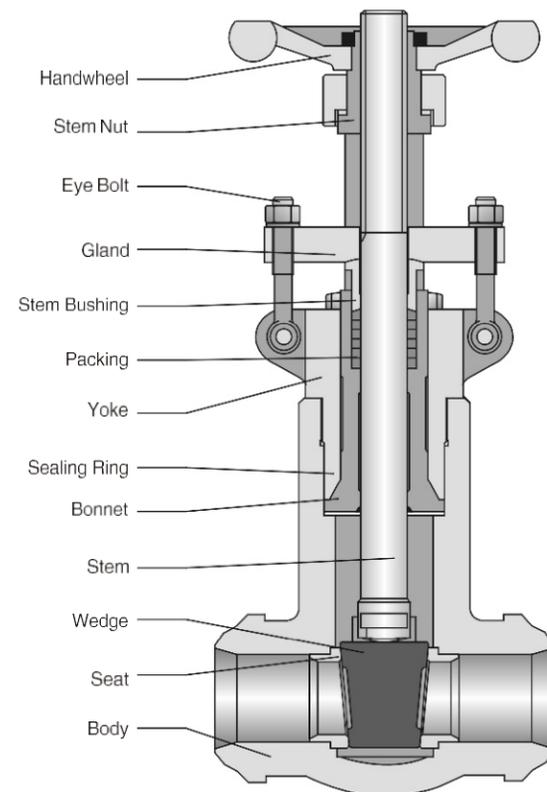
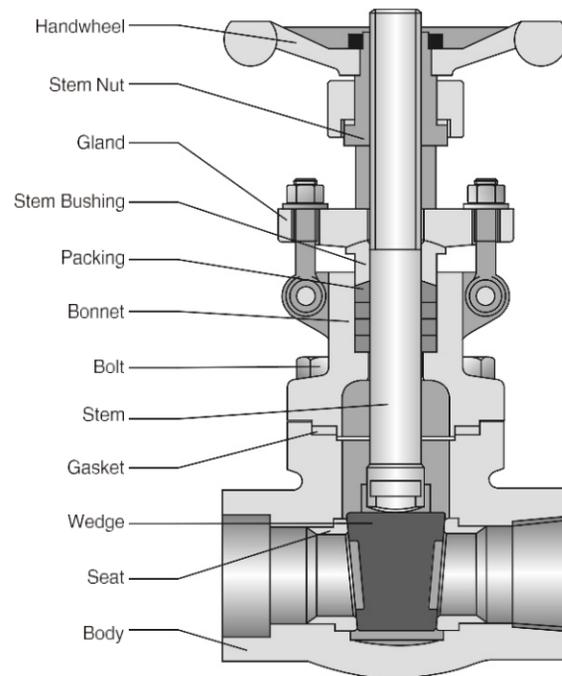


FORGED STEEL GATE VALVE SERIES



FORGED STEEL GATE VALVE

Design of Forged Steel Gate Valve



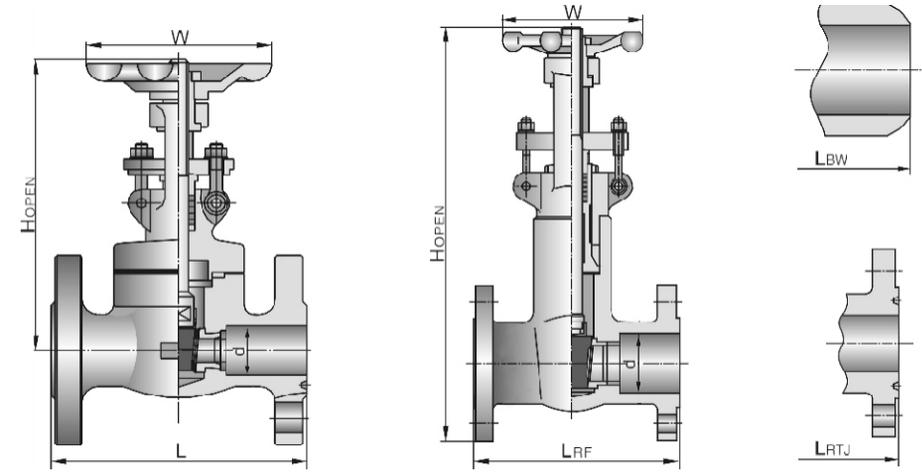
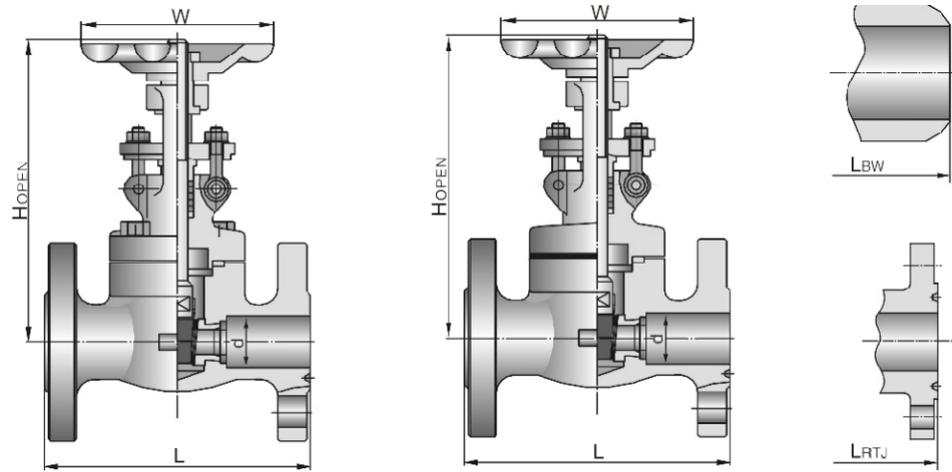
Material List for Main Parts

No.	Part name	ASTM			
		Carbon steel		Stainless steel	Alloy steel
1	Body	A105	LF2/LF3	A182 F304	A182 F11/F22
2	Seat	A182F6a	A182F6a	A182 F304	A182 F11/F22
3	Wedge	A182F6a	A182F6a	A182 F304	A182 F6a
4	Stem	A276-410	A276-410	A276-304	A276-410
5	Gasket	Graphite +304			
6	Sealing Ring	Graphite			
7	Yoke	A216-WCB	A216-WCB	A351 CF8	A216-WCB
8	Bonnet	A105	A350 LF2/LF3	A182 F304	A182 F11/F22
9	Bolt	A193 B7	A320 L7	A193 B8	A193 B15
10	Packing	Graphite			
11	Stem Bushing	A276-410	A276-410	A276-304	A276-410
12	Gland	A216-WCB	A216-WCB	A351 CF8	A216-WCB
13	Eye Bolt	A193 B7	A320 L7	A193 B8	A193 B7
14	Stem Nut	A276-410			
15	Handwheel	A197 or A47-32510			

Performance Specification

Nominal Pressure		Class						
		150	300	600	800	900	1500	2500
Test Pressure (MPa)	Shell Test	2.93	7.55	10.0	20.1	15.0	37.5	63.0
	High Pressure Seal Test	2.07	5.52	7.31	14.7	11.03	27.5	16.2
	Low Pressure Seal Test	0.6						
Applicable Temperature		≤ 425°C						
Applicable Medium		Water, Oil & Gas						

FORGED STEEL GATE VALVE



Pressure: Class150 ~ 600

- Bolted Bonnet or Welded Bonnet
- Reduced Port
- Solid Wedge Gate
- Flange Ends or Butt-welding Ends

Technical Specification

Design Standard	ASME B16.34/API602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	ASME B16.10
Flange Ends	ASME B16.5
Butt-welding Ends	ASME B16.25
Inspection & Test	API 598

Main Dimensions & Weight

Pressure	Size		Dimension (mm)						Weight (kg)
	mm	in	d(Reduced Port)	L _{RF}	L _{BW}	L _{RTJ}	H	W	
Class150	15	1/2	10	108	108	119	162	100	3.0
	20	3/4	12.7	117	117	130	162	100	3.5
	25	1	19.1	127	127	140	211	125	5.5
	32	1 1/4	24	140	140	153	238	125	6.8
	40	1 1/2	31.8	165	165	178	257	160	10.4
	50	2	38.1	178	216	190	282	180	14.4
Class300	15	1/2	10	140	140	151	162	100	3.6
	20	3/4	12.7	152	152	165	162	100	4.9
	25	1	19.1	165	165	178	211	125	7.0
	32	1 1/4	24	178	178	191	238	125	9.4
	40	1 1/2	31.8	190	190	203	257	160	13.3
	50	2	38.1	216	216	232	282	180	18.0
Class600	15	1/2	10	165	165	165	162	100	4.2
	20	3/4	12.7	190	190	190	162	100	5.8
	25	1	19.1	216	216	216	211	125	8.8
	32	1 1/4	24	229	229	229	238	125	12.1
	40	1 1/2	31.8	241	241	241	257	160	15.6
	50	2	38.1	292	292	295	282	180	19.5
	65	2 1/2	48.5	330	330	333	357	200	32.0

Note: H means the height when valve is fully opened.

Pressure: Class900 ~ 2500

- Welded Bonnet/Pressure Sealed Bonnet
- Reduced Port
- Solid Wedge Gate
- Flange Ends/Butt-welding Ends

Technical Specification

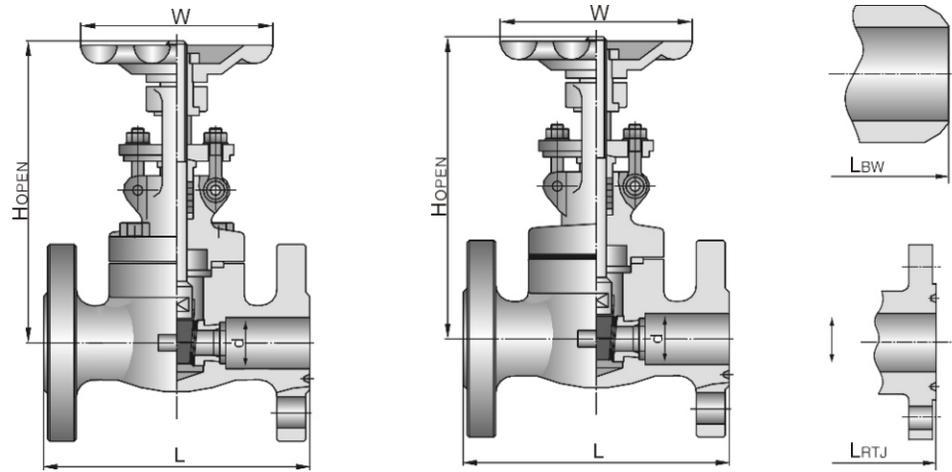
Design Standard	ASME B16.34/API602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	ASME B16.10
Flange Ends	ASME B16.5
Butt-welding Ends	ASME B16.25
Inspection & Test	API 598

Main Dimensions & Weight

Class	Size		Dimension (mm)							Weight (kg)	
	mm	in	d (Reduced Port)	L _{RF}	L _{BW}	L _{RTJ}	H		W	WB	PSB
							WB	PSB			
Class900	15	1/2	10	216	216	216	197	321	180	9.8	11.5
	20	3/4	13	229	229	229	211	321	180	9.7	11.2
	25	1	19	254	254	254	238	321	180	9.5	10.8
	32	1 1/4	24	279	279	279	257	380	200	17.5	18.0
	40	1 1/2	40	305	305	305	276	414	200	21.6	22.0
	50	2	50	368	368	371	320	502	300	42.7	44.0
Class1500	15	1/2	10	216	216	216	197	321	180	9.8	11.5
	20	3/4	13	229	229	229	211	321	180	9.7	11.2
	25	1	19	254	254	254	238	321	180	9.5	10.8
	32	1 1/4	24	279	279	279	257	380	200	17.5	18.0
	40	1 1/2	40	305	305	305	276	414	200	21.6	22.0
	50	2	50	368	368	371	320	502	300	42.7	44.0
Class2500	15	1/2	10	264	264	264	197	321	180	12.3	13.0
	20	3/4	13	273	273	273	211	321	180	12.1	12.7
	25	1	19	308	308	308	238	321	180	11.8	12.5
	32	1 1/4	24	349	349	352.2	257	380	200	20.9	21.8
	40	1 1/2	29	384	384	387.2	276	414	200	27.5	29.3
	50	2	36.5	451	451	454.2	320	502	300	53.3	55.4

Note: H means the height when valve is fully opened.

FORGED STEEL GATE VALVE



Pressure: Class150 ~ 600

- Bolted Bonnet or Welded Bonnet
- Full Port
- Solid Wedge Gate
- Flange Ends or Butt-welding Ends

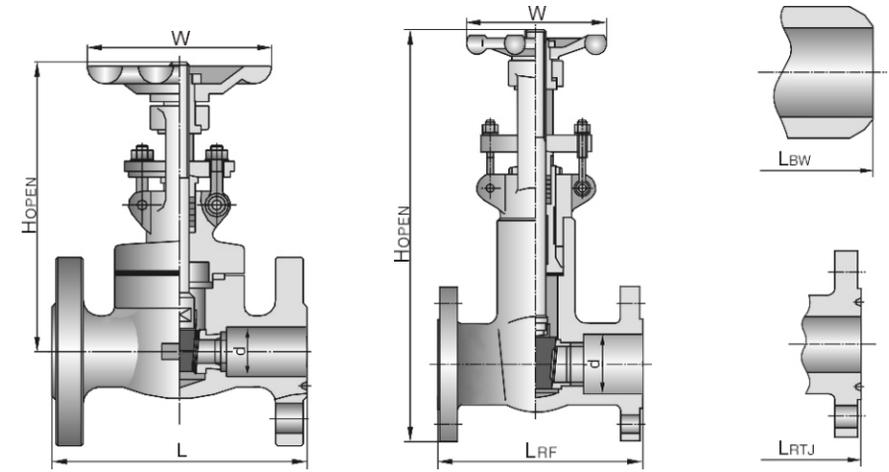
Technical Specification

Design Standard	ASME B16.34/API602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	ASME B16.10
Flange Ends	ASME B16.5
Butt-welding Ends	ASME B16.25
Inspection & Test	API 598

Main Dimensions & Weight

Pressure	Size		Dimension (mm)						Weight (kg)
	mm	in	d(Full Port)	L _{RF}	L _{BW}	L _{RTJ}	H	W	
Class150	15	1/2	13	108	108	119	162	100	3.0
	20	3/4	18	117	117	130	162	100	3.5
	25	1	24	127	127	140	211	125	5.5
	32	1 1/4	29	140	140	153	238	125	6.8
	40	1 1/2	36.5	165	165	178	257	160	10.4
	50	2	46.5	178	216	190	282	180	14.4
Class300	65	2 1/2	61.5	190	241	203	357	200	24.5
	15	1/2	13	140	140	151	162	100	3.6
	20	3/4	18	152	152	165	162	100	4.9
	25	1	24	165	165	178	211	125	7.0
	32	1 1/4	29	178	178	191	238	125	9.4
	40	1 1/2	36.5	190	190	203	257	160	13.3
Class600	50	2	46.5	216	216	232	282	180	18.0
	65	2 1/2	61.5	241	241	257	357	200	26.2
	15	1/2	13	165	165	165	162	100	4.2
	20	3/4	18	190	190	190	162	100	5.8
	25	1	24	216	216	216	211	125	8.8
	32	1 1/4	29	229	229	229	238	125	12.1
Class900	40	1 1/2	36.5	241	241	241	257	160	15.6
	50	2	46.5	292	292	295	282	180	19.5
	65	2 1/2	61.5	330	330	333	357	200	32.0

Note: H means the height when valve is fully opened.



Pressure: Class900 ~ 1500

- Bolted Bonnet/welded Bonnet/Pressure Sealed Bonnet
- Full Port
- Solid Wedge Gate
- Flange Ends/Butt-welding Ends

Technical Specification

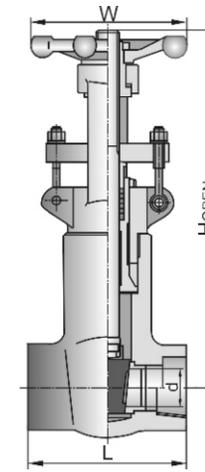
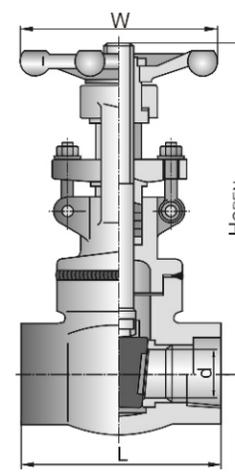
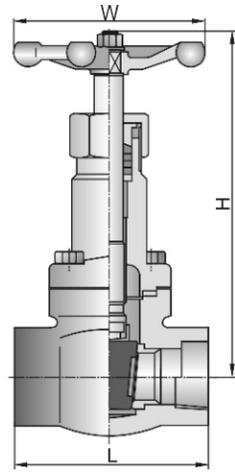
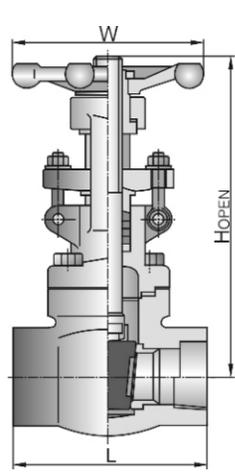
Design Standard	ASME B16.34/API602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	ASME B16.10
Flange Ends	ASME B16.5
Butt-welding Ends	ASME B16.25
Inspection & Test	API 598

Main Dimensions & Weight

Pressure	Size		Dimension (mm)						Weight (kg)		
	mm	in	d(Full Port)	L _{RF}	L _{BW}	L _{RTJ}	H		W	Weight (kg)	
							BB/WB	PSB		BB/WB	PSB
Class900	15	1/2	13	216	216	216	197	321	125	7.2	17.0
	20	3/4	18	229	229	229	211	321	125	11.5	16.7
	25	1	24	254	254	254	238	321	160	15.6	21.3
	32	1 1/4	29	279	279	279	257	380	160	16.2	24.5
	40	1 1/2	36.5	305	305	305	276	414	180	22.6	28.7
	50	2	46.5	368	368	371	320	502	240	28.2	45.8
Class1500	15	1/2	13	216	216	216	197	321	125	7.2	17.0
	20	3/4	18	229	229	229	211	321	125	11.5	16.7
	25	1	24	254	254	254	238	321	160	15.6	21.3
	32	1 1/4	29	279	279	279	257	380	160	16.2	24.5
	40	1 1/2	36.5	305	305	305	276	414	180	22.6	28.7
	50	2	46.5	368	368	371	320	502	240	28.2	45.8

Note: H means the height when valve is fully opened.

FORGED STEEL GATE VALVE



Pressure: Class150 ~ 600 & Class800

- Bolted Bonnet or Welded Bonnet
- Outside Screw Stem or Inside Screw Stem
- Reduced Port
- Solid Wedge Gate
- Threaded Ends or SW Ends

Technical Specification

Design Standard	API602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	Manufacturer Standard
Socket-welded Ends	ASME B16.5
Threaded Ends	ASME B1.20.1
Inspection & Test	API 598

Pressure: Class900 ~ 1500

- Bolted Bonnet/Welded Bonnet/Pressure Sealed Bonnet
- Reduced Port
- Solid Wedge Gate
- Threaded Ends or SW Ends

Technical Specification

Design Standard	API602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	Manufacturer Standard
Socket-welded Ends	ASME B16.11
Threaded Ends	ASME B1.20.1
Inspection & Test	API 598

Main Dimensions & Weight

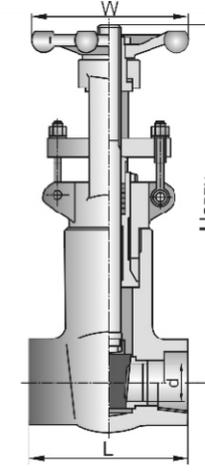
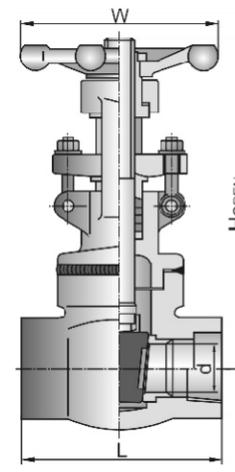
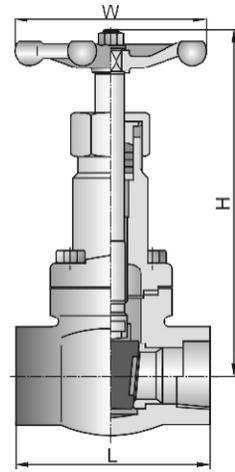
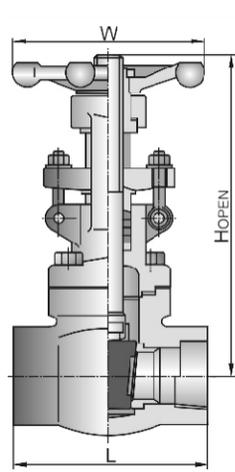
Class	Structure	Size		Dimension (mm)				Weight (kg)
		mm	in	d	L	H	W	
Class 150 ~ 600 Class800	OS & Y	Reduced Port	Reduced Port	Reduced Port				Reduced Port
		8	1/4	7	79	166	100	2.2
		10	3/8	10	79	166	100	2.2
		15	1/2	10	79	166	100	2.2
		20	3/4	13	92	169	100	2.2
		25	1	18	111	193	125	4.7
		32	1 1/4	24	120	236	160	5.9
		40	1 1/2	29	120	146	160	6.9
50	2	36.5	140	283	180	11.1		
		-	-	-	178	330	200	-
Class 150 ~ 600 Class800	ISRS	8	1/4	7	79	169	100	2.2
		10	3/8	10	79	169	100	2.2
		15	1/2	10	79	169	100	2.2
		20	3/4	13	92	182	100	2.2
		25	1	18	111	208	125	4.6
		32	1 1/4	24	120	254	160	5.9
		40	1 1/2	29	120	290	160	6.9
		50	2	36.5	140	330	180	11.1
		-	-	-	178	372	200	-

Main Dimensions & Weight

Pressure	Size		Main Dimension								Weight(kg)	
	mm	in	d(Reduced Port)		L		H		W		BB/WB	PSB
			BB/WB	PSB	BB/WB	PSB	BB/WB	PSB	BB/WB	PSB		
Class900	10	3/8	7	-	102	-	166	-	120	-	3.5	-
	15	1/2	10	-	102	140	169	321	120	125	3.4	11.5
	20	3/4	13	13	111	140	193	321	125	125	3.8	11.0
	25	1	18	18	120	140	230	321	160	160	7.8	10.2
	32	1 1/4	24	24	120	178	246	380	160	160	11.9	20.5
	40	1 1/2	29	29	140	178	283	414	180	180	12.2	21.7
	50	2	36.5	36.5	178	216	330	502	200	240	21.9	43.5
	Class1500	10	3/8	7	-	102	-	166	-	120	-	3.5
Class1500	15	1/2	10	-	102	140	169	321	120	125	3.4	11.5
	20	3/4	13	13	111	140	193	321	125	125	3.8	11.0
	25	1	18	18	120	140	230	321	160	160	7.8	10.2
	32	1 1/4	24	24	120	178	246	380	160	160	11.9	20.5
	40	1 1/2	29	29	140	178	283	414	180	180	12.2	21.7
	50	2	36.5	36.5	178	216	330	502	200	240	21.9	43.5

Note: H means the height when valve is fully opened.

FORGED STEEL GATE VALVE



Pressure: Class150 ~ 600 & Class800

- Bolted Bonnet or Welded Bonnet
- Outside Screw Stem or Inside Screw Stem
- Full Port
- Solid Wedge Gate
- Threaded Ends or SW Ends

Technical Specification

Design Standard	API602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	Manufacturer Standard
Socket-welded Ends	ASME B16.5
Threaded Ends	ASME B1.20.1
Inspection & Test	API 598

Pressure: Class900 ~ 1500

- Bolted Bonnet/Welded Bonnet/Pressure Sealed Bonnet
- Full Port
- Solid Wedge Gate
- Threaded Ends or SW Ends

Technical Specification

Design Standard	API602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	Manufacturer Standard
Socket-welded Ends	ASME B16.11
Threaded Ends	ASME B1.20.1
Inspection & Test	API 598

Main Dimensions & Weight

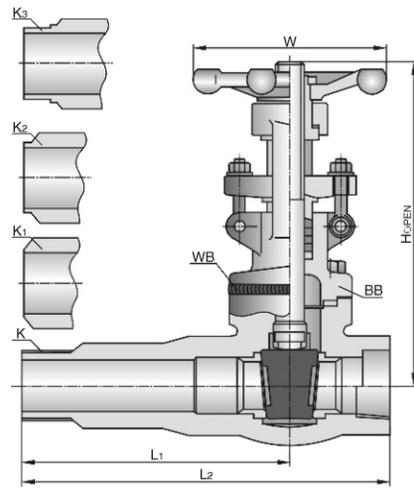
Class	Structure	Size		Dimension (mm)				Weight (kg)
		mm	in	d	L	H	W	
		Full Port	Full Port	Full Port				Full Port
Class 150 ~ 600 Class800	OS & Y	8	1/4	7	79	166	100	2.2
		10	3/8	10	79	166	100	2.2
		15	1/2	13	92	169	100	2.2
		20	3/4	18	111	193	125	4.3
		25	1	24	120	236	160	5.9
		32	1 1/4	29	120	146	160	6.9
		40	1 1/2	36.5	140	283	180	11.1
		50	2	46.5	178	330	200	15.2
Class 150 ~ 600 Class800	ISRS	8	1/4	7	79	169	100	2.4
		10	3/8	10	79	169	100	2.4
		15	1/2	13	92	182	100	2.3
		20	3/4	18	111	208	125	4.8
		25	1	24	120	254	160	6.1
		32	1 1/4	29	120	290	160	7.2
		40	1 1/2	36.5	140	330	180	11.2
		50	2	46.5	178	372	200	14.1

Main Dimensions & Weight

Pressure	Size		Main Dimension								Weight(kg)	
	mm	in	d(Full Port)		L		H		W		BB/WB	PSB
			BB/WB	PSB	BB/WB	PSB	BB/WB	PSB	BB/WB	PSB		
Class900	8	1/4	7	-	102	-	166	-	120	-	3.6	-
	10	3/8	10	-	102	-	166	-	120	-	3.5	-
	15	1/2	13	13	102	140	169	321	120	125	3.4	11.5
	20	3/4	18	18	111	140	193	321	125	125	3.8	11.0
	25	1	24	24	120	140	230	321	160	160	7.8	10.2
	32	1 1/4	29	29	120	178	246	380	160	160	11.9	20.5
	40	1 1/2	36.5	36.5	140	178	283	414	180	180	12.2	21.7
	50	2	46.5	46.5	178	216	330	502	200	240	21.9	43.5
Class1500	8	1/4	7	-	102	-	166	-	120	-	3.6	-
	10	3/8	10	-	102	-	166	-	120	-	3.5	-
	15	1/2	13	13	102	140	169	321	120	125	3.4	11.5
	20	3/4	18	18	111	140	193	321	125	125	3.8	11.0
	25	1	24	24	120	140	230	321	160	160	7.8	10.2
	32	1 1/4	29	29	120	178	246	380	160	160	11.9	20.5
	40	1 1/2	36.5	36.5	140	178	283	414	180	180	12.2	21.7
	50	2	46.5	46.5	178	216	330	502	200	240	21.9	43.5

Note: H means the height when valve is fully opened.

FORGED STEEL GATE VALVE



Pressure: Class800 & Class1500

- Bolted & Welded Bonnet
- Reduced Port
- Solid Wedge Gate
- Treaded Ends/SW Ends
- Buttwelded Ends/Treaded Ends/SW Ends

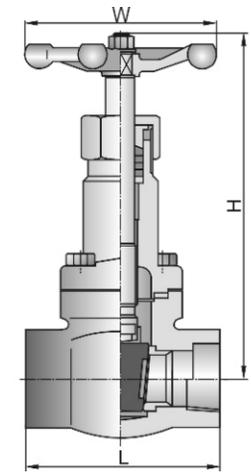
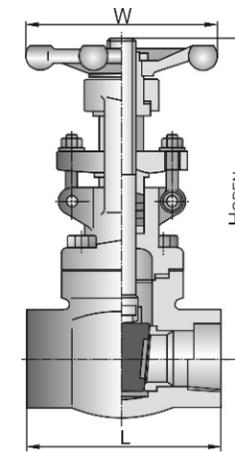
Technical Specification

Design Standard	API602
Pressure-Temperature Rating	ASME B16.34
Face-Face	Manufacturer Standard
Flange Ends	ASME B16.5
Buttwelding Ends	ASME B16.25
Socked-welded Ends	ASME B16.11
Threaded Ends	ASME B1.20.1
Inspection & Test	API 598

Main Dimensions & Weight

Pressure	Size		Main Dimension											Weight (kg)	
	mm	in	d (Reduced Port)	L ₁				L ₂				H	W	K ₂	K/K ₁ /K ₃
				K	K ₁	K ₂	K ₃	K	K ₁	K ₂	K ₃				
Class800	15	1/2	10	108	-	152	108	153	-	192	153	151	100	2.5	2.2
	20	3/4	13	108	108	150	108	153	153	215	153	158	100	2.7	2.4
	25	1	19	127	127	184	127	182	182	239	182	185	125	4.5	3.4
	32	1 1/4	24	127	127	184	127	182	182	239	182	239	160	4.8	4.1
	40	1 1/2	29	152	152	193	152	216	216	258	216	243	160	8.5	8.0
	50	2	36.5	152	152	197	152	216	216	262	216	279	180	10.5	9.8
Class1500	15	1/2	10	108	-	152	108	153	-	192	153	151	100	2.5	2.2
	20	3/4	13	108	-	150	108	153	-	215	153	158	100	2.7	2.4
	25	1	19	127	-	184	127	182	-	239	182	185	125	4.5	3.4
	32	1 1/4	24	127	-	184	127	182	-	239	182	239	160	4.8	4.1
	40	1 1/2	29	152	-	193	152	216	-	258	216	243	160	8.5	8.0
	50	2	36.5	152	-	197	152	216	-	262	216	279	180	10.5	9.8

Note: H means the height when valve is fully opened.



Pressure: Class 800 & Class1500

- Bolted Bonnet or Welded Bonnet
- Outside Screw Stem or Inside Screw Stem
- Reduced Port
- Solid Wedge Gate
- Threaded Ends or SW Ends

Technical Specification

Design Standard	API602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	Manufacturer Standard
Socket-welded Ends	ASME B16.5
Threaded Ends	ASME B1.20.1
Inspection & Test	API 598

Main Dimensions & Weight

Class	Structure	Size		Dimension (mm)				Weight (kg)
		mm	in	d Reduced Port	L	H	W	Reduced Port
Class800	OS & Y	15	1/2	13	79	136	100	1.5
		20	3/4	13	92	146	100	1.9
		25	1	18	111	184	125	3.2
		32	1 1/4	24	120	227	160	5.9
		40	1 1/2	29	120	241	160	5.9
Class1500	ISRS	15	1/2	13	92	146	100	1.9
		20	3/4	13	111	184	100	3.2
		25	1	18	120	222	125	5.9
		32	1 1/4	24	120	240	160	9.2
		40	1 1/2	29	140	279	160	9.2
		50	2	36.8	160	308	180	15

FORGED STEEL GATE VALVE