



Trust[®]

valves and flow control specialist

BELLOW SEAL VALVES

BSV-1

ABOUT US

PROFILE

Trust Valves was established in 2008 and is part of Firsia Group. We operate in the valve market as distributor and stockist of internationally recognized valve brands. Our company is designed to provide efficient and reliable service in harsh industrial applications, combining the proven performance of the industry's most rugged platform with the widest variety of valves and flow control options.

MISSION

Build a partnership with our customers by providing solutions that have deep impact and enable them to achieve core objective. Trust Valves aims to provide the best products and customer service. At Trust Valves, customer satisfaction is the highest priority.

VISION

Control business by providing solutions that give substantial value to our customers, provide highly valued careers for our associates and deliver solid returns to our investors.



PRODUCT LINE

FORGED BELLOW SEAL VALVES

- Gate, globe and Y-globe type
- Sizes 1/4" through 2"
- Reduce and full port
- Class ANSI 150 to 2500
- Welded and bolted bonnet
- Threaded, socket weld, butt weld and flanged ends



CAST BELLOW SEAL VALVES

- Gate, globe and Y-globe type
- Sizes 2" through 24"
- Class ANSI 150 to 1500
- Bolted bonnet
- Threaded, socket weld, butt weld and flanged ends



BELLOW SEAL GATE VALVES

FORGED STEEL – API 602 / ISO 15761



STANDARD FEATURES

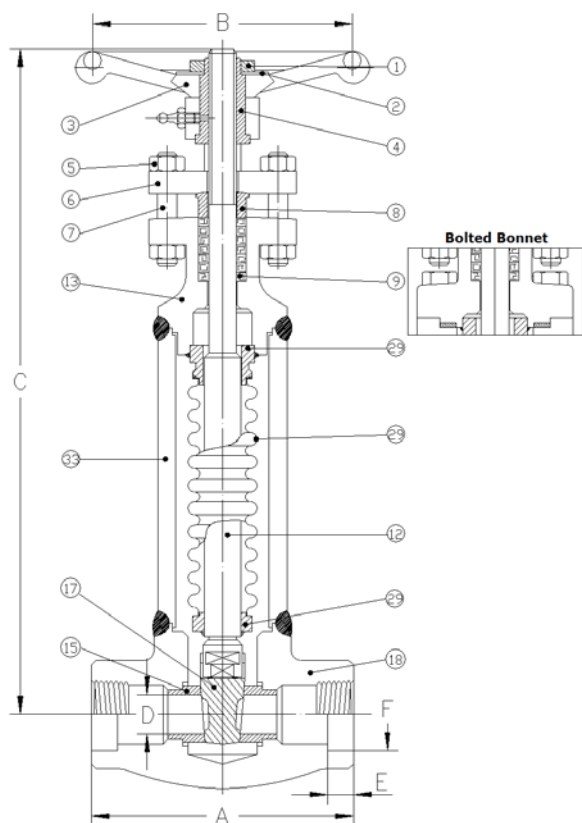
- **Construction:** Welded or Bolted Bonnet
OS&Y
Rising Stem
Non Rising Handwheel
Renewable Seats
- **Design:** API 602
ISO 15761
- **Connections:** Socket Weld Ends
Threaded Ends
Butt Welding ends
Flanged ends
Ring Joint Ends
- **Testing:** API 598
API 6D
BS 6755
- **Rating:** ASME B16.34
- **Marking:** MSS-SP 25
CE – PED
- **Certificates:** EN 10204 – 3.1 B

API 602 BELLOW SEAL VALVES - BODY/BONNET MATERIALS & TRIM

Body & Bonnet		Bellow	API Trim No.	Description
Carbon Steel	ASTM A105	AISI 316	1	F6
L.T. Carbon Steel	ASTM A350 LF2	AISI 321	2	304
Alloy Steel	ASTM A182 F11	ALLOY 400 (Monel®)	5	F6 – Full Stellite
Alloy Steel	ASTM A182 F22	ALLOY 625 (Inconel® 625)	8	F6 – Half Stellite
Alloy Steel	ASTM A182 F5	ALLOY C276 (Hastelloy® C-276)	10	316
Alloy Steel	ASTM A182 F9	-	12	316 – Half Stellite
Stainless Steel	ASTM A182 F304/L	-	15	304 – Full Stellite
Stainless Steel	ASTM A182 F316/L	-	16	316 – Full Stellite

-Other materials available on request-

All data are for reference only use and subject to changes without prior notice.



**Bellow Seal Gate Valve – Welded and Bolted Bonnet
Reduced and Full Bore - OS&Y**

Threaded Ends NPT ASME B 1.20.1

Socket Weld Ends ASME B 16.11

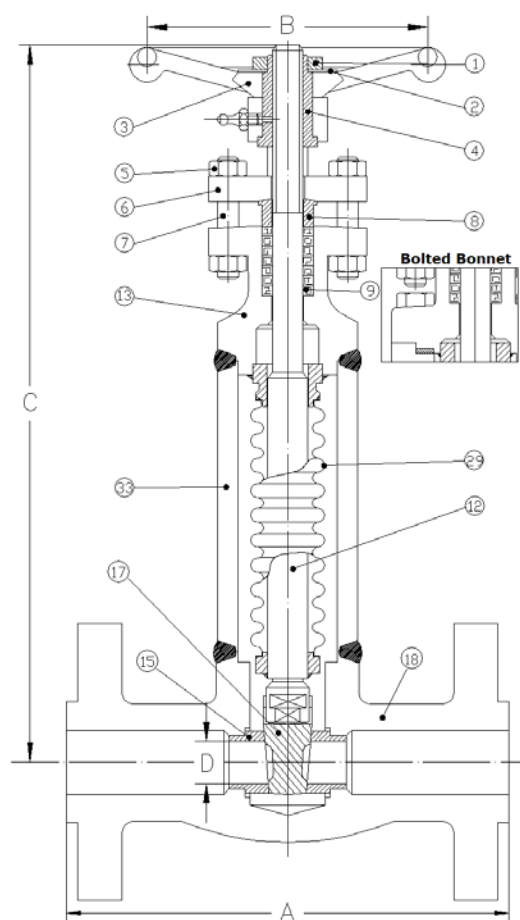
Butt Weld Ends ASME B 16.25

No.	Part	No.	Part
1	Wheelnut	2	Nameplate
3	Handwheel	4	Yoke Nut
5	Gland Nut	6	Gland Flange
7	Gland Stud	8	Gland
9	Packing	12	Stem
13	Bonnet	15	Seat
17	Wedge	18	Body
29	Bellow	33	Extension

Class # 800	REDUCED BORE		½"	¾"	1"	1.1/4"	1.1/2"	2"	-
	FULL BORE		¾"	1"	1.1/4"	1.1/2"	2"	2.5"	3"
	End to end	A mm.	80	90	110	127	127	127	210
	Handwheel	B mm.	80	80	110	110	130	130	180
	Center to Top Open	C mm.	262	296	353	412	470	531	650
	Dia. of Port	D mm.	9.6	14	18	24	30	37	48
	Approx Weight	Kg.	2.2	3	4.2	7.9	9	14.8	16
NOTE: End to end dimensions are for reference only and according to standard manufacturers – ASME B16.10 not applicable									

Class # 1500	REDUCED BORE		½"	¾"	1"	1.1/4"	1.1/2"	2"	-
	FULL BORE		¾"	1"	1.1/4"	1.1/2"	2"	2.5"	3"
	End to end	A mm.	90	110	127	127	127	210	210
	Handwheel	B mm.	130	130	130	180	250	250	250
	Center to Top Open	C mm.	262	372	484	510	586	650	815
	Dia. of Port	D mm.	9.6	14	18	24	30	37	40
	Approx Weight	Kg.							
NOTE: End to end dimensions are for reference only and according to standard manufacturers – ASME B16.10 not applicable									

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**Bellow Seal Gate Valve – Welded and Bolted Bonnet
Reduced Bore – OS&Y**

**Integral Flanged Ends RF/RTJ Finish ASME B16.5
Butt Welding Ends ASME B16.25**

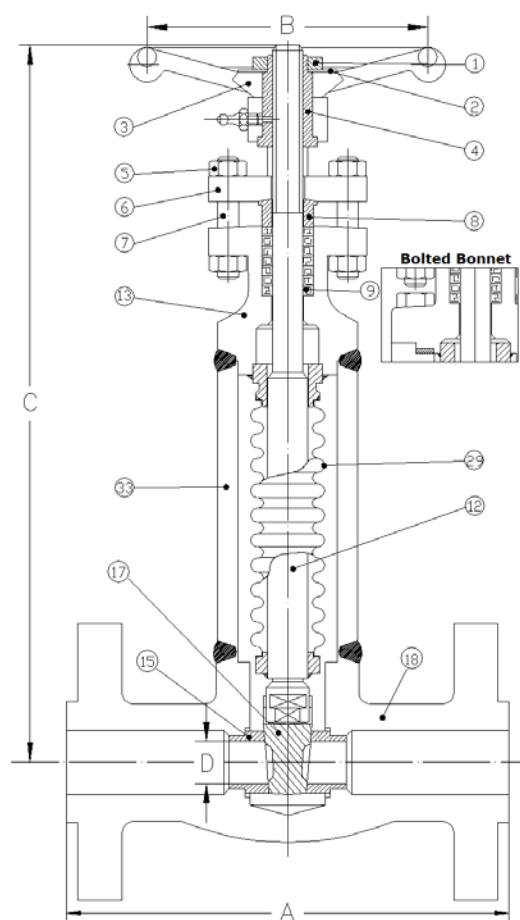
No.	Part	No.	Part
1	Wheelnut	2	Nameplate
3	Handwheel	4	Yoke Nut
5	Gland Nut	6	Gland Flange
7	Gland Stud	8	Gland
9	Packing	12	Stem
13	Bonnet	15	Seat
17	Wedge	18	Body
29	Bellow	33	Extension

Class #150 Reduce bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	108	118	127	165	178
	Handwheel	B mm.	80	80	110	130	130
	Center to Top	C mm.	227	295	348	470	525
	Dia. of Port	D mm.	9.6	14	18	30	37
	Approx Weight	Kg.	-	-	-	-	-

Class #300 Reduce bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	140	153	165	191	216
	Handwheel	B mm.	80	80	110	130	130
	Center to Top	C mm.	227	295	348	470	525
	Dia. of Port	D mm.	9.6	14	18	30	37
	Approx Weight	Kg.	-	-	-	-	-

Class #600 Reduce bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	165	191	216	241	292
	Handwheel	B mm.	80	80	110	130	130
	Center to Top	C mm.	263	295	353	470	525
	Dia. of Port	D mm.	9.6	14	18	30	37
	Approx Weight	Kg.	-	-	-	-	-

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**Bellow Seal Gate Valve – Welded and Bolted Bonnet
Full bore - OS&Y**

**Integral Flanged Ends RF/RTJ Finish ASME B16.5
Butt Welding Ends ASME B16.25**

No.	Part	No.	Part
1	Wheelnut	2	Nameplate
3	Handwheel	4	Yoke Nut
5	Gland Nut	6	Gland Flange
7	Gland Stud	8	Gland
9	Packing	12	Stem
13	Bonnet	15	Seat
17	Wedge	18	Body
29	Bellow	33	Extension

Class #1500 Full bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	216	229	254	305	368
	Handwheel	B mm.	110	130	130	250	300
	Center to Top	C mm.	327	445	473	650	815
	Dia. of Port	D mm.	9.6	14	18	30	37
	Approx Weight	Kg.	-	-	-	-	-

Class #2500 Full bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	264	273	308	384	451
	Handwheel	B mm.	130	130	250	300	300
	Center to Top	C mm.	440	470	580	-	-
	Dia. of Port	D mm.	9.6	14	18	30	37
	Approx Weight	Kg.	-	-	-	-	-

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BELLOW SEAL GLOBE VALVES

FORGED STEEL – API 602 / ISO 15761



STANDARD FEATURES

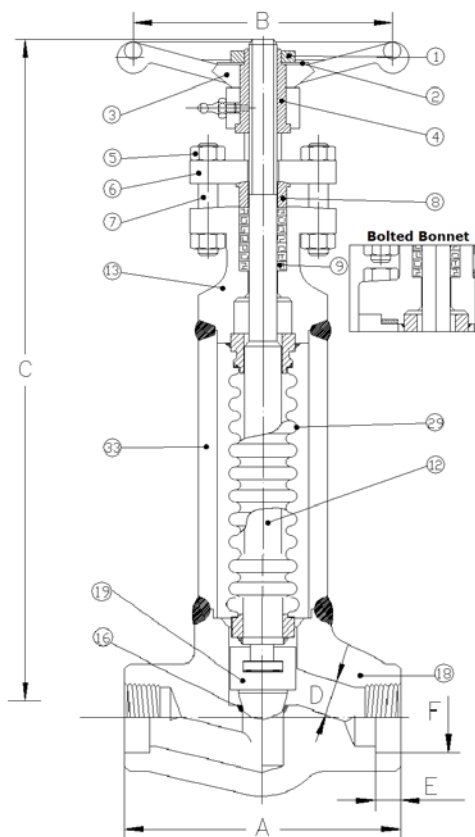
- **Construction:** Welded or Bolted Bonnet
OS&Y
Rising Stem
Rising Handwheel
Renewable Seats
- **Design:** API 602
ISO 15761
- **Connections:** Socket Weld Ends
Threaded Ends
Butt Welding ends
Flanged ends
Ring Joint Ends
- **Testing:** API 598
API 6D
BS 6755
- **Rating:** ASME B16.34
- **Marking:** MSS-SP 25
CE – PED
- **Certificates:** EN 10204 – 3.1 B

API 602 BELLOW SEAL VALVES - BODY/BONNET MATERIALS & TRIM

Body & Bonnet		Bellow	API Trim No.	Description
Carbon Steel	ASTM A105	AISI 316	1	F6
L.T. Carbon Steel	ASTM A350 LF2	AISI 321	2	304
Alloy Steel	ASTM A182 F11	ALLOY 400 (Monel®)	5	F6 – Full Stellite
Alloy Steel	ASTM A182 F22	ALLOY 625 (Inconel® 625)	8	F6 – Half Stellite
Alloy Steel	ASTM A182 F5	ALLOY C276 (Hastelloy® C-276)	10	316
Alloy Steel	ASTM A182 F9	-	12	316 – Half Stellite
Stainless Steel	ASTM A182 F304/L	-	15	304 – Full Stellite
Stainless Steel	ASTM A182 F316/L	-	16	316 – Full Stellite

-Other materials available on request-

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**Bellow Seal Globe Valve – Welded and Bolted Bonnet
Reduced and Full Bore - OS&Y**

Threaded Ends NPT ASME B 1.20.1

Socket Weld Ends ASME B 16.11

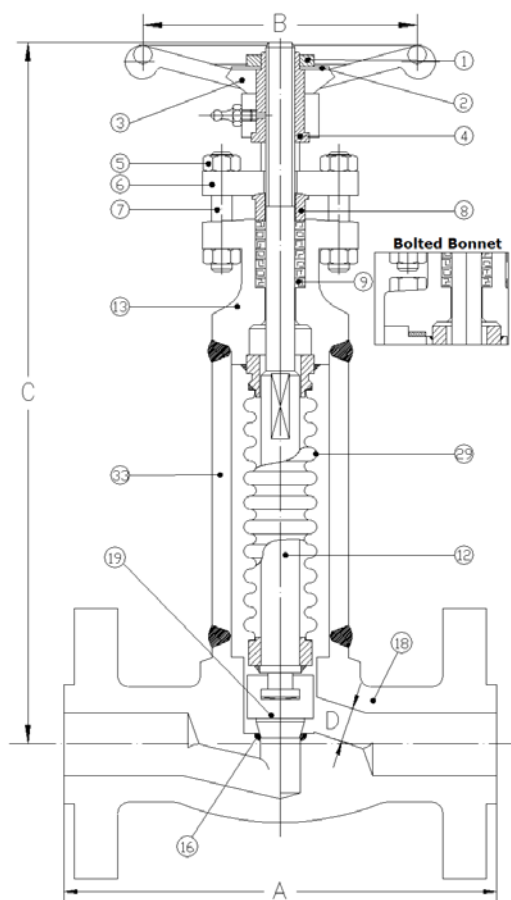
Butt Weld Ends ASME B 16.25

No.	Part	No.	Part
1	Wheelnut	2	Nameplate
3	Handwheel	4	Yoke Nut
5	Gland Nut	6	Gland Flange
7	Gland Stud	8	Gland
9	Packing	12	Stem
13	Bonnet	15	Seat
17	Wedge	18	Body
29	Bellow	33	Extension

Class # 800	REDUCED BORE		½"	¾"	1"	1.1/4"	1.1/2"	2"	-
	FULL BORE		¾"	1"	1.1/4"	1.1/2"	2"	2.5"	3"
	End to end	A mm.	80	90	110	127	127	127	210
	Handwheel	B mm.	80	80	110	110	130	130	180
	Center to Top Open	C mm.	262	296	353	412	470	531	650
	Dia. of Port	D mm.	9.6	14	18	24	30	37	48
	Approx Weight	Kg.	2.2	3	4.2	7.9	9	14.8	16
NOTE: End to end dimensions are for reference only and according to standard manufacturers – ASME B16.10 not applicable									

Class # 1500	REDUCED BORE		½"	¾"	1"	1.1/4"	1.1/2"	2"	-
	FULL BORE		¾"	1"	1.1/4"	1.1/2"	2"	2.5"	3"
	End to end	A mm.	90	110	127	127	127	210	210
	Handwheel	B mm.	130	130	130	180	250	250	250
	Center to Top Open	C mm.	262	372	484	510	586	650	815
	Dia. of Port	D mm.	9.6	14	18	24	30	37	40
	Approx Weight	Kg.							
NOTE: End to end dimensions are for reference only and according to standard manufacturers – ASME B16.10 not applicable									

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**Bellow Seal Globe Valve – Welded and Bolted Bonnet
Reduced Bore - OS&Y**

**Integral Flanged Ends RF/RTJ Finish ASME B16.5
Butt Welding Ends ASME B16.25**

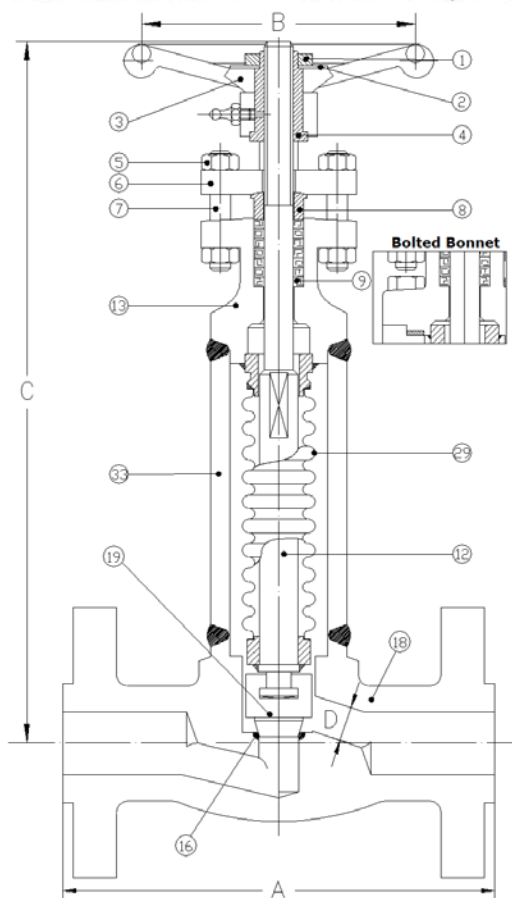
No.	Part	No.	Part
1	Wheelnut	2	Nameplate
3	Handwheel	4	Yoke Nut
5	Gland Nut	6	Gland Flange
7	Gland Stud	8	Gland
9	Packing	12	Stem
13	Bonnet	15	Seat
18	Body	19	Disc
29	Bellow	33	Extension

Class #150 Reduce bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	108	118	127	165	203
	Handwheel	B mm.	80	80	110	130	180
	Center to Top	C mm.	274	306	334	428	462
	Dia. of Port	D mm.	9	13	17.5	29.5	35
	Approx Weight	Kg.	-	-	-	-	-

Class #300 Reduce bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	153	178	203	229	267
	Handwheel	B mm.	80	80	110	130	180
	Center to Top	C mm.	244	276	311	428	462
	Dia. of Port	D mm.	9	13	17.5	29.5	35
	Approx Weight	Kg.	-	-	-	-	-

Class #600 Reduce bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	165	191	216	241	292
	Handwheel	B mm.	80	80	110	130	180
	Center to Top	C mm.	244	276	311	428	462
	Dia. of Port	D mm.	9	13	17.5	29.5	35
	Approx Weight	Kg.	-	-	-	-	-

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**Bellow Seal Globe Valve – Welded and Bolted Bonnet
Full bore - OS&Y**

**Integral Flanged Ends RF/RTJ Finish ASME B16.5
Butt Welding Ends ASME B16.25**

No.	Part	No.	Part
1	Wheelnut	2	Nameplate
3	Handwheel	4	Yoke Nut
5	Gland Nut	6	Gland Flange
7	Gland Stud	8	Gland
9	Packing	12	Stem
13	Bonnet	15	Seat
18	Body	19	Disc
29	Bellow	33	Extension

Class #1500 Full bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	216	229	254	305	368
	Handwheel	B mm.	110	130	180	300	300
	Center to Top	C mm.	332	395	419	545	705
	Dia. of Port	D mm.	13	17	21	33	37.5
	Approx Weight	Kg.	-	-	-	-	-

Class #2500 Full bore	Ø		½"	¾"	1"	1.1/2"	2"
	End to end	A mm.	264	273	308	384	451
	Handwheel	B mm.	180	180	250	300	300
	Center to Top	C mm.	440	470	580	-	-
	Dia. of Port	D mm.	11	17	21	33	37.5
	Approx Weight	Kg.	-	-	-	-	-

All data are for reference only use and subject to changes without prior notice.

BELLOW SEAL GLOBE VALVES

FORGED STEEL – API 602 / ISO 15761



STANDARD FEATURES

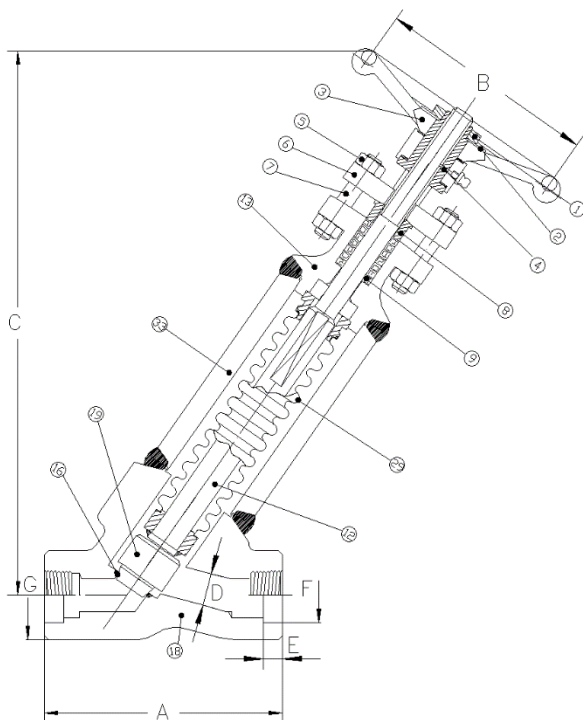
- **Construction:** Welded Bonnet
OS&Y
Rising Stem
Rising Handwheel
Renewable Seats
- **Design:** API 602
ISO 15761
- **Connections:** Socket Weld Ends
Threaded Ends
Butt Welding ends
- **Testing:** API 598
API 6D
BS 6755
- **Rating:** ASME B16.34
- **Marking:** MSS-SP 25
CE – PED
- **Certificates:** EN 10204 – 3.1 B

API 602 BELLOW SEAL VALVES - BODY/BONNET MATERIALS & TRIM

Body & Bonnet		Bellow	API Trim No.	Description
Carbon Steel	ASTM A105	AISI 316	1	F6
L.T. Carbon Steel	ASTM A350 LF2	AISI 321	2	304
Alloy Steel	ASTM A182 F11	ALLOY 400 (Monel®)	5	F6 – Full Stellite
Alloy Steel	ASTM A182 F22	ALLOY 625 (Inconel® 625)	8	F6 – Half Stellite
Alloy Steel	ASTM A182 F5	ALLOY C276 (Hastelloy® C-276)	10	316
Alloy Steel	ASTM A182 F9	-	12	316 – Half Stellite
Stainless Steel	ASTM A182 F304/L	-	15	304 – Full Stellite
Stainless Steel	ASTM A182 F316/L	-	16	316 – Full Stellite

-Other materials available on request-

All data are for reference only use and subject to changes without prior notice.



**Bellow Seal Globe Valve – Y-Pattern
Welded Bonnet - Full Bore - OS&Y**

Threaded Ends NPT ASME B 1.20.1

Socket Weld Ends ASME B 16.11

Butt Weld Ends ASME B 16.25

No.	Part	No.	Part
1	Wheelnut	2	Nameplate
3	Handwheel	4	Yoke Nut
5	Gland Nut	6	Gland Flange
7	Gland Stud	8	Gland
9	Packing	12	Stem
13	Bonnet	16	Seat
18	Body	19	Disc
29	Bellow	33	Extension

Fig. XXXX Class #800	FULL BORE		½"	¾"	1"	1.1/4"	1.1/2"	2"
	End to end	A mm.	90	110	127	127	127	210
	Handwheel	B mm.	80	110	110	130	130	180
	Center to Top Open	C mm.	296	353	412	470	531	650
	Dia. of Port	D mm.	14	18	24	30	37	48
	Approx Weight	Kg.	3	4.2	7.9	9	14.8	16

Fig. XXXX Class #1500	FULL BORE		½"	¾"	1"	1.1/4"	1.1/2"	2"
	End to end	A mm.	110	127	127	127	210	210
	Handwheel	B mm.	130	130	180	250	250	250
	Center to Top Open	C mm.	372	484	510	586	650	815
	Dia. of Port	D mm.	14	18	24	30	37	40
	Approx Weight	Kg.	-	-	-	-	-	-

Fig. XXXX Class #2500	FULL BORE		½"	¾"	1"	1.1/4"	1.1/2"	2"
	End to end	A mm.	155	155	155	-	-	-
	Handwheel	B mm.	180	180	180	-	-	-
	Center to Top Open	C mm.	445	449	558	-	-	-
	Dia. of Port	D mm.	11	11	15	-	-	-
	Approx Weight	Kg.	-	-	-	-	-	-

NOTE: End to end dimensions are for reference only and according to standard manufacturers – ASME B16.10 not applicable

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BELLOW SEAL GATE VALVES

CAST STEEL – API 600 / ISO 15761



STANDARD FEATURES

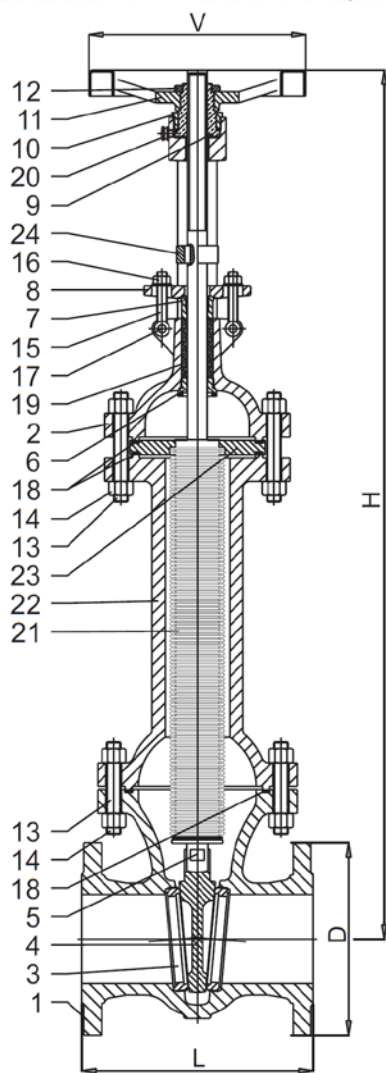
- **Construction:** Bolted Bonnet
OS&Y
Rising Stem
Non-Rising Handwheel
Renewable Seats
- **Design:** API 600
BS 1414
- **Connections:** Butt Welding ends
Flanged ends
Ring Joint Ends
- **Testing:** API 598
API 6D
BS 6755
- **Rating:** ASME B16.34
- **Marking:** MSS-SP 25
CE – PED
- **Certificates:** EN 10204 – 3.1 B

API 600 BELLOW SEAL VALVES - BODY/BONNET MATERIALS & TRIM

Body & Bonnet		Bellow	API Trim No.	Description
Carbon Steel	ASTM A216 WCB / WCC	AISI 316	1	F6
L.T. Carbon Steel	ASTM A352 LCB / LCC	AISI 321	2	304
Alloy Steel	ASTM A217 WC6	ALLOY 400 (Monel®)	5	F6 – Full Stellite
Alloy Steel	ASTM A217 WC9	ALLOY 625 (Inconel® 625)	8	F6 – Half Stellite
Alloy Steel	ASTM A217 C5	ALLOY C276 (Hastelloy® C-276)	10	316
Alloy Steel	ASTM A217 C12	-	12	316 – Half Stellite
Stainless Steel	ASTM A351 CF3 / CF3M	-	15	304 – Full Stellite
Stainless Steel	ASTM A351 CF8 / CF8M	-	16	316 – Full Stellite

-Other materials available on request-

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Gate Valve – Bellow Sealed - OS&Y
Bolted Bonnet for Class #150 / 300
RTJ Bolted Bonnet for Class #600 / 1500

Integral Flanged Ends RF/RTJ Finish ASME B16.5
Butt Welding Ends ASME B16.25

No.	Part	No.	Part
1	Body	2	Bonnet
3	Seat Ring surface	4	Wedge surface
5	Stem	6	Back Seat
7	Gland	8	Gland Flange
9	Yoke Sleeve	10	Yoke nut
11	Handwheel	12	Handwheel nut
13	Bolts	14	Nuts
15	Eye bolts	16	Nuts
17	Eye bolt pin	18	Gasket
19	Packing	20	Grease nipple
21	Bellow	22	Extension
23	Bellow flange	24	No rot. device

Fig. 1310 Class #150	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF End to e.	L mm.	178	203	229	267	292	330	356	381	406	432	457	508
	BW End to e.	L mm.	216	282	305	403	419	457	502	571	610	660	711	813
	Center to top	H mm.	610	820	940	1530	1960	2350	2600	2980	3170	3550	4050	4650
	Handwheel	V mm.	200	225	250	300	400	500*	500*	600*	600*	700*	700*	800*

Fig. 1315 Class #300	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	216	282	305	404	419	457	502	762	838	914	991	1143
	RTJ End to e.	L mm.	232	298	321	419	435	473	518	778	854	930	1010	1165
	Center to top .	H mm.	600	765	920	1315	1700	2035	2395	2760	3135	3600	4080	4795
	Handwheel	V mm.	200	225	250	400	500*	500*	600*	600*	700*	700*	800*	900*

Fig. 1320 Class #600	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	292	356	432	559	660	787	838	889	991	1092	1194	1397
	RTJ End to e.	L mm.	295	359	435	562	663	791	841	892	994	1095	1200	1407
	Center to top .	H mm.	640	805	905	1360	1720	2120	2500	-	-	-	-	-
	Handwheel	V mm.	200	250	400	500*	600*	700*	700*	800*	900*	1000*	1600*	G.O.

Fig. 132X Class #1500	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	-	-	-
	RF/BW End to e.	L mm.	368	470	546	705	832	991	1130	1257	1384	-	-	-
	RTJ End to e.	L mm.	371	473	549	711	842	1000	1146	1276	1407	-	-	-
	Center to top .	H mm.	-	-	-	-	-	-	-	-	-	-	-	-
	Handwheel	V mm.	250	400	500*	600*	700*	900*	1600*	1600*	G.O.	-	-	-

*Gear operator recommended

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BELLOW SEAL GLOBE VALVES

CAST STEEL – BS 1873 / ASME B16.34



STANDARD FEATURES

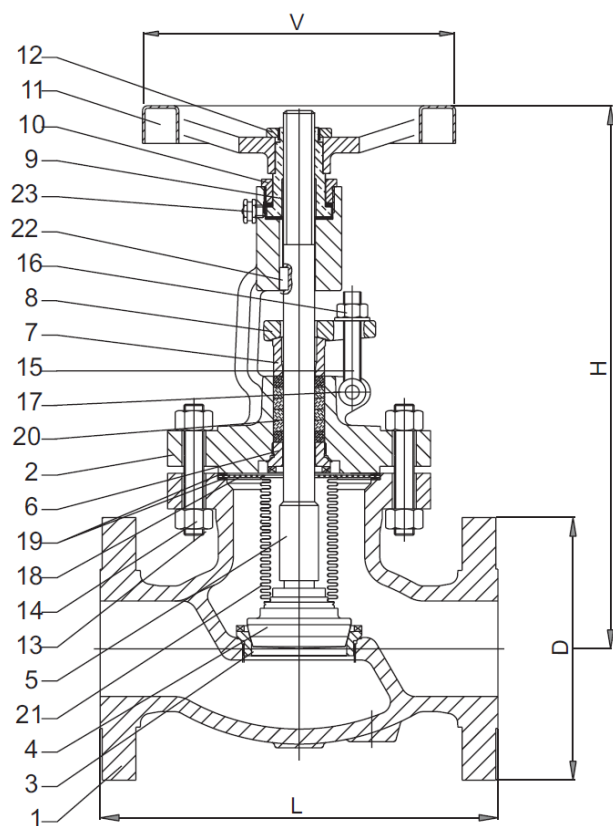
- **Construction:** Bolted Bonnet
OS&Y
Rising Stem
Rising Handwheel
Renewable Seats
- **Design:** BS 1873
ASME B16.34
- **Connections:** Butt Welding ends
Flanged ends
Ring Joint Ends
- **Testing:** API 598
API 6D
BS 6755
- **Rating:** ASME B16.34
- **Marking:** MSS-SP 25
CE – PED
- **Certificates:** EN 10204 – 3.1 B

BS 1873 BELLOW SEAL VALVES - BODY/BONNET MATERIALS & TRIM

Body & Bonnet		Bellow	API Trim No.	Description
Carbon Steel	ASTM A216 WCB / WCC	AISI 316	1	F6
L.T. Carbon Steel	ASTM A352 LCB / LCC	AISI 321	2	304
Alloy Steel	ASTM A217 WC6	ALLOY 400 (Monel®)	5	F6 – Full Stellite
Alloy Steel	ASTM A217 WC9	ALLOY 625 (Inconel® 625)	8	F6 – Half Stellite
Alloy Steel	ASTM A217 C5	ALLOY C276 (Hastelloy® C-276)	10	316
Alloy Steel	ASTM A217 C12	-	12	316 – Half Stellite
Stainless Steel	ASTM A351 CF3 / CF3M	-	15	304 – Full Stellite
Stainless Steel	ASTM A351 CF8 / CF8M	-	16	316 – Full Stellite

-Other materials available on request-

All data are for reference only use and subject to changes without prior notice.



Globe Valve – Bellow Seal - OS&Y
Bolted Bonnet for Class #150 / 300
RTJ Bolted Bonnet for Class #600 / 1500

Integral Flanged Ends RF/RTJ Finish ASME B16.5
Butt Welding Ends ASME B16.25

No.	Part	No.	Part
1	Body	2	Bonnet
3	Seat ring surface	4	Disc seat surface
5	Stem	6	Backseat
7	Gland	8	Gland flange
9	Yoke sleeve	10	Yoke nut
11	Handwheel	12	Handwheel nut
13	Bolts	14 / 16	Nuts
15	Eye bolts	17	Eye bolt pin
18	Bellow flange	19	Gasket
20	Packing	21	Bellow
22	No rot. Device	23	Grease nipple

Fig. 1220 Class #150	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	203	241	292	406	495	622	699	787	914	-	-	-
	RTJ End to e.	L mm.	216	254	305	419	508	635	711	800	927	-	-	-
	Center to top	H mm.	340	400	440	580	700	800	900	970	1270	-	-	-
	Handwheel	V mm.	200	225	250	300	400*	600*	600*	800*	1000*	-	-	-

Fig. 1225 Class #300	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	267	318	357	445	559	622	711	838	864	-	-	-
	RTJ End to e.	L mm.	282	333	371	460	575	638	727	854	879	-	-	-
	Center to top	H mm.	410	430	480	700	820	900	1050	1200	1440	-	-	-
	Handwheel	V mm.	200	225	300	400*	500*	600*	600*	800*	1000*	-	-	-

Fig. 1230 Class #600	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	292	256	435	559	660	787	838	889	991	-	-	-
	RTJ End to e.	L mm.	295	359	435	562	663	790	841	892	994	-	-	-
	Center to top	H mm.	370	565	620	800	860	1280	1350	1490	1720	-	-	-
	Handwheel	V mm.	200	250	300*	600*	600*	700*	800*	800*	1000*	-	-	-

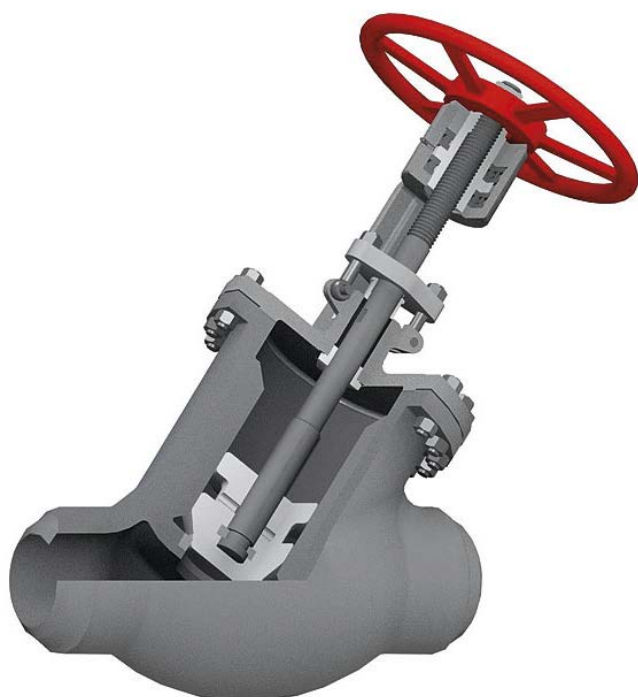
Fig. 1231 Class #1500	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	368	470	546	705	832	991	1130	-	-	-	-	-
	RTJ End to e.	L mm.	371	473	549	711	842	1000	1146	-	-	-	-	-
	Center to top	H mm.	590	790	860	1000	1100	1720	1810	-	-	-	-	-
	Handwheel	V mm.	300	500*	500*	900*	1000*	1000*	1000*	-	-	-	-	-

*Gear operator recommended

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Y-PATTERN BELLOW SEAL VALVES

CAST STEEL – BS 1873 / ASME B16.34



STANDARD FEATURES

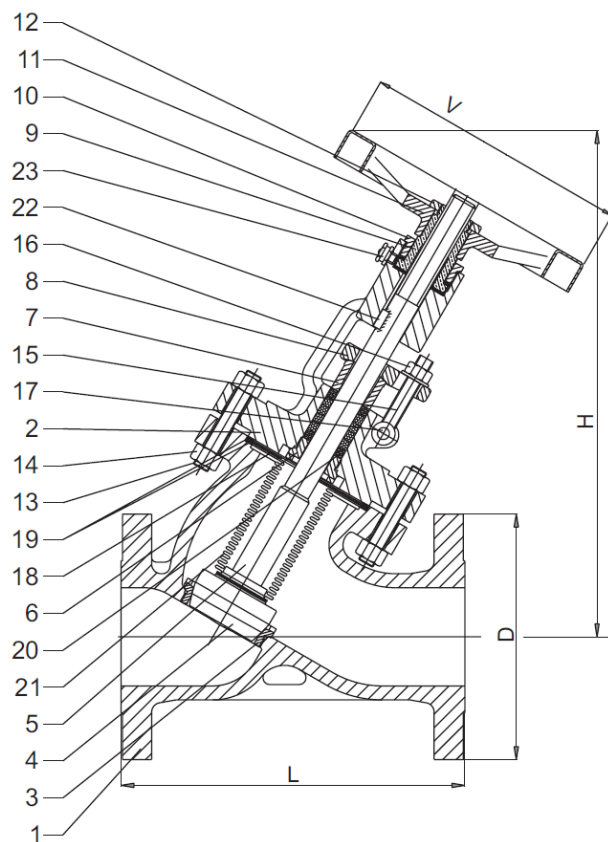
- **Construction:** Bolted Bonnet
OS&Y
Rising Stem
Rising Handwheel
Renewable Seats
- **Design:** BS 1873
ASME B16.34
- **Connections:** Butt Welding ends
Flanged ends
Ring Joint Ends
- **Testing:** API 598
API 6D
BS 6755
- **Rating:** ASME B16.34
- **Marking:** MSS-SP 25
CE – PED
- **Certificates:** EN 10204 – 3.1 B

BS 1873 BELLOW SEAL VALVES - BODY/BONNET MATERIALS & TRIM

Body & Bonnet		Bellow	API Trim No.	Description
Carbon Steel	ASTM A216 WCB / WCC	AISI 316	1	F6
L.T. Carbon Steel	ASTM A352 LCB / LCC	AISI 321	2	304
Alloy Steel	ASTM A217 WC6	ALLOY 400 (Monel®)	5	F6 – Full Stellite
Alloy Steel	ASTM A217 WC9	ALLOY 625 (Inconel® 625)	8	F6 – Half Stellite
Alloy Steel	ASTM A217 C5	ALLOY C276 (Hastelloy® C-276)	10	316
Alloy Steel	ASTM A217 C12	-	12	316 – Half Stellite
Stainless Steel	ASTM A351 CF3 / CF3M	-	15	304 – Full Stellite
Stainless Steel	ASTM A351 CF8 / CF8M	-	16	316 – Full Stellite

-Other materials available on request-

All data are for reference only use and subject to changes without prior notice.



Y-Pattern Globe Valve – Bellow Sealed - OS&Y
Bolted Bonnet for Class #150 / 300
RTJ Bolted Bonnet for Class #600 / 1500

Integral Flanged Ends RF/RTJ Finish ASME B16.5
Butt Welding Ends ASME B16.25

No.	Part	No.	Part
1	Body	2	Bonnet
3	Seat ring surface	4	Disc seat surface
5	Stem	6	Backseat
7	Gland	8	Gland flange
9	Yoke sleeve	10	Yoke nut
11	Handwheel	12	Handwheel nut
13	Bolts	14 / 16	Nuts
15	Eye bolts	17	Eye bolt pin
18	Bellow flange	19	Gasket
20	Packing	21	Bellow
22	No rot. Device	23	Grease nipple

Fig. 1220 Class #150	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	203	241	292	406	495	622	699	787	914	-	-	-
	RTJ End to e.	L mm.	216	254	305	419	508	635	711	800	927	-	-	-
	Center to top	H mm.	320	380	440	560	680	750	860	930	1250	-	-	-
	Handwheel	V mm.	200	225	250	300	400*	600*	600*	800*	1000*	-	-	-

Fig. 1225 Class #300	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	267	318	357	445	559	622	711	838	864	-	-	-
	RTJ End to e.	L mm.	282	333	371	460	575	638	727	854	879	-	-	-
	Center to top	H mm.	390	410	430	680	800	850	1010	1150	1390	-	-	-
	Handwheel	V mm.	200	225	300	400*	500*	600*	600*	800*	1000*	-	-	-

Fig. 1230 Class #600	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	292	256	435	559	660	787	838	889	991	-	-	-
	RTJ End to e.	L mm.	295	359	435	562	663	790	841	892	994	-	-	-
	Center to top	H mm.	350	545	600	780	840	1235	1311	1430	1660	-	-	-
	Handwheel	V mm.	200	250	300*	600*	600*	700*	800*	800*	1000*			

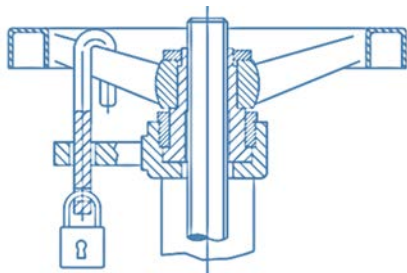
Fig. 1231 Class #1500	Ø		2"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
	RF/BW End to e.	L mm.	368	470	546	705	832	991	1130	-	-	-	-	-
	RTJ End to e.	L mm.	371	473	549	711	842	1000	1146	-	-	-	-	-
	Center to top	H mm.	575	770	840	973	1043	1670	1750	-	-	-	-	-
	Handwheel	V mm.	300	500*	500*	900*	1000*	1000*	1000*	-	-	-	-	-

*Gear operator recommended

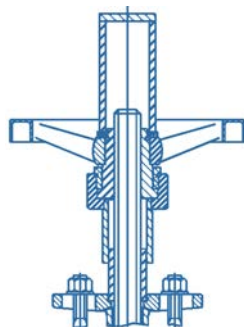
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SPECIAL EXECUTIONS

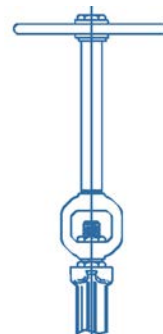
AVAILABLE UPON REQUEST



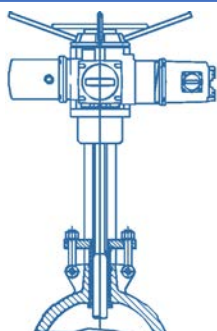
LOCKING DEVICE



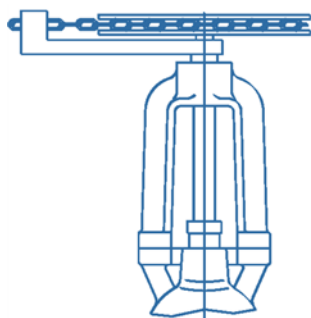
STEM PROTECTION



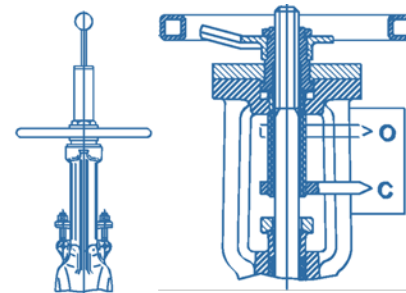
STEM EXTENSION



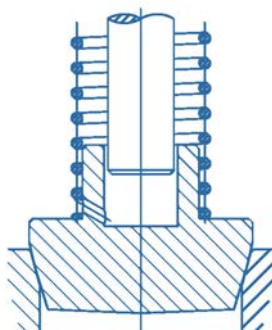
ELECTRIC ACTUATOR



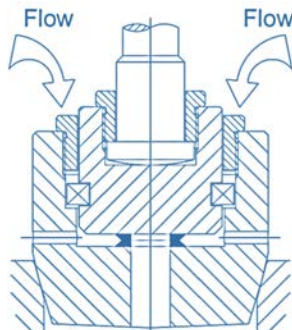
CHAIN WHEEL



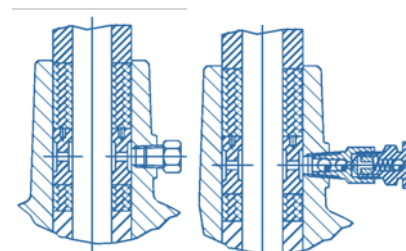
POSITION INDICATOR



STOP CHECK DISC



DOUBLE STAGE DISC



LANTERN RING

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MATERIAL SPECIFICATIONS								
Material Group	Common Name	UNS	Forging Spec.	Casting Spec. Equivalent	DIN	DIN	Material Group	
Carbon Steel	CS	K03504	A105N	A216-WCB	C22.8 DIN 17243	1.0460	General non-corrosive service from -20F(-29C) to 800F(427C)	
Low Temperature Carbon Steel	LTCS	K03011	A350-LF2	A352-LCA A352-LCB A352-LCC	TSTE 355 DIN 18103	1.0566	General non-corrosive service from -50F (-46C) to 650F(340C), LF2 to 800F(427C).	
Low Temperature Alloy Steel	Nickel Steel	K32025	A350-LF3	A352-LC3	10Ni14	1.5637	-150F(-101C) to 650F(340C)	
Low Alloy Steel	Moly Steel	K12822	A182-F1	A217-WC1	15MO3	1.5415	Up to 875F (468C)	
	Alloy Steel Chrome Moly	K11572	A182-F11 cl2	A217-WC6	13CRMO44	1.7335	Up to 1100F (593C)	
		K21590	A182-F22 cl3	A217-WC9	10CRMO910	1.7380	Up to 1100F(593C), HP steam	
		K41545	A182-F5	A217-C5	12CRMO195	1.7362	High temp refinery service	
		K90941	A182-F9	A217-C12	X 12 CrMo 9 1	1.7386	High temp erosive refinery service	
		A182-F91	A217-C12A	X 10 CrMoVNb 9 1	1.4903	High pressure steam		
		A182-F304	A351-CF8	DIN X5CrNi 18 9	1.4301	0.04% min. carbon for temp.>1000F(538C)		
Stainless Steel	Austenitic S.Steel 300 series S.Steel	S30403	A182-F304L	A351-CF3	X 2 CrNi 19 11	1.4306	Up to 800F(427C)	
		S30409	A182-F304H			n/a	n/a	
		S31600	A182-F316	A351-CF8M	DIN X5CrNiMo 18 10	1.4401	0.04% min. carbon for temp.>1000F(538C)	
		S31603	A182-F316L	A351-CF3M	X 5 CrNiMo 17 12 2	1.4404	Up to 800F(427C)	
		S31609	A182-F316H		n/a	n/a		
		S31635	A182-F316Ti		X 6 CrNiMoTi 17 12 2	1.4571		
		S32100	A182-F321		X 6 CrNiTi 18 10	1.4541	0.04% min. carbon (grade F321H) and heat treat at 2000F(1100C) for service temps.>1000F(538C)	
		S32109	A182-F321H		n/a	n/a		
		S34700	A182-F347	A351-CF8C	DIN 8556	1.4550	0.04% min. carbon (grade F347H) and heat treat at 2000F(1100C) for service temps.>1000F(538C)	
		S34709	A182-F347H		n/a	n/a		
		S31703	A182-F317L	A351-CG3M	X2CrNiMo18-16-4	1.4438		
		Alloy 20	N08020	A182-F20	A351-CN7M	DIN 1.4500	2.4660	service to 600F(316C)
		Duplex 2205	S31803 S32205	A182-F51	A890-J92205	X2CrNiMoN22-5-3 DIN 10088-1 (95)	1.4462	service to 600F(316C) -The original S31803 UNS design- nation has been supplemented by S32205 which has higher minimum N, Cr, and Mo.
	Super Duplex 2507	S32750	A182-F53	A351-CD4MCu A890 5A	X2CrNiMoN25-7-4 DIN 10088-1 (95)	1.4501	service to 600F(316C)	
	Super Duplex F55	S32760	A182 F55	CD3MWCuN			Service to 600F	
	Super Austenitic 6Mo	S31254	A182-F44	A351-CK3MCuN	X1CrNiMoCuN20-18-7 DIN 10088-1 (95)	1.4547	service to 600F(316C)	
	Nickel-Iron Alloy	Incoloy 800	N08800	B564-N08800		X10NiCrAlTi32-20	1.4876	service to 1000F(538C)
		Incoloy 825	N08825	B564-N08825	A494-CU5MCuC	DIN 17744	2.4858	service to 600F(316C) for N02200, 1200F(648C) for N02201
Nickel	Nickel	N02200	B160-N02200 (bar)	A494-CZ-100	NW2200	1.7740		
Nickel-Copper	Monel 400	N04400	B564-N04400	A494-M35-1	DIN 17730	2.4360		
	Monel 500	N05500	B564-N05500			2.4375		
Nickel-Alloy	904L	N08904	904L	n/a	Z2 NCDU 25-20	1.4539		
Nickel Superalloys	Inconel 600	N06600	B564-N06600	A494-CY40	DIN 17742	2.4816		
	Inconel 625	N06625	B564-N06625*	A494-CW-6MC		2.4856	*Difficult to forge in close dye	
	Hastelloy C-276	N10276	B564-N10276*	A494-CW-2M	NiMo 16 Cr 15 W	2.4819	*Difficult to forge in close dye	
Titanium	Titanium	R50400	B381-Gr2	B367-C2	Ti 2	3.7035		
TRIM DESCRIPTION								
API Trim No	Nonimal Trim	Descr.	Stem	Disc / Wedge	Seat			
1	F6	F6	410 (13Cr)	F6 (13Cr)	410 (13Cr)			
2	304	304	304 (18Cr-8Ni)	304 (18Cr-8Ni)	304 (18Cr-8Ni)			
3	-	-	(25Cr-20Ni)	310 (25Cr-20Ni)	310 (25Cr-20Ni)			
4	-	-	410 (13Cr)	F6 (13Cr)	F6 (13Cr)			
5	Hardfaced	F6HF	410 (13Cr)	F6+St.Gr6 (CoCr Alloy)	410+St.Gr6 (CoCrAlloy)			
6	-	-	410 (13Cr)	F6 (13CR)	Monel® (NiCu Alloy)			
7	-	-	410 (13Cr)	F6 (13Cr)	F6 (13Cr)			
8	F6 and Hardfaced	F6HFS	410 (13Cr)	F6 (13Cr)	410+St.Gr6 (CoCrAlloy)			
9	Monel	Monel	Monel® (NiCu Alloy)	Monel® (NiCu Alloy)	Monel® (NiCu Alloy)			
10	316	316	316 (18Cr-8Ni-Mo)	316 (18Cr-8Ni-Mo)	316 (18Cr-8Ni-Mo)			
11	Monel and Hardfaced	MonelHFS	Monel® (NiCu Alloy)	Monel® (NiCu Alloy)	Monel® St Gr6			
12	316 and Hardfaced	316HFS	316 (18Cr-8Ni-Mo)	316 (18Cr-8Ni-Mo)	316 + St. Gr6			
13	Alloy 20	Alloy 20	Alloy 20 (19Cr-29Ni)	Alloy 20 (19Cr-29Ni)	Alloy 20 (19Cr-29Ni)			
14	Alloy 20 and Hardfaced	Alloy 20HFS	Alloy 20 (19Cr-29Ni)	Alloy 20 (19Cr-29Ni)	Alloy 20 St Gr6			
15	Hardfaced (304)	304-HF	304 (18Cr-8Ni)	304 + St Gr6	304 + St Gr6			
16	Hardfaced (316)	316-HF	316 HF (18Cr -8Ni-Mo)	316 + St Gr6	316 + St Gr6			
17	Hardfaced (347)	347-HF	347 HF(18Cr-10Ni-Cb)	347 + St Gr6	347 + St Gr6			
18	Hardfaced Alloy 20 HF	Alloy 20 HF	Alloy 20 (19Cr-29Ni)	Alloy 20 + St Gr6	Alloy 20 + St Gr6			
n/a	Alloy 625	Alloy 625	Alloy 625	Alloy 625	Alloy 625			

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