FORGED STEEL GATE VALVES , 1/4-2" (8-50mm)

THREADED,SOCKET WELD ,& FLANGED

ASME CLASS 800 ,900,1500 ,2500
FLANDGED ASME CLASSE 150,300,600,900,1500

Bolted Bonnet

Welded Bonnet

Pressure Seal Bonnet

Nestval valves are available in three bonnet designs:

1. Bolted Bonnet, with male-female joint, spiral wound gasket, made in F304/graphite. Ring joint gasket is also available on request.
2. Welded Bonnet, with a threaded and seal welded joint. On request a full penetration welded joint is available.
3. Pressure Seal Bonnet, with a threaded and pressure seal bonnet joint.

Gate Valve Design Construction and Specifications

Nestval valves conform to API 602, BS 5352, and ASME B 16.34.
They are tested according to API 598, and marked as per MSS SP-25

Construction is as follows:

- Full Port or Standard Port
- Outside Screw and Yoke (OS&Y)
- Two piece self aligning packing gland
- Bolted Bonnet with spiral-wound gasket, threaded and seal welded bonnet or threaded and pressure seal bonnet.
- Integral backseat
- Socket Weld Ends to ASME B16.11
- Screwed Ends (NPT) to ANSI/ASME B1.20.1
- Flanged Ends (RF) to ANSI/ASME B16.5
- Face to Face MFG standard

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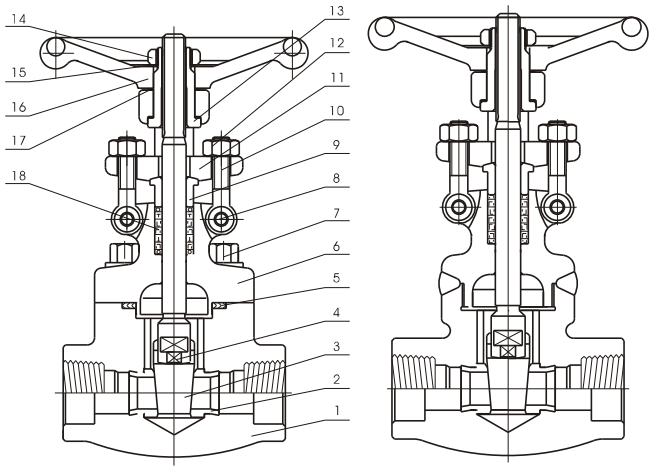
Female threaded and socket welded gate valves



Application standards

1、Design and manufacture conform to
API 602、BS5352、ANSI B16.34;
2、Connection ends conform to:
1)Socket welded dimension conform to ANSI B16.11;JB/T1751
2)Screw ends dimension conform to ANSI B1.20.1;JB/T7306
3)Butt-welded conform to ANSI B16.25;JB/T12224
4)Flanged ends conform to ANSI B16.5;JB79
3、Test and inspection conform to:
API 598; GB/T13927; JB/T9092
4、Structure features:
Bolted bonnet, outside screw and yoke
Welded bonnet, outside screw and yoke
5、Materials conform to ANIS/ASTM.
6、Main materials:
A105; LF2; F5; F11; F22; 304(L); 316(L); F347; F321; F51; Monel; 20 Alloy.

Carbon steel temperature-pressure rate

CL150-285 P.S.I @100° F
CL300-740 P.S.I @100° F
CL600-1480 P.S.I @100° F
CL800-1975 P.S.I @100° F
CL1500-3705 P.S.I @100° F

Main part materials list

NO.	Part name	A105/F6a	A105/F6aHFS	LF2/304	F11/F6aHF	F304(L)/304(L)	F316(L)/316(L)	F51/F51
1	Body	A105	A105	LF2	F11	F304(L)	F316(L)	F51
2	Seat	410	410HF	304	410HF	304(L)	316(L)	F51
3	Wedge	F6a	F6a	F304	F6aHF	F304(L)	F316(L)	F51
4	Stem	410	410	304	410	304(L)	316(L)	F51
5	Gasket	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	316+ Flexible graphite	316+ Flexible graphite
6	Bonnet	A105	A105	LF2	F11	F304(L)	F316(L)	F51
7	Bolt	B7	B7	L7	B16	B8(M)	B8(M)	B8M
8	Pin	410	410	410	410	304	304	304
9	Gland	410	410	304	410	304	316	F51
10	Gland eyebolt	B7	B7	L7	B16	B8(M)	B8(M)	B8M
11	Gland flange	A105	A105	LF2	F11	F304	F304	F304
12	Hex nut	2H	2H	2H	2H	8(M)	8(M)	8M
13	Stem nut	410	410	410	410	410	410	410
14	Locking nut	35	35	35	35	35	35	35
15	Nameplate	AL	AL	AL	AL	AL	AL	AL
16	Handwheel	A197	A197	A197	A197	A197	A197	A197
17	Lubricating gasket	410	410	410	410	410	410	410
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite

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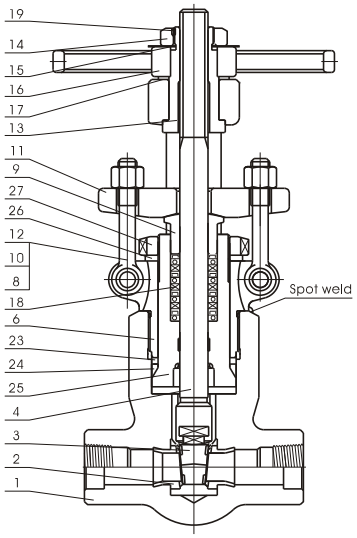
PRESSURE SEALING GATE VALVES



Application standards

1、Design and manufacture conform to
API 602、BS5352、ANSI B16.34
2、Connection ends conform to:
1)Socket welded dimension conform to ANSI B16.11;JB/T1751
2)Screw ends dimension conform to ANSI B1.20.1;JB/T7306
3)Butt-welded conform to ANSI B16.25;JB/T12224
4)Flanged ends conform to ANSI B16.5;JB79
3、Test and inspection conform to:
API 598; GB/T13927; JB/T9092
4、Structure features:
A threaded and pressure seal bonnet
5、Materials conform to ANIS/ASTM.
6、Main materials:
A105; LF2; F5; F11; F22; 304(L); 316(L); F347; F321; F91; Monel; 20 Alloy.

Carbon steel temperature-pressure rate

CL1500-3705 P.S.I @ 100° F
CL2500-6170 P.S.I @ 100° F

Main part materials list

NO.	Part name	A105/F6a	A105/F6aHFS	LF2/304	F11/F6aHF	F304(L)/304(L)	F316(L)/316(L)	F91/410 HF
1	Body	A105	A105	LF2	F11	F304(L)	F316(L)	F91
2	Seat	410	410HF	304	410HF	304(L)	316(L)	410HF
3	Wedge	F6a	F6a	F304	F6aHF	F304(L)	F316(L)	F6aHF
4	Stem	410	410	304	410	304(L)	316(L)	410
6	Bonnet	A105	A105	LF2	F11	F304(L)	F316(L)	F91
8	Pin	410	410	410	410	304	304	410
9	Gland	410	410	304	410	304	316	410
10	Gland eyebolt	B7	B7	L7	B16	B8(M)	B8(M)	B8
11	Gland flange	A105	A105	LF2	F11	F304	F304	F91
12	Hex nut	2H	2H	2H	2H	8(M)	8(M)	8
13	Stem nut	410	410	410	410	410	410	410
14	Locking nut	35	35	35	35	35	35	35
15	Nameplate	AL	AL	AL	AL	AL	AL	AL
16	Handwheel	A197	A197	A197	A197	A197	A197	A190
17	Lubricating gasket	410	410	410	410	410	410	410
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
19	Stop nut	35	35	35	35	35	35	35
23	Seal gasket	420	420	304	304	304(L)	316(L)	420
24	P.S.ring	304	304	304	304	304	316	316
25	P.S.seat	420	420	304	304	304(L)	316(L)	F91
26	Nut pad	410	410	410	410	410	410	410
	Packing nut	Cast steel	Cast steel	Cast steel	Cast steel	Stainless steel	Stainless steel	Cast steel

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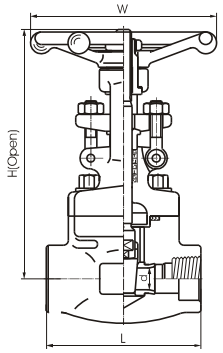
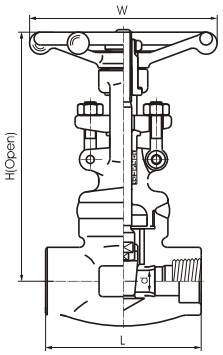
FEMALE THREADED AND SOCKET WELDED GATE VALVES



CL800

Bolted bonnet, full port reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to API 602

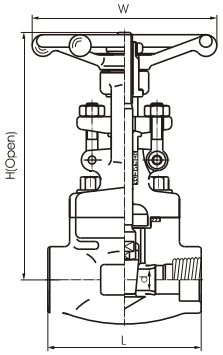
Specification (NPS)	R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	79	79	92	111	120	120	140	178	180
Handwheel diameter	W	100	100	100	125	160	160	180	200	220
Height	H	161	161	163	196	223	251	290	333	370
Flow port dimension	d	8	10.5	13.5	18	24	29	36.5	45	51
Weight(Kg)		2.3	2.22	2.39	4.24	5.7	7.05	10.9	16.8	24



CL800

Welded bonnet, full port reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to API 602

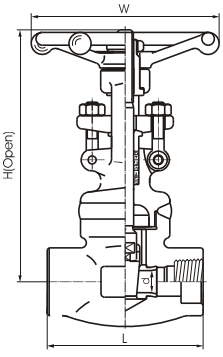
Specification (NPS)	R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	79	79	92	111	120	120	140	178	180
Handwheel diameter	W	100	100	100	125	160	160	180	200	220
Height	H	161	161	163	196	223	251	290	333	370
Flow port dimension	d	8	10.5	13.5	18	24	29	36.5	45	51
Weight(Kg)		1.9	1.9	2.1	3.2	5.2	6.9	10.4	15.8	22



CL900-CL1500

Bolted bonnet,full port reducing port outside screw and yoke(OS&Y)
Threaded, butt-welded or socket welded ends; design to API 602

Specification (NPS)	R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	92	111	111	120	120	140	178	180	-
Handwheel diameter	W	100	125	125	160	160	180	200	220	-
Height	H	191	191	192	219	243	296	316	370	-
Flow port dimension	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	-



CL900-CL1500

Welded bonnet,full port reducing port outside screw and yoke(OS&Y)
Threaded, butt-welded or socket welded ends; design to API 602

Specification (NPS)	R.P	-	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	F.P	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	92	111	111	120	120	140	178	180	-
Handwheel diameter	W	100	125	125	160	160	160	200	220	-
Height	H	171	207	207	240	258	330	355	370	-
Flow port dimension	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	-

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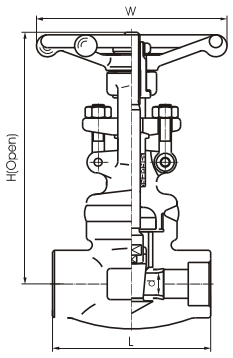
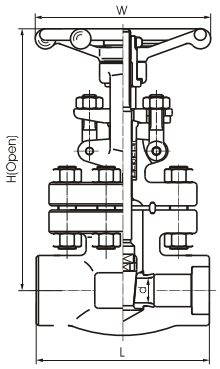
FEMALE THREADED AND SOCKET WELDED GATE VALVES



CL2500

Welded bonnet, full portoutside screw and yoke (OS &Y)
Socket welded ends, design conform toASME B16.34

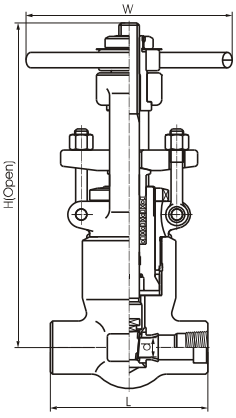
Specification(NPS)		1/4	3/8	1/2	3/4	1	1 1/4	2
Face to face	L		111	120	120	120	140	
Handwheel diameter	W		125	160	160	180	220	
Height	H		215	218	220	238	281	
Flow port dimension	d		14	14	14	19	25	
Weight(Kg)			7	8.7	8.5	11.7	17	



CL1500-CL2500

Bolted bonnet, full port outside screw and yoke (OS & Y)
Socket welded ends, design conform to ASME B16.34

Specification(NPS)	F.P		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	L	CL1500	110	150	150		210	235	
		CL2500	150	150	210		235	235	
Handwheel diameter	W	CL1500	110	130	130		180	250	
		CL2500	130	130	250		300	300	
Height	H	CL1500	277	300	390		400	435	
		CL2500	293	300	390		435	435	
Flow port dimension	d	CL1500	14	17	22		35	37	
		CL2500	14	14	14		25	30	
Weight(Kg)		CL1500	5.1	11	12.1		22	37	
		CL2500	11	11.3	22.4		38	38	



CL1500-CL2500

Pressure seal bonnet, full port outside screw and yoke(OS & Y)
Socket welded ends, design conform to ASME B16.34

Specification(NPS)	F.P		3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L	CL900~1500	140	140	140	140	178	178	216
		CL2500	186	186	186	186	232	232	279
Handwheel diameter	W	CL900~1500	200	200	200	200	280	280	300
		CL2500	200	200	200	200	280	280	300
Height	H	CL900~1500	318	318	318	322	467	468	540
		CL2500	325	325	325	327	467	468	540
		CL900~1500	14	14	14	19	25	30	36.5
		CL2500	14	14	14	19	25	30	36.5
Weight(Kg)		CL900~1500	11.5	11.5	10.8	10.5	19.6	21.0	55.4
		CL2500	12.3	12.3	11.6	10.8	26.0	28.4	60.0

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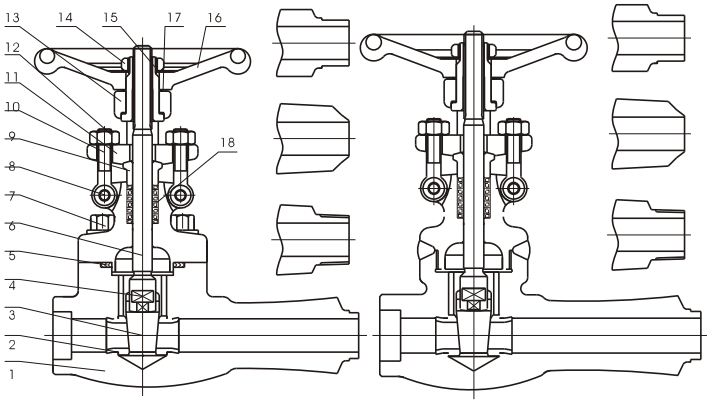
Extended body gate valves



Application standards

1、Design and manufacture conform to
API 602、BS5352、ANSI B16.34;
2、Connection ends conform to:
1)Scoket welded ends conform to ANSI B16.11;JB/T1751
2)Screw ends conform to ANSI B1.20.1;JB/T7306
3)Butt-welded ends conform to ANSI B16.25;JB/T12224
4)Flanged ends conform to ANSI B16.5;JB79
3、Test and inspection conform to:
API 598; GB/T13927; JB/T9092
4、Structure features:
Bolted bonnet, outside screw and yoke
Welded bonnet, outside screw and yoke
5、Materials conform to ANSI/ASTM.
6、Main materials:
A105; LF2; F5; F11; F22; 304(L); 316(L); F347;
F321; F51; Monel; 20 Alloy.

Carbon steel temperature-pressure rate

CL150-285 P.S.I @ 100° F
CL300-740 P.S.I @ 100° F
CL600-1480 P.S.I @ 100° F
CL800-1975 P.S.I @ 100° F
CL1500-3705 P.S.I @ 100° F

Main part materials list

NO.	Part name	A105/F6a	A105/F6aHFS	LF2/304	F11/F6aHF	F304(L)/304(L)	F316(L)/316(L)	F51/F51
1	Body	A105	A105	LF2	F11	F304(L)	F316(L)	F51
2	Seat	410	410HF	304	410HF	304(L)	316(L)	F51
3	Wedge	F6a	F6a	F304	F6aHF	F304(L)	F316(L)	F51
4	Stem	410	410	304	410	304(L)	316(L)	F51
5	Gasket	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	304+ Flexible graphite	316+ Flexible graphite	316+ Flexible graphite
6	Bonnet	A105	A105	LF2	F11	F304(L)	F316(L)	F51
7	Bolt	B7	B7	L7	B16	B8(M)	B8(M)	B8M
8	Pin	410	410	410	410	304	304	304
9	Gland	410	410	304	410	304	316	F51
10	Gland eyebolt	B7	B7	L7	B16	B8(M)	B8(M)	B8M
11	Gland flange	A105	A105	LF2	F11	F304	F304	F304
12	Hex nut	2H	2H	2H	2H	8(M)	8(M)	8M
13	Stem nut	410	410	410	410	410	410	410
14	Locking nut	35	35	35	35	35	35	35
15	Nameplate	AL	AL	AL	AL	AL	AL	AL
16	Handwheel	A197	A197	A197	A197	A197	A197	A197
17	Lubricating gasket	410	410	410	410	410	410	410
18	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite

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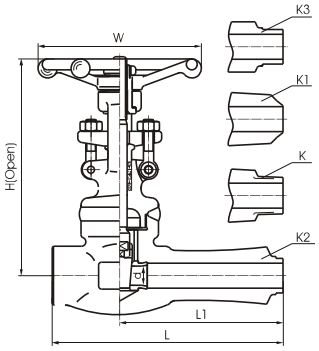
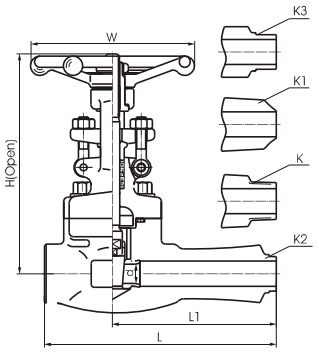
EXTENED BODY GATE VALVES



CL800

Welded bonnet, reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to API 602, API 606

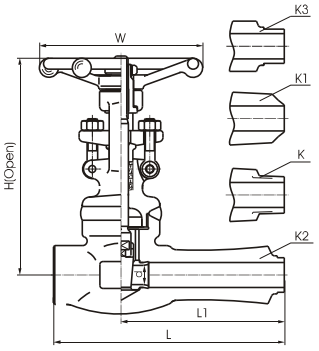
Specification(NPS)		1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L	192 153	215 153	239 182	239 182	258 216	262 216
Extended length	L1	152 108	170 108	184 127	184 127	193 152	197 152
Handwheel diameter	W	100	100	125	160	160	180
Height	H	161	163	196	223	251	290
Flow port dimension	d	10.5	13.5	18	24	29	36.5
Weight(Kg)	K_2 K,K_1,K_3	2.5 2.2	2.7 2.4	4.5 3.4	6.3 6	8.5 8.0	11.6 11.4



CL800

Bolted bonnet, reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to API602, API 606

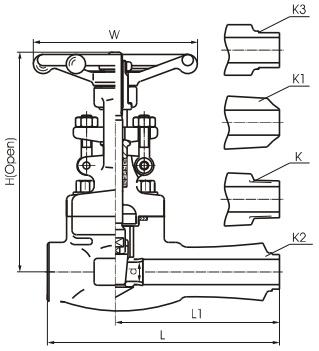
Specification(NPS)		1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L	192 153	215 153	239 182	239 182	258 216	262 216
Extended length	L1	152 108	170 108	184 127	184 127	193 152	197 152
Handwheel diameter	W	100	100	125	160	160	180
Height	H	161	163	196	223	251	290
Flow port dimension	d	10.5	13.5	18	24	29	36.5
Weight(Kg)	K_2 K,K_1,K_3	2.8 2.4	2.0 2.5	5.5 5	7 6.1	8.5 7.8	12.1 11.5



CL1500

Welded bonnet, reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to API 602, API 606

Specification(NPS)		1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L	239 182	239 182	239 182	258 216	262 216	264 264
Extended length	L1	184 127	184 127	184 127	193 152	197 152	189 189
Handwheel diameter	W	125	125	160	160	180	200
Height	H	207	207	240	258	330	370
Flow port dimension	d	10.5	13.5	18	24	29	36.5
Weight(Kg)	K_2 K,K_1,K_3	5.6 5.1	5.6 5.1	7.1 6.2	8.7 8	12.5 11.7	16.3 15.7



CL1500

Bolted bonnet, reducing port outside screw and yoke(OS & Y)
Threaded, butt-welded or socket welded ends; design to API 602, API 606

Specification(NPS)		1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L	239 182	239 182	239 182	258 216	262 216	264 264
Extended length	L1	184 127	184 127	184 127	193 152	197 152	189 189
Handwheel diameter	W	125	125	160	160	180	200
Height	H	207	207	240	258	330	370
Flow port dimension	d	10.5	13.5	18	24	29	36.5
Weight(Kg)	K_2 K,K_1,K_3	6 5.7	6 5.7	7.7 6.5	9.2 8.2	13.2 12.3	16.7 15.9

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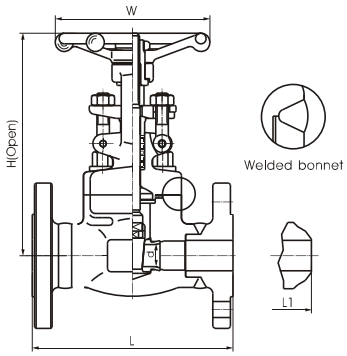
Forged steel flange gate valves

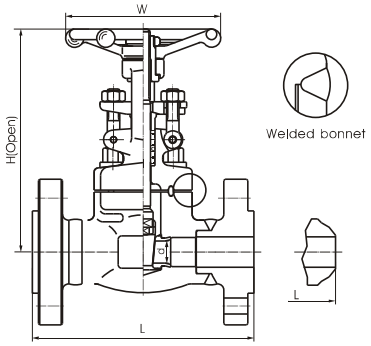


CL150-300-600

Bolted bonnet, reducing port outside screw and yoke(OS & Y)
Flange-welded or butt-welded ends; design to API602;BS5352

Specification(NPS)			1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Face to face	CL150	L(RF) L1(BW)	-	-	108	117	127	140	165	178	190
	CL300		-	-	140	152	165	178	190	216	241
	CL600		-	-	165	190	216	229	241	292	330
Handwheel diameter		W	-	-	100	100	125	160	160	180	200
Height	CL150	H	-	-	176	184	217	226	250	290	357
	CL300,CL600		-	-	161	163	196	226	250	290	357
Height (angle dinmension)		d	-	-	10	13.5	18	24	29	36.5	45
Weight (Kg)	CL150	RF	-	-	3.4	3.98	6.12	7.2	10.4	15.5	24.5
		BW	-	-	2.8	3.3	5.4	7.1	8.2	12.5	20
	CL300	RF	-	-	3.77	4.89	7.23	9.6	12.64	18	26.2
		BW	-	-	3.5	4.4	6.8	8.1	9.2	15.4	22
	CL600	RF	-	-	4.2	5.8	8.8	12.1	15.6	19.5	32
		BW	-	-	4.5	5.1	8.2	10.5	12.4	20.1	28

If you want to order one piece body, please contract with sale department

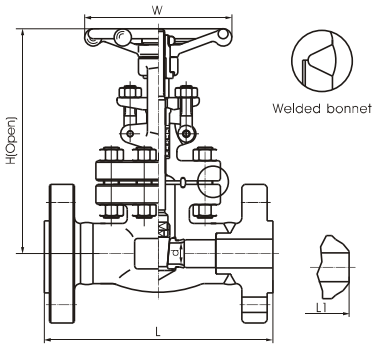


CL900-CL1500

Welded bonnet, full port outside screw and yoke(OS & Y)
Flange-welded or butt-welded ends; design to BS 5352

Specification(NPS)		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L(RF),L1(BW)	-	-	216	229	254	279	305	368
	L(RTJ)	-	-	216	229	254	279	305	371
Handwheel diameter	W	-	-	125	125	160	180	200	220
Height	H	-	-	191	192	219	257	296	316
Height(angle dinmension)	d	-	-	13.5	18	24	29	36.5	45
Weight(Kg)		-	-	7.2	11.5	15.6	16.2	22.6	28.2

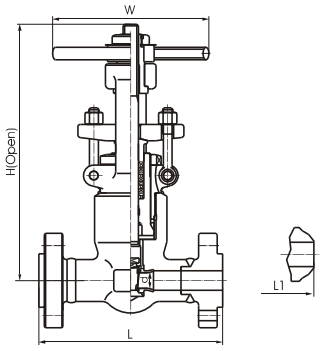
If you want to order one piece body, please contract with sale department



CL2500

Bolted bonnet, full port outside screw and yoke(OS & Y)
Flange-welded or butt-welded ends; design to ASME B16.34

Specification(NPS)		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face (mm)	L(RF),L1(BW)	-	-	264	273	308	-	384	451
	L(RTJ)	-	-	264	273	308	-	387	454
Handwheel diameter	W	-	-	125	160	160	-	200	240
Height	H	-	-	207	240	258	-	355	370
Height(angle dinmension)	d	-	-	13.5	13.5	19	-	30	36.5
Weight(Kg)		-	-	19.5	21.5	42	-	65	95



CL2500

Pressure seal gate valves, full port outside screw and yoke(OS & Y)
Flange-welded or butt-welded ends; design to ASME B16.34

Specification(NPS)		1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Face to face	L(RF),L1(BW)	-	-	264	273	308	-	384	451
	L(RTJ)	-	-	264	273	308	-	387	454
Handwheel diameter	W	-	-	200	200	200	-	280	300
Height	H	-	-	325	325	327	-	478	540
Height(angle dinmension)	d	-	-	13.5	13.5	19	-	30	36.5
Weight(Kg)		-	-	4.6	6.8	7.6	-	15	21.9

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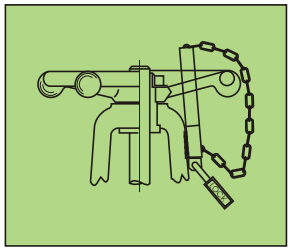
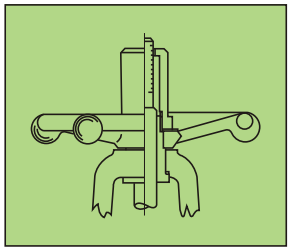
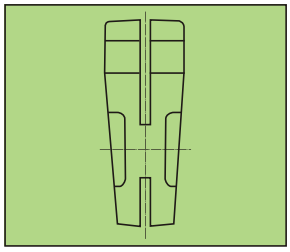
Chosen devices and varieties of gate valves



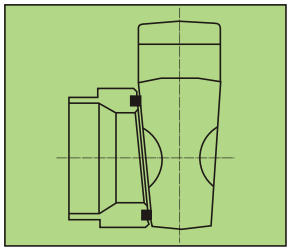
Locking device



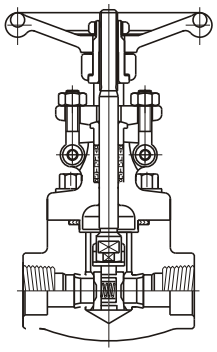
Position indicator



Flexible wedge

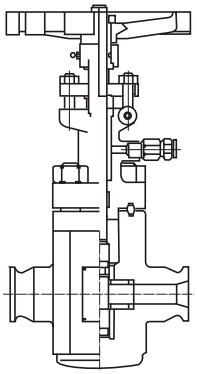


Insert PTFE seat



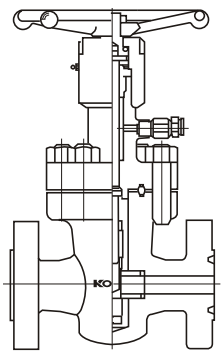
Dynamic double-wedge gate valves

	CLASS	Materials
API 6D Outside screw and yoke	600	Carbon Steel, Cryogenic Carbon Steel/ Alloy Steel, Stainless steel
	900/1500	
	2500	



Flat gate valves

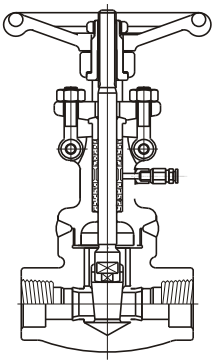
	CLASS	Materials
API 6D Outside screw and yoke	600	Carbon Steel, Cryogenic Carbon Steel/ Alloy Steel, Stainless steel
	900/1500	
	2500	



Flat gate valves

	CLASS	Materials
API 6A Outside screw and yoke	3000	Carbon Steel, Cryogenic Carbon Steel/Alloy Steel, Stainless steel
	5000	
	10000	

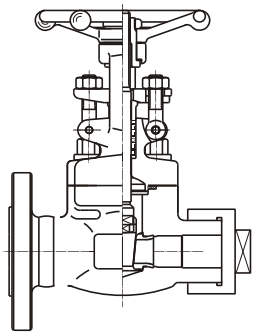
Special purposes gate valves



Welded bonnet
OS & Y
Packing
Distance ring
Injector sealing
gum valves
Solid wedge

Vacuum gate valves

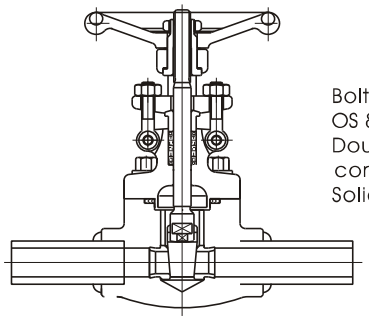
	Temperature-pressure rate	Materials		
		Body/bonnet	Trim	Bolt
CLASS 800 API 602-BS 5352 Reduced port & full port	1975 psi @ 100 F	Cast steel	13Cr	B7



Bolted
OS & Y
Cap fitting
connection
Solid wedge

For venting and/or releasing media

	Temperature-pressure rate	Materials		
		Body/bonnet	Trim	Bolt
CLASS 800 API 602-BS 5352 Reduced port & full port	1975 psi @ 100 F	Cast steel	13Cr	B7

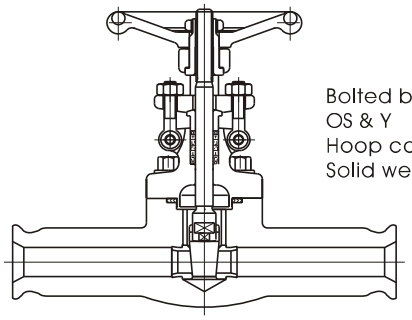


Bolted bonnet
OS & Y
Double end pipe
connection
Solid wedge

Coupling pipe valves

	Temperature-pressure rate	Materials		
		Body/bonnet	Trim	Bolt
CLASS 800 API 602-BS 5352 Reduced port & full port	1975 psi @ 100 F	Cast steel	13Cr	B7

Please explain pipe length to sale person when you order.



Bolted bonnet
OS & Y
Hoop connection
Solid wedge

Hoop gate valves

	Temperature-pressure rate	Materials		
		Body/bonnet	Trim	Bolt
CLASS 800 API 602-BS 5352 Reduced port & full port	1975 psi @ 100 F	Cast steel	13Cr	B7