



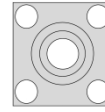
# SQUARE FLANGES JIS B2291



**ReliableFluid**  
  
**SYSTEMS**

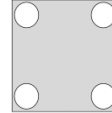
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Weld in Square Flange (SHAB)



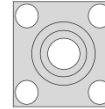
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Blind Square Flange (SHA/SHB)



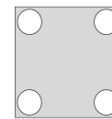
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Weld in Square Flange (SSAB)



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Blind Square Flange (SSA/SSB)



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Oring Groove & Oring Dimension



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## Square Flanges

### Specifications:

JIS B2291, Hydraulic pipe and hose connections, four-bolt

### Material Specifications:

(SF440A) Hydraulic Steel

(SS316) Stainless Steel

### Size Range:

(SF440A) Hydraulic Steel : 1/4" – 6"NB

(SS316) Stainless Steel : 3/8" – 3"NB

### Working Pressure:

210kgf/cm<sup>2</sup> : 210 BAR / 21 MPA

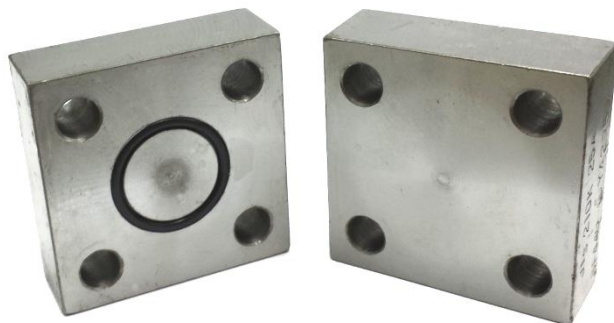
### Flange Series:

(SHAB) SHAB Square Flange using Hexagon Hex Bolts (Larger Flange Body)

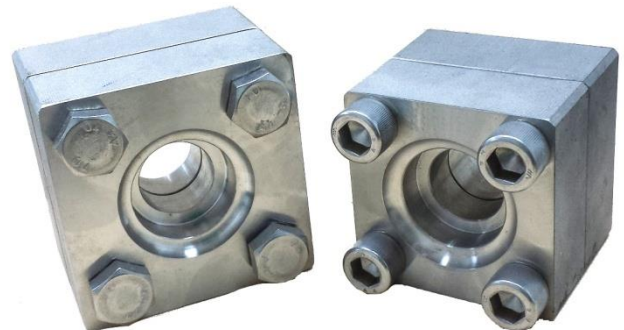
(SSAB) SSAB Square Flange using Socket Cap Screws (Smaller Flange Body)

### Flange Screws:

Metric screws according to DIN 912-8.8 (Standard)



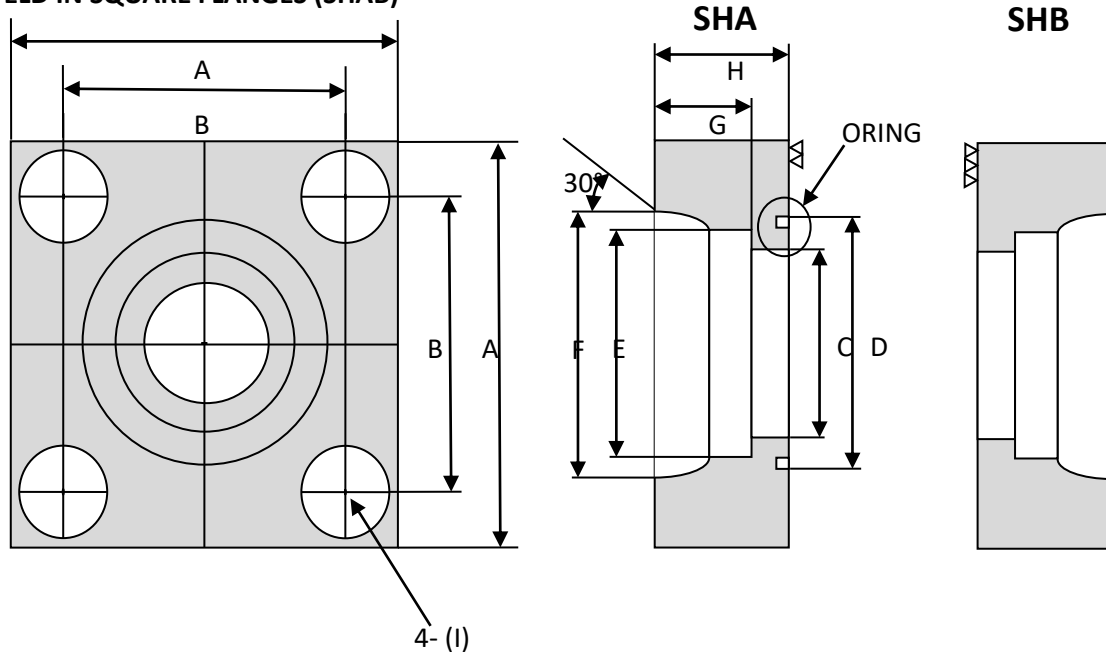
Oring and Flat Square Blind Flanges



SHAB

SSAB

WELD IN SQUARE FLANGES (SHAB)



SHAB (210 KG/CM<sup>2</sup>)

SIZE	ORING	PART NUMBER	DIMENSIONS									BOLT LENGTH	WEIGHT
			A	B	C	D	E	F	G	H	I		
8	G25	FL-SQ-H-SHAB-04	63	40	8	30	14.3	24	11	22	11	M10 x 55	1.30 KGS
10	G25	FL-SQ-H-SHAB-06	63	40	11.5	30	17.8	28	11	22	11	M10 x 55	1.30 KGS
15	G25	FL-SQ-H-SHAB-08	63	40	16	30	22.2	32	11	22	11	M10 x 55	1.40 KGS
20	G30	FL-SQ-H-SHAB-12	68	45	20	35	27.7	38	12	22	11	M10 x 55	1.50 KGS
25	G35	FL-SQ-H-SHAB-16	80	53	25	40	34.5	45	14	28	13	M12 x 70	2.60 KGS
32	G40	FL-SQ-H-SHAB-20	90	63	31.5	45	43.2	56	16	28	13	M12 x 70	3.15 KGS
40	G50	FL-SQ-H-SHAB-24	100	70	37.5	55	49.1	63	18	36	18	M16 x 90	5.10 KGS
50	G60	FL-SQ-H-SHAB-32	112	80	47.5	65	61.1	75	20	36	18	M16 x 90	5.90 KGS
65	G75	FL-SQ-H-SHAB-40	140	100	60	80	77.1	95	22	45	22	M20 x 110	11.40 KGS
80	G85	FL-SQ-H-SHAB-48	155	112	71	90	90.0	108	25	45	24	M22 x 120	14.10 KGS
100	G105	FL-SQ-H-SHAB-64	190	140	87.3	110	115.4	135	28	60	27	M24 x 140	25.50 KGS
125	G130	FL-SQ-H-SHAB-80	230	168	120.8	135	141.2	164	30	65	32	M30 x 170	41.00 KGS
150	G155	FL-SQ-H-SHAB-96	270	195	128.8	165	166.9	193	35	80	39	M36 x 190	68.50 KGS

Designation for Order:

Double Flanges, SHAB  
(Flat side & Oring side)

ST52.3	FL-SQ-H...SHAB..
SS316	FL-SQ-S...SHAB..

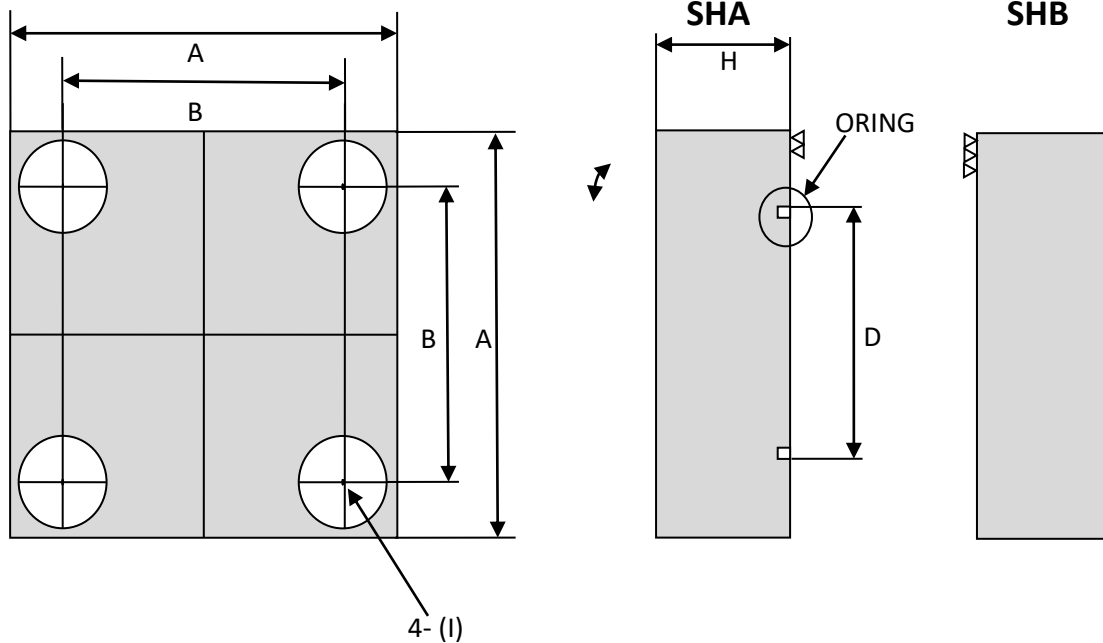
Counter-Flanges, SHA  
(Oring side)

ST52.3	FL-SQ-H...SHA..
SS316	FL-SQ-S...SHA..

Flanges, SHB  
(Flat side)

ST52.3	FL-SQ-H...SHB..
SS316	FL-SQ-S...SHB..

BLIND SQUARE FLANGES



SHAB (210 KG/CM<sup>2</sup>)

SIZE	ORING	PART NUMBER (ORING SIDE)	PART NUMBER (FLAT SIDE)	DIMENSIONS						
				A	B	D	H	I	BOLT LENGTH	WEIGHT
8	G25	FL-SQ-H-SHA-BL-04	FL-SQ-H-SHB-BL-04	63	40	30	22	11	M10 x 55	1.30 KGS
10	G25	FL-SQ-H-SHA-BL-06	FL-SQ-H-SHB-BL-06	63	40	30	22	11	M10 x 55	1.30 KGS
15	G25	FL-SQ-H-SHA-BL-08	FL-SQ-H-SHB-BL-08	63	40	30	22	11	M10 x 55	1.40 KGS
20	G30	FL-SQ-H-SHA-BL-12	FL-SQ-H-SHB-BL-12	68	45	35	22	11	M10 x 55	1.50 KGS
25	G35	FL-SQ-H-SHA-BL-16	FL-SQ-H-SHB-BL-16	80	53	40	28	13	M12 x 70	2.60 KGS
32	G40	FL-SQ-H-SHA-BL-20	FL-SQ-H-SHB-BL-20	90	63	45	28	13	M12 x 70	3.15 KGS
40	G50	FL-SQ-H-SHA-BL-24	FL-SQ-H-SHB-BL-24	100	70	55	36	18	M16 x 90	5.10 KGS
50	G60	FL-SQ-H-SHA-BL-32	FL-SQ-H-SHB-BL-32	112	80	65	36	18	M16 x 90	5.90 KGS
65	G75	FL-SQ-H-SHA-BL-40	FL-SQ-H-SHB-BL-40	140	100	80	45	22	M20 x 110	11.40 KGS
80	G85	FL-SQ-H-SHA-BL-48	FL-SQ-H-SHB-BL-48	155	112	90	45	24	M22 x 120	14.10 KGS
100	G105	FL-SQ-H-SHA-BL-64	FL-SQ-H-SHB-BL-64	190	140	110	60	27	M24 x 140	25.50 KGS
125	G130	FL-SQ-H-SHA-BL-80	FL-SQ-H-SHB-BL-80	230	168	135	65	32	M30 x 170	41.00 KGS
150	G155	FL-SQ-H-SHA-BL-96	FL-SQ-H-SHB-BL-96	270	195	165	80	39	M36 x 190	68.50 KGS

Designation for Order:

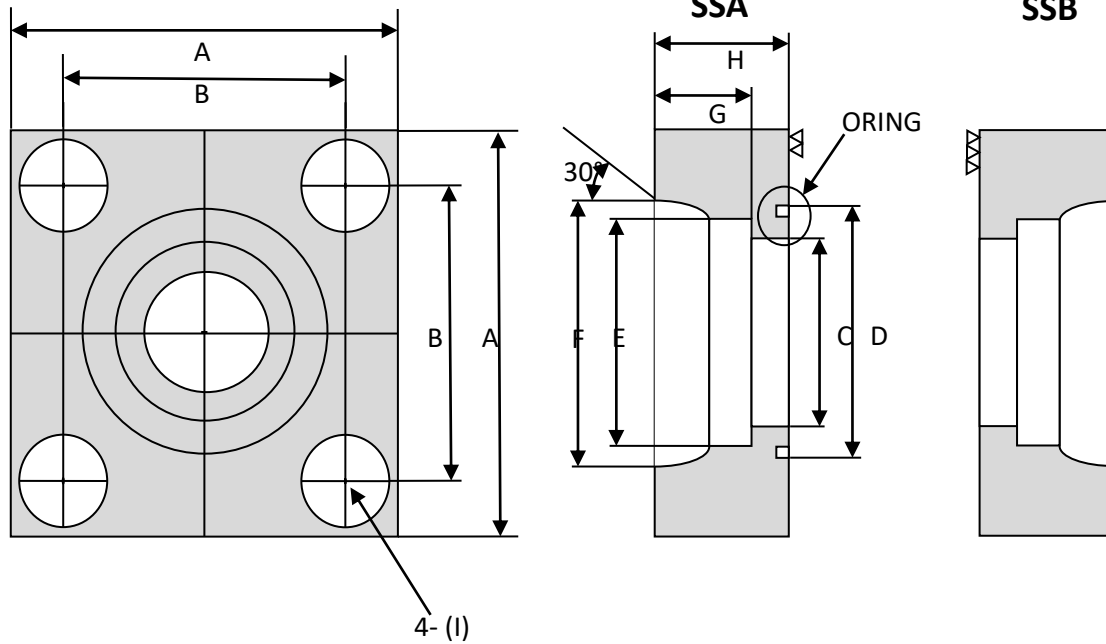
Counter-Flanges, SHA  
(Oring side)

ST52.3	FL-SQ-H...SHA-BL..
SS316	FL-SQ-S...SHA-BL..

Flanges, SHB  
(Flat side)

ST52.3	FL-SQ-H...SHB-BL..
SS316	FL-SQ-S...SHB-BL..

WELD IN SQUARE FLANGES (SSAB)



SSAB (210 KG/CM<sup>2</sup>)

SIZE	ORING	PART NUMBER	DIMENSIONS									BOLT LENGTH	WEIGHT
			A	B	C	D	E	F	G	H	I		
10	G25	FL-SQ-H-SSAB-06	54	36	11.5	30	17.8	28	11	22	11	M10 x 40	1.00 KGS
15	G25	FL-SQ-H-SSAB-08	54	36	16	30	22.2	32	11	22	11	M10 x 40	1.00 KGS
20	G30	FL-SQ-H-SSAB-12	58	40	20	35	27.7	38	12	22	11	M10 x 40	1.20 KGS
25	G35	FL-SQ-H-SSAB-16	68	48	25	40	34.5	45	14	28	13	M12 x 50	1.60 KGS
32	G40	FL-SQ-H-SSAB-20	76	56	31.5	45	43.2	56	16	28	13	M12 x 50	2.00 KGS
40	G50	FL-SQ-H-SSAB-24	92	65	37.5	55	49.1	63	18	36	18	M16 x 65	3.80 KGS
50	G60	FL-SQ-H-SSAB-32	100	73	47.5	65	61.1	75	20	36	18	M16 x 65	4.00 KGS
65	G75	FL-SQ-H-SSAB-40	128	92	60	80	77.1	95	22	45	22	M20 x 85	8.20 KGS
80	G85	FL-SQ-H-SSAB-48	140	103	71	90	90.0	108	25	45	24	M22 x 85	9.40 KGS

Designation for Order:

Double Flanges, SSAB  
(Flat side & Oring side)

ST52.3	FL-SQ-H...SSAB..
SS316	FL-SQ-S...SSAB..

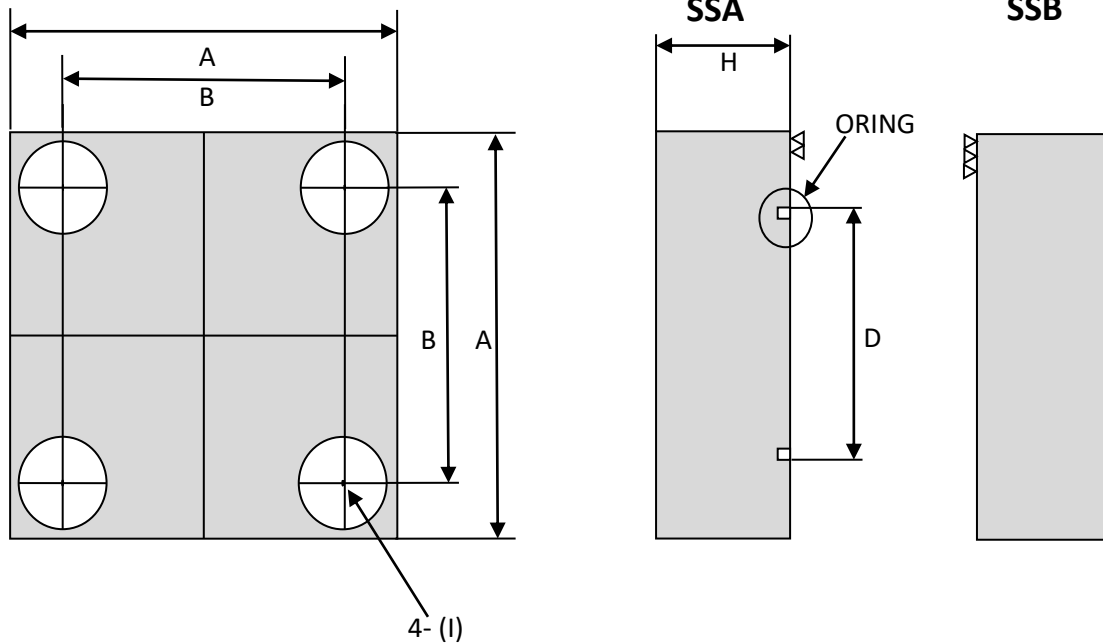
Counter-Flanges, SSA  
(Oring side)

ST52.3	FL-SQ-H...SSA..
SS316	FL-SQ-S...SSA..

Flanges, SSB  
(Flat side)

ST52.3	FL-SQ-H...SSB..
SS316	FL-SQ-S...SSB..

BLIND SQUARE FLANGES (SSAB)



SSAB (210 KG/CM<sup>2</sup>)

SIZE	ORING	PART NUMBER (ORING SIDE)	PART NUMBER (FLAT SIDE)	DIMENSIONS						
				A	B	D	H	I	BOTH LENGTH	WEIGHT
10	G25	FL-SQ-H-SSA-BL-06	FL-SQ-H-SSB-BL-06	54	36	30	22	11	M10 x 40	1.00 KGS
15	G25	FL-SQ-H-SSA-BL-08	FL-SQ-H-SSB-BL-08	54	36	30	22	11	M10 x 40	1.00 KGS
20	G30	FL-SQ-H-SSA-BL-12	FL-SQ-H-SSB-BL-12	58	40	35	22	11	M10 x 40	1.20 KGS
25	G35	FL-SQ-H-SSA-BL-16	FL-SQ-H-SSB-BL-16	68	48	40	28	13	M12 x 50	1.60 KGS
32	G40	FL-SQ-H-SSA-BL-20	FL-SQ-H-SSB-BL-20	76	56	45	28	13	M12 x 50	2.00 KGS
40	G50	FL-SQ-H-SSA-BL-24	FL-SQ-H-SSB-BL-24	92	65	55	36	18	M16 x 65	3.80 KGS
50	G60	FL-SQ-H-SSA-BL-32	FL-SQ-H-SSB-BL-32	100	73	65	36	18	M16 x 65	4.00 KGS
65	G75	FL-SQ-H-SSA-BL-40	FL-SQ-H-SSB-BL-40	128	92	80	45	22	M20 x 85	8.20 KGS
80	G85	FL-SQ-H-SSA-BL-48	FL-SQ-H-SSB-BL-48	140	103	90	45	24	M22 x 85	9.40 KGS

Designation for Order:

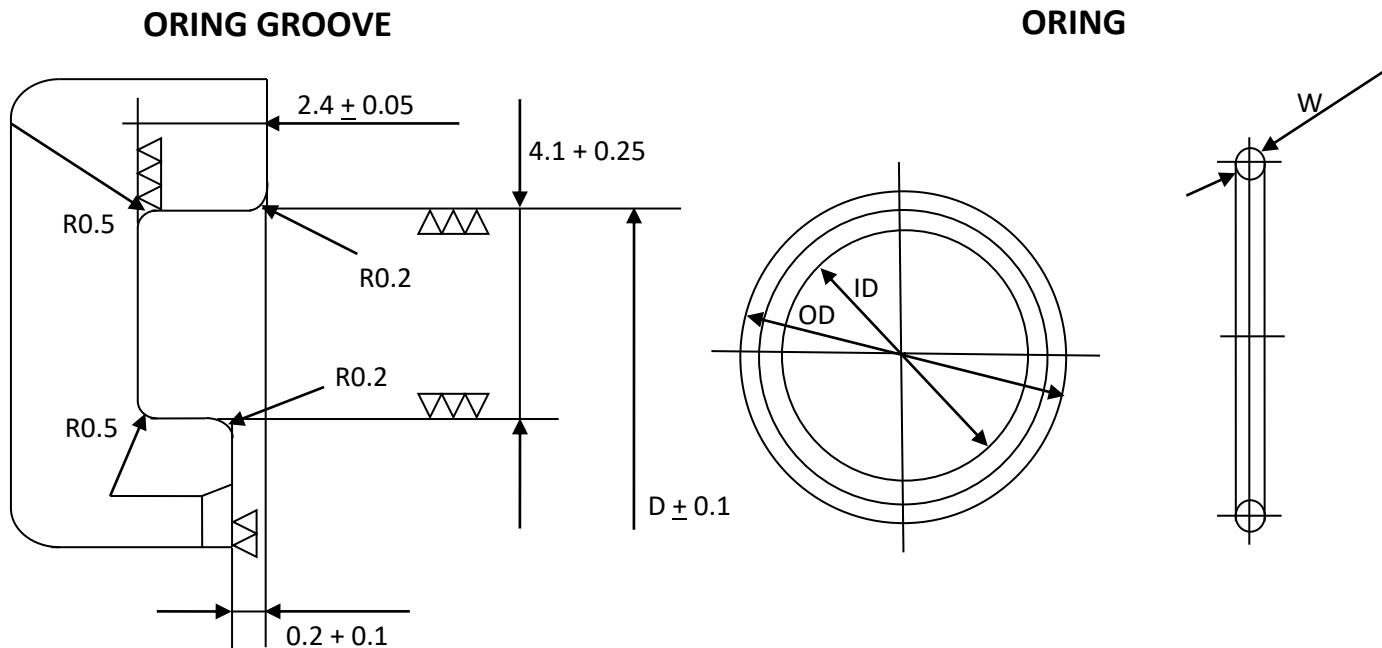
Counter-Flanges, SSA  
(Oring side)

ST52.3	FL-SQ-H...SSA-BL..
SS316	FL-SQ-S...SSA-BL..

Flanges, SSB  
(Flat side)

ST52.3	FL-SQ-H...SSB-BL..
SS316	FL-SQ-S...SSB-BL..

ORING GROOVE & ORING DIMENSION



SHAB & SSAB (210 KG/CM<sup>2</sup>) ORING DIMENSION

SIZE	INCH	PART NUMBER	DIMENSIONS		
			OD	ID	W
8	1/4"	G25	30.60	24.40	3.1
10	3/8"	G25	30.60	24.40	3.1
15	1/2"	G25	30.60	24.40	3.1
20	3/4"	G30	35.60	29.40	3.1
25	1"	G35	40.60	34.40	3.1
32	1 1/4"	G40	45.60	39.40	3.1
40	1 1/2"	G50	55.60	49.40	3.1
50	2"	G60	65.60	59.40	3.1
65	2 1/2"	G75	80.60	74.40	3.1
80	3"	G85	90.60	84.40	3.1
100	4"	G105	110.60	104.40	3.1
125	5"	G130	135.60	129.40	3.1
150	6"	G155	165.70	154.30	5.7



## Component Selection

The selection of component for any application or system design must be considered to ensure safe performance. Component function, material compatibility, component pressure and temperature rating, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. Reliable Fluid Systems accepts no liability for any improper selection, installation, operation or maintenance.

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