Forged Steel Catalogue
Check, Gate, Globe

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WEBSITE www.hyundaivalve.com

CEO Greetings

HYUNDAI VALVE IND. CO., LTD was founded in 1989 and has developed into one of the most reputable, high quality valve manufacturers in Korea supplying valves to various projects locally and worldwide.

We supply carbon and stainless steel valves of various designs and specifications, also specialising in Cu-Ni, A-Br and Nickel base alloys such as Iconel, Monel, Hastelloy etc. used in onshore and offshore Petrochemical & Refinery plants, Power Plants and a large range of other industries. All of our products meet or exceed international standards such as API, ASME, ANSI, BS, JIS etc. We also have ISO accreditation to ISO 9001. Our QA department continues to control and update our product quality.

HYUNDAI VALVE IND. CO., LTD valves are manufactured under strict quality control systems through all stages of production, starting with inspection of chemical composition, mechanical property of all materials and strict hydrostatic and air pressure testing of the body and seating of valves as per API 598 or API 6D.

Through continuous research and development, we will continue to endeavor to meet the needs of our clients and improve our performance as well as continuing to ensure we manufacture high quality valves. You will find more detailed specifications at our website.

We are looking forward to serving your needs.

Sincerely yours,
HYUNDAI VALVE IND. CO., LTD

I. H. KIM

Index

HYUNDAI HD

Model Number System

G	A	A		2		H		0	2		A		F		L		N
	①			②		③		④			⑤		⑥		⑦		⑧

① VALVE TYPE

BC = Ball Check	A = Bolted Bonnet (FB)
BL = Bellows Seated	B = Bolted Bonnet (RB)
GA = Gate Valve	C = Welded Bonnet (FB)
GL = Globe Valve	D = Welded Bonnet (RB)
SC = Swing Check Valve	E = Pressure Seal Bonnet (FB)
LC = Lift Check Valve	F = Pressure Seal Bonnet (RB)
AN = Angle Valve	X = Special
YG = Y-Globe Valve	
XX = Special	

② PRESSURE CLASS

1 = 150#	A = 10K	Z = Special
2 = 300#	B = 16K	
3 = 600#	C = 20K	
4 = 800#	D = 30K	
5 = 900#	E = 40K	
6 = 1500#	F = 63K	
7 = 2500#	G = 100K	

③ SIZE

A = 1/4”	J = 3”	S = 18”
B = 3/8”	K = 4”	T = 20”
C = 1/2”	L = 5”	U = 22”
D = 3/4”	M = 6”	V = 24”
E = 1”	N = 8”	W = 26”
F = 1-1/4”	O = 10”	X = 28”
G = 1-1/2”	P = 12”	Y = 30”
H = 2”	Q = 14”	
I = 2-1/2”	R = 16”	Z = Special

④ SHELL MATERIAL

01 = A105(N)	21 = A182-F51
02 = A216-WCB	22 = A182-F53
03 = A351-CF3	23 = A182-F91
04 = A351-CF3M	24 = A494-CW12MW
05 = A351-CF8	25 = B148
06 = A351-CF8M	26 = B160
07 = A351-CN7M	27 = B164
08 = A351-CD4MCu	28 = B166
09 = A352-LCB	29 = B335
10 = A352-LCC	30 = B337
11 = A351-LF2	31 = B338
12 = A350-LF3	32 = B363
13 = A182-F304	33 = B367
14 = A182-F304L	34 = B381
15 = A182-F316	35 = B446
16 = A182-F316L	36 = B564
17 = A182-F5a	37 = B574
18 = A182-F9	38 = B584
19 = A182-F11	
20 = A182-F22	99 = Special

⑤ TRIM MATERIAL

No	Seating Surfaces		Stem
	Disc	Seat	
A	13Cr	13Cr	13Cr
B	HF	13Cr	13Cr
C	HF	HF	13Cr
D	304SS	304SS	304SS
E	HF	304SS	304SS
F	HF	HF	304SS
G	316SS	316SS	316SS
H	HF	316SS	316SS
I	HF	HF	316SS
J	Monel	Monel	Monel
K	Alloy 20	Alloy 20	Alloy 20
Z	Special	Special	Special

⑥ END CONNECTION

B = Buttweld	T = Thread
F = Flanged RF	U = Uncut RTJ
R = Flanged RTJ	
S = Socket Weld	X = Special

⑦ OTHERS

E = Electric Operated
G = Gear Operated
L = Handwheel Operated
P = Pneumatic Operated
N = Not Applicable

⑧ SPECIAL

N = NACE
Blank = Non NACE

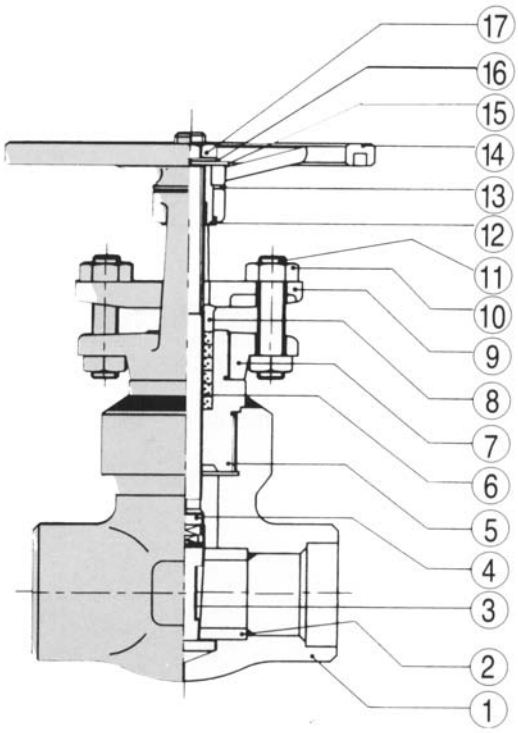
Material Options

PART DESCRIPTION	CARBON STEEL	LOW-TEMP CARBON STEEL	Cr-Mo 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	Hastelloy Inconel Monel Duplex
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	Hastelloy Inconel Monel Duplex
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/CG8M A351/CF8C	Hastelloy Inconel Monel Duplex
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 #6 OPTIONAL

Gate Valves Weld End & Screwed

WELDED BONNET



OVERVIEW

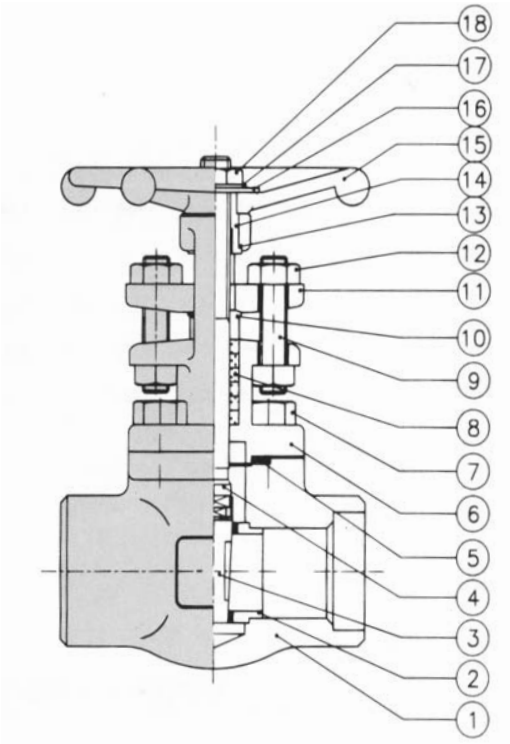
Design - API602 & ANSI/ASME B16.34

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

Test and Inspection - API 598

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

BOLTED BONNET



OVERVIEW

Design - API602 & ANSI/ASME B16.34

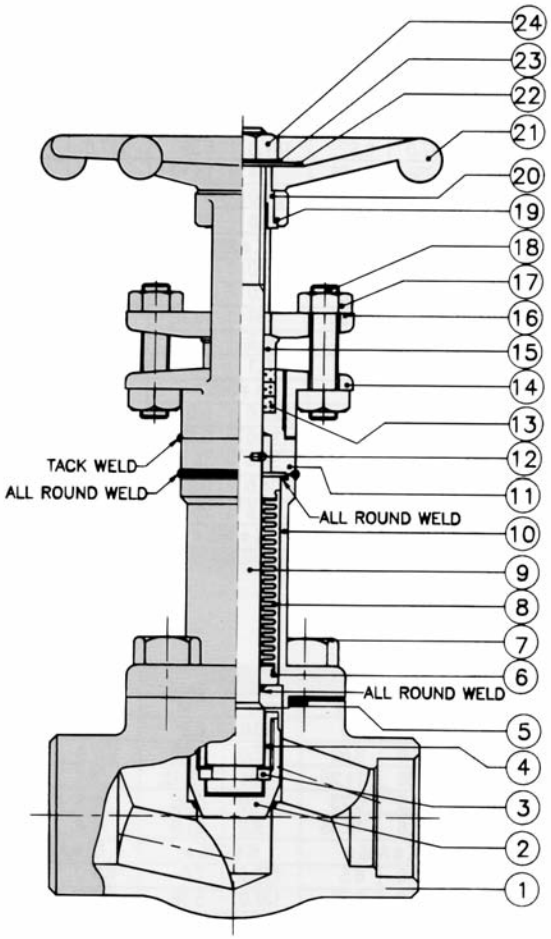
End Connections - Socket Weld : ANSI/ASME B1.20.1
Thread : ANSI/ASME B16.11
Butt Weld : ANSI/ASME B16.25

Test and Inspection - 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

Gate Valve Bellow Sealed Weld End & Screwed

BOLTED BONNET



OVERVIEW

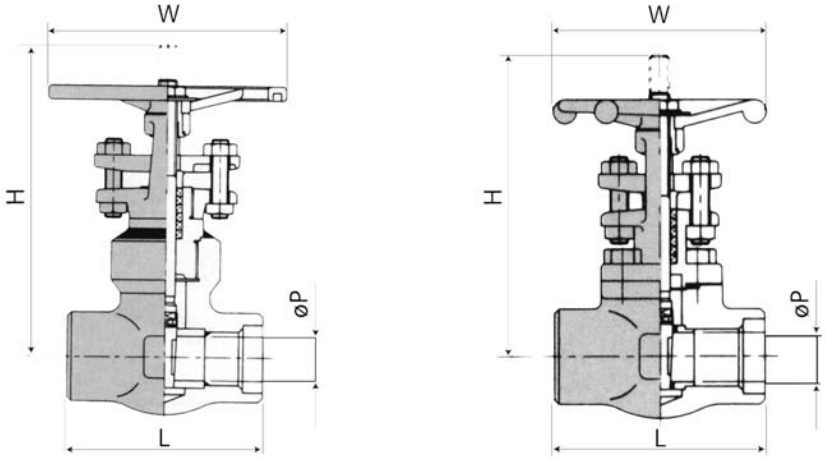
Design - API602, BS 5352, MSS SP 1, ANSI/ASME B16.34

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	Wedge
3	Seat Ring
4	Gasket
5	Bellows Holder Lower
6	Bonnet Bolt
7	Bellows
8	Stem
9	Bonnet
10	Bonnet Upper
11	Gland Packing
12	Yoke
13	Gland
14	Gland Flange
15	Gland Nut
16	Gland Bolt
17	Thrust Washer
18	Yoke Sleeve
19	Handwheel
20	Handwheel Washer
21	Name Plate
22	Handwheel Nut

Dimensions
Gate Valves Weld End & Screwed



WELDED & BONNET BOLTED ANSI 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)	79	3.11	79	3.11	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	84	3.3	97	3.82	97	3.82	137	5.39	137	5.39	157	6.18
H (mm/in)	144	5.67	144	5.67	144	5.67	154	6.06	177	6.97	225	8.86	225	8.86	254	10.0
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
Cv Factor	1.0		2.0		2.0		3.0		5.5		11.5		17.0		21.0	

WELDED & BONNET BOLTED ANSI CLASS 1500

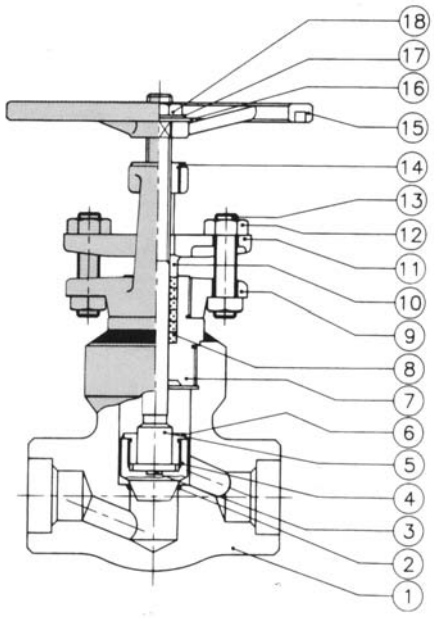
Valve Size (in)	½		¾		1		1¼		1½		2	
L (mm/in)	111	4.37	111	4.37	120	4.72	140	5.51	140	5.51	1.78	7.01
W (mm/in)	140	5.5	160	6.25	200	7.88	230	9.07	230	9.07	250	9.82
H (mm/in)	224	7.88	253	9.94	317	12.5	337	14.88	377	14.88	458	18.0
P (mm/in)	11	0.44	20	0.63	20	0.82	26	1.07	32	1.25	43	1.69
Wt (kgs/lbs)	5.0	11.0	7.0	15.4	10.0	22.0	18.2	40.1	18.0	39.7	30.0	66.1
Full Port Cv Factor	2.6		6.0		2.0		11.3		26.3		52.4	

WELDED & BONNET BOLTED ANSI 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
Full Port Cv Factor	10.5		22.5		28.3		68.2		78.5		21.0	

Globe Valves Weld End & Screwed

WELDED BONNET

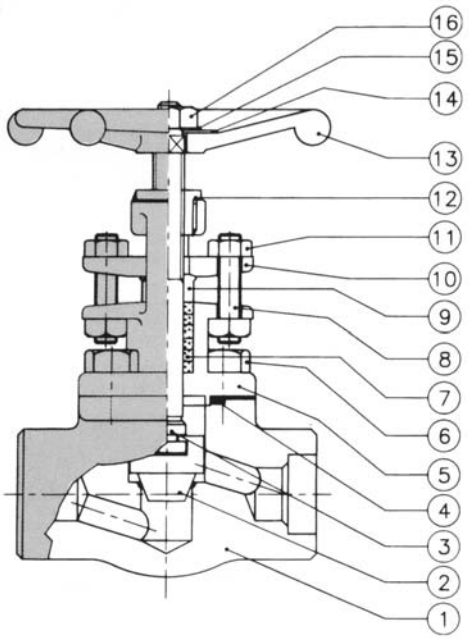


OVERVIEW

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

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

BOLTED BONNET



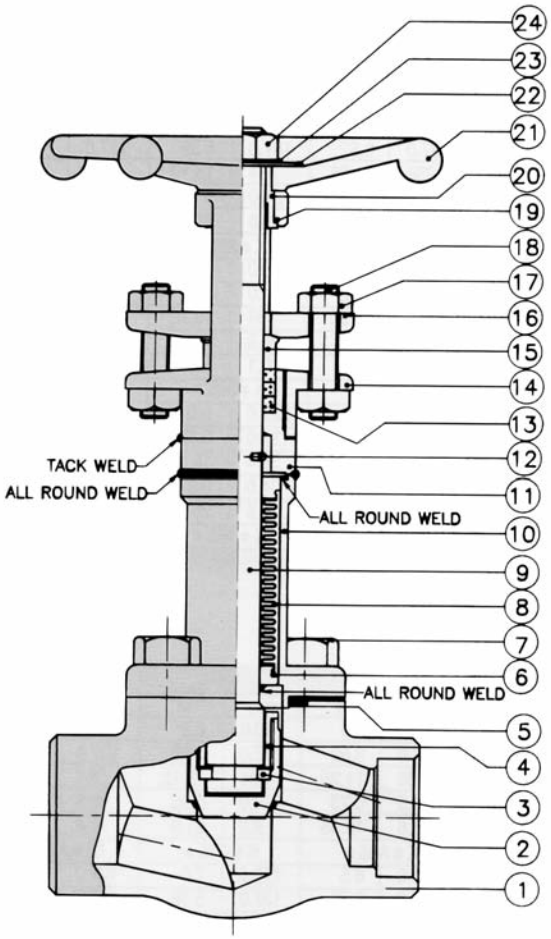
OVERVIEW

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

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

Globe Valve Bellow Sealed Weld End & Screwed

BOLTED BONNET



OVERVIEW

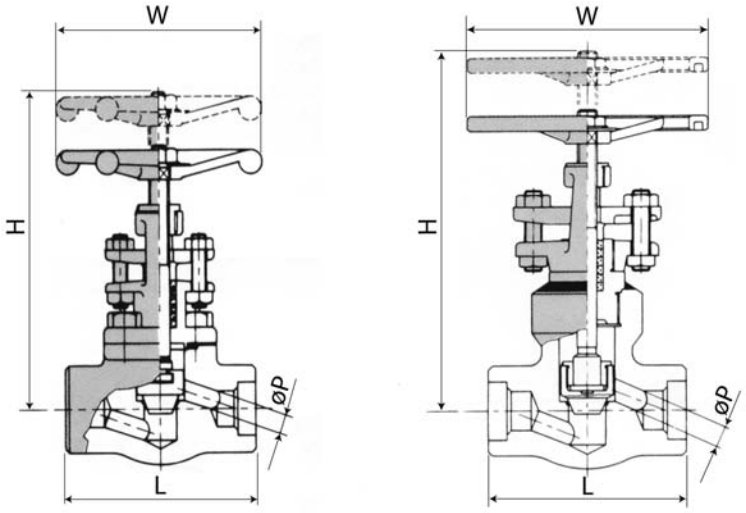
Design - API602, BS 5352, MSS SP 11, ANSI/ASME B16.34

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

Dimensions
Globe Valves Weld End & Screwed



WELDED & BOLTED BONNET ANSI 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	79	3.11	92	3.62	111	4.37	140	5.51	120	4.72	140	5.51
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)	144	5.67	144	5.67	144	5.67	154	6.06	177	6.97	225	8.86	225	8.86	254	10.0
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
Cv Factor	1.0		2.0		2.0		3.0		5.5		11.5		17.0		21.0	

WELDED & BOLTED BONNET ANSI CLASS 1500

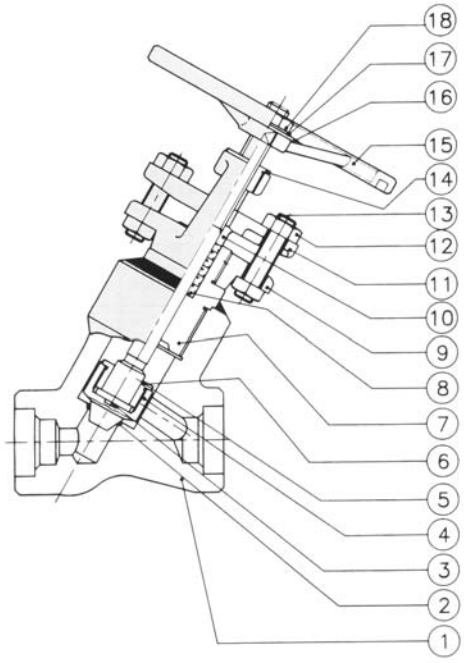
Valve Size (in)	½		¾		1		1¼		1½		2	
L (mm/in)	111	4.37	111	4.37	120	4.72	172	6.77	172	6.77	200	7.87
W (mm/in)	140	5.5	160	6.25	200	7.88	230	9.07	230	9.07	250	9.82
H (mm/in)	230	9.03	261	10.25	314	12.38	377	14.88	377	14.88	459	18.1
P (mm/in)	12	0.44	16	0.63	20	0.82	26	1.07	26	1.07	43	1.69
Wt (kgs/lbs)	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	2.8		3.2		6.8		15.2		19.6		27.0	

WELDED & BOLTED BONNET 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	2.1		2.9		5.9		13.6		15.2		21.0	

Y-Globe Valves Weld End & Screwed

WELDED BONNET

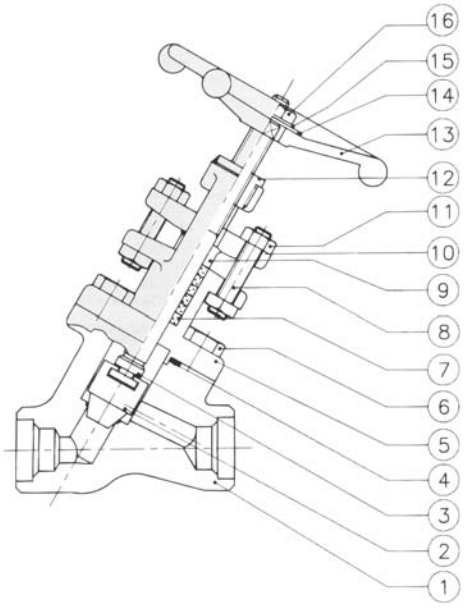


OVERVIEW

Design - API602, BS5352 & ANS1/ASME B16.34
End Connections - Socket Weld : ANSI/ASME B1.20.1
Thread : ANSI/ASME B16.11
Butt Weld : ANSI/ASME B16.25
Test and Inspection - 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

BOLTED BONNET

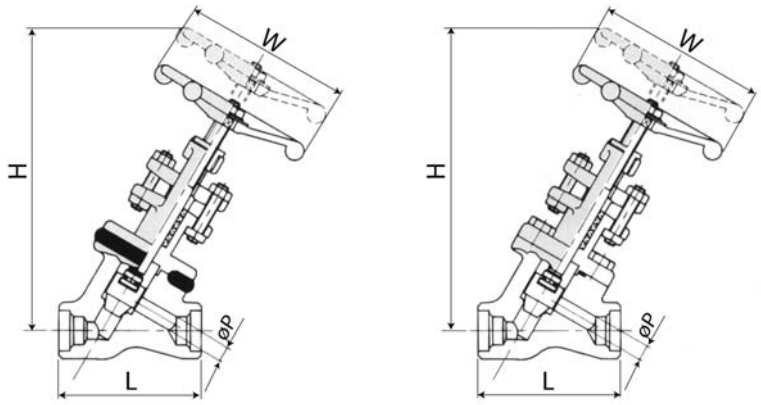


FEATURES

Design - API602, BS5352 & ANSI/ASME B16.34
End Connections - Socket Weld : ANSI/ASME B1.20.1
Thread : ANSI/ASME B16.1
Butt Weld : ANSI/ASME B16.25
Test and Inspection - 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

Dimensions
Y-Globe Valves Weld End & Screwed



CLASS 800 STANDARD BORE, OS&Y, SW, NPT, BW

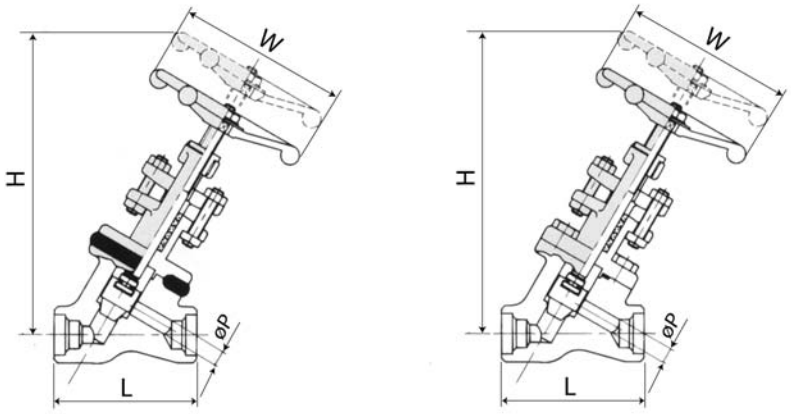
WELDED BONNET ANSI CLASS 800

Std 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
Cv Factor	4.5		6.0		6.0		14.0		19.5		27.0		32.5		40.0	

BOLTED BONNET ANSI CLASS 800

Std 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
Cv Factor	4.5		6.0		6.0		14.0		19.5		27.0		32.5		40.0	

Dimensions
Y-Globe Valves Weld End & Screwed



CLASS 1500 STANDARD BORE, OS&Y, SW, NPT, BW

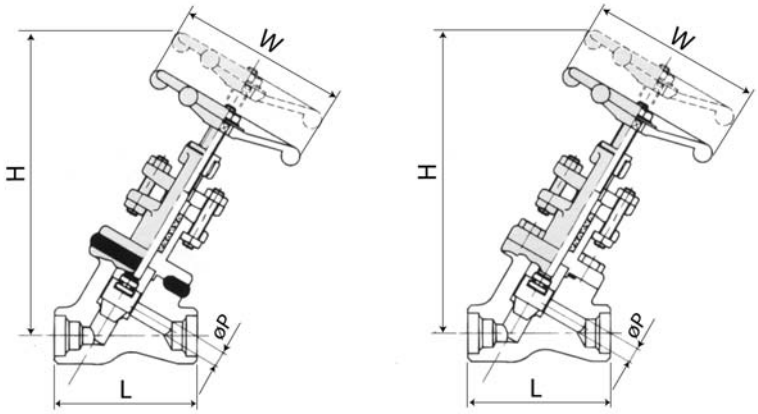
WELDED BONNET ANSI CLASS 1500

Std Port Size (in)	¼		⅜		½		¾		1		1¼		1½		2	
Full Port Size (in)	¼		⅜				½		¾		1		1¼		1½	
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
W (mm/in)	97	3.82	97	3.82	97	3.82	97	3.82	137	5.39	157	6.18	157	6.18	157	6.18
H (mm/in)	180	7.09	180	7.09	180	7.09	207	8.15	255	10.04	300	11.82	300	11.82	355	14.0
P (mm/in)	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
Wt (kgs/lbs)	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
Cv Factor	4.5		6.0		6.0		14.0		19.5		27.0		32.5		40.0	

BOLTED BONNET ANSI 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	
L (mm/in)	90	3.6	90	3.6	90	3.6	102	4.02	124	4.89	152	5.99	152	5.99	200	7.87
W (mm/in)	97	3.82	97	3.82	97	3.82	97	3.82	137	5.39	157	6.18	157	6.18	157	6.18
H (mm/in)	180	7.09	180	7.09	180	7.09	207	8.15	255	10.04	300	11.82	300	11.82	355	14.0
P (mm/in)	6.4	0.38	9.5	0.38	9.5	0.38	3.6	7.94	6.8	15.0	9.8	21.6	9.8	21.6	14.3	31.5
Wt (kgs/lbs)	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
Cv Factor	4.5		6.0		6.0		14.0		19.5		27.0		32.5		40.0	

Dimensions
Y-Globe Valves Weld End & Screwed



CLASS 2500 STANDARD BORE, OS&Y, SW, NPT, BW

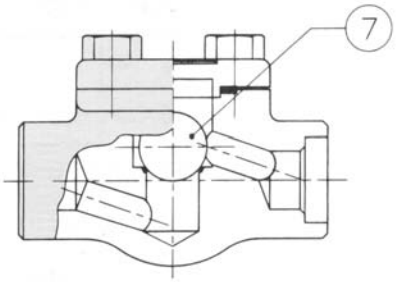
WELDED & BOLTED BONNET ANSI CLASS 2500

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
Cv Factor	6.0		14.0		19.5		27.0		32.5		40.0	

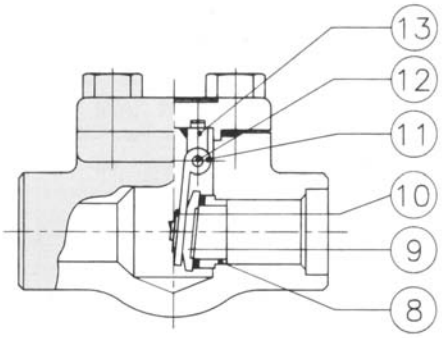
Check Valves Weld End & Screwed

BOLTED & WELDED BONNET

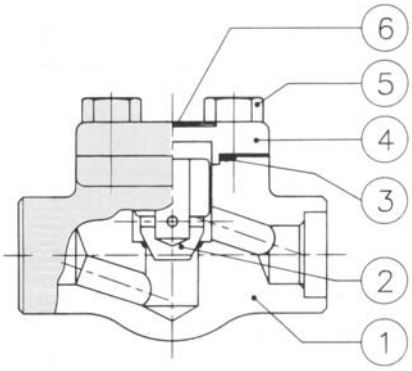
Ball check



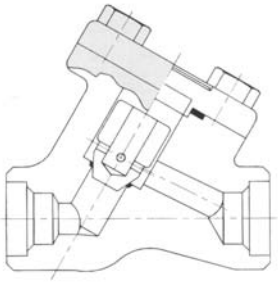
Swing check



Piston check



Y-Piston check



OVERVIEW

Design - API602, BS5352 & ANSI/ASME B16.34

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

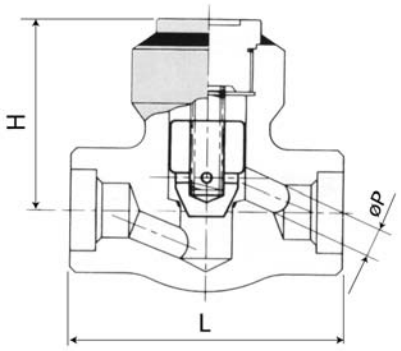
Test and Inspection - API 598 / BS5146

No.	Description
1	Body
2	Disc
3	Gasket
4	Bonnet
5	Bonnet Bolt
6	Name Plate
7	Ball
8	Seat Disc
9	Disc
10	Retaining Ring
11	Hinge
12	Hinge Pin
13	Support

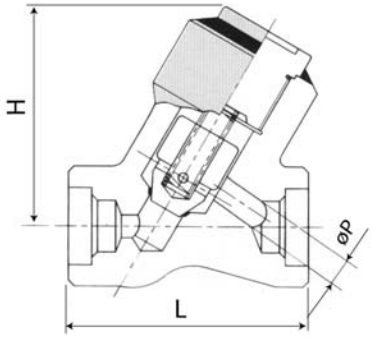
Check Valves Weld End & Screwed

DIMENSIONS

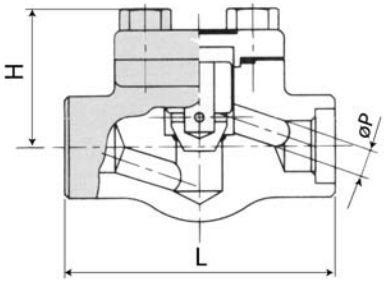
Piston check
welded bonnet



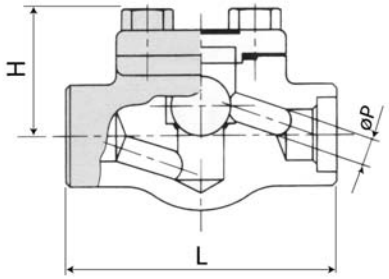
Piston check
Y-type welded bonnet



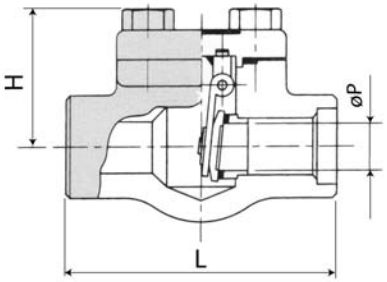
Piston check
bolted bonnet



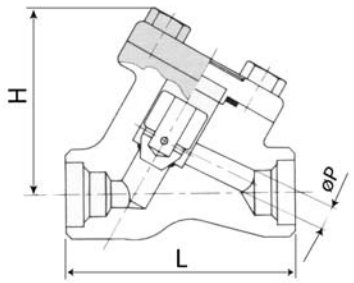
Ball check
bolted bonnet



Swing check
bolted bonnet



Y-type piston check
bolted bonnet



Dimensions
Check Valves Weld End & Screwed

NPT, SW, BW, CLASS 800 STANDARD BORE / FULL BORE

PISTON CHECK / BALL CHECK ANSI CLASS 800

Std 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	79	3.11	92	3.62	111	4.37	152	5.98	152	5.98	172	6.77
H (mm/in)	46	1.8	46	1.8	46	1.8	60	2.36	79	3.11	118	2.95	118	2.85	120	4.72
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	1.41
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
Cv Factor	0.7		1.0		1.0		2.7		5.4		16.0		18.5		20.0	

SWING CHECK ANSI CLASS 800

Std 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	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	56	2.2	65	2.5	75	2.95	75	2.85	100	3.94
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)	1.0	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
Cv Factor	2.6		6.0		6.0		11.3		26.3		63.0		78.0		115.0	

PISTON CHECK Y-TYPE ANSI CLASS 800

Std 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	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
Cv Factor	3.5		5.5		5.5		11.5		16.5		21.0		27.0		32.0	

Dimensions
Check Valves Weld End & Screwed

NPT, SW, BW, CLASS 1500 STANDARD BORE

PISTON CHECK Y-TYPE ANSI CLASS 1500

Std Port Size (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
Cv Factor	3.5		5.5		5.5		11.5		16.5		21.0		2.0		32.0	

SWING CHECK ANSI CLASS 1500

Std Port Size (in)	¼		⅜		½		¾		1		1¼		1½		2	
L (mm/in)	92	3.62	92	3.62	92	3.62	104	4.09	115	4.53	146	5.74	146	5.74	210	8.27
H (mm/in)	56	2.2	56	2.2	56	2.2	65	2.5	75	2.95	100	3.94	100	3.94	125	4.9
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)	1.5	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
Cv Factor	2.6		6.0		6.0		11.3		26.3		63.0		78.0		115.0	

PISTON CHECK / BALL CHECK ANSI CLASS 1500

Std Port Size (in)	¼		⅜		½		¾		1		1¼		1½		2	
L (mm/in)	92	3.62	92	3.62	111	4.37	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	79	2.5	97	2.95	120	3.94	120	3.94	139	4.92
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)	1.5	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
Cv Factor	0.7		1.0		1.0		2.7		5.4		16.0		18.5		20.0	

Dimensions
Check Valves Weld End & Screwed

HYUNDAI HD

NPT, SW, BW, CLASS 2500 STANDARD BORE

PISTON CHECK Y-TYPE ANSI CLASS 2500

Std Port Size (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
Cv Factor	9.0		11.5		14.3		20.5		23.5		32.5	

PISTON CHECK / BALL CHECK / SWING CHECK ANSI CLASS 2500

Std Port Size (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
Cv Factor	1.6		2.4		5.0		11.2		13.8		17.0	

Gate Valves Flanged

WELDED BONNET & BOLTED BONNET
RF/RTJ/SF/FF CLASS 150 TO 2500

No.	Description
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

Refer Page 6 for bill of material and related drawing and page 5 for body and trim materials.

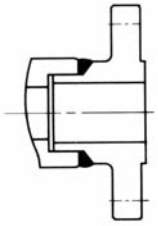
SPECIFICATION

Outside screw
Bolted bonnet & welded bonnet
Reduced bore & full bore
Integral flanges or weld on flanges*
Flanges to ANSI B16.5 150 to 2500 Class.
Various trim materials available.

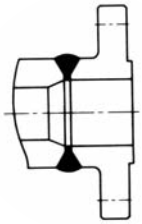
STANDARDS

- Design - 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
- End Connections - RF: Raised Face (std)
  RJ: Ring Joint
  FF: Flat Face

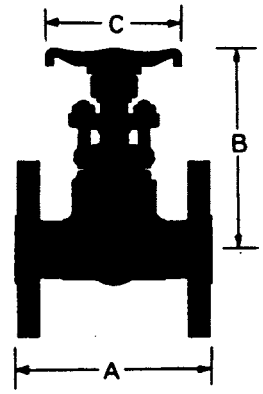
*Weld on flanges friction are welded, tensile proof tested with full penetration v-preparation welds. Welds are normalised and heat treated (PWHT) with N.D.T also performed on welds (dye penetrant).



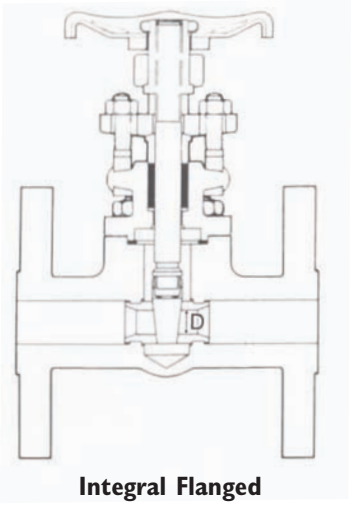
Weld On Flange
V-Prep Weld



Weld On Flange
Butt Weld Full Penetration
V-Prep Weld



(Welded and Bolted Bonnet)



Integral Flanged

Gate Valves Flanged

DIMENSIONS
WELDED & BOLTED BONNET

CLASS	DIMENSION	½		¾		1		1¼		1½		2	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
150	A - End to End	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 - End to End	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 - End to End	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 - End to End	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.	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)	4.9	10.8	6.9	15.2	18.5	40.8	29.0	63.9	28.0	61.7	34.0	75.0

CLASS	DIMENSION	½	¾	1	1¼	1½	2
ALL	Typical Cv Factor	3.0	11.3	26.3	52.4	78.0	115.0

Globe Valves Flanged

WELDED BONNET & BOLTED BONNET
WELDED FLANGED ENDS.
RF/RTJ/SF/FF CLASS 150 TO 2500

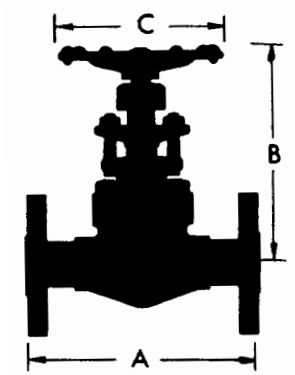
NO.	Description
1.	Body
2.	Disc
3.	Stem
4.	Gasket
5.	Bonnet
6.	Bonnet Bolt
7.	Gland Packing
8.	Gland Bolt
9.	Gland
10.	Gland Flange
11.	Gland Nut
12.	Yoke Bush
13.	Handwheel
14.	Name Plate
15.	Handwheel Washer
16.	Handwheel Nut

Refer page 9 for bill of material and related drawing and page 5 for body and trim material.

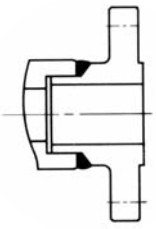
SPECIFICATION
Outside screw
Bolted bonnet & welded bonnet
Reduced bore & full bore
Flanges to ANSI B16.5 Class 150 to 2500.
Other flanges available.
Various trim materials available.
Integral flanged or weld on flanged*
Screw down non return also available.

OVERVIEW
- 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 / BS5146
- End Connections - RF: Raised Face (std)
  FF: Flat Face
  RTJ: Ring Joint

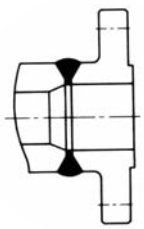
*Weld on flanges are friction welded, tensile proof tested with full penetration V-preparation welds. Welds are normalised and heat treated (PWHT) with N.D.T (dye penetrant) performed.



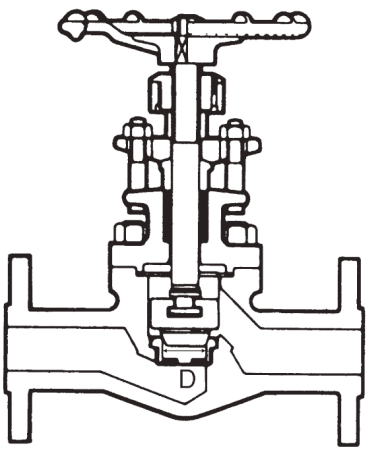
(Welded and Bolted Bonnet)



Weld On Flange
V-Prep Weld



Weld On Flange
Butt Weld Full Penetration
V-Prep Weld



Integral Flanged

Globe Valves Flanged

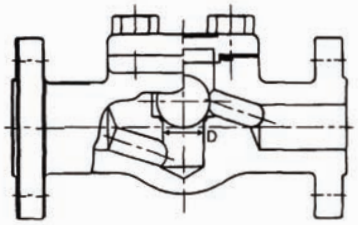
DIMENSIONS
WELDED & BOLTED BONNET

CLASS	DIMENSION	½		¾		1		1¼		1½		2	
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
150	A - End to End	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	31.8	20.5	12.8	28.2
300	A - End to End	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 - End to End	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 - End to End	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	12.5	0.5	18.5	0.73	23.5	0.93	30.5	1.20	36.0	1.41
	Wt (kg/lb)	5.0	11.0	7.0	15.4	18.7	41.2	29.2	64.4	28.2	62.2	34.2	75.4

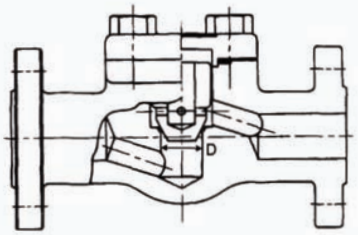
CLASS	DIMENSION	½	¾	1	1¼	1½	2
ALL	Cv Factor	2.0	3.0	5.5	11.5	17.0	21.0

Check Valves Flanged

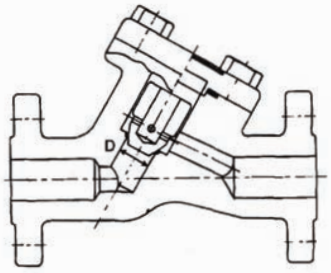
WELDED COVER & BOLTED
RF/FF/RTJ/SF CLASS 150 TO 2500



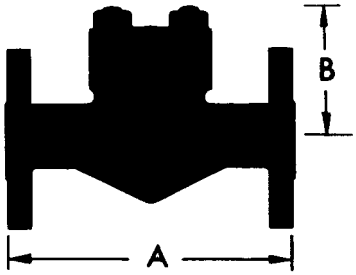
Ball Check



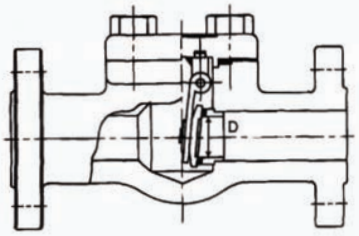
Piston Check



Y-Piston Check



Bolted & Welded Bonnet



Swing Check

SPECIFICATION

Bolted cover & welded bonnet
Integral Flanged or weld on flanges*
For horizontal pipelines.
Flanges to BS1560, Class 150 to 2500 & ANSI B16.5
Various trim materials available.
Also available with ball type disc.
Spring can be fitted for vertical service.

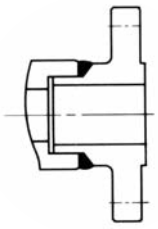
FEATURES

- 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
  Flanged : ANSI/ASME B16.5
- Inspection and Test - API 598 / BS5146
- End Connections - RF: Raised Face (std)
  FF: Flat Face
  RTJ: Ring Joint

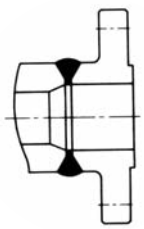
*Weld on flanges are friction welded, tensile proof tested with full penetration v-preparation welds. Welds are normalised and heat treated (PWHT) with N.D.T (dye penetrant) also performed.

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

Refer page 16 for bill of material and related drawing and page 5 for body and trim material.



Weld On Flange
V-Prep Weld



Weld On Flange
Butt Weld Full Penetration
V-Prep Weld

Check Valves Flanged

DIMENSIONS

CLASS	DIMENSION		½		¾		1		1¼		1½		2	
150	A - End to End	Piston or Ball	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
			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 - End to End	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 - End to End	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 or 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 - End to End	Piston, Ball	216.0	8.5	229.0	9.0	241.0	9.5	279.0	11.0	305.0	12.0	368.0	14.5
		Swing	Same as Piston or Ball Check Valve											
	B - Centre to Top		56.0	2.20	68.1	2.68	84.6	3.33	100.5	3.96	100.5	3.96	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

LIFT CHECK CV FACTOR

CLASS	SIZE	½	¾	1	1¼	1½	2
ALL	Cv Factor	1.0	2.7	5.4	16.0	18.5	20.0

SWING CHECK CV FACTOR

CLASS	SIZE	½	¾	1	1¼	1½	2
ALL	Cv Factor	6.0	11.3	26.3	63.0	78.0	115.0

Y-PISTON CHECK CV FACTOR

CLASS	SIZE	½	¾	1	1¼	1½	2
ALL	Cv Factor	5.5	11.5	16.5	21.0	27.0	32.0

BUREAU VERITAS
Certification

Certification

Awarded to

HYUNDAI VALVE INDUSTRY Co., Ltd.

HEAD OFFICE : #1034, DOOSAN VENTURE DIME, 126-1, PYUNGCHON-DONG, DONGAN-GU, ANYANG-SI, GYEONGGI-DO, KOREA

FACTORY : #209-9, GOJU-RI, PALTAN-MYEON, HWASEONG-SI, GYEONGGI-DO, KOREA

Bureau Veritas Certification certify that the Management System of the above organization has been audited and found to be in accordance with the requirements of the management system standards detailed below

Standards

ISO 9001:2000 / KS A 9001:2001

Scope of supply

DESIGN/DEVELOPMENT, MANUFACTURING AND SERVICING OF VALVES, FITTINGS AND FLANGES

Original Approval Date: **08 June 2006**

Subject to the continued satisfactory operation of the organization's Management System, this certificate is valid until: **31 March 2012**

To check this certificate validity please call (+82 2 567 9001)

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organization

Date: **07 April 2009**

Certificate Number: **10BK00242**

UKAS QUALITY MANAGEMENT

008

Bureau Veritas Certification Using the accreditation certificate number 008

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