

Technical Specification

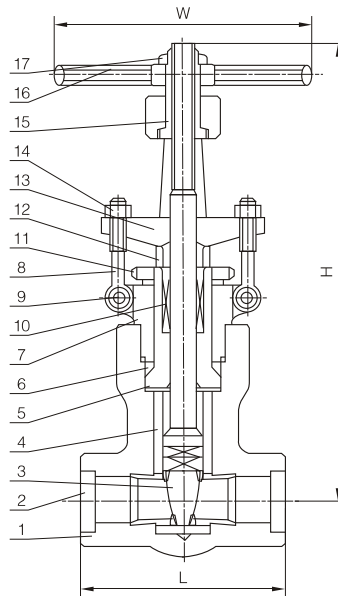
- ★ Steel Gate Valves, API 602
- ★ Steel Valves, ASME B16.34
- ★ Face to Face, Manufacturer Standard
- ★ Face to Face, Flanged, ASME B16.10
- ★ End Flanges, ASME B16.5
- ★ Buttwelding Ends, ASME B16.25
- ★ Socket-welding Ends, ASME B16.11
- ★ Screwed Ends, ASME B1.20.1
- ★ Inspection and Test, API 598

Design Description

- ▲ Outside Screw and Yoke (OS&Y)
- ▲ Bolted Bonnet
- ▲ Choice of WB, Welding Bonnet
- ▲ Single Wedge, Fully Guided
- ▲ Renewable Seat Rings
- ▲ Yoke Integral with Bonnet
- ▲ Rising Stem and Non-rising Handwheel
- ▲ SW, Socket-welding Ends
- ▲ SC, Screwed Ends
- ▲ BW, Buttwelding Ends
- ▲ Flanged Ends

Form of Major Part Material

No.	Part Name	ASTM Material							
		Carbon Steel	1.25Cr-0.5Mo	2.25Cr-1Mo	304 Type	316 Type	304L Type	316L Type	20 Alloy
1	Body	A105	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
2	Bonnet	A105	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
3	Wedge	A105+13Cr *1	A182 F11+HF	A182 F22+HF	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
4	Stem	A182 F6a	A182 F11	A182 F22	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
5	Seat Ring	A105+13Cr *1	A182 F11+HF	A182 F22+HF	NA	NA	NA	NA	Na
6	Bonnet Gasket	304+Graphit	304+Graphit	304+Graphit	304+Graphit	316+Graphit	304L+Graphit	316L+Graphit	316+Graphit
7	Bonnet Bolt	A193 B7	A193 B7	A193 B16	A193 B8	A193 B8M	A193 B8M	A193 B8M	A193 B8M
8	Packing	Graphite	Graphite	Graphite	Graphite *2	Graphite *2	Graphite *2	Graphite *2	Graphite *2
9	Gland	A276 410	A276 410	A276 410	A276 304	A276 316	A276 304L	A276 316L	20-Alloy
10	Gland Flange	A105	A105	A105	A182 F304	A182 F316	A182 F304L	A182 F316L	20-Alloy
11	Eyebolt	Carbon Steel	A193 B7	A193 B7	A193 B8	A193 B8	A193 B8	A193 B8	A193 B8
12	Eyebolt Nut	Carbon Steel	A194 2H	A194 2H	A194 8	A194 8	A194 8	A194 8	A194 8
13	Eyebolt Pin	A276 410	A276 410	A276 412	A276 304	A276 304	A276 304	A276 304	A276 304
14	Stem Nut	Bronze	Bronze *3	Bronze *3	Bronze	Bronze	Bronze	Bronze	Bronze
15	Hand wheel	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron
16	Wheel Nut	Carbon Steel	Carbon Steel	Carbon Steel	Carbon Steel+Zn	Carbon Steel+Zn	Carbon Steel+Zn	Carbon Steel+Zn	Carbon Steel+Zn
*1	PN ≥ 600 Class seal face will be HF								
*2	PTFE Optional								
*3	Ductile Ni-Resist iron Optional								



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- ★ Screwed Ends, ASME B1.20.1
- ★ Inspection and Test, API 598

Design Description

- ▲ Outside Screw and Yoke (OS&Y)
- ▲ Pressure Seal Bonnet
- ▲ Single Wedge, Fully Guided
- ▲ Renewable Seat Rings
- ▲ Rising stem and non-rising handwheel
- ▲ SW, Socket-welding Ends
- ▲ SC, Screwed Ends
- ▲ BW, Buttwelding Ends
- ▲ Flanged Ends

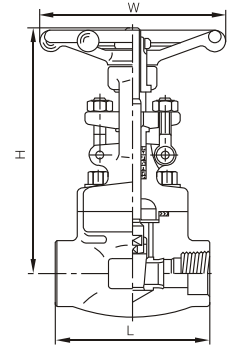
Form of Major Part Material

No.	Part Name	CS to ASTM	AS to ASTM	SS to ASTM	
		Type A 105N	Type F22	Type F304(L)	Type F316(L)
1	Body	A105N	A182 F22	A182 F304(L)	A182 F316(L)
2	Seat Ring	A276 420	A276 304	A276 304(L)	A276 316(L)
3	Wedge	A182/F430+STL	A182 F304+STL	A182 F304(L)+STL	A182 F316(L)+STL
4	Stem	A182 F6a A276-410	A182 F22	A182 F304(L)	A182 F316(L)
5	From Seal Place	A105N	A182 F304	A182 F304(L)	F316(L)
6	From Packing Ring	F182 F304	A182 F304 F22	A276 304(L)	A276 316L
7	Bonnet	A105N	A182 F22	A182 F304(L)	A182 F316(L)
8	Gland Eyebolt	A193 B7	A193 B16	A193 B8	A193 B8M
9	Cylindrical Pin	A276 F420	A276 F420	A182 F304	A182 F304
10	Stem Packing	Graphite+304	Graphite+304	Graphite+316	Graphite+316
11	Promotes the Nut	A194 2H	A194 4	A194 8	A194 8M
12	Gland	A276 F420	A276 F420	A182 F304	A182 F304
13	Gland Flange	A105	F22	A182 F304	A182 F304
14	Gland Nut	A194 2H	A194 4	A194 8	A194 8M
15	Yoke Nut	A276-410	A276-410	A276 F410	A276 F410
16	Hand Wheel	A197	A197	A197	A197
17	Lock Nut	A194 2H	A194 4	A194 8	A194 8M

Class800 Main Outline Dimensions & Weight

Bold fastening valve cover, outside screw stem & yoke (OS&Y)
Designs according to API 602.

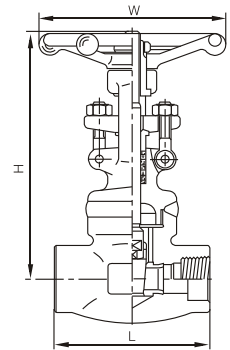
R.P	–	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	79	79	92	111	120	120	140	178
W	100	100	100	125	160	160	180	200
H	161	161	163	196	223	251	290	333
d	8	10.5	13.5	18	24	29	36.5	45
Weight(kg)	2.3	2.22	2.39	4.24	5.7	7.05	10.9	16.8



Class800 Main Outline Dimensions & Weight

Weld joint valve cover, outside screw stem & yoke (OS&Y).
Designs according to API 602.

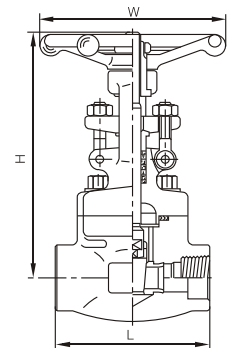
R.P	–	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	79	79	92	111	120	120	140	178
W	100	100	100	125	160	160	180	200
H	161	161	163	196	223	251	290	333
d	8	10.5	13.5	18	24	29	36.5	45
Weight(kg)	1.9	1.9	2.1	3.2	5.2	6.9	10.4	15.8



Class800 Main Outline Dimensions & Weight

Bold fastening valve cover, outside screw stem & yoke (OS&Y).
Designs according to API 602.

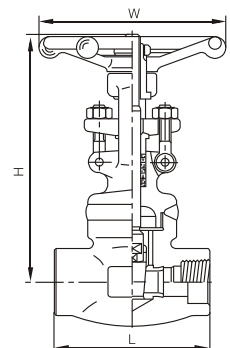
R.P	–	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	92	111	111	120	120	140	178	180
W	100	125	125	160	160	180	200	220
H	191	191	192	219	243	296	316	370
d	8	10.5	13.5	18	24	29	36.5	45
Weight(kg)	2.4	4.4	4.3	6	7.2	11.4	16	23



Class800 Main Outline Dimensions & Weight

Weld joint valve cover, outside screw stem & yoke (OS&Y).
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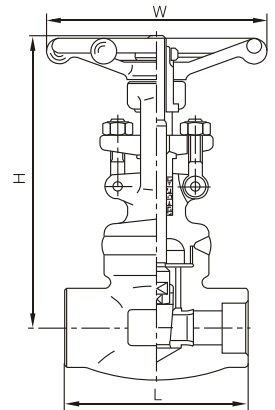
R.P	–	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	92	111	111	120	120	140	178	180
W	100	125	125	160	160	180	200	220
H	171	207	207	240	258	330	355	370
d	8	10.5	13.5	18	24	29	36.5	45
Weight(kg)	2.3	4	4	4.8	7.1	11	16	22.8



Class2500 Main Outline Dimensions & Weight

Weld joint valve cover, outside screw stem & yoke (OS&Y).
Designs according to ASME B16.34

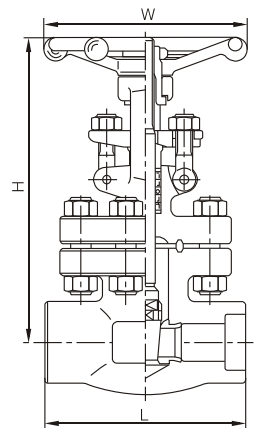
NPS	3/8	1/2	3/4	1	1 1/4
L	111	120	120	120	140
W	125	160	160	180	220
H	215	218	220	238	281
d	14	14	14	19	25
Weight(kg)	7	8.7	8.5	11.7	17



Class1500 ~ 2500 Main Outline Dimensions & Weight

Bolt fastening cover, outside screw stem & yoke (OS&Y).
Designs according to ASME B16.34

NPS	Class	1/2	3/4	1	1 1/2	2
L	1500	110	150	150	210	235
	2500	150	150	210	235	235
W	1500	110	130	130	180	250
	2500	130	130	250	300	300
H	1500	277	300	390	400	435
	2500	293	300	390	435	435
d	1500	14	17	22	35	37
	2500	14	14	14	25	30
Weight(kg)	1500	5.1	11	12.1	22	37
	2500	11	11.3	22.4	38	38



Class1500 ~ 2500 Main Outline Dimensions & Weight

Pressure seal bonnet, outside screw stem & yoke (OS&Y).
Designs according to ASME B16.34

NPS	Class	3/8	1/2	3/4	1	1 1/4	1 1/2	2
L	900-1500	140	140	140	140	178	178	216
	2500	186	186	186	186	232	232	279
W	900-1500	200	200	200	200	280	280	300
	2500	200	200	200	200	280	280	300
H	900-1500	318	318	318	322	467	468	540
	2500	325	325	325	327	467	468	540
d	900-1500	14	14	14	19	25	30	36.5
	2500	14	14	14	19	25	30	36.5
Weight(kg)	900-1500	11.5	11.5	10.8	10.5	19.6	21.0	55.4
	2500	12.3	12.3	11.6	10.8	26.0	28.4	60.0

