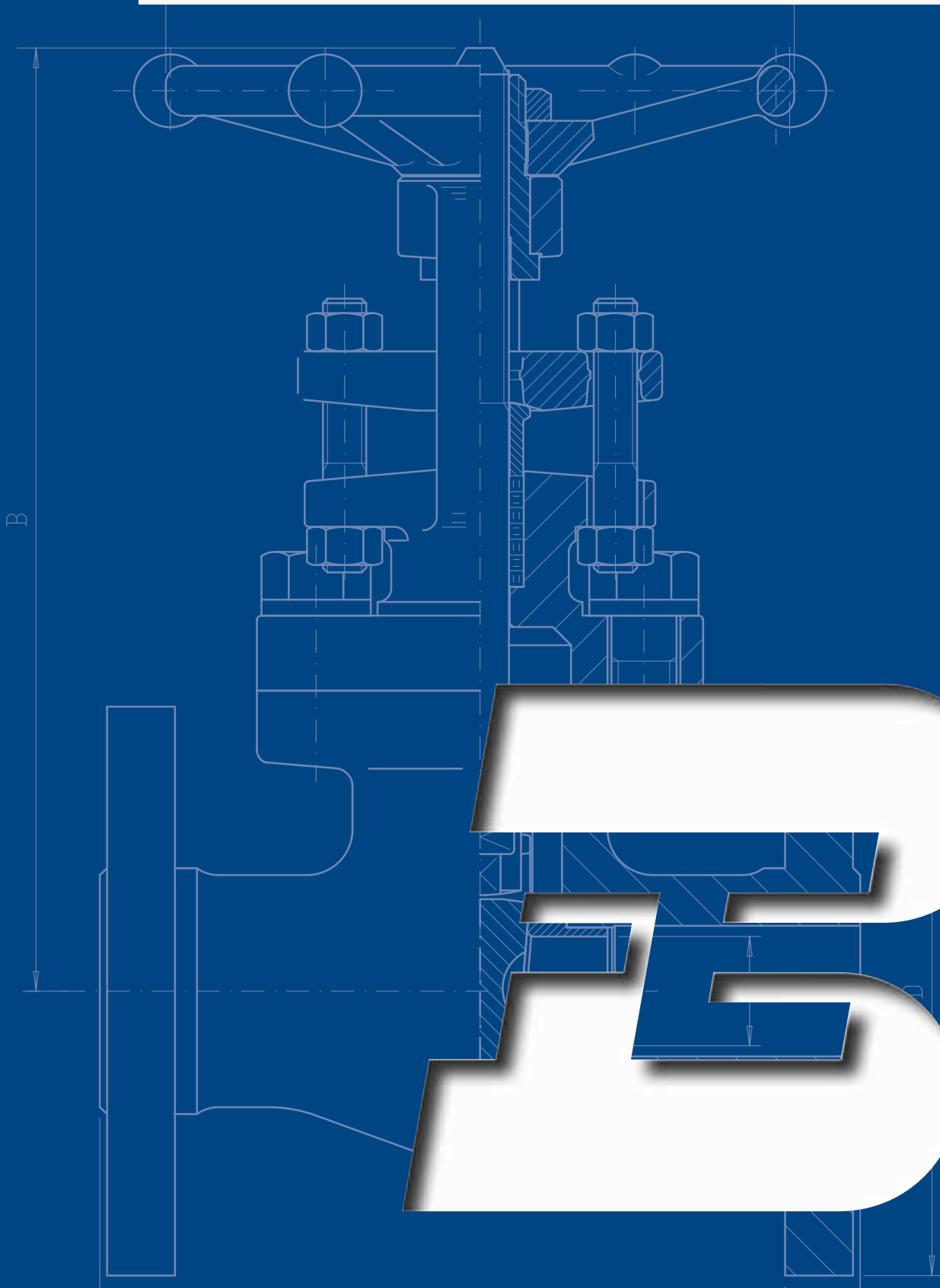


INTEGRAL FLANGED VALVES



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INTEGRAL FLANGED VALVES

GATE VALVES

CLASS	FIGURE	
	Full Bore	Reduced Bore
150	1 - 100	L1 - 100
300	3 - 100	L3 - 100
600	6 - 100	L6 - 100
1500	15RR 100	-
2500	25RR 100	-

GLOBE VALVES

CLASS	FIGURE	
	Full Bore	Reduced Bore
150	1 - 300	L1 - 300
300	3 - 300	L3 - 300
600	6 - 300	L6 - 300
1500	15RR 300	-
2500	25RR 300	-

CHECK VALVES

PISTON TYPE

CLASS	FIGURE	
	Full Bore	Reduced Bore
150	1 - 400	L1 - 400
300	3 - 400	L3 - 400
600	6 - 400	L6 - 400
1500	15RR 400	-
2500	25RR 400	-

BALL TYPE

CLASS	FIGURE	
	Full Bore	Reduced Bore
150	1 - 500	L1 - 500
300	3 - 500	L3 - 500
600	6 - 500	L6 - 500
1500	15RR 500	-
2500	25RR 500	-

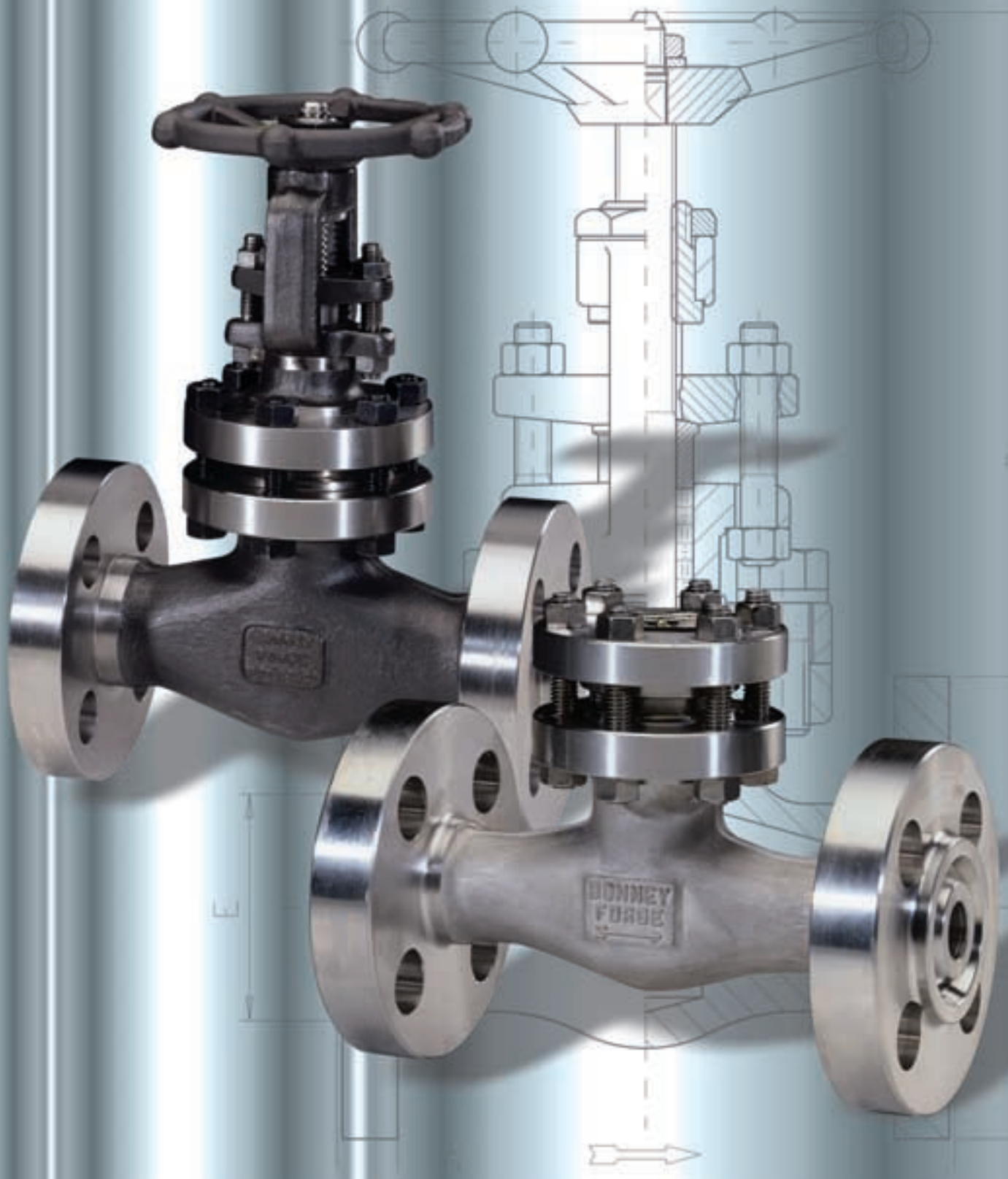
SWING TYPE

CLASS	FIGURE	
	Full Bore	Reduced Bore
150	1 - 600	L1 - 600
300	3 - 600	L3 - 600
600	6 - 600	L6 - 600
1500	15RR 600	-
2500	25RR 600	-

INTEGRAL FLANGED VALVES

CLASS 150-300-600-1500-2500

BOLTED BONNET - Full and reduced bore



Applicable standards and specifications: API 602 - BS 5352
 Face to face according to ANSI B16.10
 Flanges according to ANSI B16.5

Outside Screw and Yoke (OS&Y)
 Self aligning packing gland in two parts
 Spiral-wound gasket retained type
 Integral backseat
 Integral body flanges

GATE VALVES

CLASS 150

FULL BORE - Type 1 100						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		108	117,5	127	165	178
B open		175	210	230	290	340
C		88	97	138	138	172
F		14	18	24	36,6	48
WEIGHT kg ≅		3,2	4,7	6,1	11,4	18
FIGURE		1 103	1 104	1 105	1 107	1 108
PACKING		BH2	BH4	BH5	BY5/A	BH8
GASKET		G2	G3	G4	G7	G8

REDUCED BORE - Type L1 100							
SIZE	inch	1/2	3/4	1	1.1/2	2	3
	mm	15	20	25	40	50	75
A		108	117,5	127	165	178	203
B open		175	182	212	255	290	345
C		88	88	97	138	138	172
F		9,6	14	18	30	36,6	48
WEIGHT kg ≅		2,9	3,7	5,2	9,6	13,2	21,2
FIGURE		L1 103	L1 104	L1 105	L1 107	L1 108	L1 110
PACKING		BH2	BH2	BH4	BH6/A	BY5/A	BH8
GASKET		G2	G2	G3	G5	G7	G8

CLASS 300

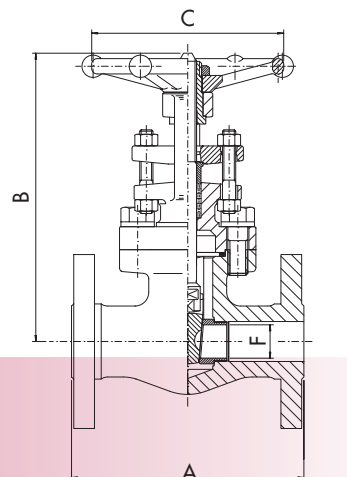
FULL BORE - Type 3 100						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		140	152,5	165	191	216
B open		175	210	230	290	340
C		88	97	138	138	172
F		14	18	24	36,6	48
WEIGHT kg ≅		3,8	5,6	7,1	13,5	19
FIGURE		3 103	3 104	3 105	3 107	3 108
PACKING		BH2	BH4	BH5	BY5/A	BH8
GASKET		G2	G3	G4	G7	G8

REDUCED BORE - Type L3 100						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		140	152,5	165	191	216
B open		175	182	212	240	290
C		88	88	97	138	138
F		9,6	14	18	30	36,6
WEIGHT kg ≅		3,6	5,2	6,7	13	15,3
FIGURE		L3 103	L3 104	L3 105	L3 107	L3 108
PACKING		BH2	BH2	BH4	BH6/A	BY5/A
GASKET		G2	G2	G3	G5	G7

CLASS 600

FULL BORE - Type 6 100						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		165	191	216	241	292
B open		175	215	240	295	360
C		88	97	138	138	172
F		14	18	24	36,6	48
WEIGHT kg ≅		4,3	7	10	18	28
FIGURE		6 103	6 104	6 105	6 107	6 108
PACKING		BH2	BH4	BH5	BY5/A	BH8
GASKET		G2	G3	G4	G7	G9

REDUCED BORE - Type L6 100						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		165	191	216	241	292
B open		159	185	215	255	305
C		88	88	97	138	138
F		9,6	14	18	30	36,6
WEIGHT kg ≅		4,3	7	10	18	28
FIGURE		L6 103	L6 104	L6 105	L6 107	L6 108
PACKING		BH2	BH2	BH4	BH6/A	BY5/A
GASKET		G2	G2	G3	G6	G7



INTEGRAL FLANGED VALVES



For GLOBE VALVES only
 Loosed disc on stem
 Disc must be needle or parabolic type on request
 Needle valves may have an integral disc/stem on request

Ratings standard class:
 - carbon steel class 150 285 psig @ 100°F
 20 bar + 38°C
 - carbon steel class 300 740 psig @ 100°F
 51 bar + 38°C
 - carbon steel class 600 1480 psig @ 100°F
 102 bar + 38°C

GLOBE VALVES

CLASS 150

FULL BORE - Type 1 300						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		108	117,5	127	165	203
B open		196	230	268	315	335
C		88	97	138	172	172
F		13	17,5	22,5	35	45
WEIGHT kg ≅		3,8	6,4	8,7	16,5	25
FIGURE		1 303	1 304	1 305	1 307	1 308
PACKING		BH3	BH5	BY5/A	BY7	BY7
GASKET		G2	G3	G4	G7	G8

REDUCED BORE - Type L1 300						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		108	117,5	127	165	203
B open		196	196	226	273	300
C		88	88	97	138	172
F		9	13	17,5	29,5	35
WEIGHT kg ≅		3	3,8	5,5	10,3	15,8
FIGURE		L1 303	L1 304	L1 305	L1 307	L1 308
PACKING		BH3	BH3	BH5	BY5/A	BY7
GASKET		G2	G2	G3	G5	G8

CLASS 300

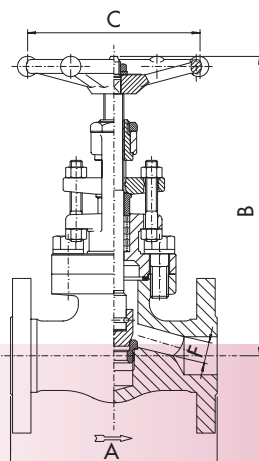
FULL BORE - Type 3 300						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		152,5	178	203	229	267
B open		196	230	268	315	335
C		88	97	138	172	172
F		13	17,5	22,5	35	45
WEIGHT kg ≅		4,1	7	9,7	18,5	28
FIGURE		3 303	3 304	3 305	3 307	3 308
PACKING		BH3	BH5	BY5/A	BY7	BH8
GASKET		G2	G3	G4	G7	G9

REDUCED BORE - Type L3 300						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		152,5	178	203	229	267
B open		196	202	226	270	321
C		88	88	97	138	172
F		9	13	17,5	29,5	35
WEIGHT kg ≅		4,1	6	8,3	15,5	21,5
FIGURE		L3 303	L3 304	L3 305	L3 307	L3 308
PACKING		BH3	BH3	BH5	BY5/A	BY7
GASKET		G2	G2	G3	G6	G7

CLASS 600

FULL BORE - Type 6 300						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		165	191	216	241	292
B open		196	230	268	315	370
C		88	97	138	172	172
F		13	17,5	22,5	35	45
WEIGHT kg ≅		5,9	8	10,5	19,5	28,5
FIGURE		6 303	6 304	6 305	6 307	6 308
PACKING		BH3	BH5	BY5/A	BY7	BH8
GASKET		G2	G3	G4	G7	G9

REDUCED BORE - Type L6 300						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		165	191	216	241	292
B open		177	202	234	270	321
C		88	88	97	138	172
F		9	13	17,5	29,5	35
WEIGHT kg ≅		4,4	6,2	8,7	16,5	23,6
FIGURE		L6 303	L6 304	L6 305	L6 307	L6 308
PACKING		BH3	BH3	BH5	BY5/A	BY7
GASKET		G2	G2	G3	G6	G7



INTEGRAL FLANGED VALVES

For CHECK VALVES only
 Spring only on request
 Ball and piston type valves with full guided disc

CHECK VALVES

CLASS 150

FULL BORE - Type 1 400 - 1 500 - 1 600						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		108	117,5	127	165	203
B		75	85	100	125	140
F Piston / F Ball		13	17,5	22,5	35	45
F Swing		14	18	24	36,6	48
WEIGHT kg \cong		2,8	3,6	5,2	10	16
FIGURE Piston		1 403	1 404	1 405	1 407	1 408
Ball		1 503	1 504	1 505	1 507	1 508
Swing		1 603	1 604	1 605	1 607	1 608
GASKET		G2	G3	G4	G7	G8

REDUCED BORE - Type L1 400 - L1 500 - L1 600						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		108	117,5	127	165	203
B		75	75	85	110	125
F Piston / F Ball		9	13	17,5	29,5	35
F Swing		9,6	14	17,5	29,5	36,6
W kg \cong Piston/Ball		2,3	3,1	4,5	8,4	14
W kg \cong Swing		2,2	3,1	4,4	8,3	13
FIGURE Piston		L1 403	L1 404	L1 405	L1 407	L1 408
Ball		L1 503	L1 504	L1 505	L1 507	L1 508
Swing		L1 603	L1 604	L1 605	L1 607	L1 608
GASKET		G2	G2	G3	G5	G8

CLASS 300

FULL BORE - Type 3 400 - 3 500 - 3 600						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		152,5	178	203*	229*	267
B		75	90	100	120	150
F Piston / F Ball		13	17,5	22,5	35	45
F Swing		14	18	24	36,6	48
WEIGHT kg \cong		3,6	6,4	8,2	15	21
FIGURE Piston		3 403	3 404	3 405	3 407	3 408
Ball		3 503	3 504	3 505	3 507	3 508
Swing		3 603	3 604	3 605	3 607	3 608
GASKET		G2	G3	G4	G7	G9

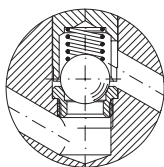
REDUCED BORE - Type L3 400 - L3 500 - L3 600						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		152,5	178	203*	229*	267
B		75	80	88	115	130
F Piston / F Ball		9	13	17,5	29,5	35
F Swing		9,6	14	17,5	29,5	36,6
W kg \cong Piston/Ball		3,4	5,3	7,5	14	19
W kg \cong Swing		3,3	5,2	7,4	13,5	18
FIGURE Piston		L3 403	L3 404	L3 405	L3 407	L3 408
Ball		L3 503	L3 504	L3 505	L3 507	L3 508
Swing		L3 603	L3 604	L3 605	L3 607	L3 608
GASKET		G2	G2	G3	G6	G7

CLASS 600

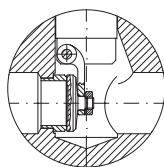
FULL BORE - Type 6 400 - 6 500 - 6 600						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		165	191	216	241	292
B		75	90	100	120	150
F Piston / F Ball		13	17,5	22,5	35	45
F Swing		14	18	24	36,6	48
WEIGHT kg \cong		3,8	6,5	8,5	16	23
FIGURE Piston		6 403	6 404	6 405	6 407	6 408
Ball		6 503	6 504	6 505	6 507	6 508
Swing		6 603	6 604	6 605	6 607	6 608
GASKET		G2	G3	G4	G7	G9

REDUCED BORE - Type L6 400 - L6 500 - L6 600						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		165	191	216	241	292
B		72	80	85	115	130
F Piston / F Ball		9	13	17,5	29,5	35
F Swing		9,6	14	17,5	29,5	36,6
WEIGHT kg \cong		3,5	5,7	8	14,5	19,5
FIGURE Piston		L6 403	L6 404	L6 405	L6 407	L6 408
Ball		L6 503	L6 504	L6 505	L6 507	L6 508
Swing		L6 603	L6 604	L6 605	L6 607	L6 608
GASKET		G2	G2	G3	G6	G7

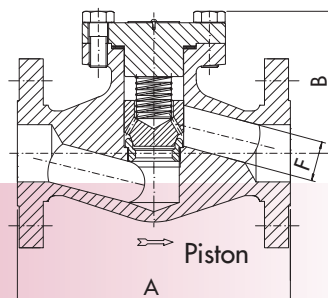
*A - dimensions for Swing Check valves only are 216 and 241 respectively.



Ball



Swing



Piston

INTEGRAL FLANGED VALVES



Design according to ANSI B16.34
 Full bore type
 Body Bonnet Gasket ring joint type
 Spiral wound type on request

Ratings standard class:
 - carbon steel class 1500 3705 psig @ 100°F
 255 bar + 38°C
 - carbon steel class 2500 6170 psig @ 100°F
 425 bar + 38°C

GATE VALVES

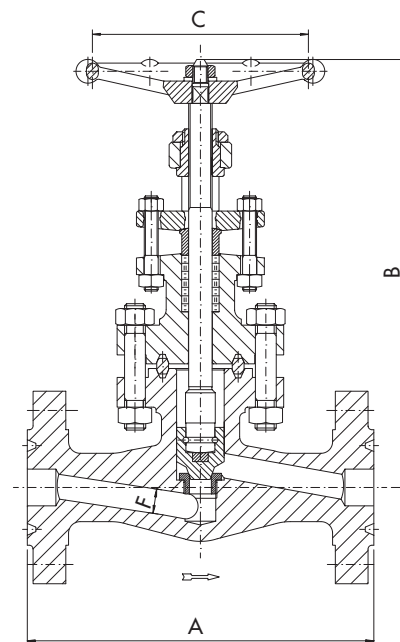
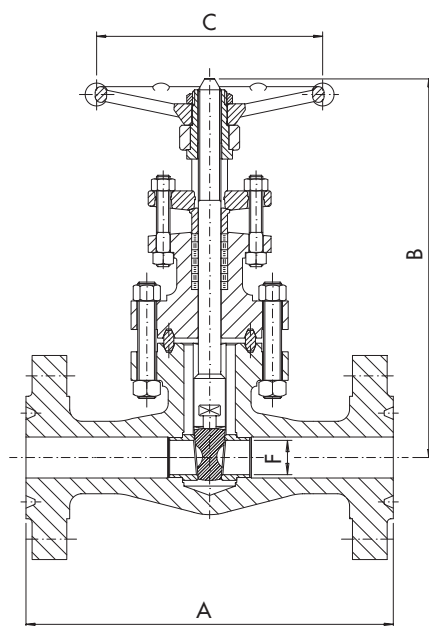
CLASS 1500						
FULL BORE - Type 15RR 100						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm					
A		216	229	254	305	371,5
B open		215	250	270	350	445
C		97	138	138	172	234
F		14	18	24	36,6	48
WEIGHT kg ≅		8,2	13	16,2	29	55
FIGURE		15RR 103	15RR 104	15RR 105	15RR 107	15RR 108
PACKING		BH5	BH6/A	2B4/A	BH8	9B8/A
GASKET		R12	R16	R16	R20	R22

CLASS 2500						
FULL BORE - Type 25RR 100						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm					
A		264	273	308	387,5	454
B open		282	290	335	406	415
C		138	138	172	234	320
F		11,5	15	19,5	28	38
WEIGHT kg ≅		16,2	17,6	29	60	65
FIGURE		25RR 103	25RR 104	25RR 105	25RR 107	25RR 108
PACKING		2B4/A	2B4/A	BH8	9B8/A	25B8
GASKET		R16	R16	R16	R19	R22

GLOBE VALVES

CLASS 1500						
FULL BORE - Type 15RR 300						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm					
A		216	229	254	305	371,5
B open		240	280	295	370	465
C		97	138	172	172	234
F		12	14,5	19	31	40
WEIGHT kg ≅		8,5	12,9	17	30	58
FIGURE		15RR 303	15RR 304	15RR 305	15RR 307	15RR 308
PACKING		BH5	2B4/A	2B4/A	BH8	9B8/A
GASKET		R12	R16	R16	R20	R22

CLASS 2500						
FULL BORE - Type 25RR 300						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm					
A		264	273	308	387,5	454
B open		310	315	350	450	460
C		138	138	172	234	320
F		11	14,5	19	28	35
WEIGHT kg ≅		16,5	18,5	30	61,5	67
FIGURE		25RR 303	25RR 304	25RR 305	25RR 307	25RR 308
PACKING		2B4/A	2B4/A	BH8	9B8/A	4B8
GASKET		R16	R16	R16	R19	R20



INTEGRAL FLANGED VALVES

Design according to ANSI B16.34
 Full bore type
 Body Bonnet Gasket ring joint type
 Spiral wound type on request

Spring only on request
 Ball and piston type with full guided disc
 Integral body flanges
 Flanges according to ANSI B16.5

For materials and testing pressure see technical data
 End flanges according to ANSI B16.5

CHECK VALVES

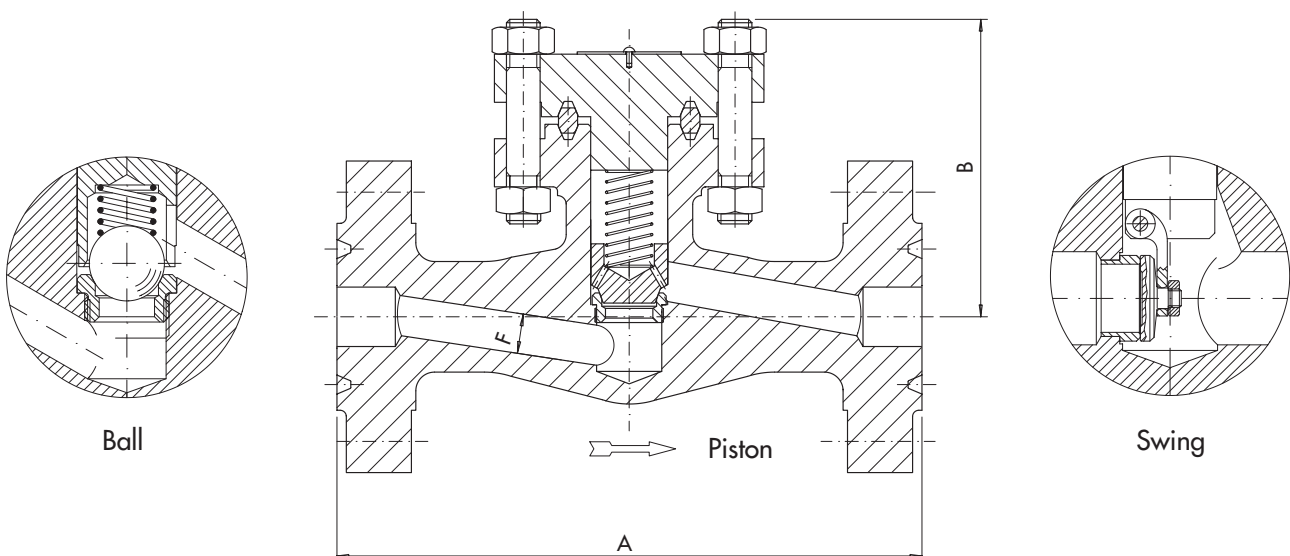
CLASS 1500

FULL BORE - Type 15RR 400 - 15RR 500 - 15RR 600						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		216	229	254	305	371,5
B		105	125	135	155	195
F Piston / F Ball		12	14,5	19	31	40
F Swing		14	18	24	36,6	48
WEIGHT kg ≅		7,5	11,2	14,5	26,5	50
FIGURE	Piston	15RR 403	15RR 404	15RR 405	15RR 407	15RR 408
	Ball	15RR 503	15RR 504	15RR 505	15RR 507	15RR 508
	Swing	15RR 603	15RR 604	15RR 605	15RR 607	15RR 608
GASKET		R12	R16	R16	R20	R22

CLASS 2500

FULL BORE - Type 25RR 400 - 25RR 500 - 25RR 600						
SIZE	inch	1/2	3/4	1	1.1/2	2
	mm	15	20	25	40	50
A		264	273	308	387,5	454
B		128	130	152	188	190
F Piston / F Ball		11	14,5	19	28	35
F Swing		11,5	15	19,5	28	35
WEIGHT kg ≅		14,3	16	26,3	54	56
FIGURE	Piston	25RR 403	25RR 404	25RR 405	25RR 407	25RR 408
	Ball	25RR 503	25RR 504	25RR 505	25RR 507	25RR 508
	Swing	25RR 603	25RR 604	25RR 605	25RR 607	25RR 608
GASKET		R16	R16	R16	R19	R20*

* R22 for 25RR 608 only



INTEGRAL FLANGED VALVES

