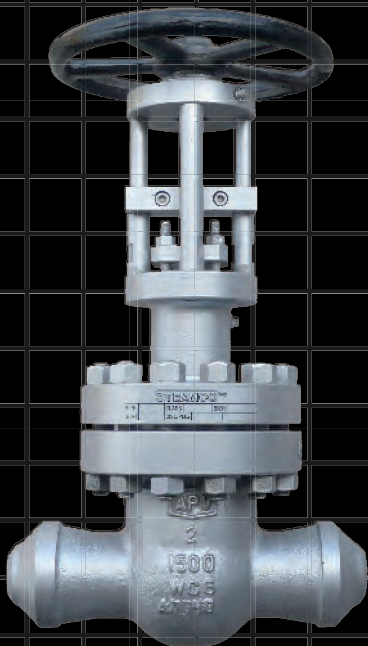
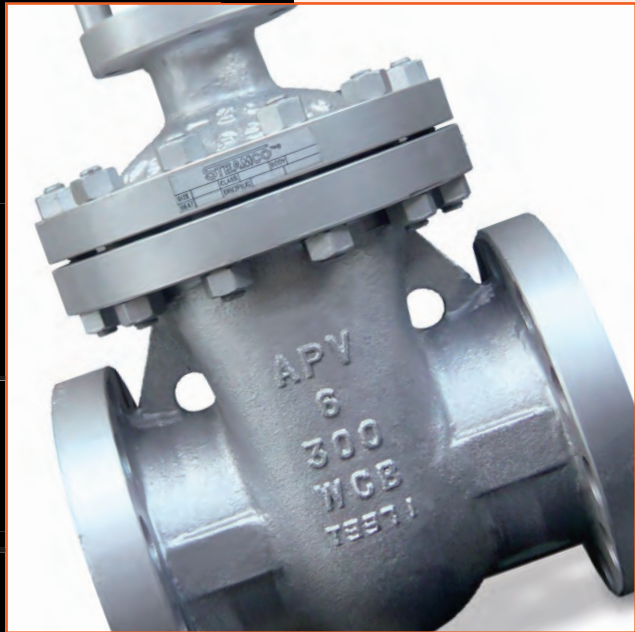
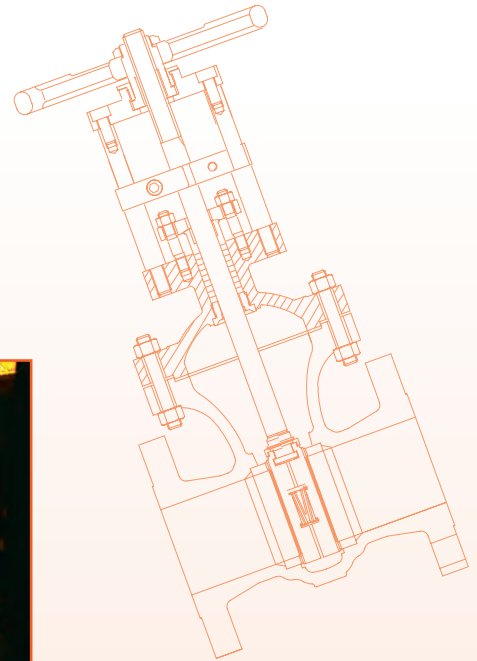


CAST STEEL STEAM VALVES

STEAMCO®



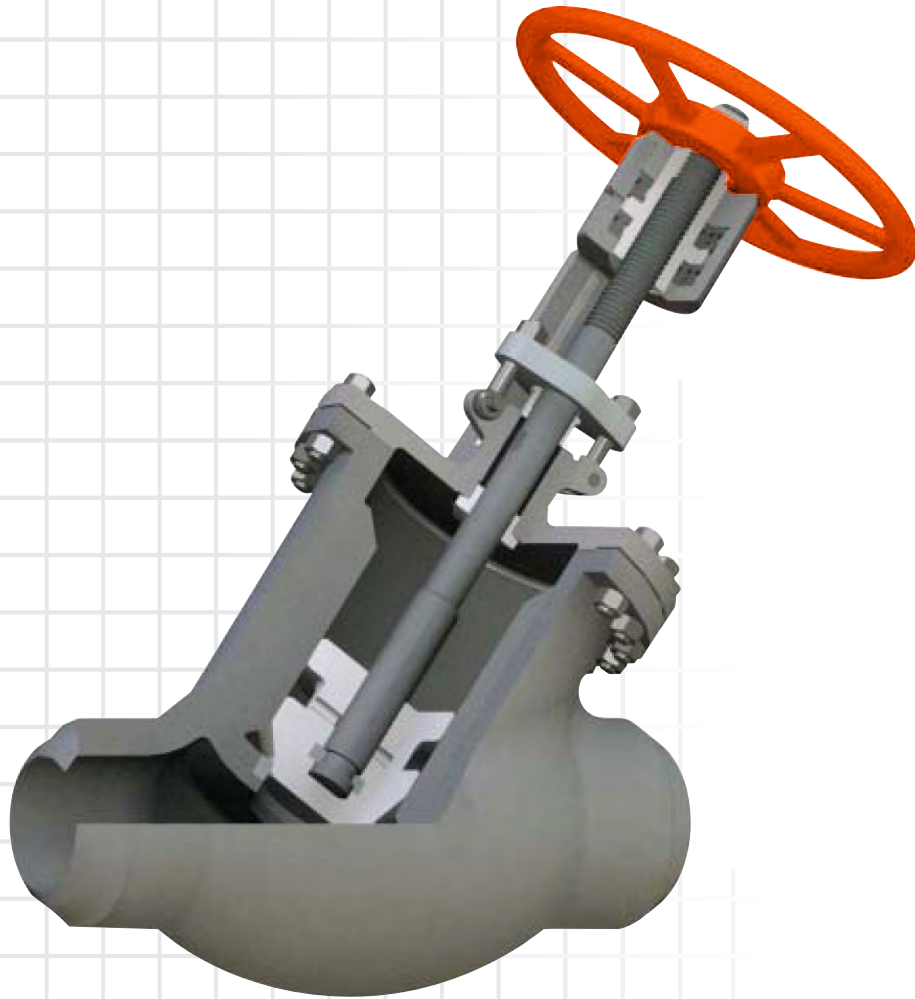
API 622 & ISO 15848-1
Fugitive Emission Certified



**AUSTRALIAN
PIPELINE VALVE®**

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QUALITY VALVE MANUFACTURER



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AUSTRALIAN PIPELINE VALVE®

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email: admin@australianpipelinevalve.com.au

Consistent product quality and availability of substantial stocks, makes Australian Pipeline Valve - Steamco a dependable choice for cast parallel slide gate, globe and check valves, where total reliability is the number one concern. Australian Pipeline Valve offers valves either to standard specification, or valves can be modified to suit customers specific requirements, both quickly and economically.

Figure Number System

EXAMPLE

150 316S U S N - 9 P BW G

							Suffix denoting operator G = Gear, Blank = Handwheel or N/A			
							Suffix denoting end connection (Blank is RF, RJ is RTJ, BW is Butt weld, SP is special drilling, FF = Flat Face)			
							Suffix denoting bonnet (P is Pressure Seal, W is Welded, Blank is Bolted)			
							Suffix denoting valve body material (see page 5)			
							N denotes NACE, Blank is Non NACE			
							Blank is standard configuration (example solid wedge), F denotes flexible disc Gate, P denotes full opening check (API6D) S denotes Parallel Slide, D denotes Globe-Stop Check, Z denotes C/W Spring R denotes Right Angle			
							Denotes trim (see below)			
							Basic model number (As shown in catalogue)			
							Valve Size (mm)			

Trim Types

TRIM CODE	BODY SEAT SURFACE	DISC SURFACE	STEM	BACK SEAT (STUFFING BOX)
X	F6	F6	F6	F6
U	Stellite	Stellite	F6	F6
XU	Stellite	F6	F6	F6
P*	F304*	F304*	F304	F304
L*	F316*	F316*	F316	F316
A*	Monel*	Monel*	Monel	Monel
N*	Alloy 20*	Alloy 20*	Alloy 20	Alloy 20
H*	Hastelloy B*	Hastelloy B*	Hastelloy B	Hastelloy B
Z*	Special	Special	Special	Special
B	Bronze	Bronze	Bronze	Bronze

* Note if stellite seat then add XU modifier to end, if stellite seat and disc then add U modifier, if PTFE seat add TF modifier.

Figure Number Codes



BODY MATERIAL CODE • BODY/BONNET AND OR CAP MATERIALS

Suffix	ASTM Spec.	Material
None	A216 Gr.WCB	Carbon Steel
1	A216 WCC	Carbon Steel
2	A352 LCC	Low Carbon Steel
2B	A352 LCB	Low Carbon Steel
3	A352 LC3	Low Carbon Steel
3M	A351 CF3M	Stainless with Molybdenum (low carbon)
4	A217 WCI	Carbon Moly 1/2% Mo
4L	A352 LC1	Carbon Moly 1/2% Mo
5	A217 Gr. C5	5% Cr, 1/2% Mo
6	A217 Gr.WC6	1-1/4% Cr, 1/2% Mo
8	A351 CF8	Stainless 18% Cr, 8% Ni
8C	A351 CF8C	Stainless 18% Cr, 10% Ni & Cb
8M	A351 CF8M	Stainless with Molybdenum
9	A217 Gr.WC9	2-1/4% CR, 1% Mo
12	A217 Gr. C12	Chrome Moly 9% Cr, 1% Mo
19	Bronze	Bronze B62/LG2/B148
20	AL-Bronze	Aluminium Bronze
0	SPECIAL	



API 622 2011 2nd Edition
Fugitive Emission Certified



API 6FA & ISO 10497
Firesafe Certified



API 622 & ISO 15848-1
Endurance Test Certified

MATERIALS FERRITIC STEELS

CHEMICAL REQUIREMENTS (%)									MECHANICAL PROPERTIES			
Carbon	Manganese	Phosphorous	Sulphur	Silicon	Nickel	Chromium	Molybdenum	Tensile Strength N/mm ²	Yield Strength N/mm ²	Elongation 2" (50mm)	Reduction of Area	
CAST CARBON STEEL									ASTM A216, Grade WCB			
Min	-	-	-	-	-	-	-	485	205	22%	35%	
Max	0.35	1.00	0.040	0.045	0.60	-	-	655	-	-	-	
FORGED CARBON STEEL									ASTM A105			
Min	-	0.60	-	-	-	-	-	485	250	22%	30%	
Max	0.35	1.05	0.040	0.05	0.35	-	-	-	-	-	-	
CAST CARBON STEEL FOR LOW TEMPERATURES									ASTM A352, Grade LCB*			
Min	-	-	-	-	-	-	-	450	240	24%	35%	
Max	0.30	1.00	0.040	0.045	0.60	-	-	620	-	-	-	
CAST CARBON MOLY STEEL FOR LOW TEMPERATURES									ASTM A352, Grade LCI*			
Min	-	0.50	-	-	-	-	0.45	450	240	24%	35%	
Max	0.25	0.80	0.040	0.045	0.60	-	0.65	620	-	-	-	
CAST 2% NICKEL STEEL FOR LOW TEMPERATURES									ASTM A352, Grade LC2*			
Min	-	0.50	-	-	-	2.0	-	485	275	24%	35%	
Max	0.25	0.80	0.040	0.045	0.60	3.0	-	655	-	-	-	
CAST 3% NICKEL STEEL FOR LOW TEMPERATURES									ASTM A352, Grade LC3*			
Min	-	0.50	-	-	-	3.0	-	485	275	24%	35%	
Max	0.15	0.80	0.040	0.045	0.60	4.0	-	655	-	-	-	
CAST CARBON MOLY STEEL									ASTM A217, Grade WCI			
Min	-	-	-	-	-	-	0.45	450	240	24%	35%	
Max	0.25	0.80	0.040	0.045	0.60	-	0.65	620	-	-	-	
CAST 1% CR - ½% MO ALLOY STEEL									ASTM A217, Grade WC6			
Min	-	0.50	-	-	-	1.0	0.45	485	275	20%	35%	
Max	0.20	0.80	0.040	0.045	0.60	1.50	0.65	655	-	-	-	
CAST 2% CR - 1% MO ALLOY STEEL									ASTM A217, Grade WC9			
Min	-	0.40	-	-	-	2.0	0.9	485	275	20%	35%	
Max	0.18	0.70	0.040	0.045	0.60	2.75	1.20	655	-	-	-	
CAST 1 - 6% CR ALLOY STEEL									ASTM A217, Grade C5			
Min	-	0.40	-	-	-	4.0	0.45	620	415	18%	35%	
Max	0.20	0.70	0.040	0.045	0.75	6.50	0.65	795	-	-	-	
CAST 9% CR - 1% MO ALLOY STEEL									ASTM A217, Grade C12			
Min	-	0.35	-	-	-	8.0	0.9	620	415	18%	35%	
Max	0.20	0.65	0.040	0.045	1.00	10.00	1.20	795	-	-	-	
CAST 12 - 14% CR ALLOY STEEL									ASTM A217, Grade CA15			
Min	-	-	-	-	-	11.5	-	620	450	18%	30%	
Max	0.15	1.00	0.040	0.030	1.50	1.0	14.0	0.50	795	-	-	
FORGED/ROLLED 12 - 14% CR ALLOY STEEL									ASTM A182, Grade F6a			
Min	-	-	-	-	-	11.5	-	760	585	15%	35%	
Max	0.15	1.00	0.040	0.030	1.00	0.50	13.5	-	-	-	-	

*Usual minimum service temperature : LCB at -46°C (-50°F), LCI at -60°C (-75°F), LC2 at -75°C (100°F), LC3 at -100°C (-150°F)

AUSTENITIC STEELS

CHEMICAL REQUIREMENTS (%)									MECHANICAL PROPERTIES			
Carbon	Manganese	Phosphorous	Sulphur	Silicon	Nickel	Chromium	Molybdenum	Tensile Strength N/mm ²	Yield Strength N/mm ²	Elongation 2" (50mm)	Reduction of Area	
CAST STAINLESS STEEL WITH MOLYBDENUM (LOW CARBON)									ASTM A351, Grade CF3M			
Min	-	-	-	-	9.0	17.0	2.0	485	205	30%	-	
Max	0.03	1.50	0.040	0.040	1.50	13.0	3.0	-	-	-	-	
CAST STAINLESS STEEL WITH MOLYBDENUM									ASTM A351, Grade CF8M			
Min	-	-	-	-	9.0	18.0	2.0	485	205	30%	-	
Max	0.08	1.50	0.040	0.040	1.50	12.0	3.0	-	-	-	-	
CAST STAINLESS STEEL WITH COLUMBIUM (NIOBIUM)									ASTM A351, Grade CF8C			
Min	-	-	-	-	9.0	18.0	-	485	205	30%	-	
Max	0.08	1.50	0.040	0.040	2.00	12.0	0.50	-	-	-	-	

ASTM A351-CF8C shall have a columbium content of not less than 8 times the carbon content but not over 1.00%

Parallel Slide Gate Valve

Cat P316S

Class 150-1500

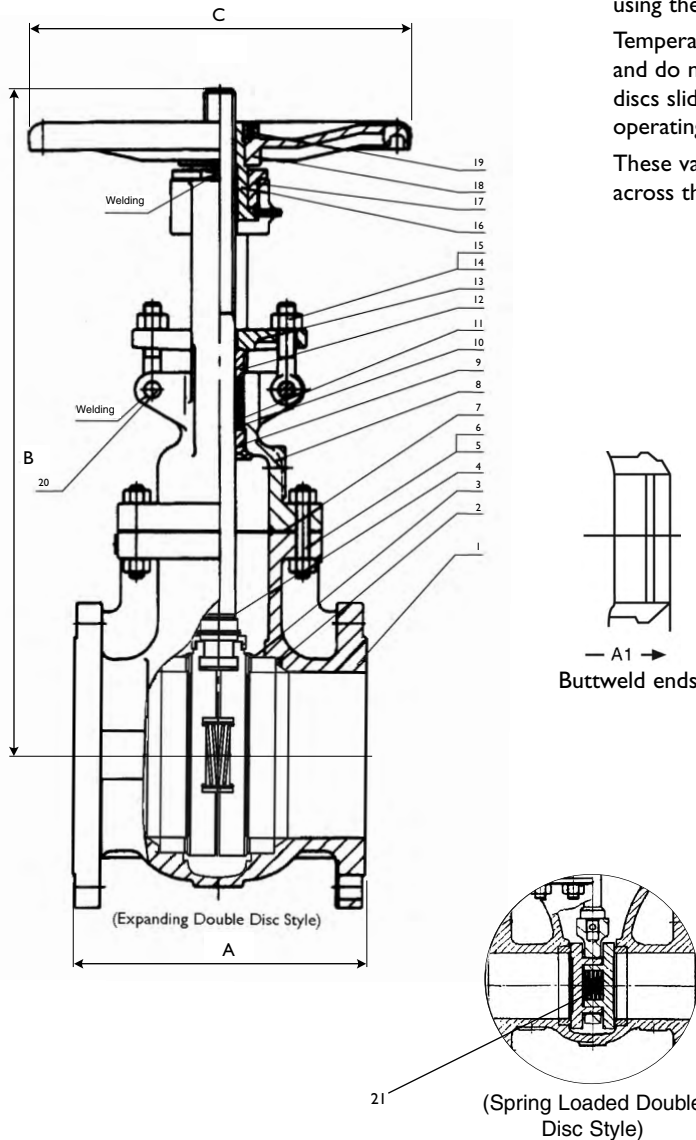


For installation in applications such as industrial, mining and mechanical services. Suitable for super-heated steam, H.T.H.W steam condensate and water.

This design consists of two discs, kept in contact with parallel body seats, using the line pressure and seating action to effect tight closure.

Temperature changes in the line are accommodated by the expanding disc and do not affect the action of the valve. When being opened or closed, the discs slide across the seat faces, dislodging any foreign matter. The valve operating stem is outside screw rising through the handwheel.

These valves are suitable for full bore steam use, where a low pressure drop across the valve is required. Also suitable for water, oil, gas, etc.



STANDARD MATERIAL SPECIFICATIONS

Part	Material	
1	Body	ASTM A216 Gr.WCB
2	Seat Ring	ASTM A105 + HF
3	Parallel Discs	ASTM A216 Gr.WCB + F6/HF
4	Stem	ASTM A182 Gr. F6
5	Bolt	ASTM A193 Gr. B7
6	Nut	ASTM A194 Gr. 2H
7	Gasket	Stainless Steel/Graphite
8	Bonnet	ASTM A216 Gr.WCB
9	Back Seat	ASTM A182 Gr. F6
10	Packing	Braided Graphite
11	Packing	Flexible Graphite
12	Gland	ASTM A182 Gr. F6
13	Gland Flange	ASTM A216 Gr.WCB
14	Eye-Bolt	ASTM A193 Gr. B7
15	Nut	ASTM A194 Gr. 2H
16	Stem Nut	ASTM A439 Gr. D2
17	Retaining Nut	ASTM A105
18	Handwheel	ASTM A395
19	Handwheel Nut	Steel
20	Yoke Pin	ASTM A182 Gr. F6
21	Spring	Inconel X750

STANDARDS COMPLIANCE:

Basic Design: API 600, ANSI B16.34, BS 5157
 Face to Face Dimension: ANSI B16.10
 End to End Dimension: ANSI B16.10
 Flanged Ends: ANSI 16.5
 B.W. Ends: ANSI B16.25
 Drilling to ANSI or BS/AS2129 Table D to H or PN 10 to 250
 Pressure/Temperature ratings to ANSI B16.5/BS 1560

PRESSURE/TEMPERATURE WCB BODY

Class	Cat No.	Test Pressure to API598 (PSIG)			Working Pressure	
		Shell (Hydro)	Seat (Hydro)	Seat (Air)	CWP WOG	Saturated Steam (at 260°C)*
150 (AS/BST D to F)	150-P316SXU-S	450	315	80	280	170
300 (AS/BST H to J)	300-P316SXU-S	1125	815	80	720	600
600	600-P316SXU-S	2225	1628	80	1440	1200
900	900-P316SXU-S	3350	2442	80	2190	1800
1500	1500-P136SXU-S	5626	4078	80	3600	3000

For superheated steam etc. consult chart.
 WC6 chrome-moly available body for high temperature applications.

O.S. & Y. Rising Stem Full Port, Expanded Parallel Slide Gate Valve, Double Disc, Pressure Seal or Bolted Bonnet, Welded-in or Threaded Seat Rings. Mechanically loaded seating for low and high pressure sealing.

Parallel slide dual loaded discs ensure superior shut off and allow by-pass/bleed fitment (double block and bleed requires soft seat inserts).

Pressure/temperature charts available on request.

Parallel Slide Gate Valve



Cat P316S

Class 150-1500

TRIM MATERIAL CODES (TO API 600)

Seating Code	Body Seat Surface Part No. 3	Double Disc Surface Part No. 4	Stem Part No. 5	Back Seat (Stuffing Box) Part No. 10
X	F6	F6	F6	F6
U	Stellite	Stellite	F6	F6
XU	Stellite	F6	F6	F6
P*	F304	F304	F304	F304
R*	F316	F316	F316	F316
M*	Monel	Monel	Monel	Monel
N*	Alloy 20	Alloy 20	Alloy 20	Alloy 20
H*	Hastelloy B	Hastelloy B	Hastelloy B	Hastelloy B

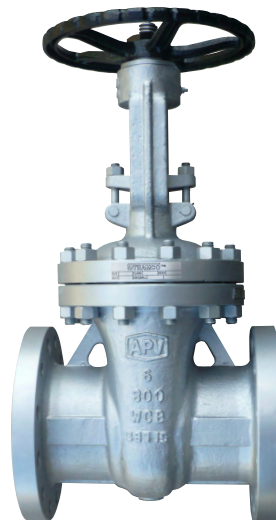
Body Material Codes	
None	A216 WCB
0	Special
5	A217 C5
6	A217 WC6
8	A351 CF8
8M	A351 CF8M
9	A217 WC9

* Add XU modifier to end of model suffix if stellite seat, if stellite seat & disc add U modifier to end.

OVERALL DIMENSIONS (MM) & WEIGHT (KG)

VALVE SIZE (NPS)		inch	2	2½	3	4	5	6	8	10	12	14	16	18	20	24
		mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
CLASS 150 (Table D to F)	D	mm	51	64	76	102	125	152	203	254	305	337	387	438	489	591
	A	mm	178	190	203	229	254	267	292	330	356	381	406	432	457	508
	B (Open)	mm	409	472	490	612	720	806	990	1186	1415	1583	1771	1955	2210	2698
	C	mm	200	200	250	250	350	350	350	450	500	560	640	720	800	900
	Weight (kg)	RF	20	25	38	55	75	85	134	198	320	400	524	690	900	1350
CLASS 300 (Table F to H)	D	mm	51	64	76	102	125	152	203	254	305	337	387	438	489	591
	A-A'	mm	216	241	283	305	354	403	419	457	502	760	838	914	991	1143
	B (Open)	mm	428	477	543	650	720	850	1037	1276	1438	1585	1960	2155	2350	2720
	C	mm	200	250	250	300	300	350	450	500	560	640	720	800	900	1118
	Weight (kg)	RF	25	44	50	74	124	137	217	337	580	715	1050	1235	1655	2320
CLASS 600	D	mm	51	64	76	102	125	152	203	254	305	337	387	438	489	
	A-A'	mm	292	330	356	432	508	559	660	787	838	889	991	1092	1192	
	B (Open)	mm	474	553	593	654	857	970	1122	1330	1519	1716	2110	2400	2461	
	C	mm	250	250	300	350	400	500	560	720	720	720	900	1000	1000	
	Weight (kg)	RF	50	60	85	135	260	345	515	845	1120	1360	1910	2335	2700	
CLASS 900	D	mm	51	60	76	102	120	152	203	254	305	324	375	438		
	A-A'	mm	372	419	384	460	559	613	740	841	968	1039	1140	1219		
	B (Open)	mm	590	702	740	870	1051	1078	1318	1581	1867	2004	2178	2526		
	C	mm	250	300	300	350	450	560	640	800	800	900	900	900		
	Weight (kg)	RF	110	140	150	220	355	460	800	1050	1600	2220	3000	3870		

Note: 15mm to 40mm NB also available refer to individual drawings.



Parallel Slide Gate Valve

Cat P316H

Class 150-1500



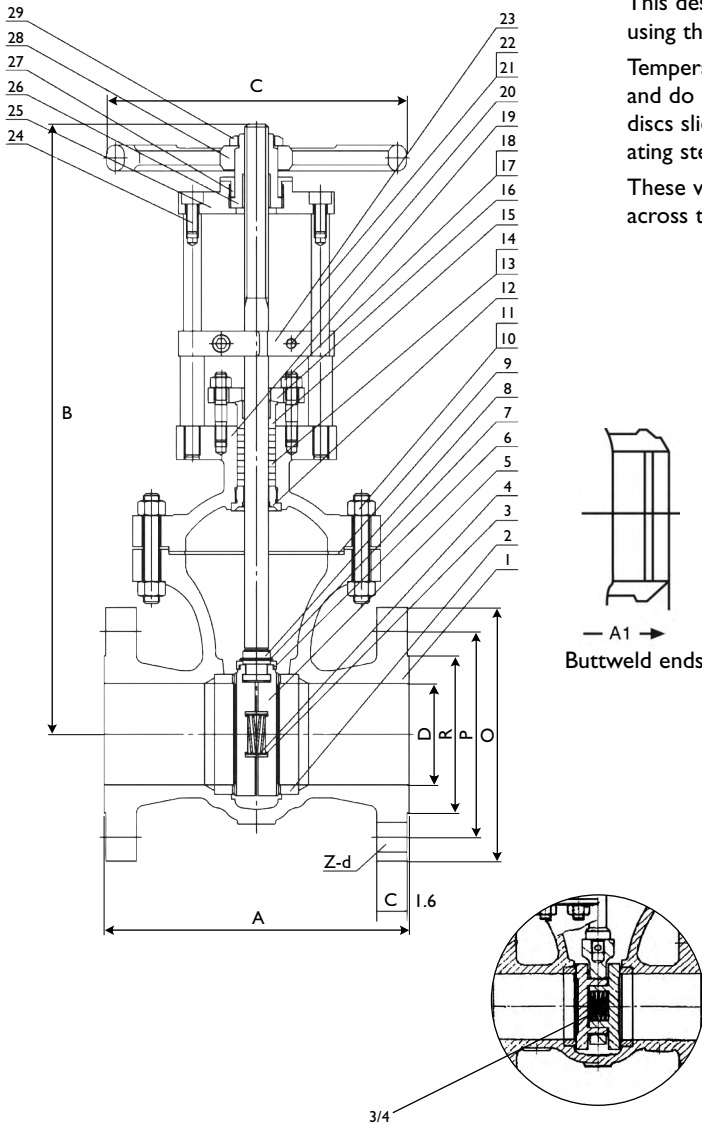
The P316H style parallel slide is the same dimensions as the P316S except has pillar type top works. The P316H also has spring energised discs.

For installation in applications such as industrial, mining and mechanical services. Suitable for super-heated steam, H.T.H.W steam condensate and water.

This design consists of two discs, kept in contact with parallel body seats, using the tension spring to effect tight closure.

Temperature changes in the line are accommodated by the energised discs and do not affect the action of the valve. When being opened or closed, the discs slide across the seat faces, dislodging any foreign matter. The valve operating stem is outside screw rising through the handwheel (OSY).

These valves are suitable for full bore steam use, where a low pressure drop across the valve is required. Also suitable for water, oil, gas, etc.



STANDARD MATERIAL SPECIFICATIONS

Part	Material	
1	Body	ASTM A216 Gr. WCB
2	Seat Ring	ASTM A105 + HF
3	Spring	Inconel X750
4	Spring Coil	AISI 410
5	Parallel Disc	ASTM A216 Gr. WCB + F6/HF
6	Bushing	AISI 410
7	Pin	AISI 410
8	Stem	ASTM A182 Gr. F6
9	Gasket	Stainless Steel/Graphite
10	Bolt	ASTM A193 Gr. B7
11	Nut	ASTM A194 Gr. 2H
12	Back Seat Ring	ASTM A182 Gr. F6
13	Packing	Flexible Graphite
14	Packing	Braided Graphite
15	Gland	ASTM A182 Gr. F6
16	Gland Flange	ASTM A216 Gr. WCB
17	Bolt	ASTM A193 Gr. B7
18	Nut	ASTM A194 Gr. 2H
19	Bonnet	ASTM A216 Gr. WCB
20	Bolt	ASTM A194 Gr. 2H
21	Supporting Pole	1045
22	Guide Pole	1045
23	Yoke Plate	1025
24	Bolt	ASTM A194 Gr. 2H
25	Supporting Disc	1025
26	Stem Nut	D-2
27	Retaining Nut	1035
28	Handwheel	A47
29	Handwheel Nut	1035

PRESSURE/TEMPERATURE WCB BODY

Class	Cat No.	Test Pressure to API598 (PSIG)			Working Pressure	
		Shell (Hydro)	Seat (Hydro)	Seat (Air)	CWP WOG	Saturated Steam (at 260°C)*
150	150-P316HXU-S	450	315	80	280	170
300	300-P316HXU-S	1125	815	80	720	600
600	600-P316HXU-S	2225	1628	80	1440	1200
900	900-P316HXU-S	3350	2442	80	2190	1800
1500	1500-P136HXU-S	5626	4078	80	3600	3000

For superheated steam etc. consult chart.

* WC6 chrome-moly available body for high temperature applications.

STANDARDS COMPLIANCE:

Basic Design: API 600/BS EN 1984/S 5157/ANSI B16.34

Face to Face Dimension: ANSI B16.10

End to End Dimension: ANSI B16.10

Flanged Ends: ANSI 16.5

B.W. Ends: ANSI B16.25

Drilling to ANSI, BS/AS2129 Table D to H or PN10 to 250

Pressure/Temperature Ratings to ANSI B16.34/BS 1560

O.S. & Y. Rising Stem, Full Port, Expanded Parallel Slide Gate Valve, Double Spring energised Discs, Pressure Seal or Bolted Bonnet, Welded-in or Threaded Seat Rings. Spring energised loaded seating for low and high pressure sealing.

Parallel slide dual loaded discs ensure superior shut off and allow by pass/bleed fitment (double block and bleed requires soft seat inserts).

Parallel Slide Gate Valve

Cat P316H

Class 150-1500



TRIM MATERIAL CODES (TO API 600)

Seating Code	Body Seat Surface Part No. 2	Double Disc Surface Part No. 5	Stem Part No. 8	Back Seat (Stuffing Box) Part No. 12
X	F6	F6	F6	F6
U	Stellite	Stellite	F6	F6
XU	Stellite	F6	F6	F6
P*	F304	F304	F304	F304
R*	F316	F316	F316	F316
M*	Monel	Monel	Monel	Monel
N*	Alloy 20	Alloy 20	Alloy 20	Alloy 20
H*	Hastelloy B	Hastelloy B	Hastelloy B	Hastelloy B

Body Material Codes	
None	A216 WCB
0	Special
5	A217 C5
6	A217 WC6
8	A351 CF8
8M	A351 CF8M
9	A217 WC9

* Add XU modifier to end of model suffix if stellite seat, if stellite seat & disc add U modifier to end.

OVERALL DIMENSIONS (MM) & WEIGHT (KG)

VALVE SIZE (NPS)		inch	2	2½	3	4	5	6	8	10	12	14	16	18	20	24
		mm	50	65	80	100	125	150	200	250	300	350	400	450	500	600
CLASS 150 (Table D to F)	D	mm	51	64	76	102	125	152	203	254	305	337	387	438	489	591
	A	mm	178	190	203	229	254	267	292	330	356	381	406	432	457	508
	B (Open)	mm	409	472	490	612	720	806	990	1186	1415	1583	1771	1955	2210	2698
	C	mm	200	200	250	250	350	350	350	450	500	560	640	720	800	900
	Weight (kg)	RF	20	25	38	55	75	85	134	198	320	400	524	690	900	1350
CLASS 300 (Table F to H)	D	mm	51	64	76	102	125	152	203	254	305	337	387	438	489	591
	A-A'	mm	216	241	283	305	381	403	419	457	502	760	838	914	991	1143
	B (Open)	mm	428	477	543	650	720	850	1037	1276	1438	1585	1960	2155	2350	2720
	C	mm	200	250	250	300	300	350	450	500	560	640	720	800	900	1118
	Weight (kg)	RF	25	44	50	74	124	137	217	337	580	715	1050	1235	1655	2320
CLASS 600	D	mm	51	64	76	102	125	152	203	254	305	337	387	438	489	
	A-A'	mm	292	330	356	432	508	559	660	787	838	889	991	1092	1192	
	B (Open)	mm	474	553	593	654	857	970	1122	1330	1519	1716	2110	2400	2461	
	C	mm	250	250	300	350	400	500	560	720	720	720	900	1000	1000	
	Weight (kg)	RF	50	60	85	135	260	345	515	845	1120	1360	1910	2335	2700	
CLASS 900	D	mm	51	60	76	102	120	152	203	254	305	324	375	438		
	A-A'	mm	372	419	384	460	559	613	740	841	968	1039	1140	1219		
	B (Open)	mm	590	702	740	870	1051	1078	1318	1581	1867	2004	2178	2526		
	C	mm	250	300	300	350	450	560	640	800	800	900	900	900		
	Weight (kg)	RF	110	140	150	220	355	460	800	1050	1600	2220	3000	3870		

Note:- 15NB to 40NB also available. Refer to drawings



Gate Valve Geothermal Trim

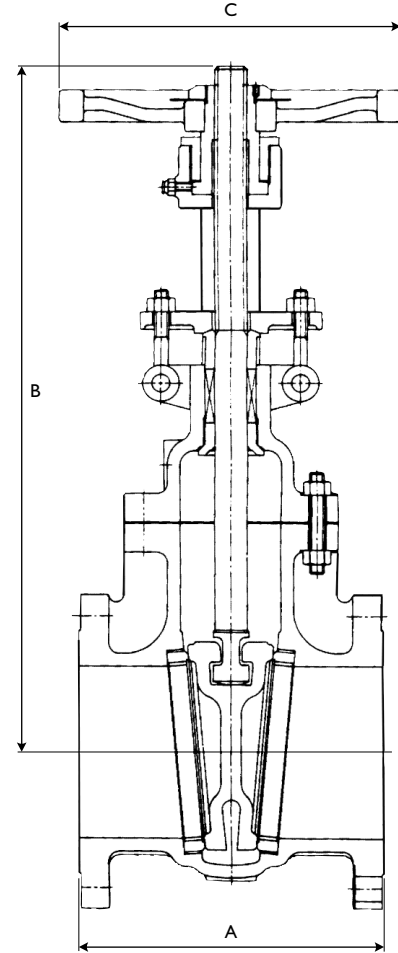
Cat P47
Class 150



Rising Stem, Non Rising Handwheel
OS&Y Outside Screw & Yoke
Full Port Design* (*Special Large Bore also available)
Flexible Wedge

Description	Material	Specs.
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Disc	Carbon Steel + HF	A216 Gr. WCB + Stellite #6
Stem	Stainless Steel	17-4PH
Hand Wheel	Ductile Iron	A536 Gr. 65-45-12
Seat	Carbon Steel + HF	A105 + Stellite #6
Back Seat Ring	Integral	Stellite #6
Yoke Sleeve	Ductile Iron or Bronze	A439 Gr. D2C or B62
Sleeve Gland	Carbon Steel	A216 Gr. WCB
Gland Flange	Carbon Steel	A105
Gland Ring	Stainless Steel	A276 Gr. 420
Wheel Nut	Carbon Steel	A105
Bonnet Bolt	Carbon Steel	A193 Gr. B7/B7M
Bonnet Nut	Carbon Steel	A194 Gr. 2H/2HM
Gland Bolt	Carbon Steel	A193 Gr. B7
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A108 Gr. 1020
Bearing	-	Thrust Ball
Grease Nipple	Carbon Steel	A307 Gr. B
Set Screw	Carbon Steel	A307 Gr. B
Name Plate	Stainless Steel	304/AL
Packing	Asbestos Free	Reinf. Graphite/Chesterton 1724*
Gasket	Spiral Wound	316 Graphite filled

*260°C Max.



Standards	
Face to Face/End to End	ANSI B16.10
Flange Dimensions	ANSI B16.5/26" & larger MSS SP-44
Basic Design	API 600/ISO 10434
Testing	API 598

DIMENSIONS (MM)

Size (in)	1½"	2"	2½"	3"	4"	6"	8"	10"	12"	14"	16"
A. Face to Face RF	165	178	190	203	229	268	292	330	356	381	406
A. End to End BW	165	216	241	283	305	403	419	457	502	571	610
B. Valve Open	365	390	435	511	610	765	978	1146	1372	1587	1759
C. Hand Wheel Dia	229	229	229	254	305	356	406	457	508	559	559
Weight (Kg) RF	20	24	28	30	50	85	127	195	283	450	560
Weight (Kg) BW	12	20	22	26	40	77	118	185	270	370	500

For 5" dimensions refer to the overview brochure

DIMENSIONS (MM)

Size (in)	18"	20"	22"	24"	26"	28"	30"	32"	36"	42"	48"
A. Face to Face RF	432	457	508	508	559	610	610	660	711	787	914
A. End to End BW	660	711	762	813	864	914	914	965	1016	1092	-
B. Valve Open	1930	2156	2346	2515	2721	2896	3130	3264	3588	4610	4842
C. Hand Wheel Dia	559	610	660	660	813	813	813	815	813	813	-
Weight (Kg) RF	700	900	1050	1350	2000	2400	2800	3400	3820	5900	7300
Weight (Kg) BW	650	880	1000	1100	1800	2200	2610	3100	3600		

* For Butt weld weights see overview brochure.



Gate Valve Geothermal Trim

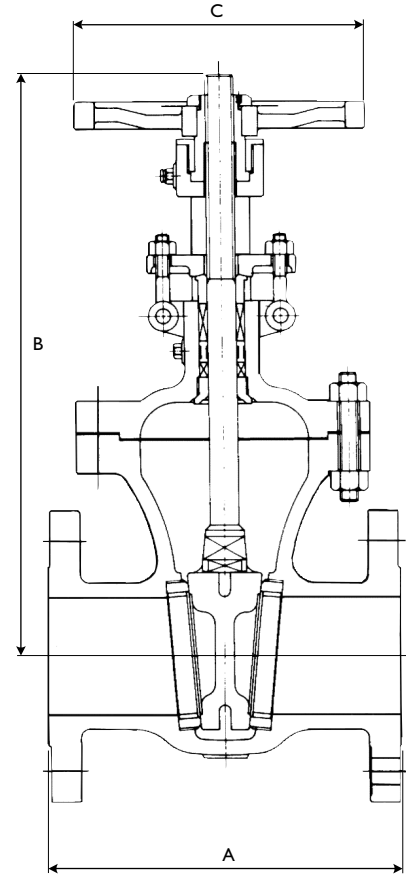
Cat P33
Class 300



Rising Stem, Non Rising Handwheel
OS&Y Outside Screw & Yoke
Full Port Design* (*Special Large Bore also available)
Flexible Wedge

Description	Material	Specs.
Body	Carbon Steel	A216 Gr. WCB
Bonnet	Carbon Steel	A216 Gr. WCB
Disc	Carbon Steel + HF	A216 Gr. WCB + Stellite #6
Stem	Stainless Steel	17-4PH
Hand Wheel	Ductile Iron	A536 Gr. 65-45-12
Seat	Carbon Steel + HF	A105 + Stellite #6
Back Seat Ring	Integral	Stellite #6
Yoke Sleeve	Ductile Iron or Bronze	A439 Gr. D2C or B62
Sleeve Gland	Carbon Steel	A216 Gr. WCB
Gland Flange	Carbon Steel	A105
Gland Ring	Stainless Steel	A276 Gr. 420
Wheel Nut	Carbon Steel	A105
Bonnet Bolt	Carbon Steel	A193 Gr. B7/B7M
Bonnet Nut	Carbon Steel	A194 Gr. 2H/2HM
Gland Bolt	Carbon Steel	A193 Gr. B7
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A108 Gr. 1020
Bearing	-	Thrust Ball
Grease Nipple	Carbon Steel	A307 Gr. B
Set Screw	Carbon Steel	A307 Gr. B
Name Plate	Stainless Steel	304/AL
Packing	Asbestos Free	Reinf. Graphite/Chesterton 1724*
Gasket	Spiral Wound	316 Graphite filled

*260°C Max.



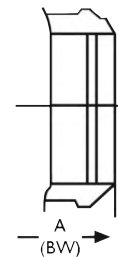
Standards	
Face to Face/End to End	ANSI B16.10
Flange Dimensions	ANSI B16.5
Basic Design	API 600/ISO 10434
Testing	API 598

DIMENSIONS (MM)

Size (in)	1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"
A. Face to Face RF	190	216	241	283	305	381	403	419	457	502	762	838
A. Face to Face RTJ	203	232	257	298	321	397	419	435	473	518	788	854
A. End to End BW	190	216	241	283	305	381	403	419	457	502	762	838
B. Valve Open	365	429	457	527	619	800	829	1025	1213	1473	1289	1784
C. Hand Wheel Dia	229	229	229	254	305	350	406	457	508	559	559	559
Weight (Kg) RF/RTJ	20	24	44	50	74	106	137	217	337	580	715	1050
Weight (Kg) BW	16	20	35	37	54	100	110	174	285	495	615	940

DIMENSIONS (MM)

Size (in)	18"	20"	24"
A. Face to Face RF	914	991	1143
A. Face to Face RTJ	930	1010	1165
A. End to End BW	914	991	1143
B. Valve Open	1965	2194	2578
C. Hand Wheel Dia	610	660	660
Weight (Kg) RF/RTJ	1235	1655	2320
Weight (Kg) BW	1090	1500	2100



Gate Valve Geothermal Trim

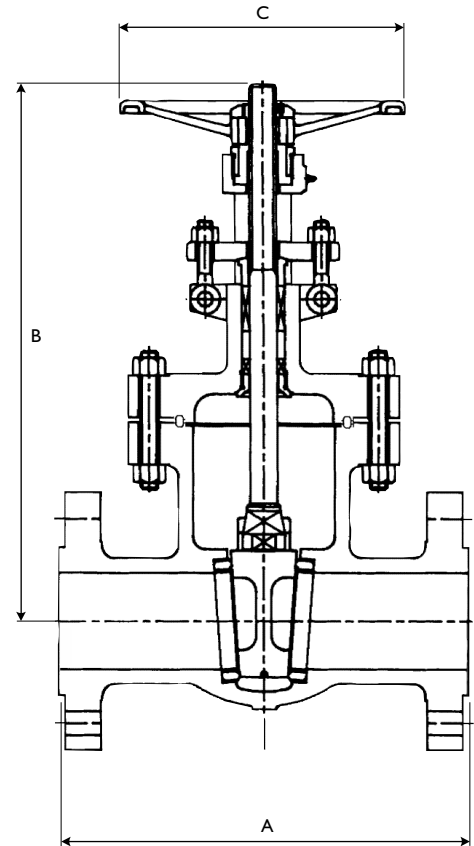
Cat P76
Class 600



Rising Stem, Non Rising Handwheel
OS&Y Outside Screw & Yoke
Full Port Design* (*Special Large Bore also available)
Flexible Wedge

Description	Material	Specs.
Body	Carbon Steel	A216 Gr.WCB
Bonnet	Carbon Steel	A216 Gr.WCB
Disc	Carbon Steel	A216 - WCB + Stellite #6
Stem	Stainless Steel	17-4PH
Hand Wheel	Ductile Iron	A536 Gr. 65-45-12
Seat Ring	Carbon Steel	A105 + Stellite #6
Back Seat Ring	Integral	Stellite #6
Yoke Sleeve	Ductile Iron or Bronze	A439 Gr. D2C or B62
Sleeve Gland	Carbon Steel	A216 Gr.WCB
Gland Flange	Carbon Steel	A105
Gland Ring	Stainless Steel	A276 Gr. 420
Wheel Nut	Carbon Steel	A105
Bonnet Bolt	Carbon Steel	A193 Gr. B7/B7M
Bonnet Nut	Carbon Steel	A194 Gr. 2H/2HM
Gland Bolt	Carbon Steel	A193 Gr. B7
Gland Nut	Carbon Steel	A194 Gr. 2H
Gland Bolt Pin	Carbon Steel	A108 Gr. 1020
Bearing	-	Thrust Ball
Grease Nipple	Carbon Steel	A307 Gr. B
Set Screw	Carbon Steel	A307 Gr. B
Name Plate	Stainless Steel	304/AL
Packing	Asbestos Free	Rein. Graphite/Chesterton 1724*
Gasket	Metal Ring Joint or Spiral Wound SS Graphite filled.	

*260°C Max.



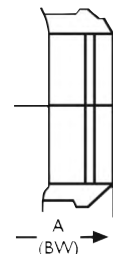
Standards	
Face to Face/End to End	ANSI B16.10
Flange Dimensions	ANSI B16.5
Basic Design	API 600
Testing	API 598

DIMENSIONS (MM)

Size (in)	1½"	2"	2½"	3"	4"	6"	8"	10"	12"	14"	16"
A. Face to Face RF	241	292	330	356	432	559	660	787	838	889	991
A. Face to Face RTJ	241	390	333	359	435	562	664	790	841	892	994
A. End to End BW	241	292	330	356	432	559	660	787	838	889	991
B. Valve Open	362	387	457	514	638	838	1029	1270	1486	1667	1832
C. Hand Wheel Dia	229	229	254	305	406	508	559	559	610	660	660
Weight (Kg) RF	35	48	60	85	135	325	515	840	1100	1360	1910
Weight (Kg) BW	22	38	45	70	105	265	380	700	925	1240	1580

DIMENSIONS (MM)

Size (in)	18"	20"	24"
A. Face to Face RF	1092	1194	1397
A. Face to Face RTJ	1095	1197	1400
A. End to End BW	1092	1194	1397
B. Valve Open	2013	2331	2610
C. Hand Wheel Dia	813	813	813
Weight (Kg) RF	2335	2750	4450
Weight (Kg) BW	1900	2150	3660

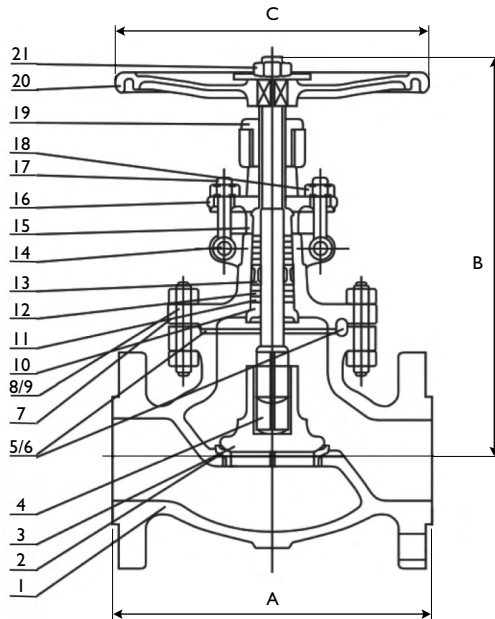


For 5" and 26" to 36" dimensions see overview brochure.

Screw Down Non Return Stop Check Globe Valve



Cat P143-D/P151-D/P171-D
Class 150-600



For horizontal installations in applications such as industrial, mining and mechanical services, suitable for super-heated steam, H.T.H.W., steam, condensate and water.

Customer must specify flow direction (Horizontal or Vertical)

WORKING PRESSURE

PI43XU-D 150 CLASS

280 PSI CWP (WOG)
170 PSI Saturated Steam (at 260°C)

PI51XU-D 300 CLASS

720 PSI CWP (WOG)
600 PSI Saturated Steam (at 260°C)

For superheated steam consult pressure/temp chart

PI71XU-D 600 CLASS

1440 PSI CWP (WOG)
1100 psi at 260°C, 825 psi at 400°C. For other temperatures consult chart.

OVERALL DIMENSIONS (MM & IN) & WEIGHT (KG)

VALVE SIZE (NPS)		inch	2	2½	3	4	5	6	8	10	12
		mm	50	65	80	100	125	150	200	250	300
CLASS 150* (Table D TO F)	A-A' (RF-BW)	inch	8	8½	9½	11½	14	16	19½	24½	27½
		mm	203	216	241	292	356	406	495	622	698.5
	B (Open)	inch	13½	14½	16	17½	22½	22½	24½	29½	39½
		mm	349	378	407	454	569	573	632	740	1000
	C	inch	8	10	10	12	15	16	18	20	20
		mm	200	250	250	300	390	400	450	500	500
Weight (kg)	inch	22	31	37	58	103	111	179	240	410	
	mm	19	25	26	50	95	101	159	215	370	
CLASS 300* (Table F TO H)	A-A' (RF-BW)	inch	10½	11½	12½	14	15½	17½	22	24½	28
		mm	267	292	318	356	400	444.5	559	622	711
	B (Open)	inch	14½	15½	16½	19	26½	26½	30½	40½	54½
		mm	362	394	429	482	669	676	774	1040	1375
	C	inch	8	10	12	14	16.9	18	20	20	20
		mm	200	250	300	350	430	450	500	500	500
Weight (kg)	inch	28	47	54	76	150	162	270	340	550	
	mm	22	40	43	61	130	136	232	280	520	
CLASS 600*	A-A' (RF-BW)	inch	11½	13	14	17	22	26	31	33	
		mm	292	330	356	432	559	660	787	838	
	A (RTJ)	inch	11½	13½	14½	17½	22½	26½	31½	33½	
		mm	295	333	359	435	562	664	791	841	
	B (Open)	inch	19½	21½	23½	28½	38½	44½	50½	58½	
		mm	495	537	590	714	981	1136	1276	1490	
	C	inch	10	12	14	16	22	24	24	26½	
		mm	250	300	350	400	550	600	600	680	
Weight (kg)	inch	51	62	85	143	340	520	720	950		
	mm	42	51	72	120	284	465	580	830		

*Available in undrilled to accommodate AS/BS or PN/JIS table drilling. ANSI flanges can also be machined to AS/BS table thickness to allow face to face dimension alteration. ½" to 1½" see page 44 of APV Cast, Gate, Globe, Check Catalogue (Full Version).

STANDARD MATERIAL SPECIFICATIONS

Part Name	Materials
1 Body	ASTM A216 Gr.WCB
2 Seat Ring	ASTM A105 with HF overlay
3 Disc	ASTM A105 with F6 overlay
4 Stem	ASTM A182 Gr. F6
5 Gasket	Spiral Wound 316/GRP
6 Gasket	Ring Joint CAD Plated
7 Bonnet	ASTM A216 Gr.WCB (or WC6)
8 Bonnet Bolt	ASTM A193 Gr. B7
9 Bonnet Nut	ASTM A194 Gr. 2H
10 Back Seat Bushing	ASTM A182 Gr. F6
11 Stem Packing	Braided graphite (top & Bottom)
12 Stem Packing	Flexible graphite
13* Lantern Ring*	ASTM A182 Gr. F6
14 Pin	ASTM A182 Gr. F6
15 Gland	ASTM A182 Gr. F6
16 Gland Flange	ASTM A216 Gr.WCB
17 Gland Bolt	ASTM A193 Gr. B7
18 Gland Nut	ASTM A194 Gr. 2H
19 Yoke Bush	Gr. D2C or Bronze B62
20† Handwheel†	A536/A197
21 Wheel Nut	ASTM A105

* Fitted on larger sizes & higher classes.

† Gearboxes on larger sizes.

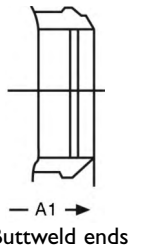
Other Body and Trim materials available such as WC6, bronze, etc. See 'overview brochure'.

FEATURES:

Screw-Down Non-Return Globe Valve
Guided loose disc for combination check and stop.
Bolted Bonnet, O.S. & Y., Swivel Disc
.25% maximum carbon content on WCB.

STANDARDS COMPLIANCE:

Basic Design: API 600/AS1873 and ANSI B16.34
Face to Face Dimension: ANSI B16.10
End to End Dimension: ANSI B16.10
Flanged Ends: ANSI 16.5
B.W. Ends: ANSI B16.25
Drilling to ANSI or BS/AS2129 Table D to H or PN10 to PN100
Pressure/Temperature Ratings to ANSI B16.34.



Buttweld ends

Y-Pattern Inclined Bonnet Stop Check Globe Valve



Cat P143-D/P151-D-Y/P171-D-Y
Class 150-600

STANDARD MATERIAL SPECIFICATIONS

Part Name		Materials
1	Body	ASTM A216 Gr.WCB
2	Seat Ring	ASTM A105 with HF overlay
3	Disc	ASTM A105 with F6 overlay
4	Guide Sleeve	ASTM A216 Gr.WCB
5	Stem	ASTM A182 Gr. F6
6	Gasket	Spiral Wound 316/GRP
7	Bonnet Bolt	ASTM A193 Gr. B7
8	Bonnet Nut	ASTM A194 Gr. 2H
9	Gland Bolt	ASTM A193 Gr. B7
10	Gland Nut	ASTM A194 Gr. 2H
11	Washer	Carbon Steel ZP
12	Pin	ASTM A182 Gr. F6
13*	Lantern Ring*	ASTM A182 Gr. F6
13	Gland	ASTM A182 Gr. F6
14	Gland Flange	ASTM A216 Gr.WCB
15	Bonnet	ASTM A216 Gr.WCB (or WC6)
16	Yoke Bush	Gr. D2C or Bronze B62
17†	Handwheel†	A536/A197
18	Wheel Nut	ASTM A105
19	Washer	Carbon Steel ZP
20	Grub Screw	A29 1035
21	Stem Packing	Braided graphite (Top & Bottom)
22	Bonnet Bushing	ASTM A182 Gr. F6
24	Guide Ring	Alloy Iron
25	Body Seat Gasket	Spiral Wound 316/GRP
26	Drain Plug	A105N

* Fitted on larger sizes & higher classes.

† Gearbox or Hammer Blow wheel on larger sizes.

Other Body and Trim materials available such as WC6, bronze, etc. see 'overview brochure'.

DESIGN:

Y-Pattern bonnet design allows a straightway flow path which provides a lower pressure drop at equal flow rates compared to conventional straight pattern 'T-Pattern' globe valves.

FEATURES:

Screw-Down Non-Return Globe Valve. Guided loose disc for combination check & stop. Bolted Bonnet, O.S. & Y., Swivel Disc in plug type or parabolic shape.

STANDARDS COMPLIANCE:

Basic Design: API 600/AS1873, ANSI B16.34

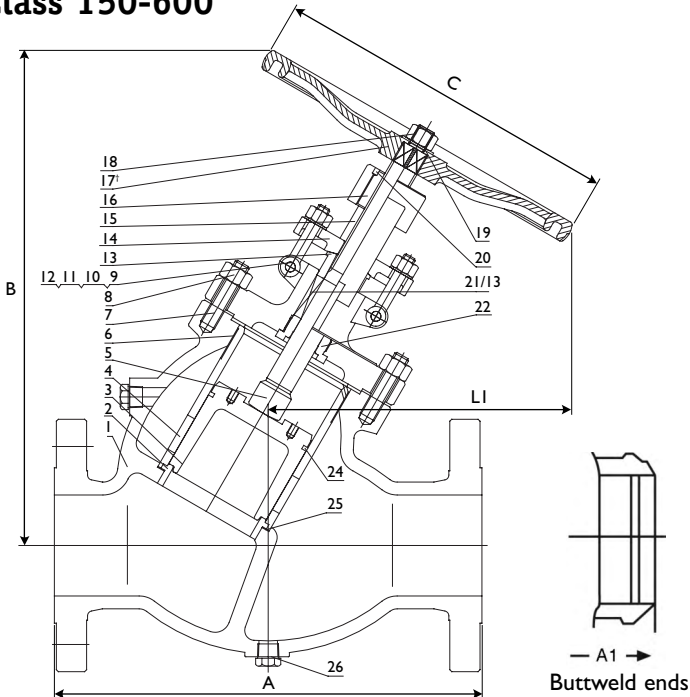
Face to Face Dimension: ANSI B16.10

End to End Dimension: ANSI B16.10

Flanged Ends: ANSI 16.5

B.W. Ends: ANSI B16.25

Drilling to ANSI or BS/AS2129 Table D to H and PN 10 to 100 Pressure/Temperature Ratings to ANSI B16.34.



For horizontal and vertical (with upwards flow) installations in applications such as industrial, mining and mechanical services. Suitable for super-heated steam, H.T.H.W., steam, condensate and water. Available as a stop valve or stop-check valve.

WORKING PRESSURE

P143XU-D-Y 150 CLASS

280 PSI CWP (WOG)
170 PSI Saturated Steam (at 260°C)

P151XU-D-Y 300 CLASS

720 PSI CWP (WOG)
600 PSI Saturated Steam (at 260°C)
For superheated steam consult pressure/temp chart

P171XU-D-Y 600 CLASS

1440 PSI CWP (WOG)
1100 psi at 260°C, 825 psi at 400°C. For other temperatures consult chart.

Customer must specify flow direction (Horizontal or Vertical)

OVERALL DIMENSIONS (MM & IN) & WEIGHT (KG)

VALVE SIZE (NPS)		inch	2	2½	3	4	5	6	8	10	12
		mm	50	65	80	100	125	150	200	250	300
CLASS 150	A-A' (RF-BW)	inch	8	8½	9½	11½	14	16	19½	24½	27½
		mm	203	216	241	292	356	406	495	622	698.5
	B (Open)	inch									
		mm									
	C	inch	8	10	10	12	15	16	18	20	20
		mm	200	250	250	300	390	400	450	500	500
Weight (kg)	inch	22	31	37	58	103	111	179	240	410	
	mm	19	25	26	50	95	101	159	215	370	
CLASS 300	A-A' (RF-BW)	inch	10½	11½	12½	14	15½	17½	22	24½	28
		mm	267	292	318	356	400	444.5	559	622	711
	B (Open)	inch	15	16	17	20	24½	26	33	38	
		mm	381	406	432	508	622	660	838	965	
	C	inch	8	10	12	14	16.9	18	20	20	20
		mm	200	250	300	350	430	450	500	500	500
Weight (kg)	inch	28	47	54	76	150	162	270	340	550	
	mm	22	40	43	61	130	136	232	280	520	
CLASS 600	A-A' (RF-BW)	inch	11½	13	14	17	22	26	31	33	
		mm	292	330	356	432	559	660	787	838	
	A (RTJ)	inch	11½	13½	14½	17½	22½	26½	31½	33½	
		mm	295	333	359	435	562	664	791	841	
	B (Open)	inch	15½	17	19½	21½	27½	34½	41½		
		mm	400	432	500	546	699	883	1054		
C	inch	10	12	14	16	22	24	24	24	26½	
	mm	250	300	350	400	550	600	600	600	680	
Weight (kg)	inch	51	62	85	143	340	520	720	950		
	mm	42	51	72	120	284	465	580	830		

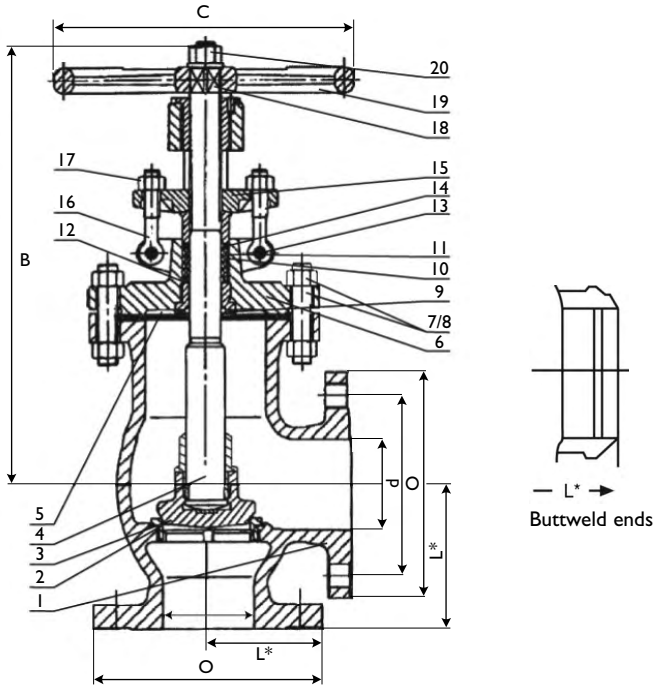
*Guide only, refer to drawing as some size patterns are only available for 600 Class. ½" to 2" available in forged body design.

Right Angle Style Screw Down Non Return "Stop Check" Globe Valve



Cat P143-R/P151-R/P171-R
Class 150-600

Screw-Down Non-Return Globe Valve (combination globe and check valve), Bolted Bonnet, O.S. & Y., Swivel Disc (guided loose disc for combination check and stop). Or can be supplied as standard globe stop valve. Drilling to ANSI and table D to H BS/AS2129 and PN10 to 100.



For installations in application such as industrial, mining and mechanical services. Suitable for super-heated steam, H.T.H.W, steam, condensate and water. Stem is guided for smooth operation. Also available in Bronze, Iron, chrome-moly etc.

Customer must specify flow direction (Horizontal or Vertical)

STANDARD MATERIAL SPECIFICATIONS

No	Part	Material
1	Body	ASTM A216 Gr.WCB or WC6
2	Seat Ring	ASTM A105 with HF overlay
3	Disc	ASTM A105 with F6 overlay
4	Stem	ASTM A182 Gr. F6
5	Gasket	S/S Spiral Wound Graphite filled
6	Bonnet	ASTM A216 Gr.WCB or WC6
7	Bonnet Bolt	ASTM A193 Gr. B7
8	Bonnet Nut	ASTM A194 Gr. 2H
9	Back Seat Bushing	ASTM A182 Gr. F6
10	Stem Packing	Braided graphite (top & bottom)
11	Stem Packing	Flexible graphite
12	Lantern Ring*	ASTM A182 Gr. F6
13	Pin	ASTM A182 Gr. F6
14	Gland	ASTM A182 Gr. F6
15	Gland Flange	ASTM A216 Gr.WCB or WC6
16	Gland Eyebolt	ASTM A193 Gr. B7
17	Gland Nut	ASTM A194 Gr. 2H
18	Stem Nut	ASTM A439 Gr. D2
19	Handwheel	ASTM A395
20	H.W. Lock Nut	Steel

*On larger sizes and higher classes.

Note: Other trim materials are available upon request, such as bronze.

OVERALL DIMENSIONS (MM) & WEIGHT (KG)

VALVE SIZE (NPS)		inch	2	2½	3	4	5	6	8	10	12	
		mm	50	65	80	100	125	150	200	250	300	
CLASS 150 (Table D TO F)	L* (RF-BW)	mm	102/114	146/108	121/159	152/165	178	203/216	241/248	305/311	305/349	
	B (Open)	mm	373	390	420	500	550	565	670	770	880	
	C	mm	200	250	250	300	390	390	450	550	600	
	O	mm	152	178	191	229	254	279	343	406	483	
	Weight (kg)	RF		22	31	377	58	103	111	179	240	
		BW		19	25	26	50	95	101	159	215	35
CLASS 300 (Table F TO H)	L* (RF-BW)	mm	133	117/127	140/159	146/178	178/191	222	279	311	349/355	
	B (Open)	mm	390	425	485	580	700	770	900	1020	700	
	C	mm	200	250	300	350	430	450	500	600	600	
	O	mm	165	191	210	254	279	318	381	445	520	
	Weight (kg)	RF		28	47	54	76	150	162	270		
		BW		22	40	43	61	130	136	232	394	
CLASS 600	L* (RF-BW)	mm	146	165	178	216		279	330	1450	419	
	B (Open)	mm	423	498	575	750		1030	1290	1300	1504	
	C	mm	250	300	350	450		600	650	650	650	
	O	mm	165	191	210	273		356	419	510	560	
	Weight (kg)	RF		51	62	85	143		340	520		
		BW		42	51	72	120		284	465		

* Two patterns are available hence 2 dimensions have been shown. Up to 400NB also available.

WORKING PRESSURE

PI43R 150 CLASS

280 PSI CWP (WOG)

170 PSI Saturated Steam (at 260°C)

PI51R 300 CLASS

720 PSI CWP (WOG)

600 PSI Saturated Steam (at 260°C)

For superheated steam consult pressure/temp chart

PI71R 600 CLASS

1440 PSI CWP (WOG) for high temperature, consult chart

WC6 body is available for high temperature applications.

STANDARDS COMPLIANCE:

Basic Design: BS1873/ANSI B16.34

Test: API Standard 598

Flanged Ends: ANSI B16.5 or BS/AS/PN

B.W. Ends: ANSI B16.25

Face to Face Dimension: BS2820 or ANSI B16.10

Pressure/Temperature Ratings to ANSI B16.34.

Combination Y Globe/Stop/Check/Strainer

STEAMCO®

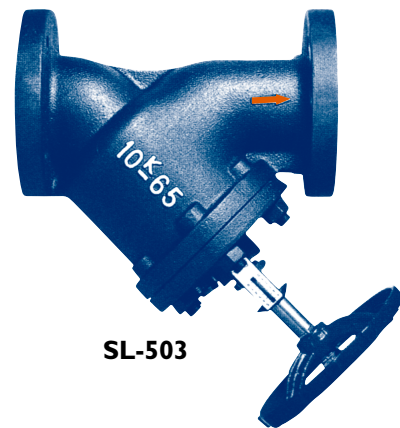
BS/AS Table D, E, ANSI 125, PN10, JIS10.

FEATURES

- Y Type for large flow area.
- As a valve having both valve and strainer functions, it is light weight, and can be installed with minimum piping space and effort.
- As Teflon (PTFE) is used for the stem packing, superior corrosion resistance, cold-resistance and abrasion-resistance are achieved. There is no leakage at all, and the valve operates smoothly.
- An indicator is attached to the valve to make it is easy to check the open/close status and to make the fluid volume control possible.
- The valve is designed to eliminate pressure spot in order to prevent fluid resistance or concentration of pressure and thus increase the volume of fluid.
- The open area of strainer screen is 3 times larger than bore area to minimize pressure loss.
- Foreign substances inside the screen can be removed at any time via the drain plug, without removing the bonnet.
- Available with strainer and tamper switch as options (available ISY & OSY)



SL-502



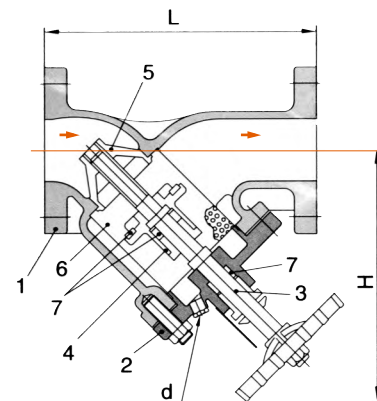
SL-503

SPECIFICATIONS

Applicable Fluid	Steam, water, air, oil, other liquid
Pressure	MAX, 10Kgf/cm ²
Temperature	MAX, 220°C
Water Pressure Test	20Kgf/cm ²
End Connection	JIS 10K FF or ANSI Flange

PART & MATERIAL LIST

No	Part Name	Material
1	Body	Cast Iron
2	Cover	Cast Iron
3	Spindle	Brass
4	Disc	Bronze, Teflon
5	Seat	Brass
6	Screen	Stainless Steel
7	Packing	Teflon



DIMENSIONS

Size	65A (2½")	80A (3")	100A (4")	125A (5")	150 (6")	200A (8")	250A (10")	300A (12")	350A (14")	400A (16")	UNIT: MM
L	284	312	366	440	505	590	672	825	829	930	
H	297	325	387	446	517	626	779	947	1066	1138	
d	Rc ½"	Rc ½"	Rc ½"	Rc ¾"	Rc ¾"	Rc ¾"	R1"	R1"	R1 ¼"	R1 ¼"	
Screen Hole Size	ø 1.2	ø 1.2	ø 1.2	ø 1.5	ø 1.5	ø 2.5	ø 2.5	ø 3.0	ø 3.0	ø 3.0	

Y Type Stop Check Valve Screwed Ends



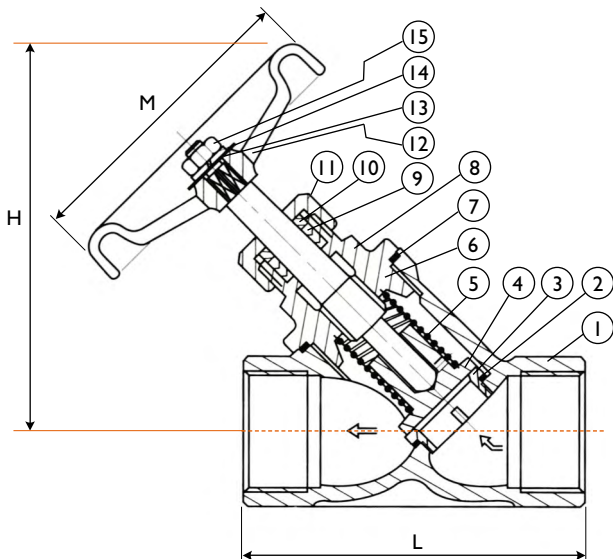
SY-902



ITEM NO. SY-902
1/2"-2" (DNI5-50)

DIMENSIONS

Size	L	H	M
1/2"	65	90	63
3/4"	80	100	63
1"	90	110	80
1 1/4"	105	120	80
1 1/2"	120	135	110
2"	140	145	110



S.D.N.R. GLOBE-Y-TYPE 600PSI

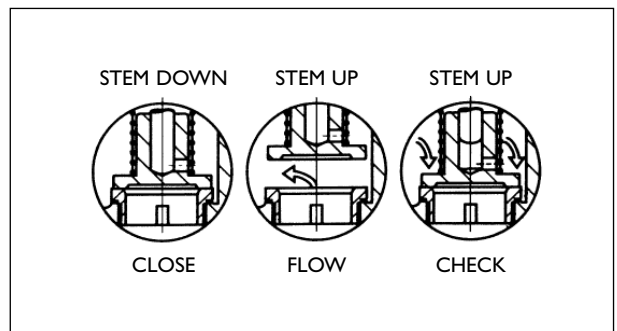
- Suitable for W.O.G. saturated steam, chemicals etc
- Body and bonnet quality investment casting
- Metal to metal seat design
- 100% air tested under water, at 100 psi, open and closed positions
- Hydrostatic test pressure: 1,200 psi

SPECIFICATIONS

- Working Pressure: PN40 (600psi) WOG
- Temperature Range: -40 to 450°F
- End Type: Threaded ANSI B2.1, BS21, DIN

MATERIALS LIST

Item	Part Name	Std Material	Option	Qty
1	Body	ASTMA351 Gr CF8M	CF8,WCB	1
2	Seat Gasket	PTFE	Graphite	1
3	Seat	SS316	S304	1
4	Disc	SS316	SS304	1
5	Spring	SS304	SS316	1
6	Stem	SS316	SS304	1
7	Gasket	PTFE	Graphite	1
8	Bonnet	ASTMA351 Gr CF8M	CF8,WCB	1
9	Stem Packing	PTFE	Graphite	1
10	Gland	SS304		1
11	Gland Nut	SS304		1
12	Handle Wheel	Malleable Iron	CF8	1
13	Name Plate	Aluminium	SS304	1
14	Spring Washer	SS304	-	1
15	Nut	SS304	-	1



Piston Valves - PG01-PG02



ASME Class 150 to 300 Size (1/2" to 6")

Flanges are according to ASME B16.10 Class 150 & 300 Raised Face
Face to Face Dimension to ASME B16.10
Also Available in PN16 & PN40 Flanging.

Piston Valves

Throughout the world, piston valves are used to regulate and control steam as well as highly aggressive media in the chemical industry as well as for fine regulating in the oil industry. Piston valves are leak tight on the seat as well as through the body to the atmosphere.

Steamco piston valves are a true isolation valve whilst still allowing a degree of flow regulation. The Piston valve has a superior system to a conventional globe valve, it has a cylindrical piston and two resilient, replaceable jointing rings.

Advantages of Piston valves:

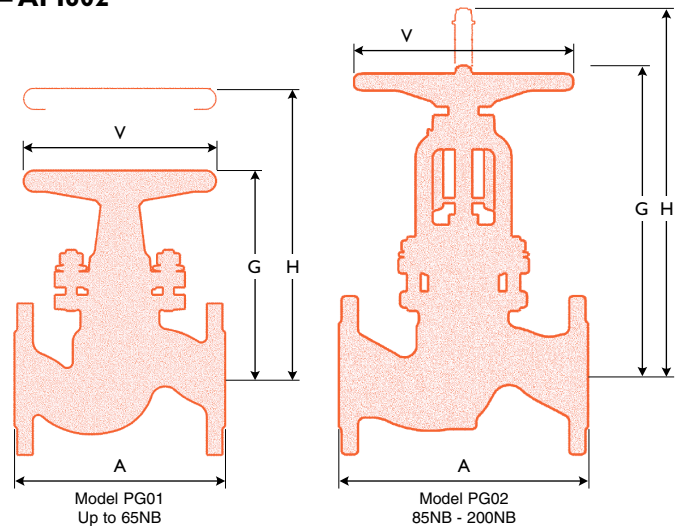
- Exceptional leak tightness across the ports and to atmosphere
- Insensitive to impurities due to the combination sealing system
- Maintenance free
- Unaffected by wire drawing in steam service
- Environmentally safe and energy efficient
- Inherently fugitive emission design
- Valve rings are replaceable in line
- Excellent control statistics
- Inherently fire safe design
- High return on investment across full service life compared to globe valves



Cast Iron, Carbon Steel, Stainless Steel Valves

ASME Class 125, 150, 300, 800 – DIN 2401 – PN 16/40/63 – API602

- Size 6NB to 200NB (1/4" to 8")
- Standard female screwed ends as per:
 - B.S.P. (DIN 2999) – NPT – ASME B1.20.1
- Socket weld ends – SW to:
 - ASME B16.11
- Butt weld ends to:
 - ASME B16.25 and pipe Sch 160, or DIN 3239
- Flanged ends to:
 - ASME B16.5
 - BS4504
 - AS2129
 - AS4087
 - AS4331 (ISO 75005-1)
 - DIN/EN 2401/1092-1



150 CLASS

DN	A	G	H	V	Weight
inches	mm	mm	mm	mm	mm
1/2"	108	108	134	95	2,0
3/4"	117	108	134	95	2,5
1"	127	133	165	115	4,2
1.1/2"	165	170	212	150	8,7
2"	203	194	245	150	13,8
3"	241	375	435	250	40,0
4"	292	415	490	300	50,0
6"	406	495	590	350	98,0
8"*					

* Refer to 300LB can be supplied drilled 150 Class

300 CLASS

DN	A	G	H	V	Weight
inches	mm	mm	mm	mm	mm
1/2"	152	110	140	95	2,7
3/4"	178	135	170	115	4,6
1"	203	150	185	115	7,0
1.1/2"	228	195	250	150	14,0
2"	267	225	285	200	19,0
3"	317	375	455	300	50,0
4"	356	420	515	350	67,0
6"	445	530	655	400	125,0
8"	559	580	700	400	180,0

Piston Valves - PG01-PG02

ASME Class 150 to 300 Size (1/2" to 6")



No.	Description	Carbon Steel Body	Stainless Body
1	Body	ASTM A105	ASTM A182 F316
		ASTM A216 WCB	ASTM A351 CF8M
2A	Lower Ring	Graphite +F6	Graphite +316
2B	Upper Ring	Graphite +F6	Graphite +316
3	Lantern Bush	Cast Iron	A182 F316
4	Piston	ASTM A479 T.410	A479 T.316
5	Split Nut*	Fe37+H.T.	Fe37 +H.T.
6	Spindle	A479 T.410	A479 T.410
7	Handwheel	Cast Iron	Cast Iron
8	Handwheel Nut	2H	2H
9	Bonnet	ASTM A105/WCB	ASTM A105/WCB
10	Stud Bolt and Nut	A193 B7 - A194 2H	A193 B7 - A194 2H
11	Belleville Washer	50 Cr V4	50 Cr V4
12.1	Stuff.-box Lower Ring	Graphite	Graphite
12.2	Stuff.-box Upper Ring	Graphite	Graphite
13	Gland Nut	Carbon Steel	Stainless Steel
16	Threaded Bush †	ASTM A439 D2	ASTM A439 D2
17	Pin †	Carbon Steel	Carbon Steel
23	Lock Nut Indicator	Carbon Steel	Stainless Steel
27	Nonrotating Disc	Carbon Steel	ASTM A182 F316
28	Locking Washer	ASTM A182 F6	ASTM A182 F6
30	Bearing	Alloy Steel	Alloy Steel
31	Balanced Piston	ASTM A582 - XM 34	ASTM A351 CF8M
32	Backseat	ASTM A182 F6	ASTM A182 F316
35	Seal Ring	316	316
36	Stem	ASTM A479 T.410 c.3	ASTM A564 T.630
37	Bonnet	ASTM A216 WCB	ASTM A351 CF8M
38	Stem Bush	ASTM A439 D2	ASTM A439 D2
39	Retaining Nut	Carbon Steel	Carbon Steel
40	Nut	Carbon Steel	Carbon Steel
41	Thrust Plate †	AISI 420 H.T.	AISI 420 H.T.
42	Retaining Ring	C. Steel + ENP	C. Steel +ENP
43	Notched Nut	Carbon Steel	Stainless Steel T.316
50	I.D Plate	Aluminium	Aluminium
55	Lubricator	1/8" NPT	1/8" NPT

* 40NB

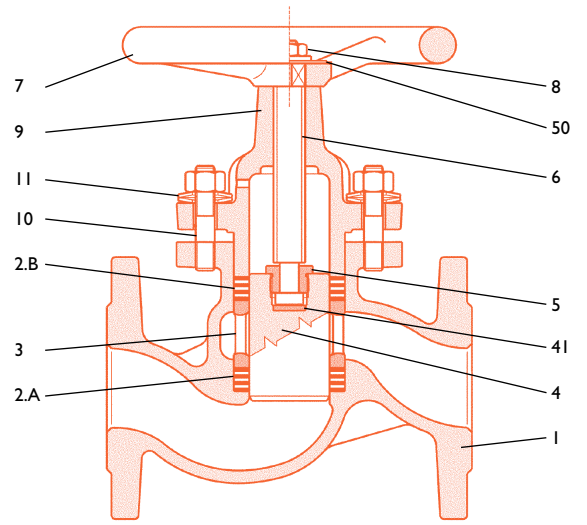
† 40NB and 50NB Only

Refer to actual drawing, this brochure is general and varies according to piston and seat design as well as trim which is selected according to clients specification.

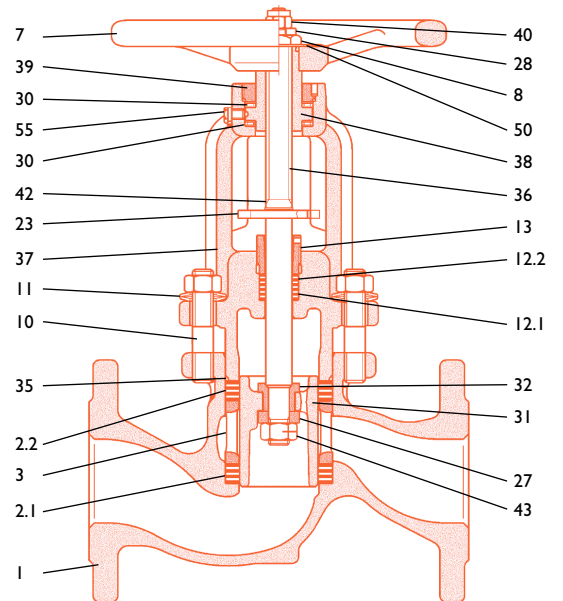
FLOW COEFFICIENT

DN		Fig.	Cv	(Kv)
10	3/8"	PG01	3.5	(3.5)
15	1/2"		5	(4.5)
20	3/4"		10	(8.5)
25	1"		16	(14.0)
32	1.1/4"		24	(20.5)
40	1.1/2"		38	(32)
50	2"		58	(50)
65	2.1/2"		82	(70)
80	3"	PG02	120	(105)
100	4"		190	(165)
125	5"		290	(255)
150	6"		420	(360)
200	8"		690	(590)

For model PG01-R (reduced bore version, only available up to 65NB), select the Cv and Kv values of a valve having nominal bore (DN) one size smaller.



Model PG01
Up to 65NB



Model PG02
80NB - 200NB

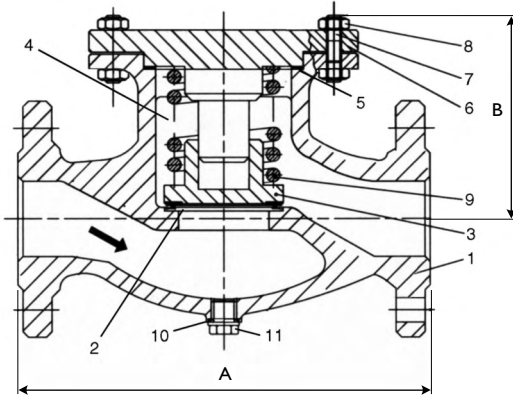


Non Return - Lift Type



Cat SLCL

Cast Steel 150-600 Class



SLCL-S
Spring Activated

Non return valve, lift type, bolted bonnet, guided disc.
Flange drilling ANSI 150 to 600 and AS2129 table D to H and PN10 to 100.

For horizontal installations in applications such as industrial, mining and mechanical services. Suitable for super-heated steam, H.T.H.W., steam, condensate and water.

Guiding of stem assures smooth operation.

Other body materials like Bronze and WC6 also available.

STANDARD MATERIAL SPECIFICATIONS

Part	Material	
1	Body	ASTM A216 Gr.WCB
2	Seat Ring	ASTM A105 with HF overlay
3/4	Disc/Stem	ASTM A105 with F6 overlay
5	Gasket	Stainless Steel/Graphite
6	Bonnet	ASTM A216 Gr.WCB
7	Bonnet Nut	ASTM A194 Gr. 2H
8	Bonnet Bolt	ASTM A193 Gr. B7
9 ¹	Spring	Inconel X750
10	Gasket	Graphite
11 ²	Drain Plug	A105N

*1 Spring Optional. *2 Drain Optional.

WORKING PRESSURE

SLCLXU-Z 150 CLASS

280 PSI CWP (WOG)

170 PSI Saturated Steam (at 260°C)

SLCLXU-Z 300 CLASS

720 PSI CWP (WOG)

600 PSI Saturated Steam (at 260°C)

For superheated steam consult pressure/temp chart

SLCLXU-Z 600 CLASS

1440 PSI CWP (WOG)

1100 PSI at 260°C, 825 psi at 400°C. Consult chart for other temperatures

WC6 body is available for high temperature applications

STANDARDS COMPLIANCE:

Basic Design: API 600/BS1873 and ANSI B16.34

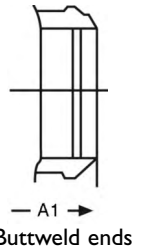
Face to Face Dimension: ANSI B16.10

End to End Dimension: ANSI B16.10

Flanged Ends: ANSI 16.5

B.W. Ends: ANSI B16.25

Drilling to ANSI or BS/AS2129 Table D to R and PN10 to 100



OVERALL DIMENSIONS (MM & INCHES) & WEIGHT (KG)

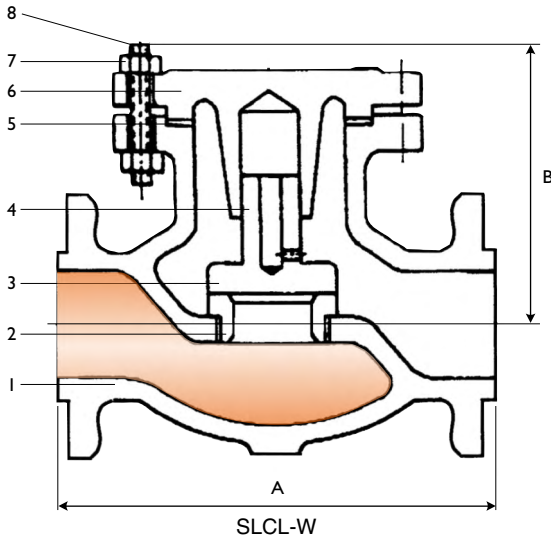
VALVE SIZE (NPS)		inch	2	2½	3	4	5	6	8	10	12
		mm	50	65	80	100	125	150	200	250	300
CLASS 150 (Table D to F)	A-A' (RF-BW)	inch	8	8½	9½	11½	14	16	19½	24½	27½
		mm	203	216	241	292	356	406	495	622	698.5
	B	inch	6¾	7	7½	8¾	9¾	12¾	15¾	17¾	21¼
		mm	175	178	191	219	235	324	384	448	540
	Weight (kg)	inch	20	24	35	55	84	96	160	245	345
		mm	14	17	26	37	52	80	133	213	294
CLASS 300 (Table F to H)	A-A' (RF-BW)	inch	10½	11½	12½	14	15¾	17½	21	24½	28
		mm	267	292	318	356	400	444	533	622	711
	B	inch	7¾	8	8¾	10¾	11¾	13¾	16¾	18¾	22¾
		mm	197	203	222	276	295	337	413	464	562
	Weight (kg)	inch	35	37	60	82	110	155	268	380	495
		mm	32	35	50	65	70	128	230	270	460
CLASS 600	A-A' (RF-BW)	inch	11½	13	14	17	20	22	26	31	33
		mm	292	330	356	432	508	559	660	787	838
	B	inch	8¾	8¾	10½	11¾	13¾	15	18¾	21¾	22¾
		mm	210	219	267	299	337	381	476	549	670
	Weight (kg)	inch	40	55	72	120	175	270	420	620	810
		mm	31	45	60	85	125	225	365	500	715

Non Return - Lift Type



Cat SLCL-W

Cast Steel 150-600 Class



Non return valve, lift type, bolted bonnet, guided disc.

Flange drilling ANSI 150 to 600 and BS/AS2129 table D to H, and PN10 to 100.

For horizontal installations in applications such as industrial, mining and mechanical services. Suitable for super-heated steam, H.T.H.W., steam, condensate and water.

Guiding of stem assures smooth operation.

Other body materials like Bronze and WC6 also available.



WORKING PRESSURE

SLCLXU-Z 150 CLASS

280 PSI CWP (WOG)
170 PSI Saturated Steam (at 260°C)

SLCLXU-Z 300 CLASS

720 PSI CWP (WOG)
600 PSI Saturated Steam (at 260°C)

For superheated steam consult pressure/temp chart

SLCLXU-Z 600 CLASS

1440 PSI CWP (WOG)
1100 PSI at 260°C, 825 psi at 400°C. Consult chart for other temperatures

WC6 body is available for high temperature applications

STANDARD MATERIAL SPECIFICATIONS

Part	Material	
1	Body	ASTM A216 Gr.WCB
2	Seat Ring	ASTM A105 with HF overlay
3/4	Disc/Stem	ASTM A105 with F6 overlay
5	Gasket	Stainless Steel/Graphite
6	Bonnet	ASTM A216 Gr.WCB
7	Bonnet Nut	ASTM A194 Gr. 2H
8	Bonnet Bolt	ASTM A193 Gr. B7
9*1	Spring	Inconel X750
10	Gasket	Graphite
11*2	Drain Plug	A105N

*1 Spring Optional. *2 Drain Optional.

STANDARDS COMPLIANCE:

Basic Design: API 600/BS1873 and ANSI B16.34

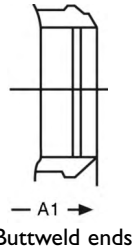
Face to Face Dimension: ANSI B16.10

End to End Dimension: ANSI B16.10

Flanged Ends: ANSI 16.5

B.W. Ends: ANSI B16.25

Drilling to ANSI, BS/AS2129 Table D to H or PN10 to 100



OVERALL DIMENSIONS (MM & INCHES) & WEIGHT (KG)

VALVE SIZE (NPS)		inch	2	2½	3	4	5	6	8	10	12
		mm	50	65	80	100	125	150	200	250	300
CLASS 150 (Table D to F)	A-A' (RF-BW)	inch	8	8½	9½	11½	14	16	19½	24½	27½
		mm	203	216	241	292	356	406	495	622	698.5
	B	inch	6¾	7	7½	8¾	9¼	12¾	15½	17¾	21¼
		mm	175	178	191	219	235	324	384	448	540
	Weight (kg)	inch	20	24	35	55	84	96	160	245	345
		mm	14	17	26	37	52	80	133	213	294
CLASS 300 (Table F to H)	A-A' (RF-BW)	inch	10½	11½	12½	14	15¾	17½	21	24½	28
		mm	267	292	318	356	400	444	533	622	711
	B	inch	7¾	8	8¾	10¾	11½	13¾	16¼	18¾	22½
		mm	197	203	222	276	295	337	413	464	562
	Weight (kg)	inch	35	37	60	82	110	155	268	380	495
		mm	32	35	50	65	70	128	230	270	460
CLASS 600	A-A' (RF-BW)	inch	11½	13	14	17	20	22	26	31	33
		mm	292	330	356	432	508	559	660	787	838
	B	inch	8¼	8¾	10½	11¼	13¼	15	18¾	21½	22¾
		mm	210	219	267	299	337	381	476	549	670
	Weight (kg)	inch	40	55	72	120	175	270	420	620	810
		mm	31	45	60	85	125	225	365	500	715

Globe Valve Bellow Sealed

Bolted Bonnet



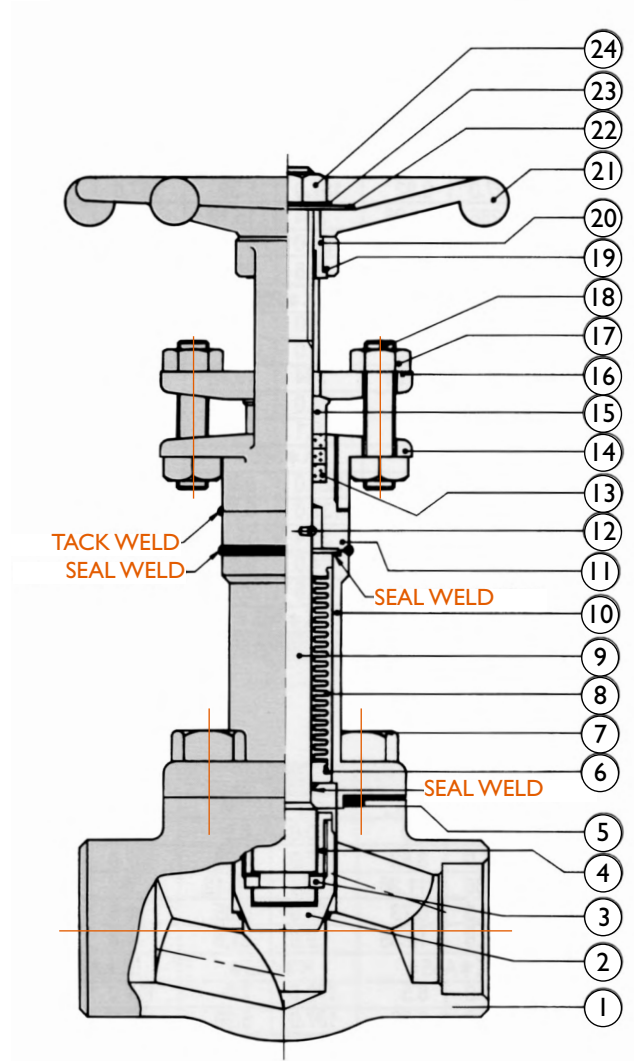
OVERVIEW

Design - API602, BS 5352, MSS SP11, ANSI/ASME B16.34

End Connections - Socket Weld : ANSI/ASME B16.11
 Thread : ANSI/ASME B1.20.1
 Butt Weld : ANSI/ASME B16.25
 Flange : ANSI/ASME B16.5

Test and Inspection - API 598 / BS 5146

No.	Part Name
1	Body
2	Disc
3	Split Ring
4	Disc Nut
5	Gasket
6	Bellows Holder Lower
7	Bonnet Bolt
8	Bellows
9	Stem
10	Bonnet
11	Bonnet Upper
12	Guide Pin
13	Gland Packing
14	Yoke
15	Gland
16	Gland Flange
17	Gland Nut
18	Gland Bolt
19	Thrust Washer
20	Yoke Sleeve
21	Handwheel
22	Handwheel Washer
23	Name Plate
24	Handwheel Nut



Forged Steel Globe Valves 15NB - 50NB (1/2 - 2") Bolted Bonnet

- Inconel or 321SS Bellows
 For longer life and maximum corrosion resistance
- Flanged, screwed or welded end connections
- Welded or Bolted Bonnet Design
- Zero Stem Leakage
 Eliminates media loss and satisfies environmental regulations
- Zero Maintenance
 Lower operating costs/no downtime
- Reduce Monitoring Costs
- Three Stem Seals For Safety
 Metallic bellows
 Graphite packing
 Backseat in open position
- Hardfaced Seating Surface
 Stellite 6 for long life
- Valve Designed, Manufactured And Tested
 To ANSI B16.34/API 602 & 598
- Additional Alloy And Trims Available
- For Applications Where Leakage Into Or Out Of The Valve Is Unacceptable
 Heat Transfer Oil
 Toxic Fluids
 Steam
 Regulated Media

Gate Valve Bellow Sealed

Bolted Bonnet



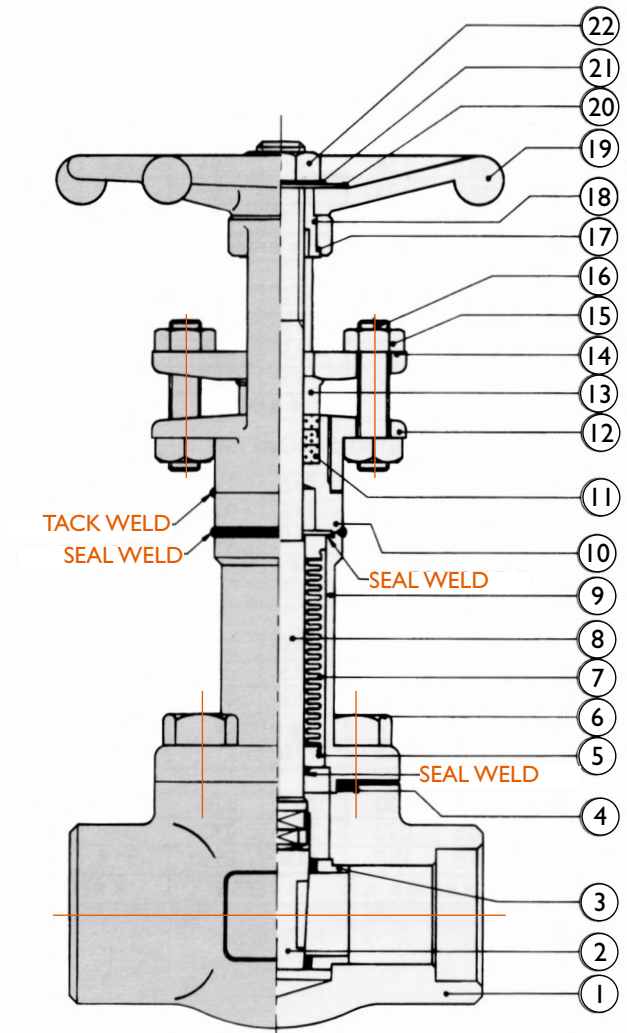
OVERVIEW

Design - API602, BS 5352, MSS SPI I, ANSI/ASME B16.34

End Connections - Socket Weld : ANSI/ASME B16.11
 Thread : ANSI/ASME B1.20.1
 Butt Weld : ANSI/ASME B16.25
 Flange : ANSI/ASME B16.5

Test and Inspection - API 598 / BS 5146

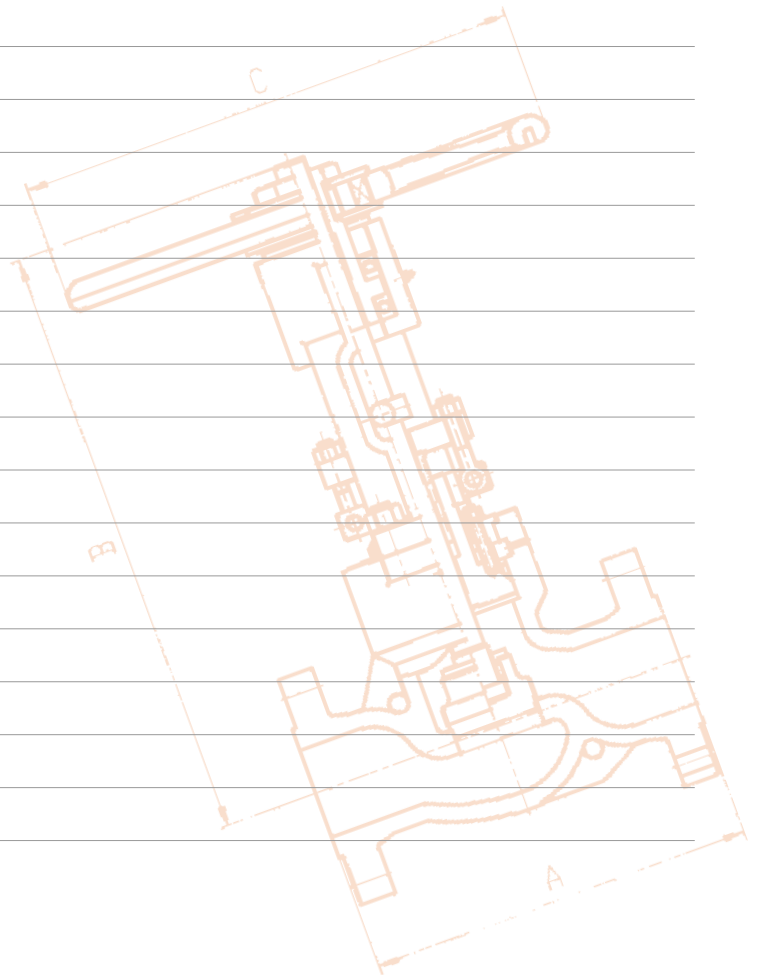
No.	Part Name
1	Body
2	Disc
3	Split Ring
4	Disc Nut
5	Gasket
6	Bellows Holder Lower
7	Bonnet Bolt
8	Bellows
9	Stem
10	Bonnet
11	Bonnet Upper
12	Guide Pin
13	Gland Packing
14	Yoke
15	Gland
16	Gland Flange
17	Gland Nut
18	Gland Bolt
19	Thrust Washer
20	Yoke Sleeve
21	Handwheel
22	Handwheel Washer
23	Name Plate
24	Handwheel Nut



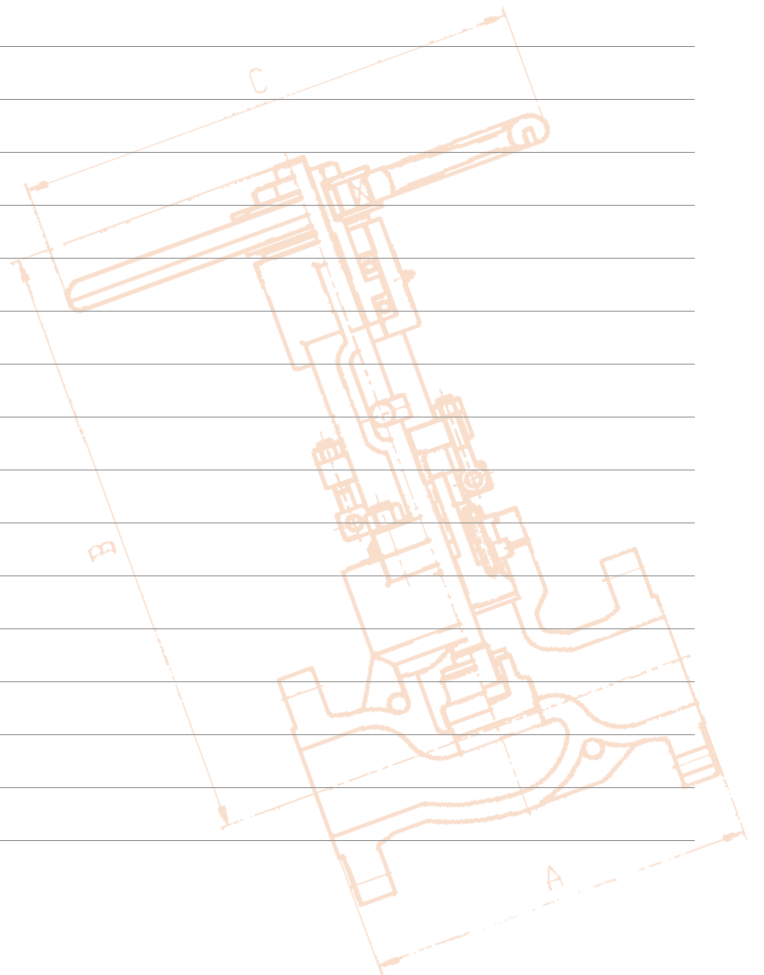
Forged Steel Globe Valves 15NB - 50NB (1/2 - 2") Bolted Bonnet

- Inconel or 321SS Bellows
 For longer life and maximum corrosion resistance
- Flanged, screwed or welded end connections
- Welded or Bolted Bonnet Design
- Zero Stem Leakage
 Eliminates media loss and satisfies environmental regulations
- Zero Maintenance
 Lower operating costs/no downtime
- Reduce Monitoring Costs
- Three Stem Seals For Safety
 Metallic bellows
 Graphite packing
 Backseat in open position
- Hardfaced Seating Surface
 Stellite 6 for long life
- Valve Designed, Manufactured And Tested
 To ANSI B16.34/API 602 & 598
- Additional Alloy And Trims Available
- For Applications Where Leakage Into Or Out Of The Valve Is Unacceptable
 Heat Transfer Oil
 Toxic Fluids
 Steam
 Regulated Media

Notes



Notes





AUSTRALIAN PIPELINE VALVE®

COMPLETE PRODUCT LINE

“Australian Pipeline Valve produces isolation, control and flow reversal protection products for severe and critical service media in utility, steam, pipelines, oil and gas and process industries. APV valves and pipeline products form the most competitive portfolio in the market.”



SUPER-CHECK®



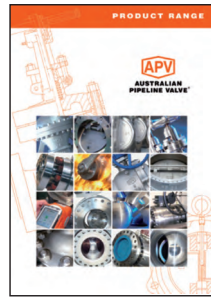
TORQTURN®

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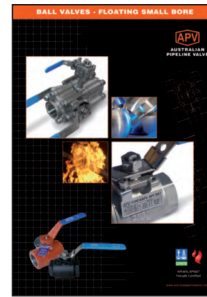
AUSTRALIAN PIPELINE VALVE BRAND RANGE - CATALOGUES



Product Brochure



Ball Valves Floating & Trunnion Mounted



Ball Valves Floating Small Bore



Ball Valves Special Service



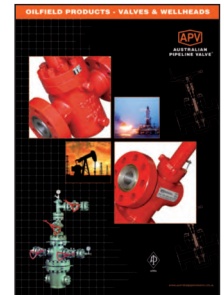
Gate, Globe & Check Valves - Cast



Gate, Globe & Check Valves - Forged Steel



Plug Valves Lubricated, Sleeved & Lined



Oilfield Products Valves & Wellheads

APV FAMILY OF BRANDS RANGE - CATALOGUES



Diamond Gear Gearboxes



Flowturn Ball Valves Multiway & Deadman



Flowturn Gate, Globe & Check Valves



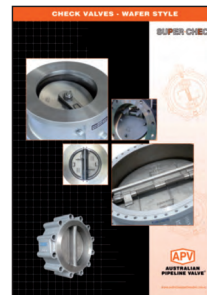
Flowturn Instrument Valves



Flowturn Strainers & Sight Glasses



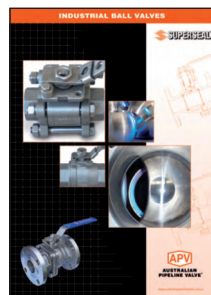
Steamco Steam Valves



Supercheck Wafer Check Valves



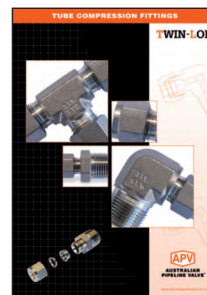
Superseal Butterfly Valves



Superseal Industrial Ball Valves



Torqturn Actuators



TwinLok Tube Fittings



Uniflo Check Valves

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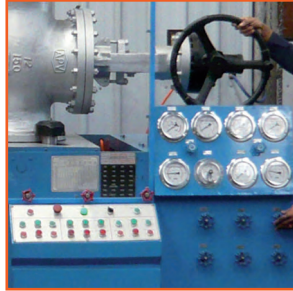
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We have endeavoured to provide a broad outline of our range and capabilities. Because we are continually developing new products for our customers this catalogue will, to some extent be incomplete. This catalogue is a general overview only, individual drawings and data sheets can be furnished on request.

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