

## Product range 6 Hydraulic Tubes and SAE-Flanges



Article category 62 – SAE-Flanges

# Technical Information

## HANSA-FLEX Flanges

### Used Standards

*Our flanges are based on the following standards:*

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

### Pressure Rates

*The maximum recommended working pressure is indicated at each single article.*

*Before using a part, please take notice of the pressure indications.*

*All pressure indications are based on a working temperature from  $-20^{\circ}$  celsius up to  $+90^{\circ}$  celsius. Outside of this temperature range the physical properties of the used material is impacted and the maximum recommended working pressure is reduced.*

*The indicated working pressure refer only on the flange itself.*

*For the used tubes, fittings and connections the pressure indications of the specific manufacturer is the determinative factor.*

### Used Materials

*For every single product group the used material is being indicated.*

*If several materials are shown, it is on the estimation of the manufacturer what material is used.*

### Surface Protection

*As far as there is no special instruction on a product range all flanges are being delivered in blank steel with protection fluid against rust.*

### Flange Kits

*As far as required all flange connections can be supplied with bolt set and o-ring.*

### Designation for order

<i>Example:</i>	<i>AFS 80 G 3/8</i>	<i>flange only</i>
	<i>AFS 80 GM 3/8</i>	<i>flange including metric screws and o-ring</i>
	<i>AFS 80 GU 3/8</i>	<i>flange including UNC screws and o-ring</i>

# Technical Information

## HANSA-FLEX Flanges

### Used Bolts

<b>SAE flanges</b>	<i>metric bolts</i>	<i>DIN 912-8.8 (ISO 4762-8.8) or DIN 912-10.9 (ISO 4762-10.9)*</i>
	<i>UNC bolts</i>	<i>ASA B 18.3</i>
<b>gear pump flanges</b>	<i>metric bolts</i>	<i>DIN 912-8.8 (ISO 4762-8.8)</i>
<b>4-Bolt square flanges</b>	<i>metric bolts</i>	<i>DIN 931/934-8.8 (ISO 4014/4017-8.8) or DIN 931/934-10.9 (ISO 4014/4017-10.9)*</i>
<b>Cetop flanges</b>	<i>metric bolts</i>	<i>DIN 931/934-8.8 (ISO 4014/4017-8.8) or DIN 931/934-10.9 (ISO 4014/4017-10.9)*</i>

*\*) Bolts with grade 10.9 are to be used, when the material for the flanges is high tempered!*

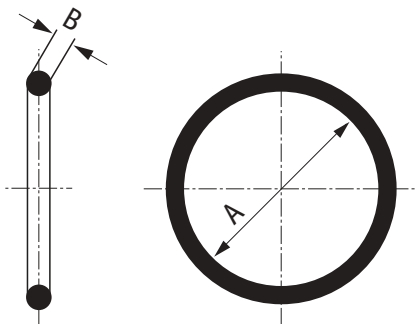
### Sealings

*All flange connection in this catalogue are sealing with an o-ring. The o-rings which are supplied by us are out of the following materials*

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

*For all SAE flanges and Cetop flanges the o-ring dimensions are according to the following table*

<b>size</b>	<b>A</b>	<b>B</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"1/2	47,22	3,53
1"1/4	37,70	3,53
1/2"	18,66	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



# Technical Information

## HANSA-FLEX Flanges

### Flange Tube Connections

For tube connections with our flanges we recommend tubes which follow the following standard

- seamless precision steel pipes according DIN 2391, grade C material ST 37-4 or ST 52-4
- seamless boiling tubes to DIN 2441, group 1 and 2 out of material ST 37-4 and ST 52-4
- tubes according to ASA B36-10

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

size	tubes to DIN 2391 series					tubes to DIN 2448 series		tubes to ASA B 36-10 series			
	100 bar	160 bar	250 bar	315 bar	400 bar	250 bar	400 bar	schedule	250 bar	schedule	400 bar
1/2"	15x1	18x1,5	16x2	16x2,5	16x3	21,3x2,6	21,3x3,2	40	21,3x2,8	80	21,3x3,7
	18x1		20x2,5	20x3	20x3,5						
3/4"			25x3	25x3,5	25x4	26,9x2,6	26,9x4	40	26,7x2,9	80	26,7x3,9
1"	28x2		28x3 30x4	30x5	30x6	33,7x4	33,7x6,3	40	33,7x4,8	160	33,7x6,4
1"1/4	35x2		35x4 38x5	38x6	38x7	42,4x5	42,4x6,3	80	42,4x4,8	160	42,4x6,4
1"1/2	42x3		42x5 50x6	50x8	50x9	48,3x5	48,3x8	80	48,3x5,1	160	48,3x7,1
2"				65x8	65x10	60,3x6,3	60,3x10	160	60,3x8,7	200	60,3x11,1
2"1/2				80x10	80x12,5	76,1x8	76,1x12,5	160	73x9,5	200	73x14
3"						88,9x10	88,9x16	160	88,9x11,1	200	88,9x15,2
3"1/2						101,6x10	101,6x16				
4"						114,3x12,5	114,3x20	160	114,3x13,5	200	114,3x17,1

# AFS-Schraube

Socket Screws

Article category 6200



*Designation*

*Thread*

AFS SCHRAUBE 1	M 8x25
AFS SCHRAUBE 2	M 8x30
AFS SCHRAUBE 3	M 10x35
AFS SCHRAUBE 4	M 10x40
AFS SCHRAUBE 5	M 12x40
AFS SCHRAUBE 6	M 14x45
AFS SCHRAUBE 7	M 16x50
AFS SCHRAUBE 8	M 20x60

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# Federring

## Spring Washers

Article category 6200



### Designation

FEDERRING M 8

FEDERRING M 10

FEDERRING M 12

FEDERRING M 14

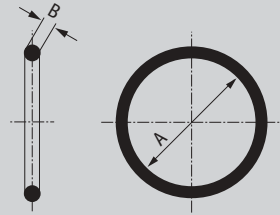
FEDERRING M 16

FEDERRING M 20

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# SAE O-Ring

Article category 6200



Designation	Size	A	B
SAE O-RING 1/2	1/2"	18,66	3,53
SAE O-RING 3/4	3/4"	25,00	3,53
SAE O-RING 1	1"	32,92	3,53
SAE O-RING 1 1/4	1"1/4	37,70	3,53
SAE O-RING 1 1/2	1"1/2	47,22	3,53
SAE O-RING 2	2"	56,75	3,53
SAE O-RING 2 1/2	2"1/2	69,45	3,53
SAE O-RING 3	3"	85,32	3,53
SAE O-RING 3 1/2	3"1/2	98,02	3,53

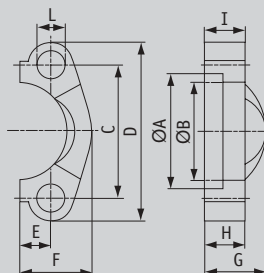
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# FH

## SAE-Split Flange Halves

Material: ST 52,3 (FE 510) or  
1.4404 / 1.4541 - 316L / 321  
Surface treatment: zinc plated,  
chromated yellow

Article category 6201



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	I	L	M(metr.)	M(unc)
				size													
FH 3001	L	345	3000	1/2"	30,96	24,26	38,10	54	8,74	22,8	19	13	6,22	8,5	M 8x25	5/16x1 1/4	
FH 3002	L	345	3000	3/4"	38,89	32,13	47,63	65	11,13	25,9	22	14	6,22	10,5	M 10x30	3/8x1 1/4	
FH 3003	L	345	3000	1"	45,24	38,48	52,37	70	13,08	29,2	24	16	7,49	10,5	M 10x30	3/8x1 1/4	
FH 3004	L	276	3000	1 1/4"	51,59	43,69	58,72	79	15,09	36,3	22	16	7,49	12	M 10x35	7/16x1 1/2	
FH 3005	L	207	3000	1 1/2"	61,09	50,80	69,85	94	17,86	41,1	25	16	7,49	13,5	M 12x35	1/2x1 1/2	
FH 3006	L	207	3000	2"	72,24	62,74	77,77	102	21,44	48,2	26	16	9,02	13,5	M 12x35	1/2x1 1/2	
FH 3007	L	172	3000	2 1/2"	84,94	74,93	88,90	114	25,40	54,1	38	19	9,02	13,5	M 12x40	1/2x1 1/2	
FH 3008	L	138	3000	3"	102,39	90,93	106,38	135	30,96	65,3	41	22	9,02	16,75	M 16x45	5/8x2	
FH 3009	L	34	3000	3 1/2"	115,10	102,36	120,65	152	34,92	69,5	28	22	10,72	17	M 16x45	5/8x2	
FH 3010	L	34	3000	4"	127,79	115,06	130,18	162	38,88	76,0	35	25	10,72	17	M 16x50	5/8x2	
FH 3011	L	34	3000	5"	153,19	140,46	152,40	184	46,04	90,0	41	28	10,72	17	M 16x50	5/8x2	
FH 3014	L	276	3000	1 1/4"	51,59	43,69	58,72	79	15,09	36,3	22	16	7,49	10,5	M 10x35	-	
FH 3044	L	276	3000	1 1/4"	51,59	43,69	58,72	79	15,09	36,3	22	16	7,49	12,5	M 12x35	-	
FH 6001	S	420	6000	1/2"	32,54	24,64	40,49	56	9,12	23,6	22	16	7,24	8,5	M 8x30	5/16x1 1/4	
FH 6002	S	420	6000	3/4"	42,06	32,51	50,80	71	11,91	30,0	28	19	8,26	10,5	M 10x35	3/8x1 1/2	
FH 6003	S	420	6000	1"	48,41	38,86	57,17	81	13,89	34,8	33	24	9,02	12,5	M 12x45	-	
FH 6004	S	420	6000	1 1/4"	54,76	44,45	66,68	95	15,88	38,6	38	27	9,78	14,5	M 14x50	-	
FH 6005	S	420	6000	1 1/2"	64,29	51,56	79,38	113	18,26	47,5	43	30	12,07	16,75	M 16x55	5/8x2	
FH 6006	S	420	6000	2"	80,16	67,56	96,82	133	22,23	56,9	52	37	12,07	21	M 20x65	3/4x2 1/2	
FH 6013	S	420	6000	1"	48,41	38,86	57,15	81	13,89	34,8	33	24	9,02	12	-	7/16x1 3/4	
FH 6044	S	420	6000	1 1/4"	54,76	44,45	66,68	95	15,88	38,6	38	27	9,78	13,5	-	1/2x1 3/4	

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure —  
PB = Maximal Working Pressure



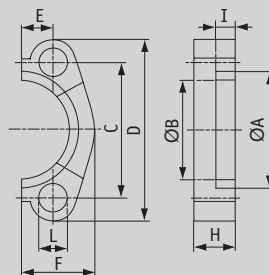
# HF

## SAE Split Flange Halves – flat

Material: C 60

Surface Treatment: Zinc plated,  
yellow chromated

Article category 6202



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	H	I	L	M (metr.)	M (unc)
				size												
HF 3001	L	345	3000	1/2"		30,96	24,26	38,10	54	8,74	22,8	13	6,22	9	M 8x25	5/16x1 1/4
HF 3002	L	345	3000	3/4"		38,89	32,13	47,63	65	11,13	25,9	14	6,22	11	M 10x30	3/8x1 1/4
HF 3003	L	345	3000	1"		45,24	38,48	52,37	70	13,08	29,2	16	7,49	11	M 10x30	3/8x1 1/4
HF 3004	L	276	3000	1 1/4"		51,59	43,69	58,72	79	15,09	36,6	16	7,49	11	M 10x35	-
HF 3005	L	207	3000	1 1/2"		61,09	50,80	69,85	94	17,86	41,1	16	7,49	13	M 12x35	1/2x1 1/2
HF 3006	L	207	3000	2"		72,24	62,74	77,77	102	21,44	48,2	16	9,02	13	M 12x35	1/2x1 1/2
HF 6001	S	420	6000	1/2"		32,54	24,64	40,49	56	9,12	23,6	16	7,24	9	M 8x30	5/16x1 1/4
HF 6002	S	420	6000	3/4"		42,06	32,51	50,80	71	11,91	30,0	20	8,26	11	M 10x35	3/8x1 1/2
HF 6003	S	420	6000	1"		48,41	38,86	57,15	81	13,89	34,8	25	9,02	13	M 12x45	7/16x1 3/4
HF 6004	S	420	6000	1 1/4"		54,76	44,45	66,68	95	15,88	38,6	27	9,78	15	M 14x45	1/2x1 3/4
HF 6005	S	420	6000	1 1/2"		64,29	51,56	79,38	113	18,26	47,5	30	12,07	17	M 16x50	5/8x2

**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

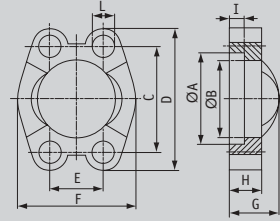
# VF

## SAE-Flange Clamps

Material: ST 52.3 (FE 510) or  
1.4404 / 1.4541 - 316L / 32

Surface Treatment: Zinc plated,  
yellow chromated

Article category 6203



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	I	L	M(metr.)	M(unc)
				size													
VF 3001	L	345	3000	1/2"	30,96	24,26	38,1	54	17,48	45,6	19	13	6,22	8,5	M 8x25	5/16x1 1/4	
VF 3002	L	345	3000	3/4"	38,89	32,13	47,63	65	22,23	51,8	22	14	6,22	10,5	M 10x30	3/8x1 1/4	
VF 3003	L	345	3000	1"	45,24	38,48	52,37	70	26,19	58,4	24	16	7,49	10,5	M 10x35	3/8x1 1/4	
VF 3003-6000	L	420	3000	1"	45,24	38,48	52,37	71	26,19	60	26	26	7,49	10,5	M 10x45	-	
VF 3004	L	276	3000	1 1/4"	51,59	43,69	58,72	79	30,18	72,6	22	16	7,49	12	M 10x35	7/16x1 1/2	
VF 3004-6000	L	420	3000	1 1/4"	51,59	43,69	58,72	80	30,18	73	33	24	7,49	13	M 12x45	-	
VF 3005	L	207	3000	1 1/2"	61,09	50,8	69,85	94	35,71	82,2	25	16	7,49	13,5	M 12x35	1/2x1 1/2	
VF 3005-6000	L	420	3000	1 1/2"	61,09	50,8	69,85	95	35,71	83	37	27	7,49	13,5	M 12x50	-	
VF 3006	L	207	3000	2"	72,24	62,74	77,77	102	42,88	96,4	26	16	9,02	13,5	M 12x35	1/2x1 1/2	
VF 3006-6000	L	420	3000	2"	72,24	62,74	77,77	103	42,88	97	43	30	9,02	13,5	M 12x50	-	
VF 3007	L	172	3000	2 1/2"	84,94	74,93	88,9	114	50,8	108,2	38	19	9,02	13,5	M 12x35	1/2x1 1/2	
VF 3007-6000	L	420	3000	2 1/2"	84,94	74,93	88,9	114	50,8	108,2	49	30	9,02	15	M 14x50	-	
VF 3008	L	138	3000	3"	102,39	90,93	106,38	135	61,93	130,6	41	22	9,02	16,75	M 16x50	5/8x2	
VF 3009	L	34	3000	3 1/2"	115,1	102,36	120,65	152	69,85	139	28	22	10,72	17	M 16x50	5/8x2	
VF 3010	L	34	3000	4"	127,79	115,06	130,18	162	77,77	152	35	25	10,72	17	M 16x50	5/8x2	
VF 3011	L	34	3000	5"	153,19	140,46	152,4	184	92,08	180	41	28	10,72	17	M 16x50	5/8x2	
VF 6001	S	420	6000	1/2"	32,54	24,64	40,49	56	18,24	47,2	22	16	7,24	8,5	M 8x30	5/16x1 1/4	
VF 6002	S	420	6000	3/4"	42,06	32,51	50,8	71	23,8	60	28	19	8,26	10,5	M 10x35	3/8x1 1/2	
VF 6003	S	420	6000	1"	48,41	38,86	57,15	81	27,76	69,9	33	24	9,02	12,5	M 12x45	-	
VF 6003-12	S	420	6000	1"	48,41	38,86	57,15	81	27,76	69,9	33	24	9,02	12	-	7/16x1 3/4	
VF 6004	S	420	6000	1 1/4"	54,76	44,45	66,68	95	31,75	77,2	38	27	9,78	14,5	M 14x50	1/2x1 3/4	
VF 6005	S	420	6000	1 1/2"	64,29	51,56	79,38	113	36,5	95	43	30	12,07	16,75	M 16x55	5/8x2	
VF 6006	S	420	6000	2"	80,16	67,56	96,82	133	44,45	113,8	52	37	12,07	21	M 20x65	3/4x2 1/2	

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

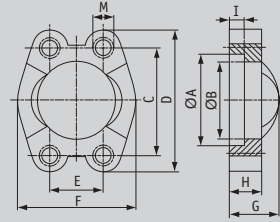
# VFG

## SAE Flange Clamps with Tapped Holes – metric

Material: ST 52.3 (FE 510) or  
1.4404 - 316L

Surface Treatment: Zinc plated,  
yellow chromated

Article category 6204



Designation	Series	PB	psi	Flange size	A	B	C	D	E	F	G	H	I	M
VFG 3001	L	345	3000	1/2"	30,96	24,26	38,1	54	17,48	45,6	19	13	6,22	M 8
VFG 3002	L	345	3000	3/4"	38,89	32,13	47,63	65	22,23	51,8	22	14	6,22	M 10
VFG 3003	L	345	3000	1"	45,24	38,48	52,37	70	26,19	58,4	24	16	7,49	M 10
VFG 3004	L	276	3000	1 1/4	51,59	43,69	58,72	79	30,18	72,6	22	14	7,49	M 10
VFG 3005	L	207	3000	1 1/2	61,09	50,8	69,85	94	35,71	82,2	25	16	7,49	M 12
VFG 3006	L	207	3000	2"	72,24	62,74	77,77	102	42,88	96,4	26	16	9,02	M 12
VFG 3007	L	172	3000	2 1/2	84,94	74,93	88,9	114	50,8	108,2	38	19	9,02	M 12
VFG 3008	L	138	3000	3"	102,39	90,93	106,38	135	61,93	130,6	41	22	9,02	M 16
VFG 3009	L	34	3000	3 1/2	115,1	102,36	120,65	152	69,85	139	28	22	10,72	M 16
VFG 3010	L	34	3000	4"	127,79	115,06	130,18	162	77,77	152	35	25	10,72	M 16
VFG 3011	L	34	3000	5"	153,19	140,46	152,4	184	92,08	180	41	28	10,72	M 16
VFG 6001	S	420	6000	1/2"	32,54	24,64	40,49	56	18,24	47,2	22	16	7,24	M 8
VFG 6002	S	420	6000	3/4"	42,06	32,51	50,8	71	23,8	60	28	19	8,26	M 10
VFG 6003	S	420	6000	1"	48,41	38,86	57,15	81	27,76	69,9	33	24	9,02	M 12
VFG 6004	S	420	6000	1 1/4	54,76	44,45	66,68	95	31,75	77,2	38	27	9,78	M 14
VFG 6005	S	420	6000	1 1/2	64,29	51,56	79,38	113	36,5	95	43	30	12,07	M 16
VFG 6006	S	420	6000	2"	80,16	67,56	96,82	133	44,45	113,8	52	37	12,07	M 20

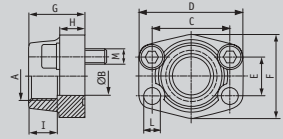
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# AFS-G

## SAE-Pipe Threaded Flange

Material: ST 52.3 (FE 510)  
or 1.4404 – 316L

Article category 6205



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	I	L	M (metr.)	M (unc)
				size	size												
AFS 80 G 3/8	L	345	3000	1/2"	R 1/2"	13	38,10	54	17,48	46	36	16	19	9	M 8x30	5/16x1 1/4	
AFS 80 G 1/2	L	345	3000	1/2"	R 1/2"	13	38,10	54	17,48	46	36	16	19	9	M 8x30	5/16x1 1/4	
AFS 100 G 1/2	L	345	3000	3/4"	R 1/2"	13	47,63	65	22,23	50	36	18	19	11	M 10x35	3/8x1 1/2	
AFS 100 G 3/4	L	345	3000	3/4"	R 3/4"	19	47,63	65	22,23	50	36	18	19	11	M 10x35	3/8x1 1/2	
AFS 102 G 1/2	L	345	3000	1"	R 1/2"	13	52,37	70	26,16	55	38	18	22	11	M 10x35	3/8x1 1/2	
AFS 102 G 3/4	L	345	3000	1"	R 3/4"	19	52,37	70	26,19	55	35	21	19	11	M 10x35	3/8x1 1/2	
AFS 104 G 3/4	L	276	3000	1 1/4"	R 3/4"	19	58,72	79	30,18	68	41	21	22	11,5	M 10x40	7/16x1 1/2	
AFS 102 G 1	L	345	3000	1"	R 1"	25	52,37	70	26,19	55	38	18	22	11	M 10x35	3/8x1 1/2	
AFS 104 G 1 1/4 M 10	L	276	3000	1 1/4"	R 1 1/4"	32	58,72	79	30,18	68	41	21	22	11,5	M 10x40	7/16x1 1/2	
AFS 104 G 1 1/4 M 12	L	276	3000	1 1/4"	R 1 1/4"	32	58,72	79	30,18	68	41	21	22	13	M 12x40	-	
AFS 104 G 1 M 10	L	276	3000	1 1/4"	R 1"	25	58,72	81	30,18	65	42	25	22	11,5	M 10x40	7/16x1 3/4	
AFS 104 G 1 M 12	L	276	3000	1 1/4"	R 1"	25	58,72	81	30,18	65	42	25	22	13	M 12x40	-	
AFS 106 G 3/4	L	207	3000	1 1/2"	R 3/4"	19	69,85	93	35,71	78	45	25	24	13,5	M 12x45	1/2x1 3/4	
AFS 106 G 1	L	207	3000	1 1/2"	R 1"	25	69,85	93	35,71	78	45	25	24	13,5	M 12x45	1/2x1 3/4	
AFS 106 G 1 1/4	L	207	3000	1 1/2"	R 1 1/4"	32	69,85	95	35,71	78	45	27	24	13,5	M 12x45	1/2x1 3/4	
AFS 106 G 1 1/2	L	207	3000	1 1/2"	R 1 1/2"	38	69,85	93	35,71	78	45	25	24	13,5	M 12x45	1/2x1 3/4	
AFS 108 G 1	L	207	3000	2"	R 1"	25	77,77	102	42,88	90	45	25	26	13,5	M 12x45	1/2x1 3/4	
AFS 108 G 1 1/4	L	207	3000	2"	R 1 1/4"	32	77,77	102	42,88	90	45	25	24	13,5	M 12x45	1/2x1 3/4	
AFS 108 G 1 1/2	L	207	3000	2"	R 1 1/2"	38	77,77	102	42,88	90	45	25	26	13,5	M 12x45	1/2x1 3/4	
AFS 108 G 2	L	207	3000	2"	R 2"	51	77,77	102	42,88	90	45	25	30	13,5	M 12x45	1/2x1 3/4	
AFS 110 G 2	L	172	3000	2 1/2"	R 2"	51	88,9	114	50,8	105	50	25	30	13,5	M 12x45	1/2x1 3/4	
AFS 110 G 2 1/2	L	172	3000	2 1/2"	R 2 1/2"	63	88,9	114	50,8	105	50	25	30	13,5	M 12x45	1/2x1 3/4	
AFS 112 G 2 1/2	L	138	3000	3"	R 2 1/2"	63	106,38	134	61,93	124	50	27	30	17,5	M 16x50	5/8x2	
AFS 112 G 3	L	138	3000	3"	R 3"	73	106,38	134	61,93	124	50	27	34	17,5	M 16x50	5/8x2	
AFS 114 G 3	L	34	3000	3 1/2"	R 3"	73	120,65	152	69,85	136	48	27	34	17,5	M 16x50	5/8x2	
AFS 114 G 3 1/2	L	34	3000	3 1/2"	R 3 1/2"	89	120,65	152	69,85	136	48	27	34	17,5	M 16x50	5/8x2	
AFS 116 G 3 1/2	L	34	3000	4"	R 3 1/2"	89	130,18	162	77,77	146	48	27	34	17,5	M 16x50	5/8x2	
AFS 116 G 4	L	34	3000	4"	R 4"	99	130,18	162	77,77	146	48	27	34	17,5	M 16x50	5/8x2	

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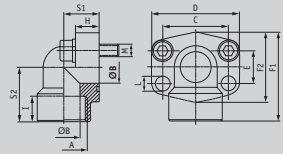
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFS-G

## SAE-Pipe Threaded Flange

Material: ST 52.3 (FE 510)  
or 1.4404 – 316L

Article category 6205



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	I	L	M(metr.)	M(unc)
				size	R												

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AFS 401 G 1/2	S	414	6000	1/2"	R 1/2"	13	40,49	54	18,24	46	36	16	19	9	M 8x30	5/16x1 1/4	
AFS 401 G 3/8	S	414	6000	1/2"	R 3/8"	13	40,49	54	18,24	46	36	16	19	9	M 8x30	5/16x1 1/4	
AFS 402 G 1/2	S	414	6000	3/4"	R 1/2"	13	50,80	71	23,80	55	35	21	22	11	M 10x35	3/8x1 1/2	
AFS 402 G 3/4	S	414	6000	3/4"	R 3/4"	19	50,80	71	23,80	55	35	21	22	11	M 10x35	3/8x1 1/2	
AFS 403 G 3/4	S	414	6000	1"	R 3/4"	19	57,15	81	27,76	65	42	25	24	13	M 12x45	7/16x1 3/4	
AFS 403 G 1	S	414	6000	1"	R 1"	25	57,15	81	27,76	65	42	25	24	13	M 12x45	7/16x1 3/4	
AFS 404 G 1	S	414	6000	1 1/4"	R 1"	25	66,68	95	31,75	78	45	27	25	15*	M 14x45	1/2x1 3/4	
AFS 404 G 1 1/4	S	414	6000	1 1/4"	R 1 1/4"	32	66,68	95	31,75	78	45	27	25	15*	M 14x45	1/2x1 3/4	
AFS 405 G 1 1/4	S	414	6000	1 1/2"	R 1 1/4"	32	79,38	112	36,50	94	50	30	28	17	M 16x50	5/8x2	
AFS 405 G 1 1/2	S	414	6000	1 1/2"	R 1 1/2"	38	79,38	112	36,50	94	50	30	28	17	M 16x50	5/8x2	
AFS 406 G 1 1/2	S	414	6000	2"	R 1 1/2"	38	96,82	134	44,45	114	65	37	30	21	M 20x65	3/4x2 1/2	
AFS 406 G 2	S	414	6000	2"	R 2"	51	96,82	134	44,45	114	65	37	30	21	M 20x65	3/4x2 1/2	

\*) L = 13,5 UNC Screws

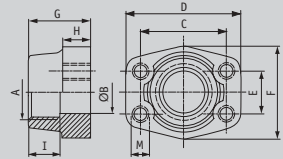
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFS-G

## SAE Pipe threaded Flange Companion

Material: ST 52.3 or 1.4404 - 316L

Article category 6207



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	I	M(metr.)	M(unc)
				size	R											
GFS 80 G	L	345	3000	1/2"	R 1/2"	13	38,1	54	17,48	46	36	16	19	M 8	5/16	
GFS 80 G 3/8	L	345	3000	1/2"	R 3/8"	13	38,1	54	17,48	46	36	16	19	M 8	5/16	
GFS 100 G	L	345	3000	3/4"	R 3/4"	19	47,63	65	22,23	50	36	18	19	M 10	3/8	
GFS 100 G 1/2	L	345	3000	3/4"	R 1/2"	13	47,63	65	22,23	50	36	18	19	M 10	3/8	
GFS 102 G	L	345	3000	1"	R 1"	25	52,37	70	26,19	55	38	18	22	M 10	3/8	
GFS 102 G 3/4	L	345	3000	1"	R 3/4"	19	52,37	70	26,19	55	35	21	19	M 10	3/8	
GFS 104 G	L	276	3000	1 1/4"	R 1 1/4"	32	58,72	79	30,18	68	41	21	22	M 10	7/16	
GFS 104 G 1	L	276	3000	1 1/4"	R 1"	25	58,72	81	30,18	65	42	25	22	M 10	7/16	
GFS 106 G	L	207	3000	1 1/2"	R 1 1/2"	38	69,85	93	35,71	78	45	25	24	M 12	1/2	
GFS 106 G 1 1/4	L	207	3000	1 1/2"	R 1 1/4"	32	69,85	95	35,71	78	45	27	24	M 12	1/2	
GFS 108 G	L	207	3000	2"	R 2"	51	77,77	102	42,88	90	45	25	30	M 12	1/2	
GFS 108 G 1 1/2	L	207	3000	2"	R 1 1/2"	38	77,77	102	42,88	90	45	25	26	M 12	1/2	
GFS 110 G	L	172	3000	2 1/2"	R 2 1/2"	63	88,9	114	50,8	105	50	25	30	M 12	1/2	
GFS 110 G 2	L	172	3000	2 1/2"	R 2"	51	88,9	114	50,8	105	50	25	30	M 12	1/2	
GFS 112 G	L	138	3000	3"	R 3"	73	106,38	134	61,93	124	50	27	34	M 16	5/8	
GFS 112 G 2 1/2	L	138	3000	3"	R 2 1/2"	63	106,38	134	61,93	124	50	27	30	M 16	5/8	
GFS 114 G	L	34	3000	3 1/2"	R 3 1/2"	89	120,65	152	69,85	136	48	27	34	M 16	5/8	
GFS 114 G 3	L	34	3000	3 1/2"	R 3"	73	120,65	152	69,85	136	48	27	34	M 16	5/8	
GFS 116 G	L	34	3000	4"	R 3"	99	130,18	162	77,77	146	48	27	34	M 16	5/8	
GFS 116 G 3 1/2	L	34	3000	4"	R 3 1/2"	89	130,18	162	77,77	146	48	27	34	M 16	5/8	

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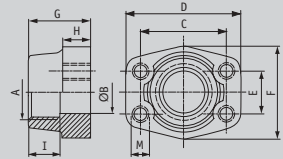
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFS-G

## SAE Pipe threaded Flange Companion

Material: ST 52.3 or 1.4404 - 316L

Article category 6207



Designation	Series	PB	psi	Flange size	A	B	C	D	E	F	G	H	I	M(metr.)	M(unc)
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GFS 401 G	S	414	6000	1/2"	R 1/2"	13	40,49	54	18,24	46	36	16	19	M 8	5/16
GFS 401 G 3/8	S	414	6000	1/2"	R 3/8"	13	40,49	54	18,24	46	36	16	19	M 8	5/16
GFS 402 G	S	414	6000	3/4"	R 3/4"	19	50,8	71	23,8	55	35	21	22	M 10	3/8
GFS 402 G 1/2	S	414	6000	3/4"	R 1/2"	13	50,8	71	23,8	55	35	21	22	M 10	3/8
GFS 403 G	S	414	6000	1"	R 1"	25	57,16	81	27,76	65	42	25	24	M 12	7/16
GFS 403 G 3/4	S	414	6000	1"	R 3/4"	19	57,16	81	27,76	65	42	25	24	M 12	7/16
GFS 404 G	S	414	6000	1 1/4	R 1 1/4	32	66,68	95	31,75	78	45	27	25	M 14	1/2
GFS 404 G 1	S	414	6000	1 1/4	R 1"	25	66,68	95	31,75	78	45	27	25	M 14	1/2
GFS 405 G	S	414	6000	1 1/2	R 1 1/2	38	79,38	112	36,5	94	50	30	28	M 16	5/8
GFS 405 G 1 1/4	S	414	6000	1 1/2	R 1 1/4	32	79,38	112	36,5	94	50	30	28	M 16	5/8
GFS 406 G	S	414	6000	2"	R 2"	51	96,82	134	44,45	114	65	37	30	M 20	3/4
GFS 406 G 1 1/2	S	414	6000	2"	R 1 1/2	38	96,82	134	44,45	114	65	37	30	M 20	3/4

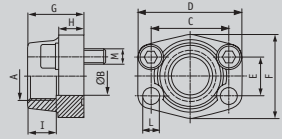
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFS-N

## SAE-NPT Threaded Flanges

Material: ST 52.3 (FE 510)  
or 1.4404 – 316L

Article category 6208



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	I	L	M (metr.)	M (unc)
				size	size												
AFS 80 N 1/2	L	345	3000	1/2"	1/2" NPT	13	38,1	54	17,48	46	36	16	19	9	M 8x30	5/16x1 1/4	
AFS 80 N 3/8	L	345	3000	1/2"	3/8" NPT	13	38,1	54	17,48	46	36	16	19	9	M 8x30	5/16x1 1/4	
AFS 100 N 1/2	L	345	3000	3/4"	1/2" NPT	13	47,63	65	22,23	50	36	18	19	11	M 10x35	3/8x1 1/2	
AFS 100 N 3/4	L	345	3000	3/4"	3/4" NPT	19	47,63	65	22,23	50	36	18	19	11	M 10x35	3/8x1 1/2	
AFS 102 N 3/4	L	345	3000	1"	3/4" NPT	19	52,37	70	26,19	55	35	21	19	11	M 10x35	3/8x1 1/2	
AFS 102 N 1	L	345	3000	1"	1" NPT	25	52,37	70	26,19	55	38	18	22	11	M 10x35	3/8x1 1/2	
AFS 104 N 1	L	276	3000	1 1/4"	1" NPT	25	58,72	81	30,18	65	42	25	22	11,5	M 10x40	7/16x1 1/2	
AFS 104 N 1 1/4	L	276	3000	1 1/4"	1 1/4" NPT	32	58,72	79	30,18	68	41	21	22	11,5	M 10x40	7/16x1 1/2	
AFS 106 N 1 1/4	L	207	3000	1 1/2"	1 1/4" NPT	32	69,85	95	35,71	78	45	27	24	13,5	M 12x45	1/2x1 3/4	
AFS 106 N 1 1/2	L	207	3000	1 1/2"	1 1/2" NPT	38	69,85	93	35,71	78	45	25	24	13,5	M 12x45	1/2x1 3/4	
AFS 108 N 1 1/2	L	207	3000	2"	1 1/2" NPT	38	77,77	102	42,88	90	45	25	26	13,5	M 12x45	1/2x1 3/4	
AFS 108 N 2	L	207	3000	2"	2" NPT	51	77,77	102	42,88	90	45	25	30	13,5	M 12x45	1/2x1 3/4	
AFS 110 N 2 1/2	L	172	3000	2 1/2"	2 1/2" NPT	63	88,9	114	50,8	105	50	25	30	13,5	M 12x45	1/2x1 3/4	
AFS 112 N	L	138	3000	3"	3" NPT	73	106,38	134	61,93	124	50	27	34	17,5	M 16x50	5/8x2	
AFS 114 N	L	34	3000	3 1/2"	3 1/2" NPT	89	120,65	152	69,85	136	48	27	34	17,5	M 16x50	5/8x2	
AFS 116 N	L	34	3000	4"	4" NPT	99	130,18	162	77,77	146	48	27	34	17,5	M 16x50	5/8x2	

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**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

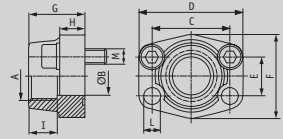


# AFS-N

## SAE-NPT Threaded Flanges

Material: ST 52.3 (FE 510)  
or 1.4404 – 316L

Article category 6208



Designation	Series	PB	psi	Flange size	A	B	C	D	E	F	G	H	I	L	M(metr.)	M(unc)
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AFS 401 N	S	414	6000	1/2"	1/2" NPT	13	40,49	54	18,24	46	36	16	19	9	M 8x30	5/16x1 1/4
AFS 401 N 3/8	S	414	6000	1/2"	3/8" NPT	13	40,49	54	18,24	46	36	16	19	9	M 8x30	5/16x1 1/4
AFS 402 N	S	414	6000	3/4"	3/4" NPT	19	50,8	71	23,8	55	35	21	22	11	M 10x35	3/8x1 1/2
AFS 402 N 1/2	S	414	6000	3/4"	1/2" NPT	13	50,8	71	23,8	55	35	21	22	11	M 10x35	3/8x1 1/2
AFS 403 N	S	414	6000	1"	1" NPT	25	57,15	81	27,76	65	42	25	24	13	M 12x45	7/16x1 3/4
AFS 403 N 3/4	S	414	6000	1"	3/4" NPT	19	57,15	81	27,76	65	42	25	24	13	M 12x45	7/16x1 3/4
AFS 404 N	S	414	6000	1 1/4"	1 1/4" NPT	32	66,68	95	31,75	78	45	27	25	15*	M 14x45	1/2x1 3/4
AFS 404 N 1	S	414	6000	1 1/4"	1" NPT	25	66,68	95	31,75	78	45	27	25	15*	M 14x45	1/2x1 3/4
AFS 405 N	S	414	6000	1 1/2"	1 1/2" NPT	38	79,38	112	36,5	94	50	30	28	17	M 16x50	5/8x2
AFS 405 N 1 1/4	S	414	6000	1 1/2"	1 1/4" NPT	32	79,38	112	36,5	94	50	30	28	17	M 16x50	5/8x2
AFS 406 N	S	414	6000	2"	2" NPT	51	96,82	134	44,45	114	65	37	30	21	M 20x65	3/4x2 1/2
AFS 406 N 1 1/2	S	414	6000	2"	1 1/2" NPT	38	96,82	134	44,45	114	65	37	30	21	M 20x65	3/4x2 1/2

\*) L = 13,5 UNC Screws

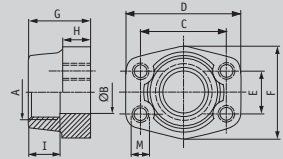
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFS-N

## SAE-NPT Threaded Flange Companion

Material: ST 52.3 or 1.4404 - 316L

Article category 6209



Designation	Series	PB	psi	Flange size	A	B	C	D	E	F	G	H	I	M(metr.)	M(unc)
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GFS 80 N	L	345	3000	1/2"	1/2" NPT	13	38,1	54	17,48	46	36	16	19	M 8	5/16
GFS 80 N 3/8	L	345	3000	1/2"	3/8" NPT	13	38,1	54	17,48	46	36	16	19	M 8	5/16
GFS 100 N	L	345	3000	3/4"	3/4" NPT	19	47,63	65	22,23	50	36	18	19	M 10	3/8
GFS 100 N 1/2	L	345	3000	3/4"	1/2" NPT	13	47,63	65	22,23	50	36	18	19	M 10	3/8
GFS 102 N	L	345	3000	1"	1" NPT	25	52,37	70	26,19	55	38	18	22	M 10	3/8
GFS 102 N 3/4	L	345	3000	1"	3/4" NPT	19	52,37	70	26,19	55	35	21	19	M 10	3/8
GFS 104 N	L	276	3000	1 1/4"	1 1/4" NPT	32	58,72	79	30,18	68	41	21	22	M 10	7/16
GFS 104 N 1	L	276	3000	1 1/4"	1" NPT	25	58,72	81	30,18	65	42	25	22	M 10	7/16
GFS 106 N	L	207	3000	1 1/2"	1 1/2" NPT	38	69,85	93	35,71	78	45	25	24	M 12	1/2
GFS 106 N 1 1/4	L	207	3000	1 1/2"	1 1/4" NPT	32	69,85	95	35,71	78	45	27	24	M 12	1/2
GFS 108 N	L	207	3000	2"	2" NPT	51	77,77	102	42,88	90	45	25	30	M 12	1/2
GFS 108 N 1 1/2	L	207	3000	2"	1 1/2" NPT	38	77,77	102	42,88	90	45	25	26	M 12	1/2
GFS 110 N	L	172	3000	2 1/2"	2 1/2" NPT	63	88,9	114	50,8	105	50	25	30	M 12	1/2
GFS 112 N	L	138	3000	3"	3" NPT	73	106,38	134	61,93	124	50	27	34	M 16	5/8
GFS 114 N	L	34	3000	3 1/2"	3 1/2" NPT	89	120,65	152	69,85	136	48	27	34	M 16	5/8
GFS 116 N	L	34	3000	4"	4" NPT	99	130,18	162	77,77	146	48	27	34	M 16	5/8

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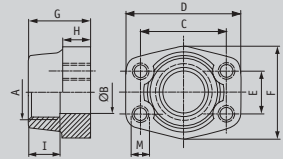
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFS-N

## SAE-NPT Threaded Flange Companion

Material: ST 52.3 or 1.4404 - 316L

Article category 6209



Designation	Series	PB	psi	Flange size	A	B	C	D	E	F	G	H	I	M(metr.)	M(unc)
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GFS 401 N	S	414	6000	1/2"	1/2" NPT	13	40,49	54	18,24	46	36	16	19	M 8	5/16
GFS 401 N 3/8	S	414	6000	1/2"	3/8" NPT	13	40,49	54	18,24	46	36	16	19	M 8	5/16
GFS 402 N	S	414	6000	3/4"	3/4" NPT	19	50,8	71	23,8	55	35	21	22	M 10	3/8
GFS 402 N 1/2	S	414	6000	3/4"	1/2" NPT	13	50,8	71	23,8	55	35	21	22	M 10	3/8
GFS 403 N	S	414	6000	1"	1" NPT	25	57,15	81	27,76	65	42	25	24	M 12	7/16
GFS 403 N 3/4	S	414	6000	1"	3/4" NPT	19	57,15	81	27,76	65	42	25	24	M 12	7/16
GFS 404 N	S	414	6000	1 1/4"	1 1/4" NPT	32	66,68	95	31,75	78	45	27	25	M 14	1/2
GFS 404 N 1	S	414	6000	1 1/4"	1" NPT	25	66,68	95	31,75	78	45	27	25	M 14	1/2
GFS 405 N	S	414	6000	1 1/2"	1 1/2" NPT	38	79,38	112	36,5	94	50	30	28	M 16	5/8
GFS 405 N 1 1/4	S	414	6000	1 1/2"	1 1/4" NPT	32	79,38	112	36,5	94	50	30	28	M 16	5/8
GFS 406 N	S	414	6000	2"	2" NPT	51	96,82	134	44,45	114	65	37	30	M 20	3/4
GFS 406 N 1 1/2	S	414	6000	2"	1 1/2" NPT	38	96,82	134	44,45	114	65	37	30	M 20	3/4

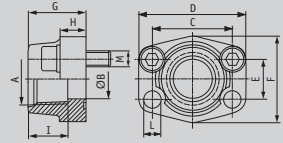
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFS-T

## SAE-UN Threaded Flange

Material: ST 52.3  
or 1.4404 – 316L

Article category 6210



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	I	L	U	E	M(metr.)	M(unc)
				size	size														
AFS 80 T	L	345	3000	1/2"	3/4"-16UNF	13	38,1	54	17,48	46	36	16	17	9	20,6	2,5	M 8x30	5/16x1 1/4	
AFS 100 T	L	345	3000	3/4"	1"1/16-12UN	19	47,63	65	22,23	50	36	18	23	11	29,2	3,3	M 10x35	3/8x 1 1/2	
AFS 102 T	L	345	3000	1"	1"5/16-12UN	25	52,37	70	26,19	55	38	18	23	11	35,5	3,3	M 10x35	3/8x1 1/2	
AFS 104 T	L	276	3000	1"1/4	1"5/8-12UN	32	58,72	79	30,18	68	41	21	23	11,5	43,5	3,3	M 10x40	7/16x1 1/2	
AFS 106 T	L	207	3000	1"1/2	1"7/8-12UN	38	69,85	93	35,71	78	45	25	23	13,5	49,8	3,3	M 12x45	1/2x1 3/4	
AFS 401 T	S	414	6000	1/2"	3/4"-16UNF	13	40,49	54	18,24	46	36	16	17	9	20,6	2,5	M 8x30	5/16x1 1/4	
AFS 402 T	S	414	6000	3/4"	1"1/16-2UN	19	50,8	71	23,8	55	35	21	23	11	29,3	3,3	M 10x35	3/8x1 1/2	
AFS 403 T	S	414	6000	1"	1"5/16-12UN	25	57,15	81	27,76	65	42	25	23	13	35,5	3,3	M 12x45	7/16x1 3/4	
AFS 404 T	S	414	6000	1"1/4	1"5/8-12UN	32	66,68	95	31,75	78	45	27	23	15*	43,5	3,3	M 14x45	1/2x1 3/4	
AFS 405 T	S	414	6000	1"1/2	1"7/8-12UN	38	79,38	112	36,5	94	50	30	23	17	49,8	3,3	M 16x50	5/8x2	

\*) L = 13,5 UNC Screws

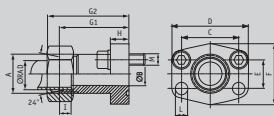
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFG-M

SAE-Metric Threaded Flanges  
DIN 3901/ 3902

Material: ST 52.3

Article category 6211



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G1	G2	H	I	L	M(metr.)	M(unc)
				size	size													
AFG 80 M/L 15	L	315	3000	1/2"	M 22x1,5	12	38,1	54	17,48	46	52	60	13	7	9	M 8x30	5/16x1 1/4	
AFG 100 M/L 22	L	160	3000	3/4"	M 30x2	19	47,63	65	22,23	50	60	69	14	7,5	11,5	M 10x30	3/8x1 1/4	
AFG 100 M/S 20	L	345	3000	3/4"	M 30x2	16	47,63	65	22,23	50	60	73	14	10,5	11,5	M 10x30	3/8x1 1/4	
AFG 102 M/L 22	L	160	3000	1"	M 30x2	19	52,37	70	26,19	55	63	72	16	7,5	11,5	M 10x30	3/8x1 1/4	
AFG 102 M/L 28	L	160	3000	1"	M 36x2	24	52,37	70	26,19	55	63	72	16	7,5	11,5	M 10x30	3/8x1 1/4	
AFG 102 M/S 20	L	345	3000	1"	M 30x2	16	52,37	70	26,19	55	63	76	16	10,5	11,5	M 10x30	3/8x1 1/4	
AFG 102 M/S 25	L	345	3000	1"	M 36x2	20	52,37	70	26,19	55	63	75	16	12	11,5	M 10x30	3/8x1 1/4	
AFG 104 M/L 28	L	160	3000	1 1/4"	M 36x2	24	58,72	79	30,18	68	65	74	14	7,5	11,5	M 10x35	7/16x1 1/2	
AFG 104 M/L 35	L	160	3000	1 1/4"	M 45x2	29	58,72	79	30,18	68	65	76	14	10,5	11,5	M 10x35	7/16x1 1/2	
AFG 104 M/S 30	L	280	3000	1 1/4"	M 42x2	25	58,72	79	30,18	68	65	78	14	13,5	11,5	M 10x35	7/16x1 1/2	
AFG 106 M/L 42	L	160	3000	1 1/2"	M 52x2	36	69,85	94	35,71	78	70	82	16	11	13,5	M 12x35	1/2x1 1/2	
AFG 106 M/S 38	L	210	3000	1 1/2"	M 52x2	32	69,85	94	35,71	78	70	85	16	16	13,5	M 12x35	1/2x1 1/2	
AFG 401 M/S 16	S	414	6000	1/2"	M 24x1,5	12	40,49	56	18,24	48	60	70	16	8,5	9	M 8x30	5/16x1 1/4	
AFG 402 M/S 25	S	414	6000	3/4"	M 36x2	19	50,8	71	23,8	60	73	85	19	12	11,5	M 10x35	3/8x1 1/2	
AFG 403 M/S 30	S	414	6000	1"	M 42x2	25	57,15	81	27,76	70	82	95	24	13,5	13	M 12x45	7/16x1 3/4	
AFG 404 M/S 30	S	414	6000	1 1/4"	M 42x2	25	66,68	95	31,75	78	92	106	27	13,5	15*	M 14x50	1/2x1 3/4	
AFG 404 M/S 38	S	414	6000	1 1/4"	M 52x2	29	66,68	95	31,75	78	92	107	27	16	15*	M 14x50	1/2x1 3/4	
AFG 405 M/S 38	S	414	6000	1 1/2"	M 52x2	32	79,38	113	36,5	95	96	111	30	16	17,5	M 16x50	5/8x2	

\*) L = 13,5 UNC Screws

Construction Series: LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

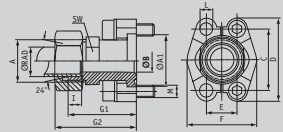
# SFCE

## SAE-Metric Threaded Flanges - DIN 3901/ 3902

Material: 9SMnPb28K / C15 or  
1.4571 - 316 Ti

Surface Treatment: zinc plated,  
yellow chromated

Article category 6212



Designation	Series	PB	psi	Flange		A	A1	B	C	D	E	F	G1	G2	I	L	SW	(metr.)	(unc)
				size															
SFCE 3001 L 15	L	315	3000	1/2"	M 22x1,5	30,2	16/20	38,1	54	17,48	45,6	48,2	56	7	8,5	24	M 8x30	5/16x1 1/4	
SFCE 3001 L 22	L	160	3000	1/2"	M 30x2	30,2	13,5	38,1	54	17,48	45,6	53,1	62	7,5	8,5	27	M 8x30	5/16x1 1/4	
SFCE 3001 S 16	L	350	3000	1/2"	M 24x1,5	30,2	13	38,1	54	17,48	45,6	50,2	60	8,5	8,5	24	M 8x30	5/16x1 1/4	
SFCE 3002 L 18	L	315	3000	3/4"	M 26x1,5	38,1	15/20	47,63	65	22,23	51,8	53,2	62	7,5	10,5	30	M 10x35	3/8x1 1/2	
SFCE 3002 L 22	L	160	3000	3/4"	M 30x2	38,1	19	47,63	65	22,23	51,8	53,2	62	7,5	10,5	30	M 10x35	3/8x1 1/2	
SFCE 3002 L 28	L	160	3000	3/4"	M 36x2	38,1	19	47,63	65	22,23	51,8	53,2	62	7,5	10,5	30	M 10x35	3/8x1 1/2	
SFCE 3002 S 20	L	350	3000	3/4"	M 30x2	38,1	16/20	47,63	65	22,23	51,8	57,2	68	10,5	10,5	30	M 10x35	3/8x1 1/2	
SFCE 3002 S 25	L	350	3000	3/4"	M 36x2	38,1	17	47,63	65	22,23	51,8	57,2	69	12	10,5	30	M 10x35	3/8x1 1/2	
SFCE 3003 L 22	L	160	3000	1"	M 30x2	44,4	19	52,37	70	26,19	58,4	56,2	63	7,5	10,5	27	M 10x35	3/8x1 1/2	
SFCE 3003 L 28	L	160	3000	1"	M 36x2	44,4	24	52,37	70	26,19	58,4	54,2	65	7,5	10,5	36	M 10x35	3/8x1 1/2	
SFCE 3003 S 25	L	350	3000	1"	M 36x2	44,4	20	52,37	70	26,19	58,4	58,2	70	12	10,5	36	M 10x35	3/8x1 1/2	
SFCE 3003 S 30	L	350	3000	1"	M 42x2	44,4	24	52,37	70	26,19	58,4	63,2	76	13,5	10,5	36	M 10x35	3/8x1 1/2	
SFCE 3004 L 28	L	160	3000	1 1/4"	M 36x2	50,8	22	58,72	79	30,18	72,6	58,6	67	7,5	*1	36	*2	7/16x1 1/2	
SFCE 3004 L 35	L	160	3000	1 1/4"	M 45x2	50,8	30/32	58,72	79	30,18	72,6	58,2	69	10,5	*1	41	*2	7/16x1 1/2	
SFCE 3004 S 25	L	280	3000	1 1/4"	M 36x2	50,8	20/27	58,72	79	30,18	72,6	60,2	72	12	*1	41	*2	7/16x1 1/2	
SFCE 3004 S 30	L	280	3000	1 1/4"	M 42x2	50,8	25/28	58,72	79	30,18	72,6	62,2	75	13,5	*1	41	*2	7/16x1 1/2	
SFCE 3004 S 38	L	280	3000	1 1/4"	M 52x2	50,8	28	58,72	79	30,18	72,6	66,6	81	16	*1	46	*2	7/16x1 1/2	
SFCE 3005 L 42	L	160	3000	1 1/2"	M 52x2	60,3	36	69,85	94	35,71	82,2	64,2	76	11	13,5	46	M 12x40	1/2x1 1/2	
SFCE 3005 S 38	L	210	3000	1 1/2"	M 52x2	60,3	32	69,85	94	35,71	82,2	70,2	85	16	13,5	46	M 12x40	1/2x1 1/2	

\*1) = optional 10,5, 12,0 or 12,5 — \*2) = optional M 10x30 or M 12x40

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Construction Series: LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure —  
PB = Maximal Working Pressure

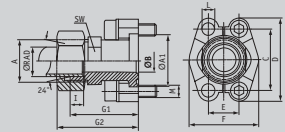
# SFCE

## SAE-Metric Threaded Flanges - DIN 3901/ 3902

Material: 9SMnPb28K / C15 or  
1.4571 - 316 Ti

Surface Treatment: zinc plated,  
yellow chromated

Article category 6212



Designation	Series	PB	psi	Flange		A	A1	B	C	D	E	F	G1	G2	I	L	SW (metr.)	(unc)
				size														

SFCE 6001 S 16	S	400	6000	1/2"	M 24x1,5	31,7	12	40,49	56	18,24	47,2	53,2	63	8,5	8,5	24	M 8x30	5/16x1 1/4	
SFCE 6002 S 16	S	400	6000	3/4"	M 24x1,5	41,3	12	50,8	71	23,8	60	59,2	69	8,5	10,5	30	M 10x35	3/8x1 1/2	
SFCE 6002 S 20	S	400	6000	3/4"	M 30x2	41,3	16	50,8	71	23,8	60	61,2	72	10,5	10,5	30	M 10x35	3/8x1 1/2	
SFCE 6002 S 25	S	400	6000	3/4"	M 36x2	41,3	17	50,8	71	23,8	60	63,2	75	12	10,5	30	M 10x35	3/8x1 1/2	
SFCE 6002 S 30	S	400	6000	3/4"	M 42x2	41,3	18	50,8	71	23,8	60	64	77	13,5	10,5	36	M 10x35	3/8x1 1/2	
SFCE 6003 S 25	S	400	6000	1"	M 36x2	47,6	20	57,15	81	27,76	69,6	72,2	84	12	*1	41	M 12x45	7/16x1 3/4	
SFCE 6003 S 30	S	400	6000	1"	M 42x2	47,6	24	57,15	81	27,76	69,6	74	87	13,5	*1	41	M 12x45	7/16x1 3/4	
SFCE 6004 S 30	S	400	6000	1 1/4"	M 42x2	54	25/30	66,68	95	31,75	77,2	79,2	92	13,5	*2	41	M 14x50	1/2x1 3/4	
SFCE 6004 S 38	S	350	6000	1 1/4"	M 52x2	54	30	66,68	95	31,75	77,2	83,2	98	16	*2	46	M 14x50	1/2x1 3/4	
SFCE 6005 S 38	S	350	6000	1 1/2"	M 52x2	63,5	30	79,38	113	36,5	95	89,2	104	16		16,75	46	M 16x55	1/2x1 3/4

\*1) = optional 10,5, 12,0 or 12,5 — \*2) = optional M 10x30 or M 12x40

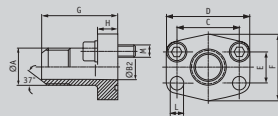
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFG-JIC

## SAE-JIC Threaded Flanges

Material: ST 52.3

Artikелgruppe 6214



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	L	M(metr.)	M(unc)
				size												
AFG 80 JIC 3/4	L	345	3000	1/2"	3/4"-16 JIC	9,9	38,1	54	17,48	46	52	13	9	M 8x30	5/16x1 1/4	
AFG 80 JIC 7/8	L	345	3000	1/2"	7/8"-14 JIC	12,3	38,1	54	17,48	46	52	13	9	M 8x30	3/8x1 1/4	
AFG 100 JIC 1 1/16	L	345	3000	3/4"	1"1/16-12 JIC	15,5	47,63	65	22,23	50	60	14	11,5	M 10x30	3/8x1 1/4	
AFG 102 JIC 1 5/16	L	345	3000	1"	1"5/16-12 JIC	21,5	52,37	70	26,19	55	63	16	11,5	M 10x30	3/8x1 1/4	
AFG 104 JIC 1 5/16	L	276	3000	1"1/4	1"5/16-12 JIC	21,5	58,72	79	30,18	68	65	14	11,5	M 10x30	7/16x1 1/2	
AFG 104 JIC 1 5/8	L	276	3000	1"1/4	1"5/8-12 JIC	27,5	58,72	79	30,18	68	65	14	11,5	M 10x30	7/16x1 1/2	
AFG 106 JIC 1 7/8	L	207	3000	1"1/2	1"7/8-12 JIC	33	69,85	94	35,71	78	70	16	13,5	M 12x35	1/2x1 1/2	
AFG 401 JIC 3/4	S	414	6000	1/2"	3/4"-16 JIC	9,9	40,49	56	18,24	48	60	16	9	M 8x30	5/16x1 1/4	
AFG 401 JIC 7/8	S	414	6000	1/2"	7/8"-14 JIC	12,3	40,49	56	18,24	48	60	16	9	M 8x30	5/16x1 1/4	
AFG 402 JIC 1 1/16	S	414	6000	3/4"	1"1/16-12 JIC	15,5	50,8	71	23,8	60	73	19	11,5	M 10x35	3/8x1 1/2	
AFG 403 JIC 1 5/16	S	414	6000	1"	1"5/16-12 JIC	21,5	57,15	81	27,76	70	82	24	13	M 12x45	7/16x1 3/4	
AFG 404 JIC 1 5/16	S	414	6000	1"1/4	1"5/16-12 JIC	21,5	66,68	95	31,75	78	92	27	15*	M 14x50	1/2x1 3/4	
AFG 404 JIC 1 5/8	S	414	6000	1"1/4	1"5/8-12 JIC	27,5	66,68	95	31,75	78	92	27	15*	M 14x50	1/2x1 3/4	
AFG 405 JIC 1 7/8	S	414	6000	1"1/2	1"7/8-12 JIC	33	79,38	113	36,5	95	96	30	17,5	M 16x50	5/8x2	

\*) L = 13,5 UNC Screws

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

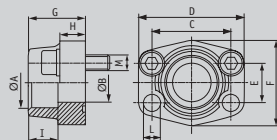


# AFS-S

## SAE-Socket Weld Flanges

Material: ST 52.3  
or 1.4404 – 316L

Article category 6215



Designation	Series	PB	psi	Flange size	A	B	C	D	E	F	G	H	I	L	M(metr.)	M(unc)
AFS 80 S	L	345	3000	1/2"	21,6	13	38,10	54	17,48	46	36	16	19	9	M 8x30	5/16x1 1/4
AFS 80 S 3/8	L	345	3000	1/2"	17,5	13	38,10	54	17,48	46	36	16	19	9	M 8x30	5/16x1 1/4
AFS 80 S A20	L	345	3000	1/2"	20,3	13	38,10	54	17,48	46	36	16	19	9	M 8x30	5/16x1 1/4
AFS 80 SM 3/8	L	345	3000	1/2"	17,5	13	38,10	54	17,48	46	36	16	19	9	M 8x30	
AFS 80 SM A20	L	345	3000	1/2"	20,3	13	38,10	54	17,48	46	36	16	19	9	M 8x30	
AFS 80 SU 3/8	L	345	3000	1/2"	17,5	13	38,10	54	17,48	46	36	16	19	9		5/16x1 1/4
AFS 80 SU A20	L	345	3000	1/2"	20,3	13	38,10	54	17,48	46	36	16	19	9		5/16x1 1/4
AFS 100 S	L	345	3000	3/4"	27,2	19	47,63	65	22,23	50	36	18	19	11	M 10x35	3/8x1 1/2
AFS 100 S A25	L	345	3000	3/4"	25,3	19	47,63	65	22,23	50	36	18	19	11	M 10x35	3/8x1 1/2
AFS 100 SM A25	L	345	3000	3/4"	25,3	19	47,63	65	22,23	50	36	18	19	11	M 10x35	
AFS 100 SU A25	L	345	3000	3/4"	25,3	19	47,63	65	22,23	50	36	18	19	11		3/8x1 1/2
AFS 102 S	L	345	3000	1"	34,0	25	52,37	70	26,19	55	38	18	19	11	M 10x35	3/8x1 1/2
AFS 102 S A30	L	345	3000	1"	30,3	25	52,37	70	26,19	55	38	18	19	11	M 10x35	3/8x1 1/2
AFS 102 SM A30	L	345	3000	1"	30,3	25	52,37	70	26,19	55	38	18	19	11	M 10x35	
AFS 102 SU A30	L	345	3000	1"	30,3	25	52,37	70	26,19	55	38	18	19	11		3/8x1 1/2
AFS 104 S	L	276	3000	1"1/4	42,8	32	58,72	79	30,18	68	41	21	22	11,5	M 10x40	7/16x1 1/2
AFS 104 S A38	L	276	3000	1"1/4	38,3	32	58,72	79	30,18	68	41	21	22	11,5	M 10x40	7/16x1 1/2
AFS 104 SM A38	L	276	3000	1"1/4	38,3	32	58,72	79	30,18	68	41	21	22	11,5	M 10x40	
AFS 104 SU A38	L	276	3000	1"1/4	38,3	32	58,72	79	30,18	68	41	21	22	11,5		7/16x1 1/2
AFS 106 S	L	207	3000	1"1/2	48,6	38	69,85	93	35,71	78	45	25	24	13,5	M 12x45	1/2x1 3/4
AFS 106 S A50	L	207	3000	1"1/2	50,5	38	69,85	93	35,71	78	45	25	24	13,5	M 12x45	1/2x1 3/4
AFS 106 SM A50	L	207	3000	1"1/2	50,5	38	69,85	93	35,71	78	45	25	24	13,5	M 12x45	
AFS 106 SU A50	L	207	3000	1"1/2	50,5	38	69,85	93	35,71	78	45	25	24	13,5		1/2x1 3/4
AFS 108 S	L	207	3000	2"	61,0	51	77,77	102	42,88	90	45	25	26	13,5	M 12x45	1/2x1 3/4
AFS 110 S	L	172	3000	2"1/2	76,6	63	88,90	114	50,80	105	50	25	30	13,5	M 12x45	1/2x1 3/4
AFS 112 S	L	138	3000	3"	90,5	73	106,38	134	61,93	124	50	27	34	17,5	M 16x50	5/8x2
AFS 114 S	L	34	3000	3"1/2	103,0	89	120,65	152	69,85	136	48	27	34	17,5	M 16x50	5/8x2
AFS 116 S	L	34	3000	4"	115,5	99	130,18	162	77,77	146	48	27	34	17,5	M 16x50	5/8x2

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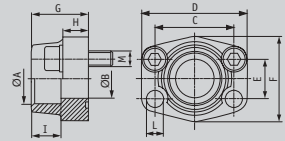
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFS-S

## SAE-Socket Weld Flanges

Material: ST 52.3  
or 1.4404 – 316L

Article category 6215



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	I	L	M(metr.)	M(unc)
				size	size												
<--																	
AFS 401 S	S	414	6000	1/2"	21,6	13	40,49	54	18,24	46	36	16	19	9	M 8x30	5/16x1 1/4	
AFS 401 S 3/8	S	414	6000	1/2"	17,5	13	40,49	54	18,24	46	36	16	19	9	M 8x30	5/16x1 1/4	
AFS 401 S A20	S	414	6000	1/2"	20,3	13	40,49	54	18,24	46	36	16	19	9	M 8x30	5/16x1 1/4	
AFS 401 SM 3/8	S	414	6000	1/2"	17,5	13	40,49	54	18,24	46	36	16	19	9	M 8x30		
AFS 401 SM A20	S	414	6000	1/2"	20,3	13	40,49	54	18,24	46	36	16	19	9	M 8x30		
AFS 401 SU 3/8	S	414	6000	1/2"	17,5	13	40,49	54	18,24	46	36	16	19	9		5/16x1 1/4	
AFS 401 SU A20	S	414	6000	1/2"	20,3	13	40,49	54	18,24	46	36	16	19	9		5/16x1 1/4	
AFS 402 S	S	414	6000	3/4"	27,2	19	50,80	71	23,80	55	35	21	22	11	M 10x35	3/8x1 1/2	
AFS 402 S A25	S	414	6000	3/4"	25,3	19	50,80	71	23,80	55	35	21	22	11	M 10x35	3/8x1 1/2	
AFS 402 SM A25	S	414	6000	3/4"	25,3	19	50,80	71	23,80	55	35	21	22	11	M 10x35		
AFS 402 SU A25	S	414	6000	3/4"	25,3	19	50,80	71	23,80	55	35	21	22	11		3/8x1 1/2	
AFS 403 S	S	414	6000	1"	34,0	25	57,15	81	27,76	65	42	25	22	13	M 12x45	7/16x1 3/4	
AFS 403 S A30	S	414	6000	1"	30,3	25	57,15	81	27,76	65	42	25	22	13	M 12x45	7/16x1 3/4	
AFS 403 SM A30	S	414	6000	1"	30,3	25	57,15	81	27,76	65	42	25	22	13	M 12x45		
AFS 403 SU A30	S	414	6000	1"	30,3	25	57,15	81	27,76	65	42	25	22	13		7/16x1 3/4	
AFS 404 S	S	414	6000	1 1/4"	42,8	32	66,68	95	31,75	78	45	27	25	15*	M 14x45	1/2x1 3/4	
AFS 404 S A38	S	414	6000	1 1/4"	38,3	32	66,68	95	31,75	78	45	27	25	15*	M 14x45	1/2x1 3/4	
AFS 404 SM A38	S	414	6000	1 1/4"	38,3	32	66,68	95	31,75	78	45	27	25	15*	M 14x45		
AFS 404 SU A38	S	414	6000	1 1/4"	38,3	32	66,68	95	31,75	78	45	27	25	15*		1/2x1 3/4	
AFS 405 S	S	414	6000	1 1/2"	48,6	38	79,38	112	36,50	94	50	30	28	17,5	M 16x50	5/8x2	
AFS 405 S A50	S	414	6000	1 1/2"	50,5	38	79,38	112	36,50	94	50	30	28	17,5	M 16x50	5/8x2	
AFS 405 SM A50	S	414	6000	1 1/2"	50,5	38	79,38	112	36,50	94	50	30	28	17,5	M 16x50		
AFS 405 SU A50	S	414	6000	1 1/2"	50,5	38	79,38	112	36,50	94	50	30	28	17,5		5/8x2	
AFS 406 S	S	414	6000	2"	61,0	51	96,82	134	44,45	114	65	37	24	21	M 20x65	3/4x2 1/2	

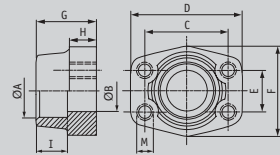
Construction Series: LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFS-S

## SAE-Socket Weld Flange Companion

Material: ST 52.3  
or 1.4404 - 316L

Article category 6216



Designation	Series	PB	psi	Flange size												
					A	B	C	D	E	F	G	H	I	(metr.)	(unc)	
GFS 80 S	L	345	3000	1/2"	21,6	13	38,10	54	17,48	46	36	16	19	M 8	5/16	
GFS 80 S 3/8	L	345	3000	1/2"	17,5	13	38,10	54	17,48	46	36	16	19	M 8	5/16	
GFS 80 S A20	L	345	3000	1/2"	20,3	13	38,10	54	17,48	46	36	16	19	M 8	5/16	
GFS 80 SU 038	L	345	3000	1/2"	17,5	13	38,10	54	17,48	46	36	16	19		5/16	
GFS 80 SU A20	L	345	3000	1/2"	20,3	13	38,10	54	17,48	46	36	16	19		5/16	
GFS 100 S	L	345	3000	3/4"	27,2	19	47,63	65	22,23	50	36	18	19	M 10	3/8	
GFS 100 S A25	L	345	3000	3/4"	25,3	19	47,63	65	22,23	50	36	18	19	M 10	3/8	
GFS 100 SU A25	L	345	3000	3/4"	25,3	19	47,63	65	22,23	50	36	18	19		3/8	
GFS 102 S	L	345	3000	1"	34,0	25	52,37	70	26,19	55	38	18	19	M 10	3/8	
GFS 102 S A30	L	345	3000	1"	30,3	25	52,37	70	26,19	55	38	18	19	M 10	3/8	
GFS 102 SU A30	L	345	3000	1"	30,3	25	52,37	70	26,19	55	38	18	19		3/8	
GFS 104 S	L	276	3000	1 1/4	42,8	32	58,72	79	30,18	68	41	21	22	M 10	7/16	
GFS 104 S A38	L	276	3000	1 1/4	38,3	32	58,72	79	30,18	68	41	21	22	M 10	7/16	
GFS 104 SU A38	L	276	3000	1 1/4	38,3	32	58,72	79	30,18	68	41	21	22		7/16	
GFS 106 S	L	207	3000	1 1/2	48,6	38	69,85	93	35,71	78	45	25	24	M 12	1/2	
GFS 106 S A50	L	207	3000	1 1/2	50,5	38	69,85	93	35,71	78	45	25	24	M 12	1/2	
GFS 106 SU A50	L	207	3000	1 1/2	50,5	38	69,85	93	35,71	78	45	25	24		1/2	
GFS 108 S	L	207	3000	2"	61,0	51	77,77	102	42,88	90	45	25	26	M 12	1/2	
GFS 110 S	L	172	3000	2 1/2	76,6	63	88,90	114	50,80	105	50	25	30	M 12	1/2	
GFS 112 S	L	138	3000	3"	90,5	73	106,38	134	61,93	124	50	27	34	M 16	5/8	
GFS 114 S	L	34	3000	3 1/2	103,0	89	120,65	152	69,85	136	48	27	34	M 16	5/8	
GFS 116 S	L	34	3000	4"	115,5	99	130,18	162	77,77	146	48	27	34	M 16	5/8	

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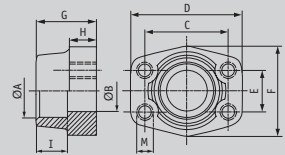
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFS-S

## SAE-Socket Weld Flange Companion

Material: ST 52.3  
or 1.4404 - 316L

Article category 6216



Designation	Series	PB	psi	Flange size	A	B	C	D	E	F	G	H	I	(metr.)	(unc)
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GFS 401 S	S	414	6000	1/2"	21,6	13	40,49	54	18,24	46	36	16	19	M 8	5/16
GFS 401 S 3/8	S	414	6000	1/2"	17,5	13	40,49	54	18,24	46	36	16	19	M 8	5/16
GFS 401 S A20	S	414	6000	1/2"	20,3	13	40,49	54	18,24	46	36	16	19	M 8	5/16
GFS 401 SU 038	S	414	6000	1/2"	17,5	13	40,49	54	18,24	46	36	16	19		5/16
GFS 401 SU A20	S	414	6000	1/2"	20,3	13	40,49	54	18,24	46	36	16	19		5/16
GFS 402 S	S	414	6000	3/4"	27,2	19	50,80	71	23,80	55	35	21	22	M 10	3/8
GFS 402 S A25	S	414	6000	3/4"	25,3	19	50,80	71	23,80	55	35	21	22	M 10	3/8
GFS 402 SU A25	S	414	6000	3/4"	25,3	19	50,80	71	23,80	55	35	21	22		3/8
GFS 403 S	S	414	6000	1"	34,0	25	57,15	81	27,76	65	42	25	22	M 12	7/16
GFS 403 S A30	S	414	6000	1"	30,3	25	57,15	81	27,76	65	42	25	22	M 12	7/16
GFS 403 SU A30	S	414	6000	1"	30,3	25	57,15	81	27,76	65	42	25	22		7/16
GFS 404 S	S	414	6000	1 1/4	42,8	32	66,68	95	31,75	78	45	27	25	M 14	1/2
GFS 404 S A38	S	414	6000	1 1/4	38,3	32	66,68	95	31,75	78	45	27	25	M 14	1/2
GFS 404 SU A38	S	414	6000	1 1/4	38,3	32	66,68	95	31,75	78	45	27	25		1/2
GFS 405 S	S	414	6000	1 1/2	48,6	38	79,38	112	36,50	94	50	30	28	M 16	5/8
GFS 405 S A50	S	414	6000	1 1/2	50,5	38	79,38	112	36,50	94	50	30	28	M 16	5/8
GFS 405 SU A50	S	414	6000	1 1/2	50,5	38	79,38	112	36,50	94	50	30	28		5/8
GFS 406 S	S	414	6000	2"	61,0	51	96,82	134	44,45	114	65	37	24	M 20	3/4

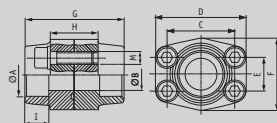
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# DFS-S

## SAE-Socket Weld Flange Couplings

Material: ST 52.3  
or 1.4404 - 316L

Article category 6217



Designation	Series	PB	psi	Flange size														
					A	B	C	D	E	F	G	H	I	M (metr.)	M (unc)			
DFS 080 SM A20	L	345	3000	1/2"	20,3	13	38,10	54	17,48	46	72	32	19	M 8x30				
DFS 080 SU 038	L	345	3000	1/2"	17,5	13	38,10	54	17,48	46	72	32	19		5/16x1 1/4			
DFS 080 SU A20	L	345	3000	1/2"	20,3	13	38,10	54	17,48	46	72	32	19		5/16x1 1/4			
DFS 100 SM A25	L	345	3000	3/4"	25,3	19	47,63	65	22,23	50	72	36	19	M 10x35				
DFS 100 SU A25	L	345	3000	3/4"	25,3	19	47,63	65	22,23	50	72	36	19		3/8x1 1/2			
DFS 102 SM A30	L	345	3000	1"	30,3	25	52,37	70	26,19	55	76	36	19	M 10x35				
DFS 102 SU A30	L	345	3000	1"	30,3	25	52,37	70	26,19	55	76	36	19		3/8x1 1/2			
DFS 104 SM A38	L	276	3000	1 1/4	38,3	32	58,72	79	30,18	68	82	42	22	M 10x40				
DFS 104 SU A38	L	276	3000	1 1/4	38,3	32	58,72	79	30,18	68	82	42	22		1/16x1 1/2			
DFS 106 SM A50	L	207	3000	1 1/2	50,5	38	69,85	93	35,71	78	90	50	24	M 12x45				
DFS 106 SU A50	L	207	3000	1 1/2	50,5	38	69,85	93	35,71	78	90	50	24		1/2x1 3/4			
DFS 401 SM A20	S	414	6000	1/2"	20,3	13	40,49	54	18,24	46	72	32	19	M 8x30				
DFS 401 SU 012	S	414	6000	1/2"	21,6	13	40,49	54	18,24	46	72	32	19		5/16x1 1/4			
DFS 401 SU 038	S	414	6000	1/2"	17,5	13	40,49	54	18,24	46	72	32	19		5/16x1 1/4			
DFS 401 SU A20	S	414	6000	1/2"	20,3	13	40,49	54	18,24	46	72	32	19		5/16x1 1/4			
DFS 402 SM A25	S	414	6000	3/4"	25,3	19	50,80	71	23,80	55	70	42	22	M 10x35				
DFS 402 SU A25	S	414	6000	3/4"	25,3	19	50,80	71	23,80	55	70	42	22		3/8x1 1/2			
DFS 403 SM A30	S	414	6000	1"	30,3	25	57,15	81	27,76	65	84	50	22	M 12x45				
DFS 403 SU A30	S	414	6000	1"	30,3	25	57,15	81	27,76	65	84	50	22		7/16x1 3/4			
DFS 404 SM A38	S	414	6000	1 1/4	38,3	32	66,68	95	31,75	78	90	54	25	M 14x45				
DFS 404 SU A38	S	414	6000	1 1/4	38,3	32	66,68	95	31,75	78	90	54	25		1/2x1 3/4			
DFS 405 SM A50	S	414	6000	1 1/2	50,5	38	79,38	112	36,50	94	100	60	28	M 16x50				
DFS 405 SU A50	S	414	6000	1 1/2	50,5	38	79,38	112	36,50	94	100	60	28		5/8x2			

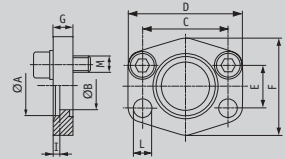
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFC-S

## SAE-Socket Weld Flanges 500 psi

Material: ST 52.3 (FE 510)  
or 1.4404 - 316L

Article category 6218



Designation	Series	PB	psi	Flange size	Rohr	A	B	C	D	E	F	G	I	L	M
AFC 80 S	L	40	3000	1/2"	22x2	22,5	15	38,10	56	17,48	46	10	3	9	M 8x25
AFC 100 S	L	40	3000	3/4"	28x2	28,5	20	47,63	65	22,23	50	12	4	11	M 10x30
AFC 102 S	L	40	3000	1"	35x2	35,5	29	52,37	70	26,19	55	12	4	11	M 10x30
AFC 104 S	L	40	3000	1 1/4"	42x2	42,5	34	58,72	79	30,18	68	12	4	11,5	M 10x30
AFC 106 S	L	40	3000	1 1/2"	48,3x3,25	49	42	69,85	93	35,71	78	15	4	13,5	M 12x35
AFC 108 S	L	40	3000	2"	60,3x3,65	61	53	77,77	102	42,88	90	15	4	13,5	M 12x35
AFC 110 S	L	40	3000	2 1/2"	76,1x3,65	77	64	88,90	114	50,80	105	15	4	13,5	M 12x35
AFC 112 S	L	40	3000	3"	88,9x4,05	90	80	106,38	134	61,93	124	20	5	17,5	M 16x40
AFC 114 S	L	40	3000	3 1/2"	101,6x4,5	103	93	120,65	152	69,85	136	20	5	17,5	M 16x40
AFC 116 S	L	40	3000	4"	114,3x4,5	116	105	130,18	162	77,77	146	25	6	17,5	M 16x45
AFC 118 S	L	40	3000	5"	139,7x4,85	141	126	152,40	190	92,08	170	28	8	17,5	M 16x45

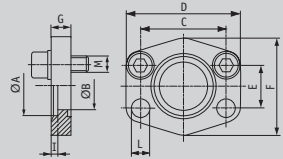
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFC-S

## SAE Socket Weld Flange Companion - 500 psi

Material: ST 52.3 (FE 510)  
or 1.4404 - 316L

Article category 6219



Designation	Series	PB	psi	Flange size	Rohr	A	B	C	D	E	F	G	I	M
GFC 80 S	L	40	3000	1/2"	22x2	22,5	15	38,10	56	17,48	46	10	3	M 8
GFC 100 S	L	40	3000	3/4"	28x2	28,5	20	47,63	65	22,23	50	12	4	M 10
GFC 102 S	L	40	3000	1"	35x2	35,5	29	52,37	70	26,19	55	12	4	M 10
GFC 104 S	L	40	3000	1 1/4"	42x2	42,5	34	58,72	79	30,18	68	12	4	M 10
GFC 106 S	L	40	3000	1 1/2"	48,3x3,25	49	42	69,85	93	35,71	78	15	4	M 12
GFC 108 S	L	40	3000	2"	60,3x3,65	61	53	77,77	102	42,88	90	15	4	M 12
GFC 110 S	L	40	3000	2 1/2"	76,1x3,65	77	64	88,90	114	50,80	105	15	4	M 12
GFC 112 S	L	40	3000	3"	88,9x4,05	90	80	106,38	134	61,93	124	20	5	M 16
GFC 114 S	L	40	3000	3 1/2"	101,6x4,5	103	93	120,65	152	69,85	136	20	5	M 16
GFC 116 S	L	40	3000	4"	114,3x4,5	116	105	130,18	162	77,77	146	25	6	M 16
GFC 118 S	L	40	3000	5"	139,7x4,85	141	126	152,40	190	92,08	170	28	8	M 16

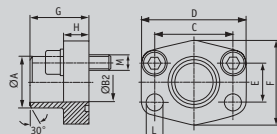
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFS-ST

## SAE-Weld On Flanges

Material: ST 52.3  
or 1.4404 – 316L

Article category 6221



Designation	Series	PB	psi	Flange size	A	B	C	D	E	F	G	H	L	M (metr.)	M (unc)
AFS 80 ST	L	345	3000	1/2"	21,6	13	38,10	54	17,48	46	36	16	9	M 8x30	5/16x1 1/4
AFS 80 ST 038	L	345	3000	1/2"	17,5	13	38,10	54	17,48	46	36	16	9	M 8x30	5/16x1 1/4
AFS 100 ST	L	345	3000	3/4"	28,0	19	47,63	65	22,23	50	36	18	11	M 10x35	3/8x1 1/2
AFS 102 ST	L	345	3000	1"	34,0	25	52,37	70	26,19	55	38	18	11	M 10x35	3/8x1 1/2
AFS 104 ST	L	276	3000	1"1/4	42,8	32	58,72	79	30,18	68	41	21	11,5	M 10x40	7/16x1 1/2
AFS 106 ST	L	207	3000	1"1/2	48,6	38	69,85	93	35,71	78	44	25	13,5	M 12x45	1/2x1 3/4
AFS 108 ST	L	207	3000	2"	61,0	51	77,77	102	42,88	90	45	25	13,5	M 12x45	1/2x1 3/4
AFS 110 ST	L	172	3000	2"1/2	77,0	63	88,90	114	50,80	105	50	25	13,5	M 12x45	1/2x1 3/4
AFS 112 ST	L	138	3000	3"	92,0	73	106,38	134	61,93	124	50	27	17,5	M 16x50	5/8x2
AFS 114 ST	L	34	3000	3"1/2	103,0	89	120,65	152	69,85	136	48	27	17,5	M 16x50	5/8x2
AFS 116 ST	L	34	3000	4"	115,5	99	130,18	162	77,77	146	48	27	17,5	M 16x50	5/8x2
AFS 401 ST 012	S	414	6000	1/2"	21,5	13	40,49	54	18,24	46	36	16	9	M 8x30	5/16x1 1/4
AFS 401 ST 038	S	414	6000	1/2"	17,5	13	40,49	54	18,24	46	36	16	9	M 8x30	5/16x1 1/4
AFS 402 ST	S	414	6000	3/4"	28,0	19	50,80	71	23,80	55	35	21	11	M 10x35	3/8x1 1/2
AFS 403 ST	S	414	6000	1"	34,0	25	57,15	79	27,76	68	41	21	13	M 12x45	7/16x1 3/4
AFS 404 ST	S	414	6000	1"1/4	42,8	32	66,68	93	31,75	78	44	25	15*	M 14x45	1/2x1 3/4
AFS 405 ST	S	414	6000	1"1/2	48,6	38	79,38	112	36,50	94	55	30	17	M 16x50	5/8x2
AFS 406 ST	S	414	6000	2"	61,0	51	96,82	134	44,45	114	65	37	21	M 20x65	3/4x2 1/2

\*) L = 13,5 UNC Screws

**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

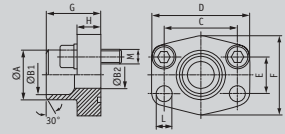


# AFS-STRE

## SAE-Weld On Flanges – Metric Pipes ND 40

Material: ST 52.3  
or 1.4404 – 316L

Article category 6223



Designation	Series	PB	psi	Flange		Rohr	A	B1	B2	C	D	E	F	G	H	L	M(metr.)	M(unc)
				size	size													
AFS 80 STRE 21.3	L	40	3000	1/2"	21,3x2,6	22	16	13	38,10	54	17,48	46	35	16	9	M 8x30	5/16x1 1/4	
AFS 100 STRE 26.9	L	40	3000	3/4"	26,9x2,6	28	21,5	19	47,63	65	22,23	50	36	18	11	M 10x35	3/8x1 1/2	
AFS 102 STRE 33.7	L	40	3000	1"	33,7x3,2	35	27	25	52,37	70	26,19	55	38	18	11	M 10x35	3/8x1 1/2	
AFS 104 STRE 42.2	L	40	3000	1 1/4"	42,4x3,2	43	36	31	58,72	79	30,18	68	41	21	11,5	M 10x40	7/16x1 1/2	
AFS 106 STRE 48.3	L	40	3000	1 1/2"	48,3x3,2	49	42	38	69,85	93	35,71	78	44,5	24,5	13,5	M 12x45	1/2x1 3/4	
AFS 108 STRE 48.3	L	40	3000	2"	48,3x3,2	49	42	42	77,77	102	42,88	90	45	25	13,5	M 12x45	1/2x1 3/4	
AFS 108 STRE 60.3	L	40	3000	2"	60,3x3,6	61	53	49	77,77	102	42,88	90	45	25	13,5	M 12x45	1/2x1 3/4	
AFS 110 STRE 60.3	L	40	3000	2 1/2"	60,3x3,6	61	53	53	88,90	114	50,80	105	50	25	13,5	M 12x45	1/2x1 3/4	
AFS 110 STRE 76.1	L	40	3000	2 1/2"	76,1x3,6	77	70	62	88,90	114	50,80	105	50	25	13,5	M 12x45	1/2x1 3/4	
AFS 112 STRE 88.9	L	40	3000	3"	88,9x3,6	90	82	74	106,38	134	61,93	124	51	26	17,5	M 16x50	5/8x2	
AFS 114 STRE 76.1	L	34	3000	3 1/2"	76,1x3,6	77	70	70	120,65	152	69,85	136	48	26	17,5	M 16x50	5/8x2	
AFS 114 STRE 88.9	L	34	3000	3 1/2"	88,9x3,6	90	82	82	120,65	152	69,85	136	48	26	17,5	M 16x50	5/8x2	
AFS 116 STRE 114.3	L	34	3000	4"	114x3,6	115	107	102	130,18	162	77,77	146	48	26	17,5	M 16x50	5/8x2	
AFS 116 STRE 88.9	L	34	3000	4"	88,9x3,6	90	82	82	130,18	162	77,77	146	48	26	17,5	M 16x50	5/8x2	
AFS 118 STRE 139.7*	L	34	3000	5"	139,7x4	141	-	131	152,40	190	92,10	170	28	28	17,5	M 16x50	5/8x2	

\*) AFS 118 STRE 139.7 only available as flat flange for welding.

**Please note:** The maximum working pressure is fixed by SAE J 518 C on flange side or by the used tube.

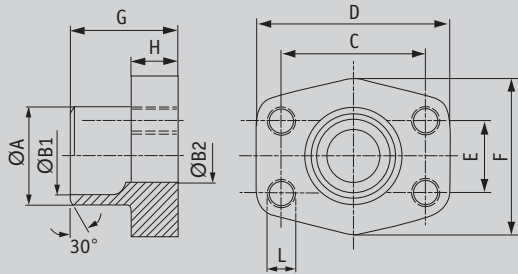
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFS-STRE

## SAE-Weld on Flange Companion – Metric Pipes ND 4

Material: ST 52.3  
or 1.4404 – 316L

Article category 6224



Designation	Series	PB	psi	Flange size	Rohr	A	B1	B2	C	D	E	F	G	H	M
GFS 80 STRE 21,3	L	40	3000	1/2"	21,3x2,6	22	16	13	38,10	54	17,48	46	35	16	M 8
GFS 100 STRE 26,9	L	40	3000	3/4"	26,9x2,6	28	21,5	19	47,63	65	22,23	50	35	18	M 10
GFS 102 STRE 33,7	L	40	3000	1"	33,7x3,2	35	27	25	52,37	70	26,19	55	38	18	M 10
GFS 104 STRE 42,4	L	40	3000	1 1/4"	42,4x3,2	43	36	31	58,72	79	30,18	68	41	21	M 10
GFS 106 STRE 48,3	L	40	3000	1 1/2"	48,3x3,2	49	42	38	69,85	93	35,71	78	44,5	24,5	M 12
GFS 108 STRE 48,3	L	40	3000	2"	48,3x3,2	49	42	42	77,77	102	42,88	90	45	25	M 12
GFS 108 STRE 60,3	L	40	3000	2"	60,3x3,6	61	53	49	77,77	102	42,88	90	45	25	M 12
GFS 110 STRE 60,3	L	40	3000	2 1/2"	60,3x3,6	61	53	53	88,90	114	50,80	105	50	25	M 12
GFS 110 STRE 76,1	L	40	3000	2 1/2"	76,1x3,6	77	70	62	88,90	114	50,80	105	50	25	M 12
GFS 112 STRE 88,9	L	40	3000	3"	88,9x3,6	90	82	74	106,38	134	61,93	124	51	26	M 16
GFS 114 STRE 76,1	L	34	3000	3 1/2"	76,1x3,6	77	70	70	120,65	152	69,85	136	48	26	M 16
GFS 114 STRE 88,9	L	34	3000	3 1/2"	88,9x3,6	90	82	82	120,65	152	69,85	136	48	26	M 16
GFS 116 STRE 114	L	34	3000	4"	114,3x3,6	115	107	102	130,18	162	77,77	146	48	26	M 16
GFS 116 STRE 88,9	L	34	3000	4"	88,9x3,6	90	82	82	130,18	162	77,77	146	48	26	M 16
GFS 118 STRE 139	L	34	3000	5"	139,7x4	141	-	131	152,40	190	92,10	170	50	28	M 16

**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFS-SRE

## SAE-Weld On Flanges – Metric Pipes

Material: ST 52.3  
or 1.4404 – 316L

Article category 6225



Designation	Series	PB	psi	Flange		Tube	A	B	C	D	E	F	G	H	I	L	M(metr.)	M(unc)
				size	Tube													
AFS 80 SRE 20	L	250	3000	1/2"	20x3	20	14	14	38,10	54	17,48	46	35	16	9	M 8x30	5/16x1 1/4	
AFS 80 SRE 22	L	160	3000	1/2"	22x3	22	16	13	38,10	54	17,48	46	35	16	9	M 8x30	5/16x1 1/4	
AFS 100 SRE 25	L	250	3000	3/4"	25x3	25	19	19	47,63	65	22,23	50	36	18	11	M 10x35	3/8x1 1/2	
AFS 100 SRE 28	L	160	3000	3/4"	28x3	28	21,5	19	47,63	65	22,23	50	36	18	11	M 10x35	3/8x1 1/2	
AFS 102 SRE 30	L	250	3000	1"	30x4	30	22	22	52,37	70	26,19	55	38	18	11	M 10x35	3/8x1 1/2	
AFS 102 SRE 35	L	160	3000	1"	35x3	35	27	25	52,37	70	26,19	55	38	18	11	M 10x35	3/8x1 1/2	
AFS 104 SRE 38	L	250	3000	1 1/4"	38x4	38	30	30	58,72	79	30,18	68	41	21	11,5	M 10x40	7/16x1 1/2	
AFS 104 SRE 42	L	160	3000	1 1/4"	42x3	43	36	31	58,72	79	30,18	68	41	21	11,5	M 10x40	7/16x1 1/2	
AFS 106 SRE 38	L	210	3000	1 1/2"	38x4	38	30	30	69,85	93	35,71	78	44,5	24,5	13,5	M 12x45	1/2x1 3/4	
AFS 106 SRE 42	L	160	3000	1 1/2"	42x3	42	36	36	69,85	93	35,71	78	44,5	24,5	13,5	M 12x45	1/2x1 3/4	
AFS 106 SRE 48.3	L	160	3000	1 1/2"	48,3x4,5	49	38	38	69,85	93	35,71	78	44,5	24,5	13,5	M 12x45	1/2x1 3/4	
AFS 108 SRE 60	L	160	3000	2"	60,3x5,6	61	49	49	77,77	102	42,88	90	45	25	13,5	M 12x45	1/2x1 3/4	
AFS 110 SRE 76	L	160	3000	2 1/2"	76,1x7,1	77	62	62	88,90	114	50,80	105	50	25	13,5	M 12x45	1/2x1 3/4	
AFS 112 SRE 76	L	140	3000	3"	76,1x7,1	77	62	62	106,38	134	61,93	124	51	26	17,5	M 16x50	5/8x2	
AFS 401 SRE 20	S	315	6000	1/2"	20x3	20	14	14	40,49	54	18,24	46	34	16	9	M 8x30	5/16x1 1/4	
AFS 402 SRE 20	S	315	6000	3/4"	20x3	20	14	14	50,80	71	23,80	55	35	21	11	M 10x35	3/8x1 1/2	
AFS 402 SRE 25	S	315	6000	3/4"	25x4	25	17	17	50,80	71	23,80	55	35	21	11	M 10x35	3/8x1 1/2	
AFS 403 SRE 25	S	315	6000	1"	25x4	25	17	17	57,15	81	27,76	65	42	25	13	M 12x45	7/16x1 1/2	
AFS 403 SRE 30	S	315	6000	1"	30x4	30	22	22	57,15	81	27,76	65	42	25	13	M 12x45	7/16x1 1/2	
AFS 404 SRE 30	S	315	6000	1 1/4"	30x4	30	22	22	66,68	95	31,75	78	44	25	15*	M 14x45	1/2x1 3/4	
AFS 404 SRE 38	S	315	6000	1 1/4"	38x6	38	26	26	66,68	95	31,75	78	44	25	15*	M 14x45	1/2x1 3/4	
AFS 405 SRE 38	S	315	6000	1 1/2"	38x6	38	26	26	79,38	112	36,50	94	56	28	17	M 16x50	5/8x2	
AFS 405 SRE 48	S	315	6000	1 1/2"	48,3x8	49	32	32	79,38	112	36,50	94	56	28	17	M 16x50	5/8x2	
AFS 405 SRE 60	S	315	6000	1 1/2"	60,3x10	61	40	40	79,38	112	36,50	94	56	28	17	M 16x50	5/8x2	
AFS 406 SRE 60	S	315	6000	2"	60,3x10	61	40	40	96,82	134	44,45	114	65	33	21	M 20x60	3/4x2 1/2	
AFS 406 SRE 76	S	315	6000	2"	76,1x12,5	76	48	48	96,82	134	44,45	114	80	33	21	M 20x60	3/4x2 1/2	

\*) L = 13,5 UNC Screws

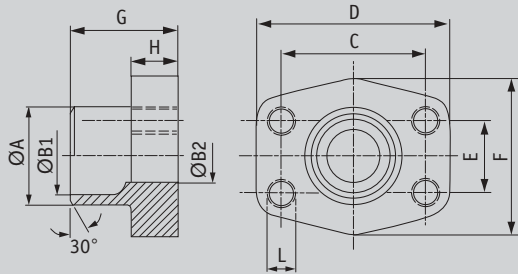
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFS-SRE

## SAE-Weld on Flange Companion – Metric Pipe

Material: ST 52.3  
or 1.4404 – 316L

Article category 6227



Designation	Series	PB	psi	Flange size	Rohr	A	B1	B2	C	D	E	F	G	H	M
GFS 80 SRE 20	L	250	3000	1/2"	20x3	20	14	14	38,10	54	17,48	46	35	16	M 8
GFS 80 SRE 22	L	160	3000	1/2"	22x3	22	16	13	38,10	54	17,48	46	35	16	M 8
GFS 100 SRE 25	L	250	3000	3/4"	25x3	25	19	19	47,63	65	22,23	50	36	18	M 10
GFS 100 SRE 28	L	160	3000	3/4"	28x3	28	21,5	19	47,63	65	22,23	50	36	18	M 10
GFS 102 SRE 30	L	250	3000	1"	30x4	30	22	22	52,37	70	26,19	55	38	18	M 10
GFS 102 SRE 35	L	160	3000	1"	35x3	35	27	25	52,37	70	26,19	55	38	18	M 10
GFS 104 SRE 38	L	250	3000	1 1/4	38x4	38	30	30	58,72	79	30,18	68	41	21	M 10
GFS 104 SRE 42	L	160	3000	1 1/4	42x3	43	36	31	58,72	79	30,18	68	41	21	M 10
GFS 106 SRE 38	L	210	3000	1 1/2	38x4	38	30	30	69,85	93	35,71	78	44,5	24,5	M 12
GFS 106 SRE 42	L	160	3000	1 1/2	42x3	42	36	36	69,85	93	35,71	78	44,5	24,5	M 12
GFS 106 SRE 48	L	160	3000	1 1/2	48,3x4,5	49	38	38	69,85	93	35,71	78	44,5	24,5	M 12
GFS 108 SRE 60	L	160	3000	2"	60,3x5,6	61	49	49	77,77	102	42,88	90	45	25	M 12
GFS 110 SRE 76	L	160	3000	2 1/2	76,1x7,1	77	62	62	88,90	114	50,80	105	50	25	M 12
GFS 112 SRE 76	L	140	3000	3"	76,1x7,1	77	62	62	106,38	134	61,93	125	51	26	M 16
GFS 401 SRE 20	S	315	6000	1/2"	20x3	20	14	14	40,49	54	18,24	46	34	16	M 8
GFS 402 SRE 20	S	315	6000	3/4"	20x3	20	14	14	50,80	71	23,80	55	35	21	M 10
GFS 402 SRE 25	S	315	6000	3/4"	25x4	25	17	17	50,80	71	23,80	55	35	21	M 10
GFS 403 SRE 25	S	315	6000	1"	25x4	25	17	17	57,15	81	27,76	65	42	25	M 12
GFS 403 SRE 30	S	315	6000	1"	30x4	30	22	22	57,15	81	27,76	65	42	25	M 12
GFS 404 SRE 30	S	315	6000	1 1/4	30x4	30	22	22	66,68	95	31,75	78	44	25	M 14
GFS 404 SRE 38	S	315	6000	1 1/4	38x6	38	26	26	66,68	95	31,75	78	44	25	M 14
GFS 405 SRE 38	S	315	6000	1 1/2	38x6	38	26	26	79,38	112	36,50	94	56	28	M 16
GFS 405 SRE 48	S	315	6000	1 1/2	48,3x8	49	32	32	79,38	112	36,50	94	56	28	M 16
GFS 405 SRE 60	S	315	6000	1 1/2	60,3x10	61	40	40	79,38	112	36,50	94	56	28	M 16
GFS 406 SRE 60	S	315	6000	2"	60,3x10	61	40	40	96,82	134	44,45	114	65	33	M 20
GFS 406 SRE 76	S	315	6000	2"	76,1x12,5	76	48	48	96,82	134	44,45	114	80	33	M 20

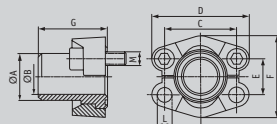
Construction Series: LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# SFS

## SAE-Welding Head

Material: ST 52.3 (FE 510)

Article category 6228



Designation	Series	PB	psi	Flange size	Rohr	A	B	C	D	E	F	G	L	M(metr.)	M(unc)
SFS 3001 S 16	L	250	3000	1/2"	16x2	16	12	38,10	54	17,48	45,6	41	8,5	M 8x30	5/16x1 1/4
SFS 3001-21,3	L	250	3000	1/2"	21,3x2,9	22	15,5	38,10	54	17,48	45,6	41	8,5	M 8x30	5/16x1 1/4
SFS 3001-21,7	L	250	3000	1/2"	21,7x3,8	22	14	38,10	54	17,48	45,6	41	8,5	M 8x30	5/16x1 1/4
SFS 3002-25	L	250	3000	3/4"	25x3	27	18,9	47,63	65	22,23	51,8	50	10,5	M 10x30	3/8x1 1/4
SFS 3002-26,9	L	250	3000	3/4"	26,9x3,9	27	18,9	47,63	65	22,23	51,8	50	10,5	M 10x30	3/8x1 1/4
SFS 3003-28	L	210	3000	1"	28x3	28	22	52,37	70	26,19	58,4	50	10,5	M 10x35	3/8x1 1/4
SFS 3003-30	L	210	3000	1"	30x4	30	22	52,37	70	26,19	58,4	50	10,5	M 10x35	3/8x1 1/4
SFS 3003-33,7	L	250	3000	1"	33,7x4,5	34	24,7	52,37	70	26,19	58,4	50	10,5	M 10x35	3/8x1 1/4
SFS 3003-38	L	250	3000	1"	38x5	38	28	52,37	70	26,19	58,4	50	10,5	M 10x35	3/8x1 1/4
SFS 3004-38	L	250	3000	1 1/4"	38x5	38	28	58,72	79	30,18	72,6	55	*1	*2	7/16x1 1/2
SFS 3004-42,4	L	250	3000	1 1/4"	42,4x6,3	43	29,7	58,72	79	30,18	72,6	55	*1	*2	7/16x1 1/2
SFS 3005-38	L	160	3000	1 1/2"	38x4	38	30	69,85	94	35,71	82,2	57	13,5	M 12x35	1/2x1 1/2
SFS 3005-42	L	210	3000	1 1/2"	42x5	42	32	69,85	94	35,71	82,2	57	13,5	M 12x35	1/2x1 1/2
SFS 3005-45	L	210	3000	1 1/2"	45x5	45	35	69,85	94	35,71	82,2	57	13,5	M 12x35	1/2x1 1/2
SFS 3005-48,3	L	210	3000	1 1/2"	48,3x7,1	49	34	69,85	94	35,71	82,2	57	13,5	M 12x35	1/2x1 1/2
SFS 3006-55	L	160	3000	2"	55x5	55	45	77,77	102	42,88	96,4	57	13,5	M 12x35	1/2x1 1/2
SFS 3006-60,3	L	210	3000	2"	60,3x8	60,3	44	77,77	102	42,88	96,4	57	13,5	M 12x35	1/2x1 1/2
SFS 3007-65	L	160	3000	2 1/2"	65x6	65	53	88,90	114	50,80	108,20	58	13,5	M 12x40	1/2x1 3/4
SFS 3007-70	L	160	3000	2 1/2"	70x7,5	70	55	88,90	114	50,80	108,20	58	13,5	M 12x40	1/2x1 3/4
SFS 3007-76,1	L	160	3000	2 1/2"	76,1x7,1	74	62	88,90	114	50,80	108,20	58	13,5	M 12x40	1/2x1 3/4
SFS 3008-80	L	138	3000	3"	80x6	80	68	106,38	135	61,93	130,60	60	16,75	M 16x45	5/8x2
SFS 3008-88,9	L	138	3000	3"	88,9x7	90	73	106,38	135	61,93	130,60	60	16,75	M 16x45	5/8x2
SFS 3009-100	L	34	3000	3 1/2"	100x6	100	88	120,65	152	69,85	139	60	17	M 16x45	5/8x2
SFS 3009-88,9	L	34	3000	3 1/2"	88,9x8	90	73	120,65	152	69,85	139	60	17	M 16x45	5/8x2
SFS 3010-110	L	34	3000	4"	110x6	110	98	130,18	162	77,77	152	60	17	M 16x50	5/8x2
SFS 3010-114,3	L	34	3000	4"	114,3x8,8	115	96,7	130,18	162	77,77	152	60	17	M 16x50	5/8x2
SFS 3011-133	L	34	3000	5"	133x6,5	133	120	152,40	184	92,08	180	60	17	M 16x50	5/8x2
SFS 3011-139,7	L	34	3000	5"	139,7x10	140	120	152,40	184	92,08	180	60	17	M 16x50	5/8x2

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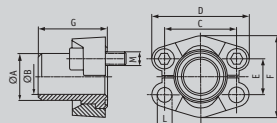
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# SFS

## SAE-Welding Head

Material: ST 52.3 (FE 510)

Article category 6228



Designation	Series	PB	psi	Flange size	Rohr	A	B	C	D	E	F	G	L	M(metr.)	M(unc)
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<--															
SFS 6001-16	S	250	6000	1/2"	16x2	16	12	40,49	56	18,24	47,2	34	8,5	M 8x30	5/16x1 1/4
SFS 6001-21,3	S	414	6000	1/2"	21,3x4,5	21,3	11,9	40,49	56	18,24	47,2	34	8,5	M 8x30	5/16x1 1/4
SFS 6002-25	S	315	6000	3/4"	25x3,5	25	18	50,80	71	23,80	60	38	10,5	M 10x35	3/8x1 1/2
SFS 6002-26,9	S	315	6000	3/4"	26,9x5,6	26,9	15,7	50,80	71	23,80	60	38	10,5	M 10x35	3/8x1 1/2
SFS 6003-30	S	315	6000	1"	30x4	30	22	57,15	81	27,76	69,6	40	*3	M 12x45	7/16x1 3/4
SFS 6003-33,7	S	414	6000	1"	33,7x7,1	34	19	57,15	81	27,76	69,6	40	*3	M 12x45	7/16x1 3/4
SFS 6003-38	S	315	6000	1"	38x5	38	28	57,15	81	27,76	69,6	40	*3	M 12x45	7/16x1 3/4
SFS 6004-38	S	315	6000	1"1/4	38x5,5	38	27	66,68	95	31,75	77,2	45	*4	M 14x50	1/2x1 3/4
SFS 6004-42,4	S	414	6000	1"1/4	42,4x6,3	42,4	29,8	66,68	95	31,75	77,2	45	*4	M 14x50	1/2x1 3/4
SFS 6005-45	S	315	6000	1"1/2	45x6,5	45	32	79,38	113	36,50	95	50	16,75	M 16x55	5/8x2
SFS 6005-48,3	S	414	6000	1"1/2	48,3x8,8	50	30,7	79,38	113	36,50	95	50	16,75	M 16x55	5/8x2
SFS 6006-60	S	414	6000	2"	60,3x13,4	60,3	33,7	96,82	133	44,45	113,8	58	21	M 20x65	3/4x2 1/2
SFS 6006-65	S	350	6000	2"	65x8	65	49	96,82	133	44,45	113,8	58	21	M 20x65	3/4x2 1/2

\*1) optional 10,5, 12,0 or 12,5 — \*2) optional M 10x30 or M 12x40 — \*3) optional 12,0 or 12,5

\*4) optional 13,5 or 14,5 — \*5) optional tube size

**Please note:** The maximum working pressure is fixed by SAE J 518 C on flange side or by the used tube.

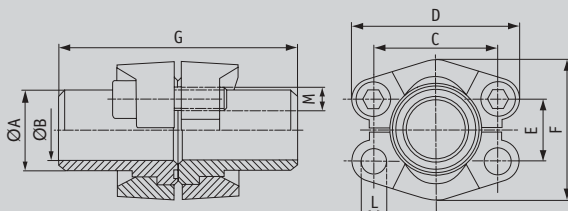
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# DSFS

## SAE-Welding Head Couplings

Material: ST 52.3 (FE 510)

Article category 6230



Designation	Series	PB	psi	Flange size	Rohr											M (metr.)	M (unc)
						A	B	C	D	E	F	G	L				
DSFS 3001-16	L	250	3000	1/2"	16x2	16	12	38,10	54	17,48	45,6	82	8,5	M 8x30	5/16x1 1/4		
DSFS 3001-21,3	L	250	3000	1/2"	21,3x2,9	22	15,5	38,10	54	17,48	45,6	82	8,5	M 8x30	5/16x1 1/4		
DSFS 3001-21,7	L	250	3000	1/2"	21,7x3,8	22	14	38,10	54	17,48	45,6	82	8,5	M 8x30	5/16x1 1/4		
DSFS 3002-25	L	250	3000	3/4"	25x3	27	18,9	47,63	65	22,23	51,8	100	10,5	M 10x30	3/8x1 1/4		
DSFS 3002-26,9	L	250	3000	3/4"	26,9x3,9	27	18,9	47,63	65	22,23	51,8	100	10,5	M 10x30	3/8x1 1/4		
DSFS 3003-28	L	210	3000	1"	28x3	28	22	52,37	70	26,19	58,4	100	10,5	M 10x35	3/8x1 1/4		
DSFS 3003-30	L	210	3000	1"	30x4	30	22	52,37	70	26,19	58,4	100	10,5	M 10x35	3/8x1 1/4		
DSFS 3003-33,7	L	250	3000	1"	33,7x4,5	34	24,7	52,37	70	26,19	58,4	100	10,5	M 10x35	3/8x1 1/4		
DSFS 3003-38	L	250	3000	1"	38x5	38	28	52,37	70	26,19	58,4	100	10,5	M 10x35	3/8x1 1/4		
DSFS 3004-38	L	250	3000	1 1/4"	38x5	38	28	58,72	79	30,18	72,6	110	*1	*2	7/16x1 1/2		
DSFS 3004-42,4	L	250	3000	1 1/4"	42,4x6,3	43	29,7	58,72	79	30,18	72,6	110	*1	*2	7/16x1 1/2		
DSFS 3005-38	L	160	3000	1 1/2"	38x4	38	30	69,85	94	35,71	82,2	114	13,5	M 12x35	1/2x1 1/2		
DSFS 3005-42	L	210	3000	1 1/2"	42x5	42	32	69,85	94	35,71	82,2	114	13,5	M 12x35	1/2x1 1/2		
DSFS 3005-45	L	210	3000	1 1/2"	45x5	45	35	69,85	94	35,71	82,2	114	13,5	M 12x35	1/2x1 1/2		
DSFS 3005-48,3	L	210	3000	1 1/2"	48,3x7,1	49	34	69,85	94	35,71	82,2	114	13,5	M 12x35	1/2x1 1/2		
DSFS 3006-55	L	160	3000	2"	55x5	55	45	77,77	102	42,88	96,4	114	13,5	M 12x35	1/2x1 1/2		
DSFS 3006-60,3	L	210	3000	2"	60,3x8	60,3	44	77,77	102	42,88	96,4	114	13,5	M 12x35	1/2x1 1/2		
DSFS 3007-65	L	160	3000	2"	65x6	65	53	88,90	114	50,80	108,20	116	13,5	M 12x40	1/2x1 3/4		
DSFS 3007-70	L	160	3000	2 1/2"	70x7,5	70	55	88,90	114	50,80	108,20	116	13,5	M 12x40	1/2x1 3/4		
DSFS 3007-76,1	L	160	3000	2 1/2"	76,1x7,1	74	62	88,90	114	50,80	108,20	116	13,5	M 12x40	1/2x1 3/4		
DSFS 3008-80	L	138	3000	2 1/2"	80x6	80	68	106,38	135	61,93	130,60	120	16,75	M 16x45	5/8x2		
DSFS 3008-88,9	L	138	3000	3"	88,9x7	90	73	106,38	135	61,93	130,60	120	16,75	M 16x45	5/8x2		
DSFS 3009-100	L	34	3000	3 1/2"	100x6	100	88	120,65	152	69,85	139	120	17	M 16x45	5/8x2		
DSFS 3009-88,9	L	34	3000	3"	88,9x8	90	73	120,65	152	69,85	139	120	17	M 16x45	5/8x2		
DSFS 3010-110	L	34	3000	3 1/2"	110x6	110	98	130,18	162	77,77	152	120	17	M 16x50	5/8x2		
DSFS 3010-114,3	L	34	3000	4"	114,3x8,8	115	96,7	130,18	162	77,77	152	120	17	M 16x50	5/8x2		
DSFS 3011-133	L	34	3000	5"	133x6,5	133	120	152,40	184	92,08	180	120	17	M 16x50	5/8x2		
DSFS 3011-139,7	L	34	3000	5"	139,7x10	140	120	152,40	184	92,08	180	120	17	M 16x50	5/8x2		

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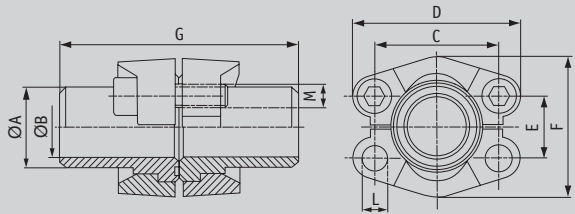
Construction Series: LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# DSFS

## SAE-Welding Head Couplings

Material: ST 52.3 (FE 510)

Article category 6230



Designation	Series	PB	psi	Flange		Rohr	A	B	C	D	E	F	G	L	M(metr.)	M(unc)
				size	size											

<--																
DSFS 6001-16	S	250	6000	1/2"	16x2	16	12	40,49	56	18,24	47,2	68	8,5	M 8x30	5/16x1 1/4	
DSFS 6001-21,3	S	414	6000	1/2"	21,3x4,5	21,3	11,9	40,49	56	18,24	47,2	68	8,5	M 8x30	5/16x1 1/4	
DSFS 6002-25	S	315	6000	3/4"	25x3,5	25	18	50,80	71	23,80	60	76	10,5	M 10x35	3/8x1 1/2	
DSFS 6002-26,9	S	315	6000	3/4"	26,9x5,6	26,9	15,7	50,80	71	23,80	60	76	10,5	M 10x35	3/8x1 1/2	
DSFS 6003-30	S	315	6000	1"	30x4	30	22	57,15	81	27,76	69,6	80	*3	M 12x45	7/16x1 3/4	
DSFS 6003-33,7	S	414	6000	1"	33,7x7,1	34	19	57,15	81	27,76	69,6	80	*3	M 12x45	7/16x1 3/4	
DSFS 6003-38	S	315	6000	1"	38x5	38	28	57,15	81	27,76	69,6	80	*3	M 12x45	7/16x1 3/4	
DSFS 6004-30	S	315	6000	1 1/4"	30x4	30	22	66,68	95	31,75	77,2	90	*4	M 14x50	1/2x1 3/4	
DSFS 6004-38	S	315	6000	1 1/4"	38x5,5	38	27	66,68	95	31,75	77,2	90	*4	M 14x50	1/2x1 3/4	
DSFS 6004-42,4	S	414	6000	1 1/4"	42,4x6,3	42,4	29,8	66,68	95	31,75	77,2	90	*4	M 14x50	1/2x1 3/4	
DSFS 6005-45	S	315	6000	1 1/2"	45x6,5	45	32	79,38	113	36,50	95	100	16,75	M 16x55	5/8x2	
DSFS 6005-48,3	S	414	6000	1 1/2"	48,3x8,8	50	30,7	79,38	113	36,50	95	100	16,75	M 16x55	5/8x2	
DSFS 6006-60,3	S	414	6000	2"	60,3x13,4	60,3	33,7	96,82	133	44,45	113,8	116	21	M 20x65	3/4x2/2	
DSFS 6006-65	S	350	6000	2"	65x8	65	49	96,82	133	44,45	113,8	116	21	M 20x65	3/4x2/2	

\*1) optional 10,5, 12,0 or 12,5 — \*2) optional M 10x30 or M 12x40 — \*3) optional 12,0 or 12,5

\*4) optional 13,5 or 14,5 — \*5) optional tube size

**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

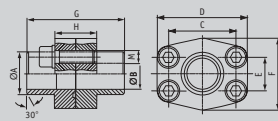


# DFS-ST

## SAE-Weld On Couplings

Material: ST 52.3 or 1.4404 - 316L

Article category 6232



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	H	M(metr.)	M(unc)
				size											
DFS 80 STM 038	L	345	3000	1/2"	17,5	13	38,10	54	17,48	46	72	32	M 8x30		
DFS 80 STU 038	L	345	3000	1/2"	17,5	13	38,10	54	17,48	46	72	32		5/16x1 1/4	
DFS 401 STM 038	S	414	6000	1/2"	17,5	13	40,49	54	18,24	46	72	32	M 8x30		
DFS 401 STU 038	S	414	6000	1/2"	17,5	13	40,49	54	18,24	46	72	32		5/16x1 1/4	

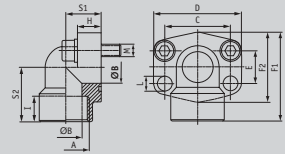
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFS-90G

## SAE-90° Pipe Threaded Flanges

Material: ST 52.3 (FE 510)  
or 1.4404 – 316L

Article category 6233



Designation	Series	PB	psi	Flange		A	B	C	D	E	F1	F2	H	I	L	S1	S2	M (metr.)	M (unc)
				size	R														
AFS 80/90 G	L	345	3000	1/2"	R 1/2"	13	38,10	54	17,48	60	48	16	19	9	20	37	M 8x30	5/16x1 1/4	
AFS 80/90 G 038	L	345	3000	1/2"	R 3/8"	13	38,10	54	17,48	60	48	16	19	9	20	37	M 8x30	5/16x1 1/4	
AFS 80/90 GM 038	L	345	3000	1/2"	R 3/8"	13	38,10	54	17,48	60	48	16	19	9	20	37	M 8x30		
AFS 80/90 GU 038	L	345	3000	1/2"	R 3/8"	13	38,10	54	17,48	60	48	16	19	9	20	37		5/16x1 1/4	
AFS 100/90 G	L	345	3000	3/4"	R 3/4"	19	47,63	65	22,23	63	52	18	19	11	24	38	M 10x35	3/8x1 1/2	
AFS 102/90 G	L	345	3000	1"	R 1"	25	52,37	70	26,19	70	60	19	20	11	28	43	M 10x35	3/8x1 1/2	
AFS 104/90 G	L	276	3000	1 1/4"	R 1 1/4"	32	58,72	79	30,18	85	73	21	22	11,5	34	51	M 10x40	7/16x1 1/2	
AFS 106/90 G	L	207	3000	1 1/2"	R 1 1/2"	38	69,85	93	35,71	95	83	25	25	13,5	38	56	M 12x45	1/2x1 3/4	
AFS 108/90 G	L	207	3000	2"	R 2"	51	77,77	110	42,88	110	94	25	28	13,5	42	65	M 12x45	5/8x2	
AFS 401/90 G 012	S	414	6000	1/2"	R 1/2"	13	40,49	54	18,24	60	46	16	19	9	20	37	M 8x30	5/16x1 1/4	
AFS 401/90 GM 012	S	414	6000	1/2"	R 1/2"	13	40,49	54	18,24	60	46	16	19	9	20	37	M 8x30		
AFS 401/90 GU 012	S	414	6000	1/2"	R 1/2"	13	40,49	54	18,24	60	46	16	19	9	20	37		5/16x1 1/4	
AFS 401/90 G 038	S	414	6000	1/2"	R 3/8"	13	40,49	54	18,24	60	46	16	19	9	20	37	M 8x30	5/16x1 1/4	
AFS 401/90 GM 038	S	414	6000	1/2"	R 3/8"	13	40,49	54	18,24	60	46	16	19	9	20	37	M 8x30		
AFS 401/90 GU 038	S	414	6000	1/2"	R 3/8"	13	40,49	54	18,24	60	46	16	19	9	20	37		5/16x1 1/4	
AFS 402/90 G	S	414	6000	3/4"	R 3/4"	19	50,80	70	23,80	70	56	19	20	11	28	43	M 10x35	3/8x1 1/2	
AFS 403/90 G	S	414	6000	1"	R 1"	25	57,15	79	27,76	85	72	21	22	13	34	51	M 12x45	7/16x1 3/4	
AFS 404/90 G	S	414	6000	1 1/4"	R 1 1/4"	32	66,68	93	31,75	95	75	25	25	15*	38	56	M 14x50	1/2x3/4	
AFS 405/90 G	S	414	6000	1 1/2"	R 1 1/2"	38	79,38	110	36,50	110	94	25	28	17	42	65	M 16x50	5/8x2	
AFS 406/90 G	S	414	6000	2"	R 2"	51	96,82	134	44,50	150	106	76,5	28	21	60	92	M 20x110	-	

\*) L = 13,5 UNC-Screws

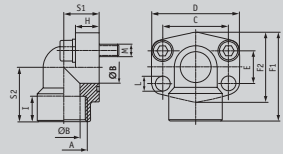
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFS-90N

## SAE-NPT Threaded Flanges 90°

Material: ST 52.3 (FE 510)  
or 1.4404 – 316L

Article category 6234



Designation	Series	PB	psi	Flange		A	B	C	D	E	F1	F2	H	I	L	S1	S2	(metr.)	(unc)
				size	size														
AFS 80/90 N	L	345	3000	1/2"	1/2" NPT	13	38,10	54	17,48	60	48	16	19	9	20	37	M 8x30	5/16x1 1/4	
AFS 80/90 N 038	L	345	3000	1/2"	3/8" NPT	13	38,10	54	17,48	60	48	16	19	9	20	37	M 8x30	5/16x1 1/4	
AFS 80/90 NM 038	L	345	3000	1/2"	3/8" NPT	13	38,10	54	17,48	60	48	16	19	9	20	37	M 8x30		
AFS 80/90 NU 038	L	345	3000	1/2"	3/8" NPT	13	38,10	54	17,48	60	48	16	19	9	20	37		5/16x1 1/4	
AFS 100/90 N	L	345	3000	3/4"	3/4" NPT	19	47,63	65	22,23	63	52	18	19	11	24	38	M 10x35	3/8x1 1/2	
AFS 102/90 N	L	345	3000	1"	1" NPT	25	52,37	70	26,19	70	60	19	20	11	28	43	M 10x35	5/16x1 1/4	
AFS 104/90 N	L	276	3000	1 1/4"	1 1/4" NPT	32	58,72	79	30,18	85	73	21	22	11,5	34	51	M 10x40	7/16x1 1/2	
AFS 106/90 N	L	207	3000	1 1/2"	1 1/2" NPT	38	69,85	93	35,71	95	83	25	25	13,5	38	56	M 12x45	1/2x1 3/4	
AFS 108/90 N	L	207	3000	2"	2" NPT	51	77,77	110	42,88	110	94	25	28	13,5	42	65	M 12x45	5/8x2	
AFS 401/90 N	S	414	6000	1/2"	1/2" NPT	13	40,49	54	18,24	60	46	16	19	9	20	37	M 8x30	5/16x1 1/4	
AFS 401/90 N 038	S	414	6000	1/2"	3/8" NPT	13	40,49	54	18,24	60	46	16	19	9	20	37	M 8x30	5/16x1 1/4	
AFS 401/90 NM 038	S	414	6000	1/2"	3/8" NPT	13	40,49	54	18,24	60	46	16	19	9	20	37	M 8x30		
AFS 401/90 NU 038	S	414	6000	1/2"	3/8" NPT	13	40,49	54	18,24	60	46	16	19	9	20	37		5/16x1 1/4	
AFS 402/90 N	S	414	6000	3/4"	3/4" NPT	19	50,80	70	23,80	70	55	19	20	11	28	43	M 10x35	3/8x1 1/2	
AFS 403/90 N	S	414	6000	1"	1" NPT	25	57,15	79	27,76	85	72	21	22	13	34	51	M 12x45	7/16x1 3/4	
AFS 404/90 N	S	414	6000	1 1/4"	1 1/4" NPT	32	66,68	93	31,75	95	75	25	25	15*	38	56	M 14x45	1/2x1 3/4	
AFS 405/90 N	S	414	6000	1 1/2"	1 1/2" NPT	38	79,38	110	36,50	110	94	25	28	17	42	65	M 16x50	5/8x2	

\*) L = 13,5 UNC-Screws

Construction Series: LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# WFG

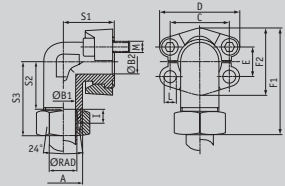
## SAE-Flange Adapters 90°

Metric acc. to DIN 3901/ 3902  
– forged

Material: ST 52.3 (FE 510) or  
1.4571 - 316T

Surface Treatment: Zinc plated,  
yellow chromated

Article category 6235



Designation	Series	PB	psi	Flange		A	B1	B2	C	D	E	F1	F2	I	L	S1	S2	S3	M
				size	size														
WFG 3001/L 15	L	315	3000	1/2"	M 22x1,5	12	11	38,10	54	17,48	66,8	45,6	7	8,5	39	29	44	M 8x30	
WFG 3001/S 16	L	350	3000	1/2"	M 24x1,5	12	11	38,10	54	17,48	70,8	45,6	8,5	8,5	39	29,5	48	M 8x30	
WFG 3002/L 18	L	315	3000	3/4"	M 26x1,5	15	19	47,63	64,9	22,23	73,9	51,8	7,5	10,5	42	31,5	48	M 10x35	
WFG 3002/L 22	L	160	3000	3/4"	M 30x2	19	19	47,63	64,9	22,23	75,9	51,8	7,5	10,5	42	33,5	50	M 10x35	
WFG 3002/S 20	L	350	3000	3/4"	M 30x2	16	19	47,63	64,9	22,23	79,9	51,8	10,5	10,5	42	32,5	54	M 10x35	
WFG 3002/S 25	L	350	3000	3/4"	M 36x2	17	19	47,63	64,9	22,23	82,9	51,8	12	10,5	42	33	57	M 10x35	
WFG 3003/L 28	L	160	3000	1"	M 36x2	24	25	52,37	69,9	26,19	82,2	58,4	7,5	10,5	45	36,5	53	M 10x35	
WFG 3003/S 25	L	350	3000	1"	M 36x2	20	25	52,37	69,9	26,19	91,2	58,4	12	10,5	45	38	62	M 10x35	
WFG 3003/S 30	L	350	3000	1"	M 42x2	24	25	52,37	69,9	26,19	92,2	58,4	13,5	10,5	45	36,5	63	M 10x35	
WFG 3004/L 35	L	160	3000	1 1/4"	M 45x2	30	27	58,72	79,4	30,18	104,3	72,6	10,5	-	50	46,5	68	*2	
WFG 3004/S 25	L	280	3000	1 1/4"	M 36x2	20	27	58,72	79,4	30,18	103,3	72,6	12	*1	50	43	67	*2	
WFG 3004/S 30	L	280	3000	1 1/4"	M 42x2	25	27	58,72	79,4	30,18	106,3	72,6	13,5	*1	50	43,5	70	*2	
WFG 3004/S 38	L	280	3000	1 1/4"	M 52x2	28	27	58,72	79,4	30,18	110,3	72,6	16	-	50	43	74	*2	
WFG 3005/L 42	L	160	3000	1 1/2"	M 52x2	36	36	69,85	93,8	35,71	118,2	82,4	11	13,5	76	56	77	M 12x40	
WFG 3005/S 38	L	210	3000	1 1/2"	M 52x2	32	36	69,85	93,8	35,71	128,2	82,4	16	13,5	76	56	87	M 12x40	

\*1) optional 10,5 or 12,5 — \*2) optional M 10x30 or M 12x40

**Please note:** The maximum working pressure is fixed by SAE J 518 C on flange side or by the used tube.

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**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# WFG

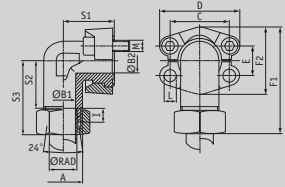
## SAE-Flange Adapters 90°

Metric acc. to DIN 3901/ 3902  
– forged

Material: ST 52.3 (FE 510) or  
1.4571 - 316T

Surface Treatment: Zinc plated,  
yellow chromated

Article category 6235



Designation	Series	PB	psi	Flange		A	B1	B2	C	D	E	F1	F2	I	L	S1	S2	S3	M
				size	size														

<--																			
WFG 6001/S 16	S	400	6000	1/2"	M 24x1,5	12	12	40,49	56,4	18,24	71,6	47,2	8,5	8,5	39	29,4	48		M 8x30
WFG 6002/S 16	S	400	6000	3/4"	M 24x1,5	12	17	50,80	71,3	23,80	85	60	8,5	10,5	48	36,5	55		M 10x35
WFG 6002/S 20	S	400	6000	3/4"	M 30x2	16	17	50,80	71,3	23,80	87	60	10,5	10,5	48	35,5	57		M 10x35
WFG 6002/S 25	S	400	6000	3/4"	M 36x2	17	17	50,80	71,3	23,80	90	60	12	10,5	48	36	60		M 10x35
WFG 6003/S 25	S	400	6000	1"	M 36x2	20	24	57,15	81	27,76	99,8	69	12	12,5	60	41	65		M 12x45
WFG 6003/S 30	S	400	6000	1"	M 42x2	24	24	57,15	81	27,76	102,85	69	13,5	12,5	60	41,5	68		M 12x45
WFG 6004/S 30	S	400	6000	1 1/4"	M 42x2	25	31	66,68	95,2	31,75	109,6	77,2	13,5	14,5	68	44,5	71		M 14x50
WFG 6004/S 38	S	350	6000	1 1/4"	M 52x2	28	31	66,68	95,2	31,75	114,6	77,2	16	14,5	68	45	76		M 14x50
WFG 6005/S 38	S	350	6000	1 1/2"	M 52x2	30	36	79,38	112,8	36,5	134,5	95	16	16,5	76	56	87		M 16x55

**Please note:** The maximum working pressure is fixed by SAE J 518 C on flange side or by the used tube.

**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# SFCE-90

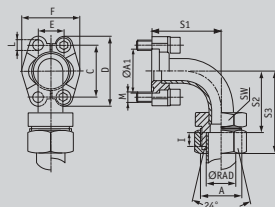
## SAE-Flange Adapters 90°

DIN 3901/3902 – brazed

Material: 9SMPb28K / ST 37

Surface Treatment: Zinc plated,  
yellow chromated

Article category 6237



Designation	Series	PB	psi	Flange		A	A1	C	D	E	F	I	S1	S2	S3	SW	L	M (metr.)	M (unc)
				size															
SFCE 3001-90 L 15	L	315	3000	1/2"		M 22x1,5	30,2	38,10	54	17,48	45,6	7	40	43	58	22	8,5	M 8x30	5/16 x1 1/4
SFCE 3001-90 S 16	L	350	3000	1/2"		M 24x1,5	30,2	38,10	54	17,48	45,6	7,5	40	42,5	60	24	8,5	M 8x30	5/16x1 1/4
SFCE 3002-90 L 22	L	160	3000	3/4"		M 30x2	38,1	47,63	65	22,23	51,8	7,5	59	63,5	80	30	10,5	M 10x35	3/8x1 1/2
SFCE 3003-90 L 28	L	160	3000	1"		M 36x2	44,4	52,37	70	26,19	58,4	7,5	68	75,5	80	36	10,5	M 10x35	3/8x1 1/2
SFCE 3003-90 S 25	L	350	3000	1"		M 36x2	44,4	52,37	70	26,19	58,4	12	68	71	95	36	10,5	M 10x35	3/8x1 1/2
SFCE 3003-90 S 30	L	350	3000	1"		M 42x2	44,4	52,37	70	26,19	58,4	13,5	68	69,5	96	46	10,5	M 10x35	3/8x1 1/2
SFCE 3004-90 L 35	L	160	3000	1 1/4"		M 45x2	50,8	58,72	79	30,18	72,6	10,5	86	94,5	116	46	*1	*2	7/16x1 1/2
SFCE 3005-90 L 42	L	160	3000	1 1/2"		M 52x2	60,3	69,85	94	35,71	82,6	11	98	104	127	55	13,5	M 12x35	1/2x1 1/2
SFCE 3005-90 S 38	L	210	3000	1 1/2"		M 52x2	60,3	69,85	94	35,71	82,6	16	98	99	130	55	13,5	M 12x35	1/2x1 1/2
SFCE 6001-90 S 16	S	400	6000	1/2"		M 24x1,5	31,8	40,49	56	18,24	47,2	8,5	40	41,5	60	24	8,5	M 8x30	5/16x1 1/4
SFCE 6002-90 S 25	S	400	6000	3/4"		M 36x2	41,3	50,80	71	23,80	60	12	62	59	83	36	10,5	M 10x35	3/8x1 1/2
SFCE 6002-90 S 30	S	400	6000	3/4"		M 42x2	41,3	50,80	71	23,80	60	13,5	62	57,5	84	46	10,5	M 10x35	3/8x1 1/2
SFCE 6003-90 S 25	S	400	6000	1"		M 36x2	47,6	57,15	81	27,76	69,6	12	74	73	97	36	*3	M 12x45	7/16x1 3/4
SFCE 6003-90 S 30	S	400	6000	1"		M 42x2	47,6	57,15	81	27,76	69,6	13,5	74	71,5	98	46	*3	M 12x45	7/16x1 3/4
SFCE 6004-90 S 38	S	315	6000	1 1/4"		M 52x2	54	66,68	95	31,75	77,2	16	96	91	122	55	*4	M 14x50	1/2x1 3/4
SFCE 6005-90 S 38	S	315	6000	1 1/2"		M 52x2	63,5	79,38	113	36,50	95	16	111	91	122	55	16,75	M 16x55	5/8x2

\*1) optional 10,5, 12,0 or 12,5 — \*2) optional M 10x30 or M 12x40

\*3) optional 12,0 or 12,5 — \*4) optional 13,5 or 14,5

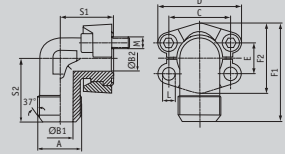
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# WFG-JIC

SAE-Flange Adapters 90° –  
JIC threaded, forged

Material: ST 52.3 (FE 510)  
or 1.4571 - 316T

Article category 6239



Designation	Series	PB	psi	Flange size	A	B1	B2	C	D	E	F1	F2	S1	S2	L	(metr.)	(unc)
WFG 3001 JIC 3/4	L	345	3000	1/2"	3/4-16 JIC	9,9	13	38,10	54	17,48	60,8	45,6	38	38	8,5	M 8x30	5/16x1 1/4
WFG 3001 JIC 7/8	L	345	3000	1/2"	7/8-14 JIC	12,3	13	38,10	54	17,48	60,8	45,6	38	38	8,5	M 8x30	5/16x1 1/4
WFG 3002 JIC 1 1/16	L	345	3000	3/4"	1 1/16-12 JIC	15,5	19	47,63	65	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFG 3002 JIC 1 1/16	L	345	3000	3/4"	1 1/16-12 JIC	15,5	19	47,63	65	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFG 3002 JIC 1 1/16	L	345	3000	3/4"	1 1/16-12 JIC	15,5	19	47,63	65	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFG 3002 JIC 1 5/16	L	345	3000	3/4"	1 5/16-12 JIC	21,5	19	47,63	65	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFG 3002 JIC 1 5/16	L	345	3000	3/4"	1 5/16-12 JIC	21,5	19	47,63	65	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFG 3002 JIC 1 5/16	L	345	3000	3/4"	1 5/16-12 JIC	21,5	19	47,63	65	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFG 3002 JIC 7/8	L	345	3000	3/4"	7/8-14 JIC	12,3	19	47,63	65	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFG 3003 JIC 1 1/16	L	345	3000	1"	1 1/16-12 JIC	15,5	24	52,37	70	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFG 3003 JIC 1 1/16	L	345	3000	1"	1 1/16-12 JIC	15,5	24	52,37	70	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFG 3003 JIC 1 1/16	L	345	3000	1"	1 1/16-12 JIC	15,5	24	52,37	70	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFG 3003 JIC 1 5/16	L	345	3000	1"	1 5/16-12 JIC	21,5	24	52,37	70	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFG 3003 JIC 1 5/16	L	345	3000	1"	1 5/16-12 JIC	21,5	24	52,37	70	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFG 3003 JIC 1 5/16	L	345	3000	1"	1 5/16-12 JIC	21,5	24	52,37	70	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFG 3003 JIC 1 5/8	L	345	3000	1"	1 5/8-12 JIC	27,5	24	52,37	70	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFG 3004 JIC 1 5/16	L	276	3000	1 1/4"	1 5/16-12 JIC	21,5	31	58,72	79	30,18	85,3	72,6	50	59	*1	*2	7/16x1 1/2
WFG 3004 JIC 1 5/16	L	276	3000	1 1/4"	1 5/16-12 JIC	21,5	31	58,72	79	30,18	85,3	72,6	50	59	*1	*2	7/16x1 1/2
WFG 3004 JIC 1 5/16	L	276	3000	1 1/4"	1 5/16-12 JIC	21,5	31	58,72	79	30,18	85,3	72,6	50	59	*1	*2	7/16x1 1/2
WFG 3004 JIC 1 5/8	L	276	3000	1 1/4"	1 5/8-12 JIC	27,5	31	58,72	79	30,18	85,3	72,6	50	59	*1	*2	7/16x1 1/2
WFG 3005 JIC 1 5/8	L	207	3000	1 1/2"	1 5/8-12 JIC	27,5	38	69,85	94	35,71	117,1	82,2	76	76	13,5	M 12x40	1/2x1 1/2
WFG 3005 JIC 1 7/8	L	207	3000	1 1/2"	1 7/8-12 JIC	33,0	38	69,85	94	35,71	117,1	82,2	76	76	13,5	M 12x40	1/2x1 1/2

\*1) optional 10,5, 12,0 or 12,5 — \*2) optional M 10x30 or M 12x40

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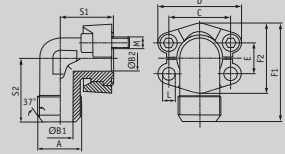
Construction Series: LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# WFG-JIC

SAE-Flange Adapters 90° –  
JIC threaded, forged

Material: ST 52.3 (FE 510)  
or 1.4571 - 316T

Article category 6239



Designation	Series	PB	psi	Flange size	A	B1	B2	C	D	E	F1	F2	S1	S2	L	(metr.)	(unc)
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WFG 6001 JIC 3/4	S	414	6000	1/2"	3/4-16 JIC	9,9	13	40,49	56	18,24	61,6	47,2	39	38	8,5	M 8x30	5/16x1 1/4
WFG 6001 JIC 7/8	S	414	6000	1/2"	7/8-14 JIC	12,3	13	40,49	56	18,24	61,6	47,2	39	38	8,5	M 8x35	5/16x1 1/4
WFG 6002 JIC 1 1/16	S	414	6000	3/4"	1 1/16-12 JIC	15,5	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFG 6002 JIC 1 1/16	S	414	6000	3/4"	1 1/16-12 JIC	15,5	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFG 6002 JIC 1 1/16	S	414	6000	3/4"	1 1/16-12 JIC	15,5	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFG 6002 JIC 1 5/16	S	414	6000	3/4"	1 5/16-12 JIC	21,5	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFG 6002 JIC 1 5/16	S	414	6000	3/4"	1 5/16-12 JIC	21,5	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFG 6002 JIC 1 5/16	S	414	6000	3/4"	1 5/16-12 JIC	21,5	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFG 6002 JIC 7/8	S	414	6000	3/4"	7/8-14 JIC	12,3	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFG 6003 JIC 1 1/16	S	414	6000	1"	1 1/16-12 JIC	15,5	24	57,15	81	27,76	99	69,9	60	60	*1	M 12x45	7/16x1 3/4
WFG 6003 JIC 1 1/16	S	414	6000	1"	1 1/16-12 JIC	15,5	24	57,15	81	27,76	99	69,9	60	60	*1	M 12x45	7/16x1 3/4
WFG 6003 JIC 1 1/16	S	414	6000	1"	1 1/16-12 JIC	15,5	24	57,15	81	27,76	99	69,9	60	60	*1	M 12x45	7/16x1 3/4
WFG 6003 JIC 1 5/16	S	414	6000	1"	1 5/16-12 JIC	21,5	24	57,15	81	27,76	99	69,9	60	60	*1	M 12x45	7/16x1 3/4
WFG 6003 JIC 1 5/16	S	414	6000	1"	1 5/16-12 JIC	21,5	24	57,15	81	27,76	99	69,9	60	60	*1	M 12x45	7/16x1 3/4
WFG 6003 JIC 1 5/16	S	414	6000	1"	1 5/16-12 JIC	21,5	24	57,15	81	27,76	99	69,9	60	60	*1	M 12x45	7/16x1 3/4
WFG 6003 JIC 1 5/8	S	414	6000	1"	1 5/8-12 JIC	27,5	24	57,15	81	27,76	99	69,9	60	60	*1	M 12x45	7/16x1 3/4
WFG 6004 JIC 1 5/16	S	414	6000	1 1/4	1 5/16-12 JIC	21,5	30	66,68	95	31,75	115,5	77,2	68	68	*2	M 14x50	1/2x1 3/4
WFG 6004 JIC 1 5/16	S	414	6000	1 1/4	1 5/16-12 JIC	21,5	30	66,68	95	31,75	115,5	77,2	68	68	*2	M 14x50	1/2x1 3/4
WFG 6004 JIC 1 5/16	S	414	6000	1 1/4	1 5/16-12 JIC	21,5	30	66,68	95	31,75	115,5	77,2	68	68	*2	M 14x50	1/2x1 3/4
WFG 6004 JIC 1 5/8	S	414	6000	1 1/4	1 5/8-12 JIC	27,5	30	66,68	95	31,75	115,5	77,2	68	68	*2	M 14x50	1/2x1 3/4
WFG 6004 JIC 1 7/8	S	414	6000	1 1/4	1 7/8-12 JIC	33,0	30	66,68	95	31,75	115,5	77,2	68	68	*2	M 14x50	1/2x1 3/4
WFG 6005 JIC 1 5/8	S	414	6000	1 1/2	1 5/8-12 JIC	27,5	32	79,38	113	36,50	133	95	76	76	16,5	M 16x55	5/8x2
WFG 6005 JIC 1 7/8	S	414	6000	1 1/2	1 7/8-12 JIC	33,0	32	79,38	113	36,50	133	95	76	76	16,5	M 16x55	5/8x2

\*1) optional 10,5, 12,0 or 12,5 — \*2) optional M 10x30 or M 12x40

Construction Series: LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure



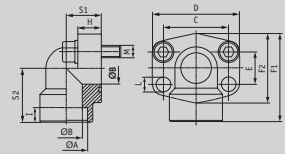
# AFS-90S

## SAE-Socket Weld Flanges 90°

For Metric Pipes

Material: ST 52.3 (FE 510)  
or 1.4404 - 316L

Article category 6240



Designation	Series	PB	psi	Flange		A	B	C	D	E	F1	F2	H	I	L	S1	S2	(metr.)	(unc)
				size	size														
AFS 80/90 S 038	L	345	3000	1/2"	17,5	13	38,10	54	17,48	60	48	16	10	9	20	37	M 8x30	5/16x1 1/4	
AFS 80/90 SM 038	L	345	3000	1/2"	17,5	13	38,10	54	17,48	60	48	16	10	9	20	37	M 8x30		
AFS 80/90 SU 038	L	345	3000	1/2"	17,5	13	38,10	54	17,48	60	48	16	10	9	20	37		5/16x1 1/4	
AFS 100/90 S	L	345	3000	3/4"	27,2	19	47,63	65	22,23	63	50	18	10	11	24	38	M 10x35	3/8x1 1/2	
AFS 102/90 S	L	345	3000	1"	34	25	52,37	70	26,19	70	60	19	12	11	28	43	M 10x35	3/8x1 1/2	
AFS 104/90 S	L	276	3000	1 1/4"	42,8	32	58,72	79	30,18	85	68	21	14	11,5	34	51	M 10x40	7/16x1 1/2	
AFS 106/90 S	L	207	3000	1 1/2"	48,6	38	69,85	93	35,71	95	78	25	16	13,5	38	56	M 12x45	1/2x1 3/4	
AFS 108/90 S	L	207	3000	2"	61	51	77,77	110	42,88	110	90	25	18	13,5	42	65	M 12x45	5/8x2	
AFS 401/90 S	S	414	6000	1/2"	21,6	13	40,49	54	18,24	60	48	16	10	9	20	37	M 8x30	5/16x1 1/4	
AFS 401/90 S 038	S	414	6000	1/2"	17,5	13	40,49	54	18,24	60	48	16	10	9	20	37	M 8x30	5/16x1 1/4	
AFS 401/90 SM 038	S	414	6000	1/2"	17,5	13	40,49	54	18,24	60	48	16	10	9	20	37	M 8x30		
AFS 401/90 SU 038	S	414	6000	1/2"	17,5	13	40,49	54	18,24	60	48	16	10	9	20	37		5/16x1 1/4	
AFS 402/90 S	S	414	6000	3/4"	27,2	19	50,80	70	23,80	70	60	19	12	11	28	43	M 10x35	3/8x1 1/2	
AFS 403/90 S	S	414	6000	1"	34	25	57,15	79	27,76	85	70	21	14	13	34	51	M 12x45	7/16x1 3/4	
AFS 404/90 S	S	414	6000	1 1/4"	42,8	32	66,68	93	31,75	95	78	25	16	15*	38	56	M 14x50	1/2x1 3/4	
AFS 405/90 S	S	414	6000	1 1/2"	48,6	38	79,38	110	36,50	110	94	25	18	17,5	42	65	M 16x50	5/8x2	
AFS 406/90 S	S	414	6000	2"	61	51	96,82	134	44,50	150	106	25	18	21	60	92	M 20x110		
AFS 80/90 S	L	345	3000	1/2"	21,6	13	38,10	54	17,48	60	48	16	10	9	20	37	M 8x30	5/16x1 1/4	

\*) L = 13,5 UNC-Screws

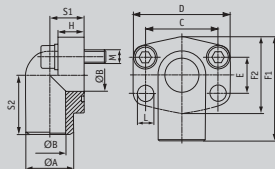
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFS-90ST

SAE-Weld On Flanges 90°

Material: ST 52.3 (FE 510)

Article category 6241



Designation	Series	PB	psi	Flange		A	B	C	D	E	F1	F2	H	L	S1	S2	M
				size													
AFS 200/90 ST	L	345	3000	3/4"	27,0	19	47,63	70	22,23	63	50	21	11	23	41	M 10x40	
AFS 202/90 ST	L	345	3000	1"	34,5	23	52,37	75	26,19	72	60	24	11	25	48	M 10x45	
AFS 204/90 ST	L	276	3000	1 1/4"	43,0	31	58,72	86	30,18	82	68	25	11,5	27	54	M 10x45	
AFS 206/90 ST	L	207	3000	1 1/2"	50,0	35	69,85	97	35,71	92	78	29	14	31,5	57	M 12x50	
AFS 208/90 ST	L	207	3000	2"	65,0	48	77,77	100	42,88	99	90	50	14	37,5	63	M 12x70	
AFS 700/90 ST	S	414	6000	3/4"	28	19	50,80	71	23,80	70	60	19	11	22	40	M 10x35	
AFS 702/90 ST	S	414	6000	1"	34	25	57,15	81	27,76	82	70	24	13	27	47	M 10x45	
AFS 704/90 ST	S	414	6000	1 1/4"	42	32	66,68	95	31,75	95	78	27	15	32	56	M 14x50	
AFS 706/90 ST	S	414	6000	1 1/2"	48	38	79,38	113	36,50	115	94	30	17	40	68	M 16x50	
AFS 708/90 ST	S	414	6000	2"	65	47	96,82	113	44,50	150	106	76,5	21	60	92	M 20x110	

Construction Series: LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

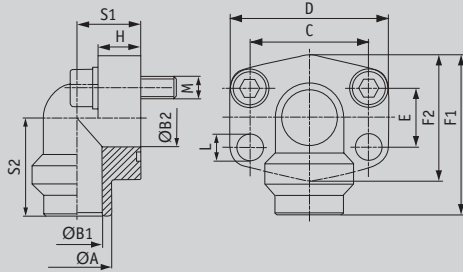
# AFS-90SRE

SAE-Weld On Flanges 90°

For Metric Pipes

Material: ST 52.3 (FE 510)  
or 1.4404 - 316L

Article category 6242



Designation	Series	PB	psi	Flange size	Rohr	A	B1	B2	C	D	E	F1	F2	H	S1	S2	L	M
AFS 80/90 SRE 20	L	250	3000	1/2"	20x3	20	14	13	38,10	54	17,48	60	48	16	20	37	9	M 8x30
AFS 80/90 SRE 22	L	160	3000	1/2"	22x2	22	18	13	38,10	54	17,48	60	48	16	20	37	9	M 8x30
AFS 80/90 SRE 25	L	250	3000	1/2"	25x3	25	19	13	38,10	54	17,48	60	48	16	20	37	9	M 8x30
AFS 80/90 SRE 28	L	160	3000	1/2"	28x3	28	22	13	38,10	54	17,48	60	48	16	20	37	9	M 8x30
AFS 100/90 SRE 25	L	250	3000	3/4"	25x3	25	19	19	47,63	65	22,23	63	50	18	24	38	11	M 10x35
AFS 100/90 SRE 28	L	160	3000	3/4"	28x3	28	22	19	47,63	65	22,23	63	50	18	24	38	11	M 10x35
AFS 100/90 SRE 30	L	250	3000	3/4"	30x4	30	22	19	47,63	65	22,23	63	50	18	24	38	11	M 10x35
AFS 100/90 SRE 35	L	160	3000	3/4"	35x4	35	27	19	47,63	65	22,23	63	50	18	24	38	11	M 10x35
AFS 102/90 SRE 30	L	250	3000	1"	30x4	30	22	25	52,37	70	26,19	70	60	19	28	43	11	M 10x35
AFS 102/90 SRE 35	L	160	3000	1"	35x4	35	27	25	52,37	70	26,19	70	60	19	28	43	11	M 10x35
AFS 102/90 SRE 38	L	250	3000	1"	38x4	38	30	25	52,37	70	26,19	70	60	19	28	43	11	M 10x35
AFS 102/90 SRE 42	L	160	3000	1"	42x3	42	36	25	52,37	70	26,19	70	60	19	28	43	11	M 10x35
AFS 104/90 SRE 38	L	250	3000	1 1/4	38x4	38	30	32	58,72	79	30,18	85	68	21	34	51	11,5	M 10x40
AFS 104/90 SRE 42	L	160	3000	1 1/4	42x3	42	36	32	58,72	79	30,18	85	68	21	34	51	11,5	M 10x40
AFS 104/90 SRE 48	L	160	3000	1 1/4	48,3x4,5	49	39	32	58,72	79	30,18	85	68	21	34	51	11,5	M 10x40
AFS 106/90 SRE 38	L	210	3000	1 1/2	38x4	38	38	38	69,85	93	35,71	95	78	25	38	55	13,5	M 12x45
AFS 106/90 SRE 42	L	160	3000	1 1/2	42x3	42	36	38	69,85	93	35,71	95	78	25	38	55	13,5	M 12x45
AFS 106/90 SRE 48	L	160	3000	1 1/2	48,3x4,5	49	39	38	69,85	93	35,71	95	78	25	38	55	13,5	M 12x45
AFS 108/90 SRE 60	L	160	3000	2"	60,3x5,6	61	51	45	77,77	110	42,88	110	90	25	42	65	13,5	M 12x45
AFS 108/90 SRE 76	L	160	3000	2"	76,1x7,1	77	51	45	77,77	110	42,88	110	90	25	42	65	13,5	M 12x45

**Please note:** The maximum working pressure is fixed by SAE J 518 C on flange side or by the used tube.

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**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

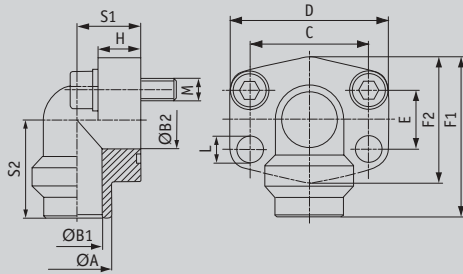
# AFS-90SRE

SAE-Weld On Flanges 90°

For Metric Pipes

Material: ST 52.3 (FE 510)  
or 1.4404 - 316L

Article category 6242



Designation	Series	PB	psi	Flange size	Rohr	A	B1	B2	C	D	E	F1	F2	H	S1	S2	L	M
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AFS 401/90 SRE 20	S	315	6000	1/2"	20x3	20	14	13	40,49	56,4	18,24	60	48	16	20	37	9	M 8x30
AFS 401/90 SRE 25	S	315	6000	1/2"	25x4	25	17	13	40,49	56,4	18,24	60	48	16	20	37	9	M 8x30
AFS 402/90 SRE 25	S	315	6000	3/4"	25x4	25	17	19	50,80	71,3	23,80	70	60	19	28	43	11	M 10x35
AFS 402/90 SRE 30	S	315	6000	3/4"	30x4	30	22	19	50,80	71,3	23,80	70	60	19	28	43	11	M 10x35
AFS 403/90 SRE 30	S	315	6000	1"	30x4	30	22	25	57,15	81	27,76	85	70	21	34	51	13	M 12x45
AFS 403/90 SRE 38	S	315	6000	1"	38x5	38	28	25	57,15	81	27,76	85	70	21	34	51	13	M 12x45
AFS 404/90 SRE 38	S	315	6000	1"1/4	38x5	38	28	32	66,68	95,2	31,75	95	78	25	38	56	14,5*	M 14x45
AFS 404/90 SRE 48	S	315	6000	1"1/4	48,3x8	49	32	32	66,68	95,2	31,75	95	78	25	38	56	14,5*	M 14x45
AFS 405/90 SRE 38	S	315	6000	1"1/2	38x5	38	28	38	79,38	112,8	36,50	110	94	25	42	65	17,5	M 16x50
AFS 405/90 SRE 48	S	315	6000	1"1/2	48,3x8	49	32	38	79,38	112,8	36,50	110	94	25	42	65	17,5	M 16x50
AFS 405/90 SRE 60	S	315	6000	1"1/2	60,3x10	61	40	38	79,38	112,8	36,50	110	94	25	42	65	17,5	M 16x50
AFS 406/90 SRE 60	S	315	6000	2"	60,3x10	61	40	51	96,82	134	44,50	150	106	76,5	60	92	21	M 20x110
AFS 406/90 SRE 76	S	315	6000	2"	76,1x12,5	74	50	51	96,82	134	44,50	150	106	76,5	60	92	21	M 20x110

\*) L = 13,5 UNC-Screws

**Please note:** The maximum working pressure is fixed by SAE J 518 C on flange side or by the used tube.

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

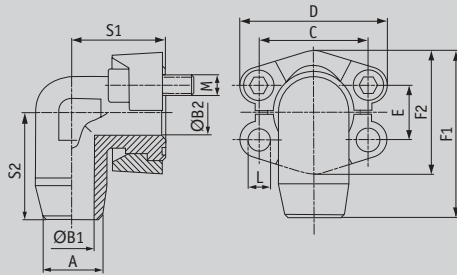
# WFS

## SAE-Weld On Flanges Adapters 90°

For Metric Pipes

Material: ST 52.3 (FE 510) or  
1.4571 - 316L

Article category 6244



Designation	Series PB	psi	Flange size												L (metr.)	(unc)	
				A	B1	B2	C	D	E	F1	F2	S1	S2				
WFS 3001-15	L	250	3000	1/2"	15	11	11	38,10	54	17,48	60,8	45,6	39	38	8,5	M 8x30	5/16x1 1/4
WFS 3001-16	L	345	3000	1/2"	16	10	10	38,10	54	17,48	60,8	45,6	39	38	8,5	M 8x30	5/16x1 1/4
WFS 3002-18	L	160	3000	3/4"	18	15	19	47,63	64,9	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFS 3002-20	L	345	3000	3/4"	20	14	17	47,63	64,9	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFS 3002-22	L	160	3000	3/4"	22	18	19	47,63	64,9	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFS 3002-25	L	250	3000	3/4"	25	17	17	47,63	64,9	22,23	70,9	51,8	42	45	10,5	M 10x35	3/8x1 1/2
WFS 3003-25	L	250	3000	1"	25	19	21	52,37	69,9	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFS 3003-28	L	100	3000	1"	28	24	25	52,37	69,9	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFS 3003-30	L	210	3000	1"	30	21	21	52,37	69,9	26,19	79,2	58,4	45	50	10,5	M 10x35	3/8x1 1/2
WFS 3004-25	L	210	3000	1 1/4"	25	19	27	58,72	79,4	30,18	85,3	72,6	50	59	*1	*2	7/16x1 1/2
WFS 3004-30	L	210	3000	1 1/4"	30	22	27	58,72	79,4	30,18	85,3	72,6	50	59	*1	*2	7/16x1 1/2
WFS 3004-35	L	100	3000	1 1/4"	35	31	32	58,72	79,4	30,18	85,3	72,6	50	59	*1	*2	7/16x1 1/2
WFS 3004-38	L	210	3000	1 1/4"	38	28	27	58,72	79,4	30,18	85,3	72,6	50	59	*1	*2	7/16x1 1/2
WFS 3005-38	L	210	3000	1 1/2"	38	30	32	69,85	93,8	35,71	117,1	82,2	76	76	13,5	M 12x40	1/2x1 1/2
WFS 3005-42	L	160	3000	1 1/2"	42	36	36	69,85	93,8	35,71	117,1	82,2	76	76	13,5	M 12x40	1/2x1 1/2

\*1) optional 10,5, 12,0 or 12,5 — \*2) optional M 10x30 or M 12x40

**Please note:** The maximum working pressure is fixed by SAE J 518 C on flange side or by the used tube.

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**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

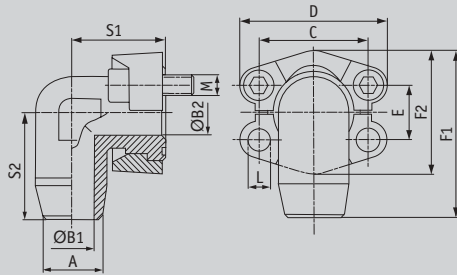
# WFS

## SAE-Weld On Flanges Adapters 90°

For Metric Pipes

Material: ST 52.3 (FE 510) or  
1.4571 - 316L

Article category 6244



Designation	Series PB	psi	Flange size	Dimensions											L (metr.)	(unc)
				A	B1	B2	C	D	E	F1	F2	S1	S2			

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WFS 6001-16	S	400	6000	1/2"	16	10	10	40,49	56	18,24	61,6	47,2	39	38	8,5	M 8x35	5/16x1 1/4
WFS 6002-16	S	400	6000	3/4"	16	10	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFS 6002-20	S	400	6000	3/4"	20	12	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFS 6002-25	S	400	6000	3/4"	25	15	17	50,80	71	23,80	78	60	48	48	10,5	M 10x35	3/8x1 1/2
WFS 6003-25	S	400	6000	1"	25	15	20	57,15	81	27,76	94	69,6	60	60	*1	M 12x45	7/16x1 3/4
WFS 6003-30	S	315	6000	1"	30	22	25	57,15	81	27,76	94	69,6	60	60	*1	M 12x45	7/16x1 3/4
WFS 6003-30-400	S	400	6000	1"	30	18	20	57,15	81	27,76	94	69,6	60	60	*1	M 12x45	7/16x1 3/4
WFS 6004-30	S	315	6000	1 1/4"	30	22	27	66,68	95	31,75	106,6	77,2	68	68	*2	M 14x50	1/2x1 3/4
WFS 6004-30-400	S	400	6000	1 1/4"	30	18	24	66,68	95	31,75	106,6	77,2	68	68	*2	M 14x50	1/2x1 3/4
WFS 6004-38	S	315	6000	1 1/4"	38	28	30	66,68	95	31,75	106,6	77,2	68	68	*2	M 14x50	1/2x1 3/4
WFS 6004-38-400	S	400	6000	1 1/4"	38	22	24	66,68	95	31,75	106,6	77,2	68	68	*2	M 14x50	1/2x1 3/4
WFS 6005-38	S	315	6000	1 1/2"	38	28	32	79,38	113	36,50	123,5	95	76	76	16,5	M 16x55	5/8x2
WFS 6005-38-400	S	400	6000	1 1/2"	38	22	26	79,38	113	36,50	123,5	95	76	76	16,5	M 16x55	5/8x2

\*1) optional 12,0 or 12,5 — \*2) optional 13,5 or 14,5

**Please note:** The maximum working pressure is fixed by SAE J 518 C on flange side or by the used tube.

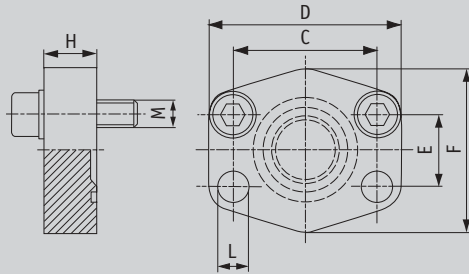
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AFC

## SAE-Closed Flanges

Material: ST 52.3 (FE 510)  
or 1.4404 - 316L

Article category 6246



Designation	Series	PB	psi	Flange size	C	D	E	F	H	L	M (metr.)	M (unc)
AFC 80	L	345	3000	1/2"	38,10	56	17,48	48	16	9	M 8x30	5/16x1 1/4
AFC 100	L	345	3000	3/4"	47,63	65	22,23	50	16	11	M 10x35	3/8x1 1/2
AFC 102	L	345	3000	1"	52,37	70	26,19	60	19	11	M 10x35	3/8x1 1/2
AFC 104	L	276	3000	1"1/4	58,72	79	30,18	68	18	11,5	M 10x40	7/16x1 1/2
AFC 106	L	207	3000	1"1/2	69,85	93	35,71	78	20	13,5	M 12x45	7/16x1 1/2
AFC 108	L	207	3000	2"	77,77	102	42,88	90	20	13,5	M 12x45	7/16x1 1/2
AFC 110	L	172	3000	2"1/2	88,90	114	50,80	105	20	13,5	M 12x45	7/16x1 1/2
AFC 112	L	138	3000	3"	106,38	134	61,93	124	24	17,5	M 16x50	5/8x2
AFC 114	L	34	3000	3"1/2	120,65	152	69,85	136	22	17,5	M 16x50	5/8x2
AFC 116	L	34	3000	4"	130,18	162	77,77	146	25	17,5	M 16x50	5/8x2
AFC 118	L	34	3000	5"	152,40	190	92,08	170	28	17,5	M 16x50	5/8x2
AFC 401	S	414	6000	1/2"	40,49	56	18,24	48	16	9	M 8x30	5/16x1 1/4
AFC 402	S	414	6000	3/4"	50,80	71	23,80	60	19	11	M 10x35	3/8x1 1/2
AFC 403	S	414	6000	1"	57,15	81	27,76	70	24	13	M 12x45	7/16x1 1/2
AFC 404	S	414	6000	1"1/4	66,68	95	31,75	78	27	15*	M 14x45	1/2x1 3/4
AFC 405	S	414	6000	1"1/2	79,38	112	36,50	94	30	17	M 16x50	5/8x2
AFC 406	S	414	6000	2"	96,82	134	44,45	114	28	21	M 20x65	3/4x2 1/2

\*) L = 13,5 UNC-Screws

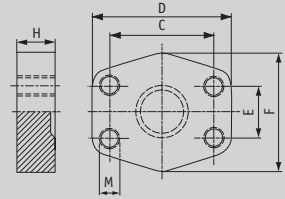
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GFC

## SAE-Closed Flange Companion

Material: ST 52.3 (FE 510)  
or 1.4404 - 316L

Article category 6247



Designation	Series	PB	psi	Flange size	C	D	E	F	H	M
GFC 80	L	345	3000	1/2"	38,10	56	17,48	48	16	M 8
GFC 100	L	345	3000	3/4"	47,63	65	22,23	50	16	M 10
GFC 102	L	345	3000	1"	52,37	70	26,19	60	19	M 10
GFC 104	L	276	3000	1 1/4"	58,72	79	30,18	68	18	M 10
GFC 106	L	207	3000	1 1/2"	69,85	93	35,71	78	20	M 12
GFC 108	L	207	3000	2"	77,77	102	42,88	90	20	M 12
GFC 110	L	172	3000	2 1/2"	88,90	114	50,80	105	20	M 12
GFC 112	L	138	3000	3"	106,38	134	61,93	124	24	M 16
GFC 114	L	34	3000	3 1/2"	120,65	152	69,85	136	22	M 16
GFC 116	L	34	3000	4"	130,18	162	77,77	146	25	M 16
GFC 118	L	34	3000	5"	152,40	190	92,08	170	28	M 16
GFC 401	S	414	6000	1/2"	40,49	56	18,24	48	16	M 8
GFC 402	S	414	6000	3/4"	50,80	71	23,80	60	19	M 10
GFC 403	S	414	6000	1"	57,15	81	27,76	70	24	M 12
GFC 404	S	414	6000	1 1/4"	66,68	95	31,75	78	27	M 14
GFC 405	S	414	6000	1 1/2"	79,38	112	36,50	94	30	M 16
GFC 406	S	414	6000	2"	96,82	134	44,45	114	28	M 20

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure



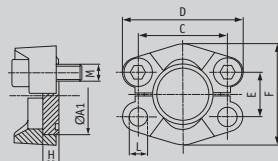
# BL

## SAE-Flange Plugs

Material: 9SMnPb28K / C15

Treatment: Zinc Plated Yellow  
Chromated

Article category 6248



Designation	Series	PB	psi	Flange		A1	A2	C	D	E	F	G	H	I	M (metr.)	M (unc)
				size	size											
BL 3001	L	210	3000	1/2"	30,2	23,9	38,10	54	17,48	45,6	16	6,9	8,5	M 8x30	5/16x1 1/4	
BL 3002	L	210	3000	3/4"	38,1	31,7	47,63	65	22,23	51,8	17	6,9	10,5	M 10x30	3/8x1 1/4	
BL 3003	L	210	3000	1"	44,4	38,1	52,37	70	26,19	58,4	17	8,1	10,5	M 10x35	3/8x1 1/4	
BL 3004	L	210	3000	1 1/4"	50,8	42,3	58,72	79	30,18	72,6	17	8,1	*1	*2	7/16x1 1/2	
BL 3005	L	160	3000	1 1/2"	60,3	50,3	69,85	94	35,71	82,2	19	8,1	13,5	M 12x35	1/2x1 1/2	
BL 3006	L	160	3000	2"	71,4	62,2	77,77	102	42,88	96,4	19	9,7	13,5	M 12x35	1/2x1 1/2	
BL 6001	S	250	6000	1/2"	31,7	23,9	40,39	56	18,24	47,2	18	7,9	8,5	M 8x30	5/16x1 1/4	
BL 6002	S	250	6000	3/4"	41,3	31,7	50,80	71	23,80	60	15	8,9	10,5	M 10x35	3/8x1 1/2	
BL 6003	S	250	6000	1"	47,6	38,1	57,15	81	27,76	69,6	16	9,7	*3	M 12x45	7/16x1 3/4	
BL 6004	S	250	6000	1 1/4"	54	43,7	66,68	95	31,75	77,2	16	10,4	*4	M 14x50	1/2x1 3/4	
BL 6005	S	250	6000	1 1/2"	63,5	50,8	79,38	113	36,50	95	19	12,7	16,75	M 16x55	5/8x2	
BL 6006	S	250	6000	2"	79,4	66,5	96,82	133	44,45	113,8	30	12,7	21	M 20x65	3/4x2 1/2	

\*1) optional 10,5, 12,0 or 12,5 — \*2) optional M 10x30 or M 12x40

\*3) optional 12,0 or 12,5 — \*4) optional 13,5 or 14,5

**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

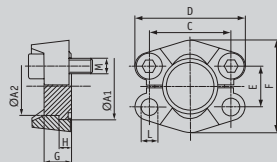
# BS

## SAE-Flange Plugs

Material: 9SMnPb28K / C15

Treatment: Zinc Plated Yellow  
Chromated

Article category 6248



Designation	Series	PB	psi	Flange		A1	A2	C	D	E	F	G	H	I	M(metr.)	M(unc)
				size												
BS 6001	S	420	6000	1/2"	31,7	23,9	40,39	56	18,24	47,2	18	7,9	8,5		M 8x30	5/16x1 1/4
BS 6002	S	420	6000	3/4"	41,3	31,7	50,80	71	23,80	60	15	8,9	10,5		M 10x35	3/8x1 1/2
BS 6003	S	420	6000	1"	47,6	38,1	57,15	81	27,76	69,6	16	9,7	*1		M 12x45	7/16x1 3/4
BS 6004	S	420	6000	1"1/4	54	43,7	66,68	95	31,75	77,2	16	10,4	*2		M 14x50	1/2x1 3/4
BS 6005	S	420	6000	1"1/2	63,5	50,8	79,38	113	36,50	95	19	12,7	16,75		M 16x55	5/8x2
BS 6006	S	420	6000	2"	79,4	66,5	96,82	133	44,45	113,8	30	12,7	21		M 20x65	3/4x2 1/2

\*1) optional 12,0 or 12,5 — \*2) optional 13,5 or 14,5

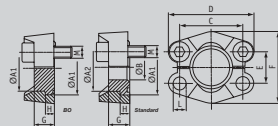
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# FT

## SAE Flange Head

Material: 9SMnPb28K

Article category 6249



Designation	Series	PB	psi	Flange		A1	A2	B	C	D	E	F	G	H	L	(metr.)	(unc)
				size	size												
FT 3001	L	345	3000	1/2"	30,2	23,9	0/10	38,10	54	17,48	45,6	16	6,9	8,5	M 8x30	5/8x1 1/4	
FT 3002	L	345	3000	3/4"	38,1	31,7	0/15	47,63	65	22,23	51,8	17	6,9	10,5	M 10x30	3/8x1 1/4	
FT 3003	L	345	3000	1"	44,4	38,1	0/20	52,37	70	26,19	58,4	17	8,1	10,5	M 10x35	3/8x1 1/2	
FT 3004	L	276	3000	1"1/4	50,8	43,2	0/27	58,72	79	30,18	72,6	17	8,1	*1	*2	7/16x1 1/2	
FT 3005	L	207	3000	1"1/2	60,3	50,3	0/32	69,85	94	35,71	82,2	19	8,1	13,5	M 12x35	1/2x1 1/2	
FT 3006	L	207	3000	2"	71,4	62,2	0/40	77,77	102	42,88	96,4	19	9,7	13,5	M 12x35	1/2x1 1/2	
FT 3007	L	172	3000	2"1/2	84,1	74	0/50	88,90	114	50,80	108,2	30	9,7	13,5	M 12x40	1/2x3/4	
FT 6001	S	414	6000	1/2"	31,7	23,9	0/10	40,49	56	18,24	47,2	16	7,9	8,5	M 8x30	5/8x1 1/4	
FT 6002	S	414	6000	3/4"	41,3	31,7	0/15	50,80	71	23,80	60	20	8,9	10,5	M 10x35	3/8x1 1/2	
FT 6003	S	414	6000	1"	47,6	38,1	0/20	57,15	81	27,76	69,6	22	9,7	*3	M 12x45	7/16x1 3/4	
FT 6004	S	414	6000	1"1/4	54	43,7	0/27	66,68	95	31,75	77,2	27	10,4	*4	M 14x50	1/2x1 3/4	
FT 6005	S	414	6000	1"1/2	63,5	50,8	0/32	79,38	113	36,50	95	32	12,7	16,75	M 16x55	5/8x2	
FT 6006	S	414	6000	2"	79,4	66,5	0/40	96,82	133	44,45	113,8	40	12,7	21	M 20x65	3/4x2 1/2	

\*1) optional 10,5, 12,0 or 12,5 — \*2) optional M 10x30 or M 12x40  
 \*3) optional 12,0 or 12,5 — \*4) optional 13,5 or 14,5

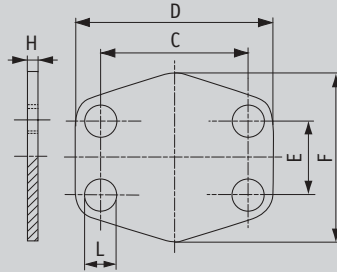
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AP

## SAE-Locking Sheets

Material: ST 35

Article category 6250



Designation	Series	psi	Flange size	C	D	E	F	H	L
AP 80	L	3000	1/2"	38,10	54	17,48	45,6	3	9
AP 100	L	3000	3/4"	47,63	65	22,23	51,8	3	11
AP 102	L	3000	1"	52,37	70	26,19	58,4	3	11
AP 104	L	3000	1"1/4	58,72	79	30,18	72,6	3	11
AP 106	L	3000	1"1/2	69,85	94	35,71	82,2	3	13
AP 108	L	3000	2"	77,77	102	42,88	90,0	3	13
AP 110	L	3000	2"1/2	88,90	114	50,80	108,12	3	13
AP 112	L	3000	3"	106,38	135	61,93	130,6	4	17
AP 114	L	3000	3"1/2	120,65	152	69,85	139	4	17
AP 116	L	3000	4"	130,18	162	77,77	152	4	17
AP 118	L	3000	5"	152,40	184	92,08	180	4	17
AP 401	S	6000	1/2"	40,49	56	18,24	47,2	4	9
AP 402	S	6000	3/4"	50,80	71	23,80	60	4	11
AP 403	S	6000	1"	57,15	81	27,76	69,6	4	13
AP 404	S	6000	1"1/4	66,68	95	31,75	77,2	4	15
AP 405	S	6000	1"1/2	79,38	113	36,50	95	4	17
AP 406	S	6000	2"	96,82	133	44,45	113,8	4	21

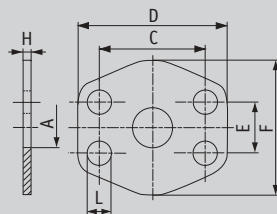
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# ZP

## SAE-Adapters Sheets

Material: ST 35

Article category 6251



Designation	Series	psi	Flange size	A	C	D	E	F	H	L
ZP 80	L	3000	1/2"	13	38,10	54	17,48	45,6	3	9
ZP 100	L	3000	3/4"	19	47,63	65	22,23	51,8	3	11
ZP 102	L	3000	1"	25	52,37	70	26,19	58,4	3	11
ZP 104	L	3000	1"1/4	32	58,72	79	30,18	72,6	3	11
ZP 106	L	3000	1"1/2	38	69,85	94	35,71	82,2	3	13
ZP 108	L	3000	2"	51	77,77	102	42,88	90,0	3	13
ZP 110	L	3000	2"1/2	63	88,90	114	50,80	108,0	3	13
ZP 112	L	3000	3"	73	106,38	135	61,93	130,6	4	17
ZP 114	L	3000	3"1/2	89	120,65	152	69,85	139	4	17
ZP 116	L	3000	4"	99	130,18	162	77,77	152	4	17
ZP 118	L	3000	5"	120	152,40	184	92,08	180	4	17
ZP 401	S	6000	1/2"	13	40,49	56	18,24	47,2	4	9
ZP 402	S	6000	3/4"	17	50,80	71	23,80	60	4	11
ZP 403	S	6000	1"	24	57,15	81	27,76	69,6	4	13
ZP 404	S	6000	1"1/4	31	66,68	95	31,75	77,2	4	15
ZP 405	S	6000	1"1/2	38	79,38	113	36,50	95	4	17
ZP 406	S	6000	2"	51	96,82	133	44,45	113,8	4	21

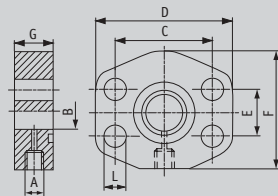
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# AGL

## SAE-Adaptor Flanges with Test-Point

Material: ST 52.3 or 1.4404 - 316L

Article category 6252



Designation	Series	PB	psi	Flange		A	B	C	D	E	F	G	L
				size									
AGL 80	L	345	3000	1/2"	G 1/4"	12	38,10	55	17,48	38	24	9	
AGL 100	L	345	3000	3/4"	G 1/4"	19	47,63	65	22,23	50	24	11	
AGL 102	L	345	3000	1"	G 1/4"	24	52,37	70	26,19	50	24	11	
AGL 104	L	276	3000	1 1/4"	G 1/4"	32	58,72	81	30,18	70	23	12,5	
AGL 106	L	207	3000	1 1/2"	G 1/4"	38	69,85	95	35,71	78	24	13,5	
AGL 108	L	207	3000	2"	G 1/4"	50	77,77	102	42,88	90	24	13,5	
AGL 401	S	414	6000	1/2"	G 1/4"	12	40,49	55	18,24	38	24	9	
AGL 402	S	414	6000	3/4"	G 1/4"	19	50,80	70	23,80	50	24	11	
AGL 403	S	414	6000	1"	G 1/4"	24	57,15	81	27,76	70	23	13	
AGL 404	S	414	6000	1 1/4"	G 1/4"	32	66,68	95	31,75	78	24	15	
AGL 405	S	414	6000	1 1/2"	G 1/4"	38	79,38	112	36,50	94	24	17	
AGL 406	S	414	6000	2"	G 1/4"	51	96,82	134	44,45	114	24	21	

Construction Series: LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# BF

## SAE-Flare Flanges

Material:

Flange: C45

Flare Part: 42CrMo4V

Article category 6255

Designation	Series	PB	psi	Flange size	Tube A x X	B	C	D	E	F	G	I	L	M
BF 402-25-3	S	414	6000	3/4"	25x3	38,10	50,80	71	23,80	60	37,5	8,3	11	M 10x40
BF 402-25-4	S	414	6000	3/4"	25x4	38,10	50,80	71	23,80	60	37,5	8,3	11	M 10x40
BF 403-30-4	S	414	6000	1"	30x4	47,60	57,15	81	27,76	71	42,5	8,7	13	M 12x40
BF 403-30-5	S	414	6000	1"	30x5	47,60	57,15	81	27,76	71	42,5	8,7	13	M 12x40
BF 404-38-5	S	414	6000	1"1/4	38x5	53,90	66,68	95	31,75	81	44	9,2	15	M 14x45
BF 404-38-6	S	414	6000	1"1/4	38x6	53,90	66,68	95	31,75	81	44	9,2	15	M 14x45
BF 405-50-6	S	414	6000	1"1/2	50x6	63,50	79,38	114	36,50	96	57	10,3	17	M 16x60
BF 405-50-8	S	414	6000	1"1/2	50x8	63,50	79,38	114	36,50	96	57	10,3	17	M 16x60
BF 406-65-8	S	414	6000	2"	65x8	75,20	96,82	134	44,45	114	65	11,2	21	M 20x90

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# BFK

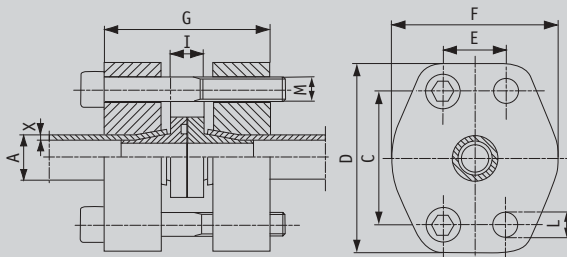
## SAE-Flare Flange Couplings

Material:

Flange: C45

Flare Part: 42CrMo4V

Article category 6256



Designation	Series	PB	psi	Flange size	Tube A x X	C	D	E	F	G	I	L	M
BFK 402-25-3	S	414	6000	3/4"	25x3	50,80	71	23,80	60	75	16,5	11	M 10x60
BFK 402-25-4	S	414	6000	3/4"	25x4	50,80	71	23,80	60	75	16,5	11	M 10x60
BFK 403-30-4	S	414	6000	1"	30x4	57,15	81	27,76	71	85	17,4	13	M 12x70
BFK 403-30-5	S	414	6000	1"	30x5	57,15	81	27,76	71	85	17,4	13	M 12x70
BFK 404-38-5	S	414	6000	1 1/4	38x5	66,68	95	31,75	81	88	18,4	15	M 14x80
BFK 404-38-6	S	414	6000	1 1/4	38x6	66,68	95	31,75	81	88	18,4	15	M 14x80
BFK 405-50-6	S	414	6000	1 1/2	50x6	79,38	114	36,50	96	114	20,6	17	M 16x90
BFK 405-50-8	S	414	6000	1 1/2	50x8	79,38	114	36,50	96	114	20,6	17	M 16x90
BFK 406-65-8	S	414	6000	2"	65x8	96,82	134	44,45	114	130	22,4	21	M 20x120

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

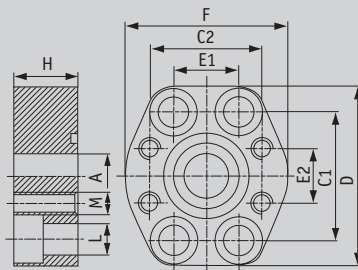


# GAF

## SAE-Straight Adapter Flanges

Material: ST 52.3 (FE 510)

Article category 6257



Designation	Series	PB	psi	Flange size	A	C1	C2	D	E1	E2	F	H	L	M	Screws
GAF 602-602	S	414	6000	3/4"x3/4"	19	50,80	50,80	70	23,80	23,80	70	28	11	M 10	M 10x35
GAF 603-602	S	414	6000	1"x3/4"	19	57,15	50,80	80	27,76	23,80	70	30	13	M 10	M 12x40
GAF 603-603	S	414	6000	1"x1"	25	57,15	57,15	80	27,76	27,76	75	36	13	M 12	M 12x45
GAF 604-603	S	414	6000	1"1/4x1"	25	68,68	57,15	100	31,75	27,76	83	25	15	M 12	M 14x40
GAF 604-604	S	414	6000	1"1/4x1"1/4	30	68,68	68,68	100	31,75	31,75	90	35	15	M 14	M 14x50
GAF 605-604	S	414	6000	1"1/2x1"1/4	32	79,38	68,68	113	36,50	31,75	95	48	17	M 14	M 16x55
GAF 605-605	S	414	6000	1"1/2x1"1/2	38	79,38	79,38	113	36,50	36,50	105	50	17	M 16	M 16x55

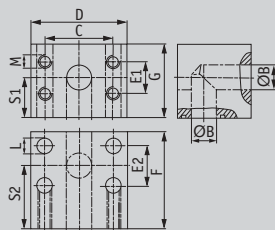
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# GD

## SAE L-Blocks 90°

Material: ST 52.3 (FE 510)

Article category 6258



Designation	Series	PB	psi	Flange size	B	C	D	E1	E2	F	G	L	M	S1	S2
GD 304	L	276	3000	1"1/4	32	58,72	82	30,18	30,18	82	80	13	M 10	39	38
GD 305	L	207	3000	1"1/2	38	69,85	98	35,71	35,71	92	92	13,5	M 12	51	59
GD 306	L	207	3000	2"	46	77,77	102	42,88	42,88	85	87	14	M 12	51	48
GD 602	S	414	6000	3/4"	19	50,80	72	23,80	23,80	60	55	11	M 10	32	36
GD 603	S	414	6000	1"	23	57,15	82	27,76	27,76	68	64	14	M 12	37	40
GD 604	S	414	6000	1"1/4	30	66,68	96	31,75	31,75	76	72	16	M 14	41	46
GD 605	S	414	6000	1"1/2	38	79,38	114	36,50	36,50	86	89	18	M 16	50	52
GD 606	S	414	6000	2"	50	96,82	133	44,45	44,45	110	105	21	M 20	59	70

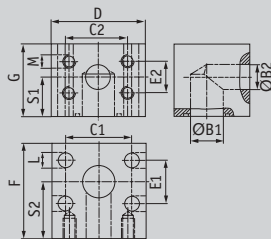
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# RED-GD

## SAE 90° L-Reductions

Material: ST 52.3 (FE 510)

Article category 6259



Designation	Series	PB	psi	Flange		B1	B2	C1	C2	D	E1	E2	F	G	L	M	S1	S2
				size														
RED GD 603-602	S	414	6000	1"		23	19	57,15	50,80	82	27,76	23,80	68	64	14	M 10	37	40
RED GD 604-602	S	414	6000	1"1/4		30	19	66,68	50,80	96	31,75	23,80	76	72	16	M 10	41	46
RED GD 604-603	S	414	6000	1"1/4		30	23	66,68	57,15	96	31,75	27,76	76	72	16	M 12	41	46
RED GD 605-604	S	414	6000	1"1/2		38	30	79,38	66,68	114	36,50	31,75	86	89	19	M 14	50	52
RED GD 606-605	S	414	6000	2"		50	38	96,82	79,38	133	44,45	36,50	110	110	22	M 16	59	70

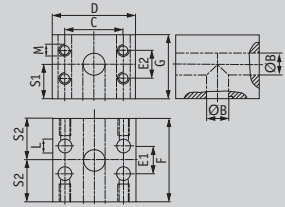
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# T-GD

## SAE T-Blocks

Material: ST 52.3 (FE 510)

Article category 6260



Designation	Series	PB	psi	Flange size	B	C	D	E1	E2	F	G	L	M	S1	S2
T GD 602-602	S	414	6000	3/4"	19	50,80	72	23,80	23,80	72	55	11	M 10	32	36
T GD 603-603	S	414	6000	1"	23	57,15	82	27,76	27,76	80	64	14	M 12	37	40
T GD 604-604	S	414	6000	1"1/4	30	66,68	100	31,75	31,75	92	72	16	M 14	41	46
T GD 605-605	S	414	6000	1"1/2	38	79,38	114	36,50	36,50	104	89	18	M 16	50	52
T GD 606-606	S	414	6000	2"	50	96,82	133	44,45	44,45	140	105	22	M 20	59	70

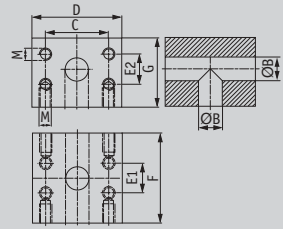
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# T-BL

## SAE T-Block – Companion Flanges

Material: ST 52.3

Article category 6261



Designation	Series	PB	psi	Flange size	B	C	D	E1	E2	F	G	M
T BL 602-602	S	414	6000	3/4"	19	50,80	72	23,80	23,80	72	55	M 10
T BL 603-603	S	414	6000	1"	23	57,15	82	27,76	27,76	80	64	M 12
T BL 604-604	S	414	6000	1 1/4"	30	66,68	100	31,75	31,75	92	72	M 14
T BL 605-605	S	414	6000	1 1/2"	38	79,38	110	36,50	36,50	98	98	M 16
T BL 606-606	S	414	6000	2"	50	96,82	133	44,45	44,45	140	105	M 20

**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

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# Gear Pump Flanges

## Square Flange Connections

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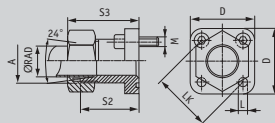
# GF-LK

## Flange Connection – DIN 3901/3902

Material: A 105

Surface Treatment: zinc plated,  
yellow chromated

Article category 6262



Designation	Series	PB	LK	Ø	A	B	D	S2	S3	L	Screws	O-Ring
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GF 35 LK L 10 315	L	315	35	L 10	M 16x1,5	11	39	30	39	6,4	4 x M 6x22	20x2,5
GF 35 LK L 12 315	L	315	35	L 12	M 18x1,5	11	39	30	39	6,4	4 x M 6x22	20x2,5
GF 35 LK L 15 250	L	250	35	L 15	M 22x1,5	12	39	30	38	6,4	4 x M 6x22	20x2,5
GF 35 LK S 16 315	S	315	35	S 16	M 24x1,5	12	39	30	39,5	6,4	4 x M 6x22	20x2,5
GF 40 LK L 15 100	L	100	40	L 15	M 22x1,5	13	42	35	43	6,4	4 x M 6x22	26x2,5
GF 40 LK L 18 100	L	100	40	L 18	M 26x1,5	16	42	35	44	6,4	4 x M 6x22	26x2,5
GF 40 LK L 22 100	L	100	40	L 22	M 30x2	20	42	35	44,5	6,4	4 x M 6x22	26x2,5
GF 40 LK L 28 100	L	100	40	L 28	M 36x2	20	42	35	44,5	6,4	4 x M 6x22	26x2,5
GF 55 LK S 20 250	S	250	55	S 20	M 30x2	14	55	35	51	8,4	4 x M 8x25	32x2,5

**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure —  
PB = Maximal Working Pressure

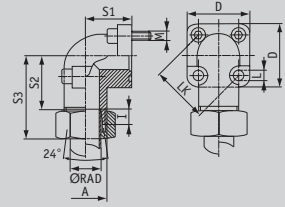
# WF-LK

Flange Connection 90° –  
DIN 3901 / 3902

Material: GTW40

Surface Treatment: zinc plated,  
yellow chromated

Article category 6263



Designation	Series	PB	LK	Ø	A	I	D	S1	S2	S3	L	Screws	O-Ring	
WF 35 LK L 10 315	L	315	35	L 10	M 16x1,5	14	39	16,5	30,5	47	6,4	2 x M 6x22	2 x M 6x35	20x2,5
WF 35 LK L 12 315	L	315	35	L 12	M 18x1,5	14	39	16,5	30,5	47	6,4	2 x M 6x22	2 x M 6x35	20x2,5
WF 35 LK L 15 250	L	250	35	L 15	M 22x1,5	14	39	16,5	30	46	6,4	2 x M 6x22	2 x M 6x35	20x2,5
WF 35 LK L 18 250	L	250	35	L 18	M 26x1,5	15	39	20	30	47,5	6,4	2 x M 6x22	2 x M 6x40	20x2,5
WF 35 LK S 16 315	S	315	35	S 16	M 24x1,5	15	39	20	29,5	48	6,4	2 x M 6x22	2 x M 6x40	20x2,5
WF 35 LK S 20 315	S	315	35	S 20	M 30x2	15	39	25	34,5	56	6,4	2 x M 6x22	2 x M 6x45	20x2,5
WF 40 LK L 15 100	L	100	40	L 15	M 22x1,5	20	42	22,5	30	46	6,4	4 x M 6x22	2 x M 6x45	26x2,5
WF 40 LK L 18 100	L	100	40	L 18	M 26x1,5	20	42	22,5	30,5	47	6,4	4 x M 6x22	2 x M 6x45	26x2,5
WF 40 LK L 22 100	L	100	40	L 22	M 30x2	20	42	22,5	30,5	47,5	6,4	4 x M 6x22	2 x M 6x45	26x2,5
WF 40 LK L 28 100	L	100	40	L 28	M 36x2	20	42	28	32,5	49	6,4	2 x M 6x22	2 x M 6x50	26x2,5
WF 40 LK L 35 100	L	100	40	L 35	M 45x2	20	42	34	30,5	52	6,4	2 x M 6x22	2 x M 6x60	26x2,5
WF 40 LK S 20 250	S	250	40	S 20	M 30x2	20	42	22,5	29,5	50	6,4	2 x M 6x22	2 x M 6x45	26x2,5
WF 55 LK L 35 100	L	100	55	L 35	M 45x2	26	58	32	38,5	62	8,4	2 x M 8x25	2 x M 8x60	32x2,5
WF 55 LK L 42 100	L	100	55	L 42	M 52x2	26	58	40	38	61	8,4	2 x M 8x25	2 x M 8x70	32x2,5
WF 55 LK S 20 250	S	250	55	S 20	M 30x2	18	58	24	34,5	56	8,4	2 x M 8x25	2 x M 8x50	32x2,5
WF 55 LK S 25 250	S	250	55	S 25	M 36x2	20	58	30	37	61	8,4	2 x M 8x25	2 x M 8x55	32x2,5
WF 55 LK S 30 250	S	250	55	S 30	M 42x2	26	58	32	35,5	62	8,4	2 x M 8x25	2 x M 8x50	32x2,5

Construction Series: LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure



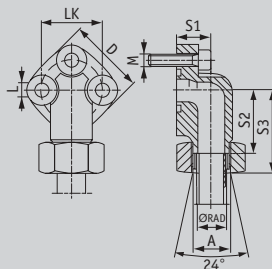
# WF-LK 3

Flange Connection 90° –  
DIN 3901 / 3902

Material: GTW40

Surface Treatment: zinc plated,  
yellow chromated

Article category 6264



Designation	Series	PB	LK	Ø	A	D	S1	S2	S3	L	M	O-Ring
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WF 26 LK L 12-3	L	250	26	L 12	M 18x1,5	32	16	25	41,5	5,4	3 x M 5x20	14x1,78
WF 30 LK L 12-3	L	250	30	L 12	M 18x1,5	38	19	30	46,5	6,4	3 x M 6x25	16x2,5
WF 30 LK L 15-3	L	250	30	L 15	M 22x1,5	38	19	30	46	6,4	3 x M 6x25	16x2,5
WF 40 LK L 22-3	L	160	40	L 22	M 30x2	48	25	35,5	52,5	8,4	3 x M 8x30	24x2,5
WF 40 LK L 28-3	L	160	LK	L28	M 36x2	48	25	35,5	52,5	8,4	3 x M 8x30	24x2,5

**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

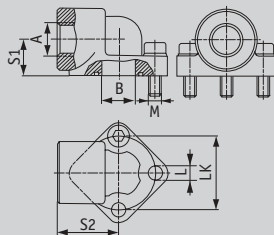
# WDS

## Flange 90° - Pipe Threaded

Material: ST 42.3

Surface treatment: zinc plated,  
yellow chromated

Artikelgrupp 6265



Designation	PB	LK	A	B	S1	S3	L	M	O-Ring
WDS 0,5 12	315	26	R 1/2"	11	17	24	5,3	3 x M 5x20	14x1,78
WDS 0,5 38	315	26	R 3/8"	11	17	24	5,3	3 x M 5x20	14x1,78
WDS 1 12	315	30	R 1/2"	12	17	24	6,3	3 x M 6x20	15,88x2,62
WDS 1 38	315	30	R 3/8"	12	17	24	6,3	3 x M 6x20	15,88x2,62
WDS 2 12	315	40	R 1/2"	19	21	36	8,5	3 x M 8x25	23,81x2,62
WDS 2 34	315	40	R 3/4"	19	21	36	8,5	3 x M 8x25	23,81x2,62
WDS 3 100	315	51	R 1"	26	26	45	10,5	3 x M 10x30	31,42x2,62
WDS 3 34	315	51	R 3/4"	26	26	45	10,5	3 x M 10x30	31,42x2,62
WDS 3 B 100	315	56	R 3/4"	26	26	45	10,5	3 x M 10x30	31,42x2,62
WDS 3 B 34	315	56	R 3/4"	26	26	45	10,5	3 x M 10x30	31,42x2,62

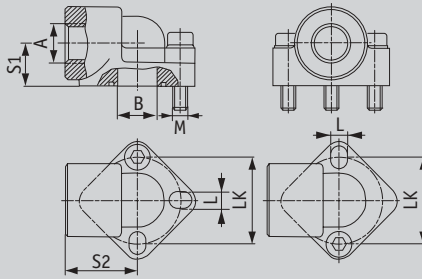
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# WA

## Flange 90° - Pipe Threaded

Aluminium

Article category 6266



Designation	PB	LK	A	B	S1	S2	L	M	O-Ring
WA 3,5 114	120	62	R 1"1/4	32	33,5	57	13	2 x M 12x35	35,80x3,53
WA 4 112	120	72,5	R 1"1/2	40	38	64	13	2 x M 12x35	44,04x3,53

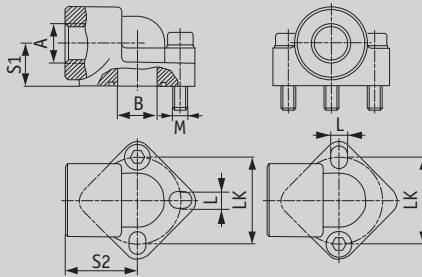
**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# WDA

## Flange 90° - Pipe Threaded

Aluminium

Article category 6266



Designation	PB	LK	A	B	S1	S2	L	M	O-Ring
WDA 0,5 12	180	26	R 1/2"	10	18	31	5,3	3 x M 5x35	14x1,78
WDA 0,5 38	180	26	R 3/8"	10	18	31	5,3	3 x M 5x35	14x1,78
WDA 1 12	180	30	R 1/2"	12,5	18	30	6,5	3 x M 6x35	15,88x2,62
WDA 1 38	180	30	R 3/8"	12,5	18	30	6,5	3 x M 6x35	15,88x2,62
WDA 2 12	180	40	R 1/2"	18,5	20	40	8,5	3 x M 8x45	22,22x2,62
WDA 2 34	180	40	R 3/4"	18,5	20	40	8,5	3 x M 8x45	22,22x2,62
WDA 3 100	180	56	R 1"	25	26	46	10,5	3 x M 10x60	29,75x3,53
WDA 3 34	180	51	R 3/4"	25	26	46	10,5	3 x M 10x60	29,75x3,53

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# WVA

## Pipe threaded Flanges 90°

Aluminium

Article category 6267



Designation	PB	LK	A	B	S1	S2	L	Screws	O-Ring	
WVA 100 55	120	55	R 1"	25	29	54	8,5	2xM8x45	2xM8x60	29,75x3,53
WVA 12 30	180	30	R 1/2"	11,5	18	40	6,5	2xM6x30	2xM6x45	15,88x2,62
WVA 12 35	180	35	R 1/2"	14	18	42,5	6,5	2xM6x30	2xM6x45	18,72x2,62
WVA 12 40	180	40	R 1/2"	17	24	47,5	6,5	2xM6x35	2xM6x55	22,22x2,62
WVA 34 40	180	40	R 3/4"	17	24	47,5	6,5	2xM6x35	2xM6x55	22,22x2,62
WVA 34 55	180	55	R 3/4"	25	29	54	8,5	2xM8x45	2xM8x60	29,75x3,53
WVA 38 30	180	30	R 3/8"	11,5	18	40	6,5	2xM6x30	2xM6x45	15,88x2,62
WVA 38 35	180	35	R 3/8"	14	18	42,5	6,5	2xM6x30	2xM6x45	18,72x2,62

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

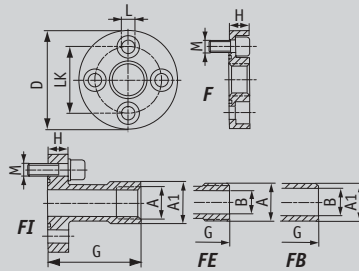
# F

## Straight Flange Connection

Material: ST 42.3

Surface Treatment: Zinc Plated,  
Yellow Chromated

Article category 6268



Designation	PB	LK	A	A1	B	D	G	H	L	M	O-Ring
F 1	250	30	R 3/8"	-	-	45	-	11,5	6,5	4 x M 6x20	18,77x1,78
F 2	250	40	R 1/2"	-	-	58	-	14	8,5	4 x M 8x25	25,12x1,78
F 3 A	250	51	R 3/4"	-	-	76	-	16	10,5	4 x M 10x30	31,42x2,62
F 3 B	250	56	R 3/4"	-	-	76	-	16	10,5	4 x M 10x30	31,42x2,62
F 3,5 A	180	62	R 1"	-	-	88	-	20	10,5	4 x M 10x35	39,70x3,53
F 3,5 B	180	62	R 1"	-	-	88	-	20	12,5	4 x M 12x35	39,70x3,53
F 4	180	72,5	R 1 1/4"	-	-	98	-	20	12,5	4 x M 12x35	47,20x3,53
FB 1	250	30	-	19	14	45	55	10	6,5	4 x M 6x20	18,77x1,78
FB 2	250	40	-	25,4	19	58	60	12	8,5	4 x M 8x25	25,12x1,78
FB 3 B	250	56	-	32	24,5	76	72	16	10,5	4 x M 10x35	31,42x2,62
FE 1	250	30	R 1/2"	-	14	45	55	10	6,5	4 x M 6x20	18,77x1,78
FE 2	250	40	R 3/4"	-	19	58	60	12	8,5	4 x M 8x25	25,12x1,78
FE 3 A	250	51	R 1"	-	24	76	72	16	10,5	4 x M 10x30	31,42x2,62
FE 3 B	250	56	R 1"	-	24	76	72	16	10,5	4 x M 10x30	31,42x2,62
FI 1	250	30	R 3/8"	21	-	45	55	10	6,5	4 x M 6x20	18,77x1,78
FI 2	250	40	R 1/2"	26,5	-	58	60	12	8,5	4 x M 8x25	25,12x1,78
FI 3 A	250	51	R 3/4"	33,5	-	76	72	16	10,5	4 x M 10x30	31,42x2,62
FI 3 B	250	56	R 3/4"	33,5	-	76	72	16	10,5	4 x M 10x30	31,42x2,62

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# CET

## Cetop Square Flange Connection

Material: ST 44.3 (FE 430)

or ST 52.3 (FE 510)

Article category 6278

Designation	Series	PB	Flange size	A	B	C	D	E	G	M
CET 38 ST 250	L	250	3/8"	18	12,5	24,7	40	30	1	M 6x25
CET 12 ST 250	L	250	1/2"	22	15	29,7	45	30	1	M 8x30
CET 34 ST 250	L	250	3/4"	28	20	35,3	50	35	1	M 8x30
CET 1 ST 250	L	250	1"	35	25	43,8	65	40	1	M 10x35
CET 114 ST 250	L	250	1"1/4	43	32	51,6	75	45	1	M 12x40
CET 112 ST 250	L	250	1"1/2	50	38	60	85	50	1	M 14x45
CET 2 ST 250	L	250	2"	62	47	69,4	100	60	1,5	M 16x55
CET 212 ST 250	L	250	2"1/2	76	58	83,4	120	70	1,5	M 20x65
CET 3 ST 250	L	250	3"	90	70	102,5	140	80	1,5	M 20x75
CET 312 ST 250	L	250	3"1/2	102	80	102,5	140	90	1,5	M 20x90
CET 4 ST 250	L	250	4"	114	90	113,2	160	105	1,5	M 24x100
CET 38 ST 400	S	400	3/8"	18	11	24,7	40	35	1	M 6x25
CET 12 ST 400	S	400	1/2"	22	14	29,7	45	40	1	M 8x30
CET 34 ST 400	S	400	3/4"	28	18	35,3	50	45	1	M 8x35
CET 1 ST 400	S	400	1"	35	22	43,8	65	50	1	M 10x40
CET 114 ST 400	S	400	1"1/4	44	29	51,6	75	55	1	M 12x45
CET 112 ST 400	S	400	1"1/2	51	35	60	85	60	1	M 14x55
CET 2 ST 400	S	400	2"	61	43	69,4	100	70	1,5	M 16x65
CET 212 ST 400	S	400	2"1/2	80	53	83,4	120	80	1,5	M 20x75
CET 3 ST 400	S	400	3"	90	58	102,5	140	90	1,5	M 20x90
CET 312 ST 400	S	400	3"1/2	102	63	102,5	140	95	1,5	M 20x90
CET 4 ST 400	S	400	4"	114	74	113,2	160	105	1,5	M 24x100

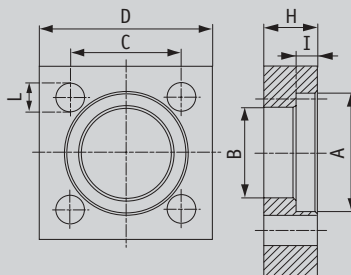
**Construction Series:** LL = Very Light – L = Light – S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

# VK

## Cetop Square Flanges

Material: ST 52.3 / C45 or 1.4571

Article category 6279



Designation	Series	PB	psi	Flange size	A	B	C	D	H	I	L	M
VK 38 ST 250	L	250	3000	3/8"	25,1	18,5	24,7	40	14	6,3	6,5	M 6x25
VK 12 ST 250	L	250	3000	1/2"	31	24,3	29,7	45	15	6,3	8,5	M 8x30
VK 34 ST 250	L	250	3000	3/4"	38,9	32,1	35,3	50	16	6,3	8,5	M 8x30
VK 1 ST 250	L	250	3000	1"	45,3	38,5	43,8	65	18	7,6	11	M 10x35
VK 112 ST 250	L	250	3000	1 1/2"	61,1	50,8	60	85	25	7,6	15	M 14x45
VK 114 ST 250	L	250	3000	1 1/4"	51,6	43,7	51,6	75	22	7,6	13	M 12x40
VK 2 ST 250	L	250	3000	2"	72,2	62,7	69,4	100	30	9,1	17	M 16x55
VK 212 ST 250	L	250	3000	2 1/2"	88	76,6	83,4	120	35	9,1	21	M 20x65
VK 3 ST 250	L	250	3000	3"	102,3	90,8	102,5	140	40	9,1	21	M 20x75
VK 312 ST 250	L	250	3000	3 1/2"	120	102,5	102,5	140	52	17,5	21	M 20x90
VK 4 ST 250	L	250	3000	4"	132	114,5	113,2	160	60	21	25	M 24x100
VK 38 ST 400	S	400	6000	3/8"	26,5	18,5	24,7	40	16	7,4	6,5	M 6x25
VK 12 ST 400	S	400	6000	1/2"	32,5	24,6	29,7	45	17	7,4	8,5	M 8x30
VK 34 ST 400	S	400	6000	3/4"	40	32,5	35,3	50	20	8,4	8,5	M 8x35
VK 1 ST 400	S	400	6000	1"	48,4	38,5	43,8	65	24	9,1	11	M 10x40
VK 112 ST 400	S	400	6000	1 1/2"	64,3	51,6	60	85	32	12,2	15	M 14x55
VK 114 ST 400	S	400	6000	1 1/4"	54,8	44,5	51,6	75	28	9,9	13	M 12x50
VK 2 ST 400	S	400	6000	2"	80,2	67,6	69,4	100	40	12,2	17	M 16x65
VK 212 ST 400	S	400	6000	2 1/2"	95	80,5	83,4	120	45	16,1	21	M 20x75
VK 3 ST 400	S	400	6000	3"	105	90,5	102,5	140	52	16,1	21	M 20x90
VK 312 ST 400	S	400	6000	3 1/2"	120	102,5	102,5	140	52	17,5	21	M 20x90
VK 4 ST 400	S	400	6000	4"	132	114,5	113,2	160	60	21	25	M 24x100

Construction Series: LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure



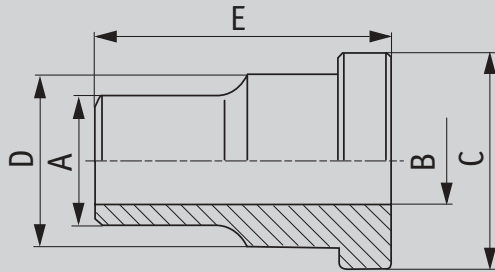
# G-VKS

## Cetop Weld on Head

Flange head without  
O-Ring Groove Nut

Material: ST 44.3 (FE 430)  
or ST 52.3 (FE 510)

Article category 6280



Designation	Series	PB	Flange size	A	B	C	D	E
G VKS 38 ST 250	L	250	3/8"	18	12,5	24,5	18	30
G VKS 12 ST 250	L	250	1/2"	22	15	30,2	24	30
G VKS 34 ST 250	L	250	3/4"	28	20	38,1	31,5	35
G VKS 1 ST 250	L	250	1"	35	25	44,4	38	40
G VKS 114 ST 250	L	250	1"1/4	43	32	50,8	43	45
G VKS 112 ST 250	L	250	1"1/2	50	38	60,3	50	50
G VKS 2 ST 250	L	250	2"	62	47	71,4	62	60
G VKS 212 ST 250	L	250	2"1/2	76	58	87,2	76	70
G VKS 3 ST 250	L	250	3"	90	70	101,6	90	80
G VKS 312 ST 250	L	250	3"1/2	102	80	119	102	90
G VKS 4 ST 250	L	250	4"	114	90	131	114	105
G VKS 38 ST 400	S	400	3/8"	18	11	26	18	35
G VKS 12 ST 400	S	400	1/2"	22	14	31,8	24	40
G VKS 34 ST 400	S	400	3/4"	28	18	39,5	32	45
G VKS 1 ST 400	S	400	1"	35	22	47,6	38	50
G VKS 114 ST 400	S	400	1"1/4	44	29	54	44	55
G VKS 112 ST 400	S	400	1"1/2	51	35	63,5	51	60
G VKS 2 ST 400	S	400	2"	61	43	79,4	67	70
G VKS 212 ST 400	S	400	2"1/2	80	53	94,2	80	80
G VKS 3 ST 400	S	400	3"	90	58	104	90	90
G VKS 312 ST 400	S	400	3"1/2	102	63	119	102	90
G VKS 4 ST 400	S	400	4"	114	74	131	114	105

**Construction Series:** LL = Very Light - L = Light - S = Heavy —  $\emptyset$  = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

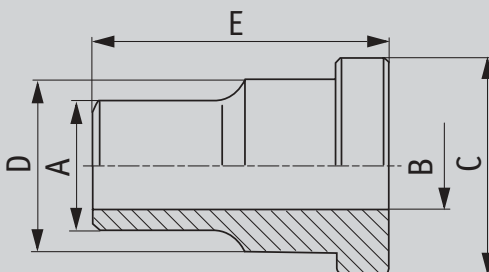
# VKS

## Cetop Weld on Head

Flange head with  
O-Ring Groove Nut

Material: ST 44.3 (FE 430)  
or ST 52.3 (FE 510)

Article category 6280



Designation	Series	PB	Flange size	A	B	C	D	E
VKS 38 ST 250	L	250	3/8"	18	12,5	24,5	18	30
VKS 12 ST 250	L	250	1/2"	22	15	30,2	24	30
VKS 34 ST 250	L	250	3/4"	28	20	38,1	31,5	35
VKS 1 ST 250	L	250	1"	35	25	44,4	38	40
VKS 114 ST 250	L	250	1 1/4"	43	32	50,8	43	45
VKS 112 ST 250	L	250	1 1/2"	50	38	60,3	50	50
VKS 2 ST 250	L	250	2"	62	47	71,4	62	60
VKS 212 ST 250	L	250	2 1/2"	76	58	87,2	76	70
VKS 3 ST 250	L	250	3"	90	70	101,6	90	80
VKS 312 ST 250	L	250	3 1/2"	102	80	119	102	90
VKS 4 ST 250	L	250	4"	114	90	131	114	105
VKS 38 ST 400	S	400	3/8"	18	11	26	18	35
VKS 12 ST 400	S	400	1/2"	22	14	31,8	24	40
VKS 34 ST 400	S	400	3/4"	28	18	39,5	32	45
VKS 1 ST 400	S	400	1"	35	22	47,6	38	50
VKS 114 ST 400	S	400	1 1/4"	44	29	54	44	55
VKS 112 ST 400	S	400	1 1/2"	51	35	63,5	51	60
VKS 2 ST 400	S	400	2"	61	43	79,4	67	70
VKS 212 ST 400	S	400	2 1/2"	80	53	94,2	60	80
VKS 3 ST 400	S	400	3"	90	58	104	90	90
VKS 312 ST 400	S	400	3 1/2"	102	63	119	102	90
VKS 4 ST 400	S	400	4"	114	74	131	114	105

**Construction Series:** LL = Very Light - L = Light - S = Heavy — Ø = Tube Outside Diameter — PN = Nominal Pressure — PB = Maximal Working Pressure

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