

***KOFLow***

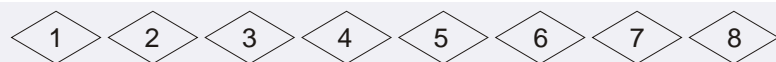
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GLOBE VALVE SERIES

**32-42P**

## FIGURE NUMBER SYSTEM

### Steel Globe Valve Figure Number System



1	Size	Xxin; xx, mm					
2	Operation type	1-Bare Stem	2-Chain-Wheel Operated	4-Spur Gear Operated	5-Cone Gear Opearted	9-Eledtrid Operated	Manual Operated (omit)
3	Valve Type	J-Globe Valve					
4	Pressure	0-PN1.0	1-PN1.6 class150	2-PN2.5	3-class300	4-PN4.0 class400	6-PN6.4 class600
		9-class900	10-PN10.0	15-class1500	16-PN16.0	20-PN20.0	25-class2500
5	Connection Ends	RF-Raised Face	FF-Flat Face	MFM-Male and Female Face	TG-Tongue and Groove face	RJ-Ring Joint	BW-Buttweld
6	Structure Type	1-Through Way type					
7	Basic Material	C-WCB	C-C5	C6-WC6	C9-WC9	BL-LCB	CL-LCC
		8-CF8	8M-CF8M	3-CF3	3M-CF3M	ML-MONEL	
8	Material of Seat face or Liner	H-S.S		E-18-8 S.S		R-Mo2Ti S.S	
		D-nitriding steel		M- Monel Alloy		Y-Stellted	

#### Note:

- 1、 Use "W" to express seat sealing surface material which is processed directly by valve body.
- 2、 When the materials of sealing surfaces are different, use low hardness material symbol to express.
- 3、 Special requirements not shown ,should be indicated in the purchase order
- 4、 The models listed in the sample book have no reference to pressure、 sizes and valve material symbols, they are to be decided by users.

#### For example

6 " -5J6RJ1CY

Globe valve, 6 " ANSI CLASS600, RTJ Flange Ends, Through Way Type, Body&Bonnet&Disc Cast Steel WCB, Hard face Seat, Cone Gear operated

65-J1RF1CH

Globe valve, DN65 PN16, Raised Face Ends, Through Way Type, Body&Bonnet& Disc Cast Steel WCB, Seat sealing Material 13Cr, Handwheel operated

## BS CAST STEEL GLOBE VALVE

Design characteristics of BS1873 Cast steel Globe Valve with rising stem(OS&Y)

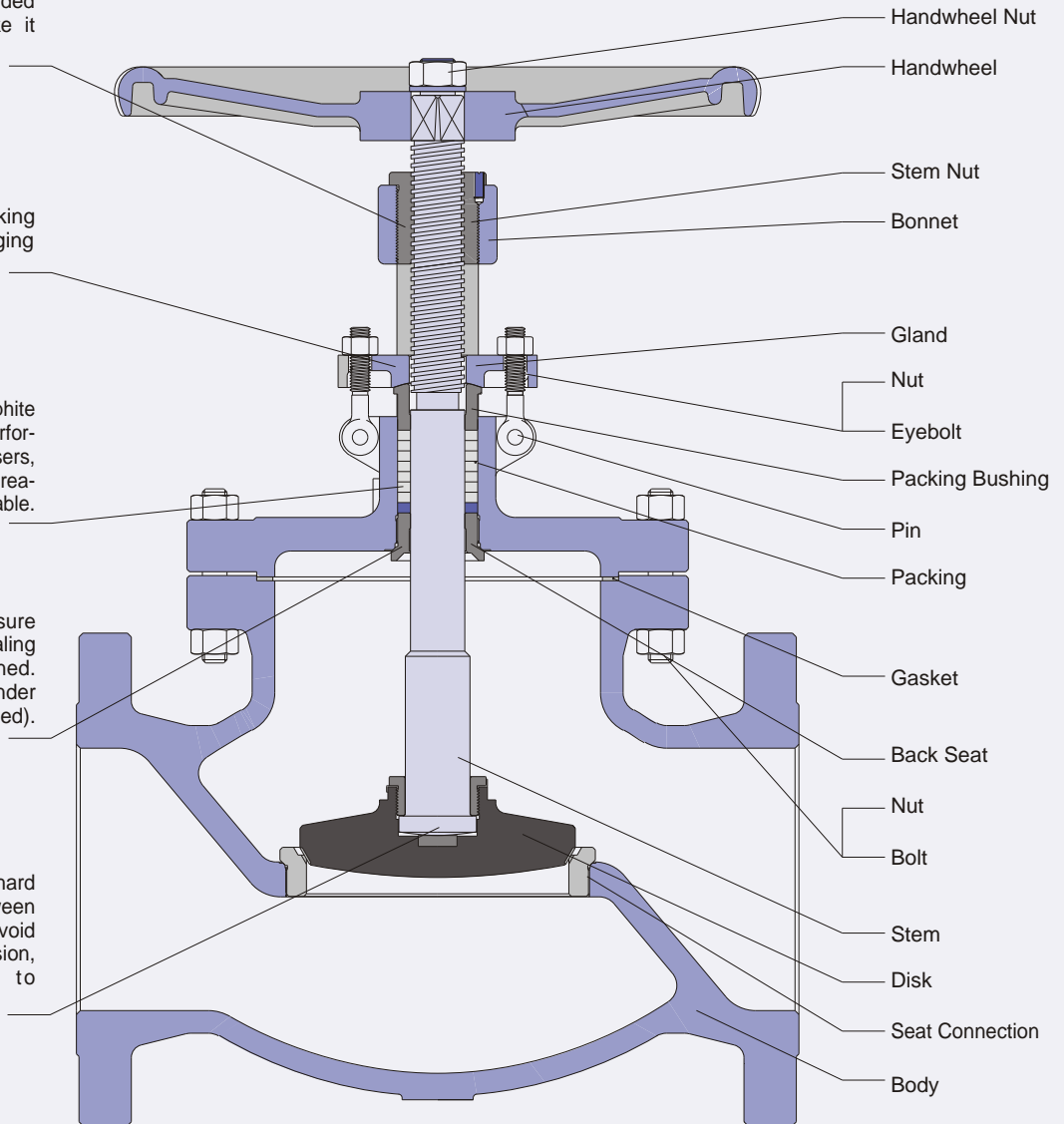
Stem nut uses aluminum bronze material. Large valve is provided with thrust bearing to make it opened easily and flexibly.

Two-piece design of packing gland to avoid stem clogging caused by squishing.

Packing uses flexible graphite for dependable sealing performance. If requested by users, packing spacer ring and greasing mechanism can be available.

Back seal design to ensure dependable packing and sealing when valve is fully opened. (Replacement of packing under pressure is not recommended).

Lift stem, with a piece of hard stainless steel inlaid between stem head and disc to avoid deformation caused by extrusion, and corrosion leading to inflexibility of disc action.



### Remark:

- 1、 Type of end connection referred to Appendix I
- 2、 Seal Type of Disc and Seat referred to Appendix III
- 3、 Type of body and bonnet connection referred to Appendix IV
- 4、 Stem packing structure referred to Appendix V
- 5、 Valve operation referred to Appendix VI

## BS CAST STEEL GLOBE VALVE

### Materials list for BS1873 Cast steel Globe Valve with rising stem(OS&Y)

No.	Part Name	Carbon Steel	Stainless Steel	Alloy Steel	Low Temperature Steel
1	Body	A216 GR WCB	A351 GR CF8	A217 GR WC6	A352 GR LCB
2	Seat	A105	/	A182 GR F304	A182 GR F304
3	Disk	A216 GR WCB	A351 GR CF8	A217 GR WC6	A352 GR LCB
4	Stem	A276 TYPE 410	A276 TYPE 304	A182 GR F22	A276 TYPE 304
5	Stud	A193 GR B7	A193 GR 8	A193 GR B7	A193 GR 8
6	Nut	A194 GR 2H	A194 GR B8	A194 GR 4	A194 GR B8
7	Back Seat	A182 GR F6a	A182 GR F304	A182 GR F304	A182 GR F304
8	Gasket	Graphite+SS304			
9	Packing	Graphite			
10	Pin	A194 GR 2H	A276 TYPE 304	A276 TYPE 410	A276 TYPE 304
11	Packing Bushing	A182 GR F6a	A182 GR F304	A182 GR F6a	A182 GR F304
12	Eyebolt	A193 GR B7	A193 GR B8	A193 GR B7	A194 GR B8
13	Eyebolt Nut	A194 GR 2H	A193 GR 8	A193 GR 4	A193 GR 8
14	Gland	A216 GR WCB	A351 GR CF8	A216 GR WCB	A352 GR LCB
15	Bonnet	A216 GR WCB	A351 GR CF8	A216 GR WCB	A352 GR LCB
16	Stem Nut	B148 UNS C95600	B148 UNS C95600	B148 UNS C95600	B148 UNS C95600
17	Handwheel	A197	A197	A197	A197
18	Handwheel Nut	A108 GR 1020	A182 GR F304	A108 GR 1020	A182 GR F304

**Remark:**

1. Select different materials for different working temperature and media
2. Trim materials and recommended service coverage referred to Appendix VII

### BS Cast Steel Globe Valve Product Line

Size		Bolted bonnet										Pressure sealed bonnet					
		Manual operated					Gear operated					Manual operated			Gear operated		
DN	NPS	150	300	600	900	1500	150	300	600	900	1500	600	900	1500	600	900	1500
40	1-1/2	*	*	*													
50	2	*	*	*													
65	2-1/2	*	*	*													
80	3	*	*	*	*	*						*	*	*			
100	4	*	*	*	*	*						*	*	*			
150	6	*	*	*	*	*						*	*	*			
200	8	*	*	*	*					*		*	*				*
250	10	*	*						*	*	*	*				*	*
300	12	*	*						*						*		
350	14	*	*														
400	16	*						*									
450	18	*						*									
500	20	*						*									
600	24	*						*									

For sizes and classes not shown, please contact our Sales Department

## BS CAST STEEL GLOBE VALVE

### Torque Table

The torque values listed in the following table have not been measured in practice but only serve as reference for selecting the actuator. The medium characteristics, internal parts and valve opening frequency remain to be taken into account as extra factors.

N.m

Size	Pressure							
	Bolted bonnet				Pressure sealed bonnet			
	150	300	600	900	1500	600	900	1500
1-1/2	16	24	30	/	/	/	/	/
2	19	30	66	/	/	/	/	/
2-1/2	29	51	103	/	/	/	/	/
3	45	84	175			175		
4	67	145	332			332		
6	129	319	819			819		
8	245	617	1208			1208		
10	385	1126	2266	5154	8445	2266	5145	8445
12	601	1988	4140	/	/	/	/	/
14	649	/	/	/	/	/	/	/

### Flow Coefficient Table

The flow coefficient of a valve is an index for measuring its flow capacity. The larger its flow coefficient value is, the smaller pressure loss it will have when the fluid flows through it. The following is the flow coefficient table for GB wedge gate valve (Cv stands for the US gallonage of +60° F (+16°C) water per minute flowing through the valve with a pressure drop of 1 lb./inch<sup>2</sup> (0.006894757MPa).

#### Cv

Size	Pressure							
	Bolted bonnet				Pressure sealed bonnet			
	150	300	600	900	1500	600	900	1500
3	100	100	100	90	95	100	105	95
4	185	185	185	170	170	185	195	170
6	440	440	440	400	395	440	455	395
8	810	810	780	710	695	780	800	695
10	1260	1260	1200	1100	1085	1200	1250	1085
12	1890	1890	1350	/	/	1810	/	/
14	2441	2440	/	/	/	/	/	/
16	3234	3234	/	/	/	/	/	/
18	4308	4183	/	/	/	/	/	/
20	5364	5226	/	/	/	/	/	/
24	7825	7626	/	/	/	/	/	/

### Technical Specification

Design Standard	BS1873 ASME B16.34							
Pressure-Temperature Rating	ASME B16.34							
Face-Face	ASME B16.10							
Flange Ends	ASME B16.5							
Buttwelding Ends	ASME B16.25							
Inspection & Test	API598							
Test Pressure	Normal Pressure	CL150	CL300	CL400	CL600	CL900	CL1500	
	Shell Test	2.93	7.55	10.0	15.0	22.5	37.5	
	High Pressure Seal Test	2.07	5.52	7.31	11.03	16.5	27.5	
	Low Pressure Seal Test	0.6						

**BS CAST STEEL GLOBE VALVE**

Pressure:CLASS150~300

**Main Dimensions & Weight**

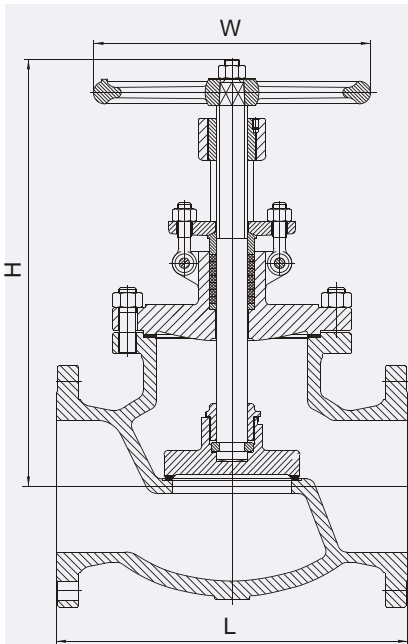
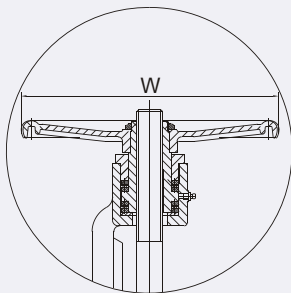
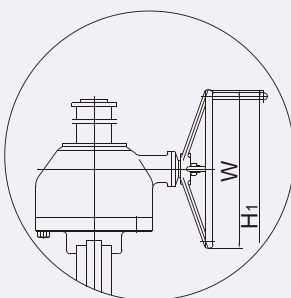


Fig.JRF1



Bearing Structure



Gear Operated

- Bolted bonnet
- class150,14" and above :  
with bearing structure
- class300,10" and above :  
with bearing structure
- class300,16" and above:  
gear operated

CLASS	Size		Dimensions						Weight(kg)	
	mm	in.	L(RF)	L(BW)	L(RJ)	H	H <sub>1</sub>	W	RF	BW
150	40	1-1/2	165	165	178	289	-	200	14	11
	50	2	203	203	216	343	-	200	23	19
	65	2-1/2	216	216	229	365	-	250	32	25
	80	3	241	241	254	375	-	250	38	31
	100	4	292	292	305	448	-	250	63	53
	150	6	406	406	419	584	-	350	108	90
	200	8	495	495	508	660	-	450	186	164
	250	10	622	622	635	683	-	450	271	239
	300	12	698	698	711	794	-	610	374	326
	350	14	787	787	800	889	-	610	610	-
	400	16	914	914	927	-	977	720	880	-
	450	18	977	977	-	-	1066	720	1150	-
500	20	977	977	-	-	1117	720	1650	-	
600	24	1295	1295	-	-	1295	850	2200	-	
300	40	1-1/2	229	229	241	365	-	200	27	21
	50	2	267	267	283	435	-	200	36	30
	65	2-1/2	292	292	308	476	-	250	47	39
	80	3	318	318	333	479	-	250	62	50
	100	4	356	356	371	581	-	350	102	83
	150	6	444	444	460	657	-	450	176	146
	200	8	559	559	575	724	-	450	288	244
	250	10	622	622	638	800	-	860	571	505
	300	12	711	711	727	900	-	860	770	669
	350	14	838	838	-	1092	-	860	876	-
	400	16	863	863	-	-	1371	610	1200	-
	450	18	977	977	-	-	1473	610	1600	-
500	20	1016	1016	-	-	1574	720	2100	-	
600	24	1346	1346	-	-	1803	720	3150	-	

## BS CAST STEEL GLOBE VALVE

Pressure: CLASS600~1500

### Main Dimensions & Weight

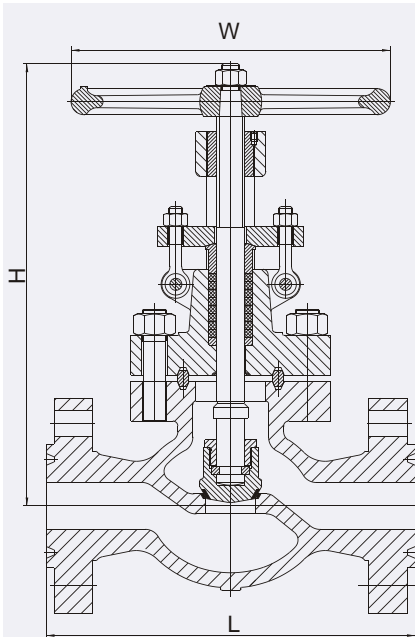
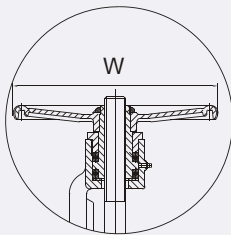
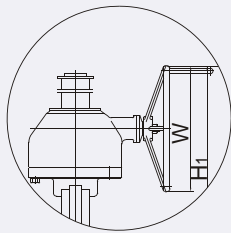


Fig.JRF1



Bearing Structure



Gear Operated

- Bolted bonnet
- 6" and above : with bearing structure
- 8" and above : gear operated

- Pressure sealed bonnet
- class600, 12" and above;
- class900, 10" and above;
- class1500, 8" and above;
- Gear operated

CLASS	Size		Valve Main Dimension						Weight ( kg)	
	mm	in.	L(RF)	L(BW)	L(RJ)	H	H <sub>1</sub>	W	RF	BW
600	40	1-1/2	241	241	241	425	-	200	34	32
	50	2	292	292	295	460	-	250	52	44
	65	2-1/2	330	330	333	505	-	250	63	53
	80	3	356	356	359	556	-	350	87	75
	100	4	432	432	435	670	-	450	144	123
	150	6	559	559	562	905	-	610	355	298
	200	8	660	660	664	1060	-	610	555	499
	250	10	787	787	791	-	1219	610	875	793
900	80	3	381	381	384	635	-	350	150	120
	100	4	457	457	460	774	-	500	247	200
	150	6	610	610	613	1041	-	500	410	-
	200	8	737	737	740	1333	-	610	790	-
	250	10	838	838	841	-	1625	610	1400	-
1500	80	3	470	470	473	635	-	350	122	-
	100	4	546	546	549	736	-	450	172	-
	150	6	705	705	711	1092	-	610	510	-
	200	8	832	832	841	-	1482	500	875	-
	250	10	991	991	1000	-	1549	610	1675	-

### Main Dimensions & Weight

CLASS	Size		Valve Main Dimension						Weight ( kg)	
	mm	in.	L(RF)	L(BW)	L(RJ)	H	H <sub>1</sub>	W	RF	BW
600	80	3	356	254	359	508	-	350	80	-
	100	4	432	305	435	635	-	450	135	-
	150	6	559	457	562	876	-	610	275	-
	200	8	660	584	663	990	-	610	480	-
	250	10	787	711	781	1168	-	610	780	-
	300	12	838	812	841	-	1570	610	1150	-
900	80	3	381	305	384	635	-	350	105	-
	100	4	457	356	460	774	-	500	170	-
	150	6	610	508	613	1065	-	500	370	-
	200	8	727	660	730	1333	-	610	720	-
	250	10	838	787	841	-	1574	610	1200	-
1500	80	3	470	470	473	635	-	350	-	95
	100	4	546	546	549	774	-	450	-	155
	150	6	705	705	711	1092	-	610	-	400
	200	8	832	832	841	-	1496	610	-	640
	250	10	991	991	1000	-	1549	610	-	1200