/4"	SFCE 3004/90-L35	M 45x2	1,38	2,00	2,31	3,11	1,19	2,87	0,41	3,39	4,13	1,81	*2	*3	7/16 x 1 1/2	1,68	
210	1 1/4"	SFCE 3004/90-S30	M 42x2	1,18	2,00	2,31	3,11	1,19	2,87	0,53	3,39	4,13	1,81	*2	*3	7/16 x 1 1/2	1,83	
160	1 1/2"	SFCE 3005/90-L42	M 52x2	1,65	2,37	2,75	3,70	1,41	3,27	0,43	3,86	4,53	2,17	0,52	M 12x35	1/2 x 1 1/2	2,18	
210	1 1/2"	SFCE 3005/90-S38	M 52x2	1,50	2,37	2,75	3,70	1,41	3,27	0,63	3,86	4,53	2,17	0,52	M 12x35	1/2 x 1 1/2	2,09	
Strength class			High pressure													<i>metr.</i>	<i>unc.</i>	
10.9																		
420	1/2"	SFCE 6001/90-S16	M 24x1,5	0,63	1,25	1,59	2,20	0,72	1,89	0,33	1,65	2,05	0,94	0,33	M 8x30	5/16 x 1 1/4	0,35	
420	3/4"	SFCE 6002/90-S25	M 36x2	0,98	1,63	2,00	2,80	0,94	2,36	0,47	2,44	2,80	1,42	0,41	M 10x35	3/8 x 1 1/2	0,82	
420	3/4"	SFCE 6002/90-S30	M 42x2	1,18	1,63	2,00	2,80	0,94	2,36	0,53	2,44	2,80	1,81	0,41	M 10x35	3/8 x 1 1/2	1,08	
420	1"	SFCE 6003/90-S25	M 36x2	0,98	1,87	2,25	3,19	1,09	2,76	0,47	2,91	3,35	1,42	*4	M 12x45	7/16 x 1 3/4	0,95	
420	1"	SFCE 6003/90-S30	M 42x2	1,18	1,87	2,25	3,19	1,09	2,76	0,53	2,91	3,35	1,81	*4	M 12x45	7/16 x 1 3/4	1,30	
315	1 1/4"	SFCE 6004/90-S38	M 52x2	1,50	2,13	2,62	3,74	1,25	3,07	0,63	3,78	4,25	2,17	*5	*6	1/2 x 1 3/4	2,09	
315	1 1/2"	SFCE 6005/90-S38	M 52x2	1,50	2,50	3,12	4,45	1,44	3,74	0,63	4,41	4,49	2,17	0,66	M 16x55	5/8 x 2	2,95	

*1 or comparable material
 *2 choice of 0,41", 0,47" or 0,50"
 *3 choice of M 10x30 or M 12x35"

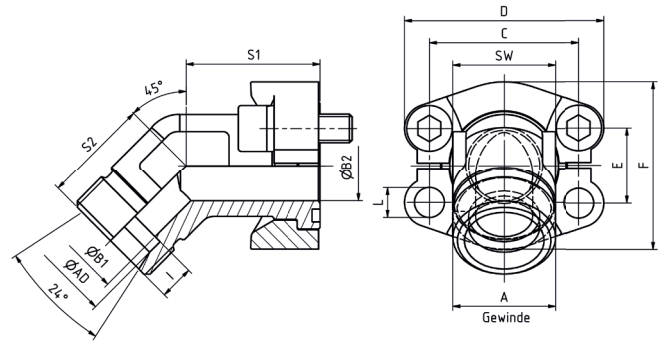
*4 choice of 0,47" or 0,52"
 *5 choice of 0,52" or 0,58"
 *6 choice of M 12x45 or M 14x50"



Ordering code:	S355J2^{*1}
• flange only	AFG-.../90M...
• including metric bolts and o-ring	AFG-.../90M...-M
• including UNC bolts and o-ring	AFG-.../90M...-U
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)	

maximum recommended working pressure	Nominal flange size	Type															Bolts		Weight (flange only)
			A	AD	B1	B2	C	D	E	F1	F2	H	I	S1	S2	L	M	lb	
kg/cm ²	inch																metr.	unc.	
Strength class			Standard pressure																
10.9																			
350	1/2"	AFG-080/90M-L15	M 22x1,5	0,59	0,47	0,51	1,50	2,13	0,69	2,36	1,69	0,63	0,28	0,79	1,46	0,35	M 8x30	5/16 x 1 1/4	0,64
350	1/2"	AFG-080/90M-S16	M 24x1,5	0,63	0,47	0,51	1,50	2,13	0,69	2,36	1,69	0,63	0,33	0,79	1,46	0,35	M 8x30	5/16 x 1 1/4	0,64
350	3/4"	AFG-100/90M-L18	M 26x1,5	0,71	0,59	0,75	1,87	2,56	0,88	2,48	1,85	0,71	0,30	0,94	1,50	0,43	M 10x35	3/8 x 1 1/2	1,01
350	3/4"	AFG-100/90M-L22	M 30x2	0,87	0,75	0,75	1,87	2,56	0,88	2,48	1,85	0,71	0,30	0,94	1,50	0,43	M 10x35	3/8 x 1 1/2	0,97
350	3/4"	AFG-100/90M-S16	M 24x1,5	0,63	0,47	0,75	1,87	2,56	0,88	2,48	1,85	0,71	0,33	0,94	1,50	0,43	M 10x35	3/8 x 1 1/2	1,01
350	3/4"	AFG-100/90M-S20	M 30x2	0,79	0,63	0,75	1,87	2,56	0,88	2,48	1,85	0,71	0,41	0,94	1,50	0,43	M 10x35	3/8 x 1 1/2	0,99
320	1"	AFG-102/90M-L28	M 36x2	1,10	0,94	0,98	2,06	2,76	1,03	2,76	2,01	0,75	0,30	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,19
320	1"	AFG-102/90M-S25	M 36x2	0,98	0,79	0,98	2,06	2,76	1,03	2,76	2,01	0,75	0,47	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,21
280	1 1/4"	AFG-104/90M-L28	M 36x2	1,10	0,94	1,26	2,31	3,11	1,19	3,35	2,52	0,83	0,30	1,34	2,01	0,45	M 10x40	7/16 x 1 1/2	2,12
280	1 1/4"	AFG-104/90M-L35	M 45x2	1,38	1,06	1,26	2,31	3,11	1,19	3,35	2,52	0,83	0,41	1,34	2,01	0,45	M 10x40	7/16 x 1 1/2	2,07
280	1 1/4"	AFG-104/90M-S25	M 36x2	0,98	0,79	1,26	2,31	3,11	1,19	3,35	2,52	0,83	0,47	1,34	2,01	0,45	M 10x40	7/16 x 1 1/2	1,90
280	1 1/4"	AFG-104/90M-S30	M 42x2	1,18	0,98	1,26	2,31	3,11	1,19	3,35	2,52	0,83	0,53	1,34	2,01	0,45	M 10x40	7/16 x 1 1/2	2,07
200	1 1/2"	AFG-106/90M-L42	M 52x2	1,65	1,42	1,50	2,75	3,66	1,41	3,78	2,91	0,98	0,43	1,50	2,24	0,53	M 12x45	1/2 x 1 3/4	3,00
200	1 1/2"	AFG-106/90M-S38	M 52x2	1,50	1,26	1,50	2,75	3,66	1,41	3,86	2,87	0,98	0,63	1,50	2,32	0,53	M 12x45	1/2 x 1 3/4	3,17
Strength class			High pressure																
10.9																			
420	1/2"	AFG-401/90M-S16	M 24x1,5	0,63	0,47	0,51	1,59	2,13	0,72	2,36	1,69	0,63	0,33	0,79	1,46	0,35	M 8x30	5/16 x 1 1/4	0,64
420	3/4"	AFG-402/90M-S16	M 24x1,5	0,63	0,47	0,75	2,00	2,76	0,94	2,76	2,01	0,75	0,33	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,39
420	3/4"	AFG-402/90M-S20	M 30x2	0,79	0,63	0,75	2,00	2,76	0,94	2,76	2,01	0,75	0,41	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,32
420	3/4"	AFG-402/90M-S25	M 36x2	0,98	0,79	0,75	2,00	2,76	0,94	2,76	2,01	0,75	0,47	1,10	1,69	0,43	M 10x35	3/8 x 1 1/2	1,32
420	1"	AFG-403/90M-S25	M 36x2	0,98	0,79	0,98	2,25	3,11	1,09	3,35	2,52	0,83	0,47	1,34	2,01	0,51	M 12x45	7/16 x 1 3/4	2,29
420	1"	AFG-403/90M-S30	M 42x2	1,18	0,98	0,98	2,25	3,11	1,09	3,39	2,56	0,83	0,53	1,34	2,05	0,51	M 12x45	7/16 x 1 3/4	2,20
420	1 1/4"	AFG-404/90M-S30	M 42x2	1,18	0,98	1,14	2,62	3,70	1,25	3,78	2,91	0,98	0,53	1,50	2,24	0,59	M 14x50	-	3,28
420	1 1/4"	AFG-404/90M-S38	M 52x2	1,50	1,14	1,14	2,62	3,70	1,25	3,94	2,91	0,98	0,63	1,50	2,40	0,59	M 14x50	-	3,59
420	1 1/2"	AFG-405/90M-S38	M 52x2	1,50	1,14	1,50	3,12	4,33	1,44	3,94	3,35	0,98	0,63	1,65	2,56	0,67	M 16x50	5/8 x 2	4,98

*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only 45° flange-adapter	WFG-...-45-...	WFG-X-...-45-...
• including split flanges, bolts and o-ring	WFG-...-45-...-M	WFG-X-...-45-...-MX
• including split flanges, bolts, o-ring, cutting ring and nut	WFG-...-45-...-MM	WFG-X-...-45-...-MMX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type														Bolts	Weight (flange only)
			A	AD	B1	B2	C	D	E	F	I	L	S1	S2	SW		
kg/cm ²	inch																
Strength class		Standard pressure															
10.9																	
315	1/2"	WFG-3001-45-L15	M 22x1,5	0,59	0,47	0,47	1,50	2,13	0,69	1,81	0,28	0,33	1,54	1,28	0,94	M 8x25	0,42
350	1/2"	WFG-3001-45-S16	M 24x1,5	0,63	0,47	0,47	1,50	2,13	0,69	1,81	0,33	0,33	1,54	1,28	0,94	M 8x25	0,42
315	3/4"	WFG-3002-45-L18	M 26x1,5	0,71	0,59	0,75	1,87	2,56	0,87	2,05	0,30	0,41	1,58	1,28	1,18	M 10x30	0,60
160	3/4"	WFG-3002-45-L22	M 30x2	0,87	0,75	0,75	1,87	2,56	0,87	2,05	0,30	0,41	1,58	1,28	1,18	M 10x30	0,57
350	3/4"	WFG-3002-45-S20	M 30x2	0,79	0,63	0,75	1,87	2,56	0,87	2,05	0,41	0,41	1,58	1,28	1,18	M 10x30	0,62
350	3/4"	WFG-3002-45-S25	M 36x2	0,98	0,79	0,75	1,87	2,56	0,87	2,05	0,47	0,41	1,58	1,28	1,18	M 10x30	0,62
160	1"	WFG-3003-45-L28	M 36x2	1,10	0,94	0,98	2,06	2,76	1,03	2,32	0,30	0,41	1,85	1,47	1,42	M 10x30	0,86
250	1"	WFG-3003-45-S25	M 36x2	0,98	0,79	0,98	2,06	2,76	1,03	2,32	0,47	0,41	1,85	1,47	1,42	M 10x30	0,93
250	1"	WFG-3003-45-S30	M 42x2	1,18	0,94	0,98	2,06	2,76	1,03	2,32	0,53	0,41	1,85	1,47	1,42	M 10x30	0,95
160	1 1/4"	WFG-3004-45-L35	M 45x2	1,38	1,06	1,06	2,31	3,11	1,19	2,87	0,41	*2	2,04	1,59	1,61	*3	1,32
280	1 1/4"	WFG-3004-45-S30	M 42x2	1,18	0,98	1,06	2,31	3,11	1,19	2,87	0,53	*2	2,04	1,59	1,61	*3	1,34
280	1 1/4"	WFG-3004-45-S38	M 52x2	1,50	1,06	1,06	2,31	3,11	1,19	2,87	0,63	*2	2,04	1,59	1,61	*3	1,46
160	1 1/2"	WFG-3005-45-L42	M 52x2	1,65	1,42	1,42	2,75	3,70	1,41	3,27	0,43	0,52	2,38	1,78	1,97	M 12x35	1,83
210	1 1/2"	WFG-3005-45-S38	M 52x2	1,50	1,18	1,42	2,75	3,70	1,41	3,27	0,63	0,52	2,38	1,78	1,97	M 12x35	2,03
Strength class		High pressure															
10.9																	
420	1/2"	WFG-6001-45-S16	M 24x1,5	0,63	0,47	0,47	1,59	2,22	0,72	1,88	0,33	0,33	1,54	1,28	0,94	M 8x30	0,44
420	3/4"	WFG-6002-45-S16	M 24x1,5	0,63	0,47	0,67	2,00	2,80	0,94	2,40	0,33	0,41	1,58	1,28	1,26	M 10x35	0,75
420	3/4"	WFG-6002-45-S20	M 30x2	0,79	0,63	0,67	2,00	2,80	0,94	2,40	0,41	0,41	1,58	1,28	1,26	M 10x35	0,75
420	3/4"	WFG-6002-45-S25	M 36x2	0,98	0,79	0,67	2,00	2,80	0,94	2,40	0,47	0,41	1,58	1,28	1,26	M 10x35	0,77
420	1"	WFG-6003-45-S25	M 36x2	0,98	0,79	0,94	2,25	3,19	1,09	2,76	0,47	0,52	1,85	1,47	1,61	M 12x45	1,21
420	1"	WFG-6003-45-S30	M 42x2	1,18	0,98	0,94	2,25	3,19	1,09	2,76	0,53	0,52	1,85	1,47	1,61	M 12x45	1,21
420	1 1/4"	WFG-6004-45-S30	M 42x2	1,18	0,98	1,22	2,63	3,74	1,25	3,07	0,53	*4	2,04	1,59	1,81	*5	1,54
350	1 1/4"	WFG-6004-45-S38	M 52x2	1,50	1,18	1,22	2,63	3,74	1,25	3,07	0,63	*4	2,04	1,59	1,81	*5	1,54
350	1 1/2"	WFG-6005-45-S30	M 42x2	1,18	0,98	1,42	3,13	4,45	1,44	3,74	0,53	0,66	2,38	1,78	1,97	M 16x55	2,16
350	1 1/2"	WFG-6005-45-S38	M 52x2	1,50	1,18	1,42	3,13	4,45	1,44	3,74	0,63	0,66	2,38	1,78	1,97	M 16x55	2,20

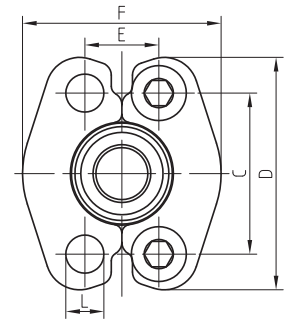
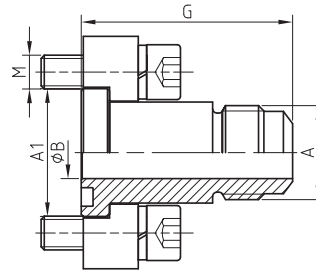
*1 or comparable material

*2 choice of 0,41", 0,47", 0,50"

*3 choice of M 10x30 or M 12x35

*4 choice of 0,57" or 0,52"

*5 choice of M 12x45 or M 14x50

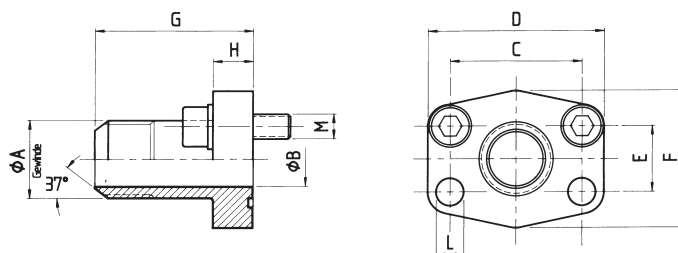


Ordering code:	S355J2^{*1} C22	1.4404^{*1} 316L
• adaptor only	SFCE-...J...	SFCE-X-...J...
• including split flanges, metric bolts and o-ring	SFCE-...J...-M	SFCE-X-...J...-MX
• including split flanges, UNC bolts and o-ring	SFCE-...J...-U	SFCE-X-...J...-UX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions										Bolts		Weight (flange only)
				A	A1	B	C	D	E	F	G	SW	L	M	lb	
kg/cm ²	inch															
Strength class																
10.9																
Standard pressure													<i>metr.</i>		<i>unc.</i>	
350	1/2"	1380-10-08	SFCE 3001-J 7/8	7/8" -14UN	1,19	0,48	1,50	2,13	0,69	1,81	1,89	0,79	0,33	M 8x25	5/16 x 1 1/4	0,24
350	3/4"	1380-12-12	SFCE 3002-J 1.1/16	1 1/16" -12UN	1,50	0,61	1,87	2,56	0,88	2,05	2,17	1,18	0,41	M 10x30	3/8 x 1 1/4	0,46
320	1"	1380-12-16	SFCE 3003-J 1.1/16	1 1/16" -12UN	1,75	0,61	2,06	2,76	1,03	2,32	2,17	1,42	0,41	M 10x30	3/8 x 1 1/4	0,66
280	1 1/4"	1380-16-20	SFCE 3004-J 1.5/16	1 5/16" -12UN	2,00	0,85	2,31	3,11	1,19	2,87	2,28	1,65	*2	*3	7/16 x 1 1/2	0,86
280	1 1/4"	1380-20-20	SFCE 3004-J 1.5/8	1 5/8" -12UN	2,00	1,08	2,31	3,11	1,19	2,87	2,28	1,65	*2	*3	7/16 x 1 1/2	0,77
210	1 1/2"	1380-24-24	SFCE 3005-J 1.7/8	1 7/8" -12UN	2,37	1,30	2,75	3,70	1,41	3,27	2,44	1,65	0,52	M 12x35	1/2 x 1 1/2	1,06
Strength class																
10.9																
High pressure													<i>metr.</i>		<i>unc.</i>	
350	1/2"	1680-08-08	SFCE 6001-J 3/4	3/4" -16UN	1,25	0,39	1,59	2,20	0,72	1,89	1,97	0,79	0,33	M 8x30	5/16 x 1 1/4	0,29
350	1/2"	1680-10-08	SFCE 6001-J 7/8	7/8" -14UN	1,25	0,48	1,59	2,20	0,72	1,89	1,97	0,79	0,33	M 8x30	5/16 x 1 1/4	0,26
350	1/2"		SFCE 6001-J 1.1/16	1 1/16" -12UN	1,25	0,61	1,59	2,20	0,72	1,89	1,97	0,79	0,33	M 8x30	5/16 x 1 1/4	0,31
350	3/4"	1680-12-12	SFCE 6002-J 1.1/16	1 1/16" -12UN	1,63	0,61	2,00	2,80	0,94	2,36	2,52	1,18	0,41	M 10x35	3/8 x 1 1/2	0,60
350	1"	1680-12-16	SFCE 6003-J 1.1/16	1 1/16" -12UN	1,87	0,61	2,25	3,19	1,09	2,76	2,83	1,42	*4	M 12x45	7/16 x 1 1/2	0,99
350	1"	1680-16-16	SFCE 6003-J 1.5/16	1 5/16" -12UN	1,87	0,85	2,25	3,19	1,09	2,76	2,83	1,42	*4	M 12x45	7/16 x 1 1/2	0,88
350	1 1/4"	1680-16-20	SFCE 6004-J 1.5/16	1 5/16" -12UN	2,13	0,85	2,62	3,74	1,25	3,07	3,19	1,61	0,57	M 14x50	-	1,52
350	1 1/4"		SFCE 6004-J 1.5/16-M12	1 5/16" -12UN	2,13	0,85	2,62	3,74	1,25	3,07	3,19	1,61	0,52	M 12x45	1/2 x 1 3/4	1,52
275	1 1/4"	1680-20-20	SFCE 6004-J 1.5/8	1 5/8" -12UN	2,13	1,08	2,62	3,74	1,25	3,07	3,19	1,61	0,57	M 14x50	-	1,21
275	1 1/4"		SFCE 6004-J 1.5/8-M12	1 5/8" -12UN	2,13	1,08	2,62	3,74	1,25	3,07	3,19	1,61	0,52	M 12x45	1/2 x 1 3/4	1,21
275	1 1/2"	1680-20-24	SFCE 6005-J 1.5/8	1 5/8" -12UN	2,50	1,08	3,12	4,45	1,44	3,74	3,39	1,61	0,66	M 16x55	5/8 x 2	1,92
210	1 1/2"	1680-24-24	SFCE 6005-J 1.7/8	1 7/8" -12UN	2,50	1,30	3,12	4,45	1,44	3,74	3,39	1,65	0,66	M 16x55	5/8 x 2	1,70

*1 or comparable material
*2 choice of 0,41", 0,47" or 0,50"

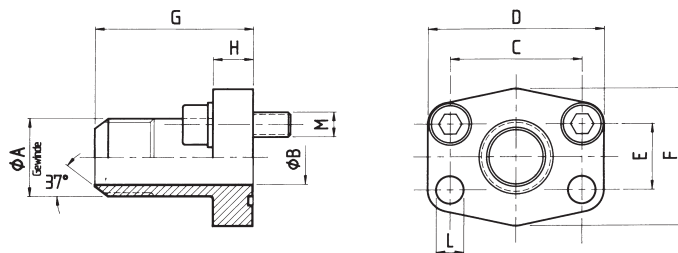
*3 choice of M 10x30 or M 12x35
*4 choice of 0,47" or 0,52"



Ordering code:	S355J2^{*1}
• flange only	AFG-...
• including metric bolts and o-ring	AFG-...-M
• including UNC bolts and o-ring	AFG-...-U
Surface only blanc available	

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions									Bolts		Weight (flange only)
				A	B	C	D	E	F	G	H	L	M	lb	
<i>kg/cm²</i>	<i>inch</i>														
Strength class	Standard pressure											<i>metr.</i>	<i>unc.</i>		
10.9															
350	1/2"	1340-08-08	AFG 080 J 3/4	3/4" -16 JIC	0,39	1,50	2,13	0,69	1,81	2,05	0,51	0,35	M 8x30	5/16 x 1 1/4	0,55
350	1/2"	1340-12-12	AFG 080 J 7/8	7/8" -14 JIC	0,48	1,50	2,13	0,69	1,81	2,05	0,51	0,35	M 8x30	3/8 x 1 1/4	0,66
350	3/4"	1340-16-16	AFG 100 J 1.1/16	1 1/16" -12 JIC	0,61	1,87	2,56	0,88	1,97	2,36	0,55	0,45	M 10x30	3/8 x 1 1/4	0,77
320	1"	1340-20-20	AFG 102 J 1.5/16	1 5/16" -12 JIC	0,85	2,06	2,76	1,03	2,17	2,48	0,63	0,45	M 10x30	3/8 x 1 1/4	1,10
280	1 1/4"		AFG 104 J 1.5/16	1 5/16" -12 JIC	0,85	2,31	3,11	1,19	2,68	2,56	0,55	0,45	M 10x30	7/16 x 1 1/2	1,54
280	1 1/4"	1340-24-24	AFG 104 J 1.5/8	1 5/8" -12 JIC	1,08	2,31	3,11	1,19	2,68	2,56	0,55	0,45	M 10x30	7/16 x 1 1/2	1,54
210	1 1/2"	1340-32-32	AFG 106 J 1.7/8	1 7/8" -12 JIC	1,30	2,75	3,70	1,41	3,07	2,76	0,63	0,53	M 12x35	1/2 x 1 1/2	2,20

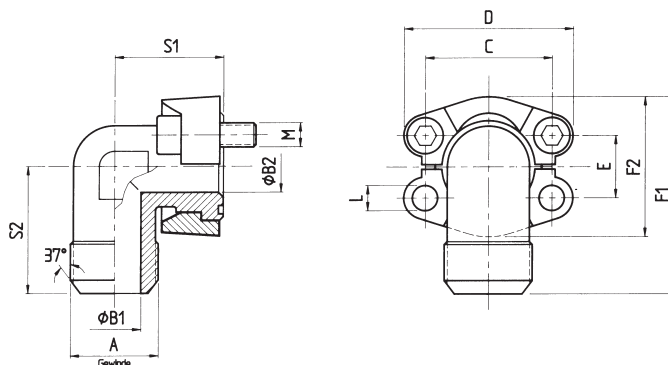
*1 or comparable material



Ordering code:	S355J2^{*1}
• flange only	AFG-...
• including metric bolts and o-ring	AFG-...-M
• including UNC bolts and o-ring	AFG-...-U
Surface only blanc available	

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions									Bolts		Weight (flange only)	
				A	B	C	D	E	F	G	H	L	M	lb		
kg/cm ²	inch															
Strength class	High pressure											metr.	unc.			
10.9																
420	1/2"	1640-08-08	AFG 401 J 3/4	3/4" -16 JIC	0,39	1,59	2,20	0,72	1,89	2,36	0,63	0,35	M 8x30	5/16 x 1 1/4	0,66	
420	1/2"		AFG 401 J 7/8	7/8" -14 JIC	0,48	1,59	2,20	0,72	1,89	2,36	0,63	0,35	M 8x30	5/16 x 1 1/4	0,88	
420	3/4"	1640-12-12	AFG 402 J 1.1/16	1 1/16" -12 JIC	0,61	2,00	2,80	0,94	2,36	2,87	0,75	0,45	M 10x35	3/8 x 1 1/2	1,54	
420	1"	1640-16-16	AFG 403 J 1.5/16	1 5/16" -12 JIC	0,85	2,25	3,19	1,09	2,76	3,23	0,94	0,51	M 12x45	7/16 x 1 3/4	2,20	
420	1 1/4"		AFG 404 J 1.5/16	1 5/16" -12 JIC	0,85	2,62	3,74	1,25	3,07	3,62	1,06	0,59 ^{*2}	M 14x50	1/2 x 1 3/4	2,91	
420	1 1/4"	1640-20-20	AFG 404 J 1.5/8	1 5/8" -12 JIC	1,08	2,62	3,74	1,25	3,07	3,62	1,06	0,59 ^{*2}	M 14x50	1/2 x 1 3/4	3,09	
420	1 1/2"	1640-24-24	AFG 405 J 1.7/8	1 7/8" -12 JIC	1,30	3,12	4,45	1,44	3,74	3,78	1,18	0,69	M 16x55	5/8 x 2	4,52	

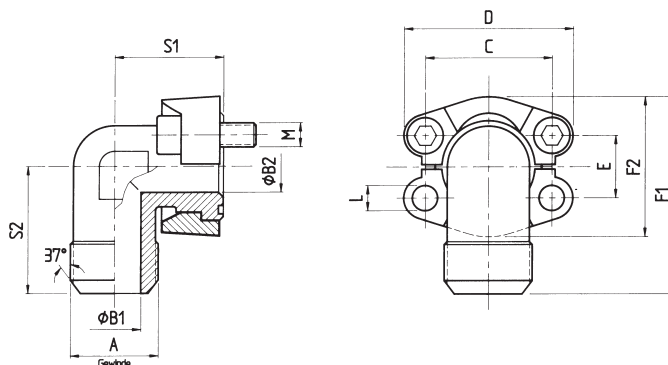
*1 or comparable material
 *2 L= 0,53" with UNC-bolts



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• only 90° elbow	WFG-...-J...	WFG-X-...-J...
• including split flanges, metric bolts and o-ring	WFG-...-J...-M	WFG-X-...-J...-MX
• including split flanges, UNC bolts and o-ring	WFG-...-J...-U	WFG-X-...-J...-UX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions											Bolts		Weight (flange only)		
				A	B1	B2	C	D	E	F1	F2	S1	S2	L	M	unc.			
kg/cm ²	inch																		
Strength class	Standard pressure															<i>metr.</i>	<i>unc.</i>		
10.9																			
350	1/2"	1381-08-08	WFG 3001 J 3/4	3/4 -16 JIC	0,39	0,51	1,50	2,13	0,69	2,39	1,81	1,50	1,50	0,33	M 8x25	5/16 x 1 1/4	0,40		
350	1/2"	1381-10-08	WFG 3001 J 7/8	7/8 -14 JIC	0,48	0,51	1,50	2,13	0,69	2,39	1,81	1,50	1,50	0,33	M 8x25	5/16 x 1 1/4	0,37		
350	3/4"	1381-10-12	WFG 3002 J 7/8	7/8 -14 JIC	0,48	0,75	1,87	2,56	0,88	2,79	2,05	1,65	1,77	0,41	M 10x30	3/8 x 1 1/2	0,66		
350	3/4"	1381-12-12	WFG 3002 J 1.1/16	1 1/16 -12 JIC	0,61	0,75	1,87	2,56	0,88	2,79	2,05	1,65	1,77	0,41	M 10x30	3/8 x 1 1/2	0,64		
350	3/4"	1381-16-12	WFG 3002 J 1.5/16	1 5/16 -12 JIC	0,85	0,75	1,87	2,56	0,88	2,79	2,05	1,65	1,77	0,41	M 10x30	3/8 x 1 1/2	0,66		
320	1"	1381-12-16	WFG 3003 J 1.1/16	1 1/16 -12 JIC	0,61	0,94	2,06	2,76	1,03	3,12	2,32	1,77	1,97	0,41	M 10x30	3/8 x 1 1/2	0,95		
320	1"	1381-16-16	WFG 3003 J 1.5/16	1 5/16 -12 JIC	0,85	0,98	2,06	2,76	1,03	3,12	2,32	1,77	2,05	0,41	M 10x30	3/8 x 1 1/2	0,97		
320	1"	1381-20-16	WFG 3003 J 1.5/8	1 5/8 -12 JIC	1,08	0,98	2,06	2,76	1,03	3,12	2,32	1,77	2,05	0,41	M 10x30	3/8 x 1 1/2	0,95		
280	1 1/4"	1381-16-20	WFG 3004 J 1.5/16	1 5/16 -12 JIC	0,85	0,94	2,31	3,11	1,19	3,36	2,87	1,97	2,32	*2	*3	7/16 x 1 1/2	1,59		
280	1 1/4"	1381-20-20	WFG 3004 J 1.5/8	1 5/8 -12 JIC	1,08	1,22	2,31	3,11	1,19	3,36	2,87	1,97	2,32	*2	*3	7/16 x 1 1/2	1,43		
210	1 1/2"	1381-20-24	WFG 3005 J 1.5/8	1 5/8 -12 JIC	1,08	1,50	2,75	3,70	1,41	4,61	3,27	2,99	2,99	0,52	M 12x35	1/2 x 1 1/2	2,76		
210	1 1/2"	1381-24-24	WFG 3005 J 1.7/8	1 7/8 -12 JIC	1,30	1,50	2,75	3,70	1,41	4,61	3,27	2,99	2,99	0,52	M 12x35	1/2 x 1 1/2	2,65		
210	2"		WFG 3006 J 1.7/8	1 7/8 -12 JIC	1,30	1,77	3,06	4,02	1,69	5,06	3,82	4,25	3,15	0,52	M 12x35	1/2 x 1 1/2	4,63		
210	2"		WFG 3006 J 2.1/2	2 1/2 -12 JIC	1,77	1,77	3,06	4,02	1,69	5,06	3,82	4,25	3,15	0,52	M 12x35	1/2 x 1 1/2	4,37		

*1 or comparable material
 *2 choice of 0,41", 0,47" or 0,50"
 *3 choice of M 10x30 or M 12x35

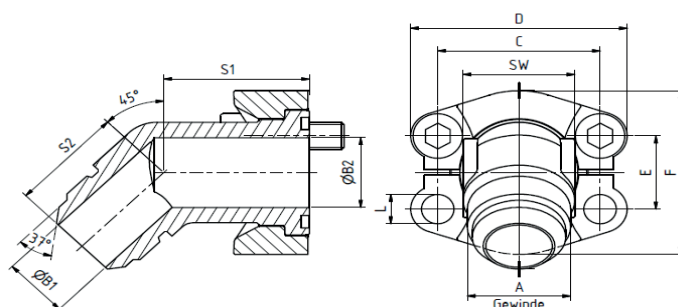


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• only 90° elbow	WFG-...	WFG-X-...
• including split flanges, metric bolts and o-ring	WFG-...-M	WFG-X-...-MX
• including split flanges, UNC bolts and o-ring	WFG-...-U	WFG-X-...-UX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions											Bolts		Weight (flange only)
				A	B1	B2	C	D	E	F1	F2	S1	S2	L	M	lb	
kg/cm ²	inch																
Strength class		High pressure											metr.	unc.			
10.9																	
420	1/2"	1681-08-08	WFG 6001 J 3/4	3/4 -16 JIC	0,39	0,51	1,59	2,20	0,72	2,43	1,89	1,54	1,50	0,33	M 8x30	5/16 x 1 1/4	0,40
420	1/2"	1681-10-08	WFG 6001 J 7/8	7/8 -14 JIC	0,48	0,51	1,59	2,20	0,72	2,43	1,89	1,54	1,50	0,33	M 8x35	5/16 x 1 1/4	0,40
420	3/4"	1681-10-12	WFG 6002 J 7/8	7/8 -14 JIC	0,48	0,67	2,00	2,80	0,94	3,07	2,36	1,89	1,89	0,41	M 10x35	3/8 x 1 1/2	0,93
420	3/4"	1681-12-12	WFG 6002 J 1.1/16	1 1/16 -12 JIC	0,61	0,67	2,00	2,80	0,94	3,07	2,36	1,89	1,89	0,41	M 10x35	3/8 x 1 1/2	0,93
420	3/4"	1681-16-12	WFG 6002 J 1.5/16	1 5/16 -12 JIC	0,85	0,67	2,00	2,80	0,94	3,07	2,36	1,89	1,89	0,41	M 10x35	3/8 x 1 1/2	0,88
420	1"	1681-12-16	WFG 6003 J 1.1/16	1 1/16 -12 JIC	0,61	0,94	2,25	3,19	1,09	3,90	2,76	2,36	2,36	*2	M 12x45	7/16 x 1 3/4	1,48
420	1"	1681-16-16	WFG 6003 J 1.5/16	1 5/16 -12 JIC	0,85	0,94	2,25	3,19	1,09	3,90	2,76	2,36	2,36	*2	M 12x45	7/16 x 1 3/4	1,50
420	1"	1681-20-16	WFG 6003 J 1.5/8	1 5/8 -12 JIC	1,08	0,94	2,25	3,19	1,09	3,90	2,76	2,36	2,36	*2	M 12x45	7/16 x 1 3/4	1,43
420	1 1/4"	1681-16-20	WFG 6004 J 1.5/16	1 5/16 -12 JIC	0,85	1,22	2,62	3,74	1,25	4,55	3,07	2,68	2,68	*3	*4	1/2 x 1 3/4	2,01
420	1 1/4"	1681-20-20	WFG 6004 J 1.5/8	1 5/8 -12 JIC	1,08	1,22	2,62	3,74	1,25	4,55	3,07	2,68	2,68	*3	*4	1/2 x 1 3/4	1,92
420	1 1/4"		WFG 6004 J 1.7/8	1 7/8 -12 JIC	1,30	1,18	2,62	3,74	1,25	4,55	3,07	2,68	2,68	*3	*4	1/2 x 1 3/4	1,81
420	1 1/2"	1681-20-24	WFG 6005 J 1.5/8	1 5/8 -12 JIC	1,08	1,26	3,12	4,45	1,44	5,24	3,74	2,99	2,99	0,66	M 16x55	5/8 x 2	3,11
420	1 1/2"	1681-24-24	WFG 6005 J 1.7/8	1 7/8 -12 JIC	1,30	1,42	3,12	4,45	1,44	5,24	3,74	2,99	2,99	0,66	M 16x55	5/8 x 2	2,69
420	2"		WFG 6006 J 1.7/8	1 7/8 -12 JIC	1,30	1,77	3,81	5,24	1,75	5,39	4,49	4,25	3,15	0,83	M 20x70	3/4 x 2 1/2	5,11
420	2"		WFG 6006 J 2.1/2	2 1/2 -12 JIC	1,77	1,77	3,81	5,24	1,75	5,39	4,49	4,25	3,15	0,83	M 20x70	3/4 x 2 1/2	4,85

*1 or comparable material
*2 choice of 0,47" or 0,52"

*3 choice of 0,52" or 0,57"
*4 choice of M 12x45 or M 14x50

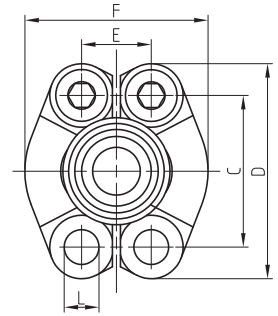
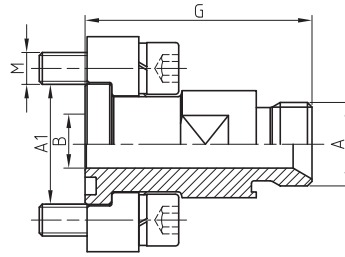


Ordering code:	S355J2^{*1}	1.4404^{*1}
• only 45° flange-adapter	WFG-...-45-J...	WFG-X-...-45-J...
• including split flanges, bolts and o-ring	WFG-...-45-J...-M	WFG-X-...-45-J...-MX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions											Bolts	Weight (flange only)		
			A	B1	B2	C	D	E	F	L	S1	S2	SW			M	lb
<i>kg/cm²</i>	<i>inch</i>																
Strength class		Standard pressure															
10.9																	
350	1/2"	WFG-3001-45-J3/4	3/4"-16UNF	0,39	0,47	1,50	2,13	0,69	1,81	0,33	1,54	1,28	0,94	M 8x25	0,40		
350	1/2"	WFG-3001-45-J7/8	7/8"-14 UNF	0,48	0,47	1,50	2,13	0,69	1,81	0,33	1,54	1,28	0,94	M 8x25	0,40		
350	3/4"	WFG-3002-45-J7/8	7/8"-14UNF	0,48	0,75	1,87	2,56	0,87	2,05	0,41	1,58	1,28	1,18	M 10x30	0,55		
350	3/4"	WFG-3002-45-J1.1/16	1 1/16"-12UN	0,61	0,75	1,87	2,56	0,87	2,05	0,41	1,58	1,28	1,18	M 10x30	0,55		
320	1"	WFG-3003-45-J1.1/16	1 1/16"-12UN	0,61	0,98	2,06	2,76	1,03	2,32	0,41	1,85	1,47	1,42	M 10x30	0,84		
320	1"	WFG-3003-45-J1.5/16	1 5/16"-12UN	0,85	0,98	2,06	2,76	1,03	2,32	0,41	1,85	1,47	1,42	M 10x30	0,84		
280	1 1/4"	WFG-3004-45-J1.5/16	1 5/16"-12UN	0,85	1,06	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	1,26		
280	1 1/4"	WFG-3004-45-J1.5/8	1 5/8"-12UN	1,08	1,06	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	1,26		
210	1 1/2"	WFG-3005-45-J1.5/8	1 5/8"-12UN	1,08	1,42	2,75	3,70	1,41	3,27	0,52	2,38	1,78	1,97	M 12x35	1,85		
210	1 1/2"	WFG-3005-45-J1.7/8	1 7/8"-12UN	1,30	1,42	2,75	3,70	1,41	3,27	0,52	2,38	1,78	1,97	M 12x35	1,83		
Strength class		High pressure															
10.9																	
420	1/2"	WFG-6001-45-J3/4	3/4"-16UNF	0,44	0,47	1,59	2,22	0,72	1,88	0,33	1,54	1,28	0,94	M 8x30	0,42		
420	1/2"	WFG-6001-45-J7/8	7/8"-14UNF	0,48	0,47	1,59	2,22	0,72	1,88	0,33	1,54	1,28	0,94	M 8x30	0,42		
400	3/4"	WFG-6002-45-J7/8	7/8"-14UNF	0,48	0,67	2,00	2,80	0,94	2,40	0,41	1,58	1,28	1,26	M 10x35	0,71		
400	3/4"	WFG-6002-45-J1.1/16	1 1/16"-12UN	0,61	0,67	2,00	2,80	0,94	2,40	0,41	1,58	1,28	1,26	M 10x35	0,71		
400	1"	WFG-6003-45-J1.1/16	1 1/16"-12UN	0,61	0,94	2,25	3,19	1,09	2,76	0,52	1,85	1,47	1,61	M 12x45	1,10		
400	1"	WFG-6003-45-J1.5/16	1 5/16"-12UN	0,85	0,94	2,25	3,19	1,09	2,76	0,52	1,85	1,47	1,61	M 12x45	1,10		
400	1 1/4"	WFG-6004-45-J1.5/16	1 5/16"-12UN	0,85	1,22	2,63	3,74	1,25	3,07	*4	2,04	1,59	1,81	*5	1,39		
400	1 1/4"	WFG-6004-45-J1.5/8	1 5/8"-12UN	1,08	1,22	2,63	3,74	1,25	3,07	*4	2,04	1,59	1,81	*5	1,41		
400	1 1/2"	WFG-6005-45-J1.5/8	1 5/8"-12UN	1,08	1,42	3,13	4,45	1,44	3,74	0,66	2,38	1,78	1,97	M 16x55	2,03		
400	1 1/2"	WFG-6005-45-J1.7/8	1 7/8"-12UN	1,30	1,42	3,13	4,45	1,44	3,74	0,66	2,38	1,78	1,97	M 16x55	1,98		

*1 or comparable material
 *2 choice of 0,41", 0,47", 0,50"
 *3 choice of M 10x30 or M 12x35

*4 choice of 0,57" or 0,52"
 *5 choice of M 12x45 or M 14x50

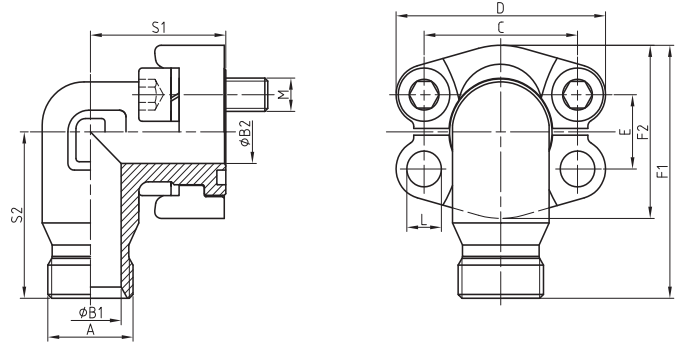


Ordering code:	S355J2 *1	1.4404 *1 316L
• adaptor only	SFCE-...-G...	SFCE-X-...-G...
• adaptor incl. Profile seal	SFCE-...-G...-P	SFCE-X-...-G...-P
• adaptor including flange halves, metric screw set, O-ring and profile seal	SFCE-...-G...-M	SFCE-X-...-G...-MX
• adaptor including flange halves, unc-screw set, O-ring and profile seal	SFCE-...-G...-U	SFCE-X-...-G...-UX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts		Weight (flange only)		
			A	A1	B	C	D	E	F	G	SW	L	M	lb			
<i>kg/cm²</i>	<i>inch</i>																
Strength class		Standard pressure													<i>metr.</i>	<i>unc.</i>	
10.9																	
350	1/2"	SFCE 3001-G012	G 1/2"	1,19	0,47	1,50	2,13	0,69	1,81	2,24	0,94	0,33		M 8x25	5/16 x 1 1/4	0,35	
350	3/4"	SFCE 3002-G034	G 3/4"	1,50	0,67	1,87	2,56	0,88	2,05	2,44	1,18	0,41		M 10x30	3/8 x 1 1/2	0,57	
320	1"	SFCE 3003-G100	G 1"	1,75	0,94	2,06	2,76	1,03	2,32	2,56	1,42	0,41		M 10x30	3/8 x 1 1/2	0,79	
280	1 1/4"	SFCE 3004-G114	G 1 1/4"	2,00	1,06	2,31	3,11	1,19	2,87	2,72	1,81	*2		*3	7/16 x 1 1/2	1,12	
210	1 1/2"	SFCE 3005-G112	G 1 1/2"	2,37	1,26	2,75	3,70	1,41	3,27	3,03	1,81	0,52		M 12x35	1/2 x 1 1/2	1,43	
210	2"	SFCE 3006-G200	G 2"	2,81	1,57	3,06	4,02	1,69	3,82	2,91	2,17	0,52		M 12x35	1/2 x 1 1/2	2,31	
Strength class		High pressure													<i>metr.</i>	<i>unc.</i>	
10.9																	
420	1/2"	SFCE 6001-G012	G 1/2"	1,25	0,47	1,59	2,20	0,72	1,89	2,36	0,94	0,33		M 8x30	5/16 x 1 1/4	0,40	
420	3/4"	SFCE 6002-G034	G 3/4"	1,63	0,75	2,00	2,80	0,94	2,36	2,72	1,18	0,41		M 10x35	3/8 x 1 1/2	0,66	
420	1"	SFCE 6003-G100	G 1"	1,87	0,79	2,25	3,19	1,09	2,76	3,11	1,42	*4		M 12x45	7/16 x 1 1/2	0,99	
420	1 1/4"	SFCE 6004-G114	G 1 1/4"	2,13	1,18	2,62	3,74	1,25	3,07	3,46	1,81	0,57		M 14x50	–	1,48	
420	1 1/4"	SFCE 6004-G114-M12	G 1 1/4"	2,13	1,08	2,62	3,74	1,25	3,07	3,46	1,81	0,52		M 12x45	1/2 x 1 3/4	1,48	
420	1 1/2"	SFCE 6005-G112	G 1 1/2"	2,50	1,18	3,12	4,45	1,44	3,74	3,78	1,81	0,66		M 16x55	5/8 x 2	1,96	
420	2"	SFCE 6006-G200	G 2"	3,13	1,50	3,81	5,24	1,75	4,49	4,80	2,17	0,83		M 20x70	3/4 x 2 1/2	4,76	

*1 or comparable material
 *2 choice of 0,41", 0,47" or 0,50"

*3 choice of M 10x30 or M 12x35
 *4 choice of 0,47" or 0,52"

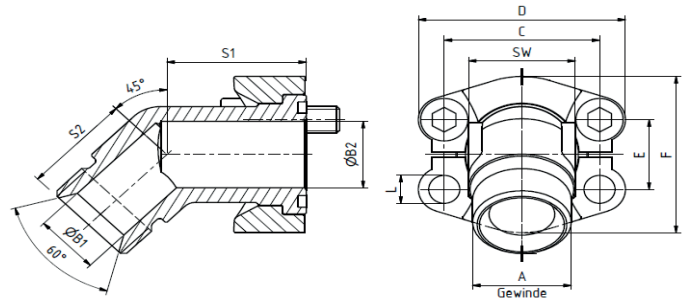


Ordering code: S355J2 ^{*1}	
• flange only	WFG-...G...
• including split flanges, metric bolts and o-ring	WFG-...G...-M
• including split flanges, UNC bolts and o-ring	WFG-...G...-U
Surface only available in chrome3	

maximum recommended working pressure	Nominal flange size	Type	Dimensions											Bolts		Weight (flange only)
			A	B1	B2	C	D	E	F1	F2	S1	S2	L	M	lb	
kg/cm ²	inch													metr.	unc.	
Strength class		Standard pressure														
10.9																
350	1/2"	WFG 3001-G1/2	G 1/2"	0,43	0,43	1,50	2,13	0,69	2,48	1,81	1,54	1,57	0,33	M 8x25	5/16 x 1 1/4	0,40
350	3/4"	WFG 3002-G3/4	G 3/4"	0,66	0,75	1,87	2,56	0,88	2,99	2,05	1,65	1,97	0,41	M 10x30	3/8 x 1 1/2	0,68
320	1"	WFG 3003-G1	G 1"	0,87	0,98	2,06	2,76	1,03	3,21	2,32	1,77	2,05	0,41	M 10x30	3/8 x 1 1/2	0,93
280	1 1/4"	WFG 3004-G1.1/4	G 1 1/4"	1,13	0,94	2,31	3,11	1,19	3,72	2,87	1,97	2,36	*2	*3	7/16 x 1 1/2	1,48
210	1 1/2"	WFG 3005-G1.1/2	G 1 1/2"	1,31	1,42	2,75	3,70	1,41	4,63	3,27	2,99	2,99	0,52	M 12x35	1/2 x 1 1/2	2,62
210	2"	WFG 3006-G1.1/2	G 1 1/2"	1,31	1,77	3,06	4,02	1,69	5,06	3,82	4,25	3,15	0,52	M 12x35	1/2 x 1 1/2	4,76
210	2"	WFG 3006-G2	G 2"	1,81	1,77	3,06	4,02	1,69	5,06	3,82	4,25	3,15	0,52	M 12x35	1/2 x 1 1/2	4,28
Strength class		High pressure														
10.9																
420	1/2"	WFG 6001-G1/2	G 1/2"	0,43	0,47	1,59	2,20	0,72	2,52	1,89	1,54	1,57	0,33	M 8x30	5/16 x 1 1/4	0,40
420	3/4"	WFG 6002-G3/4	G 3/4"	0,66	0,67	2,00	2,80	0,94	3,15	2,36	1,89	1,97	0,41	M 10x35	3/8 x 1 1/2	0,90
420	1"	WFG 6003-G1	G 1"	0,87	0,94	2,25	3,19	1,09	3,70	2,76	2,36	2,32	*4	M 12x45	7/16 x 1 1/2	1,43
420	1 1/4"	WFG 6004-G1.1/4	G 1 1/4"	1,13	1,22	2,62	3,74	1,25	4,09	3,07	2,68	2,56	*5	*6	1/2 x 1 3/4	1,79
420	1 1/2"	WFG 6005-G1.1/2	G 1 1/2"	1,31	1,42	3,12	4,45	1,44	4,86	3,74	2,99	2,99	0,66	M 16x55	5/8 x 2	2,73
420	2"	WFG 6006-G1.1/2	G 1 1/2"	1,31	1,77	3,81	5,24	1,75	5,39	4,49	4,25	3,15	0,83	M 20x70	3/4 x 2 1/2	5,25
420	2"	WFG 6006-G2	G 2"	1,81	1,77	3,81	5,24	1,75	5,39	4,49	4,25	3,15	0,83	M 20x70	3/4 x 2 1/2	4,76

*1 or comparable material
 *2 choice of 0,41", 0,47" or 0,50"
 *3 choice of M 10x30 or M 12x35

*4 choice of 0,47" or 0,52"
 *5 choice of 0,52" or 0,58"
 *6 choice of M 12x45 or M 14x50



Ordering code:	S355J2*1	1.4404*1
• only 45° flange-adapter	WFG-...-45-G...	WFG-X-...-45-G...
• including split flanges, bolts and o-ring	WFG-...-45-G...-M	WFG-X-...-45-G...-MX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions											Bolts	Weight (flange only)		
			A	B1	B2	C	D	E	F	L	S1	S2	SW			M	lb
<i>kg/cm²</i>	<i>inch</i>																
Strength class		Standard pressure															
10.9																	
350	1/2"	WFG-3001-45-G012	G 1/2"	0,44	0,47	1,50	2,13	0,69	1,81	0,33	1,54	1,28	0,94	M 8x25		0,40	
350	3/4"	WFG-3002-45-G034	G 3/4"	0,66	0,75	1,87	2,56	0,87	2,05	0,41	1,58	1,28	1,18	M 10x30		0,68	
315	1"	WFG-3003-45-G100	G 1"	0,87	0,98	2,06	2,76	1,03	2,32	0,41	1,85	1,47	1,42	M 10x30		0,93	
250	1 1/4"	WFG-3004-45-G114	G 1 1/4"	1,13	1,06	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3		1,26	
200	1 1/2"	WFG-3005-45-G112	G 1 1/2"	1,31	1,42	2,75	3,70	1,41	3,27	0,52	2,38	1,78	1,97	M 12x35		1,85	
Strength class		High pressure															
10.9																	
420	1/2"	WFG-6001-45-G012	G 1/2"	0,44	0,47	1,59	2,22	0,72	1,88	0,33	1,54	1,28	0,94	M 8x30		0,44	
420	3/4"	WFG-6002-45-G034	G 3/4"	0,66	0,67	2,00	2,80	0,94	2,40	0,41	1,58	1,28	1,26	M 10x35		0,73	
420	1"	WFG-6003-45-G100	G 1"	0,87	0,94	2,25	3,19	1,09	2,76	0,52	1,85	1,47	1,61	M 12x45		1,15	
420	1 1/4"	WFG-6004-45-G114	G 1 1/4"	1,13	1,22	2,63	3,74	1,25	3,07	*4	2,04	1,59	1,81	*5		1,46	
420	1 1/2"	WFG-6005-45-G112	G 1 1/2"	1,31	1,42	3,13	4,45	1,44	3,74	0,66	2,38	1,78	1,97	M 16x55		2,03	

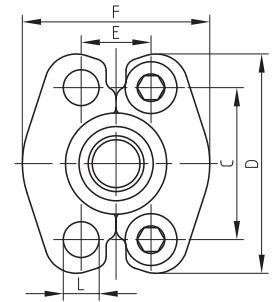
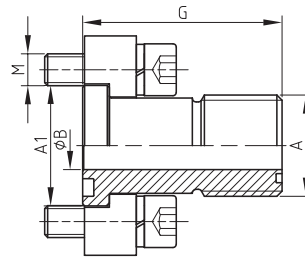
*1 or comparable material

*2 choice of 0,41", 0,47", 0,50"

*3 choice of M 10x30 or M 12x35

*4 choice of 0,57" or 0,52"

*5 choice of M 12x45 or M 14x50

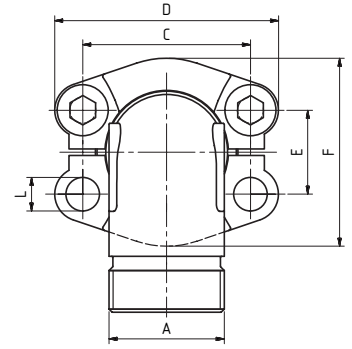
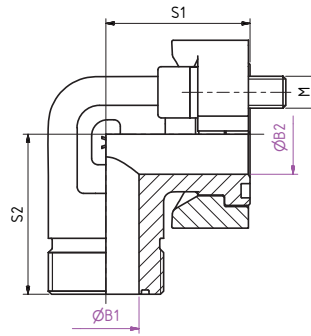


Ordering code:	S355J2^{*1} C22	1.4404^{*1} 316L
• adaptor only	SORS-...	SORX-...
• including split flanges, metric bolts and o-ring	SORS-...-M	SORX-...-MX
• including split flanges, UNC bolts and o-ring	SORS-...-U	SORX-...-UX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts		Weight (flange only)
			A	A1	B	C	D	E	F	G	SW	L	M	lb	
kg/cm ²	inch												metr.	unc.	
Strength class		Standard pressure													
10.9													metr.	unc.	
350	1/2"	SORS-3001-1-14	1"-14UNS	1,19	0,48	1,50	2,13	0,69	1,81	1,89	0,94	0,33	M 8x25	5/16 x 1 1/4	0,31
350	1/2"	SORS-3001-1 3/16-16	1 3/16"-16UNS	1,19	0,38	1,50	2,13	0,69	1,81	1,89	0,94	0,33	M 8x25	5/16 x 1 1/4	0,31
350	3/4"	SORS-3002-1 3/16-12	1 3/16"-12UNS	1,50	0,61	1,87	2,56	0,88	2,05	2,09	1,18	0,41	M 10x30	3/8 x 1 1/4	0,53
320	1"	SORS-3003-1 11/16-12	1 11/16"-12UNS	1,75	1,02	2,06	2,76	1,03	2,32	2,13	1,42	0,41	M 10x30	3/8 x 1 1/4	0,68
320	1"	SORS-3003-1 7/16-12	1 7/16"-12UNS	1,75	0,81	2,06	2,76	1,03	2,32	2,13	1,42	0,41	M 10x30	3/8 x 1 1/4	0,66
280	1 1/4"	SORS-3004-1 11/16-12	1 11/16"-12UNS	2,00	1,02	2,31	3,11	1,19	2,87	2,28	1,65	*2	*3	7/16 x 1 1/2	0,97
280	1 1/4"	SORS-3004-2-12	2"-12UNS	2,00	1,26	2,31	3,11	1,19	2,87	2,28	1,65	*2	*3	7/16 x 1 1/2	0,88
210	1 1/2"	SORS-3005-2-12	2"-12UNS	2,37	1,26	2,75	3,70	1,41	3,27	2,36	1,81	0,52	M 12x35	1/2 x 1 1/2	1,26
Strength class		High pressure													
10.9													metr.	unc.	
420	1/2"	SORS-6001-1 3/16-16	1 3/16"-16UNS	1,25	0,38	1,59	2,20	0,72	1,89	1,89	0,94	0,33	M 8x30	5/16 x 1 1/4	0,33
420	1/2"	SORS-6001-1-14	1"-14UNS	1,25	0,48	1,59	2,20	0,72	1,89	1,89	0,94	0,33	M 8x30	5/16 x 1 1/4	0,33
420	3/4"	SORS-6002-1 3/16-12	1 3/16"-12UNS	1,63	0,61	2,00	2,80	0,94	2,36	2,28	1,18	0,41	M 10x35	3/8 x 1 1/2	0,64
420	1"	SORS-6003-1 7/16-12	1 7/16"-12UNS	1,87	0,81	2,25	3,19	1,09	2,76	2,60	1,42	*4	M 12x45	7/16 x 1 1/4	0,95
350	1"	SORS-6003-1 11/16-12	1 11/16"-12UNS	1,87	1,02	2,25	3,19	1,09	2,76	2,60	1,42	*4	M 12x45	7/16 x 1 1/4	0,84
350	1 1/4"	SORS-6004-1 11/16-12	1 11/16"-12UNS	2,13	1,02	2,62	3,74	1,25	3,07	2,76	1,65	0,57	M 14x50	-	1,26
350	1 1/4"	SORS-6004-1 11/16-12-M12	1 11/16"-12UNS	2,13	1,02	2,62	3,74	1,25	3,07	2,76	1,65	0,52	M 12x45	1/2 x 1 3/4	1,26
310	1 1/4"	SORS-6004-2-12	2"-12UNS	2,13	1,26	2,62	3,74	1,25	3,07	2,76	1,65	0,57	M 14x50	-	1,10
310	1 1/4"	SORS-6004-2-12-M12	2"-12UNS	2,13	1,26	2,62	3,74	1,25	3,07	2,76	1,65	0,52	M 12x45	1/2 x 1 3/4	1,10
310	1 1/2"	SORS-6005-2-12	2"-12UNS	2,50	1,26	3,12	4,45	1,44	3,74	3,07	1,81	0,66	M 16x55	5/8 x 2	1,79

*1 or comparable material
*2 choice of 0,41", 0,47" or 0,50"

*3 choice of M 10x30 or M 12x35
*4 choice of 0,47" or 0,52"



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only 90° flange-adapter	WORS-...	WORX-...
• including split flanges (or complete flange), metric bolts and o-ring	WORS-...-M	WORX-...-MX
• including split flanges, unc-bolts, o-ring	WORS-...-U	WORX-...-UX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions											Bolts		Weight (flange only)		
			A	B1	B2	C	D	E	F	L	S1	S2	SW	M	lb			
kg/cm ²	inch													metr.	unc.			
Strength class	Standard pressure																	
10.9																		
350	1/2"	WORS-3001-13/16	1 3/16"-16 UN	0,38	0,43	1,50	2,13	0,69	1,81	0,33	1,54	1,50	0,94	M 8x25	5/16 x 1 1/4	0,42		
350	1/2"	WORS-3001-1-14	1"-14 UNS	0,48	0,43	1,50	2,13	0,69	1,81	0,33	1,54	1,50	0,94	M 8x25	5/16 x 1 1/4	-		
350	3/4"	WORS-3002-1.3/16	1 3/16"-12 UN	0,61	0,75	1,87	2,56	0,87	2,05	0,41	1,65	1,77	1,18	M 10x30	3/8 x 1 1/4	-		
320	1"	WORS-3003-1.3/16	1 3/16"-12 UN	0,61	0,98	2,06	2,76	1,03	2,32	0,41	1,77	1,97	1,42	M 10x30	3/8 x 1 1/4	-		
320	1"	WORS-3003-1.7/16	1 7/16"-12 UN	0,81	0,98	2,06	2,76	1,03	2,32	0,41	1,77	1,97	1,42	M10x30	3/8 x 1 1/4	0,95		
320	1"	WORS-3003-1.11/16	1 11/16"-12 UN	1,02	0,98	2,06	2,76	1,03	2,32	0,41	1,77	1,97	1,42	M 10x30	3/8 x 1 1/4	-		
280	1 1/4"	WORS-3004-1.7/16	1 7/16"-12 UN	0,81	1,06	2,31	3,11	1,19	2,87	*2	1,97	2,32	1,61	*3	7/16 x 1 1/2	0,95		
280	1 1/4"	WORS-3004-1.11/16	1 11/16"-12 UN	1,02	1,06	2,31	3,11	1,19	2,87	*2	1,97	2,32	1,61	*3	7/16 x 1 1/2	-		
280	1 1/4"	WORS-3004-2-12	2"-12 UN	1,26	1,06	2,31	3,11	1,19	2,87	*2	1,97	2,32	1,61	*3	7/16 x 1 1/2	-		
210	1 1/2"	WORS-3005-1.11/16	1 11/16"-12 UN	1,02	1,42	2,75	3,70	1,41	3,27	0,52	2,17	2,52	1,97	M 12x35	1/2 x 1 1/2	-		
210	1 1/2"	WORS-3005-2-12	2"-12 UN	1,26	1,42	2,75	3,70	1,41	3,27	0,52	2,17	2,52	1,97	M 12x35	1/2 x 1 1/2	-		
210	2"	WORS-3006-2-12	2"-12 UN	1,26	1,77	3,06	4,00	1,69	3,82	0,52	4,25	3,15	2,36	M12x35	1/2 x 1 1/2	-		
Strength class	High pressure																	
10.9																		
420	1/2"	WORS-6001-13/16	1 3/16"-16 UN	0,38	0,47	1,59	2,22	0,72	1,88	0,33	1,54	1,50	0,94	M 8x30	5/16 x 1 1/4	-		
420	1/2"	WORS-6001-1-14	1"-14 UNS	0,48	0,47	1,59	2,22	0,72	1,88	0,33	1,54	1,50	0,94	M 8x30	5/16 x 1 1/4	-		
420	3/4"	WORS-6002-1-14	1"-14 UNS	0,48	0,67	2,00	2,80	0,94	2,40	0,41	1,89	1,89	1,26	M 10x35	3/8 x 1 1/2	-		
420	3/4"	WORS-6002-1.3/16	1 3/16"-12 UN	0,61	0,67	2,00	2,80	0,94	2,40	0,41	1,89	1,89	1,26	M 10x35	3/8 x 1 1/2	-		
420	1"	WORS-6003-1.7/16	1 7/16"-12 UN	0,81	0,94	2,25	3,19	1,09	2,76	*4	2,36	2,17	1,61	M 12x45	7/16 x 1 3/4	1,59		
420	1"	WORS-6003-1.11/16	1 11/16"-12 UN	1,02	0,94	2,25	3,19	1,09	2,76	*4	2,36	2,17	1,61	M 12x45	7/16 x 1 3/4	-		
350	1 1/4"	WORS-6004-1.7/16	1 7/16"-12 UN	0,81	1,22	2,63	3,74	1,25	3,07	*5	2,68	2,56	1,81	*6	1/2 x 1 3/4	-		
350	1 1/4"	WORS-6004-1.11/16	1 11/16"-12 UN	1,02	1,22	2,63	3,74	1,25	3,07	*5	2,68	2,56	1,81	*6	1/2 x 1 3/4	-		
350	1 1/4"	WORS-6004-2-12	2"-12 UN	1,26	1,22	2,63	3,74	1,25	3,07	*5	2,68	2,56	1,81	*6	1/2 x 1 3/4	-		
310	1 1/2"	WORS-6005-1.11/16	1 11/16"-12 UN	1,02	1,42	3,13	4,45	1,44	3,74	0,66	2,99	2,83	1,97	M 16x55	5/8 x 2	-		
310	1 1/2"	WORS-6005-2-12	2"-12 UN	1,26	1,42	3,13	4,45	1,44	3,74	0,66	2,99	2,83	1,97	M 16x55	5/8 x 2	-		
310	2"	WORS-6006-2-12	2"-12 UN	1,26	1,77	3,81	5,24	1,75	4,49	0,83	4,25	3,15	2,36	M 20x70	3/4 x 2 1/2	-		

*1 or comparable material

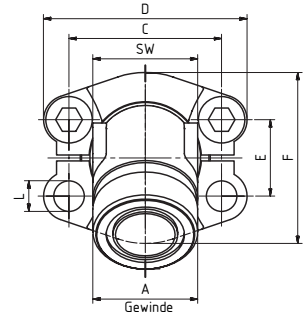
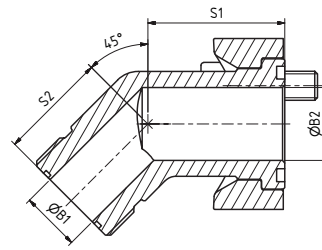
*2 choice of 0,41", 0,47" or 0,50"

*3 choice of M 10x30 or M 12x35

*4 choice of 0,47" or 0,52"

*5 choice of 0,52" or 0,58"

*6 choice of M 12x45 or M 14x50



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only 45° flange-adapter	WORS-...-45-...-(UN)	WORX-...-45-...-(UN)
• including split flanges, bolts and o-ring	WORS-...-45-...-(UN)M	WORX-...-45-...-(UN)MX
• including split flanges, unc-bolts, o-ring	WORS-...-45-...-(UN)U	WORX-...-45-...-(UN)UX
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions											Bolts		Weight (flange only)	
			A	B1	B2	C	D	E	F	L	S1	S2	SW	M	lb		
kg/cm ²	inch													metr.	unc.		
Strength class		Standard pressure															
10.9																	
350	1/2"	WORS-3001-45-13/16	1 3/16"-16 UN	0,38	0,43	1,50	2,13	0,69	1,81	0,33	1,54	1,28	0,94	M 8x25	5/16 x 1 1/4	0,44	
350	1/2"	WORS-3001-45-1-14	1"-14 UNS	0,48	0,43	1,50	2,13	0,69	1,81	0,33	1,54	1,28	0,94	M 8x25	5/16 x 1 1/4	0,46	
350	3/4"	WORS-3002-45-1.3/16	1 3/16"-12 UN	0,61	0,75	1,87	2,56	0,87	2,05	0,41	1,58	1,28	1,18	M 10x30	3/8 x 1 1/4	0,71	
320	1"	WORS-3003-45-1.3/16	1 3/16"-12 UN	0,61	0,98	2,06	2,76	1,03	2,32	0,41	1,85	1,47	1,42	M 10x30	3/8 x 1 1/4	0,95	
320	1"	WORS-3003-45-1.7/16	1 7/16"-12 UN	0,81	0,98	2,06	2,76	1,03	2,32	0,41	1,85	1,47	1,42	M 10x30	3/8 x 1 1/4	0,95	
320	1"	WORS-3003-45-1.11/16	1 11/16"-12 UN	1,02	0,98	2,06	2,76	1,03	2,32	0,41	1,85	1,47	1,42	M 10x30	3/8 x 1 1/4	0,99	
280	1 1/4"	WORS-3004-45-1.7/16	1 7/16"-12 UN	0,81	1,06	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	7/16 x 1 1/2	1,39	
280	1 1/4"	WORS-3004-45-1.11/16	1 11/16"-12 UN	0,81	1,06	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	7/16 x 1 1/2	1,39	
280	1 1/4"	WORS-3004-45-2-12	2"-12 UN	1,26	1,06	2,31	3,11	1,19	2,87	*2	2,04	1,59	1,61	*3	7/16 x 1 1/2	1,57	
210	1 1/2"	WORS-3005-45-1.11/16	1 11/16"-12 UN	1,02	1,42	2,75	3,70	1,41	3,27	0,52	2,38	1,78	1,97	M 12x35	1/2 x 1 1/2	2,07	
210	1 1/2"	WORS-3005-45-2-12	2"-12 UN	1,26	1,42	2,75	3,70	1,41	3,27	0,52	2,38	1,78	1,97	M 12x35	1/2 x 1 1/2	2,01	
Strength class		High pressure															
10.9																	
420	1/2"	WORS-6001-45-13/16	1 3/16"-16 UN	0,38	0,47	1,59	2,22	0,72	1,88	0,33	1,54	1,28	0,94	M 8x30	5/16 x 1 1/4	0,46	
420	1/2"	WORS-6001-45-1-14	1"-14 UNS	0,48	0,47	1,59	2,22	0,72	1,88	0,33	1,54	1,28	0,94	M 8x30	5/16 x 1 1/4	0,46	
420	3/4"	WORS-6002-45-1-14	1"-14 UNS	0,48	0,67	2,00	2,80	0,94	2,40	0,41	1,58	1,28	1,26	M 10x35	3/8 x 1 1/2	0,77	
420	3/4"	WORS-6002-45-1.3/16	1 3/16"-12 UN	0,61	0,67	2,00	2,80	0,94	2,40	0,41	1,58	1,28	1,26	M 10x35	3/8 x 1 1/2	0,77	
420	1"	WORS-6003-45-1.7/16	1 7/16"-12 UN	0,81	0,94	2,25	3,19	1,09	2,76	*4	1,85	1,47	1,61	M 12x45	7/16 x 1 3/4	1,26	
420	1"	WORS-6003-45-1.11/16	1 11/16"-12 UN	1,02	0,94	2,25	3,19	1,09	2,76	*4	1,85	1,47	1,61	M 12x45	7/16 x 1 3/4	1,30	
350	1 1/4"	WORS-6004-45-1.7/16	1 7/16"-12 UN	0,81	1,22	2,63	3,74	1,25	3,07	*5	2,04	1,59	1,81	*6	1/2 x 1 3/4	1,61	
350	1 1/4"	WORS-6004-45-1.11/16	1 11/16"-12 UN	1,02	1,22	2,63	3,74	1,25	3,07	*5	2,04	1,59	1,81	*6	1/2 x 1 3/4	1,59	
310	1 1/2"	WORS-6005-45-1.11/16	1 11/16"-12 UN	1,26	1,22	2,63	3,74	1,25	3,07	*5	2,04	1,59	1,81	M 16x55	5/8 x 2	1,63	
310	1 1/2"	WORS-6005-45-1.11/16	1 11/16"-12 UN	1,02	1,42	3,13	4,45	1,44	3,74	0,66	2,38	1,78	1,97	M 16x55	5/8 x 2	2,25	
310	1 1/2"	WORS-6005-45-2-12	2"-12 UN	1,26	1,42	3,13	4,45	1,44	3,74	0,66	2,38	1,78	1,97	M 16x55	5/8 x 2	2,20	

*1 or comparable material

*2 choice of 0,41", 0,47" or 0,50"

*3 choice of M 10x30 or M 12x35

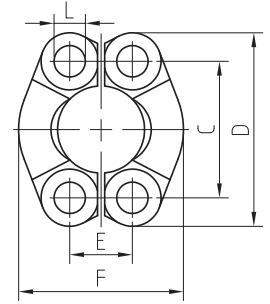
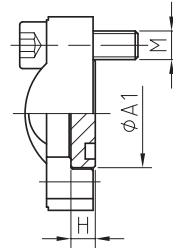
*4 choice of 0,47" or 0,52"

*5 choice of 0,52" or 0,58"

*6 choice of M 12x45 or M 14x50

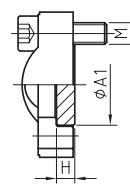


BL-...



BLO-...

ohne Nut



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange plug only	BL-...	BL-X-...
• including split flanges (or complete flange), metric bolts and o-ring	BL-...FH-M	BL-X-...FH-MX
• including split flanges (or complete flange), UNC bolts and o-ring	BL-...FH-U	BL-X-...FH-UX
• Plug without groove	BLO-...	
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions							Bolts		Weight (plug only)	
				A1	C	D	E	F	H	L	M			lb
kg/cm ²	inch													
Strength class	Standard pressure											<i>metr.</i>	<i>unc.</i>	
10.9														
210	1/2"	1341-08	BL/BLO 3001	1,19	1,50	2,13	0,69	1,81	0,27	0,33	M 8x25	5/16 x 1 1/4	0,07	
210	3/4"	1341-12	BL/BLO 3002	1,50	1,87	2,56	0,88	2,05	0,27	0,41	M 10x30	3/8 x 1 1/4	0,11	
210	1"	1341-16	BL/BLO 3003	1,75	2,06	2,76	1,03	2,32	0,31	0,41	M 10x30	3/8 x 1 1/4	0,20	
210	1 1/4"	1341-20	BL/BLO 3004	2,00	2,31	3,11	1,19	2,87	0,31	*2	*3	7/16 x 1 1/2	0,26	
160	1 1/2"	1341-24	BL/BLO 3005	2,37	2,75	3,70	1,41	3,27	0,31	0,52	M 12x35	1/2 x 1 1/2	0,37	
210	2"	1341-32	BL/BLO 3006	2,81	3,06	4,02	1,69	3,82	0,38	0,52	M 12x35	1/2 x 1 1/2	0,64	
100	2 1/2"		BL/BLO 3007	3,31	3,50	4,49	2,00	4,29	0,38	0,52	M 12x35	1/2 x 1 1/2	0,86	
100	3"		BL/BLO 3008	4,00	4,19	5,31	2,44	5,16	0,38	0,67	M 16x50	5/8 x 2	1,28	
35	3 1/2"		BL/BLO 3009	4,50	4,75	5,98	2,75	5,51	0,44	0,67	M 16x50	5/8 x 2	1,90	
35	4"		BL/BLO 3010	5,00	5,13	6,38	3,06	5,98	0,44	0,67	M 16x50	5/8 x 2	2,25	
35	5"		BL/BLO 3011	6,00	6,00	7,28	3,63	7,13	0,44	0,67	M 16x55	5/8 x 2	4,32	
Strength class	High pressure											<i>metr.</i>	<i>unc.</i>	
10.9														
250	1/2"	1641-08	BL/BLO 6001	1,25	1,59	2,20	0,72	1,89	0,31	0,33	M 8x30	5/16 x 1 1/4	0,09	
250	3/4"	1641-12	BL/BLO 6002	1,63	2,00	2,80	0,94	2,36	0,35	0,41	M 10x35	3/8 x 1 1/2	0,20	
250	1"	1641-16	BL/BLO 6003	1,87	2,25	3,19	1,09	2,76	0,37	*4	M 12x45	7/16 x 1 3/4	0,29	
250	1 1/4"	1641-20	BL/BLO 6004	2,13	2,62	3,74	1,25	3,07	0,41	*5	*6	1/2 x 1 3/4	0,40	
250	1 1/2"	1641-24	BL/BLO 6005	2,50	3,12	4,45	1,44	3,74	0,50	0,66	M 16x55	5/8 x 2	0,66	
250	2"	1641-32	BL/BLO 6006	3,13	3,81	5,24	1,75	4,49	0,50	0,83	M 20x70	3/4 x 2 1/2	1,06	
250	2 1/2"		BL/BLO 6007	4,25	4,87	7,09	2,31	5,98	0,83	1,02	M 24x80	-	2,78	
250	3"		BL/BLO 6008	5,20	6,00	8,46	2,82	7,80	1,04	1,26	M 30x90	-	5,09	

*1 or comparable material

*2 choice of 0,41", 0,47" or 0,50"

*3 choice of M 10x30 or M 12x35

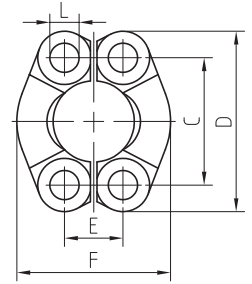
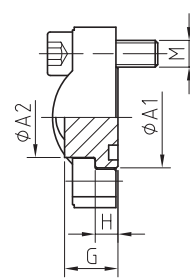
*4 choice of 0,47" or 0,52"

*5 choice of 0,52" or 0,58"

*6 choice of M 12x45 or M 14x50

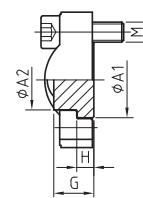


BS-...



BSO-...

ohne Nut



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange plug only	BS-...	BS-X-...
• including split flanges (or complete flange), metric bolts and O-ring	BS-...-M	BS-X-...-MX
• including split flanges (or complete flange), UNC bolts and O-ring	BS-...-U	BS-X-...-UX
• Plug without groove	BSO-...	
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Bolts		Weight (plug only)	
			A1	A2	C	D	E	F	G	H	L	M				
kg/cm ²	inch															lb
Strength class		Standard pressure											<i>metr.</i>	<i>unc.</i>		
10.9																
350	1/2"	BS/BSO 3001	1,19	0,94	1,50	2,13	0,69	1,81	0,63	0,27	0,33	M 8x25	5/16 x 1 1/4	0,15		
350	3/4"	BS/BSO 3002	1,50	1,25	1,87	2,56	0,88	2,05	0,67	0,27	0,41	M 10x30	3/8 x 1 1/4	0,26		
320	1"	BS/BSO 3003	1,75	1,50	2,06	2,76	1,03	2,32	0,67	0,31	0,41	M 10x30	3/8 x 1 1/4	0,37		
280	1 1/4"	BS/BSO 3004	2,00	1,69	2,31	3,11	1,19	2,87	0,67	0,31	*2	*3	7/16 x 1 1/2	0,49		
210	1 1/2"	BS/BSO 3005	2,37	1,97	2,75	3,70	1,41	3,27	0,75	0,31	0,52	M 12x35	1/2 x 1 1/2	0,75		
210	2"	BS/BSO 3006	2,81	2,44	3,06	4,02	1,69	3,82	0,75	0,38	0,52	M 12x35	1/2 x 1 1/2	1,12		
175	2 1/2"	BS/BSO 3007	3,31	2,91	3,50	4,49	2,00	4,29	1,57	0,38	0,52	M 12x35	1/2 x 1 1/2	3,15		
160	3"	BS/BSO 3008	4,00	3,54	4,19	5,31	2,44	5,16	1,77	0,38	0,67	M 16x50	5/8 x 2	5,18		
35	3 1/2"	BS/BSO 3009	4,50	4,02	4,75	5,98	2,75	5,51	1,18	0,44	0,67	M 16x50	5/8 x 2	6,17		
35	4"	BS/BSO 3010	5,00	4,51	5,13	6,38	3,06	5,98	1,42	0,44	0,67	M 16x50	5/8 x 2	6,79		
35	5"	BS/BSO 3011	6,00	5,51	6,00	7,28	3,63	7,13	1,77	0,44	0,67	M 16x55	5/8 x 2	12,54		
Strength class		High pressure											<i>metr.</i>	<i>unc.</i>		
10.9																
420	1/2"	BS/BSO 6001	1,25	0,94	1,59	2,20	0,72	1,89	0,55	0,31	0,33	M 8x30	5/16 x 1 1/4	0,15		
420	3/4"	BS/BSO 6002	1,63	1,25	2,00	2,80	0,94	2,36	0,59	0,35	0,41	M 10x35	3/8 x 1 1/2	0,29		
420	1"	BS/BSO 6003	1,87	1,50	2,25	3,19	1,09	2,76	0,63	0,37	*4	M 12x45	7/16 x 1 3/4	0,40		
420	1 1/4"	BS/BSO 6004	2,13	1,73	2,62	3,74	1,25	3,07	0,63	0,41	*5	*6	1/2 x 1 3/4	0,84		
420	1 1/2"	BS/BSO 6005	2,50	2,00	3,12	4,45	1,44	3,74	0,75	0,50	0,66	M 16x55	5/8 x 2	0,90		
420	2"	BS/BSO 6006	3,13	2,64	3,81	5,24	1,75	4,49	1,18	0,50	0,83	M 20x70	3/4 x 2 1/2	2,09		
420	2 1/2"	BS/BSO 6007	4,25	3,50	4,87	7,09	2,31	5,98	1,77	0,83	1,02	M 24x80	-	5,86		
420	3"	BS/BSO 6008	5,20	4,50	6,00	8,46	2,82	7,80	2,17	1,04	1,26	M 30x90	-	11,24		

*1 or comparable material

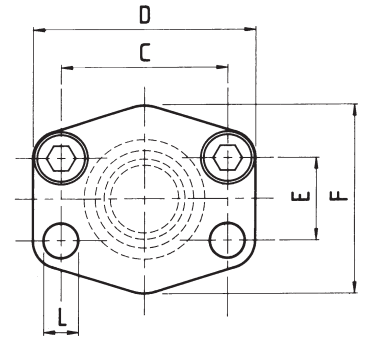
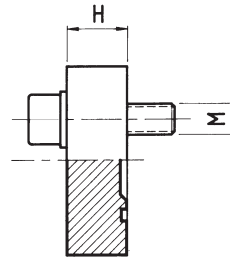
*2 choice of 0,41", 0,47" or 0,50"

*3 choice of M 10x30 or M 12x35

*4 choice of 0,47" or 0,52"

*5 choice of 0,52" or 0,58"

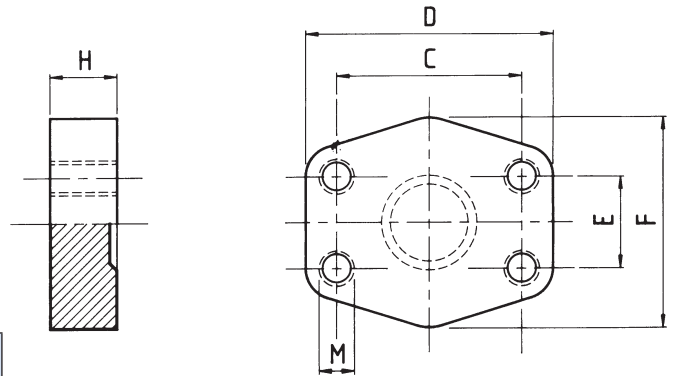
*6 choice of M 12x45 or M 14x50



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFC-...	AFC-X-...
• including metric bolts and o-ring	AFC-...-M	AFC-X-...-MX
• including UNC bolts and o-ring	AFC-...-U	AFC-X-...-UX
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions						Bolts		Weight (flange only)	
				C	D	E	F	H	L	M			
kg/cm ²	inch											lb	
Strength class	Standard pressure										<i>metr.</i>	<i>unc.</i>	
10.9													
350	1/2"	1338-08	AFC 080	1,50	2,20	0,69	1,89	0,63	0,35	M 8x30	5/16 x 1 1/4	0,53	
350	3/4"	1338-12	AFC 100	1,87	2,56	0,88	1,97	0,63	0,43	M 10x35	3/8 x 1 1/2	0,66	
320	1"	1338-16	AFC 102	2,06	2,76	1,03	2,36	0,75	0,43	M 10x35	3/8 x 1 1/2	1,04	
280	1 1/4"	1338-20	AFC 104	2,31	3,11	1,19	2,68	0,71	0,45	M 10x40	7/16 x 1 1/2	1,10	
210	1 1/2"	1338-24	AFC 106	2,75	3,66	1,41	3,07	0,79	0,53	M 12x45	1/2 x 1 3/4	1,98	
210	2"	1338-32	AFC 108	3,06	4,02	1,69	3,54	0,79	0,53	M 12x45	1/2 x 1 3/4	2,20	
175	2 1/2"	1338-40	AFC 110	3,50	4,49	2,00	4,13	0,79	0,53	M 12x45	1/2 x 1 3/4	3,13	
160	3"	1338-48	AFC 112	4,19	5,28	2,44	4,88	0,94	0,69	M 16x50	5/8 x 2	5,18	
35	3 1/2"	1338-56	AFC 114	4,75	5,98	2,75	5,35	0,87	0,69	M 16x50	5/8 x 2	6,39	
35	4"	1338-64	AFC 116	5,13	6,38	3,06	5,75	0,98	0,69	M 16x50	5/8 x 2	8,18	
35	5"	1338-72	AFC 118	6,00	7,48	3,63	6,69	1,10	0,69	M 16x55	5/8 x 2	12,50	
Strength class	High pressure										<i>metr.</i>	<i>unc.</i>	
10.9													
420	1/2"	1638-08	AFC 401	1,59	2,20	0,72	1,89	0,63	0,35	M 8x30	5/16 x 1 1/4	0,53	
420	3/4"	1638-12	AFC 402	2,00	2,80	0,94	2,36	0,75	0,43	M 10x35	3/8 x 1 1/2	1,06	
420	1"	1638-16	AFC 403	2,25	3,19	1,09	2,76	0,94	0,51	M 12x45	7/16 x 1 3/4	1,70	
420	1 1/4"	1638-20	AFC 404	2,62	3,74	1,25	3,07	1,06	0,59	M 14x50	–	2,54	
420	1 1/4"		AFC 404 L 13,5	2,62	3,74	1,25	3,07	1,06	0,53	M 12x45	1/2 x 1 3/4	2,65	
420	1 1/2"	1638-24	AFC 405	3,12	4,41	1,44	3,70	1,18	0,67	M 16x50	5/8 x 2	3,97	
420	2"	1638-32	AFC 406	3,81	5,28	1,75	4,49	1,10	0,83	M 20x65	3/4 x 2 1/2	5,36	
420	2 1/2"		AFC 407	4,87	7,09	2,31	5,91	1,77	1,02	M 24x80	–	15,70	
420	3"		AFC 408	6,00	8,19	2,82	7,01	2,17	1,26	M 30x90	–	26,61	

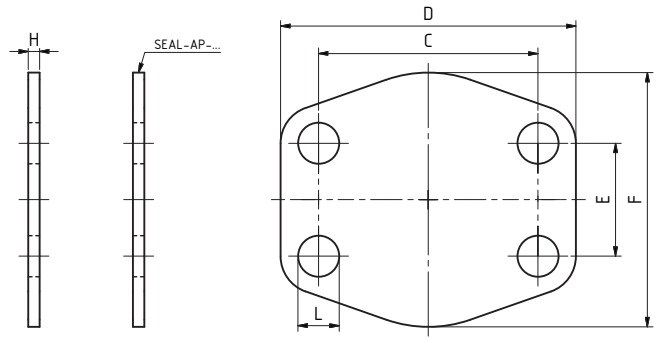
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	GFC-...	GFC-X-...
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)		

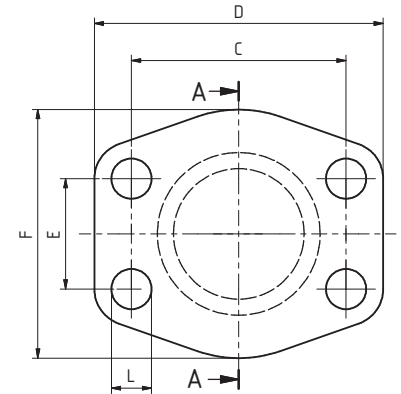
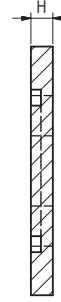
maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions					Thread	Weight (flange only)
				C	D	E	F	H		
kg/cm ²	inch									lb
Strength class	Standard pressure									
10.9										
350	1/2"	1339-08	GFC 080	1,50	2,20	0,69	1,89	0,63	M 8	0,60
350	3/4"	1339-12	GFC 100	1,87	2,56	0,88	1,97	0,63	M 10	0,73
320	1"	1339-16	GFC 102	2,06	2,76	1,03	2,36	0,75	M 10	1,12
280	1 1/4"	1339-20	GFC 104	2,31	3,11	1,19	2,68	0,71	M 10	1,30
210	1 1/2"	1339-24	GFC 106	2,75	3,66	1,41	3,07	0,79	M 12	1,98
210	2"	1339-32	GFC 108	3,06	4,02	1,69	3,54	0,79	M 12	2,49
175	2 1/2"	1339-40	GFC 110	3,50	4,49	2,00	4,13	0,79	M 12	3,28
160	3"	1339-48	GFC 112	4,19	5,28	2,44	4,88	0,94	M 16	5,47
35	3 1/2"	1339-56	GFC 114	4,75	5,98	2,75	5,35	0,87	M 16	6,39
35	4"	1339-64	GFC 116	5,13	6,38	3,06	5,75	0,98	M 16	8,60
35	5"	1339-72	GFC 118	6,00	7,48	3,63	6,69	1,10	M 16	12,79
Strength class	High pressure									
10.9										
420	1/2"	1639-08	GFC 401	1,59	2,20	0,72	1,89	0,63	M 8	0,60
420	3/4"	1639-12	GFC 402	2,00	2,80	0,94	2,36	0,75	M 10	1,06
420	1"	1639-16	GFC 403	2,25	3,19	1,09	2,76	0,94	M 12	1,83
420	1 1/4"	1639-20	GFC 404	2,62	3,74	1,25	3,07	1,06	M 14	2,67
420	1 1/4"		GFC 404 - M12	2,62	3,74	1,25	3,07	1,06	M 12	2,73
420	1 1/2"	1639-24	GFC 405	3,12	4,41	1,44	3,70	1,18	M 16	4,21
420	2"	1639-32	GFC 406	3,81	5,28	1,75	4,49	1,10	M 20	5,64
420	2 1/2"		GFC 407	4,87	7,09	2,31	5,91	1,77	M 24	16,56

*1 or comparable material



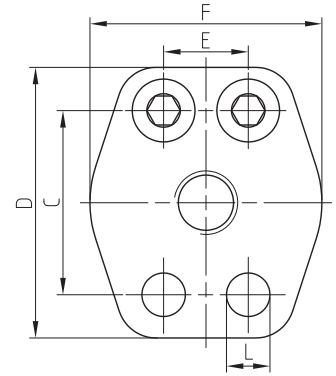
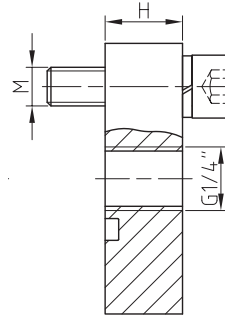
Ordering code:	S235
• locking sheet only	AP-...
• flat seal	SEAL-AP-...
Surface only available in chrome3	

maximum recommended working pressure	Nominal flange size	Type	Dimensions						flat seal	Weight (flange only)
			C	D	E	F	H	L		
kg/cm ²	inch									
Strength class		Standard pressure								
10.9										
–	1/2"	AP-080	1,50	2,13	0,69	1,80	0,12	0,35	SEAL-AP-080	0,09
–	3/4"	AP-100	1,87	2,56	0,88	2,05	0,12	0,43	SEAL-AP-100	0,13
–	1"	AP-102	2,06	2,76	1,03	2,36	0,12	0,43	SEAL-AP-102	0,18
–	1 1/4"	AP-104	2,31	3,11	1,19	2,68	0,12	0,43	SEAL-AP-104	0,20
–	1 1/2"	AP-106	2,75	3,70	1,41	3,27	0,12	0,51	SEAL-AP-106	0,31
–	2"	AP-108	3,06	4,02	1,69	3,54	0,12	0,51	SEAL-AP-108	0,37
–	2 1/2"	AP-110	3,50	4,49	2,00	4,25	0,12	0,51	SEAL-AP-110	0,51
–	3"	AP-112	4,19	5,28	2,44	5,12	0,16	0,67	SEAL-AP-112	0,95
–	3 1/2"	AP-114	4,75	5,98	2,75	5,47	0,16	0,67	SEAL-AP-114	1,19
–	4"	AP-116	5,13	6,38	3,06	5,98	0,16	0,67	SEAL-AP-116	1,43
–	5"	AP-118	6,00	7,24	3,63	7,09	0,16	0,67	SEAL-AP-118	1,90
Strength class		High pressure								
10.9										
–	1/2"	AP-401	1,59	2,20	0,72	1,86	0,16	0,35	SEAL-AP-401	0,13
–	3/4"	AP-402	2,00	2,80	0,94	2,36	0,16	0,43	SEAL-AP-402	0,22
–	1"	AP-403	2,25	3,19	1,09	2,76	0,16	0,51	SEAL-AP-403	0,29
–	1 1/4"	AP-404	2,62	3,74	1,25	3,07	0,16	0,59	SEAL-AP-404	0,37
–	1 1/2"	AP-405	3,12	4,41	1,44	3,70	0,16	0,67	SEAL-AP-405	0,53
–	2"	AP-406	3,81	5,24	1,75	4,49	0,16	0,83	SEAL-AP-406	0,77
–	2 1/2"	AP-407	4,87	7,09	2,31	5,98	0,16	1,02	SEAL-AP-407	1,43
–	3"	AP-408	6,00	8,46	2,82	7,80	0,16	1,26	SEAL-AP-408	2,18



Ordering code:	S235 C45
• groove only	APO-...
Surface only available in chrome3	

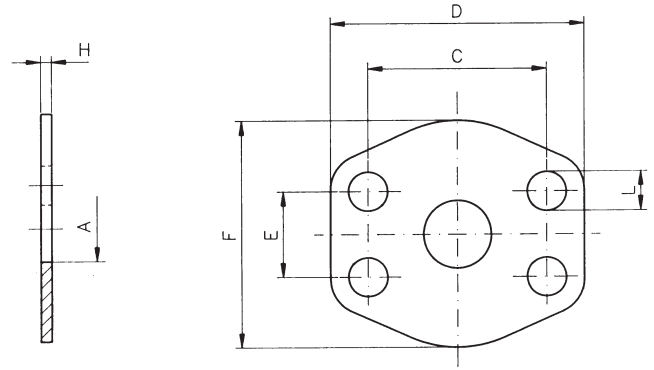
maximum recommended working pressure	Nominal flange size	Type	Dimensions						Weight (flange only)
			C	D	E	F	H	L	
kg/cm ²	inch								lb
Strength class	Standard pressure								
10.9									
–	1/2"	APO-080	1,50	2,13	0,69	1,80	0,24	0,35	0,17
–	3/4"	APO-100	1,87	2,56	0,88	1,97	0,24	0,43	0,23
–	1"	APO-102	2,06	2,76	1,03	2,36	0,24	0,43	0,30
–	1 1/4"	APO-104	2,31	3,11	1,19	2,68	0,24	0,43	0,40
–	1 1/2"	APO-106	2,75	3,70	1,41	3,23	0,24	0,51	0,58
–	2"	APO-108	3,06	4,02	1,69	2,99	0,24	0,51	0,67
–	2 1/2"	APO-110	3,50	4,49	2,00	4,25	0,24	0,51	0,98
–	3"	APO-112	4,19	5,28	2,44	5,12	0,24	0,67	1,37
–	3 1/2"	APO-114	4,75	5,98	2,75	5,47	0,24	0,67	1,71
–	4"	APO-116	5,13	6,38	3,06	5,98	0,24	0,67	2,01
–	5"	APO-118	6,00	7,24	3,63	7,09	0,24	0,67	2,73
Strength class	High pressure								
10.9									
–	1/2"	APO-401	1,59	2,20	0,72	1,86	0,24	0,35	0,19
–	3/4"	APO-402	2,00	2,80	0,94	2,36	0,24	0,43	0,31
–	1"	APO-403	2,25	3,19	1,09	2,76	0,24	0,51	0,41
–	1 1/4"	APO-404	2,62	3,74	1,25	3,07	0,24	0,59	0,55
–	1 1/2"	APO-405	3,12	4,41	1,44	3,70	0,24	0,67	0,79
–	2"	APO-406	3,81	5,24	1,75	4,49	0,24	0,83	1,12
–	2 1/2"	APO-407	4,87	7,09	2,31	5,98	0,24	1,02	2,09
–	3"	APO-408	6,00	8,19	2,82	7,01	0,24	1,30	2,80



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFC-...-G¼	AFC-X-...-G¼
• including metric bolts and o-ring	AFC-...-G¼-M	AFC-X-...-G¼-MX
• including UNC bolts and o-ring	AFC-...-G¼-U	AFC-X-...-G¼-UX
Surface optionally in blank or chrome3 (ordering code -> Page XIV)		

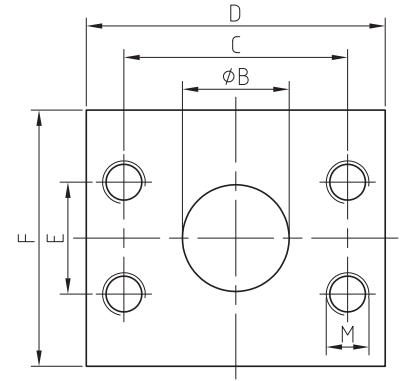
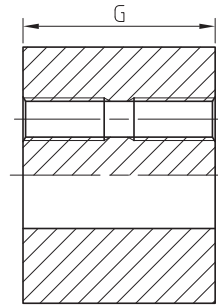
maximum recommended working pressure	Nominal flange size	Type	Dimensions						Bolts		Weight (flange only)	
			C	D	E	F	H	L	M			
kg/cm ²	inch										lb	
Strength class										<i>metr.</i>	<i>unc.</i>	
10.9		Standard pressure										
350	½"	AFC 080 G¼	1,50	2,20	0,69	1,89	0,63	0,35	M 8x30	5/16 x 1¼	0,51	
350	¾"	AFC 100 G¼	1,87	2,56	0,88	1,97	0,63	0,43	M 10x35	3/8 x 1½	0,66	
320	1"	AFC 102 G¼	2,06	2,76	1,03	2,36	0,75	0,43	M 10x35	3/8 x 1½	1,01	
280	1¼"	AFC 104 G¼	2,31	3,11	1,19	2,68	0,71	0,45	M 10x40	7/16 x 1½	1,19	
210	1½"	AFC 106 G¼	2,75	3,66	1,41	3,07	0,79	0,53	M 12x45	½ x 1¾	1,98	
210	2"	AFC 108 G¼	3,06	4,02	1,69	3,54	0,79	0,53	M 12x45	½ x 1¾	2,20	
175	2½"	AFC 110 G¼	3,50	4,49	2,00	4,13	0,79	0,53	M 12x45	½ x 1¾	3,26	
160	3"	AFC 112 G¼	4,19	5,28	2,44	4,88	0,94	0,69	M 16x50	5/8 x 2	5,18	
35	3½"	AFC 114 G¼	4,75	5,98	2,75	5,35	0,87	0,69	M 16x50	5/8 x 2	6,39	
35	4"	AFC 116 G¼	5,13	6,38	3,06	5,75	0,98	0,69	M 16x50	5/8 x 2	8,29	
35	5"	AFC 118 G¼	6,00	7,48	3,63	6,69	1,10	0,69	M 16x55	5/8 x 2	12,52	
Strength class										<i>metr.</i>	<i>unc.</i>	
10.9		High pressure										
420	½"	AFC 401 G¼	1,59	2,20	0,72	1,89	0,63	0,35	M 8x30	5/16 x 1¼	0,51	
420	¾"	AFC 402 G¼	2,00	2,80	0,94	2,36	0,75	0,43	M 10x35	3/8 x 1½	0,97	
420	1"	AFC 403 G¼	2,25	3,19	1,09	2,76	0,94	0,51	M 12x45	7/16 x 1½	1,70	
420	1¼"	AFC 404 G¼	2,62	3,74	1,25	3,07	1,06	0,59 ^{*2}	M 14x50	½ x 1¾	2,49	
420	1½"	AFC 405 G¼	3,12	4,41	1,44	3,70	1,18	0,67	M 16x50	5/8 x 2	3,97	
420	2"	AFC 406 G¼	3,81	5,28	1,75	4,49	1,10	0,83	M 20x65	¾ x 2½	5,36	
420	2½"	AFC 407 G¼	4,87	7,09	2,31	5,91	1,77	1,02	M 24x80	–	15,72	

*1 or comparable material
*2 L=0,53 with UNC-bolts



Ordering code:	S235
• adaptor sheet only	ZP-...
Surface only available in chrome3	

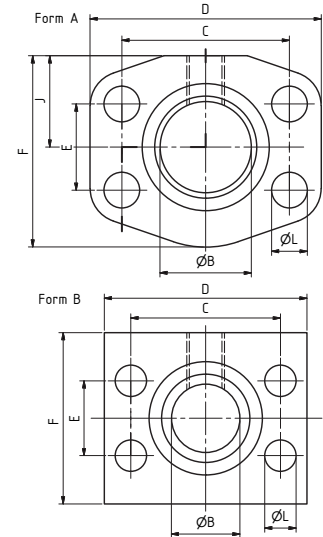
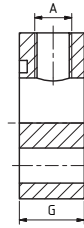
maximum recommended working pressure	Nominal flange size	Type	Dimensions							Weight (flange only)
			A	C	D	E	F	H	L	
kg/cm ²	inch									lb
Strength class		Standard pressure								
10.9										
–	1/2"	ZP 080	0,51	1,50	2,13	0,69	1,80	0,12	0,35	0,09
–	3/4"	ZP 100	0,75	1,87	2,56	0,88	2,05	0,12	0,43	0,11
–	1"	ZP 102	0,98	2,06	2,76	1,03	2,36	0,12	0,43	0,13
–	1 1/4"	ZP 104	1,26	2,31	3,11	1,19	2,68	0,12	0,43	0,18
–	1 1/2"	ZP 106	1,50	2,75	3,70	1,41	3,27	0,12	0,51	0,24
–	2"	ZP 108	2,01	3,06	4,02	1,69	3,54	0,12	0,51	0,26
–	2 1/2"	ZP 110	2,48	3,50	4,49	2,00	4,25	0,12	0,51	0,35
–	3"	ZP 112	2,87	4,19	5,28	2,44	5,12	0,16	0,67	0,64
–	3 1/2"	ZP 114	3,50	4,75	5,98	2,75	5,47	0,16	0,67	0,75
–	4"	ZP 116	3,90	5,13	6,38	3,06	5,98	0,16	0,67	0,84
–	5"	ZP 118	4,72	6,00	7,24	3,63	7,09	0,16	0,67	1,08
Strength class		High pressure								
10.9										
–	1/2"	ZP 401	0,51	1,59	2,20	0,72	1,86	0,16	0,35	0,13
–	3/4"	ZP 402	0,67	2,00	2,80	0,94	2,36	0,16	0,43	0,15
–	1"	ZP 403	0,94	2,25	3,19	1,09	2,76	0,16	0,51	0,26
–	1 1/4"	ZP 404	1,22	2,62	3,74	1,25	3,07	0,16	0,59	0,33
–	1 1/2"	ZP 405	1,50	3,12	4,41	1,44	3,70	0,16	0,67	0,46
–	2"	ZP 406	2,01	3,81	5,24	1,75	4,49	0,16	0,83	0,62
–	2 1/2"	ZP 407	2,44	4,87	7,09	2,31	5,98	0,16	1,02	1,23



Ordering code:	S235
• adaptor sheet only	ZP-...
Surface only available in chrome3	

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions							Weight (flange only)	
				B	C	D	E	F	G	M		
kg/cm ²	inch										lb	
Strength class	Standard pressure											
10.9												
350	1/2"	1351-08-08	ZFG-080	0,51	1,50	2,17	0,69	1,97	1,38	M 8	1,50	
350	3/4"	1351-12-12	ZFG-100	0,75	1,87	2,56	0,88	1,97	1,57	M 10	1,90	
320	1"	1351-16-16	ZFG-102	0,98	2,06	2,76	1,03	2,36	1,77	M 10	2,73	
280	1 1/4"	1351-20-20	ZFG-104	1,26	2,31	3,15	1,19	2,76	1,97	M 10	3,99	
210	1 1/2"	1351-24-24	ZFG-106	1,50	2,75	3,74	1,41	3,15	1,97	M 12	5,34	
210	2"	1351-32-32	ZFG-108	2,01	3,06	4,13	1,69	3,74	1,97	M 12	6,61	
Strength class	High pressure											
10.9												
420	1/2"	1651-08-08	ZFG-401	0,51	1,59	2,17	0,72	1,97	1,38	M 8	1,50	
420	3/4"	1651-12-12	ZFG-402	0,75	2,00	2,76	0,94	2,36	1,77	M 10	2,91	
420	1"	1651-16-16	ZFG-403	0,98	2,25	3,15	1,09	2,76	1,97	M 12	4,17	
420	1 1/4"	1651-20-20	ZFG-404	1,26	2,62	3,74	1,25	3,15	1,97	M 14	5,53	
420	1 1/2"	1651-24-24	ZFG-405	1,50	3,12	4,53	1,44	3,74	2,36	M 16	9,48	
420	2"	1651-32-32	ZFG-406	2,01	3,81	5,31	1,75	4,53	2,56	M 20	13,67	

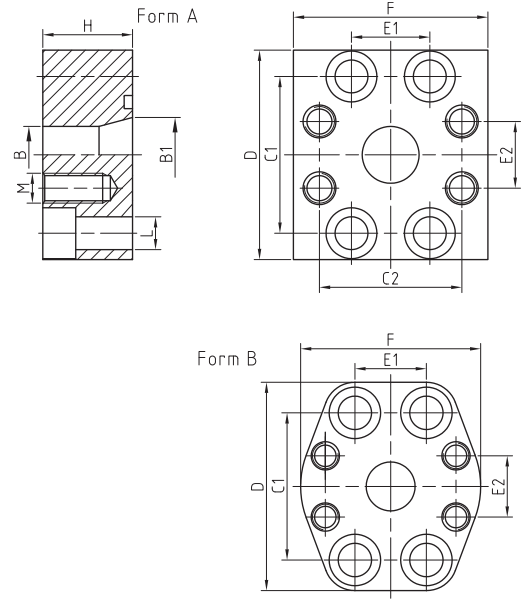
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• adaptor-flange only	AGL-...	AGL-X-...
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										weight without bolts
			A	B	C	D	E	F	G	J	L	lb	
kg/cm ²	inch												
Strength class		Standard pressure											
10.9													
350	1/2"	AGL-080	G 1/4"	0,47	1,50	2,20	0,69	1,50	0,94	0,75	0,35		0,66
350	3/4"	AGL-100	G 1/4"	0,75	1,87	2,56	0,88	1,97	1,10	0,98	0,43		1,15
320	1"	AGL-102	G 1/4"	0,94	2,06	2,80	1,03	2,24	0,94	1,06	0,43		1,04
280	1 1/4"	AGL-104	G 1/4"	1,26	2,31	3,19	1,19	2,64	0,91	1,26	0,49		1,28
210	1 1/2"	AGL-106	G 1/4"	1,50	2,75	3,74	1,41	2,99	0,94	1,46	0,53		1,76
210	2"	AGL-108 (Vers. B)	G 1/4"	1,97	3,06	3,94	1,69	3,15	0,94	1,57	0,53		2,16
210	2"	AGL-108 (Vers. A)	G 1/4"	1,97	3,06	4,02	1,69	3,46	0,94	1,69	0,53		2,07
175	2 1/2"	AGL-110	G 1/4"	2,48	3,50	4,49	2,00	4,06	0,98	1,97	0,53		2,67
160	3"	AGL-112	G 1/4"	2,87	4,19	5,28	2,44	4,80	0,91	2,36	0,69		3,46
35	3 1/2"	AGL-114	G 1/4"	3,50	4,75	5,98	2,75	5,43	0,98	2,68	0,67		4,67
35	4"	AGL-116	G 1/4"	4,02	5,13	6,38	3,06	5,71	0,98	2,83	0,67		4,81
35	5"	AGL-118	G 1/4"	5,00	6,00	7,48	3,63	6,65	1,02	3,31	0,69		5,93
Strength class		High pressure											
10.9													
420	1/2"	AGL-401	G 1/4"	0,47	1,59	2,20	0,72	1,50	0,94	0,75	0,35		0,66
420	3/4"	AGL-402	G 1/4"	0,75	2,00	2,80	0,94	2,24	0,94	1,06	0,43		1,10
420	1"	AGL-403	G 1/4"	0,94	2,25	3,19	1,09	2,64	0,91	1,26	0,51		1,43
420	1 1/4"	AGL-404	G 1/4"	1,26	2,62	3,78	1,25	3,03	0,94	1,46	0,59		1,92
420	1 1/2"	AGL-405	G 1/4"	1,50	3,12	4,41	1,44	3,62	0,94	1,77	0,67		2,78
420	2"	AGL-406	G 1/4"	1,97	3,81	5,28	1,75	4,41	0,94	2,17	0,83		3,92
420	2 1/2"	AGL-407	G 1/4"	2,44	4,87	7,09	2,31	5,75	1,73	2,76	1,02		12,94

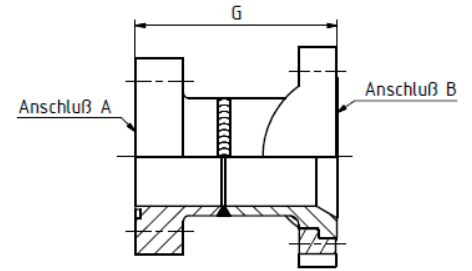
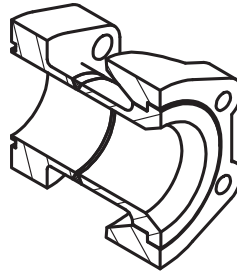
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	G-AF-...	G-AF-X...
Surface optionally in zinc-nickel or chrome3 (ordering code -> Page XIV)		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Thread	Bolts		Weight (flange only)		
			B1/B	C1	C2	D	E1	E2	F	H	L	M		metr.	unc.		lb	
kg/cm ²	inch																	
Strength class																		
10.9		Standard pressure														metr.	unc.	
320	1" - 3/4"	G-AF-303-302	0,98/0,75	2,06	1,87	2,76	1,03	0,88	2,56	1,18	0,43	M 10	M 10x30	-			1,72	
280	1 1/4" - 1"	G-AF-304-303	1,26/0,98	2,31	2,06	3,15	1,19	1,03	2,76	1,18	0,43	M 10	M 10x30	-			2,20	
210	1 1/2" - 1 1/4"	G-AF-305-304	1,50/1,26	2,75	2,31	3,74	1,41	1,19	3,15	1,18	0,53	M 10	M 12x35	-			2,91	
160	2" - 1 1/4"	G-AF-306-304	2,01/1,26	3,06	2,31	4,02	1,69	1,19	3,15	1,38	0,53	M 10	M 12x40	-			3,53	
160	2" - 1 1/2"	G-AF-306-305	1,81/1,50	3,06	2,75	4,02	1,69	1,41	3,74	1,18	0,53	M 12	M 12x35	-			3,62	
175	2 1/2" - 1 1/2"	G-AF-307-305	2,44/1,50	3,50	2,75	4,49	2,00	1,41	4,29	1,38	0,53	M 12	M 12x40	-			5,75	
175	2 1/2" - 2"	G-AF-307-306	2,52/2,01	3,50	3,06	4,49	2,00	1,69	4,29	1,38	0,53	M 12	M 12x40	-			5,45	
160	3" - 2"	G-AF-308-306	2,99/2,01	4,19	3,06	5,51	2,44	1,69	4,49	1,57	0,69	M 12	M 16x50	-			7,76	
160	3" - 2 1/2"	G-AF-308-307	2,99/2,52	4,19	3,50	5,51	2,44	2,00	4,49	1,57	0,69	M 12	M 16x50	-			7,34	
Strength class																		
10.9		High pressure													metr.	unc.		
420	3/4" - 3/4"	G-AF-602-602	0,75	2,00	2,00	2,76	0,94	0,94	2,76	1,10	0,43	M 10	M 10x35	-			1,76	
420	1" - 3/4"	G-AF-603-602	0,91/0,75	2,25	2,00	3,19	1,09	0,94	2,76	1,18	0,51	M 10	M 12x40	-			1,74	
420	1" - 1"	G-AF-603-603	0,98	2,25	2,25	3,15	1,09	1,09	2,95	1,42	0,51	M 12	M 12x45	-			2,71	
420	1 1/4" - 1"	G-AF-604-603	1,18/0,91	2,62	2,25	3,94	1,25	1,09	3,27	0,98	0,59	M 12	M 14x30	-			2,43	
420	1 1/4" - 1 1/4"	G-AF-604-604	1,22	2,62	2,62	3,94	1,25	1,25	3,54	1,38	0,59	M 14	M 14x40	-			3,99	
420	1 1/2" - 1 1/4"	G-AF-605-604	1,57/1,26	3,12	2,62	4,45	1,44	1,25	3,74	1,89	0,67	M 14	M 16x55	-			6,61	
420	1 1/2" - 1 1/2"	G-AF-605-605	1,50	3,12	3,12	4,45	1,44	1,44	4,45	1,97	0,67	M 16	M 16x55	-			8,31	
420	2" - 1 1/2"	G-AF-606-605	1,93/1,50	3,81	3,12	5,51	1,75	1,44	4,92	2,36	0,87	M 16	M 20x60	-			10,65	
420	2 1/2" - 2"	G-AF-607-606	2,48/2,01	4,87	3,81	7,09	2,31	1,75	5,98	2,76	1,02	M 20	M 24x75	-			19,89	

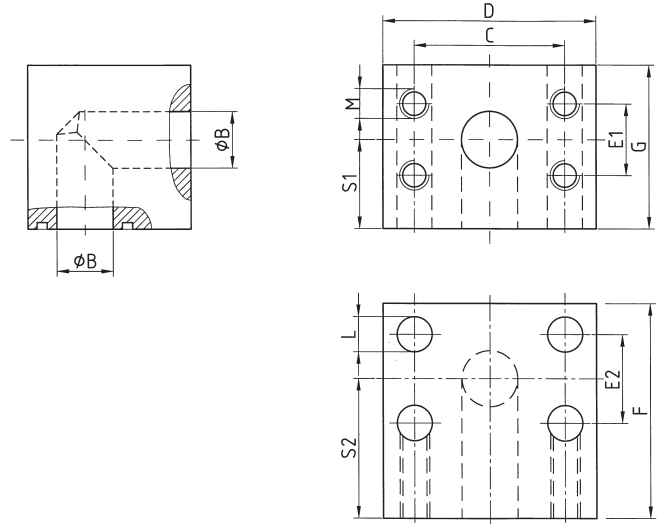
*1 or comparable material



Ordering code:	S355J2^{*1} Steel
• up size flange; AFS, GSFS and VFG	E-AF-.....
Surface only available in chrome3	

Nominal flange size	Type	Dimensions			Bolts	Weight (flange only)
		Connection A	Connection B	G		
<i>inch</i>					<i>M</i>	<i>lb</i>
Standard pressure						
1/2" - 3/4"	E-AF-301-302	1/2"	3/4"	3,46	M 8x25	1,46
3/4" - 1"	E-AF-302-303	3/4"	1"	3,46	M 10x35	1,92
1" - 1 1/4"	E-AF-303-304	1"	1 1/4"	3,74	M 10x35	2,54
1 1/4" - 1 1/2"	E-AF-304-305	1 1/4"	1 1/2"	3,94	M 10x40	3,42
1 1/2" - 2"	E-AF-305-306	1 1/2"	2"	4,06	M 12x45	4,54
2" - 2 1/2"	E-AF-306-307	2"	2 1/2"	4,13	M 12x45	6,11
2 1/2" - 3"	E-AF-307-308	2 1/2"	3"	4,33	M 12x45	9,04
3" - 3 1/2"	E-AF-308-309	3"	3 1/2"	4,69	M 16x50	11,88
3 1/2" - 4"	E-AF-309-310	3 1/2"	4"	4,92	M 16x50	13,87
4" - 5"	E-AF-310-311	4"	5"	4,92	M 16x50	18,94
High pressure						
1/2" - 3/4"	E-AF-601-602	1/2"	3/4"	2,99	M 8x30	1,74
3/4" - 1"	E-AF-602-603	3/4"	1"	3,70	M 10x35	3,13
1" - 1 1/4"	E-AF-603-604	1"	1 1/4"	4,25	M 12x45	4,34
1 1/4" - 1 1/2"	E-AF-604-605	1 1/4"	1 1/2"	4,84	M 14x50	7,28
1 1/2" - 2"	E-AF-605-606	1 1/2"	2"	5,35	M 16x50	11,42
2" - 2 1/2"	E-AF-606-607	2"	2 1/2"	6,97	M 20x70	22,77
2 1/2" - 3"	E-AF-607-608	2 1/2"	3"	8,39	M 24x80	45,57

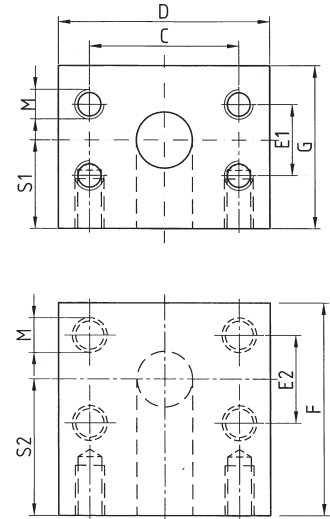
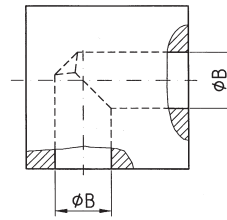
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• block only	L-GD-...	L-GD-X-...
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Part no.	Type	Dimensions										Thread	Weight (flange only)	
				B	C	D	E1	E2	F	G	L	S1	S2			M
<i>kg/cm²</i>	<i>inch</i>															
Strength class	Standard pressure															
10.9																
350	1/2"		L-GD 301	0,51	1,50	2,17	0,69	0,69	2,17	1,97	0,35	0,98	1,38	M 8	2,20	
350	3/4"		L-GD 302	0,75	1,87	2,56	0,88	0,88	2,36	2,36	0,43	1,18	1,57	M 10	3,20	
320	1"		L-GD 303	0,94	2,06	2,83	1,03	1,03	2,56	2,56	0,43	1,30	1,57	M 10	4,19	
280	1 1/4"	GD 304	L-GD 304	1,26	2,31	3,23	1,19	1,19	3,23	3,15	0,43	1,54	1,50	M 10	7,72	
210	1 1/2"	GD 305	L-GD 305	1,50	2,75	3,86	1,41	1,41	3,62	3,62	0,53	2,01	2,32	M 12	11,02	
210	2"	GD 306	L-GD 306	1,81	3,06	4,02	1,69	1,69	3,35	3,43	0,53	2,01	1,89	M 12	9,33	
175	2 1/2"		L-GD 307	2,44	3,50	4,53	2,00	2,00	4,33	4,72	0,53	2,36	2,56	M 12	18,96	
160	3"		L-GD 308	2,87	4,19	5,31	2,44	2,44	5,91	5,31	0,69	2,66	3,54	M 16	33,53	
35	3 1/2"		L-GD 309	3,50	4,75	5,91	2,75	2,75	5,71	5,71	0,69	2,85	2,95	M 16	33,60	
Strength class	High pressure															
10.9																
420	1/2"		L-GD 601	0,51	1,59	2,36	0,72	0,72	2,36	1,97	0,35	0,98	1,57	M 8	2,69	
420	3/4"	GD 602	L-GD 602	0,75	2,00	2,83	0,94	0,94	2,36	2,17	0,43	1,26	1,42	M 10	3,33	
420	1"	GD 603	L-GD 603	0,91	2,25	3,23	1,09	1,09	2,68	2,52	0,55	1,46	1,57	M 12	5,07	
420	1 1/4"	GD 604	L-GD 604	1,18	2,62	3,78	1,25	1,25	2,99	2,83	0,63	1,61	1,81	M 14	7,28	
420	1 1/2"	GD 605	L-GD 605	1,50	3,12	4,49	1,44	1,44	3,39	3,50	0,71	1,97	2,05	M 16	11,90	
420	2"	GD 606	L-GD 606	1,97	3,81	5,24	1,75	1,75	4,21	4,21	0,83	2,52	2,76	M 20	18,45	
420	2 1/2"		L-GD 607	2,44	4,87	7,09	2,31	2,31	6,30	6,10	1,02	3,05	3,54	M 24	61,97	

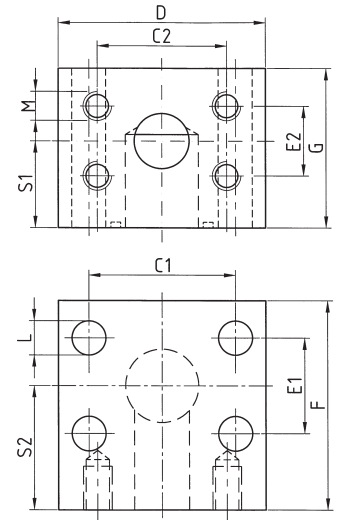
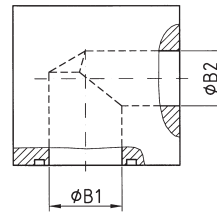
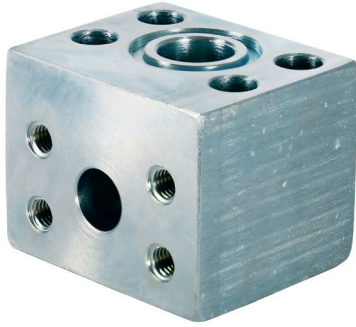
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• block only	L-BL-...	L-BL-X...
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions								Thread	Weight (flange only)
			B	C	D	E	F	G	S1	S2		
kg/cm ²	inch										M	lb
Strength class		Standard pressure										
10.9												
350	1/2"	L-BL-301	0,51	1,50	2,17	0,69	2,17	1,97	0,98	1,38	M 8	2,31
350	3/4"	L-BL-302	0,75	1,87	2,56	0,88	2,36	2,36	1,18	1,57	M 10	3,44
320	1"	L-BL-303	0,94	2,06	2,83	1,03	2,56	2,56	1,30	1,57	M 10	4,34
280	1 1/4"	L-BL-304	1,26	2,31	3,23	1,19	3,23	3,15	1,54	1,50	M 10	8,09
210	1 1/2"	L-BL-305	1,50	2,75	3,86	1,41	3,62	3,62	2,01	2,32	M 12	11,77
210	2"	L-BL-306	2,01	3,06	4,02	1,69	3,35	3,43	2,01	1,89	M 12	9,26
175	2 1/2"	L-BL-307	2,44	3,50	4,53	2,00	4,33	4,72	2,36	2,56	M 12	19,31
160	3"	L-BL-308	2,87	4,19	5,31	2,44	5,91	5,31	2,66	3,54	M 16	34,99
35	3 1/2"	L-BL-309	3,50	4,75	5,91	2,75	5,71	5,71	2,85	2,95	M 16	37,48
Strength class		High pressure										
10.9												
420	1/2"	L-BL-601	0,51	1,59	2,36	0,72	2,36	1,97	0,98	1,57	M 8	2,78
420	3/4"	L-BL-602	0,75	2,00	2,83	0,94	2,36	2,17	1,26	1,42	M 10	3,51
420	1"	L-BL-603	0,91	2,25	3,23	1,09	2,83	2,83	1,73	1,73	M 12	6,39
420	1 1/4"	L-BL-604	1,18	2,62	3,78	1,25	2,83	2,83	1,61	1,81	M 14	6,99
420	1 1/2"	L-BL-605	1,50	3,12	4,49	1,44	3,39	3,50	1,97	2,05	M 16	12,41
420	2"	L-BL-606	1,97	3,81	5,24	1,75	4,45	4,45	2,76	2,76	M 20	23,37
420	2 1/2"	L-BL-607	2,44	4,87	7,09	2,31	6,30	6,10	3,05	3,54	M 24	64,04

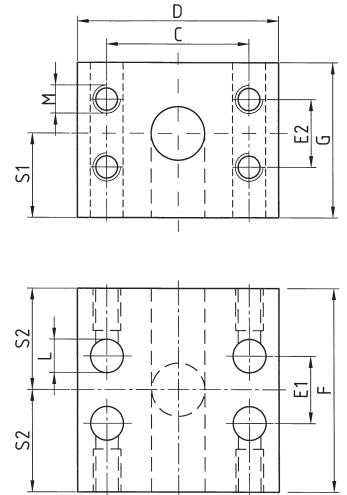
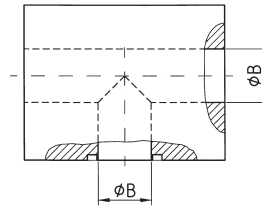
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• block only	RED-GD-...	RED-GD-X-...
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions												Thread	Weight (flange only)	
			B1	B2	C1	C2	D	E1	E2	F	G	L	S1	S2			M
kg/cm ²	inch																
Strength class	High pressure																
10.9																	
420		1" - 3/4"	RED-GD 603-602	0,91	0,75	2,25	2,00	3,23	1,09	0,94	2,68	2,52	0,55	1,46	1,57	M 10	4,85
420		1 1/4" - 3/4"	RED-GD 604-602	1,18	0,75	2,62	2,00	3,78	1,25	0,94	2,99	2,83	0,63	1,61	1,81	M 10	7,25
420		1 1/4" - 1"	RED-GD 604-603	1,18	0,91	2,62	2,25	3,78	1,25	1,09	2,99	2,83	0,63	1,61	1,81	M 12	6,97
420		1 1/2" - 1 1/4"	RED-GD 605-604	1,50	1,18	3,12	2,62	4,49	1,44	1,25	3,39	3,50	0,75	1,97	2,05	M 14	11,35
420	2" - 1 1/2"	RED-GD 606-605	1,97	1,50	3,81	3,12	5,24	1,75	1,44	4,33	4,33	0,83	2,52	2,76	M 16	21,10	

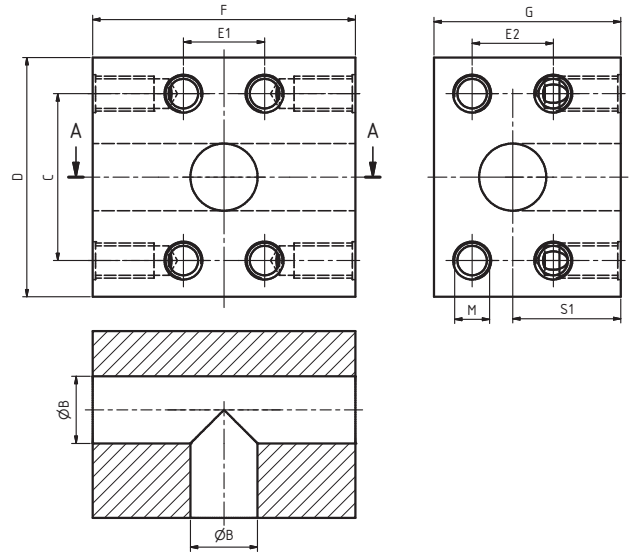
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• block only	T-GD-...	T-GD-X...
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions										Thread	Weight (flange only)		
			B	C	D	E1	E2	F	G	L	S1	S2			M	lb
kg/cm ²	inch															
Strength class		High pressure														
10.9																
420	¾"	T-GD 602-602	0,75	2,00	2,83	0,94	0,94	2,83	2,17	0,43	1,26	1,42	M 10	3,75		
420	1"	T-GD 603-603	0,91	2,25	3,23	1,09	1,09	3,54	2,52	0,55	1,46	1,77	M 12	6,39		
420	1¼"	T-GD 604-604	1,18	2,62	3,78	1,25	1,25	3,94	2,83	0,63	1,61	1,97	M 14	8,38		
420	1½"	T-GD 605-605	1,50	3,12	4,49	1,44	1,44	4,21	3,50	0,71	1,97	2,11	M 16	13,67		
420	2"	T-GD 606-606	1,97	3,81	5,24	1,75	1,75	5,31	4,21	0,87	2,52	2,66	M 20	23,15		

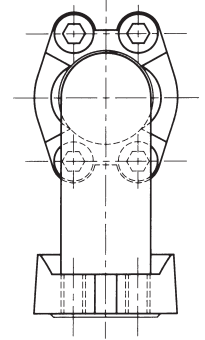
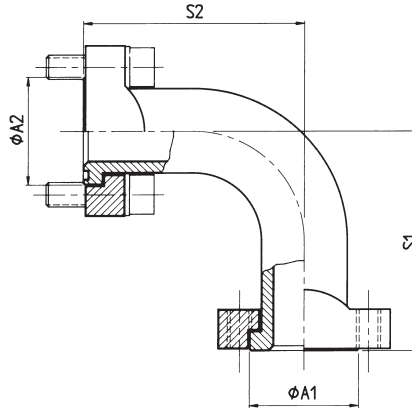
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• block only	T-BL-...	T-BL-X...
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions								Thread	Weight (flange only)
			B	C	D	E1	E2	F	G	S1		
kg/cm ²	inch										M	lb
Strength class		Standard pressure										
10.9												
350	1/2"	T-BL-301-301	0,51	1,50	2,17	0,69	0,69	2,76	1,97	0,98	M 8	3,09
350	3/4"	T-BL-302-302	0,75	1,87	2,56	0,88	0,88	2,95	2,17	1,08	M 10	3,97
320	1"	T-BL-303-303	0,98	2,06	2,76	1,03	1,03	3,15	2,36	1,18	M 10	4,67
280	1 1/4"	T-BL-304-304	1,26	2,31	3,15	1,19	1,19	3,54	2,76	1,38	M 10	6,86
210	1 1/2"	T-BL-305-305	1,50	2,75	3,74	1,41	1,41	4,33	3,35	1,67	M 12	12,19
210	2"	T-BL-306-306	1,97	3,06	4,33	1,69	1,69	4,72	3,94	1,97	M 12	17,33
175	2 1/2"	T-BL-307-307	2,48	3,50	4,33	2,00	2,00	6,30	4,72	2,36	M 12	25,57
160	3"	T-BL-308-308	2,87	4,19	5,31	2,44	2,44	6,30	6,30	3,15	M 16	43,59
35	3 1/2"	T-BL-309-309	3,50	4,75	5,91	2,75	2,75	6,30	5,71	2,85	M 16	35,71
Strength class		High pressure										
10.9												
420	1/2"	T-BL-601-601	0,51	1,59	2,36	0,72	0,72	3,54	1,97	0,98	M 8	4,10
420	3/4"	T-BL-602-602	0,75	2,00	2,76	0,94	0,94	2,83	2,17	1,26	M 10	3,75
420	1"	T-BL-603-603	0,91	2,25	3,23	1,09	1,09	3,54	2,52	1,46	M 12	6,88
420	1 1/4"	T-BL-604-604	1,18	2,62	3,78	1,25	1,25	3,94	2,83	1,61	M 14	9,74
420	1 1/2"	T-BL-605-605	1,50	3,12	4,33	1,44	1,44	4,21	3,94	1,97	M 16	16,53
420	2"	T-BL-606-606	1,97	3,81	5,24	1,75	1,75	5,31	4,21	2,52	M 20	25,09
420	2 1/2"	T-BL-607-607	2,44	4,87	7,09	2,31	2,31	7,09	6,10	3,05	M 24	71,63

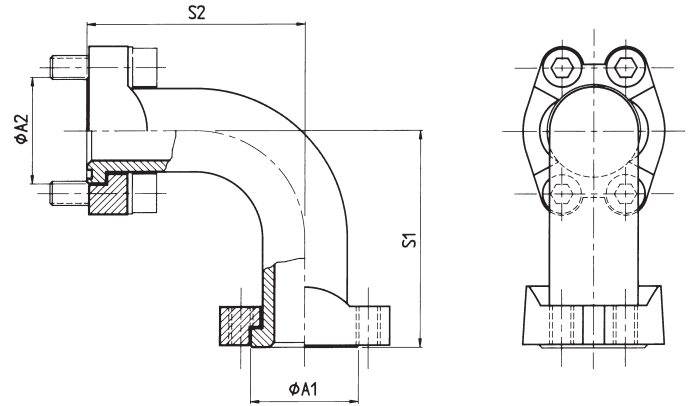
*1 or comparable material



Ordering code:	Stahl Steel
• elbow only	AG-...
Surface only available in chrome3	

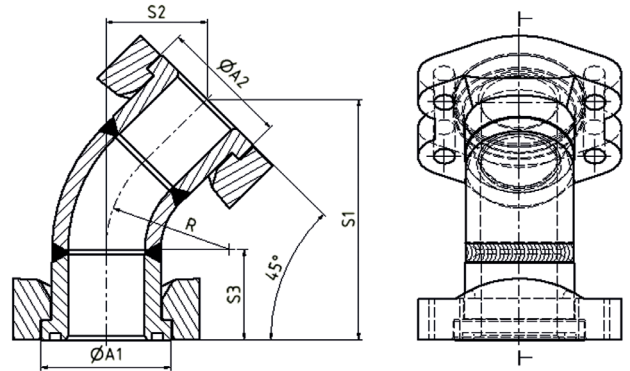
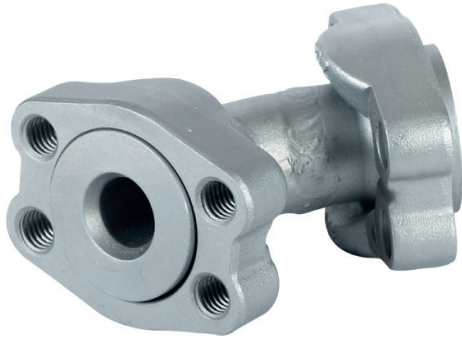
maximum recommended working pressure	Nominal flange size	Type	Dimensions		Weight (flange only)
			A1 / A2	S1 / S2	
<i>kg/cm²</i>	<i>inch</i>				<i>lb</i>
Strength class	Standard pressure				
10.9					
350	1/2"	AG 3001 90° *	1,19	2,80	1,26
350	1/2"	AG 3001 90° N	1,19	2,32	1,12
350	3/4"	AG 3002 90° *	1,50	3,19	2,05
350	3/4"	AG 3002 90° N	1,50	2,48	1,72
320	1"	AG 3003 90° *	1,75	3,54	2,54
320	1"	AG 3003 90° N	1,75	2,91	2,47
280	1 1/4"	AG 3004 90° *	2,00	4,09	3,46
280	1 1/4"	AG 3004 90° N	2,00	3,31	3,48
210	1 1/2"	AG 3005 90° *	2,37	4,57	4,85
210	1 1/2"	AG 3005 90° N	2,37	3,70	4,63
210	2"	AG 3006 90° *	2,81	5,31	6,79
210	2"	AG 3006 90° N	2,81	4,45	5,95
175	2 1/2"	AG 3007 90° *	3,31	6,10	10,98
175	2 1/2"	AG 3007 90° N	3,31	5,71	10,45
160	3"	AG 3008 90° *	4,00	6,85	17,20
160	3"	AG 3008 90° N	4,00	6,57	16,51
35	3 1/2"	AG 3009 90° *	4,50	6,93	19,40
35	3 1/2"	AG 3009 90° N	4,50	6,06	16,45
35	4"	AG 3010 90° *	5,00	8,43	26,26
35	4"	AG 3010 90° N	5,00	7,83	24,71
35	5"	AG 3011 90°	6,00	9,92	40,87

* auslaufender Artikel



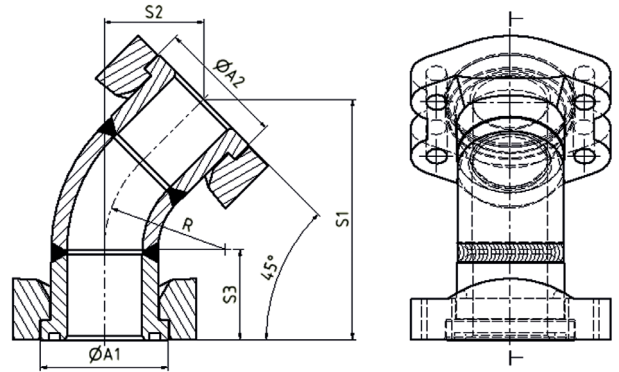
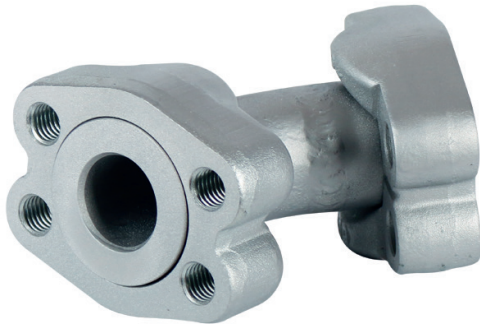
Ordering code:	Stahl Steel
• elbow only	AG-...
Surface only available in chrome3	

maximum recommended working pressure	Nominal flange size	Type	Dimensions				Weight (flange only)
			A1	A2	S1	S2	
<i>kg/cm²</i>	<i>inch</i>						<i>lb</i>
Strength class	High pressure						
10.9							
420	1/2"	AG 6001 90°	1,25	1,25	2,52	2,52	1,41
420	3/4"	AG 6002 90°	1,63	1,63	2,72	2,72	2,62
420	1"	AG 6003 90°	1,87	1,87	3,15	3,15	4,10
420	1 1/4"	AG 6004 90°	2,13	2,13	3,74	3,74	6,11
420	1 1/2"	AG 6005 90°	2,50	2,50	4,29	4,29	10,32
420	2"	AG 6006 90°	3,13	3,13	5,35	5,35	16,80



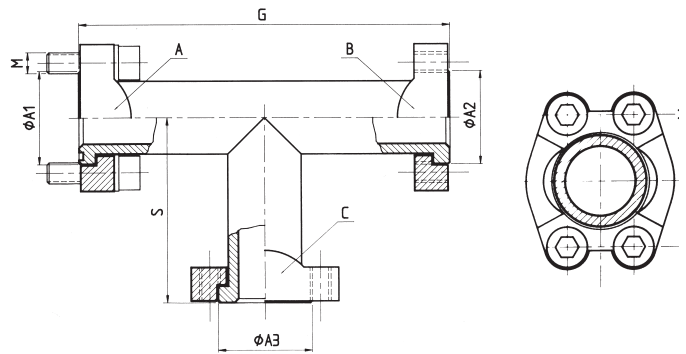
Ordering code:	Stahl Steel
• elbow only	AG-...
Surface only available in chrome3	

maximum recommended working pressure	Nominal flange size	Type	Dimensions						Weight (flange only)
			A1	A2	S1	S2	S3	R	
<i>kg/cm²</i>	<i>inch</i>								<i>lb</i>
Strength class	Standard pressure								
10.9									
350	1/2"	AG 3001 45°	1,19	1,19	2,86	1,19	1,22	1,10	1,04
350	3/4"	AG 3002 45°	1,50	1,50	3,09	1,28	1,34	1,14	1,59
320	1"	AG 3003 45°	1,75	1,75	3,48	1,44	1,42	1,50	2,18
280	1 1/4"	AG 3004 45°	2,00	2,00	3,76	1,56	1,42	1,89	3,02
210	1 1/2"	AG 3005 45°	2,37	2,37	4,07	1,69	1,46	2,24	3,99
210	2"	AG 3006 45°	2,81	2,81	4,61	1,89	1,46	2,99	4,96
175	2 1/2"	AG 3007 45°	3,31	3,31	6,00	2,49	1,97	3,74	8,64
160	3"	AG 3008 45°	4,00	4,00	6,74	2,79	2,09	4,49	13,38
35	3 1/2"	AG 3009 45°	4,50	4,50	5,86	2,43	1,57	4,49	13,32
35	4"	AG 3010 45°	5,00	5,00	7,39	3,06	1,85	5,98	18,70



Ordering code:	Stahl Steel
• elbow only	AG-...
Surface only available in chrome3	

maximum recommended working pressure	Nominal flange size	Type	Dimensions						Weight (flange only)
			A1	A2	S1	S2	S3	R	
<i>kg/cm²</i>	<i>inch</i>								<i>lb</i>
Strength class	High pressure								
10.9									
420	1/2"	AG 6001 45°	1,25	1,25	3,20	1,33	1,42	1,10	1,30
420	3/4"	AG 6002 45°	1,63	1,63	3,48	1,45	1,57	1,14	2,47
420	1"	AG 6003 45°	1,87	1,87	3,88	1,61	1,65	1,50	3,86
420	1 1/4"	AG 6004 45°	2,13	2,13	4,50	1,86	1,85	1,89	5,64
420	1 1/2"	AG 6005 45°	2,50	2,50	5,08	2,11	2,05	2,24	9,68
420	2"	AG 6006 45°	3,13	3,13	6,15	2,55	2,36	2,99	15,79

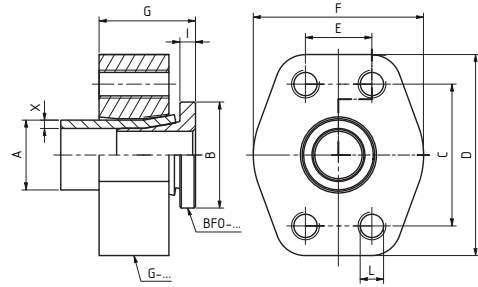
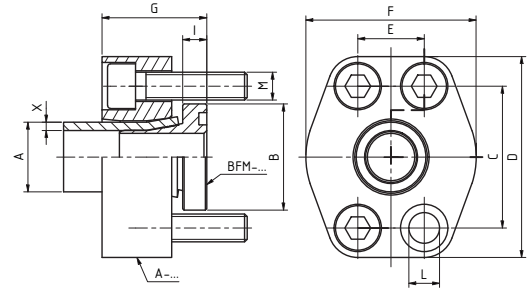


Ordering code:	Stahl^{*1} Steel
• T-connection only	T-...
Surface only available in chrome3	

maximum recommended working pressure	Type	connection A			connection B		connection C				Weight (flange only)
		size	A1	M	size	A2	size	A3	G	S	lb
kg/cm ²											
Strength class	Standard pressure										
10.9											
350	T 301 A-301 G-301 G	1/2"	1,19	M 8x25	1/2"	1,19	1/2"	1,19	5,35	2,68	1,76
350	T 302 A-302 G-301 G	3/4"	1,50	M 10x30	3/4"	1,50	1/2"	1,19	6,38	2,83	2,69
320	T 302 A-302 G-302 G	3/4"	1,50	M 10x30	3/4"	1,50	3/4"	1,50	6,38	3,19	2,82
350	T 303 A-303 G-301 G	1"	1,75	M 10x30	1"	1,75	1/2"	1,19	7,09	3,19	3,31
320	T 303 A-303 G-302 G	1"	1,75	M 10x30	1"	1,75	3/4"	1,50	7,09	3,54	3,57
280	T 303 A-303 G-303 G	1"	1,75	M 10x30	1"	1,75	1"	1,75	7,09	3,54	3,88
320	T 304 A-304 G-302 G	1 1/4"	2,00	M 10x30	1 1/4"	2,00	3/4"	1,50	8,27	3,94	4,59
280	T 304 A-304 G-303 G	1 1/4"	2,00	M 10x30	1 1/4"	2,00	1"	1,75	8,27	3,94	4,83
210	T 304 A-304 G-304 G	1 1/4"	2,00	M 10x30	1 1/4"	2,00	1 1/4"	2,00	8,27	4,13	5,31
280	T 305 A-305 G-303 G	1 1/2"	2,37	M 12x35	1 1/2"	2,37	1"	1,75	9,13	4,29	6,39
210	T 305 A-305 G-304 G	1 1/2"	2,37	M 12x35	1 1/2"	2,37	1 1/4"	2,00	9,13	4,49	7,43
210	T 305 A-305 G-305 G	1 1/2"	2,37	M 12x35	1 1/2"	2,37	1 1/2"	2,37	9,13	4,57	7,43
210	T 306 A-306 G-304 G	2"	2,81	M 12x35	2"	2,81	1 1/4"	2,00	9,69	4,76	8,51
210	T 306 A-306 G-305 G	2"	2,81	M 12x35	2"	2,81	1 1/2"	2,37	9,69	4,84	9,17
175	T 306 A-306 G-306 G	2"	2,81	M 12x35	2"	2,81	2"	2,81	9,69	4,84	9,83
210	T 307 A-307 G-305 G	2 1/2"	3,31	M 12x40	2 1/2"	3,31	1 1/2"	2,37	10,71	5,31	13,25
175	T 307 A-307 G-306 G	2 1/2"	3,31	M 12x40	2 1/2"	3,31	2"	2,81	10,71	5,31	13,76
138	T 307 A-307 G-307 G	2 1/2"	3,31	M 12x40	2 1/2"	3,31	2 1/2"	3,31	10,71	5,35	15,54
175	T 308 A-308 G-306 G	3"	4,00	M 16x50	3"	4,00	2"	2,81	11,50	5,71	19,84
138	T 308 A-308 G-307 G	3"	4,00	M 16x50	3"	4,00	2 1/2"	3,31	11,50	5,75	20,68
35	T 308 A-308 G-308 G	3"	4,00	M 16x50	3"	4,00	3"	4,00	11,50	5,75	23,50
138	T 309 A-309 G-307 G	3 1/2"	4,50	M 16x50	3 1/2"	4,50	2 1/2"	3,31	11,65	5,75	23,81
35	T 309 A-309 G-308 G	3 1/2"	4,50	M 16x50	3 1/2"	4,50	3"	4,00	11,65	5,75	24,34
35	T 309 A-309 G-309 G	3 1/2"	4,50	M 16x50	3 1/2"	4,50	3 1/2"	4,50	11,65	5,83	26,63
35	T 310 A-310 G-308 G	4"	5,00	M 16x50	4"	5,00	3"	4,00	13,15	6,50	29,21
35	T 310 A-310 G-309 G	4"	5,00	M 16x50	4"	5,00	3 1/2"	4,50	13,15	6,57	30,95
35	T 310 A-310 G-310 G	4"	5,00	M 16x50	4"	5,00	4"	5,00	13,15	6,57	33,89
35	T 311 A-311 G-309 G	5"	6,00	M 16x55	5"	6,00	3 1/2"	4,50	14,65	7,32	39,57
35	T 311 A-311 G-310 G	5"	6,00	M 16x55	5"	6,00	4"	5,00	14,65	7,32	42,13
35	T 311 A-311 G-311 G	5"	6,00	M 16x55	5"	6,00	5"	6,00	14,65	7,32	50,29

*1 or comparable material

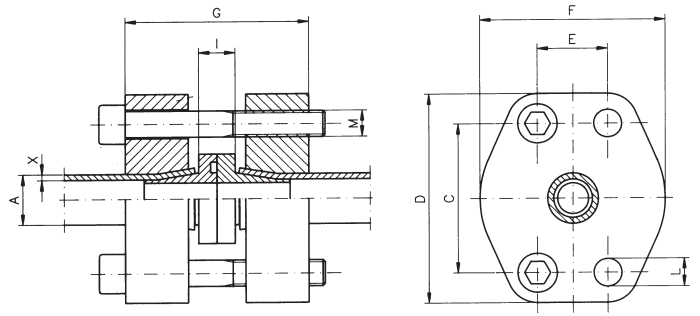
Important: All connections A, B and C can be supplied as requested with o-ring groove (type A) or without o-ring groove (type G)!



Ordering code:	C45*1 C45
• flare flange only	A-...
• flare flange with thread only	G-...
• only flare inner part with groove	BFM-...
• only flare inner part without groove	BFO-...
• Flange + flare flange with groove + screws and O-ring	BFM-...-M
• Complete flare flange with groove: flange clamp with metric thread + flare flange without groove	BFO-...-M

maximum recommended working pressure	Nominal flange size	type	dimensions										bolts	Weight (flange only)
			pipe diameter	B	C	D	E	F	G	I	L	M		
kg/cm ²	inch													
Strength class 10.9	Hochdruckreihe mit Nut / high pressure with groove													
420	3/4"	BFM-402-20 x 3M	0,79 x 0,12	1,50	2,00	2,80	0,94	2,36	1,48	0,34	0,43	M 10x40	1,26	
420	3/4"	BFM-402-25 x 3M	0,98 x 0,12	1,50	2,00	2,80	0,94	2,36	1,48	0,34	0,43	M 10x40	1,26	
420	3/4"	BFM-402-25 x 4M	0,98 x 0,16	1,50	2,00	2,80	0,94	2,36	1,48	0,34	0,43	M 10x40	1,26	
420	1"	BFM-403-30 x 4M	1,18 x 0,16	1,81	2,25	3,19	1,09	2,80	1,67	0,35	0,51	M 12x40	1,96	
420	1"	BFM-403-30 x 5M	1,18 x 0,20	1,81	2,25	3,19	1,09	2,80	1,67	0,35	0,51	M 12x40	1,96	
420	1 1/4"	BFM-404-38 x 4M	1,50 x 0,16	2,05	2,62	3,74	1,25	3,19	1,73	0,36	0,59	M 14x50	2,31	
420	1 1/4"	BFM-404-38 x 5M	1,50 x 0,20	2,05	2,62	3,74	1,25	3,19	1,73	0,36	0,59	M 14x50	2,31	
420	1 1/4"	BFM-404-38 x 6M	1,50 x 0,24	2,05	2,62	3,74	1,25	3,19	1,73	0,36	0,59	M 14x50	2,31	
420	1 1/2"	BFM-405-50 x 6M	1,97 x 0,24	2,48	3,12	4,49	1,44	3,78	2,24	0,40	0,67	M 16x60	4,56	
420	1 1/2"	BFM-405-50 x 8M	1,97 x 0,31	2,48	3,12	4,49	1,44	3,78	2,24	0,40	0,67	M 16x60	4,54	
420	2"	BFM-406-65 x 8M	2,56 x 0,31	2,95	3,81	5,28	1,75	4,49	2,56	0,44	0,83	M 20x90	6,39	
Strength class 10.9	Hochdruckreihe ohne Nut / high pressure without groove													
420	3/4"	BFO-402-20 x 3M	0,79 x 0,12	1,50	2,00	2,80	0,94	2,36	1,48	0,22	-	M 10	1,41	
420	3/4"	BFO-402-25 x 3M	0,98 x 0,12	1,50	2,00	2,80	0,94	2,36	1,48	0,22	-	M 10	1,41	
420	3/4"	BFO-402-25 x 4M	0,98 x 0,16	1,50	2,00	2,80	0,94	2,36	1,48	0,22	-	M 10	1,41	
420	1"	BFO-403-30 x 4M	1,18 x 0,16	1,81	2,25	3,19	1,09	2,80	1,67	0,35	-	M 12	2,07	
420	1"	BFO-403-30 x 5M	1,18 x 0,20	1,81	2,25	3,19	1,09	2,80	1,67	0,35	-	M 12	2,07	
420	1 1/4"	BFO-404-38 x 4M	1,50 x 0,16	2,05	2,62	3,74	1,25	3,19	1,73	0,36	-	M 14	2,69	
420	1 1/4"	BFO-404-38 x 5M	1,50 x 0,20	2,05	2,62	3,74	1,25	3,19	1,73	0,36	-	M 14	2,69	
420	1 1/4"	BFO-404-38 x 6M	1,50 x 0,24	2,05	2,62	3,74	1,25	3,19	1,73	0,36	-	M 14	2,69	
420	1 1/2"	BFO-405-50 x 6M	1,97 x 0,24	2,48	3,12	4,49	1,44	3,78	2,24	0,28	-	M 16	4,63	
420	1 1/2"	BFO-405-50 x 8M	1,97 x 0,31	2,48	3,12	4,49	1,44	3,78	2,24	0,28	-	M 16	4,63	
420	2"	BFO-406-65 x 8M	2,56 x 0,31	2,95	3,81	5,28	1,75	4,49	2,56	0,32	-	M 20	6,83	

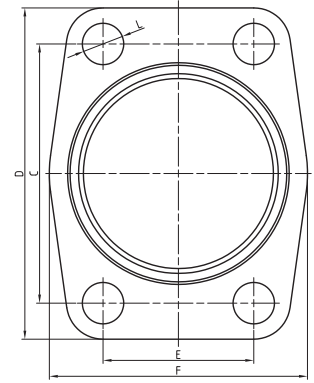
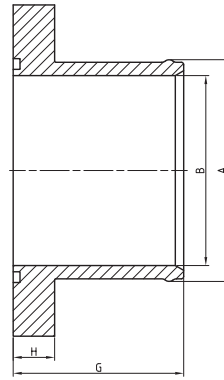
*1 Flange: C45, Flare part: 42CrMo4V



Ordering code:	C45*1 C45
• flange-coupling	BFK-...-M

maximum recommended working pressure	Nominal flange size	Type	Dimensions								Bolts	Weight (flange only)	
			pipe diameter	C	D	E	F	G	I	L			M
kg/cm ²	inch												
Strength class	High pressure												
10.9													
420	¾"	BFK-402-25 x 3-M	0,98 x 0,12	2,00	2,80	0,94	2,36	2,95	0,56	0,43	M 10x60	2,51	
420	¾"	BFK-402-25 x 4-M	0,98 x 0,16	2,00	2,80	0,94	2,36	2,95	0,56	0,43	M 10x60	2,51	
420	1"	BFK-403-30 x 4-M	1,18 x 0,16	2,25	3,19	1,09	2,80	3,35	0,71	0,51	M 12x70	3,92	
420	1"	BFK-403-30 x 5-M	1,18 x 0,20	2,25	3,19	1,09	2,80	3,35	0,71	0,51	M 12x70	3,92	
420	1¼"	BFK-404-38 x 5-M	1,50 x 0,20	2,62	3,74	1,25	3,19	3,46	0,72	0,59	M 14x80	4,63	
420	1¼"	BFK-404-38 x 6-M	1,50 x 0,24	2,62	3,74	1,25	3,19	3,46	0,72	0,59	M 14x80	4,63	
420	1½"	BFK-405-50 x 6-M	1,97 x 0,24	3,12	4,49	1,44	3,78	4,49	0,69	0,67	M 16x90	9,13	
420	1½"	BFK-405-50 x 8-M	1,97 x 0,31	3,12	4,49	1,44	3,78	4,49	0,69	0,67	M 16x90	9,04	
420	2"	BFK-406-65 x 8-M	2,56 x 0,31	3,81	5,28	1,75	4,49	5,12	0,76	0,83	M 20x110	12,79	

*1 Flange: C45, Flare part: 42CrMo4V

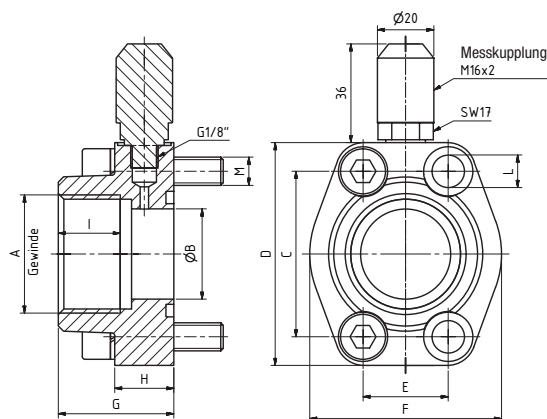


Ordering code:	S355J2^{*1}
• flange only	SHFL-...
Surface only available in chrome3	

maximum recommended working pressure	Nominal flange size	Type	Dimensions									Bolts		Weight (flange only)
			A	B	C	D	E	F	G	H	L	M	unc.	lb
kg/cm ²	inch											metr.	unc.	
Strength class	Standard pressure													
10.9														
10	2"	SHFL-3006-62	2,44	1,89	3,06	4,06	1,69	2,76	2,76	0,63	0,53	M 12x35	1/2 x 1 3/4	2,12
10	2 1/2"	SHFL-3007-62	2,44	1,97	3,50	4,49	2,00	3,31	2,76	0,75	0,53	M 12x40	1/2 x 1 3/4	2,73
10	3"	SHFL-3008-91	3,58	3,07	4,19	5,43	2,44	4,25	2,76	0,67	0,67	M 16x50	5/8 x 2	3,48
10	3 1/2"	SHFL-3009-116	4,57	3,50	4,75	5,98	2,75	5,35	3,58	0,71	0,67	M 16x50	5/8 x 2	7,25

*1 or comparable material

114 | SAE-female thread flange with BSPThread and test-point G1/8" (shortest side)

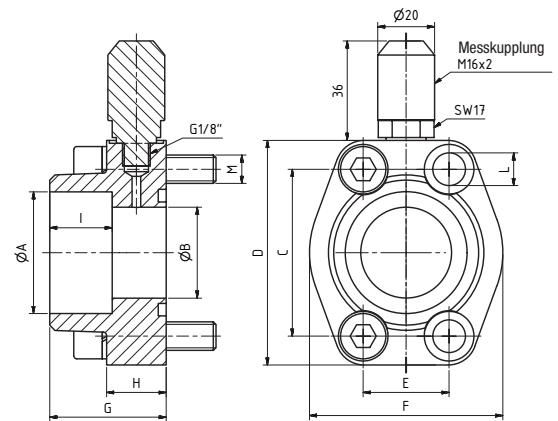


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...G-A1K	AFX-...G-A1K
• including metric bolts and o-ring	AFS-...G-A1K-M	AFX-...G-A1K-MX
• including unc bolts and o-ring	AFS-...G-A1K-U	AFX-...G-A1K-UX
• including metric bolts, o-ring and test coupling	AFS-...G-A1K-MM	AFX-...G-A1K-MM
• including unc bolts, o-ring and test coupling	AFS-...G-A1K-UM	AFX-...G-A1K-UM
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	type	dimensions										test point	bolts		Weight (flange only)		
			A	B	C	D	E	F	G	H	I	L		M	unc.		lb	
kg/cm ²	inch																	
Strength class		Standard pressure													metr.	unc.		
10.9																		
280	1¼"	AFS 104 G-034-A1K	G ¾"	0,75	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,45	G1/8"	M 10x40	7/16 x 1½		1,92	
280	1¼"	AFS 104 G-100-A1K	G 1"	0,98	2,31	3,19	1,19	2,56	1,65	0,98	0,87	0,45	G1/8"	M 10x40	7/16 x 1¾		1,85	
280	1¼"	AFS 104 G-100 L 13-A1K	G 1"	0,98	2,31	3,19	1,19	2,56	1,65	0,98	0,87	0,51	G1/8"	M 12x40			1,65	
280	1¼"	AFS 104 G-A1K	G 1¼"	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,45	G1/8"	M 10x40	7/16 x 1½		1,46	
280	1¼"	AFS 104 G L 13-A1K	G 1¼"	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,51	G1/8"	M 12x40			1,46	
210	1½"	AFS 106 G-034-A1K	G ¾"	0,75	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	G1/8"	M 12x45	½ x 1¾		2,71	
210	1½"	AFS 106 G-100-A1K	G 1"	0,98	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	G1/8"	M 12x45	½ x 1¾		2,56	
210	1½"	AFS 106 G-114-A1K	G 1¼"	1,26	2,75	3,74	1,41	3,07	1,77	1,06	0,94	0,53	G1/8"	M 12x45	½ x 1¾		2,43	
210	1½"	AFS 106 G-A1K	G 1½"	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	G1/8"	M 12x45	½ x 1¾		2,31	
210	2"	AFS 108 G-100-A1K	G 1"	0,98	3,06	4,02	1,69	3,54	1,77	0,98	0,87	0,53	G1/8"	M 12x45	½ x 1¾		3,73	
210	2"	AFS 108 G-114-A1K	G 1¼"	1,26	3,06	4,02	1,69	3,54	1,77	0,98	0,94	0,53	G1/8"	M 12x45	½ x 1¾		3,42	
210	2"	AFS 108 G-112-A1K	G 1½"	1,50	3,06	4,02	1,69	3,54	1,77	0,98	1,02	0,53	G1/8"	M 12x45	½ x 1¾		3,42	
210	2"	AFS 108 G-A1K	G 2"	2,01	3,06	4,02	1,69	3,54	1,77	0,98	1,18	0,53	G1/8"	M 12x45	½ x 1¾		2,62	
175	2½"	AFS 110 G-200-A1K	G 2"	2,01	3,50	4,49	2,00	4,13	1,97	0,98	1,18	0,53	G1/8"	M 12x45	½ x 1¾		4,54	
175	2½"	AFS 110 G-A1K	G 2½"	2,48	3,50	4,49	2,00	4,13	1,97	0,98	1,18	0,53	G1/8"	M 12x45	½ x 1¾		3,42	
160	3"	AFS 112 G-112-A1K	G 1½"	1,50	4,19	5,28	2,44	4,88	1,97	1,06	0,98	0,69	G1/8"	M16x50	5/8 x 2		8,16	
160	3"	AFS 112 G-212-A1K	G 2½"	2,48	4,19	5,28	2,44	4,88	1,97	1,06	1,18	0,69	G1/8"	M 16x50	5/8 x 2		6,11	
160	3"	AFS 112 G-A1K	G 3"	2,87	4,19	5,28	2,44	4,88	1,97	1,06	1,34	0,69	G1/8"	M 16x50	5/8 x 2		4,74	
35	3½"	AFS 114 G-300-A1K	G 3"	2,87	4,75	5,98	2,75	5,35	1,89	1,06	1,34	0,69	G1/8"	M 16x50	5/8 x 2		5,51	
35	3½"	AFS 114 G-A1K	G 3½"	3,50	4,75	5,98	2,75	5,35	1,89	1,06	1,34	0,69	G1/8"	M 16x50	5/8 x 2		5,29	
35	4"	AFS 116 G-312-A1K	G 3½"	3,50	5,13	6,38	3,06	5,75	1,89	1,06	1,34	0,69	G1/8"	M 16x50	5/8 x 2		6,61	
35	4"	AFS 116 G-A1K	G 4"	3,90	5,13	6,38	3,06	5,75	1,89	1,06	1,34	0,69	G1/8"	M 16x50	5/8 x 2		6,28	
35	5"	AFS 118 G-A1K	G 5"	4,72	6,00	7,24	3,63	7,09	1,97	1,10	1,18	0,69	G1/8"	M 16x55	5/8 x 2		12,79	

*1 or comparable material

115 | SAE-socket weld flange with test-point G1/8" (shortest side)

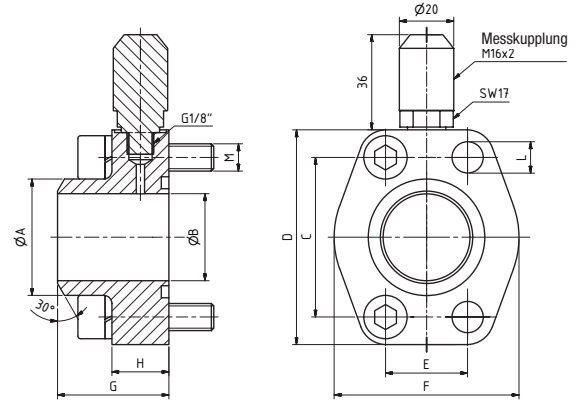


Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...S-A1K	AFX-...S-A1K
• including metric bolts and o-ring	AFS-...S-A1K-M	AFX-...S-A1K-MX
• including unc bolts and o-ring	AFS-...S-A1K-U	AFX-...S-A1K-UX
• including metric bolts, o-ring and test coupling	AFS-...S-A1K-MM	AFX-...S-A1K-MM
• including unc bolts, o-ring and test coupling	AFS-...S-A1K-UM	AFX-...S-A1K-UM
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Type	dimensions											test point	bolts		Weight (flange only)		
			A	B	C	D	E	F	G	H	I	L	M		unc.	lb			
kg/cm ²	inch																		
Strength class		Standard pressure														metr.		unc.	
10.9																			
280	1¼"	AFS-104S-A1K	1,69	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,87	0,45	G1/8"	M 10x40	7/16 x 1½	1,46			
210	1½"	AFS-106S-A1K	1,91	1,50	2,75	3,66	1,41	3,07	1,77	0,98	0,94	0,53	G1/8"	M 12x45	½ x 1¾	2,31			
210	2"	AFS-108S-A1K	2,40	2,01	3,06	4,02	1,69	3,54	1,77	0,98	1,02	0,53	G1/8"	M 12x45	½ x 1¾	2,62			
175	2½"	AFS-110S-A1K	3,02	2,48	3,50	4,49	2,00	4,13	1,97	0,98	1,18	0,53	G1/8"	M 12x45	½ x 1¾	3,26			
160	3"	AFS-112S-A1K	3,56	2,87	4,19	5,28	2,44	4,88	1,97	1,06	1,34	0,69	G1/8"	M 16x50	5/8 x 2	4,54			
35	3½"	AFS-114S-A1K	4,06	3,50	4,75	5,98	2,75	5,35	1,89	1,06	1,34	0,69	G1/8"	M 16x50	5/8 x 2	5,14			
35	4"	AFS-116S-A1K	4,55	3,90	5,13	6,38	3,06	5,75	1,89	1,06	1,34	0,69	G1/8"	M 16x50	5/8 x 2	5,58			
35	5"	AFS-118S-A1K	5,59	4,72	6,00	7,24	3,63	7,13	1,97	1,10	1,10	0,69	G1/8"	M 16x55	5/8 x 2	7,87			

*1 or comparable material

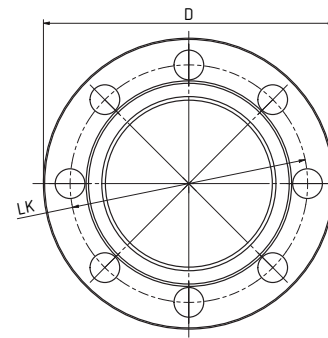
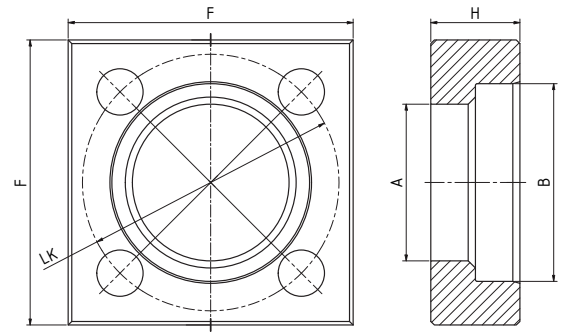
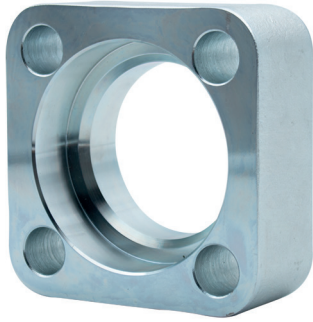
116 | SAE-butt weld flange - imperial with test-point G1/8" (shortest side)



Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• flange only	AFS-...ST-A1K	AFX-...ST-A1K
• including metric bolts and o-ring	AFS-...ST-A1K-M	AFX-...ST-A1K-MX
• including unc bolts and o-ring	AFS-...ST-A1K-U	AFX-...ST-A1K-UX
• including metric bolts, o-ring and test coupling	AFS-...ST-A1K-MM	AFX-...ST-A1K-MM
• including unc bolts, o-ring and test coupling	AFS-...ST-A1K-UM	AFX-...ST-A1K-UM
Surface only blanc available		

maximum recommended working pressure	Nominal flange size	Type	dimensions										test point	bolts		Weight (flange only)	
			A	B	C	D	E	F	G	H	L	M		lb			
kg/cm ²	inch																
Strength class		Standard pressure												metr.	unc.		
10.9																	
280	1¼"	AFS 104 ST-A1K	1,69	1,26	2,31	3,11	1,19	2,68	1,61	0,83	0,45	0,45	M 10x40	7/16 x 1½	1,46		
210	1½"	AFS 106 ST-A1K	1,91	1,50	2,75	3,66	1,41	3,07	1,73	0,98	0,53	0,53	M 12x45	½ x 1¾	2,31		
210	2"	AFS 108 ST-A1K	2,40	1,94	3,06	4,02	1,69	3,54	1,77	0,98	0,53	0,53	M 12x45	½ x 1¾	2,62		
175	2½"	AFS 110 ST-A1K	3,03	2,48	3,50	4,49	2,00	4,13	1,97	0,98	0,53	0,53	M 12x45	½ x 1¾	3,37		
160	3"	AFS 112 ST-A1K	3,62	2,87	4,19	5,28	2,44	4,88	1,97	1,06	0,69	0,69	M 16x50	5/8 x 2	4,74		
35	3½"	AFS 114 ST-A1K	4,06	3,50	4,75	5,98	2,75	5,35	1,89	1,06	0,69	0,69	M 16x50	5/8 x 2	5,67		
35	4"	AFS 116 ST-A1K	4,55	3,90	5,13	6,38	3,06	5,75	1,89	1,06	0,69	0,69	M 16x50	5/8 x 2	6,28		
35	5"	AFS 118 ST-A1K	5,59	4,72	6,00	7,24	3,63	7,09	1,97	1,10	0,69	0,69	M 16x55	5/8 x 2	9,08		

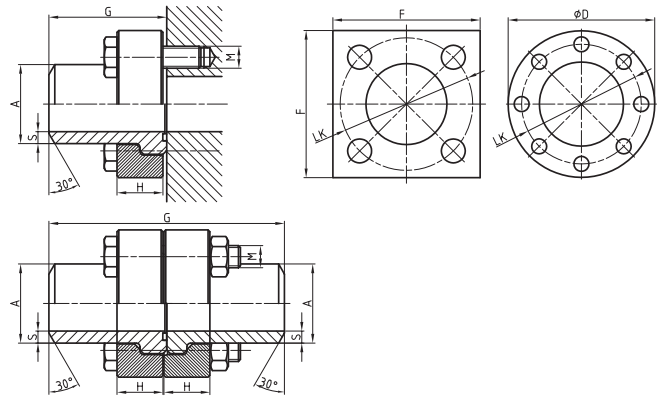
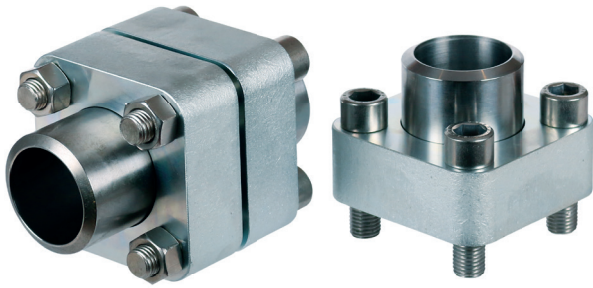
*1 or comparable material



Ordering code:	S355J2 *1	1.4404 *1
• Square flange	VK-...	VK-X-...
Surface only available in chrome3		

Nominal flange size	Type	Dimensions						Bolts	Weight (flange only)
		LK	A	B	D	F	H		
DN									
10	VK-10	1,73	0,72	1,14	-	1,97	0,79	4xM 10	0,57
16	VK-16	2,13	1,10	1,54	-	2,36	0,79	4xM 10	0,82
20	VK-20	2,52	1,37	1,85	-	2,76	0,79	4xM 12	1,10
25	VK-25	2,83	1,73	2,19	-	3,15	0,98	4xM 12	1,54
32	VK-32	3,15	1,94	2,40	-	3,54	1,18	4xM 16	2,49
40	VK-40	3,86	2,39	3,03	-	3,94	1,50	4xM 16	3,31
50	VK-50	4,65	3,07	3,66	-	4,72	1,85	4xM 20	5,86
65	VK-65	5,71	3,58	4,61	-	5,91	1,89	4xM 24	9,70
80	VK-80	6,89	4,57	5,35	-	7,09	2,28	4xM 30	16,76
100	VK-100_140	7,87	5,54	6,65	9,65	-	2,76	8xM 24	29,10
100	VK-100_153	7,87	6,04	6,65	9,65	-	2,76	8xM 24	27,56
125	VK-125	9,65	7,04	8,31	11,81	-	3,15	8xM 30	47,84
150	VK-150	11,42	8,70	9,69	13,98	-	3,54	8xM 36	72,75

*1 or comparable material

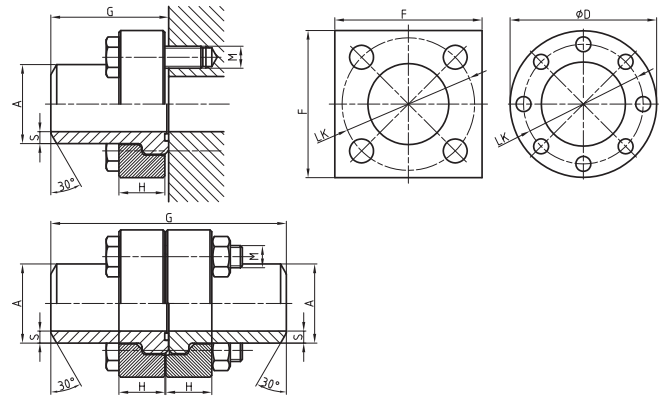
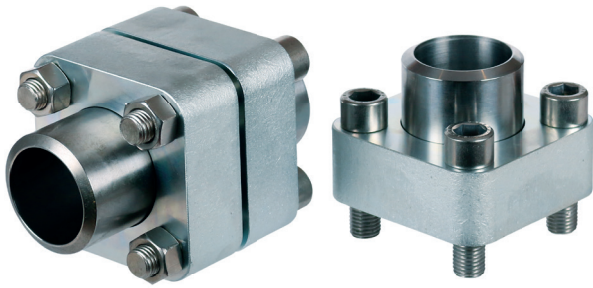


Ordering code:	S355J2^{*1} C45
• butt weld flange	VKA 32-...-M
• butt weld flange-coupling	VKK 28-...-M

maximum recommended working pressure	DN	Type	Dimensions						Bolts	O-ring	Weight (flange only)
			AxS	LK	F	D	H	G			
kg/cm ²									M		lb
Butt weld flange											
160	12	VKA 32-12/16x2	0,63x0,08	1,73	1,73	1,97	-	1,69	0,75	16,3 x 2,4	0,88
160	16	VKA 32-16/20x2,5	0,79x0,10	2,13	2,13	2,36	-	1,97	0,75	25,3 x 2,4	1,43
160	20	VKA 32-20/25x3	0,98x0,12	2,13	2,13	2,36	-	1,97	0,75	25,3 x 2,4	1,54
160	25	VKA 32-25/30x4	1,18x0,16	2,52	2,52	2,76	-	2,20	0,75	29,8 x 2,6	1,98
160	32	VKA 32-32/38x5	1,50x0,20	2,83	2,83	3,15	-	2,52	0,94	34,5 x 2,6	3,09
160	40	VKA 32-40/48,3x5	1,90x0,20	3,15	3,15	3,54	-	2,68	1,14	46 x 3	4,41
160	50	VKA 32-50/60,3x6,3	2,37x0,25	3,86	3,86	3,94	-	3,15	1,50	53,3 x 5,33	6,61
160	65	VKA 32-65/76,1x7,1	3,00x0,28	4,65	4,65	4,72	-	3,86	1,85	69,2 x 5,33	11,46
160	65	VKA 32-65/76,1x8	3,00x0,31	4,65	4,65	4,72	-	3,86	1,85	69,2 x 5,33	13,44
160	80	VKA 32-80/101,6x8,8	4,00x0,35	6,89	6,89	7,09	-	5,31	2,28	100 x 6	36,38
160	80	VKA 32-80/101,6x10	4,00x0,39	6,89	6,89	7,09	-	5,31	2,28	100 x 6	28,62
160	100	VKA 32-100/114,3x10	4,50x0,39	6,89	6,89	7,09	-	5,31	2,28	106,9 x 7	37,26
160	100	VKA 32-100/114,3x11	4,50x0,43	6,89	6,89	7,09	-	5,31	2,28	106,9 x 7,0	38,29
160	125	VKA 32-125/139,7x10	5,50x0,39	7,87	7,87	-	9,65	5,91	2,72	132,7 x 7	59,41
160	125	VKA 32-125/152,4x16	6,00x0,63	7,87	7,87	-	9,65	5,91	2,72	132,7 x 7	67,51
160	150	VKA 32-150/168,3x10	6,63x0,39	9,65	9,65	-	11,81	7,48	3,11	158,1 x 7	102,14
160	150	VKA 32-150/177,8x17,5	7,00x0,69	9,65	9,65	-	11,81	7,48	3,11	158,1 x 7	102,51

*1 or comparable material

Type: Welding gap form to DIN 2559, **Material:** Square S355J2/C45, Insert S355J2, also available in 1.4404

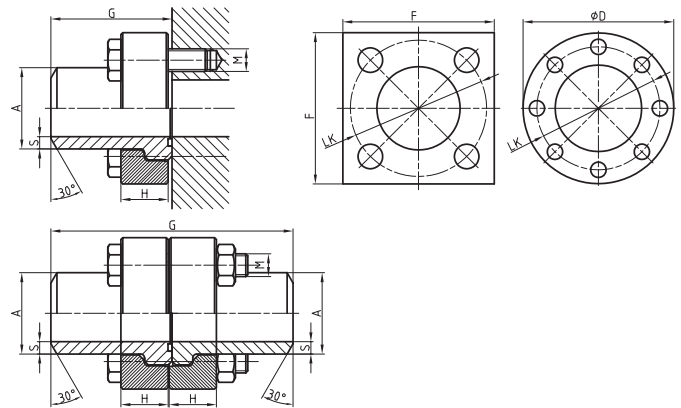
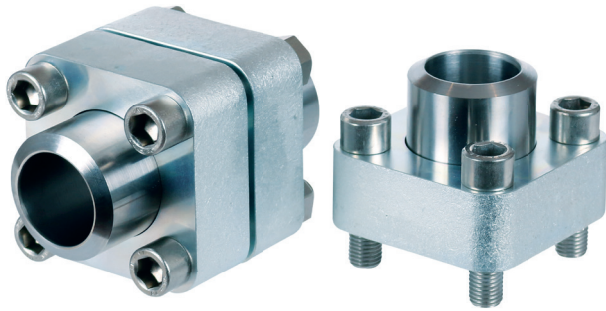


Ordering code:	S355J2^{*1} C45
• butt weld flange	VKA 32-...-M
• butt weld flange-coupling	VKK 28-...-M

maximum recommended working pressure	DN	Type	Dimensions						Bolts	O-ring	Weight (flange only)
			AxS	LK	F	D	H	G			
kg/cm ²											
Butt weld flange-coupling											
160	12	VKK 28-12/16x2	0,63x0,08	1,73	1,73	1,97	-	3,39	0,75	16,3 x 2,4	1,65
160	16	VKK 28-16/20x2,5	0,79x0,10	2,13	2,13	2,36	-	3,94	0,75	25,3 x 2,4	2,54
160	20	VKK 28-20/25x3	0,98x0,12	2,13	2,13	2,36	-	3,94	0,75	25,3 x 2,4	2,65
160	25	VKK 28-25/30x4	1,18x0,16	2,52	2,52	2,76	-	4,41	0,75	29,8 x 2,6	3,75
160	32	VKK 28-32/38x5	1,50x0,20	2,83	2,83	3,15	-	5,04	0,94	34,5 x 2,6	5,84
160	40	VKK 28-40/48,3x5	1,90x0,20	3,15	3,15	3,54	-	5,35	1,14	46 x 3	8,38
160	50	VKK 28-50/ 60,3x6,3	2,37x0,25	3,86	3,86	3,94	-	6,30	1,50	53,3 x 5,33	13,01
160	65	VKK 28-65/76,1x7,1	3,00x0,28	4,65	4,65	4,72	-	7,72	1,85	69,2 x 5,33	21,83
160	65	VKK 28-65/76,1x8	3,00x0,31	4,65	4,65	4,72	-	7,72	1,85	69,2 x 5,33	26,44
160	80	VKK 28-80/101,6x8,8	4,00x0,35	6,89	6,89	7,09	-	10,63	2,28	100 x 6	69,78
160	80	VKK 28-80/101,6x10	4,00x0,39	6,89	6,89	7,09	-	10,63	2,28	100 x 6	57,25
160	100	VKK 28-100/114,3x10	4,50x0,39	6,89	6,89	7,09	-	10,63	2,28	106,9 x 7	70,88
160	100	VKK 28-100/114,3x11	4,50x0,43	6,89	6,89	7,09	-	10,63	2,28	106,9 x 7	78,09
160	125	VKK 28-125/139,7x10	5,50x0,39	7,87	7,87	-	9,65	11,81	2,72	132,7 x 7	118,17
160	125	VKK 28-125/152,4x16	6,00x0,63	7,87	7,87	-	9,65	11,81	2,72	132,7 x 7	135,12
160	150	VKK 28-150/168,3x10	6,63x0,39	9,65	9,65	-	11,81	14,96	3,11	158,1 x 7	204,48
160	150	VKK 28-150/177,8x17,5	7,00x0,69	9,65	9,65	-	11,81	14,96	3,11	158,1 x 7	215,62

*1 or comparable material

Type: Welding gap form to DIN 2559, **Material:** Square S355J2/C45, Insert S355J2, also available in 1.4404

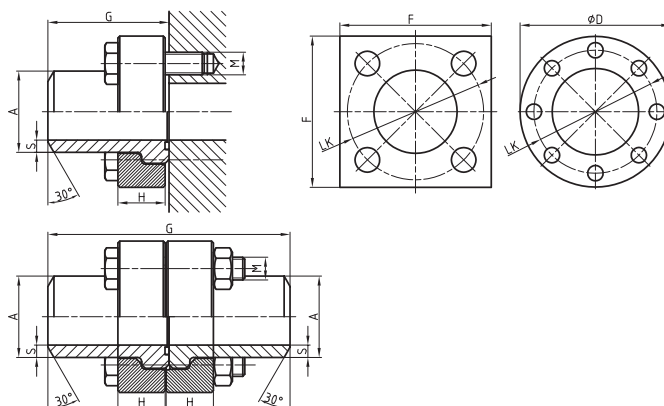
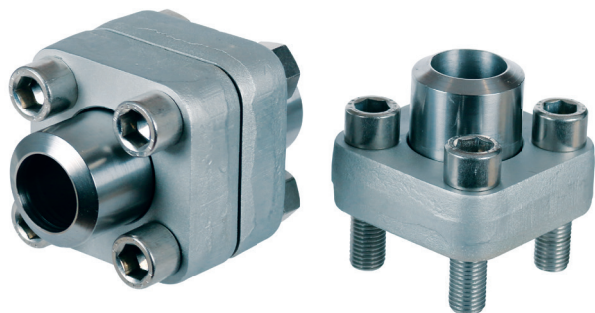


Ordering code:	S355J2^{*1} C45
• butt weld flange	VKA 33-...-M
• butt weld flange-coupling	VKK 29-...-M

maximum recommended working pressure	DN	Type	Dimensions						Bolts	O-ring	Weight (flange only)
			AxS	LK	F	D	H	G			
kg/cm ²											lb
Butt weld flange											
250	10	VKA 33-10/17,2x3,6	0,68x0,14	1,73	1,73	1,97	-	1,69	0,79	16,3 x 2,4	0,97
250	16	VKA 33-16/21,3x2,6	0,84x0,10	2,13	2,13	2,36	-	1,97	0,79	25,3 x 2,4	1,57
250	20	VKA 33-20/26,9x3,6	1,06x0,14	2,52	2,52	2,76	-	2,20	0,79	29,8 x 2,6	1,98
250	25	VKA 33-25/33,7x4,5	1,33x0,18	2,83	2,83	3,15	-	2,52	0,98	34,5 x 2,6	3,09
250	32	VKA 33-32/42,4x5,6	1,67x0,22	3,15	3,15	3,54	-	2,68	1,18	43 x 3	4,63
250	40	VKA 33-40/60,3x8	2,37x0,31	3,86	3,86	3,94	-	3,15	1,50	53,3 x 5,33	6,83
250	50	VKA 33-50/76,1x10	3,00x0,39	4,65	4,65	4,72	-	3,86	1,85	61 x 5	11,90
250	65	VKA 33-65/88,9x10	3,50x0,39	5,71	5,71	5,91	-	4,29	1,89	75 x 5	19,84
250	65	VKA 33-65/88,9x11	3,50x0,43	5,71	5,71	5,91	-	4,29	1,89	75 x 5	16,53
250	65	VKA 33-65/88,9x12,5	3,50x0,49	5,71	5,71	5,91	-	4,29	1,89	75 x 5	17,42
250	80	VKA 33-80/101,6x12,5	4,00x0,49	6,89	6,89	7,09	-	5,31	2,28	88 x 6	37,26
250	80	VKA 33-80/101,6x14,2	4,00x0,56	6,89	6,89	7,09	-	5,31	2,28	88 x 6	30,71
250	80	VKA 33-80/114,3x12,5	4,5x0,49	6,89	6,89	7,09	-	5,31	2,28	88 x 6	29,78
250	100	VKA 33-100/139,7x17,5	5,50x0,69	7,87	7,87	-	9,65	5,91	2,76	115 x 6	61,40
250	125	VKA 33-125/168,3x20	6,63x0,79	9,65	9,65	-	11,81	7,48	3,15	148 x 7	105,16
250	150	VKA 33-150/193,7x25	7,63x0,98	11,42	11,42	-	13,98	7,48	3,54	183,5 x 7	117,29
Butt weld flange-coupling											
250	10	VKK 29-10/17,2x3,6	0,68x0,14	1,73	1,73	1,97	-	3,39	0,79	16,3 x 2,4	1,76
250	16	VKK 29-16/21,3x2,6	0,84x0,10	2,13	2,13	2,36	-	3,94	0,79	25,3 x 2,4	2,69
250	20	VKK 29-20/26,9x3,6	1,06x0,14	2,52	2,52	2,76	-	4,41	0,79	29,8 x 2,6	3,75
250	25	VKK 29-25/33,7x4,5	1,33x0,18	2,83	2,83	3,15	-	5,04	0,98	34,5 x 2,6	5,95
250	32	VKK 29-32/42,4x5,6	1,67x0,22	3,15	3,15	3,54	-	5,35	1,18	43 x 3	8,82
250	40	VKK 29-40/60,3x8	2,37x0,31	3,86	3,86	3,94	-	6,30	1,50	53,3 x 5,33	13,23
250	50	VKK 29-50/76,1x10	3,00x0,39	4,65	4,65	4,72	-	7,72	1,85	61 x 5	22,71
250	65	VKK 29-65/88,9x10	3,50x0,39	5,71	5,71	5,91	-	8,58	1,89	75 x 5	38,47
250	65	VKK 29-65/88,9x11	3,50x0,43	5,71	5,71	5,91	-	8,58	1,89	75 x 5	32,71
250	65	VKK 29-65/88,9x12,5	3,50x0,49	5,71	5,71	5,91	-	8,58	1,89	75 x 5	33,82
250	80	VKK 29-80/101,6x12,5	4,00x0,49	6,89	6,89	7,09	-	10,63	2,28	88 x 6	71,87
250	80	VKK 29-80/101,6x14,2	4,00x0,56	6,89	6,89	7,09	-	10,63	2,28	88 x 6	60,57
250	80	VKK 29-80/114,3x12,5	4,5x0,49	6,89	6,89	7,09	-	10,63	2,28	88 x 6	60,51
250	100	VKK 29-100/139,7x17,5	5,50x0,69	7,87	7,87	-	9,65	11,81	2,76	115 x 6	119,05
250	125	VKK 29-125/168,3x20	6,63x0,79	9,65	9,65	-	11,81	14,96	3,15	148 x 7	198,42
250	150	VKK 29-150/193,7x25	7,63x0,98	11,42	11,42	-	13,98	14,96	3,54	183,5 x 7	231,49

*1 or comparable material

Type: Welding gap form to DIN 2559, Material: Square S355J2/C45, Insert S355J2, also available in 1.4404

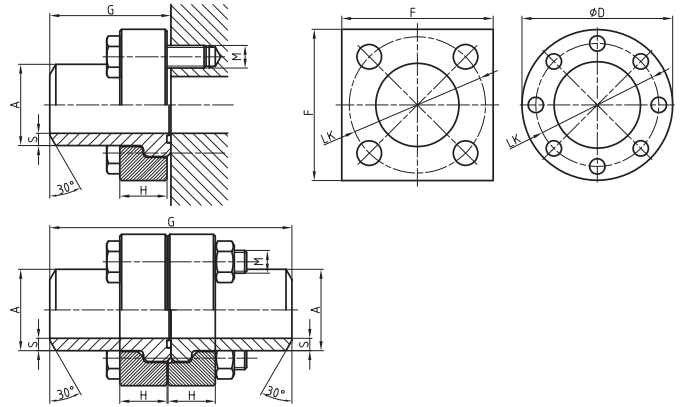
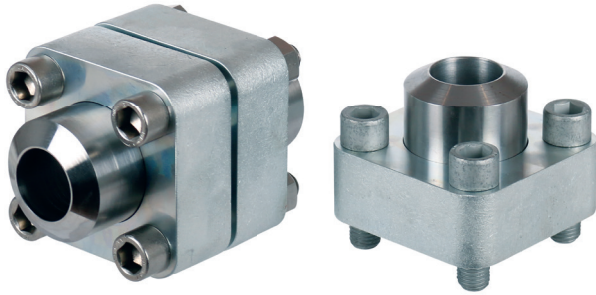


Ordering code:	S355J2^{*1} C45
• butt weld flange	VKA 34-...-M
• butt weld flange-coupling	VKK 30-...-M

maximum recommended working pressure	DN	Type	Dimensions						Bolts	O-ring	Weight (flange only)
			AxS	LK	F	D	G	H			
kg/cm ²											lb
Butt weld flange											
315	10	VKA 34-10/17,2x3,6	0,68x0,14	1,73	1,97	-	1,69	0,79	0,79	16,3 x 2,4	0,99
315	16	VKA 34-16/26,9x4,5	1,06x0,18	2,13	2,36	-	1,97	0,79	0,79	25,5 x 2,4	1,54
315	20	VKA 34-20/33,7x5,6	1,33x0,22	2,52	2,76	-	2,20	0,79	0,79	29,8 x 2,6	1,98
315	25	VKA 34-25/42,7x7,1	1,68x0,28	2,83	3,15	-	2,52	0,98	0,98	34,5 x 2,6	3,20
315	32	VKA 34-32/48,3x6	1,90x0,24	3,15	3,54	-	2,68	1,18	1,18	43 x 3	4,85
315	32	VKA 34-32/48,3x8	1,90x0,31	3,15	3,54	-	2,68	1,18	1,18	43 x 3	3,60
315	40	VKA 34-40/60,3x10	2,37x0,39	3,86	3,94	-	3,15	1,50	1,50	53,3 x 5,33	7,05
315	40	VKA 34-40/60,3x11	2,37x0,43	3,86	3,94	-	3,15	1,50	1,50	53,3 x 5,33	6,17
315	50	VKA 34-50/76,1x12,5	3,00x0,49	4,65	4,72	-	3,86	1,85	1,85	61 x 5	12,35
315	65	VKA 34-65/88,9x14,2	3,50x0,56	5,71	5,91	-	4,29	1,89	1,89	75 x 5	20,94
315	80	VKA 34-80/101,6x16	4,5x0,49	6,89	7,09	-	5,31	2,28	2,28	88 x 6	38,80
315	80	VKA 34-80/101,6x20	4,5x0,56	6,89	7,09	-	5,31	2,28	2,28	88 x 6	30,20
315	80	VKA 34-80/114,3x12,5	4,5x0,63	6,89	7,09	-	5,31	2,28	2,28	88 x 6	30,68
315	80	VKA 34-80/114,3x14,2	4,5x0,69	6,89	7,09	-	5,31	2,28	2,28	88 x 6	30,84
315	80	VKA 34-80/114,3x16	4x0,63	6,89	7,09	-	5,31	2,28	2,28	88 x 6	31,53
315	80	VKA 34-80/114,3x17,5	4x0,79	6,89	7,09	-	5,31	2,28	2,28	88 x 6	33,69
315	100	VKA 34-100/139,7x25	5,50x0,98	7,87	-	9,65	5,91	2,76	2,76	115 x 6	64,60
315	100	VKA 34-100/152,5x28	6,00x1,10	7,87	-	9,65	5,91	2,76	2,76	115 x 6	45,42
315	125	VKA 34-125/168,3x25	6,63x0,98	9,65	-	11,81	7,48	3,15	3,15	148 x 7	106,26
315	125	VKA 34-125/177,8x30	7,00x1,18	9,65	-	11,81	7,48	3,15	3,15	148 x 7	95,11
315	150	VKA 34-150/219,1x36	8,63x1,42	11,42	-	13,98	7,48	3,54	3,54	183,5 x 7	121,47
Butt weld flange-coupling											
315	10	VKK 30-12/17,2x3,6	0,68x0,14	1,73	1,97	-	3,39	0,79	0,79	16,3 x 2,4	1,79
315	16	VKK 30-16/26,9x4,5	1,06x0,18	2,13	2,36	-	3,94	0,79	0,79	25,3 x 2,4	2,67
315	20	VKK 30-20/33,7x5,6	1,33x0,22	2,52	2,76	-	4,41	0,79	0,79	29,8 x 2,6	3,75
315	25	VKK 30-25/42,7x7,1	1,68x0,28	2,83	3,15	-	5,04	0,98	0,98	34,5 x 2,6	5,95
315	32	VKK 30-32/48,3x6	1,90x0,24	3,15	3,54	-	5,35	1,18	1,18	43 x 3	9,15
315	32	VKK 30-32/48,3x8	1,90x0,31	3,15	3,54	-	5,35	1,18	1,18	43 x 3	7,17
315	40	VKK 30-40/60,3x10	2,37x0,39	3,86	3,94	-	6,30	1,50	1,50	53,3 x 5,33	13,78
315	40	VKK 30-40/60,3x11	2,37x0,43	3,86	3,94	-	6,30	1,50	1,50	53,3 x 5,33	12,11
315	50	VKK 30-50/76,1x12,5	3,00x0,49	4,65	4,72	-	7,72	1,85	1,85	61 x 5	23,81
315	65	VKK 30-65/88,9x14,2	3,50x0,56	5,71	5,91	-	8,58	1,89	1,89	75 x 5	40,45
315	80	VKK 30-80/101,6x16	4,50x0,49	6,89	7,09	-	10,63	2,28	2,28	88 x 6	74,52
315	80	VKK 30-80/101,6x20	4,50x0,56	6,89	7,09	-	10,63	2,28	2,28	88 x 6	60,46
315	80	VKK 30-80/114,3x12,5	4,50x0,63	6,89	7,09	-	10,63	2,28	2,28	88 x 6	59,20
315	80	VKK 30-80/114,3x14,2	4,50x0,69	6,89	7,09	-	10,63	2,28	2,28	88 x 6	61,33
315	80	VKK 30-80/114,3x16	4x0,63	6,89	7,09	-	10,63	2,28	2,28	88 x 6	62,71
315	80	VKK 30-80/114,3x17,5	4x0,79	6,89	7,09	-	10,63	2,28	2,28	88 x 6	66,65
315	100	VKK 30-100/139,7x25	5,50x0,98	7,87	-	9,65	11,81	2,76	2,76	115 x 6	126,10
315	100	VKK 30-100/152,5x28	6,00x1,10	7,87	-	9,65	11,81	2,76	2,76	115 x 6	85,98
315	125	VKK 30-125/168,3x25	6,63x0,98	9,65	-	11,81	14,96	3,15	3,15	148 x 7	209,44
315	125	VKK 30-125/177,8x30	7,00x1,18	9,65	-	11,81	14,96	3,15	3,15	148 x 7	193,65
315	150	VKK 30-150/219,1x36	8,63x1,42	11,42	-	13,98	14,96	3,54	3,54	183,5 x 7	240,74

*1 or comparable material

Type: Welding gap form to DIN 2559, Material: Square S355J2/C45, Insert S355J2, also available in 1.4404

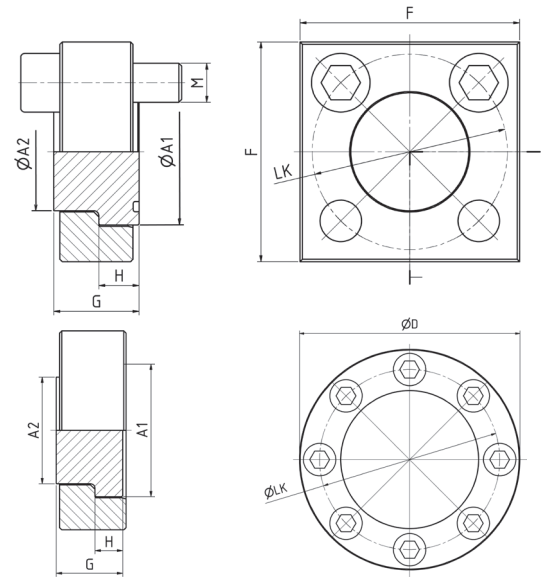


Ordering code:	S355J2^{*1} C45
• butt weld flange	VKA 43-...-M
• butt weld flange-coupling	VKK 41-...-M

maximum recommended working pressure	DN	Type	Dimensions						Bolts	O-ring	Weight (flange only)
			AxS	LK	F	D	G	H			
kg/cm ²									M		lb
Butt weld flange											
400	10	VKA 43-10/...	0,67x0,14	1,73	1,97	-	1,69	0,79	0,79	16,3 x 2,40	0,99
400	16	VKA 43-16/...	1,06x0,22	2,13	2,36	-	1,97	0,79	0,79	25,3 x 2,40	1,54
400	20	VKA 43-20/...	1,33x0,25	2,52	2,76	-	2,20	0,79	0,79	29,8 x 2,60	1,98
400	25	VKA 43-25/...	1,68x0,31	2,83	3,15	-	2,52	0,98	0,98	34,5 x 2,60	3,20
400	32	VKA 43-32/...	2,37x0,49	3,86	3,94	-	3,15	1,50	1,50	53,3 x 5,33	4,85
400	40	VKA 43-40/...	2,76x0,56	4,65	4,72	-	3,86	1,85	1,85	61,0 x 5,00	7,05
400	50	VKA 43-50/...	3,50x0,69	5,71	5,91	-	4,29	1,89	1,89	75,0 x 5,00	12,35
400	65	VKA 43-65/...	4,00x0,79	6,89	7,09	-	5,31	2,28	2,28	88,0 x 6,00	20,94
400	80	VKA 43-80/...	5,50x1,10	7,87	-	9,65	5,91	2,76	2,76	115,0 x 6,00	38,80
400	100	VKA 43-100/...	6,63x1,26	9,65	-	11,81	7,48	3,15	3,15	148,0 x 7,00	64,60
400	125	VKA 43-125/...	8,63x1,77	11,42	-	13,98	7,48	3,54	3,54	183,5 x 7,00	106,26
Butt weld flange-coupling											
400	10	VKK 41-10/...	0,67x0,14	1,73	1,97	-	3,39	0,79	0,79	16,3 x 2,40	1,79
400	16	VKK 41-16/...	1,06x0,22	2,13	2,36	-	3,94	0,79	0,79	25,3 x 2,40	2,67
400	20	VKK 41-20/...	1,33x0,25	2,52	2,76	-	4,41	0,79	0,79	29,8 x 2,60	3,75
400	25	VKK 41-25/...	1,68x0,31	2,83	3,15	-	5,04	0,98	0,98	34,5 x 2,60	5,95
400	32	VKK 41-32/...	2,37x0,49	3,86	3,94	-	6,30	1,50	1,50	53,3 x 5,33	9,15
400	40	VKK 41-40/...	2,76x0,56	4,65	4,72	-	7,72	1,77	1,77	61,0 x 5,00	13,78
400	50	VKK 41-50/...	3,50x0,69	5,71	5,91	-	8,58	1,89	1,89	75,0 x 5,00	23,81
400	65	VKK 41-65/...	4,00x0,79	6,89	7,09	-	10,63	2,28	2,28	88,0 x 6,00	40,45
400	80	VKK 41-80/...	5,50x1,10	7,87	-	9,65	11,81	2,76	2,76	115,0 x 6,00	74,52
400	100	VKK 41-100/...	6,63x1,26	9,65	-	11,81	14,96	3,15	3,15	148,0 x 7,00	126,10
400	125	VKK 41-125/...	8,63x1,77	11,42	-	13,98	14,96	3,54	3,54	183,5 x 7,00	209,44

*1 or comparable material

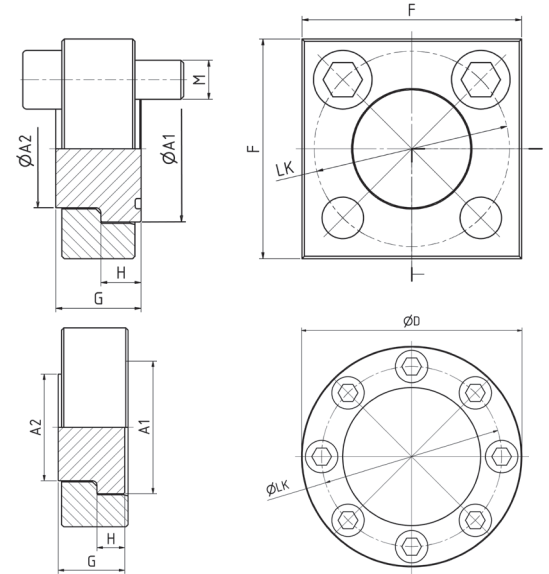
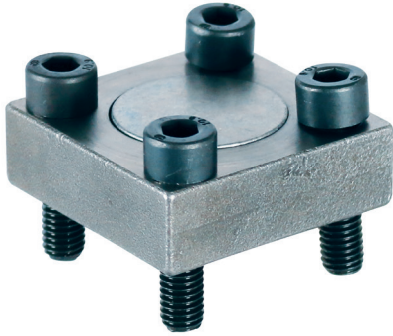
Type: Welding gap form to DIN 2559, **Material:** Square S355J2/C45, **Insert S355J2**, also available in 1.4404



Ordering code:	S355J2^{*1}
• flange plug with o-ring groove (flange plug including square or round flange respectively, o-ring and bolts)	VKB-... -160-KM
• flange plug without o-ring groove (flange plug including square or round flange respectively)	GVKB-... -160-K
Surface only available in chrome3	

maximum recommended working pressure	DN	Type	Dimensions							Bolts	O-ring	weight (flange plug only)	
			A1	A2	LK	F	D	G	H				M
kg/cm ²													
Flange plug with o-ring groove													
160	12	VKB-12-160KM	1,10	0,69	1,73	1,97	-	0,98	0,45	4 x M10x35	16,3x2,4	0,75	
160	16	VKB-16-160KM	1,50	1,06	2,13	2,36	-	0,98	0,45	4 x M10x35	25,3x2,4	1,17	
160	20	VKB-20-160KM											
160	25	VKB-25-160KM	1,81	1,34	2,52	2,76	-	0,98	0,49	4 x M12x35	29,8x2,6	1,65	
160	32	VKB-32-160KM	2,15	1,69	2,83	3,15	-	1,18	0,57	4 x M12x40	34,5x2,6	2,51	
160	40	VKB-40-160KM	2,36	1,90	3,15	3,54	-	1,38	0,65	4 x M16x50	43,0x3,0	3,86	
160	50	VKB-50-160KM	2,99	2,37	3,86	3,94	-	1,69	0,94	4 x M16x60	53,3x5,33	6,04	
160	65	VKB-65-160KM	3,62	3,03	4,65	4,72	-	2,05	0,98	4 x M20x70	61,0x5,0	10,82	
160	80	VKB-80-160KM	5,31	4,51	6,89	7,09	-	2,48	1,30	4 x M30x90	88,0x6,0	17,46	
160	100	VKB-100-160KM											
160	125	VKB-125-160KM	6,61	6,02	7,87	-	9,65	2,95	1,54	8 x M24x100	115,0x6,0	55,25	
160	150	VKB-150-160KM	8,27	7,01	9,65	-	11,81	3,54	1,77	8 x M30x110	148,0x7,0	93,74	
Flange plug without o-ring groove													
160	12	GVKB-12-160K	1,10	0,69	1,73	1,97	-	0,79	0,31	-	-	0,71	
160	16	GVKB-16-160K	1,50	1,06	2,13	2,36	-	0,79	0,31	-	-	1,10	
160	20	GVKB-20-160K											
160	25	GVKB-25-160K	1,81	1,34	2,52	2,76	-	0,79	0,35	-	-	1,54	
160	32	GVKB-32-160K	2,15	1,69	2,83	3,15	-	0,98	0,43	-	-	2,34	
160	40	GVKB-40-160K	2,36	1,90	3,15	3,54	-	1,18	0,49	-	-	3,66	
160	50	GVKB-50-160K	2,99	2,37	3,86	3,94	-	1,50	0,71	-	-	5,69	
160	65	GVKB-65-160K	3,62	3,03	4,65	4,72	-	1,85	0,71	-	-	10,27	
160	80	GVKB-80-160K	5,31	4,51	6,89	7,09	-	2,28	0,94	-	-	16,45	
160	100	GVKB-100-160K											
160	125	GVKB-125-160K	6,61	6,02	7,87	-	9,65	2,76	1,30	-	-	53,55	
160	150	GVKB-150-160K	8,27	7,01	9,65	-	11,81	3,23	1,46	-	-	89,40	

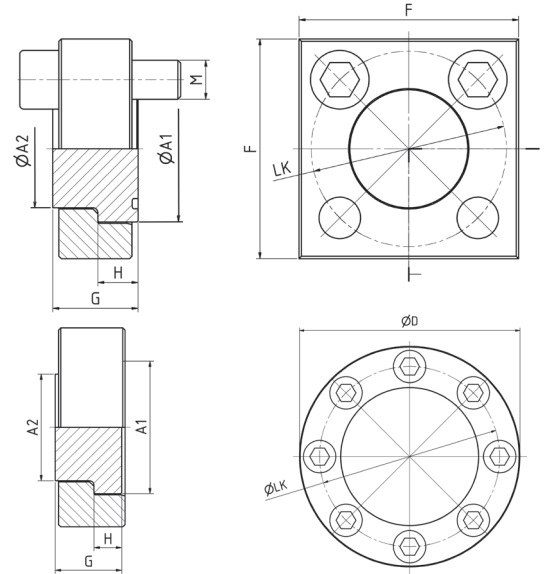
*1 or comparable material (also available in 1.4404)



Ordering code:	S355J2^{*1}
• flange plug with o-ring groove only	VKB-...
• flange plug without o-ring groove only	G-VKB-...
• flange plug with o-ring groove (flange plug including square or round flange respectively, o-ring and bolts)	VKB-... KM
• flange plug without o-ring groove (flange plug including square or round flange respectively)	GVKB-... K
Surface only available in chrome3	

maximum recommended working pressure	DN	Type	Dimensions							Bolts	O-ring	weight (flange plug only)	
			A1	A2	LK	F	D	G	H				M
kg/cm ²													
Flange plug with o-ring groove													
250/315	10	VKB 10	1,10	0,69	1,73	1,97	–	0,98	0,45	4 x M10x35	16,3 x 2,40	0,18	
250/315	16	VKB 16	1,50	1,06	2,13	2,36	–	0,98	0,45	4 x M10x35	25,3 x 2,40	0,35	
250/315	20	VKB 20	1,81	1,34	2,52	2,76	–	0,98	0,49	4 x M12x35	29,8 x 2,60	0,55	
250/315	25	VKB 25	2,15	1,69	2,83	3,15	–	1,18	0,57	4 x M12x40	34,5 x 2,60	0,97	
250/315	32	VKB 32	2,36	1,90	3,15	3,54	–	1,38	0,65	4 x M16x50	43,0 x 3,00	1,37	
250/315	40	VKB 40	2,99	2,37	3,86	3,94	–	1,69	0,94	4 x M16x60	53,3 x 5,33	2,73	
250/315	50	VKB 50	3,62	3,03	4,65	4,72	–	2,05	0,98	4 x M20x70	61,0 x 5,00	4,96	
250/315	65	VKB 65	4,57	3,50	5,71	5,91	–	2,09	1,14	4 x M24x75	75,0 x 5,00	7,76	
250/315	80	VKB 80	5,31	4,51	6,89	7,09	–	2,48	1,30	4 x M30x90	88,0 x 6,00	13,32	
250/315	100	VKB 100	6,61	6,02	7,87	–	9,65	2,95	1,54	8 x M24x100	115,0 x 6,00	26,15	
250/315	125	VKB 125	8,27	7,01	9,65	–	11,81	3,54	1,77	8 x M30x110	148,0 x 7,00	45,90	
250/315	150	VKB 150	9,65	8,63	11,42	–	13,98	3,54	1,97	8 x M36x130	183,5 x 7,00	66,16	
Flange plug without o-ring groove													
250/315	10	GVKB 10	1,10	0,69	1,73	1,97	–	0,79	0,31	–	–	0,13	
250/315	16	GVKB 16	1,50	1,06	2,13	2,36	–	0,79	0,31	–	–	0,29	
250/315	20	GVKB 20	1,81	1,34	2,52	2,76	–	0,79	0,35	–	–	0,44	
250/315	25	GVKB 25	2,15	1,69	2,83	3,15	–	0,98	0,43	–	–	0,79	
250/315	32	GVKB 32	2,36	1,90	3,15	3,54	–	1,18	0,49	–	–	1,17	
250/315	40	GVKB 40	2,99	2,37	3,86	3,94	–	1,50	0,71	–	–	2,38	
250/315	50	GVKB 50	3,62	3,03	4,65	4,72	–	1,85	0,71	–	–	4,41	
250/315	65	GVKB 65	4,57	3,50	5,71	5,91	–	1,89	0,83	–	–	6,75	
250/315	80	GVKB 80	5,31	4,51	6,89	7,09	–	2,28	0,94	–	–	12,02	
250/315	100	GVKB 100	6,61	6,02	7,87	–	9,65	2,76	1,30	–	–	24,45	
250/315	125	GVKB 125	8,27	7,01	9,65	–	11,81	3,23	1,46	–	–	41,56	
250/315	150	GVKB 150	9,65	8,63	11,42	–	13,98	3,35	1,65	–	–	62,28	

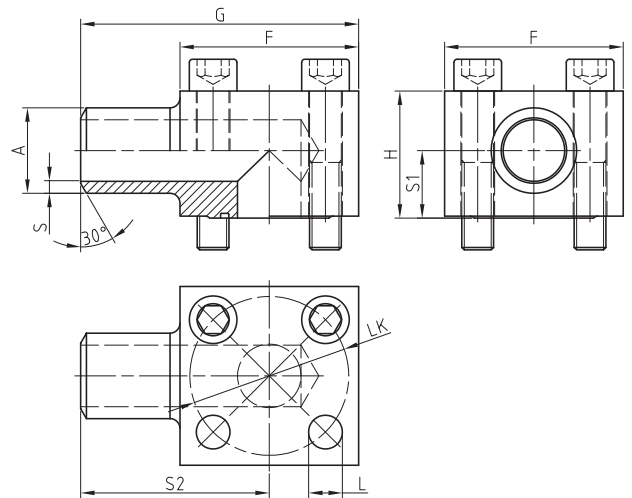
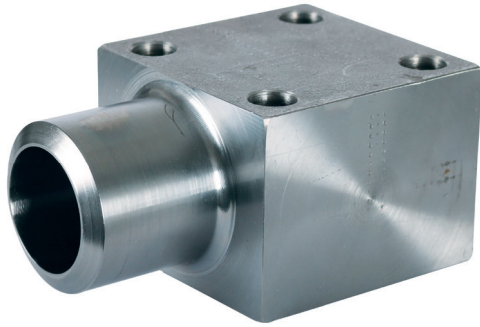
*1 or comparable material (also available in 1.4404)



Ordering code:	S355J2^{*1}
<ul style="list-style-type: none"> flange plug with o-ring groove (flange plug including square or round flange respectively, o-ring and bolts) 	VKB-... -400KM
<ul style="list-style-type: none"> flange plug without o-ring groove (flange plug including square or round flange respectively) 	GVKB-... -400K
Surface only available in chrome3	

maximum recommended working pressure	DN	Type	Dimensions							Bolts	O-ring	weight (flange plug only)	
			A1	A2	LK	F	D	G	H				M
kg/cm ²													
Flange plug with o-ring groove													
400	10	VKB-10-400KM	1,10	0,69	1,73	1,97	–	0,98	0,45	4 x M10x35	16,3x2,4	1,17	
400	16	VKB-16-400KM	1,50	1,06	2,13	2,36	–	0,98	0,45	4 x M10x35	25,3x2,4	1,65	
400	20	VKB-20-400KM	1,81	1,34	2,52	2,76	–	0,98	0,49	4 x M12x35	29,8x2,6	2,51	
400	25	VKB-25-400KM	2,15	1,69	2,83	3,15	–	1,18	0,57	4 x M12x40	34,5x2,6	3,86	
400	32	VKB-32-400KM	2,99	2,37	3,86	3,94	–	1,69	0,94	4 x M16x60	53,3x5,33	6,04	
400	40	VKB-40-400KM	3,62	3,03	4,65	4,72	–	2,05	0,98	4 x M20x70	61,0x5,0	10,82	
400	50	VKB-50-400KM	4,57	3,50	5,71	5,91	–	2,09	1,14	4 x M24x75	75,0x5,0	17,46	
400	65	VKB-65-400KM	5,31	4,51	6,89	7,09	–	2,48	1,30	4 x M30x90	88,0x6,0	30,07	
400	80	VKB-80-400KM	6,61	6,02	7,87	–	9,65	2,95	1,54	8 x M24x100	115,0x6,0	55,25	
400	100	VKB-100-400KM	8,27	7,01	9,65	–	11,81	3,54	1,77	8 x M30x110	148,0x7,0	93,74	
400	125	VKB-125-400KM	9,65	8,63	11,42	–	13,98	3,54	1,97	8 x M36x130	183,5x7,0	138,91	
Flange plug without o-ring groove													
400	10	GVKB-10-400K	1,10	0,69	1,73	1,97	–	0,79	0,31	–	–	0,86	
400	16	GVKB-16-400K	1,50	1,06	2,13	2,36	–	0,79	0,31	–	–	1,54	
400	20	GVKB-20-400K	1,81	1,34	2,52	2,76	–	0,79	0,35	–	–	2,34	
400	25	GVKB-25-400K	2,15	1,69	2,83	3,15	–	0,98	0,43	–	–	3,66	
400	32	GVKB-32-400K	2,99	2,37	3,86	3,94	–	1,50	0,71	–	–	5,69	
400	40	GVKB-40-400K	3,62	3,03	4,65	4,72	–	1,85	0,71	–	–	10,27	
400	50	GVKB-50-400K	4,57	3,50	5,71	5,91	–	1,89	0,83	–	–	16,45	
400	65	GVKB-65-400K	5,31	4,51	6,89	7,09	–	2,28	0,94	–	–	28,77	
400	80	GVKB-80-400K	6,61	6,02	7,87	–	9,65	2,76	1,30	–	–	53,55	
400	100	GVKB-100-400K	8,27	7,01	9,65	–	11,81	3,23	1,46	–	–	89,40	
400	125	GVKB-125-400K	9,65	8,63	11,42	–	13,98	3,35	1,65	–	–	135,03	

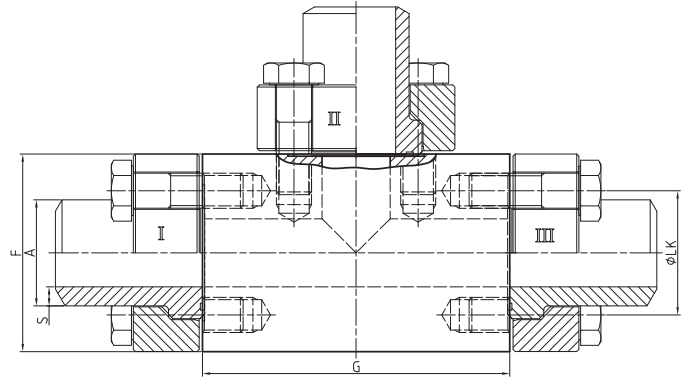
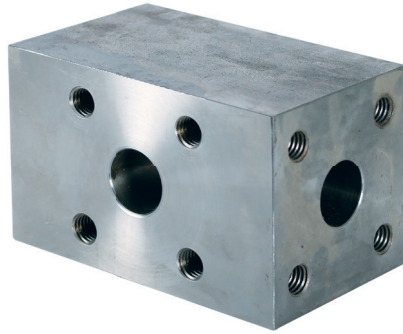
*1 or comparable material (also available in 1.4404)



Ordering code:	S355J2^{*1} C15
• elbow only	VKW-...
• including bolts and o-ring	VKW-...-M
Surface only blanc available	

maximum recommended working pressure	DN	Type	Dimensions								Bolts	O-ring	Weight (flange only)
			AxS	LK	F	S1	S2	H	G	L			
90° elbow													
250	10	VKW 10	0,68x0,14	1,73	1,73	1,97	0,67	2,17	1,14	3,15	0,43	16,3 x 2,4	–
250	16	VKW 16	0,84x0,10	2,13	2,13	2,36	0,91	2,56	1,61	3,74	0,43	25,3 x 2,4	–
250	20	VKW 20	1,06x0,14	2,52	2,52	2,76	1,02	2,95	1,85	4,33	0,51	29,8 x 2,4	3,37
250	25	VKW 25	1,33x0,18	2,83	2,83	3,15	1,18	3,54	2,20	5,12	0,51	34,5 x 2,6	–
250	32	VKW 32	1,67x0,22	3,15	3,15	3,54	1,38	3,74	2,52	5,51	0,67	43 x 3	7,05
250	40	VKW 40 60,3x8	2,37x0,31	3,86	3,86	3,94	1,57	4,13	2,99	6,10	0,67	53,3 x 5,33	10,80
250	40	VKW 40 60,3x10	2,37x0,39	3,86	3,86	3,94	1,57	4,13	2,99	6,10	0,67	53,3 x 5,33	11,24
250	50	VKW 50 76,1x10	3,00x0,39	4,65	4,65	4,72	2,09	4,53	3,94	6,89	0,87	61 x 5	18,08
250	50	VKW 50 76,1x12,5	3,00x0,49	4,65	4,65	4,72	2,09	4,53	3,94	6,89	0,87	61 x 5	20,06
250	65	VKW 65 88,9x11	3,50x0,43	5,71	5,71	5,91	2,52	4,92	4,72	7,87	0,98	75 x 5	35,49
250	65	VKW 65 88,9x14,2	3,50x0,56	5,71	5,71	5,91	2,52	4,92	4,72	7,87	0,98	75 x 5	37,04
250	80	VKW 80 101,6x14,2	4,50x0,49	6,89	6,89	7,09	2,87	5,12	5,51	8,66	1,26	88 x 6	54,90
250	80	VKW 80 114,3x12,5	4,00x0,49	6,89	6,89	7,09	2,87	5,12	5,51	8,66	1,26	88 x 6	57,98
250	80	VKW 80 114,3x17,5	4,50x0,69	6,89	6,89	7,09	2,87	5,12	5,51	8,66	1,26	88 x 6	59,08

*1 or comparable material (also available in 1.4404)



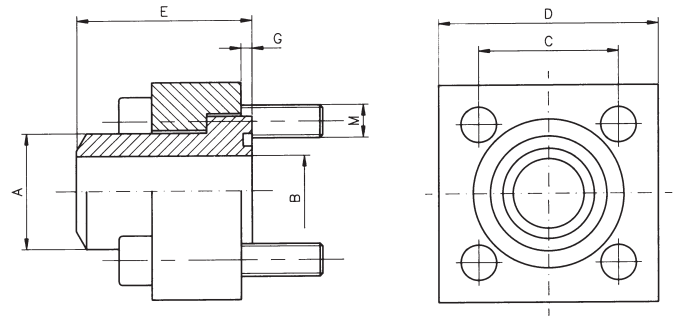
Ordering code:	S355J2^{*1}	1.4404^{*1} 316L
• T-flange connector only	VKV-...	VKV-X-...
• including flange, bolts and o-ring	VKV-...-KM	VKV-X-...-KMX
Surface only blanc available		

* The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!

maximum recommended working pressure	DN	Type	Dimensions				Bolts	O-ring	Weight (flange only)
			AxS (I, II, III)	LK	F	G			
kg/cm ²							M		lb
T-flange connector									
400	10	VKV 10	<i>Dependent on use</i>	1,73	1,97	3,94	12/M10x35	16,3 x 2,40	3,75
400	16	VKV 16		2,13	2,36	4,33	12/M10x35	25,3 x 2,40	-
400	20	VKV 20		2,52	2,76	4,53	12/M12x35	29,8 x 2,60	8,38
400	25	VKV 25		2,83	3,15	4,92	12/M12x40	34,5 x 2,60	11,90
400	32	VKV 32		3,15	3,54	5,51	12/M16x50	43,0 x 3,00	16,31
400	40	VKV 40		3,86	3,94	6,30	12/M16x60	53,3 x 5,33	21,61
400	50	VKV 50		4,65	4,72	7,09	12/M20x70	61,0 x 5,00	33,95
400	65	VKV 65		5,71	5,91	7,87	12/M24x75	75,0 x 5,00	59,75
400	80	VKV 80		6,89	7,09	9,45	12/M30x90	88,0 x 6,00	106,26

*1 or comparable material

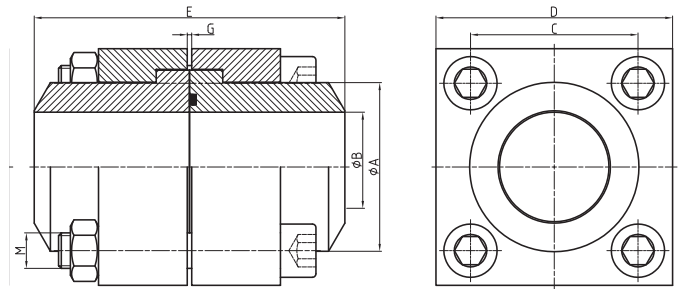
T-flange connector can also be supplied with different sizes or different tube dimensions. Example: I = DN 25/33,7x4,5, II = DN 16/21,3x2,6, III = DN 20/29,9x3,6, Order no. VKV-25/33,7x4,5 – 16/21,3x2,6 – 20/26,9x3,6.



Ordering code:	S355J2^{*1}
• butt weld flange (including metric bolts and o-ring)	CET-...-M

maximum recommended working pressure	Nominal flange size	Type	Dimensions						Bolts	Weight (flange only)
			A	B	C	D	E	G		
kg/cm ²	inch									lb
Nominal pressure 250 bar										
250	3/8"	CET 38 ST 250	0,71	0,49	0,97	1,57	1,18	0,04	M 6x35	0,37
250	1/2"	CET 12 ST 250	0,87	0,59	1,17	1,77	1,18	0,04	M 8x30	0,49
250	3/4"	CET 34 ST 250	1,10	0,79	1,39	1,97	1,38	0,04	M 8x30	0,71
250	1"	CET 1 ST 250	1,38	0,98	1,72	2,56	1,57	0,04	M 10x35	1,39
250	1 1/4"	CET 114 ST 250	1,69	1,26	2,03	2,95	1,77	0,04	M 12x40	2,03
250	1 1/2"	CET 112 ST 250	1,97	1,50	2,36	3,35	1,97	0,04	M 14x45	2,95
250	2"	CET 2 ST 250	2,44	1,85	2,73	3,94	2,36	0,06	M 16x55	5,07
250	2 1/2"	CET 212 ST 250	2,99	2,28	3,28	4,72	2,76	0,06	M 20x60	8,82
250	3"	CET 3 ST 250	3,54	2,76	4,04	5,51	3,15	0,06	M 20x70	13,29
250	3 1/2"	CET 312 ST 250	4,02	3,15	4,04	5,51	3,54	0,06	M 20x90	16,67
250	4"	CET 4 ST 250	4,49	3,54	4,46	6,30	4,13	0,06	M 24x100	24,16
Nominal pressure 400 bar										
400	3/8"	CET 38 ST 400	0,71	0,43	0,97	1,57	1,38	0,04	M 6x35	0,44
400	1/2"	CET 12 ST 400	0,87	0,55	1,17	1,77	1,57	0,04	M 8x30	0,68
400	3/4"	CET 34 ST 400	1,10	0,71	1,39	1,97	1,77	0,04	M 8x35	0,99
400	1"	CET 1 ST 400	1,38	0,87	1,72	2,56	1,97	0,04	M 10x40	1,83
400	1 1/4"	CET 114 ST 400	1,69	1,14	2,03	2,95	2,17	0,04	M 12x45	2,62
400	1 1/2"	CET 112 ST 400	2,01	1,38	2,36	3,35	2,36	0,04	M 14x55	3,97
400	2"	CET 2 ST 400	2,40	1,69	2,73	3,94	2,76	0,06	M 16x60	6,79
400	2 1/2"	CET 212 ST 400	3,15	2,09	3,28	4,72	3,15	0,06	M 20x70	11,33
400	3"	CET 3 ST 400	3,54	2,28	4,04	5,51	3,54	0,06	M 20x90	16,18
400	3 1/2"	CET 312 ST 400	4,02	2,48	4,04	5,51	3,54	0,06	M 20x90	17,84
400	4"	CET 4 ST 400	4,49	2,91	4,46	6,30	4,13	0,06	M 24x100	28,11

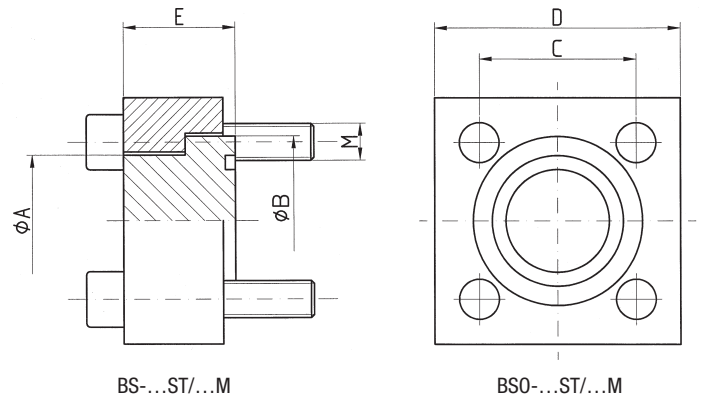
*1 or comparable material



Ordering code:	S355J2^{*1}
• flange-coupling (including metric bolts and o-ring)	DCET-...-M

maximum recommended working pressure	Nominal flange size	Type	Dimensions						Bolts	Weight (flange only)
			A	B	C	D	E	G		
kg/cm ²	inch									lb
Nominal pressure 250 bar										
250	3/8"	DCET 38 ST/250	0,71	0,49	0,97	1,57	2,36	0,08	M 6x45	0,93
250	1/2"	DCET 12 ST/250	0,87	0,59	1,17	1,77	2,36	0,08	M 8x45	1,15
250	3/4"	DCET 34 ST/250	1,10	0,79	1,39	1,97	2,76	0,08	M 8x45	1,50
250	1"	DCET 1 ST/250	1,38	0,98	1,72	2,56	3,15	0,08	M 10x50	2,87
250	1 1/4"	DCET 114 ST/250	1,69	1,26	2,03	2,95	3,54	0,08	M 12x60	4,37
250	1 1/2"	DCET 112 ST/250	1,97	1,50	2,36	3,35	3,94	0,08	M 14x70	6,15
250	2"	DCET 2 ST/250	2,44	1,85	2,73	3,94	4,72	0,12	M 16x90	10,30
250	2 1/2"	DCET 212 ST/250	2,99	2,28	3,28	4,72	5,51	0,12	M 20x100	17,55
250	3"	DCET 3 ST/250	3,54	2,76	4,04	5,51	6,30	0,12	M 20x110	26,01
250	3 1/2"	DCET 312 ST/250	4,02	3,15	4,04	5,51	7,09	0,12	M 20x130	31,09
250	4"	DCET 4 ST/250	4,49	3,54	4,46	6,30	8,27	0,12	M 24x150	47,62
Nominal pressure 400 bar										
400	3/8"	DCET 38 ST/400	0,71	0,43	0,97	1,57	2,76	0,08	M 6x45	1,04
400	1/2"	DCET 12 ST/400	0,87	0,55	1,17	1,77	3,15	0,08	M 8x50	1,39
400	3/4"	DCET 34 ST/400	1,10	0,71	1,39	1,97	3,54	0,08	M 8x60	1,98
400	1"	DCET 1 ST/400	1,38	0,87	1,72	2,56	3,94	0,08	M 10x70	3,81
400	1 1/4"	DCET 114 ST/400	1,73	1,14	2,03	2,95	4,33	0,08	M 12x80	5,78
400	1 1/2"	DCET 112 ST/400	2,01	1,38	2,36	3,35	4,72	0,08	M 14x90	8,29
400	2"	DCET 2 ST/400	2,40	1,69	2,73	3,94	5,51	0,12	M 16x100	14,11
400	2 1/2"	DCET 212 ST/400	3,15	2,09	3,28	4,72	6,30	0,12	M 20x110	23,15
400	3"	DCET 3 ST/400	3,54	2,28	4,04	5,51	7,09	0,12	M 20x130	36,16
400	3 1/2"	DCET 312 ST/400	4,02	2,48	4,04	5,51	7,09	0,12	M 20x130	36,82
400	4"	DCET 4 ST/400	4,49	2,91	4,46	6,30	8,27	0,12	M 24x160	55,12

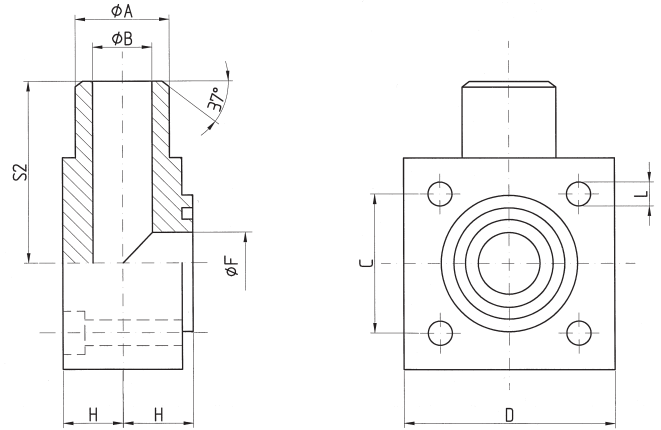
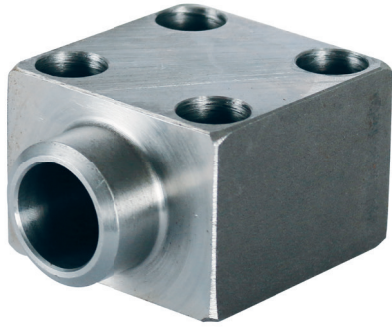
*1 or comparable material



Ordering code:	S355J2^{*1}
• square flange	VK-...ST/...
• plug	BS-...ST/...
• plug without o-ringgroove	BS-...ST/...
• square flange + plug including metric bolts and o-ring	BS-...ST/...-M
• square flange + plug without o-ringgroove	BSO-...ST/...
Surface only available in chrome3	

maximum recommended working pressure	Nominal flange size	Type	Dimensions					Bolts	Weight (flange only)
			A	B	C	D	E		
kg/cm ²	inch						M	lb	
Nominal pressure 250 bar									
250	3/8"	BS/BSO 38 ST/250	0,71	0,96	0,97	1,57	0,59	M 6x35	0,09
250	1/2"	BS/BSO 12 ST/250	0,94	1,19	1,17	1,77	0,63	M 8x30	0,15
250	3/4"	BS/BSO 34 ST/250	1,24	1,50	1,39	1,97	0,67	M 8x30	0,29
250	1"	BS/BSO 1 ST/250	1,50	1,75	1,72	2,56	0,75	M 10x35	0,42
250	1 1/4"	BS/BSO 114 ST/250	1,69	2,00	2,03	2,95	0,91	M 12x40	0,66
250	1 1/2"	BS/BSO 112 ST/250	1,97	2,37	2,36	3,35	1,02	M 14x45	1,01
250	2"	BS/BSO 2 ST/250	2,44	2,81	2,73	3,94	1,22	M 16x55	1,81
250	2 1/2"	BS/BSO 212 ST/250	2,99	3,43	3,28	4,72	1,46	M 20x60	3,17
250	3"	BS/BSO 3 ST/250	3,54	4,00	4,04	5,51	1,65	M 20x70	4,96
250	3 1/2"	BS/BSO 312 ST/250	4,02	4,69	4,04	5,51	2,13	M 20x90	8,60
250	4"	BS/BSO 4 ST/250	4,49	5,16	4,46	6,30	2,44	M 24x100	12,21
Nominal pressure 400 bar									
400	3/8"	BS/BSO 38 ST/400	0,71	1,02	0,97	1,57	0,67	M 6x35	0,11
400	1/2"	BS/BSO 12 ST/400	0,94	1,25	1,17	1,77	0,55	M 8x30	0,20
400	3/4"	BS/BSO 34 ST/400	1,26	1,63	1,39	1,97	0,59	M 8x35	0,37
400	1"	BS/BSO 1 ST/400	1,50	1,87	1,72	2,56	0,63	M 10x40	0,60
400	1 1/4"	BS/BSO 114 ST/400	1,73	2,13	2,03	2,95	0,63	M 12x45	0,97
400	1 1/2"	BS/BSO 112 ST/400	2,01	2,50	2,36	3,35	0,75	M 14x55	1,43
400	2"	BS/BSO 2 ST/400	2,64	3,13	2,73	3,94	1,18	M 16x60	2,91
400	2 1/2"	BS/BSO 212 ST/400	3,15	3,71	3,28	4,72	1,77	M 20x70	4,70
400	3"	BS/BSO 3 ST/400	3,54	4,09	4,04	5,51	2,17	M 20x90	6,61
400	3 1/2"	BS/BSO 312 ST/400	4,02	4,69	4,04	5,51	2,13	M 20x90	8,60
400	4"	BS/BSO 4 ST/400	4,49	5,16	4,46	6,30	2,44	M 24x100	12,21

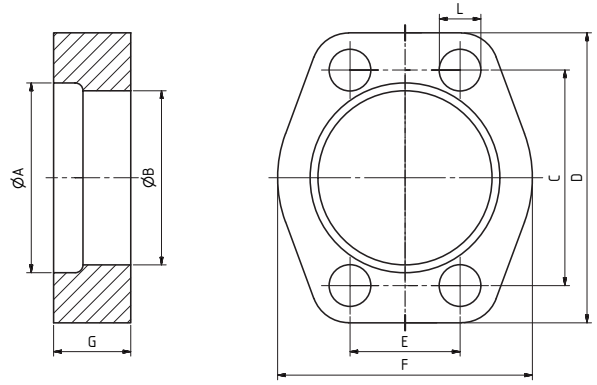
*1 or comparable material



Ordering code:	S355J2^{*1}
• flange only	CET-.../90...
• including metric bolts and o-ring	CET-.../90...-M
Surface only blanc available	

maximum recommended working pressure	Nominal flange size	Type	Dimensions								Bolts	Weight (flange only)
			A	B	C	D	F	H	L	S2		
kg/cm ²	inch										M	lb
Nominal pressure 250 bar												
250	3/8"	CET 38 ST/90 250	0,71	0,49	0,97	1,57	0,49	0,47	0,27	1,26	M 6x30	0,53
250	1/2"	CET 12 ST/90 250	0,87	0,59	1,17	1,77	0,59	0,67	0,35	1,57	M 8x40	0,88
250	3/4"	CET 34 ST/90 250	1,10	0,79	1,39	1,97	0,79	0,75	0,35	1,65	M 8x45	1,26
250	1"	CET 1 ST/90 250	1,38	0,98	1,72	2,56	0,98	0,94	0,43	1,97	M 10x55	2,67
250	1 1/4"	CET 114 ST/90 250	1,69	1,26	2,03	2,95	1,26	1,18	0,51	2,20	M 12x70	4,23
250	1 1/2"	CET 112 ST/90 250	1,97	1,50	2,36	3,35	1,50	1,34	0,59	2,56	M 14x80	6,26
250	2"	CET 2 ST/90 250	2,44	1,85	2,73	3,94	1,85	1,65	0,67	2,95	M 16x100	10,47
250	2 1/2"	CET 212 ST/90 250	2,99	2,28	3,28	4,72	2,28	2,09	0,83	3,35	M 20x120	19,11
250	3"	CET 3 ST/90 250	3,54	2,68	4,04	5,51	2,76	2,32	0,83	3,94	M 20x140	31,99
Nominal pressure 400 bar												
400	3/8"	CET 38 ST/90 400	0,71	0,43	0,97	1,57	0,49	0,47	0,27	1,26	M 6x30	0,53
400	1/2"	CET 12 ST/90 400	0,87	0,55	1,17	1,77	0,59	0,67	0,35	1,57	M 8x40	0,88
400	3/4"	CET 34 ST/90 400	1,10	0,71	1,39	1,97	0,79	0,75	0,35	1,65	M 8x45	1,30
400	1"	CET 1 ST/90 400	1,38	0,87	1,72	2,56	0,98	0,94	0,43	1,97	M 10x55	2,76
400	1 1/4"	CET 114 ST/90 400	1,73	1,14	2,03	2,95	1,26	1,18	0,51	2,20	M 12x70	4,41
400	1 1/2"	CET 112 ST/90 400	2,01	1,38	2,36	3,35	1,50	1,34	0,59	2,56	M 14x80	6,31
400	2"	CET 2 ST/90 400	2,40	1,69	2,73	3,94	1,85	1,65	0,67	2,95	M 16x100	10,65
400	2 1/2"	CET 212 ST/90 400	3,15	2,09	3,28	4,72	2,28	2,09	0,83	3,35	M 20x120	18,92
400	3"	CET 3 ST/90 400	3,54	2,28	4,04	5,51	2,28	2,32	0,83	3,94	M 20x140	31,99

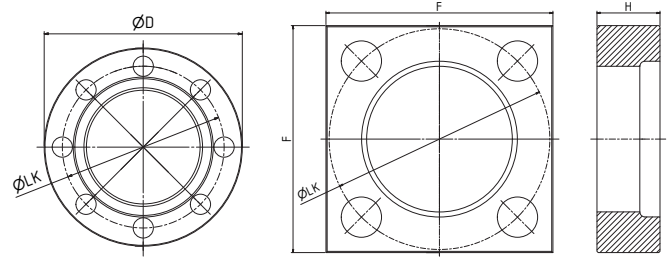
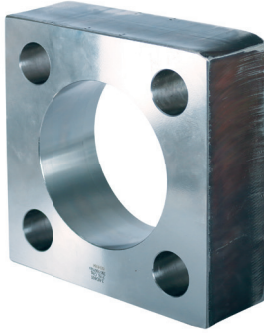
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only flange	RRF-...	RRF-X-...
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions								Bolts		Weight (flange only)	
			A	B	C	D	E	F	G	L				
kg/cm ²	inch												lb	
Standard pressure											<i>metr.</i>			
												single	coupling	
350	1/2"	RRF-3001	1,20	1,04	1,50	2,13	0,69	1,81	0,79	0,35		M 8x40 (60)		0,46
350	3/4"	RRF-3002	1,59	1,44	1,87	2,56	0,87	2,06	0,79	0,43		M 10x40 (60)		0,51
350	1"	RRF-3003	1,75	1,56	2,06	2,76	1,03	2,31	0,79	0,43		M 10x40 (60)		0,60
280	1 1/4"	RRF-3004	2,03	1,83	2,31	3,13	1,19	2,88	0,79	0,43		M 10x40 (70)		0,86
280	1 1/2"	RRF-3005	2,42	2,22	2,75	3,70	1,41	3,25	0,98	0,53		M 12x45 (80)		1,43
280	2"	RRF-3006	2,81	2,62	3,06	4,02 ^{*2}	1,69	3,81	1,18	0,53		M 12x50 (80)		2,16
210	2 1/2"	RRF-3007	3,37	3,17	3,50	4,50	2,00	4,28	1,57	0,53		M 12x60 (100)		3,28
210	3"	RRF-3008	4,07	3,84	4,19	5,31	2,44	5,16	1,97	0,69		M 16x80 (130)		5,56
High pressure											<i>metr.</i>			
												single	coupling	
420	1/2"	RRF-6001	1,20	1,04	1,59	2,20	0,72	1,88	0,87	0,35		M 8x40 (65)		0,53
420	3/4"	RRF-6002	1,59	1,44	2,00	2,80	0,94	2,38	0,91	0,43		M 10x40 (70)		0,82
420	1"	RRF-6003	1,75	1,56	2,25	3,19	1,09	2,75	0,98	0,53		M 12x45 (75)		1,26
420	1 1/4"	RRF-6004	2,03	1,83	2,63	3,74	1,25	3,06	1,18	0,59		M 14x50 (90)		1,90
420	1 1/4"	RRF-6044	2,03	1,83	2,63	3,74	1,25	3,06	1,18	0,53		M 12x50 (90)		1,98
420	1 1/2"	RRF-6005	2,42	2,22	3,13	4,44	1,44	3,75	1,30	0,69		M 16x60 (100)		3,20
420	2"	RRF-6006	2,81	2,62	3,81	5,24	1,75	4,50	1,50	0,83		M 20x70 (110)		5,18

*1 or comparable material
 *2 measure D at 1.4404: 0,17

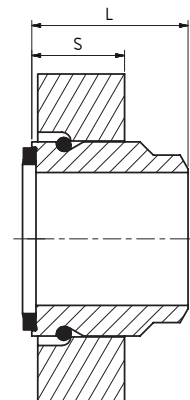
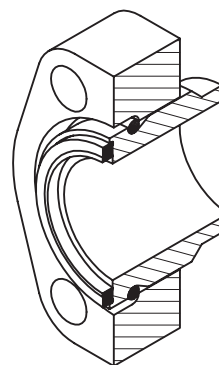


Ordering code:	S355J2^{*1}	1.4404^{*1}
• retainer ring flange	VKR-...	VKR-X-...
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions				Bolts	Weight (flange only)
			LK	F	D	H		
<i>kg/cm²</i>	<i>inch</i>							
400	1½"	VKR-38	3,35	3,54	–	1,38	4 x M16x60	2,65
400	2"	VKR-40	3,86	3,94	–	1,57	4 x M16x60	3,79
400	2½"	VKR-50	4,65	4,72	–	1,57	4 x M20x70	5,27
400	3"	VKR-65	5,71	5,91	–	1,97	4 x M24x80	11,09
400	4"	VKR-80	6,89	7,09	–	1,97	4 x M30x100	15,79

*1 or comparable material

The maximum recommended working pressure is based on the flange. The working pressure of the system is determined by the tube (thickness) and by the steel quality of the tube!



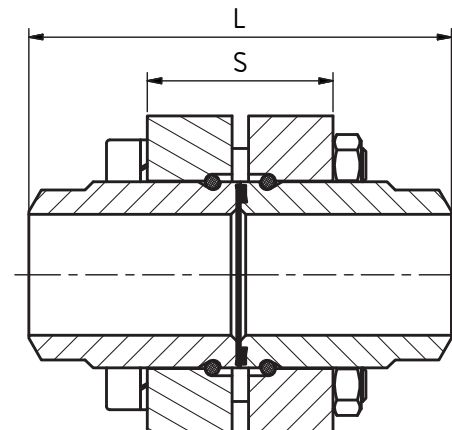
Ordering code:	S355J2^{*1}	1.4404^{*1}
• flange clamp with weld neck, retainer ring and Bonded seal	RRF-...-...	RRF-X-...-...
• flange clamp with weld neck, retainer ring, Bonded seal + screws	RRF-...-...-M	RRF-X-...-...-MX

Nominal flange size	Type	Pipe diameter					Weight (flange only)
			L	S	Retainer ring adapter	Retainer ring flange clamp	
inch							lb
Standard pressure							
1/2"	RRF-301-12x1,5-M	0,47x0,06	1,57	0,87	RRF-001-12x1,5	RRF-3001	0,55
1/2"	RRF-301-16x2-M	0,63x0,08	1,57	0,87	RRF-001-16x2	RRF-3001	0,55
1/2"	RRF-301-18x2-M	0,71x0,08	1,57	0,87	RRF-001-18x2	RRF-3001	0,55
1/2"	RRF-301-20x2,5-M	0,79x0,10	1,57	0,87	RRF-001-20x2,5	RRF-3001	0,55
1/2"	RRF-301-21,3x2,1-M	0,84x0,08	1,57	0,87	RRF-001-21,3x2,1	RRF-3001	0,55
1/2"	RRF-301-21,3x2,8-M	0,84x0,11	1,57	0,87	RRF-001-21,3x2,8	RRF-3001	0,53
1/2"	RRF-301-21,3x3,7-M	0,84x0,15	1,57	0,87	RRF-001-21,3x3,7	RRF-3001	0,62
1/2"	RRF-301-21,3x4,8-M	0,84x0,19	1,57	0,87	RRF-001-21,3x4,8	RRF-3001	0,62
1/2"	RRF-301-21,3x7,5-M	0,84x0,30	1,77	0,87	RRF-001-21,3x7,5	RRF-3001	0,66
1/2"	RRF-301-25x2,5-M	0,98x0,10	1,57	0,87	RRF-001-25x2,5	RRF-3001	0,66
1/2"	RRF-301-26x6-M	1,02x0,24	1,77	0,87	RRF-001-26x6	RRF-3001	0,66
3/4"	RRF-302-20x2,5-M	0,79x0,10	1,57	0,87	RRF-002-20x2,5	RRF-3002	0,84
3/4"	RRF-302-25x3,0-M	0,98x0,12	1,57	0,87	RRF-002-25x3,0	RRF-3002	0,84
3/4"	RRF-302-26,7x2,1-M	1,05x0,08	1,57	0,87	RRF-002-26,7x2,1	RRF-3002	1,06
3/4"	RRF-302-26,7x2,9-M	1,05x0,11	1,57	0,87	RRF-002-26,7x2,9	RRF-3002	1,06
3/4"	RRF-302-26,7x3,9-M	1,05x0,15	1,57	0,87	RRF-002-26,7x3,9	RRF-3002	1,06
3/4"	RRF-302-26,7x5,6-M	1,05x0,22	1,57	0,87	RRF-002-26,7x5,6	RRF-3002	1,06
3/4"	RRF-302-26,7x7,82-M	1,05x0,31	1,77	0,87	RRF-002-26,7x7,82	RRF-3002	1,10
3/4"	RRF-302-30x3-M	1,18x0,12	1,57	0,87	RRF-002-30x3	RRF-3002	1,10
3/4"	RRF-302-30x4-M	1,18x0,16	1,57	0,87	RRF-002-30x4	RRF-3002	1,10
3/4"	RRF-302-30x6-M	1,18x0,24	1,57	0,87	RRF-002-30x6	RRF-3002	1,10
3/4"	RRF-302-36x8-M	1,50x0,31	1,77	0,87	RRF-002-36x8	RRF-3002	1,10
1"	RRF-303-25x3-M	0,98x0,12	1,57	0,89	RRF-003-25x3	RRF-3003	0,99
1"	RRF-303-30x4-M	1,18x0,16	1,57	0,89	RRF-003-30x4	RRF-3003	0,99
1"	RRF-303-33,4x2,8-M	1,31x0,11	1,57	0,89	RRF-003-33,4x2,8	RRF-3003	0,99
1"	RRF-303-33,4x3,4-M	1,31x0,13	1,57	0,89	RRF-003-33,4x3,4	RRF-3003	0,99
1"	RRF-303-33,4x4,6-M	1,31x0,18	1,57	0,89	RRF-003-33,4x4,6	RRF-3003	0,99
1"	RRF-303-33,4x6,4-M	1,31x0,25	1,97	0,89	RRF-003-33,4x6,4	RRF-3003	0,99
1"	RRF-303-33,4x9,1-M	1,31x0,36	1,97	0,89	RRF-003-33,4x9,1	RRF-3003	0,99
1"	RRF-303-38x4-M	1,50x0,16	1,57	0,89	RRF-003-38x4	RRF-3003	1,10

*1 or comparable material

Nominal flange size	Type	Pipe diameter					Weight (flange only)
			L	S	Retainer ring adapter	Retainer ring flange clamp	
inch							lb
Standard pressure							
1"	RRF-303-38x5	1,50x0,20	1,57	0,89	RRF-003-38x5	RRF-3003	1,10
1"	RRF-303-38x7	1,50x0,28	1,57	0,89	RRF-003-38x7	RRF-3003	1,10
1"	RRF-303-39x7,5	1,54x0,30	1,97	0,89	RRF-003-39x7,5	RRF-3003	1,10
1¼"	RRF-304-30x4	1,18x0,16	1,57	0,89	RRF-004-30x4	RRF-3004	1,43
1¼"	RRF-304-38x5	1,50x0,20	1,57	0,89	RRF-004-38x5	RRF-3004	1,43
1¼"	RRF-304-42x4	1,65x0,16	1,57	0,89	RRF-004-42x4	RRF-3004	1,43
1¼"	RRF-304-42x6	1,65x0,24	1,57	0,89	RRF-004-42x6	RRF-3004	1,43
1¼"	RRF-304-42,2x2,8	1,66x0,11	1,57	0,89	RRF-004-42,2x2,8	RRF-3004	1,43
1¼"	RRF-304-42,2x3,6	1,66x0,14	1,57	0,89	RRF-004-42,2x3,6	RRF-3004	1,43
1¼"	RRF-304-42,2x4,9	1,66x0,19	1,57	0,89	RRF-004-42,2x4,9	RRF-3004	1,43
1¼"	RRF-304-42,2x6,4	1,66x0,25	1,97	0,89	RRF-004-42,2x6,4	RRF-3004	1,54
1¼"	RRF-304-42,2x9,7	1,66x0,38	1,97	0,89	RRF-004-42,2x9,7	RRF-3004	1,76
1¼"	RRF-304-46x7	1,81x0,28	1,97	0,89	RRF-004-46x7	RRF-3004	1,76
1¼"	RRF-304-46x8	1,81x0,31	2,17	0,89	RRF-004-46x8	RRF-3004	1,76
1½"	RRF-305-38x5	1,50x0,20	1,77	1,08	RRF-005-38x5	RRF-3005	2,43
1½"	RRF-305-48,3x2,8	1,90x0,11	1,77	1,08	RRF-005-48,3x2,8	RRF-3005	2,43
1½"	RRF-305-48,3x3,7	1,90x0,15	1,77	1,08	RRF-005-48,3x3,7	RRF-3005	2,43
1½"	RRF-305-48,3x5,1	1,90x0,20	1,77	1,08	RRF-005-48,3x5,1	RRF-3005	2,43
1½"	RRF-305-48,3x7,1	1,90x0,28	2,36	1,08	RRF-005-48,3x7,1	RRF-3005	2,43
1½"	RRF-305-48,3x10,2	1,90x0,40	2,36	1,08	RRF-005-48,3x10,2	RRF-3005	2,43
1½"	RRF-305-50x5	1,97x0,20	1,77	1,08	RRF-005-50x5	RRF-3005	2,65
1½"	RRF-305-50x6	1,97x0,24	1,77	1,08	RRF-005-50x6	RRF-3005	2,65
1½"	RRF-305-50x9	1,97x0,35	1,77	1,08	RRF-005-50x9	RRF-3005	2,65
1½"	RRF-305-56x8,5	2,20x0,33	2,36	1,08	RRF-005-56x8,5	RRF-3005	2,76
2"	RRF-306-48,3x5,1	1,90x0,20	1,97	1,28	RRF-006-48,3x5,1	RRF-3006	3,53
2"	RRF-306-50x9	1,97x0,35	1,97	1,28	RRF-006-50x9	RRF-3006	3,53
2"	RRF-306-60x5	2,36x0,20	1,97	1,28	RRF-006-60x5	RRF-3006	3,53
2"	RRF-306-60x6	2,36x0,24	1,97	1,28	RRF-006-60x6	RRF-3006	3,53
2"	RRF-306-60x8	2,36x0,31	1,97	1,28	RRF-006-60x8	RRF-3006	3,53
2"	RRF-306-60x10	2,36x0,39	1,97	1,28	RRF-006-60x10	RRF-3006	3,53
2"	RRF-306-60,3x2,8	2,37x0,11	1,97	1,28	RRF-006-60,3x2,8	RRF-3006	3,53
2"	RRF-306-60,3x3,9	2,37x0,15	1,97	1,28	RRF-006-60,3x3,9	RRF-3006	3,53
2"	RRF-306-60,3x5,6	2,37x0,22	1,97	1,28	RRF-006-60,3x5,6	RRF-3006	3,53
2"	RRF-306-60,3x8,8	2,37x0,35	2,95	1,28	RRF-006-60,3x8,8	RRF-3006	3,86
2"	RRF-306-60,3x11,1	2,37x0,44	2,95	1,28	RRF-006-60,3x11,1	RRF-3006	3,86
2"	RRF-306-66x8,5	2,60x0,33	2,95	1,28	RRF-006-66x8,5	RRF-3006	3,97
2½"	RRF-307-65x8	2,56x0,31	1,97	1,67	RRF-007-65x8	RRF-3007	5,51
2½"	RRF-307-73x7	2,87x0,28	1,97	1,67	RRF-007-73x7	RRF-3007	4,96
2½"	RRF-307-75x5	2,95x0,20	1,97	1,67	RRF-007-75x5	RRF-3007	4,96
2½"	RRF-307-76,1x6,3	3,00x0,25	1,97	1,67	RRF-007-76,1x6,3	RRF-3007	5,51
2½"	RRF-307-76,1x12,5	3,00x0,49	1,97	1,67	RRF-007-76,1x12,5	RRF-3007	5,51
2½"	RRF-307-80x10	3,15x0,39	3,54	1,67	RRF-007-80x10	RRF-3007	6,61
3"	RRF-308-76,1x12,5	3,00x0,49	2,36	2,09	RRF-008-76,1x12,5	RRF-3008	8,16
3"	RRF-308-80x10	3,15x0,39	2,36	2,09	RRF-008-80x10	RRF-3008	8,60
3"	RRF-308-88,9x3,2	3,50x0,13	2,36	2,09	RRF-008-88,9x3,2	RRF-3008	7,05
3"	RRF-308-88,9x5,5	3,50x0,22	2,36	2,09	RRF-008-88,9x5,5	RRF-3008	7,72
3"	RRF-308-88,9x7,6	3,50x0,30	2,36	2,09	RRF-008-88,9x7,6	RRF-3008	9,04
3"	RRF-308-88,9x8,8	3,50x0,35	2,36	2,09	RRF-008-88,9x8,8	RRF-3008	8,38
3"	RRF-308-88,9x11,1	3,50x0,44	4,33	2,09	RRF-008-88,9x11,1	RRF-3008	9,04
3"	RRF-308-88,9x12,5	3,50x0,49	2,36	2,09	RRF-008-88,9x12,5	RRF-3008	8,60
3"	RRF-308-88,9x15,3	3,50x0,60	4,33	2,09	RRF-008-88,9x15,3	RRF-3008	9,04
3"	RRF-308-90x5	3,54x0,20	2,36	2,09	RRF-008-90x5	RRF-3008	9,48
3"	RRF-308-97x12	3,82x0,47	4,33	2,09	RRF-008-97x12	RRF-3008	11,02

*1 or comparable material



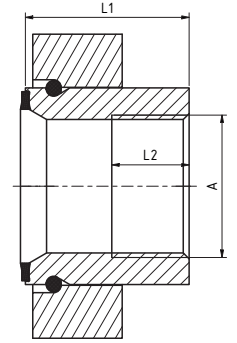
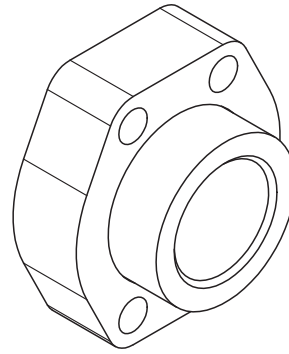
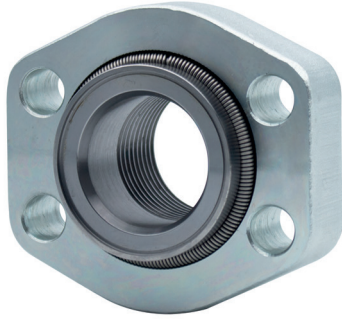
Ordering code:	S355J2^{*1}	1.4404^{*1}
• flange clamp with weld neck, retainer ring, Bonded seal + screws	RRK-...-...-M	RRK-X-...-...-MX

Nominal flange size	Type	Pipe diameter							Weight (flange only)	
			L	S	Retainer ring adapter	Retainer ring counter adapter	Retainer ring flange clamp			
inch									lb	
Standard pressure										
1/2"	RRK-301-12x1,5M	0,47x0,06	3,18	1,76	RRF-001-12x1,5	GRRF-001-12x1,5	RRF-3001	1,10		1,10
1/2"	RRK-301-16x2M	0,63x0,08	3,18	1,76	RRF-001-16x2	GRRF-001-16x2	RRF-3001	1,10		1,10
1/2"	RRK-301-18x2M	0,71x0,08	3,18	1,76	RRF-001-18x2	GRRF-001-18x2	RRF-3001	1,10		1,10
1/2"	RRK-301-20x2,5M	0,79x0,10	3,18	1,76	RRF-001-20x2,5	GRRF-001-20x2,5	RRF-3001	1,10		1,10
1/2"	RRK-301-21,3x2,1M	0,84x0,08	3,18	1,76	RRF-001-21,3x2,1	GRRF-001-21,3x2,1	RRF-3001	1,10		1,10
1/2"	RRK-301-21,3x2,8M	0,84x0,11	3,18	1,76	RRF-001-21,3x2,8	GRRF-001-21,3x2,8	RRF-3001	1,06		1,06
1/2"	RRK-301-21,3x3,7M	0,84x0,15	3,18	1,76	RRF-001-21,3x3,7	GRRF-001-21,3x3,7	RRF-3001	1,23		1,23
1/2"	RRK-301-21,3x4,8M	0,84x0,19	3,18	1,76	RRF-001-21,3x4,8	GRRF-001-21,3x4,8	RRF-3001	1,23		1,23
1/2"	RRK-301-21,3x7,5M	0,84x0,30	3,57	1,76	RRF-001-21,3x7,5	GRRF-001-21,3x7,5	RRF-3001	1,32		1,32
1/2"	RRK-301-25x2,5M	0,98x0,10	3,18	1,76	RRF-001-25x2,5	GRRF-001-25x2,5	RRF-3001	1,32		1,32
1/2"	RRK-301-26x6M	1,02x0,24	3,57	1,76	RRF-001-26x6	GRRF-001-26x6	RRF-3001	1,32		1,32
3/4"	RRK-302-20x2,5M	0,79x0,10	3,17	1,76	RRF-002-20x2,5	GRRF-002-20x2,5	RRF-3002	1,68		1,68
3/4"	RRK-302-25x3,0M	0,98x0,12	3,17	1,76	RRF-002-25x3,0	GRRF-002-25x3,0	RRF-3002	1,68		1,68
3/4"	RRK-302-26,7x2,1M	1,05x0,08	3,17	1,76	RRF-002-26,7x2,1	GRRF-002-26,7x2,1	RRF-3002	2,12		2,12
3/4"	RRK-302-26,7x2,9M	1,05x0,11	3,17	1,76	RRF-002-26,7x2,9	GRRF-002-26,7x2,9	RRF-3002	2,12		2,12
3/4"	RRK-302-26,7x3,9M	1,05x0,15	3,17	1,76	RRF-002-26,7x3,9	GRRF-002-26,7x3,9	RRF-3002	2,12		2,12
3/4"	RRK-302-26,7x5,6M	1,05x0,22	3,17	1,76	RRF-002-26,7x5,6	GRRF-002-26,7x5,6	RRF-3002	2,12		2,12
3/4"	RRK-302-26,7x7,82M	1,05x0,31	3,57	1,76	RRF-002-26,7x7,82	GRRF-002-26,7x7,82	RRF-3002	2,20		2,20
3/4"	RRK-302-30x3M	1,18x0,12	3,17	1,76	RRF-002-30x3	GRRF-002-30x3	RRF-3002	2,20		2,20
3/4"	RRK-302-30x4M	1,18x0,16	3,17	1,76	RRF-002-30x4	GRRF-002-30x4	RRF-3002	2,20		2,20
3/4"	RRK-302-30x6M	1,18x0,24	3,17	1,76	RRF-002-30x6	GRRF-002-30x6	RRF-3002	2,20		2,20
3/4"	RRK-302-36x8M	1,50x0,31	3,57	1,76	RRF-002-36x8	GRRF-002-36x8	RRF-3002	2,20		2,20
1"	RRK-303-25x3M	0,98x0,12	3,18	1,80	RRF-003-25x3	GRRF-003-25x3	RRF-3003	1,98		1,98
1"	RRK-303-30x4M	1,18x0,16	3,18	1,80	RRF-003-30x4	GRRF-003-30x4	RRF-3003	1,98		1,98
1"	RRK-303-33,4x2,8M	1,31x0,11	3,18	1,80	RRF-003-33,4x2,8	GRRF-003-33,4x2,8	RRF-3003	1,98		1,98
1"	RRK-303-33,4x3,4M	1,31x0,13	3,18	1,80	RRF-003-33,4x3,4	GRRF-003-33,4x3,4	RRF-3003	1,98		1,98
1"	RRK-303-33,4x4,6M	1,31x0,18	3,18	1,80	RRF-003-33,4x4,6	GRRF-003-33,4x4,6	RRF-3003	1,98		1,98
1"	RRK-303-33,4x6,4M	1,31x0,25	3,97	1,80	RRF-003-33,4x6,4	GRRF-003-33,4x6,4	RRF-3003	1,98		1,98
1"	RRK-303-33,4x9,1M	1,31x0,36	3,97	1,80	RRF-003-33,4x9,1	GRRF-003-33,4x9,1	RRF-3003	1,98		1,98
1"	RRK-303-38x4M	1,50x0,16	3,18	1,80	RRF-003-38x4	GRRF-003-38x4	RRF-3003	2,20		2,20
1"	RRK-303-38x5M	1,50x0,20	3,18	1,80	RRF-003-38x5	GRRF-003-38x5	RRF-3003	2,20		2,20
1"	RRK-303-38x7M	1,50x0,28	3,18	1,80	RRF-003-38x7	GRRF-003-38x7	RRF-3003	2,20		2,20
1"	RRK-303-39x7,5M	1,54x0,30	3,97	1,80	RRF-003-39x7,5	GRRF-003-39x7,5	RRF-3003	2,20		2,20

*1 or comparable material

Nominal flange size	Type	Pipe diameter						Weight (flange only)
			L	S	Retainer ring adapter	Retainer ring counter adapter	Retainer ring flange clamp	
inch								
Standard pressure								
1 1/4"	RRK-304-30x4M	1,18x0,16	3,20	1,82	RRF-004-30x4	GRRF-004-30x4	RRF-3004	2,87
1 1/4"	RRK-304-38x5M	1,50x0,20	3,20	1,82	RRF-004-38x5	GRRF-004-38x5	RRF-3004	2,87
1 1/4"	RRK-304-42x4M	1,65x0,16	3,20	1,82	RRF-004-42x4	GRRF-004-42x4	RRF-3004	2,87
1 1/4"	RRK-304-42x6M	1,65x0,24	3,20	1,82	RRF-004-42x6	GRRF-004-42x6	RRF-3004	2,87
1 1/4"	RRK-304-42,2x2,8M	1,66x0,11	3,20	1,82	RRF-004-42,2x2,8	GRRF-004-42,2x2,8	RRF-3004	2,87
1 1/4"	RRK-304-42,2x3,6M	1,66x0,14	3,20	1,82	RRF-004-42,2x3,6	GRRF-004-42,2x3,6	RRF-3004	2,87
1 1/4"	RRK-304-42,2x4,9M	1,66x0,19	3,20	1,82	RRF-004-42,2x4,9	GRRF-004-42,2x4,9	RRF-3004	2,87
1 1/4"	RRK-304-42,2x6,4M	1,66x0,25	3,99	1,82	RRF-004-42,2x6,4	GRRF-004-42,2x6,4	RRF-3004	3,09
1 1/4"	RRK-304-42,2x9,7M	1,66x0,38	3,99	1,82	RRF-004-42,2x9,7	GRRF-004-42,2x9,7	RRF-3004	3,53
1 1/4"	RRK-304-46x7M	1,81x0,28	3,99	1,82	RRF-004-46x7	GRRF-004-46x7	RRF-3004	3,53
1 1/4"	RRK-304-46x8M	1,81x0,31	4,38	1,82	RRF-004-46x8	GRRF-004-46x8	RRF-3004	3,53
1 1/2"	RRK-305-38x5M	1,50x0,20	3,59	2,21	RRF-005-38x5	GRRF-005-38x5	RRF-3005	4,85
1 1/2"	RRK-305-48,3x2,8M	1,90x0,11	3,59	2,21	RRF-005-48,3x2,8	GRRF-005-48,3x2,8	RRF-3005	4,85
1 1/2"	RRK-305-48,3x3,7M	1,90x0,15	3,59	2,21	RRF-005-48,3x3,7	GRRF-005-48,3x3,7	RRF-3005	4,85
1 1/2"	RRK-305-48,3x5,1M	1,90x0,20	3,59	2,21	RRF-005-48,3x5,1	GRRF-005-48,3x5,1	RRF-3005	4,85
1 1/2"	RRK-305-48,3x7,1M	1,90x0,28	4,78	2,21	RRF-005-48,3x7,1	GRRF-005-48,3x7,1	RRF-3005	4,85
1 1/2"	RRK-305-48,3x10,2M	1,90x0,40	4,78	2,21	RRF-005-48,3x10,2	GRRF-005-48,3x10,2	RRF-3005	4,85
1 1/2"	RRK-305-50x5M	1,97x0,20	3,59	2,21	RRF-005-50x5	GRRF-005-50x5	RRF-3005	5,29
1 1/2"	RRK-305-50x6M	1,97x0,24	3,59	2,21	RRF-005-50x6	GRRF-005-50x6	RRF-3005	5,29
1 1/2"	RRK-305-50x9M	1,97x0,35	3,59	2,21	RRF-005-50x9	GRRF-005-50x9	RRF-3005	5,29
1 1/2"	RRK-305-56x8,5M	2,20x0,33	4,78	2,21	RRF-005-56x8,5	GRRF-005-56x8,5	RRF-3005	5,51
2"	RRK-306-48,3x5,1M	1,90x0,20	3,98	2,61	RRF-006-48,3x5,1	GRRF-006-48,3x5,1	RRF-3006	7,05
2"	RRK-306-50x9M	1,97x0,35	3,98	2,61	RRF-006-50x9	GRRF-006-50x9	RRF-3006	7,05
2"	RRK-306-60x5M	2,36x0,20	3,98	2,61	RRF-006-60x5	GRRF-006-60x5	RRF-3006	7,05
2"	RRK-306-60x6M	2,36x0,24	3,98	2,61	RRF-006-60x6	GRRF-006-60x6	RRF-3006	7,05
2"	RRK-306-60x8M	2,36x0,31	3,98	2,61	RRF-006-60x8	GRRF-006-60x8	RRF-3006	7,05
2"	RRK-306-60x10M	2,36x0,39	3,98	2,61	RRF-006-60x10	GRRF-006-60x10	RRF-3006	7,05
2"	RRK-306-60,3x2,8M	2,37x0,11	3,98	2,61	RRF-006-60,3x2,8	GRRF-006-60,3x2,8	RRF-3006	7,05
2"	RRK-306-60,3x3,9M	2,37x0,15	3,98	2,61	RRF-006-60,3x3,9	GRRF-006-60,3x3,9	RRF-3006	7,05
2"	RRK-306-60,3x5,6M	2,37x0,22	3,98	2,61	RRF-006-60,3x5,6	GRRF-006-60,3x5,6	RRF-3006	7,05
2"	RRK-306-60,3x8,8M	2,37x0,35	5,95	2,61	RRF-006-60,3x8,8	GRRF-006-60,3x8,8	RRF-3006	7,72
2"	RRK-306-60,3x11,1M	2,37x0,44	5,95	2,61	RRF-006-60,3x11,1	GRRF-006-60,3x11,1	RRF-3006	7,72
2"	RRK-306-66x8,5M	2,60x0,33	5,95	2,61	RRF-006-66x8,5	GRRF-006-66x8,5	RRF-3006	7,94
2 1/2"	RRK-307-65x8M	2,56x0,31	3,98	3,39	RRF-007-65x8	GRRF-007-65x8	RRF-3007	11,02
2 1/2"	RRK-307-73x7M	2,87x0,28	3,98	3,39	RRF-007-73x7	GRRF-007-73x7	RRF-3007	9,92
2 1/2"	RRK-307-75x5M	2,95x0,20	3,98	3,39	RRF-007-75x5	GRRF-007-75x5	RRF-3007	9,92
2 1/2"	RRK-307-76,1x6,3M	3,00x0,25	3,98	3,39	RRF-007-76,1x6,3	GRRF-007-76,1x6,3	RRF-3007	11,02
2 1/2"	RRK-307-76,1x12,5M	3,00x0,49	3,98	3,39	RRF-007-76,1x12,5	GRRF-007-76,1x12,5	RRF-3007	11,02
2 1/2"	RRK-307-80x10M	3,15x0,39	7,13	3,39	RRF-007-80x10	GRRF-007-80x10	RRF-3007	13,23
3"	RRK-308-76,1x12,5M	3,00x0,49	4,76	4,21	RRF-008-76,1x12,5	GRRF-008-76,1x12,5	RRF-3008	16,31
3"	RRK-308-80x10M	3,15x0,39	4,76	4,21	RRF-008-80x10	GRRF-008-80x10	RRF-3008	17,20
3"	RRK-308-88,9x3,2M	3,50x0,13	4,76	4,21	RRF-008-88,9x3,2	GRRF-008-88,9x3,2	RRF-3008	14,11
3"	RRK-308-88,9x5,5M	3,50x0,22	4,76	4,21	RRF-008-88,9x5,5	GRRF-008-88,9x5,5	RRF-3008	15,43
3"	RRK-308-88,9x7,6M	3,50x0,30	8,70	4,21	RRF-008-88,9x7,6	GRRF-008-88,9x7,6	RRF-3008	18,08
3"	RRK-308-88,9x8,8M	3,50x0,35	4,76	4,21	RRF-008-88,9x8,8	GRRF-008-88,9x8,8	RRF-3008	16,76
3"	RRK-308-88,9x11,1M	3,50x0,44	8,70	4,21	RRF-008-88,9x11,1	GRRF-008-88,9x11,1	RRF-3008	18,08
3"	RRK-308-88,9x12,5M	3,50x0,49	4,76	4,21	RRF-008-88,9x12,5	GRRF-008-88,9x12,5	RRF-3008	17,20
3"	RRK-308-88,9x15,3M	3,50x0,60	8,70	4,21	RRF-008-88,9x15,3	GRRF-008-88,9x15,3	RRF-3008	18,08
3"	RRK-308-90x5M	3,54x0,20	4,76	4,21	RRF-008-90x5	GRRF-008-90x5	RRF-3008	18,96
3"	RRK-308-97x12M	3,82x0,47	8,70	4,21	RRF-008-97x12	GRRF-008-97x12	RRF-3008	22,05

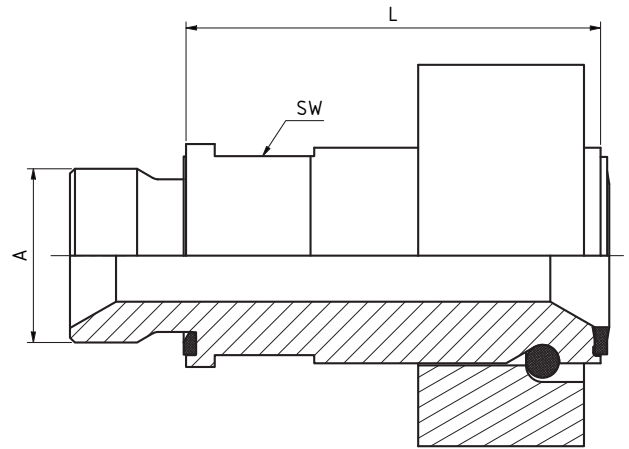
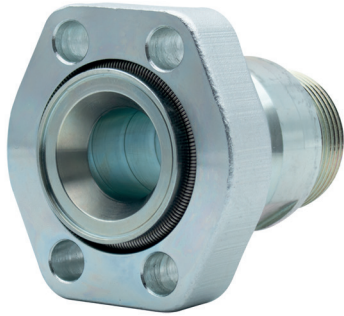
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• retainer ring inner thread adapter with flange clamp, retainer ring, bonded seal	RRF-IG-.....	RRF-IG-X-.....
• retainer ring inner thread adapter with flange clamp, retainer ring, bonded seal and screws	RRF-IG-.....-M	RRF-IG-X-.....-MX
Surface only available in chrome3		

Nominal flange size	Type						Weight (flange only)
		A	L	L2	retainer ring flange clamp	retainer ring inner thread adapter	
<i>inch</i>							
Standard pressure							
1/2"	RRF-IG-301-G014	G1/4"	1,38	0,47	RRF-3001	RRF-IG-001-G014	0,71
3/4"	RRF-IG-302-G012	G1/2"	1,57	0,75	RRF-3002	RRF-IG-002-G012	1,01
1"	RRF-IG-303-G034	G3/4"	1,57	0,75	RRF-3003	RRF-IG-003-G034	1,15
1 1/4"	RRF-IG-304-G100	G1"	1,65	0,94	RRF-3004	RRF-IG-004-G100	1,59
1 1/2"	RRF-IG-305-G114	G1 1/4"	1,77	0,91	RRF-3005	RRF-IG-005-G114	2,45
2"	RRF-IG-306-G112	G1 1/2"	2,17	1,02	RRF-3006	RRF-IG-006-G112	3,86

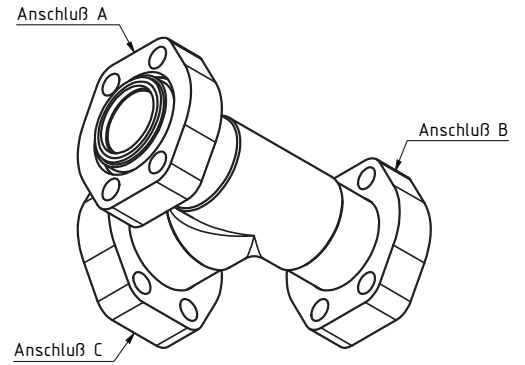
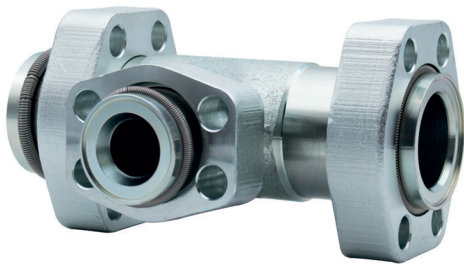
*1 or comparable material



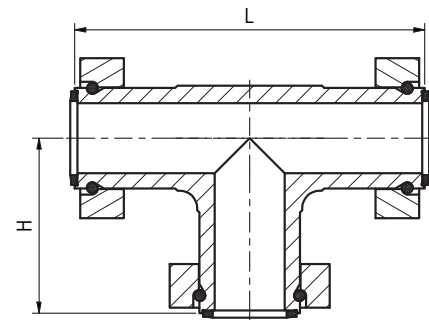
Ordering code:	S355J2 *1	1.4404 *1
• retainer ring male thread adapter with flange clamp, retainer ring, bonded seal and profile sealing ring	RRF-AG-.....	RRF-AG-X-.....
• retainer ring male thread adapter with flange clamp, retainer ring, bonded seal, profile sealing ring + screws	RRF-AG-.....-M	RRF-AG-X-.....-MX
Surface only available in chrome3		

Nominal flange size	Type						Weight (flange only)
		A	L	SW	retainer ring flange clamp	retainer ring male thread adapter	
Standard pressure							
1/2"	RRF-AG-301-012	G1 1/2"	1,97	0,94	RRF-3001	RRF-AG-001-012	0,88
3/4"	RRF-AG-302-034	G3/4"	2,40	1,18	RRF-3002	RRF-AG-002-034	1,39
1"	RRF-AG-303-100	G1"	2,56	1,42	RRF-3003	RRF-AG-003-100	1,76
1 1/4"	RRF-AG-304-114	G1 1/4"	2,68	1,81	RRF-3004	RRF-AG-004-114	2,58
1 1/2"	RRF-AG-305-112	G1 1/2"	3,07	1,81	RRF-3005	RRF-AG-005-112	3,86
2"	RRF-AG-306-200	G2"	3,27	2,17	RRF-3006	RRF-AG-006-200	5,71

*1 or comparable material

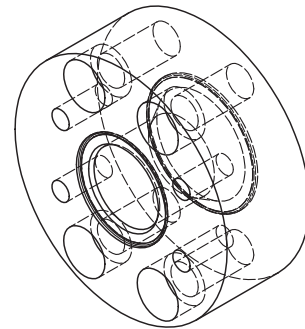


Ordering code:	S355J2 *1	1.4404 *1
• T-connection, 3x flange clamp, 3x retainer ring and 3x bonded seal	RRF-T-...-...	RRF-T-X-...-...
• T-connection, 3x flange clamp, 3x retainer ring and 3x bonded seal + screws	RRF-T-...-...-M	RRF-T-X-...-...-MX
Surface only available in chrome3		

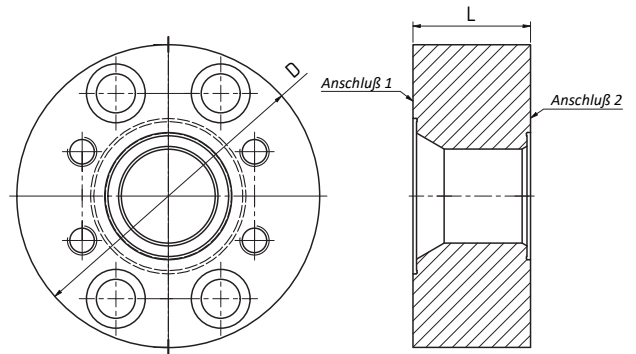


Nominal flange size	Type	Nominal flange size					Weight (flange only)
		L	H	A	B	C	
<i>inch</i>							<i>lb</i>
Standard pressure							
1/2"	RRF-T-301	4,72	2,36	RRF-3001	RRF-3001	RRF-3001	2,56
3/4"	RRF-T-302	5,12	2,56	RRF-3002	RRF-3002	RRF-3002	3,86
3/4" - 1/2"	RRF-T-302-301	5,12	2,56	RRF-3002	RRF-3002	RRF-3001	3,66
1"	RRF-T-303	5,51	2,76	RRF-3003	RRF-3003	RRF-3003	4,37
1" - 1/2"	RRF-T-303-301	5,51	2,56	RRF-3003	RRF-3003	RRF-3001	4,03
1" - 3/4"	RRF-T-303-302	5,51	2,56	RRF-3003	RRF-3003	RRF-3002	4,23
1 1/4"	RRF-T-304	6,30	3,15	RRF-3004	RRF-3004	RRF-3004	6,04
1 1/4" - 3/4"	RRF-T-304-302	6,30	2,76	RRF-3004	RRF-3004	RRF-3002	5,62
1 1/4" - 1"	RRF-T-304-303	6,30	2,95	RRF-3004	RRF-3004	RRF-3003	5,73
1 1/2"	RRF-T-305	7,09	3,54	RRF-3005	RRF-3005	RRF-3005	10,05
1 1/2" - 1"	RRF-T-305-303	7,09	3,15	RRF-3005	RRF-3005	RRF-3003	8,86
1 1/2" - 1 1/4"	RRF-T-305-304	7,09	3,35	RRF-3005	RRF-3005	RRF-3004	9,15
2"	RRF-T-306	8,66	4,33	RRF-3006	RRF-3006	RRF-3006	13,73
2" - 1 1/4"	RRF-T-306-304	8,66	3,54	RRF-3006	RRF-3006	RRF-3004	12,17
2" - 1 1/2"	RRF-T-306-305	8,66	3,74	RRF-3006	RRF-3006	RRF-3005	13,03
2 1/2"	RRF-T-307	10,24	5,12	RRF-3007	RRF-3007	RRF-3007	21,21
3"	RRF-T-308	12,60	6,30	RRF-3008	RRF-3008	RRF-3008	37,68

*1 or comparable material

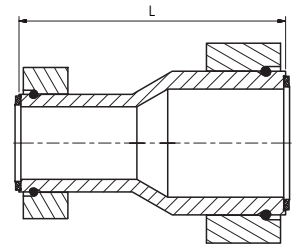
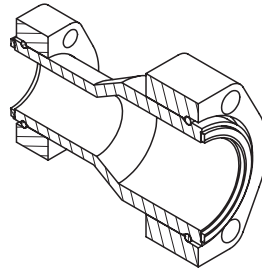
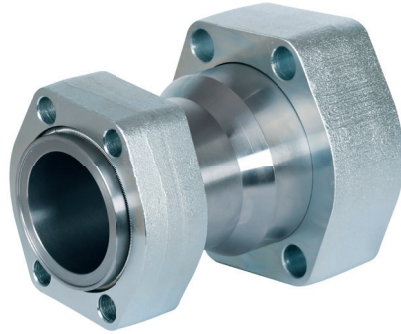


Ordering code:	S355J2^{*1}	1.4404^{*1}
• retainer ring reducerblock	RRF-RB-...-...	RRF-RB-X-...-...
Surface only available in chrome3		



Nominal flange size	Type					Weight (flange only)
		<i>D</i>	<i>L</i>	<i>Connection 1</i>	<i>Connection 2</i>	
<i>inch</i>						<i>lb</i>
Standard pressure						
3/4" - 1/2"	RRF-RB-302-301	3,15	0,98	RRF-3002	RRF-3001	1,76
1" - 1/2"	RRF-RB-303-301	3,31	1,18	RRF-3003	RRF-3001	2,38
1" - 3/4"	RRF-RB-303-302	3,31	1,18	RRF-3003	RRF-3002	2,31
1 1/4" - 1/2"	RRF-RB-304-301	3,46	1,38	RRF-3004	RRF-3001	3,00
1 1/4" - 3/4"	RRF-RB-304-302	3,46	1,38	RRF-3004	RRF-3002	3,00
1 1/4" - 1"	RRF-RB-304-303	3,46	1,38	RRF-3004	RRF-3003	2,93
1 1/2" - 3/4"	RRF-RB-305-302	4,06	1,57	RRF-3005	RRF-3002	4,72
1 1/2" - 1"	RRF-RB-305-303	4,06	1,57	RRF-3005	RRF-3003	4,65
1 1/2" - 1 1/4"	RRF-RB-305-304	4,06	1,57	RRF-3005	RRF-3004	4,50
2" - 1"	RRF-RB-306-303	4,45	1,57	RRF-3006	RRF-3003	5,62
2" - 1 1/4"	RRF-RB-306-304	4,45	1,57	RRF-3006	RRF-3004	5,51
2" - 1 1/2"	RRF-RB-306-305	4,45	1,57	RRF-3006	RRF-3005	5,29
2 1/2" - 1 1/4"	RRF-RB-307-304	5,04	1,57	RRF-3007	RRF-3004	7,10
2 1/2" - 1 1/2"	RRF-RB-307-305	5,04	1,57	RRF-3007	RRF-3005	6,94
2 1/2" - 2"	RRF-RB-307-306	5,04	1,57	RRF-3007	RRF-3006	6,59
3" - 1 1/2"	RRF-RB-308-305	6,22	1,57	RRF-3008	RRF-3005	10,80
3" - 2"	RRF-RB-308-306	6,22	1,57	RRF-3008	RRF-3006	10,45
3" - 2 1/2"	RRF-RB-308-307	6,22	1,57	RRF-3008	RRF-3007	10,45

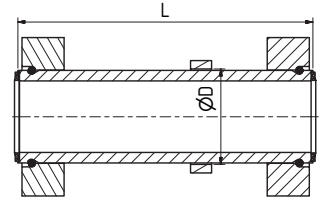
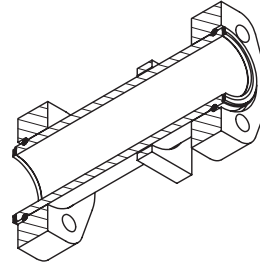
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• reduction, 2x flange clamp, retainer ring and Bonded seal	RRF-RED-...-...	RRF-RED-X-...-...
• reduction, 2x flange clamp, retainer ring, Bonded seal + screws	RRF-RED-...-...-M	RRF-RED-X-...-...-MX
Surface only available in chrome3		

Nominal flange size	Type					Weight (flange only)
		<i>L</i>	<i>retainer ring flange clamp 1</i>	<i>retainer ring flange clamp 2</i>	<i>retainer ring reducer adapter</i>	
<i>inch</i>						<i>lb</i>
Standard pressure						
3/4" - 1/2"	RRF-RED-302-301	2,56	RRF-3002	RRF-3001	RRF-RED-002-001	1,65
1" - 1/2"	RRF-RED-303-301	3,15	RRF-3003	RRF-3001	RRF-RED-003-001	2,43
1" - 3/4"	RRF-RED-303-302	4,33	RRF-3003	RRF-3002	RRF-RED-003-002	2,43
1 1/4" - 3/4"	RRF-RED-304-302	4,33	RRF-3004	RRF-3002	RRF-RED-004-002	2,87
1 1/4" - 1"	RRF-RED-304-303	4,33	RRF-3004	RRF-3003	RRF-RED-004-003	3,09
1 1/2" - 1"	RRF-RED-305-303	4,33	RRF-3005	RRF-3003	RRF-RED-005-003	3,97
1 1/2" - 1 1/4"	RRF-RED-305-304	5,12	RRF-3005	RRF-3004	RRF-RED-005-004	4,63
2" - 1 1/4"	RRF-RED-306-304	5,12	RRF-3006	RRF-3004	RRF-RED-006-004	5,51
2" - 1 1/2"	RRF-RED-306-305	5,12	RRF-3006	RRF-3005	RRF-RED-006-005	6,61
2 1/2" - 1 1/2"	RRF-RED-307-305	5,91	RRF-3007	RRF-3005	RRF-RED-007-005	8,82
2 1/2" - 2"	RRF-RED-307-306	5,91	RRF-3007	RRF-3006	RRF-RED-007-006	10,14
3" - 2"	RRF-RED-308-306	7,09	RRF-3008	RRF-3006	RRF-RED-008-006	14,55
3" - 2 1/2"	RRF-RED-308-307	7,09	RRF-3008	RRF-3007	RRF-RED-008-007	16,98

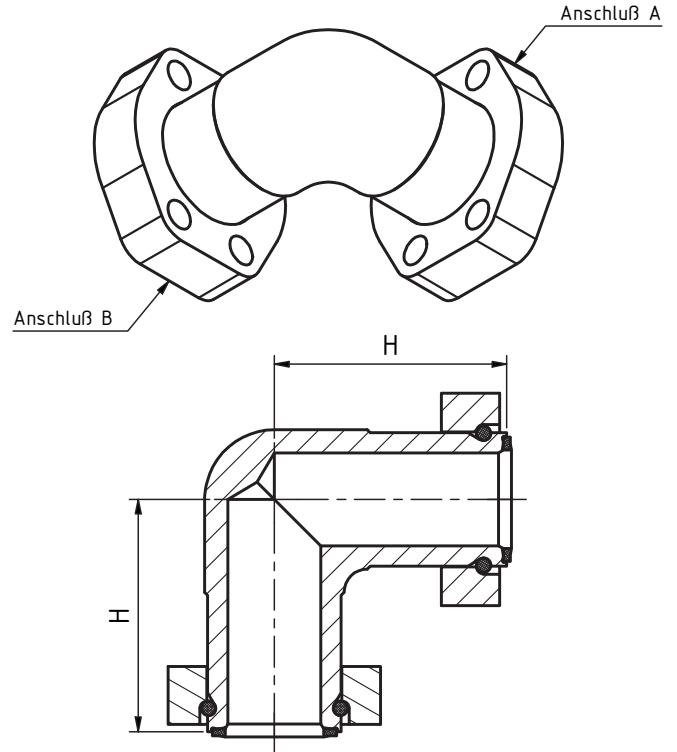
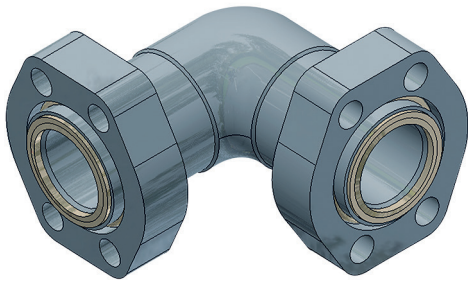
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• flange clamp with weld neck, retainer ring and Bonded seal	RRF-....	RRF-X-....
• flange clamp with weld neck, retainer ring, Bonded seal + screws	RRF-....-M	RRF-X-....-MX
Surface only available in chrome3		

Nominal flange size	Type					Weight (flange only)
		L	Ø D required bulkhead opening	retainer ring flange clamp	retainer ring tube	lb
Standard pressure						
1/2"	RRF-B-301	6,69	1,06	RRF-3001	RRF-B-001	2,65
3/4"	RRF-B-302	6,69	1,46	RRF-3002	RRF-B-002	3,09
1"	RRF-B-303	6,69	1,57	RRF-3003	RRF-B-003	3,53
1 1/4"	RRF-B-304	7,09	1,85	RRF-3004	RRF-B-004	4,85
1 1/2"	RRF-B-305	7,09	2,24	RRF-3005	RRF-B-005	6,83
2"	RRF-B-306	8,27	2,68	RRF-3006	RRF-B-006	9,92
2 1/2"	RRF-B-307	8,66	3,23	RRF-3007	RRF-B-007	14,99
3"	RRF-B-308	9,45	3,90	RRF-3008	RRF-B-008	24,03

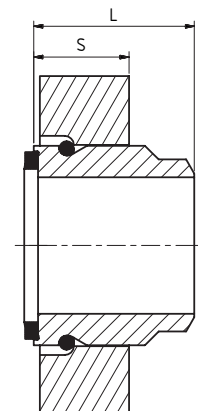
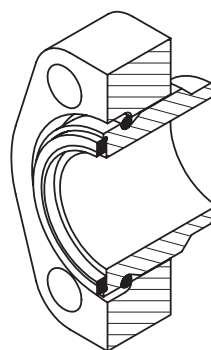
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• 90°-retainer ring-flange, 2x flange clamp, 2x retainer ring and 2x bonded seal	RRF-90-...	RRF-90-X-...
• 90°-Retainer ring-flange, 2x flange clamp, 2x retainer ring, 2x bonded seal + screws	RRF-90-...-M	RRF-90-X-...-MX
Surface only available in chrome3		

Nominal flange size	Type				Weight (flange only)
		H	A	B	
inch					lb
Standard pressure					
1/2"	RRF-90-301	2,36	RRF-3001	RRF-3001	1,81
3/4"	RRF-90-302	2,56	RRF-3002	RRF-3002	2,76
1"	RRF-90-303	2,76	RRF-3003	RRF-3003	3,11
1 1/4"	RRF-90-304	3,15	RRF-3004	RRF-3004	4,34
1 1/2"	RRF-90-305	3,54	RRF-3005	RRF-3005	7,23
2"	RRF-90-306	4,33	RRF-3006	RRF-3006	10,16
2 1/2"	RRF-90-307	5,12	RRF-3007	RRF-3007	15,63
3"	RRF-90-308	6,30	RRF-3008	RRF-3008	29,19

*1 or comparable material



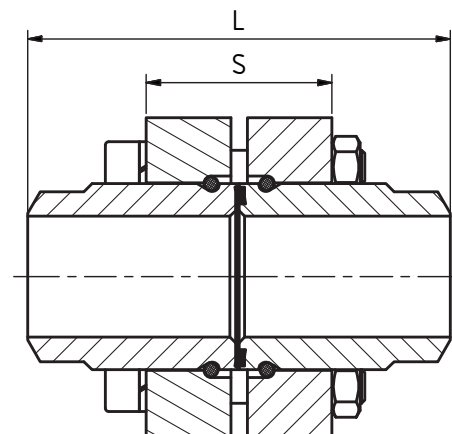
Ordering code:	S355J2^{*1}	1.4404^{*1}
• flange clamp with weld neck, retainer ring and Bonded seal	RRF-....	RRF-X-....
• flange clamp with weld neck, retainer ring, Bonded seal + screws	RRF-....-M	RRF-X-....-MX

Nominal flange size	Type	Pipe diameter					Weight (flange only)
			L	S	retainer ring adapter	retainer ring flange clamp	
inch							lb
High pressure							
1/2"	RRF-601-12x1,5	0,47x0,06	1,57	0,94	RRF-001-12x1,5	RRF-6001	0,66
1/2"	RRF-601-16x2	0,63x0,08	1,57	0,94	RRF-001-16x2	RRF-6001	0,66
1/2"	RRF-601-18x2	0,71x0,08	1,57	0,94	RRF-001-18x2	RRF-6001	0,66
1/2"	RRF-601-20x2,5	0,79x0,10	1,57	0,94	RRF-001-20x2,5	RRF-6001	0,66
1/2"	RRF-601-21,3x2,1	0,84x0,08	1,57	0,94	RRF-001-21,3x2,1	RRF-6001	0,66
1/2"	RRF-601-21,3x2,8	0,84x0,11	1,57	0,94	RRF-001-21,3x2,8	RRF-6001	0,66
1/2"	RRF-601-21,3x3,7	0,84x0,15	1,57	0,94	RRF-001-21,3x3,7	RRF-6001	0,66
1/2"	RRF-601-21,3x4,8	0,84x0,19	1,57	0,94	RRF-001-21,3x4,8	RRF-6001	0,66
1/2"	RRF-601-21,3x7,5	0,84x0,30	1,77	0,94	RRF-001-21,3x7,5	RRF-6001	0,66
1/2"	RRF-601-25x2,5	0,98x0,10	1,57	0,94	RRF-001-25x2,5	RRF-6001	0,66
1/2"	RRF-601-26x6	1,02x0,24	1,77	0,94	RRF-001-26x6	RRF-6001	0,66
3/4"	RRF-602-20x2,5	0,79x0,10	1,57	0,98	RRF-002-20x2,5	RRF-6002	1,10
3/4"	RRF-602-25x3,0	0,98x0,12	1,57	0,98	RRF-002-25x3,0	RRF-6002	1,21
3/4"	RRF-602-26,7x2,1	1,05x0,08	1,57	0,98	RRF-002-26,7x2,1	RRF-6002	1,21
3/4"	RRF-602-26,7x2,9	1,05x0,11	1,57	0,98	RRF-002-26,7x2,9	RRF-6002	1,21
3/4"	RRF-602-26,7x3,9	1,05x0,15	1,57	0,98	RRF-002-26,7x3,9	RRF-6002	1,21
3/4"	RRF-602-26,7x5,6	1,05x0,22	1,57	0,98	RRF-002-26,7x5,6	RRF-6002	1,21
3/4"	RRF-602-26,7x7,82	1,05x0,31	1,77	0,98	RRF-002-26,7x7,82	RRF-6002	1,21
3/4"	RRF-602-30x3	1,18x0,12	1,57	0,98	RRF-002-30x3	RRF-6002	1,21
3/4"	RRF-602-30x4	1,18x0,16	1,57	0,98	RRF-002-30x4	RRF-6002	1,21
3/4"	RRF-602-30x6	1,18x0,24	1,57	0,98	RRF-002-30x6	RRF-6002	1,21
3/4"	RRF-602-36x8	1,50x0,31	1,77	0,98	RRF-002-36x8	RRF-6002	1,32
1"	RRF-603-25x3	0,98x0,12	1,57	1,08	RRF-003-25x3	RRF-6003	1,65
1"	RRF-603-30x4	1,18x0,16	1,57	1,08	RRF-003-30x4	RRF-6003	1,65
1"	RRF-603-33,4x2,8	1,31x0,11	1,57	1,08	RRF-003-33,4x2,8	RRF-6003	1,65
1"	RRF-603-33,4x3,4	1,31x0,13	1,57	1,08	RRF-003-33,4x3,4	RRF-6003	1,65

*1 or comparable material

Nominal flange size	Type	Pipe diameter					Weight (flange only)
			L	S	retainer ring adapter	retainer ring flange clamp	
inch							lb
High pressure							
1"	RRF-603-33,4x4,6	1,31x0,18	1,57	1,08	RRF-003-33,4x4,6	RRF-6003	1,65
1"	RRF-603-33,4x6,4	1,31x0,25	1,97	1,08	RRF-003-33,4x6,4	RRF-6003	1,65
1"	RRF-603-33,4x9,1	1,31x0,36	1,97	1,08	RRF-003-33,4x9,1	RRF-6003	1,65
1"	RRF-603-38x4	1,50x0,16	1,57	1,08	RRF-003-38x4	RRF-6003	1,65
1"	RRF-603-38x5	1,50x0,20	1,57	1,08	RRF-003-38x5	RRF-6003	1,76
1"	RRF-603-38x7	1,50x0,28	1,57	1,08	RRF-003-38x7	RRF-6003	1,76
1"	RRF-603-39x7,5	1,54x0,30	1,97	1,08	RRF-003-39x7,5	RRF-6003	1,98
1¼"	RRF-604-30x4	1,18x0,16	1,57	1,28	RRF-004-30x4	RRF-6004	2,43
1¼"	RRF-604-38x5	1,50x0,20	1,57	1,28	RRF-004-38x5	RRF-6004	2,43
1¼"	RRF-604-42x4	1,65x0,16	1,57	1,28	RRF-004-42x4	RRF-6004	2,20
1¼"	RRF-604-42x6	1,65x0,24	1,57	1,28	RRF-004-42x6	RRF-6004	2,43
1¼"	RRF-604-42,2x2,8	1,66x0,11	1,57	1,28	RRF-004-42,2x2,8	RRF-6004	2,43
1¼"	RRF-604-42,2x3,6	1,66x0,14	1,57	1,28	RRF-004-42,2x3,6	RRF-6004	2,43
1¼"	RRF-604-42,2x4,9	1,66x0,19	1,57	1,28	RRF-004-42,2x4,9	RRF-6004	2,65
1¼"	RRF-604-42,2x6,4	1,66x0,25	1,97	1,28	RRF-004-42,2x6,4	RRF-6004	2,65
1¼"	RRF-604-42,2x9,7	1,66x0,38	1,97	1,28	RRF-004-42,2x9,7	RRF-6004	2,87
1¼"	RRF-604-46x7	1,81x0,28	1,97	1,28	RRF-004-46x7	RRF-6004	2,87
1¼"	RRF-604-46x8	1,81x0,31	2,17	1,28	RRF-004-46x8	RRF-6004	2,87
1½"	RRF-605-38x5	1,50x0,20	1,77	1,40	RRF-005-38x5	RRF-6005	3,97
1½"	RRF-605-48,3x2,8	1,90x0,11	1,77	1,40	RRF-005-48,3x2,8	RRF-6005	3,97
1½"	RRF-605-48,3x3,7	1,90x0,15	1,77	1,40	RRF-005-48,3x3,7	RRF-6005	3,97
1½"	RRF-605-48,3x5,1	1,90x0,20	1,77	1,40	RRF-005-48,3x5,1	RRF-6005	3,97
1½"	RRF-605-48,3x7,1	1,90x0,28	2,36	1,40	RRF-005-48,3x7,1	RRF-6005	4,41
1½"	RRF-605-48,3x10,2	1,90x0,40	2,36	1,40	RRF-005-48,3x10,2	RRF-6005	4,41
1½"	RRF-605-50x5	1,97x0,20	1,77	1,40	RRF-005-50x5	RRF-6005	3,97
1½"	RRF-605-50x6	1,97x0,24	1,77	1,40	RRF-005-50x6	RRF-6005	3,97
1½"	RRF-605-50x9	1,97x0,35	1,77	1,40	RRF-005-50x9	RRF-6005	4,41
1½"	RRF-605-56x8,5	2,20x0,33	2,36	1,40	RRF-005-56x8,5	RRF-6005	4,63
2"	RRF-606-48,3x5,1	1,90x0,20	1,97	1,59	RRF-006-48,3x5,1	RRF-6006	6,17
2"	RRF-606-50x9	1,97x0,35	1,97	1,59	RRF-006-50x9	RRF-6006	6,17
2"	RRF-606-60x5	2,36x0,20	1,97	1,59	RRF-006-60x5	RRF-6006	6,39
2"	RRF-606-60x6	2,36x0,24	1,97	1,59	RRF-006-60x6	RRF-6006	6,39
2"	RRF-606-60x8	2,36x0,31	1,97	1,59	RRF-006-60x8	RRF-6006	6,39
2"	RRF-606-60x10	2,36x0,39	1,97	1,59	RRF-006-60x10	RRF-6006	6,39
2"	RRF-606-60,3x2,8	2,37x0,11	1,97	1,59	RRF-006-60,3x2,8	RRF-6006	6,39
2"	RRF-606-60,3x3,9	2,37x0,15	1,97	1,59	RRF-006-60,3x3,9	RRF-6006	6,39
2"	RRF-606-60,3x5,6	2,37x0,22	1,97	1,59	RRF-006-60,3x5,6	RRF-6006	6,39
2"	RRF-606-60,3x8,8	2,37x0,35	2,95	1,59	RRF-006-60,3x8,8	RRF-6006	6,61
2"	RRF-606-60,3x11,1	2,37x0,44	2,95	1,59	RRF-006-60,3x11,1	RRF-6006	6,83
2"	RRF-606-60,3x8,5	2,60x0,33	2,95	1,59	RRF-006-60,3x8,5	RRF-6006	6,83

*1 or comparable material



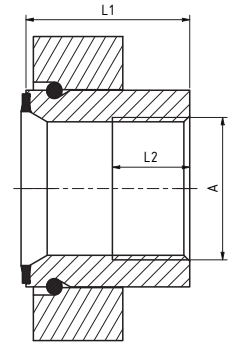
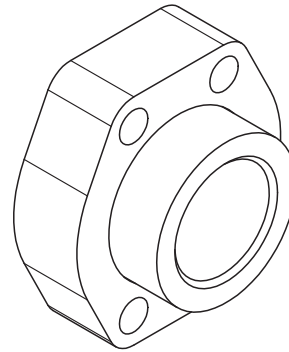
Ordering code:	S355J2^{*1}	1.4404^{*1}
• flange clamp with weld neck, retainer ring, Bonded seal + screws	RRK-...-...-M	RRK-X-...-...-MX

Nominal flange size	Type	Pipe diameter						Weight (flange only)	
			L	S	retainer ring adapter	retainer ring counter adapter	retainer ring flange clamp		
inch								lb	
High pressure									
1/2"	RRK-601-12x1,5M	0,47x0,06	3,18	1,92	RRF-001-12x1,5	GRRF-001-12x1,5	RRF-6001	1,32	
1/2"	RRK-601-16x2M	0,63x0,08	3,18	1,92	RRF-001-16x2	GRRF-001-16x2	RRF-6001	1,32	
1/2"	RRK-601-18x2M	0,71x0,08	3,18	1,92	RRF-001-18x2	GRRF-001-18x2	RRF-6001	1,32	
1/2"	RRK-601-20x2,5M	0,79x0,10	3,18	1,92	RRF-001-20x2,5	GRRF-001-20x2,5	RRF-6001	1,32	
1/2"	RRK-601-21,3x2,1M	0,84x0,08	3,18	1,92	RRF-001-21,3x2,1	GRRF-001-21,3x2,1	RRF-6001	1,32	
1/2"	RRK-601-21,3x2,8M	0,84x0,11	3,18	1,92	RRF-001-21,3x2,8	GRRF-001-21,3x2,8	RRF-6001	1,32	
1/2"	RRK-601-21,3x3,7M	0,84x0,15	3,18	1,92	RRF-001-21,3x3,7	GRRF-001-21,3x3,7	RRF-6001	1,32	
1/2"	RRK-601-21,3x4,8M	0,84x0,19	3,18	1,92	RRF-001-21,3x4,8	GRRF-001-21,3x4,8	RRF-6001	1,32	
1/2"	RRK-601-21,3x7,5M	0,84x0,30	3,57	1,92	RRF-001-21,3x7,5	GRRF-001-21,3x7,5	RRF-6001	1,32	
1/2"	RRK-601-25x2,5M	0,98x0,10	3,18	1,92	RRF-001-25x2,5	GRRF-001-25x2,5	RRF-6001	1,32	
1/2"	RRK-601-26x6M	1,02x0,24	3,57	1,92	RRF-001-26x6	GRRF-001-26x6	RRF-6001	1,32	
3/4"	RRK-602-20x2,5M	0,79x0,10	3,17	1,99	RRF-002-20x2,5	GRRF-002-20x2,5	RRF-6002	2,20	
3/4"	RRK-602-25x3,0M	0,98x0,12	3,17	1,99	RRF-002-25x3,0	GRRF-002-25x3,0	RRF-6002	2,43	
3/4"	RRK-602-26,7x2,1M	1,05x0,08	3,17	1,99	RRF-002-26,7x2,1	GRRF-002-26,7x2,1	RRF-6002	2,43	
3/4"	RRK-602-26,7x2,9M	1,05x0,11	3,17	1,99	RRF-002-26,7x2,9	GRRF-002-26,7x2,9	RRF-6002	2,43	
3/4"	RRK-602-26,7x3,9M	1,05x0,15	3,17	1,99	RRF-002-26,7x3,9	GRRF-002-26,7x3,9	RRF-6002	2,43	
3/4"	RRK-602-26,7x5,6M	1,05x0,22	3,17	1,99	RRF-002-26,7x5,6	GRRF-002-26,7x5,6	RRF-6002	2,43	
3/4"	RRK-602-26,7x7,82M	1,05x0,31	3,57	1,99	RRF-002-26,7x7,82	GRRF-002-26,7x7,82	RRF-6002	2,43	
3/4"	RRK-602-30x3M	1,18x0,12	3,17	1,99	RRF-002-30x3	GRRF-002-30x3	RRF-6002	2,43	
3/4"	RRK-602-30x4M	1,18x0,16	3,17	1,99	RRF-002-30x4	GRRF-002-30x4	RRF-6002	2,43	
3/4"	RRK-602-30x6M	1,18x0,24	3,17	1,99	RRF-002-30x6	GRRF-002-30x6	RRF-6002	2,43	
3/4"	RRK-602-36x8M	1,50x0,31	3,57	1,99	RRF-002-36x8	GRRF-002-36x8	RRF-6002	2,65	
1"	RRK-603-25x3M	0,98x0,12	3,18	2,19	RRF-003-25x3	GRRF-003-25x3	RRF-6003	3,31	
1"	RRK-603-30x4M	1,18x0,16	3,18	2,19	RRF-003-30x4	GRRF-003-30x4	RRF-6003	3,31	
1"	RRK-603-33,4x2,8M	1,31x0,11	3,18	2,19	RRF-003-33,4x2,8	GRRF-003-33,4x2,8	RRF-6003	3,31	
1"	RRK-603-33,4x3,4M	1,31x0,13	3,18	2,19	RRF-003-33,4x3,4	GRRF-003-33,4x3,4	RRF-6003	3,31	

*1 or comparable material

Nominal flange size	Type	Pipe diameter						Weight (flange only)
			L	S	retainer ring adapter	retainer ring counter adapter	retainer ring flange clamp	
inch								
High pressure								
1"	RRK-603-33,4x4,6M	1,31x0,18	3,18	2,19	RRF-003-33,4x4,6	GRRF-003-33,4x4,6	RRF-6003	3,31
1"	RRK-603-33,4x6,4M	1,31x0,25	3,97	2,19	RRF-003-33,4x6,4	GRRF-003-33,4x6,4	RRF-6003	3,31
1"	RRK-603-33,4x9,1M	1,31x0,36	3,97	2,19	RRF-003-33,4x9,1	GRRF-003-33,4x9,1	RRF-6003	3,31
1"	RRK-603-38x4M	1,50x0,16	3,18	2,19	RRF-003-38x4	GRRF-003-38x4	RRF-6003	3,31
1"	RRK-603-38x5M	1,50x0,20	3,18	2,19	RRF-003-38x5	GRRF-003-38x5	RRF-6003	3,53
1"	RRK-603-38x7M	1,50x0,28	3,18	2,19	RRF-003-38x7	GRRF-003-38x7	RRF-6003	3,53
1"	RRK-603-39x7,5M	1,54x0,30	3,97	2,19	RRF-003-39x7,5	GRRF-003-39x7,5	RRF-6003	3,97
1 1/4"	RRK-604-30x4M	1,18x0,16	3,20	2,61	RRF-004-30x4	GRRF-004-30x4	RRF-6004	4,85
1 1/4"	RRK-604-38x5M	1,50x0,20	3,20	2,61	RRF-004-38x5	GRRF-004-38x5	RRF-6004	4,85
1 1/4"	RRK-604-42x4M	1,65x0,16	3,20	2,61	RRF-004-42x4	GRRF-004-42x4	RRF-6004	4,41
1 1/4"	RRK-604-42x6M	1,65x0,24	3,20	2,61	RRF-004-42x6	GRRF-004-42x6	RRF-6004	4,85
1 1/4"	RRK-604-42,2x2,8M	1,66x0,11	3,20	2,61	RRF-004-42,2x2,8	GRRF-004-42,2x2,8	RRF-6004	4,85
1 1/4"	RRK-604-42,2x3,6M	1,66x0,14	3,20	2,61	RRF-004-42,2x3,6	GRRF-004-42,2x3,6	RRF-6004	4,85
1 1/4"	RRK-604-42,2x4,9M	1,66x0,19	3,20	2,61	RRF-004-42,2x4,9	GRRF-004-42,2x4,9	RRF-6004	5,29
1 1/4"	RRK-604-42,2x6,4M	1,66x0,25	3,99	2,61	RRF-004-42,2x6,4	GRRF-004-42,2x6,4	RRF-6004	5,29
1 1/4"	RRK-604-42,2x9,7M	1,66x0,38	3,99	2,61	RRF-004-42,2x9,7	GRRF-004-42,2x9,7	RRF-6004	5,73
1 1/4"	RRK-604-46x7M	1,81x0,28	3,99	2,61	RRF-004-46x7	GRRF-004-46x7	RRF-6004	5,73
1 1/4"	RRK-604-46x8M	1,81x0,31	4,38	2,61	RRF-004-46x8	GRRF-004-46x8	RRF-6004	5,73
1 1/2"	RRK-605-38x5M	1,50x0,20	3,59	2,85	RRF-005-38x5	GRRF-005-38x5	RRF-6005	7,94
1 1/2"	RRK-605-48,3x2,8M	1,90x0,11	3,59	2,85	RRF-005-48,3x2,8	GRRF-005-48,3x2,8	RRF-6005	7,94
1 1/2"	RRK-605-48,3x3,7M	1,90x0,15	3,59	2,85	RRF-005-48,3x3,7	GRRF-005-48,3x3,7	RRF-6005	7,94
1 1/2"	RRK-605-48,3x5,1M	1,90x0,20	3,59	2,85	RRF-005-48,3x5,1	GRRF-005-48,3x5,1	RRF-6005	7,94
1 1/2"	RRK-605-48,3x7,1M	1,90x0,28	4,78	2,85	RRF-005-48,3x7,1	GRRF-005-48,3x7,1	RRF-6005	8,82
1 1/2"	RRK-605-48,3x10,2M	1,90x0,40	4,78	2,85	RRF-005-48,3x10,2	GRRF-005-48,3x10,2	RRF-6005	8,82
1 1/2"	RRK-605-50x5M	1,97x0,20	3,59	2,85	RRF-005-50x5	GRRF-005-50x5	RRF-6005	7,94
1 1/2"	RRK-605-50x6M	1,97x0,24	3,59	2,85	RRF-005-50x6	GRRF-005-50x6	RRF-6005	7,94
1 1/2"	RRK-605-50x9M	1,97x0,35	3,59	2,85	RRF-005-50x9	GRRF-005-50x9	RRF-6005	8,82
1 1/2"	RRK-605-56x8,5M	2,20x0,33	4,78	2,85	RRF-005-56x8,5	GRRF-005-56x8,5	RRF-6005	9,26
2"	RRK-606-48,3x5,1M	1,90x0,20	3,98	3,24	RRF-006-48,3x5,1	GRRF-006-48,3x5,1	RRF-6006	12,35
2"	RRK-606-50x9M	1,97x0,35	3,98	3,24	RRF-006-50x9	GRRF-006-50x9	RRF-6006	12,35
2"	RRK-606-60x5M	2,36x0,20	3,98	3,24	RRF-006-60x5	GRRF-006-60x5	RRF-6006	12,79
2"	RRK-606-60x6M	2,36x0,24	3,98	3,24	RRF-006-60x6	GRRF-006-60x6	RRF-6006	12,79
2"	RRK-606-60x8M	2,36x0,31	3,98	3,24	RRF-006-60x8	GRRF-006-60x8	RRF-6006	12,79
2"	RRK-606-60x10M	2,36x0,39	3,98	3,24	RRF-006-60x10	GRRF-006-60x10	RRF-6006	12,79
2"	RRK-606-60,3x2,8M	2,37x0,11	3,98	3,24	RRF-006-60,3x2,8	GRRF-006-60,3x2,8	RRF-6006	12,79
2"	RRK-606-60,3x3,9M	2,37x0,15	3,98	3,24	RRF-006-60,3x3,9	GRRF-006-60,3x3,9	RRF-6006	12,79
2"	RRK-606-60,3x5,6M	2,37x0,22	3,98	3,24	RRF-006-60,3x5,6	GRRF-006-60,3x5,6	RRF-6006	12,79
2"	RRK-606-60,3x8,8M	2,37x0,35	5,95	3,24	RRF-006-60,3x8,8	GRRF-006-60,3x8,8	RRF-6006	13,23
2"	RRK-606-60,3x11,1M	2,37x0,44	5,95	3,24	RRF-006-60,3x11,1	GRRF-006-60,3x11,1	RRF-6006	13,67
2"	RRK-606-66x8,5M	2,60x0,33	5,95	3,24	RRF-006-66x8,5	GRRF-006-66x8,5	RRF-6006	14,11

*1 or comparable material

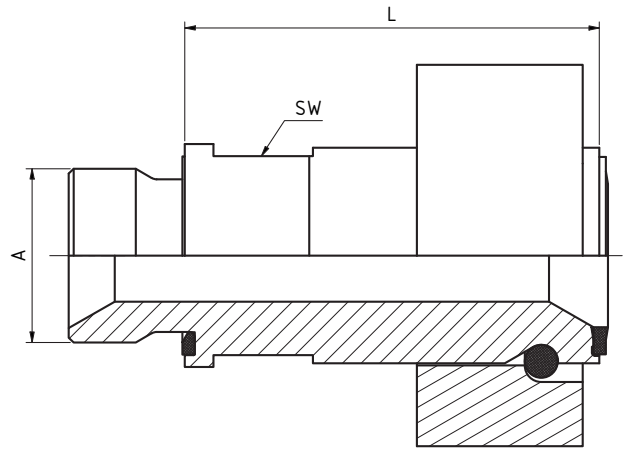
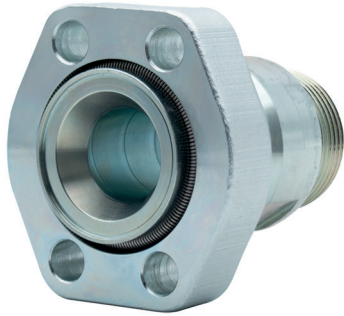


Ordering code:	S355J2 *1	1.4404 *1
• retainer ring inner thread adapter with flange clamp, retainer ring, bonded seal	RRF-IG-.....	RRF-IG-X-.....
• retainer ring inner thread adapter with flange clamp, retainer ring, bonded seal and screws	RRF-IG-.....-M	RRF-IG-X-.....-MX
Surface only available in chrome3		

Nominal flange size	Type						Weight (flange only)
		A	L	L2	retainer ring flange clamp	retainer ring inner thread adapter	
<i>inch</i>							
	High pressure						
1/2"	RRF-IG-601-G014	G 1/4"	1,38	0,47	RRF-6001	RRF-IG-001-G014	0,79
3/4"	RRF-IG-602-G012	G 1/2"	1,57	0,75	RRF-6002	RRF-IG-002-G012	1,34
1"	RRF-IG-603-G034	G 3/4"	1,57	0,75	RRF-6003	RRF-IG-003-G034	1,79
1 1/4"	RRF-IG-604-G100	G 1"	1,65	0,94	RRF-6004	RRF-IG-004-G100	2,62
1 1/4"	RRF-IG-644-G100	G 1"	1,65	0,94	RRF-6044	RRF-IG-004-G100	2,71
1 1/2"	RRF-IG-605-G114	G 1 1/4"	1,77	0,91	RRF-6005	RRF-IG-005-G114	4,08
2"	RRF-IG-606-G112	G 1 1/2"	2,17	1,02	RRF-6006	RRF-IG-006-G112	6,83

*1 or comparable material

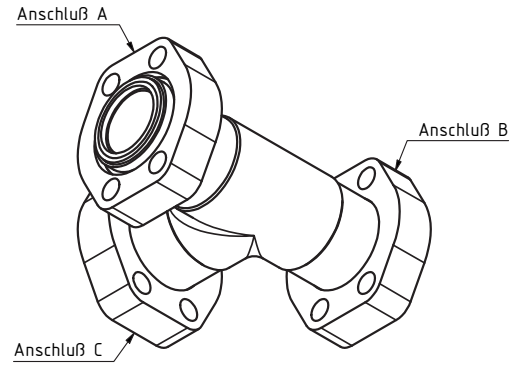
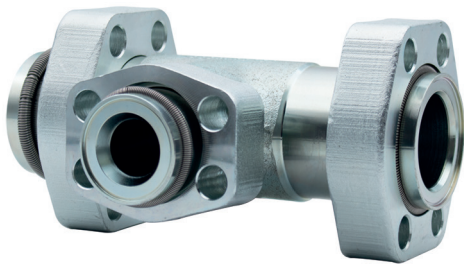
150 | SAE-retainer ring male thread adapter BSPP-thread – 6000 PSI



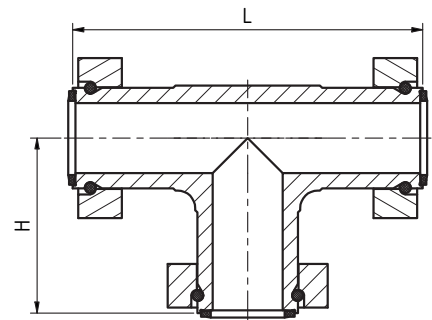
Ordering code:	S355J2 *1	1.4404 *1
• retainer ring male thread adapter with flange clamp, retainer ring, bonded seal and profile sealing ring	RRF-AG-....-....	RRF-AG-X-....-....
• retainer ring male thread adapter with flange clamp, retainer ring, bonded seal, profile sealing ring + screws	RRF-AG-....-....-M	RRF-AG-X-....-....-MX
Surface only available in chrome3		

Nominal flange size	Type						Weight
		A	L	SW	retainer ring flange clamp	retainer ring male thread adapter	(flange only)
inch							lb
High pressure							
1/2"	RRF-AG-601-012	G 1/2"	1,97	0,94	RRF-6001	RRF-AG-001-012	0,97
3/4"	RRF-AG-602-034	G 3/4"	2,40	1,18	RRF-6002	RRF-AG-002-034	1,72
1"	RRF-AG-603-100	G 1"	2,56	1,42	RRF-6003	RRF-AG-003-100	2,40
1 1/4"	RRF-AG-604-114	G 1 1/4"	2,68	1,81	RRF-6004	RRF-AG-004-114	3,64
1 1/2"	RRF-AG-605-112	G 1 1/2"	3,07	1,81	RRF-6005	RRF-AG-005-112	5,49
2"	RRF-AG-606-200	G 2"	3,27	2,17	RRF-6006	RRF-AG-006-200	8,71

*1 or comparable material

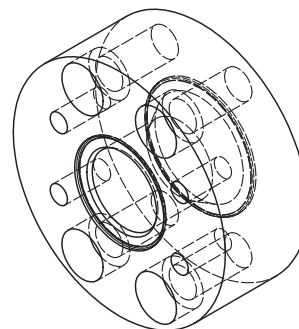


Ordering code:	S355J2 *1	1.4404 *1
• T-connection, 3x flange clamp, 3x retainer ring and 3x bonded seal	RRF-T-...-...	RRF-T-X-...-...
• T-connection, 3x flange clamp, 3x retainer ring and 3x bonded seal + screws	RRF-T-...-...-M	RRF-T-X-...-...-MX
Surface only available in chrome3		

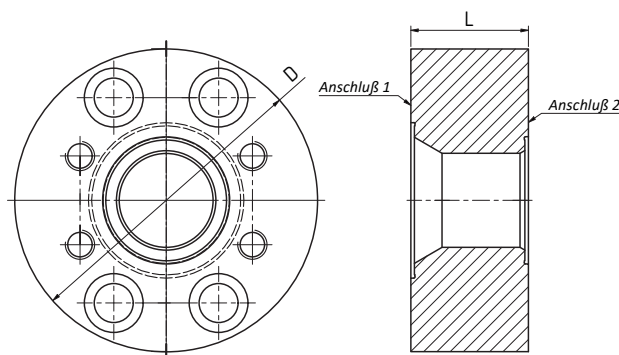


Nominal flange size	Type						Weight (flange only)
		L	H	A	B	C	
<i>inch</i>							<i>lb</i>
High pressure							
1/2"	RRF-T-601	4,72	2,36	RRF-6001	RRF-6001	RRF-6001	2,82
3/4"	RRF-T-602	5,12	2,56	RRF-6002	RRF-6002	RRF-6002	4,83
3/4" - 1/2"	RRF-T-602-601	5,12	2,56	RRF-6002	RRF-6002	RRF-6001	4,39
1"	RRF-T-603	5,51	2,76	RRF-6003	RRF-6003	RRF-6003	6,24
1" - 1/2"	RRF-T-603-601	5,51	2,56	RRF-6003	RRF-6003	RRF-6001	5,38
1" - 3/4"	RRF-T-603-602	5,51	2,56	RRF-6003	RRF-6003	RRF-6002	5,82
1 1/4"	RRF-T-604	6,30	3,15	RRF-6004	RRF-6004	RRF-6004	9,19
1 1/4" - 3/4"	RRF-T-604-602	6,30	2,76	RRF-6004	RRF-6004	RRF-6002	8,05
1 1/4" - 1"	RRF-T-604-603	6,30	2,95	RRF-6004	RRF-6004	RRF-6003	8,47
1 1/2"	RRF-T-605	7,09	3,54	RRF-6005	RRF-6005	RRF-6005	14,95
1 1/2" - 1"	RRF-T-605-603	7,09	3,15	RRF-6005	RRF-6005	RRF-6003	12,74
1 1/2" - 1 1/4"	RRF-T-605-604	7,09	3,35	RRF-6005	RRF-6005	RRF-6004	13,49
2"	RRF-T-606	8,66	4,33	RRF-6006	RRF-6006	RRF-6006	22,69
2" - 1 1/4"	RRF-T-606-604	8,66	3,54	RRF-6006	RRF-6006	RRF-6004	19,18
2" - 1 1/2"	RRF-T-606-605	8,66	3,74	RRF-6006	RRF-6006	RRF-6005	20,64
2 1/2"	RRF-T-607	10,24	5,12	RRF-6007	RRF-6007	RRF-6007	55,16
3"	RRF-T-608	12,60	6,30	RRF-6008	RRF-6008	RRF-6008	82,47

*1 or comparable material

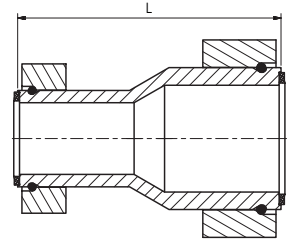
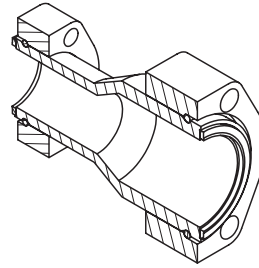
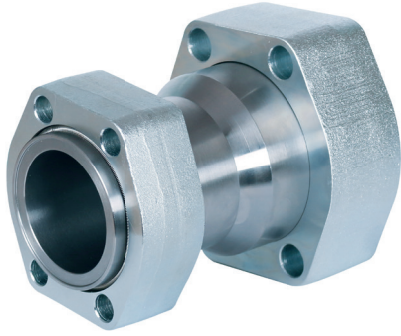


Ordering code:	S355J2^{*1}	1.4404^{*1}
• retainer ring reducerblock	RRF-RB-...-...	RRF-RB-X-...-...
Surface only available in chrome3		



Nominal flange size	Type					Weight (flange only)
		<i>D</i>	<i>L</i>	<i>connection 1</i>	<i>connection 2</i>	
<i>inch</i>						<i>lb</i>
High pressure						
3/4" - 1/2"	RRF-RB-602-601	3,15	0,98	RRF-6002	RRF-6001	1,76
1" - 1/2"	RRF-RB-603-601	3,46	1,18	RRF-6003	RRF-6001	2,54
1" - 3/4"	RRF-RB-603-602	3,46	1,18	RRF-6003	RRF-6002	2,45
1 1/4" - 1/2"	RRF-RB-604-601	4,06	1,38	RRF-6004	RRF-6001	4,08
1 1/4" - 3/4"	RRF-RB-604-602	4,06	1,38	RRF-6004	RRF-6002	3,99
1 1/4" - 1"	RRF-RB-604-603	4,06	1,38	RRF-6004	RRF-6003	3,84
1 1/2" - 3/4"	RRF-RB-605-602	4,72	1,57	RRF-6005	RRF-6002	6,26
1 1/2" - 1"	RRF-RB-605-603	4,72	1,57	RRF-6005	RRF-6003	6,13
1 1/2" - 1 1/4"	RRF-RB-605-604	4,72	1,57	RRF-6005	RRF-6004	5,91
2" - 1"	RRF-RB-606-603	5,83	1,57	RRF-6006	RRF-6003	9,44
2" - 1 1/4"	RRF-RB-606-604	5,83	1,57	RRF-6006	RRF-6004	9,26
2" - 1 1/2"	RRF-RB-606-605	5,83	1,57	RRF-6006	RRF-6005	8,99
2 1/2" - 1 1/4"	RRF-RB-607-604	7,52	1,77	RRF-6007	RRF-6004	17,68
2 1/2" - 1 1/2"	RRF-RB-607-605	7,52	1,77	RRF-6007	RRF-6005	17,46
2 1/2" - 2"	RRF-RB-607-606	7,52	1,77	RRF-6007	RRF-6006	16,73
3" - 1 1/2"	RRF-RB-608-605	9,02	2,36	RRF-6008	RRF-6005	35,01
3" - 2"	RRF-RB-608-606	9,02	2,36	RRF-6008	RRF-6006	34,19
3" - 2 1/2"	RRF-RB-608-607	9,02	2,36	RRF-6008	RRF-6007	32,65

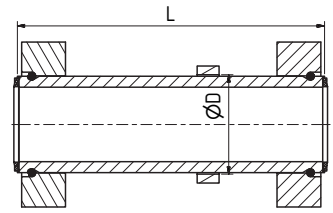
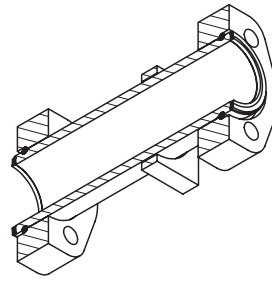
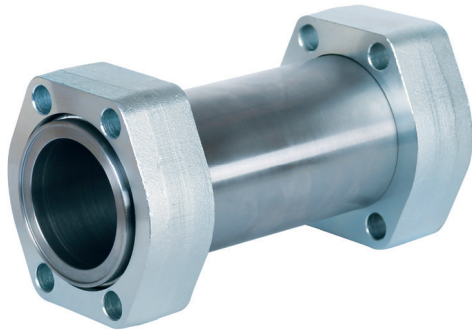
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• reduction, 2x flange clamp, retainer ring and bonded seal	RRF-RED-...-...	RRF-RED-X-...-...
• reduction, 2x flange clamp, retainer ring, bonded seal + screws	RRF-RED-...-...-M	RRF-RED-X-...-...-MX
Surface only available in chrome3		

Nominal flange size	Type					Weight (flange only)
		<i>L</i>	<i>retainer ring flange clamp 1</i>	<i>retainer ring flange clamp 2</i>	<i>retainer ring reducer adapter</i>	
<i>inch</i>						<i>lb</i>
High pressure						
3/4" - 1/2"	RRF-RED-602-601	2,56	RRF-6002	RRF-6001	RRF-RED-002-001	1,98
1" - 1/2"	RRF-RED-603-601	3,15	RRF-6003	RRF-6001	RRF-RED-003-001	2,65
1" - 3/4"	RRF-RED-603-602	4,33	RRF-6003	RRF-6002	RRF-RED-003-002	3,53
1 1/4" - 3/4"	RRF-RED-604-602	4,33	RRF-6004	RRF-6002	RRF-RED-004-002	4,19
1 1/4" - 1"	RRF-RED-604-603	4,33	RRF-6004	RRF-6003	RRF-RED-004-003	4,63
1 1/2" - 1"	RRF-RED-605-603	4,33	RRF-6005	RRF-6003	RRF-RED-005-003	6,17
1 1/2" - 1 1/4"	RRF-RED-605-604	5,12	RRF-6005	RRF-6004	RRF-RED-005-004	7,28
2" - 1 1/4"	RRF-RED-606-604	5,12	RRF-6006	RRF-6004	RRF-RED-006-004	9,26
2" - 1 1/2"	RRF-RED-606-605	5,12	RRF-6006	RRF-6005	RRF-RED-006-005	11,02

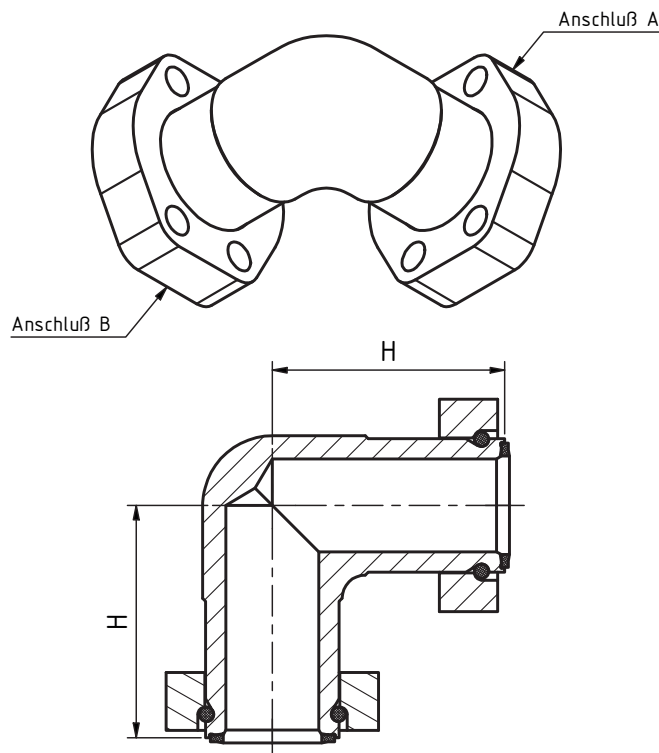
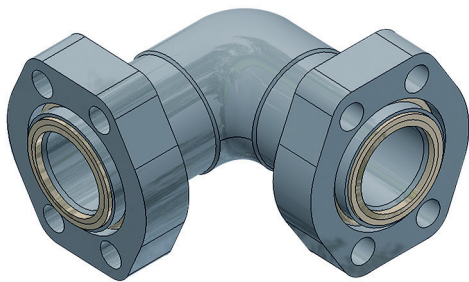
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• bulkhead, 2x flange clamp, retainer ring and bonded seal	RRF-B-...	RRF-B-X-...
• bulkhead, 2x flange clamp, retainer ring, bonded seal + screws	RRF-B-...-M	RRF-B-X-...-MX
Surface only available in chrome3		

Nominal flange size	Type					Weight (flange only)
		<i>L</i>	<i>Ø D</i> required bulkhead opening	retainer ring flange clamp	retainer ring tube	
<i>Inch</i>						<i>lb</i>
High pressure						
1/2"	RRF-B-601	6,69	1,06	RRF-6001	RRF-B-001	3,53
3/4"	RRF-B-602	6,69	1,46	RRF-6002	RRF-B-002	3,97
1"	RRF-B-603	6,69	1,57	RRF-6003	RRF-B-003	4,63
1 1/4"	RRF-B-604	7,09	1,85	RRF-6004	RRF-B-004	6,61
1 1/2"	RRF-B-605	7,09	2,24	RRF-6005	RRF-B-005	9,92
2"	RRF-B-606	8,27	2,68	RRF-6006	RRF-B-006	15,43

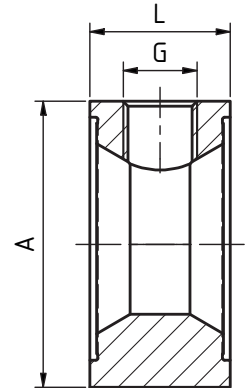
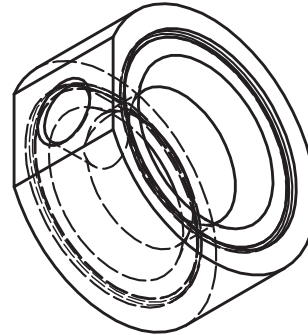
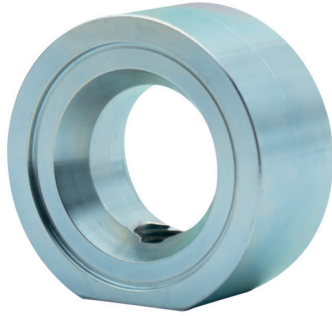
*1 or comparable material



Ordering code:	S355J2 *1	1.4404 *1
<ul style="list-style-type: none"> • 90°-retainer ring-flange, 2x flange clamp, 2x retainer ring and 2x bonded seal 	RRF-90-...	RRF-90-X-...
<ul style="list-style-type: none"> • 90°-Retainer ring-flange, 2x flange clamp, 2x retainer ring, 2x bonded seal + screws 	RRF-90-...-M	RRF-90-X-...-MX
Surface only available in chrome3		

Nominal flange size	Type				Weight (flange only)
		H	A	B	
inch					lb
High pressure					
1/2"	RRF-90-601	2,36	RRF-6001	RRF-6001	1,96
3/4"	RRF-90-602	2,56	RRF-6002	RRF-6002	3,40
1"	RRF-90-603	2,76	RRF-6003	RRF-6003	4,37
1 1/4"	RRF-90-604	3,15	RRF-6004	RRF-6004	6,44
1 1/4"	RRF-90-644	3,15	RRF-6044	RRF-6044	6,59
1 1/2"	RRF-90-605	3,54	RRF-6005	RRF-6005	10,52
2"	RRF-90-606	4,33	RRF-6006	RRF-6006	16,12

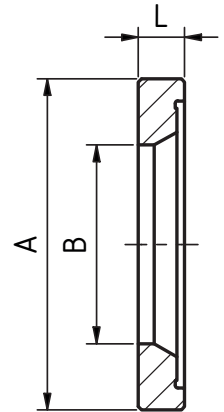
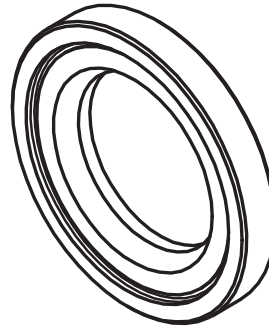
*1 or comparable material



Ordering code:	S355J2 *1	1.4404 *1
• retainer ring connector	RRF-C-...-G...	RRF-C-X-...-G...
Surface only available in chrome3		

Nominal flange size	Type				Weight (flange only)
		A	L	G	
<i>inch</i>					<i>lb</i>
1"	RRF-C-003-G ¹ / ₄	1,81	0,98	G ¹ / ₄ "	0,46
1 ¹ / ₄ "	RRF-C-004-G ¹ / ₄	2,09	0,98	G ¹ / ₄ "	0,60
1 ¹ / ₄ "	RRF-C-004-G ¹ / ₂	2,09	1,57	G ¹ / ₂ "	1,01
1 ¹ / ₂ "	RRF-C-005-G ¹ / ₄	2,56	0,98	G ¹ / ₄ "	0,86
1 ¹ / ₂ "	RRF-C-005-G ¹ / ₂	2,56	1,57	G ¹ / ₂ "	1,48
2"	RRF-C-006-G ¹ / ₄	2,95	0,98	G ¹ / ₄ "	1,08
2"	RRF-C-006-G ¹ / ₂	2,95	1,57	G ¹ / ₂ "	1,87
2 ¹ / ₂ "	RRF-C-007-G ¹ / ₄	3,54	1,18	G ¹ / ₄ "	1,65
2 ¹ / ₂ "	RRF-C-007-G ¹ / ₂	3,54	1,57	G ¹ / ₂ "	2,25
3"	RRF-C-008-G ¹ / ₄	4,13	1,18	G ¹ / ₄ "	2,18

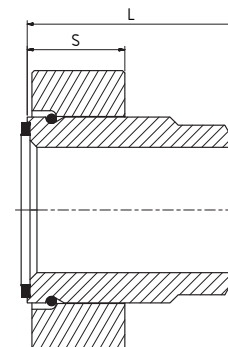
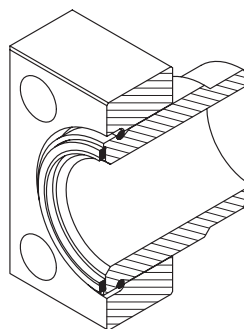
*1 or comparable material



Ordering code:	S355J2 *1	1.4404 *1
• Bond - o-ring connector	RRF-O-RING-...	RRF-O-RING-X-...
Surface only available in chrome3		

Nominal flange size	Type				Weight (flange only)
		A	B	L	lb
<i>inch</i>					
1/2"	RRF-O-RING-012	1,18	0,55	0,28	0,07
3/4"	RRF-O-RING-034	1,57	0,79	0,28	0,11
1"	RRF-O-RING-100	1,77	0,94	0,28	0,13
1 1/4"	RRF-O-RING-114	1,97	1,18	0,28	0,13
1 1/2"	RRF-O-RING-112	2,36	1,54	0,28	0,18
2"	RRF-O-RING-200	2,76	1,93	0,28	0,20
2 1/2"	RRF-O-RING-212	3,31	2,36	0,28	0,29
3"	RRF-O-RING-300	4,02	2,83	0,28	0,44

*1 or comparable material

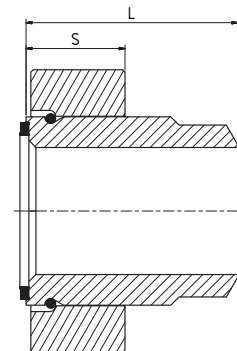
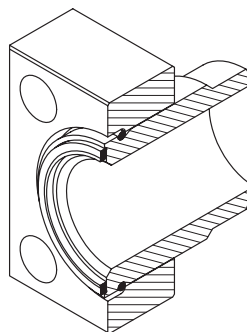


Ordering code:	S355J2^{*1}	1.4404^{*1}
• retain flange clamp, weld neck, retainer ring and Bonded seal	VKR-.../...	VKR-X-.../...
• retain flange clamp, weld neck, retainer ring and Bonded seal + screws	VKR-.../...-M	VKR-X-.../...-MX

Nominal flange size	Type	Pipe diameter					Weight (flange only)
			L	S	retainer ring welding flange	retainer ring flange clamp	
inch							lb
1 1/2"	VKR-38/38x5	1,50x0,20	1,77	1,48	RRF-005-38x5	VKR-38	3,53
1 1/2"	VKR-38/48,3x2,8	1,90x0,11	1,77	1,48	RRF-005-48,3x2,8	VKR-38	3,53
1 1/2"	VKR-38/48,3x3,7	1,90x0,15	1,77	1,48	RRF-005-48,3x3,7	VKR-38	3,53
1 1/2"	VKR-38/48,3x5,1	1,90x0,20	1,77	1,48	RRF-005-48,3x5,1	VKR-38	3,53
1 1/2"	VKR-38/48,3x7,1	1,90x0,28	2,36	1,48	RRF-005-48,3x7,1	VKR-38	3,53
1 1/2"	VKR-38/48,3x10,2	1,90x0,40	2,36	1,48	RRF-005-48,3x10,2	VKR-38	3,53
1 1/2"	VKR-38/50x5	1,97x0,20	1,77	1,48	RRF-005-50x5	VKR-38	3,53
1 1/2"	VKR-38/50x6	1,97x0,24	1,77	1,48	RRF-005-50x6	VKR-38	3,53
1 1/2"	VKR-38/50x9	1,97x0,35	1,77	1,48	RRF-005-50x9	VKR-38	3,53
1 1/2"	VKR-38/56x8,5	2,20x0,33	2,36	1,48	RRF-005-56x8,5	VKR-38	3,75
2"	VKR-40/48,3x5,1	1,90x0,20	1,97	1,67	RRF-006-48,3x5,1	VKR-40	5,07
2"	VKR-40/50x9	1,97x0,35	1,97	1,67	RRF-006-50x9	VKR-40	4,41
2"	VKR-40/60x5	2,36x0,20	1,97	1,67	RRF-006-60x5	VKR-40	4,85
2"	VKR-40/60x6	2,36x0,24	1,97	1,67	RRF-006-60x6	VKR-40	5,07
2"	VKR-40/60x8	2,36x0,31	1,97	1,67	RRF-006-60x8	VKR-40	5,07
2"	VKR-40/60x10	2,36x0,39	1,97	1,67	RRF-006-60x10	VKR-40	5,07
2"	VKR-40/60,3x2,8	2,37x0,11	1,97	1,67	RRF-006-60,3x2,8	VKR-40	5,07
2"	VKR-40/60,3x3,9	2,37x0,15	1,97	1,67	RRF-006-60,3x3,9	VKR-40	5,07
2"	VKR-40/60,3x5,6	2,37x0,22	1,97	1,67	RRF-006-60,3x5,6	VKR-40	5,07
2"	VKR-40/60,3x8,8	2,37x0,35	2,95	1,67	RRF-006-60,3x8,8	VKR-40	5,51
2"	VKR-40/60,3x11,1	2,37x0,44	2,95	1,67	RRF-006-60,3x11,1	VKR-40	5,51
2"	VKR-40/66x8,5	2,60x0,33	2,95	1,67	RRF-006-66x8,5	VKR-40	5,51

Other sizes are available upon request

*1 or comparable material

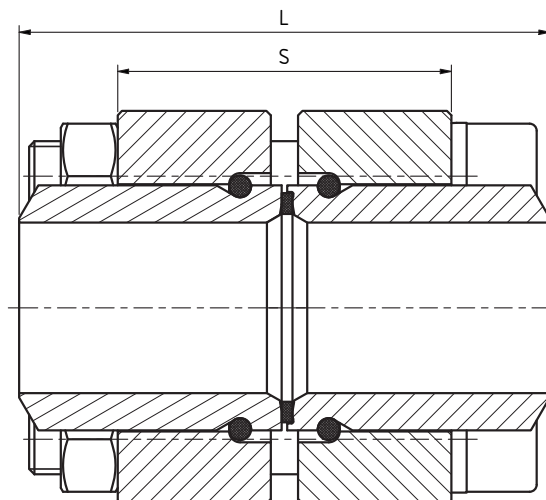
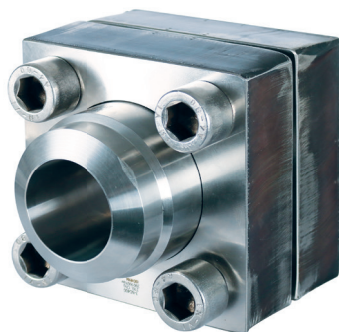


Ordering code:	S355J2^{*1}	1.4404^{*1}
• retain flange clamp, weld neck, retainer ring and Bonded seal	VKR-.../...	VKR-X-.../...
• retain flange clamp, weld neck, retainer ring and Bonded seal + screws	VKR-.../...-M	VKR-X-.../...-MX

Nominal flange size	Type	Pipe diameter					Weight (flange only)
			L	S	retainer ring welding flange	retainer ring flange clamp	
inch							lb
2 1/2"	VKR-50/65x8	2,56x0,31	1,97	1,67	RRF-007-65x8	VKR-50	7,05
2 1/2"	VKR-50/73x7	2,87x0,28	1,97	1,67	RRF-007-73x7	VKR-50	6,83
2 1/2"	VKR-50/73x9,5	2,87x0,37	3,54	1,67	RRF-007-73x9,5	VKR-50	7,28
2 1/2"	VKR-50/73x14	2,87x0,55	3,54	1,67	RRF-007-73x14	VKR-50	7,72
2 1/2"	VKR-50/75x5	2,95x0,20	1,97	1,67	RRF-007-75x5	VKR-50	7,28
2 1/2"	VKR-50/76,1x6,3	3,00x0,25	1,97	1,67	RRF-007-76,1x6,3	VKR-50	6,61
2 1/2"	VKR-50/76,1x12,5	3,00x0,49	1,97	1,67	RRF-007-76,1x12,5	VKR-50	7,28
2 1/2"	VKR-50/80x10	3,15x0,39	3,54	1,67	RRF-007-80x10	VKR-50	8,38
3"	VKR-65/76,1x12,5	3,00x0,49	2,36	2,09	RRF-008-76,1x12,5	VKR-65	12,35
3"	VKR-65/80x10	3,15x0,39	2,36	2,09	RRF-008-80x10	VKR-65	13,23
3"	VKR-65/88,9x3,2	3,50x0,13	2,36	2,09	RRF-008-88,9x3,2	VKR-65	13,23
3"	VKR-65/88,9x5,5	3,50x0,22	2,36	2,09	RRF-008-88,9x5,5	VKR-65	13,23
3"	VKR-65/88,9x7,6	3,50x0,30	2,36	2,09	RRF-008-88,9x7,6	VKR-65	13,23
3"	VKR-65/88,9x8,8	3,50x0,35	2,36	2,09	RRF-008-88,9x8,8	VKR-65	13,45
3"	VKR-65/88,9x11,1	3,50x0,44	4,33	2,09	RRF-008-88,9x11,1	VKR-65	13,89
3"	VKR-65/88,9x12,5	3,50x0,49	2,36	2,09	RRF-008-88,9x12,5	VKR-65	13,89
3"	VKR-65/88,9x15,3	3,50x0,60	4,33	2,09	RRF-008-88,9x15,3	VKR-65	14,33
3"	VKR-65/90x5	3,54x0,20	2,36	2,09	RRF-008-90x5	VKR-65	13,89
3"	VKR-65/97x12	3,82x0,47	4,33	2,09	RRF-008-97x12	VKR-65	15,43

Other sizes are available upon request

*1 or comparable material

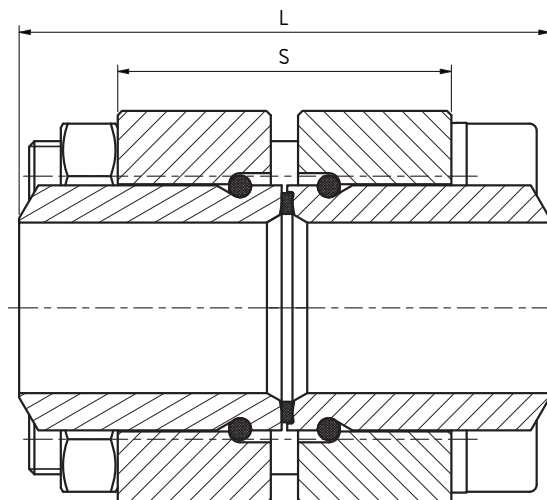
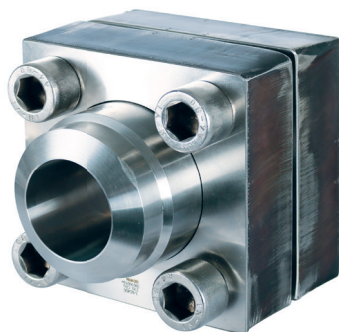


Ordering code:	S355J2^{*1}	1.4404^{*1}
• flange clamp with weld neck, retainer ring, Bonded seal + screws	VKRK-.../...-M	VKRK-X-.../...-MX

Nominal flange size	Type	Pipe diameter						Weight (flange only)
			L	S	retainer ring adapter	retainer ring counter adapter	retainer ring flange clamp	
inch								lb
1 1/2"	VKRK-38/38x5	1,50x0,20	3,59	3,00	RRF-005-38x5	GRRF-005-38x5	VKR-38	7,76
1 1/2"	VKRK-38/48,3x2,8	1,90x0,11	3,59	3,00	RRF-005-48,3x2,8	GRRF-005-48,3x2,8	VKR-38	7,76
1 1/2"	VKRK-38/48,3x3,7	1,90x0,15	3,59	3,00	RRF-005-48,3x3,7	GRRF-005-48,3x3,7	VKR-38	7,76
1 1/2"	VKRK-38/48,3x5,1	1,90x0,20	3,59	3,00	RRF-005-48,3x5,1	GRRF-005-48,3x5,1	VKR-38	7,76
1 1/2"	VKRK-38/48,3x7,1	1,90x0,28	4,78	3,00	RRF-005-48,3x7,1	GRRF-005-48,3x7,1	VKR-38	7,76
1 1/2"	VKRK-38/48,3x10,2	1,90x0,40	4,78	3,00	RRF-005-48,3x10,2	GRRF-005-48,3x10,2	VKR-38	7,76
1 1/2"	VKRK-38/50x5	1,97x0,20	3,59	3,00	RRF-005-50x5	GRRF-005-50x5	VKR-38	7,76
1 1/2"	VKRK-38/50x6	1,97x0,24	3,59	3,00	RRF-005-50x6	GRRF-005-50x6	VKR-38	7,76
1 1/2"	VKRK-38/50x9	1,97x0,35	3,59	3,00	RRF-005-50x9	GRRF-005-50x9	VKR-38	7,76
1 1/2"	VKRK-38/56x8,5	2,20x0,33	4,78	3,00	RRF-005-56x8,5	GRRF-005-56x8,5	VKR-38	8,25
2"	VKRK-40/48,3x5,1	1,90x0,20	3,98	3,39	RRF-006-48,3x5,1	GRRF-006-48,3x5,1	VKR-40	11,16
2"	VKRK-40/50x9	1,97x0,35	3,98	3,39	RRF-006-50x9	GRRF-006-50x9	VKR-40	9,70
2"	VKRK-40/60x5	2,36x0,20	3,98	3,39	RRF-006-60x5	GRRF-006-60x5	VKR-40	10,67
2"	VKRK-40/60x6	2,36x0,24	3,98	3,39	RRF-006-60x6	GRRF-006-60x6	VKR-40	11,16
2"	VKRK-40/60x8	2,36x0,31	3,98	3,39	RRF-006-60x8	GRRF-006-60x8	VKR-40	11,16
2"	VKRK-40/60x10	2,36x0,39	3,98	3,39	RRF-006-60x10	GRRF-006-60x10	VKR-40	11,16
2"	VKRK-40/60,3x2,8	2,37x0,11	3,98	3,39	RRF-006-60,3x2,8	GRRF-006-60,3x2,8	VKR-40	11,16
2"	VKRK-40/60,3x3,9	2,37x0,15	3,98	3,39	RRF-006-60,3x3,9	GRRF-006-60,3x3,9	VKR-40	11,16
2"	VKRK-40/60,3x5,6	2,37x0,22	3,98	3,39	RRF-006-60,3x5,6	GRRF-006-60,3x5,6	VKR-40	11,16
2"	VKRK-40/60,3x8,8	2,37x0,35	5,95	3,39	RRF-006-60,3x8,8	GRRF-006-60,3x8,8	VKR-40	12,13
2"	VKRK-40/60,3x11,1	2,37x0,44	5,95	3,39	RRF-006-60,3x11,1	GRRF-006-60,3x11,1	VKR-40	12,13
2"	VKRK-40/66x8,5	2,60x0,33	5,95	3,39	RRF-006-66x8,5	GRRF-006-66x8,5	VKR-40	12,13

Other sizes are available upon request

*1 or comparable material

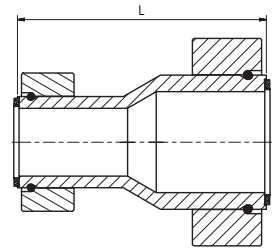
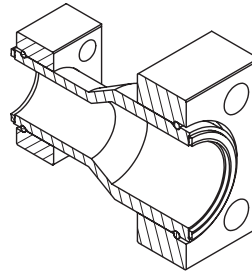
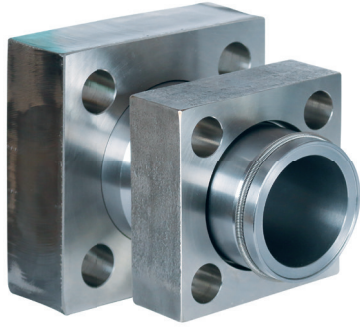


Ordering code:	S355J2^{*1}	1.4404^{*1}
• flange clamp with weld neck, retainer ring, Bonded seal + screws	VK RK-.../...-M	VK RK-X-.../...-MX

Nominal flange size	Type	Pipe diameter						Weight (flange only)
			L	S	retainer ring adapter	retainer ring counter adapter	retainer ring flange clamp	
inch								
2 1/2"	VK RK-50/65x8	2,56x0,31	3,98	3,39	RRF-007-65x8	GRRF-007-65x8	VKR-50	15,52
2 1/2"	VK RK-50/73x7	2,87x0,28	3,98	3,39	RRF-007-73x7	GRRF-007-73x7	VKR-50	15,04
2 1/2"	VK RK-50/73x9,5	2,87x0,37	7,13	3,39	RRF-007-73x9,5	GRRF-007-73x9,5	VKR-50	16,01
2 1/2"	VK RK-50/73x14	2,87x0,55	7,13	3,39	RRF-007-73x14	GRRF-007-73x14	VKR-50	16,98
2 1/2"	VK RK-50/75x5	2,95x0,20	3,98	3,39	RRF-007-75x5	GRRF-007-75x5	VKR-50	16,01
2 1/2"	VK RK-50/76,1x6,3	3,00x0,25	3,98	3,39	RRF-007-76,1x6,3	GRRF-007-76,1x6,3	VKR-50	14,55
2 1/2"	VK RK-50/76,1x12,5	3,00x0,49	3,98	3,39	RRF-007-76,1x12,5	GRRF-007-76,1x12,5	VKR-50	16,01
2 1/2"	VK RK-50/80x10	3,15x0,39	7,13	3,39	RRF-007-80x10	GRRF-007-80x10	VKR-50	18,43
3"	VK RK-65/76,1x12,5	3,00x0,49	4,76	4,21	RRF-008-76,1x12,5	GRRF-008-76,1x12,5	VKR-65	27,16
3"	VK RK-65/80x10	3,15x0,39	4,76	4,21	RRF-008-80x10	GRRF-008-80x10	VKR-65	29,10
3"	VK RK-65/88,9x3,2	3,50x0,13	4,76	4,21	RRF-008-88,9x3,2	GRRF-008-88,9x3,2	VKR-65	29,10
3"	VK RK-65/88,9x5,5	3,50x0,22	4,76	4,21	RRF-008-88,9x5,5	GRRF-008-88,9x5,5	VKR-65	29,10
3"	VK RK-65/88,9x7,6	3,50x0,30	4,76	4,21	RRF-008-88,9x7,6	GRRF-008-88,9x7,6	VKR-65	29,10
3"	VK RK-65/88,9x8,8	3,50x0,35	4,76	4,21	RRF-008-88,9x8,8	GRRF-008-88,9x8,8	VKR-65	29,59
3"	VK RK-65/88,9x11,1	3,50x0,44	8,70	4,21	RRF-008-88,9x11,1	GRRF-008-88,9x11,1	VKR-65	30,56
3"	VK RK-65/88,9x12,5	3,50x0,49	4,76	4,21	RRF-008-88,9x12,5	GRRF-008-88,9x12,5	VKR-65	30,56
3"	VK RK-65/88,9x15,3	3,50x0,60	8,70	4,21	RRF-008-88,9x15,3	GRRF-008-88,9x15,3	VKR-65	31,53
3"	VK RK-65/90x5	3,54x0,20	4,76	4,21	RRF-008-90x5	GRRF-008-90x5	VKR-65	30,56
3"	VK RK-65/97x12	3,82x0,47	8,70	4,21	RRF-008-97x12	GRRF-008-97x12	VKR-65	33,95

Other sizes are available upon request

*1 or comparable material

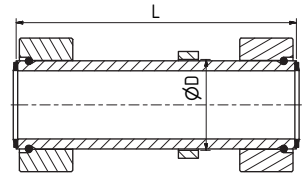
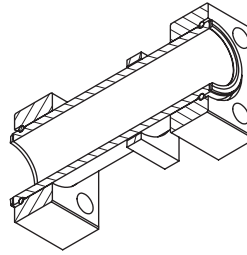
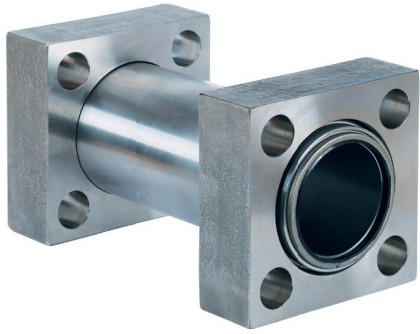


Ordering code:	S355J2^{*1}	1.4404^{*1}
• reduction, 2x flange clamp, retainer ring and Bonded seal	VKR-RED-...-...	VKR-RED-X-...-...
• reduction, 2x flange clamp, retainer ring, Bonded seal + screws	VKR-RED-...-...-M	VKR-RED-X-...-...-MX

Nominal flange size	Type						Weight (flange only)
		<i>L</i>	<i>retainer ring flange clamp 1</i>	<i>retainer ring flange clamp 2</i>	<i>retainer ring reducer adapter</i>	<i>lb</i>	
2" - 1½"	VKR-RED-40-38	5,12	VKR-40	VKR-38	RRF-RED-006-005	9,70	
2½" - 1½"	VKR-RED-50-38	5,91	VKR-50	VKR-38	RRF-RED-007-005	13,23	
2½" - 2"	VKR-RED-50-40	5,91	VKR-50	VKR-40	RRF-RED-007-006	12,13	
3" - 2"	VKR-RED-65-40	7,09	VKR-65	VKR-40	RRF-RED-008-006	22,05	
3" - 2½"	VKR-RED-65-50	7,09	VKR-65	VKR-50	RRF-RED-008-007	18,96	

Other sizes are available upon request

*1 or comparable material

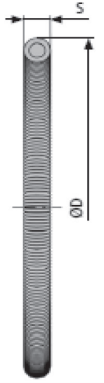
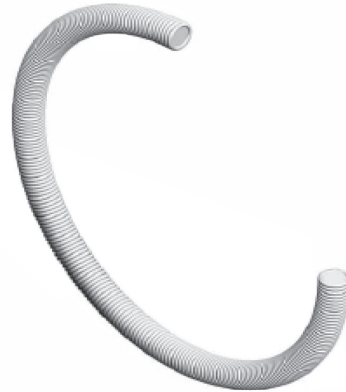


Ordering code:	S355J2^{*1}	1.4404^{*1}
• bulkhead, 2x flange clamp, retainer ring and Bonded seal	VKR-B-...	VKR-B-X-...
• bulkhead, 2x flange clamp, retainer ring, Bonded seal + screws	VKR-B-...-M	VKR-B-X-...-MX

Nominal flange size	Type					Weight (flange only)
		<i>L</i>	$\varnothing D$ required bulkhead opening	retainer ring flange clamp	retainer ring tube	
<i>Inch</i>						<i>lb</i>
1½"	VKR-B-38	7,09	2,28	VKR-38	RRF-B-005	6,83
2"	VKR-B-40	8,27	2,68	VKR-40	RRF-B-006	12,79
2½"	VKR-B-50	8,66	3,23	VKR-50	RRF-B-007	18,08
3"	VKR-B-65	9,45	3,90	VKR-65	RRF-B-008	30,86
4"	VKR-B-80	10,24	4,61	VKR-80	RRF-B-3010	46,74

Other sizes are available upon request

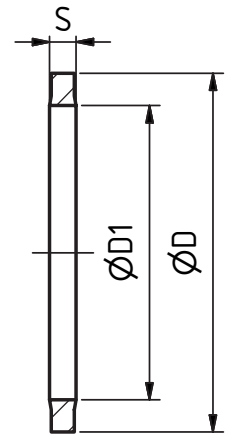
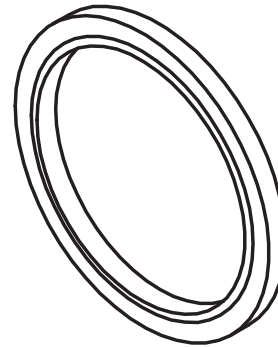
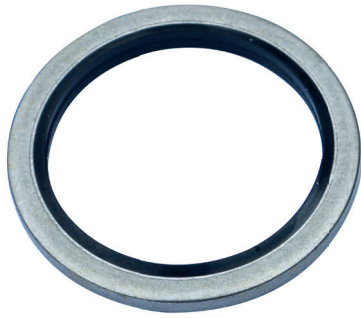
*1 or comparable material



Ordering code:	1.4404
• only retainer ring	Retainer ring-...

Nominal flange size	Type	Pipe diameter	Dimensions	
			D	S
<i>inch</i>				
1/2"	Retainer ring-1/2"	1,02x0,24	1,18	0,16
3/4"	Retainer ring-3/4"	1,41x0,31	1,57	0,16
1"	Retainer ring-1"	1,54x0,30	1,73	0,20
1 1/4"	Retainer ring-1 1/4"	1,81x0,31	2,01	0,20
1 1/2"	Retainer ring-1 1/2"	2,20x0,33	2,40	0,20
2"	Retainer ring-2"	2,60x0,33	2,80	0,20
2 1/2"	Retainer ring-2 1/2"	3,15x0,39	3,35	0,20
3"	Retainer ring-3"	3,82x0,47	4,06	0,24
4"	Retainer ring-4"	4,53x0,59	4,84	0,31

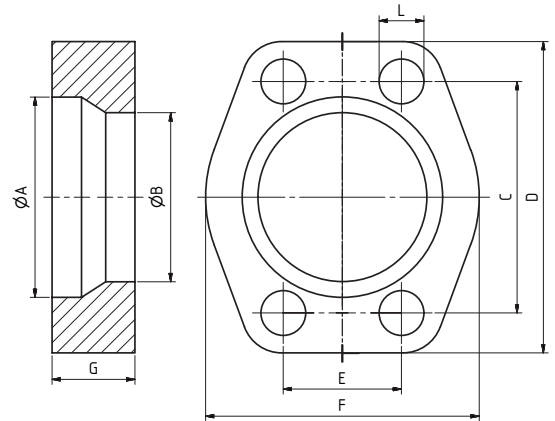
Other sizes are available upon request



Ordering code:	Stahl + NBR70 1.4401xNBR70
• bonded seal	BOND-...

Nominal flange size	Type	Dimensions		
		<i>D1</i>	<i>D</i>	<i>S</i>
<i>inch</i>				
1/2"	Bond-1/2"	0,68	0,94	0,08
3/4"	Bond-3/4"	0,96	1,31	0,09
1"	Bond-1"	1,07	1,37	0,09
1 1/4"	Bond-1 1/4"	1,33	1,69	0,13
1 1/2"	Bond-1 1/2"	1,69	2,06	0,13
2"	Bond-2"	2,04	2,50	0,13
2 1/2"	Bond-2 1/2"	2,54	2,95	0,13
3"	Bond-3"	3,00	3,55	0,13
4"	Bond-4"	3,74	4,33	0,16

Other sizes are available upon request

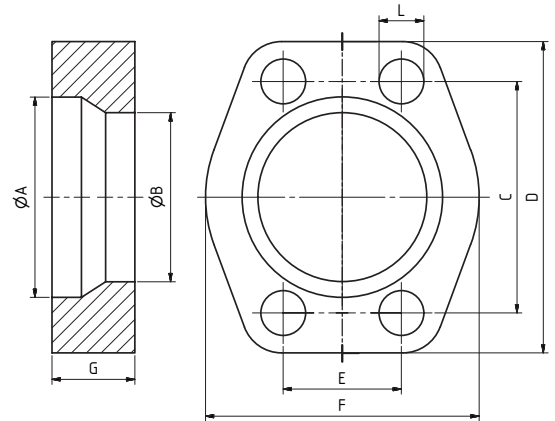


Ordering code:	S355J2^{*1}	1.4404^{*1}
• only flange	FF-...	FF-X-...
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions								Bolts		Weight (flange only)	
			A	B	C	D	E	F	G	L	single	(coupling)	lb	
<i>kg/cm²</i>	<i>inch</i>											<i>metr.</i>		
Standard pressure											single	(coupling)		
350	1/2"	FF-3001	1,20	1,02	1,50	2,13	0,69	1,81	0,79	0,35	M 8x40 (60)		0,37	
350	3/4"	FF-3002	1,52	1,22	1,87	2,56	0,87	2,06	0,79	0,43	M 10x40 (60)		0,51	
350	1"	FF-3003	1,79	1,54	2,06	2,76	1,03	2,31	0,79	0,43	M 10x40 (60)		0,60	
280	1 1/4"	FF-3004	1,99	1,69	2,31	3,13	1,19	2,88	0,79	0,43	M 10x40 (70)		0,86	
280	1 1/2"	FF-3005	2,38	2,01	2,75	3,70	1,41	3,25	0,98	0,53	M 12x45 (80)		1,43	
280	2"	FF-3006	2,78	2,40	3,06	4,02 ^{*2}	1,69	3,81	1,18	0,53	M 12x50 (80)		2,16	
210	2 1/2"	FF-3007	3,33	2,99	3,50	4,50	2,00	4,28	1,57	0,53	M 12x60 (110)		3,28	
210	3"	FF-3008	4,02	3,58	4,19	5,31	2,44	5,16	1,97	0,69	M 16x80 (130)		5,56	

*1 or comparable material

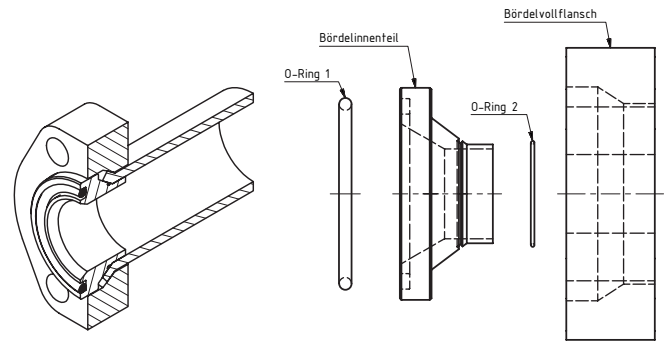
*2 measure D at 1.4404: 4,44



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only flange	FF-...	FF-X-...
Surface only available in chrome3		

maximum recommended working pressure	Nominal flange size	Type	Dimensions								Bolts		Weight (flange only)
			A	B	C	D	E	F	G	L	single	(coupling)	lb
kg/cm ²	inch												
High pressure											<i>metr.</i>		
420	1/2"	FF-6001	1,20	1,02	1,59	2,20	0,72	1,88	0,87	0,35	M 8x40 (65)	0,44	
420	3/4"	FF-6002	1,52	1,22	2,00	2,80	0,94	2,38	0,91	0,43	M 10x40 (70)	0,93	
420	1"	FF-6003	1,79	1,54	2,25	3,19	1,09	2,75	0,98	0,53	M 12x45 (75)	1,12	
420	1 1/4"	FF-6004	1,99	1,69	2,63	3,74	1,25	3,06	1,18	0,59	M 14x50 (90)	1,90	
420	1 1/4"	FF-6044	1,99	1,69	2,63	3,74	1,25	3,06	1,18	0,52	M 12x50 (90)	1,98	
420	1 1/2"	FF-6005	2,38	2,01	3,13	4,45	1,44	3,75	1,30	0,69	M 16x60 (100)	3,20	
420	2"	FF-6006	2,78	2,40	3,81	5,24	1,75	4,50	1,50	0,83	M 20x70 (110)	5,18	

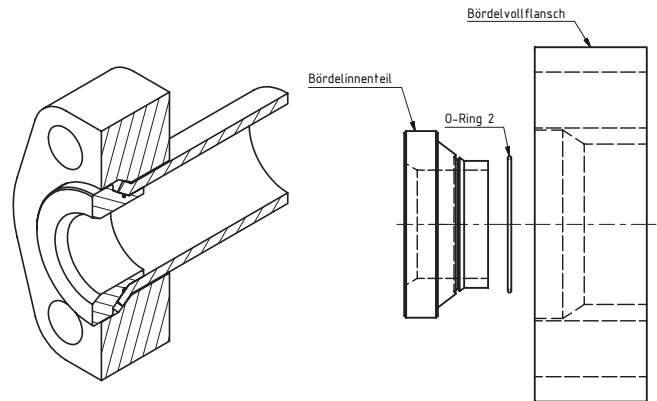
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• flare flange only	FFA-0...x...	FFA-X-0...x...
• flare flange with o-ring	FFA-0...x...-0	FFA-X-0...x...-0
• flare flange including one piece flange clamp, o-ring 1 and o-ring 2 (flare shell)	FFA-3...x...	FFA-X-3...x...
Surface only available in chrome3		

Nominal flange size	Flange type	Pipe diameter	Individual parts					Weight (flange only)
			flare flange	o-ring 1	o-ring 2	flare retaining sleeve	flare flange clamp	
<i>inch</i>			<i>flare flange</i>	<i>o-ring 1</i>	<i>o-ring 2</i>	<i>flare retaining sleeve</i>	<i>flare flange clamp</i>	<i>lb</i>
Standard pressure								
1/2"	FFA-301-16x2	0,63x0,08	FFA-001-16x2	O-RING-18,64x3,53	O-RING-12x1	HFF-001-16	FF-3001	0,49
3/4"	FFA-302-20x2,5	0,79x0,10	FFA-002-20x2,5	O-RING-25x3,53	O-RING-15x1	HFF-002-20	FF-3002	0,66
3/4"	FFA-302-30x3	1,18x0,12	FFA-002-30x3	O-RING-25x3,53	O-RING-32x1	-	FF-3002	0,66
1"	FFA-303-25x3	0,98x0,12	FFA-003-25x3	O-RING-32,9x3,53	O-RING-19x1	HFF-003-25	FF-3003	1,10
1"	FFA-303-30x3	1,18x0,12	FFA-003-30x3	O-RING-32,9x3,53	O-RING-23x1	HFF-003-30	FF-3003	0,99
1"	FFA-303-30x4	1,18x0,16	FFA-003-30x4	O-RING-32,9x3,53	O-RING-22x1	HFF-003-30	FF-3003	0,99
1"	FFA-303-38x4	1,50x0,16	FFA-003-38x4	O-RING-32,9x3,53	O-RING-30x1	-	FF-3003	0,88
1 1/4"	FFA-304-30x3	1,18x0,12	FFA-004-30x3	O-RING-37,7x3,53	O-RING-23x1	HFF-004-30	FF-3004	1,32
1 1/4"	FFA-304-30x4	1,18x0,16	FFA-004-30x4	O-RING-37,7x3,53	O-RING-22x1	HFF-004-30	FF-3004	1,10
1 1/4"	FFA-304-38x4	1,50x0,16	FFA-004-38x4	O-RING-37,7x3,53	O-RING-30x1	HFF-004-38	FF-3004	1,32
1 1/4"	FFA-304-38x5	1,50x0,20	FFA-004-38x5	O-RING-37,7x3,53	O-RING-28x1	HFF-004-38	FF-3004	1,21
1 1/4"	FFA-304-42x4	1,65x0,16	FFA-004-42x4	O-RING-37,7x3,53	O-RING-34x1	-	FF-3004	1,10
1 1/2"	FFA-305-38x4	1,50x0,16	FFA-005-38x4	O-RING-47,2x3,53	O-RING-30x1	HFF-005-38	FF-3005	2,20
1 1/2"	FFA-305-42x4	1,65x0,16	FFA-005-42x4	O-RING-47,2x3,53	O-RING-34x1	HFF-005-42	FF-3005	2,20
1 1/2"	FFA-305-50x5	1,97x0,20	FFA-005-50x5	O-RING-47,2x3,53	O-RING-41x1,78	-	FF-3005	1,98
2"	FFA-306-50x5	1,97x0,20	FFA-006-50x5	O-RING-56,7x3,53	O-RING-41x1,78	HFF-006-50	FF-3006	3,09
2"	FFA-306-60x5	2,36x0,20	FFA-006-60x5	O-RING-56,7x3,53	O-RING-50,52x1,78	-	FF-3006	2,76
2"	FFA-306-60x6	2,36x0,24	FFA-006-60x6	O-RING-56,7x3,53	O-RING-47,35x1,78	-	FF-3006	2,76
2"	FFA-306-60,3x3,91	2,37x0,15	FFA-006-60,3x3,91	O-RING-56,7x3,53	O-RING-50,52x1,78	-	FF-3006	3,09
2"	FFA-306-60,3x5,54	2,37x0,22	FFA-006-60,3x5,54	O-RING-56,7x3,53	O-RING-47,35x1,78	-	FF-3006	3,09
2 1/2"	FFA-307-60x5	2,36x0,20	FFA-007-60x5	O-RING-69,4x3,53	O-RING-50,52x1,78	HFF-007-60	FF-3007	4,63
2 1/2"	FFA-307-73x7	2,87x0,28	FFA-007-73x7	O-RING-69,4x3,53	O-RING-56,8x1,78	-	FF-3007	4,19
2 1/2"	FFA-307-75x5	2,95x0,20	FFA-007-75x5	O-RING-69,4x3,53	O-RING-63,22x1,78	-	FF-3007	4,19

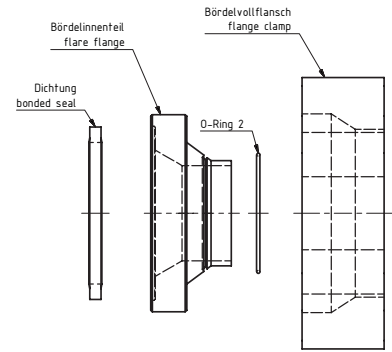
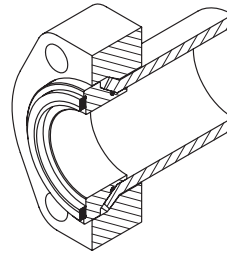
*1 or comparable material



Ordering code:	S355J2*1	1.4404*1
• only flare flange	FFB-0...-...	FFB-X-0...
• flange, flare flange and o-ring (flare shell)	FFB-...-...	FFB-X-...-...
Surface only available in chrome3		

Nominal flange size	Type	Pipe diameter	Individual parts				Weight (flange only)
			flare flange	o-ring 2	flare retaining sleeve	flare flange clamp	
inch							lb
Standard pressure							
1/2"	FFB-301-16x2	0,63x0,08	FFB-001-16x2	O-RING-12x1	HF-001-16	FF-3001	0,49
3/4"	FFB-302-20x2,5	0,79x0,10	FFB-002-20x2,5	O-RING-15x1	HF-002-20	FF-3002	0,66
3/4"	FFB-302-30x3	1,18x0,12	FFB-002-30x3	O-RING-23x1	-	FF-3002	0,66
1"	FFB-303-25x3	0,98x0,12	FFB-003-25x3	O-RING-19x1	HF-003-25	FF-3003	1,10
1"	FFB-303-30x3	1,18x0,12	FFB-003-30x3	O-RING-23x1	HF-003-30	FF-3003	0,99
1"	FFB-303-30x4	1,18x0,16	FFB-003-30x4	O-RING-22x1	HF-003-30	FF-3003	0,99
1"	FFB-303-38x4	1,50x0,16	FFB-003-38x4	O-RING-30x1	-	FF-3003	0,88
1 1/4"	FFB-304-30x3	1,18x0,12	FFB-004-30x3	O-RING-23x1	HFF-004-30	FF-3004	1,32
1 1/4"	FFB-304-30x4	1,18x0,16	FFB-004-30x4	O-RING-22x1	HFF-004-30	FF-3004	1,10
1 1/4"	FFB-304-38x4	1,50x0,16	FFB-004-38x4	O-RING-30x1	HFF-004-38	FF-3004	1,32
1 1/4"	FFB-304-38x5	1,50x0,20	FFB-004-38x5	O-RING-28x1	HFF-004-38	FF-3004	1,21
1 1/4"	FFB-304-42x4	1,65x0,16	FFB-004-42x4	O-RING-34x1	-	FF-3004	1,10
1 1/2"	FFB-305-38x4	1,50x0,16	FFB-005-38x4	O-RING-30x1	HFF-005-38	FF-3005	2,20
1 1/2"	FFB-305-42x4	1,65x0,16	FFB-005-42x4	O-RING-34x1	HFF-005-42	FF-3005	2,20
1 1/2"	FFB-305-50x5	1,97x0,20	FFB-005-50x5	O-RING-41x1,78	-	FF-3005	1,98
2"	FFB-306-50x5	1,97x0,20	FFB-006-50x5	O-RING-41x1,78	HFF-006-50	FF-3006	3,09
2"	FFB-306-60x5	2,36x0,20	FFB-006-60x5	O-RING-50,52x1,78	-	FF-3006	2,76
2"	FFB-306-60x6	2,36x0,24	FFB-006-60x6	O-RING-47,35x1,78	-	FF-3006	2,76
2"	FFB-306-60,3x3,91	2,37x0,15	FFB-006-60,3x3,91	O-RING-50,52x1,78	-	FF-3006	3,09
2"	FFB-306-60,3x5,54	2,37x0,22	FFB-006-60,3x5,54	O-RING-47,35x1,78	-	FF-3006	3,09
2 1/2"	FFB-307-60x5	2,36x0,20	FFB-007-60x5	O-RING-50,52x1,78	HFF-007-60	FF-3007	4,63
2 1/2"	FFB-307-73x7	2,87x0,28	FFB-007-73x7	O-RING-56,8x1,78	-	FF-3007	
2 1/2"	FFB-307-75x5	2,95x0,20	FFB-007-75x5	O-RING-63,22x1,78	-	FF-3007	4,19

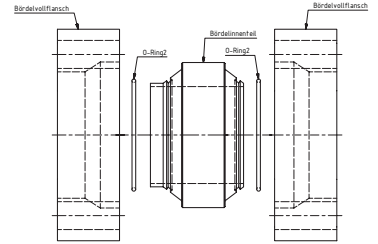
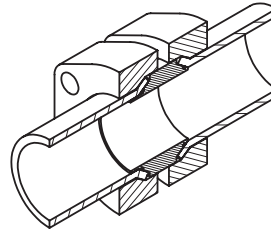
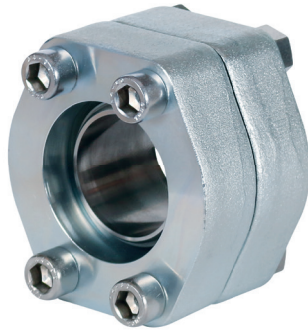
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only flare flange	FFC-0...-...	FFC-X-0...
• flange, flare flange, bonded seal and o-ring (flare shell)	FFC-...-...	FFC-X-...-...
Surface only available in chrome3		

Nominal flange size	Flange type	Pipe diameter	Individual parts					Weight (flange only)
			flare flange	Sealing	o-ring 2	flare retaining sleeve	flare flange clamp	
inch								lb
Standard pressure								
1/2"	FFC-301-16x2	0,63x0,08	FFC-001-16x2	Bond-1/2"	O-RING-12x1	HFF-001-16	FF-3001	0,49
3/4"	FFC-302-20x2,5	0,79x0,10	FFC-002-20x2,5	Bond-3/4"	O-RING-15x1	HFF-002-20	FF-3002	0,66
3/4"	FFC-302-30x3	1,18x0,12	FFC-002-30x3	Bond-3/4"	O-RING-23x1	-	FF-3002	0,66
1"	FFC-303-25x3	0,98x0,12	FFC-003-25x3	Bond-1"	O-RING-19x1	HFF-003-25	FF-3003	1,10
1"	FFC-303-30x3	1,18x0,12	FFC-003-30x3	Bond-1"	O-RING-23x1	HFF-003-30	FF-3003	0,99
1"	FFC-303-30x4	1,18x0,16	FFC-003-30x4	Bond-1"	O-RING-22x1	HFF-003-30	FF-3003	0,99
1"	FFC-303-38x4	1,50x0,16	FFC-003-38x4	Bond-1"	O-RING-30x1	-	FF-3003	0,88
1 1/4"	FFC-304-30x3	1,18x0,12	FFC-004-30x3	Bond-1.1/4"	o-RING-23x1	HFF-004-30	FF-3004	1,32
1 1/4"	FFC-304-30x4	1,18x0,16	FFC-004-30x4	Bond-1.1/4"	O-RING-22x1	HFF-004-30	FF-3004	1,10
1 1/4"	FFC-304-38x4	1,50x0,16	FFC-004-38x4	Bond-1.1/4"	O-RING-30x1	HFF-004-38	FF-3004	1,32
1 1/4"	FFC-304-38x5	1,50x0,20	FFC-004-38x5	Bond-1.1/4"	O-RING-28x1	HFF-004-38	FF-3004	1,21
1 1/4"	FFC-304-42x4	1,65x0,16	FFC-004-42x4	Bond-1.1/4"	O-RING-34x1	-	FF-3004	1,10
1 1/2"	FFC-305-38x4	1,50x0,16	FFC-005-38x4	Bond-1.1/2"	O-RING-30x1	HFF-005-38	FF-3005	2,20
1 1/2"	FFC-305-42x4	1,65x0,16	FFC-005-42x4	Bond-1.1/2"	O-RING-34x1	HFF-005-42	FF-3005	2,20
1 1/2"	FFC-305-50x5	1,97x0,20	FFC-005-50x5	Bond-1.1/2"	O-RING-41x1,78	-	FF-3005	1,98
2"	FFC-306-50x5	1,97x0,20	FFC-006-50x5	Bond-2"	O-RING-41x1,78	HFF-006-50	FF-3006	3,09
2"	FFC-306-60x5	2,36x0,20	FFC-006-60x5	Bond-2"	O-RING-50,52x1,78	-	FF-3006	2,76
2"	FFC-306-60x6	2,36x0,24	FFC-006-60x6	Bond-2"	O-RING-47,35x1,78	-	FF-3006	2,76
2"	FFC-306-60,3x3,91	2,37x0,15	FFC-006-60,3x3,91	Bond-2"	O-RING-50,52x1,78	-	FF-3006	3,09
2"	FFC-306-60,3x5,54	2,37x0,22	FFC-006-60,3x5,54	Bond-2"	O-RING-47,35x1,78	-	FF-3006	3,09
2 1/2"	FFC-307-60x5	2,36x0,20	FFC-007-60x5	Bond-2.1/2"	O-RING-50,52x1,78	HFF-007-60	FF-3007	4,63
2 1/2"	FFC-307-73x7	2,87x0,28	FFC-007-73x7	Bond-2.1/2"	O-RING-56,8x1,78	-	FF-3007	4,19
2 1/2"	FFC-307-75x5	2,95x0,20	FFC-007-75x5	Bond-2.1/2"	O-RING-63,22x1,78	-	FF-3007	4,19

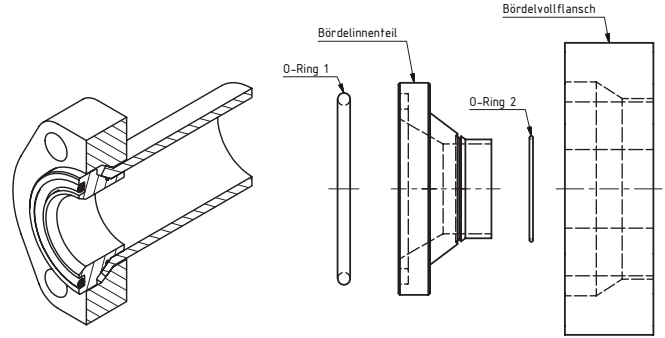
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only flare flange	FFD-0-...-...	FFD-X-0-...
• flange, flare flange, and o-ring (flare shell), Bolts and nuts	FFD-...-...-M	FFD-X-...-...-MX
Surface only available in chrome3		

Nominal flange size	Flange type	Pipe diameter	Individual parts				Weight (flange only)
			Flare flange	o-ring 2	flare retaining sleeve	flare flange clamp	
inch							lb
Standard pressure							
1/2"	FFD-301-16x2	0,63x0,08	FFD-001-16x2	O-RING-12x1	HFF-001-16	FF-3001	0,97
3/4"	FFD-302-20x2,5	0,79x0,10	FFD-002-20x2,5	O-RING-15x1	HFF-002-20	FF-3002	1,32
3/4"	FFD-302-30x3	1,18x0,12	FFD-002-30x3	O-RING-23x1	-	FF-3002	1,32
1"	FFD-303-25x3	0,98x0,12	FFD-003-25x3	O-RING-19x1	HFF-003-25	FF-3003	2,20
1"	FFD-303-30x3	1,18x0,12	FFD-003-30x3	O-RING-23x1	HFF-003-30	FF-3003	1,98
1"	FFD-303-30x4	1,18x0,16	FFD-003-30x4	O-RING-22x1	HFF-003-30	FF-3003	1,98
1"	FFD-303-38x4	1,50x0,16	FFD-003-38x4	O-RING-30x1	-	FF-3003	1,76
1 1/4"	FFD-304-30x3	1,18x0,12	FFD-004-30x3	O-RING-23x1	HFF-004-30	FF-3004	2,65
1 1/4"	FFD-304-30x4	1,18x0,16	FFD-004-30x4	O-RING-22x1	HFF-004-30	FF-3004	2,20
1 1/4"	FFD-304-38x4	1,50x0,16	FFD-004-38x4	O-RING-30x1	HFF-004-38	FF-3004	2,65
1 1/4"	FFD-304-38x5	1,50x0,20	FFD-004-38x5	O-RING-28x1	HFF-004-38	FF-3004	2,43
1 1/4"	FFD-304-42x4	1,65x0,16	FFD-004-42x4	O-RING-34x1	-	FF-3004	2,20
1 1/2"	FFD-305-38x4	1,50x0,16	FFD-005-38x4	O-RING-30x1	HFF-005-38	FF-3005	4,41
1 1/2"	FFD-305-42x4	1,65x0,16	FFD-005-42x4	O-RING-34x1	HFF-005-42	FF-3005	4,41
1 1/2"	FFD-305-50x5	1,97x0,20	FFD-005-50x5	O-RING-41x1,78	-	FF-3005	3,97
2"	FFD-306-50x5	1,97x0,20	FFD-006-50x5	O-RING-41x1,78	HFF-006-50	FF-3006	6,17
2"	FFD-306-60x5	2,36x0,20	FFD-006-60x5	O-RING-50,52x1,78	-	FF-3006	5,51
2"	FFD-306-60x6	2,36x0,24	FFD-006-60x6	O-RING-47,35x1,78	-	FF-3006	5,51
2"	FFD-306-60,3x3,91	2,37x0,15	FFD-006-60,3x3,91	O-RING-50,52x1,78	-	FF-3006	6,17
2"	FFD-306-60,3x5,54	2,37x0,22	FFD-006-60,3x5,54	O-RING-47,35x1,78	-	FF-3006	6,17
2 1/2"	FFD-307-60x5	2,36x0,20	FFD-007-60x5	O-RING-50,52x1,78	HFF-007-60	FF-3007	9,26
2 1/2"	FFD-307-73x7	2,87x0,28	FFD-007-73x7	O-RING-56,8x1,78	-	FF-3007	8,38
2 1/2"	FFD-307-75x5	2,95x0,20	FFD-007-75x5	O-RING-63,22x1,78	-	FF-3007	8,38

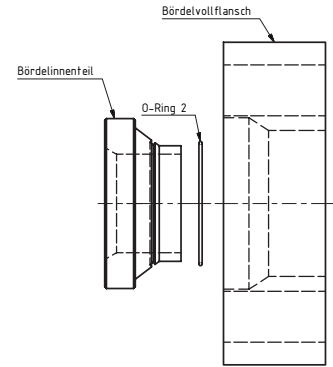
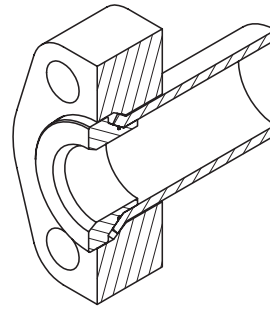
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only flare flange	FFA-0-...-...	FFA-X-0-...
• flange, flare flange and 2 x o-ring (flare shell)	FFA-...-...-...	FFA-X-...-...-...
Surface only available in chrome3		

Nominal flange size	Flange type	Pipe diameter	Individual parts					Weight (flange only)
			flanging part	o-ring 1	o-ring 2	flare retaining sleeve	flare flange clamp	
inch								lb
High pressure								
1/2"	FFA-601-16x2	0,63x0,08	FFA-001-16x2	O-RING-18,64x3,53	O-RING-12x1	HFF-001-16	FF-6001	0,66
3/4"	FFA-602-20x2,5	0,79x0,10	FFA-002-20x2,5	O-RING-25x3,53	O-RING-15x1	HFF-002-20	FF-6002	0,66
3/4"	FFA-602-30x3	1,18x0,12	FFA-002-30x3	O-RING-25x3,53	O-RING-23x1	-	FF-6002	0,66
1"	FFA-603-25x3	0,98x0,12	FFA-003-25x3	O-RING-32,9x3,53	O-RING-19x1	HFF-003-25	FF-6003	1,10
1"	FFA-603-30x3	1,18x0,12	FFA-003-30x3	O-RING-32,9x3,53	O-RING-23x1	HFF-003-30	FF-6003	0,99
1"	FFA-603-30x4	1,18x0,16	FFA-003-30x4	O-RING-32,9x3,53	O-RING-22x1	HFF-003-30	FF-6003	0,99
1"	FFA-603-38x4	1,50x0,16	FFA-003-38x4	O-RING-32,9x3,53	O-RING-30x1	-	FF-6003	0,88
1 1/4"	FFA-604-30x3	1,18x0,12	FFA-004-30x3	O-RING-37,7x3,53	O-RING-23x1	HFF-004-30	FF-6004	1,32
1 1/4"	FFA-604-30x4	1,18x0,16	FFA-004-30x4	O-RING-37,7x3,53	O-RING-22x1	HFF-004-30	FF-6004	1,10
1 1/4"	FFA-604-38x4	1,50x0,16	FFA-004-38x4	O-RING-37,7x3,53	O-RING-30x1	HFF-004-38	FF-6004	1,32
1 1/4"	FFA-604-38x5	1,50x0,20	FFA-004-38x5	O-RING-37,7x3,53	O-RING-28x1	HFF-004-38	FF-6004	1,21
1 1/4"	FFA-604-42x4	1,65x0,16	FFA-004-42x4	O-RING-37,7x3,53	O-RING-34x1	-	FF-6004	1,10
1 1/2"	FFA-605-38x4	1,50x0,16	FFA-005-38x4	O-RING-47,2x3,53	O-RING-30x1	HFF-005-38	FF-6005	3,75
1 1/2"	FFA-605-42x4	1,65x0,16	FFA-005-42x4	O-RING-47,2x3,53	O-RING-34x1	HFF-005-42	FF-6005	3,75
1 1/2"	FFA-605-50x5	1,97x0,20	FFA-005-50x5	O-RING-47,2x3,53	O-RING-41x1,78	-	FF-6005	1,98
2"	FFA-606-50x5	1,97x0,20	FFA-006-50x5	O-RING-56,7x3,53	O-RING-41x1,78	HFF-006-50	FF-6006	3,09
2"	FFA-606-60x5	2,36x0,20	FFA-006-60x5	O-RING-56,7x3,53	O-RING-50,52x1,78	-	FF-6006	2,76
2"	FFA-606-60x6	2,36x0,24	FFA-006-60x6	O-RING-56,7x3,53	O-RING-47,35x1,78	-	FF-6006	2,76
2"	FFA-606-60,3x3,91	2,37x0,15	FFA-006-60,3x3,91	O-RING-56,7x3,53	O-RING-50,52x1,78	-	FF-6006	3,09
2"	FFA-606-60,3x5,54	2,37x0,22	FFA-006-60,3x5,54	O-RING-56,7x3,53	O-RING-47,35x1,78	-	FF-6006	3,09

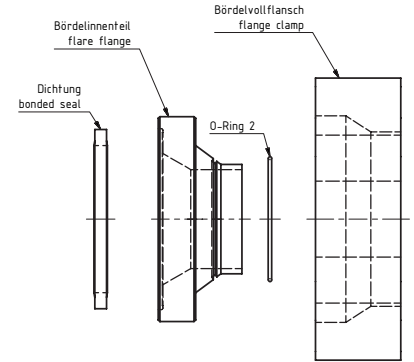
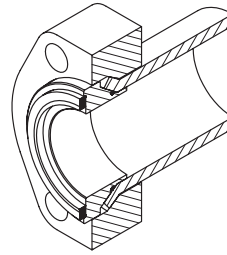
*1 or comparable material



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only flare flange	FFB-0-...	FFB-X-0-...
• flange, flare flange and o-ring (flare shell)	FFB-...-...	FFB-X-...-...
Surface only available in chrome3		

S.A.E. Baugröße nominal flange size	Flange type	Pipe diameter	Individual parts				Weight (flange only)
			flanging part	o-ring 2	flare retaining sleeve	flare flange clamp	
inch							lb
High pressure							
1/2"	FFB-601-16x2	0,63x0,08	FFB-001-16x2	O-RING-12x1	HFF-001-16	FF-6001	0,66
3/4"	FFB-602-20x2,5	0,79x0,10	FFB-002-20x2,5	O-RING-15x1	HFF-002-20	FF-6002	0,66
3/4"	FFB-602-30x3	1,18x0,12	FFB-002-30x3	O-RING-23x1	-	FF-6002	0,66
1"	FFB-603-25x3	0,98x0,12	FFB-003-25x3	O-RING-19x1	HFF-003-25	FF-6003	1,10
1"	FFB-603-30x3	1,18x0,12	FFB-003-30x3	O-RING-23x1	HFF-003-30	FF-6003	0,99
1"	FFB-603-30x4	1,18x0,16	FFB-003-30x4	O-RING-22x1	HFF-003-30	FF-6003	0,99
1"	FFB-603-38x4	1,50x0,16	FFB-003-38x4	O-RING-30x1	-	FF-6003	0,88
1 1/4"	FFB-604-30x3	1,18x0,12	FFB-004-30x3	O-RING-23x1	HFF-004-30	FF-6004	1,32
1 1/4"	FFB-604-30x4	1,18x0,16	FFB-004-30x4	O-RING-22x1	HFF-004-30	FF-6004	1,10
1 1/4"	FFB-604-38x4	1,50x0,16	FFB-004-38x4	O-RING-30x1	HFF-004-38	FF-6004	1,32
1 1/4"	FFB-604-38x5	1,50x0,20	FFB-004-38x5	O-RING-28x1	HFF-004-38	FF-6004	1,21
1 1/4"	FFB-604-42x4	1,65x0,16	FFB-004-42x4	O-RING-34x1	-	FF-6004	1,10
1 1/2"	FFB-605-38x4	1,50x0,16	FFB-005-38x4	O-RING-30x1	HFF-005-38	FF-6005	2,20
1 1/2"	FFB-605-42x4	1,65x0,16	FFB-005-42x4	O-RING-34x1	HFF-005-42	FF-6005	2,20
1 1/2"	FFB-605-50x5	1,97x0,20	FFB-005-50x5	O-RING-41x1,78	-	FF-6005	1,98
2"	FFB-606-50x5	1,97x0,20	FFB-006-50x5	O-RING-41x1,78	HFF-006-50	FF-6006	3,09
2"	FFB-606-60x5	2,36x0,20	FFB-006-60x5	O-RING-50,52x1,78	-	FF-6006	2,76
2"	FFB-606-60x6	2,36x0,24	FFB-006-60x6	O-RING-47,35x1,78	-	FF-6006	2,76
2"	FFB-606-60,3x3,91	2,37x0,15	FFB-006-60,3x3,91	O-RING-50,52x1,78	-	FF-6006	3,09
2"	FFB-606-60,3x5,54	2,37x0,22	FFB-006-60,3x5,54	O-RING-47,35x1,78	-	FF-6006	3,09

*1 or comparable material

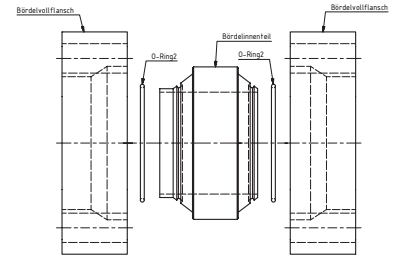
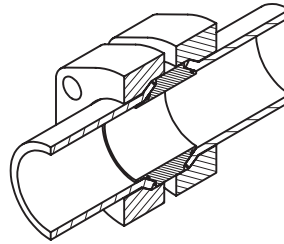
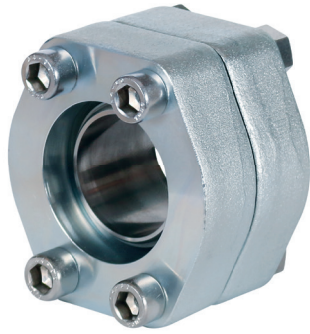


Ordering code:	S355J2^{*1}	1.4404^{*1}
• only flare flange	FFC-0-... ..	FFC-X-0... ..
• flange, flare flange, bonded seal and o-ring (flare shell)	FFC-...-... ..	FFC-X-...-... ..
Surface only available in chrome3		

Nominal flange size	Flange type	Pipe diameter	Individual parts					Weight (flange only)
			flare flange	sealing	o-ring 2	flare retaining sleeve	flare flange clamp	
inch								lb
High pressure								
1/2"	FFC-601-16x2	16 x 2	FFC-001-16x2	Bond-1/2"	O-RING-12x1	HFF-001-16	FF-6001	0,3
3/4"	FFC-602-20x2,5	20 x 2,5	FFC-002-20x2,5	Bond-3/4"	O-RING-15x1	HF-002-20	FF-6002	0,3
3/4"	FFC-602-30x3	30 x 3	FFC-002-30x3	Bond-3/4"	O-RING-23x1	-	FF-6002	0,3
1"	FFC-603-25x3	25 x 3	FFC-003-25x3	Bond-1"	O-RING-19x1	HFF-003-25	FF-6003	0,5
1"	FFC-603-30x3	30 x 3	FFC-003-30x3	Bond-1"	O-RING-23x1	HFF-003-30	FF-6003	0,45
1"	FFC-603-30x4	30 x 4	FFC-003-30x4	Bond-1"	O-RING-22x1	HFF-003-30	FF-6003	0,45
1"	FFC-603-38x4	38 x 4	FFC-003-38x4	Bond-1"	O-RING-30x1	-	FF-6003	0,4
1 1/4"	FFC-604-30x3	30 x 3	FFC-004-30x3	Bond-1.1/4"	O-RING-23x1	HFF-004-30	FF-6004	0,6
1 1/4"	FFC-604-30x4	30 x 4	FFC-004-30x4	Bond-1.1/4"	O-RING-22x1	HFF-004-30	FF-6004	0,5
1 1/4"	FFC-604-38x4	38 x 4	FFC-004-38x4	Bond-1.1/4"	O-RING-30x1	HFF-004-38	FF-6004	0,6
1 1/4"	FFC-604-38x5	38 x 5	FFC-004-38x5	Bond-1.1/4"	O-RING-28x1	HFF-004-38	FF-6004	0,55
1 1/4"	FFC-604-42x4	42 x 4	FFC-004-42x4	Bond-1.1/4"	O-RING-34x1	-	FF-6004	0,5
1 1/2"	FFC-605-38x4	38 x 4	FFC-005-38x4	Bond-1.1/2"	O-RING-30x1	HFF-005-38	FF-6005	1
1 1/2"	FFC-605-42x4	42 x 4	FFC-005-42x4	Bond-1.1/2"	O-RING-34x1	HFF-005-42	FF-6005	1
1 1/2"	FFC-605-50x5	50 x 5	FFC-005-50x5	Bond-1.1/2"	O-RING-41x1,78	-	FF-6005	0,9
2"	FFC-606-50x5	50 x 5	FFC-006-50x5	Bond-2"	O-RING-41x1,78	HFF-006-50	FF-6006	1,4
2"	FFC-606-60x5	60 x 5	FFC-006-60x5	Bond-2"	O-RING-50,52x1,78	-	FF-6006	1,25
2"	FFC-606-60x6	60 x 6	FFC-006-60x6	Bond-2"	O-RING-47,35x1,78	-	FF-6006	1,25
2"	FFC-606-60,3x3,91	60,3 x 3,91	FFC-006-60,3x3,91	Bond-2"	O-RING-50,52x1,78	-	FF-6006	1,4
2"	FFC-606-60,3x5,54	60,3 x 5,54	FFC-006-60,3x5,54	Bond-2"	O-RING-47,35x1,78	-	FF-6006	1,4

*1 or comparable material

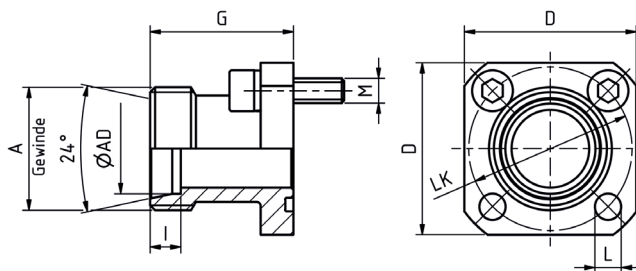
175 | SAE-flare flange-coupling typ D with seal – 6000 PSI – 6000 PSI



Ordering code:	S355J2^{*1}	1.4404^{*1}
• only flare flange	FFD-0...-...	FFD-X-0...
• flange, flare flange, and o-ring (flare shell), Bolts and nuts	FFD-...-...-M	FFD-X-...-...-MX
Surface only available in chrome3		

Nominal flange size	Flange type	Pipe diameter	Individual parts				Weight (flange only)
			flare flange	o-ring 2	flare retaining sleeve	flare flange clamp	
<i>inch</i>			<i>flare flange</i>	<i>o-ring 2</i>	<i>flare retaining sleeve</i>	<i>flare flange clamp</i>	<i>lb</i>
Hochdruckreihe / High pressure							
1/2"	FFD-601-16x2	0,63x0,08	FFD-001-16x2	O-RING-12x1	HFF-001-16	FF-6001	0,97
3/4"	FFD-602-20x2,5	0,79x0,10	FFD-002-20x2,5	O-RING-15x1	HFF-002-20	FF-6002	1,32
3/4"	FFD-602-30x3	1,18x0,12	FFD-002-30x3	O-RING-23x1	-	FF-6002	1,32
1"	FFD-603-25x3	0,98x0,12	FFD-003-25x3	O-RING-19x1	HFF-003-25	FF-6003	2,20
1"	FFD-603-30x3	1,18x0,12	FFD-003-30x3	O-RING-23x1	HFF-003-30	FF-6003	1,98
1"	FFD-603-30x4	1,18x0,16	FFD-003-30x4	O-RING-22x1	HFF-003-30	FF-6003	1,98
1"	FFD-603-38x4	1,50x0,16	FFD-003-38x4	O-RING-30x1	-	FF-6003	1,76
1 1/4"	FFD-604-30x3	1,18x0,12	FFD-004-30x3	O-RING-23x1	HFF-004-30	FF-6004	2,65
1 1/4"	FFD-604-30x4	1,18x0,16	FFD-004-30x4	O-RING-22x1	HFF-004-30	FF-6004	2,20
1 1/4"	FFD-604-38x4	1,50x0,16	FFD-004-38x4	O-RING-30x1	HFF-004-38	FF-6004	2,65
1 1/4"	FFD-604-38x5	1,50x0,20	FFD-004-38x5	O-RING-28x1	HFF-004-38	FF-6004	2,43
1 1/4"	FFD-604-42x4	1,65x0,16	FFD-004-42x4	O-RING-34x1	-	FF-6004	2,20
1 1/2"	FFD-605-38x4	1,50x0,16	FFD-005-38x4	O-RING-30x1	HFF-005-38	FF-6005	4,41
1 1/2"	FFD-605-42x4	1,65x0,16	FFD-005-42x4	O-RING-34x1	HFF-005-42	FF-6005	4,41
1 1/2"	FFD-605-50x5	1,97x0,20	FFD-005-50x5	O-RING-41x1,78	-	FF-6005	3,97
2"	FFD-606-50x5	1,97x0,20	FFD-006-50x5	O-RING-41x1,78	HFF-006-50	FF-6006	6,17
2"	FFD-606-60x5	2,36x0,20	FFD-006-60x5	O-RING-50,52x1,78	-	FF-6006	5,51
2"	FFD-606-60x6	2,36x0,24	FFD-006-60x6	O-RING-47,35x1,78	-	FF-6006	5,51
2"	FFD-606-60,3x3,91	2,37x0,15	FFD-006-60,3x3,91	O-RING-50,52x1,78	-	FF-6006	6,17
2"	FFD-606-60,3x5,54	2,37x0,22	FFD-006-60,3x5,54	O-RING-47,35x1,78	-	FF-6006	6,17

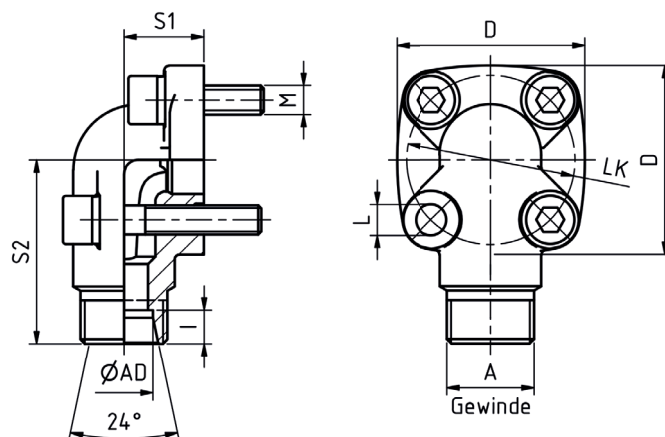
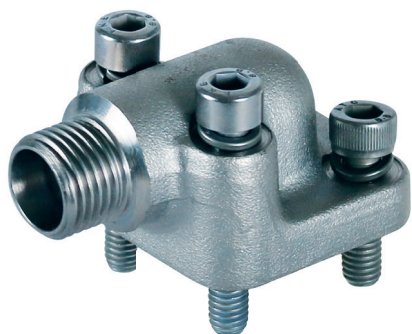
*1 or comparable material



Ordering code:	C 45*1
• flange including metric bolts and o-ring	GF-...K...
• flange including metric bolts, o-ring, cutting ring and nut	GF-...K...-M
Surface only available in zinc-nickel	

maximum recommended working pressure	hole-figuration	Type	Dimensions					Bolts	O-ring	Weight (flange only)
			AD	D	G	I	L			
kg/cm ²	LK							M		lb
315	35	GF 35LK-L10	0,39	1,54	1,18	0,28	0,25	4 x M6 x 22	20 x 2,5	0,20
315	35	GF 35LK-L12	0,47	1,54	1,18	0,28	0,25	4 x M6 x 22	20 x 2,5	0,20
250	35	GF 35LK-L15	0,59	1,54	1,18	0,28	0,25	4 x M6 x 22	20 x 2,5	0,22
250	35	GF 35LK-L18	0,71	1,54	1,18	0,30	0,25	4 x M6 x 22	20 x 2,5	0,26
315	35	GF 35LK-S16	0,63	1,54	1,18	0,33	0,25	4 x M6 x 22	20 x 2,5	0,24
100	40	GF 40LK-L15	0,59	1,65	1,38	0,28	0,25	4 x M6 x 22	26 x 2,5	0,26
100	40	GF 40LK-L18	0,71	1,65	1,38	0,30	0,25	4 x M6 x 22	26 x 2,5	0,26
100	40	GF 40LK-L22	0,87	1,65	1,38	0,30	0,25	4 x M6 x 22	26 x 2,5	0,29
100	40	GF 40LK-L28	1,10	1,65	1,65	0,30	0,25	4 x M6 x 22	26 x 2,5	0,35
100	55	GF 55LK-L28	1,10	2,17	1,57	0,30	0,33	4 x M8 x 25	32 x 2,5	0,68
100	55	GF 55LK-L35	1,38	2,17	1,97	0,41	0,33	4 x M8 x 25	32 x 2,5	0,77
100	55	GF 55LK-L42	1,65	2,17	2,17	0,43	0,33	4 x M8 x 25	32 x 2,5	0,93
250	55	GF 55LK-S20	0,79	2,17	1,57	0,41	0,33	4 x M8 x 25	32 x 2,5	0,66

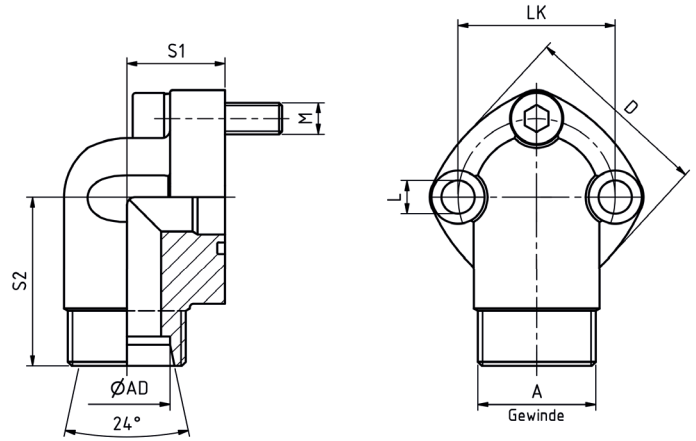
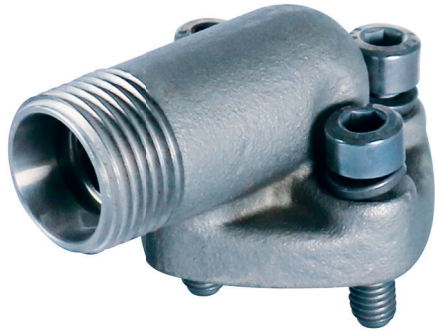
*1 or comparable material



Ordering code:	ZG230-450 C 45^{*1}
• flange including metric bolts and o-ring	WF-...K...
• flange including metric bolts, o-ring, cutting ring and nut	WF-...K...-M
Surface only available in zinc-nickel	

maximum recommended working pressure	hole-figuration	Type	Dimensions						Bolts	O-ring	Weight (flange only)	
			AD	D	S1	S2	I	L				M
kg/cm ²	LK											
250	30	WF 30LK-L12	0,47	1,38	0,71	1,57	0,28	0,25	2 x M6 x 30 2 x M6 x 45	15,88 x 2,6	0,53	
250	30	WF 30LK-L15	0,59	1,38	0,71	1,57	0,28	0,25	2 x M6 x 30 2 x M6 x 45	15,88 x 2,6	0,55	
315	35	WF 35LK-L10	0,39	1,54	0,65	1,50	0,28	0,25	2 x M6 x 22 2 x M6 x 35	20 x 2,5	0,26	
315	35	WF 35LK-L12	0,47	1,54	0,65	1,50	0,28	0,25	2 x M6 x 22 2 x M6 x 35	20 x 2,5	0,29	
250	35	WF 35LK-L15	0,59	1,54	0,65	1,50	0,28	0,25	2 x M6 x 22 2 x M6 x 35	20 x 2,5	0,31	
250	35	WF 35LK-L15-F	0,59	1,54	0,65	1,50	0,28	0,25	2 x M6 x 22 2 x M6 x 40	20 x 2,5	0,31	
250	35	WF 35LK-L18	0,71	1,54	0,81	1,50	0,30	0,25	2 x M6 x 22 2 x M6 x 40	20 x 2,5	0,49	
315	35	WF 35LK-S12	0,47	1,54	0,65	1,50	0,30	0,25	2 x M6 x 22 2 x M6 x 35	20 x 2,5	0,35	
315	35	WF 35LK-S16	0,63	1,54	0,79	1,50	0,33	0,25	2 x M6 x 22 2 x M6 x 40	20 x 2,5	0,37	
315	35	WF 35LK-S20	0,79	1,54	0,98	1,77	0,41	0,25	2 x M6 x 22 2 x M6 x 45	20 x 2,5	0,60	
100	40	WF 40LK-L15	0,59	1,65	0,89	1,50	0,28	0,25	4 x M6 x 22	26 x 2,5	0,33	
100	40	WF 40LK-L15-F	0,59	1,65	0,89	1,50	0,28	0,25	2 x M6 x 22 2 x M6 x 45	26 x 2,5	0,33	
100	40	WF 40LK-L18	0,71	1,65	0,89	1,50	0,30	0,25	4 x M6 x 22	26 x 2,5	0,37	
100	40	WF 40LK-L18-F	0,71	1,65	0,89	1,50	0,30	0,25	2 x M6 x 22 2 x M6 x 45	26 x 2,5	0,37	
100	40	WF 40LK-L22	0,87	1,65	0,89	1,50	0,30	0,25	4 x M6 x 22	26 x 2,5	0,42	
100	40	WF 40LK-L28	1,10	1,65	1,10	1,57	0,30	0,25	2 x M6 x 22 2 x M6 x 50	26 x 2,5	0,60	
100	40	WF 40LK-L35	1,38	1,65	1,34	1,61	0,41	0,25	2 x M6 x 22 2 x M6 x 60	26 x 2,5	0,77	
250	40	WF 40LK-S20	0,79	1,65	0,89	1,57	0,41	0,25	2 x M6 x 22 2 x M6 x 45	26 x 2,5	0,44	
100	55	WF 55LK-L22	0,87	2,28	0,94	1,77	0,30	0,33	2 x M8 x 25 2 x M8 x 50	32 x 2,5	0,99	
100	55	WF 55LK-L35	1,38	2,28	1,26	1,93	0,41	0,33	2 x M8 x 25 2 x M8 x 60	32 x 2,5	1,01	
100	55	WF 55LK-L42	1,65	2,28	1,57	1,93	0,43	0,33	2 x M8 x 25 2 x M8 x 70	32 x 2,5	1,34	
250	55	WF 55LK-S20	0,79	2,28	0,94	1,77	0,41	0,33	2 x M8 x 25 2 x M8 x 50	32 x 2,5	0,95	
250	55	WF 55LK-S25	0,98	2,28	1,18	1,93	0,47	0,33	2 x M8 x 25 2 x M8 x 55	32 x 2,5	1,08	
250	55	WF 55LK-S30	1,18	2,28	1,26	1,93	0,53	0,33	2 x M8 x 25 2 x M8 x 50	32 x 2,5	1,12	

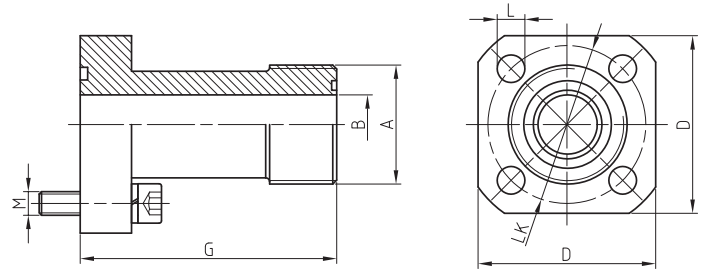
*1 or comparable material



Ordering code:	C 45^{*1}
• flange including metric bolts and o-ring	WF-...K...
• flange including metric bolts, o-ring, cutting ring and nut	WF-...K...-M
Surface only available in zinc-nickel	

maximum recommended working pressure	hole-figuration	Type	Dimensions							Bolts	O-ring	Weight (flange only)
			AD	A	D	S1	S2	I	L			
250	30	WF 30LK-L12/3	0,47	1,50	0,75	1,46	0,28	0,25	6,4	3 x M6 x 25	16 x 2,5	0,29
250	30	WF 30LK-L15/3	0,59	1,50	0,75	1,46	0,28	0,25	6,4	3 x M6 x 25	16 x 2,5	0,31
160	40	WF 40LK-L22/3	0,87	1,89	0,98	1,69	0,30	0,33	8,4	3 x M8 x 30	24 x 2,5	0,64
160	40	WF 40LK-L28/3	1,10	1,89	0,98	1,69	0,30	0,33	8,4	3 x M8 x 30	24 x 2,5	0,88

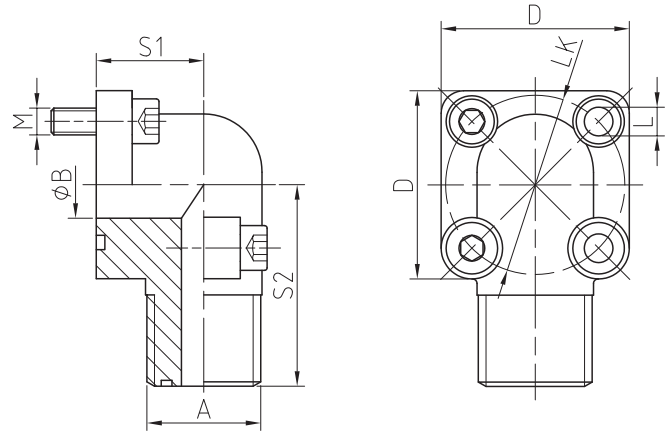
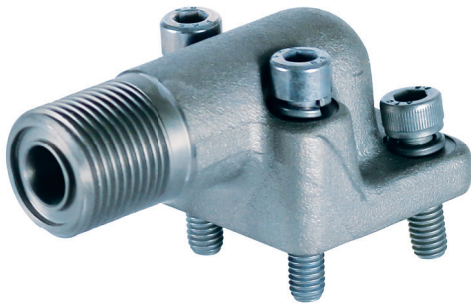
*1 or comparable material



Ordering code:	C 45*1
• flange only	GF-...LK-...
• flange including metric bolts and o-ring	GF-...LK-...-M
Surface only available in zinc-nickel	

maximum recommended working pressure	hole-figuration	Type	Dimensions					Bolts	O-ring	Weight (flange only)
			A	B	D	G	L			
kg/cm ²	LK									lb
210	35	GF-35LK-1.13/16-16	1 ³ / ₁₆ -16UN	0,37	1,57	1,97	0,28	4 x M6 x 25	20 x 2,5	0,40
210	40	GF-40LK-1.3/16-12	1 ³ / ₁₆ -12UN	0,59	1,77	2,56	0,28	4 x M6 x 25	24 x 2,5	0,73
210	40	GF-40LK-1.7/16-12	1 ⁷ / ₁₆ -12UN	0,81/0,63	1,77	2,56	0,28	4 x M6 x 25	26 x 2,5	0,79

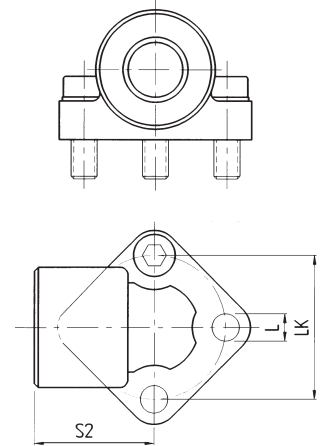
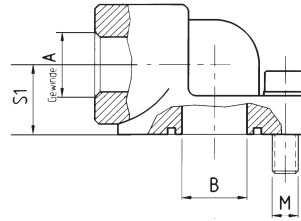
*1 or comparable material



Ordering code:	EN-GJMW-400-5^{*1}
• flange only	WF-...LK...
• flange including metric bolts and o-ring	WF-...LK...-M
Surface only available in zinc-nickel	

maximum recommended working pressure	hole-figuration	Type	Dimensions						Bolts	O-ring	Weight (flange only)
			A	B	D	S1	S2	L			
kg/cm ²	LK		A	B	D	S1	S2	L	M		lb
210	30	WF 30LK-11/16	1 ¹ / ₁₆ UN	0,26	1,18	0,59	1,18	0,21	2 x M5 x 20 2 x M5 x 25	15 x 2,5	0,26
210	30	WF 30LK-13/16	1 ³ / ₁₆ UN	0,37	1,18	0,59	1,18	0,25	2 x M6 x 20 2 x M6 x 30	15 x 2,5	0,24
210	35	WF 35LK-13/16	1 ³ / ₁₆ UN	0,37	1,57	0,79	2,17	0,25	2 x M6 x 22 2 x M6 x 35	18 x 2,5	0,55
210	40	WF 40LK-1	1 UN	0,59	1,77	0,94	2,36	0,25	2 x M6 x 20 2 x M6 x 40	24 x 2,5	1,30
210	40	WF 40LK-1.7/16	1 ⁷ / ₁₆ UN	0,79	1,65	1,10	1,57	0,25	2 x M6 x 20 2 x M6 x 50	26 x 2,5	0,57
210	55	WF 55LK-1.11/16	1 ¹¹ / ₁₆ UN	1,02	2,28	1,26	1,93	0,33	2 x M8 x 22 2 x M8 x 50	32 x 2,5	1,26

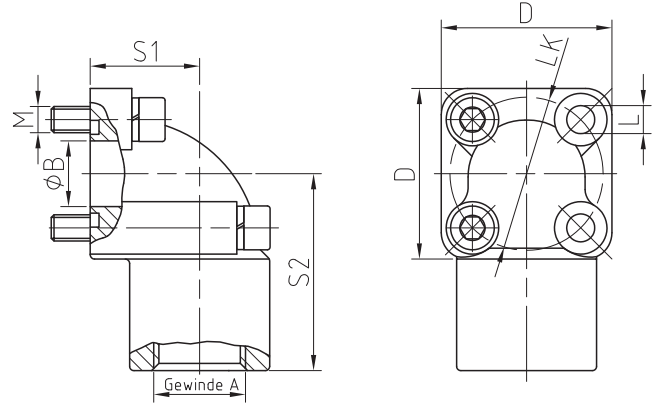
*1 or comparable material



Ordering code:	C 45^{*1}
• flange including metric bolts and o-ring	WDS-...-K
Surface only available in zinc-nickel	

maximum recommended working pressure	hole-figuration	Type	Dimensions					Bolts	O-ring	Weight (flange only)
			A	B	S1	S2	L			
kg/cm ²	LK						M		lb	
315	26	WDS 05/38	G 3/8"	0,43	0,67	0,94	0,21	3 x M5 x 20	14 x 1,78	0,35
315	26	WDS 05/12	G 1/2"	0,43	0,67	0,94	0,21	3 x M5 x 20	14 x 1,78	0,33
315	30	WDS 1/38	G 3/8"	0,47	0,67	1,02	0,25	3 x M6 x 20	15,88 x 2,62	0,35
315	30	WDS 1/12	G 1/2"	0,47	0,67	1,02	0,25	3 x M6 x 20	15,88 x 2,62	0,33
315	40	WDS 2/12	G 1/2"	0,75	0,83	1,42	0,33	3 x M8 x 25	23,81 x 2,62	0,73
315	40	WDS 2/34	G 3/4"	0,75	0,83	1,42	0,33	3 x M8 x 25	23,81 x 2,62	0,68
315	51	WDS 3/34	G 3/4"	1,02	1,02	1,77	0,41	3 x M10 x 30	31,42 x 2,62	1,26
315	51	WDS 3/100	G 1"	0,94	1,02	1,77	0,41	3 x M10 x 30	31,42 x 2,62	1,15
315	56	WDS 3B/34	G 3/4"	1,02	1,02	1,77	0,41	3 x M10 x 30	31,42 x 2,62	1,26
315	56	WDS 3B/100	G 1"	1,02	1,02	1,77	0,41	3 x M10 x 30	31,42 x 2,62	1,15

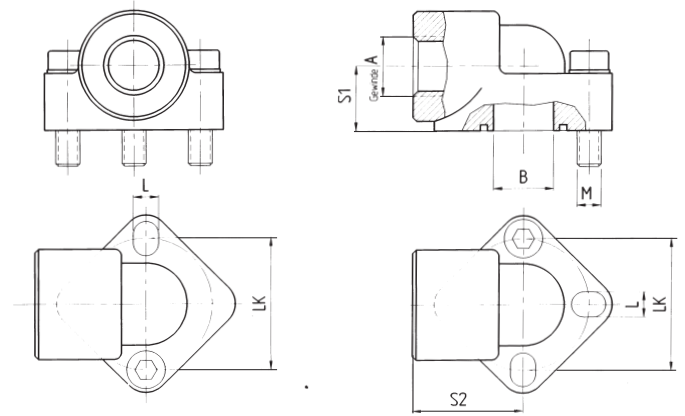
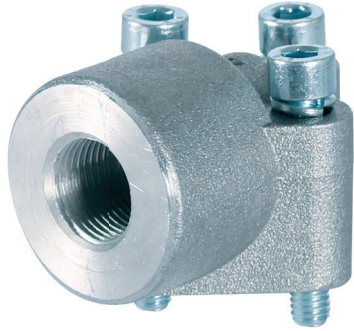
*1 or comparable material



Ordering code:	C 45 *1/ ZG230-450
• flange including metric bolts and o-ring	WF-...LK-G...-M
Surface only available in zinc-nickel	

maximum recommended working pressure	hole-figuration	Type	Dimensions						Bolts	O-ring	Weight (flange only)
			A	B	D	S1	S2	L			
kg/cm ²	LK		A	B	D	S1	S2	L	M		lb
315	30	WF-30LK-G038	G 3/8"	0,47	1,38	0,71	1,57	0,25	2 x M6 x 30 2 x M6 x 45	15,88 x 2,6	0,68
315	35	WF-35LK-G012	G 1/2"	0,59	1,54	0,98	1,77	0,25	2 x M6 x 22 2 x M6 x 45	20 x 2,5	0,55
315	35	WF 35LK-G038-F	G 3/8"	0,55	1,54	0,71	1,57	0,25	2 x M6 x 25 2 x M6 x 40	20 x 2,5	0,60
250	40	WF 40LK-G012	G 1/2"	0,79	1,65	1,10	1,97	0,25	2 x M6 x 22 2 x M6 x 50	26 x 2,5	0,90
160	40	WF 40LK-G034-F	G 3/4"	0,79	1,65	0,94	1,67	0,25	2 x M6 x 25 2 x M6 x 45	26 x 2,5	0,73
160	40	WF 40LK-G100	G 1"	0,79	1,65	1,34	2,01	0,25	2 x M6 x 22 2 x M6 x 60	26 x 2,5	1,04
160	55	WF 55LK-G100	G 1"	0,79	2,28	1,57	2,32	0,33	2 x M8 x 25 2 x M8 x 70	32 x 2,5	1,92
160	55	WF 55LK-G114	G 1 1/4"	1,02	2,28	1,57	2,32	0,33	2 x M8 x 25 2 x M8 x 70	32 x 2,5	1,61

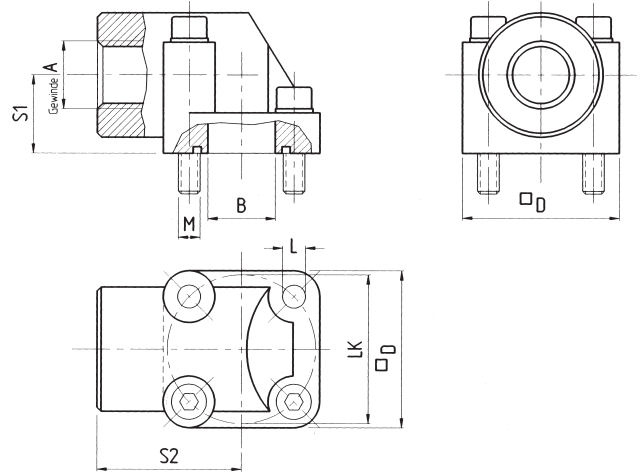
*1 or comparable material



Ordering code:	Aluminium
• flange including metric bolts and o-ring	WDA-...-K

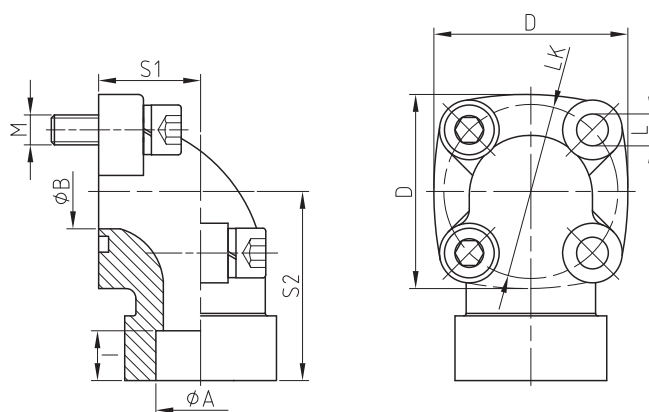
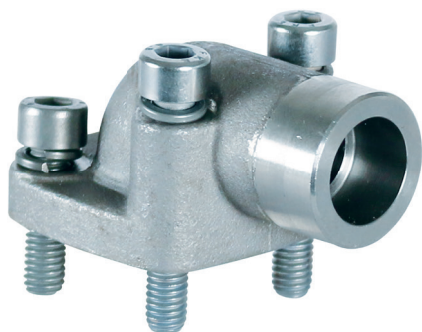
maximum recommended working pressure	hole-figuration	Type	Dimensions					Bolts	O-ring	Weight (flange only)
			A	B	S1	S2	L			
kg/cm ²	LK									lb
180	26,0	WDA 05/38	G 3/8"	0,39	0,71	1,22	0,21	3 x M5 x 35	14 x 1,78	0,13
180	26,0	WDA 05/12	G 1/2"	0,39	0,71	1,22	0,21	3 x M5 x 35	14 x 1,78	0,11
180	30,0	WDA 1/38	G 3/8"	0,49	0,71	1,18	0,26	3 x M6 x 35	15,88 x 2,62	0,18
180	30,0	WDA 1/12	G 1/2"	0,49	0,71	1,18	0,26	3 x M6 x 35	15,88 x 2,62	0,18
180	40,0	WDA 2/12	G 1/2"	0,73	0,79	1,57	0,33	3 x M8 x 45	22,22 x 2,62	0,33
180	40,0	WDA 2/34	G 3/4"	0,73	0,79	1,57	0,33	3 x M8 x 45	22,22 x 2,62	0,35
180	51,0 - 56,0	WDA 3/34	G 3/4"	0,98	1,02	1,81	0,41	3 x M10 x 60	29,75 x 3,53	0,71
180	51,0 - 56,0	WDA 3/100	G 1"	0,98	1,02	1,81	0,41	3 x M10 x 60	29,75 x 3,53	0,73
120	62,0	WDA 3,5/114 ^{*1}	G 1 1/4"	1,26	1,32	2,24	0,51	2 x M12 x 35	35,80 x 3,53	0,86
120	72,5	WDA 4/112 ^{*1}	G 1 1/2"	1,57	1,50	2,52	0,51	2 x M12 x 35	44,04 x 3,53	1,08

*1 Type: 2-hole flange



Ordering code:	Aluminium
• flange including metric bolts and o-ring	WVA-...-K

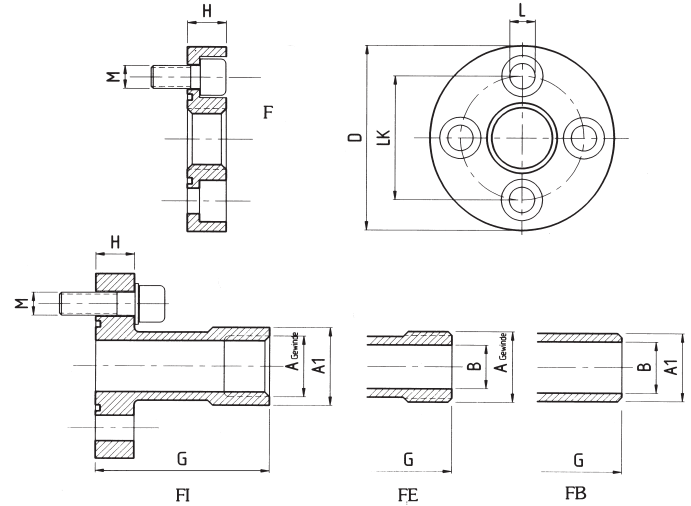
maximum recommended working pressure	hole-figuration	Type	Dimensions						Bolts	O-ring	Weight (flange only)
			A	B	D	S1	S2	L			
kg/cm ²	LK								M		lb
180	30	WVA 38/30	G 3/8"	0,45	1,38	0,71	1,57	0,26	2 x M6 x 30 2 x M6 x 45	15,88 x 2,62	0,20
180	30	WVA 12/30	G 1/2"	0,45	1,38	0,71	1,57	0,26	2 x M6 x 30 2 x M6 x 45	15,88 x 2,62	0,20
180	35	WVA 38/35	G 3/8"	0,55	1,52	0,71	1,67	0,26	2 x M6 x 30 2 x M6 x 45	18,72 x 2,62	0,24
180	35	WVA 12/35	G 1/2"	0,55	1,52	0,71	1,67	0,26	2 x M6 x 30 2 x M6 x 45	18,72 x 2,62	0,22
180	40	WVA 12/40	G 1/2"	0,67	1,65	0,94	1,87	0,26	2 x M6 x 35 2 x M6 x 55	22,22 x 2,62	0,40
180	40	WVA 34/40	G 3/4"	0,67	1,65	0,94	1,87	0,26	2 x M6 x 35 2 x M6 x 55	22,22 x 2,62	0,37
180	55	WVA 34/55	G 3/4"	0,98	2,28	1,14	2,13	0,33	2 x M8 x 45 2 x M8 x 60	29,75 x 3,53	0,68
120	55	WVA 100/55	G 1"	0,98	2,28	1,14	2,13	0,33	2 x M8 x 45 2 x M8 x 60	29,75 x 3,53	0,66



Ordering code:	EN-GJMW-400-5^{*1}
• flange only	WF-...LK-...E
• flange including metric bolts and o-ring	WF-...LK-...EM
Surface only blanc available	

maximum recommended working pressure	hole-figuration	Type	Dimensions							Bolts	O-ring	Weight (flange only)
			A	B	D	I	S1	S2	L			
kg/cm ²	LK									M		lb
315	35	WF-35LK-L10E	0,40	0,55	1,54	0,39	0,65	1,50	0,25	2 x M6 x 22 2 x M6 x 35	20 x 2,5	0,33
315	35	WF 35LK-L12E	0,48	0,55	1,54	0,39	0,65	1,50	0,25	2 x M6 x 22 2 x M6 x 35	20 x 2,5	0,33
250	35	WF 35LK-L15E	0,59	0,55	1,54	0,39	0,65	1,50	0,25	2 x M6 x 22 2 x M6 x 35	20 x 2,5	0,35
250	35	WF 35LK-L18E	0,71	0,59	1,54	0,39	0,81	1,50	0,25	2 x M6 x 22 2 x M6 x 40	20 x 2,5	0,44
315	35	WF 35LK-S16E	0,63	0,59	1,54	0,39	0,81	1,50	0,25	2 x M6 x 22 2 x M6 x 40	20 x 2,5	0,40
315	35	WF 35LK-S20E	0,79	0,59	1,54	0,39	1,00	1,77	0,25	2 x M6 x 25 2 x M6 x 45	20 x 2,5	0,55
100	40	WF 40LK-L15E	0,59	0,79	1,65	0,39	0,91	1,50	0,25	4 x M6 x 22	26 x 2,5	0,53
100	40	WF 40LK-L18E	0,71	0,79	1,65	0,39	0,91	1,50	0,25	4 x M6 x 22	26 x 2,5	0,51
100	40	WF 40LK-L22E	0,87	0,79	1,65	0,39	0,91	1,50	0,25	4 x M6 x 22	26 x 2,5	0,46
100	40	WF 40LK-L28E	1,11	0,79	1,65	0,57	1,10	1,57	0,25	2 x M6 x 22 2 x M6 x 50	26 x 2,5	0,60
100	40	WF 40LK-L35E	1,38	0,79	1,65	0,39	1,34	1,61	0,25	2 x M6 x 22 2 x M6 x 60	26 x 2,5	0,64
100	55	WF 55LK-L35E	1,38	1,02	2,28	0,39	1,22	1,93	0,33	2 x M8 x 25 2 x M8 x 60	32 x 2,5	1,12
100	55	WF 55LK-L42E	1,66	1,02	2,28	0,39	1,57	1,93	0,33	2 x M8 x 25 2 x M8 x 70	32 x 2,5	1,41
250	55	WF 55LK-S20E	0,79	0,71	2,28	0,39	0,94	1,77	0,33	2 x M8 x 25 2 x M8 x 50	32 x 2,5	1,01
250	55	WF 55LK-S25E	0,99	0,79	2,28	0,39	1,18	1,93	0,33	2 x M8 x 25 2 x M8 x 55	32 x 2,5	1,15
250	55	WF 55LK-S30E	1,19	1,02	2,28	0,39	1,26	1,93	0,33	2 x M8 x 25 2 x M8 x 50	32 x 2,5	1,17

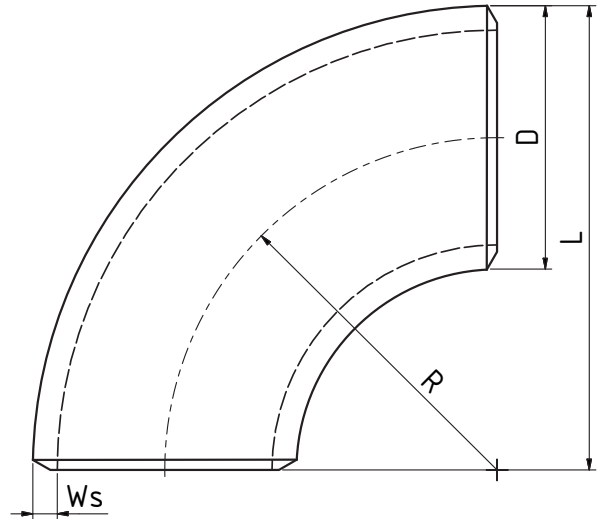
*1 or comparable material



Ordering code:	C 45^{*1}
• flange including bolts and o-ring	F-...-K
Surface optionally in blank or chrome3 (ordering code -> Page XIV)	

maximum recommended working pressure	hole-figuration	Type	Dimensions							Bolts	O-ring	Weight (flange only)
			A	A1	B	D	G	H	L			
kg/cm ²	LK		A	A1	B	D	G	H	L	M		lb
250	30,0	F 1-H15	G 3/8"	-	-	1,77	-	0,59	0,26	4 x M6 x16	18,77 x 1,78	0,29
250	30,0	FI 1	G 3/8"	0,83	-	1,77	2,17	0,39	0,26	4 x M6 x 20	18,77 x 1,78	0,33
250	30,0	FE 1	G 1/2"	-	0,55	1,77	2,17	0,39	0,26	4 x M6 x 20	18,77 x 1,78	0,33
250	30,0	FB 1	-	0,75	0,55	1,77	2,17	0,39	0,26	4 x M6 x 20	18,77 x 1,78	0,33
250	40,0	F 2-H18	G 1/2"	-	-	2,28	-	0,71	0,33	4 x M8 x 20	25,12 x 1,78	0,60
250	40,0	FI 2	G 1/2"	1,04	-	2,28	2,36	0,47	0,33	4 x M8 x 25	25,12 x 1,78	0,60
250	40,0	FE 2	G 3/4"	-	0,75	2,28	2,36	0,47	0,33	4 x M8 x 25	25,12 x 1,78	0,60
250	40,0	FB 2	-	1,00	0,75	2,28	2,36	0,47	0,33	4 x M8 x 25	25,12 x 1,78	0,60
250	51,0	F 3A	G 3/4"	-	-	2,99	-	0,71	0,41	4 x M10 x 25	31,42 x 2,62	1,06
250	51,0	FI 3A	G 3/4"	1,32	-	2,99	2,83	0,63	0,41	4 x M10 x 30	31,42 x 2,62	1,30
250	51,0	FE 3A	G 1"	-	0,94	2,99	2,83	0,63	0,41	4 x M10 x 30	31,42 x 2,62	1,30
250	51,0	FB 3A	-	1,26	0,96	2,99	2,83	0,63	0,41	4 x M10 x 30	31,42 x 2,62	1,30
250	56,0	F 3B	G 3/4"	-	-	2,99	-	0,71	0,41	4 x M10 x 25	31,42 x 2,62	1,06
250	56,0	FI 3B	G 3/4"	1,32	-	2,99	2,83	0,63	0,41	4 x M10 x 30	31,42 x 2,62	1,30
250	56,0	FE 3B	G 1"	-	0,94	2,99	2,83	0,63	0,41	4 x M10 x 30	31,42 x 2,62	1,52
250	56,0	FB 3B	-	1,26	0,96	2,99	2,83	0,63	0,41	4 x M10 x 30	31,42 x 2,62	1,30
180	62,0	F 3,5A	G 1"	-	-	3,46	-	0,79	0,41	4 x M10 x 25	39,70 x 3,53	1,17
180	62,0	F 3,5B	G 1"	-	-	3,46	-	0,79	0,49	4 x M12 x 25	39,70 x 3,53	1,30
180	72,5	F 4	G 1 1/4"	-	-	3,86	-	0,87	0,49	4 x M12 x 30	47,20 x 3,53	1,41

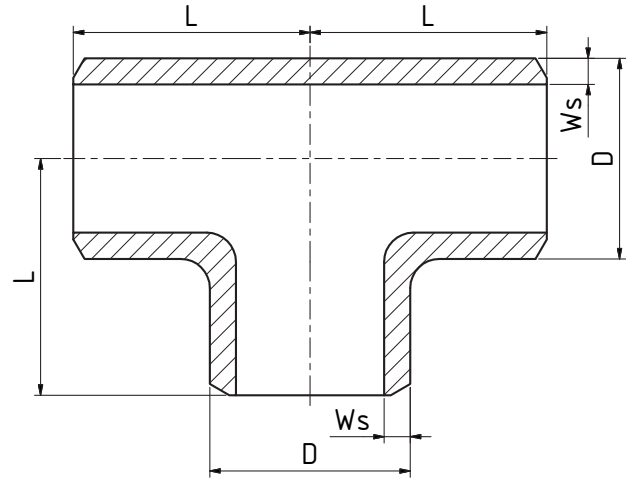
*1 or comparable material



Ordering code:	P235GH
• elbow	RB90-...
Surface only blanc available	

Nominal flange size	DN	Type	dimension (design 3)			
			D	Ws	R	L
1/2"	15	RB90-21,3x4,5	0,84	0,18	1,10	1,54
	Sched.40	RB90-21,3x2,8	0,84	0,11	1,10	1,54
	Sched.80	RB90-21,3x3,8	0,84	0,15	1,10	1,54
	Sched.XXS	RB90-21,3x7,47	0,84	0,29	1,10	1,54
3/4"	20	RB90-26,9x5,6	1,06	0,22	1,14	1,67
	Sched.40	RB90-26,7x2,9	1,05	0,11	1,14	1,67
	Sched.80	RB90-26,7x3,9	1,05	0,15	1,14	1,67
	Sched.XXS	RB90-26,7x7,82	1,05	0,31	1,14	1,67
1"	25	RB90-33,7x6,3	1,33	0,25	1,50	2,17
	Sched.10	RB90-33,4x2,8	1,31	0,11	1,50	2,17
	Sched.40	RB90-33,4x3,4	1,31	0,13	1,50	2,17
	Sched.80	RB90-33,4x4,6	1,31	0,18	1,50	2,17
1 1/4"	Sched.XXS	RB90-33,4x9,09	1,31	0,36	1,50	2,17
	32	RB90-42,4x6,3	1,67	0,25	1,89	2,72
	Sched.10	RB90-42,2x2,8	1,66	0,11	1,89	2,72
	Sched.40	RB90-42,2x3,6	1,66	0,14	1,89	2,72
	Sched.80	RB90-42,2x4,9	1,66	0,19	1,89	2,72
1 1/2"	Sched.XXS	RB90-42,2x9,7	1,66	0,38	1,89	2,72
	40	RB90-48,3x6,3	1,90	0,25	2,24	3,19
	40	RB90-48,3x10	1,90	0,39	2,24	3,19
	Sched.10	RB90-48,3x2,8	1,90	0,11	2,24	3,19
	Sched.40	RB90-48,3x3,7	1,90	0,15	2,24	3,19
	Sched.80	RB90-48,3x5	1,90	0,20	2,24	3,19
Sched.160	RB90-48,3x7,14	1,90	0,28	2,24	3,19	

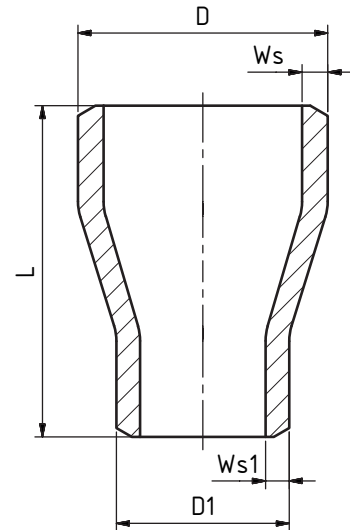
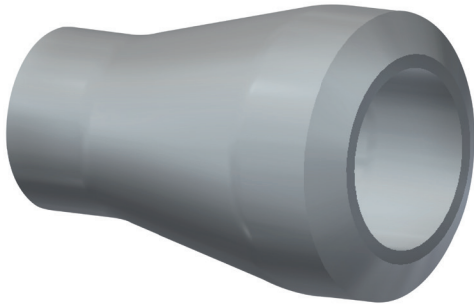
2"	50	RB90-60,3x5,6	2,37	0,22	2,99	4,17
	50	RB90-60,3x10	2,37	0,39	2,99	4,17
	Sched.10	RB90-60,3x2,9	2,37	0,11	2,99	4,17
	Sched.40	RB90-60,3x3,9	2,37	0,15	2,99	4,17
	Sched.160	RB90-60,3x8,7	2,37	0,34	2,99	4,17
	Sched.XXS	RB90-60,3x11,07	2,37	0,44	2,99	4,17
2 1/2"	65	RB90-76,1x7,1	3,00	0,28	3,74	5,24
	65	RB90-76,1x3,6	3,00	0,14	3,74	5,24
	65	RB90-76,1x10	3,00	0,39	3,74	5,24
	65	RB90-76,1x12,5	3,00	0,49	3,74	5,24
	Sched.10	RB90-73x3	2,87	0,12	3,74	5,16
	Sched.40	RB90-73x5,1	2,87	0,20	3,74	5,16
	Sched.80	RB90-73x7	2,87	0,28	3,74	5,16
	Sched.160	RB90-73x9,5	2,87	0,37	3,74	5,16
3"	80	RB90-88,9x8,0	3,50	0,31	4,49	6,26
	80	RB90-88,9x3,6	3,50	0,14	4,49	6,26
	Sched.40	RB90-88,9x5,5	3,50	0,22	4,49	6,26
	Sched.160	RB90-88,9x11,13	3,50	0,44	4,49	6,26
	Sched.XXS	RB90-88,9x15,24	3,50	0,60	4,49	6,26
3 1/2"	90	RB90-101,6x6,3	4,00	0,25	5,24	7,24
	Sched.40	RB90-101,6x5,7	4,00	0,22	5,24	7,24
	Sched.80	RB90-101,6x8	4,00	0,31	5,24	7,24
4"	100	RB90-114,3x8,8	4,50	0,35	5,98	8,27
	Sched.10	RB90-114,3x3	4,50	0,12	5,98	8,27
	Sched.40	RB90-114,3x6	4,50	0,24	5,98	8,27
	Sched.160	RB90-114,3x13,5	4,50	0,53	5,98	8,27
	Sched.XXS	RB90-114,3x17,12	4,50	0,67	5,98	8,27
5"	125	RB90-139,7x10	5,50	0,39	7,48	10,24



Ordering code: P235GH	
• elbow	T-...
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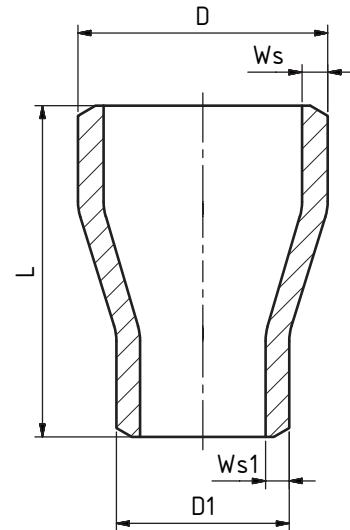
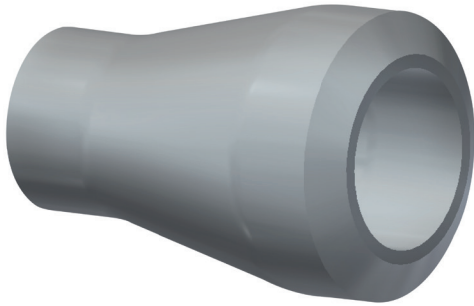
Nominal flange size	DN	Type	Dimensions		
			D	Ws	L
1/2"	Sched.40	T-21,3x2,8	0,84	0,11	0,98
	Sched.80	T-21,3x3,8	0,84	0,15	0,98
	15	T-21,3x4,5	0,84	0,18	0,98
	Sched.XXS	T-21,3x7,47	0,84	0,29	0,98
3/4"	Sched.40	T-26,7x2,9	1,05	0,11	1,14
	Sched.80	T-26,7x3,9	1,05	0,15	1,14
	Sched.XXS	T-26,7x7,82	1,05	0,31	1,14
	20	T-26,9x5,6	1,06	0,22	1,14
1"	Sched.10	T-33,4x2,8	1,31	0,11	1,50
	Sched.40	T-33,4x3,4	1,31	0,13	1,50
	Sched.80	T-33,4x4,6	1,31	0,18	1,50
	Sched.XXS	T-33,4x9,09	1,31	0,36	1,50
1 1/4"	25	T-33,7x6,3	1,33	0,25	1,50
	Sched.10	T-42,2x2,8	1,66	0,11	1,89
	Sched.40	T-42,2x3,6	1,66	0,14	1,89
	Sched.80	T-42,2x4,9	1,66	0,19	1,89
1 1/2"	Sched.XXS	T-42,2x9,7	1,66	0,38	1,89
	32	T-42,4x6,3	1,67	0,25	1,89
	Sched.10	T-48,3x2,8	1,90	0,11	2,24
	Sched.40	T-48,3x3,7	1,90	0,15	2,24
	Sched.80	T-48,3x5	1,90	0,20	2,24
	40	T-48,3x6,3	1,90	0,25	2,24
1 1/2"	Sched.160	T-48,3x7,14	1,90	0,28	2,24
	40	T-48,3x10	1,90	0,39	2,24

2"	Sched.10	T-60,3x2,9	2,37	0,11	2,52
	Sched.40	T-60,3x3,9	2,37	0,15	2,52
	50	T-60,3x5,6	2,37	0,22	2,52
	Sched.160	T-60,3x8,7	2,37	0,34	2,52
	50	T-60,3x10	2,37	0,39	2,52
2 1/2"	Sched.XXS	T-60,3x11,07	2,37	0,44	2,52
	Sched.XXS	T-73x3	2,87	0,12	2,99
	Sched.40	T-73x5,1	2,87	0,20	2,99
	Sched.80	T-73x7	2,87	0,28	2,99
	Sched.160	T-73x9,5	2,87	0,37	2,99
	65	T-76,1x3,6	3,00	0,14	2,99
	65	T-76,1x7,1	3,00	0,28	2,99
	65	T-76,1x10	3,00	0,39	2,99
	65	T-76,1x12,5	3,00	0,49	2,99
	3"	80	T-88,9x3,6	3,50	0,14
Sched.40		T-88,9x5,5	3,50	0,22	3,39
80		T-88,9x8	3,50	0,31	3,39
Sched.160		T-88,9x11,13	3,50	0,44	3,39
Sched.XXS		T-88,9x15,24	3,50	0,60	3,39
3 1/2"	Sched.40	T-101,6x5,7	4,00	0,22	3,74
	90	T-101,6x6,3	4,00	0,25	3,74
	Sched.80	T-101,6x8	4,00	0,31	3,74
4"	Sched.10	T-114,3x3	4,50	0,12	4,13
	Sched.40	T-114,3x6	4,50	0,24	4,13
	100	T-114,3x8,8	4,50	0,35	4,13
	Sched.160	T-114,3x13,5	4,50	0,53	4,13
	Sched.XXS	T-114,3x17,12	4,50	0,53	4,13
5"	125	T-139,7x10	4,50	0,53	4,13



Ordering code:	P235GH
• reducer	RKS-...
Surface only blanc available	

Nominal flange size	Type	Pipe diameter	Dimensions					
			D	Ws	D1	Ws1	L	
kg/cm ²								
3/4" - 1/2" DN20 - DN15	RKS-034/012-1	1,06x0,22-0,84x0,18	1,06	0,22	0,84	0,18	1,50	
	RKS-034/012-2	1,05x0,11-0,84x0,11	1,05	0,11	0,84	0,11	1,50	
	RKS-034/012-3	1,05x0,15-0,84x0,15	1,05	0,15	0,84	0,15	1,50	
	RKS-034/012-4	1,05x0,31-0,84x0,29	1,05	0,31	0,84	0,29	1,50	
1" - 3/4" DN25 - DN20	RKS-100/034-1	1,33x0,25-1,06x0,22	1,33	0,25	1,06	0,22	2,01	
	RKS-100/034-2	1,31x0,13-1,05x0,11	1,31	0,13	1,05	0,11	2,01	
	RKS-100/034-3	1,31x0,18-1,05x0,15	1,31	0,18	1,05	0,15	2,01	
	RKS-100/034-4	1,31x0,36-1,05x0,31	1,31	0,36	1,05	0,31	2,01	
1" - 1/2" DN25 - DN15	RKS-100/012-1	1,33x0,25-0,84x0,17	1,33	0,25	0,84	0,18	2,01	
	RKS-100/012-2	1,31x0,13-0,84x0,11	1,31	0,13	0,84	0,11	2,01	
	RKS-100/012-3	1,31x0,18-0,84x0,15	1,31	0,18	0,84	0,15	2,01	
	RKS-100/012-4	1,31x0,36-0,84x0,29	1,31	0,36	0,84	0,29	2,01	
1 1/4" - 1" DN32 - DN25	RKS-114/100-1	1,67x0,25-1,33x0,25	1,67	0,25	1,33	0,25	2,01	
	RKS-114/100-2	1,66x0,11-1,31x0,11	1,66	0,11	1,31	0,11	2,01	
	RKS-114/100-3	1,66x0,14-1,31x0,13	1,66	0,14	1,31	0,13	2,01	
	RKS-114/100-4	1,66x0,19-1,31x0,18	1,66	0,19	1,31	0,18	2,01	
	RKS-114/100-5	1,66x0,38-1,31x0,36	1,66	0,38	1,31	0,36	2,01	
1 1/4" - 3/4" DN32 - DN20	RKS-114/034-1	1,67x0,25-1,06x0,22	1,67	0,25	1,06	0,22	2,01	
	RKS-114/034-2	1,66x0,14-1,05x0,11	1,66	0,14	1,05	0,11	2,01	
	RKS-114/034-3	1,66x0,19-1,05x0,15	1,66	0,19	1,05	0,15	2,01	
	RKS-114/034-4	1,66x0,38-1,05x0,31	1,66	0,38	1,05	0,31	2,01	
1 1/2" - 1 1/4" DN40 - DN32	RKS-112/114-1	1,90x0,25-1,67x0,25	1,90	0,25	1,67	0,25	2,52	
	RKS-112/114-2	1,90x0,39-1,67x0,25	1,90	0,39	1,67	0,25	2,52	
	RKS-112/114-3	1,90x0,11-1,66x0,11	1,90	0,11	1,66	0,11	2,52	
	RKS-112/114-4	1,90x0,15-1,66x0,14	1,90	0,15	1,66	0,14	2,52	
	RKS-112/114-5	1,90x0,20-1,66x0,19	1,90	0,20	1,66	0,19	2,52	
1 1/2" - 1" DN40 - DN25	RKS-112/100-1	1,90x0,25-1,33x0,25	1,90	0,25	1,33	0,25	2,52	
	RKS-112/100-2	1,90x0,39-1,33x0,25	1,90	0,39	1,33	0,25	2,52	
	RKS-112/100-3	1,90x0,11-1,31x0,11	1,90	0,11	1,31	0,11	2,52	
	RKS-112/100-4	1,90x0,15-1,31x0,13	1,90	0,15	1,31	0,13	2,52	
	RKS-112/100-5	1,90x0,20-1,31x0,18	1,90	0,20	1,31	0,18	2,52	
	RKS-112/100-6	1,90x0,28-1,31x0,25	1,90	0,28	1,31	0,25	2,52	
2" - 1 1/2" DN50 - DN40	RKS-200/112-1	2,37x0,22-1,90x0,25	2,37	0,22	1,90	0,25	2,99	
	RKS-200/112-2	2,37x0,39-1,90x0,39	2,37	0,39	1,90	0,39	2,99	
	RKS-200/112-3	2,37x0,11-1,90x0,11	2,37	0,11	1,90	0,11	2,99	
	RKS-200/112-4	2,37x0,15-1,90x0,15	2,37	0,15	1,90	0,15	2,99	
	RKS-200/112-5	2,37x0,34-1,90x0,28	2,37	0,34	1,90	0,28	2,99	
	RKS-200/112-6	2,37x0,44-1,90x0,40	2,37	0,44	1,90	0,40	2,99	



Ordering code:	P235GH
• reducer	RKS-...
Surface only blanc available	

Nominal flange size	Type	Pipe diameter	Dimensions				
			D	Ws	D1	Ws1	L
<i>kg/cm²</i>							
2" - 1 1/4" DN50 - DN32	RKS-200/114-1	2,37x0,22-1,67x0,25	2,37	0,22	1,67	0,25	2,99
	RKS-200/114-2	2,37x0,39-1,67x0,25	2,37	0,39	1,67	0,25	2,99
	RKS-200/114-3	2,37x0,11-1,66x0,11	2,37	0,11	1,66	0,11	2,99
	RKS-200/114-4	2,37x0,15-1,66x0,11	2,37	0,15	1,66	0,14	2,99
	RKS-200/114-5	2,37x0,34-1,66x0,25	2,37	0,34	1,66	0,25	2,99
	RKS-200/114-6	2,37x0,44-1,66x0,38	2,37	0,44	1,66	0,38	2,99
2 1/2" - 2" DN65 - DN50	RKS-212/200-1	3,00x0,28-2,37x0,22	3,00	0,28	2,37	0,22	3,50
	RKS-212/200-2	2,87x0,12-2,37x0,11	2,87	0,12	2,37	0,11	3,50
	RKS-212/200-3	2,87x0,20-2,37x0,15	2,87	0,20	2,37	0,15	3,50
	RKS-212/200-4	2,87x0,28-2,37x0,22	2,87	0,28	2,37	0,22	3,50
	RKS-212/200-5	2,87x0,37-2,37x0,34	2,87	0,37	2,37	0,34	3,50
2 1/2" - 1 1/2" DN65 - DN40	RKS-212/112-1	3,00x0,28-1,90x0,25	3,00	0,28	1,90	0,25	3,50
	RKS-212/112-2	2,87x0,12-1,90x0,11	2,87	0,12	1,90	0,11	3,50
	RKS-212/112-3	2,87x0,20-1,90x0,15	2,87	0,20	1,90	0,15	3,50
	RKS-212/112-4	2,87x0,28-1,90x0,20	2,87	0,28	1,90	0,20	3,50
	RKS-212/112-5	2,87x0,37-1,90x0,28	2,87	0,37	1,90	0,28	3,50
3" - 2 1/2" DN80 - DN65	RKS-300/212-1	3,50x0,31-3,00x0,28	3,50	0,31	3,00	0,28	3,50
	RKS-300/212-2	3,50x0,22-2,87x0,28	3,50	0,22	2,87	0,28	3,50
	RKS-300/212-3	3,50x0,44-2,87x0,37	3,50	0,44	2,87	0,37	3,50
	RKS-300/212-4	3,50x0,60-2,87x0,55	3,50	0,60	2,87	0,55	3,50
3" - 2" DN80 - DN50	RKS-300/200-1	3,50x0,31-2,37x0,22	3,50	0,31	2,37	0,22	3,50
	RKS-300/200-2	3,50x0,22-2,37x0,15	3,50	0,22	2,37	0,15	3,50
	RKS-300/200-3	3,50x0,44-2,37x0,34	3,50	0,44	2,37	0,34	3,50
	RKS-300/200-4	3,50x0,60-2,37x0,44	3,50	0,60	2,37	0,44	3,50
3 1/2" - 3" DN80	RKS-312/300-1	4,00x0,25-3,50x0,31	4,00	0,25	3,50	0,31	3,50
	RKS-312/300-2	4,00x0,22-3,50x0,22	4,00	0,22	3,50	0,22	3,50
	RKS-312/300-3	4,00x0,31-3,50x0,31	4,00	0,31	3,50	0,31	3,50
3 1/2" - 2 1/2" DN80 - DN65	RKS-312/212-1	4,00x0,25-3,00x0,28	4,00	0,25	3,00	0,28	3,50
	RKS-312/212-2	4,00x0,22-2,87x0,20	4,00	0,22	2,87	0,20	3,50
	RKS-312/212-3	4,00x0,31-2,87x0,28	4,00	0,31	2,87	0,28	3,50
4" - 3 1/2" DN100 - DN80	RKS-400/312-1	4,50x0,35-4,00x0,31	4,50	0,35	4,00	0,31	4,02
	RKS-400/312-2	4,50x0,24-4,00x0,22	4,50	0,24	4,00	0,22	4,02
4" - 3" DN100 - DN80	RKS-400/300-1	4,50x0,35-3,50x0,31	4,50	0,35	3,50	0,31	4,02
	RKS-400/300-2	4,50x0,12-3,50x0,12	4,50	0,12	3,50	0,12	4,02
	RKS-400/300-3	4,50x0,24-3,50x0,22	4,50	0,24	3,50	0,22	4,02
	RKS-400/300-4	4,50x0,53-3,50x0,44	4,50	0,53	3,50	0,44	4,02
5" - 4" DN125 - DN100	RKS-500/400-1	5,50x0,39-4,50x0,35	5,50	0,39	4,50	0,35	5,00
5" - 3 1/2" DN125 - DN80	RKS-500/312-1	5,50x0,39-4,00x0,25	5,50	0,39	4,00	0,25	5,00

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