

FORGED STEEL VALVES



PRODUCTS

GATE VALVES - 800 - Bolted bonnet - Sw/Npt/Bw

Ratings (ASTM A105)

800 p.s.i. @ 850°F
1975 p.s.i. @ 100°F

Test pressure (ASTM A105)

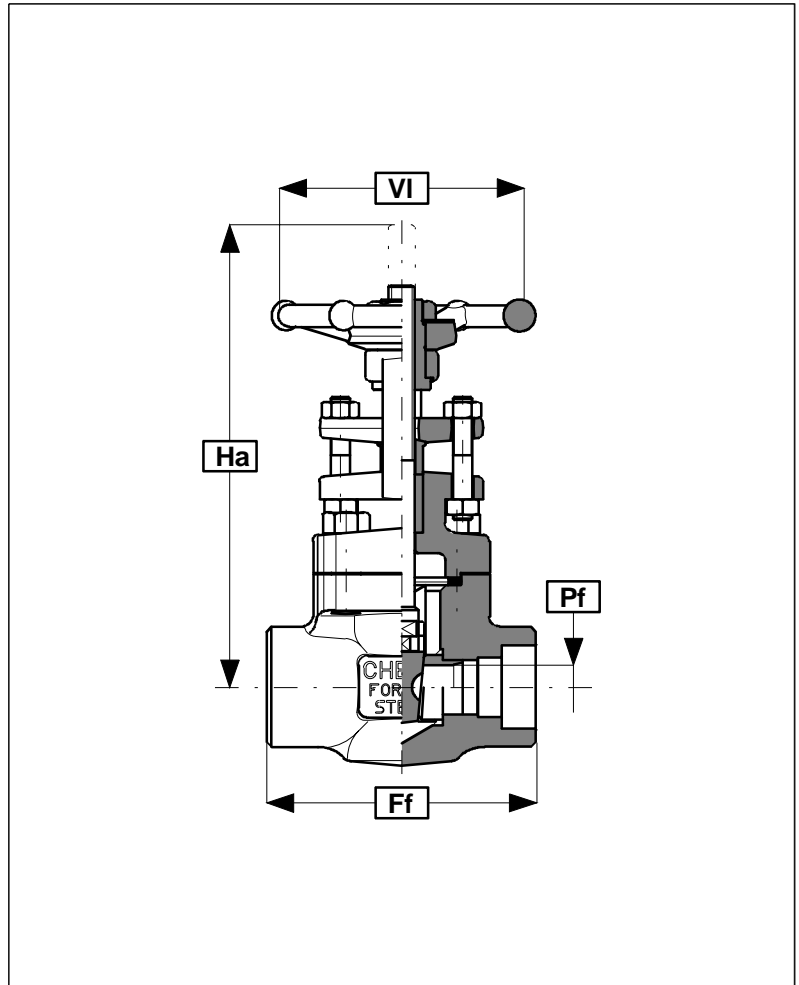
Hydraulic:(minimum)
Body - 3000 p.s.i.
Seat - 2175 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction API 602, BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Butt weld ASME B16.25
Test API 598-BS 6755 (Pt.1)

Connections (xx)

SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw(e)/NPT	
SU Sw(u)/NPT	
B4 Butt weld 40	

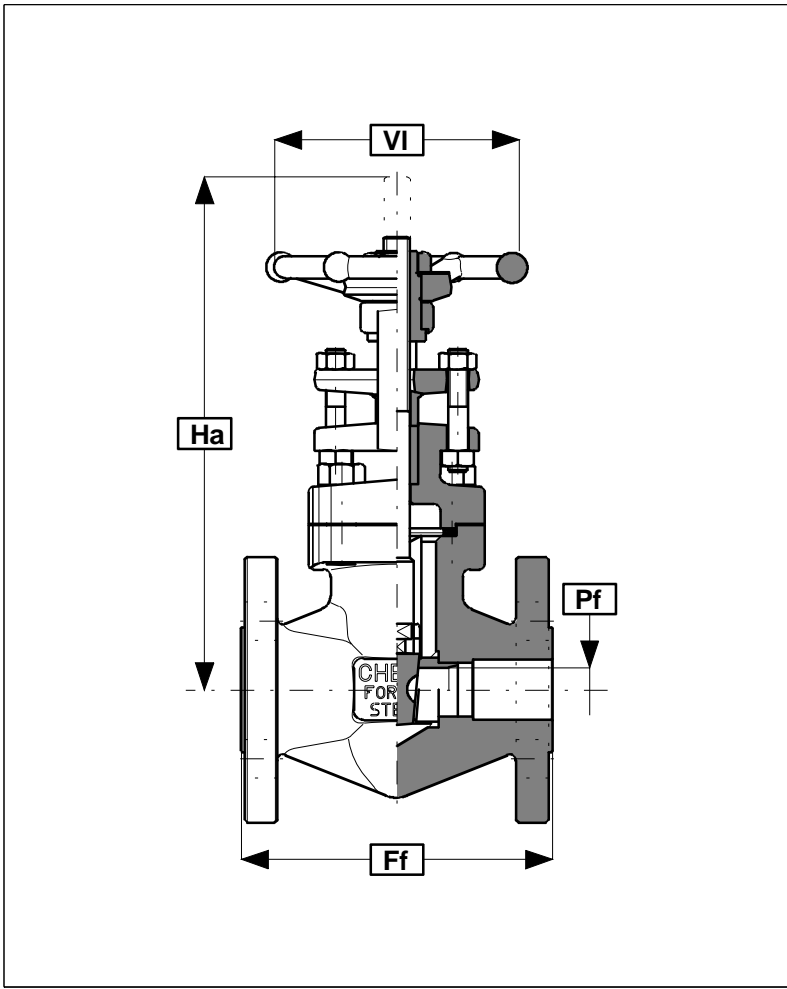


CONVENTIONAL BORE								
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12
Ha (mm/in)			145 5,70	156 6,14	186 7,32	216 8,50	255 10,04	273 10,75
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51
Pf (mm/in)			10 0,39	14 0,55	18 0,71	24 0,95	31 1,22	36,5 1,44
Wt. (kg/lb)			1,7 3,74	2,1 4,62	3,3 7,3	5,2 11,4	7,0 15,4	9,1 20,0
Catal. no.			R252/xx	R253/xx	R254/xx	R255/xx	R256/xx	R257/xx

FULL BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	150 5,91
Ha (mm/in)	143 5,63	145 5,71	156 6,14	186 7,32	216 8,50	255 10,04	273 10,75	334 13,15
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)	8,5 0,33	10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	48 1,89
Wt. (kg/lb)	1,8 4,0	1,8 4,0	2,2 4,8	3,4 7,5	5,3 11,7	7,1 15,6	9,2 20,2	14,2 31,2
Catal. no.	F210/xx	F211/xx	F212/xx	F213/xx	F214/xx	F215/xx	F216/xx	F217/xx

1) Standard and alternative valve materials on page 67, type A
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) SW, NPT & BW dimensions on page 73

GATE VALVES - 150 - Bolted bonnet - Flanged Rf



Ratings (ASTM A105)
150 p.s.i. @ 550°F
285 p.s.i. @ 100°F

Test pressure (ASTM A105)
Hydraulic: (minimum)
Body - 450 p.s.i.
Seat - 325 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards
Construction API 602, BS 5352
Flanged ASME B16.5, ASME B16.10
Test API 598-BS 6755 (Pt.1)

Connections (xx)
RF Raised face (std.)
FF Flat finish

CONVENTIONAL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		107,9	4,25	117,5	4,63	127,0	5,00	165,1	6,50	177,8	7,00
Ha (mm/in)		179	7,05	186	7,32	208	8,19	255	10,04	273	10,75
VI (mm/in)		90	3,54	90	3,54	100	3,94	140	5,51	140	5,51
Pf (mm/in)		10	0,39	14	0,55	18	0,71	31	1,22	36,5	1,44
Wt. (kg/lb)		3,2	7,0	4,1	9,0	5,8	12,8	10	22,0	13,1	28,8
Catal. no.		R252/15xx		R253/15xx		R254/15xx		R256/15xx		R257/15xx	

FULL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		107,9	4,25	117,5	4,63	127,0	5,00	165,1	6,50	177,8	7,00
Ha (mm/in)		183	7,20	191	7,52	216	8,50	273	10,75	314	12,36
VI (mm/in)		90	3,54	90	3,54	100	3,94	140	5,51	200	7,87
Pf (mm/in)		14	0,55	18	0,71	24	0,94	36,5	1,44	48	1,89
Wt. (kg/lb)		3,1	6,8	4	8,8	5,7	12,5	12,6	27,7	15,8	34,8
Catal. no.		F212/15xx		F213/15xx		F214/15xx		F216/15xx		F217/15xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) Flanges & face-to-face dimensions on page 74, 75

GATE VALVES - 300 - Bolted bonnet - Flanged Rf/Rj

Ratings (ASTM A105)

300 p.s.i. @ 850°F
740 p.s.i. @ 100°F

Test pressure (ASTM A105)

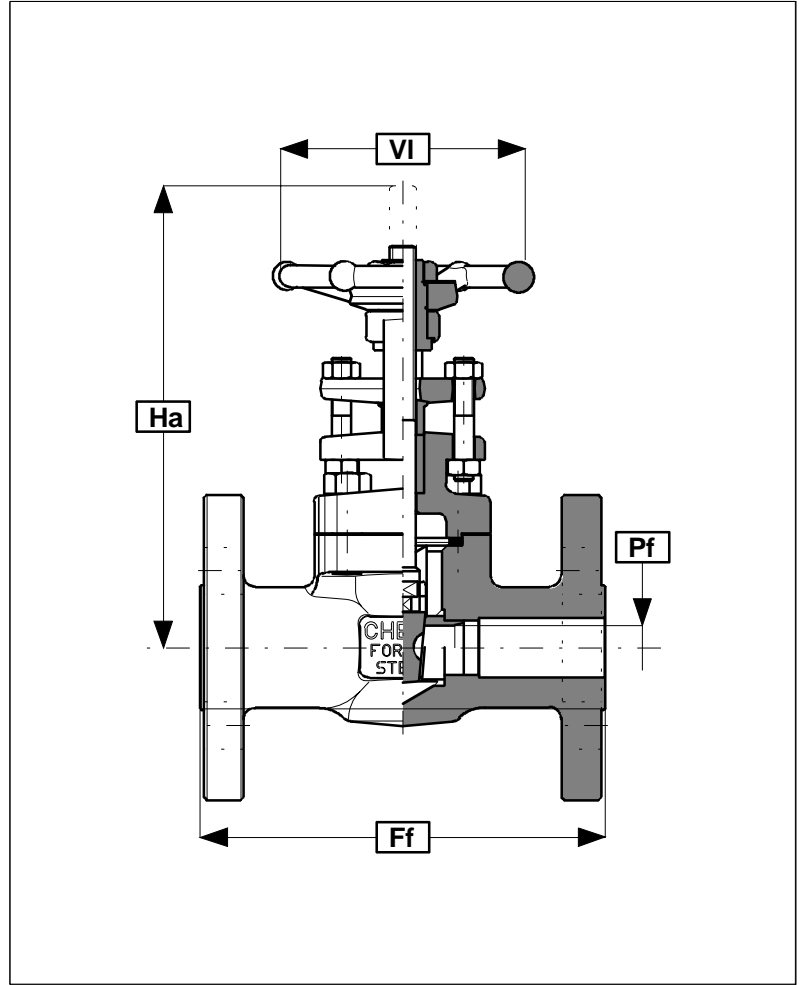
Hydraulic: (minimum)
Body - 1125 p.s.i.
Seat - 825 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction API 602, BS 5352
Flanged ASME B16.5, ASME B16.10
Test API 598-BS 6755 (Pt.1)

Connections (xx)

RF Raised face (std.)	LF Large female
RJ Ring joint	LG Large groove
SF Small female	LM Large male
SG Small groove	LT Large tongue
SM Small male	
ST Small tongue	

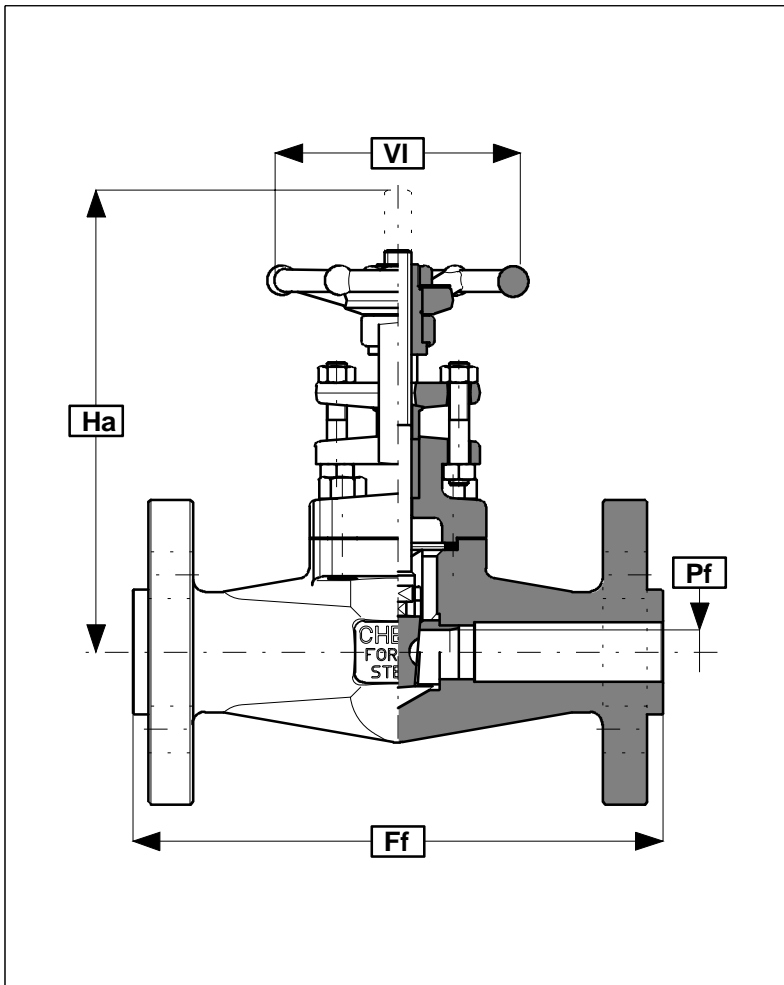


CONVENTIONAL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		139,7	5,50	152,4	6,00	165,1	6,50	190,5	7,50	215,9	8,50
Ha (mm/in)		145	5,71	156	6,14	186	7,32	255	10,04	273	10,75
VI (mm/in)		90	3,54	90	3,54	100	3,94	140	5,51	140	5,51
Pf (mm/in)		10	0,39	14	0,55	18	0,71	31	1,22	36,5	1,44
Wt. (kg/lb)		3,8	8,4	5,4	11,9	6,5	14,3	13,1	28,8	17,3	38,1
Catal. no.		R252/30xx		R253/30xx		R254/30xx		R256/30xx		R257/30xx	

FULL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		139,7	5,50	152,4	6,00	165,1	6,5	190,5	7,50	215,9	8,50
Ha (mm/in)		193	7,60	190	7,48	216	8,50	273	10,75	314	12,36
VI (mm/in)		90	3,54	100	3,94	120	4,72	140	5,51	200	7,87
Pf (mm/in)		14	0,55	18	0,71	24	0,94	36,5	1,44	48	1,89
Wt. (kg/lb)		4,5	9,9	6,0	13,2	7,6	16,7	14,0	32,6	18,8	41,4
Catal. no.		F212/30xx		F213/30xx		F214/30xx		F216/30xx		F217/30xx	

1) Standard and alternative valve materials on page 67, type A
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) Flanges & face-to face dimensions on page 74,75

GATE VALVES - 600 - Bolted bonnet - Flanged Rf/Rj



Ratings (ASTM A105)	
600 p.s.i. @ 850°F	
1480 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 2225 p.s.i.	
Seat - 1650 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	API 602, BS 5352
Flanged	ASME B16.5, ASME B16.10
Test	API 598-BS 6755 (Pt.1)

Connections (xx)			
RF	Raised face (std.)	LF	Large female
RJ	Ring joint	LG	Large groove
SF	Small female	LM	Large male
SG	Small groove	LT	Large tongue
SM	Small male		
ST	Small tongue		

CONVENTIONAL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		165,1	6,50	190,5	7,50	215,9	8,50	241,3	9,50	292,1	11,50
Ha (mm/in)		145	5,71	156	6,14	186	7,32	255	10,04	273	10,75
VI (mm/in)		90	3,54	90	3,54	100	3,94	140	5,51	140	5,51
Pf (mm/in)		10	0,39	14	0,55	18	0,71	31	1,22	36,5	1,44
Wt. (kg/lb)		3,5	7,7	5,8	12,8	7,4	16,3	14,3	31,5	18,8	41,4
Catal. no.		R252/60xx		R253/60xx		R254/60xx		R256/60xx		R257/60xx	

FULL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		165,1	6,50	190,5	7,50	215,9	8,50	241,3	9,50	292,1	11,50
Ha (mm/in)		176	6,93	206	8,11	216	8,50	255	10,04	334	13,15
VI (mm/in)		90	3,54	100	3,94	120	4,72	140	5,51	200	7,87
Pf (mm/in)		14	0,55	18	0,71	24	0,94	34	1,34	48	1,89
Wt. (kg/lb)		3,9	8,6	7,0	15,4	10,3	22,7	16,5	36,3	25,0	55,0
Catal. no.		F212/60xx		F213/60xx		F214/60xx		F216/60xx		F217/60xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on pag 68, 69, 70, 71,72
 3) Flanges & face-to-face dimensions on page 74,75

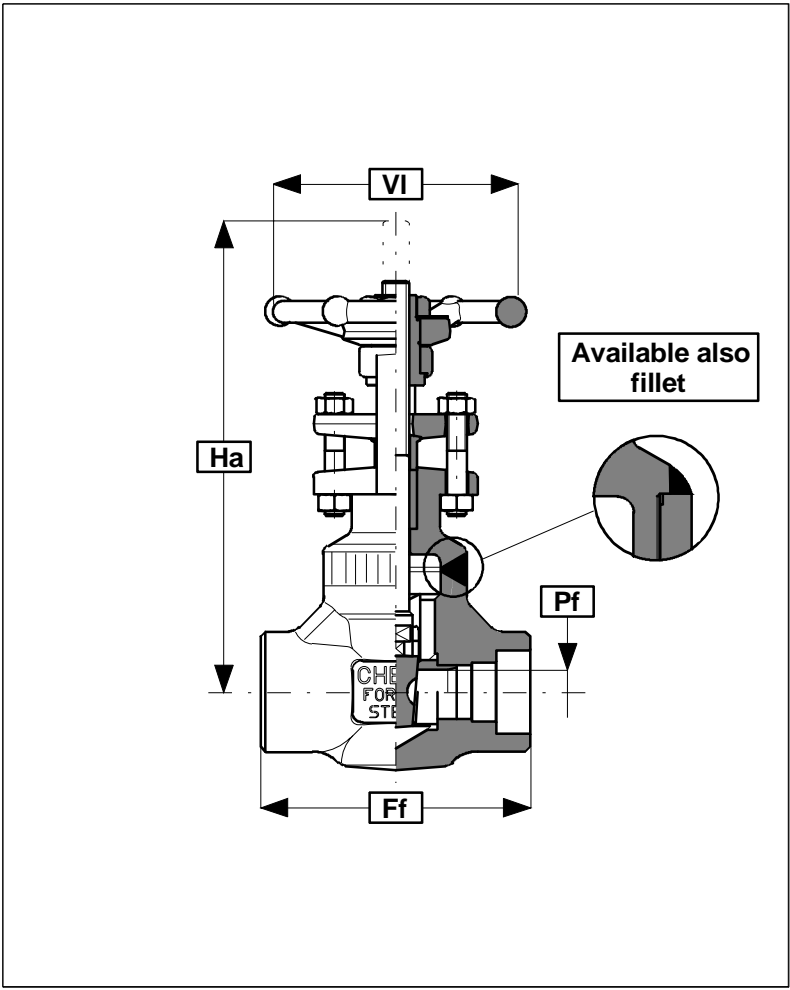
GATE VALVES - 800 - Welded bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
800 p.s.i. @ 850°F	
1975 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	API 602, BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-BS 6755 (Pt.1)

Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Sw/NPT		
SE Sw(e)/NPT		
SU Sw(u)/NPT		
B4 Butt weld 40		

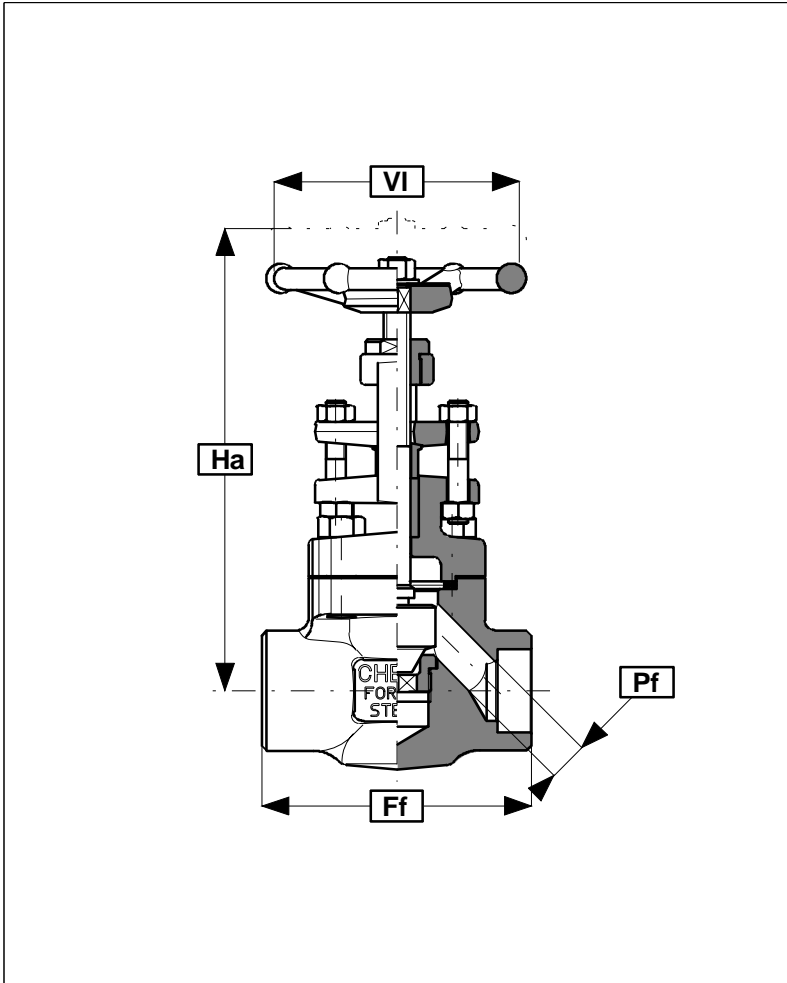


CONVENTIONAL BORE									
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	
Ha (mm/in)			150 5,91	157 6,18	188 7,40	220 8,66	248 9,76	274 10,79	
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	
Pf (mm/in)			10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	
Wt. (kg/lb)			1,4 3,1	1,7 3,7	2,8 6,2	4,4 9,7	5,6 12,3	7,6 16,7	
Catal. no.			R252WB/xx	R253WB/xx	R254WB/xx	R255WB/xx	R256WB/xx	R257WB/xx	

FULL BORE									
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	150 5,91	
Ha (mm/in)	150 5,91	150 5,91	157 6,18	188 7,40	220 8,66	248 9,76	274 10,79	334 13,15	
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87	
Pf (mm/in)	8,5 0,33	10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	48 1,9	
Wt. (kg/lb)	1,5 3,3	1,5 3,3	1,8 4,0	2,9 6,4	4,5 9,9	5,7 12,5	7,7 16,9	12,2 26,8	
Catal. no.	F210WB/xx	F211WB/xx	F212WB/xx	F213WB/xx	F214WB/xx	F215WB/xx	F216WB/xx	F217WB/xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

GLOBE VALVES - 800 - Bolted bonnet - Sw/Npt/Bw



Ratings (ASTM A105)	
800 p.s.i. @ 850°F	
1975 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

Connections (xx)			
SW	Socket weld	B8	Butt weld 80
TS	SW/NPT		
TH	Threaded NPT		
SE	SW (in)/NPT		
SU	SW (out)/NPT		
B4	Butt weld 40		

REDUCED BORE								
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69
Ha (mm/in)			152 5,98	159 6,26	182 7,17	214 8,43	283 11,14	306 12,05
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51
Pf (mm/in)			9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26
Wt. (kg/lb)			1,7 3,7	2 4,4	3,2 7,0	5,3 11,7	7,8 17,2	10,6 23,3
Catal. no.			R352/xx	R353/xx	R354/xx	R355/xx	R356/xx	R357/xx

FULL BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27
Ha (mm/in)	150 5,91	152 5,98	159 6,26	182 7,17	214 8,43	283 11,14	306 12,05	327 12,87
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)	6 0,24	9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26	40 ⁽⁶⁾ 1,57
Wt. (kg/lb)	1,8 4,0	1,8 4,0	2,1 4,6	3,3 7,3	5,4 11,9	7,9 17,4	10,7 23,5	16 35,2
Catal. no.	F310/xx	F311/xx	F312/xx	F313/xx	F314/xx	F315/xx	F316/xx	F317/xx

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71, 72
 3) SW, NPT & BW dimensions on page 73
 4) Pf = 29,5 with integral stellited seat
 5) Pf = 35 with integral stellited seat
 6) Pf = 45 with integral stellited seat

GLOBE VALVES - 150 - Bolted bonnet - Flanged Rf

Ratings (ASTM A105)

150 p.s.i. @ 550°F
285 p.s.i. @ 100°F

Test pressure (ASTM A105)

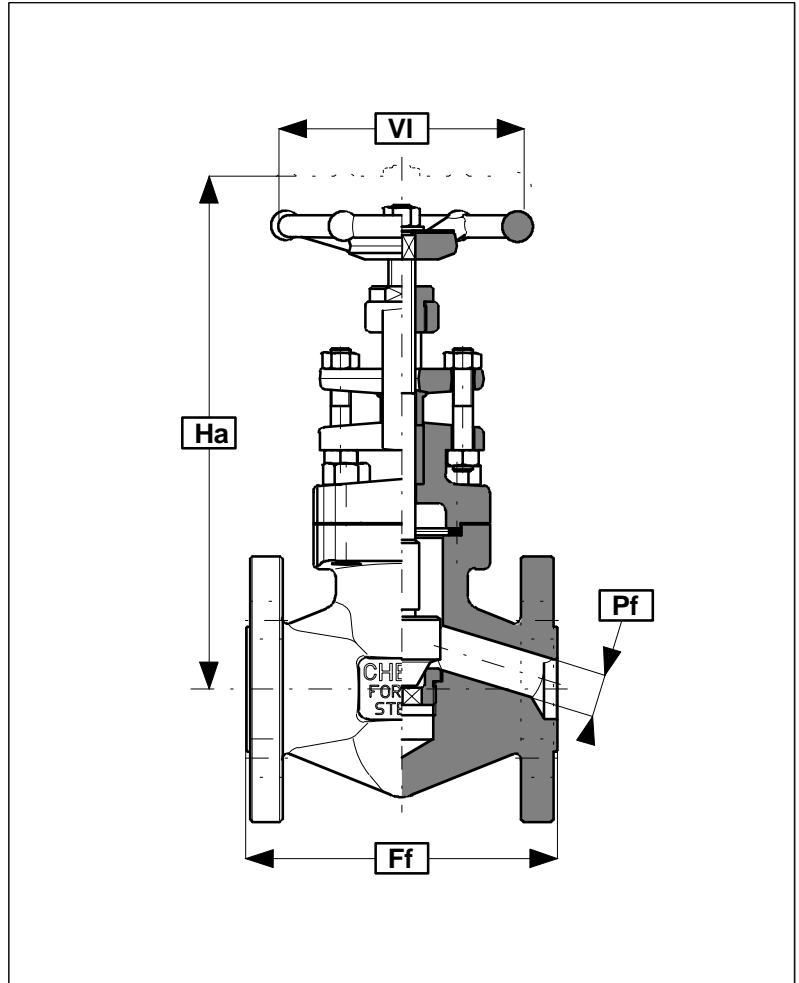
Hydraulic: (minimum)
Body - 450 p.s.i.
Seat - 325 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction BS 5352
Flanged ASME B16.5, ASME B16.10
Test BS 6755 (Pt.1)

Connections (xx)

RF Raised face (std.)
FF Flat finish



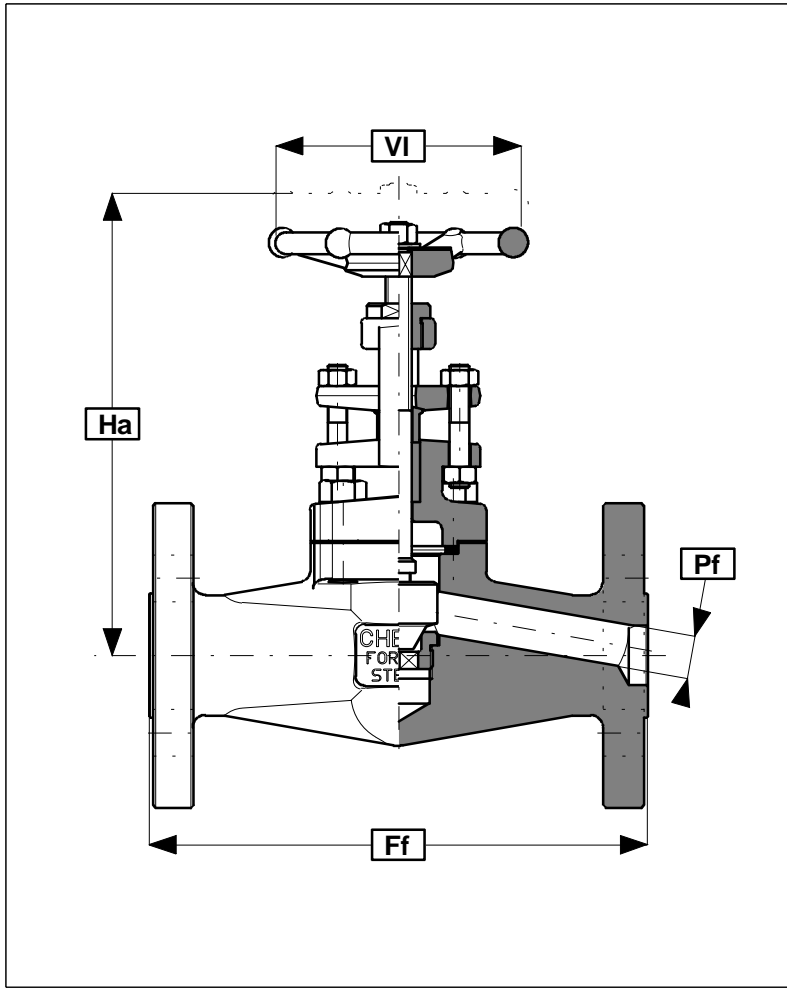
REDUCED BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		107,9	4,25	117,5	4,63	127,0	5,00	165,1	6,50	203,2	8,00
Ha (mm/in)		186	7,32	189	7,44	203	7,99	283	11,14	314	12,36
VI (mm/in)		90	3,54	90	3,54	100	3,94	140	5,51	140	5,51
Pf (mm/in)		9	0,35	12,5	0,49	17,5	0,69	28 ⁽⁴⁾	1,10	32 ⁽⁵⁾	1,26
Wt. (kg/lb)		3,1	6,8	4	8,8	5,7	12,5	10,6	23,3	15,4	33,9
Catal. no.		R352/15xx		R353/15xx		R354/15xx		R356/15xx		R357/15xx	

FULL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		107,9	4,25	117,5	4,63	127,0	5,00	165,1	6,50	203,2	8,00
Ha (mm/in)		188	7,40	192	7,56	207	8,15	283	11,14	314	12,36
VI (mm/in)		90	3,54	100	3,94	120	4,72	140	5,51	200	7,87
Pf (mm/in)		12,5	0,49	17,5	0,69	22,5	0,89	32	1,26	38	1,57
Wt. (kg/lb)		3	6,6	3,9	8,6	5,6	12,3	10,6	23,3	15,8	34,8
Catal. no.		F312/15xx		F313/15xx		F314/15xx		F316/15xx		F317/15xx	

1) Standard and alternative valve materials on page 67, type A
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) Flanges & face-to-face dimensions on page 74,75

4) Pf = 29,5 with integral stellited seat
5) Pf = 35 with integral stellited seat

GLOBE VALVES - 300 - Bolted bonnet - Flanged Rf/Rj



Ratings (ASTM A105)	
300 p.s.i. @ 850°F	
740 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 1125 p.s.i.	
Seat - 825 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Flanged	ASME B16.5, ASME B16.10
Test	BS 6755 (Pt.1)

Connections (xx)			
RF	Raised face (std.)	LF	Large female
RJ	Ring joint	LG	Large groove
SF	Small female	LM	Large male
SG	Small groove	LT	Large tongue
SM	Small male		
ST	Small tongue		

REDUCED BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		152,4	5,98	177,8	7,00	203,2	8,00	228,6	9,00	266,7	10,50
Ha (mm/in)		152	5,98	159	6,26	182	7,17	283	11,14	306	12,05
VI (mm/in)		90	3,54	90	3,54	100	3,94	140	5,51	140	5,51
Pf (mm/in)		9	0,35	12,5	0,49	17,5	0,69	28 ⁽⁴⁾	1,10	32 ⁽⁵⁾	1,26
Wt. (kg/lb)		3,4	7,5	4,8	10,6	7,0	15,4	14,2	31,2	17,4	38,3
Catal. no.		R352/30xx		R353/30xx		R354/30xx		R356/30xx		R357/30xx	

FULL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		152,4	5,98	177,8	7,00	203,2	8,00	228,6	9,00	266,7	10,50
Ha (mm/in)		152	5,98	159	6,26	182	7,17	283	11,14	306	12,05
VI (mm/in)		90	3,54	100	3,94	120	4,72	140	5,51	200	7,87
Pf (mm/in)		13	0,51	17,5	0,69	22,5	0,89	34	1,34	45	1,77
Wt. (kg/lb)		3,4	7,5	4,8	10,6	7,0	15,4	14,2	31,2	17,4	38,3
Catal. no.		F312/30xx		F313/30xx		F314/30xx		F316/30xx		F317/30xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) Flanges & face-to-face dimensions on page 74,75
 4) Pf = 29,5 with integral stellited seat
 5) Pf = 35 with integral stellited seat

GLOBE VALVES - 600 - Bolted bonnet - Flanged Rf/Rj

Ratings (ASTM A105)

600 p.s.i. @ 850°F
1480 p.s.i. @ 100°F

Test pressure (ASTM A105)

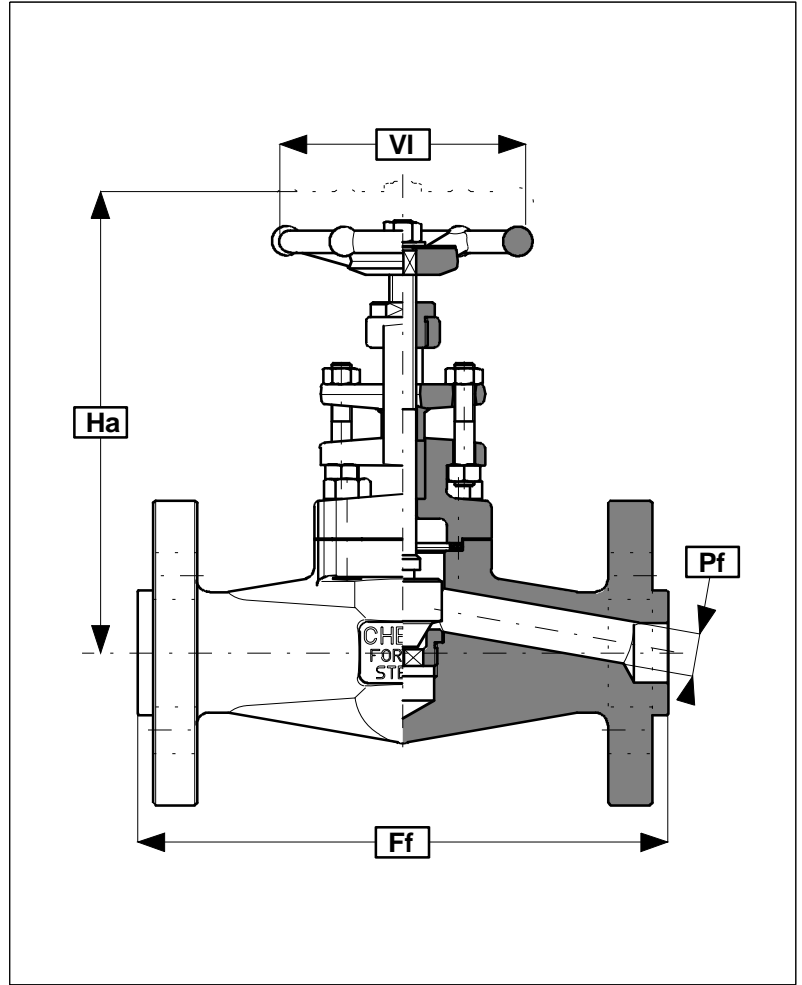
Hydraulic: (minimum)
Body - 2225 p.s.i.
Seat - 1650 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction BS 5352
Flanged ASME B16.5, ASME B16.10
Test BS 6755 (Pt.1)

Connections (xx)

RF Raised face (std.)	LF Large female
RJ Ring joint	LG Large groove
SF Small female	LM Large male
SG Small groove	LT Large tongue
SM Small male	
ST Small tongue	

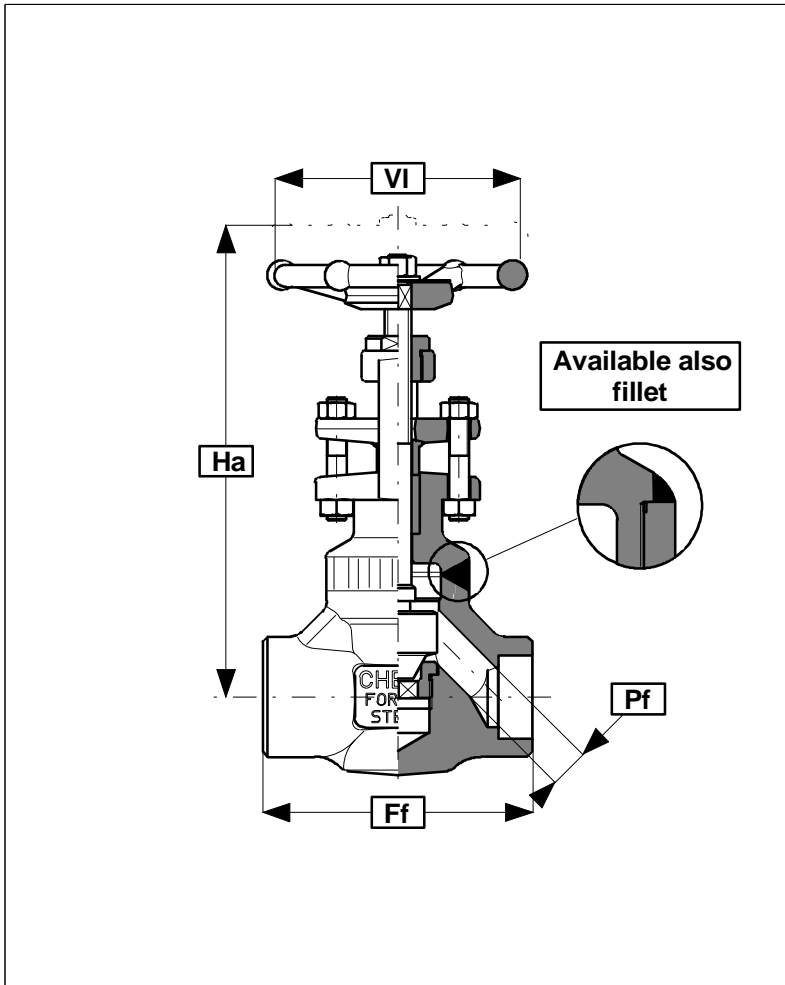


REDUCED BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		165,1	6,50	190,5	7,50	215,9	8,50	241,3	9,50	292,1	11,50
Ha (mm/in)		152	5,98	159	6,26	182	7,17	283	11,14	306	12,05
VI (mm/in)		90	3,54	90	3,54	100	3,94	140	5,51	140	5,51
Pf (mm/in)		9	0,35	12,5	0,49	17,5	0,69	28 ⁽⁴⁾	1,10	32 ⁽⁵⁾	1,26
Wt. (kg/lb)		3,6	7,9	5,1	11,2	7,8	17,2	14,2	31,2	19,4	42,7
Catal. no.		R352/60xx		R353/60xx		R354/60xx		R356/60xx		R357/60xx	

FULL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		165,1	6,50	190,5	7,50	215,9	8,50	241,3	9,50	292,1	11,50
Ha (mm/in)		159	6,26	182	7,17	214	8,43	306	12,05	327	12,87
VI (mm/in)		90	3,54	100	3,94	120	4,72	140	5,51	200	7,87
Pf (mm/in)		12	0,47	17,5	0,69	22,5	0,89	34	1,34	45	1,77
Wt. (kg/lb)		3,8	8,4	6,8	15,0	10,3	22,7	17,8	39,2	26,8	59,0
Catal. no.		F312/60xx		F313/60xx		F314/60xx		F316/60xx		F317/60xx	

1) Standard and alternative valve materials on page 67, type A
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) Flanges & face-to-face dimensions on page 74,75
4) Pf = 29,5 with integral stellited seat
5) Pf = 35 with integral stellited seat

GLOBE VALVES - 800 - Welded bonnet - Sw/Npt/Bw



Ratings (ASTM A105)	
800 p.s.i. @ 850°F	
1975 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

Connections (xx)			
SW	Socket weld	B8	Butt weld 80
TS	Sw/NPT		
TH	Threaded NPT		
SE	Sw (in)/NPT		
SU	Sw (out)/NPT		
B4	Butt weld 40		

REDUCED BORE														
			1/2"		3/4"		1"		1.1/4"		1.1/2"		2"	
Ff (mm/in)			80	3,15	90	3,54	110	4,33	127	5,00	155	6,10	170	6,69
Ha (mm/in)			153	6,02	158	6,22	179	7,05	220	8,66	250	9,84	274	10,79
VI (mm/in)			90	3,54	90	3,54	100	3,94	120	4,72	140	5,51	140	5,51
Pf (mm/in)			9	0,35	12,5	0,49	17,5	0,69	22,5	0,89	28 ⁽⁴⁾	1,10	32 ⁽⁵⁾	1,26
Wt. (kg/lb)			1,4	3,1	1,6	3,5	3	6,6	4,8	10,6	6,8	15,0	9,4	20,7
Catal. no.			R352WB/xx		R353WB/xx		R354WB/xx		R355WB/xx		R356WB/xx		R357WB/xx	

FULL BORE																
	1/4"		3/8"		1/2"		3/4"		1"		1.1/4"		1.1/2"		2"	
Ff (mm/in)	80	3,15	80	3,15	90	3,54	110	4,33	127	5,00	155	6,10	170	6,69	210	8,27
Ha (mm/in)	150	5,91	153	6,02	158	6,22	179	7,05	220	8,66	250	9,84	274	10,79	327	12,87
VI (mm/in)	90	3,54	90	3,54	90	3,54	100	3,94	120	4,72	140	5,51	140	5,51	200	7,87
Pf (mm/in)	6,5	0,26	9	0,35	12,5	0,49	17,5	0,69	22,5	0,89	28 ⁽⁴⁾	1,10	32 ⁽⁵⁾	1,26	38 ⁽⁶⁾	1,50
Wt. (kg/lb)	1,4	3,1	1,4	3,1	1,6	3,5	3,0	6,6	4,8	10,7	6,8	15,0	9,4	20,7	14,6	32,1
Catal. no.	F310WB/xx		F311WB/xx		F312WB/xx		F313WB/xx		F314WB/xx		F315WB/xx		F316WB/xx		F317WB/xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73
 4) Pf = 29,5 with integral stellited seat
 5) Pf = 35 with integral stellited seat
 6) Pf = 42 with integral stellited seat

CHECK VALVES - 800 - Bolted cover - Sw/Npt/Bw

Ratings (ASTM A105)

800 p.s.i. @ 850°F
1975 p.s.i. @ 100°F

Test pressure (ASTM A105)

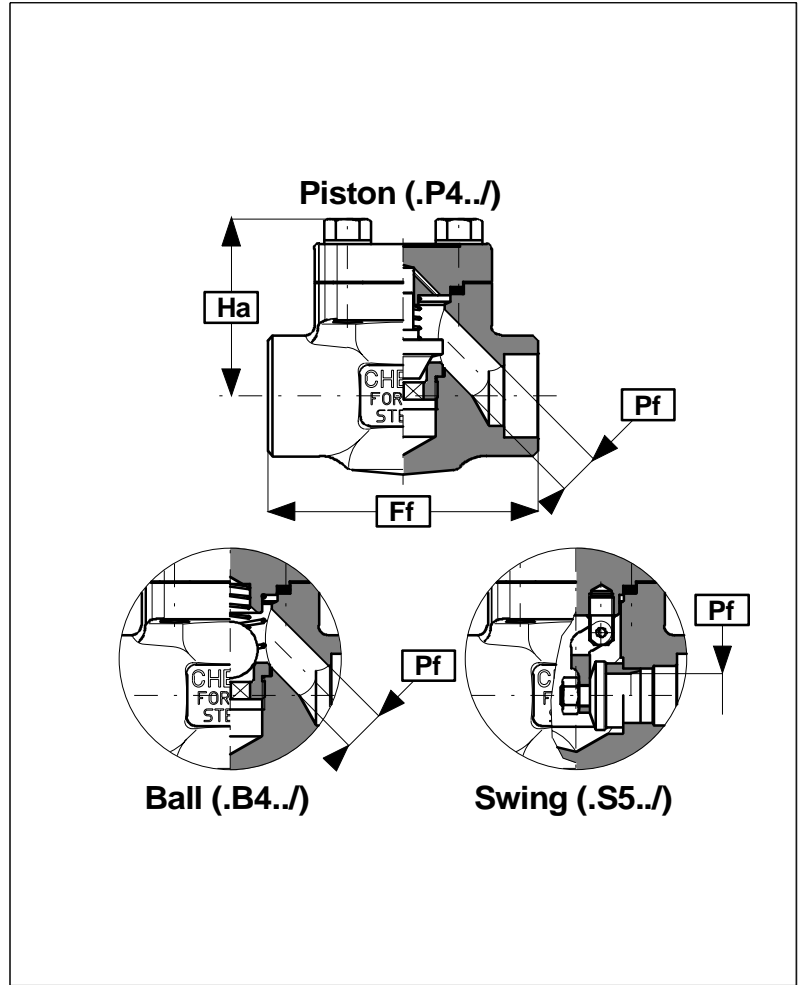
Hydraulic: (minimum)
Body - 3000 p.s.i.
Seat - 2175 p.s.i.
Air under water:
not applicable

Standards

Construction BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Butt weld ASME B16.25
Test BS 6755 (Pt.1)

Connections (xx)

SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B4 Butt weld 40	



REDUCED BORE

		1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)		80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69
Ha (mm/in)		50 1,97	56 2,20	74 2,91	79 3,11	100 3,94	109 4,29
Pf⁽⁷⁾(mm/in)		9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26
Wt. (kg/lb)		1,1 2,4	1,8 4,0	2,6 5,7	3,6 7,9	5,5 12,1	8,4 18,5
Catal. no.		Rtt52/xx	Rtt53/xx	Rtt54/xx	Rtt55/xx	Rtt56/xx	Rtt57/xx

FULL BORE

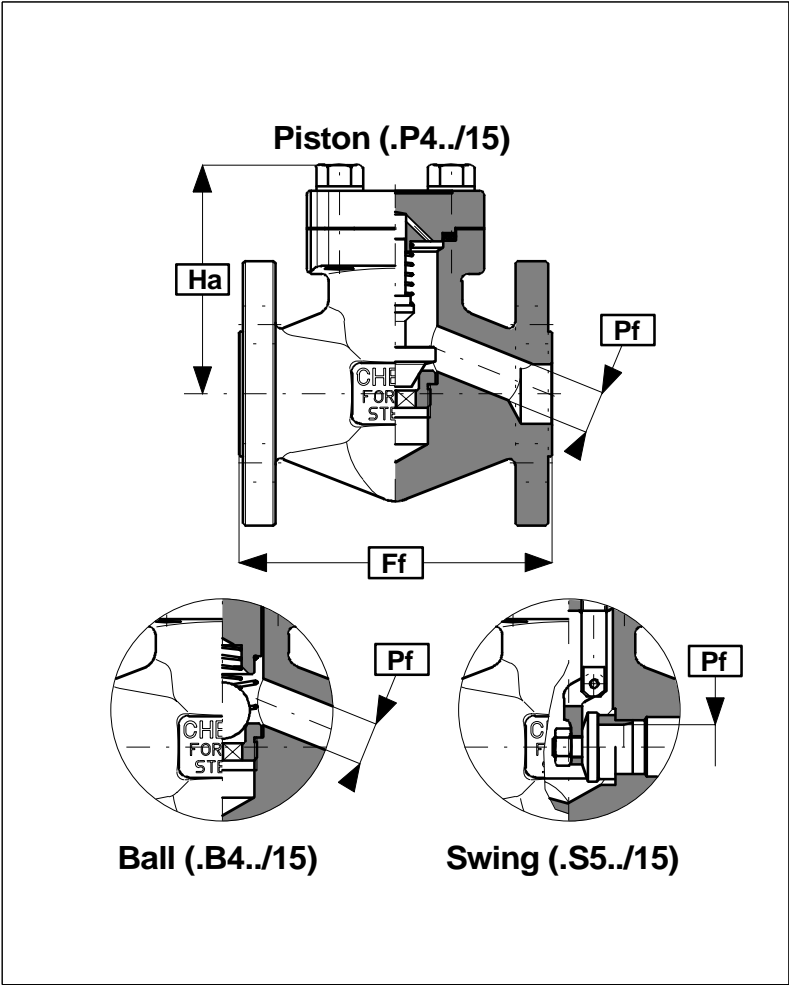
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27
Ha (mm/in)	50 1,97	50 1,97	56 2,20	74 2,91	79 3,11	100 3,94	109 4,29	135 5,31
Pf⁽⁷⁾(mm/in)	6,5 0,26	9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26	38 ⁽⁶⁾ 1,50
Wt. (kg/lb)	1,1 2,4	1,1 2,4	1,8 4,0	2,6 5,7	3,6 7,9	5,5 12,1	8,4 18,5	11,8 26,0
Catal. no.	Ftt10/xx	Ftt11/xx	Ftt12/xx	Ftt13/xx	Ftt14/xx	Ftt15/xx	Ftt16/xx	Ftt17/xx

1) Standard and alternative valve materials on page 67, type B
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71, 72
3) SW, NPT & BW dimensions on page 73

4) Pf = 29,5 with integral stellite seat
5) Pf = 35 with integral stellite seat
6) Pf = 42 with integral stellite seat

7) Dimensions for piston & ball type; for swing see pag.4
8) Code It is replaced by kind of check valve (drawing above)

CHECK VALVES - 150 - Bolted cover - Flanged Rf



Ratings (ASTM A105)	
150 p.s.i. @ 550°F	
285 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 450 p.s.i.	
Seat - 325 p.s.i.	
Air under water:	
not applicable	

Standards	
Construction	BS 5352
Flanged	ASME B16.5, ASME B16.10
Test	BS 6755 (Pt.1)

Connections (xx)	
RF	Raised face (std.)
FF	Flat finish

REDUCED BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		107,9	4,25	117,5	4,63	127,0	5,00	165,1	6,50	203,2	8,00
Ha (mm/in)		84	3,31	87	3,43	92	3,62	97	3,82	124	4,88
Pf⁽⁶⁾ (mm/in)		9	0,35	12,5	0,49	17,5	0,69	28 ⁽⁴⁾	1,10	32 ⁽⁵⁾	1,26
Wt. (kg/lb)		2,6	5,7	3,8	8,4	5,1	11,2	8,4	18,5	14,2	31,2
Catal. no.		Rtt52/15xx		Rtt53/15xx		Rtt54/15xx		Rtt56/15xx		Rtt57/15xx	

FULL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		107,9	4,25	117,5	4,63	127,0	5,00	165,1	6,50	203,2	6,50
Ha (mm/in)		84	3,31	87	3,43	92	3,62	110	4,33	124	4,88
Pf⁽⁶⁾ (mm/in)		12,5	0,49	17,5	0,69	22,5	0,89	32	1,38	38	1,50
Wt. (kg/lb)		2,6	5,7	3,8	8,4	5,1	11,2	8,4	18,5	14,7	31,2
Catal. no.		Ftt12/15xx		Ftt13/15xx		Ftt14/15xx		Ftt16/15xx		Ftt17/15xx	

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70,71,72
 3) Flanges & face-to-face dimensions on page 74,75
 4) Pf = 29,5 with integral stellited seat
 5) Pf = 35 with integral stellited seat
 6) Dimensions for piston & ball type; for swing see page 4
 7) Code tt is replaced by kind of check valve (drawing above)

CHECK VALVES - 300 - Bolted cover - Flanged Rf/Rj

Ratings (ASTM A105)

300 p.s.i. @ 850°F
740 p.s.i. @ 100°F

Test pressure (ASTM A105)

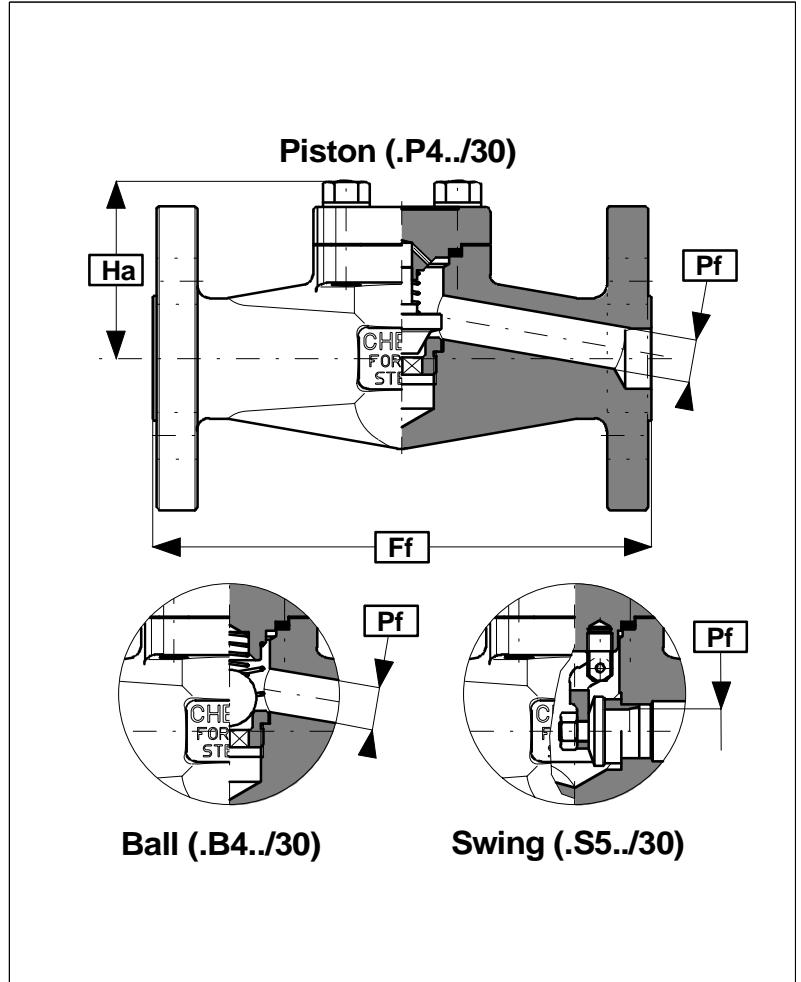
Hydraulic: (minimum)
Body - 1125 p.s.i.
Seat - 825 p.s.i.
Air under water:
not applicable

Standards

Construction BS 5352
Flanged ASME B16.5, ASME B16.10
Test BS 6755 (Pt.1)

Connections (xx)

RF Raised face (std.)	LF Large female
RJ Ring joint	LG Large groove
SF Small female	LM Large male
SG Small groove	LT Large tongue
SM Small male	
ST Small tongue	



REDUCED BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		152,4	6,00	177,8	7,00	203,2 ⁽⁶⁾	8,00	228,6 ⁽⁶⁾	9,00	266,7	10,50
Ha (mm/in)		50	1,97	56	2,20	74	2,91	100	3,94	109	4,29
Pf⁽⁷⁾(mm/in)		9	0,35	12,5	0,49	17,5	0,69	28 ⁽⁴⁾	1,10	32 ⁽⁵⁾	1,26
Wt. (kg/lb)		2,5	5,5	4,2	9,2	5,7	12,5	11,2	24,6	14,4	31,7
Catal. no.		Rtt52/30xx		Rtt53/30xx		Rtt54/30xx		Rtt56/30xx		Rtt57/30xx	

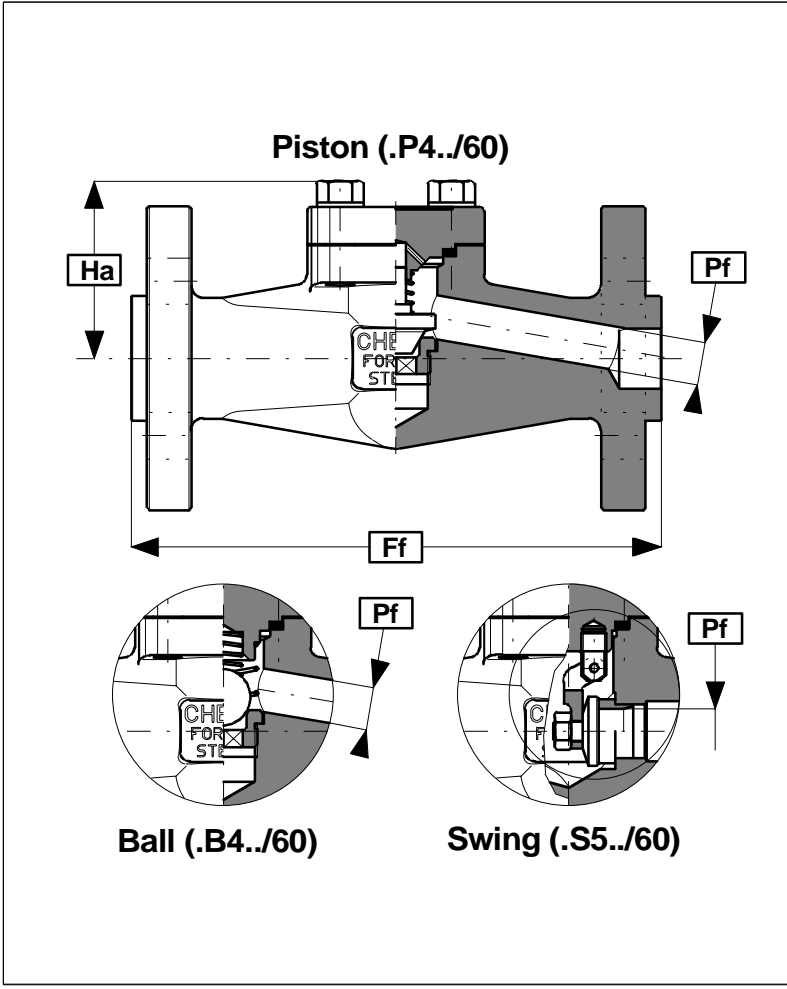
FULL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		152,4	6,00	177,8	7,00	203,2 ⁽⁶⁾	8,00	228,6 ⁽⁶⁾	9,00	266,7	10,50
Ha (mm/in)		50	1,97	56	2,20	92	3,62	110	4,33	140	5,51
Pf⁽⁷⁾(mm/in)		12,5	0,49	17,5	0,69	22,5	0,89	35	1,38	45	1,77
Wt. (kg/lb)		2,5	5,5	4,2	9,2	5,7	12,5	11,2	24,6	14,4	31,7
Catal. no.		Ftt52/30xx		Ftt53/30xx		Ftt54/30xx		Ftt56/30xx		Ftt57/30xx	

1) Standard and alternative valve materials on page 67, type B
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) Flanges & face-to face dimensions on page 74,75

4) Pf = 29,5 with integral stellited seat
5) Pf = 35 with integral stellited seat
6) Swing 1"=215,9 (8,50) - Swing 1.1/2" = 241,3 (9,50)

7) Dimensions for piston & ball type; for swing see page 4
8) Code it is replaced by kind of check valve (drawing above)

CHECK VALVES - 600 - Bolted cover - Flanged Rf/Rj



Ratings (ASTM A105)	
600 p.s.i. @ 850°F	
1480 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 2225 p.s.i.	
Seat - 1650 p.s.i.	
Air under water:	
not applicable	

Standards	
Construction	BS 5352
Flanged	ASME B16.5, ASME B16.10
Test	BS 6755 (Pt.1)

Connections (xx)			
RF	Raised face (std.)	LF	Large female
RJ	Ring joint	LG	Large groove
SF	Small female	LM	Large male
SG	Small groove	LT	Large tongue
SM	Small male		
ST	Small tongue		

REDUCED BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		165,1	6,50	190,5	7,50	215,9	8,50	241,3	9,50	292,1	11,50
Ha (mm/in)		50	1,97	56	2,20	74	2,91	100	3,94	109	4,29
Pf⁽⁶⁾ (mm/in)		9	0,35	12,5	0,49	17,5	0,69	28 ⁽⁴⁾	1,10	32 ⁽⁵⁾	1,26
Wt. (kg/lb)		3,1	6,8	5	11,0	7,3	16,1	12	26,4	16,6	36,5
Catal. no.		Rtt52/60xx		Rtt53/60xx		Rtt54/60xx		Rtt56/60xx		Rtt57/60xx	

FULL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		165,1	6,50	190,5	7,50	215,9	8,50	241,3	9,50	292,1	11,50
Ha (mm/in)		50	1,97	56	2,20	92	3,62	110	4,33	140	5,51
Pf⁽⁶⁾ (mm/in)		12,5	0,49	17,5	0,69	22,5	0,89	35	1,38	45	1,77
Wt. (kg/lb)		3,1	6,8	5	11,0	7,3	16,1	12	26,4	16,6	36,5
Catal. no.		Ftt52/60xx		Ftt53/60xx		Ftt54/60xx		Ftt56/60xx		Ftt57/60xx	

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) Flanges & face-to-face dimensions on page 74,75
 4) Pf = 29,5 with integral stellited seat
 5) Pf = 35 with integral stellited seat
 6) Dimensions for piston & ball type; for swing see page 4
 7) Code tt is replaced by kind of check valve (drawing above)

CHECK VALVES - 800 - Welded cover - Sw/Npt/Bw

Ratings (ASTM A105)

800 p.s.i. @ 850°F
1975 p.s.i. @ 100°F

Test pressure (ASTM A105)

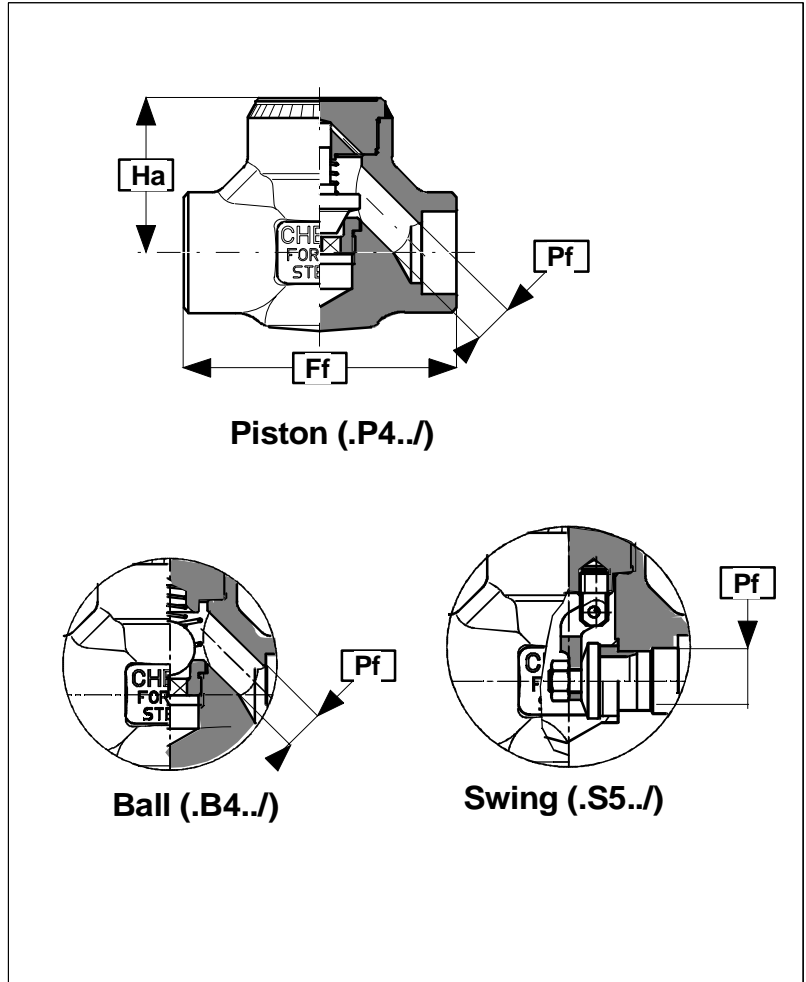
Hydraulic: (minimum)
Body - 3000 p.s.i.
Seat - 2175 p.s.i.
Air under water:
not applicable

Standards

Construction BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Butt weld ASME B16.25
Test BS 6755 (Pt.1)

Connections (xx)

SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B4 Butt weld 40	



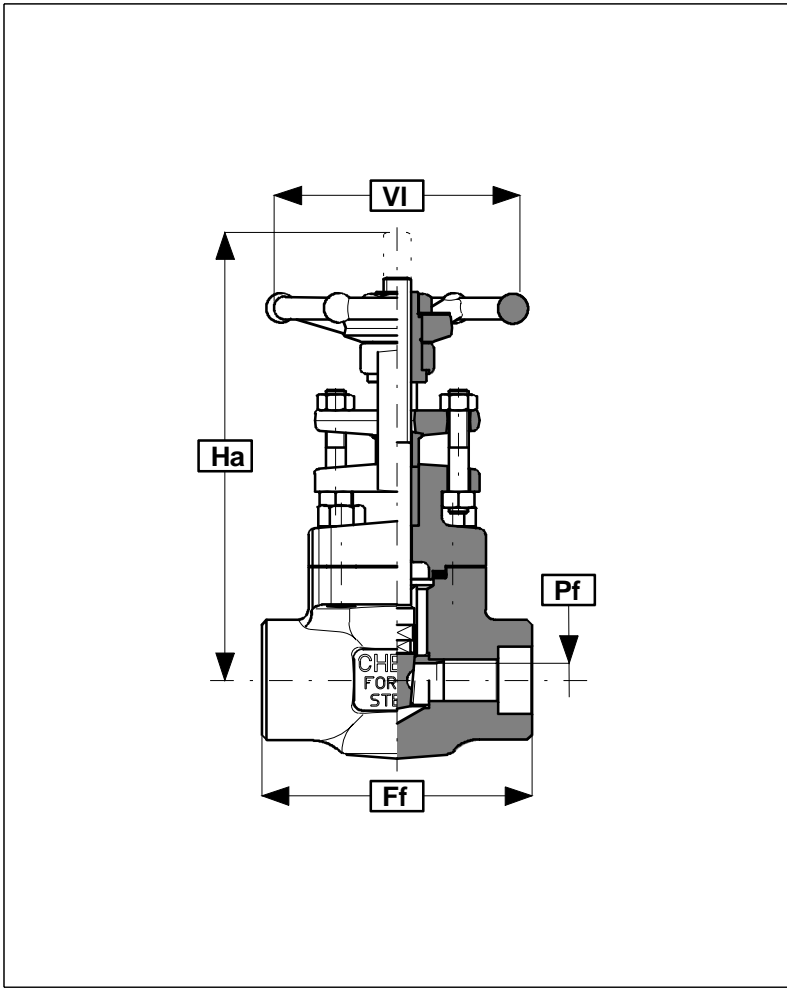
		REDUCED BORE											
		1/2"		3/4"		1"		1.1/4"		1.1/2"		2"	
Ff (mm/in)		80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69						
Ha (mm/in)		48 1,89	51 2,01	63 2,48	71 2,80	86 3,39	99 3,90						
Pf (mm/in)		9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28⁽⁴⁾ 1,10	32⁽⁵⁾ 1,26						
Wt. (kg/lb)		0,8 1,8	1,1 2,4	2,0 4,4	3,3 7,3	4,9 10,8	7,3 16,1						
Catal. no.		Rtt452WC/xx	Rtt453WC/xx	Rtt454WC/xx	Rtt455WC/xx	Rtt456WC/xx	Rtt457WC/xx						

		FULL BORE															
		1/4"		3/8"		1/2"		3/4"		1"		1.1/4"		1.1/2"		2"	
Ff (mm/in)		80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27								
Ha (mm/in)		48 1,89	48 1,89	51 2,01	63 2,48	71 2,80	86 3,39	99 3,90	121 4,76								
Pf (mm/in)		6,5 0,26	9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28⁽⁴⁾ 1,10	32⁽⁵⁾ 1,26	38⁽⁶⁾ 1,50								
Wt. (kg/lb)		0,8 1,8	0,8 1,8	1,1 2,4	2,0 4,4	3,3 7,3	4,9 10,8	7,3 16,1	11,9 26,2								
Catal. no.		Ftt410WC/xx	Ftt411WC/xx	Ftt412WC/xx	Ftt413WC/xx	Ftt414WC/xx	Ftt415WC/xx	Ftt416WC/xx	Ftt417WC/xx								

1) Standard and alternative valve materials on page 67, type B
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71, 72
3) SW, NPT & BW dimensions on page 73

4) Pf = 29,5 with integral stellited seat
5) Pf = 35 with integral stellited seat
6) Pf = 42 with integral stellited seat

Compact GATE VALVES - 1500 - Bolted bonnet - Sw/Npt/Bw



Ratings (ASTM A105)
1500 p.s.i. @ 850°F
3705 p.s.i. @ 100°F

Test pressure (ASTM A105)
Hydraulic: (minimum)
Body - 5575 p.s.i.
Seat - 4100 p.s.i.
Air under water:
Seat - 85 p.s.i.

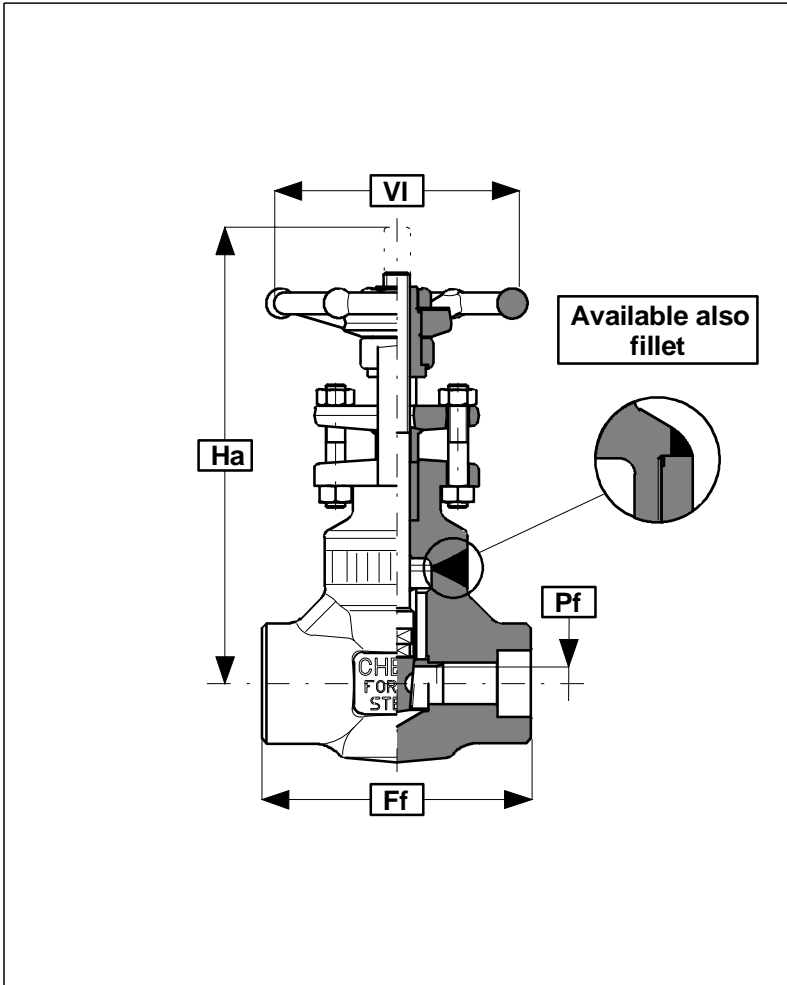
Standards
Construction API 602
Socket weld ASME B16.11
Threaded ASME B1.20.1
Butt weld ASME B16.25
Test API 598

Connections (xx)	
SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw(e)/NPT	
SU Sw(u)/NPT	
B6 Butt weld 160	

CONVENTIONAL BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	90 3,54	90 3,54	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	150 5,91
Ha (mm/in)	163 6,42	163 6,42	163 6,42	180 7,09	212 8,35	245 9,65	266 10,47	318 12,52
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)	8,5 0,33	8,5 0,33	10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44
Wt. (kg/lb)	2,3 5,1	2,3 5,1	2,3 5,1	3,7 8,1	5,4 11,9	7,4 16,3	9,6 21,1	15,1 33,2
Catal. no.	X650/xx	X651/xx	X652/xx	X653/xx	X654/xx	X655/xx	X656/xx	X657/xx

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

Compact GATE VALVES - 1500 - Welded bonnet - Sw/Npt/Bw



Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic:(minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	API 602
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598

Connections (xx)			
SW	Socket weld	B8	Butt weld 80
TH	Threaded NPT		
TS	Sw/NPT		
SE	Sw(e)/NPT		
SU	Sw(u)/NPT		
B6	Butt weld 160		

CONVENTIONAL BORE																
	1/4"		3/8"		1/2"		3/4"		1"		1.1/4"		1.1/2"		2"	
Ff (mm/in)	90	3,54	90	3,54	90	3,54	110	4,33	127	5,00	127	5,00	130	5,12	150	5,91
Ha (mm/in)	170	6,69	170	6,69	170	6,69	183	7,20	219	8,62	247	9,72	274	10,79	331	13,03
VI (mm/in)	90	3,54	90	3,54	90	3,54	100	3,94	120	4,72	140	5,51	140	5,51	200	7,87
Pf (mm/in)	8,5	0,33	8,5	0,33	10	0,39	14	0,55	18	0,71	24	0,94	31	1,22	36,5	1,44
Wt. (kg/lb)	2,2	4,8	2,2	4,8	2,2	4,8	3,3	7,3	5,0	11,0	6,4	14,1	8,7	19,1	13,6	29,9
Catal. no.	X650WB/xx		X651WB/xx		X652WB/xx		X653WB/xx		X654WB/xx		X655WB/xx		X656WB/xx		X657WB/xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

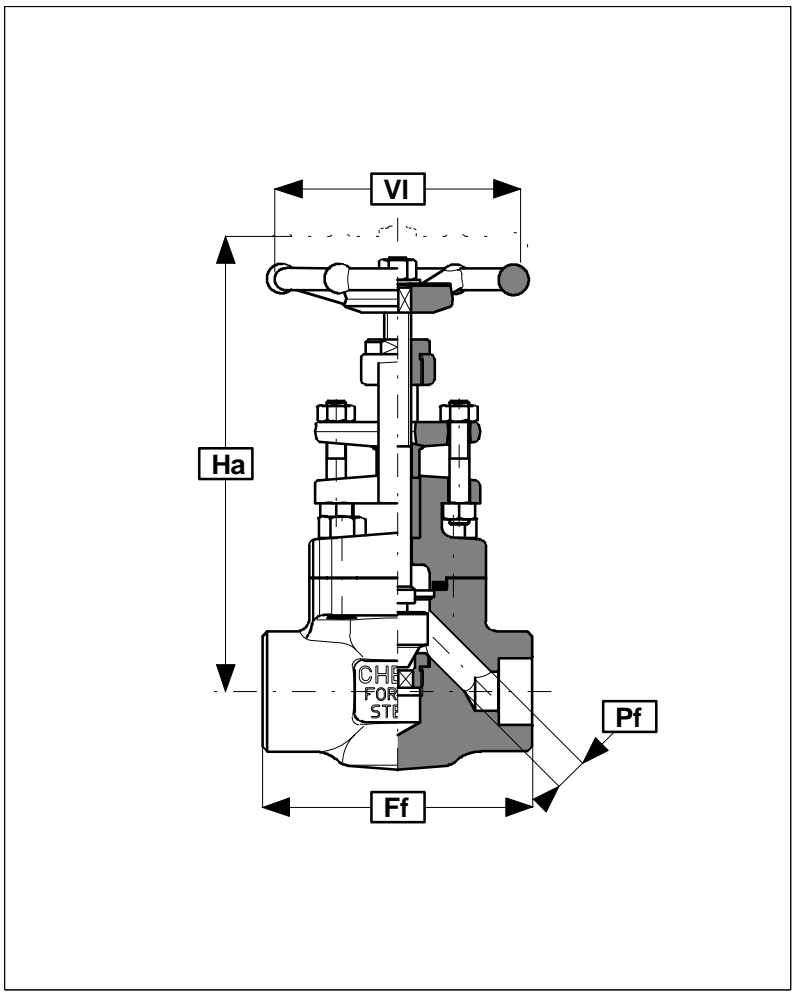
Compact GLOBE VALVES - 1500 - Bolted bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	<i>founded on API 602</i>
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	<i>founded on API 598</i>

Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Threaded NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B6 Butt weld 160		



CONVENTIONAL BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	90 3,54	90 3,54	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27
Ha (mm/in)	169 6,65	169 6,65	169 6,65	181 7,13	210 8,27	246 9,69	255 10,04	307 12,09
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)	6,5 0,26	9 0,35	10 0,39	13,5 0,53	18 0,71	24 0,94	29 1,14	35 1,38
Wt. (kg/lb)	2,4 5,3	2,4 5,3	2,4 5,3	3,7 8,1	5,5 12,1	8,3 18,3	11,4 25,1	16,8 37,0
Catal. no.	X750/xx	X751/xx	X752/xx	X753/xx	X754/xx	X755/xx	X756/xx	X757/xx

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

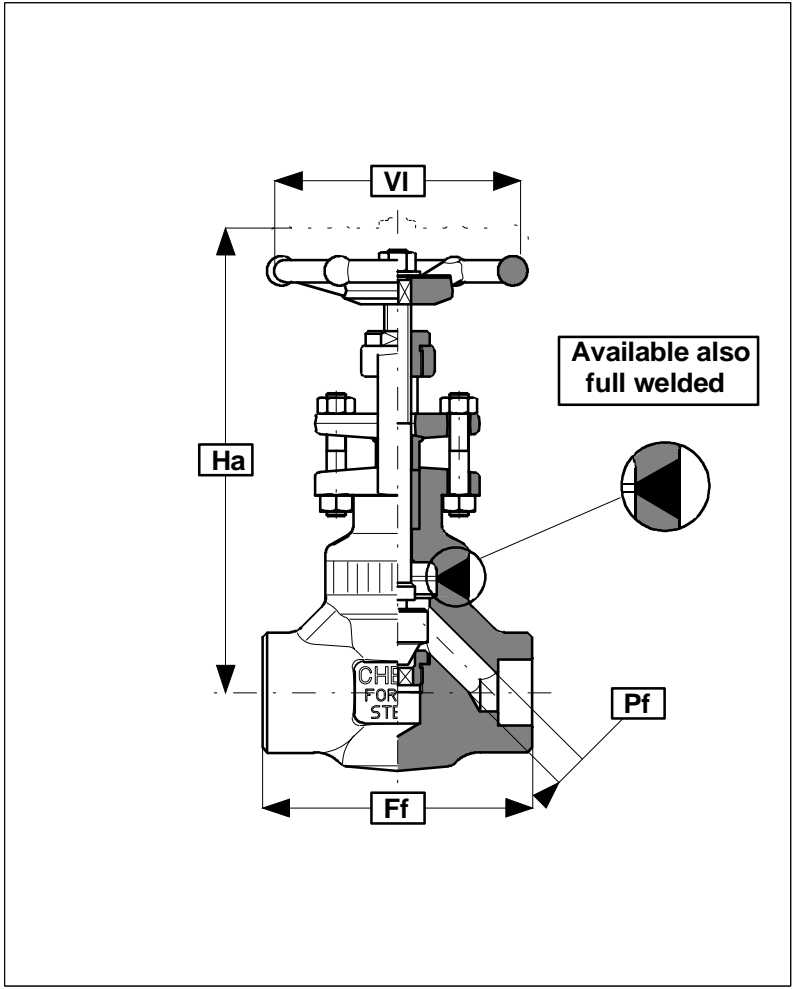
Compact GLOBE VALVES - 1500 - Welded bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	<i>founded on API 602</i>
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	<i>founded on API 598</i>

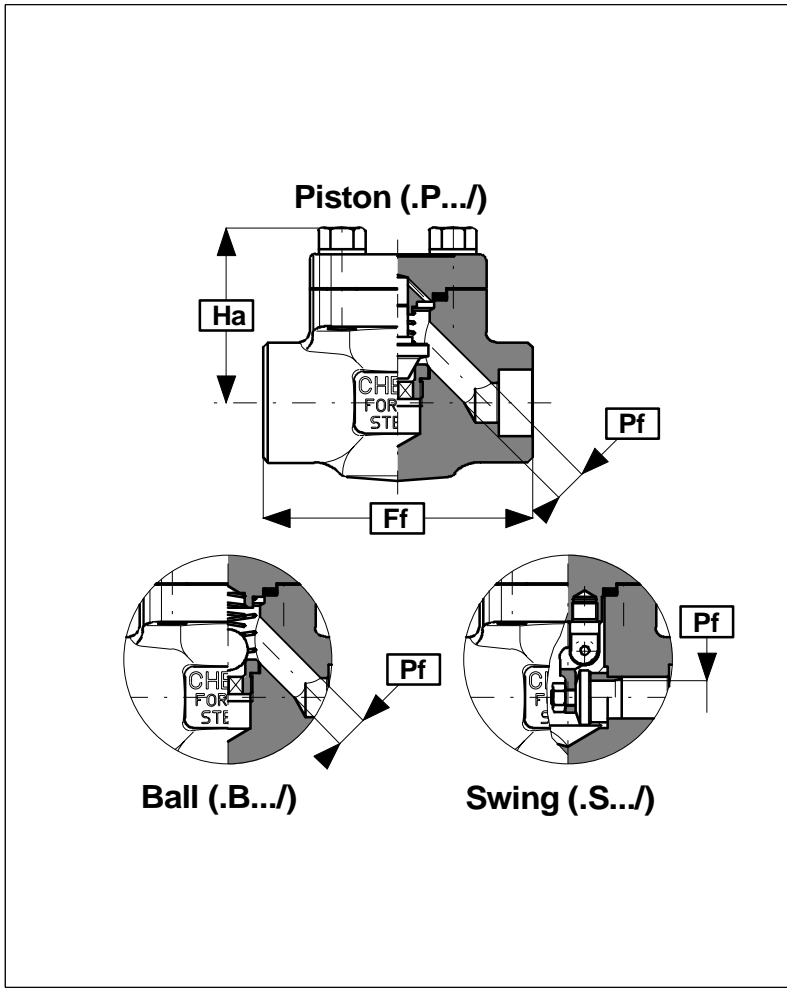
Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Sw/NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B6 Butt weld 160		



CONVENTIONAL BORE																
	1/4"		3/8"		1/2"		3/4"		1"		1.1/4"		1.1/2"		2"	
Ff (mm/in)	90 3,54	90 3,54	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27								
Ha (mm/in)	177 6,97	177 6,97	177 6,97	185 7,28	214 8,43	244 9,61	270 10,63	330 12,99								
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87								
Pf (mm/in)	6,5 0,26	9 0,35	10 0,39	13,5 0,53	18 0,71	24 0,94	29 1,14	35 1,38								
Wt. (kg/lb)	2,1 4,6	2,1 4,6	2,1 4,6	3,4 7,48	5,4 11,9	7,6 16,7	10,5 23,1	16,5 36,3								
Catal. no.	X750WB/xx	X751WB/xx	X752WB/xx	X753WB/xx	X754WB/xx	X755WB/xx	X756WB/xx	X757WB/xx								

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

Compact CHECK VALVES - 1500 - Bolted cover - Sw/Npt/Bw



Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
not applicable	

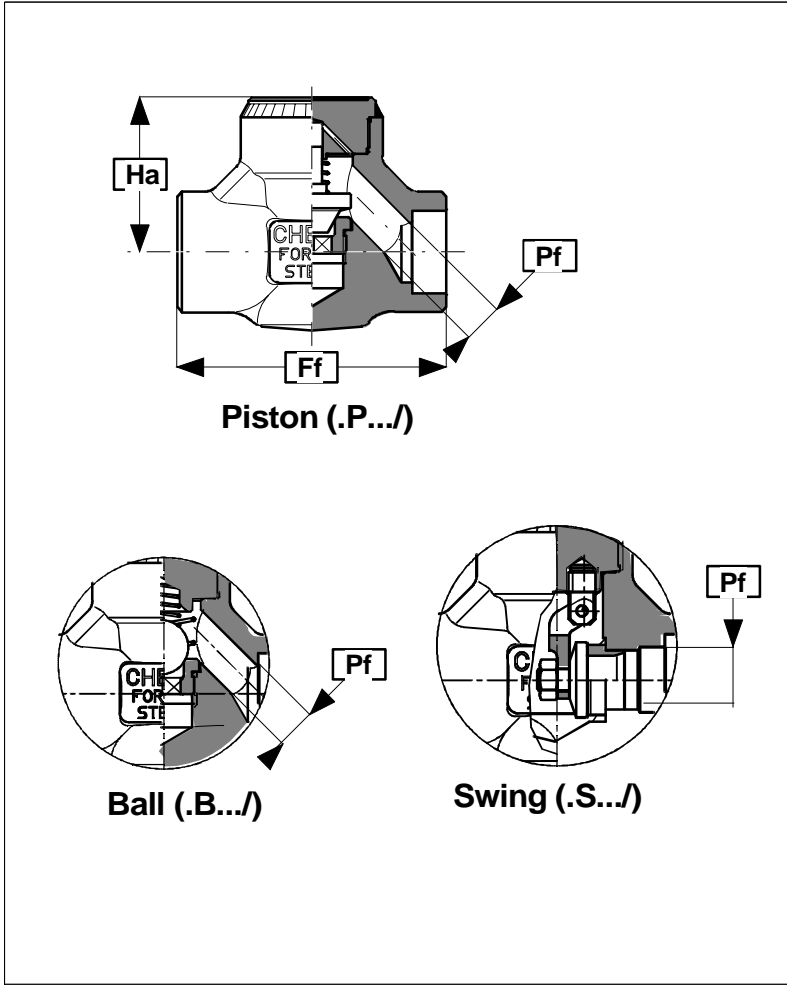
Standards	
Construction	<i>founded on API 602</i>
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	<i>founded on API 598</i>

Connections (xx)		
SW	Socket weld	B8 Butt weld 80
TH	Threaded NPT	
TS	Sw/NPT	
SE	Sw (in)/NPT	
SU	Sw (out)/NPT	
B6	Butt weld 160	

CONVENTIONAL BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	90 3,54	90 3,54	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27
Ha (mm/in)	56 2,20	56 2,20	56 2,20	74 2,91	79 3,11	100 3,94	109 4,29	135 5,31
Pf⁽⁴⁾(mm/in)	6,5 0,26	9 0,35	10 0,39	13,5 0,53	18 0,71	24 0,94	28 1,10	35 1,38
Wt. (kg/lb)	2,2 4,8	2,2 4,8	2,2 4,8	3,0 6,6	4,1 9,0	6,2 13,6	9,4 20,7	13,3 29,26
Catal. no.	Xt850/xx	Xt851/xx	Xt852/xx	Xt853/xx	Xt854/xx	Xt855/xx	Xt856/xx	Xt857/xx

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73
 4) Dimensions for piston & ball type; for swing see page 19
 5) Code t is replaced by kind of check valve (drawing above)

Compact CHECK VALVES - 1500 - Welded cover - Sw/Npt/Bw



Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
not applicable	

Standards	
Construction	<i>founded on API 602</i>
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	<i>founded on API 598</i>

Connections (xx)		
SW	Socket weld	B8 Butt weld 80
TH	Threaded NPT	
TS	Sw/NPT	
SE	Sw (in)/NPT	
SU	Sw (out)/NPT	
B6	Butt weld 160	

CONVENTIONAL BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	90 3,54	90 3,54	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27
Ha (mm/in)	50 1,97	50 1,97	50 1,97	56 2,20	67 2,64	82 3,23	99 3,90	121 4,76
Pf (mm/in)	6,5 0,26	9 0,35	10 0,39	13,5 0,53	18 0,71	24 0,94	29 1,14	35 1,38
Wt. (kg/lb)	1,4 3,1	1,4 3,1	1,4 3,1	2,3 5,1	3,8 8,4	5,6 12,3	8,3 18,3	13,4 29,5
Catal. no.	Xi850WC/xx	Xi851WC/xx	Xi852WC/xx	Xi853WC/xx	Xi854WC/xx	Xi855WC/xx	Xi856WC/xx	Xi857WC/xx

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73
 4) Dimensions for piston & ball type; for swing see page 19
 5) Code t is replaced by kind of check valve (drawing above)

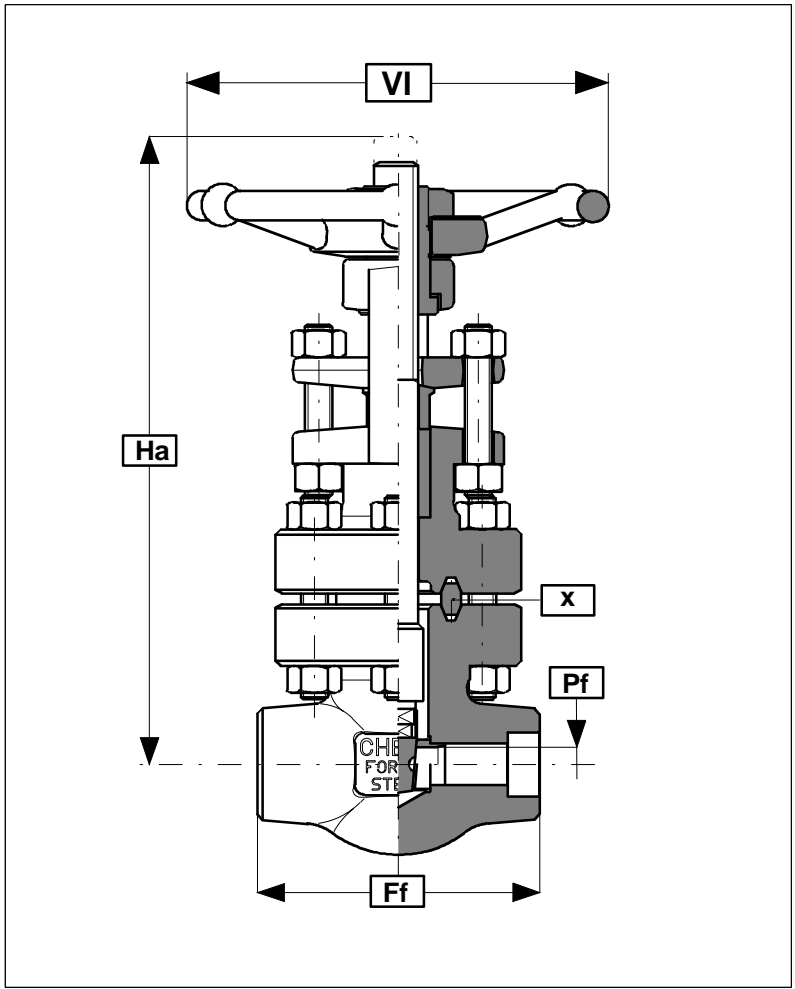
GATE VALVES - 1500 - Bolted bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Sw/NPT		
SE Sw(e)/NPT		
SU Sw(u)/NPT		
B6 Butt weld 160		

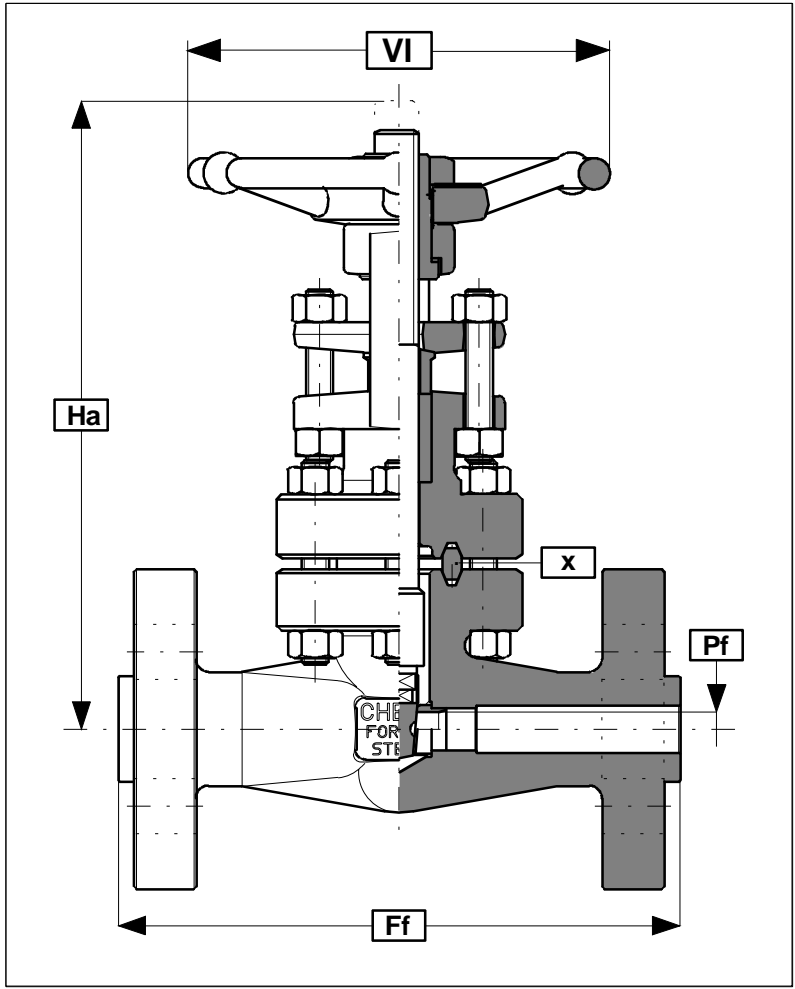


X) Gasket=Spiral wound. RJ gasket available on request.

		STANDARD BORE									
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		110	4,33	115	4,53	130	5,12	210	8,27	240	9,45
Ha (mm/in)		212	8,35	256	10,09	272	10,79	411	16,18	422	16,6
VI (mm/in)		120	4,72	175	6,89	175	6,89	260	10,24	260	10,24
Pf (mm/in)		11,5	0,45	15	0,59	19,5	0,77	32	1,26	40	1,57
Wt. (kg/lb)		5,9	13,0	8,4	18,5	9,8	21,6	26,8	59,0	35,4	77,9
Catal. no.		652/xx		653/xx		654/xx		656/xx		657/xx	

1) Standard and alternative valve materials on page 67
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

GATE VALVES - 1500 - Bolted bonnet - Flanged Rf/Rj



Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Flanged	ASME B16.5, ASME B16.10
Test	BS 6755 (Pt.1)

Connections (xx)			
RF	Raised face (std.)	LF	Large female
RJ	Ring joint	LG	Large groove
SF	Small female	LM	Large male
SG	Small groove	LT	Large tongue
SM	Small male		
ST	Small tongue		

X) Gasket=Spiral wound. RJ gasket available on request.

STANDARD BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		215,9	8,50	228,6	9,00	254,0	10,00	304,8	12,00	368,3	14,50
Ha (mm/in)		212	8,35	256	10,08	272	10,71	411	16,18	422	16,61
VI (mm/in)		120	4,72	175	6,89	175	6,89	260	10,24	260	10,24
Pf (mm/in)		11,5	0,45	15	0,59	19,5	0,77	32	1,26	40	1,57
Wt. (kg/lb)		9,7	21,3	15,5	34,1	17,5	38,5	38,5	84,7	56,0	123,2
Catal. no.		652/150xx		653/150xx		654/150xx		656/150xx		657/150xx	

1) Standard and alternative valve materials on page 67
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) Flanges & face-to-face dimensions on page 74,75

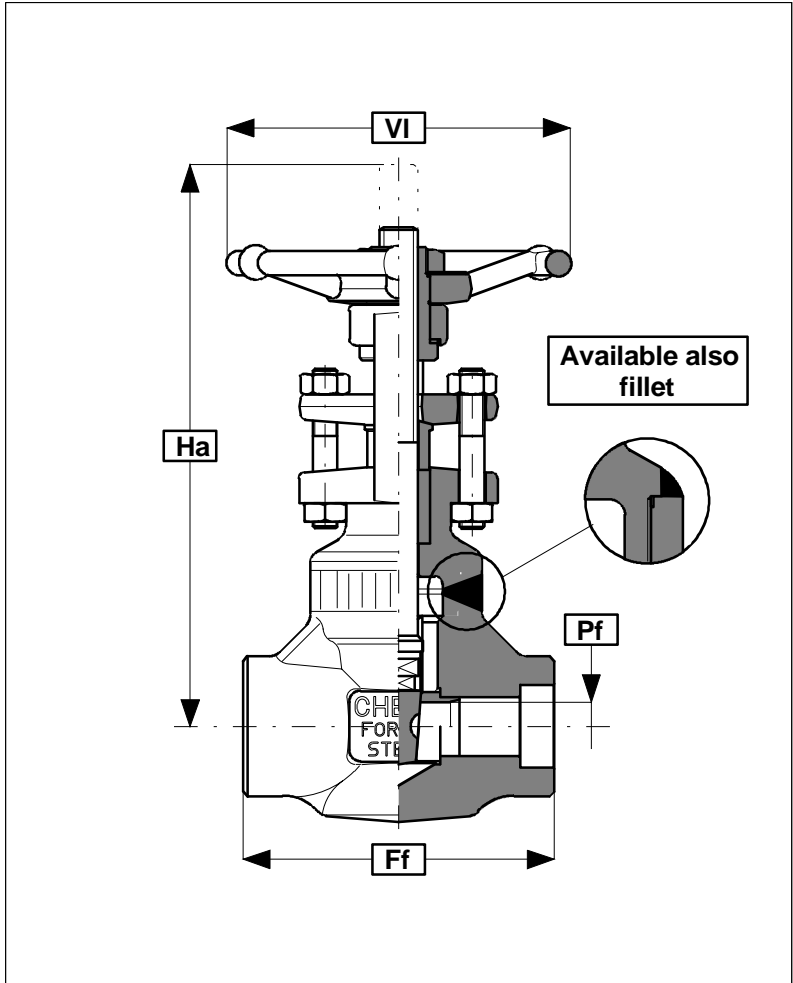
GATE VALVES - 1500 - Welded bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

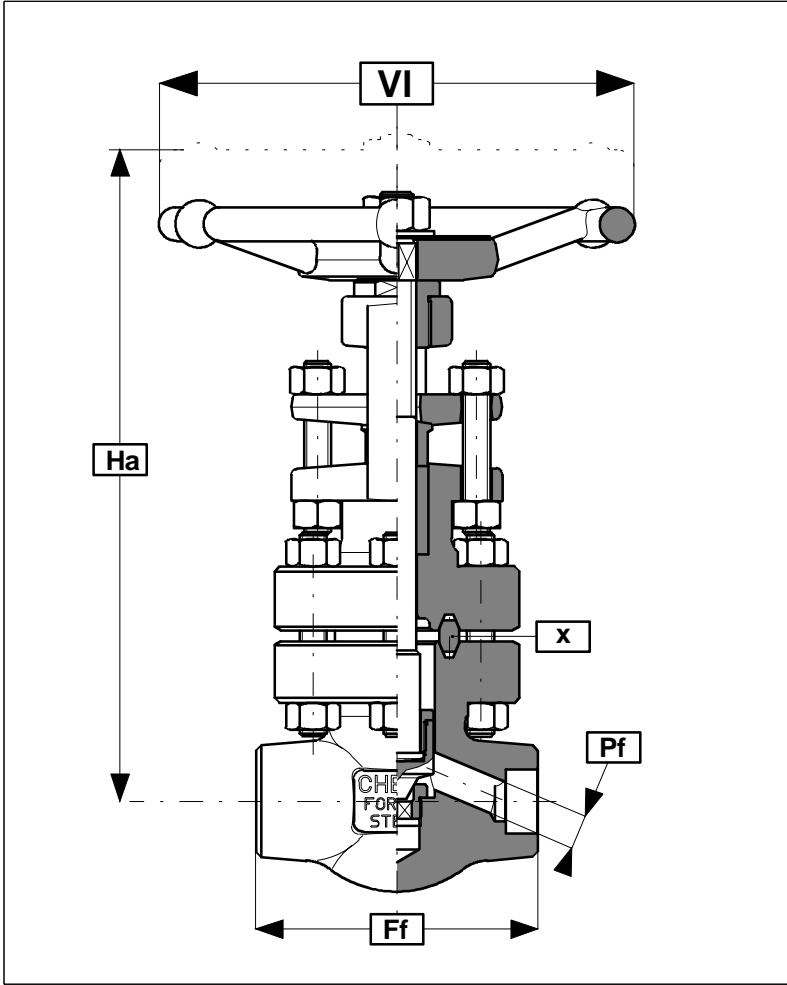
Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH threaded NPT		
TS Sw/NPT		
SE Sw(e)/NPT		
SU Sw(u)/NPT		
B6 Butt weld 160		



STANDARD BORE												
			1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)			90 3,54	110 4,33	127 5,00				130 5,12	150 5,90		
Ha (mm/in)			175 6,88	217 8,54	234 9,54				295 11,61	375 14,76		
VI (mm/in)			120 4,72	175 6,89	175 6,89				200 7,87	260 10,24		
Pf (mm/in)			11,5 0,45	15 0,59	19,5 0,77				32 1,26	40 1,57		
Wt. (kg/lb)			2,0 4,4	3,2 7,0	4,9 10,8				8,5 18,7	15 33		
Catal. no.			652WB/xx	653WB/xx	654WB/xx				656WB/xx	657WB/xx		

1) Standard and alternative valve materials on page 67
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

GLOBE VALVES - 1500 - Bolted bonnet - Sw/Npt/Bw



Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

Connections (xx)			
SW	Socket weld	B8	Butt weld 80
TH	Threaded NPT		
TS	Sw/NPT		
SE	Sw (in)/NPT		
SU	Sw (out)/NPT		
B6	Butt weld 160		

X) Gasket=Spiral wound.RJ gasket available on request.

STANDARD BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		110	4,33	115	4,53	130	5,12	210	8,27	240	9,45
Ha (mm/in)		218	8,58	274	10,79	286	11,26	427	16,8	433	17,05
VI (mm/in)		120	4,72	175	6,89	175	6,89	260	10,24	260	10,24
Pf (mm/in)		11	0,43	14,5	0,57	19	0,75	31	1,22	37,5	1,48
Wt. (kg/lb)		5,6	12,3	8,0	17,6	9,3	20,5	26,2	57,6	34,5	75,9
Catal. no.		752/xx		753/xx		754/xx		756/xx		757/xx	

1) Standard and alternative valve materials on page 66, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

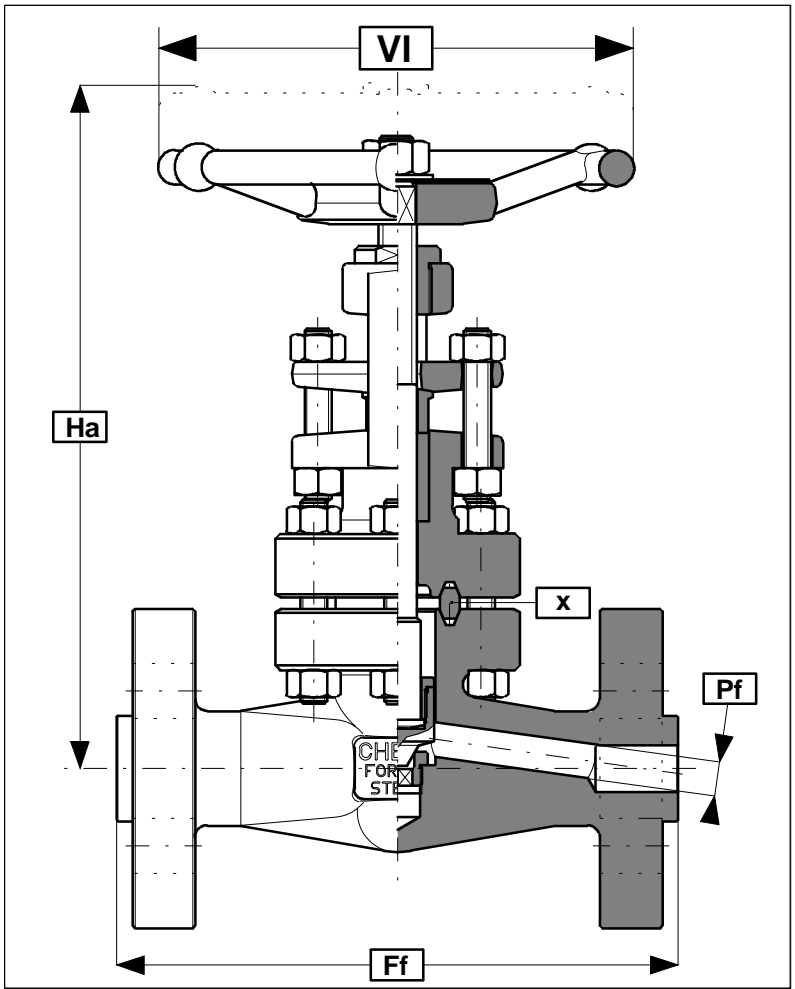
GLOBE VALVES - 1500 - Bolted bonnet - Flanged Rf/Rj

Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Flanged	ASME B16.5, ASME B16.10
Test	BS 6755 (Pt.1)

Connections (xx)			
RF	Raised face (std.)	LF	Large female
RJ	Ring joint	LG	Large groove
SF	Small female	LM	Large male
SG	Small groove	LT	Large tongue
SM	Small male		
ST	Small tongue		

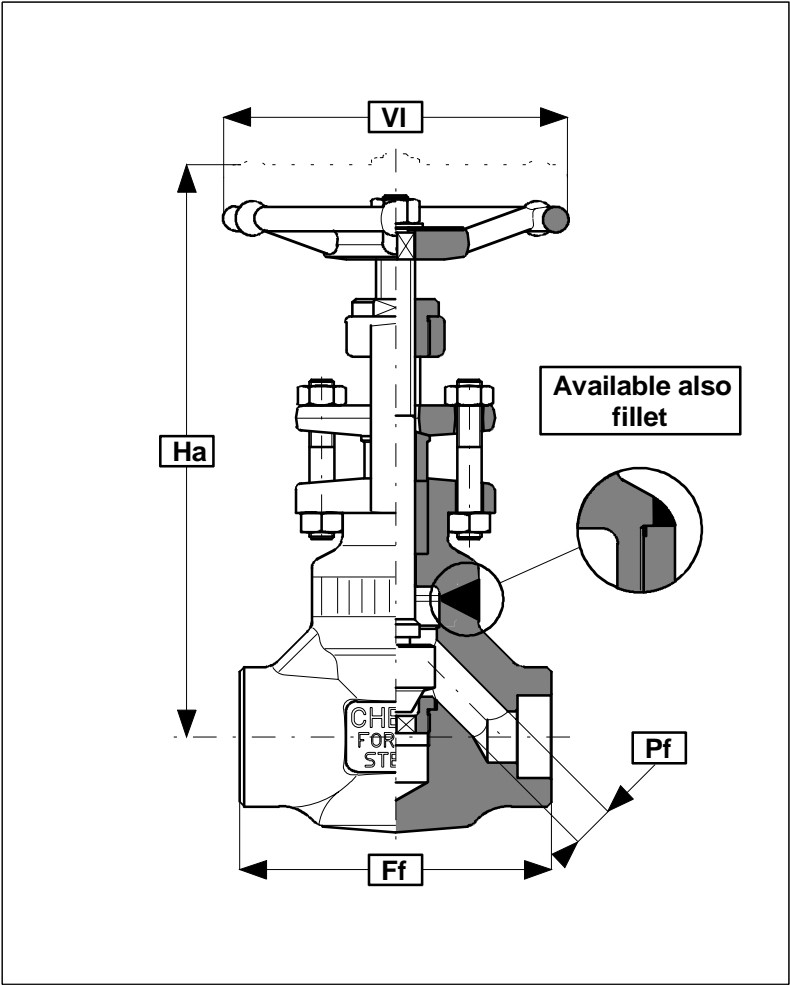


X) Gasket=Spiral wound. RJ gasket available on request.

		STANDARD BORE									
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		215,9	8,49	228,6	9,00	254,0	10,00	304,8	12,00	368,3	14,50
Ha (mm/in)		218	8,58	274	10,79	286	11,26	427	16,81	433	17,05
VI (mm/in)		120	4,72	175	6,89	175	6,89	260	10,24	260	10,24
Pf (mm/in)		11	0,43	14,5	0,57	19	0,75	31	1,22	37,5	1,48
Wt. (kg/lb)		9,4	20,7	15,2	33,44	17,3	38,1	37,9	83,4	55,2	121,4
Catal. no.		752/150xx		753/150xx		754/150xx		756/150xx		757/150xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) Flanges & face-to-face dimensions on page 74,75

GLOBE VALVES - 1500 - Welded bonnet - Sw/Npt/Bw



Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

Connections (xx)			
SW	Socket weld	B8	Butt weld 80
TH	Threaded NPT		
TS	Sw/NPT		
SE	Sw (in)/NPT		
SU	Sw (out)/NPT		
B6	Butt weld 160		

STANDARD BORE													
			1/2"		3/4"		1"			1.1/2"		2"	
Ff (mm/in)			90 3,54	110 4,33	127 5,00					170 6,69	210 8,26		
Ha (mm/in)			203 7,99	227 8,94	233 9,17					310 12,20	402 15,83		
VI (mm/in)			120 4,72	175 6,89	175 6,89					200 7,87	260 10,24		
Pf (mm/in)			11 0,43	14,5 0,57	19 0,75					31 1,22	37,5 1,48		
Wt. (kg/lb)			1,9 4,2	3,3 7,4	5,2 11,4					10,3 22,7	17,8 39,16		
Catal. no.			752WB/xx	753WB/xx	754WB/xx					756WB/xx	757WB/xx		

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

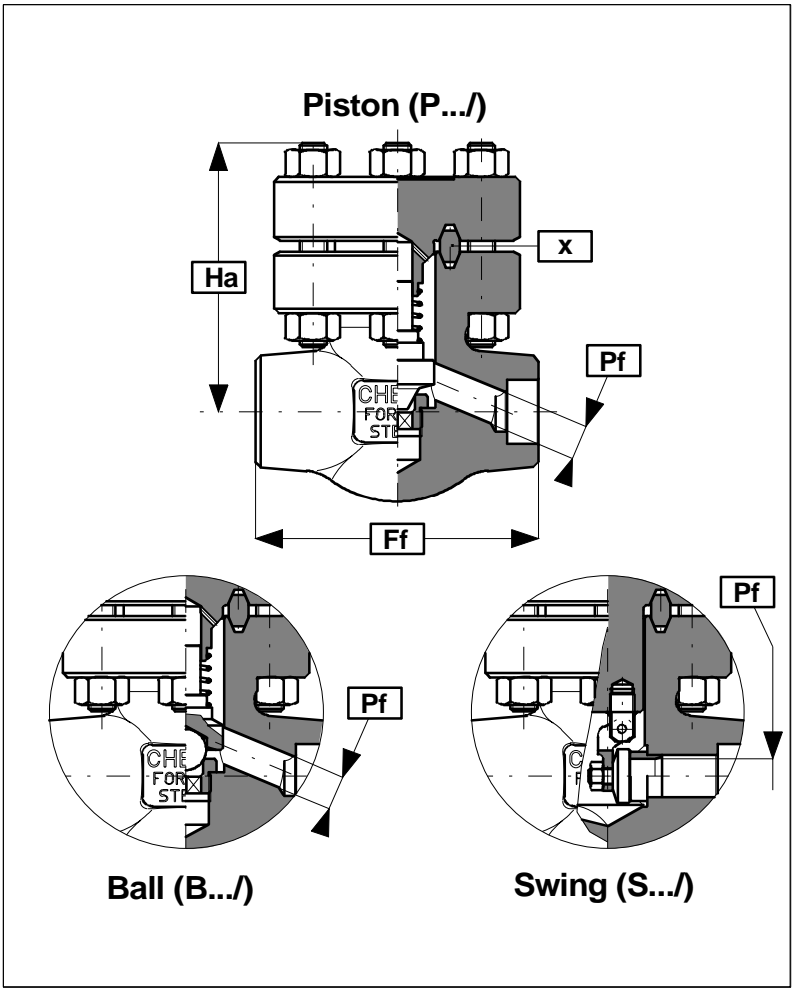
CHECK VALVES - 1500 - Bolted cover - Sw/Npt/Bw

Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
not applicable	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Sw/NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B6 Butt weld 160		

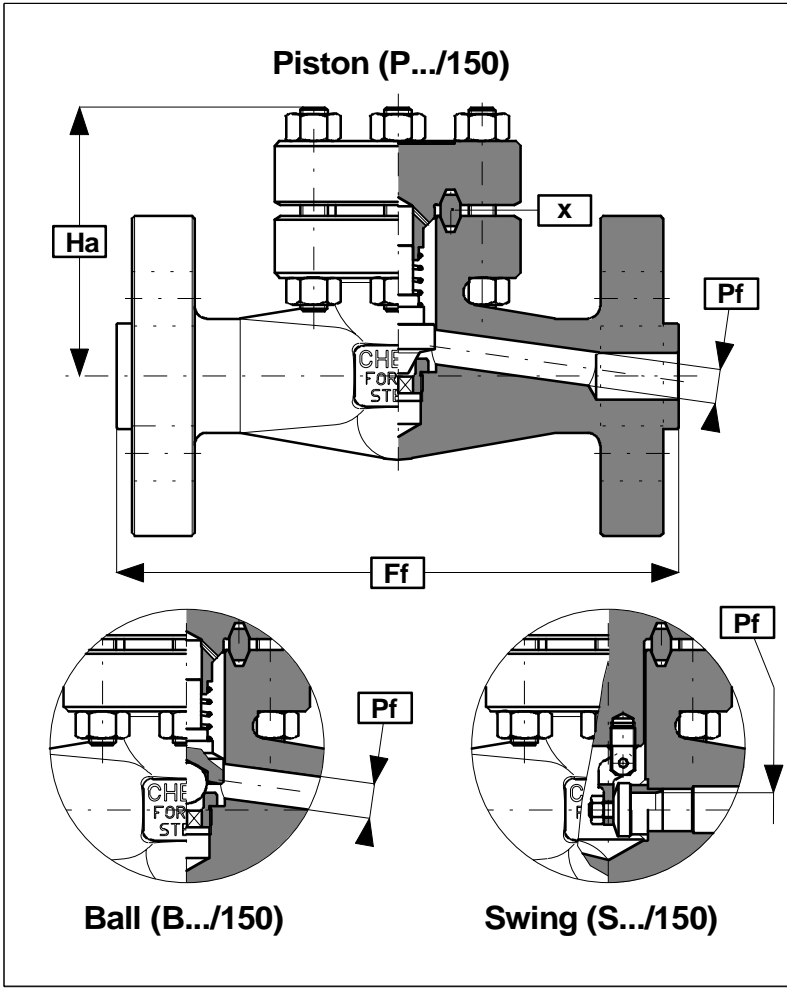


X) Gasket=Spiral wound. RJ gasket available on request.

STANDARD BORE								
			1/2"	3/4"	1"		1.1/2"	2"
Ff (mm/in)			110 4,33	115 4,53	130 5,12		210 8,27	240 9,45
Ha (mm/in)			93 3,66	109 4,29	122 4,80		158 6,22	171 6,73
Pf⁽⁴⁾(mm/in)			11 0,43	14,5 0,57	19 0,75		31 1,22	37,5 1,48
Wt. (kg/lb)			3,8 8,4	5,9 13,0	6,8 15,0		18,8 41,4	23,7 52,1
Catal. no.			t852/xx	t853/xx	t854/xx		t856/xx	t857/xx

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71, 72
 3) SW, NPT & BW dimensions on page 73
 4) Dimensions for piston & ball type; swing see page 25
 5) Code t is replaced by kind of check valve (drawing above)

CHECK VALVES - 1500 - Bolted cover - Flanged Rf/Rj



Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic:(minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
not applicable	

Standards	
Construction	BS 5352
Flanged	ASME B16.5, ASME B16.10
Test	BS 6755 (Pt.1)

Connections (xx)			
RF	Raised face (std.)	LF	Large female
RJ	Ring joint	LG	Large groove
SF	Small female	LM	Large male
SG	Small groove	LT	Large tongue
SM	Small male		
ST	Small tongue		

X)Gasket=Spiral wound. RJ gasket available on request.

STANDARD BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		215,9	8,50	228,6	9,00	254,0	10,00	304,8	12,00	368,3	14,50
Ha (mm/in)		93	3,66	109	4,29	122	4,80	158	6,22	171	6,73
Pf⁽⁴⁾(mm/in)		11	0,43	14,5	0,57	19	0,75	31	1,22	37,5	1,48
Wt. (kg/lb)		7,5	16,5	10,9	24,0	14,4	31,7	30,3	67,0	44,0	96,8
Catal. no.		t852/150xx		t853/150xx		t854/150xx		t856/150xx		t857/150xx	

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) Flanges & face-to-face dimensions on page 74,75
 4) Dimensions for piston & ball type; swing see page 25
 5) Code t is replaced by kind of check valve (drawing above)

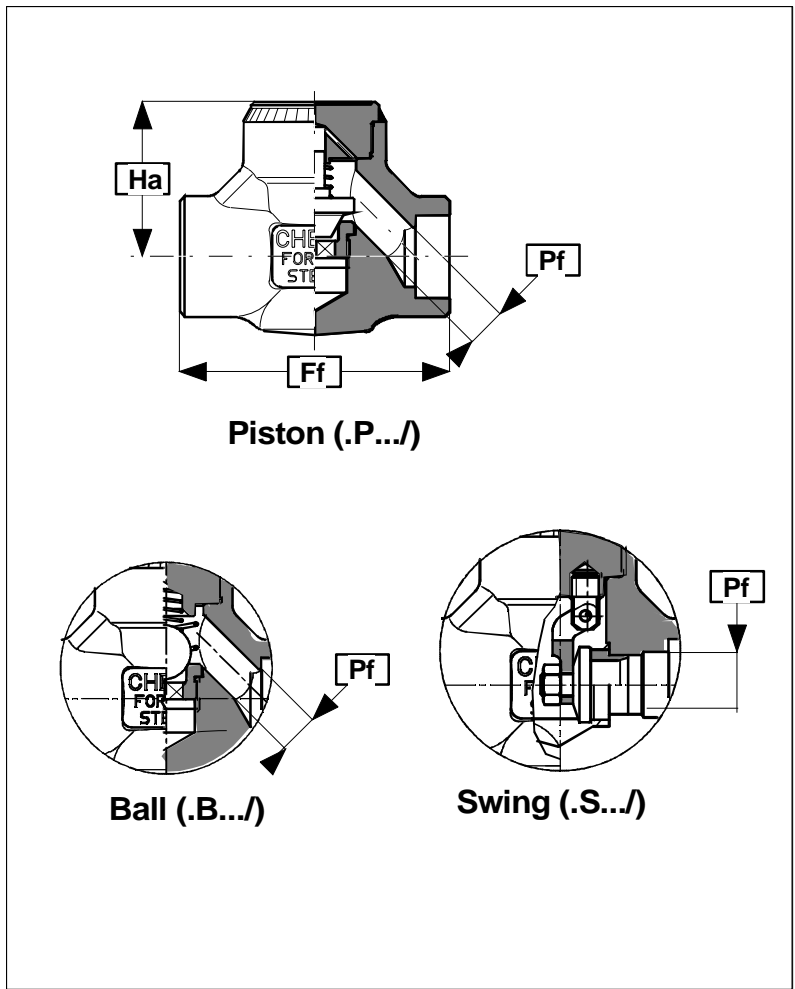
CHECK VALVES - 1500 - Welded cover - Sw/Npt/Bw

Ratings (ASTM A105)	
1500 p.s.i. @ 850°F	
3705 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
not applicable	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

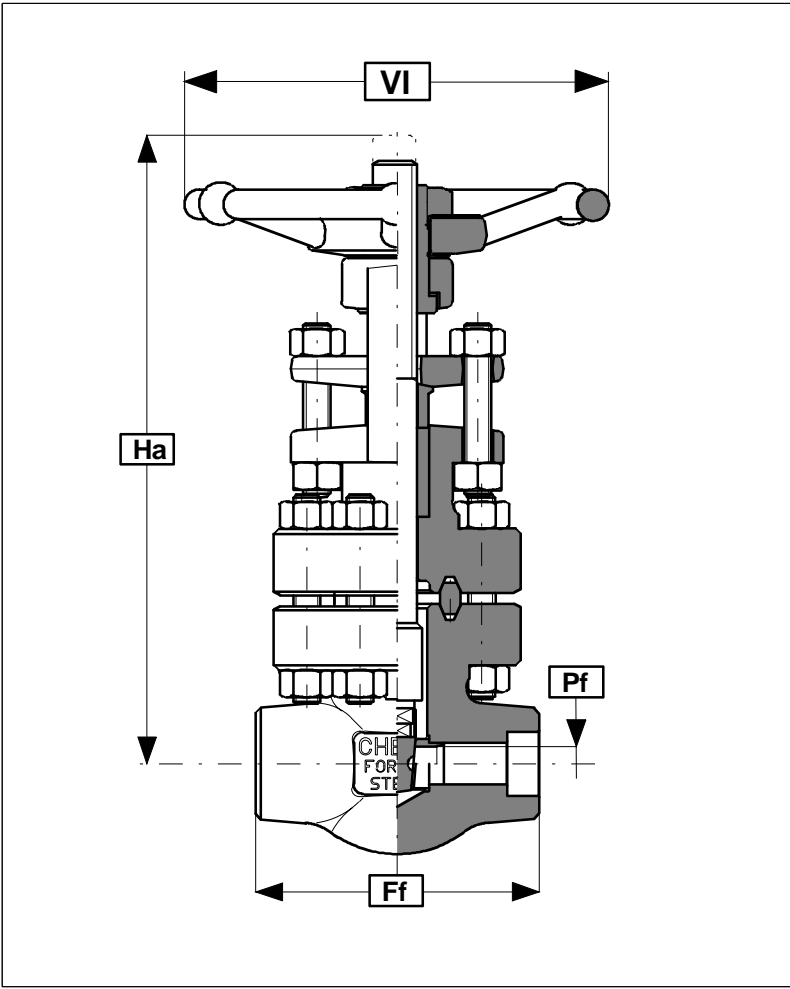
Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Sw/NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B6 Butt weld 160		



		STANDARD BORE									
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		90 3,54	110 4,33	127 5,00				170 6,69	210 8,26		
Ha (mm/in)		51 2,01	57 2,24	62 2,44				90 3,54	117 4,61		
Pf (mm/in)		11 0,43	14,5 0,57	19 0,75				31 1,22	37,5 1,48		
Wt. (kg/lb)		1,4 3,1	2,4 5,3	3,8 8,4				8,0 17,6	14,5 31,9		
Catal. no.		t852WC/xx	t853WC/xx	t854WC/xx				t856WC/xx	t857WC/xx		

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73
 4) Dimensions for piston & ball type; for swing see page 27
 5) Code t is replaced by kind of check valve (drawing above)

GATE VALVES - 2500 - Bolted bonnet - Sw/Npt/Bw



Ratings (ASTM A105)	
2500 p.s.i. @ 850°F	
6170 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 9275 p.s.i.	
Seat - 6800 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	<i>founded on ASME B16.34</i>
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

Connections (xx)			
SW	Socket weld	BX	Butt weld XXS
TH	Threaded NPT		
TS	Sw/NPT		
SE	Sw(e)/NPT		
SU	Sw8u)/NPT		
B6	Butt weld 160		

STANDARD BORE								
			1/2"	3/4"	1"		1.1/2"	2"
Ff (mm/in)			110 4,33	115 4,53	130 5,12		210 8,27	240 9,45
Ha (mm/in)			212 8,35	256 10,08	272 10,71		411 16,18	422 16,61
VI (mm/in)			140 5,51	200 7,87	200 7,87		260 10,24	350 13,77
Pf (mm/in)			10 0,48	14 0,55	18 0,71		31 1,22	36,5 1,44
Wt. (kg/lb)			6,1 13,4	8,7 19,1	10,2 22,4		27,4 60,3	36,2 79,6
Catal. no.			1052/xx	1053/xx	1054/xx		1056/xx	1057/xx

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

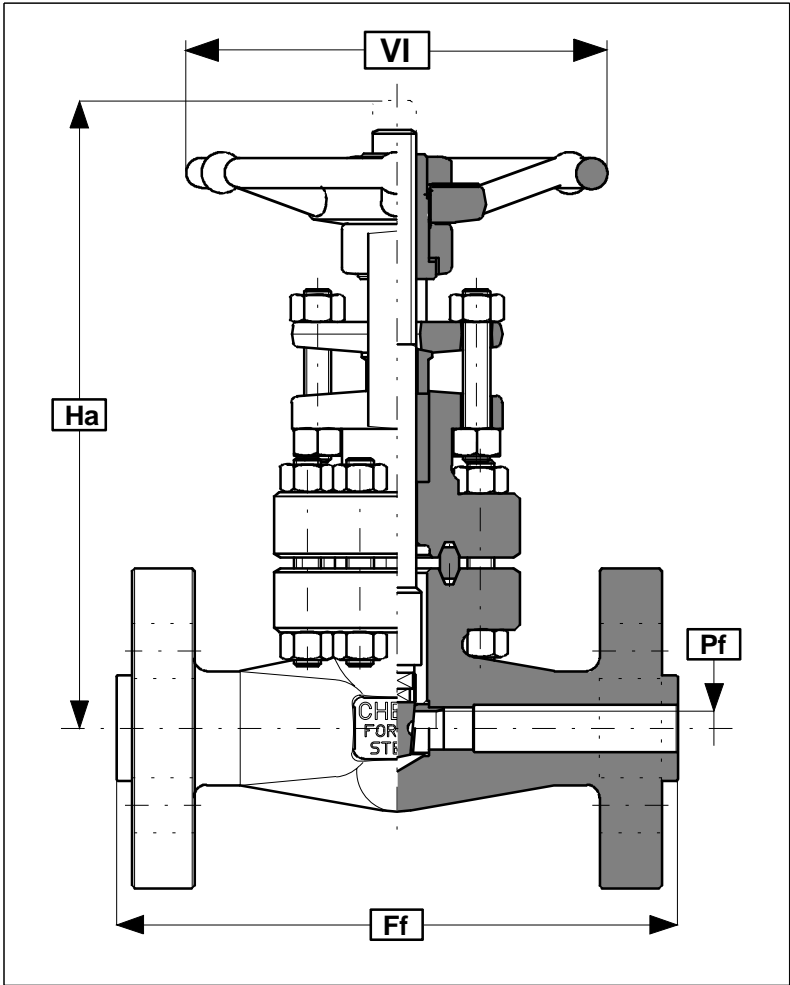
GATE VALVES - 2500 - Bolted bonnet - Flanged Rf/Rj

Ratings (ASTM A105)	
2500 p.s.i. @ 850°F	
6170 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 9275 p.s.i.	
Seat - 6800 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	<i>founded on</i> ASME B16.34
Flanged	ASME B16.5, ASME B16.10
Test	API 598-ASME B16.34

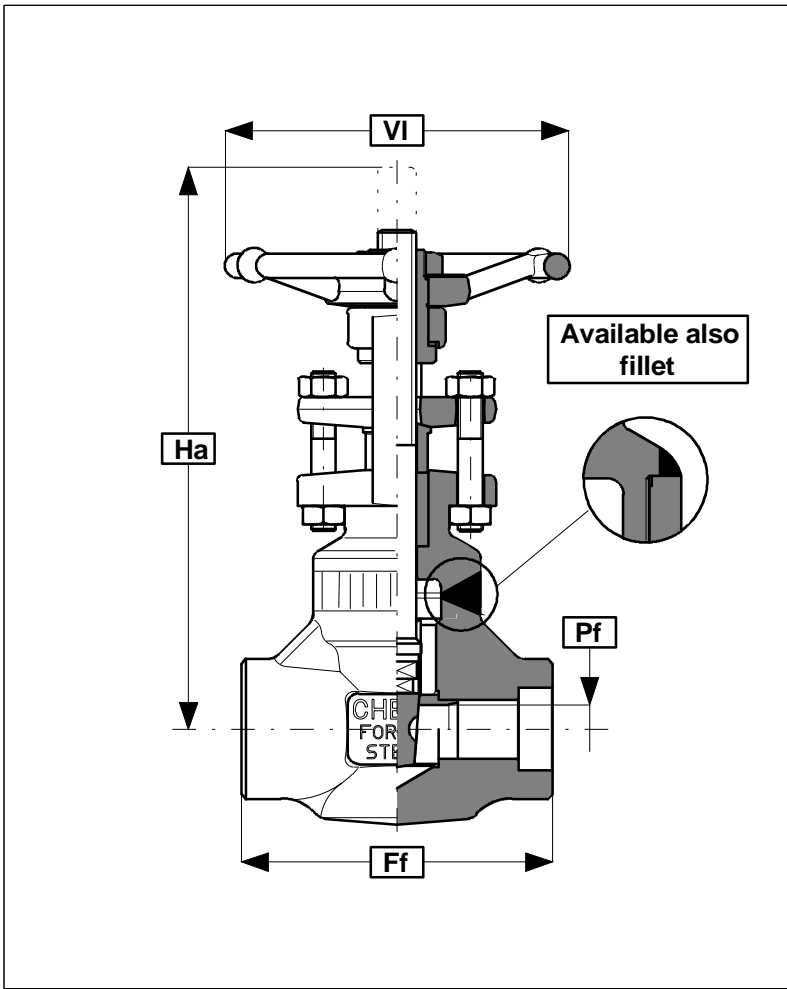
Connections (xx)			
RF	Raised face (std.)	LF	Large female
RJ	Ring joint	LG	Large groove
SF	Small female	LM	Large male
SG	Small male	LT	Large tongue
SM	Small male		
ST	Small tongue		



		STANDARD BORE									
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		263,5	10,37	273,0	10,75	308,0	12,13	384,2	15,13	450,8	17,75
Ha (mm/in)		212	8,35	256	10,08	272	10,71	411	16,18	422	16,61
VI (mm/in)		140	5,51	200	7,87	200	7,87	260	10,24	350	13,77
Pf (mm/in)		10	0,39	14	0,55	18	0,71	31	12,21	36,5	1,44
Wt. (kg/lb)		9,9	21,8	15,8	34,8	17,9	39,4	39,1	86,3	56,8	125,0
Catal. no.		1052/250xx		1053/250xx		1054/250xx		1056/250xx		1057/250xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) Flanges & face-to-face dimensions on page 74,75

GATE VALVES - 2500 - Welded bonnet - Sw/Npt/Bw



Ratings (ASTM A105)	
2500 p.s.i. @ 850°F	
6170 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 9275 p.s.i.	
Seat - 6800 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	founded on ASME B16.34
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

Connections (xx)			
SW	Socket weld	BX	Butt weld XXS
TH	Threaded NPT		
TS	Sw/NPT		
SE	Sw(e)/NPT		
SU	Sw(u)/NPT		
B6	Butt weld 160		

STANDARD BORE												
			1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)			110	4,33	127	5,00	127	5,00	150	5,91	240	9,45
Ha (mm/in)			198	7,80	225	8,85	243	9,57	387	15,24	403	15,87
VI (mm/in)			140	5,51	200	7,87	200	7,87	260	10,24	350	13,78
Pf (mm/in)			10	0,39	14	0,55	18	0,71	31	1,22	36,5	1,44
Wt. (kg/lb)			2,6	5,72	4,0	8,8	5,9	13,0	10,0	22,0	29	63,8
Catal. no.			1052WB/xx		1053WB/xx		1054WB/xx		1056WB/xx		1057WB/xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

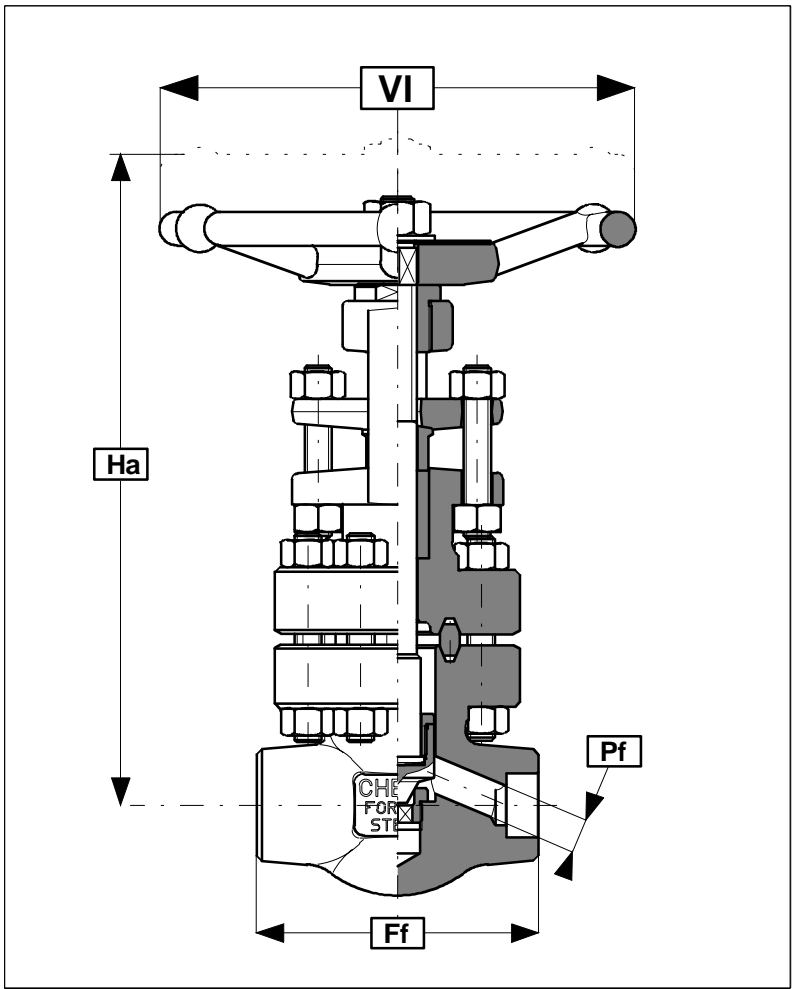
GLOBE VALVES - 2500 - Bolted bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
2500 p.s.i. @ 850°F	
6170 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 9275 p.s.i.	
Seat - 6800 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	<i>founded on</i> ASME B16.34
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

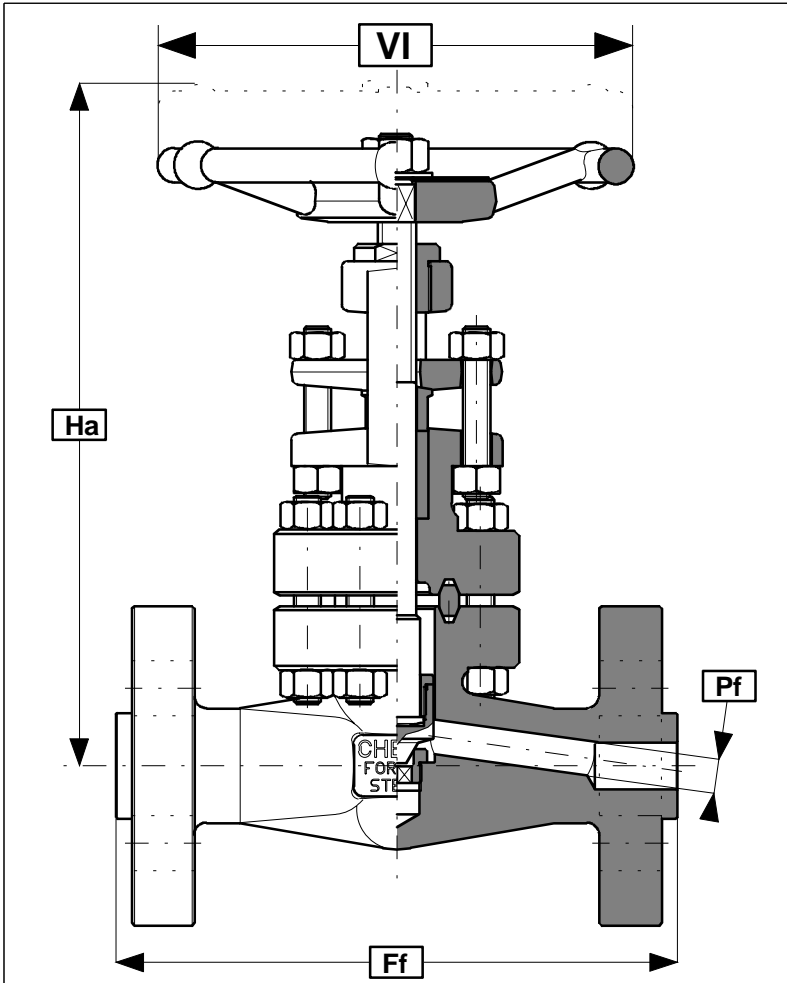
Connections (xx)		
SW Socket weld	BX Butt weld XXS	
TH Threaded NPT		
TS Sw/NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B6 Butt weld 160		



STANDARD BORE								
		1/2"	3/4"	1"			1.1/2"	2"
Ff (mm/in)		110 4,33	115 4,52	130 5,12			210 8,27	240 9,45
Ha (mm/in)		218 8,58	260 10,24	268 10,55			427 16,81	433 17,05
VI (mm/in)		140 5,51	200 7,87	200 7,87			260 10,24	350 13,77
Pf (mm/in)		10 0,39	13 0,51	18 0,71			25 0,98	34 1,33
Wt. (kg/lb)		5,8 13,0	8,3 18,3	9,7 21,3			26,8 59,0	35,3 77,7
Catal. no.		1152/xx	1153/xx	1154/xx			1156/xx	1157/xx

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70,71,72
 3) SW, NPT & BW dimensions on page 73

GLOBE VALVES - 2500 - Bolted bonnet - Flanged Rf/Rj



Ratings (ASTM A105)	
2500 p.s.i. @ 850°F	
6170 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 9275 p.s.i.	
Seat - 6800 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	founded on ASME B16.34
Flanged	ASME B16.5, ASME B16.10
Test	API 598-ASME B16.34

Connections (xx)			
RF	Raised face (std.)	LF	Large female
RJ	Ring joint	LG	Large groove
SF	Small female	LM	Large male
SG	Small groove	LT	Large tongue
SM	Small male		
ST	Small tongue		

STANDARD BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		263,5	10,37	273,0	10,75	308,0	12,13	384,2	15,13	450,8	17,15
Ha (mm/in)		218	8,58	274	10,79	286	11,26	427	16,81	433	17,05
VI (mm/in)		140	5,51	200	7,87	200	7,87	260	10,24	350	13,77
Pf (mm/in)		10	0,39	13	0,51	18	0,71	25	0,98	34	1,33
Wt. (kg/lb)		9,6	21,1	15,4	33,9	17,4	38,3	38,5	84,7	55,9	123,0
Catal. no.		1152/250xx		1153/250xx		1154/250xx		1156/250xx		1157/250xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70,71,72
 3) Flanges & face-to-face dimensions on page 74,75

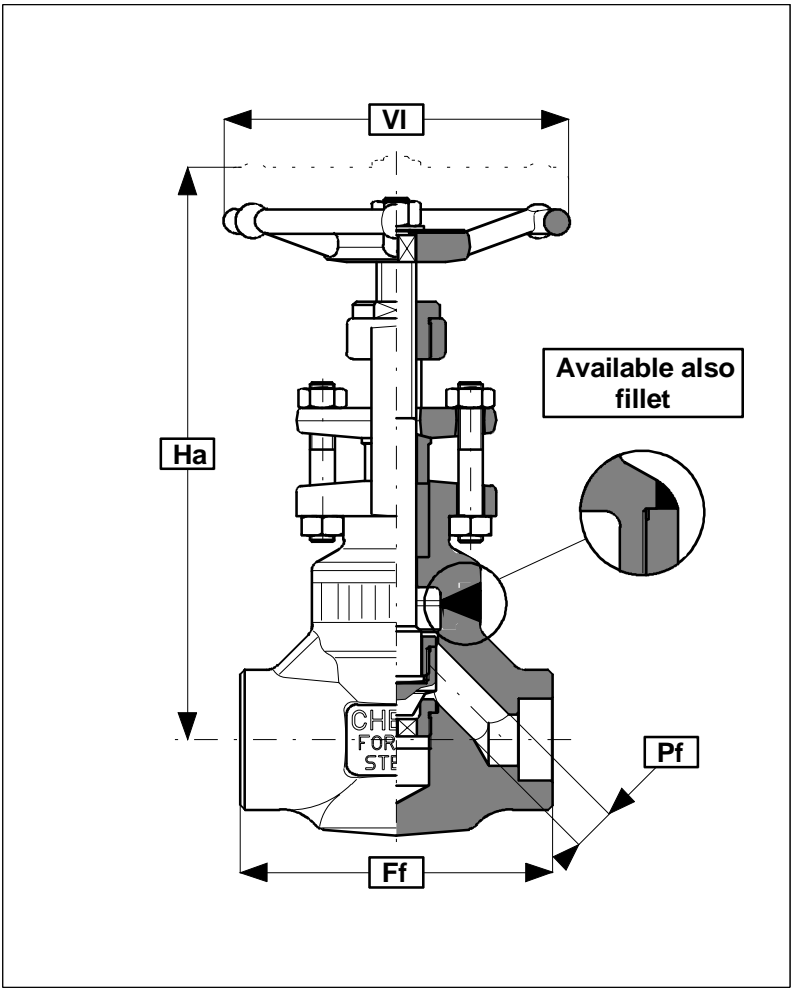
GLOBE VALVES - 2500 - Welded bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
2500 p.s.i. @ 850°F	
6170 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 9275 p.s.i.	
Seat - 6800 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	<i>founded on ASME B16.34</i>
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

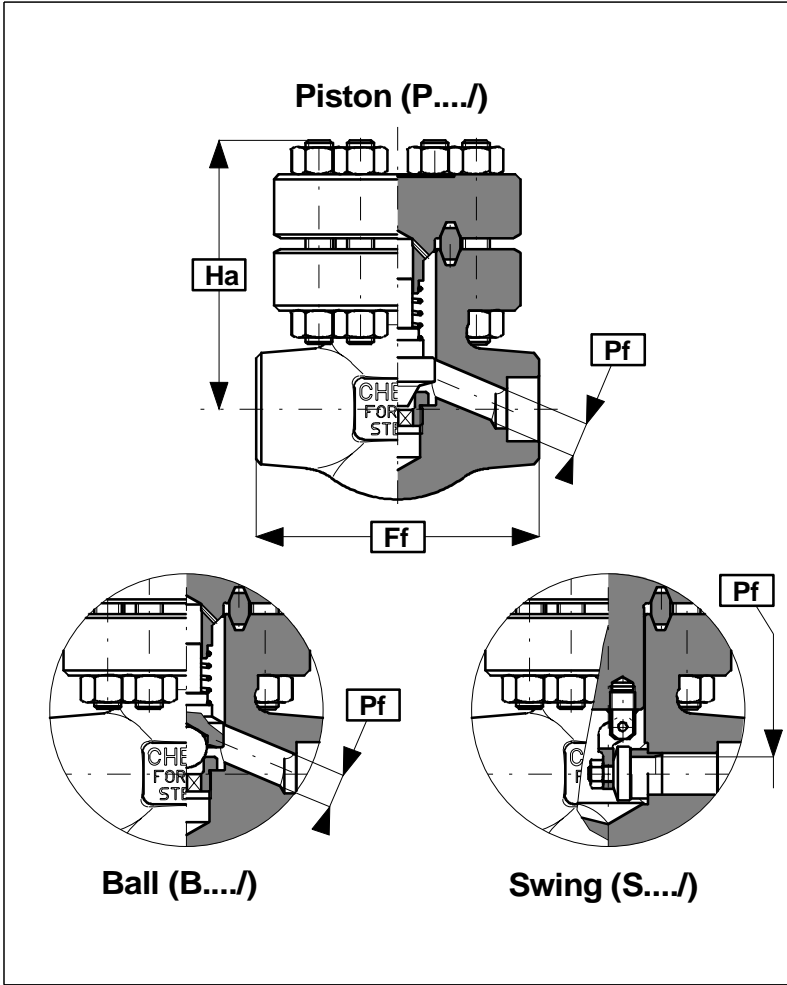
Connections (xx)		
SW	Socket weld	BX Butt weld XXS
TH	Threaded NPT	
TS	Sw/NPT	
SE	Sw (in)/NPT	
SU	Sw (out)/NPT	
B6	Butt weld 160	



STANDARD BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		110 4,33	127 4,33	155 6,10		210 8,27	240 9,45				
Ha (mm/in)		209 8,22	238 9,37	257 10,11		386 15,20	407 16,02				
VI (mm/in)		140 5,51	200 7,87	200 7,87		260 10,24	350 13,78				
Pf (mm/in)		10 0,39	13 0,51	18 0,71		25 0,98	34 1,33				
Wt. (kg/lb)		2,5 5,5	4,1 9,0	6,2 13,6		11,8 26,0	28 61,6				
Catal. no.		1152WB/xx	1153WB/xx	1154WB/xx		1156WB/xx	1157WB/xx				

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

CHECK VALVES - 2500 - Bolted cover - Sw/Npt/Bw



Ratings (ASTM A105)	
2500 p.s.i. @ 850°F	
6170 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 9275 p.s.i.	
Seat - 6800 p.s.i.	
Air under water:	
not applicable	

Standards	
Construction	<i>founded on ASME B16.34</i>
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

Connections (xx)		
SW	Socket weld	BX Butt weld XXS
TH	Threaded NPT	
TS	Sw/NPT	
SE	Sw (in)/NPT	
SU	Sw (out)/NPT	
B6	Butt weld 160	

STANDARD BORE								
			1/2"	3/4"	1"		1.1/2"	2"
Ff (mm/in)			110 4,33	115 4,53	130 5,12		210 8,27	240 9,45
Ha (mm/in)			93 3,66	109 4,29	122 4,80		158 6,22	171 6,73
Pf⁽⁴⁾(mm/in)			10 0,39	13 0,51	18 0,71		25 0,98	34 1,33
Wt. (kg/lb)			4,0 8,8	6,2 13,6	7,2 15,8		19,4 42,7	24,5 53,9
Catal. no.			t1252/xx	t1253/xx	t1254/xx		t1256/xx	t1257/xx

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73
 4) Dimensions for piston & ball type;swing see page 34
 5) Code t is replaced by kind of check valve (drawing above)

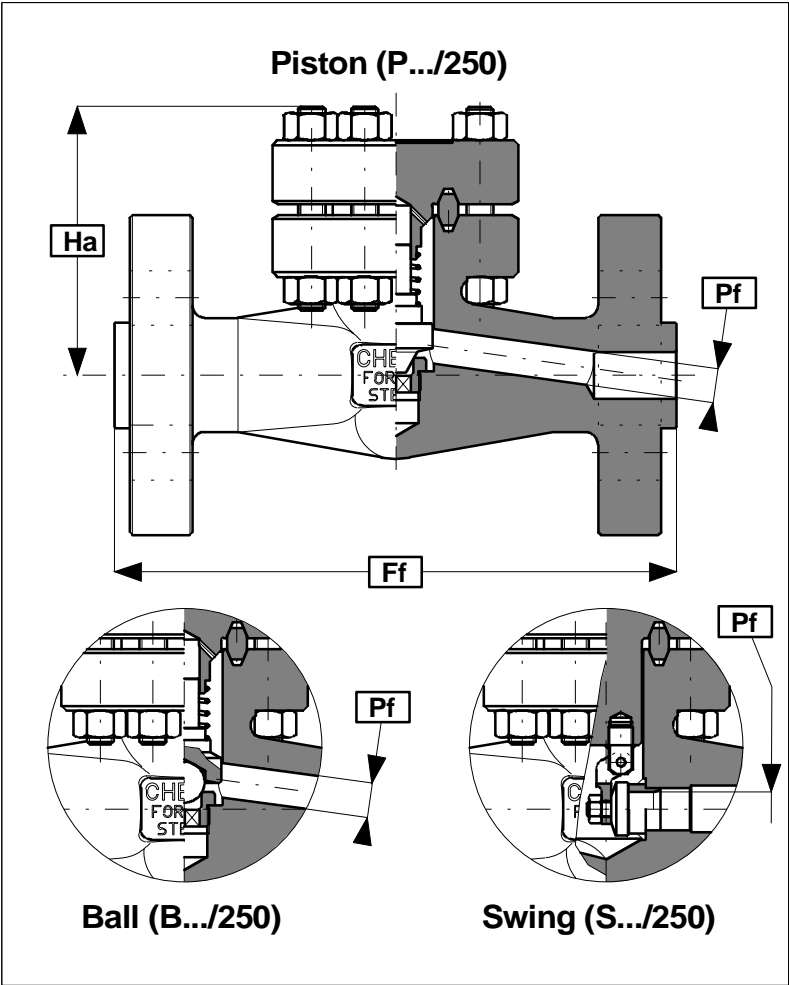
CHECK VALVES - 2500 - Bolted cover - Flanged Rf/Rj

Ratings (ASTM A105)	
2500 p.s.i. @ 850°F	
6170 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 9275 p.s.i.	
Seat - 6800 p.s.i.	
Air under water:	
not applicable	

Standards	
Construction	founded on ASME B16.34
Flanged	ASME B16.5, ASME B16.10
Test	API 598-ASME B16.34

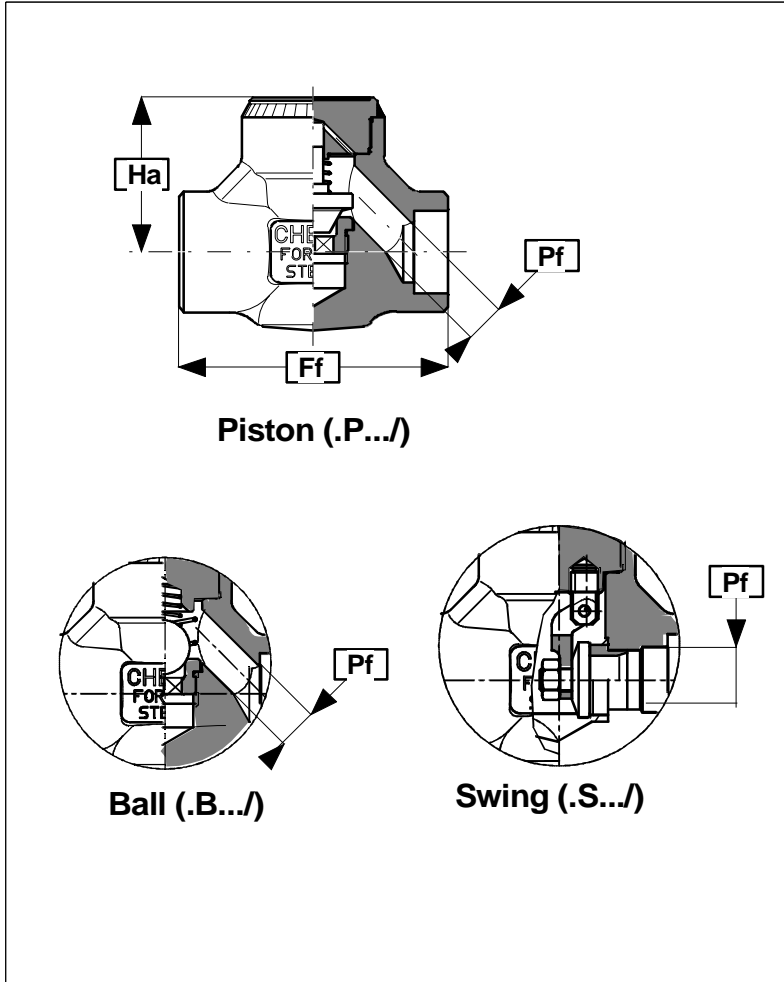
Connections (xx)			
RF	Raised face (std.)	LF	Large female
RJ	Ring joint	LG	Large groove
SF	Small female	LM	Large male
SG	Small groove	LT	Large tongue
SM	Small male		
ST	Small tongue		



STANDARD BORE												
			1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)			263,5	10,37	273,0	10,75	308,0	12,13	384,2	15,13	450,8	17,75
Ha (mm/in)			93	3,66	109	4,29	122	4,80	158	6,22	171	6,73
Pf⁽⁴⁾(mm/in)			10	0,39	13	0,51	18	0,71	25	0,98	34	1,33
Wt. (kg/lb)			8,5	18,7	12,5	27,5	19,2	42,2	40,8	89,8	59,0	129,8
Catal. no.			t1252/250xx		t1253/250xx		t1254/250xx		t1256/250xx		t1257/250xx	

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) Flanges & face-to-face dimensions on page 73, 74
 4) Dimensions for piston & ball type; swing on page 34
 5) Code tt is replaced by kind of check valve (drawing above)

CHECK VALVES - 2500 - Welded cover - Sw/Npt/Bw



Ratings (ASTM A105)	
2500 p.s.i. @ 850°F	
6170 p.s.i. @ 100°F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 9275 p.s.i.	
Seat - 6800 p.s.i.	
Air under water:	
not applicable	

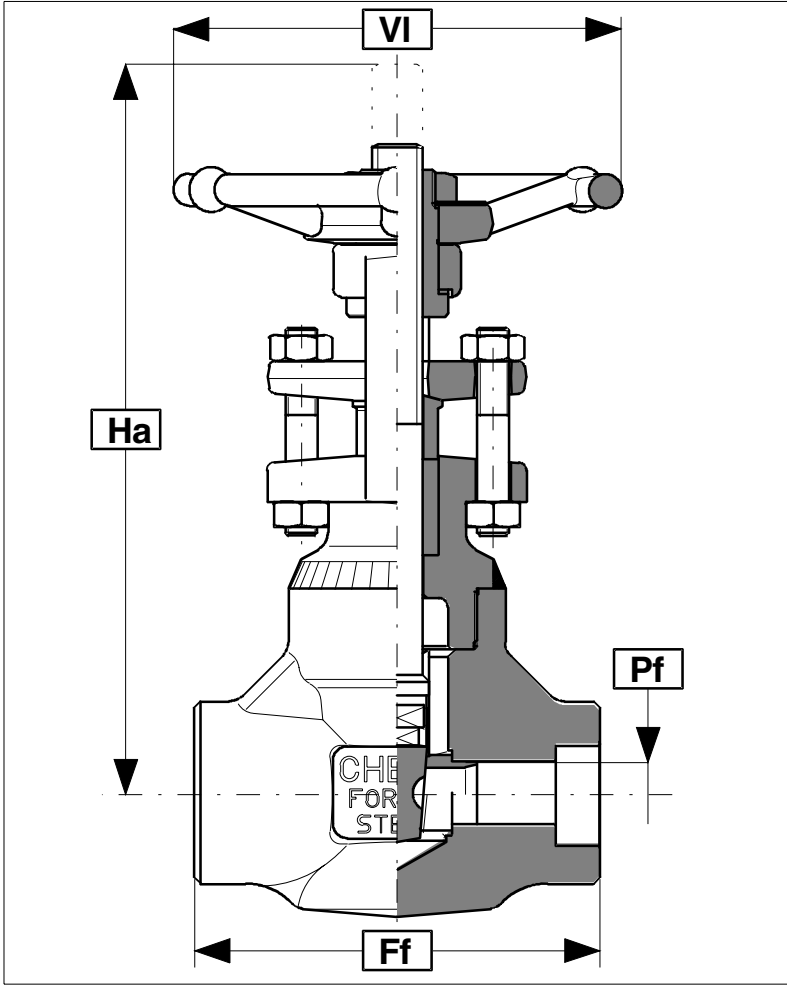
Standards	
Construction	founded on ASME B16.34
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

Connections (xx)		
SW	Socket weld	BX Butt weld XXS
TH	Threaded NPT	
TS	Sw/NPT	
SE	Sw (in)/NPT	
SU	Sw (out)/NPT	
B6	Butt weld 160	

STANDARD BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		110 4,33	127 5,00	155 6,10		210 8,27	240 9,45				
Ha (mm/in)		60 2,36	71 2,80	85 3,35		120 4,72	130 5,12				
Pf (mm/in)		10 0,39	13 0,51	18 0,71		25 0,98	34 1,33				
Wt. (kg/lb)		2,0 4,4	3,2 7,0	4,8 10,6		9,6 21,1	16 35,2				
Catal. no.		t1252WC/xx	t1253WC/xx	t1254WC/xx		t1256WC/xx	t1257WC/xx				

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73
 4) Dimensions for piston & ball type; for swing see page 35
 5) Code t is replaced by kind of check valve (drawing above)

GATE VALVES - 4500 - Welded bonnet - Sw/Npt/Bw



Ratings (ASTM A105)	
4010 p.s.i. @ 850 F	
11110 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 16650 p.s.i.	
Seat - 12210 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	ASME B16.34
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

Connections (xx)			
SW	Socket weld	BX	Butt weld XXS
TH	Threaded NPT		
TS	Sw/NPT		
SE	Sw(e)/NPT		
SU	Sw(u)/NPT		
B6	Butt weld 160		

STANDARD BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		127	5,00	127	5,00	130	5,12	240	9,45	240	9,45
Ha (mm/in)		234	9,21	259	10,20	323	12,72	431	16,97	486	19,13
VI (mm/in)		175	6,89	200	7,87	260	10,24	350	13,78	350	13,78
Pf (mm/in)		8	0,31	11	0,43	15	0,59	25	0,98	30	1,18
Wt. (kg/lb)		4,1	9,0	6,2	13,6	11,8	26,0	28,0	61,6	42,0	92,4
Catal. no.		2052WB/xx		2053WB/xx		2054WB/xx		2056WB/xx		2057WB/xx	

1) Standard and alternative valve materials on page 72, type A
 2) Complete Pressure-Temperature ratings on page 73, 74, 75, 76, 77.
 3) SW, NPT & BW dimensions on page 78.

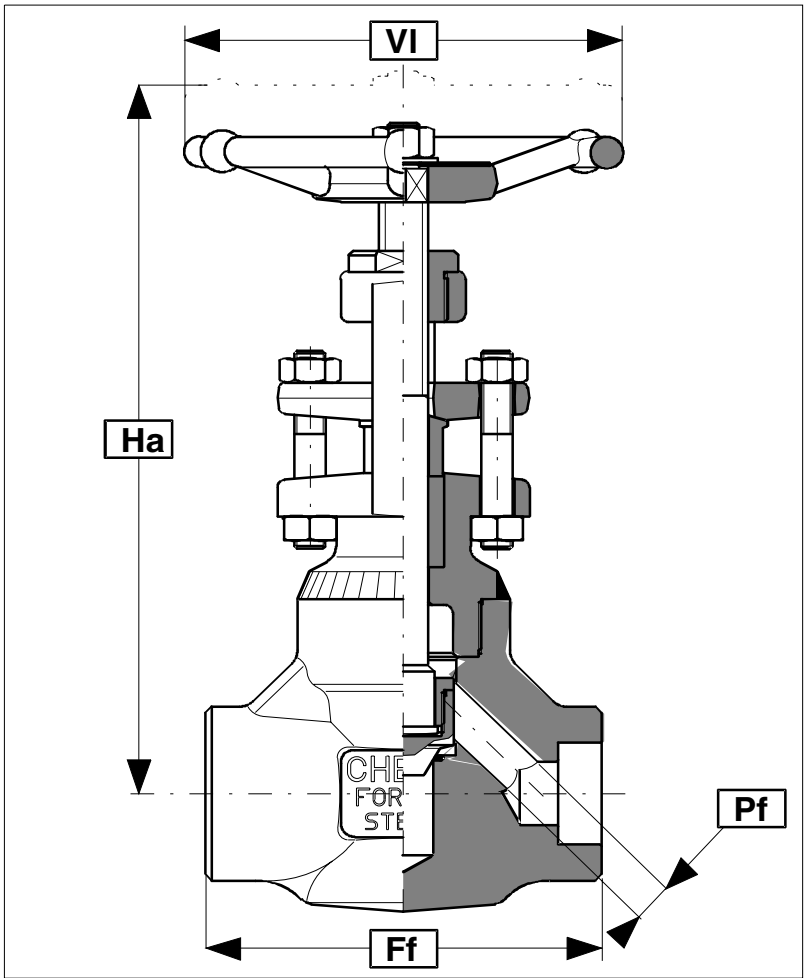
GLOBE VALVES - 4500 - Welded bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
4010 p.s.i. @ 850 F	
11110 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 16650 p.s.i.	
Seat - 12210 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	ASME B16.34
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

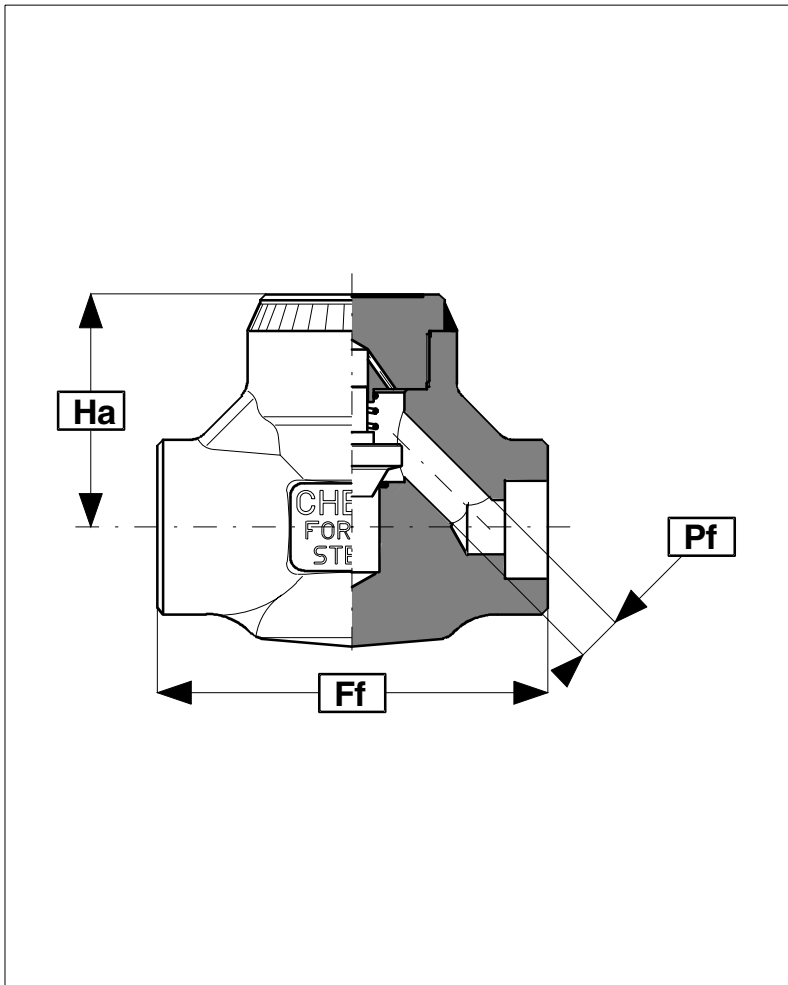
Connections (xx)		
SW Socket weld	BX Butt weld XXS	
TH Threaded NPT		
TS Sw/NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B6 Butt weld 160		



		STANDARD BORE									
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		127	5,00	155	6,10	170	6,69	240	9,45	240	9,45
Ha (mm/in)		230	9,06	277	10,90	335	13,18	431	16,97	450	17,72
VI (mm/in)		175	6,89	200	7,87	260	10,24	350	13,78	350	13,78
Pf (mm/in)		7	0,28	11	0,43	14	0,55	25	0,98	30	1,18
Wt. (kg/lb)		4,1	9,0	6,2	13,6	11,8	26,0	28,0	61,6	42	92,4
Catal. no.		2152WB/xx		2153WB/xx		2154WB/xx		2156WB/xx		2157WB/xx	

1) Standard and alternative valve materials on page 72, type A
 2) Complete Pressure-Temperature ratings on page 73 , 74 , 75 , 76 , 77.
 3) SW, NPT & BW dimensions on page 78.

CHECK VALVES - 4500 - Welded cover - Sw/Npt/Bw



Ratings (ASTM A105)

4010 p.s.i. @ 850 F
11110 p.s.i. @ 100 F

Test pressure (ASTM A105)

Hydraulic: (minimum)
Body - 16650 p.s.i.
Seat - 12210 p.s.i.
Air under water:
not applicable

Standards

Construction	ASME B16.34
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

Connections (xx)

SW Socket weld	BX Butt weld XXS
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B6 Butt weld 160	

		STANDARD BORE									
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		127	5,00	155	6,10	170	6,69	240	9,45	240	9,45
Ha (mm/in)		75	2,95	90	3,54	125	4,92	145	5,71	140	5,51
Pf (mm/in)		7	0,28	11	0,43	15	0,59	25	0,98	30	1,33
Wt. (kg/lb)		3,2	7,0	4,8	10,6	8	17,6	16	35,2	26	57,2
Catal. no.		P2252WC/xx		P2253WC/xx		P2254WC/xx		P2256WC/xx		P2257WC/xx	

1) Standard and alternative valve materials on page 67, type B
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) SW, NPT & BW dimensions on page 73

4) Dimensions for piston & ball type; for swing see page 35
5) Code t is replaced by kind of check valve (drawing above)

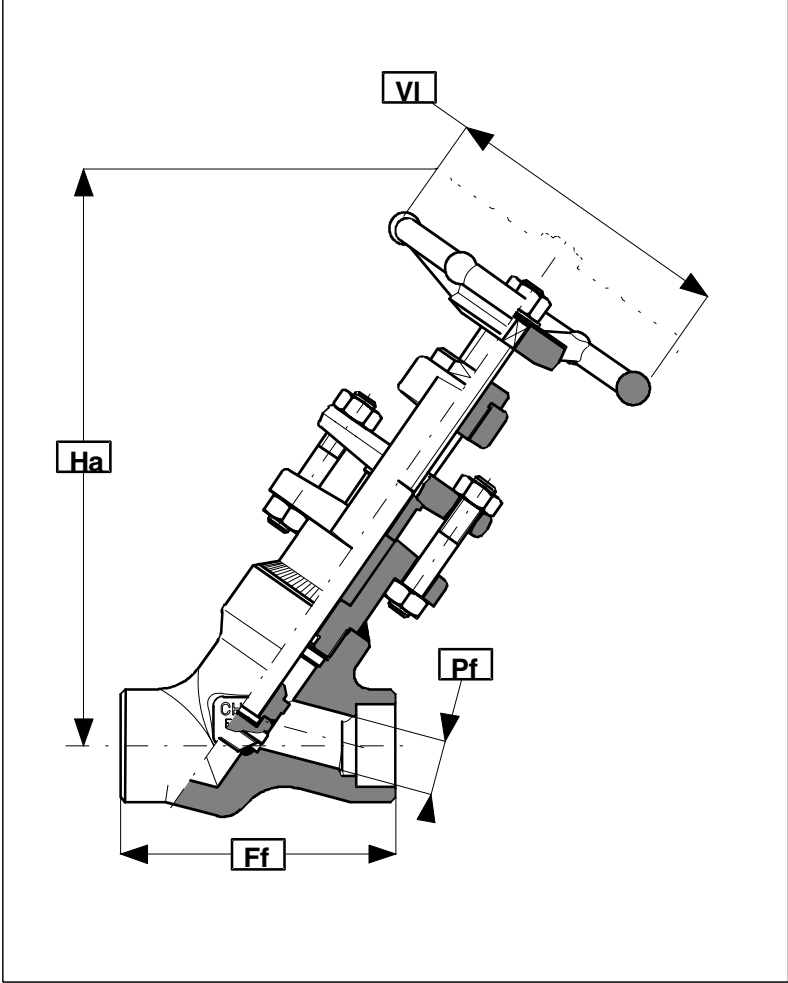
Y GLOBE VALVES - 800 - Welded bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1975 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

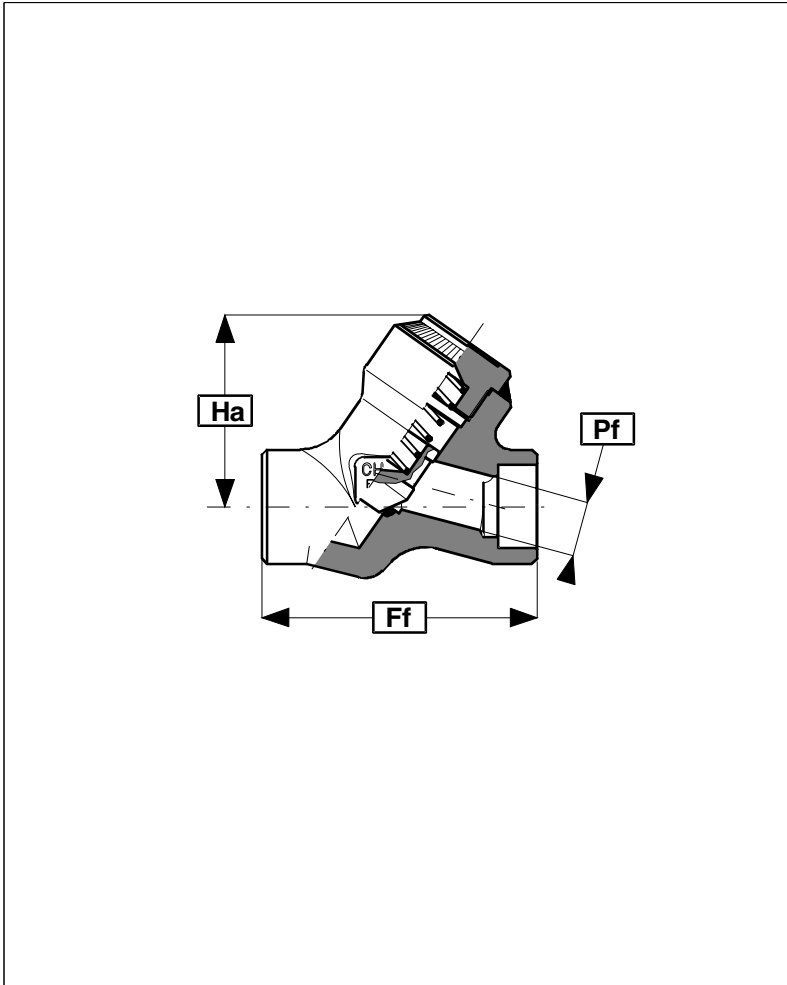
Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Sw/NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B4 Butt weld 40		



STANDARD BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	80 3,15	80 3,15	80 3,15	100 3,94	110 4,33	120 4,72	160 6,30	190 7,48
Ha (mm/in)	147 5,79	147 5,79	147 5,79	186 7,32	220 8,66	235 9,25	305 12,01	352 13,86
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)	8 0,31	9 0,35	12 0,47	18 0,7	22,5 0,89	29,5 1,16	35 1,38	45,5 1,79
Wt. (kg/lb)	2,4 5,3	2,4 5,3	2,4 5,3	3,0 6,6	4,0 8,8	8,0 17,6	10,0 22,0	16,0 35,2
Catal. no.	Y310WB/xx	Y311WB/xx	Y312WB/xx	Y313WB/xx	Y314WB/xx	Y315WB/xx	Y316WB/xx	Y317WB/xx

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

Y CHECK VALVES - 800 - Welded cover - Sw/Npt/Bw



Ratings (ASTM A105)
800 p.s.i. @ 850 F
1975 p.s.i. @ 100 F

Test pressure (ASTM A105)
Hydraulic: (minimum)
Body - 3000 p.s.i.
Seat - 2175 p.s.i.
Air under water:
not applicable

Standards
Construction BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Butt weld ASME B16.25
Test BS 6755 (Pt.1)

Connections (xx)	
SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B4 Butt weld 40	

STANDARD BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	80 3,15	80 3,15	80 3,15	100 3,94	110 4,33	120 4,72	160 6,30	190 7,48
Ha (mm/in)	58 2,28	58 2,28	58 2,28	74 2,91	80 3,15	86 3,39	118 4,65	142 5,59
Pf (mm/in)	8 0,31	9 0,35	12,5 0,49	18 0,7	22,5 0,89	29,5 1,16	35 1,38	45,5 1,79
Wt. (kg/lb)	1,5 3,3	1,5 3,3	1,5 3,3	2,5 5,5	3,0 6,6	5,5 12,1	6,0 13,2	9,0 19,8
Catal. no.	YP410WC/xx	YP411WC/xx	YP412WC/xx	YP413WC/xx	YP414WC/xx	YP415WC/xx	YP416WC/xx	YP417WC/xx

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

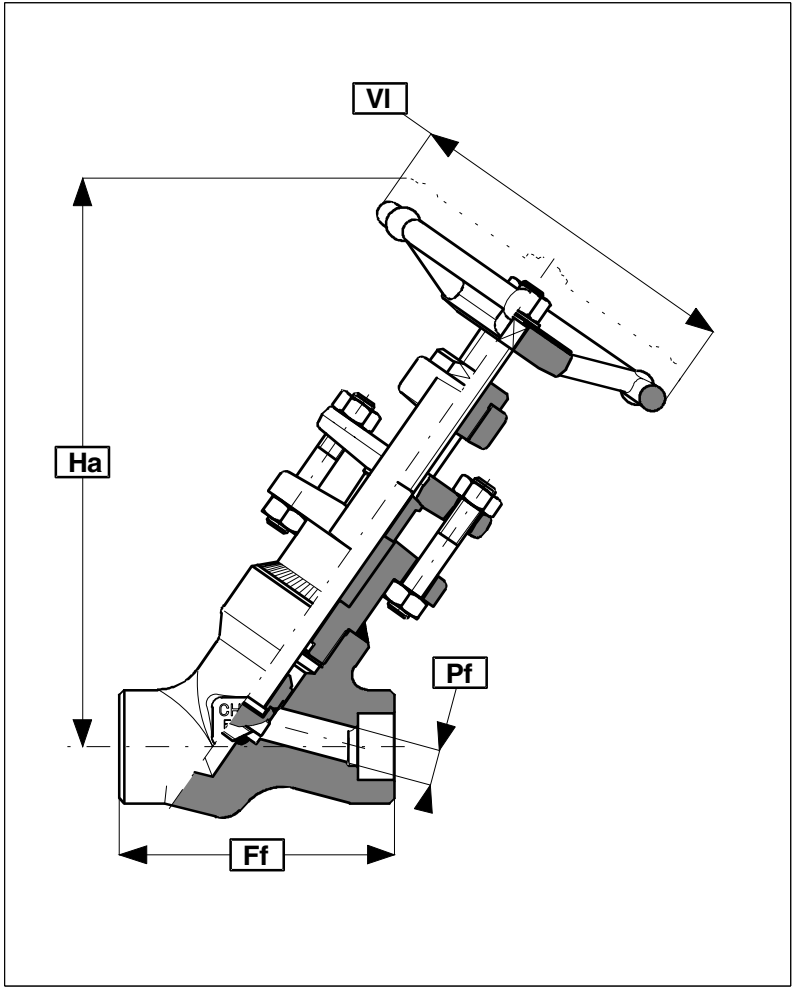
Y GLOBE VALVES - 1500 - Welded bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
1500 p.s.i. @ 850 F	
3705 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 5575 p.s.i.	
Seat - 4100 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352-ASME B16.34
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	BS 6755 (Pt.1)

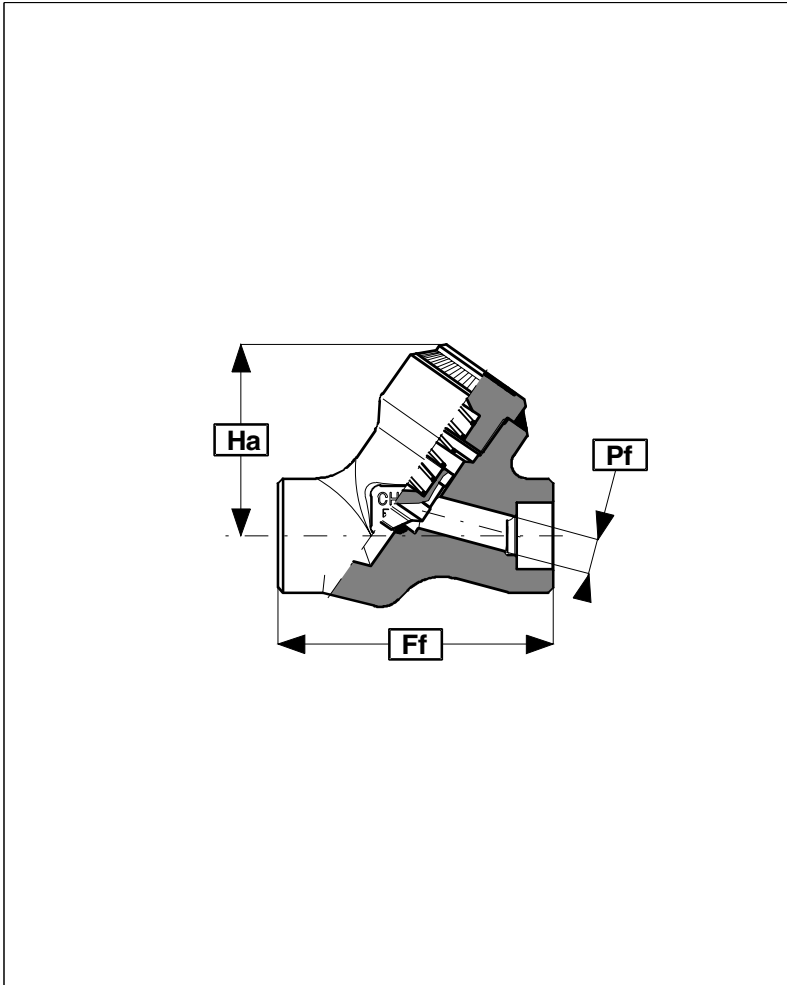
Connections (xx)		
SW	Socket weld	B6 Butt weld 160
TH	Threaded NPT	
TS	Sw/NPT	
SE	Sw (in)/NPT	
SU	Sw (out)/NPT	
B8	Butt weld 80	



		STANDARD BORE											
		1/2"		3/4"		1"		1.1/4"		1.1/2"		2"	
Ff (mm/in)		100	3,94	110	4,33	120	4,72	160	6,30	190	7,48	190	7,48
Ha (mm/in)		186	7,32	220	8,66	229	9,02	305	12,01	348	13,70	389	15,31
VI (mm/in)		120	3,94	175	6,89	175	6,89	200	7,87	200	7,87	260	10,24
Pf (mm/in)		12	0,47	16	0,63	20	0,79	28	1,10	32	1,26	43	1,69
Wt. (kg/lb)		3,0	6,6	4,0	8,8	7,0	15,4	10,5	23,1	15,0	33,0	19,0	41,0
Catal. no.		Y752WB/xx		Y753WB/xx		Y754WB/xx		Y755WB/xx		Y756WB/xx		Y757WB/xx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

Y CHECK VALVES - 1500 - Welded cover - Sw/Npt/Bw



Ratings (ASTM A105)
1500 p.s.i. @ 850 F
3705 p.s.i. @ 100 F

Test pressure (ASTM A105)
Hydraulic: (minimum)
Body - 5575 p.s.i.
Seat - 4100 p.s.i.
Air under water:
not applicable

Standards
Construction BS 5352-ASME B16.34
Socket weld ASME B16.11
Threaded ASME B1.20.1
Butt weld ASME B16.25
Test BS 6755 (Pt.1)

Connections (xx)	
SW Socket weld	B6 Butt weld 160
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B8 Butt weld 80	

STANDARD BORE								
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)			100 3,94	110 4,33	120 4,72	160 6,30	190 7,48	190 7,48
Ha (mm/in)			80 3,15	87 3,43	90 3,54	121 4,76	146 5,75	146 5,75
Pf (mm/in)			12 0,47	16 0,63	20 0,79	28 1,10	32 1,26	43 1,69
Wt. (kg/lb)			2,5 5,5	3,0 6,6	4,5 9,9	5,5 12,1	8 17,6	9,5 20,9
Catal. no.			YP852WC/xx	YP853WC/xx	YP854WC/xx	YP855WC/xx	YP856WC/xx	YP857WC/xx

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

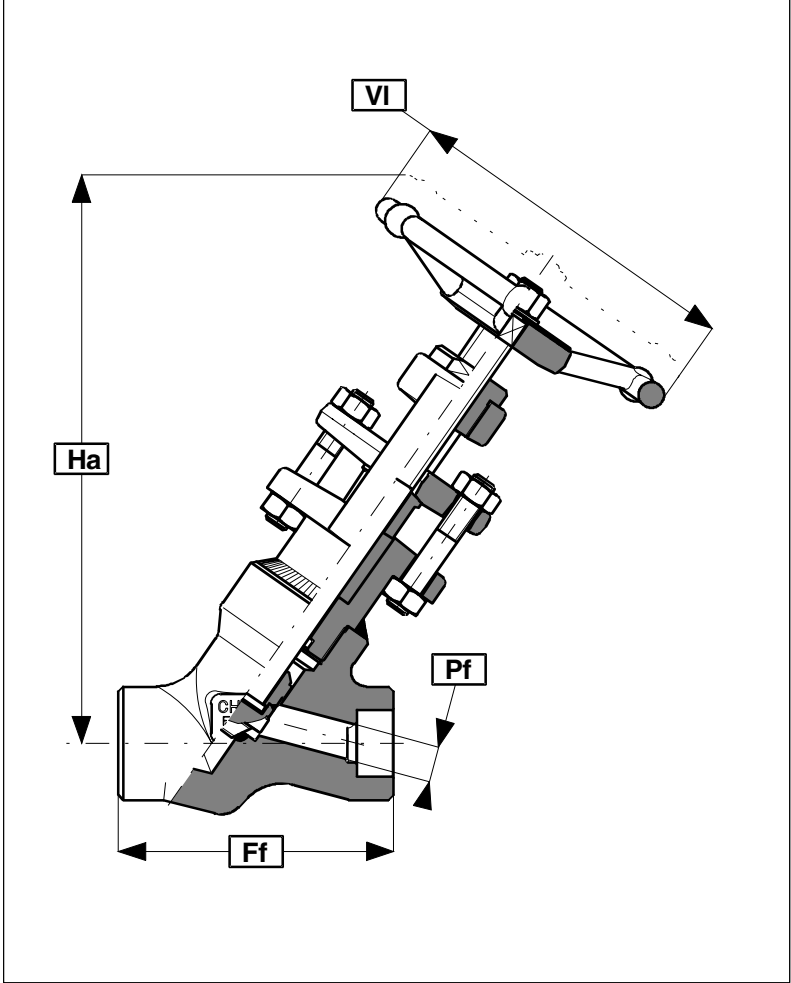
Y GLOBE VALVES - 2500 - Welded bonnet - Sw/Npt/Bw

Ratings (ASTM A105)
2500 p.s.i. @ 850 F
6170 p.s.i. @ 100 F

Test pressure (ASTM A105)
Hydraulic: (minimum)
Body - 9275 p.s.i.
Seat - 6800 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards
Construction <i>founded on ASME B16.34</i>
Socket weld ASME B16.11
Threaded ASME B1.20.1
Butt weld ASME B16.25
Test <i>founded on API 598-ASME B16.34</i>

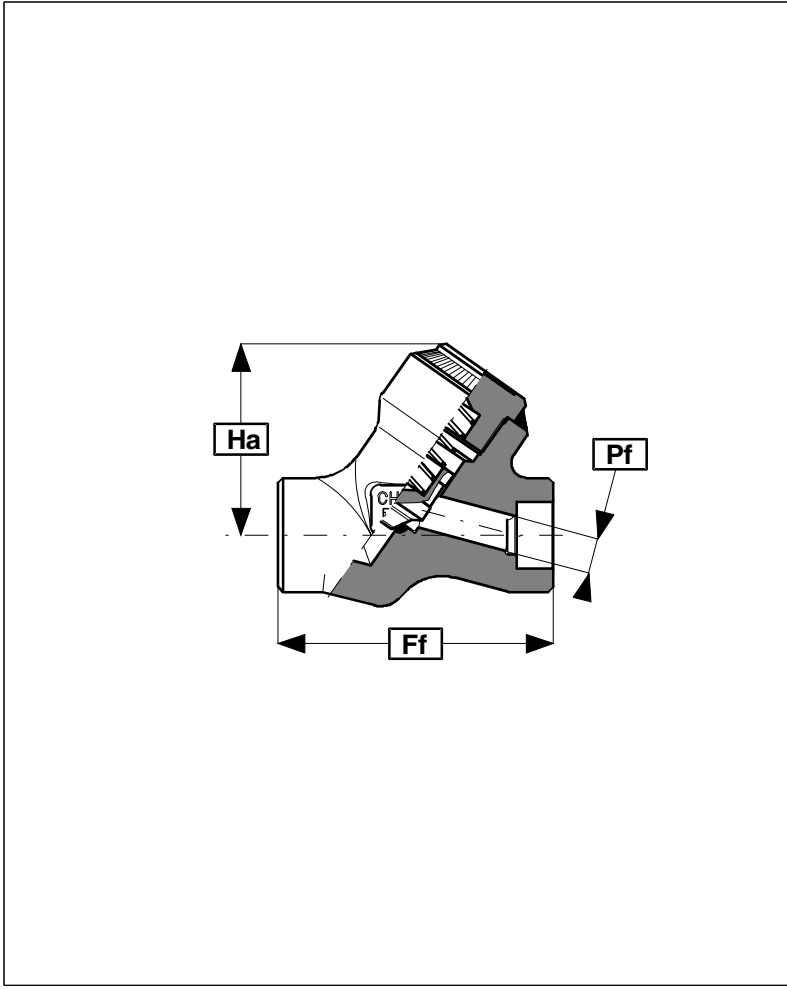
Connections (xx)	
SW Socket weld	BX Butt weld XXS
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B6 But weld 160	



STANDARD BORE								
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)			110 4,33	120 4,72	120 4,72	190 7,48	190 7,48	210 8,27
Ha (mm/in)			217 8,54	276 10,87	276 10,87	388 15,28	388 15,28	402 15,83
VI (mm/in)			140 5,51	200 7,87	200 7,87	260 10,24	260 10,24	350 13,78
Pf (mm/in)			10 0,39	13 0,51	18 0,71	24 0,94	28 1,10	35 1,38
Wt. (kg/lb)			4,0 8,8	5,0 11,0	11,0 24,2	11,0 24,2	17,0 37,4	23,0 50,6
Catal. no.			Y1152WB/xx	Y1153WB/xx	Y1154WB/xx	Y1155WB/xx	Y1156WB/xx	Y1157WB/xx

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

Y CHECK VALVES - 2500 - Welded cover - Sw/Npt/Bw



Ratings (ASTM A105)
2500 p.s.i. @ 850 F
6170 p.s.i. @ 100 F

Test pressure (ASTM A105)
Hydraulic: (minimum)
Body - 9275 p.s.i.
Seat - 6800 p.s.i.
Air under water:
not applicable

Standards	
Construction	founded on ASME B16.34
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	founded on API 598-ASME B16.34

Connections (xx)	
SW Socket weld	BX Butt weld XXS
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B6 Butt weld 160	

STANDARD BORE								
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)			110 4,33	120 4,72	120 4,72	190 7,48	190 7,48	210 8,27
Ha (mm/in)			87 3,43	92 3,62	92 3,62	146 5,75	146 5,75	158 6,22
Pf (mm/in)			10 0,39	13 0,51	18 0,73	24 0,97	28 1,14	35 1,38
Wt. (kg/lb)			3,2 7,0	4,5 9,9	4,5 9,9	9,5 20,9	9,5 20,9	12,0 26,4
Catal. no.			YP1252WC/xx	YP1253WC/xx	YP1254WC/xx	YP1255WC/xx	YP1256WC/xx	YP1257WC/xx

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70,71,72
 3) SW, NPT & BW dimensions on page 73

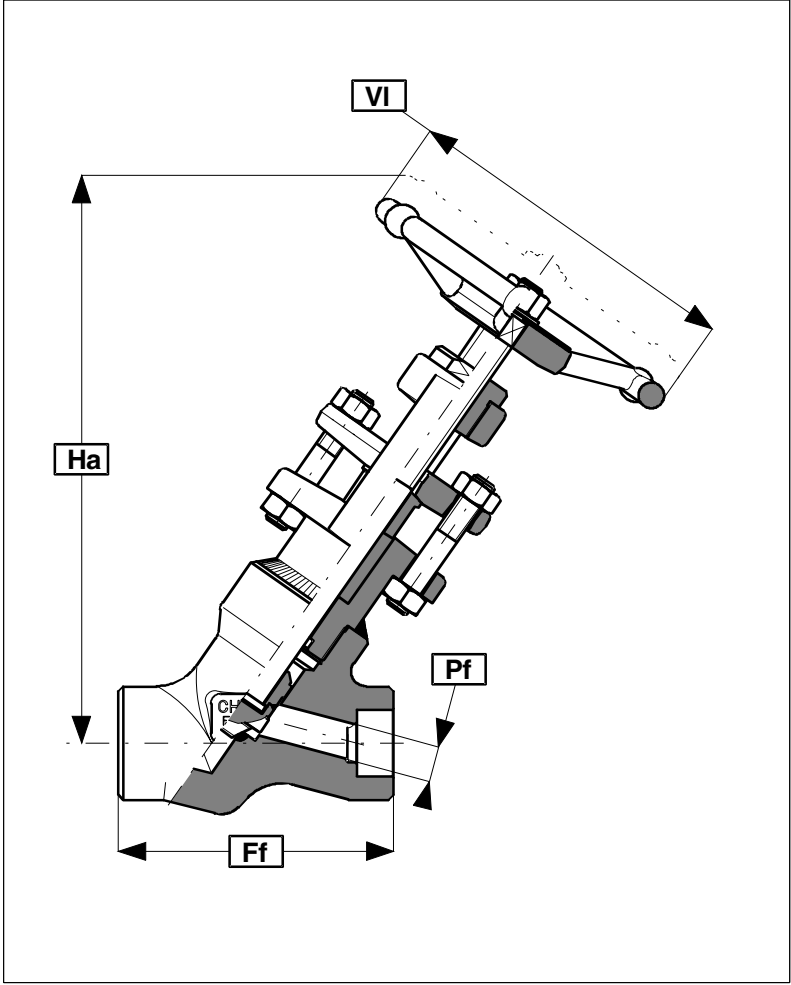
Y GLOBE VALVES - 4500 - Welded bonnet - Sw/Npt/Bw

Ratings (ASTM A105)	
4010 p.s.i. @ 850 F	
11110 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 16650 p.s.i.	
Seat - 12210 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	ASME B16.34
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-ASME B16.34

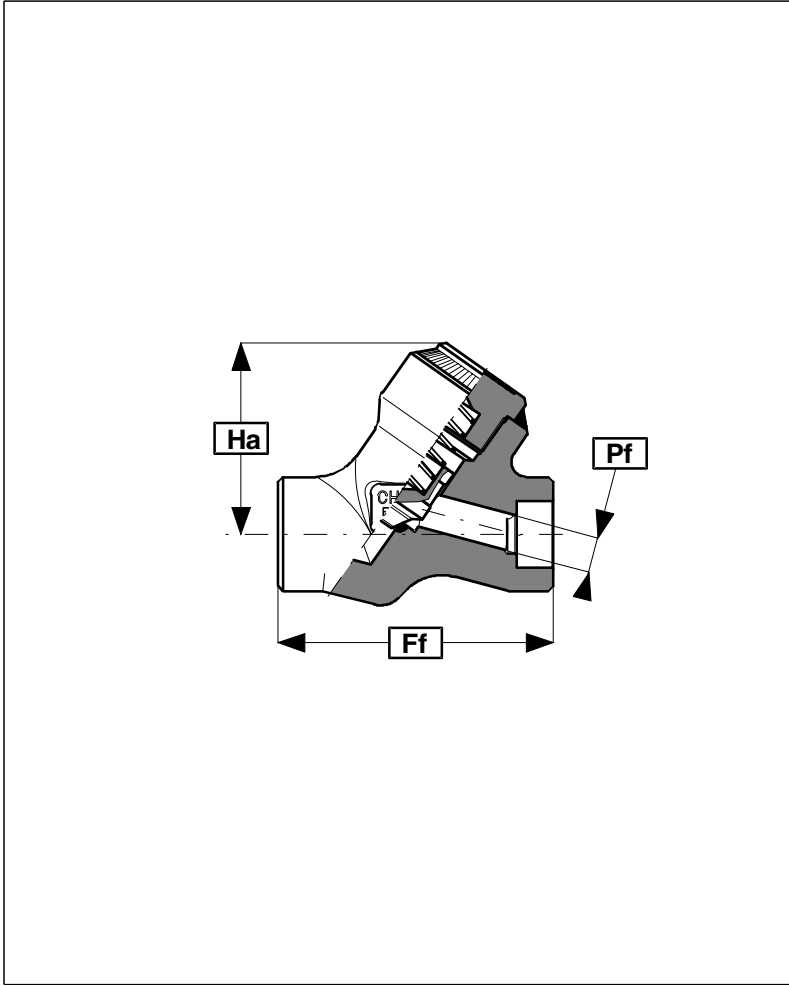
Connections (xx)		
SW Socket weld	BX Butt weld XXS	
TH Threaded NPT		
TS Sw/NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B6 But weld 160		



		STANDARD BORE									
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		120	4,72	160	6,30	190	7,48	210	8,27	230	9,06
Ha (mm/in)		243	9,57	322	12,67	378	14,88	452	17,79	520	20,47
VI (mm/in)		175	7,87	200	7,87	260	10,24	350	13,78	350	13,78
Pf (mm/in)		7	0,28	11	0,43	14	0,55	25	0,98	30	1,18
Wt. (kg/lb)		7,0	15,4	8,4	18,5	14,6	37,1	23,0	50,6	42,0	97,4
Catal. no.		Y2152WB/xx		Y2153WB/xx		Y2154WB/xx		Y2156WB/xx		Y2157WB/xx	

1) Standard and alternative valve materials on page 72, type A
 2) Complete Pressure-Temperature ratings on page 73 , 74 , 75 , 76 , 77.
 3) SW, NPT & BW dimensions on page 78.

Y CHECK VALVES - 4500 - Welded cover - Sw/Npt/Bw



Ratings (ASTM A105)
4010 p.s.i. @ 850 F
11110 p.s.i. @ 100 F

Test pressure (ASTM A105)
Hydraulic: (minimum) Body - 16650 p.s.i. Seat - 12210 p.s.i.
Air under water: not applicable

Standards
Construction ASME B16.34
Socket weld ASME B16.11
Threaded ASME B1.20.1
Butt weld ASME B16.25
Test API 598-ASME B16.34

Connections (xx)	
SW Socket weld	BX Butt weld XXS
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B6 Butt weld 160	

STANDARD BORE								
			1/2"	3/4"	1"		1.1/2"	2"
Ff (mm/in)			120 4,72	160 6,30	190 7,48		210 8,27	230 9,06
Ha (mm/in)			90 3,54	120 4,72	145 5,71		160 6,30	200 7,87
Pf (mm/in)			7 0,28	11 0,43	14 0,55		25 0,98	30 1,18
Wt. (kg/lb)			4,5 9,9	7,5 16,5	9,5 20,9		12,0 26,4	23,0 50,6
Catal. no.			YP2252WC/xx	YP2253WC/xx	YP2254WC/xx		YP2256WC/xx	YP2257WC/xx

1) Standard and alternative valve materials on page 67, type B
 2) Complete Pressure-Temperature ratings on page 68, 69, 70,71,72
 3) SW, NPT & BW dimensions on page 73

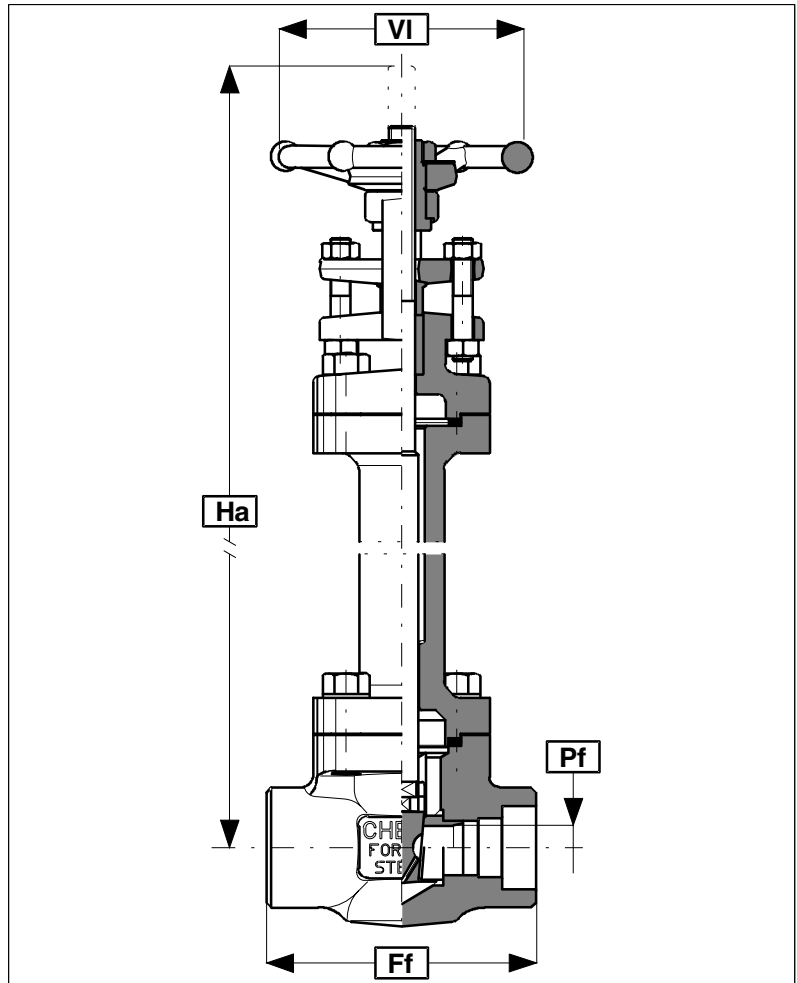
Cryogenic GATE VALVES - 800 - Bolted bonnet - Sw/Npt

Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1975 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	<i>founded on API 602, BS 5352</i>
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Test	<i>founded on API 598-BS 6755 (Pt.1)</i>

Connections (xx)			
SW	Socket weld	B8	Butt weld 80
TH	Threaded NPT		
TS	Sw/NPT		
SE	Sw(e)/NPT		
SU	Sw(u)/NPT		
B4	Butt weld 40		

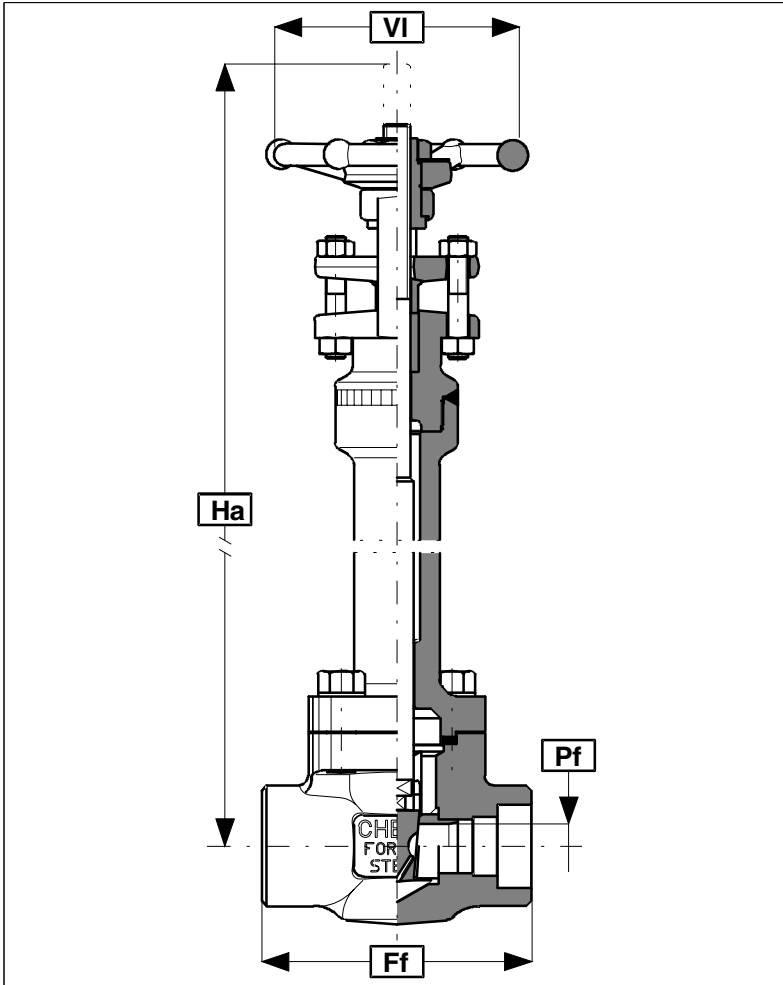


CONVENTIONAL BORE									
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	
Ha (mm/in)			333 13,11	367 14,45	406 15,98	463 18,23	508 20,00	534 21,02	
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	
Pf (mm/in)			10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	
Wt. (kg/lb)			3,1 6,8	3,6 7,9	5,7 12,5	8,8 19,4	11,7 25,7	14,4 31,7	
Catal. no.			CR252B/xx	CR253B/xx	CR254B/xx	CR255B/xx	CR256B/xx	CR257B/xx	

FULL BORE									
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	150 5,91	
Ha (mm/in)	333 13,11	333 13,11	367 14,45	406 15,98	463 18,23	508 20,00	534 21,02	658 25,91	
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87	
Pf (mm/in)	9 0,35	10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	48 1,89	
Wt. (kg/lb)	3,1 6,8	3,1 6,8	3,6 7,9	5,7 12,5	8,8 19,4	11,7 25,7	14,4 31,7	22,2 49,0	
Catal. no.	CF210B/xx	CF211B/xx	CF212B/xx	CF213B/xx	CF214B/xx	CF215B/xx	CF216B/xx	CF217B/xx	

1) Standard and alternative valve materials on page 67, type C
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW & NPT dimensions on page 73
 4) On request flanged ends can be supplied; body dimensions on page 5,6,7
 5) For Ha Length in according to customer desire extension should be welded

Cryogenic GATE VALVES - 800 - Welded bonnet - Sw/Npt



Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1975 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	founded on API 602, BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Test	founded on API 598-BS 6755 (Pt.1)

Connections (xx)			
SW	Socket weld	B8	Butt weld 80
TH	Threaded NPT		
TS	Sw/NPT		
SE	Sw(e)/NPT		
SU	Sw(u)/NPT		
B4	Butt weld 40		

CONVENTIONAL BORE									
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	
Ha (mm/in)			333 13,11	367 14,45	406 15,98	463 18,23	508 20,00	534 21,02	
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	
Pf (mm/in)			10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	
Wt. (kg/lb)			3,1 6,8	3,6 7,9	5,7 12,5	8,8 19,4	11,7 25,7	14,4 31,7	
Catal. no.			CR252/xx	CR253/xx	CR254/xx	CR255/xx	CR256/xx	CR257/xx	

FULL BORE									
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	150 5,91	
Ha (mm/in)	330 12,99	333 13,11	367 14,45	406 15,98	463 18,23	508 20,00	534 21,02	658 25,91	
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87	
Pf (mm/in)	9 0,35	10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	48 1,89	
Wt. (kg/lb)	3,1 6,8	3,1 6,8	3,6 7,9	5,7 12,5	8,8 19,4	11,7 25,7	14,4 31,7	22,2 48,8	
Catal. no.	CF210/xx	CF211/xx	CF212/xx	CF213/xx	CF214/xx	CF215/xx	CF216/xx	CF217/xx	

1) Standard and alternative valve materials on page 67, type C
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW & NPT dimensions on page 73
 4) On request flanged ends can be supplied; body dimensions on page 5,6,7
 5) For Ha Length in according to customer desire extension should be welded

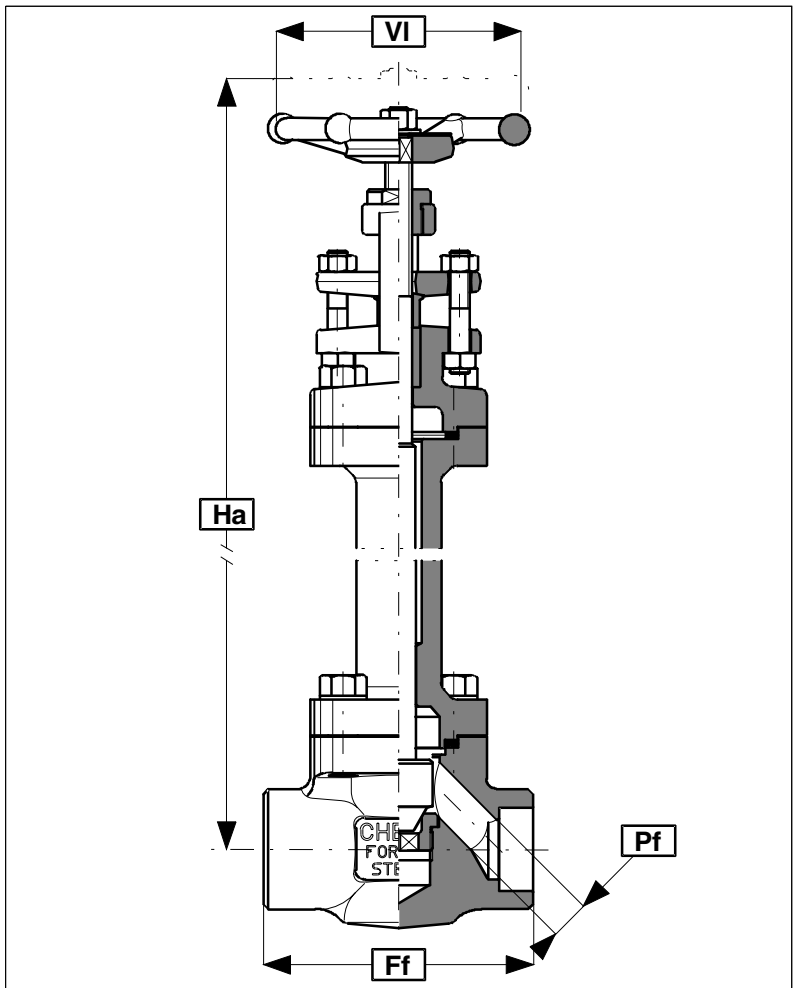
Cryogenic GLOBE VALVES - 800 - Bolted bonnet - Sw/Npt

Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1975 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	<i>founded on BS 5352</i>
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Test	<i>founded on BS 6755 (Pt.1)</i>

Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Sw/NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B4 Butt weld 40		

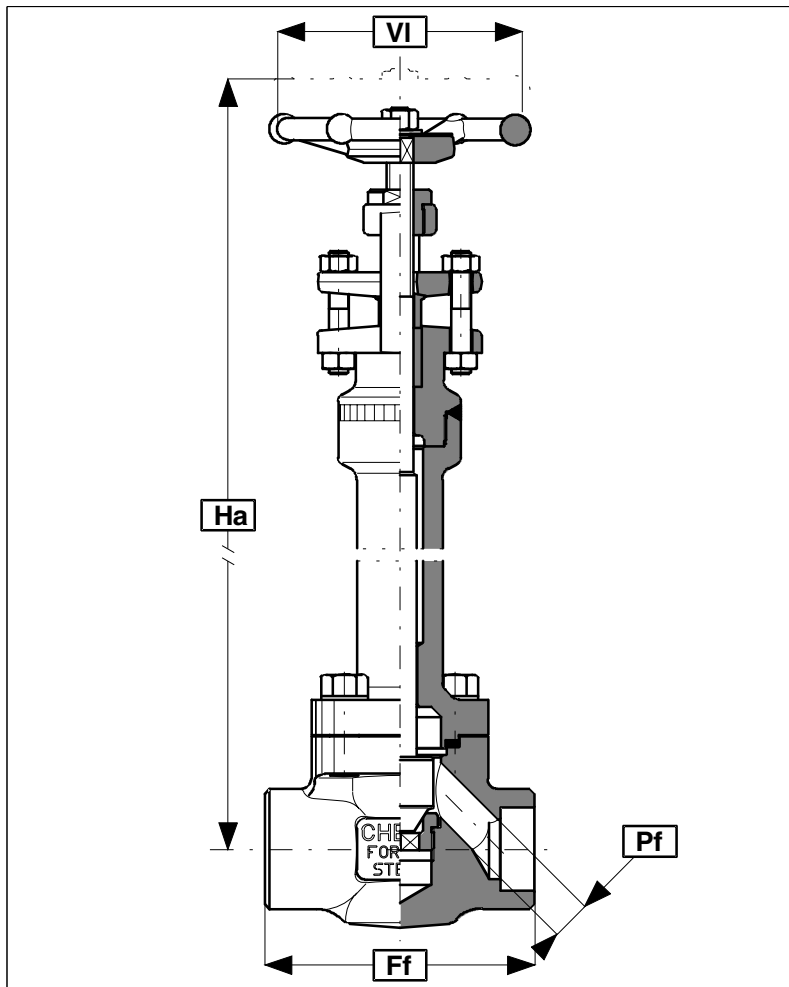


REDUCED BORE								
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69
Ha (mm/in)			333 13,11	365 14,37	401 15,79	462 18,19	507 19,96	531 20,91
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51
Pf (mm/in)			9 0,35	12 0,47	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26
Wt. (kg/lb)			3,1 6,8	3,6 7,9	5,7 12,5	8,8 19,4	11,7 25,7	14,4 31,7
Catal. no.			CR352B/xx	CR353B/xx	CR354B/xx	CR355B/xx	CR356B/xx	CR357B/xx

FULL BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27
Ha (mm/in)	333 13,11	333 13,11	365 14,37	401 15,79	462 18,19	507 19,96	531 20,91	637 25,08
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)	6,5 0,26	9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26	40 ⁽⁶⁾ 1,57
Wt. (kg/lb)	3,1 6,8	3,1 6,8	3,6 7,9	5,7 12,5	8,8 19,4	11,7 25,7	14,4 31,7	22,2 49,0
Catal. no.	CF310B/xx	CF311B/xx	CF312B/xx	CF313B/xx	CF314B/xx	CF315B/xx	CF316B/xx	CF317B/xx

1) Standard and alternative valve materials on page 67, type C
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW & NPT dimensions on page 73
 4) Pf = 29,5 with integral stellited seat
 5) Pf = 35 with integral stellited seat
 6) Pf = 45 with integral stellited seat
 7) On request flanged ends can be supplied; body dimensions on page 10,11,12
 8)For Ha Lenght in according to customer desire extension should be welded

Cryogenic GLOBE VALVES - 800 - Welded bonnet - Sw/Npt



Ratings (ASTM A105)

800 p.s.i. @ 850 F
1975 p.s.i. @ 100 F

Test pressure (ASTM A105)

Hydraulic: (minimum)
Body - 3000 p.s.i.
Seat - 2175 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction founded on BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Test founded on BS 6755 (Pt.1)

Connections (xx)

SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B4 Butt weld 40	

		REDUCED BORE							
		1/2"	3/4"	1"	1.1/4"	1.1/2"	2"		
Ff (mm/in)		80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69		
Ha (mm/in)		333 13,11	365 14,37	401 15,79	462 18,19	507 19,96	531 20,91		
VI (mm/in)		90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51		
Pf (mm/in)		9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26		
Wt. (kg/lb)		2,6 5,7	3,1 6,8	5,2 11,4	8,6 18,9	12,4 27,3	15,7 34,5		
Catal. no.		CR352/xx	CR353/xx	CR354/xx	CR355/xx	CR356/xx	CR357/xx		

		FULL BORE							
		1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)		80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27
Ha (mm/in)		333 12,99	333 13,11	365 14,37	401 15,79	462 18,19	507 19,96	531 20,91	637 25,08
VI (mm/in)		90 13,11	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)		6,5 0,26	9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26	40 ⁽⁶⁾ 1,57
Wt. (kg/lb)		2,6 5,7	2,6 5,7	3,1 6,8	5,2 11,4	8,6 18,9	12,4 27,3	15,7 34,5	23,4 51,5
Catal. no.		CF310/xx	CF311/xx	CF312/xx	CF313/xx	CF314/xx	CF315/xx	CF316/xx	CF317/xx

1) Standard and alternative valve materials on page 67, type C
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) SW & NPT dimensions on page 73
4) Pf = 29,5 with integral stellited seat

5) Pf = 35 with integral stellited seat
6) Pf = 45 with integral stellited seat
7) On request flanged ends can be supplied; body dimensions on page 10,11,12
8) For Ha Length in according to customer desire extension should be welded

Bellows seal GATE VALVES - 800 - Bolted bonnet - Sw/Npt

Ratings (ASTM A105)

800 p.s.i. @ 850 F
1440 p.s.i. @ 100 F

Test pressure (ASTM A105)

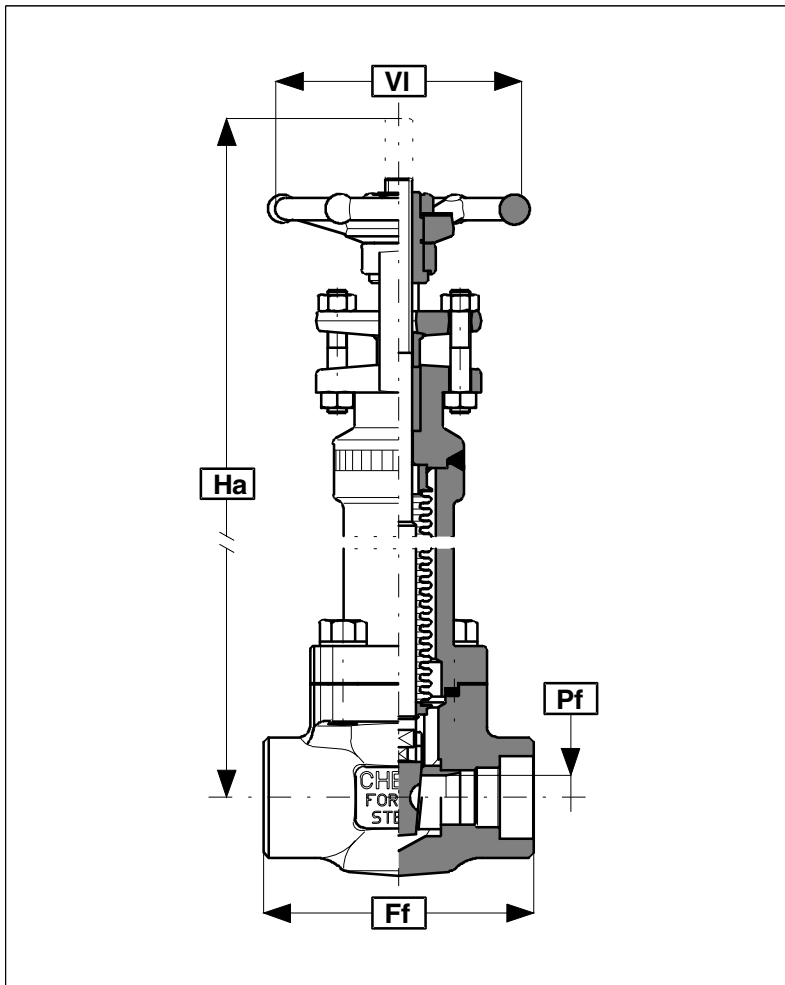
Hydraulic: (minimum)
Body - 2180 p.s.i.
Seat - 1495 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Test BS 6755 (Pt.1)

Connections (xx)

SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw(e)/NPT	
SU Sw(u)/NPT	
B4 Butt weld 40	



REDUCED BORE

		1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)		80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12
Ha (mm/in)		256 10,08	267 10,51	300 11,81	344 13,54	421 16,57	433 17,05
VI (mm/in)		90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51
Pf (mm/in)		10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44
Wt. (kg/lb)		3,0 6,6	3,4 7,5	5,3 11,7	7,7 16,9	11,0 24,2	14,2 31,2
Catal. no.		SR252B/xx	SR253B/xx	SR254B/xx	SR255B/xx	SR256B/xx	SR257B/xx

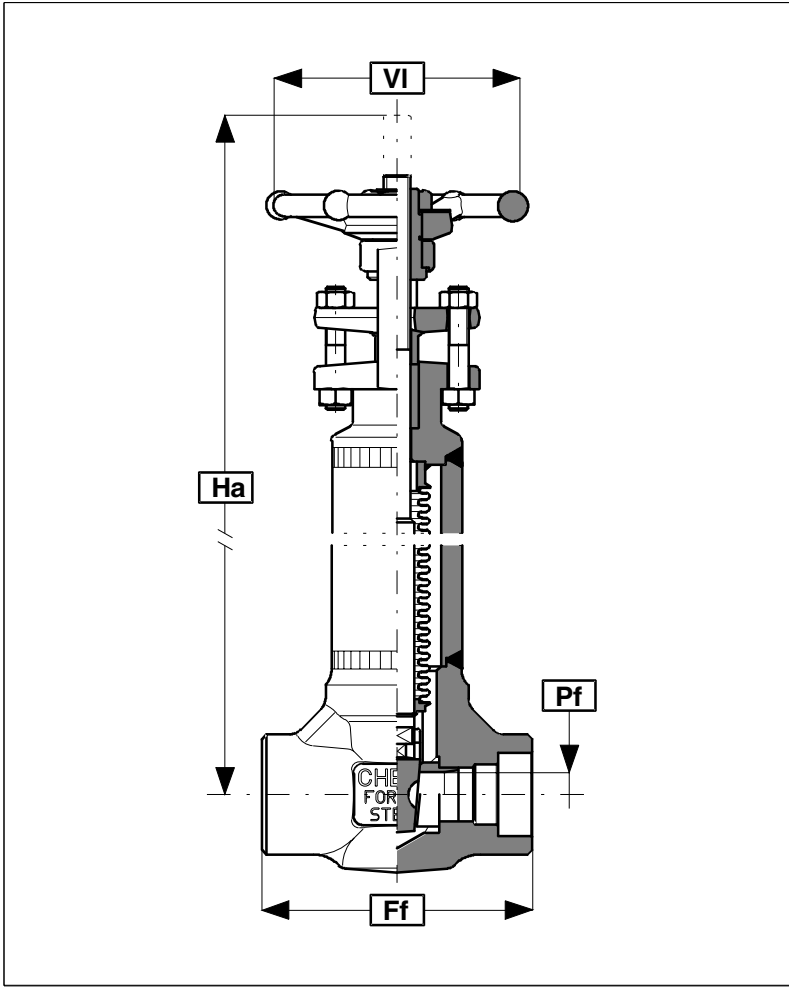
FULL BORE

	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	150 5,91
Ha (mm/in)	256 10,08	256 10,08	267 10,51	300 11,81	344 13,54	421 16,57	433 17,05	560 22,05
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)	8,5 0,33	10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	48 1,89
Wt. (kg/lb)	3,0 6,6	3,0 6,6	3,4 7,5	5,3 11,7	7,7 17,1	11,0 24,4	14,2 31,2	25,0 55,0
Catal. no.	SF210B/xx	SF211B/xx	SF212B/xx	SF213B/xx	SF214B/xx	SF215B/xx	SF216B/xx	SF217B/xx

1) Standard and alternative valve materials on page 67, type D
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) SW & NPT dimensions on page 73

4) On request flanged ends can be supplied; body dimensions on page 5,6,7

Bellows seal GATE VALVES - 800 - Welded bonnet - Sw/Npt



Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1440 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 2180 p.s.i.	
Seat - 1495 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Test	BS 6755 (Pt.1)

Connections (xx)			
SW	Socket weld	B8	Butt weld 80
TH	Threaded NPT		
TS	Sw/NPT		
SE	Sw(e)/NPT		
SU	Sw(u)/NPT		
B4	Butt weld 40		

REDUCED BORE									
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	
Ha (mm/in)			256 10,08	267 10,51	300 11,81	344 13,54	421 16,57	433 17,05	
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	
Pf (mm/in)			10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	
Wt. (kg/lb)			2,7 5,9	3,1 6,8	4,7 10,3	6,9 15,2	9,5 20,9	12,6 27,7	
Catal. no.			SR252/xx	SR253/xx	SR254/xx	SR255/xx	SR256/xx	SR257/xx	

FULL BORE									
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	150 5,91	
Ha (mm/in)	256 10,08	256 10,08	267 10,51	300 11,81	344 13,54	421 16,57	433 17,05	560 22,05	
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87	
Pf (mm/in)	8,5 0,33	10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	48 1,89	
Wt. (kg/lb)	2,7 5,9	2,7 5,9	3,1 6,8	4,7 10,3	6,9 15,2	9,5 20,9	12,6 27,7	25,0 55,0	
Catal. no.	SF210/xx	SF211/xx	SF212/xx	SF213/xx	SF214/xx	SF215/xx	SF216/xx	SF217/xx	

1) Standard and alternative valve materials on page 67, type D
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW & NPT dimensions on page 73

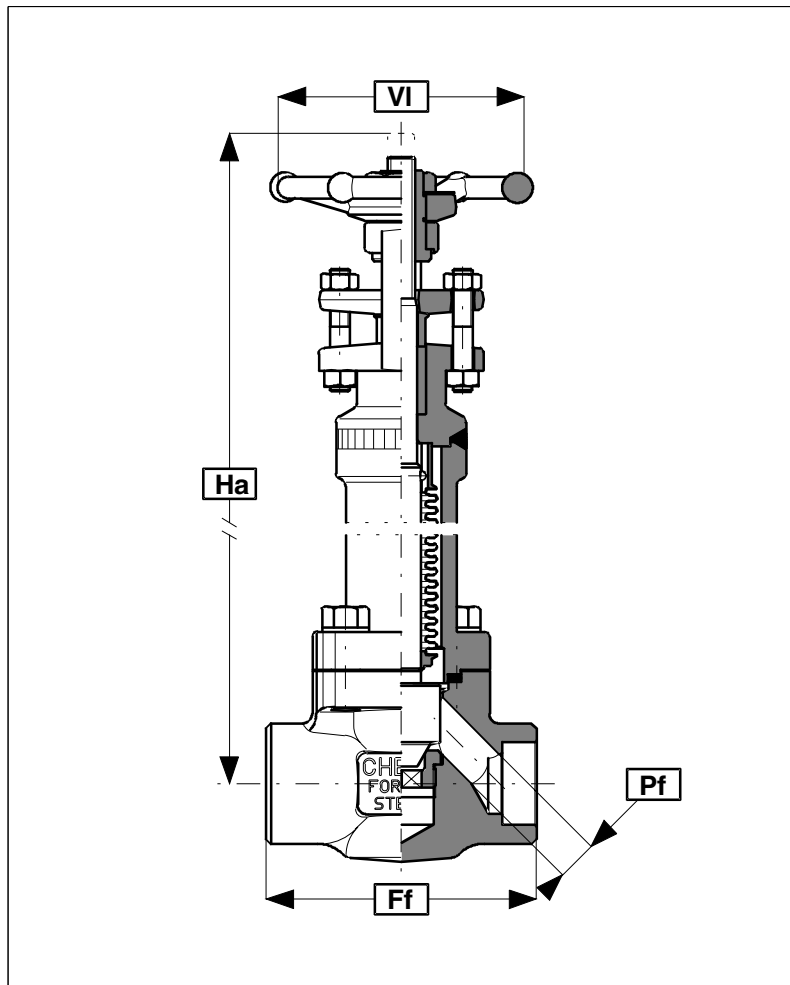
Bellows seal GLOBE VALVES - 800 - Bolted bonnet - Sw/Npt

Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1440 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 2180 p.s.i.	
Seat - 1495 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	BS 5253
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Test	BS 6755 (Pt.1)

Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Sw/NPT		
SE Sw (in)/NPT		
SU Sw (out)/NPT		
B4 Butt weld 40		

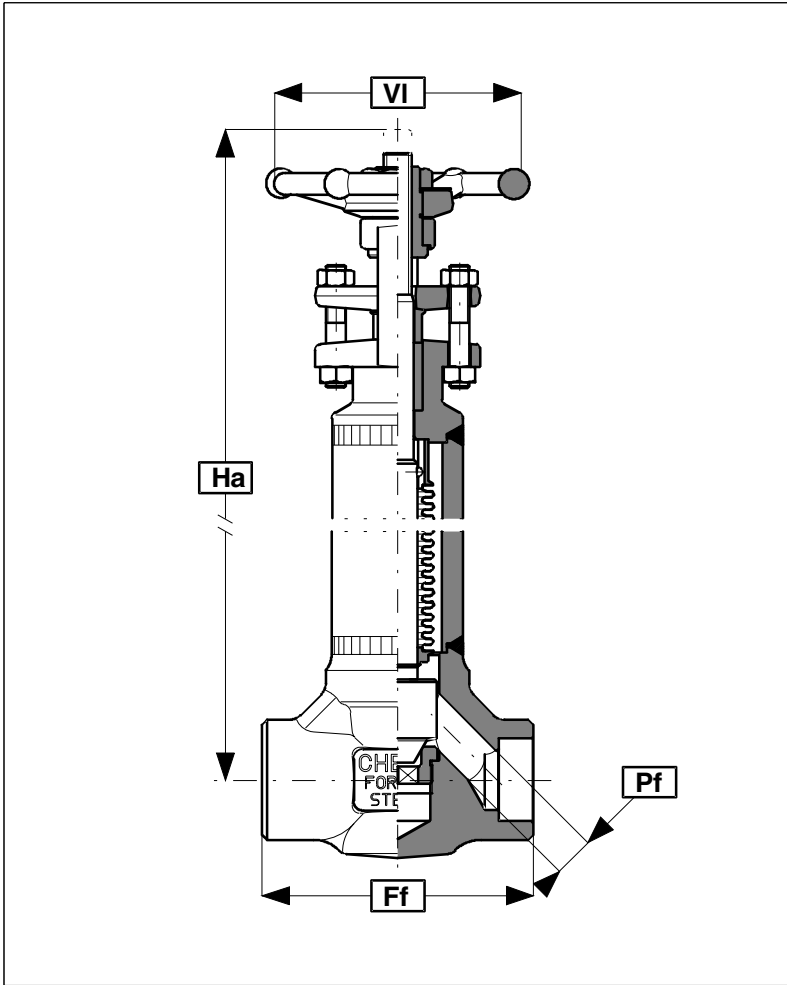


REDUCED BORE								
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69
Ha (mm/in)			234 9,21	243 9,56	290 11,41	320 12,59	363 14,29	389 15,31
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51
Pf (mm/in)			9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26
Wt. (kg/lb)			2,5 5,5	2,8 6,2	5,2 11,4	7,5 16,5	11,4 25,1	15,4 33,9
Catal. no.			SR352B/xx	SR353B/xx	SR354B/xx	SR355B/xx	SR356B/xx	SR357B/xx

FULL BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27
Ha (mm/in)	234 9,21	234 9,21	243 9,56	290 11,41	320 13,04	363 14,29	389 15,31	442 17,40
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)	6 0,24	9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26	40 ⁽⁶⁾ 1,57
Wt. (kg/lb)	2,6 5,7	2,6 5,7	2,9 6,4	5,3 11,7	7,6 16,7	11,5 25,3	15,5 34,1	23,4 51,5
Catal. no.	SF310B/xx	SF311B/xx	SF312B/xx	SF313B/xx	SF314B/xx	SF315B/xx	SF316B/xx	SF317B/xx

1) Standard and alternative valve materials on page 67, type D
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW & NPT dimensions on page 73
 4) Pf = 29,5 with integral stellite seat
 5) Pf = 35 with integral stellite seat
 6) Pf = 45 with integral stellite seat
 7) On request flanged ends can be supplied; body dimensions on page 10,11,12

Bellows seal GLOBE VALVES-800-Welded bonnet-Sw/Npt



Ratings (ASTM A105)

800 p.s.i. @ 850 F
1440 p.s.i. @ 100 F

Test pressure (ASTM A105)

Hydraulic: (minimum)
Body - 2180 p.s.i.
Seat - 1495 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Test BS 6755 (Pt.1)

Connections (xx)

SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B4 Butt weld 40	

REDUCED BORE								
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69
Ha (mm/in)			235 9,25	259 10,20	302 11,89	329 12,95	354 13,94	390 15,35
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51
Pf (mm/in)			9 0,35	12,5 0,49	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26
Wt. (kg/lb)			2,3 5,1	2,6 5,7	4,3 9,5	6,8 15,0	9,6 21,1	13,8 30,4
Catal. no.			SR352/xx	SR353/xx	SR354/xx	SR355/xx	SR356/xx	SR357/xx

FULL BORE								
	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)	80 3,15	80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69	210 8,27
Ha (mm/in)	235 9,25	235 9,25	259 10,20	302 11,89	329 12,95	354 13,94	390 15,35	442 17,40
VI (mm/in)	90 3,54	90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	200 7,87
Pf (mm/in)	6 0,24	9 0,35	12,5 0,4	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26	40 ⁽⁶⁾ 1,57
Wt. (kg/lb)	2,4 5,4	2,4 5,4	2,7 6,1	4,6 10,5	7,3 16,5	10,2 23,1	14,5 32,9	23,4 51,1
Catal. no.	SF310/xx	SF311/xx	SF312/xx	SF313/xx	SF314/xx	SF315/xx	SF316/xx	SF317/xx

1) Standard and alternative valve materials on page 67, type D
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) SW & NPT dimensions on page 73
4) Pf = 29,5 with integral stellite seat

5) Pf = 35 with integral stellite seat
6) Pf = 45 with integral stellite seat

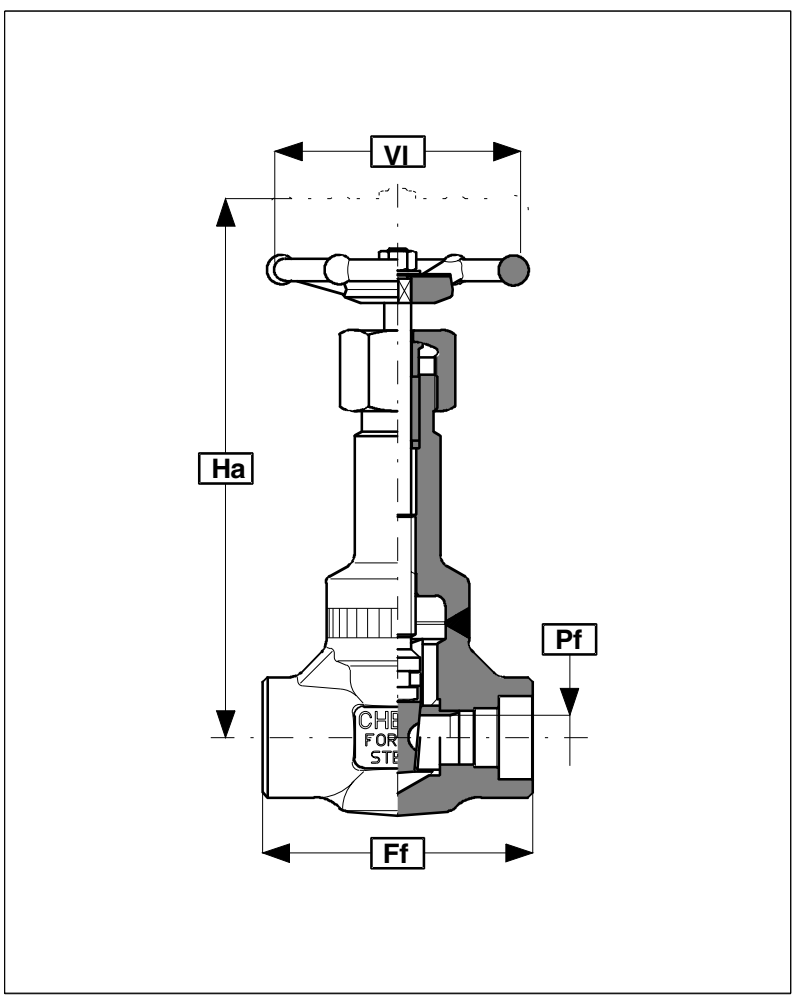
ISRS GATE VALVES - 800 - Welded bonnet - Sw/Npt

Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1975 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	API 602, BS 5352
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Test	API 598-BS 6755 (Pt.1)

Connections (xx)		
SW Socket weld	B8 Butt weld 80	
TH Threaded NPT		
TS Sw/NPT		
SE Sw(e)/NPT		
SU Sw(u)/NPT		
B4 Butt weld 40		

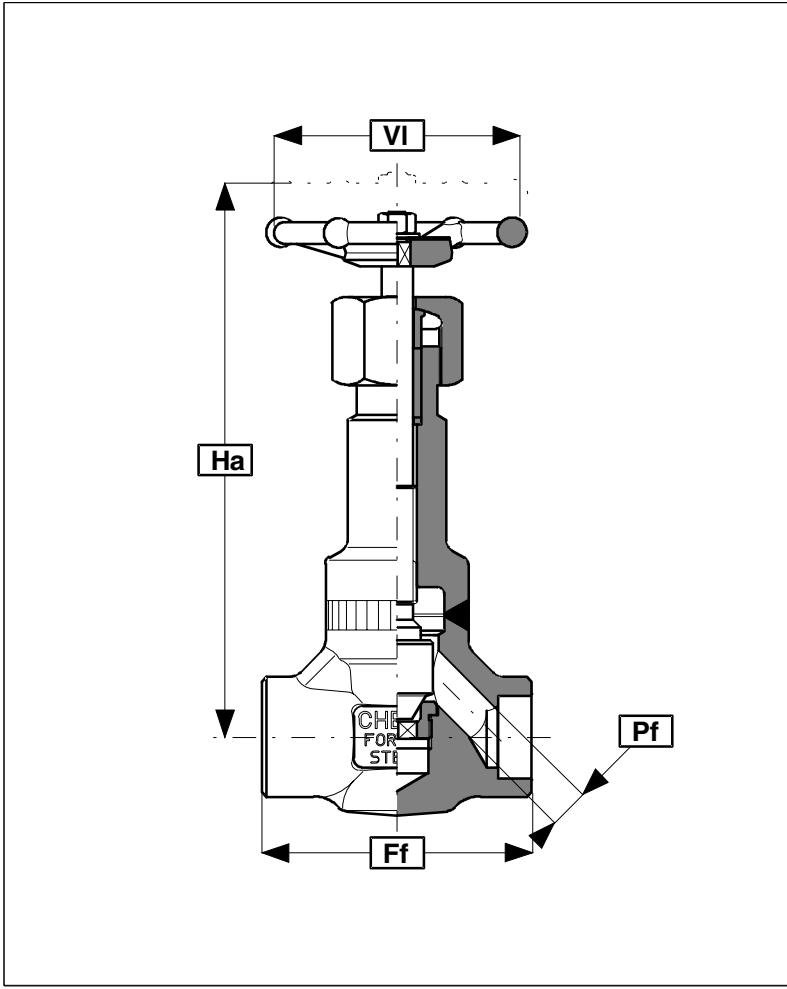


CONVENTIONAL BORE									
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	
Ha (mm/in)			158 6,22	183 7,20	201 7,91	255 10,03	276 10,87	310 12,21	
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	
Pf (mm/in)			10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	
Wt. (kg/lb)			1,5 3,3	1,9 4,2	3,2 7,0	4,9 10,8	6,2 13,6	8,4 18,5	
Catal. no.			IR252WF/xx	IR253WF/xx	IR254WF/xx	IR255WF/xx	IR256WF/xx	IR257WF/xx	

FULL BORE									
Ff (mm/in)									
Ha (mm/in)									
VI (mm/in)									
Pf (mm/in)									
Wt. (kg/lb)									
Catal. no.									

1) Standard and alternative valve materials on page 67, type E
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW & NPT dimensions on page 73

ISRS GLOBE VALVES - 800 - Welded bonnet - Sw/Npt



Ratings (ASTM A105)

800 p.s.i. @ 850 F
1975 p.s.i. @ 100 F

Test pressure (ASTM A105)

Hydraulic: (minimum)
Body - 3000 p.s.i.
Seat - 2175 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Test BS 6755 (Pt.1)

Connections (xx)

SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B4 Butt weld 40	

REDUCED BORE														
			1/2"		3/4"		1"		1.1/4"		1.1/2"		2"	
Ff (mm/in)			80	3,15	90	3,54	110	4,33	127	6,10	155	6,10	170	6,69
Ha (mm/in)			162	6,38	189	7,44	222	8,74	250	9,84	278	10,95	314	12,36
VI (mm/in)			90	3,54	90	3,54	100	3,94	120	4,72	140	5,51	140	5,51
Pf (mm/in)			9	0,35	12,5	0,49	17,5	0,69	22,5	0,88	28 ⁽⁴⁾	1,10	32 ⁽⁵⁾	1,26
Wt. (kg/lb)			1,5	3,3	1,8	4,0	3,3	7,3	5,5	12,1	8	17,6	10,6	23,3
Catal. no.			IR352WF/xx		IR353WF/xx		IR354WF/xx		IR355WF/xx		IR356WF/xx		IR357WF/xx	

FULL BORE									
Ff (mm/in)									
Ha (mm/in)									
VI (mm/in)									
Pf (mm/in)									
Wt. (kg/lb)									
Catal. no.									

1) Standard and alternative valve materials on page 67, type E
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) SW & NPT dimensions on page 73

4) Pf = 29,5 with integral stellited seat
5) Pf = 35 with integral stellited seat

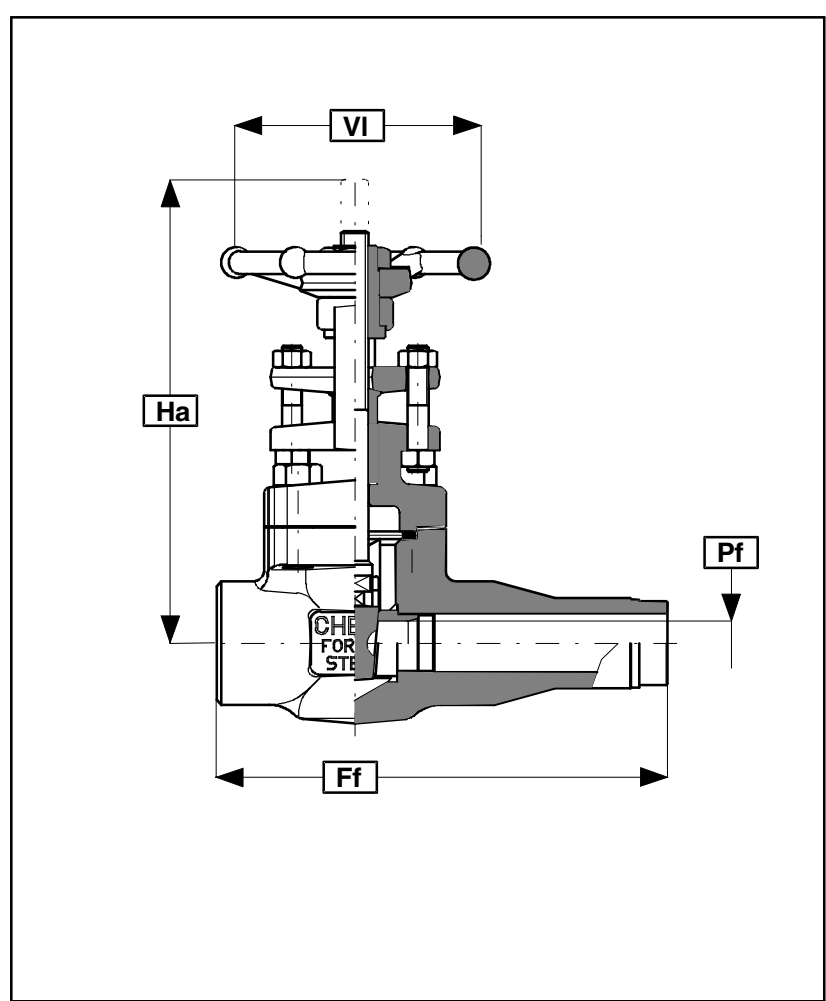
Extended body GATE VALVES - 800 - Bolted bonnet - Sw/Npt/BW

Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1975 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	API 602, API 606
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Butt weld	ASME B16.25
Test	API 598-BS 6755 (Pt.1)

Connections (xx)	
SNS Sw/ext. Sw	BNS BW80/ext. Sw
SNT Sw/ext. NPT	BNT BW80/ext. NPT
SNB Sw/ext. BW80	BNB BW80/ext. BW80
TNS NPT/ext. Sw	
TNT NPT/ext. NPT	
TNB NPT/ext. BW80	



CONVENTIONAL BORE											
		1/2"		3/4"		1"		1.1/2"		2"	
Ff (mm/in)		145	5,71	160	6,30	190	7,48	224	8,82	240	9,45
Ha (mm/in)		145	5,70	156	6,14	186	7,32	255	10,04	273	10,75
VI (mm/in)		90	3,54	90	3,54	100	3,94	140	5,51	140	5,51
Pf (mm/in)		10	0,39	14	0,55	18	0,71	31	1,22	36,5	1,44
Wt. (kg/lb)		1,9	4,2	2,4	5,3	3,8	8,4	7,7	16,9	7,7	16,9
Catal. no.		R252/xNx		R253/xNx		R254/xNx		R256/xNx		R257/xNx	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73

Extended body GATE VALVES - 800 - Welded bonnet - Sw/Npt/BW

Ratings (ASTM A105)

800 p.s.i. @ 850 F
1975 p.s.i. @ 100 F

Test pressure (ASTM A105)

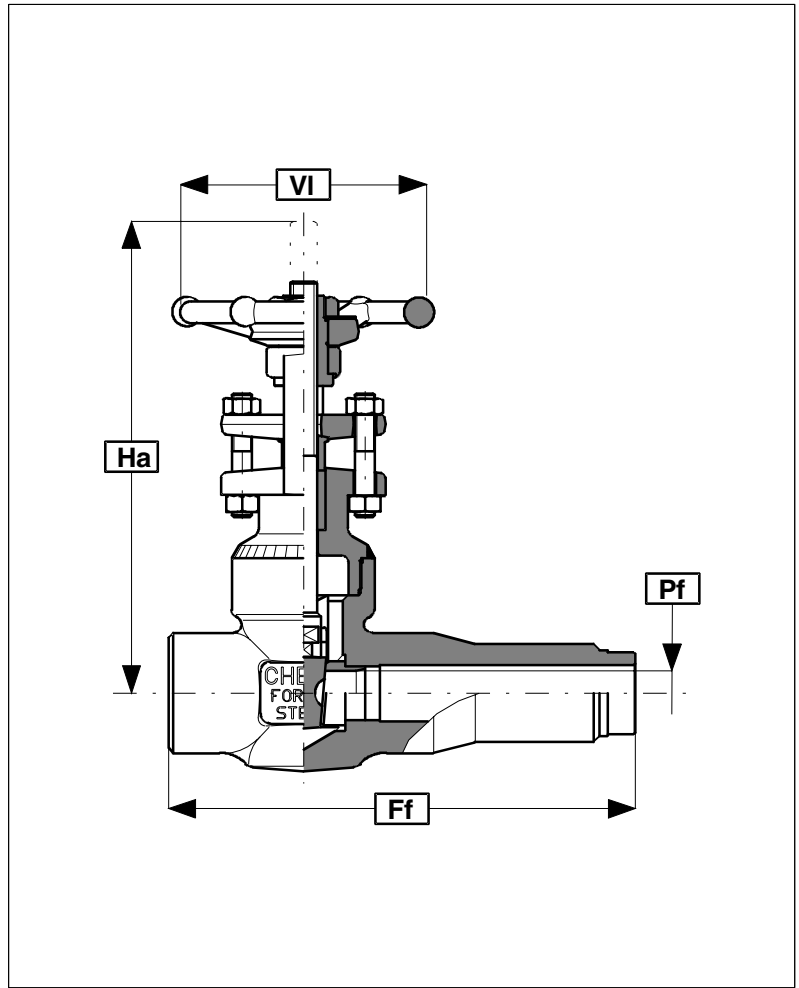
Hydraulic: (minimum)
Body - 3000 p.s.i.
Seat - 2175 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction API 602, API 606
Socket weld ASME B16.11
Threaded ASME B1.20.1
Butt weld ASME B16.25
Test API 598-BS 6755 (Pt.1)

Connections (xx)

SNS Sw/ext. Sw	BNS BW80/ext. Sw
SNT Sw/ext. NPT	BNT BW80/ext. NPT
SNB Sw/ext. BW80	BNB BW80/ext. BW80
TNS NPT/ext. Sw	
TNT NPT/ext. NPT	
TNB NPT/ext. BW80	



CONVENTIONAL BORE

			1/2"	3/4"	1"		1.1/2"	2"
Ff (mm/in)			145 5,71	160 6,30	190 7,48		224 8,82	240 9,45
Ha (mm/in)			150 5,91	157 6,18	188 7,40		248 9,76	273 10,75
VI (mm/in)			90 3,54	90 3,54	100 3,94		140 5,51	140 5,51
Pf (mm/in)			10 0,39	14 0,55	18 0,71		31 1,22	36,5 1,44
Wt. (kg/lb)			1,6 3,5	2,0 4,4	3,2 7,0		6,2 13,6	8,3 18,5
Catal. no.			R252WB/xNx	R253WB/xNx	R254WB/xNx		R256WB/xNx	R257WB/xNx

1) Standard and alternative valve materials on page 67, type A
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71, 72
3) SW, NPT & BW dimensions on page 73

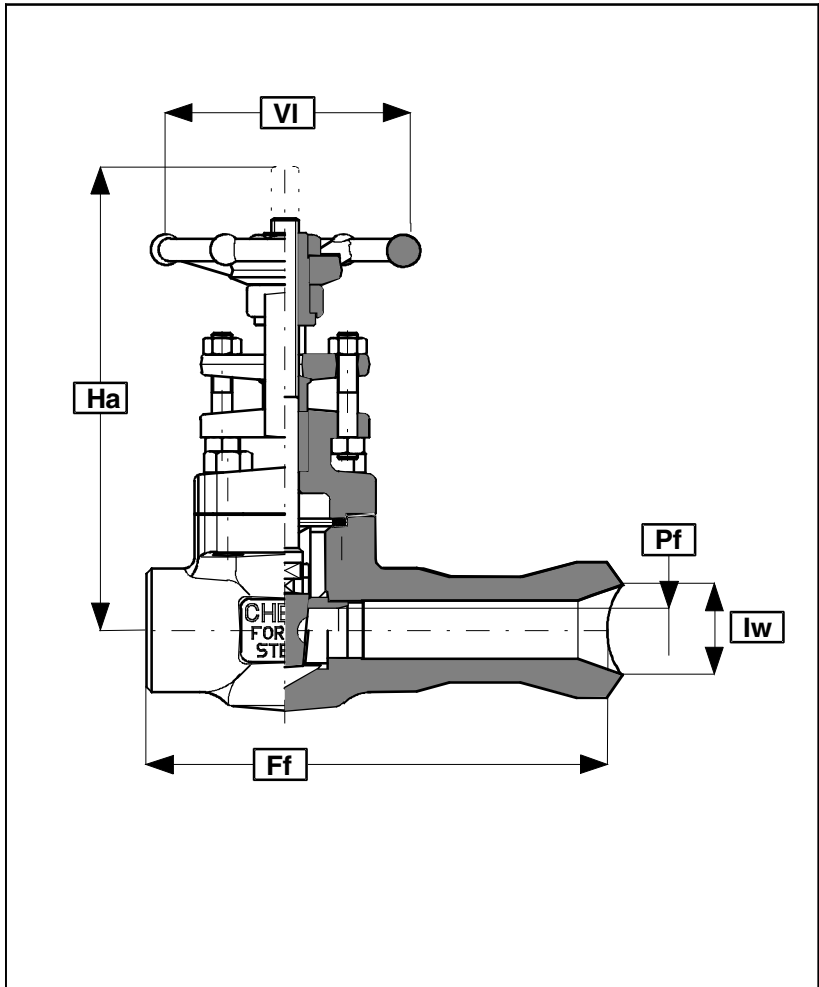
Weldolet GATE VALVES - 800 - Bolted bonnet - Sw/Npt-Weld

Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1975 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	API 602, API 606
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Test	API 598-BS 6755 (Pt.1)

Connections (xx)	
SNW Sw/ext. Weld	
TNW Sw/ext. Weld	



CONVENTIONAL BORE													
			1/2"		3/4"		1"		1.1/4"	1.1/2"	2" ⁽⁴⁾		
Ff (mm/in)			208	8,19	218	8,58	244	9,60		263	10,35	268	10,55
Ha (mm/in)			208	5,90	156	6,14	186	7,32		255	10,04	273	10,75
VI (mm/in)			90	3,54	90	3,54	100	3,94		140	5,51	140	5,51
Pf (mm/in)			10	0,39	14	0,55	18	0,71		31	1,22	36,5	1,44
Iw (mm/in)			22	0,87	30	1,18	36	1,42		50	1,97	65	2,56
Wt. (kg/lb)			2,5	5,5	2,8	6,2	5	11		9,8	21,56	13,5	29,7
Catal. no.			R252/xNW		R253/xNW		R254/xNW			R256/xNW		R257/xNW	

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73
 4) 2" : WELDED EXTENSION

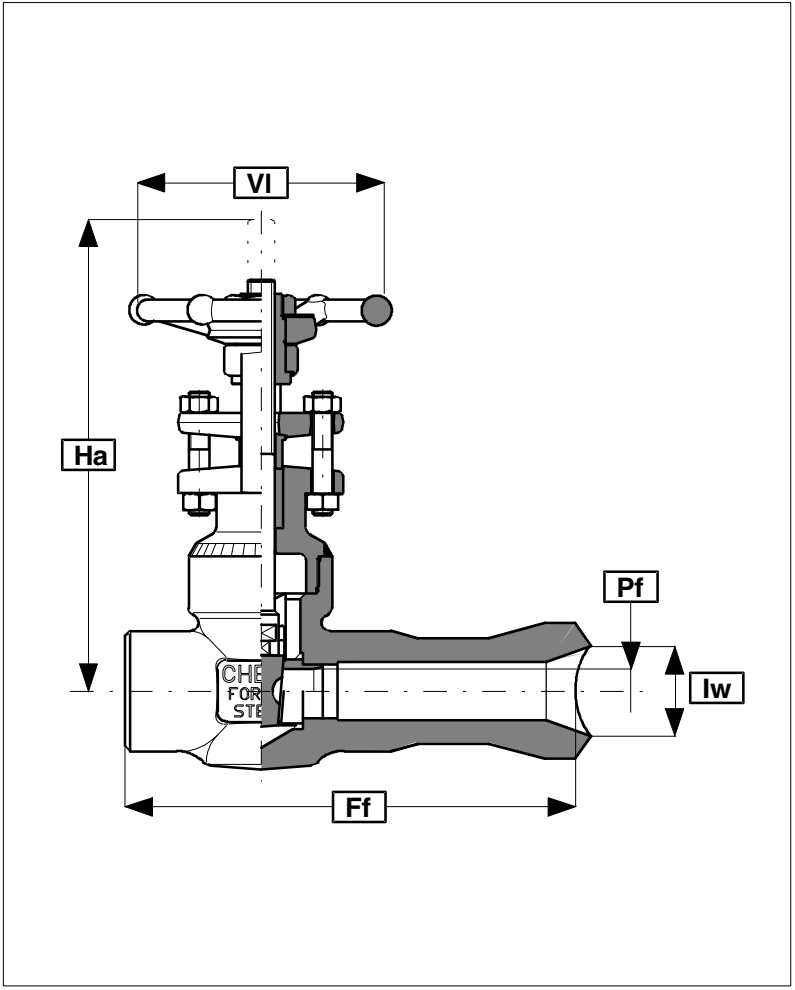
Weldolet GATE VALVES- 800 - Welded bonnet-Sw/Npt-Weld

Ratings (ASTM A105)	
800 p.s.i. @ 850 F	
1975 p.s.i. @ 100 F	

Test pressure (ASTM A105)	
Hydraulic: (minimum)	
Body - 3000 p.s.i.	
Seat - 2175 p.s.i.	
Air under water:	
Seat - 85 p.s.i.	

Standards	
Construction	API 602, API 606
Socket weld	ASME B16.11
Threaded	ASME B1.20.1
Test	API 598-BS 6755 (Pt.1)

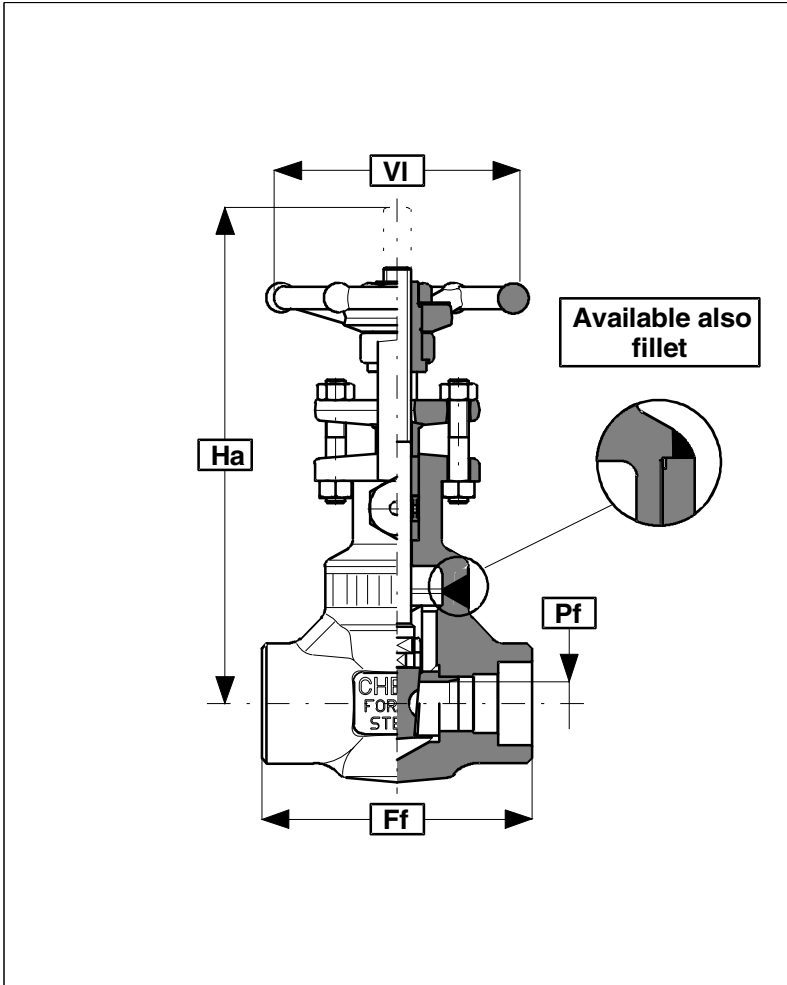
Connections (xx)	
SNW Sw/ext. Weld	
TNW Sw/ext. Weld	



CONVENTIONAL BORE											
				3/4"		1"		1.1/2"		2"	
Ff (mm/in)		208 8,19	218 8,58	244 9,60		263 10,35	268 10,55				
Ha (mm/in)		150 5,90	157 6,18	188 7,40		248 9,76	274 10,79				
VI (mm/in)		90 3,54	90 3,54	100 3,94		140 5,51	140 5,51				
Pf (mm/in)		10 0,39	14 0,55	18 0,71		31 1,22	36,5 1,44				
lw (mm/in)		22 0,87	30 1,18	36 1,42		50 1,97	65 2,56				
Wt. (kg/lb)		2,2 4,84	2,5 5,5	4,7 10,3		9 19,8	12,7 27,94				
Catal. no.		R252WB/xNW	R253WB/xNW	R254WB/xNW		R256WB/xNW	R257WB/xNW				

1) Standard and alternative valve materials on page 67, type
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW, NPT & BW dimensions on page 73
 4) 2": WELDED EXTENSION

Lantern ring GATE VALVES - 800 - Welded bonnet - Sw/Npt



Ratings (ASTM A105)
800 p.s.i. @ 850 F
1975 p.s.i. @ 100 F

Test pressure (ASTM A105)
Hydraulic: (minimum)
Body - 3000 p.s.i.
Seat - 2175 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards
Construction founded on API 602, BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Test founded on API 598-BS 6755 (Pt.1)

Connections (xx)	
SW Socket weld	B8 Butt weld 80
TH Threaded NPT	
TS Sw/NPT	
SE Sw(e)/NPT	
SU Sw(u)/NPT	
B4 Butt weld 40	

CONVENTIONAL BORE									
			1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	
Ff (mm/in)			80 3,15	90 3,54	110 4,33	127 5,00	127 5,00	130 5,12	
Ha (mm/in)			164 6,46	171 6,73	204 8,03	240 9,45	268 10,55	296 11,65	
VI (mm/in)			90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51	
Pf (mm/in)			10 0,39	14 0,55	18 0,71	24 0,94	31 1,22	36,5 1,44	
Wt. (kg/lb)			1,6 3,5	1,9 4,2	3,1 6,8	4,2 9,24	6,1 13,4	8,2 18,0	
Catal. no.			LR252WB/xx	LR253WB/xx	LR254WB/xx	LR255WB/XX	LR256WB/xx	LR257WB/xx	

FULL BORE									
Ff (mm/in)									
Ha (mm/in)									
VI (mm/in)									
Pf (mm/in)									
Wt. (kg/lb)									
Catal. no.									

1) Standard and alternative valve materials on page 67, type A
 2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
 3) SW & NPT dimensions on page 73
 4) Available also for vacuum service

Lantern ring GLOBE VALVES- 800 - Welded bonnet - Sw/Npt

Ratings (ASTM A105)

800 p.s.i. @ 850 F
1975 p.s.i. @ 100 F

Test pressure (ASTM A105)

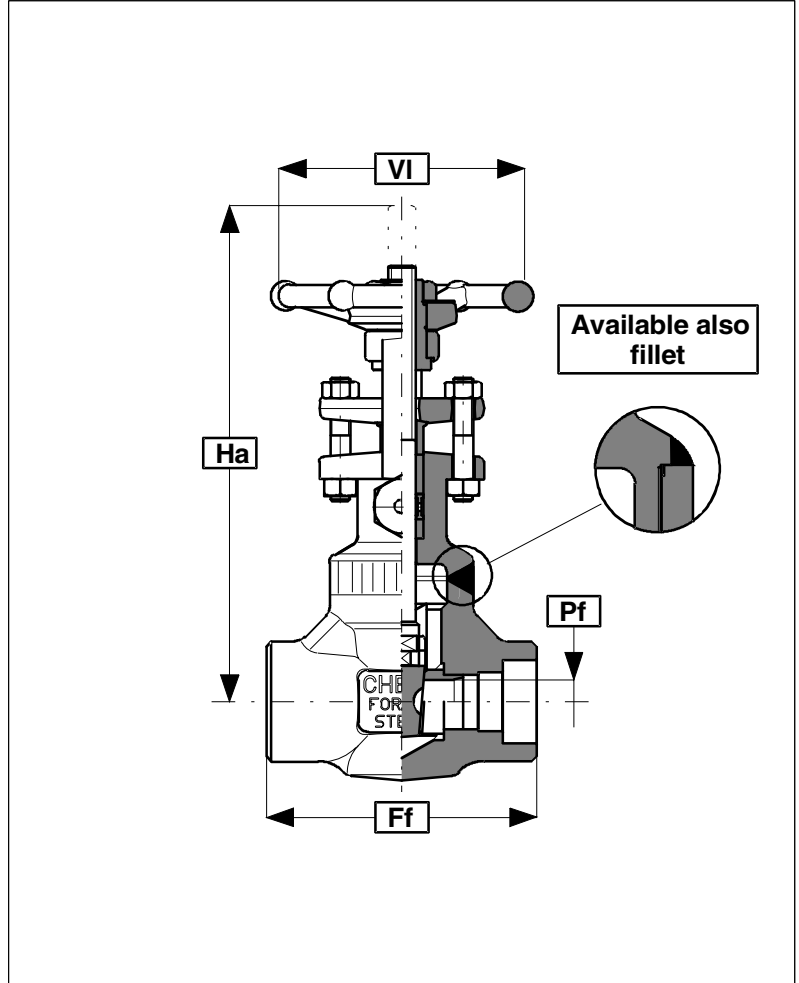
Hydraulic: (minimum)
Body - 3000 p.s.i.
Seat - 2175 p.s.i.
Air under water:
Seat - 85 p.s.i.

Standards

Construction founded on BS 5352
Socket weld ASME B16.11
Threaded ASME B1.20.1
Test founded on BS 6755 (Pt.1)

Connections (xx)

SW Socket weld	B8 Butt weld80
TH Threaded NPT	
TS Sw/NPT	
SE Sw (in)/NPT	
SU Sw (out)/NPT	
B4 Butt weld 40	



REDUCED BORE

		1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
Ff (mm/in)		80 3,15	90 3,54	110 4,33	127 5,00	155 6,10	170 6,69
Ha (mm/in)		163 6,42	168 6,61	191 7,52	240 9,45	262 10,31	288 11,34
VI (mm/in)		90 3,54	90 3,54	100 3,94	120 4,72	140 5,51	140 5,51
Pf (mm/in)		9 0,35	12 0,47	17,5 0,69	22,5 0,89	28 ⁽⁴⁾ 1,10	32 ⁽⁵⁾ 1,26
Wt. (kg/lb)		1,6 3,5	1,8 4,0	3,3 7,3	5,2 11,44	7,1 15,6	9,9 21,8
Catal. no.		LR352WB/xx	LR353WB/xx	LR354WB/xx	LR355WB/xx	LR356WB/xx	LR357WB/xx

FULL BORE

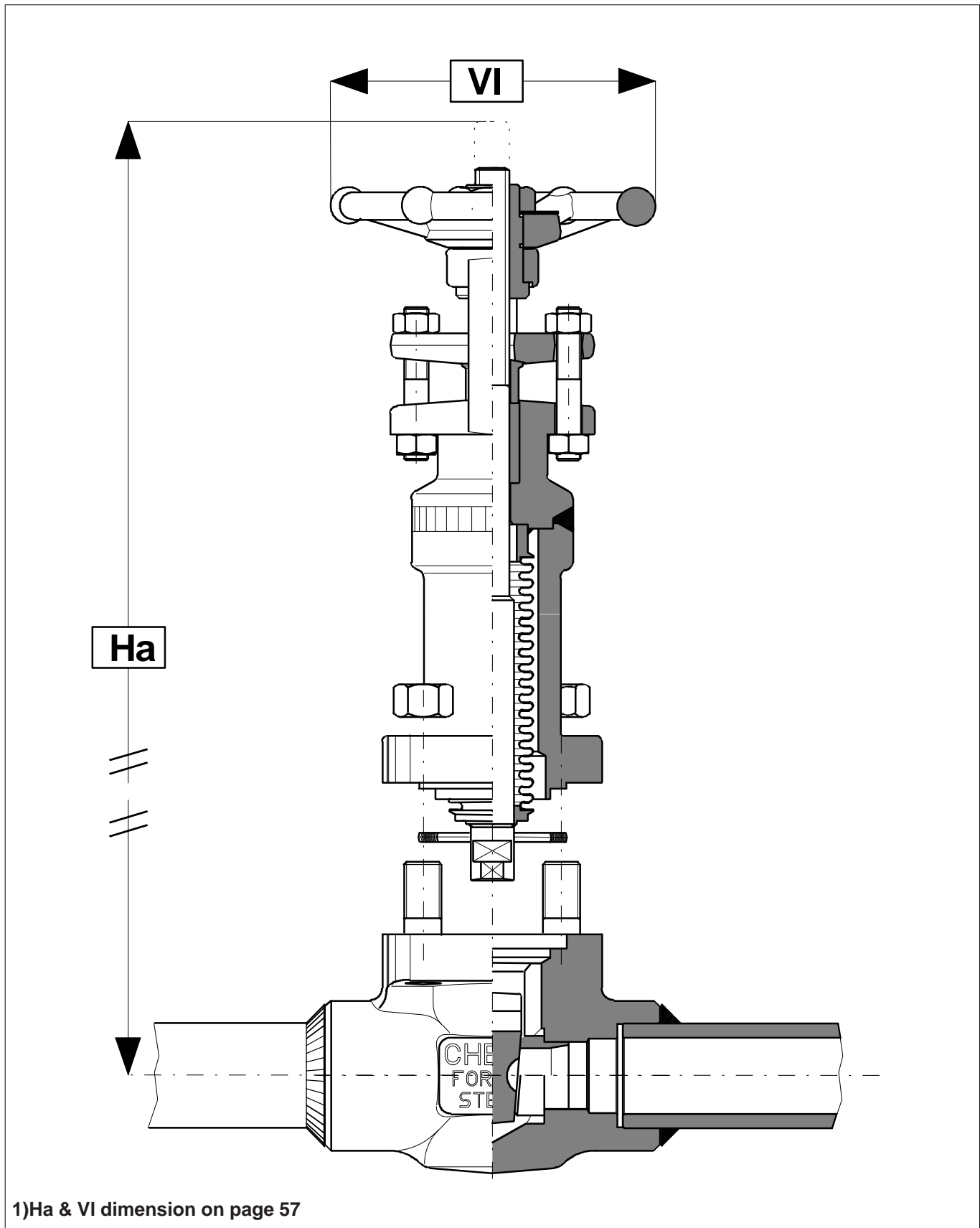
Ff (mm/in)							
Ha (mm/in)							
VI (mm/in)							
Pf (mm/in)							
Wt. (kg/lb)							
Catal. no.							

1) Standard and alternative valve materials on page 67
2) Complete Pressure-Temperature ratings on page 68, 69, 70, 71,72
3) SW & NPT dimensions on page 73

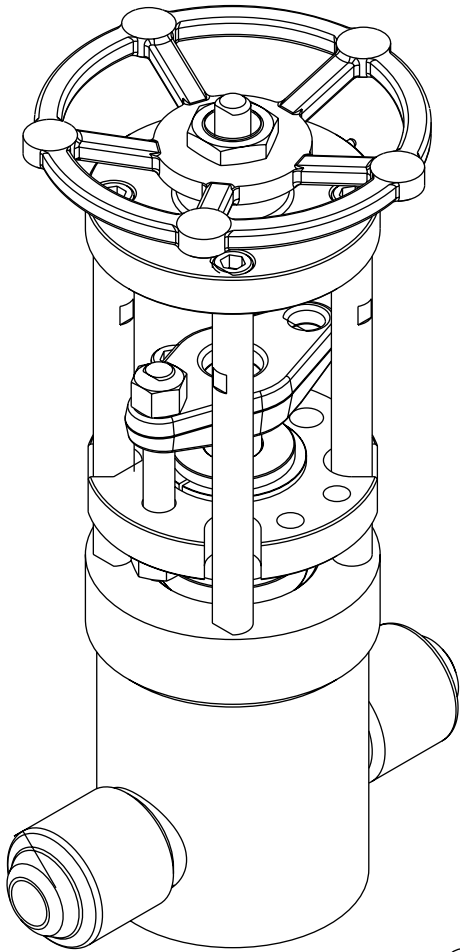
4) Pf = 29,5 with integral stellite seat
5) Pf = 35 with integral stellite seat
6) Available also for Vacuum Service

Bellows seal conversion kit

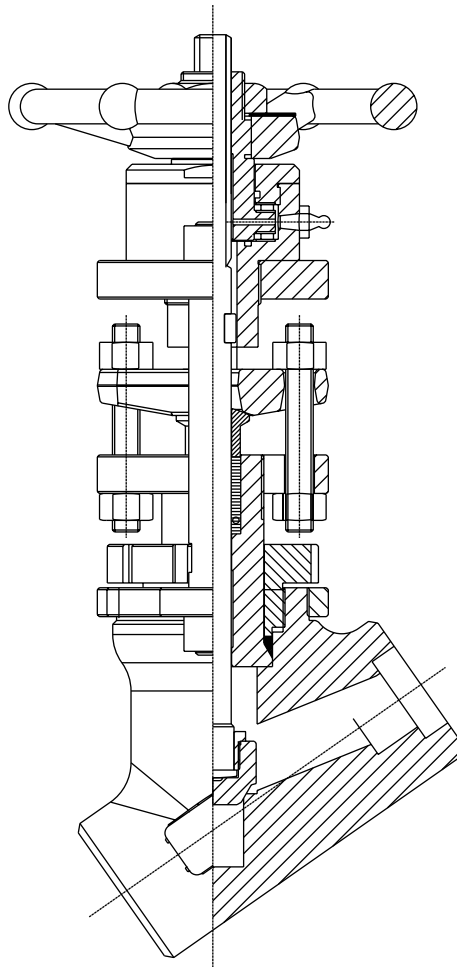
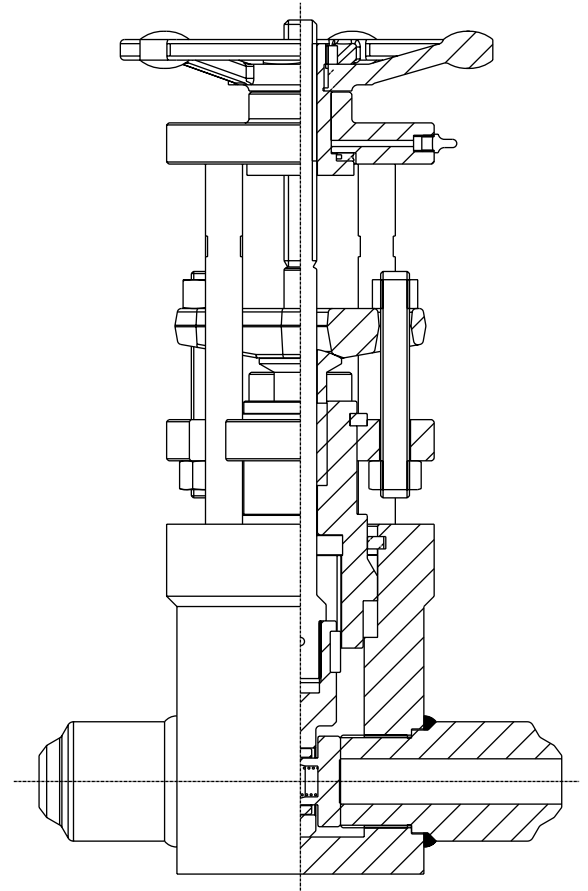
This kit allows to convert in the line, from bolted bonnet valves to bellows seal leakproof valves



Pressure Seal

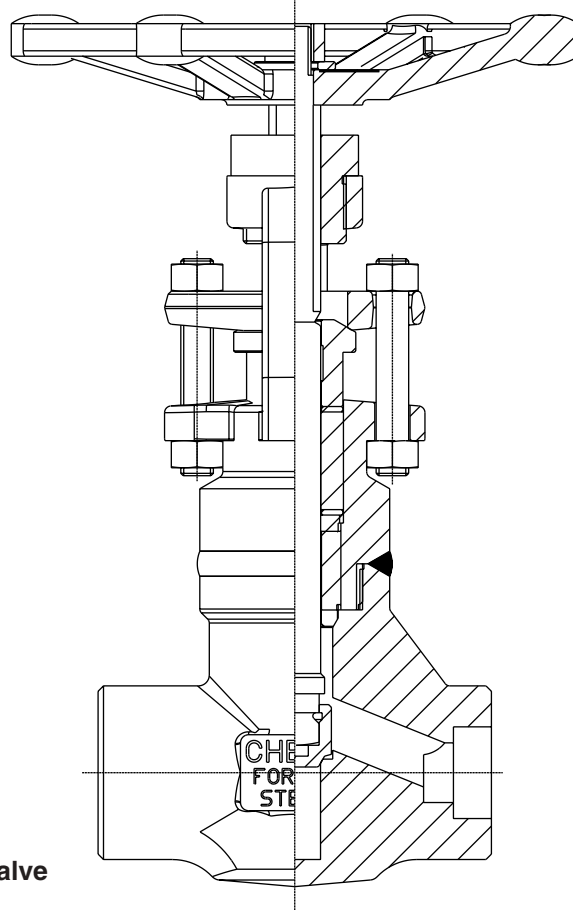
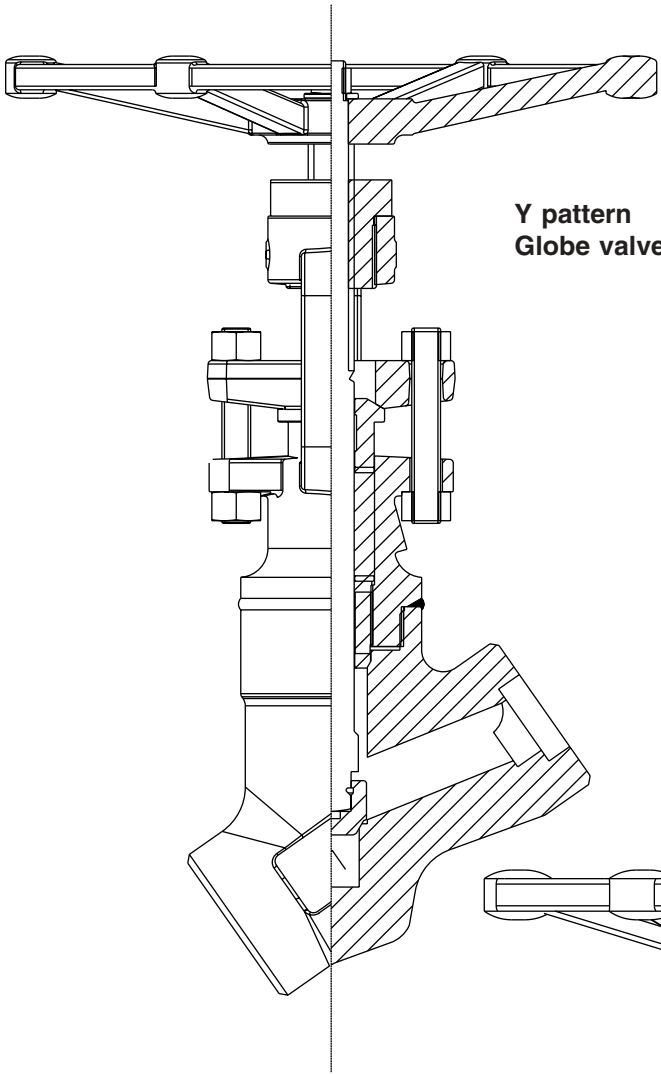


Parallel slide
Gate valve

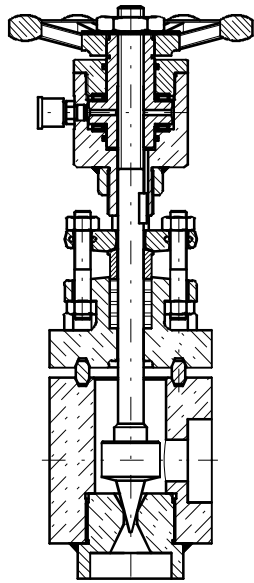


Y pattern
Globe valve

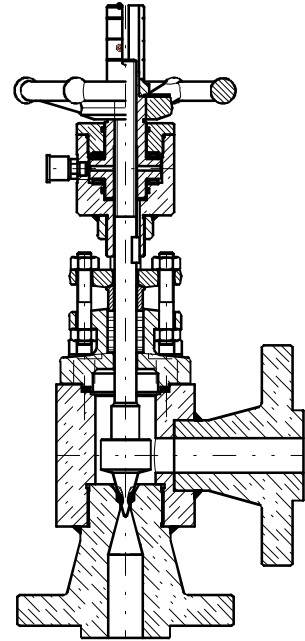
Bonnetless



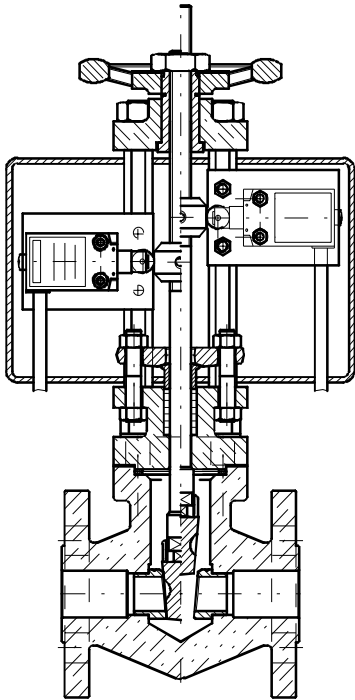
Optional features



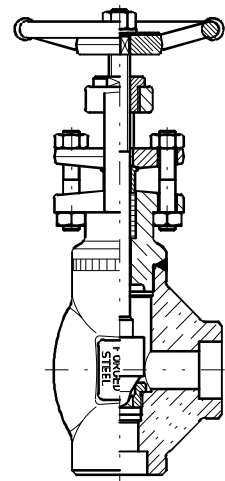
Continuous blowdown valve



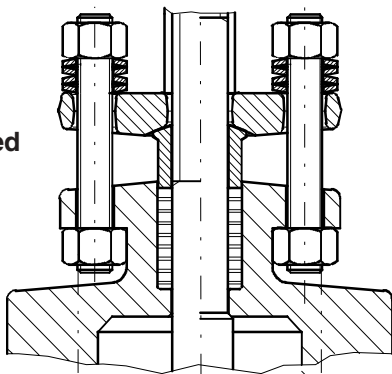
Angle valve



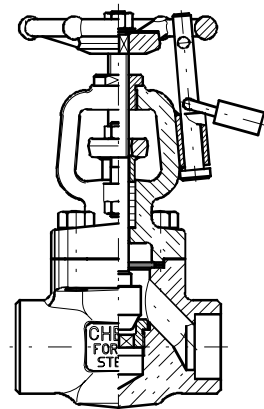
Equipped with limit switch



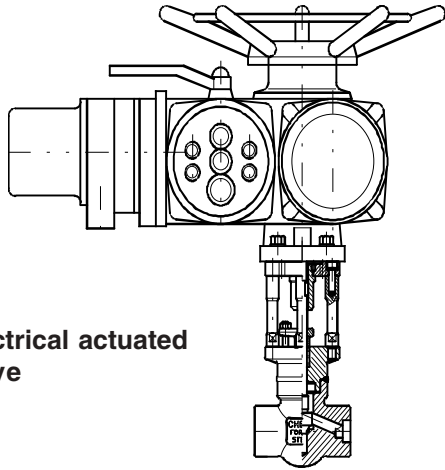
Locking device



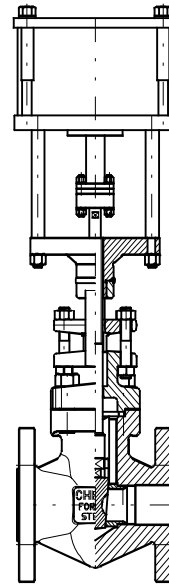
Spring loaded



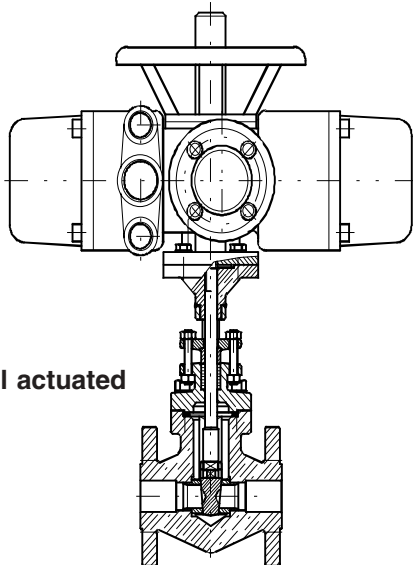
Optional features



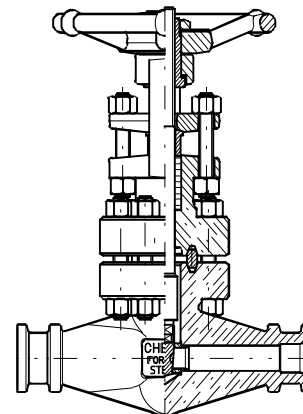
Electrical actuated valve



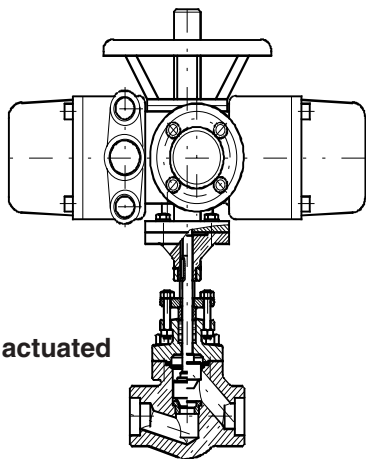
Pneumatic actuated valve



Electrical actuated valve

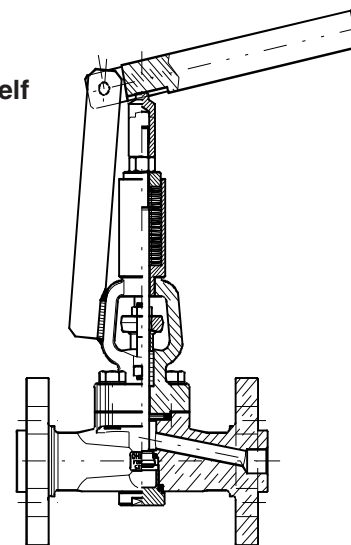


Hub ends

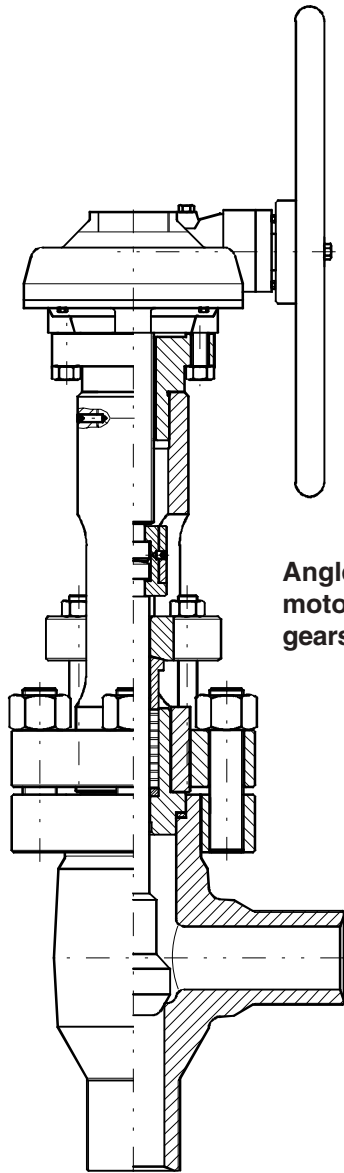


Electrical actuated valve

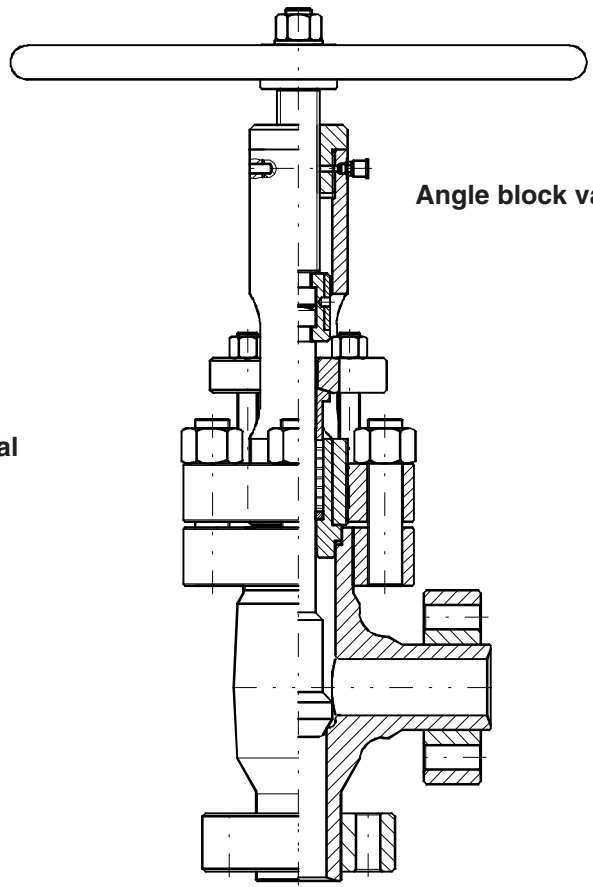
Quick opening/Self closing valve



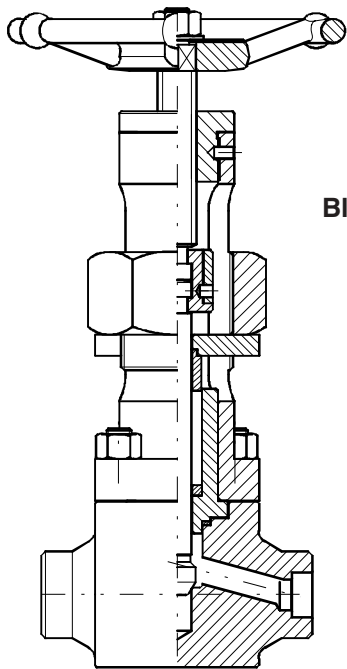
Valves for Urea Service



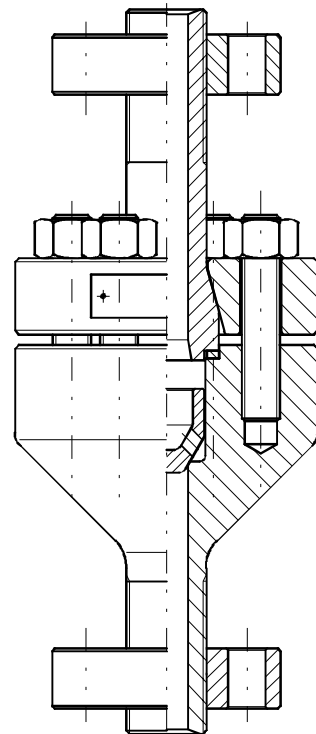
Angle block valve motorised and manual gears



Angle block valve



Block valve



Vertical drop check valve

Appendix

Materials of construction

Valves parts					Materials				
Type A	Type B	Type C	Type D	Type E					
GATE GLOBE (Std.)	PIST./BALL SWING	GATE GLOBE (Cryogenic)	GATE GLOBE (Bellows)	GATE GLOBE (Isrs)	CARBON STEEL	KILLED CARBON STEEL	ALLOY STEEL	STAINLESS DUPLEX STEEL	NICKEL STEEL
Body Bonnet	Body Cover Extension	Body Bonnet Extension	Body Bonnet	Body Bonnet Packing nut	A105N	A350/LF2	A182/F1 A182/F5 A182/F9 A182/F11 A182/F22 F44 F51 F53 F55	A182/F304 A182/F304L A182/F316 A182/F316L A182/F321 A182/F347	MONEL 400 INCONEL 600 INCONEL 625 INCOLOY 800H INCOLOY 825 HASTELLOY C276 HASTELLOY B2
Stem Wedge/Disc Seat/s Disc nut	Disc/Ball Seat	Stem Wedge/Disc Seat/s Disc nut	Stem Wedge/Disc Seat/s	Stem Wedge/Disc Seat/s Disc nut Packing ring	A182/F6 A182/F304 A182/F316	A182/F6 A182/F304 A182/F316 F44 F51 F53 F55	A182/F6 A182/F304 A182/F316 F44 F51 F53 F55	A182/F304 A182/F316 A182/F321 A182/F347	MONEL 400 INCONEL 600 INCONEL 625 INCOLOY 800H INCOLOY 825 HASTELLOY C276 HASTELLOY B2
Gl. packing		Gl. packing	Gl. packing		AISI 416/303/316	AISI 416/303/316	AISI 416/303/316	AISI 303/316	AISI 303/316
Yoke nut		Yoke nut	Yoke nut		AISI 416	AISI 416	AISI 416	AISI 416	AISI 416
Gl. flange		Gl. flange	Gl. flange		A105N	A105N	A182/F304	A182/F304	A182/F304
Handwheel Hand. nut		Handwheel Hand. nut	Handwheel Hand. nut	Handwheel Hand. nut	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
	Spring				Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Gasket	Gasket	Gasket	Gasket		AISI 316+graph.	AISI 316+graph.	AISI 316+graph.	AISI 316+graph.	AISI 316+graph.
Packing		Packing	Packing	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
Body studs Body nuts	Body studs Body nuts	Body studs Body nuts	Body studs Body nuts		A193/B7 A194/2H	A193/B8 A194/Gr8	A193/B16 A194/Gr4	A193/B8 A194/Gr8	A193/B8 A194/Gr8
Gland studs Gland nuts		Gland studs Gland nuts	Gland studs Gland nuts		AISI 410 A194/2H	A193/B8 A194/Gr8	AISI 410 A194/2H	A193/B8 A194/Gr8	A193/B8 A194/Gr8
		Bellow			AISI 316L HASTELLOY C276	AISI 316L HASTELLOY C276	AISI 316L HASTELLOY C276	AISI 316L HASTELLOY C276	AISI 316L HASTELLOY C276
	Swing hinge				A182/F6-F316	A182/F6-F316	A182/F6-F316	A182/F316	A182/F316
Identif. plate	Identif. plate	Identif. plate	Identif. plate	Identif. plate	Aluminium	Aluminium	Aluminium	Aluminium	Aluminium

Alternate material available.
Stellited seat/s & wedge/disc on request.

Pressure - Temperature charts

		ASTM A105 - A350/LF2															
°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	285	19.7	740	51.0	1480	102.1	1975	136.2	2220	153.1	3705	255.5	6170	425.5	11110	766.2
200	93	260	17.9	675	46.6	1350	93.1	1800	124.1	2025	139.7	3375	232.8	5625	387.9	10120	697.9
300	149	230	15.9	655	45.2	1315	90.7	1750	120.7	1970	135.9	3280	226.2	5470	377.2	9845	679.0
400	204	200	13.8	635	43.8	1270	87.6	1690	116.6	1900	131.0	3170	218.6	5280	364.1	9505	655.5
500	260	170	11.7	600	41.4	1200	82.8	1595	110.0	1795	123.8	2995	206.6	4990	344.1	8980	619.3
600	316	140	9.7	550	37.9	1095	75.5	1460	100.7	1640	113.1	2735	188.6	4560	314.5	8210	566.2
650	343	125	8.6	535	36.9	1075	74.1	1430	98.6	1610	111.0	2685	185.2	4475	308.6	8055	555.5
700	371	110	7.6	535	36.9	1065	73.4	1420	97.9	1600	110.3	2665	183.8	4440	306.2	7990	551.0
750	399	95	6.6	505	34.8	1010	69.7	1345	92.8	1510	104.1	2520	173.8	4200	289.7	7560	521.4
800	427	80	5.5	410	28.3	825	56.9	1100	75.9	1235	85.2	2060	142.1	3430	236.6	6170	425.5
850	454	65	4.5	270	18.6	535	36.9	715	49.3	805	55.5	1340	92.4	2230	153.8	4010	276.6
900	482	50	3.4	170	11.7	345	23.8	460	31.7	515	35.5	860	59.3	1430	98.6	2570	177.2
950	510	35	2.4	105	7.2	205	14.1	275	19.0	310	21.4	515	35.5	860	59.3	1545	106.6
1000	538	20	1.4	50	3.4	105	7.2	140	9.7	155	10.7	260	17.9	430	29.7	770	53.1

		ASTM A 182/F11-A182/F12															
°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	290	20	750	51.7	1500	103.4	2000	137.9	2250	155.2	3750	258.6	6250	431.0	11250	775.9
200	93	260	17.93	750	51.7	1500	103.4	2000	137.9	2250	155.2	3750	258.6	6250	431.0	11250	775.9
300	149	230	15.86	720	49.7	1445	99.7	1925	132.8	2165	149.3	3610	249.0	6015	414.8	10830	746.9
400	204	200	13.79	695	47.9	1385	95.5	1850	127.6	2080	143.4	3465	239.0	5775	398.3	10400	717.2
500	260	170	11.72	665	45.9	1330	91.7	1775	122.4	1995	137.6	3325	229.3	5540	382.1	9965	687.2
600	316	140	9.655	605	41.7	1210	83.4	1615	111.4	1815	125.2	3025	208.6	5040	347.6	9070	625.5
650	343	125	8.621	590	40.7	1175	81.0	1570	108.3	1765	121.7	2940	202.8	4905	338.3	8825	608.6
700	371	110	7.586	570	39.3	1135	78.3	1515	104.5	1705	117.6	2840	195.9	4730	326.2	8515	587.2
750	399	95	6.552	530	36.6	1065	73.4	1420	97.9	1595	110.0	2660	183.4	4430	305.5	7970	549.7
800	427	80	5.517	510	35.2	1015	70.0	1355	93.4	1525	105.2	2540	175.2	4230	291.7	7610	524.8
850	454	65	4.483	485	33.4	975	67.2	1300	89.7	1460	100.7	2435	167.9	4060	280.0	7305	503.8
900	482	50	3.448	450	31.0	900	62.1	1200	82.8	1350	93.1	2245	154.8	3745	258.3	6740	464.8
950	510	35	2.414	320	22.1	640	44.1	850	58.6	955	65.9	1595	110.0	2655	183.1	4785	330.0
1000	538	20	1.379	215	14.8	430	29.7	575	39.7	650	44.8	1080	74.5	1800	124.1	3240	223.4
1050	566	20	1.379	145	10.0	290	20.0	385	26.6	430	29.7	720	49.7	1200	82.8	2160	149.0
1100	593	20	1.379	95	6.6	190	13.1	255	17.6	290	20.0	480	33.1	800	55.2	1440	99.3
1150	621	20	1.379	60	4.1	125	8.6	165	11.4	185	12.8	310	21.4	515	35.5	925	63.8
1200	649	15	1.034	40	2.8	75	5.2	100	6.9	115	7.9	190	13.1	315	21.7	565	39.0

■ For welding and valves only. Flanged end ratings terminate at 1000°F.

A105: permissible, but not recommended for prolonged usage above about 800°F.
 A350/LF2: not to be used over 650°F.
 A182/F11-A182/F12: permissible but not recommended for prolonged usage above about 1100°F.

Pressure - Temperature charts

		ASTM A182/F22															
°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	290	20.0	750	51.7	1500	103.4	2000	137.9	2250	155.2	3750	258.6	6250	431.0	11250	775.9
200	93	260	17.9	750	51.7	1500	103.4	2000	137.9	2250	155.2	3750	258.6	6250	431.0	11250	775.9
300	149	230	15.9	730	50.3	1455	100.3	1940	133.8	2185	150.7	3640	251.0	6070	418.6	10925	753.4
400	204	200	13.8	705	48.6	1410	97.2	1880	129.7	2115	145.9	3530	243.4	5880	405.5	10585	730.0
500	260	170	11.7	665	45.9	1330	91.7	1775	122.4	1995	137.6	3325	229.3	5540	382.1	9965	687.2
600	316	140	9.7	605	41.7	1210	83.4	1615	111.4	1815	125.2	3025	208.6	5040	347.6	9070	625.5
650	343	125	8.6	590	40.7	1175	81.0	1570	108.3	1765	121.7	2940	202.8	4905	338.3	8825	608.6
700	371	110	7.6	570	39.3	1135	78.3	1515	104.5	1705	117.6	2840	195.9	4730	326.2	8515	587.2
750	399	95	6.6	530	36.6	1065	73.4	1420	97.9	1595	110.0	2660	183.4	4430	305.5	7970	549.7
800	427	80	5.5	510	35.2	1015	70.0	1355	93.4	1525	105.2	2540	175.2	4230	291.7	7610	524.8
850	454	65	4.5	485	33.4	975	67.2	1300	89.7	1460	100.7	2435	167.9	4060	280.0	7305	503.8
900	482	50	3.4	450	31.0	900	62.1	1200	82.8	1350	93.1	2245	154.8	3745	258.3	6740	464.8
950	510	35	2.4	375	25.9	755	52.1	1005	69.3	1130	77.9	1885	130.0	3145	216.9	5665	390.7
1000	538	20	1.4	260	17.9	520	35.9	695	47.9	780	53.8	1305	90.0	2170	149.7	3910	269.7
1050	566	20	1.4	175	12.1	350	24.1	465	32.1	525	36.2	875	60.3	1455	100.3	2625	181.0
1100	593	20	1.4	110	7.6	220	15.2	295	20.3	330	22.8	550	37.9	915	63.1	1645	113.4
1150	621	20	1.4	70	4.8	135	9.3	180	12.4	205	14.1	345	23.8	570	39.3	1030	71.0
1200	649	20	1.4	40	2.8	80	5.5	110	7.6	125	8.6	205	14.1	345	23.8	615	42.4

ASTM A182/F5

°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	290	20.0	750	51.7	1500	103.4	2000	137.9	2250	155.2	3750	258.6	6250	431.0	11250	775.9
200	93	260	17.9	745	51.4	1490	102.8	1985	136.9	2235	154.1	3725	256.9	6205	427.9	11170	770.3
300	149	230	15.9	715	49.3	1430	98.6	1910	131.7	2150	148.3	3580	246.9	5965	411.4	10740	740.7
400	204	200	13.8	705	48.6	1410	97.2	1880	129.7	2115	145.9	3530	243.4	5880	405.5	10585	730.0
500	260	170	11.7	665	45.9	1330	91.7	1775	122.4	1995	137.6	3325	229.3	5540	382.1	9965	687.2
600	316	140	9.7	605	41.7	1210	83.4	1615	111.4	1815	125.2	3025	208.6	5040	347.6	9070	625.5
650	343	125	8.6	590	40.7	1175	81.0	1570	108.3	1765	121.7	2940	202.8	4905	338.3	8825	608.6
700	371	110	7.6	570	39.3	1135	78.3	1515	104.5	1705	117.6	2840	195.9	4730	326.2	8515	587.2
750	399	95	6.6	530	36.6	1055	72.8	1410	97.2	1585	109.3	2640	182.1	4400	303.4	7920	546.2
800	427	80	5.5	510	35.2	1015	70.0	1355	93.4	1525	105.2	2540	175.2	4230	291.7	7610	524.8
850	454	65	4.5	485	33.4	965	66.6	1290	89.0	1450	100.0	2415	166.6	4030	277.9	7250	500.0
900	482	50	3.4	370	25.5	740	51.0	985	67.9	1110	76.6	1850	127.6	3085	212.8	5555	383.1
950	510	35	2.4	275	19.0	550	37.9	735	50.7	825	56.9	1370	94.5	2285	157.6	4115	283.8
1000	538	20	1.4	200	13.8	400	27.6	530	36.6	595	41.0	995	68.6	1655	114.1	2985	205.9
1050	566	20	1.4	145	10.0	290	20.0	385	26.6	430	29.7	720	49.7	1200	82.8	2160	149.0
1100	593	20	1.4	100	6.9	200	13.8	265	18.3	300	20.7	495	34.1	830	57.2	1490	102.8
1150	621	20	1.4	60	4.1	185	12.8	185	12.8	185	12.8	310	21.4	515	35.5	925	63.8
1200	649	20	1.4	35	2.4	105	7.2	105	7.2	105	7.2	170	11.7	285	19.7	515	35.5

For welding end valves only. Flanged end ratings terminate at 1000°F.

A182/F22: permissible, but not recommended for prolonged usage above about 1100°F.

Pressure - Temperature charts

ASTM A182/F9

°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	290	20,0	750	51,7	1500	103,4	2000	137,9	2250	155,2	3750	258,6	6250	431,0	11250	775,9
200	93	260	17,9	750	51,7	1500	103,4	2000	137,9	2250	155,2	3750	258,6	6250	431,0	11250	775,9
300	149	230	15,9	730	50,3	1455	100,3	1940	133,8	2185	150,7	3640	251,0	6070	418,6	10925	753,4
400	204	200	13,8	705	48,6	1410	97,2	1880	129,7	2115	145,9	3530	243,4	5880	405,5	10585	730,0
500	260	170	11,7	665	45,9	1330	91,7	1775	122,4	1995	137,6	3325	229,3	5540	382,1	9965	687,2
600	316	140	9,7	605	41,7	1210	83,4	1615	111,4	1815	125,2	3025	208,6	5040	347,6	9070	625,5
650	343	125	8,6	590	40,7	1175	81,0	1570	108,3	1765	121,7	2940	202,8	4905	338,3	8825	608,6
700	371	110	7,6	570	39,3	1135	78,3	1515	104,5	1705	117,6	2840	195,9	4730	326,2	8515	587,2
750	399	95	6,6	530	36,6	1065	73,4	1420	97,9	1595	110,0	2660	183,4	4430	305,5	7970	549,7
800	427	80	5,5	510	35,2	1015	70,0	1355	93,4	1525	105,2	2540	175,2	4230	291,7	7610	524,8
850	454	65	4,5	485	33,4	975	67,2	1300	89,7	1460	100,7	2435	167,9	4060	280,0	7305	503,8
900	482	50	3,4	450	31,0	900	62,1	1200	82,8	1350	93,1	2245	154,8	3745	258,3	6740	464,8
950	510	35	2,4	375	25,9	755	52,1	1005	69,3	1130	77,9	1885	130,0	3145	216,9	5655	390,0
1000	538	20	1,4	255	17,6	505	34,8	675	46,6	760	52,4	1270	87,6	2115	145,9	3805	262,4
1050	566	20	1,4	170	11,7	345	23,8	460	31,7	515	35,5	855	59,0	1430	98,6	2570	177,2
1100	593	20	1,4	115	7,9	225	15,5	300	20,7	340	23,4	565	39,0	945	65,2	1695	116,9
1150	621	20	1,4	75	5,2	150	10,3	200	13,8	225	15,5	375	25,9	630	43,4	1130	77,9
1200	649	20	1,4	50	3,4	105	7,2	140	9,7	155	10,7	255	17,6	430	29,7	770	53,1

For welding end valves only. Flanged end ratings terminate at 1000°F.

ASTM A182/F304

°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	275	19,0	720	49,7	1440	99,3	1920	132,4	2160	149,0	3600	248,3	6000	413,8	10800	744,8
200	93	230	15,9	600	41,4	1200	82,8	1600	110,3	1800	124,1	3000	206,9	5000	344,8	9000	620,7
300	149	205	14,1	540	37,2	1080	74,5	1440	99,3	1620	111,7	2700	186,2	4500	310,3	8100	558,6
400	204	190	13,1	495	34,1	995	68,6	1325	91,4	1490	102,8	2485	171,4	4140	285,5	7450	513,8
500	260	170	11,7	465	32,1	930	64,1	1240	85,5	1395	96,2	2330	160,7	3880	267,6	6985	481,7
600	316	140	9,7	435	30,0	875	60,3	1165	80,3	1310	90,3	2185	150,7	3640	251,0	6550	451,7
650	343	125	8,6	430	29,7	860	59,3	1145	79,0	1290	89,0	2150	148,3	3580	246,9	6445	444,5
700	371	110	7,6	425	29,3	850	58,6	1135	78,3	1275	87,9	2125	146,6	3540	244,1	6370	439,3
750	399	95	6,6	415	28,6	830	57,2	1105	76,2	1245	85,9	2075	143,1	3460	238,6	6230	429,7
800	427	80	5,5	405	27,9	805	55,5	1075	74,1	1210	83,4	2015	139,0	3360	231,7	6050	417,2
850	454	65	4,5	395	27,2	790	54,5	1055	72,8	1190	82,1	1980	136,6	3300	227,6	5940	409,7
900	482	50	3,4	390	26,9	780	53,8	1035	71,4	1165	80,3	1945	134,1	3240	223,4	5830	402,1
950	510	35	2,4	380	26,2	765	52,8	1020	70,3	1145	79,0	1910	131,7	3180	219,3	5725	394,8
1000	538	20	1,4	320	22,1	640	44,1	855	59,0	965	66,6	1605	110,7	2675	184,5	4815	332,1
1050	566	20	1,4	310	21,4	615	42,4	820	56,6	925	63,8	1545	106,6	2570	177,2	4630	319,3
1100	593	20	1,4	255	17,6	515	35,5	685	47,2	770	53,1	1285	88,6	2145	147,9	3855	265,9
1150	621	20	1,4	200	13,8	400	27,6	530	36,6	595	41,0	995	68,6	1655	114,1	2985	205,9
1200	649	20	1,4	155	10,7	310	21,4	415	28,6	465	32,1	770	53,1	1285	88,6	2315	159,7
1250	677	20	1,4	115	7,9	225	15,5	300	20,7	340	23,4	565	39,0	945	65,2	1695	116,9
1300	704	20	1,4	85	5,9	170	11,7	225	15,5	255	17,6	430	29,7	715	49,3	1285	88,6
1350	732	20	1,4	60	4,1	125	8,6	165	11,4	185	12,8	310	21,4	515	35,5	925	63,8
1400	760	20	1,4	50	3,4	95	6,6	130	9,0	145	10,0	240	16,6	400	27,6	720	49,7
1450	788	15	1,0	35	2,4	70	4,8	95	6,6	105	7,2	170	11,7	285	19,7	515	35,5
1500	816	10	0,7	25	1,7	55	3,8	70	4,8	80	5,5	135	9,3	230	15,9	410	28,3

For welding end valves only. Flanged end ratings terminate at 1000°F.

Pressure - Temperature charts

ASTM A182/F316

°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	275	19,0	720	49,7	1440	99,3	1920	132,4	2160	149,0	3600	248,3	6000	413,8	10800	744,8
200	93	235	16,2	620	42,8	1240	85,5	1655	114,1	1860	128,3	3095	213,4	5160	355,9	9290	640,7
300	149	215	14,8	560	38,6	1120	77,2	1495	103,1	1680	115,9	2795	192,8	4660	321,4	8390	578,6
400	204	195	13,4	515	35,5	1025	70,7	1370	94,5	1540	106,2	2570	177,2	4280	295,2	7705	531,4
500	260	170	11,7	480	33,1	955	65,9	1275	87,9	1435	99,0	2390	164,8	3980	274,5	7165	494,1
600	316	140	9,7	450	31,0	900	62,1	1205	83,1	1355	93,4	2255	155,5	3760	259,3	6770	466,9
650	343	125	8,6	445	30,7	890	61,4	1185	81,7	1330	91,7	2220	153,1	3700	255,2	6660	459,3
700	371	110	7,6	430	29,7	870	60,0	1160	80,0	1305	90,0	2170	149,7	3620	249,7	6515	449,3
750	399	95	6,6	425	29,3	855	59,0	1140	78,6	1280	88,3	2135	147,2	3560	245,5	6410	442,1
800	427	80	5,5	420	29,0	845	58,3	1125	77,6	1265	87,2	2110	145,5	3520	242,8	6335	436,9
850	454	65	4,5	420	29,0	835	57,6	1115	76,9	1255	86,6	2090	144,1	3480	240,0	6265	432,1
900	482	50	3,4	415	28,6	830	57,2	1105	76,2	1245	85,9	2075	143,1	3460	238,6	6230	429,7
950	510	35	2,4	385	26,6	775	53,4	1030	71,0	1160	80,0	1930	133,1	3220	222,1	5795	399,7
1000	538	20	1,4	350	24,1	700	48,3	935	64,5	1050	72,4	1750	120,7	2915	201,0	5245	361,7
1050	566	20	1,4	345	23,8	685	47,2	915	63,1	1030	71,0	1720	118,6	2865	197,6	5155	355,5
1100	593	20	1,4	305	21,0	610	42,1	815	56,2	915	63,1	1525	105,2	2545	175,5	4575	315,5
1150	621	20	1,4	235	16,2	475	32,8	630	43,4	710	49,0	1185	81,7	1970	135,9	3550	244,8
1200	649	20	1,4	185	12,8	370	25,5	495	34,1	555	38,3	925	63,8	1545	106,6	2775	191,4
1250	677	20	1,4	145	10,0	295	20,3	390	26,9	440	30,3	735	50,7	1230	84,8	2210	152,4
1300	704	20	1,4	115	7,9	235	16,2	310	21,4	350	24,1	585	40,3	970	66,9	1750	120,7
1350	732	20	1,4	95	6,6	190	13,1	255	17,6	290	20,0	480	33,1	800	55,2	1440	99,3
1400	760	20	1,4	75	5,2	150	10,3	200	13,8	225	15,5	380	26,2	630	43,4	1130	77,9
1450	788	20	1,4	60	4,1	115	7,9	155	10,7	175	12,1	290	20,0	485	33,4	875	60,3
1500	816	20	1,4	40	2,8	85	5,9	110	7,6	125	8,6	205	14,1	345	23,8	620	42,8

For welding end valves only. Flanged end ratings terminate at 1000°F.

ASTM A182/F304L - A182/F316L

°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	230	15,9	600	41,4	1200	82,8	1600	110,3	1800	124,1	3000	206,9	5000	344,8	9000	620,7
200	93	195	13,4	505	34,8	1015	70,0	1350	93,1	1520	104,8	2530	174,5	4220	291,0	7595	523,8
300	149	175	12,1	455	31,4	910	62,8	1210	83,4	1360	93,8	2270	156,6	3780	260,7	6805	469,3
400	204	160	11,0	415	28,6	825	56,9	1100	75,9	1240	85,5	2065	142,4	3440	237,2	6190	426,9
500	260	145	10,0	380	26,2	765	52,8	1020	70,3	1145	79,0	1910	131,7	3180	219,3	5725	394,8
600	316	140	9,7	360	24,8	720	49,7	960	66,2	1080	74,5	1800	124,1	3000	206,9	5400	372,4
650	343	125	8,6	350	24,1	700	48,3	935	64,5	1050	72,4	1750	120,7	2920	201,4	5255	362,4
700	371	110	7,6	345	23,8	685	47,2	915	63,1	1030	71,0	1715	118,3	2860	197,2	5150	355,2
750	399	95	6,6	335	23,1	670	46,2	895	61,7	1010	69,7	1680	115,9	2800	193,1	5040	347,6
800	427	80	5,5	330	22,8	660	45,5	875	60,3	985	67,9	1645	113,4	2740	189,0	4930	340,0
850	454	65	4,5	320	22,1	645	44,5	860	59,3	965	66,6	1610	111,0	2680	184,8	4825	332,8

Pressure - Temperature charts

ASTM A182/F321

°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	275	19,0	720	49,7	1440	99,3	1920	132,4	2160	149,0	3600	248,3	6000	413,8	10800	744,8
200	93	245	16,9	645	44,5	1290	89,0	1720	118,6	1935	133,4	3230	222,8	5380	371,0	9685	667,9
300	149	230	15,9	595	41,0	1190	82,1	1585	109,3	1785	123,1	2975	205,2	4960	342,1	8930	615,9
400	204	200	13,8	550	37,9	1105	76,2	1470	101,4	1655	114,1	2760	190,3	4600	317,2	8280	571,0
500	260	170	11,7	515	35,5	1030	71,0	1375	94,8	1545	106,6	2570	177,2	4285	295,5	7715	532,1
600	316	140	9,7	485	33,4	975	67,2	1300	89,7	1460	100,7	2435	167,9	4060	280,0	7310	504,1
650	343	125	8,6	480	33,1	955	65,9	1275	87,9	1435	99,0	2390	164,8	3980	274,5	7165	494,1
700	371	110	7,6	465	32,1	930	64,1	1240	85,5	1395	96,2	2330	160,7	3880	267,6	6985	481,7
750	399	95	6,6	460	31,7	915	63,1	1220	84,1	1375	94,8	2290	157,9	3820	263,4	6875	474,1
800	427	80	5,5	450	31,0	900	62,1	1203,3	83,0	1355	93,4	2255	155,5	3760	259,3	6770	466,9
850	454	65	4,5	445	30,7	895	61,7	1190	82,1	1340	92,4	2230	153,8	3720	256,6	6695	461,7
900	482	50	3,4	440	30,3	885	61,0	1180	81,4	1325	91,4	2210	152,4	3680	253,8	6625	456,9
950	510	35	2,4	385	26,6	775	53,4	1030	71,0	1160	80,0	1930	133,1	3220	222,1	5795	399,7
1000	538	20	1,4	355	24,5	715	49,3	950	65,5	1070	73,8	1785	123,1	2970	204,8	5350	369,0
1050	566	20	1,4	315	21,7	625	43,1	835	57,6	940	64,8	1565	107,9	2605	179,7	4690	323,4
1100	593	20	1,4	270	18,6	545	37,6	725	50,0	815	56,2	1360	93,8	2265	156,2	4075	281,0
1150	621	20	1,4	235	16,2	370	25,5	595	41,0	710	49,0	1185	81,7	1970	135,9	3550	244,8
1200	649	20	1,4	185	12,8	365	25,2	490	33,8	555	38,3	925	63,8	1545	106,6	2775	191,4
1250	677	20	1,4	140	9,7	280	19,3	375	25,9	420	29,0	705	48,6	1170	80,7	2110	145,5
1300	704	20	1,4	110	7,6	220	15,2	295	20,3	330	22,8	550	37,9	915	63,1	1645	113,4
1350	732	20	1,4	85	5,9	170	11,7	225	15,5	255	17,6	430	29,7	715	49,3	1285	88,6
1400	760	20	1,4	65	4,5	130	9,0	175	12,1	195	13,4	325	22,4	545	37,6	975	67,2
1450	788	20	1,4	50	3,4	105	7,2	140	9,7	155	10,7	255	17,6	430	29,7	770	53,1
1500	816	20	1,4	40	2,8	75	5,2	100	6,9	115	7,9	190	13,1	315	21,7	565	39,0

For welding end valves only. Flanged end ratings terminate at 1000°F.

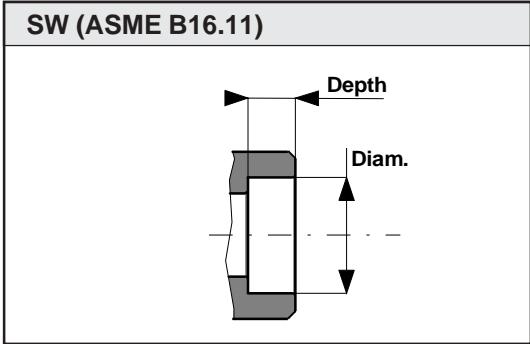
ASTM A182/F347

°F	°C	150	PN20	300	PN50	600	PN100	800	PN130	900	PN150	1500	PN250	2500	PN420	4500	PN760
		psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
100	38	275	19,0	720	49,7	1440	99,3	1920	132,4	2160	149,0	3600	248,3	6000	413,8	10800	744,8
200	93	255	17,6	660	45,5	1320	91,0	1760	121,4	1980	136,6	3300	227,6	5500	379,3	9900	682,8
300	149	230	15,9	615	42,4	1230	84,8	1640	113,1	1845	127,2	3070	211,7	5120	353,1	9215	635,5
400	204	200	13,8	575	39,7	1145	79,0	1530	105,5	1720	118,6	2870	197,9	4780	329,7	8615	594,1
500	260	170	11,7	540	37,2	1080	74,5	1440	99,3	1620	111,7	2700	186,2	4500	310,3	8100	558,6
600	316	140	9,7	515	35,5	1025	70,7	1370	94,5	1540	106,2	2570	177,2	4280	295,2	7705	531,4
650	343	125	8,6	505	34,8	1010	69,7	1345	92,8	1510	104,1	2520	173,8	4200	289,7	7560	521,4
700	371	110	7,6	495	34,1	990	68,3	1320	91,0	1485	102,4	2470	170,3	4120	284,1	7415	511,4
750	399	95	6,6	490	33,8	985	67,9	1310	90,3	1475	101,7	2460	169,7	4100	282,8	7380	509,0
800	427	80	5,5	485	33,4	975	67,2	1300	89,7	1460	100,7	2435	167,9	4060	280,0	7310	504,1
850	454	65	4,5	485	33,4	970	66,9	1295	89,3	1455	100,3	2425	167,2	4040	278,6	7270	501,4
900	482	50	3,4	450	31,0	900	62,1	1200	82,8	1350	93,1	2245	154,8	3745	258,3	6740	464,8
950	510	35	2,4	385	26,6	775	53,4	1030	71,0	1160	80,0	1930	133,1	3220	222,1	5795	399,7
1000	538	20	1,4	365	25,2	725	50,0	970	66,9	1090	75,2	1820	125,5	3030	209,0	5450	375,9
1050	566	20	1,4	360	24,8	720	49,7	960	66,2	1080	74,5	1800	124,1	3000	206,9	5400	372,4
1100	593	20	1,4	325	22,4	645	44,5	860	59,3	965	66,6	1610	111,0	2685	185,2	4835	333,4
1150	621	20	1,4	275	19,0	550	37,9	735	50,7	825	56,9	1370	94,5	2285	157,6	4115	283,8
1200	649	20	1,4	170	11,7	345	23,8	460	31,7	515	35,5	855	59,0	1430	98,6	2570	177,2
1250	677	20	1,4	125	8,6	245	16,9	330	22,8	370	25,5	615	42,4	1030	71,0	1850	127,6
1300	704	20	1,4	95	6,6	185	12,8	250	17,2	280	19,3	465	32,1	770	53,1	1390	95,9
1350	732	20	1,4	70	4,8	135	9,3	180	12,4	205	14,1	345	23,8	570	39,3	1030	71,0
1400	760	20	1,4	50	3,4	110	7,6	145	10,0	165	11,4	275	19,0	455	31,4	825	56,9
1450	788	15	1,0	40	2,8	80	5,5	110	7,6	125	8,6	205	14,1	345	23,8	615	42,4
1500	816	15	1,0	35	2,4	70	4,8	95	6,6	105	7,2	170	11,7	285	19,7	515	35,5

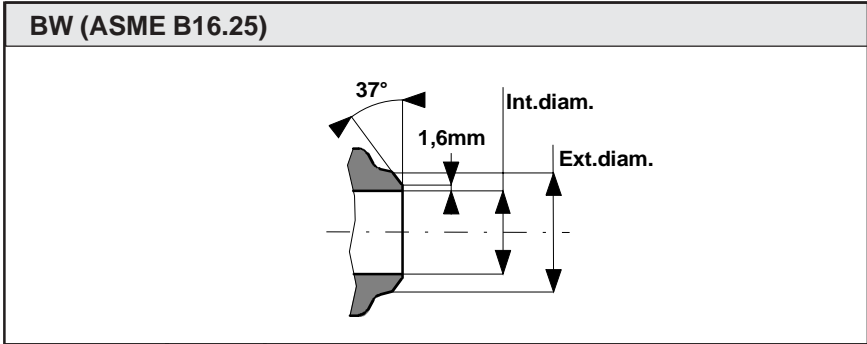
For welding end valves only. Flanged end ratings terminate at 1000°F.

A182/F321-A182-F347: not to be used over 1000°F.

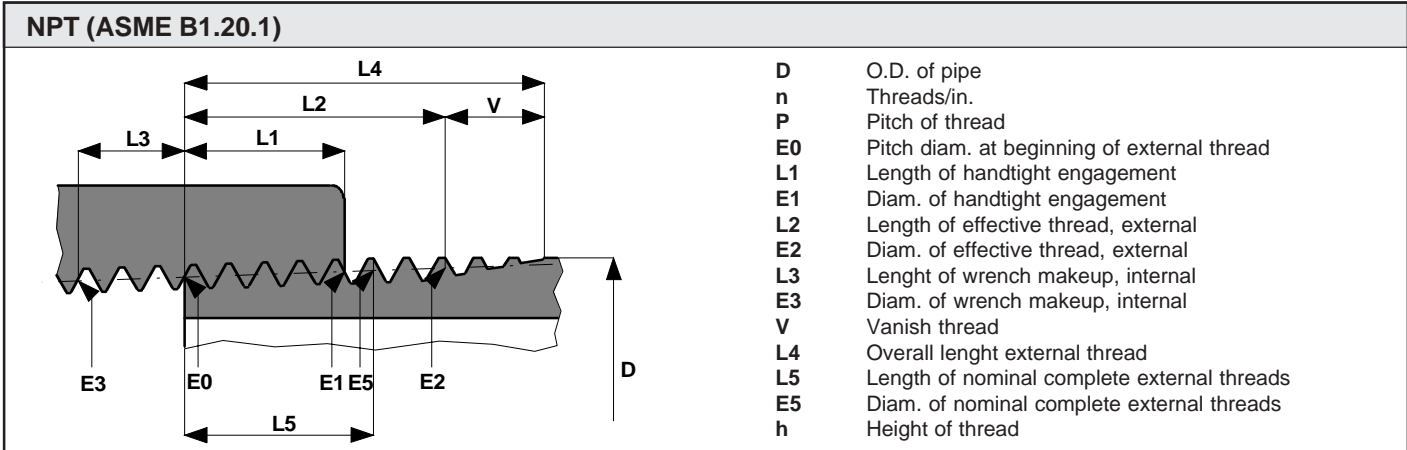
SW, NPT & BW dimensions



Size		Min. diam.	Max. diam.	Min. depth.	Our depth
1/4"	m m. in.	14,10 0,555	14,35 0,565	9,65 0,38	10 0,394
3/8"	m m. in.	17,53 0,690	17,78 0,700	9,65 0,38	10 0,394
1/2"	m m. in.	21,72 0,855	21,97 0,865	9,65 0,38	10 0,394
3/4"	m m. in.	27,05 1,065	27,30 1,075	12,70 0,50	13 0,512
1"	m m. in.	33,78 1,330	34,04 1,340	12,70 0,50	14 0,551
1.1/4"	m m. in.	42,55 1,675	42,80 1,685	12,70 0,50	14 0,551
1.1/2"	m m. in.	48,64 1,915	48,90 1,925	12,70 0,50	14 0,551
2"	m m. in.	61,11 2,406	61,37 2,416	15,75 0,62	16 0,630



Size		Ext. diam.	Internal diameter					
			sch. 5	sch. 10	sch. 40	sch. 80	sch. 160	sch. XXS
1/4"	m m. in.	13,72 0,540	10,41 0,410	9,25 0,364	7,67 0,302			
3/8"	m m. in.	17,15 0,675	13,84 0,545	12,52 0,493	10,74 0,423			
1/2"	m m. in.	21,34 0,840	18,03 0,710	17,12 0,674	15,80 0,622	13,87 0,546	11,84 0,466	6,40 0,252
3/4"	m m. in.	26,67 1,050	23,37 0,920	22,45 0,884	20,93 0,824	18,85 0,742	15,60 0,614	11,02 0,434
1"	m m. in.	33,40 1,315	30,10 1,185	27,86 1,097	26,64 1,049	24,31 0,957	20,70 0,815	15,21 0,599
1.1/4"	m m. in.	42,16 1,660	38,86 1,530	36,63 1,442	35,05 1,380	32,46 1,278	29,46 1,160	22,76 0,896
1.1/2"	m m. in.	48,26 1,900	44,96 1,770	42,72 1,682	40,89 1,610	38,10 1,500	33,99 1,338	27,94 1,100
2"	m m. in.	60,33 2,375	57,02 2,245	54,79 2,157	52,50 2,067	49,25 1,939	42,90 1,689	38,18 1,503

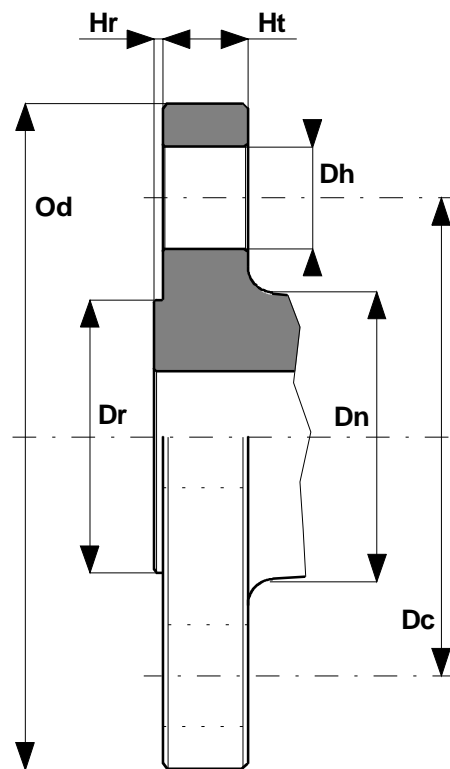


- D O.D. of pipe
- n Threads/in.
- P Pitch of thread
- E0 Pitch diam. at beginning of external thread
- L1 Length of handtight engagement
- E1 Diam. of handtight engagement
- L2 Length of effective thread, external
- E2 Diam. of effective thread, external
- L3 Length of wrench makeup, internal
- E3 Diam. of wrench makeup, internal
- V Vanish thread
- L4 Overall length external thread
- L5 Length of nominal complete external threads
- E5 Diam. of nominal complete external threads
- h Height of thread

Size		D	n	P	E0	L1	E1	L2	E2	L3	E3	V	L4	L5	E5	h
1/4"	m m. in.	13,72 0,540	0,71 18	1,41 0,056	12,13 0,477	5,79 0,228	12,49 0,492	10,21 0,402	12,76 0,503	4,23 0,167	11,86 0,467	4,90 0,193	15,10 0,595	7,38 0,291	12,59 0,496	1,13 0,044
3/8"	m m. in.	17,15 0,675	0,71 18	1,41 0,056	15,55 0,612	6,10 0,240	15,93 0,627	10,36 0,408	16,19 0,638	4,23 0,167	15,28 0,602	4,90 0,193	15,26 0,601	7,54 0,297	16,02 0,631	1,13 0,044
1/2"	m m. in.	21,34 0,840	0,55 14	1,81 0,071	19,26 0,758	8,13 0,320	19,77 0,778	13,56 0,534	20,11 0,792	5,44 0,214	18,92 0,745	6,29 0,248	19,85 0,782	9,93 0,391	19,88 0,783	1,45 0,057
3/4"	m m. in.	26,67 1,050	0,55 14	1,81 0,071	24,58 0,968	8,61 0,339	25,12 0,989	13,86 0,546	25,45 1,002	5,44 0,214	24,24 0,954	6,29 0,248	20,15 0,794	10,23 0,403	25,22 0,993	1,45 0,057
1"	m m. in.	33,40 1,315	0,45 11,5	2,21 0,087	30,83 1,214	10,16 0,400	31,46 1,239	17,34 0,683	31,91 1,256	6,63 0,261	30,41 1,197	7,66 0,302	25,01 0,985	12,93 0,509	31,63 1,245	1,77 0,070
1.1/4"	m m. in.	42,16 1,660	0,45 11,5	2,21 0,087	39,55 1,557	10,67 0,420	40,22 1,583	17,95 0,707	40,67 1,601	6,63 0,261	39,14 1,541	7,66 0,302	25,63 1,009	13,54 0,533	40,40 1,590	1,77 0,070
1.1/2"	m m. in.	48,26 1,900	0,45 11,5	2,21 0,087	45,62 1,796	10,67 0,420	46,29 1,822	18,38 0,724	46,77 1,841	6,63 0,261	45,21 1,780	7,66 0,302	26,04 1,025	13,96 0,550	46,49 1,830	1,77 0,070
2"	m m. in.	60,33 2,375	0,45 11,5	2,21 0,087	57,63 2,269	11,07 0,436	58,33 2,296	19,22 0,757	58,83 2,316	6,63 0,261	57,22 2,253	7,66 0,302	26,88 1,058	14,80 0,583	58,56 2,305	1,77 0,070

Flange dimensions (ASME B16.5)

Size		Od	Dr	Hr	Ht	Dn	n	Dh	Dc
150									
1/2"	mm.	88,9	35,1	1,6	9,6	30,2	4	15,7	60,5
	in.	3,50	1,38	0,06	0,38	1,19	4	0,62	2,38
3/4"	mm.	98,6	42,9	1,6	11,1	38,1	4	15,7	69,9
	in.	3,88	1,69	0,06	0,44	1,50	4	0,62	2,75
1"	mm.	108,0	50,8	1,6	12,6	49,3	4	15,7	79,2
	in.	4,25	2,00	0,06	0,50	1,94	4	0,62	3,12
1.1/2"	mm.	127,0	73,2	1,6	15,9	65,0	4	15,7	98,6
	in.	5,00	2,88	0,06	0,63	2,56	4	0,62	3,88
2"	mm.	152,4	91,9	1,6	17,5	77,7	4	19,1	120,7
	in.	6,00	3,62	0,06	0,69	3,06	4	0,75	4,75
300									
1/2"	mm.	95,3	35,1	1,6	12,6	38,1	4	15,7	66,5
	in.	3,75	1,38	0,06	0,50	1,50	4	0,62	2,62
3/4"	mm.	117,3	42,9	1,6	14,2	47,8	4	19,1	82,6
	in.	4,62	1,69	0,06	0,56	1,88	4	0,75	3,25
1"	mm.	124,0	50,8	1,6	15,9	53,8	4	19,1	88,9
	in.	4,88	2,00	0,06	0,63	2,12	4	0,75	3,50
1.1/2"	mm.	155,4	73,2	1,6	19,0	69,9	4	22,4	114,3
	in.	6,12	2,88	0,06	0,75	2,75	4	0,88	4,50
2"	mm.	165,1	91,9	1,6	20,8	84,1	8	19,1	127,0
	in.	6,50	3,62	0,06	0,82	3,31	8	0,75	5,00
600									
1/2"	mm.	95,3	35,1	6,4	14,2	38,1	4	15,7	66,5
	in.	3,75	1,38	0,25	0,56	1,50	4	0,62	2,62
3/4"	mm.	117,3	42,9	6,4	15,7	47,8	4	19,1	82,6
	in.	4,62	1,69	0,25	0,62	1,88	4	0,75	3,25
1"	mm.	124,0	50,8	6,4	17,5	53,8	4	19,1	88,9
	in.	4,88	2,00	0,25	0,69	2,12	4	0,75	3,50
1.1/2"	mm.	155,4	73,2	6,4	22,4	69,9	4	22,4	114,3
	in.	6,12	2,88	0,25	0,88	2,75	4	0,88	4,50
2"	mm.	165,1	91,9	6,4	25,4	84,1	8	19,1	127,0
	in.	6,50	3,62	0,25	1,00	3,31	8	0,75	5,00
1500									
1/2"	mm.	120,7	35,1	6,4	22,4	38,1	4	22,4	82,6
	in.	4,75	1,38	0,25	0,88	1,50	4	0,88	3,25
3/4"	mm.	130,0	42,9	6,4	25,4	44,5	4	22,4	88,9
	in.	5,12	1,69	0,25	1,00	1,75	4	0,88	3,50
1"	mm.	149,4	50,8	6,4	28,4	52,3	4	25,4	101,6
	in.	5,88	2,00	0,25	1,12	2,06	4	1,00	4,00
1.1/2"	mm.	177,8	73,2	6,4	31,8	69,9	4	28,4	124,0
	in.	7,00	2,88	0,25	1,25	2,75	4	1,12	4,88
2"	mm.	215,9	91,9	6,4	38,1	104,6	8	25,4	165,1
	in.	8,50	3,62	0,25	1,50	4,12	8	1,00	6,50
2500									
1/2"	mm.	133,4	35,1	6,4	30,2	42,9	4	22,4	88,9
	in.	5,25	1,38	0,25	1,19	1,69	4	0,88	3,50
3/4"	mm.	139,7	42,9	6,4	31,8	50,8	4	22,4	95,3
	in.	5,50	1,69	0,25	1,25	2,00	4	0,88	3,75
1"	mm.	158,8	50,8	6,4	35,1	57,2	4	25,4	108,0
	in.	6,25	2,00	0,25	1,38	2,25	4	1,00	4,25
1.1/2"	mm.	203,2	73,2	6,4	44,5	79,2	4	31,8	146,1
	in.	8,00	2,88	0,25	1,75	3,12	4	1,25	5,75
2"	mm.	235,0	91,9	6,4	50,8	95,3	8	28,4	171,5
	in.	9,25	3,62	0,25	2,00	3,75	8	1,12	6,75



n Number of holes

DIMENSIONAL TOLERANCES		
	mm	in
Od	-1,6 +1,6	-1/16 +1/16
Dr	-0,4 +0,4	-1/64 +1/64
Dc	-0,8 +0,8	-1/32 +1/32
Dh	-0,4 +0,4	-1/64 +1/64
Ht	-0 +3,2	-0 +1/8

Face-to-face dimensions (ASME B16.10)

Class 150											
		1/2"		3/4"		1"		1.1/2"		2"	
		RF	RJ	RF	RJ	RF	RJ	RF	RJ	RF	RJ
Gate	mm.	107.9	119.1	117.5	130.2	127	139.7	165.1	177.8	177.8	190.5
	in.	4.1/4	4.11/16	4.5/8	5.1/8	5	5.1/2	6.1/2	7	7	7.1/2
Globe-Piston/Ball check Swing check	mm.	107.9	119.1	117.5	130.2	127	139.7	165.1	177.8	203.2	215.9
	in.	4.1/4	4.11/16	4.5/8	5.1/8	5	5.1/2	6.1/2	7	8	8.1/2

Class 300											
		1/2"		3/4"		1"		1.1/2"		2"	
		RF	RJ	RF	RJ	RF	RJ	RF	RJ	RF	RJ
Gate	mm.	139.7	150.8	152.4	165.1	165.1	177.8	190.5	203.2	215.9	231.8
	in.	5.1/2	5.15/16	6	6.1/2	6.1/2	7	7.1/2	8	8.1/2	9.1/8
Globe-Piston/Ball check	mm.	152.4	163.5	177.8	190.5	203.2	215.9	228.6	241.3	266.7	282.6
	in.	6	6.7/16	7	7.1/2	8	8.1/2	9	9.1/2	10.7/8	11.1/8
Swing check	mm.	152.4	163.5	177.8	190.5	215.9	228.6	241.3	254	266.7	282.6
	in.	6	6.7/16	7	7.1/2	8.1/2	9	9.1/2	10	10.7/8	11.1/8

Class 600											
		1/2"		3/4"		1"		1.1/2"		2"	
		RF	RJ	RF	RJ	RF	RJ	RF	RJ	RF	RJ
Gate-Globe-Pist./Ball check Swing check	mm.	165.1	163.5	190.5	190.5	215.9	215.9	241.3	241.3	292.1	295.3
	in.	6.1/2	6.7/16	7.1/2	7.1/2	8.1/2	8.1/2	9.1/2	9.1/2	11.1/2	11.5/8

Class 1500											
		1/2"		3/4"		1"		1.1/2"		2"	
		RF	RJ	RF	RJ	RF	RJ	RF	RJ	RF	RJ
Gate-Globe-Pist./Ball check Swing check	mm.	215.9	215.9	228.6	228.6	254	254	304.8	304.8	368.3	371.5
	in.	8.1/2	8.1/2	9	9	10	10	12	12	14.1/2	14.5/8

Class 2500											
		1/2"		3/4"		1"		1.1/2"		2"	
		RF	RJ	RF	RJ	RF	RJ	RF	RJ	RF	RJ
Gate-Globe-Pist./Ball check Swing check	mm.	263.5	263.5	273	273	308	308	384.2	387.3	450.8	454
	in.	10.3/8	10.3/8	10.3/4	10.3/4	12.1/8	12.1/8	15.1/8	15.1/4	17.3/8	17.7/8

Class 300 (Special face)											
		1/2"		3/4"		1"		1.1/2"		2"	
		RF	RJ	RF	RJ	RF	RJ	RF	RJ	RF	RJ
		LF-SF	LM-SM	LF-SF	LM-SM	LF-SF	LM-SM	LF-SF	LM-SM	LF-SF	LM-SM
		LG-SG	LT-ST	LG-SG	LT-ST	LG-SG	LT-ST	LG-SG	LT-ST	LG-SG	LT-ST
Gate	mm.	149.2	152.4	161.9	165.1	174.6	177.8	200	203.2	225.4	228.6
	in.	5.7/8	6	6.3/8	6.1/2	6.7/8	7	7.7/8	8	8.7/8	9
Globe-Piston/Ball check	mm.	161.9	165.1	187.3	190.5	212.7	215.9	238.1	241.3	276.2	279.4
	in.	6.3/8	6.1/2	7.3/8	7.1/2	8.3/8	8.1/2	9.3/8	9.1/2	10.7/8	11
Swing check	mm.	161.9	165.1	187.3	190.5	225.4	228.6	250.8	254	276.2	279.4
	in.	6.3/8	6.1/2	7.3/8	7.1/2	8.7/8	9	9.7/8	10	10.7/8	11

RF = Raised face LF = Large female SG = Small groove LT = Large tongue
 RJ = Ring Joint SF = Small female LM = Large male ST = Small tongue
 LG = Large groove SM = Small male

Introduction	1
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