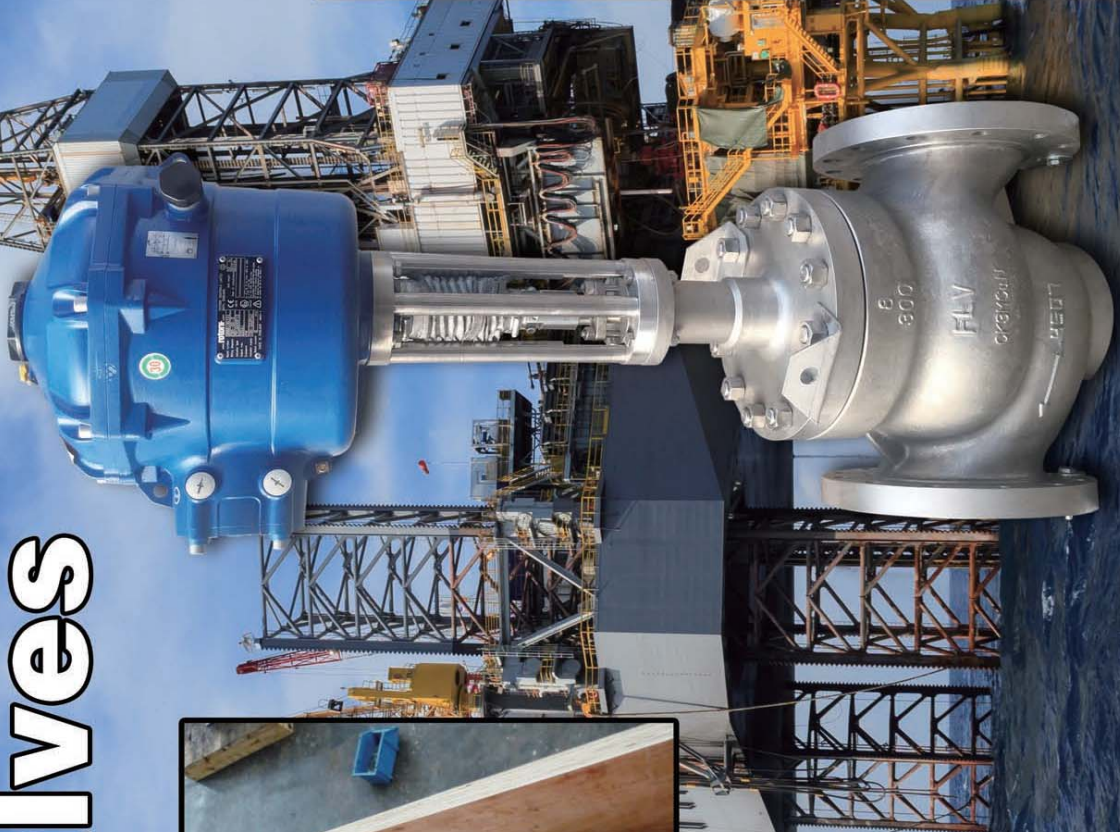


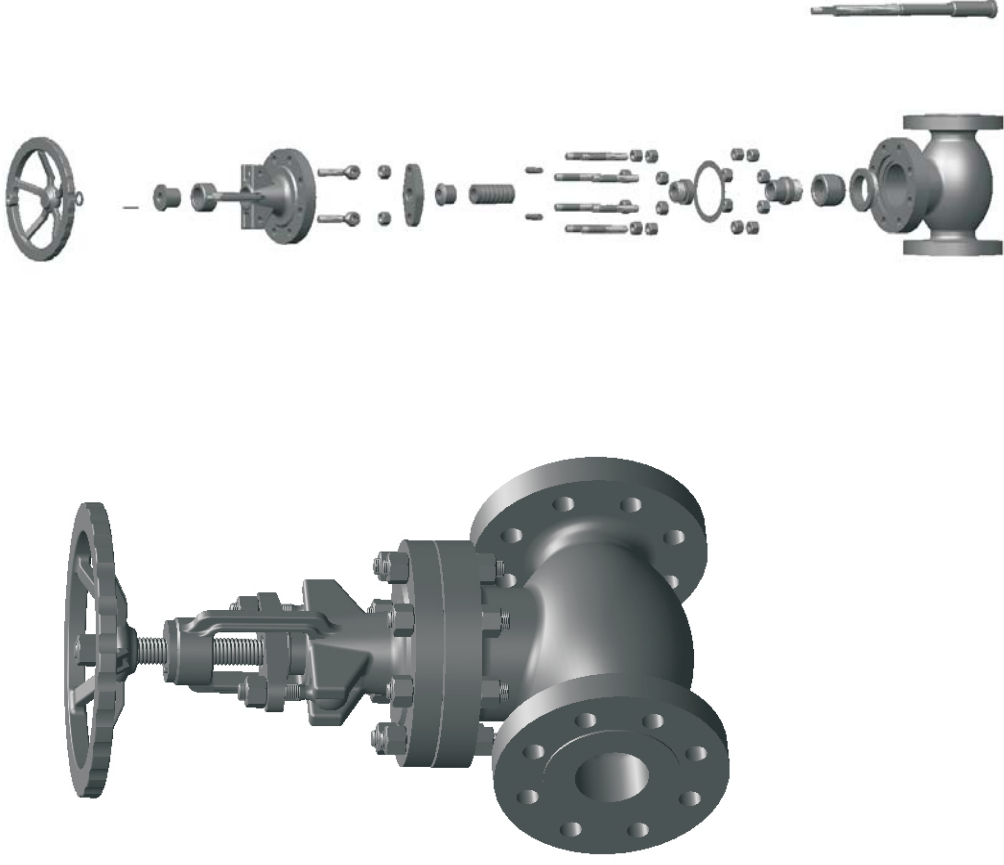
Pressure Seal & Bolted Bonnet Globe Valves



ASME Classes
150-4500
Sizes: 2-24 "
(50-+600mm)



Globe Valve, BB, CS



Design

Flour Valve cast steel globe valves are designed and manufactured to provide maximum service life and dependability. All globe valves meet the design requirements of the American Petroleum Institute standard, API 600 and API 6D, British Standard BS EN 13709 and generally conform to the American Society of Mechanical Engineers standard ASME B16.34.

Range Of Materials

Standard body/bonnet materials include nine grades of carbon, low alloy and stainless steels. For special applications they can be supplied in other grades of alloy and stainless steel. There's a full range of trim materials to match any service. Optional packing and gasket materials are available for a full range of service conditions.



Available Modifications For Flour Valve Cast Steel Valves

- Trim changes
- End connection modifications
- Packing and gasket changes
- Operator mounting
- Handwheel extensions
- Is Pressure equalising applicable to globe valves
- By-pass
- Customer specified coatings
- Weld end bore changes
- Oxygen & chlorine cleaning & packaging

Operating

Large handwheel for easy operation. Also available with gearing, motor actuators, pneumatic or hydraulic actuators for more difficult services.

OS & Y

Outside screw and yoke. Cast steel globe valve yoke integral with bonnet for 10" and smaller.

End Connections

A choice of flange, RTJ flanged or butt weld ends for piping flexibility.

Lantern Ring And Double Packing Set

Lantern ring with leak-off fitting connection and double packing stack is optionally available for critical services.

Disc

The disc plug is guided by the stem on all sizes. The disc has a different angle from the seat to provide a point contact for maximum sealing performance. The V-disc is guided by the body seat ring for maximum stability in throttling applications. The soft TEFLON ring is excellent for low temperature services when tight shut off is required.

Live Load Packing

In services requiring frequent cycling or with high pressure/temperature variations, live loading extends the service life between maintenance periods by requiring less frequent packing gland adjustments. Belleville springs are employed to provide constant packing gland stress.

BB

Bolted bonnet. Welded bonnet and pressure seal bonnets are available for services with frequent cycling or with high pressure/temperature variations.

Yokesleeve

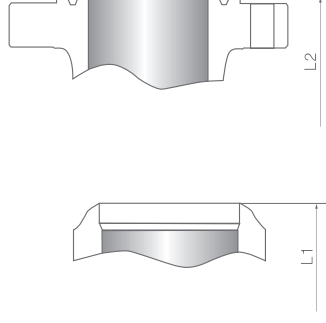
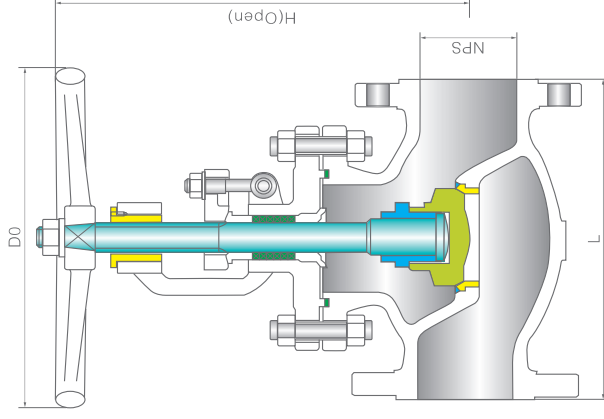
Supplied with aluminium bronze to reduce operating torque. Most sizes are furnished with ball bearing yoke sleeves.

Body-To-Bonnet Joint

A Male and Female joint or tongue and groove joint is used 150Lb to 600Lb valves. Ring joint is used in the body to bonnet connection in 900Lb & higher rated valves.

Seat Rings

Separate heavy duty, full ported rings for easy maintenance. Screwed or welded connection into body.



150Lb

Cast Steel Globe Valve

Fig. No:

GL1F01A GL1F05D GL1F01B
GL1B01A GL1B05D GL1B01B

Applicable Standards

Steel globe valves: BS EN 13709/API 600; Bs1873
Steel valves: ASME B 16.34
Face to face: ASME B 16.10
End flanges: ASME B16.5
Butt weld ends: ASME B16.25
Inspection and test: API 598

Design Description

- Straight pattern body design
- OS & Y, Outside screw and yoke
- Bolted bonnet (BB) split body
- Yoke integral with bonnet
- Rising stem and handwheel
- Loose disc, choice of plug or ball
- Renewable seat ring
- Impact handwheel for 10" & above
- Horizontal service
- Flanged or butt weld ends
- Available with manual bevel gear operator

List of Materials

NO	Part name	ASTM Material		Carbon steel	Carbon steel
		1 1/2Cr-1/2Mo	A217-WC6		
1	Body	A216-WCB	A217-WC6	A352-LCB	A352-LCB
2	Bonnet	A216-WCB	A217-WC6	A352-LCB	A352-LCB
3	Disc	A105+CR13	A182-11+HF	A350-LF2+CR13	A350-LF2+CR13
4	Stem	A182+FBa	CR-MO-V	A182-F6a	A182-F6a
5	Seat ring	A105+CR13	A182-F11+HF	A350-LF2+CR13	A350-LF2+CR13
6	Stem backseat	A276-420	A276-304	A276-420	A276-420
7	Bonnet gasket		Spiral wound(Graphite+304)		
8	Bonnet stud	A193-B16	A193-B16	A320-L7	A320-L7
9	Bonnet stud nut	A194-7	A194-7	A194-4	A194-4
10	Packing		Graphite		
11	Gland	A276-420	A276-304	A276-420	A276-420
12	Gland flange	A216-WCB	A217-WC6	A352-LCB	A352-LCB
13	Eyebolt pin	Carbon steel	A276-420	Carbon steel	Carbon steel
14	Eyebolt	Carbon steel	A193-B7	Carbon steel	Carbon steel
15	Eyebolt nut	Carbon steel	A194-2H	Carbon steel	Carbon steel
16	Yoke sleeve		Aluminum-bronze ¹⁾		
17	Handwheel		Malleable iron		

Note:

- 1). A Ductile Ni-resist optional;
- 2). The disc and seat ring may either be hard faced or use a base material equal or better than the body/bonnet material with facing as shown.

Dimensional Data

Size	LL1 (RF/BW)		L2 (RTJ)		H (Open)		D0		W/T (Kg)			
	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW		
2	50	8.00	203	8.00	203	8.00	15.00	380	7	180	18	14
2 1/2	65	8.50	216	8.50	216	8.50	21.00	535	10	240	30	22
3	80	9.50	241	9.50	241	9.50	24.25	615	11	260	41	33
4	100	11.50	292	11.50	292	11.50	28.25	615	11	280	64	43
6	150	16.00	406	16.00	406	16.00	38.00	815	13	320	86	72
8	200	19.50	495	19.50	495	19.50	44.25	910	13	320	110	88
10	250	24.50	622	24.50	622	24.50	54.00	1100	16	400	280	245
12	300	27.50	698	27.50	698	27.50	61.00	1230	18	450	380	345
14	350	31.00	787	31.00	787	31.00	68.00	1450	20	500	510	450
16	400	36.00	914	36.00	914	36.00	80.00	1700	24	600	740	665

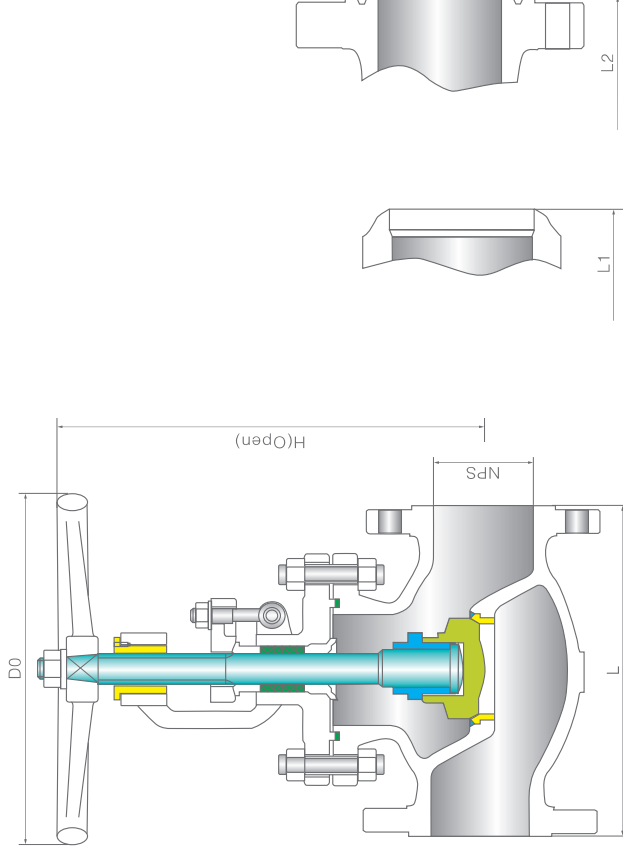


Fig. No:

GL3F01A GL3F05D GL3F01B
GL3B01A GL3B05D GL3B01B
GL3R01A GL3R05D GL3R01B

Applicable Standards

Steel globe valves: BS EN 13709/API 600
Steel valves: ASME B 16.34
Face to face: ASME B 16.10
End flanges: ASME B 16.5
Butt weld ends: ASME B16.25
Inspection and test: API 598

Design Description

Straight pattern body design
OS & Y, Outside screw and yoke
Bolted bonnet (BB) split body
Yoke integral with bonnet
Rising stem and handwheel
Loose disc, choice of plug or ball
Renewable seat ring
Impact handwheel for 10" & above
Flanged or butt weld ends
Available with manual bevel gear operator

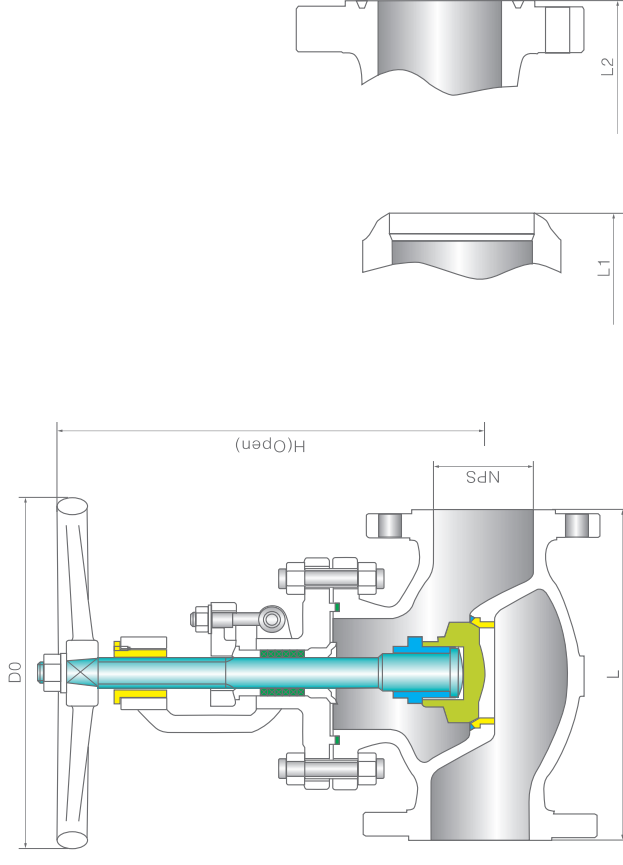
List of Materials

NO	Part name	Carbon steel		ASTM Material		Carbon steel	
		A216-WCB	A105+CR13	1 1/2Cr-1/2Mo	A217-WC6	A352-LCB	A352-LCB
1	Body	A216-WCB	A105+CR13	1 1/2Cr-1/2Mo	A217-WC6	A352-LCB	A352-LCB
2	Bonnet	A216-WCB	A105+CR13	A182-11+HF	A217-WC6	A352-LCB	A352-LCB
3	Disc	A105+CR13	A182-11+HF	CR-MO-V	A182-F6a	A350-LF2+CR13	A350-LF2+CR13
4	Stem	A105+CR13	A182-11+HF	A182-F11+HF	A182-F6a	A350-LF2+CR13	A350-LF2+CR13
5	Seat ring	A105+CR13	A182-11+HF	A182-F11+HF	A182-F6a	A350-LF2+CR13	A350-LF2+CR13
6	Stem backseat	A273-420	A276-304	A276-304	A276-304	A276-420	A276-420
7	Bonnet gasket	A193-B16	A193-B16	Spiral wound(Graphite+304)	A193-B16	A320-L7	A320-L7
8	Bonnet stud	A193-B16	A193-B16	A194-7	A194-7	A194-4	A194-4
9	Bonnet stud nut	A194-7	A194-7	A194-7	A194-7	A194-4	A194-4
10	Packing	Graphite	Graphite	Graphite	Graphite	Graphite	Graphite
11	Gland	A276-420	A276-304	A276-304	A276-304	A276-420	A276-420
12	Gland flange	A216-WCB	A217-WC6	A217-WC6	A217-WC6	A352-LCB	A352-LCB
13	Eyebolt pin	Carbon steel	A276-420	A276-420	A276-420	Carbon steel	Carbon steel
14	Eyebolt	Carbon steel	A193-B7	A193-B7	A193-B7	Carbon steel	Carbon steel
15	Eyebolt nut	Carbon steel	A194-2H	A194-2H	A194-2H	Carbon steel	Carbon steel
16	Yoke sleeve	Aluminum-bronze ¹⁾	Aluminum-bronze ¹⁾	Aluminum-bronze ¹⁾	Aluminum-bronze ¹⁾	Aluminum-bronze ¹⁾	Aluminum-bronze ¹⁾
17	Handwheel	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron	Malleable iron

Note:
1). A Ductile Ni-resist optional;
2). The disc and seat ring may either be hard faced or use a base material equal or better than the body/bonnet material with facing as shown.

Dimensional Data

Size	LL1 (RF/BW)		L2 (RTJ)		H (Open)		D0		WT (Kg)			
	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW		
2	50	10.50	267	11.12	282	11.12	16.75	425	8	200	25	20
2 1/2	65	11.50	292	12.12	308	12.12	19.00	485	10	240	32	22
3	80	12.50	318	13.12	333	13.12	19.88	505	11	260	38	27
4	100	14.00	356	14.62	371	14.62	22.50	570	13	320	56	41
6	150	17.50	444	18.12	460	18.12	25.25	640	16	400	96	75
8	200	22.00	559	22.62	575	22.62	33.25	845	18	450	150	117
10	250	24.50	622	25.12	638	25.12	35.50	900	20	500	360	310
12	300	28.00	711	28.62	727	28.62	38.62	980	24	600	550	492
14	350	-	-	-	-	-	-	-	-	-	-	-
16	400	-	-	-	-	-	-	-	-	-	-	-



Applicable Standards

Steel globe valves: BS EN 13709/API 600
Steel valves: ASME B 16.34
Face to face: ASME B 16.10
End flanges: ASME B 16.5
Butt weld ends: ASME B16.25
Inspection and test: API 598

Design Description

Straight pattern body design
OS & Y, Outside screw and yoke
Bolted bonnet (BB) split body
Yoke integral with bonnet
Rising stem and handwheel
Loose disc, choice of plug or ball
Renewable seat ring
Impact handwheel for 10" & above
Horizontal service
Flanged or butt weld ends
Available with manual bevel gear operator

Fig. No:

GL6F01A GL6F05D GL6F01B
GL6B01A GL6B05D GL6B01B
GL6R01A GL6R05D GL6R01B
GL9F05A GL9F05D GL9F05B
GL9B05A GL9B05D GL9B05B
GL9R05A GL9R05D GL9R05B

List of Materials

NO	Part name	Carbon steel		ASTM Material		Carbon steel
		A216-WCB	A217-WCB	1 1/2Cr-1/2Mo	A217-WC6	
1	Body	A216-WCB		A217-WC6		A352-LCB
2	Bonnet	A216-WCB		A217-WC6		A352-LCB
3	Disc	A105+CR13		A182-11+HF		A350-LF2+CR13
4	Stem	A182+FBa		CR-MO-V		A182-F6a
5	Seat ring	A105+HF		A182-F11+HF		A350-LF2+HF
6	Stem backseat	A276-420		A276-304		A276-420
7	Bonnet gasket	Spiral wound(Graphite+304)				
8	Bonnet stud	A193-B7		A193-B16		A320-L7
9	Bonnet stud nut	A194-2H		A194-7		A194-4
10	Packing	Graphite				
11	Gland	A276-420		A276-304		A276-420
12	Gland flange	A216-WCB		A217-WC6		A352-LCB
13	Eyebolt pin	Carbon steel		A276-420		Carbon steel
14	Eyebolt	Carbon steel		A193-B7		Carbon steel
15	Eyebolt nut	Carbon steel		A194-2H		Carbon steel
16	Yoke sleeve	Aluminum-bronze ¹⁾				
17	Handwheel	Malleable iron				

Note:

- 1). A Ductile Ni-resist optional;
- 2). The disc and seat ring may either be hard faced or use a base material equal or better than the body/bonnet material with facing as shown.

Dimensional Data

Size	L/L1 (RF/BW)		L2 (RTJ)		H (Open)		D0		WT (Kg)		
	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW	
2	50	11.50	292	11.62	295	11.62	445	10	240	35	27
2 1/2	65	13.00	330	13.12	333	13.12	502	11	280	50	34
3	80	14.00	356	14.12	359	14.12	533	13	320	60	42
4	100	17.00	432	17.12	435	17.12	622	16	400	110	84
6	150	22.00	559	22.12	562	22.12	750	18	450	230	192
8	200	26.00	660	26.12	663	26.12	927	20	500	410	350
10	250	31.00	787	31.12	790	31.12	1140	24	600	770	680
12	300	33.00	838	33.12	841	33.12	1350	24	600	1140	1030

ANSI Class 600LB

Size	L/L1 (RF/BW)		L2 (RTJ)		H (Open)		D0		WT (Kg)		
	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW	
2	50	14.50	368	14.82	371	14.82	560	11	280	57	41
2 1/2	65	16.50	419	16.62	422	16.62	590	13	320	82	53
3	80	18.00	457	18.12	460	18.12	640	16	400	92	58
4	100	21.00	533	21.12	536	21.12	750	18	450	168	117
6	150	24.00	610	24.12	613	24.12	1050	20	500	365	238
8	200	29.00	737	29.12	740	29.12	1360	24	600	665	538
10	250	33.00	838	33.12	841	33.12	1570	24	600	1250	1060
12	300	-	-	-	-	-	-	-	-	-	-

ANSI Class 900LB

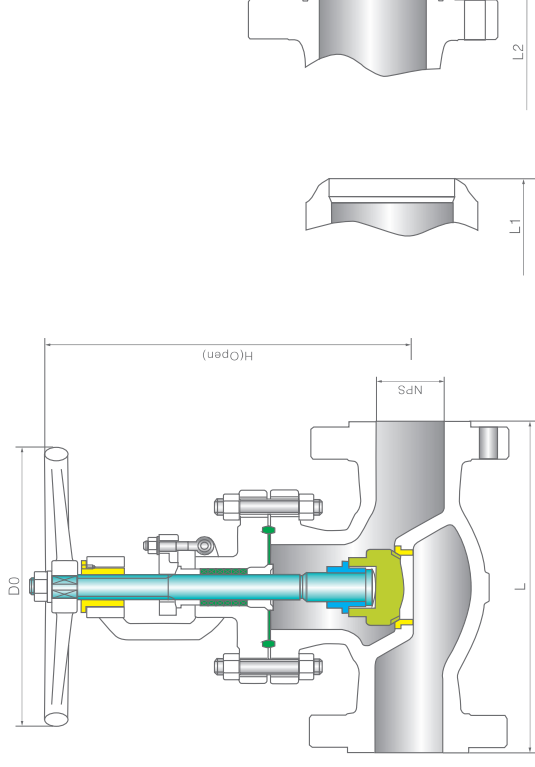


Fig. No:

- GL15F05A GL15F05D GL15F05B
- GL15B05A GL15B05D GL15B05B
- GL15R05A GL15R05D GL15R05B
- GL25F05A GL25F05D GL25F05B
- GL25B05A GL25B05D GL25B05B
- GL25R05A GL25R05D GL25R05B

Applicable Standards

- Steel globe valves: BS EN 13709/API 600
- Steel valves: ASME B 16.34
- Face to face: ASME B 16.10
- End flanges: ASME B 16.5
- Butt weld ends: ASME B16.25
- Inspection and test: API 598

Design Description

- Straight pattern body design
- OS & Y, Outside screw and yoke
- Bolted bonnet (BB) split body
- Yoke integral with bonnet
- Rising stem and handwheel
- Loose disc, choice of plug or ball
- Renewable seat ring
- Impact handwheel for 10" & above
- Horizontal service
- Flanged or butt weld ends
- Available with manual bevel gear operator

List of Materials

NO	Part name	Carbon steel		ASTM Material 1 1/4Cr-1/2Mo		Carbon steel
		A216-WCB	A217-WCB	A217-WC6	A352-LCB	
1	Body	A216-WCB	A217-WCB	A217-WC6	A352-LCB	
2	Bonnet	A216-WCB	A217-WCB	A217-WC6	A352-LCB	
3	Disc	A105+CR13	A182-11+HF	A182-11+HF	A350-LF2+CR13	
4	Stem	A182+FBa	CR-MO-V	CR-MO-V	A182-F6a	
5	Seat ring	A105+HF	A182-F11+HF	A182-F11+HF	A350-LF2+HF	
6	Stem backseat	A276-420	A276-304	A276-304	A276-420	
7	Bonnet gasket	Steel ring	304SS Ring	304SS Ring	304SS Ring	
8	Bonnet stud	A193-B7	A193-B16	A193-B16	A320-L7	
9	Bonnet stud nut	A194-2H	A194-7	A194-7	A194-4	
10	Packing		Graphite	Graphite		
11	Gland	A276-420	A276-304	A276-304	A276-420	
12	Gland flange	A216-WCB	A217-WC6	A217-WC6	A352-LCB	
13	Eyebolt pin	Carbon steel	A276-420	A276-420	Carbon steel	
14	Eyebolt	Carbon steel	A193-B7	A193-B7	Carbon steel	
15	Eyebolt nut	Carbon steel	A194-2H	A194-2H	Carbon steel	
16	Yoke sleeve		Aluminum-bronze ¹⁾			
17	Handwheel		Malleable iron			

Note:

- 1). A Ductile Ni-resist optional;
- 2). The disc and seat ring may either be hard faced or use a base material equal or better than the body/bonnet material with facing as shown.

Dimensional Data

Size	L1 (RF/BW)		L2 (RTJ)		H (Open)		D0		WT (Kg)		
	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW	
2	50	14.50	368	14.62	371	22.00	560	13	320	68	57
2 1/2	65	16.50	419	16.62	422	23.25	590	16	400	97	81
3	80	18.50	470	18.62	473	29.50	750	18	450	116	95
4	100	21.50	546	21.62	549	36.00	915	20	500	215	184
6	150	27.75	705	28.00	711	48.62	1235	24	600	445	347
8	200	32.75	832	33.12	841	65.00	1650	28	700	795	635

Size	L1 (RF/BW)		L2 (RTJ)		H (Open)		D0		WT (Kg)		
	in	mm	in	mm	in	mm	in	mm	RF/RTJ	BW	
2	50	17.75	451	17.88	454	25.50	650	16	400	97	72
2 1/2	65	20.00	508	20.50	514	28.12	715	18	450	138	95
3	80	22.75	578	23.00	584	32.50	825	20	500	167	108
4	100	26.50	673	26.88	683	47.00	1195	24	600	305	196
6	150	36.00	914	36.50	927	70.50	1790	28	700	633	351
8	200	-	-	-	-	-	-	-	-	-	-



QUALITY
INDUSTRIAL VALVES

MILANO ITALY