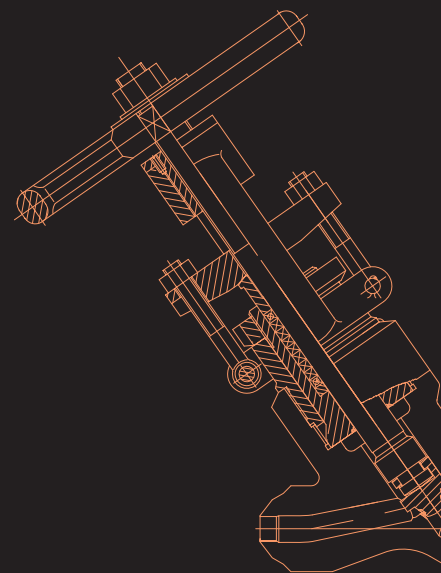


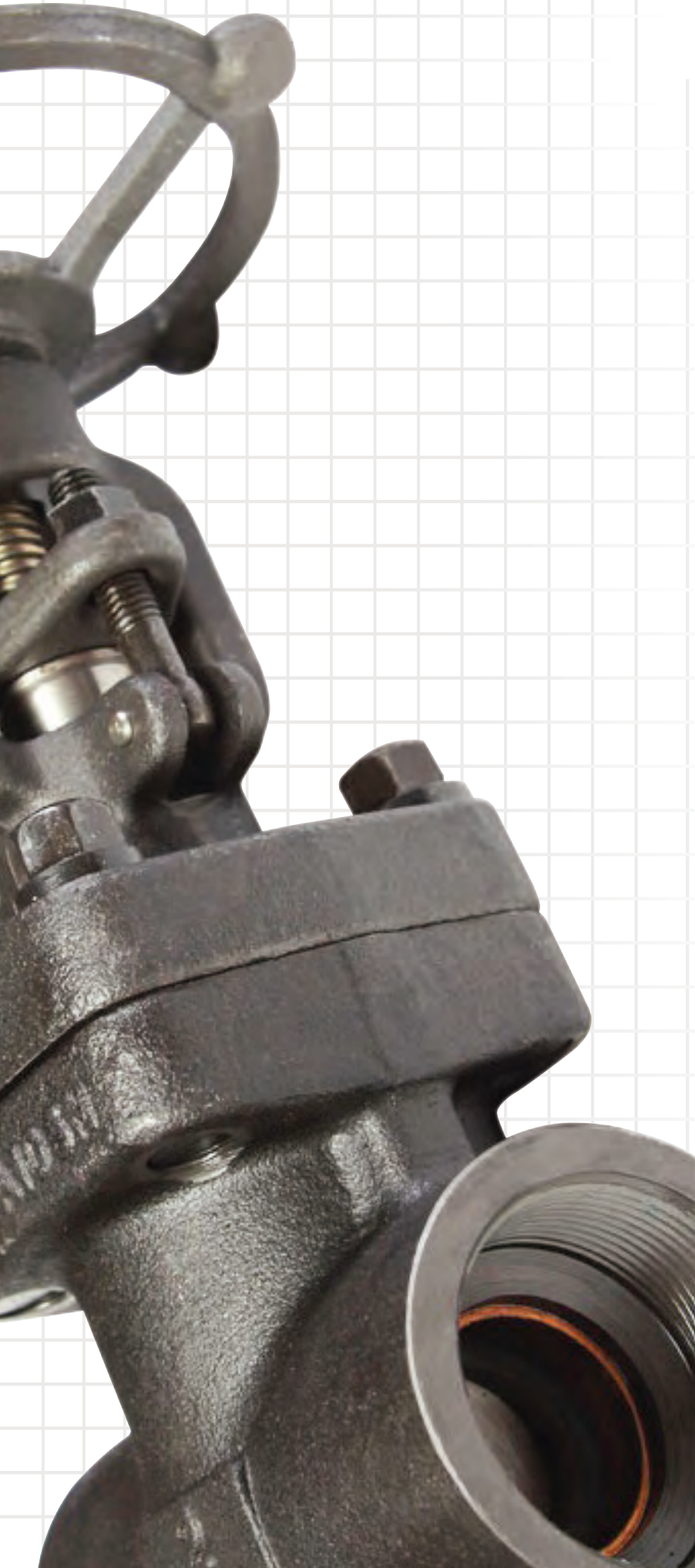
# GATE, GLOBE & CHECK VALVES - FORGED STEEL



**AUSTRALIAN  
PIPELINE VALVE®**



ISO 15848-1 Class CQ2  
Fugitive Emission Certified



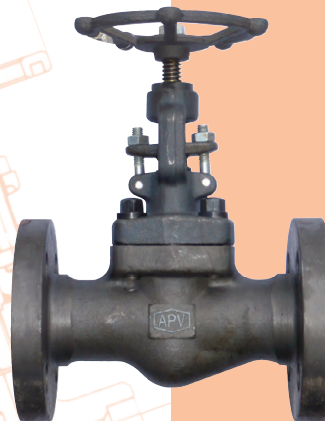
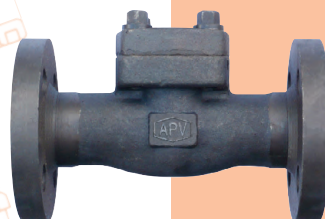
## **QUALITY COMMITMENT**

*Quality is Our First Priority, and is achieved by embracing a philosophy of Total Quality Commitment.*

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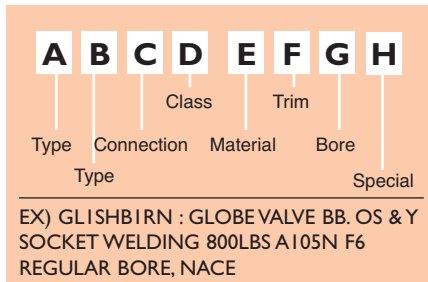
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# Figure Number Abbreviations



## A - TYPE

- GL : GLOBE
- GA : GATE
- LC : LIFT CHECK
- SC : SWING CHECK
- BC : BALL CHECK
- BL : BELLOWS
- AG : RIGHT ANGLE GLOBE
- YG : Y-TYPE GLOBE
- NP : NEEDLE POINT GLOBE
- CL : CRYOGENIC GLOBE
- CG : CRYOGENIC GATE

## B - BONNET/STYLE

- 1 BB OS & Y
- 2 WB OS & Y
- 3 BC (BOLTED COVER)
- 4 WC (WELDED COVER)
- 5 PS (PRESSURE SEAL)
- 6 BL (BELLOWS SEAL)

## C - CONNECTION

- S SOCKET WELDING
- T THREADED
- B BUTT WELDING
- R RAISED FACE FLANGE
- F FLAT RACE FLANGE
- H UNDRILLED FLANGE
- J RING JOINT FLANGE
- Z SPECIAL DRILLING RF/FF

## D - CLASS

- A ANSI 150LBS
- B ANSI 300LBS
- C ANSI 600LBS
- D ANSI 900LBS
- E ANSI 1500LBS
- F ANSI 2500LBS
- G ANSI 4500LBS
- H API 800LBS
- I API 1500LBS

## E - MATERIAL

- A ASTM A105
- B ASTM A105N
- C ASTM A182-F5
- D ASTM A182-F9
- E ASTM A182-F11
- F ASTM A182-F22
- G ASTM A182-F304
- H ASTM A182-F316
- I ASTM A182-F304L
- J ASTM A182-F316L
- K ASTM A182-F321
- L ASTM A350-LF2

## F - API TRIM#

- 1 #1 F6
- 2 #2 304
- 3 #10 316
- 4 #12 316+HFS
- 5 #5 F6+HFS
- 6 #15 304+HF
- 7 #16 316+HF
- 8 #8 F6+HFS
- 9 #9 Monel
- 0 Special

## G - BORE

- R = REGULAR BORE
- F = FULL BORE
- S = STANDARD BORE

## H - SPECIAL

- S = C/W SPRING
- D = STOP CHECK (SDNR)
- N = NACE

# Abbreviations

- **ANSI:** American National Standards Institute Inc.
- **API:** American Petroleum Institute
- **ASTM:** American Society for Testing and Materials
- **BB:** Bolted Bonnet
- **BC:** Bolted Cover
- **BW:** Butt Welding
- **CWP:** Cold Working Pressure
- **EB:** Extended Bonnet
- **FF:** Flat Face
- **FLGD:** Flanged
- **HF:** Hard Faced
- **INTSS:** Integral Seat Stellite Face
- **ISS:** Inside Screw and Stem
- **JIS:** Japanese Industrial Standard
- **JPI:** Japan Petroleum Institute
- **LB:** Long Bonnet
- **NPT:** National Pipe Taper Thread (Pipe Thread):ANSI
- **OS & Y:** Outside Screw and Yoke
- **PS:** Pressure Seal
- **PT:** Pipe Taper Thread (Pipe Thread):JIS
- **RF:** Raised Face
- **RS:** Rising Stem
- **RTJ:** Ring Type Joint
- **SB:** Screwed Bonnet
- **SCH:** Schedule
- **SCRD:** Screwed
- **SDNR:** Stem Down Non Return
- **SH:** Surface Hardening
- **STD:** Standard
- **STL:** Stellite
- **SW:** Socket Welding
- **WB:** Welded Bonnet
- **WC:** Welded Cover

# Forged Steel Standard Material Specification



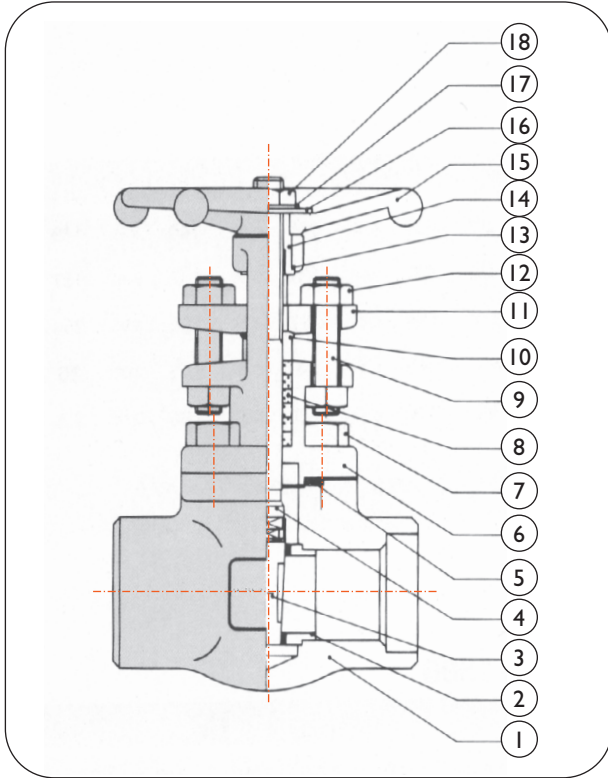
MATERIAL PART NAME	CARBON STEEL	LOW-TEMP CARBON STEEL	ALLOY STEEL	STAINLESS STEEL	SPECIAL ALLOYS
BODY BONNET COVER	A105N	A350/LF2	A182/F1 A182/F5 A182/F9 A182/F11 A182/F22	A182/F304 A182/304L A182/F316 A182/F316L A182/F317 A182/F317L A182/F321 A182/F347	Monel Inconel Hastelloy
STEM SEAT RING *	A276/CA15 A276/304 A276/316	A276/410 A276/304 A276/316	A276/410 A276/304 A276/316	A276/304 A276/316 A276/321 A276/317 A276/347	Monel Inconel Hastelloy
WEDGE / DISC *	A217/CA15 A351/CF8 A351/CF8M	A217/CA15 A351/CF8 A351/CF8M	A217/CA15 A351/CF8 A351/CF8M	A351/CF8 A351/CF8M A351/CF3M A351/CF8C A351/CG8M	Monel Inconel Hastelloy
YOKE SLEEVE BUSH	A582-416	A582-416	A582-416	A582-416	A582-416
GLAND FLANGE	A105N	A105N	A105N	A182/F304	A182/F304
GLAND PACKING	Graphite	Graphite	Graphite	Graphite	Graphite
BONNET BOLT	A193/B7	A320/L7	A193/B16	A193/B8M	A193/B8M
GLAND BOLT	A193/B8	A193/B8	A193/B16	A193/B8M	A193/B8M
GLAND NUT	A194/2H	A194/2H	A194/2H	A194/8	A194/8
GLAND	A276/410	A276/410	A276/410	A276/304	A276/304
HANDWHEEL	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
GASKET	A204/304+Graphite A240/316+Graphite	A204/304+Graphite A240/316+Graphite	A204/304+Graphite A240/316+Graphite	A204/304+Graphite A240/316+Graphite	A204/304+Graphite A240/316+Graphite
HANDWHEEL NUT	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel
NAME PLATE	Aluminium	Aluminium	Aluminium	A240/304	A240/304

\* + Stellite hard faced optional

# Forged Steel Screwed & Weld End Gate Valves



## BOLTED BONNET

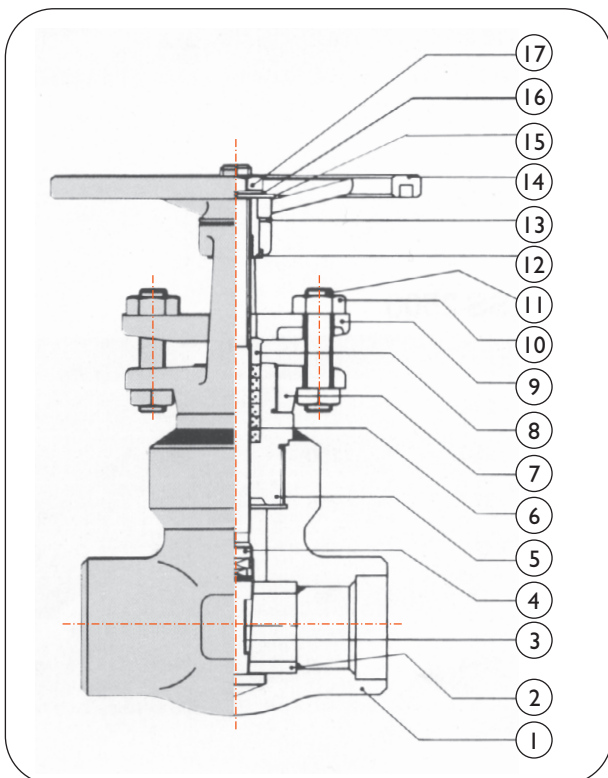


### FEATURES

- Construction - API602 & ANSI/ASME B16.34
- End Connections - Socket Weld : ANSI/ASME B16.11  
Thread : ANSI/ASME B1.20.1  
Butt Weld : ANSI/ASME B16.25
- Inspection and Test - API 598

No.	Part Name
1.	BODY
2.	SEAT RING
3.	WEDGE
4.	STEM
5.	GASKET
6.	BONNET
7.	BONNET BOLT
8.	GLAND PACKING
9.	GLAND BOLT
10.	GLAND
11.	GLAND FLANGE
12.	GLAND NUT
13.	THRUST WASHER
14.	YOKE SLEEVE
15.	HANDWHEEL
16.	NAME PLATE
17.	HANDWHEEL WASHER
18.	HANDWHEEL NUT

## WELDED BONNET

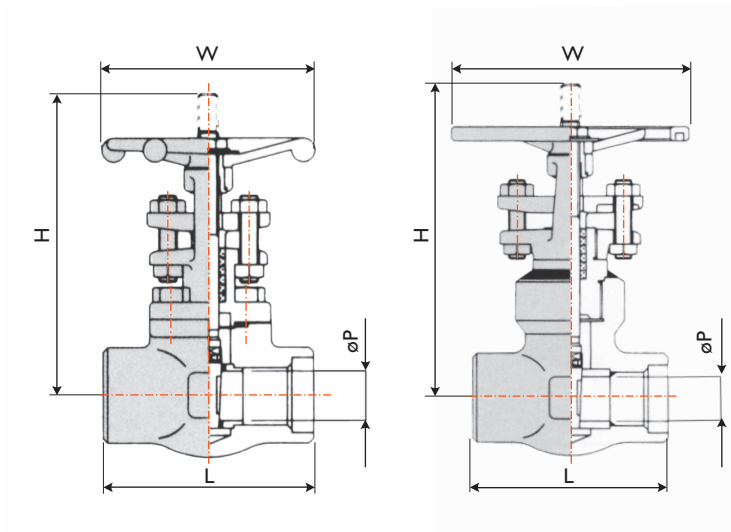


No.	Part Name
1.	BODY
2.	SEAT RING
3.	WEDGE
4.	STEM
5.	BONNET
6.	GLAND PACKING
7.	YOKE
8.	GLAND
9.	GLAND FLANGE
10.	GLAND NUT
11.	GLAND BOLT
12.	YOKE SLEEVE
13.	THRUST WASHER
14.	HANDWHEEL
15.	NAME PLATE
16.	TOOTH WASHER
17.	HANDWHEEL NUT



ISO 15848-1 Class CO2  
Fugitive Emission Certified

# Forged Steel Screwed & Weld End Gate Valves



## DIMENSIONS BOLTED & WELDED BONNET CLASS 800

Regular Port (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
Full Port (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		1½"	
L (mm/in)	76	3.0	76	3.0	79	3.11	92	3.62	111	4.37	120	4.72	120	4.72	140	5.51
W (mm/in)	84	3.3	84	3.3	100	3.93	100	3.93	125	4.92	160	5.39	160	6.3	180	7.08
H (mm/in)	144	5.67	144	5.67	161	6.33	163	6.41	196	7.72	251	8.86	251	9.88	290	11.4
P (mm/in)	6.4	0.25	9.5	0.38	10.5	0.41	13.5	0.53	17	0.67	23.5	0.93	29	1.14	36	1.41
Wt (kgs/lbs)	1.5	3.31	1.5	3.31	1.5	3.31	2.2	4.9	2.8	6.4	5.60	12.35	5.60	12.35	8.5	18.74
Typical Cv Factor	2.0		4.6		5.6		12.0		23.5		44.0		68.0		101.0	

## DIMENSIONS BOLTED & WELDED BONNET FULL PORT CLASS 1500

Full Port (in)	½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	110	4.38	127	5.0	155	6.13	210	8.25	210	8.25	229	9.0
W (mm/in)	140	5.5	160	6.25	200	7.88	230	9.07	230	9.07	250	9.82
H (mm/in)	224	7.88	253	9.94	317	12.5	337	14.88	377	14.88	458	18.0
P (mm/in)	11	0.44	16	0.63	20	0.82	26	1.07	32	1.25	43	1.69
Wt (kgs/lbs)	5.0	11.0	7.0	15.4	10.0	22.0	18.2	40.1	18.0	39.7	30.0	66.1
Typical Cv Factor	10.6		24.5		38.0		56.0		80.0		197.0	

For 'Standard Port' refer to drawing.

## DIMENSIONS BOLTED & WELDED BONNET FULL PORT CLASS 2500

Valve Size (in)	½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	127	5	155	6.102	210	8.267	229	9.015	229	9.015	235	9.251
W (mm/in)	160	6.299	200	7.874	230	9.055	250	9.84	250	9.84	300	11.81
H (mm/in)	253	9.96	317	12.48	377	14.84	458	18.03	458	18.03	470	18.5
P (mm/in)	11	0.433	16	0.629	20	0.787	26	1.023	28.5	1.122	38.1	1.69
Wt (kgs/lbs)	8.0	17.6	11.0	24.2	19.0	41.8	34.0	74.8	32.0	70.4	45.0	99.0
Typical Cv Factor	5.6		10.6		24.5		59.8		68.0		95.0	

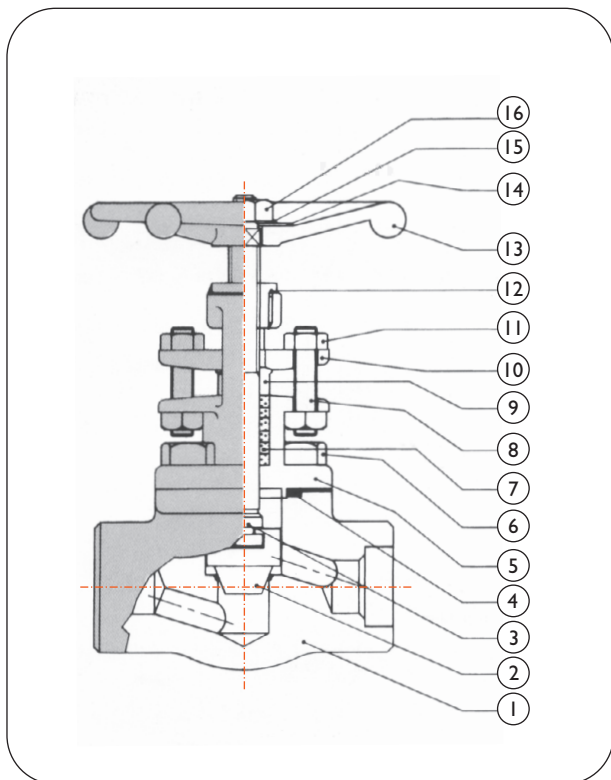
For 'Standard Port' refer to drawing.

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.

# Forged Steel Screwed & Weld End Globe Valves



## BOLTED BONNET

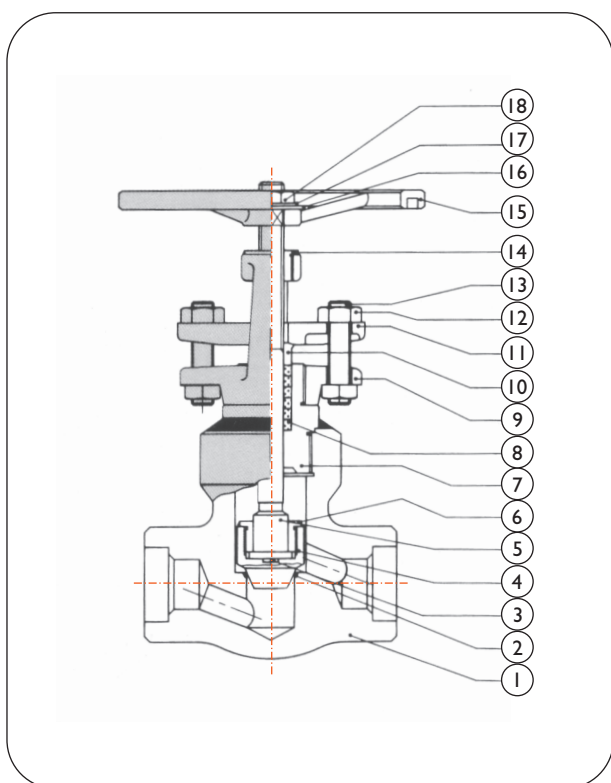


### FEATURES

- Construction - API602, BS5352 & ANSI/ASME B16.34
- End Connections - Socket Weld : ANSI/ASME B16.11  
Thread : ANSI/ASME B1.20.1  
Butt Weld : ANSI/ASME B16.25
- Inspection and Test - API 598 / BS5146

No.	Part Name
1.	BODY
2.	DISC
3.	STEM
4.	GASKET
5.	BONNET
6.	BONNET BOLT
7.	GLAND PACKING
8.	GLAND BOLT
9.	GLAND
10.	GLAND FLANGE
11.	GLAND NUT
12.	YOKE BUSH
13.	HANDWHEEL
14.	NAME PLATE
15.	HANDWHEEL WASHER
16.	HANDWHEEL NUT

## WELDED BONNET



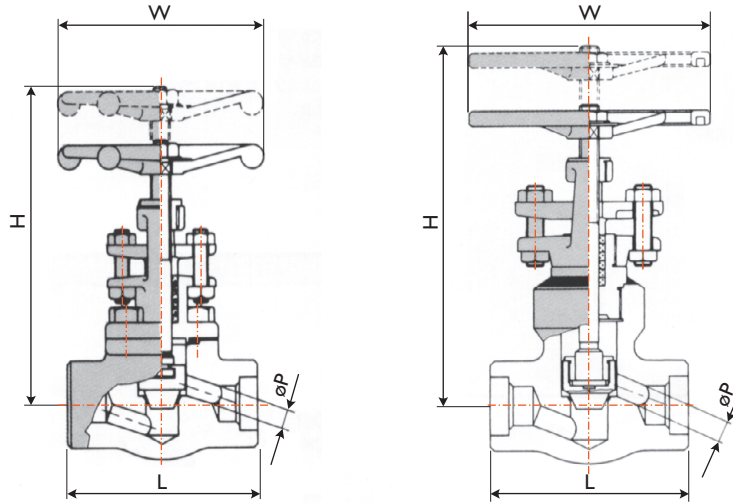
### FEATURES

- Construction - API602, BS5352 & ANSI/ASME B16.34
- End Connections - Socket Weld : ANSI/ASME B16.11  
Thread : ANSI/ASME B1.20.1  
Butt Weld : ANSI/ASME B16.25
- Inspection and Test - API 598 / BS5146

No.	Part Name
1.	BODY
2.	SEAT
3.	PAD
4.	DISC
5.	STEM
6.	DISC NUT
7.	BONNET
8.	GLAND PACKING
9.	YOKE
10.	GLAND
11.	GLAND FLANGE
12.	GLAND NUT
13.	GLAND BOLT
14.	YOKE BUSH
15.	HANDWHEEL
16.	NAME PLATE
17.	TOOTH WASHER
18.	HANDWHEEL NUT



# Forged Steel Type Screwed & Weld End Globe Valves



## DIMENSIONS BOLTED & WELDED BONNET CLASS 800

Regular Port (in)	¼"		⅜"		½"		¾"		1"		1½"		2"			
Full Port (in)	¼"		⅜"		½"		¾"		1"		1½"		1½"			
L (mm/in)	76	3.0	76	3.0	76	3.0	92	3.62	104	4.09	140	5.51	152	5.98	172	6.77
W (mm/in)	84	3.3	84	3.3	84	3.3	100	3.94	125	4.92	137	5.39	160	6.30	180	7.08
H (mm/in)	144	5.67	144	5.67	144	5.67	164	6.45	203	7.99	225	8.86	260	10.23	300	11.81
P (mm/in)	6.4	0.25	9.5	0.38	9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	23.5	0.93	36	1.41
Wt (kgs/lbs)	1.5	3.31	1.5	3.31	1.5	3.31	2.2	4.9	2.8	6.4	5.60	12.35	5.60	12.35	8.5	18.74
Typical Cv Factor	1.0		1.7		1.8		3.6		6.5		11.5		17.0		21.0	

## DIMENSIONS BOLTED & WELDED BONNET FULL PORT CLASS 1500

Valve Size (in)	½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	110	4.38	127	5.0	155	6.13	210	8.25	210	8.25	229	9.0
W (mm/in)	140	5.5	160	6.25	200	7.88	230	9.07	230	9.07	250	9.82
H (mm/in)	230	9.03	261	10.25	314	12.38	377	14.88	377	14.88	459	18.1
P (mm/in)	12	0.44	16	0.63	20	0.82	26	1.07	26	1.07	43	1.69
Wt (kgs/lbs)	5.0	11.0	6.0	13.2	8.0	17.6	15.0	33.1	15.0	33.1	26.0	57.3
Full Port Cv Factor	2.7		5.9		11.2		14.0		19.6		23.3	

For 'Standard Port' refer to drawing.

## DIMENSIONS BOLTED & WELDED BONNET FULL PORT CLASS 2500

Valve Size (in)	½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	127	5	155	6.102	210	8.267	229	9.015	229	9.015	235	9.251
W (mm/in)	160	6.299	200	7.874	230	9.055	250	9.842	250	9.842	300	11.81
H (mm/in)	261	10.275	314	12.362	377	14.842	459	18.07	459	18.07	470	18.5
P (mm/in)	11	0.433	13	0.51	18	0.708	23	0.905	26	1.023	35	1.377
Wt (kgs/lbs)	8	17.6	10	22	17	37.4	28	61.6	28.0	61.6	43	94.6
Full Port Cv Factor	2.7		5.9		12.2		14.0		19.6		23.3	

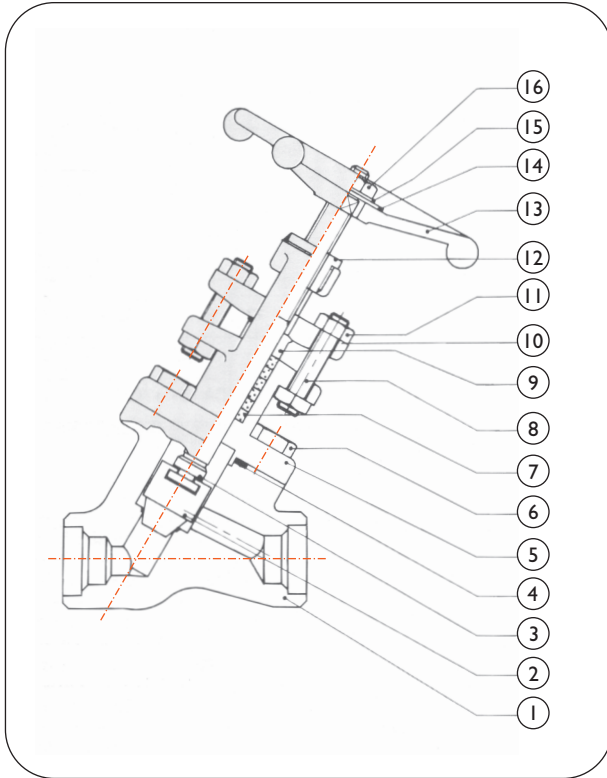
For 'Standard Port' refer to drawing.

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.

# Forged Steel Screwed & Weld End Y-Type Globe Valves



## BOLTED BONNET

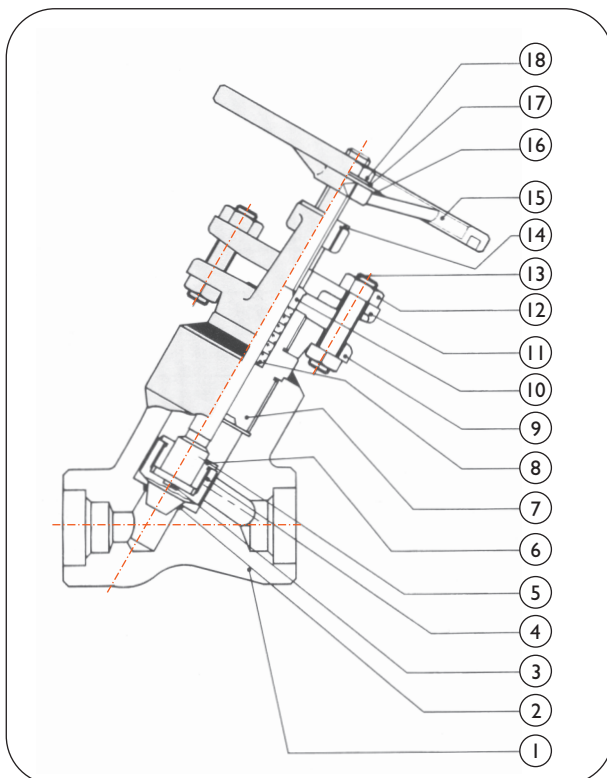


### FEATURES

- Construction - API602, BS5352 & ANSI/ASME B16.34
- End Connections - Socket Weld : ANSI/ASME B16.11  
Thread : ANSI/ASME B1.20.1  
Butt Weld : ANSI/ASME B16.25
- Inspection and Test - API 598 / BS5146

No.	Part Name
1.	BODY
2.	DISC
3.	STEM
4.	GASKET
5.	BONNET
6.	BONNET BOLT
7.	GLAND PACKING
8.	GLAND BOLT
9.	GLAND
10.	GLAND FLANGE
11.	GLAND NUT
12.	YOKE BUSH
13.	HANDWHEEL
14.	NAME PLATE
15.	HANDWHEEL WASHER
16.	HANDWHEEL NUT

## WELDED BONNET

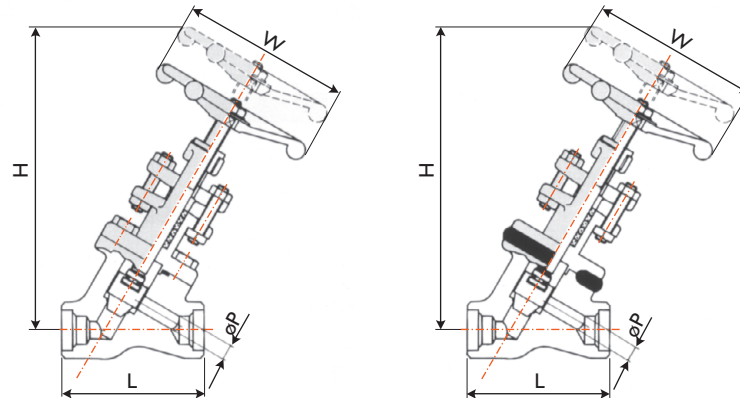


### FEATURES

- Construction - API602, BS5352 & ANSI/ASME B16.34
- End Connections - Socket Weld : ANSI/ASME B16.11  
Thread : ANSI/ASME B1.20.1  
Butt Weld : ANSI/ASME B16.25
- Inspection and Test - API 598 / BS5146

No.	Part Name
1.	BODY
2.	SEAT
3.	PAD
4.	DISC
5.	STEM
6.	DISC NUT
7.	BONNET
8.	GLAND PACKING
9.	YOKE
10.	GLAND
11.	GLAND FLANGE
12.	GLAND NUT
13.	GLAND BOLT
14.	YOKE BUSH
15.	HANDWHEEL
16.	NAME PLATE
17.	TOOTH WASHER
18.	HANDWHEEL NUT

# Forged Steel Screwed & Weld End Y-Type Globe Valves



## OUTSIDE SCREW & YOKE / SW, NPT, BW, CLASS 800

### DIMENSIONS BOLTED BONNET CLASS 800

Regular Port Size (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
Full Port Size (in)	¼"		⅜"				½"		¾"		1"		1¼"		1½"	
L (mm/in)	76	3.0	76	3.0	76	3.0	92	3.62	104	4.02	124	4.89	124	4.89	152	5.99
W (mm/in)	84	3.3	84	3.3	84	3.3	97	3.82	97	3.82	137	5.39	137	5.39	157	6.18
H (mm/in)	167	6.58	167	6.58	167	6.58	180	7.09	207	8.15	225	10.04	225	10.04	300	11.82
P (mm/in)	6.4	0.25	9.5	0.38	9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
Wt (kgs/lbs)	1.8	3.97	1.8	3.97	1.8	3.97	2.1	4.83	3.5	7.72	6.70	14.8	6.70	14.8	9.7	21.4
Typical Cv Factor	2.9		3.9		4.5		5.5		10.0		18.0		29.5		48.0	

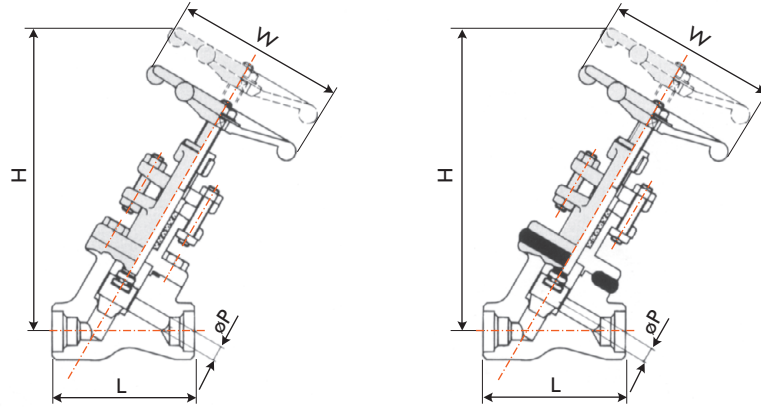
### DIMENSIONS WELDED BONNET CLASS 800

Regular Port Size (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
Full Port Size (in)	¼"		⅜"				½"		¾"		1"		1¼"		1½"	
L (mm/in)	76	3.0	76	3.0	76	3.0	92	3.55	102	4.02	124	4.89	124	4.89	152	5.99
W (mm/in)	84	3.3	84	3.3	84	3.3	97	3.82	97	3.82	137	5.39	137	5.39	157	6.18
H (mm/in)	167	6.58	167	6.58	167	6.58	180	7.09	207	8.15	225	10.04	225	10.04	300	11.82
P (mm/in)	6.4	0.25	9.5	0.38	9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
Wt (kgs/lbs)	1.6	3.53	1.6	3.53	1.6	3.53	1.9	4.2	3.2	7.1	6.4	14.1	6.4	14.1	9.3	20.5
Typical Cv Factor	2.9		3.9		4.5		5.5		10.0		18.0		29.5		48.0-	



Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.

# Forged Steel Screwed & Weld End Y-Type Globe Valves



## OUTSIDE SCREW & YOKE / SW, NPT, BW, CLASS 1500

### DIMENSIONS BOLTED BONNET CLASS 1500

Std Port Size (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
Full Port Size (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		1½"	
<b>L (mm/in)</b>	90	3.6	90	3.6	90	3.6	102	4.02	124	4.89	152	5.99	152	5.99	200	7.87
<b>W (mm/in)</b>	97	3.82	97	3.82	97	3.82	97	3.82	137	5.39	157	6.18	157	6.18	157	6.18
<b>H (mm/in)</b>	180	7.09	180	7.09	180	7.09	207	8.15	255	10.04	300	11.82	300	11.82	355	14.0
<b>P (mm/in)</b>	6.4	0.38	9.5	0.38	9.5	0.38	12.5	.5	18.5	0.73	23.5	0.93	30.5	1.2	36.0	1.41
<b>Wt (kgs/lbs)</b>	2.2	4.85	2.2	4.85	2.1	4.63	3.6	7.94	6.8	15.0	9.8	21.6	9.8	21.6	14.3	31.5
<b>Typical Cv Factor</b>	3.5		4.8		4.8		5.5		10.0		18.0		32.5		48.0	

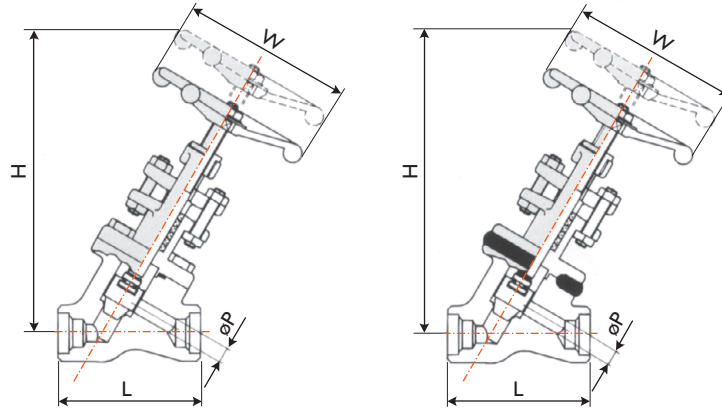
### DIMENSIONS WELDED BONNET CLASS 1500

Std Port Size (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
Full Port Size (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		1½"	
<b>L (mm/in)</b>	90	3.55	90	3.55	90	3.55	102	4.02	124	4.89	152	5.99	152	5.99	200	7.87
<b>W (mm/in)</b>	97	3.82	97	3.82	97	3.82	97	3.82	137	5.39	157	6.18	157	6.18	157	6.18
<b>H (mm/in)</b>	180	7.09	180	7.09	180	7.09	207	8.15	255	10.04	300	11.82	300	11.82	355	14.0
<b>P (mm/in)</b>	6.4	0.38	9.5	0.38	9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.2	36.0	1.41
<b>Wt (kgs/lbs)</b>	2.0	4.41	2.0	4.41	1.9	4.2	3.4	7.5	6.6	14.6	9.6	21.2	9.6	21.2	14.1	31.1
<b>Typical Cv Factor</b>	3.5		4.8		4.8		5.5		10.0		18.0		32.5		48.0	

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.



# Forged Steel Screwed & Weld End Y-Type Globe Valves



## OUTSIDE SCREW & YOKE / SW, NPT, BW, CLASS 2500

### DIMENSIONS BOLTED & WELDED BONNET STANDARD BORE CLASS 2500

Valve Size (in)	½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	115	4.53	130	5.12	150	5.91	220	8.66	220	8.66	260	10.24
W (mm/in)	97	3.82	97	3.82	137	5.39	157	6.18	157	6.18	157	6.18
H (mm/in)	232	9.13	274	10.79	320	12.60	461	18.15	461	18.15	504	19.85
P (mm/in)	9.5	0.38	12.5	0.5	18.5	0.73	235	0.93	30.5	1.20	36.0	1.41
Wt (kgs/lbs)	2.1	4.63	3.6	7.94	6.8	15.0	9.8	21.6	9.8	21.6	14.3	31.5
Typical Cv Factor	5.5		9.5		17.5		27.0		32.5		40.0	

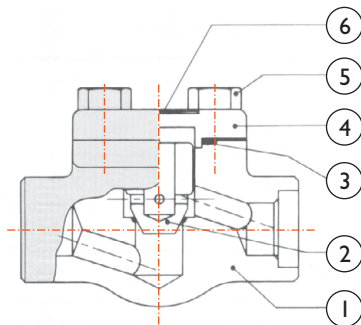
Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.

# Forged Steel Screwed & Weld End Check Valves

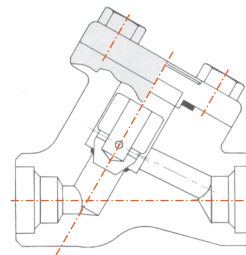


## BOLTED & WELDED BONNET

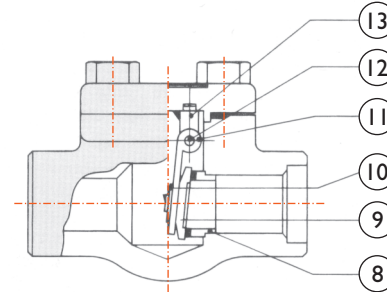
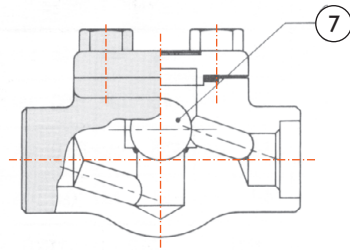
Piston check



Y-Piston check



Ball check



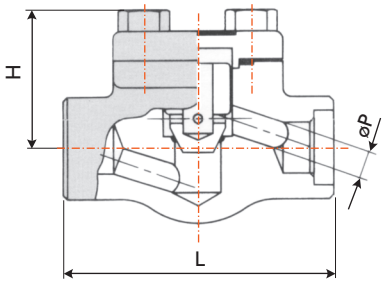
### FEATURES

- Construction - API602, BS5352 & ANSI/ASME B16.34
- End Connections - Socket Weld : ANSI/ASME B16.11  
Thread : ANSI/ASME B1.20.1  
Butt Weld : ANSI/ASME B16.25
- Inspection and Test - API 598 / BS5146

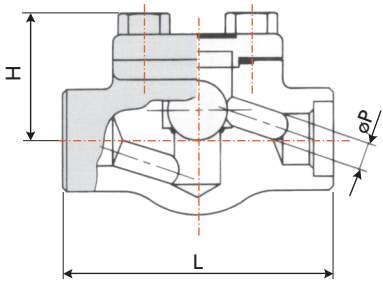
No.	Part Name
1.	BODY
2.	DISC
3.	GASKET
4.	BONNET
5.	BONNET BOLT
6.	NAME PLATE
7.	BALL
8.	SEAT DISC
9.	RETAINING RING
10.	HINGE RING
11.	HINGE
12.	HINGE PIN
13.	SUPPORT

## DIMENSIONAL DRAWINGS

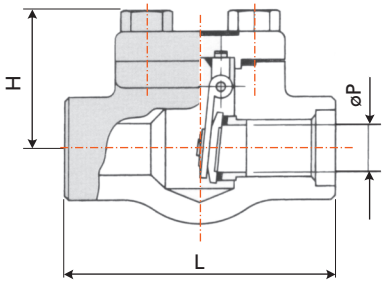
Piston check  
bolted bonnet



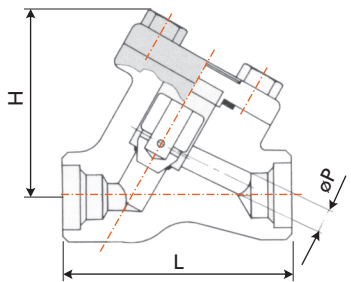
Ball check  
bolted bonnet



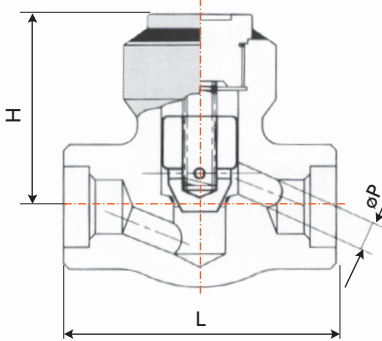
Swing check  
bolted bonnet



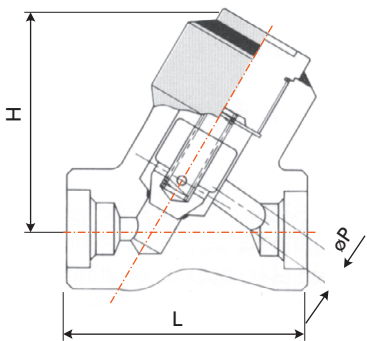
Y-type piston check  
bolted bonnet



Piston check  
welded bonnet



Piston check  
Y-type welded bonnet



# Forged Steel Screwed & Weld End Check Valves



## SW, NPT, BW, CLASS 800 REGULAR PORT / FULL PORT

### DIMENSIONS PISTON CHECK / BALL CHECK

Regular Port (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
Full Port (in)	¼"		⅜"				½"		¾"		1"		1¼"		1½"	
L (mm/in)	76	3.0	76	3.0	79	3.11	92	3.62	111	4.37	140	5.5	152	5.98	172	6.77
H (mm/in)	46	1.8	46	1.8	46	1.8	61	2.40	78	3.07	75	2.95	84	3.30	118	4.64
P (mm/in)	6.4	0.25	9.5	0.38	9.5	0.38	12.5	0.5	17.5	0.69	23.5	0.93	30	1.18	35	1.37
Wt (kgs/lbs)	1	2.2	1	2.2	1	2.2	1.5	3.3	2	4.4	4.1	9	4.1	9	6.4	14.2
Typical Cv Factor	0.7		1.0		1.2		3.4		6.2		12.9		15.9		18.9	

### DIMENSIONS SWING CHECK

Regular Port (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
Full Port (in)	¼"		⅜"				½"		¾"		1"		1¼"		1½"	
L (mm/in)	76	3.0	76	3.0	79	3.11	92	3.62	111	4.37	115	4.53	120	4.72	140	5.51
H (mm/in)	46	1.8	46	1.8	46	1.8	61	2.40	78	3.07	75	2.95	84	3.30	120	4.72
P (mm/in)	6.4	0.25	9.5	0.38	10.0	0.39	13.5	0.53	18	0.71	23.5	0.93	30	1.18	36.0	1.41
Wt (kgs/lbs)	1.0	2.2	1.0	2.2	1.0	2.2	1.5	3.3	2.0	4.4	4.1	9.0	4.1	9.0	6.0	14.2
Typical Cv Factor	2.6		3.8		4.0		6.3		13.5		18.3		28.3		53.4	

### DIMENSIONS Y-PISTON

Regular Port (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
Full Port (in)	¼"		⅜"				½"		¾"		1"		1¼"		1½"	
L (mm/in)	76	3.0	76	3.0	76	3.0	90	3.55	102	4.02	124	4.89	124	4.89	152	5.99
H (mm/in)	67	2.8	67	2.6	67	2.6	77	3.0	80	3.15	111	4.4	111	4.4	138	5.4
P (mm/in)	6.4	0.25	9.5	0.38	9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.2	36.0	1.41
Wt (kgs/lbs)	1.2	2.6	1.2	2.6	1.2	2.6	1.4	3.1	2.4	5.3	5.2	11.5	5.2	11.5	7	15.4
Typical Cv Factor	2.8		3.9		3.9		4.8		8.2		13.0		27.0		39.0	

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.



# Forged Steel Screwed & Weld End Check Valves



## SW, NPT, BW, CLASS 1500 STANDARD PORT

### DIMENSIONS PISTON CHECK / BALL CHECK

Std Port (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	92	3.62	92	3.62	92	3.62	111	4.37	120	4.72	146	5.74	172	6.77	200	7.87
H (mm/in)	56	2.2	56	2.2	56	2.2	78	3.07	84	3.30	100	3.94	118	4.64	138	5.43
P (mm/in)	6.4	0.25	9.5	0.38	10	0.39	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
Wt (kgs/lbs)	1.5	3.3	1.5	3.3	1.5	3.3	2.0	4.4	4.1	9	6.4	14.2	6.4	14.2	9.8	21.6
Typical Cv Factor	0.7		1.0		1.2		3.4		6.2		13.9		14.9		18.2	

### DIMENSIONS SWING CHECK

Std Port (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	92	3.62	92	3.62	92	3.62	111	4.37	120	4.72	146	5.74	140	5.51	178	7.0
H (mm/in)	56	2.2	56	2.2	56	2.2	78	3.07	84	3.30	100	3.94	120	4.72	133	5.23
P (mm/in)	6.4	0.25	9.5	0.38	10	0.39	13	0.51	17.5	0.69	23.5	0.93	30	1.18	36.0	1.41
Wt (kgs/lbs)	1.5	3.3	1.5	3.3	1.5	3.3	2.0	4.4	4.1	9.0	6.4	14.2	6.4	14.2	9.8	21.6
Typical Cv Factor	2.6		4.0		4.0		6.3		13.5		18.3		28.3		53.4	

### DIMENSIONS Y-PISTON

Std Port (in)	¼"		⅜"		½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	90	3.55	90	3.55	90	3.55	102	4.02	124	4.89	152	5.99	152	5.99	200	7.87
H (mm/in)	77	3.0	77	3.0	77	3.0	80	3.15	111	4.4	138	5.4	138	5.4	178	7.0
P (mm/in)	6.4	0.25	9.5	0.38	9.5	0.38	12.5	0.5	18.5	0.3	23.5	0.93	30.5	1.20	36.0	1.41
Wt (kgs/lbs)	1.4	3.1	1.4	3.1	1.4	3.1	2.4	5.3	5.2	11.5	7.0	15.4	7.1	15.4	10.3	22.7
Typical Cv Factor	3.5		3.8		5.0		12.5		18.5		24.9		29.5		36.0	

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.

# Forged Steel Screwed & Weld End Check Valves



## SW, NPT, BW, CLASS 2500 STANDARD PORT

### DIMENSIONS PISTON CHECK / BALL CHECK

Std Port (in)	½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	127	5	155	6.13	210	8.25	229	9	229	9	235	9.25
H (mm/in)	94	3.69	116	4.57	147	5.75	176	6.94	176	6.94	195	7.625
P (mm/in) 195	11	0.44	13	0.5	18	0.69	23	0.88	26	1	35	1.38
Wt (kgs/lbs)	4.0	8.8	7.0	15.4	14.0	30.9	21.0	46.3	21.0	46.3	30.0	66.2
Typical Cv Factor	1.2		3.4		6.2		9.8		12.9		18.2	

### DIMENSIONS Y-PISTON CHECK

Std Port (in)	½"		¾"		1"		1¼"		1½"		2"	
L (mm/in)	127	5	155	6.13	210	8.25	229	9	229	9	235	9.25
H (mm/in)	94	3.69	116	4.57	147	5.75	176	6.94	176	6.94	195	7.625
P (mm/in)	11	0.44	13	0.5	18	0.69	23	0.88	26	1	35	1.38
Wt (kgs/lbs)	4.0	8.8	7.0	15.4	14.0	30.9	21.0	46.3	21.0	46.3	30.0	66.2
Typical Cv Factor	3.9		5.9		12.9		24.9		29.9		39.0	

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.



# Bonnetless Y Pattern Globe Valves

## JEE Series



### BONNETLESS GLOBE VALVES

One-piece, forged, bonnetless globe valves have been proven in critical service applications around the world. This includes high pressure drop, steam blow down, steam injection etc. These fast acting isolation valves are rated up to 6000 psi - 2500 Class (414 bar) and can be utilised in gas and super heated steam at up to 1100°F (593°C)

### DESIGN FEATURE

#### ONE PIECE FORGED BODY

- Eliminates pressure retaining threads or bolts
- No welds to cut for servicing
- Eliminates deposits

#### Y PATTERN FORGED BODY

- Excellent flow characteristics
- Allows streamlined flow
- Eliminates corrosion and deposits
- 60° incline pressure drop

#### HEAVY INTEGRAL SEATING

- Integral Stellite #6 seat & disc for long life
- Tight shutoff
- Long valve life
- Good flow characteristics.
- Ease of re-facing
- Positive seating function as standard
- Seat is guided at bottom and top

#### NON-ROTATING SPLINED STEM

- Non-rotating solid cone eliminates galling and eliminates scoring or bending of the stem
- No torsion applied to gland packing
- Easy on site maintenance and low maintenance cost
- Low operational torque
- Can not be detached from the stem
- Close roundness and straightness tolerances
- Burnished for superior finish

#### COMBINATION GLAND RING PACKING

- Graphoil as standard maximum temperature 650 degree °C.
- Long operating life

#### HEAVY TWO-PIECE GLAND BUSHINGS

- Will withstand high stresses caused by liveloading
- Bolt torques control total spring load
- Two sets of GLAND BUSHINGS maintain a minimum permanent stress of 4000 psi on the graphite packing keeping it tight for long periods of time without maintenance.



#### DOUBLE PACKING AND LEAK-OFF

- A lantern ring and leak-off pipe option allows detection or draining of leakage, if any, from the lower packing set.

#### SHORT AND NARROW PACKING CHAMBER

- Sealing effectiveness improves as overall packing length shortens. Chamber wall is burnished to a superior finish

#### HANDLE WHEEL

- Impact Hand-wheel is not necessary thanks to the two roller bearings.

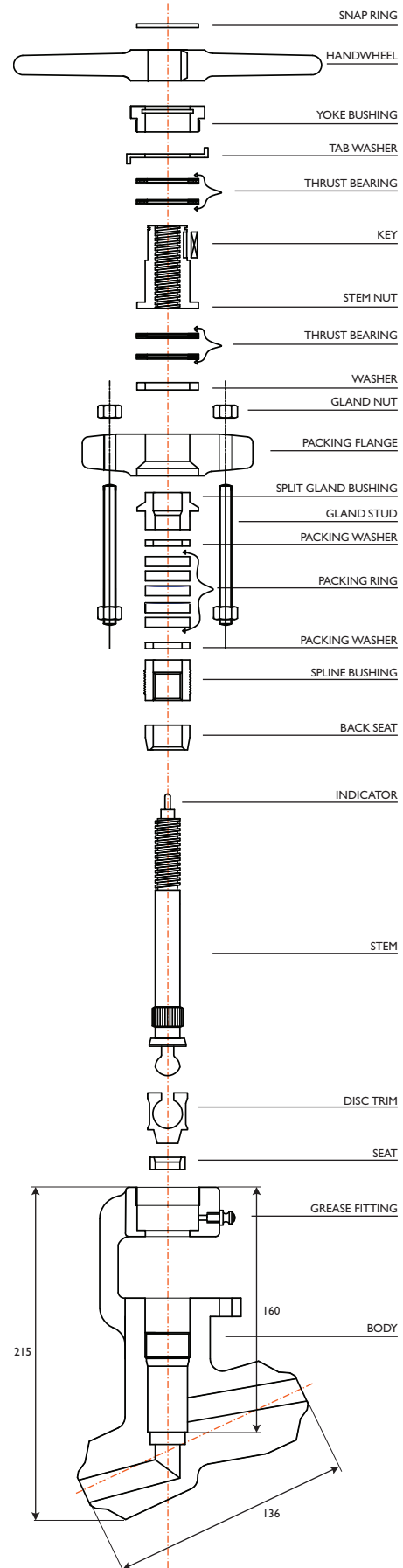
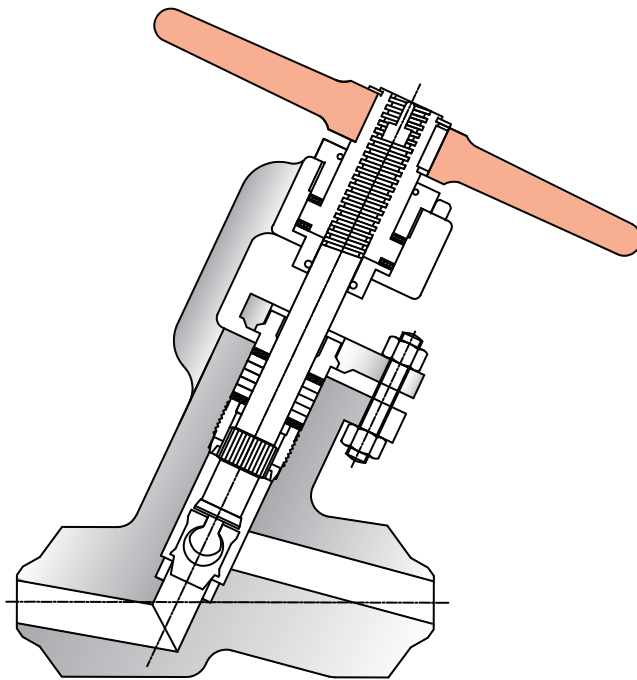
#### UNIQUE, FULLY-ENCLOSED STEM NUTDRIVE

- Well lubricated stem nut rotates on two thrust bearings
- 10,000 test cycles show no visible damage to parts
- Dust cover and sleeve protect stem threads from dirt, dust and sand.

# Bonnetless Y Pattern Globe Valves JEE Series



BILL OF MATERIALS TABLE		
<b>BODY</b>	A182 Gr. F91	A182 Gr. F316
<b>SEAT</b>	Stellite 6	Stellite 6
<b>DISC TRIM</b>	Stellite 6	Stellite 6
<b>STEM</b>	Gr.H316	Gr.H316
<b>BACK SEAT</b>	Gr.17.4PH	Gr.17.4PH
<b>PACKING WASHER</b>	Gr.304	Gr.304
<b>PACKING RING</b>	Graphite	Graphite
<b>GLAND STUD</b>	Gr.B6	Gr.B8M2
<b>SPLIT GLAND BUSHING</b>	Gr.410	Gr.410
<b>PACKING FLANGE</b>	Gr.A105	Gr.304
<b>GLAND NUT</b>	Gr.2H	Gr.8m
<b>WASHER</b>	Gr.304	Gr.304
<b>THRUST BEARING</b>	Steel	Steel
<b>STEM NUT</b>	Gr.410	Gr.410
<b>YOKE BUSHING</b>	Gr. Steel	Gr. Steel
<b>HANDWHEEL</b>	Malleable iron	Malleable iron
<b>SNAP RING</b>	Steel	Steel
<b>TAB WASHER</b>	Steel	Steel





# Globe Valve Bellow Sealed

## Bolted Bonnet



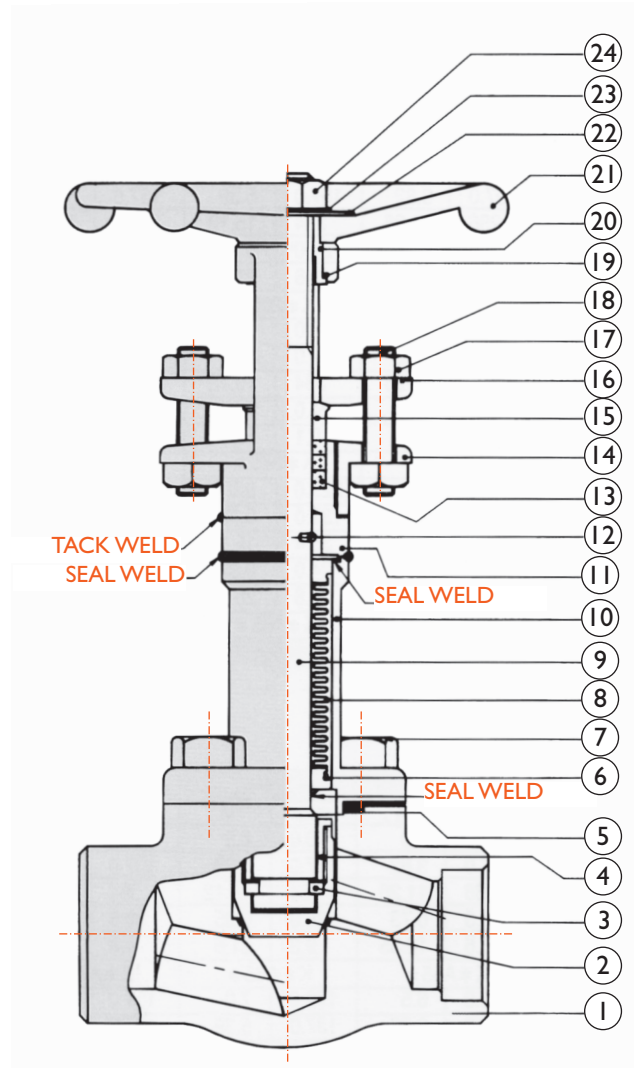
### OVERVIEW

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
  - Maximum corrosion resistance
- Flanged, screwed or welded end connections
- Welded or Bolted Bonnet Design
- Zero Stem Leakage
  - Eliminates media loss
  - 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



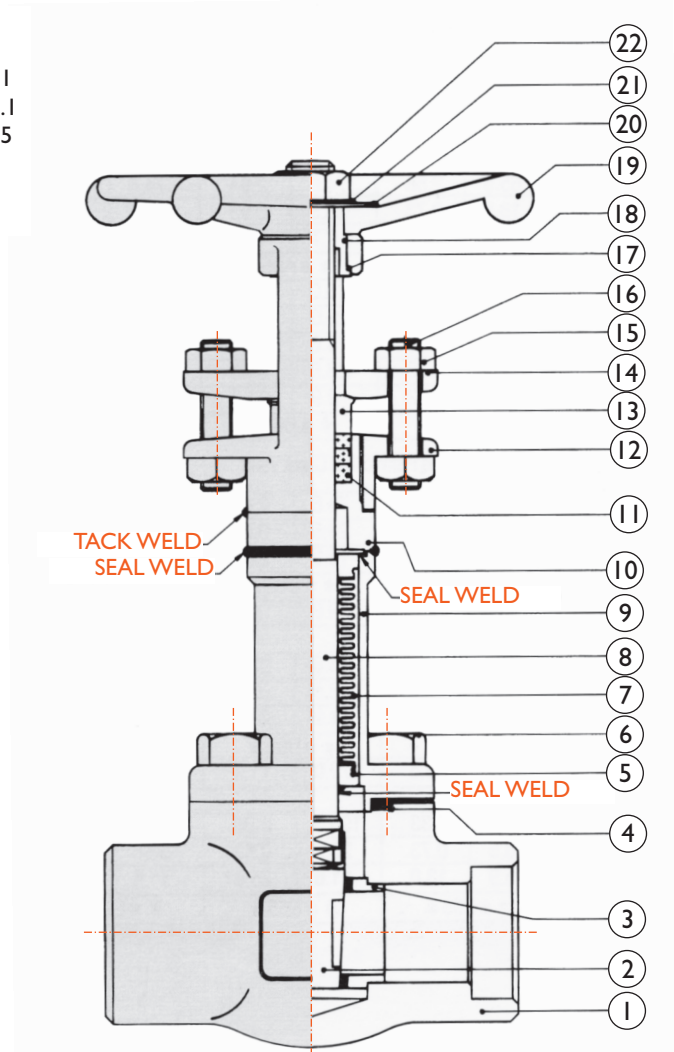
### OVERVIEW

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
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  - Metallic bellows
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- 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

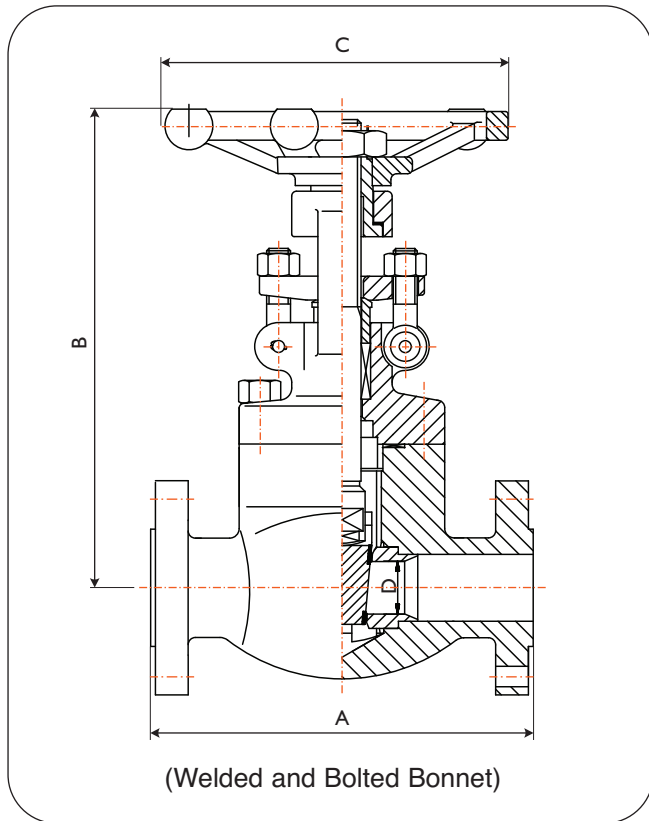
# Forged Steel Integral Flanged Gate Valves



## BOLTED, WELDED & PRESSURE SEAL BONNET CLASS 150 TO 2500



ISO 15848-1 Class CO2  
Fugitive Emission Certified



No.	Part Name
1.	BODY
2.	DISC
3.	STEM
4.	GASKET
5.	BONNET
6.	BONNET BOLT
7.	GLAND PACKING
8.	GLAND BOLT
9.	GLAND
10.	GLAND FLANGE
11.	GLAND NUT
12.	YOKE BUSH
13.	HANDWHEEL
14.	NAME PLATE
15.	HANDWHEEL WASHER
16.	HANDWHEEL NUT

A = Face to Face  
B = Centre to top  
C = Wheel diameter  
D = Port Diameter

### DESIGN FEATURES

Integral Flanged  
Outside screw  
Bolted bonnet & welded bonnet  
Regular bore & full bore  
Flanging to ANSI B16.5.  
Other flanges available.  
Alternative trim materials available.

### STANDARDS

Construction - API602 & ANSI/ASME B16.34  
End Connections - Socket Weld : ANSI/ASME B16.11  
Thread : ANSI/ASME B1.20.1  
Butt Weld : ANSI/ASME B16.25  
Flanged : ANSI/ASME B16.5  
Inspection and Test - API 598



Bolted Bonnet

# Forged Steel Integral Flanged Gate Valves



## FLANGED DIMENSIONS RF/RTJ - REGULAR BORE\*

ANSI CLASS	DIMENSIONS	½"		¾"		1"		1¼"		1½"		2"	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
150	A - Face to Face	108.08	4.25	117.0	4.6	127.0	5.0	140.0	5.5	165.0	6.5	178.0	7.0
	C - Wheel Dia.	84.0	3.31	97.0	3.82	97.0	3.82	137.0	5.69	137.0	5.39	157.0	6.18
	B - Centre to Top	138.0	5.43	147.0	5.79	174.0	6.85	217.0	8.54	217.0	8.54	256.0	10.08
	D - Port Dia.*	9.6	0.38	12.7	0.5	18.5	0.73	24.0	0.95	30.5	1.20	38.1	1.5
	Wt (kg/lb)	2.7	6.6	3.4	7.5	5.0	11.0	9.2	20.3	9.2	20.3	12.7	28.0
300	A - Face to Face	140.0	5.5	152.0	6.0	165.0	6.5	178.0	7.0	190.0	7.5	216.0	8.5
	C - Wheel Dia.	84.0	3.31	97.0	3.82	97.0	3.82	137.0	5.39	137.0	5.69	157.0	6.18
	B - Centre to Top	138.0	5.43	147.0	5.79	174.0	6.85	217.0	8.54	217.0	8.54	256.0	10.08
	D - Port Dia.*	9.6	0.38	12.7	0.5	18.5	0.73	24.0	0.95	30.5	1.20	38.1	1.5
	Wt (kg/lb)	3.0	6.6	3.7	8.16	5.3	11.7	9.5	21.0	9.5	21.0	13.1	28.9
600	A - Face to Face	165.0	6.5	190.0	7.5	216.0	8.5	229.0	9.0	241.0	9.5	292.0	11.5
	C - Wheel Dia.	84.0	3.31	97.0	3.82	97.0	3.82	137.0	5.69	137.0	5.39	157.0	6.18
	B - Centre to Top	138.0	5.43	147.0	5.79	174.0	6.85	217.0	8.54	217.0	8.54	256.0	10.08
	D - Port Dia.*	9.6	0.38	12.7	0.5	18.5	0.73	24.0	0.95	30.5	1.20	38.1	1.5
	Wt (kg/lb)	3.5	7.7	4.9	10.8	6.7	14.8	12.2	26.9	12.4	27.3	16.3	36.4
900 / 1500	A - Face to Face	216.0	8.5	229.0	9.0	254.0	10.0	279.0	11.0	305.0	12.0	368.0	14.5
	C - Wheel Dia.	97.0	3.82	97.0	3.82	137.0	5.40	157.0	6.18	157.0	6.18	157.0	6.18
	B - Centre to Top	147.0	5.79	156.0	6.14	207.0	8.15	246.0	9.69	246.0	9.69	303.0	11.93
	D - Port Dia.*	10.5	0.41	13.0	0.51	18.0	0.71	24.0	0.95	29.0	1.14	36.8	1.45
	Wt (kg/lb)	4.9	10.8	6.9	15.2	18.5	40.8	28.0	61.7	29.0	63.9	34.0	75.0
2500 (Pressure Seal Bonnet)	A - Face to Face	264.0	10.4	273.0	10.74	308.0	12.12	349.0	13.74	387.5	15.25	454.0	17.87
	C - Wheel Dia.	200.0	7.87	200.0	7.87	200.0	7.87	300.0	11.81	300	11.81	300.0	11.81
	B - Centre to Top	321.0	12.63	321.0	12.63	321.0	12.63	389.0	15.31	414.0	16.3	502.0	19.76
	D - Port Dia.*	12.0	0.47	12.7	0.50	18.0	0.70	24.0	0.95	29.0	1.14	36.8	1.45
	Wt (kg/lb)	11.6	25.57	12.3	27.11	20.8	45.85	26.8	59.08	28.4	62.61	40.0	88.18

\*Regular bore shown, full port refer to drawing.

## CV FACTORS

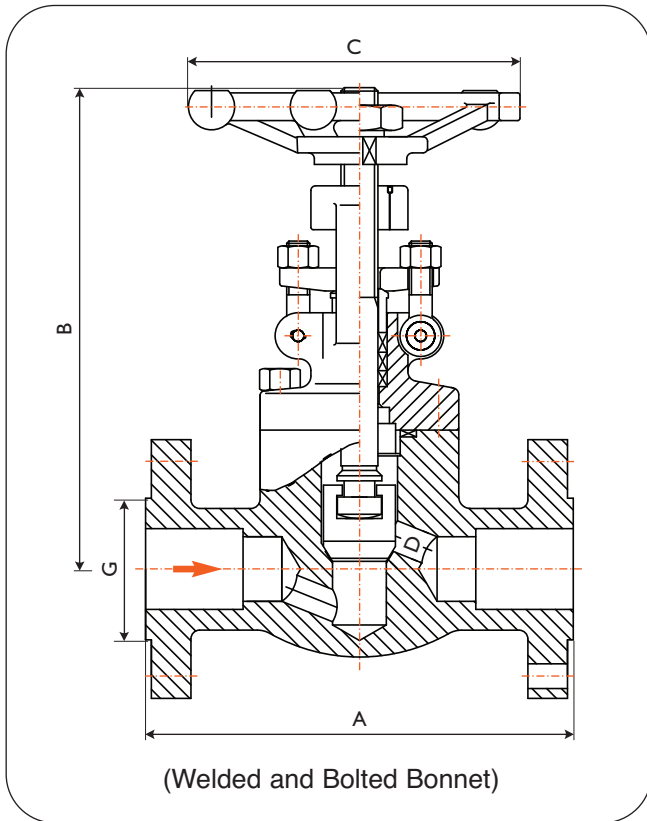
CLASS	SIZE	½"	¾"	1"	1¼"	1½"	2"
150~800LB	Typical Cv Factor	3.0	11.3	26.3	52.4	78.0	115.0

Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.

# Forged Steel Integral Flanged Globe & SDNR Valves



## BOLTED, WELDED & PRESSURE SEAL BONNET CLASS 150 TO 2500



No.	Part Name
1.	BODY
2.	DISC
3.	STEM
4.	GASKET
5.	BONNET
6.	BONNET BOLT
7.	GLAND PACKING
8.	GLAND BOLT
9.	GLAND
10.	GLAND FLANGE
11.	GLAND NUT
12.	YOKE BUSH
13.	HANDWHEEL
14.	NAME PLATE
15.	HANDWHEEL WASHER
16.	HANDWHEEL NUT

- A = Face to Face
- B = Centre to top
- C = Wheel diameter
- D = Port Diameter

### DESIGN FEATURES

- Integral flanged.
- Outside screw
- Bolted bonnet & welded bonnet
- Regular bore & full bore
- Flanging to ANSI B16.5
- Other flanges available.
- Alternative trim materials available.

### STANDARDS

- Construction - API602 & ANSI/ASME B16.34
- End Connections - Socket Weld : ANSI/ASME B16.11  
Thread : ANSI/ASME B1.20.1  
Butt Weld : ANSI/ASME B16.25  
Flanged : ANSI/ASME B16.5
- Inspection and Test - API 598



Bolted Bonnet

# Forged Steel Integral Flanged Globe Valves



## FLANGED DIMENSIONS RF/RTJ - REGULAR BORE\*

ANSI CLASS	DIMENSION	½"		¾"		1"		1¼"		1½"		2"	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
150	A - Face to Face	108.08	4.25	117.0	4.6	127.0	5.0	140.0	5.5	165.0	6.5	203.0	8.0
	C - Wheel Dia.	84.0	3.31	97.0	3.82	97.0	3.82	137.0	5.39	137.3	5.39	157.0	6.18
	B - Centre to Top	144.0	5.67	154.0	6.06	177.0	6.97	225.0	8.86	214.0	8.43	254.0	10.0
	D - Port Dia.*	9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
	Wt (kg/lb)	2.8	6.2	3.5	7.72	5.1	11.3	9.3	20.5	9.4	20.68	12.8	28.2
300	A - Face to Face	152.0	6.0	178.0	7.0	203.0	8.0	216.0	8.5	229.0	9.0	267.0	10.5
	C - Wheel Dia.	84.0	3.31	97.0	3.82	97.0	3.82	137.0	5.39	137.0	5.39	157.0	6.18
	B - Centre to Top	144.0	5.67	154.0	6.06	177.0	6.97	225.0	8.86	214.0	8.43	254.0	10.0
	D - Port Dia.*	9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
	Wt (kg/lb)	3.1	6.83	3.8	8.40	5.4	11.9	9.6	21.2	9.6	21.2	13.2	29.1
600	A - Face to Face	165.0	6.5	190.0	7.5	216.0	8.5	229.0	9.0	241.0	9.5	292.0	11.5
	C - Wheel Dia.	84.0	3.31	97.0	3.82	97.0	3.82	137.0	5.39	137.0	5.39	157.0	6.18
	B - Centre to Top	144.0	5.67	154.0	6.06	177.0	6.97	225.0	8.86	214.0	8.43	254.0	10.0
	D - Port Dia.*	9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
	Wt (kg/lb)	3.6	7.94	5.0	11.0	6.8	15.0	12.3	27.1	12.5	27.6	16.6	36.6
900 / 1500	A - Face to Face	216.0	8.5	229.0	9.0	254.0	10.0	279.0	11.0	305.0	12.0	368.0	14.5
	C - Wheel Dia.	97.0	3.82	97.0	3.82	137.0	5.40	157.0	6.18	157.0	6.18	157.0	6.18
	B - Centre to Top	150.0	5.91	179.0	7.05	231.0	9.09	256.0	10.08	256.0	10.08	301.0	11.85
	D - Port Dia.*	9.5	0.38	13.0	0.51	18.0	0.70	24	0.94	29.0	1.14	36.8	1.45
	Wt (kg/lb)	5.0	11.0	7.0	15.4	18.7	41.2	28.2	62.17	29.2	64.37	34.2	75.4
2500 (Pressure Seal Bonnet)	A - Face to Face	264.0	10.39	273.0	10.74	308.0	12.12	349.0	13.74	387.5	15.25	454.0	17.87
	C - Wheel Dia.	200.0	7.87	200.0	7.87	200.0	7.87	300.0	11.81	300.0	11.81	300.0	11.81
	B - Centre to Top	333	13.11	333	13.11	333.0	13.11	408.0	16.06	408.0	16.06	524.0	20.62
	D - Port Dia.*	12.5	0.49	12.5	0.49	18.0	0.70	23.5	0.93	29.0	1.14	35.0	1.37
	Wt (kg/lb)	12.3	27.11	11.6	25.57	20.8	45.85	29.8	65.69	36.4	80.24	43.8	96.56

\*Regular bore shown, full port refer to drawing.

## CV FACTORS

CLASS	SIZE	½"	¾"	1"	1¼"	1½"	2"
150~800LB	Typical Cv Factor	2.0	3.0	5.5	11.5	17.0	21.0

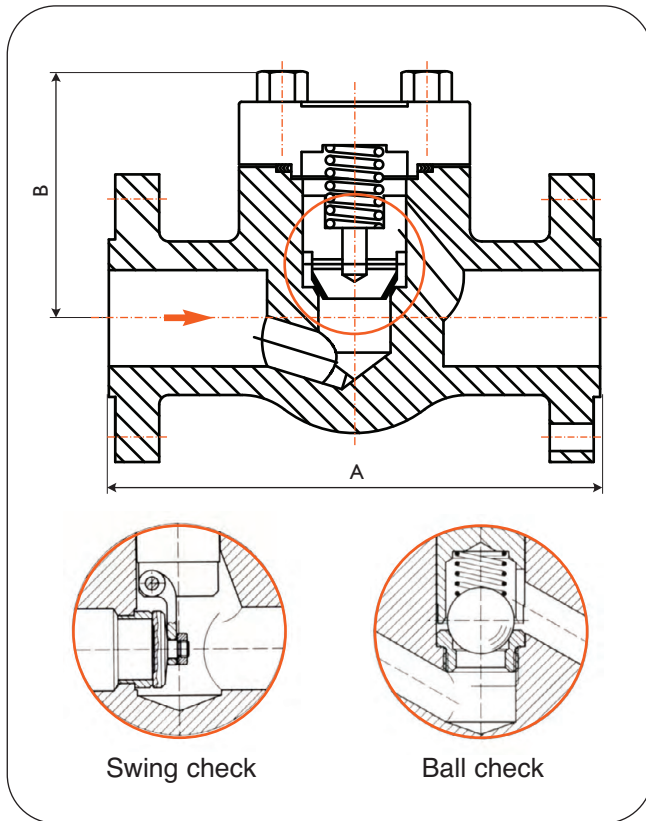
Dimensions are indicative and vary according to standard, port design and body material. Refer to as-built drawing.



# Forged Steel Integral Flanged Check Valves



## BOLTED, WELDED & PRESSURE SEAL COVER CLASS 150 TO 2500



No.	Part Name
1.	BODY
2.	DISC
3.	GASKET
4.	COVER
5.	COVER BOLT
6.	NAME PLATE
7.	BALL
8.	SEAT RING
9.	DISC
10.	RETAINING RING
11.	HINGE
12.	HINGE PIN
13.	SUPPORT

A = Face to Face  
 B = Centre to top  
 D = Port Diameter

### DESIGN FEATURES

- Bolted, welded and pressure seal bonnet.
- Integral flanged.
- Regular port and full port.
- Flanged to ANSI B16.5.
- Other flanging available.
- Alternative trim materials available.
- Spring can be fitted for vertical service to ball and piston type.

### STANDARDS

- Construction - API602, BS5352 & ANSI/ASME B16.34
- End Connections - Socket Weld : ANSI/ASME B16.11
- Thread : ANSI/ASME B1.20.1
- Butt Weld : ANSI/ASME B16.25
- Flanged : ANSI/ASME B16.5
- Inspection and Test - API 598



Bolted Bonnet

# Forged Steel Integral Flanged Check Valves



## FLANGED DIMENSIONS - REGULAR BORE\*

ANSI CLASS	SIZE		½"		¾"		1"		1¼"		1½"		2"	
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
150	A - Face to Face	Piston or Ball	108.0	4.25	117.0	4.60	127.0	5.0	140.0	5.5	165.0	6.5	203.0	8.0
		Swing	Same as Piston or Ball Check Valve											
	B - Centre to Top		46.0	1.81	56.0	2.2	65.5	2.58	74.6	2.94	74.6	2.94	100.5	4.0
	D - Port Dia.*		9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
	Wt (kg/lb)		1.7	3.7	2.4	5.3	3.8	8.4	7.7	17.0	7.7	17.0	11.4	25.1
300	A - Face to Face	Piston, Ball	152.0	60.0	178.0	7.0	203.0	8.0	216.0	8.5	229.0	9.0	267.0	10.5
		Swing	140.0	5.5	152.0	6.0	165.0	6.5	229.0	9.0	241.0	9.5	267.0	10.5
	B - Centre to Top		46.0	1.81	56.0	2.20	65.5	2.58	74.6	2.94	74.6	2.94	100.5	3.96
	D - Port Dia.*		9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
	Wt (kg/lb)		2.2	4.9	3.3	7.3	5.1	11.2	9.9	21.8	9.9	21.8	12.9	28.4
600	A - Face to Face	Piston, Ball	165.0	6.5	190.0	7.5	216.0	8.5	229.0	9.0	241.0	9.5	292.0	11.5
		Swing	Same as Piston and Ball Check Valve											
	B - Centre to Top		46.0	1.81	56.0	2.20	65.5	2.58	74.6	2.94	74.6	2.94	100.5	2.96
	D - Port Dia.*		9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
	Wt (kg/lb)		2.5	5.5	3.9	8.6	5.7	12.6	11.2	24.7	11.2	24.7	13.8	30.4
900/1500	A - Face to Face	Piston, Ball	216.0	8.5	229.0	9.0	254.0	10.0	279.0	11.0	305.0	12.0	368.0	14.5
		Swing	Same as Piston or Ball Check Valve											
	B - Centre to Top		62.0	2.44	68.1	2.68	84.6	3.33	100.5	3.96	102.0	4.02	124.6	4.91
	D - Port Dia.*		9.5	0.38	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
	Wt (kg/lb)		3.0	6.6	4.3	9.5	5.9	13.0	11.6	25.6	11.6	25.6	14.0	30.8
2500 (Pressure Seal Bonnet)	A - Face to Face	Piston, Ball	264.0	10.39	273.0	10.74	308.0	12.12			387.5	15.25	454.0	17.87
		Swing	Same as Piston or Ball Check Valve											
	B - Centre to Top		128.0	5.03	130.0	5.11	152.0	5.98			188.0	7.40	190.0	7.48
	D - Port Dia.*		12.5	0.49	12.5	0.49	18.0	0.71			29.0	1.14	35.0	1.37
	Wt (kg/lb)		14.3	31.52	16.0	35.27	23.6	52.02			54.0	119.04	56.0	123.45

\* Port diameter shown is for piston and ball check regular port. For swing and for full bore piston and ball check refer to drawing.

## CV FACTORS - LIFT CHECK\*

CLASS	SIZE	½"	¾"	1"	1¼"	1½"	2"
150~800LB	Typical Cv Factor	1.0	2.7	5.4	16.0	18.5	20.0

\* Reduced Port

## CV FACTORS - SWING CHECK\*

CLASS	SIZE	½"	¾"	1"	1¼"	1½"	2"
150~800LB	Typical Cv Factor	6.0	11.3	26.3	63.0	78.0	115.0

\* Reduced Port

## CV FACTORS - Y-PISTON CHECK\*

CLASS	SIZE	½"	¾"	1"	1¼"	1½"	2"
150~800LB	Typical Cv Factor	5.5	11.5	16.5	21.0	27.0	32.0

\* Reduced Port



## CONSIDERATIONS OF TECHNICAL RISK / LIMIT OF LIABILITY FOR APV GATE, GLOBE, CHECK VALVES

Australian Pipeline Valve don't consider in our design the following factors of risk:

1. Australian Pipeline Valve "Standard" valves can be used in a temperature range between -29°C to +490°C. (Note, pressure limitations apply above 38°C refer to Pressure/Temperature charts.) For service temperatures below -29°C valves construction materials shall be submitted to an impact test at the minimum service temperature. For temperatures above and below the standard range, special seals need to be specified by the client.
2. The onus is on the customer to specify all materials of construction and service conditions. Australian Pipeline Valve shall assume standard materials and conditions if not otherwise specified.
3. Australian Pipeline Valve "Standard" valves are not equipped with devices suitable to avoid internal over-pressures caused by incorrect operations of process or by-fluids & liquids subjected to an increase of volume and/or pressure (these devices, such as the over-pressure hole in the gate or safety seats are available upon request).
4. Australian Pipeline Valve "Standard" valves are not designed with special devices to withstand a sudden thermal jump (thermal shock).
5. In general Australian Pipeline Valve "Standard" valves are not mechanically designed to bear overloads due to exceptional atmospheric or natural phenomenon's (such as earthquakes).
6. In general Australian Pipeline Valve "Standard" valves are not designed to bear loads on flanges, on pipe connections or pipe-line.
7. In general Australian Pipeline Valve "Standard" valves can't withstand ice inside their bodies (in this case the user has to consider the optional stem extension for insulating, avoiding the presence of residual product inside the valve).
8. Australian Pipeline Valve "Standard" valves are not suitable for low temperature service below -29°C (-20°F) unless supplied (in a suitable body material) with cryogenic stem extension and other modifications, (available on request).
9. Australian Pipeline Valve "Standard" valves are suitable for "industrial" oxygen (not medical) service when supplied degreased and packed in polyethylene bags only.
10. The compatibility between the valves construction materials and medium is selected by the user. The user is ultimately responsible for verifying the compatibility between medium and materials.
11. Abrasive or dirty service applications need to be considered and stated at time of order.

### VALVE START-UP

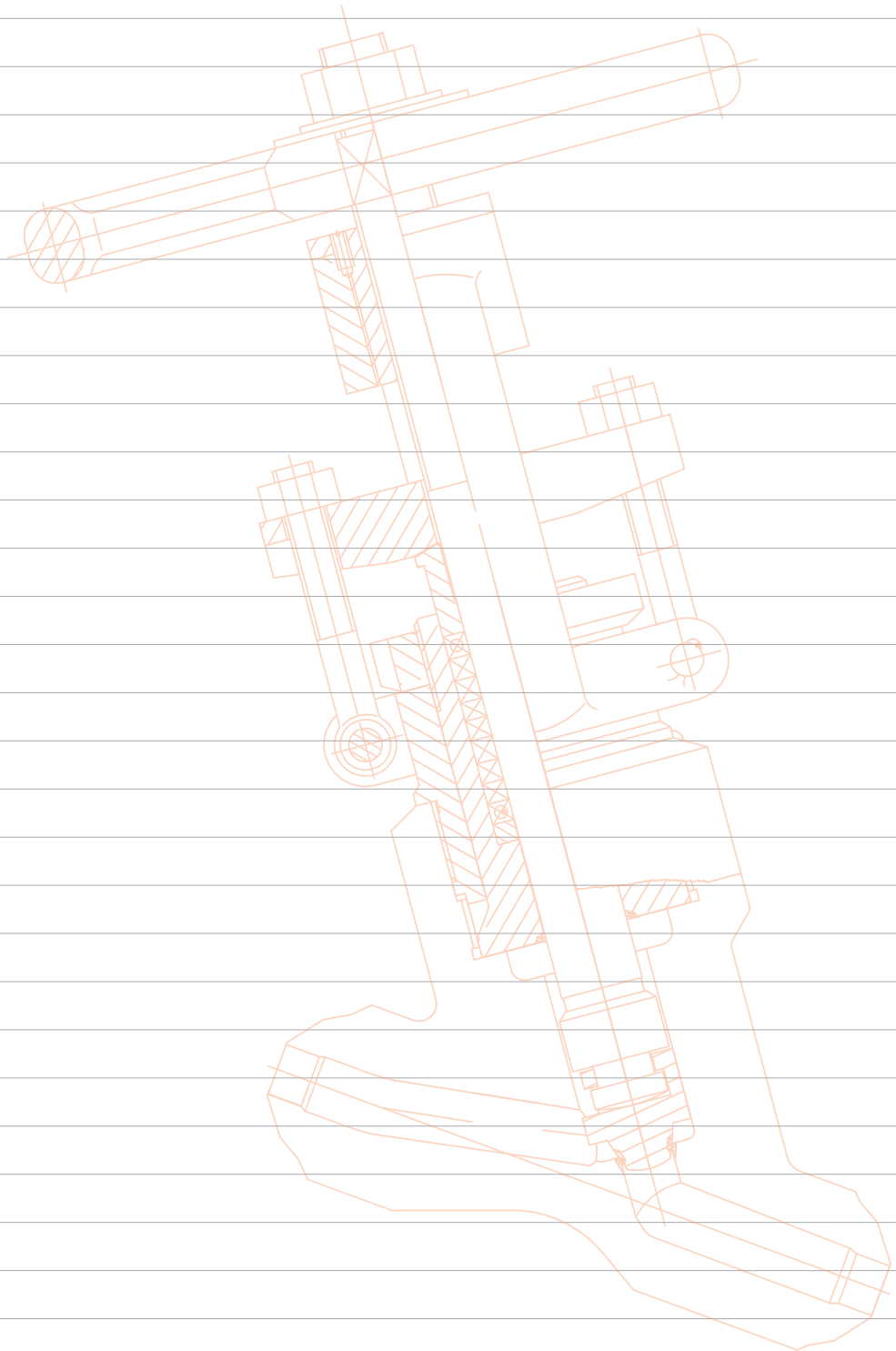
Before installing the valve onto the pipe-line it is mandatory, for the user, to verify the compatibility of the valve with service conditions (medium, temperature and pressure). With reference to standard valves held in stock, the reseller and end user will have to assure themselves of the compatibility between the valve and the conditions required by the customer. Australian Pipeline Valve gate valves must be only used for on-off (fully open/fully closed) service.

Before using the valve in a potential explosive atmosphere it's necessary for the customer to: -

- To verify the correct type of valve and operator is specified.
- To verify the compatibility between the valve and the zone in which the valve should be installed
- To foresee the pipe-line ground condition on which the valve should be installed
- To check that the temperature if the valve surface is not higher than the flammable point of the atmosphere in which the valve is installed (in this case specify an insulating cover device for the valve and an extension for the operator)
- To avoid mechanical knocks during the installation that may cause sparks.

**Australian Pipeline Valve cannot be held responsible for damage caused by use of the product for any reason, especially if it is improper use or modified.**

# Notes





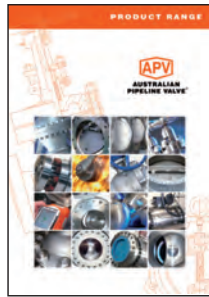
**AUSTRALIAN PIPELINE VALVE®**

**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 & gas and process industries. APV valves and pipeline products form the most competitive portfolio in the market.”*



**AUSTRALIAN PIPELINE VALVE BRAND RANGE - CATALOGUES**



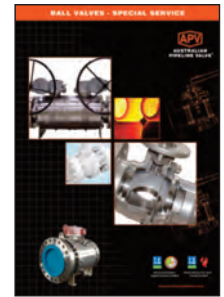
Product Brochure



Ball Valves Floating & Trunnion Mounted



Ball Valves Floating Small Bore



Ball Valves Special Service



Oilfield Products Valves & Wellheads



Gate, Globe & Check Valves - Cast



Gate, Globe & Check Valves - Forged Steel



Plug Valves Lubricated, Sleeved & Lined

**APV FAMILY OF BRANDS RANGE - CATALOGUES**



Diamond Gear Gearboxes



Flowturn Ball Valves Multiway & Deadman



Flowturn Gate, Globe & Check Valves



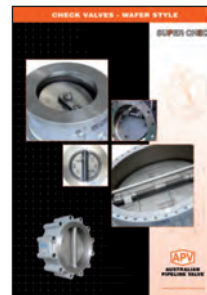
Flowturn Instrument Valves



Flowturn Strainers & Sight Glasses



Steamco Steam Valves



Supercheck Wafer Check Valves



Superseal Butterfly Valves



Superseal Industrial Ball Valves



Torqturn Actuators



TwinLok Tube Fittings



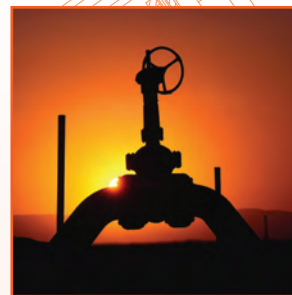
Uniflo Check Valves

Contact us for your local stockist/distributor



# APV AUSTRALIAN PIPELINE VALVE®

ADELAIDE • BRISBANE • PERTH



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LOCAL DISTRIBUTOR



## QUALITY ASSURANCE AND CERTIFICATION

*We are continually improving all facets of quality assurance. Full metallurgical and test certificates are always supplied for all pressure retaining parts, we also provide it on all major trim components.*

*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.*

*If you have any requirement in the field of valves, please contact us for a prompt response. Continuous development of Australian Pipeline Valve products may necessitate changes in the design or manufacturing processes. Australian Pipeline Valve reserves the right to effect any such changes without prior notice.*

