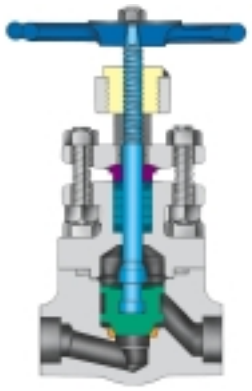
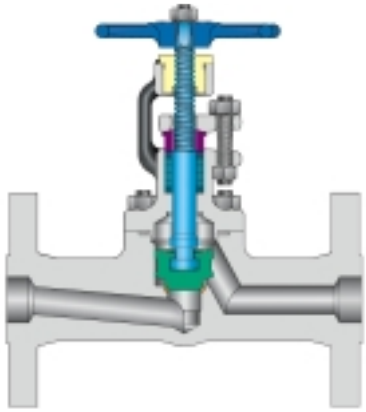
FORGED STEEL GLOBE VALVES
CONVENTIONAL PORT, ¼–2" (8–50 mm)

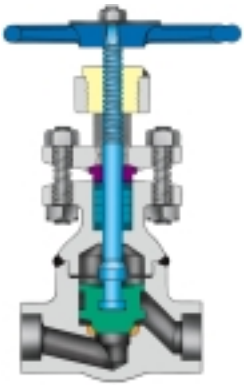
THREADED OR SOCKET WELD
ASME CLASS 800: 1975 psi @ 100°F
ASME CLASS 1500: 3705 psi @ 100°F
FLANGED ASME CLASSES 150, 300, 600, 1500



BOLTED BONNET
2074B – Class 800
3074B – Class 1500



FLANGED BOLTED BONNET
0074B – Class 150 2074B – Class 600
1074B – Class 300 3074B – Class 1500



WELDED BONNET
2074W – Class 800
3074W – Class 1500

PART	STANDARD MATERIALS
Body	A105N
Seat (integral)	Stellite 6
Bonnet	A 105N
Gasket	Gr. 304 (stainless and graphite)
Packing flange	A 105
Disc	CA15 HT or Stellite 6
Stem	Gr. 410 (stainless)
Stem nut	Gr. 416 (stainless) or bronze
Gland	Gr. 416 (stainless)
Packing	Graphite
Gland bolt	Gr. B6
Gland nut	Gr. 2H
Cap screw	Gr. B7
Handwheel	Malleable iron
Handwheel lockwasher	Steel
Name plate	Aluminum

Available with live-loading, double packing and leak-off or bellows seal for emission-free service.

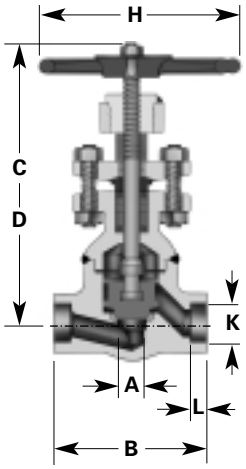
For other materials, trim and engineering data, see pages 21–25.

BOLTED BONNET GLOBE DIMENSIONS AND WEIGHTS

Size in mm	A Port		B End to End		C Center to Top Closed		D Center to Top Open		H Handwheel		K Socket Weld Bore	L Socket Weld Depth	Weight lb kg		Flanged Face to Face			
	800	1500	800	1500	800	1500	800	1500	800	1500			800	1500	150	300	600	1500
¼ 8	0.31 8	0.50 13	2.88 73	4.00 102	4.5 114	7.69 195	4.8 122	8.1 206	2.5 64	6 152	0.555 14.10	0.38 10	3.10 1.4	12.00 5.4	4.00 102	6.00 152	6.50 165	8.50 216
⅜ 10	0.31 8	0.50 13	2.88 73	4.00 102	4.5 114	7.69 195	4.8 122	8.1 206	2.5 64	6 152	0.690 17.53	0.38 10	3.10 1.4	12.00 5.4	4.00 102	6.00 152	6.50 165	8.50 216
½ 15	0.31 8	0.50 13	2.88 73	4.00 102	4.5 114	7.69 195	4.8 122	8.1 206	2.5 64	6 152	0.855 21.72	0.38 10	3.10 1.4	12.00 5.4	4.25 108	6.00 152	6.50 165	8.50 216
¾ 20	0.50 13	0.50 13	3.25 83	5.00 127	6.6 168	7.8 198	7.1 180	8.4 213	4.0 102	6 152	1.065 27.05	0.50 13	5.90 2.7	14.00 6.4	4.62 117	7.00 178	7.50 190	9.00 229
1 25	0.75 19	0.75 19	3.50 89	6.00 152	6.7 170	9.2 233	7.3 185	10.0 254	4.0 102	8 203	1.330 33.78	0.50 13	6.70 3.0	29.00 13.2	5.00 127	8.00 203	8.50 215	10.00 254
1¼ 32	1.25 32	1.25 32	5.00 127	7.00 178	8.1 206	10.1 257	8.7 221	11.0 279	6.0 152	8 203	1.675 42.55	0.50 13	18.00 8.2	37.00 16.8	5.50 140	8.50 216	9.00 229	11.00 279
1½ 40	1.25 32	1.25 32	5.00 127	7.00 178	8.1 206	10.1 257	8.7 221	11.0 279	6.0 152	8 203	1.915 48.64	0.50 13	16.00 7.3	37.00 16.8	6.50 165	9.00 229	9.50 241	12.00 305
2 50	1.50 38	1.50 38	8.00 203	9.00 229	10.4 264	11.0 279	11.2 285	12.3 312	8.0 203	12 305	2.406 61.11	0.63 16	30.00 13.6	64.00 29.0	8.00 203	10.50 266	11.50 292	14.50 368

WELDED BONNET GLOBE DIMENSIONS & WEIGHTS

Size in mm	A Port		B End to End		C Center to Top Closed		D Center to Top Open		H Handwheel		K Socket Weld Bore	L Socket Weld Depth	Weight lb kg	
	800	1500	800	1500	800	1500	800	1500	800	1500			800	1500
¼ 8	0.31 8	0.50 13	2.88 73	3.50 89	4.57 116	6.8 173	4.84 123	7.3 185	2.5 64	6.0 152	0.555 14.10	0.38 10	3.30 1.5	6.00 2.7
⅜ 10	0.31 8	0.50 13	2.88 73	3.50 89	4.57 116	6.8 173	4.84 123	7.3 185	2.5 64	6.0 152	0.690 17.53	0.38 10	3.30 1.5	6.00 2.7
½ 15	0.31 8	0.50 13	2.88 73	3.50 89	4.57 116	6.8 173	4.84 123	7.3 185	2.5 64	6.0 152	0.855 21.72	0.38 10	3.30 1.5	7.50 3.4
¾ 20	0.50 13	0.50 13	3.25 83	3.50 89	6.60 168	6.8 173	6.90 175	7.3 185	4.0 102	6.0 152	1.065 27.05	0.50 13	4.80 2.2	7.50 3.4
1 25	0.75 19	0.75 19	3.50 89	5.00 127	6.70 170	8.21 209	7.20 183	8.84 225	4.0 102	6.0 152	1.330 33.78	0.50 13	5.70 2.6	15.00 6.9
1¼ 32	1.25 32	1.25 32	5.00 127	5.25 133	8.05 204	10.06 256	8.93 227	10.76 273	6.0 152	8.0 203	1.675 42.55	0.50 13	12.00 5.4	23.00 10.4
1½ 40	1.25 32	1.25 32	5.00 127	5.25 133	8.05 204	10.06 256	8.93 227	10.76 273	6.0 152	8.0 203	1.915 48.64	0.50 13	12.00 5.4	23.00 10.4
2 50	1.38 35	1.50 38	5.25 133	10.00 254	9.30 236	12.6 320	10.00 254	14.00 356	6.0 152	12.0 305	2.406 61.11	0.63 16	17.00 7.7	57.00 26

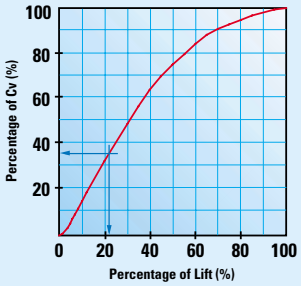


For Y-Pattern globe valves, see page 10.

AVAILABLE FEATURES

	Bolted Bonnet		Welded Bonnet	
Class	800	1500	800	1500
Stop	2074B	3074B	2074W	3074W
Stop check	2084B	3084B	2084W	3084W
Needle	2094B	3094B	2094W	3094W
Flow control	2014B	3014B	2014W	3014W

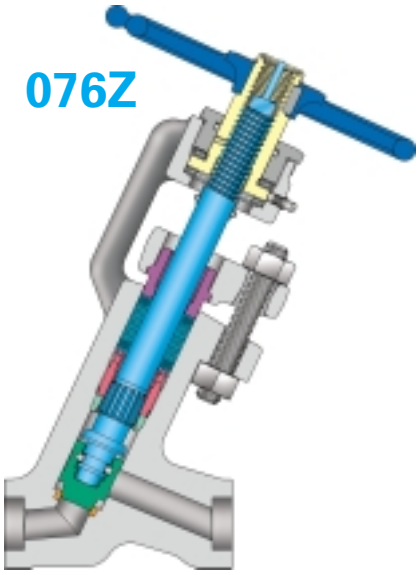
THROTTLING GLOBE VALVES



Regular style globe valves are suitable for moderate throttling applications. As a general rule, an adequately sized globe valve (i.e. with pipe velocity between 15 to 25 ft/sec for water and 200 to 300 ft/sec for steam) should not be throttled down below 35% of its maximum full open Cv capacity (approximately 20% of full stroke). Harsh throttling, below 35% of full Cv capacity, will require analysis by applications department to determine suitability under possible cavitation, flashing, noise and vibration.

FORGED STEEL Y-PATTERN BONNETLESS GLOBE VALVES, ½–4" (15–100 mm)

CONVENTIONAL PORT OPENING, THREADED, SOCKET WELD OR BUTT WELD
ASME CLASSES 1690, 2680, 4500



NON-ROTATING STEM
Patented for quick serviceability, (USA patent number 4356832).

DESIGN FEATURES

- Designed for quick and easy maintenance – one step removal of all working parts including packing.
- All pressure containing parts within one body-bonnet forging – no joints to leak or welds to cut for servicing.
- Non rotating stem allows a non-spinning disc, ensures low torque and prevents torsional damage of the packing.
- Fully enclosed, lubricated stem drive system with needle bearings ensures low operating torque.
- Solid Stellite disc, seat ring and backseat provide excellent long service life even in severe services.
- Backseat bevel on the stem, not on the disc, satisfies both API-600 and API-602 specifications.

PART	STANDARD MATERIALS
Body	A105N
Seat (integral)	Stellite 6
Disc	Stellite 6
Stem	Gr. 410 (stainless)
Stem nut	A 439 Austenitic ductile iron Gr. D-2C
Backseat	Stellite 6
Splined bushing	Gr. 630 (stainless)
Packing washer	Gr. 304 (stainless)
Packing	Graphite
Split gland bushing	Gr. CA15 (stainless)
Packing flange	A 105
Gland stud	Gr. B7
Gland nut	Gr. 2H
Yoke bushing	Gr. 1020 steel
Thrust bearing	Steel
Stem protector	Steel
O-ring	Nitrile rubber
Handwheel	Malleable iron
Snap ring	Steel
Name plate	Gr. 304 (stainless)

NOTE: For more information consult Velan's Y-Pattern Globe Valves catalogue VEL-BG.

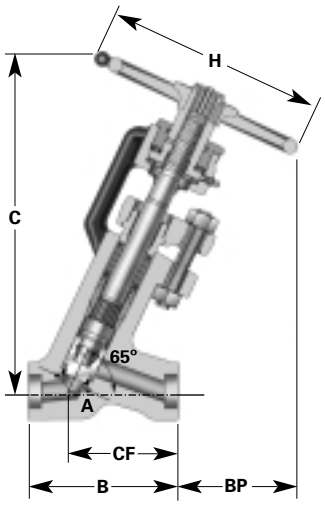
FIGURE NUMBERS

THREADED, SOCKET WELD OR BUTT WELD CONNECTIONS			
CLASS	STOP VALVE	STOP CHECK VALVE	NEEDLE VALVE
1690	8076Z	8086Z	8096Z
2680	9076Z	9086Z	9096Z
4500	5076Z	5086Z	5096Z

For other materials, trim and engineering data, see pages 21–25.

DIMENSIONS, WEIGHTS AND CV

Size in mm	A Port		B End to End		C Center to Top		H Handwheel		BP Clearance Open		CF Center to End		Weight lb kg		CV Flow Coefficient	
	1690 2680	4500	1690 2680	4500	1690 2680	4500	1690 2680	4500	1690 2680	4500	1690 2680	4500	1690 2680	4500	1690 2680	4500
½ 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	15 7	28 13	7	4
¾ 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	15 7	58 26	8	7
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	33 15	58 26	12	9
1¼ 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	67 30	103 47	24	19
1½ 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	67 30	166 75	25	24
2 50	1.688 42.9	1.125 28.6	10.13 257	12.00 305	19.88 505	20.75 527	12.00 305	18.00 457	7.50 190	8.00 203	6.57 167	8.00 203	110 50	166 75	60	25
2½(1) 65	1.688 42.9	1.50 38.1	12.00 305	12.00 305	20.69 526	20.75 527	16.00(2) 406	16.00(2) 406	7.25 184	7.25 184	8.00 203	8.00 203	166(3) 75	166 75	60	47
3(1) 80	1.688 42.9	1.50 38.1	12.00 305	12.00 305	20.69 526	20.75 527	16.00(2) 406	16.00(2) 406	7.25 184	7.25 184	8.00 203	8.00 203	166(3) 75	166 75	60	47
4 100	1.688 42.9	1.50 38.1	12.00 305	12.00 305	20.69 526	20.75 527	16.00(2) 406	16.00(2) 406	7.25 184	7.25 184	8.00 203	8.00 203	166 75	166 75	60	47



(1) For Classes 1690 & 2680, dimensions are as shown, or same as for 2" (50 mm) valve, depending on end connection.
(2) Impactor handle.
(3) For butt weld ends, weights is 110 lb (50 kg).