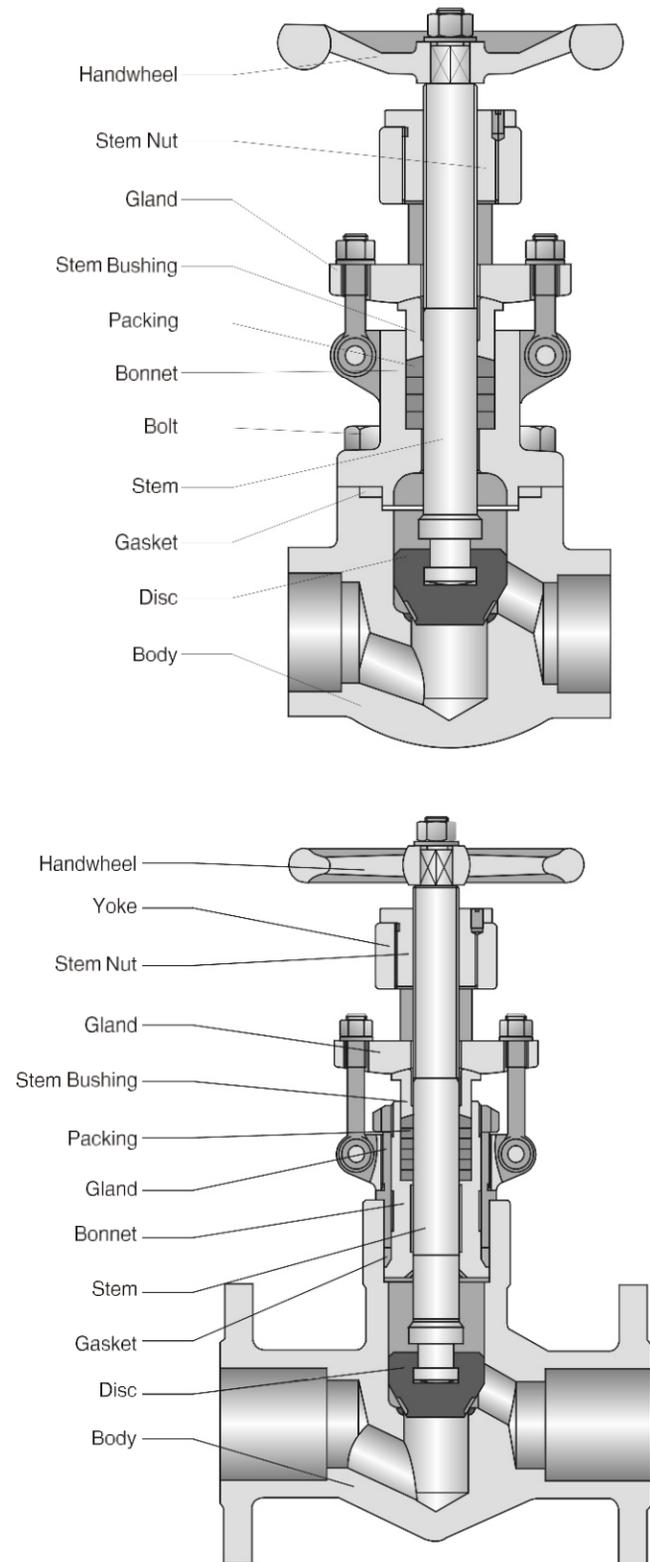


# Forged steel Globe valve series



# FORGED STEEL GLOBE VALVE

## Design of Forged Steel Globe Valve



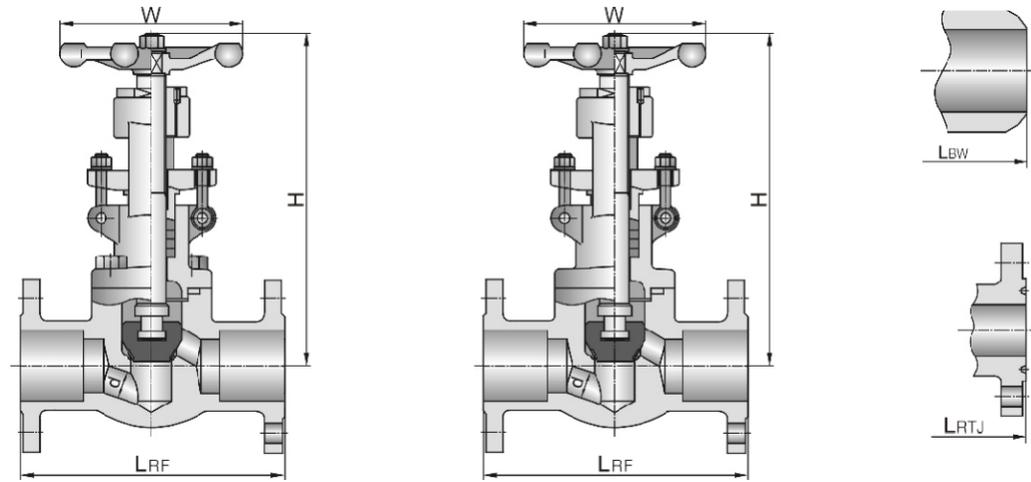
## Material List for Main Parts

No.	Part Name	ASTM			
		Carbon Steel		Stainless Steel	Alloy Steel
1	Body	A105	LF2/LF3	A182 F304	A182F11/F22
2	Disc	A182F6a	A182F6a	A182 F304	A182F6a
3	Stem	A276-410	A276-410	A276-304	A276-410
4	Gasket	Graphite +304			
5	Sealing Ring	Graphite			
6	Yoke	A216-WCB	A216-WCB	A351 CF8	A216-WCB
7	Bonnet	A105	A350 LF2/LF3	A182 F304	A182 F11/F22
8	Gland	A216-WCB	A216-WCB	A351 CF8	A216-WCB
9	Bolt	A193 B7	A320 L7	A193 B8	A193 B16
10	Packing	Graphite			
11	Stem Bushing	A276-410	A276-410	A276-304	A276-410
12	Eye Bolt	A193 B7	A320 L7	A193 B8	A193 B7
13	Stem Nut	A276-410			
14	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 GLOBE VALVE



## Pressure: Class150 ~ 600

- Bolted Bonnet or Welded Bonnet
- Reduced Port
- General or Needle Type Disc
- Flange Ends or Butt-welding Ends

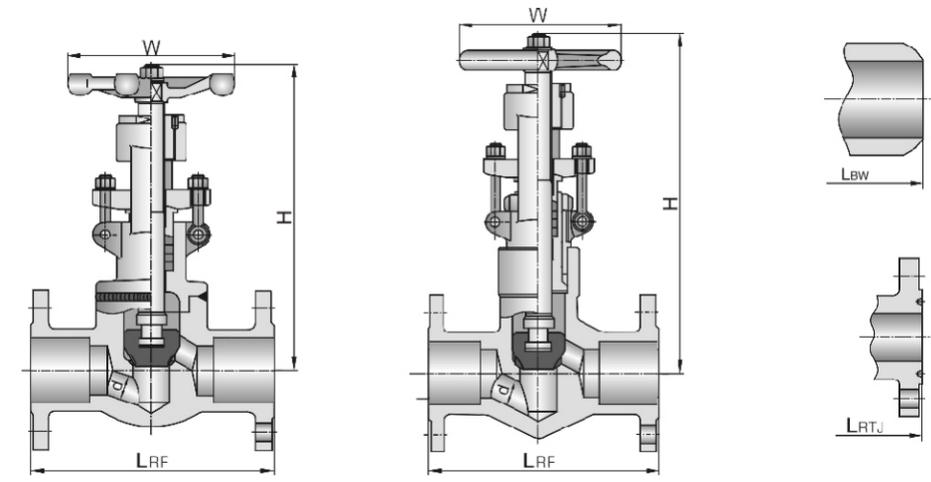
## Technical Specification

Design Standard	API 602
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)	LRF	LBW	LRTJ	H	W	
Class150	15	1/2	10	108	108	119	158	100	4.5
	20	3/4	13	117	117	130	163	100	6.9
	25	1	19.1	127	127	140	193	125	9.8
	32	1 1/4	24	140	140	152	250	160	13.5
	40	1 1/2	31.8	165	165	178	250	160	19.5
	50	2	38.1	203	203	216	291	180	28.0
Class300	15	1/2	10	152	152	164	158	100	4.8
	20	3/4	13	178	178	190	163	100	7.7
	25	1	19.1	203	203	216	193	125	11.0
	32	1 1/4	24	216	216	229	250	160	16.8
	40	1 1/2	31.8	229	229	241	250	160	21.2
	50	2	38.1	267	267	283	291	180	32.6
Class600	15	1/2	10	165	165	165	158	100	5.6
	20	3/4	13	190	190	190	163	100	7.8
	25	1	19.1	216	216	216	193	125	12.5
	32	1 1/4	24	229	229	229	250	160	17.0
	40	1 1/2	31.8	241	241	241	250	160	23.5
	50	2	38.1	292	292	295	291	180	38.8
65	2 1/2	48.5	330	330	333	350	240	42.6	

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



## Pressure: Class900 ~ 2500

- Welded Bonnet/Pressure Sealed Bonnet
- Reduced Port
- General or Needle Type Disc
- Flange Ends/Butt-welding Ends

## Technical Specification

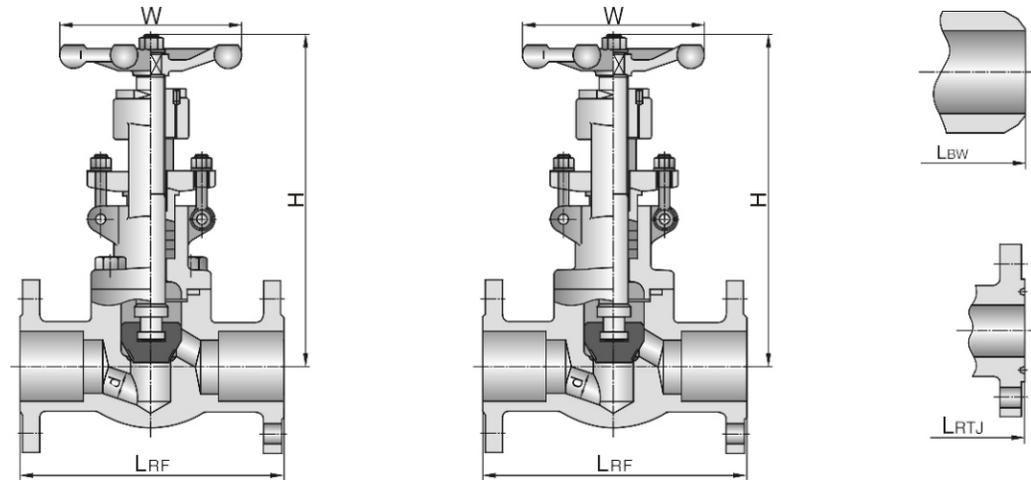
Design Standard	API 602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	ASME B16.10
Flange Ends	ASME B16.5
Butt-welding Ends	ASME B16.25
Inspection & Test	API 598

## Main Dimensions & Weight

Pressure	Size		Dimension (mm)							Weight (kg)	
	mm	in	d (Reduced Port)	LRF	LBW	LRTJ	H		W	WB	PSB
							WB	PSB			
Class900	15	1/2	10	216	216	216	310	333	180	13.5	12.5
	20	3/4	13	229	229	229	310	333	180	12.6	11.8
	25	1	19.1	254	254	254	310	333	180	11.8	11.5
	32	1 1/4	25	279	279	279	389	420	200	24.4	23.4
	40	1 1/2	32	305	305	305	389	420	200	22.5	21.7
	50	2	38.1	368	368	371	498	524	300	45.5	43.5
Class1500	15	1/2	10	216	216	216	310	333	180	13.5	12.5
	20	3/4	13	229	229	229	310	333	180	12.6	11.8
	25	1	19.1	254	254	254	310	333	180	11.8	11.5
	32	1 1/4	25	279	279	279	389	520	200	24.4	23.4
	40	1 1/2	32	305	305	305	389	520	200	22.5	21.7
	50	2	38.1	368	368	371	498	524	300	45.5	43.5
Class2500	15	1/2	10	264	264	264	310	333	180	14.3	13.3
	20	3/4	13	273	273	273	310	333	180	13.1	12.5
	25	1	19.1	308	308	308	310	333	180	12.4	11.8
	32	1 1/4	25	349	349	352.2	389	420	200	25.0	25.5
	40	1 1/2	32	384	384	387.2	389	420	200	24.2	24.6
	50	2	38.1	451	451	454.2	498	524	300	49.0	47.2

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

# FORGED STEEL GLOBE VALVE



## Pressure: Class150 ~ 600

- Bolted Bonnet or Welded Bonnet
- Full Port
- General or Needle Type Disc
- Flange Ends or Butt-welding Ends

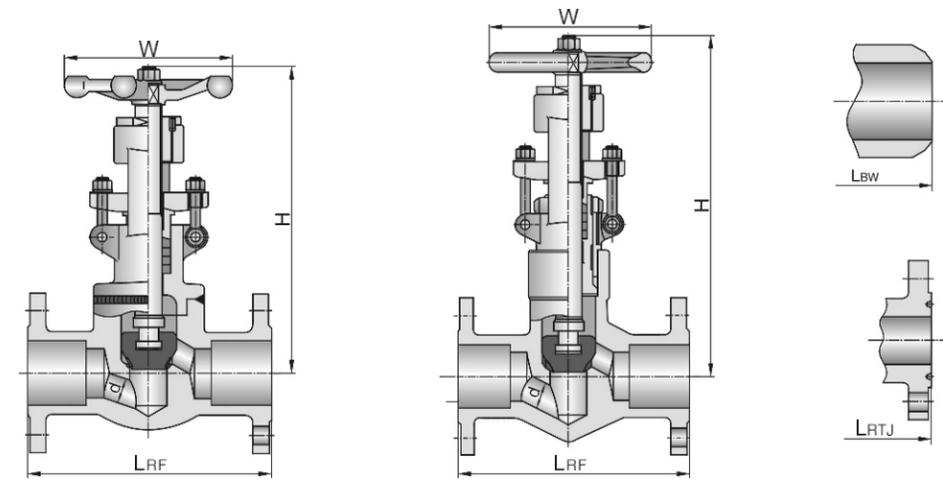
## Technical Specification

Design Standard	API 602
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)	LRF	LBW	LRTJ	H	W	
Class150	15	1/2	13	108	108	119	158	100	4.5
	20	3/4	18	117	117	130	163	100	6.9
	25	1	24	127	127	140	193	125	9.8
	32	1 1/4	29	140	140	152	250	160	13.5
	40	1 1/2	36.5	165	165	178	250	160	19.5
	50	2	46.5	203	203	216	291	180	28.0
Class300	65	2 1/2	61.5	216	216	229	350	240	35.4
	15	1/2	13	152	152	164	158	100	4.8
	20	3/4	18	178	178	190	163	100	7.7
	25	1	24	203	203	216	193	125	11.0
	32	1 1/4	29	216	216	229	250	160	16.8
	40	1 1/2	36.5	229	229	241	250	160	21.2
Class600	50	2	46.5	267	267	283	291	180	32.6
	65	2 1/2	61.5	292	292	308	350	240	38.0
	15	1/2	13	165	165	165	158	100	5.6
	20	3/4	18	190	190	190	163	100	7.8
	25	1	24	216	216	216	193	125	12.5
	32	1 1/4	29	229	229	229	250	160	17.0
Class1500	40	1 1/2	36.5	241	241	241	250	160	23.5
	50	2	46.5	292	292	295	291	180	38.8
	65	2 1/2	61.5	330	330	333	350	240	42.6

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



## Pressure: Class900 ~ 1500

- Bolted Bonnet/Welded Bonnet/Pressure Sealed Bonnet
- Full Port
- General Type Disc
- Flange Ends/Butt-welding Ends

## Technical Specification

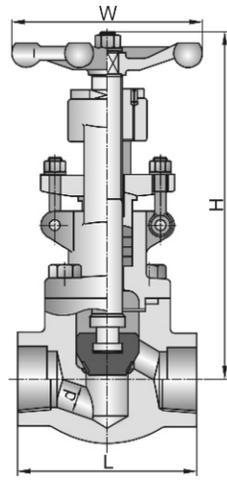
Design Standard	API 602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	ASME B16.10
Flange Ends	ASME B16.5
Butt-welding Ends	ASME B16.25
Inspection & Test	API 598

## Main Dimensions & Weight

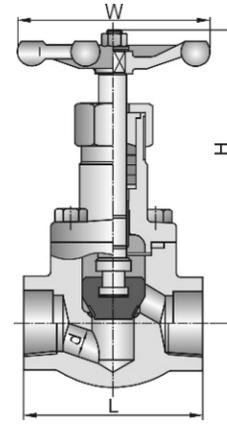
Pressure	Size		Dimension (mm)						Weight (kg)		
	mm	in	d(Full Port)	LRF	LBW	LRTJ	H		W	Weight (kg)	
							BB/WB	PSB		BB/WB	PSB
Class900	15	1/2	13	216	216	216	207	207	125	7.4	15.5
	20	3/4	18	229	229	229	240	207	125	12.5	16.9
	25	1	24	254	254	254	258	240	160	16.0	18.9
	32	1 1/4	29	279	279	279	290	258	160	17.2	25.5
	40	1 1/2	36.5	305	305	305	337	290	180	23.0	34.3
	50	2	46.5	368	368	371.2	354	337	240	29.8	52.8
Class1500	15	1/2	13	216	216	216	207	207	125	7.4	15.5
	20	3/4	18	229	229	229	240	207	125	12.5	16.9
	25	1	24	254	254	254	258	240	160	16.0	18.9
	32	1 1/4	29	279	279	279	290	258	160	17.2	25.5
	40	1 1/2	36.5	305	305	305	337	290	180	23.0	34.3
	50	2	46.5	368	368	371.2	354	337	240	29.8	52.8

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

# FORGED STEEL GLOBE VALVE



OS & Y Structure



ISRS Structure

**Pressure: Class150 ~ 600 & Class800**

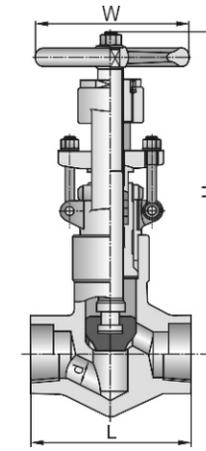
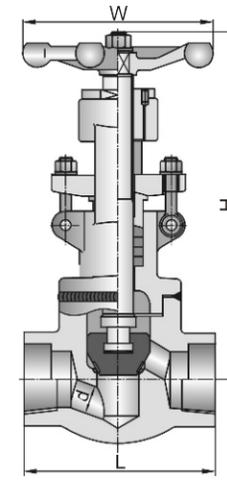
- Bolted Bonnet or Welded Bonnet
- Outside Screw Stem or Inside Screw Stem
- Reduced Port
- General or Needle Type Disc
- Threaded Ends or SW Ends

**Technical Specification**

Design Standard	API 602
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**

Pressure	Structure	Size		Dimension (mm)				Weight (kg)
		mm	in	d	L	H	W	
		Reduced Port	Reduced Port	Reduced Port				Reduced Port
Class 150 ~ 600 Class800	OS & Y	10	3/8	10	79	153	100	2.2
		15	1/2	10	79	158	100	2.2
		20	3/4	13	92	163	100	2.2
		25	1	18	111	193	125	4.7
		32	1 1/4	24	120	250	160	5.9
		40	1 1/2	29	120	250	160	6.9
		50	2	36.5	140	291	180	11.1
Class 150 ~ 600 Class800	ISRS	10	3/8	7	79	157	100	1.7
		15	1/2	10	79	157	100	1.6
		20	3/4	13	92	162	100	2.1
		25	1	18	111	195	125	3.3
		32	1 1/4	24	120	267	160	7.5
		40	1 1/2	29	152	267	160	7.8
		50	2	36.5	172	301	180	11.4



**Pressure: Class900 ~ 1500**

- Bolted Bonnet/Welded Bonnet/Pressure Sealed Bonnet
- Reduced Port
- General or Needle Type Disc
- Threaded Ends or SW Ends

**Technical Specification**

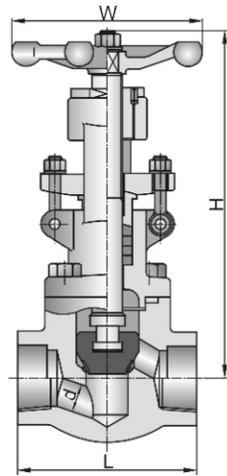
Design Standard	API 602
Pressure-Temperature Rating	ASME B16.34
Face-to-face	Manufacturer Standard
Socket-welded Ends	ASME B16.11
Threaded Ends	ASME B1.20.1
Inspection & Test	API 598

**Main Dimensions & Weight**

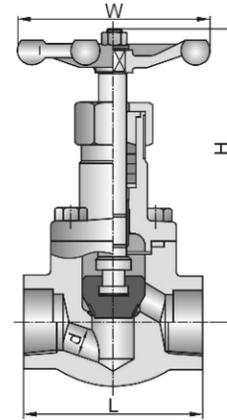
Pressure	Size		Dimension (mm)								Weight (kg)	
	mm	in	d(Reduced Port)		L		H		W		BB/WB	PSB
			BB/WB	PSB	BB/WB	PSB	BB/WB	PSB	BB/WB	PSB		
			BB/WB	PSB	BB/WB	PSB	BB/WB	PSB	BB/WB	PSB		
Class900	10	3/8	7	-	111	-	207	-	100	-	2.2	-
	15	1/2	10	-	111	140	207	207	100	125	2.0	11.2
	20	3/4	13	13	130	140	240	207	125	125	3.8	10.5
	25	1	18	18	152	140	258	240	160	160	4.2	10.1
	32	1 1/4	24	24	172	178	290	258	160	160	8.0	21.0
	40	1 1/2	29	29	220	178	337	290	180	180	13.2	19.6
	50	2	36.5	36.5	235	216	354	337	240	240	16.8	40.4
Class1500	10	3/8	7	-	111	-	207	-	100	-	2.2	-
	15	1/2	10	-	111	140	207	207	100	125	2.0	11.2
	20	3/4	13	13	130	140	240	207	125	125	3.8	10.5
	25	1	18	18	152	140	258	240	160	160	4.2	10.1
	32	1 1/4	24	24	172	178	290	258	160	160	8.0	21.0
	40	1 1/2	29	29	220	178	337	290	180	180	13.2	19.6
	50	2	36.5	36.5	235	216	354	337	240	240	16.8	40.4

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

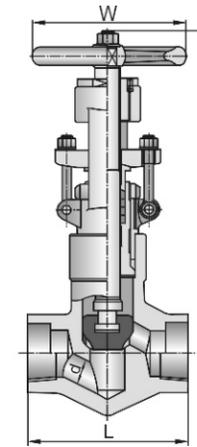
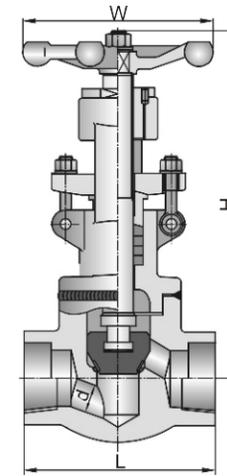
# FORGED STEEL GLOBE VALVE



OS & Y Structure



ISRS Structure



**Pressure: Class150 ~ 600 & Class800**

- Bolted Bonnet or Welded Bonnet
- Outside Screw Stem or Inside Screw Stem
- Full Port
- General or Needle Type Disc
- Threaded Ends or SW Ends

**Technical Specification**

Design Standard	API 602
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

**Pressure: Class900 ~ 1500**

- Bolted Bonnet/Welded Bonnet/Pressure Sealed Bonnet
- Full Port
- General or Needle Type Disc
- Threaded Ends or SW Ends

**Technical Specification**

Design Standard	API 602
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**

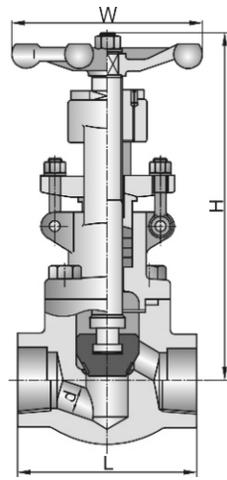
Pressure	Structure	Size		Dimension (mm)				Weight (kg)
		mm	in	d	L	H	W	
		Full Port	Full Port	Full Port				Full Port
Class 150 ~ 600 Class800	OS & Y	8	1/4	7	79	153	100	2.2
		10	3/8	10	79	158	100	2.2
		15	1/2	13	92	163	100	2.2
		20	3/4	18	111	193	125	4.3
		25	1	24	120	250	160	5.9
		32	1 1/4	29	120	250	160	6.9
		40	1 1/2	36.5	140	291	180	11.1
		50	2	46.5	178	350	240	15.2
Class 150 ~ 600 Class800	ISRS	8	1/4	7	79	157	100	2.2
		10	3/8	10	79	157	100	2.0
		15	1/2	13	92	162	100	1.9
		20	3/4	18	111	195	125	2.4
		25	1	24	120	267	160	3.5
		32	1 1/4	29	152	267	160	8.0
		40	1 1/2	36.5	172	301	180	8.6
		50	2	46.5	200	312	240	14.4

**Main Dimensions & Weight**

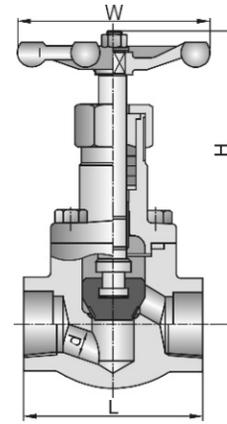
Pressure	Size		Dimension (mm)								Weight (kg)	
	mm	in	d(Full Port)		L		H		W		BB/WB	PSB
			BB/WB	PSB	BB/WB	PSB	BB/WB	PSB	BB/WB	PSB		
Class900	8	1/4	7	-	111	-	207	-	100	-	2.4	-
	10	3/8	10	-	111	-	207	-	100	-	2.2	-
	15	1/2	13	13	111	140	207	207	100	125	2.0	11.2
	20	3/4	18	18	130	140	240	207	125	125	3.8	10.5
	25	1	24	24	152	140	258	240	160	160	4.2	10.1
	32	1 1/4	29	29	172	178	290	258	160	160	8.0	21.0
	40	1 1/2	36.5	36.5	220	178	337	290	180	180	13.2	19.6
	50	2	46.5	46.5	235	216	354	337	240	240	16.8	40.4
	Class1500	8	1/4	7	-	111	-	207	-	100	-	2.4
10		3/8	10	-	111	-	207	-	100	-	2.2	-
15		1/2	13	13	111	140	207	207	100	125	2.0	11.2
20		3/4	18	18	130	140	240	207	125	125	3.8	10.5
25		1	24	24	152	140	258	240	160	160	4.2	10.1
32		1 1/4	29	29	172	178	290	258	160	160	8.0	21.0
40		1 1/2	36.5	36.5	220	178	337	290	180	180	13.2	19.6
50		2	46.5	46.5	235	216	354	337	240	240	16.8	40.4

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

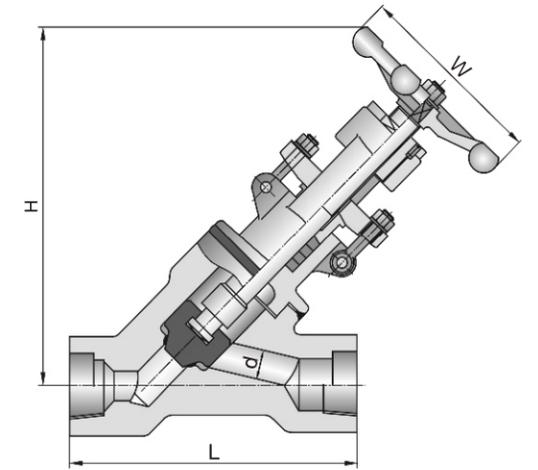
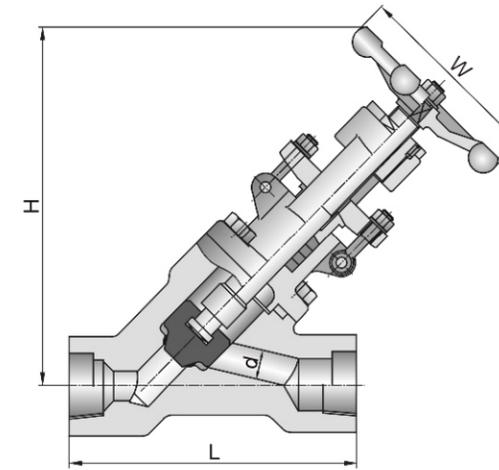
# FORGED STEEL GLOBE VALVE



OS & Y Structure



ISRS Structure



## Pressure: Class800 & Class1500

- Bolted Bonnet or Welded Bonnet
- Outside Screw Stem or Inside Screw Stem
- Reduced Port
- General or Needle Type Disc
- Threaded Ends or SW Ends

## Technical Specification

Design Standard	API 602
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

## Pressure: Class800 & Class1500

- Y-type Structure
- Bolted Bonnet/Welded Bonnet
- Full Port
- General Disc
- Threaded Ends/SW Ends

## Technical Specification

Design Standard	API 602
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

Pressure	Structure	Size		Dimension (mm)				Weight (kg)
		mm	in	d	L	H	W	
		Reduced Port	Reduced Port	Reduced Port				
Class800	OS & Y	15	1/2	10	79	142	100	1.5
		20	3/4	13	92	148	100	1.9
		25	1	17.5	111	195	125	3.2
		32	1 1/4	23	120	227	160	6.7
		40	1 1/2	26.5	152	241	160	6.7
		50	2	35	172	279	180	10.8
Class1500	ISRS	15	1/2	10	92	148	100	1.9
		20	3/4	13	111	195	100	3.2
		25	1	17.5	120	227	125	6.7
		32	1 1/4	23	120	242	160	10.8
		40	1 1/2	28.5	172	278	160	10.8
		50	2	35	220	325	180	16

## Main Dimensions & Weight

Pressure	Size		Dimension(mm)					Weight (kg)	
	mm	in	d (Full Port)	L	H		W	BB	WB
					BB	WB			
Class800	15	1/2	13	108	175	160	100	2.6	2.3
	20	3/4	18	108	175	160	100	2.3	2.2
	25	1	24	130	233	219	125	5.5	4.1
	32	1 1/4	29	160	281	257	160	15.0	13.7
	40	1 1/2	36.5	160	281	257	160	14.7	13.3
	50	2	46.5	190	310	279	180	27.0	26.0
Class1500	65	2 1/2	64	220	340	389	200	36.8	35.6
	15	1/2	13	130	225	217	125	3.8	3.5
	20	3/4	18	130	225	217	125	4.2	4.0
	25	1	24	180	274	225	160	7.8	6.0
	32	1 1/4	29	190	307	274	180	17.2	15.0
	40	1 1/2	36.5	190	307	274	180	17.6	15.0
	50	2	46.5	220	356	307	200	29.1	28.0
65	2 1/2	64	260	472	463	300	40.4	37.5	

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