

# C-LOK

C-LOK Instrument Valve Co.,Ltd.

*Forged Steel Globe Valves*



## Contents

**01** Forged Steel Globe Valves  
Y1 Series



# C-LOK

# Forged Steel Globe Valves

## Forged Steel Y-pattern Bonnetless Globe Valves

### Y1 Series

- Size: 1/2 ~ 4" (15 ~ 100 mm)
- Class: 1500, 1690, 2500, 2680 and 4500

### Specifications

- Design: ASME B16.34
- Testing: ASME B16.34 and API 598
- Marking: MSS-SP-25
- Socket weld ends: ASME B16.11
- Butt weld ends: ASME B16.25
- Threaded ends: ASME B1.20.1

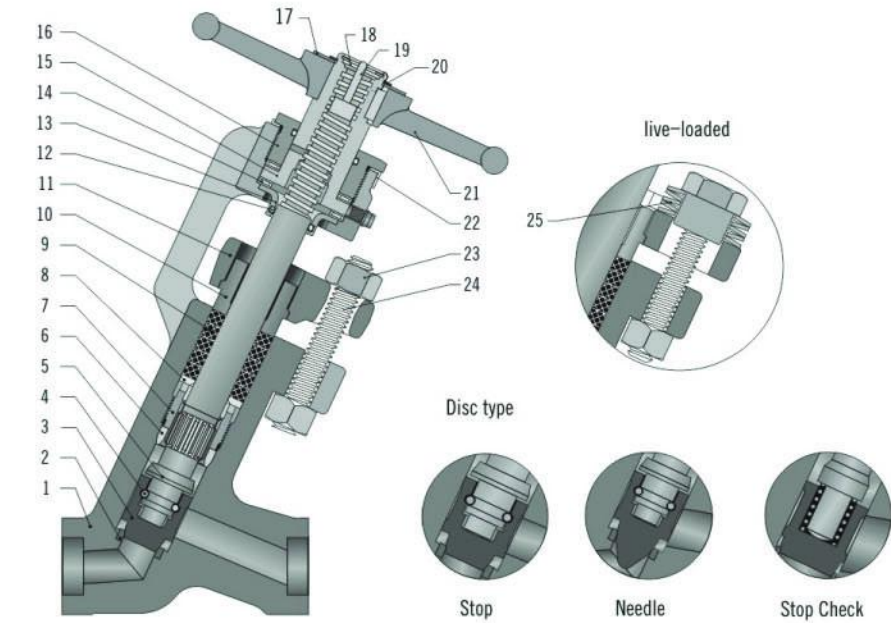


## Features

- One-piece, forged, bonnetless globe valves eliminate the potential for body-to-bonnet joint leakage, and not require cut or disassemble the bonnet for servicing.
- 65° inclined body reduces pressure drop compared with T-type.
- Splined bushing guides the stem allows quick and easy maintenance by removing all working parts at one time.
- The non-rotating stem hardened and polished to reduce operating torque.
- Linearly instead of helical movement of the non-rotating stem reduces the total friction area between the packing and stem.
- Packing chamber burnished and combination graphite rings individually pre-stressed for tight seal.
- Two-piece gland ensures gland and packing self-aligning.
- Stellite disc, seat and backseat provide excellent long service life even in severe services.
- Fully guided disc assures seat and disc precise alignment in spite of side thrust caused by high velocity flow, and prevents stem from scoring and galling, and provides longer disc seal and body life.
- Double orifice design protects seating faces because part of the erosive flow energy dissipates through disc.
- Two flat slots design at the internal bottom of the disc prevent the disc from rotating, so avoid high-speed rotating disc and seat contact, damage to disc and seat.
- Large clearance between stem and disc allows disc to move freely.
- Dust cover and sleeve protect stem threads from dirt, dust and sand.
- Fully enclosed stem driving lubrication system with two needle roller bearings ensures low operating torque.
- Upper stem position indicates if valve is open or closed.
- Optional live-loading packing, disc springs keep packing tight for long periods of time without maintenance.
- Stop, regulating, and stop check discs are available.
- Handwheel is rugged and knobbed to make sure the grip even when wearing gloves.
- Optional handwheel colors are available.

# Forged Steel Globe Valves

## Standard Materials of Construction



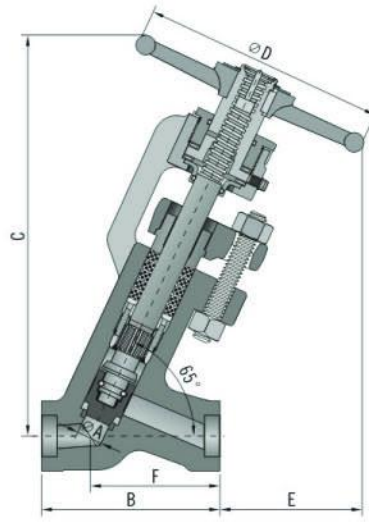
Item	Part	Valve Material				
		A105	F22	F91	F92	F316
1	Body	A105N	F22/A182	F91/A182	F92/A182	F316/A182
2	Seat			Stellite 6		
3	Disc			Stellite 6		
4	Holder			316 SS/A580		
5	Stem			410 SS/A276		316 SS/A276
6	Backseat			Stellite 6		
7	Spline bushing			630 SS		
8	Packing washer			304 SS		
9	Packing			Graphite		
10	Split gland bushing			Ca15		
11	Packing flange			A105		F304/A182
12	O-Ring			Nitrile rubber		
13	Stem protector			Steel		Steel
14	Thrust bearing			Steel		
15	Stem nut			D-2C/A439		
16	Yoke bushing			1020/A108		1020/A108 (nickel-plated)
17	Name plate			304 SS		
18	Dust cover			304 SS		
19	Indicator			410 SS/A276		316 SS/A276
20	Snap ring			Steel		
21	Handwheel			Malleable iron		
22	Tab washer			304 SS		
23	Gland nut			2H		8M
24	Gland stud			B7		B8M2
25	Springs			S17700		

Note:  
Contact the authorized representative or C-LOK for valves of other materials.

# Forged Steel Globe Valves

## Dimensions

Size NPS DN	A in. mm		B in. mm		C in. mm		D in. mm		E in. mm		F in. mm	
	Port		End to End		Center to Top Open		Handwheel		Clearance Open		Center to End	
	1500-2680	4500	1500-2680	4500	1500-2680	4500	1500-2680	4500	1500-2680	4500	1500-2680	4500
1/2 15	0.559 14.2	0.375 9.5	4.88 124	5.75 146	9.63 245	11.75 298	6.00 152	6.00 152	3.63 92	3.25 83	3.20 81	4.19 106
3/4 20	0.559 14.2	0.559 14.2	4.88 124	7.00 178	9.63 245	14.20 361	6.00 152	8.00 203	3.63 92	6.00 152	3.20 81	3.88 99
1 25	0.833 21.2	0.559 14.2	5.75 146	7.00 178	13.19 335	14.20 361	8.00 203	8.00 203	5.13 130	6.00 152	4.19 106	3.88 99
1 1/4 32	1.125 28.6	0.833 21.2	7.25 184	10.13 257	16.63 422	18.88 480	12.00 305	12.00 305	7.57 192	7.00 178	4.94 125	6.57 167
1 1/2 40	1.125 28.6	1.125 28.6	7.25 184	12.00 305	16.63 422	20.75 527	12.00 305	18.00 457	7.57 192	8.00 203	4.94 125	8.00 203
2 50	1.688 42.9	1.50 38.1	10.13 257	12.00 305	19.86 505	20.75 527	12.00 305	18.00 457	7.50 190	8.00 203	6.57 167	8.00 203
2 1/2 65	1.688 42.9	1.50 38.1	12.00 305	12.00 305	20.69 526	20.75 527	16.00 406	16.00 406	7.25 184	7.25 184	8.00 203	8.00 203
3 75	1.688 42.9	1.50 38.1	12.00 305	12.00 305	20.69 526	20.75 527	16.00 406	16.00 406	7.25 184	7.25 184	8.00 203	8.00 203
4 100	1.688 42.9	1.50 38.1	12.00 305	12.00 305	20.69 526	20.75 527	16.00 406	16.00 406	7.25 184	7.25 184	8.00 203	8.00 203



- Sizes and types listed are standard. Other sizes and types are available upon request.
- All dimensions are for reference only and are subject to change. For dimensions not shown above, please contact the authorized representative or C-LOK.

## Temperature-Pressure Ratings

Material Class Temp. °F	A105					F22					F91					F316				
	1500	1690	2500	2680	4500	1500	1690	2500	2680	4500	1500	1690	2500	2680	4500	1500	1690	2500	2680	4500
	psig																			
-20 to 100	3705	4175	6170	6615	11110	3750	4225	6250	6700	11250	3750	4225	6250	6700	11250	3600	4055	6000	6430	10800
200	3375	3805	5625	6030	10120	3750	4225	6250	6700	11250	3750	4225	6250	6700	11250	3095	3485	5160	5530	9290
300	3280	3695	5470	5865	9845	3640	4100	6070	6505	10925	3640	4100	6070	6505	10925	2795	3150	4660	4995	8390
400	3170	3570	5280	5660	9505	3530	3975	5880	6300	10585	3530	3975	5880	6300	10585	2570	2895	4280	4585	7705
500	2995	3375	4990	5350	8980	3325	3745	5540	5935	9965	3325	3745	5540	5935	9965	2390	2690	3980	4265	7165
600	2735	3080	4560	4890	8210	3025	3405	5040	5400	9070	3025	3405	5040	5400	9070	2255	2540	3760	4030	6770
650	2685	3025	4475	4795	8055	2940	3310	4905	5255	8825	2940	3310	4905	5255	8825	2220	2500	3700	3965	6660
700	2665	3005	4440	4760	7990	2840	3200	4730	5070	8515	2840	3200	4730	5070	8515	2170	2445	3620	3880	6515
750	2520	2840	4200	4500	7560	2660	2995	4430	4745	7970	2660	2995	4430	4745	7970	2135	2405	3560	3815	6410
800	2060	2320	3430	3675	6170	2540	2860	4230	4530	7610	2540	2860	4230	4530	7610	2110	2375	3520	3770	6335
850	1340	1510	2230	2390	4010	2435	2740	4060	4350	7305	2435	2740	4060	4350	7305	2090	2350	3480	3730	6265
900	—	—	—	—	—	2245	2530	3745	4010	6740	2245	2530	3745	4010	6740	2075	2338	3460	3705	6230
950	—	—	—	—	—	1885	2125	3145	3370	5665	1930	2175	3220	3450	5795	1930	2175	3220	3450	5795
1000	—	—	—	—	—	1305	1470	2170	2325	3910	1820	2050	3030	3245	5450	1750	1970	2915	3125	5245
1050	—	—	—	—	—	875	985	1455	1550	2625	1800	2030	3000	3215	5400	1720	1935	2865	3070	5155
1100	—	—	—	—	—	550	620	915	980	1645	1510	1700	2515	2695	4525	1525	1715	2545	2725	4575
1150	—	—	—	—	—	—	—	—	—	1115	1255	1855	1990	3345	1185	1330	1970	2110	3550	
1200	—	—	—	—	—	—	—	—	—	720	810	1200	1285	2160	925	1040	1545	1655	2775	
1250	—	—	—	—	—	—	—	—	—	—	—	—	—	—	735	829	1230	1315	2210	

- A105 permissible but not recommended for prolonged usage above about 800°F (425°C).
- Please contact the authorized representative or C-LOK for Pressure - Temperature ratings of other valve material.

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## Ordering Information

SSY1 - PS8G - M2TLLR

