



# CORPORATE STANDARD

AA7501534

Rev. No. 02

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## GLOBE VALVE, ALLOY STEEL (2 ¼ Cr 1 Mo) PRESSURE CLASS 2500

### 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 (2 ¼ Cr 1 Mo) body material. Pressure class 2500 with socket welded and butt welded end connections for size ranges 15 mm to 300 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

eg: GLOBE VLV F22 NB25 CL 2500 SW

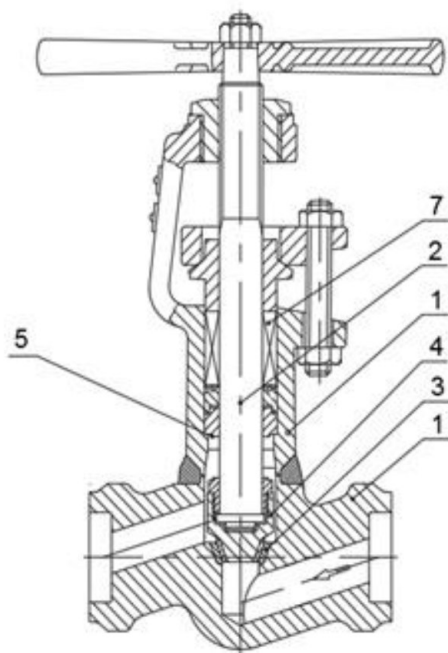
### 3.0 TECHNICAL REQUIREMENTS

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 ASME B16.34
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 distance	ASME B16.10 (reproduced in Table 2)
3.6	Hydraulic test pressures	
3.6.1	Body	659 kg/cm <sup>2</sup>
3.6.2	Seat	483 kg/cm <sup>2</sup>
3.6.3	Back Seat	483 kg/cm <sup>2</sup>
3.6.4	Air leak test	6 kg/cm <sup>2</sup>

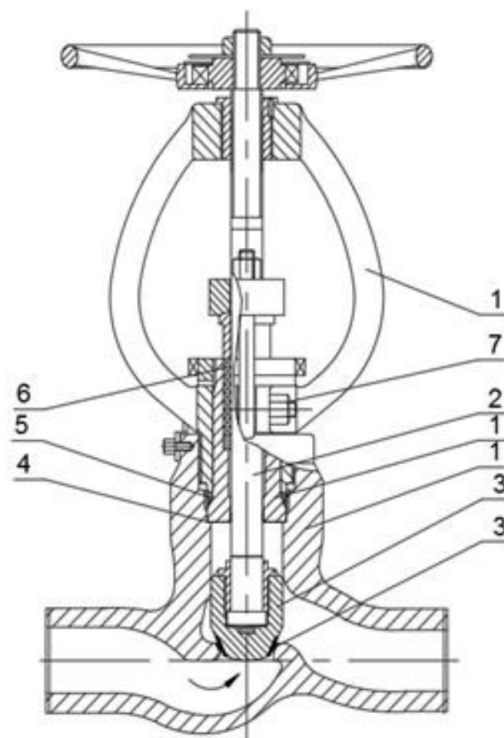
Revisions: Clause 3.6.1, 3.6.2, 3.6.3, 4, Sl.  
No.3 Table 1 and figure redrawn

**APPROVED:**  
INTERPLANT MATERIAL RATIONALISATION  
COMMITTEE – MRC (Valves)

Rev. No. 02	Amd. No.	Reaffirmed	Prepared	Issued	Dt. of 1 <sup>st</sup> Issue
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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 2½" and above
1	Valve Body, Bonnet & Yoke	ASTM A182 Gr. F22	ASTM A217 Gr. WC9
2	Stem, Thrust plate	13% Cr SS	15-17% Cr SS
3	Body Seat, disk	Stellite on F22	Stellite on WC9
4	Back seat	13% Cr	Stellite
5	Gasket	-	Soft iron/Grafoil
6	Gland Packing ring	Grafoil	Grafoil
7	Body/Bonnet Bolt & Nuts	ASTM A193 Gr. B16, ASTM A194 Gr. 4	
8	Other Parts	As per relevant Standards	

## GLOBE VALVE, ALLOY STEEL (2 ¼ Cr 1 Mo) PRESSURE CLASS 2500

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	100	-	5	-	21.7	21.3	586	-	-
20	¾	125	-	9	-	27.06	26.7	594	-	-
25	1	150	-	9	-	33.8	33.4	606	-	-
(35)	(1 ¼)	175	-	29	-	-	-	-	-	-
40	1 ½	175	-	29	-	48.65	48.3	624	-	-
50	2	225	451	29	45	61.1	60.3	632	60.3 x	640
(65)	2 ½	-	420	-	88	-	-	-	73.0 x	659
80	3	-	470	-	125	-	-	-	88.9 x	667
100	4	-	570	-	165	-	-	-	114.3 x	683
(125)	(5)	-	660	-	200	-	-	-	-	-
150	6	-	760	-	225	-	-	-	168.3 x	705
200	8	-	890	-	420	-	-	-	219.1 x	713
250	10	-	1270	-	840	-	-	-	273.1 x	721
300	12	-	1422	-	1200	-	-	-	323.9 x	730

### 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. Fig given is 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