



CORPORATE STANDARD

AA7501514

Rev. No. 03

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GLOBE VALVE, ALLOY STEEL (2 ¼ Cr 1 Mo), PRESSURE CLASS 1500

1.0 GENERAL

1.1 SCOPE

This standard specifies the requirements of globe valve, hand operated, outside screw and yoke type having ball type disk and seat, alloy steel body material, pressure class 1500 with socket welded and butt welded and connections for size ranges 15mm to 400 mm.

1.2 This standard shall be supplemented by AA0851403 for Technical delivery conditions.

1.3 APPLICATION

These valves are suitable for fluids like steam, air, oil, water.

2.0 DESIGNATION

e.g.: GLOBE VLV F22 NB 50 CL1500 SW

3.0 TECHNICAL REQUIREMENTS

CL	REQUIREMENTS	COMPLIANCE
3.1	Pressure temperature ratings	ASME B16.34
3.2	Materials	As specified in Table 1
3.3	Construction	Generally in line with ISO 15761 for forged steel valves/BS 1873 for cast steel valves
3.4	End Connections	
3.4.1	Socket welded	ASME B16.11
3.4.2	Butt welded	ASME B16.25
3.5	Face to face and end to end dimensions	ASME B16.10 (Reproduced in table 2)
3.6	Hydraulic test pressures	
3.6.1	Body	396 kg/cm ²
3.6.2	Seat	291 kg/cm ²
3.6.3	Back Seat	291 kg/cm ²
3.6.4	Air leak test	6 kg/cm ²

Revisions: Figure redrawn, Sl. No. 2, 3 of Table-1 and clause 4 added

APPROVED:
INTERPLANT MATERIAL RATIONALISATION
COMMITTEE – MRC (Valves)

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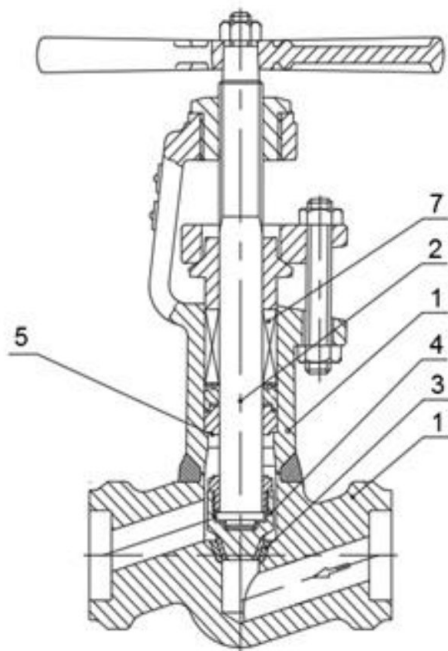
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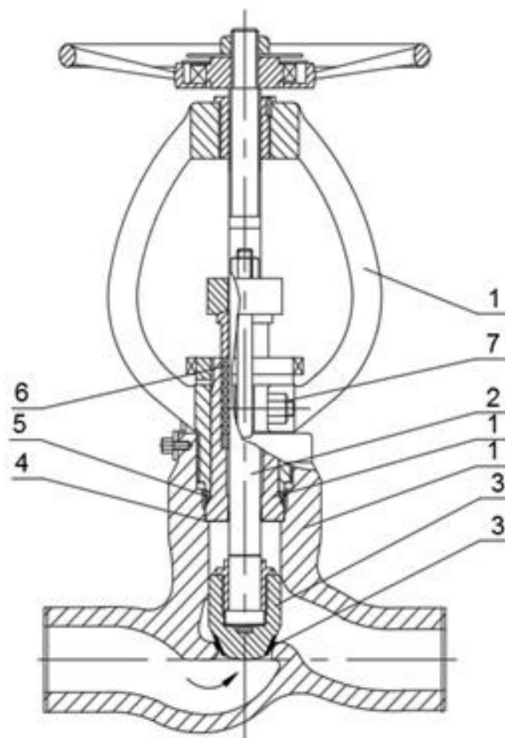
HPEP, Hyderabad

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For Sizes up to 2"



For Sizes 2(1/2)" and above

TABLE - 1

Sl. No.	Part	Material	
		for 2" and below	for 2 ½" and above
1	Valve Body, Bonnet/yoke	ASTM A182-F22	ASTM A217-WC9
2	Stem & thrust plate	13% Cr SS	15-17% Cr SS
3	Body seating. Disc	Stellite on F22	Stellite on WC9
4	Back seat	Stellite	Stellite
5	Gasket	—	Soft Iron/Grafoil
6	Gland packing	Grafoil	Grafoil
7	Body/Bonnet Bolts & Nuts	ASTM A193 Gr. B16 ASTM A194 Gr.4	ASTM A193 Gr. B16 ASTM A194 Gr.4
8	Other parts	As per relevant standards	

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TABLE – 2

NOMINAL SIZE (NB)		END TO END DISTANCE 'L'		WEIGHT PER PIECE (KG) APPROX		END CONNECTIONS				
						SOCKET WELDED			BUTT WELDED	
mm	INCH	SW	BW	SW	BW	SOCKET ID	PIPE OD	SUB- CODE	PIPE OD X t *	SUB- CODE
15	½	127	-	5	-	21.7	21.3	585	-	-
20	¾	127	-	8.4	-	27.05	26.7	593	-	-
25	1	127	-	8.4	-	33.8	33.4	607	-	-
(32)	(1 ¼)	215.9	-	23.6	-	42.5	-	-	-	-
40	1½	215.9	-	23.6	-	48.65	48.3	623	-	-
50	2	215.9	368	23.6	45	61.1	60.3	631	60.3 x	640
(65)	(2 ½)	-	340	-	56	-	-	-	73.0 x	858
80	3	-	390	-	63	-	-	-	88.9 x	666
100	4	-	480	-	111	-	-	-	114.3 x	682
(125)	(5)	-	580	-	140	-	-	-	-	-
150	6	-	630	-	165	-	-	-	168.3 x	704
200	8	-	770	-	300	-	-	-	219.1 x	712
250	10	-	930	-	700	-	-	-	273.1 x	720
300	12	-	1130	-	1000	-	-	-	323.9 x	739
350	14	-	1257	-	1380	-	-	-	355.6 x	747
400	16	-	1384	-	2000	-	-	-	406.4 x	755

NOTE:

- 1) 12 digit material code shall be obtained by suffixing sub-code to the Standard No.
- 2) Specific requirements of the plant shall be covered by plant annexure to this standard.
- 3) Sizes given in brackets are non-preferred.
- 4) All dimensions are in mm unless otherwise specified.
- 5) *Thickness of pipe varies according to the actual working pressure. Figs given are for general information only. User units to choose pipe thickness according to working pressure.

4.0 REFERRED STANDARDS (Latest Publications Including Amendments)

- 1) AA0851403
- 2) ASME B16.10
- 3) ASME B16.11
- 4) ASME B16.25
- 5) ASME B16.34
- 6) ASTM A182
- 7) ASTM A193
- 8) ASTM A194
- 9) ASTM A217
- 10) BS 1873
- 11) ISO 15761