

"T"-PATTERN GLOBE VALVES

Low operation torque design.

Rising and rotating stem for the most API 602 design simplicity.

Outside Screw and Yoke (OS&Y).

Standard construction of body-bonnet connections are bolted bonnet or welded bonnet type.

Flanged valves are provided with flanges integral with the body forgings.

Full die forged structure for all pressure containing parts.

Disc is machined to the tightest tolerances to ensure trouble free shutoff and cycling.

Self aligning two piece packing gland.

High quality packing for reliable tightness and low emission performance.

Back-seat design.

Standard gasket design for bolted-bonnet valves is spiral wound type up to class ASME 1500. Ring Joint gaskets are standard for ASME 2500 and above. SPW/RJ are available on request for all pressure classes as option.

The connection wire secures the disc to the stem, the disc can swivel in order to guarantee the complete contact between the disc and seats surfaces.

High flow capacity port sizes and disc retraction minimize flow velocities and maximize valve service life.

Standard seat design is screwed-in type for bolted bonnet and integral type for welded bonnet design. Extra thickness of the seat ring provides sufficient material to renew the seating surface over and over again.

GLOBE "T"-PATTERN VALVE DESCRIPTION

Globe valves are used for flow regulation, frequent operation, increased flow resistance or for positive shut off when closed. Globe valves are closing-down valves in which the closure member is moved squarely on and off the seat. By this mode of disc travel, the seat opening varies in direct proportion to the travel of the disc. This proportional relationship between valve opening and disc travel is ideally suited for duties involving regulation of flow rate. Globe valves can also be used for on-off duty, the seating load can be positively controlled with high sealing capacity. The change in direction of fluid flow through these valves produces increased resistance and pressure drop. The standard Straight "T"-Pattern valve body is the most common, but because of its tortuous flow passage it offers the highest resistance to flow of the patterns available. Globe valves are used in many industrial applications including the oil and gas industry, pharmaceutical, manufacturing, automotive, and marine. Globe valves are also recommended for services requiring frequent operation and positive shut off.

P&ID SYMBOL



STANDARD CONFIGURATIONS



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APPLICABLE STANDARDS	
DESIGN	API 602 - ISO 15761 - ASME B16.34
INSPECTION & TESTING	API 598
MARKING	MSS SP-25
RATING	ASME B16.34
FUGITIVE EMISSION	API 624 - ISO 15848

"T"-PATTERN GLOBE VALVES

BOLTED BONNET GLOBE VALVES BASIC CONFIGURATION THREADED AND SOCKET WELD ENDS



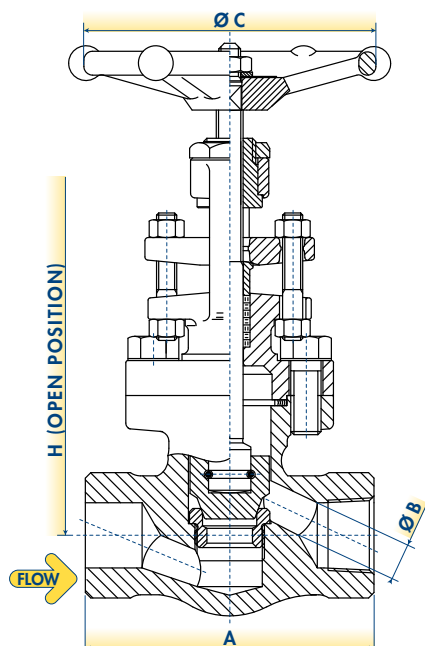
WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 800	1/2"	15	S1	80	3.15	9	0.35	88	3.5	166	6.5	2.1	4.6	HL 303	STANDARD BORE
	3/4"	20	S1	90	3.54	13	0.51	88	3.5	171	6.7	2.3	5.0	HL 304	
	1"	25	S1	110	4.33	17	0.66	97	3.8	213	8.4	3.7	8.2	HL 305	
	1-1/2"	40	S1	150	5.91	29	1.14	138	5.4	258	10.2	7.4	16.3	HL 307	
	2"	50	S1	180	7.09	35	1.38	172	6.8	300	11.8	11.9	26.2	HL 308	
ASME 1500	1/2"	15	S1	90	3.54	9	0.35	88	3.5	166	6.5	2.4	5.3	9HL 303	
	3/4"	20	S1	110	4.33	12	0.47	97	3.8	210	8.3	4	8.8	9HL 304	
	1"	25	S1	127	5.00	15	0.59	138	5.4	250	9.8	6.5	14.3	9HL 305	
	1-1/2"	40	S1	180	7.09	27	1.06	172	6.8	300	11.8	13	28.7	9HL 307	
	2"	50	S1	210	8.27	32	1.26	172	6.8	375	14.8	22	48.5	9HL 308	
ASME 800	1/4"	6	S1	80	3.15	7	0.28	88	3.5	166	6.5	2.2	4.9	H 301	FULL BORE
	3/8"	10	S1	80	3.15	9	0.35	88	3.5	166	6.5	2.2	4.9	H 302	
	1/2"	15	S1	90	3.54	13	0.51	88	3.5	171	6.7	2.4	5.3	H 303	
	3/4"	20	S1	110	4.33	17	0.66	97	3.8	213	8.4	3.8	8.4	H 304	
	1"	25	S1	127	5.00	22	0.86	138	5.4	247	9.7	6.1	13.4	H 305	
	1-1/4"	32	S1	150	5.91	29	1.14	138	5.4	258	10.2	7.6	16.8	H 306	
	1-1/2"	40	S1	180	7.09	35	1.38	172	6.8	300	11.8	12.5	27.6	H 307	
	2"	50	S1	210	8.27	45	1.77	172	6.8	375	14.8	19.6	43.2	H 308	
ASME 1500	1/4"	6	S1	90	3.54	7	0.28	88	3.5	166	6.5	2.6	5.7	9H 301	
	3/8"	10	S1	90	3.54	9	0.35	88	3.5	166	6.5	2.6	5.7	9H 302	
	1/2"	15	S1	110	4.33	12	0.47	97	3.8	210	8.3	4.2	9.3	9H 303	
	3/4"	20	S1	127	5.00	15	0.59	138	5.4	247	9.7	6.5	14.3	9H 304	
	1"	25	S1	150	5.91	20	0.79	138	5.4	256	10.1	8.5	18.7	9H 305	
	1-1/4"	32	S1	180	7.09	27	1.06	172	6.8	300	11.8	12.5	27.6	9H 306	
	1-1/2"	40	S1	210	8.27	32	1.26	172	6.8	375	14.8	22.3	49.2	9H 307	
	2"	50	S1	210	8.27	38	1.50	234	9.2	428	16.9	36	79.4	9H 308	
ASME 2500	1/2"	15	S2	150	5.91	11	0.43	138	5.4	304	12.0	10	22.0	25HR 303	
	3/4"	20	S2	150	5.91	14.5	0.57	138	5.4	304	12.0	10	22.0	25HR 304	
	1"	25	S2	210	8.27	19	0.75	138	5.4	362	14.3	22	48.5	25HR 305	
	1-1/2"	40	S2	230	9.06	28	1.10	234	9.2	436	17.2	38	83.8	25HR 307	
	2"	50	S2	230	9.06	38	1.50	234	9.2	436	17.2	38	83.8	25HR 308	

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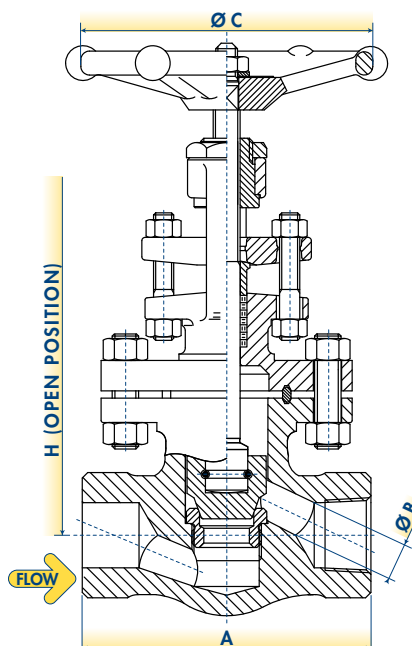
PRODUCT FEATURES:

- Socket Weld acc.to ASME B16.11. • Screwed ends (NPT) acc.to ASME B1.20.1. • Butt welding ends acc.to ASME B16.25. • End to End acc.to manufacturer standard.

DESIGN TYPE S1 SPIRAL WOUND GASKET BODY-BONNET CONNECTION

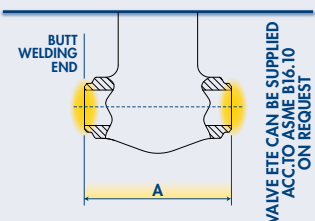


DESIGN TYPE S2 RING JOINT BODY-BONNET CONNECTION

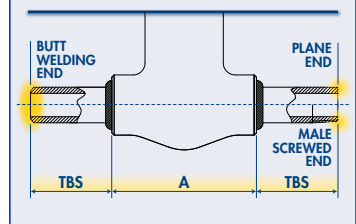


OTHER END CONNECTION TYPES AVAILABLE

INTEGRAL BUTT WELDING END



WELDED NIPPLES



"T"-PATTERN GLOBE VALVES

BOLTED BONNET GLOBE VALVES BASIC CONFIGURATION ASME INTEGRAL FLANGED ENDS



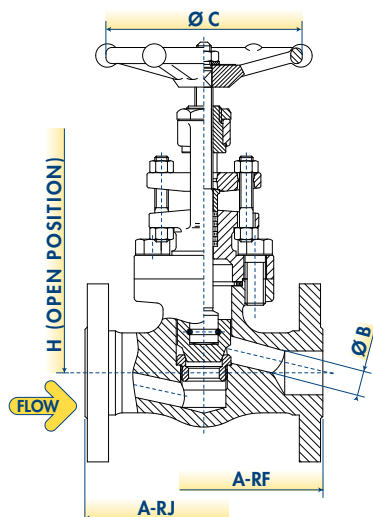
WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A-RF		A-RJ		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 150	1/2"	15	S1	108	4.25	N.A.	N.A.	10	0.39	88	3.5	196	7.7	3	6.6	L1-303	STANDARD BORE
	3/4"	20	S1	117.5	4.63	N.A.	N.A.	14	0.55	88	3.5	196	7.7	3.8	8.4	L1-304	
	1"	25	S1	127	5.00	140	5.50	17	0.66	97	3.8	226	8.9	5.5	12.1	L1-305	
	1-1/2"	40	S1	165	6.50	178	7.00	29	1.14	138	5.4	273	10.7	10.3	22.7	L1-307	
	2"	50	S1	203	7.99	216	8.49	35	1.38	172	6.8	300	11.8	15.8	34.8	L1-308	
ASME 300	1/2"	15	S1	152.5	6.00	163.5	6.44	9	0.35	88	3.5	196	7.7	4.1	9.0	L3-303	
	3/4"	20	S1	178	7.01	190.5	7.51	13	0.51	88	3.5	202	8.0	6	13.2	L3-304	
	1"	25	S1	203	7.99	216	8.49	17	0.66	97	3.8	226	8.9	8.3	18.3	L3-305	
	1-1/2"	40	S1	229	9.02	241	9.52	29	1.14	138	5.4	270	10.6	15.5	34.2	L3-307	
	2"	50	S1	267	10.51	282.5	11.13	35	1.38	172	6.8	321	12.6	21.5	47.4	L3-308	
ASME 600	1/2"	15	S1	165	6.50	163.5	6.44	9	0.35	88	3.5	177	7.0	4.4	9.7	L6-303	
	3/4"	20	S1	191	7.52	190.5	7.52	13	0.51	88	3.5	202	8.0	6.2	13.7	L6-304	
	1"	25	S1	216	8.50	216	8.50	17	0.66	97	3.8	234	9.2	8.7	19.2	L6-305	
	1-1/2"	40	S1	241	9.49	241	9.49	29	1.14	138	5.4	270	10.6	16.5	36.4	L6-307	
	2"	50	S1	292	11.50	295	11.62	35	1.38	172	6.8	321	12.6	23.6	52.0	L6-308	
ASME 1500	1/2"	15	S1	216	8.50	216	8.50	9	0.35	88	3.5	190	7.5	7.6	16.8	15FL 303	
	3/4"	20	S1	229	9.02	229	9.02	14	0.55	97	3.8	230	9.1	11.6	25.6	15FL 304	
	1"	25	S1	254	10.00	254	10.00	14	0.55	138	5.4	270	10.6	15.3	33.7	15FL 305	
	1-1/2"	40	S1	305	12.01	305	12.01	26	1.02	172	6.8	315	12.4	34.2	75.4	15FL 307	
	2"	50	S1	368	14.49	371.5	14.61	34	1.34	172	6.8	355	14.0	52.2	115.1	15FL 308	
ASME 150	1/2"	15	S1	108	4.25	N.A.	N.A.	13	0.51	88	3.5	196	7.7	3.8	8.4	1-303	FULL BORE
	3/4"	20	S1	117.5	4.63	N.A.	N.A.	17.5	0.69	97	3.8	230	9.1	6.4	14.1	1-304	
	1"	25	S1	127	5.00	140	5.50	22.5	0.89	138	5.4	268	10.6	8.7	19.2	1-305	
	1-1/2"	40	S1	165	6.50	178	7.00	35	1.38	172	6.8	315	12.4	16.5	36.4	1-307	
	2"	50	S1	203	7.99	216	8.49	45	1.77	172	6.8	335	13.2	25	55.1	1-308	
ASME 300	1/2"	15	S1	152.5	6.00	163.5	6.44	13	0.51	88	3.5	196	7.7	4.1	9.0	3-303	
	3/4"	20	S1	178	7.01	190.5	7.51	17.5	0.69	97	3.8	230	9.1	7	15.4	3-304	
	1"	25	S1	203	7.99	216	8.49	22.5	0.89	138	5.4	268	10.6	9.7	21.4	3-305	
	1-1/2"	40	S1	229	9.02	241	9.52	35	1.38	172	6.8	315	12.4	18.5	40.8	3-307	
	2"	50	S1	267	10.51	282.5	11.13	45	1.77	172	6.8	335	13.2	28	61.7	3-308	
ASME 600	1/2"	15	S1	165	6.50	163.5	6.44	13	0.51	88	3.5	196	7.7	5.9	13.0	6-303	
	3/4"	20	S1	191	7.52	190.5	7.52	17.5	0.69	97	3.8	230	9.1	8	17.6	6-304	
	1"	25	S1	216	8.50	216	8.50	22.5	0.89	138	5.4	268	10.6	10.5	23.1	6-305	
	1-1/2"	40	S1	241	9.49	241	9.49	35	1.38	172	6.8	315	12.4	19.5	43.0	6-307	
	2"	50	S1	292	11.50	295	11.62	45	1.77	172	6.8	370	14.6	28.5	62.8	6-308	
ASME 1500	1/2"	15	S1	216	8.50	216	8.50	12	0.47	97	3.8	240	9.4	8.5	18.7	15F 303	
	3/4"	20	S1	229	9.02	229	9.02	14.5	0.57	138	5.4	280	11.0	12.9	28.4	15F 304	
	1"	25	S1	254	10.00	254	10.00	19	0.75	172	6.8	295	11.6	17	37.5	15F 305	
	1-1/2"	40	S1	305	12.01	305	12.01	31	1.22	172	6.8	370	14.6	30	66.1	15F 307	
	2"	50	S1	368	14.49	371.5	14.61	38	1.50	234	9.2	465	18.3	58	127.9	15F 308	
ASME 2500	1/2"	15	S2	264	10.39	264	10.39	11	0.43	138	5.4	310	12.2	16.5	36.4	25RF 303	
	3/4"	20	S2	273	10.75	273	10.75	14.5	0.57	138	5.4	315	12.4	18.5	40.8	25RF 304	
	1"	25	S2	308	12.13	308	12.13	19	0.75	172	6.8	350	13.8	30	66.1	25RF 305	
	1-1/2"	40	S2	384	15.12	387	15.24	28	1.10	234	9.2	450	17.7	61.5	135.6	25RF 307	
	2"	50	S2	451	17.76	454	17.88	38	1.50	320	12.6	460	18.1	67	147.7	25RF 308	

PRODUCT FEATURES:

- Flanged ends acc.to ASME B16.5. • Face to Face acc.to ASME B16.10.

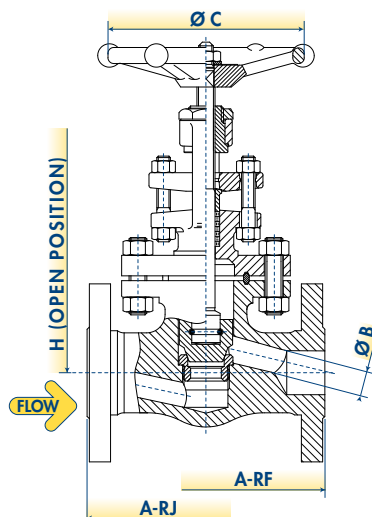
DESIGN TYPE S1

SPIRAL WOUND GASKET BODY-BONNET CONNECTION



DESIGN TYPE S2

RING JOINT BODY-BONNET CONNECTION



"T"-PATTERN GLOBE VALVES

BOLTED BONNET GLOBE VALVES CRYOGENIC CONFIGURATION THREADED AND SOCKET WELD ENDS



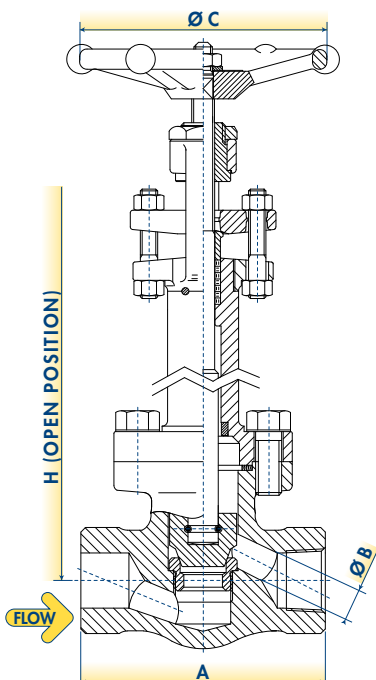
WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 800	1/2"	15	S1	80	3.15	9	0.35	88	3.5	420	16.5	3.3	7.3	CL 303	STANDARD BORE
	3/4"	20	S1	90	3.54	13	0.51	88	3.5	425	16.7	3.8	8.4	CL 304	
	1"	25	S1	110	4.33	17	0.66	97	3.8	467	18.4	5.2	11.5	CL 305	
	1-1/2"	40	S1	150	5.91	29	1.14	138	5.4	512	20.2	9.8	21.6	CL 307	
	2"	50	S1	180	7.09	35	1.38	172	6.8	554	21.8	14.8	32.6	CL 308	
ASME 1500	1/2"	15	S1	90	3.54	9	0.35	88	3.5	420	16.5	3.7	8.2	9CL 303	
	3/4"	20	S1	110	4.33	12	0.47	97	3.8	464	18.3	5.4	11.9	9CL 304	
	1"	25	S1	127	5.00	15	0.59	138	5.4	504	19.8	8.9	19.6	9CL 305	
	1-1/2"	40	S1	180	7.09	27	1.06	172	6.8	554	21.8	15.8	34.8	9CL 307	
	2"	50	S1	210	8.27	32	1.26	172	6.8	629	24.8	27.5	60.6	9CL 308	
ASME 800	1/4"	6	S1	80	3.15	7	0.28	88	3.5	420	16.5	3.5	7.7	C 301	FULL BORE
	3/8"	10	S1	80	3.15	9	0.35	88	3.5	420	16.5	3.5	7.7	C 302	
	1/2"	15	S1	90	3.54	13	0.51	88	3.5	425	16.7	3.6	7.9	C 303	
	3/4"	20	S1	110	4.33	17	0.66	97	3.8	467	18.4	5.1	11.2	C 304	
	1"	25	S1	127	5.00	22	0.86	138	5.4	501	19.7	8.4	18.5	C 305	
	1-1/4"	32	S1	150	5.91	29	1.14	138	5.4	512	20.2	12.6	27.8	C 306	
	1-1/2"	40	S1	180	7.09	35	1.38	172	6.8	554	21.8	16.5	36.4	C 307	
	2"	50	S1	210	8.27	45	1.77	172	6.8	629	24.8	24	52.9	C 308	
ASME 1500	1/4"	6	S1	90	3.54	7	0.28	88	3.5	420	16.5	4	8.8	9C 301	
	3/8"	10	S1	90	3.54	9	0.35	88	3.5	420	16.5	4	8.8	9C 302	
	1/2"	15	S1	110	4.33	12	0.47	97	3.8	464	18.3	5.5	12.1	9C 303	
	3/4"	20	S1	127	5.00	15	0.59	138	5.4	501	19.7	8	17.6	9C 304	
	1"	25	S1	150	5.91	20	0.79	138	5.4	510	20.1	11	24.3	9C 305	
	1-1/4"	32	S1	180	7.09	27	1.06	172	6.8	554	21.8	15.5	34.2	9C 306	
	1-1/2"	40	S1	210	8.27	32	1.26	172	6.8	629	24.8	25	55.1	9C 307	
	2"	50	S1	210	8.27	38	1.50	234	9.2	682	26.9	41	90.4	9C 308	
ASME 2500	1/2"	15	S2	150	5.91	11	0.43	138	5.4	558	22.0	12.5	27.6	25CHR 303	
	3/4"	20	S2	150	5.91	14.5	0.57	138	5.4	558	22.0	12.5	27.6	25CHR 304	
	1"	25	S2	210	8.27	19	0.75	138	5.4	616	24.3	26	57.3	25CHR 305	
	1-1/2"	40	S2	230	9.06	28	1.10	234	9.2	690	27.2	44	97.0	25CHR 307	
	2"	50	S2	230	9.06	38	1.50	234	9.2	690	27.2	44	97.0	25CHR 308	

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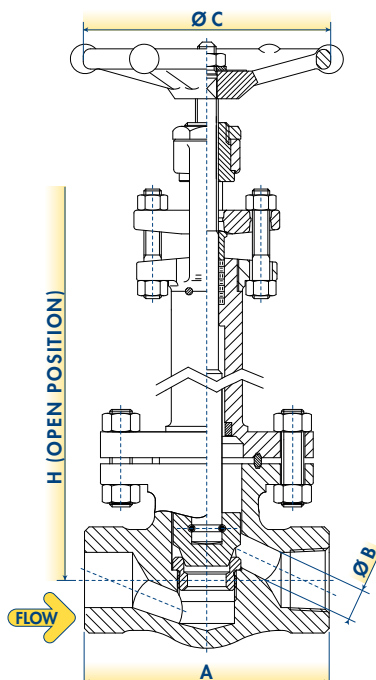
PRODUCT FEATURES:

- Socket Weld acc.to ASME B16.11. • Screwed ends (NPT) acc.to ASME B1.20.1. • Butt welding ends acc.to ASME B16.25. • End to End acc.to manufacturer standard. • Cryogenic design acc.to BS 6364.

DESIGN TYPE S1 SPIRAL WOUND GASKET BODY-BONNET CONNECTION

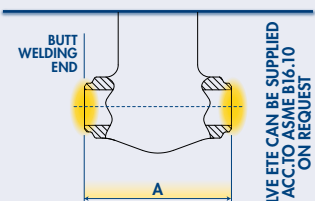


DESIGN TYPE S2 RING JOINT BODY-BONNET CONNECTION

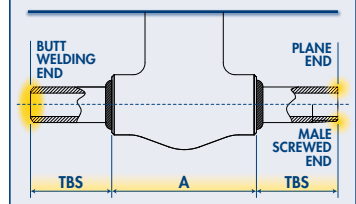


OTHER END CONNECTION TYPES AVAILABLE

INTEGRAL BUTT WELDING END



WELDED NIPPLES



"T"-PATTERN GLOBE VALVES

BOLTED BONNET GLOBE VALVES CRYOGENIC CONFIGURATION ASME INTEGRAL FLANGED ENDS



WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A-RF		A-RJ		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 150	1/2"	15	S1	108	4.25	N.A.	N.A.	10	0.39	88	3.5	450	17.7	4.6	10.1	1CL303	STANDARD BORE
	3/4"	20	S1	117.5	4.63	N.A.	N.A.	14	0.55	88	3.5	450	17.7	5.2	11.5	1CL304	
	1"	25	S1	127	5.00	140	5.50	17	0.66	97	3.8	480	18.9	6.7	14.8	1CL305	
	1-1/2"	40	S1	165	6.50	178	7.00	29	1.14	138	5.4	527	20.7	12.5	27.6	1CL307	
	2"	50	S1	203	7.99	216	8.49	35	1.38	172	6.8	554	21.8	19	41.9	1CL308	
ASME 300	1/2"	15	S1	152.5	6.00	163.5	6.44	9	0.35	88	3.5	450	17.7	5.6	12.3	3CL303	
	3/4"	20	S1	178	7.01	190.5	7.51	13	0.51	88	3.5	456	18.0	6.7	14.8	3CL304	
	1"	25	S1	203	7.99	216	8.49	17	0.66	97	3.8	480	18.9	9.8	21.6	3CL305	
	1-1/2"	40	S1	229	9.02	241	9.52	29	1.14	138	5.4	524	20.6	17.5	38.6	3CL307	
	2"	50	S1	267	10.51	282.5	11.13	35	1.38	172	6.8	575	22.6	24.5	54.0	3CL308	
ASME 600	1/2"	15	S1	165	6.50	163.5	6.44	9	0.35	88	3.5	431	17.0	5.9	13.0	6CL303	
	3/4"	20	S1	191	7.52	190.5	7.52	13	0.51	88	3.5	456	18.0	7.6	16.8	6CL304	
	1"	25	S1	216	8.50	216	8.50	17	0.66	97	3.8	488	19.2	10.2	22.5	6CL305	
	1-1/2"	40	S1	241	9.49	241	9.49	29	1.14	138	5.4	524	20.6	19	41.9	6CL307	
	2"	50	S1	292	11.50	295	11.62	35	1.38	172	6.8	575	22.6	26	57.3	6CL308	
ASME 1500	1/2"	15	S1	216	8.50	216	8.50	9	0.35	88	3.5	444	17.5	8.3	18.3	15CFL303	
	3/4"	20	S1	229	9.02	229	9.02	14	0.55	97	3.8	484	19.1	12.5	27.6	15CFL304	
	1"	25	S1	254	10.00	254	10.00	14	0.55	138	5.4	524	20.6	17	37.5	15CFL305	
	1-1/2"	40	S1	305	12.01	305	12.01	26	1.02	172	6.8	569	22.4	36.2	79.8	15CFL307	
	2"	50	S1	368	14.49	371.5	14.61	34	1.34	172	6.8	609	24.0	56	123.5	15CFL308	
ASME 150	1/2"	15	S1	108	4.25	N.A.	N.A.	13	0.51	88	3.5	450	17.7	4.8	10.6	1C303	FULL BORE
	3/4"	20	S1	117.5	4.63	N.A.	N.A.	17.5	0.69	97	3.8	484	19.1	7	15.4	1C304	
	1"	25	S1	127	5.00	140	5.50	22.5	0.89	138	5.4	522	20.6	9.5	20.9	1C305	
	1-1/2"	40	S1	165	6.50	178	7.00	35	1.38	172	6.8	569	22.4	18	39.7	1C307	
	2"	50	S1	203	7.99	216	8.49	45	1.77	172	6.8	589	23.2	27	59.5	1C308	
ASME 300	1/2"	15	S1	152.5	6.00	163.5	6.44	13	0.51	88	3.5	450	17.7	6.2	13.7	3C303	
	3/4"	20	S1	178	7.01	190.5	7.51	17.5	0.69	97	3.8	484	19.1	7.9	17.4	3C304	
	1"	25	S1	203	7.99	216	8.49	22.5	0.89	138	5.4	522	20.6	12	26.5	3C305	
	1-1/2"	40	S1	229	9.02	241	9.52	35	1.38	172	6.8	569	22.4	21	46.3	3C307	
	2"	50	S1	267	10.51	282.5	11.13	45	1.77	172	6.8	589	23.2	31	68.3	3C308	
ASME 600	1/2"	15	S1	165	6.50	163.5	6.44	13	0.51	88	3.5	450	17.7	6.5	14.3	6C303	
	3/4"	20	S1	191	7.52	190.5	7.52	17.5	0.69	97	3.8	484	19.1	8.7	19.2	6C304	
	1"	25	S1	216	8.50	216	8.50	22.5	0.89	138	5.4	522	20.6	12.6	27.8	6C305	
	1-1/2"	40	S1	241	9.49	241	9.49	35	1.38	172	6.8	569	22.4	22	48.5	6C307	
	2"	50	S1	292	11.50	295	11.62	45	1.77	172	6.8	624	24.6	34	75.0	6C308	
ASME 1500	1/2"	15	S1	216	8.50	216	8.50	12	0.47	97	3.8	494	19.4	12	26.5	15CF303	
	3/4"	20	S1	229	9.02	229	9.02	14.5	0.57	138	5.4	534	21.0	14.5	32.0	15CF304	
	1"	25	S1	254	10.00	254	10.00	19	0.75	172	6.8	549	21.6	19	41.9	15CF305	
	1-1/2"	40	S1	305	12.01	305	12.01	31	1.22	172	6.8	624	24.6	31	68.3	15CF307	
	2"	50	S1	368	14.49	371.5	14.61	38	1.50	234	9.2	719	28.3	60	132.3	15CF308	
ASME 2500	1/2"	15	S2	264	10.39	264	10.39	11	0.43	138	5.4	564	22.2	18	39.7	25CRF303	
	3/4"	20	S2	273	10.75	273	10.75	14.5	0.57	138	5.4	569	22.4	21.3	47.0	25CRF304	
	1"	25	S2	308	12.13	308	12.13	19	0.75	172	6.8	604	23.8	33	72.8	25CRF305	
	1-1/2"	40	S2	384	15.12	387	15.24	28	1.10	234	9.2	704	27.7	64.5	142.2	25CRF307	
	2"	50	S2	451	17.76	454	17.88	38	1.50	320	12.6	714	28.1	71	156.5	25CRF308	

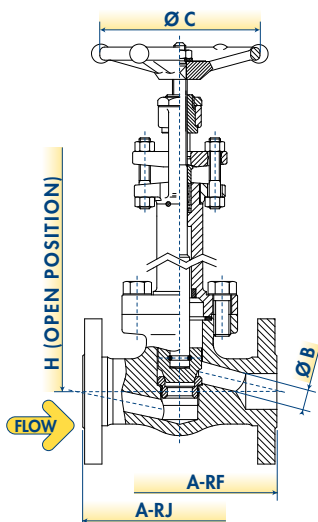
BFF reserves the right to change designs, dimensions or specifications without notice.

PRODUCT FEATURES:

- Flanged ends acc.to ASME B16.5. • Face to Face acc.to ASME B16.10. • Cryogenic design acc.to BS 6364.

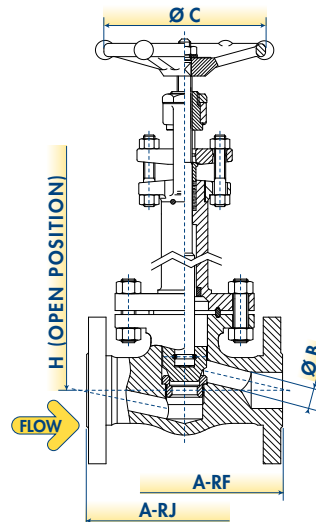
DESIGN TYPE S1

SPIRAL WOUND GASKET BODY-BONNET CONNECTION



DESIGN TYPE S2

RING JOINT BODY-BONNET CONNECTION



"T"-PATTERN GLOBE VALVES

BOLTED BONNET GLOBE VALVES BELLOW SEAL CONFIGURATION THREADED AND SOCKET WELD ENDS



WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 800	1/2"	15	P4	80	3.15	9	0.35	88	3.5	190	7.5	2.5	5.5	SL 303	STANDARD BORE
	3/4"	20	P4	90	3.54	13	0.51	88	3.5	195	7.7	2.7	6.0	SL 304	
	1"	25	P4	110	4.33	17	0.66	97	3.8	225	8.9	4.3	9.5	SL 305	
	1-1/2"	40	P4	150	5.91	29	1.14	138	5.4	315	12.4	8.8	19.4	SL 307	
	2"	50	P4	180	7.09	35	1.38	172	6.8	356	14.0	13.5	29.8	SL 308	
ASME 1500	1/2"	15	P4	90	3.54	9	0.35	138	5.4	229	9.0	3.5	7.7	9SL 303	
	3/4"	20	P4	110	4.33	12	0.47	138	5.4	243	9.6	4.5	9.9	9SL 304	
	1"	25	P4	127	5.00	15	0.59	172	6.8	286	11.3	7	15.4	9SL 305	
	1-1/2"	40	P4	180	7.09	27	1.06	234	9.2	360	14.2	9	19.8	9SL 307	
	2"	50	P4	210	8.27	32	1.26	320	12.6	445	17.5	23	50.7	9SL 308	
ASME 800	1/4"	6	P4	80	3.15	7	0.28	88	3.5	190	7.5	2.5	5.5	S 301	FULL BORE
	3/8"	10	P4	80	3.15	9	0.35	88	3.5	190	7.5	2.5	5.5	S 302	
	1/2"	15	P4	90	3.54	13	0.51	88	3.5	195	7.7	3.5	7.7	S 303	
	3/4"	20	P4	110	4.33	17	0.66	97	3.8	225	8.9	5.2	11.5	S 304	
	1"	25	P4	127	5.00	22	0.86	138	5.4	271	10.7	8.7	19.2	S 305	
	1-1/4"	32	P4	150	5.91	29	1.14	138	5.4	315	12.4	10	22.0	S 306	
	1-1/2"	40	P4	180	7.09	35	1.38	172	6.8	356	14.0	18.5	40.8	S 307	
	2"	50	P4	210	8.27	45	1.77	172	6.8	429	16.9	30.5	67.2	S 308	
ASME 1500	1/4"	6	P4	90	3.54	7	0.28	88	3.5	230	9.1	3.5	5.7	9S 301	
	3/8"	10	P4	90	3.54	9	0.35	88	3.5	230	9.1	3.5	5.7	9S 302	
	1/2"	15	P4	110	4.33	12	0.47	138	5.4	243	9.6	4.5	9.9	9S 303	
	3/4"	20	P4	127	5.00	15	0.59	172	6.8	286	11.3	7	15.4	9S 304	
	1"	25	P4	150	5.91	20	0.79	234	9.2	311	12.2	9	19.8	9S 305	
	1-1/4"	32	P4	180	7.09	27	1.06	234	6.8	400	15.7	13.5	27.6	9S 306	
	1-1/2"	40	P4	210	8.27	32	1.26	320	12.6	445	17.5	23	50.7	9S 307	
	2"	50	P4	230	8.27	38	1.50	320	12.6	510	20.1	38	83.8	9S 308	
ASME 2500	1/2"	15	P5	150	5.91	11	0.43	172	6.8	370	14.6	12	26.5	25SR 303	
	3/4"	20	P5	150	5.91	14.5	0.57	234	9.2	400	15.7	12	26.5	25SR 304	
	1"	25	P5	210	8.27	19	0.75	320	12.6	440	17.3	27	59.5	25SR 305	
	1-1/2"	40	P5	230	9.06	28	1.10	320	12.6	490	19.3	42	92.6	25SR 307	
	2"	50	P6	230	9.06	38	1.50	400	15.7	560	22.0	44	97.0	25SR 308	

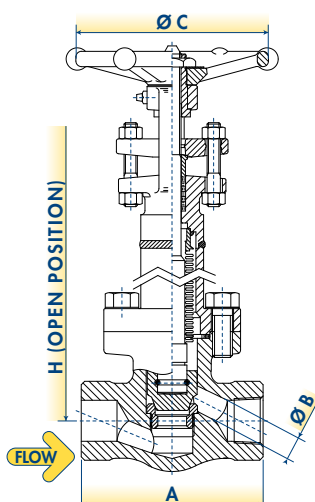
BFE reserves the right to change designs, dimensions or specifications without notice.

PRODUCT FEATURES:

- Socket Weld acc. to ASME B16.11. • Screwed ends (NPT) acc. to ASME B1.20.1. • Butt welding ends acc. to ASME B16.25. • End to End acc. to manufacturer standard. • Zero emission. • Hydroformed Bellows
- Extension-Bonnet weld acc. to ASME IX. • Grease nipple for yoke sleeve. • Emergency stuffing box as back sealing.

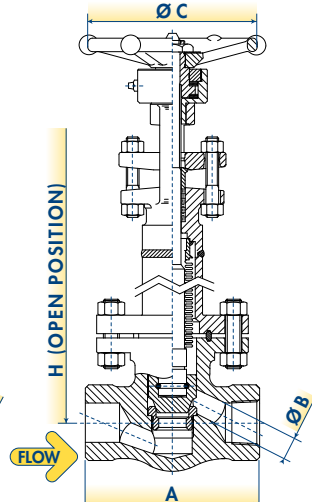
DESIGN TYPE P4

**HANDWHEEL OPERATED
& SPIRAL WOUND
GASKET BODY-BONNET
CONNECTION**



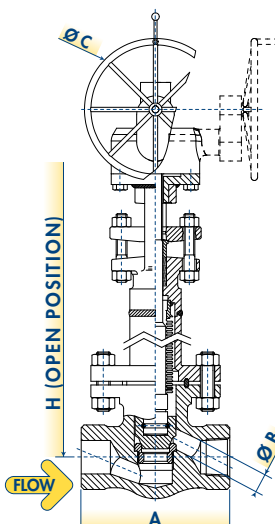
DESIGN TYPE P5

**HANDWHEEL OPERATED
WITH THRUST BEARINGS
& RING JOINT GASKET
BODY-BONNET CONNECTION**



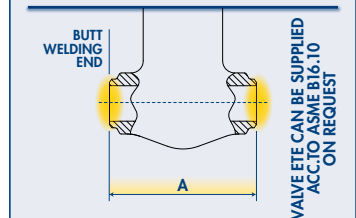
DESIGN TYPE P6

**GEAR OPERATED
& RING JOINT GASKET
BODY-BONNET
CONNECTION**

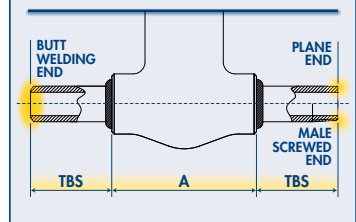


OTHER END CONNECTION TYPES AVAILABLE

INTEGRAL BUTT WELDING END



WELDED NIPPLES



"T"-PATTERN GLOBE VALVES

BOLTED BONNET GLOBE VALVES BELLOW SEAL CONFIGURATION ASME INTEGRAL FLANGED ENDS



WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A-RF		A-RJ		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 150	1/2"	15	P4	108	4.25	N.A.	N.A.	10	0.39	88	3.5	235	9.3	3.8	8.3	1SL 303	STANDARD BORE
	3/4"	20	P4	117.5	4.63	N.A.	N.A.	14	0.55	88	3.5	235	9.3	4.8	10.5	1SL 304	
	1"	25	P4	127	5.00	140	5.50	17	0.66	97	3.8	271	10.7	6.9	15.2	1SL 305	
	1-1/2"	40	P4	165	6.50	178	7.00	29	1.14	138	5.4	327	12.9	12.9	28.4	1SL 307	
	2"	50	P4	203	7.99	216	8.49	35	1.38	138	5.4	360	14.2	19.8	43.5	1SL 308	
ASME 300	1/2"	15	P4	152.5	6.00	163.5	6.44	9	0.35	88	3.5	235	9.3	5.1	11.3	3SL 303	
	3/4"	20	P4	178	7.01	190.5	7.51	13	0.51	88	3.5	242	9.5	7.5	16.5	3SL 304	
	1"	25	P4	203	7.99	216	8.49	17	0.66	97	3.8	271	10.7	10.4	22.9	3SL 305	
	1-1/2"	40	P4	229	9.02	241	9.52	29	1.14	138	5.4	324	12.8	19.4	42.7	3SL 307	
	2"	50	P4	267	10.51	282.5	11.13	35	1.38	138	5.4	385	15.2	26.9	59.2	3SL 308	
ASME 600	1/2"	15	P4	165	6.50	163.5	6.44	9	0.35	88	3.5	212	8.4	5.5	12.1	6SL 303	
	3/4"	20	P4	191	7.52	190.5	7.52	13	0.51	88	3.5	242	9.5	7.8	17.1	6SL 304	
	1"	25	P4	216	8.50	216	8.50	17	0.66	97	3.8	280	11.1	10.9	24.0	6SL 305	
	1-1/2"	40	P4	241	9.49	241	9.49	29	1.14	138	5.4	324	12.8	20.6	45.5	6SL 307	
	2"	50	P4	292	11.50	295	11.62	35	1.38	138	5.4	385	15.2	29.5	65.0	6SL 308	
ASME 1500	1/2"	15	P4	216	8.50	216	8.50	9	0.35	88	3.5	228	9.0	9.5	20.9	15SFL 303	FULL BORE
	3/4"	20	P4	229	9.02	229	9.02	14	0.55	97	3.8	276	10.9	14.5	32.0	15SFL 304	
	1"	25	P4	254	10.00	254	10.00	14	0.55	172	6.8	324	12.8	19.1	42.2	15SFL 305	
	1-1/2"	40	P4	305	12.01	305	12.01	26	1.02	234	9.2	378	14.9	42.8	94.2	15SFL 307	
	2"	50	P4	368	14.49	371.5	14.61	34	1.34	234	9.2	426	16.8	65.3	143.9	15SFL 308	
ASME 150	1/2"	15	P4	108	4.25	N.A.	N.A.	13	0.51	88	3.5	235	9.3	4.8	10.5	1S 303	
	3/4"	20	P4	117.5	4.63	N.A.	N.A.	17.5	0.69	97	3.8	276	10.9	8.0	17.6	1S 304	
	1"	25	P4	127	5.00	140	5.50	22.5	0.89	138	5.4	321	12.7	10.9	24.0	1S 305	
	1-1/2"	40	P4	165	6.50	178	7.00	35	1.38	138	5.4	378	14.9	20.6	45.5	1S 307	
	2"	50	P4	203	7.99	216	8.49	45	1.77	172	6.8	402	15.8	31.3	68.9	1S 308	
ASME 300	1/2"	15	P4	152.5	6.00	163.5	6.44	13	0.51	88	3.5	235	9.3	5.1	11.3	3S 303	
	3/4"	20	P4	178	7.01	190.5	7.51	17.5	0.69	97	3.8	276	10.9	8.8	19.3	3S 304	
	1"	25	P4	203	7.99	216	8.49	22.5	0.89	138	5.4	321	12.7	12.1	26.7	3S 305	
	1-1/2"	40	P4	229	9.02	241	9.52	35	1.38	138	5.4	378	14.9	23.1	51.0	3S 307	
	2"	50	P4	267	10.51	282.5	11.13	45	1.77	172	6.8	402	15.8	35.0	77.2	3S 308	
ASME 600	1/2"	15	P4	165	6.50	163.5	6.44	13	0.51	88	3.5	235	9.3	7.4	16.3	6S 303	
	3/4"	20	P4	191	7.52	190.5	7.52	17.5	0.69	97	3.8	276	10.9	10.0	22.0	6S 304	
	1"	25	P4	216	8.50	216	8.50	22.5	0.89	138	5.4	321	12.7	13.1	28.9	6S 305	
	1-1/2"	40	P4	241	9.49	241	9.49	35	1.38	138	5.4	378	14.9	24.4	53.7	6S 307	
	2"	50	P4	292	11.50	295	11.62	45	1.77	172	6.8	444	17.5	35.6	78.5	6S 308	
ASME 1500	1/2"	15	P4	216	8.50	216	8.50	12	0.47	138	5.4	288	11.3	10.6	23.4	15SF 303	
	3/4"	20	P4	229	9.02	229	9.02	14.5	0.57	138	5.4	336	13.2	16.1	35.5	15SF 304	
	1"	25	P4	254	10.00	254	10.00	19	0.75	138	5.4	354	13.9	21.3	46.8	15SF 305	
	1-1/2"	40	P4	305	12.01	305	12.01	31	1.22	172	6.8	444	17.5	37.5	82.7	15SF 307	
	2"	50	P4	368	14.49	371.5	14.61	38	1.50	234	9.2	558	22.0	72.5	159.8	15SF 308	
ASME 2500	1/2"	15	P5	264	10.39	264	10.39	11	0.43	138	5.4	372	14.6	20.6	45.5	25SRF 303	
	3/4"	20	P5	273	10.75	273	10.75	14.5	0.57	138	5.4	378	14.9	23.1	51.0	25SRF 304	
	1"	25	P5	308	12.13	308	12.13	19	0.75	172	6.8	420	16.5	37.5	82.7	25SRF 305	
	1-1/2"	40	P5	384	15.12	387	15.24	28	1.10	234	9.2	540	21.3	76.9	169.5	25SRF 307	
	2"	50	P6	451	17.76	454	17.88	38	1.50	400	15.7	552	21.7	83.8	184.6	25SRF 308	

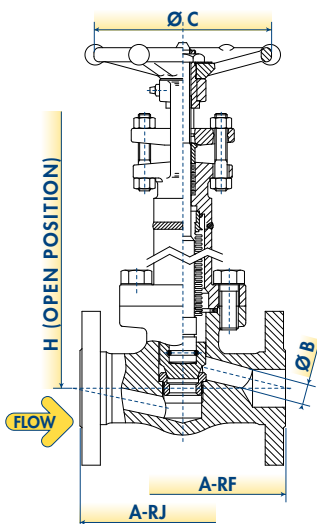
BFE reserves the right to change designs, dimensions or specifications without notice.

PRODUCT FEATURES:

- Flanged ends acc.to ASME B16.5. • Face to Face acc.to ASME B16.10. • Zero emission. • Hydroformed Bellows • Extension-Bonnet weld acc.to ASME IX. • Grease nipple for yoke sleeve. • Emergency stuffing box as back sealing.

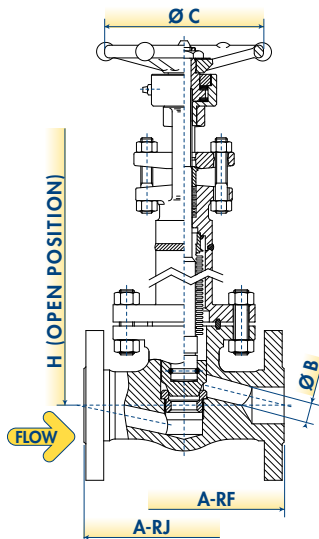
DESIGN TYPE P4

**HANDWHEEL OPERATED
& SPIRAL WOUND
GASKET BODY-BONNET
CONNECTION**



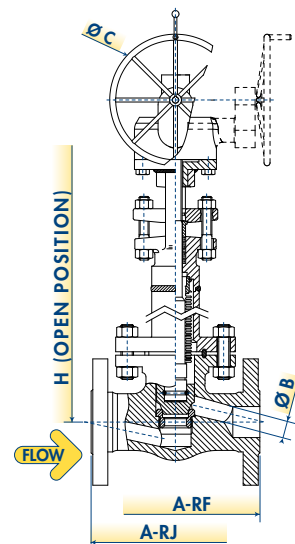
DESIGN TYPE P5

**HANDWHEEL OPERATED
WITH THRUST BEARINGS &
RING JOINT GASKET
BODY-BONNET CONNECTION**



DESIGN TYPE P6

**GEAR OPERATED & RING
JOINT GASKET
BODY-BONNET
CONNECTION**



"T"-PATTERN GLOBE VALVES

WELDED BONNET GLOBE VALVES BASIC CONFIGURATION THREADED AND SOCKET WELD ENDS



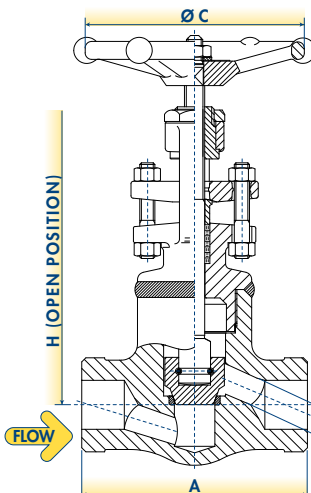
WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 800	1/2"	15	W1	80	3.15	9	0.35	88	3.5	166	6.5	1.7	3.7	WL 303	STANDARD BORE
	3/4"	20	W1	90	3.54	13	0.51	88	3.5	171	6.7	2	4.4	WL 304	
	1"	25	W1	110	4.33	17	0.66	97	3.8	213	8.4	3	6.6	WL 305	
	1-1/2"	40	W1	150	5.91	29	1.14	138	5.4	258	10.2	6.6	14.6	WL 307	
	2"	50	W1	180	7.09	35	1.38	172	6.8	300	11.8	10.4	22.9	WL 308	
ASME 1500	1/2"	15	W1	90	3.54	9	0.35	88	3.5	166	6.5	2	4.4	9WL 303	STANDARD BORE
	3/4"	20	W1	110	4.33	12	0.47	97	3.8	210	8.3	3.5	7.7	9WL 304	
	1"	25	W1	127	5.00	15	0.59	138	5.4	247	9.7	5.5	12.1	9WL 305	
	1-1/2"	40	W1	180	7.09	27	1.06	172	6.8	300	11.8	12	26.5	9WL 307	
	2"	50	W1	210	8.27	32	1.26	172	6.8	375	14.8	19	41.9	9WL 308	
ASME 800	1/4"	6	W1	80	3.15	7	0.28	88	3.5	166	6.5	1.7	3.7	W 301	FULL BORE
	3/8"	10	W1	80	3.15	9	0.35	88	3.5	166	6.5	1.8	4.0	W 302	
	1/2"	15	W1	90	3.54	13	0.51	88	3.5	171	6.7	2	4.4	W 303	
	3/4"	20	W1	110	4.33	17	0.66	97	3.8	213	8.4	3	6.6	W 304	
	1"	25	W1	127	5.00	22	0.86	138	5.4	247	9.7	5	11.0	W 305	
	1-1/4"	32	W1	150	5.91	29	1.14	138	5.4	258	10.2	6.8	15.0	W 306	
	1-1/2"	40	W1	180	7.09	35	1.38	172	6.8	300	11.8	11	24.3	W 307	
	2"	50	W1	210	8.27	45	1.77	172	6.8	375	14.8	16.5	36.4	W 308	
ASME 1500	1/4"	6	W1	90	3.54	7	0.28	88	3.5	166	6.5	2.2	4.9	9W 301	FULL BORE
	3/8"	10	W1	90	3.54	9	0.35	88	3.5	166	6.5	2.2	4.9	9W 302	
	1/2"	15	W1	110	4.33	12	0.47	97	3.8	210	8.3	3.5	7.7	9W 303	
	3/4"	20	W1	127	5.00	15	0.59	138	5.4	247	9.7	5.5	12.1	9W 304	
	1"	25	W1	150	5.91	20	0.79	138	5.4	256	10.1	7.6	16.8	9W 305	
	1-1/4"	32	W1	180	7.09	27	1.06	172	6.8	300	11.8	10	22.0	9W 306	
	1-1/2"	40	W1	210	8.27	32	1.26	172	6.8	375	14.8	20	44.1	9W 307	
	2"	50	W1	210	8.27	43	1.69	234	9.2	428	16.9	30	66.1	9W 308	
ASME 2500	1/4"	6	W2	90	3.54	7	0.28	88	3.5	190	7.5	4.5	9.9	25W 301	FULL BORE
	3/8"	10	W2	90	3.54	9	0.35	88	3.5	190	7.5	4.7	10.4	25W 302	
	1/2"	15	W2	110	4.33	11	0.43	138	5.4	226	8.9	5.5	12.1	25W 303	
	3/4"	20	W2	127	5.00	14.5	0.57	138	5.4	247	9.7	8	17.6	25W 304	
	1"	25	W2	180	7.09	19	0.75	138	5.4	288	11.3	13	28.7	25W 305	
	1-1/4"	32	W2	180	7.09	26	1.02	138	5.4	288	11.3	13	28.7	25W 306	
	1-1/2"	40	W2	210	8.27	29	1.14	172	6.8	360	14.2	19.8	43.7	25W 307	
	2"	50	W2	230	9.06	38	1.50	234	9.2	420	16.5	30	66.1	25W 308	
ASME 4500	1/4"	6	W2	127	5.00	7	0.28	138	5.4	230	9.1	6.5	14.3	45W 301	FULL BORE
	3/8"	10	W2	127	5.00	7	0.28	138	5.4	230	9.1	6.5	14.3	45W 302	
	1/2"	15	W2	127	5.00	8	0.31	138	5.4	235	9.3	6.5	14.3	45W 303	
	3/4"	20	W2	180	7.09	11	0.43	172	6.8	300	11.8	15	33.1	45W 304	
	1"	25	W2	180	7.09	14	0.55	172	6.8	300	11.8	15	33.1	45W 305	
	1-1/2"	40	W2	230	9.06	25	0.98	234	9.2	370	14.6	25	55.1	45W 307	
	2"	50	W4	230	9.06	32	1.26	400	15.7	400	15.7	30	66.1	45W 308	

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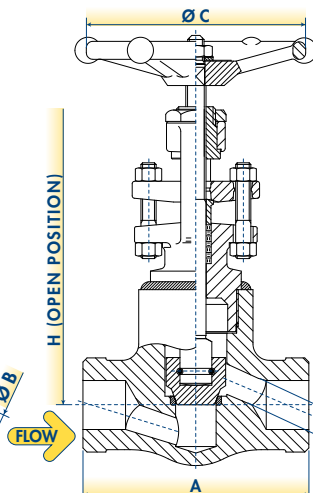
PRODUCT FEATURES:

- Socket Weld acc.to ASME B16.11.
- Screwed ends (NPT) acc.to ASME B1.20.1.
- Butt welding ends acc.to ASME B16.25.
- End to End acc.to manufacturer standard.
- Body-Bonnet weld acc.to ASME IX.

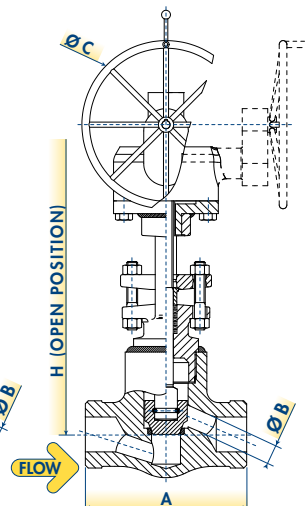
DESIGN TYPE W1 HANDWHEEL OPERATED AND V-GROOVE SEAL WELD BODY-BONNET CONNECTION



DESIGN TYPE W2 HANDWHEEL OPERATED AND TEE JOINT FILLED WELD BODY-BONNET CONNECTION

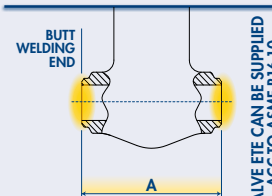


DESIGN TYPE W4 GEAR OPERATED AND TEE JOINT FILLED WELD BODY-BONNET CONNECTION

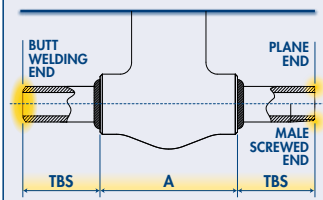


OTHER END CONNECTION TYPES AVAILABLE

INTEGRAL BUTT WELDING END



WELDED NIPPLES



"T"-PATTERN GLOBE VALVES

WELDED BONNET GLOBE VALVES BASIC CONFIGURATION ASME INTEGRAL FLANGED ENDS



WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A-RF		A-RJ		B		C		H		WEIGHT		FIGURE
	NPS	DN		mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb	
ASME 150	1/2"	15	W3	108	4.25	N.A.	N.A.	10	0.39	88	3.5	196	7.7	2.5	5.5	1HWL 303
	3/4"	20	W3	117.5	4.63	N.A.	N.A.	14	0.55	88	3.5	196	7.7	3.2	7.0	1HWL 304
	1"	25	W3	127	5.00	140	5.50	17	0.66	97	3.8	226	8.9	4.6	10.1	1HWL 305
	1-1/2"	40	W3	165	6.50	178	7.00	29	1.14	138	5.4	273	10.7	8.6	18.9	1HWL 307
	2"	50	W3	203	7.99	216	8.49	35	1.38	172	6.8	300	11.8	13.2	29.0	1HWL 308
ASME 300	1/2"	15	W3	152.5	6.00	163.5	6.44	9	0.35	88	3.5	196	7.7	3.4	7.5	3HWL 303
	3/4"	20	W3	178	7.01	190.5	7.51	13	0.51	88	3.5	202	8.0	5.0	11.0	3HWL 304
	1"	25	W3	203	7.99	216	8.49	17	0.66	97	3.8	226	8.9	6.9	15.2	3HWL 305
	1-1/2"	40	W3	229	9.02	241	9.52	29	1.14	138	5.4	270	10.6	12.9	28.5	3HWL 307
	2"	50	W3	267	10.51	282.5	11.13	35	1.38	172	6.8	321	12.6	17.9	39.5	3HWL 308
ASME 600	1/2"	15	W3	165	6.50	163.5	6.44	9	0.35	88	3.5	177	7.0	3.7	8.1	6HWL 303
	3/4"	20	W3	191	7.52	190.5	7.52	13	0.51	88	3.5	202	8.0	5.2	11.4	6HWL 304
	1"	25	W3	216	8.50	216	8.50	17	0.66	97	3.8	234	9.2	7.3	16.0	6HWL 305
	1-1/2"	40	W3	241	9.49	241	9.49	29	1.14	138	5.4	270	10.6	13.8	30.3	6HWL 307
	2"	50	W3	292	11.50	295	11.62	35	1.38	172	6.8	321	12.6	19.7	43.4	6HWL 308
ASME 1500	1/2"	15	W3	216	8.50	216	8.50	9	0.35	88	3.5	190	7.5	6.3	14.0	15HWLF 303
	3/4"	20	W3	229	9.02	229	9.02	14	0.55	97	3.8	230	9.1	9.7	21.3	15HWLF 304
	1"	25	W3	254	10.00	254	10.00	14	0.55	138	5.4	270	10.6	12.8	28.1	15HWLF 305
	1-1/2"	40	W3	305	12.01	305	12.01	26	1.02	172	6.8	315	12.4	28.5	62.8	15HWLF 307
	2"	50	W3	368	14.49	371.5	14.61	34	1.34	172	6.8	355	14.0	43.5	95.9	15HWLF 308
ASME 150	1/2"	15	W3	108	4.25	N.A.	N.A.	13	0.51	88	3.5	196	7.7	3.2	7.0	1HW 303
	3/4"	20	W3	117.5	4.63	N.A.	N.A.	17.5	0.69	97	3.8	230	9.1	5.3	11.8	1HW 304
	1"	25	W3	127	5.00	140	5.50	22.5	0.89	138	5.4	268	10.6	7.3	16.0	1HW 305
	1-1/2"	40	W3	165	6.50	178	7.00	35	1.38	172	6.8	315	12.4	13.8	30.3	1HW 307
	2"	50	W3	203	7.99	216	8.49	45	1.77	172	6.8	335	13.2	20.8	45.9	1HW 308
ASME 300	1/2"	15	W3	152.5	6.00	163.5	6.44	13	0.51	88	3.5	196	7.7	3.4	7.5	3HW 303
	3/4"	20	W3	178	7.01	190.5	7.51	17.5	0.69	97	3.8	230	9.1	5.8	12.9	3HW 304
	1"	25	W3	203	7.99	216	8.49	22.5	0.89	138	5.4	268	10.6	8.1	17.8	3HW 305
	1-1/2"	40	W3	229	9.02	241	9.52	35	1.38	172	6.8	315	12.4	15.4	34.0	3HW 307
	2"	50	W3	267	10.51	282.5	11.13	45	1.77	172	6.8	335	13.2	23.3	51.4	3HW 308
ASME 600	1/2"	15	W3	165	6.50	163.5	6.44	13	0.51	88	3.5	196	7.7	4.9	10.8	6HW 303
	3/4"	20	W3	191	7.52	190.5	7.52	17.5	0.69	97	3.8	230	9.1	6.7	14.7	6HW 304
	1"	25	W3	216	8.50	216	8.50	22.5	0.89	138	5.4	268	10.6	8.8	19.3	6HW 305
	1-1/2"	40	W3	241	9.49	241	9.49	35	1.38	172	6.8	315	12.4	16.3	35.8	6HW 307
	2"	50	W3	292	11.50	295	11.62	45	1.77	172	6.8	370	14.6	23.8	52.4	6HW 308
ASME 1500	1/2"	15	W3	216	8.50	216	8.50	12	0.47	97	3.8	240	9.4	7.1	15.6	15HWF 303
	3/4"	20	W3	229	9.02	229	9.02	14.5	0.57	138	5.4	280	11.0	10.8	23.7	15HWF 304
	1"	25	W3	254	10.00	254	10.00	19	0.75	172	6.8	295	11.6	14.2	31.2	15HWF 305
	1-1/2"	40	W3	305	12.01	305	12.01	31	1.22	172	6.8	370	14.6	25.0	55.1	15HWF 307
	2"	50	W3	368	14.49	371.5	14.61	38	1.50	234	9.2	465	18.3	48.3	106.6	15HWF 308
ASME 2500	1/2"	15	W3	264	10.39	264	10.39	11	0.43	138	5.4	310	12.2	13.8	30.3	25HWF 303
	3/4"	20	W3	273	10.75	273	10.75	14.5	0.57	138	5.4	315	12.4	15.4	34.0	25HWF 304
	1"	25	W3	308	12.13	308	12.13	19	0.75	172	6.8	350	13.8	25.0	55.1	25HWF 305
	1-1/2"	40	W3	384	15.12	387	15.24	28	1.10	234	9.2	450	17.7	51.3	113.0	25HWF 307
	2"	50	W3	451	17.76	454	17.88	38	1.50	320	12.6	460	18.1	55.8	123.1	25HWF 308

STANDARD BORE

FULL BORE

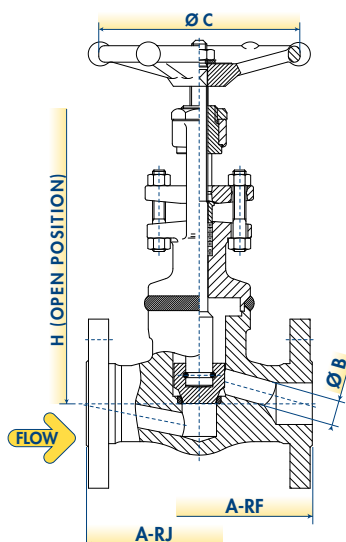
BFF reserves the right to change designs, dimensions or specifications without notice.

PRODUCT FEATURES:

- Flanged ends acc.to ASME B16.5. • Face to Face acc.to ASME B16.10. • Body-Bonnet weld acc.to ASME IX.

DESIGN TYPE W3

FULL PENETRATION WELD BODY-BONNET CONNECTION



"T"-PATTERN GLOBE VALVES

WELDED BONNET GLOBE VALVES CRYOGENIC CONFIGURATION THREADED AND SOCKET WELD ENDS



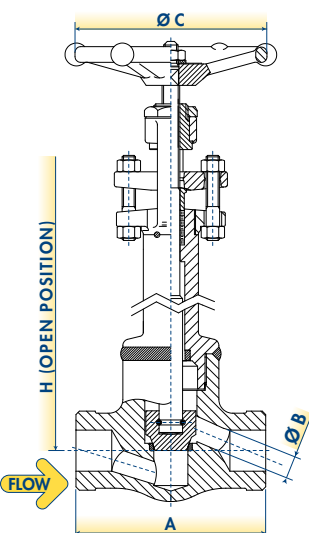
WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 800	1/2"	15	W1	80	3.15	9	0.35	88	3.5	420	16.5	2.6	5.6	CWL 303	STANDARD BORE
	3/4"	20	W1	90	3.54	13	0.51	88	3.5	425	16.7	3.0	6.6	CWL 304	
	1"	25	W1	110	4.33	17	0.66	97	3.8	467	18.4	4.5	9.9	CWL 305	
	1-1/2"	40	W1	150	5.91	29	1.14	138	5.4	512	20.2	9.9	21.8	CWL 307	
	2"	50	W1	180	7.09	35	1.38	172	6.8	554	21.8	15.6	34.4	CWL 308	
ASME 1500	1/2"	15	W1	90	3.54	9	0.35	88	3.5	420	16.5	3.0	6.6	9CWL 303	STANDARD BORE
	3/4"	20	W1	110	4.33	12	0.47	97	3.8	464	18.3	5.3	11.6	9CWL 304	
	1"	25	W1	127	5.00	15	0.59	138	5.4	501	19.7	8.3	18.2	9CWL 305	
	1-1/2"	40	W1	180	7.09	27	1.06	172	6.8	554	21.8	18.0	39.7	9CWL 307	
	2"	50	W1	210	8.27	32	1.26	172	6.8	629	24.8	28.5	62.8	9CWL 308	
ASME 800	1/4"	6	W1	80	3.15	7	0.28	88	3.5	420	16.5	2.6	5.6	CW 301	FULL BORE
	3/8"	10	W1	80	3.15	9	0.35	88	3.5	420	16.5	2.7	6.0	CW 302	
	1/2"	15	W1	90	3.54	13	0.51	88	3.5	425	16.7	3.0	6.6	CW 303	
	3/4"	20	W1	110	4.33	17	0.66	97	3.8	467	18.4	4.5	9.9	CW 304	
	1"	25	W1	127	5.00	22	0.86	138	5.4	501	19.7	7.5	16.5	CW 305	
	1-1/4"	32	W1	150	5.91	29	1.14	138	5.4	512	20.2	10.2	22.5	CW 306	
	1-1/2"	40	W1	180	7.09	35	1.38	172	6.8	554	21.8	16.5	36.4	CW 307	
	2"	50	W1	210	8.27	45	1.77	172	6.8	629	24.8	24.8	54.6	CW 308	
ASME 1500	1/4"	6	W1	90	3.54	7	0.28	88	3.5	420	16.5	3.3	7.3	9CW 301	FULL BORE
	3/8"	10	W1	90	3.54	9	0.35	88	3.5	420	16.5	3.3	7.3	9CW 302	
	1/2"	15	W1	110	4.33	12	0.47	97	3.8	464	18.3	5.3	11.6	9CW 303	
	3/4"	20	W1	127	5.00	15	0.59	138	5.4	501	19.7	8.3	18.2	9CW 304	
	1"	25	W1	150	5.91	20	0.79	138	5.4	510	20.1	11.4	25.1	9CW 305	
	1-1/4"	32	W1	180	7.09	27	1.06	172	6.8	554	21.8	15.0	33.1	9CW 306	
	1-1/2"	40	W1	210	8.27	32	1.26	172	6.8	629	24.8	30.0	66.1	9CW 307	
	2"	50	W1	210	8.27	43	1.69	234	9.2	682	26.9	45.0	99.2	9CW 308	
ASME 2500	1/4"	6	W2	90	3.54	7	0.28	88	3.5	444	17.5	6.8	14.9	25CW 301	FULL BORE
	3/8"	10	W2	90	3.54	9	0.35	88	3.5	444	17.5	7.1	15.5	25CW 302	
	1/2"	15	W2	110	4.33	11	0.43	138	5.4	480	18.9	8.3	18.2	25CW 303	
	3/4"	20	W2	127	5.00	14.5	0.57	138	5.4	501	19.7	12.0	26.5	25CW 304	
	1"	25	W2	180	7.09	19	0.75	138	5.4	542	21.3	19.5	43.0	25CW 305	
	1-1/4"	32	W2	180	7.09	26	1.02	138	5.4	542	21.3	19.5	43.0	25CW 306	
	1-1/2"	40	W2	210	8.27	29	1.14	172	6.8	614	24.2	29.7	65.5	25CW 307	
	2"	50	W2	230	9.06	38	1.50	234	9.2	674	26.5	45.0	99.2	25CW 308	
ASME 4500	1/4"	6	W2	127	5.00	7	0.28	138	5.4	484	19.1	9.8	21.5	45CW 301	FULL BORE
	3/8"	10	W2	127	5.00	7	0.28	138	5.4	484	19.1	9.8	21.5	45CW 302	
	1/2"	15	W2	127	5.00	8	0.31	138	5.4	489	19.3	9.8	21.5	45CW 303	
	3/4"	20	W2	180	7.09	11	0.43	172	6.8	554	21.8	22.5	49.6	45CW 304	
	1"	25	W2	180	7.09	14	0.55	172	6.8	554	21.8	22.5	49.6	45CW 305	
	1-1/2"	40	W2	230	9.06	25	0.98	234	9.2	624	24.6	37.5	82.7	45CW 307	
	2"	50	W4	230	9.06	32	1.26	400	15.7	654	25.7	45.0	99.2	45CW 308	

bE reserves the right to change designs, dimensions or specifications without notice.

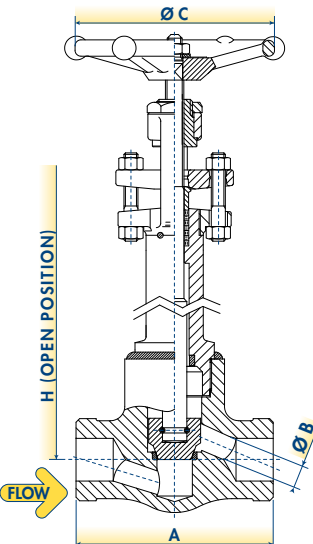
PRODUCT FEATURES:

- Socket Weld acc. to ASME B16.11. • Screwed ends (NPT) acc. to ASME B1.20.1. • Butt welding ends acc. to ASME B16.25. • End to End acc. to manufacturer standard. • Cryogenic design acc. to BS 6364. • Body-Bonnet weld acc. to ASME IX.

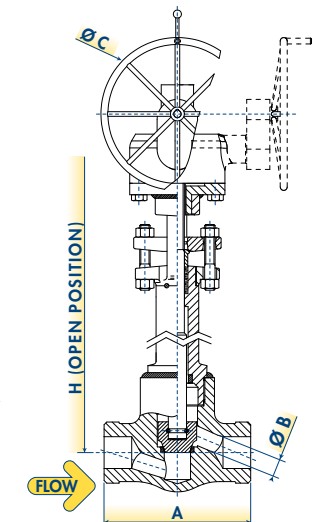
DESIGN TYPE W1 V-GROOVE SEAL WELD BODY-BONNET CONNECTION



DESIGN TYPE W2 TEE JOINT FILLET WELD BODY-BONNET CONNECTION

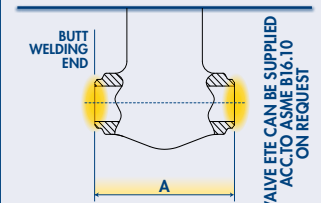


DESIGN TYPE W4 GEAR OPERATED & TEE JOINT FILLET WELD BODY-BONNET CONNECTION

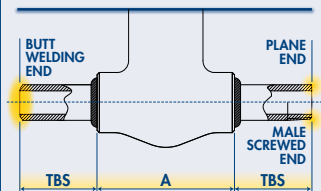


OTHER END CONNECTION TYPES AVAILABLE

INTEGRAL BUTT WELDING END



WELDED NIPPLES



"T"-PATTERN GLOBE VALVES

WELDED BONNET GLOBE VALVES CRYOGENIC CONFIGURATION ASME INTEGRAL FLANGED ENDS



WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A-RF		A-RJ		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 150	1/2"	15	W3	108	4.25	N.A.	N.A.	10	0.39	88	3.5	450	17.7	3.8	8.3	1CHWL 303	STANDARD BORE
	3/4"	20	W3	117.5	4.63	N.A.	N.A.	14	0.55	88	3.5	450	17.7	4.8	10.5	1CHWL 304	
	1"	25	W3	127	5.00	140	5.50	17	0.66	97	3.8	480	18.9	6.9	15.2	1CHWL 305	
	1-1/2"	40	W3	165	6.50	178	7.00	29	1.14	138	5.4	527	20.7	12.9	28.4	1CHWL 307	
	2"	50	W3	203	7.99	216	8.49	35	1.38	172	6.8	554	21.8	19.8	43.5	1CHWL 308	
ASME 300	1/2"	15	W3	152.5	6.00	163.5	6.44	9	0.35	88	3.5	450	17.7	5.1	11.3	3CHWL 303	
	3/4"	20	W3	178	7.01	190.5	7.51	13	0.51	88	3.5	456	18.0	7.5	16.5	3CHWL 304	
	1"	25	W3	203	7.99	216	8.49	17	0.66	97	3.8	480	18.9	10.4	22.9	3CHWL 305	
	1-1/2"	40	W3	229	9.02	241	9.52	29	1.14	138	5.4	524	20.6	19.4	42.7	3CHWL 307	
	2"	50	W3	267	10.51	282.5	11.13	35	1.38	172	6.8	575	22.6	26.9	59.2	3CHWL 308	
ASME 600	1/2"	15	W3	165	6.50	163.5	6.44	9	0.35	88	3.5	431	17.0	5.5	12.1	6CHWL 303	
	3/4"	20	W3	191	7.52	190.5	7.52	13	0.51	88	3.5	456	18.0	7.8	17.1	6CHWL 304	
	1"	25	W3	216	8.50	216	8.50	17	0.66	97	3.8	488	19.2	10.9	24.0	6CHWL 305	
	1-1/2"	40	W3	241	9.49	241	9.49	29	1.14	138	5.4	524	20.6	20.6	45.5	6CHWL 307	
	2"	50	W3	292	11.50	295	11.62	35	1.38	172	6.8	575	22.6	29.5	65.0	6CHWL 308	
ASME 1500	1/2"	15	W3	216	8.50	216	8.50	9	0.35	88	3.5	444	17.5	9.5	20.9	15CHWLF 303	
	3/4"	20	W3	229	9.02	229	9.02	14	0.55	97	3.8	484	19.1	14.5	32.0	15CHWLF 304	
	1"	25	W3	254	10.00	254	10.00	14	0.55	138	5.4	524	20.6	19.1	42.2	15CHWLF 305	
	1-1/2"	40	W3	305	12.01	305	12.01	26	1.02	172	6.8	569	22.4	42.8	94.2	15CHWLF 307	
	2"	50	W3	368	14.49	371.5	14.61	34	1.34	172	6.8	609	24.0	65.3	143.9	15CHWLF 308	
ASME 150	1/2"	15	W3	108	4.25	N.A.	N.A.	13	0.51	88	3.5	450	17.7	4.8	10.5	1CHW 303	FULL BORE
	3/4"	20	W3	117.5	4.63	N.A.	N.A.	17.5	0.69	97	3.8	484	19.1	8.0	17.6	1CHW 304	
	1"	25	W3	127	5.00	140	5.50	22.5	0.89	138	5.4	522	20.6	10.9	24.0	1CHW 305	
	1-1/2"	40	W3	165	6.50	178	7.00	35	1.38	172	6.8	569	22.4	20.6	45.5	1CHW 307	
	2"	50	W3	203	7.99	216	8.49	45	1.77	172	6.8	589	23.2	31.3	68.9	1CHW 308	
ASME 300	1/2"	15	W3	152.5	6.00	163.5	6.44	13	0.51	88	3.5	450	17.7	5.1	11.3	3CHW 303	
	3/4"	20	W3	178	7.01	190.5	7.51	17.5	0.69	97	3.8	484	19.1	8.8	19.3	3CHW 304	
	1"	25	W3	203	7.99	216	8.49	22.5	0.89	138	5.4	522	20.6	12.1	26.7	3CHW 305	
	1-1/2"	40	W3	229	9.02	241	9.52	35	1.38	172	6.8	569	22.4	23.1	51.0	3CHW 307	
	2"	50	W3	267	10.51	282.5	11.13	45	1.77	172	6.8	589	23.2	35.0	77.2	3CHW 308	
ASME 600	1/2"	15	W3	165	6.50	163.5	6.44	13	0.51	88	3.5	450	17.7	7.4	16.3	6CHW 303	
	3/4"	20	W3	191	7.52	190.5	7.52	17.5	0.69	97	3.8	484	19.1	10.0	22.0	6CHW 304	
	1"	25	W3	216	8.50	216	8.50	22.5	0.89	138	5.4	522	20.6	13.1	28.9	6CHW 305	
	1-1/2"	40	W3	241	9.49	241	9.49	35	1.38	172	6.8	569	22.4	24.4	53.7	6CHW 307	
	2"	50	W3	292	11.50	295	11.62	45	1.77	172	6.8	624	24.6	35.6	78.5	6CHW 308	
ASME 1500	1/2"	15	W3	216	8.50	216	8.50	12	0.47	97	3.8	494	19.4	10.6	23.4	15CHWF 303	
	3/4"	20	W3	229	9.02	229	9.02	14.5	0.57	138	5.4	534	21.0	16.1	35.5	15CHWF 304	
	1"	25	W3	254	10.00	254	10.00	19	0.75	172	6.8	549	21.6	21.3	46.8	15CHWF 305	
	1-1/2"	40	W3	305	12.01	305	12.01	31	1.22	172	6.8	624	24.6	37.5	82.7	15CHWF 307	
	2"	50	W3	368	14.49	371.5	14.61	38	1.50	234	9.2	719	28.3	72.5	159.8	15CHWF 308	
ASME 2500	1/2"	15	W3	264	10.39	264	10.39	11	0.43	138	5.4	564	22.2	20.6	45.5	25CHWF 303	
	3/4"	20	W3	273	10.75	273	10.75	14.5	0.57	138	5.4	569	22.4	23.1	51.0	25CHWF 304	
	1"	25	W3	308	12.13	308	12.13	19	0.75	172	6.8	604	23.8	37.5	82.7	25CHWF 305	
	1-1/2"	40	W3	384	15.12	387	15.24	28	1.10	234	9.2	704	27.7	76.9	169.5	25CHWF 307	
	2"	50	W3	451	17.76	454	17.88	38	1.50	320	12.6	714	28.1	83.8	184.6	25CHWF 308	

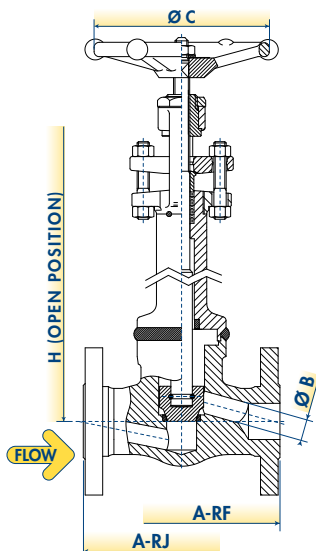
BTF reserves the right to change designs, dimensions or specifications without notice.

PRODUCT FEATURES:

- Flanged ends acc.to ASME B16.5. • Face to Face acc.to ASME B16.10. • Cryogenic design acc.to BS 6364. • Body-Bonnet weld acc.to ASME IX.

DESIGN TYPE W3

FULL PENETRATION WELD BODY-BONNET CONNECTION



"T"-PATTERN GLOBE VALVES

WELDED BONNET GLOBE VALVES BELLOW SEAL CONFIGURATION THREADED AND SOCKET WELD ENDS



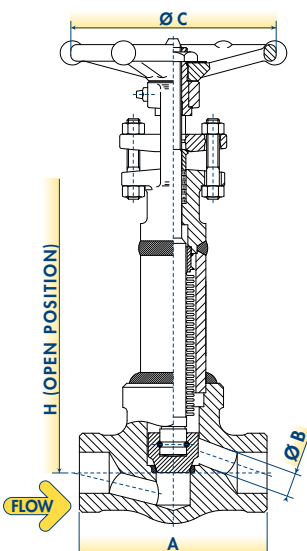
WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A		B		C		H		WEIGHT		FIGURE	
	NPS	DN		mm	in	mm	in	mm	in	mm	in	kg	lb		
ASME 800	1/2"	15	P1	80	3.15	9	0.35	88	3.5	190	7.5	2.2	4.9	SHWL 303	STANDARD BORE
	3/4"	20	P1	90	3.54	13	0.51	88	3.5	195	7.7	2.4	5.3	SHWL 304	
	1"	25	P1	110	4.33	17	0.66	97	3.8	225	8.9	3.5	7.7	SHWL 305	
	1-1/2"	40	P1	150	5.91	29	1.14	138	5.4	315	12.4	8.1	17.9	SHWL 307	
	2"	50	P1	180	7.09	35	1.38	172	6.8	356	14.0	11.8	26.0	SHWL 308	
ASME 1500	1/2"	15	P1	90	3.54	9	0.35	138	5.4	229	9.0	3	6.6	9SHWL 303	
	3/4"	20	P1	110	4.33	12	0.47	138	5.4	243	9.6	4.6	10.1	9SHWL 304	
	1"	25	P1	127	5.00	15	0.59	172	6.8	286	11.3	6.5	14.3	9SHWL 305	
	1-1/2"	40	P1	180	7.09	27	1.06	234	9.2	360	14.2	12	26.5	9SHWL 307	
	2"	50	P1	210	8.27	32	1.26	320	12.6	445	17.5	21.5	47.4	9SHWL 308	
ASME 800	1/4"	6	P1	80	3.15	7	0.28	88	3.5	190	7.5	2.3	5.1	SHW 301	FULL BORE
	3/8"	10	P1	80	3.15	9	0.35	88	3.5	190	7.5	2.3	5.1	SHW 302	
	1/2"	15	P1	90	3.54	13	0.51	88	3.5	195	7.7	3.2	7.1	SHW 303	
	3/4"	20	P1	110	4.33	17	0.66	97	3.8	225	8.9	5	11.0	SHW 304	
	1"	25	P1	127	5.00	22	0.88	138	5.4	271	10.7	8	17.6	SHW 305	
	1-1/4"	32	P1	150	5.91	29	1.14	138	5.4	315	12.4	9	19.8	SHW 306	
	1-1/2"	40	P1	180	7.09	35	1.38	172	6.8	356	14.0	17	37.5	SHW 307	
	2"	50	P1	210	8.27	45	1.77	172	6.8	429	16.9	28	61.7	SHW 308	
ASME 1500	1/4"	6	P1	90	3.54	7	0.28	97	3.8	190	7.5	3.2	7.1	9SHW 301	
	3/8"	10	P1	90	3.54	9	0.35	97	3.8	190	7.5	3.2	7.1	9SHW 302	
	1/2"	15	P1	110	4.33	12	0.47	138	5.4	243	9.6	4	8.8	9SHW 303	
	3/4"	20	P1	127	5.00	15	0.59	172	6.8	286	11.3	6.5	14.3	9SHW 304	
	1"	25	P1	150	5.91	20	0.79	234	9.2	311	12.2	8.3	18.3	9SHW 305	
	1-1/4"	32	P1	180	7.09	27	1.06	234	9.2	350	13.8	12	26.5	9SHW 306	
	1-1/2"	40	P1	210	8.27	32	1.26	320	12.6	445	17.5	22	48.5	9SHW 307	
	2"	50	P1	230	9.06	40	1.57	320	12.6	510	20.1	36.5	80.5	9SHW 308	
ASME 2500	1/2"	15	P2	127	5.00	11	0.43	172	6.8	350	13.8	7	15.4	25SHW 303	
	3/4"	20	P2	150	5.91	14	0.55	234	9.2	400	15.7	10.5	23.1	25SHW 304	
	1"	25	P2	180	7.09	19	0.75	320	12.6	470	18.5	17	37.5	25SHW 305	
	1-1/2"	40	P2	210	8.27	28	1.10	320	12.6	530	20.9	23	50.7	25SHW 307	
	2"	50	P3	230	9.06	35	1.38	400	15.7	650	25.6	45	99.2	25SHW 308	

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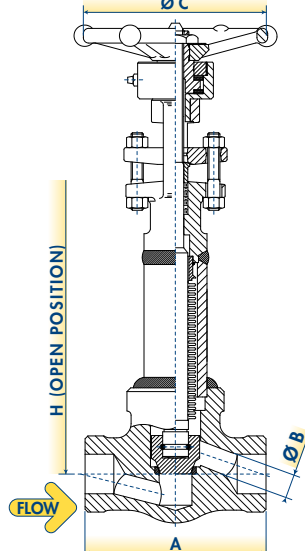
PRODUCT FEATURES:

- Socket Weld acc.to ASME B16.11. • Screwed ends (NPT) acc.to ASME B1.20.1. • Butt welding ends acc.to ASME B16.25. • End to End acc.to manufacturer standard. • Zero emission. • Hydroformed Bellows
- Welds acc.to ASME IX. • Grease nipple for yoke sleeve. • Emergency stuffing box as back sealing.

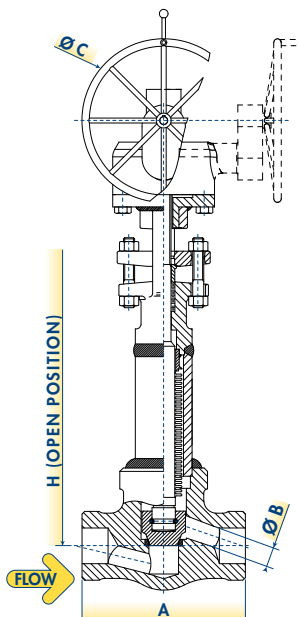
DESIGN TYPE P1 HANDWHEEL OPERATED



DESIGN TYPE P2 HANDWHEEL OPERATED WITH THRUST BEARINGS

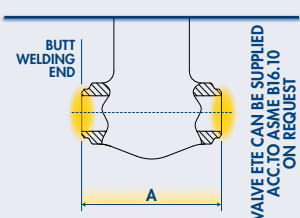


DESIGN TYPE P3 GEAR OPERATED

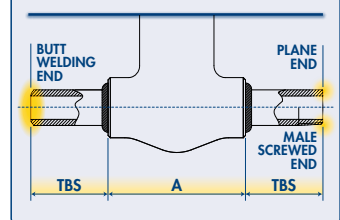


OTHER END CONNECTION TYPES AVAILABLE

INTEGRAL BUTT WELDING END



WELDED NIPPLES



"T"-PATTERN GLOBE VALVES

WELDED BONNET GLOBE VALVES BELLOW SEAL CONFIGURATION ASME INTEGRAL FLANGED ENDS



WORKING PRESSURE RATING	SIZE		STANDARD DESIGN TYPE	A-RF		A-RJ		B		C		H		WEIGHT		FIGURE
	NPS	DN		mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb	
ASME 150	1/2"	15	P1	108	4.25	N.A.	N.A.	10	0.39	88	3.5	220	8.6	3.1	6.7	1SHWL 303
	3/4"	20	P1	117.5	4.63	N.A.	N.A.	14	0.55	88	3.5	220	8.6	3.9	8.5	1SHWL 304
	1"	25	P1	127	5.00	140	5.50	17	0.66	97	3.8	253	10.0	5.6	12.3	1SHWL 305
	1-1/2"	40	P1	165	6.50	178	7.00	29	1.14	138	5.4	306	12.0	10.5	23.1	1SHWL 307
	2"	50	P1	203	7.99	216	8.49	35	1.38	138	5.4	336	13.2	16.1	35.4	1SHWL 308
ASME 300	1/2"	15	P1	152.5	6.00	163.5	6.44	9	0.35	88	3.5	220	8.6	4.2	9.2	3SHWL 303
	3/4"	20	P1	178	7.01	190.5	7.51	13	0.51	88	3.5	226	8.9	6.1	13.4	3SHWL 304
	1"	25	P1	203	7.99	216	8.49	17	0.66	97	3.8	253	10.0	8.4	18.6	3SHWL 305
	1-1/2"	40	P1	229	9.02	241	9.52	29	1.14	138	5.4	302	11.9	15.8	34.7	3SHWL 307
	2"	50	P1	267	10.51	282.5	11.13	35	1.38	138	5.4	360	14.2	21.9	48.2	3SHWL 308
ASME 600	1/2"	15	P1	165	6.50	163.5	6.44	9	0.35	88	3.5	198	7.8	4.5	9.9	6SHWL 303
	3/4"	20	P1	191	7.52	190.5	7.52	13	0.51	88	3.5	226	8.9	6.3	13.9	6SHWL 304
	1"	25	P1	216	8.50	216	8.50	17	0.66	97	3.8	262	10.3	8.8	19.5	6SHWL 305
	1-1/2"	40	P1	241	9.49	241	9.49	29	1.14	138	5.4	302	11.9	16.8	37.0	6SHWL 307
	2"	50	P1	292	11.50	295	11.62	35	1.38	138	5.4	360	14.2	24.0	52.9	6SHWL 308
ASME 1500	1/2"	15	P1	216	8.50	216	8.50	9	0.35	88	3.5	213	8.4	7.7	17.0	15SHWL 303
	3/4"	20	P1	229	9.02	229	9.02	14	0.55	97	3.8	258	10.1	11.8	26.0	15SHWL 304
	1"	25	P1	254	10.00	254	10.00	14	0.55	138	5.4	302	11.9	15.6	34.3	15SHWL 305
	1-1/2"	40	P1	305	12.01	305	12.01	26	1.02	172	6.8	353	13.9	34.8	76.7	15SHWL 307
	2"	50	P1	368	14.49	371.5	14.61	34	1.34	172	6.8	398	15.7	53.1	117.0	15SHWL 308
ASME 150	1/2"	15	P1	108	4.25	N.A.	N.A.	13	0.51	88	3.5	220	8.6	3.9	8.5	1SHW 303
	3/4"	20	P1	117.5	4.63	N.A.	N.A.	17.5	0.69	97	3.8	258	10.1	6.5	14.3	1SHW 304
	1"	25	P1	127	5.00	140	5.50	22.5	0.89	138	5.4	300	11.8	8.8	19.5	1SHW 305
	1-1/2"	40	P1	165	6.50	178	7.00	35	1.38	172	6.8	353	13.9	16.8	37.0	1SHW 307
	2"	50	P1	203	7.99	216	8.49	45	1.77	172	6.8	375	14.8	25.4	56.0	1SHW 308
ASME 300	1/2"	15	P1	152.5	6.00	163.5	6.44	13	0.51	88	3.5	220	8.6	4.2	9.2	3SHW 303
	3/4"	20	P1	178	7.01	190.5	7.51	17.5	0.69	97	3.8	258	10.1	7.1	15.7	3SHW 304
	1"	25	P1	203	7.99	216	8.49	22.5	0.89	138	5.4	300	11.8	9.9	21.7	3SHW 305
	1-1/2"	40	P1	229	9.02	241	9.52	35	1.38	172	6.8	353	13.9	18.8	41.5	3SHW 307
	2"	50	P1	267	10.51	282.5	11.13	45	1.77	172	6.8	375	14.8	28.5	62.8	3SHW 308
ASME 600	1/2"	15	P1	165	6.50	163.5	6.44	13	0.51	88	3.5	220	8.6	6.0	13.2	6SHW 303
	3/4"	20	P1	191	7.52	190.5	7.52	17.5	0.69	97	3.8	258	10.1	8.1	17.9	6SHW 304
	1"	25	P1	216	8.50	216	8.50	22.5	0.89	138	5.4	300	11.8	10.7	23.5	6SHW 305
	1-1/2"	40	P1	241	9.49	241	9.49	35	1.38	172	6.8	353	13.9	19.8	43.7	6SHW 307
	2"	50	P1	292	11.50	295	11.62	45	1.77	172	6.8	414	16.3	29.0	63.9	6SHW 308
ASME 1500	1/2"	15	P1	216	8.50	216	8.50	12	0.47	97	3.8	269	10.6	8.6	19.1	15SHWF 303
	3/4"	20	P1	229	9.02	229	9.02	14.5	0.57	138	5.4	314	12.3	13.1	28.9	15SHWF 304
	1"	25	P1	254	10.00	254	10.00	19	0.75	172	6.8	330	13.0	17.3	38.1	15SHWF 305
	1-1/2"	40	P1	305	12.01	305	12.01	31	1.22	172	6.8	414	16.3	30.5	67.2	15SHWF 307
	2"	50	P1	368	14.49	371.5	14.61	38	1.50	234	9.2	521	20.5	59.0	130.0	15SHWF 308
ASME 2500	1/2"	15	P2	264	10.39	264	10.39	11	0.43	138	5.4	347	13.7	16.8	37.0	25SHWF 303
	3/4"	20	P2	273	10.75	273	10.75	14.5	0.57	138	5.4	353	13.9	18.8	41.5	25SHWF 304
	1"	25	P2	308	12.13	308	12.13	19	0.75	172	6.8	392	15.4	30.5	67.2	25SHWF 305
	1-1/2"	40	P2	384	15.12	387	15.24	28	1.10	234	9.2	504	19.8	62.5	137.8	25SHWF 307
	2"	50	P3	451	17.76	454	17.88	38	1.50	320	12.6	515	20.3	68.1	150.2	25SHWF 308

STANDARD BORE

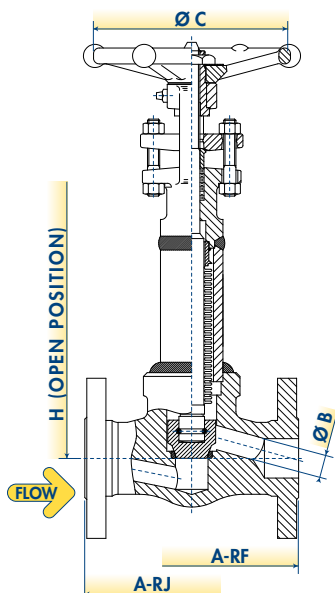
FULL BORE

B/E reserves the right to change designs, dimensions or specifications without notice.

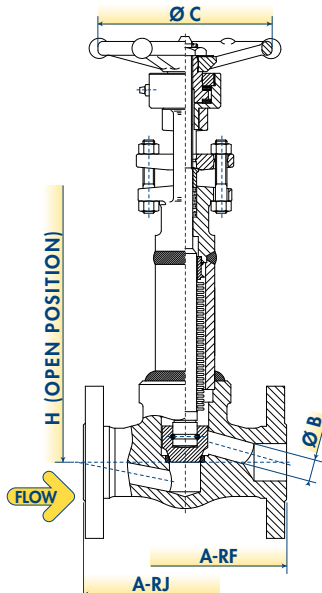
PRODUCT FEATURES:

- Flanged ends acc.to ASME B16.5. • Face to Face acc.to ASME B16.10. • Zero emission. • Hydroformed Bellows. • Welds acc.to ASME IX. • Grease nipple for yoke sleeve. • Emergency stuffing box as back sealing.

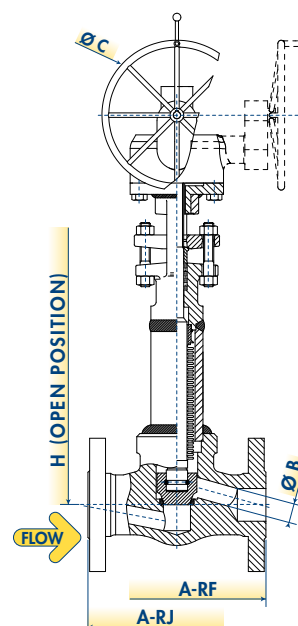
DESIGN TYPE P1 HANDWHEEL OPERATED



DESIGN TYPE P2 HANDWHEEL OPERATED WITH THRUST BEARINGS



DESIGN TYPE P3 GEAR OPERATED



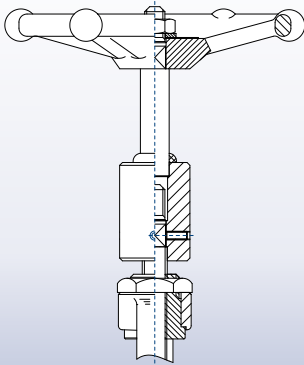
"T"-PATTERN GLOBE VALVES

AVAILABLE OPTIONS FOR "T"-PATTERN GLOBE VALVES

OTHER VALVE OPTIONS OR CUSTOMISED VERSIONS ARE AVAILABLE ON REQUEST, CONTACT BFE FOR SPECIAL REQUIREMENTS.

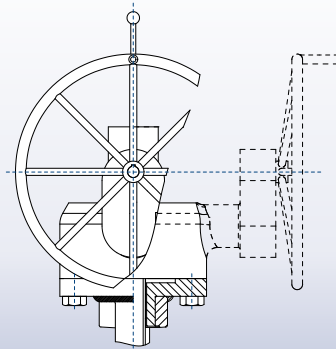
STEM EXTENSION

Valve handle can be extended to allow for panel mount and pipe insulation.



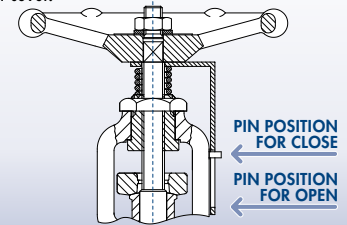
BEVEL GEAR ACTUATORS

Gearing can be applied to valves instead of the standard handwheel to make operation easier.



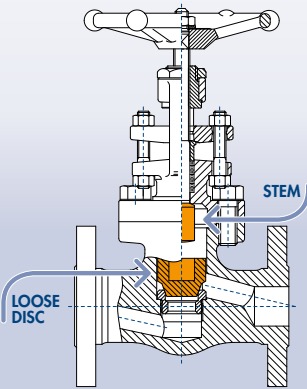
POSITION INDICATOR

Valves can be supplied with standard visual-mechanical indicating device that also acts as stem cover.



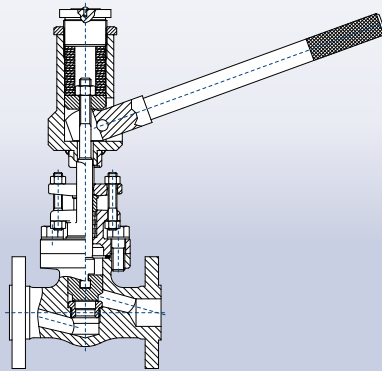
STOP CHECK

Globe valves with stop check option have a guided loose disc allowing the valve to act as a combination globe and check valve. There is the manual control to regulate the opening and closing, and can be completely stopped or shut off. This type of valve will generally be used as a globe valve to start or stop the flow of the media, but will automatically close should pressure be lost in the line, preventing backflow.



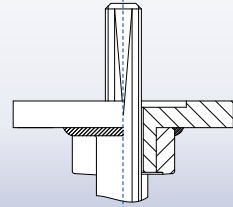
DEAD MAN OPERATOR

Dead Man Handle automatically closes the valve when operator Releases Handle. This means the operator must hold the handle in the open position for the product to flow. The operator can't walk away or the valve will shut off. Locking handle option for our spring return deadman handle is available.



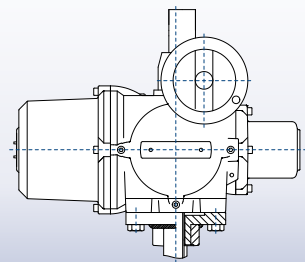
ACTUATOR-READY

Valves can be supplied ready for actuation without the handwheel or gear lower case "S". The mounting connection can be BFE Standard or can suit the choice or type of actuator.



ELECTRIC, PNEUMATIC OR HYDRAULIC ACTUATORS

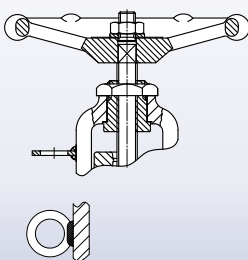
Motorized controls may be applied to valves of any size for operation in any position or location.



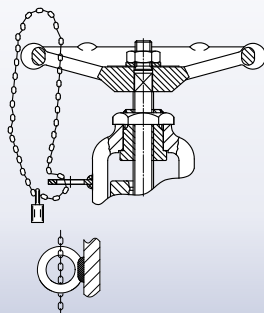
LOCKING DEVICE

Locking devices designed to help prevent accidental or unwanted operation are built to resist excessive force. All BFE locking device option are simple but secure. Chain and Padlock available on request.

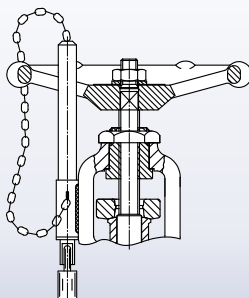
LOCKING FACILITY



LOCKING FACILITY WITH C&P

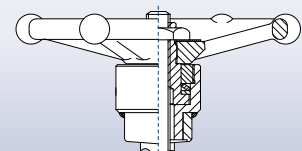


LOCKING DEVICE



THERMAL EXPANSION STEM COMPENSATOR

Valves which endure large thermal transients have the basic problem that the valve stem and closure member will expand and contract with the danger that a closed valve could become jammed in its seat and in extreme cases this can cause the valve stem to distort. High Temperature Valve configuration is equipped with a spring loaded stem sleeve that will absorb any expansion or contraction caused by temperature fluctuations without affecting the position of the closed valve stem.



"T"-PATTERN GLOBE VALVES

AVAILABLE OPTIONS FOR "T"-PATTERN GLOBE VALVES

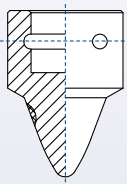
OTHER VALVE OPTIONS OR CUSTOMISED VERSIONS ARE AVAILABLE ON REQUEST, CONTACT BFE FOR SPECIAL REQUIREMENTS.

DISC AND TRIM TYPE

BFE standard plug is the has a quick opening characteristic, this plug provides maximum flow with minimum pressure drop and is ideal when large flows are required just after opening. All BFE standard plugs require a flow direction FTO type. BFE trim variations can offer maximum versatility in flow control application within the capability of globe valve design.

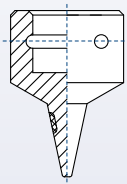
PARABOLIC DISC TRIM TYPE

Characteristic: Linear. This plug covers all Cv ranges and is especially suitable for low differential pressures.



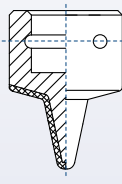
NEEDLE TRIM TYPE

Needle trim design is suitable for use where low valve CV values or low flows are required.



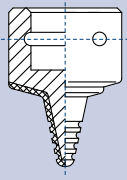
BLOW DOWN TRIM STANDARD TYPE

Blow Down trim design is suitable for use where high differential pressures are present. The high pressure drop causes erosion and cavitation which can destroy conventional globe valves.



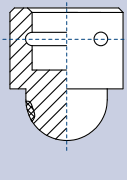
BLOW DOWN TRIM MULTI-STEP TYPE

Improved blow-down trim developed to provide a high number of pressure letdown steps to minimise the potential for excessive noise, cavitation, vibration and erosion. Multi-Step trim has been designed for all fluid combinations, both clean and dirty service. This range of trims is normally customized and designed on the customer design data.



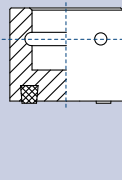
BALL DISC TRIM TYPE

The ball disc is used where the applications involve low pressure and low temperature systems. Though the ball disc can be used for throttling purpose, the efficiency might not be as expected.



SOFT SEATED PLUG

Soft seated trim provides improved seat tightness at low differential pressures. This design feature includes a plastic sealing member on the valve closure element to supplement the basic metal-to-metal seating function. The design and material selection for these sealing members are based on customer pressure, temperature and compatibility with the line fluid.

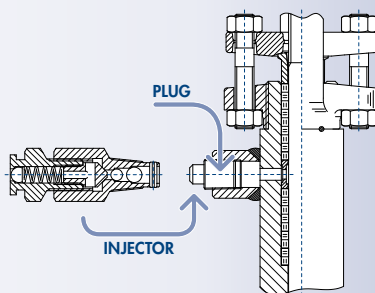


STEM DOUBLE SEAL

Stem double seals are fitted to valves when hazardous fluids are handled or when external lubrication is used.

The most usual form of double seal is two sets of packing, the lantern ring can provide extra stem guidance.

BFE can supply the lantern ring version with standard plug or with injector (double ball check type). Other special configurations are available on request.

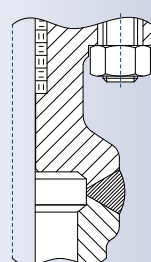


BODY-BONNET FULL PENETRATION WELD

BFE standard welded bonnet valves have as standard a seal weld on the body-bonnet connection. Seal weld is a weld that does not contribute anything to the mechanical integrity of an assembly, but is made purely to seal or prevent leakage from, for instance, a threaded joint. When High-End quality is required for body-bonnet weld joint a weld with full penetration can be performed.

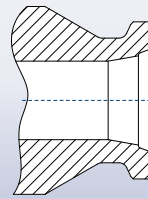
Full penetration weld is one in which there is a complete penetration and fusion of weld and parent metal throughout the thickness of the joint.

A full penetration weld ensures a fully welded interface between the two parts and is generally the strongest joint.



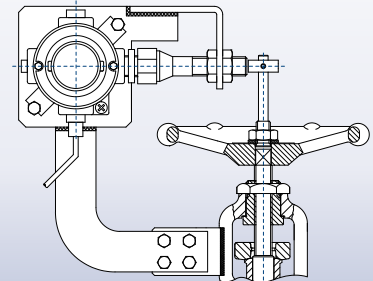
SPECIAL END FINISH

The choice of end connections for connecting a valve to its associated pipe is performed by customers. Common end finish steamed in the catalogue are socket, threaded, flanged (RF or RJ) and butt-weld ends. BFE is basically able to perform any end finish as required by the customers and other end finish as follows: hub, compact flange, any ASME B16.5 end finish other than RF and RJ, etc.



LIMIT SWITCH ASSEMBLIES

Position Limit Switch assemblies enables a remote signaling of the control system the opening of the valve. It can be equipped with one or two switches actuated by closing or opening of the valve. Limit switch can be selected by customer, bracket is designed by BFE.



LIVE LOADING

Live Loading System consists of a spring system installed on packing stud to warrant a continuous load on valve packing. Spring are specially designed to allow appropriate load in case of packing settling by minimizing initial load and friction. Mechanical visual indicator of the spring compression is included.

