

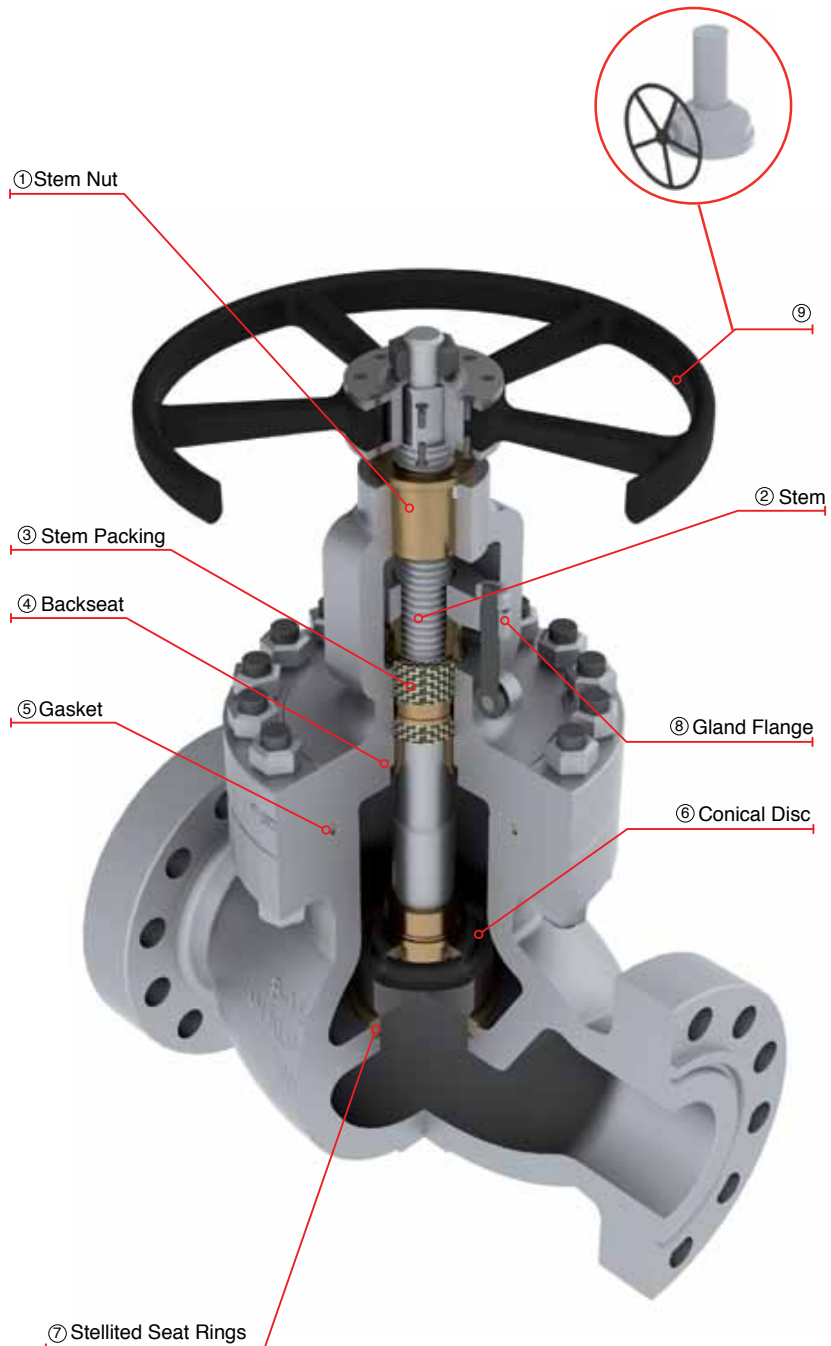
# CAST STEEL GLOBE VALVES CLASS 1500

CAST STEEL GLOBE VALVES WITH RISING HANDWHEEL AND STEM.

## DESIGN FEATURES

- Globe valves design in accordance with with API-623
- Globe valves option in accordance with API-603 only for stainless steel & nickel alloys.
- Globe valves for cryogenic service with gas column in accordance with BS-6364 upon request
- Flange dimensions in accordance with ASME B16.5 for valves up to 24" nominal diameter
- Handwheel, handwheel impact, chain wheel, gear operation, electric, pneumatic or hydraulic actuation as per customer requirements
- By-pass, lantern rings, grease injectors, special connections, etc.
- Low fugitive emissions control
- NACE service either MR-01-75 or MR-01-03.
- Test in accordance with API-598
- Stop check design option available

- ① Stem Nut, replaceable in line to avoid shut down of pipe line process.
- ② Revolving rising stem with precision ACME single or double thread for quick operation. Surface finish suitable to seal properly to get low fugitive emissions.
- ③ Stem Packing is designed for optimum control of fugitive emissions leakage to the atmosphere. The ultra low emission leakage rate is assured by the fine finish in the stem, the reduced diametrical clearances and the stem straightness control special designed packing. Live load packing arrangement available upon request.
- ④ Backseat either threaded or welded, designed to relieve back pressure on the stem packing when fully seated. Replacing stem packing under pressure is not recommended. Hard faced backseat available for severe service as customer requirements
- ⑤ Body to Bonnet Joint designed to apply a uniform load to the gasket to assure a leak proof seal.
- ⑥ Conical Plug type Disc, integrally guided to assure true alignment between disc and valve body. The loose disc design allows the disc and seat ring sealing surface to seat correctly without damage.
- ⑦ Stellite Seat Ring is seal welded to provide a increased resistance to wear, abrasion, and erosion of the sealing surfaces.
- ⑧ Two pieces arrangement gland flange and stem packing bushing for self-alignment to avoid stem damage.
- ⑨ Impact Handwheel, the mechanism is based on transmitting the momentum generated by the mass of the handwheel through the impact/impulse generated during the snap closure action of the handwheel. This type of handwheel is used when a standard handwheel cannot create enough closing force to effect a seal. Gear operated is also available.



# CAST STEEL GLOBE VALVES, CLASS 1500 (HANDWHEEL OPERATED)

## Design Features

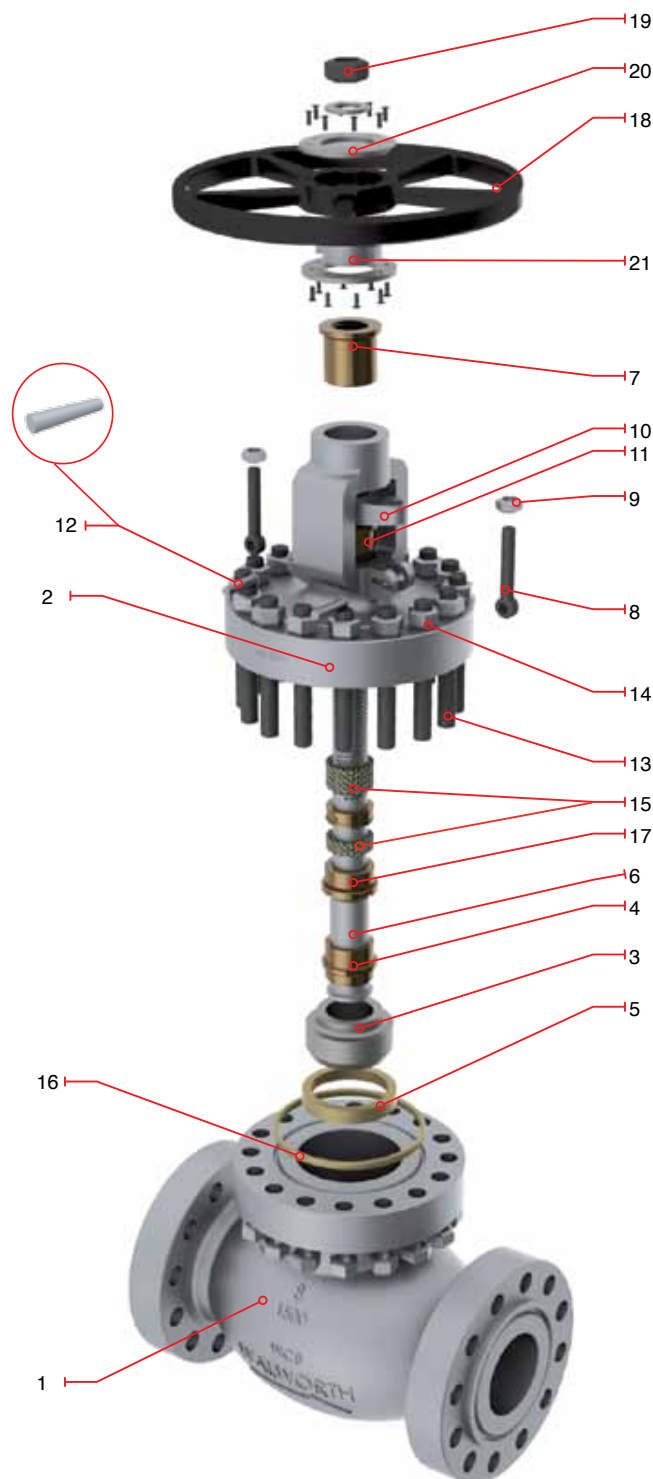
- Design in accordance with API-623
- Rising Stem and Handwheel: 2" and 2 1/2"
- Rising Stem and Fixed Handwheel: 3" and up
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Yoke with Bearings: 3" and larger
- Size 2" to 6" Handwheel operated as standard

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5308RF	5308F	Flanged Raised Face
5308RTJ	5308RJ	Flanged Ring Type Joint
5308WE	5308WE	Buttweld

## Regular Bill of Materials

No.	Description	STANDARD MATERIAL
1	Body	ASTM A 216 GR WCB
2	Bonnet	ASTM A 216 GR WCB
3	Disc	ASTM A 276 Type 410
4	Disc Lock Nut	Alloy Steel
5	Seat Ring	ASTM A 515 GR 70 + ST6
6	Stem	ASTM A 276 Type 410
7	Stem Nut	ASTM B 148 UNS C95600
8	Eyebolt	Alloy Steel
9	Eyebolt Nut	ASTM A 307
10	Gland Flange	ASTM A 515 GR 70
11	Packing Bushing	ASTM A 108 GR 1020
12	Eyebolt Pin	Alloy Steel
13	Bonnet Stud	ASTM A 193 GR B7
14	Bonnet Stud Nut	ASTM A 194 GR 2H
15	Stem Packing	Graphite
16	Ring type Joint Gasket	ASTM A 108 GR 1010
17	Bonnet Bushing	ASTM A 276 Type 410
18	Handwheel	ASTM A 197
19	Handwheel Nut	ASTM A 307
20	Clamp	Commercial Steel
21	Impact Bushing	ASTM A 216 GR WCB
22*	Stem Nut Set Screw	Alloy Steel
23*	Identification Plate	Stainless Steel

\*Not Shown



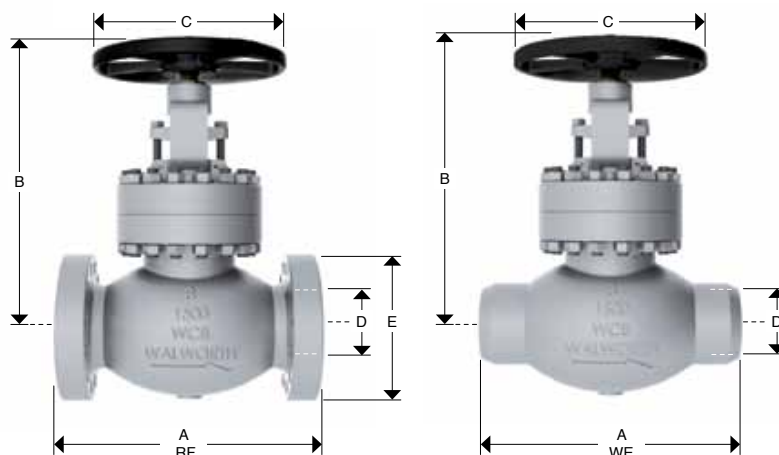
## CAST STEEL GLOBE VALVES, CLASS 1500 (HANDWHEEL OPERATED)

### Design Features

- Design in accordance with API-623
- Rising Stem and Handwheel: 2" and 2 1/2"
- Rising Stem and Fixed Handwheel: 3" and up
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Yoke with Bearings: 3" and larger
- Size 2" to 6" Handwheel operated as standard



Catalog Figure No.	ID Plant Figure No.	Type of Ends
5308RF	5308F	Flanged Raised Face
5308RTJ	5308RJ	Flanged Ring Type Joint
5308WE	5308WE	Buttweld



### Dimensions and Weights

D Nominal Diameter	mm	51	64	76	102	152
	in	2	2 1/2	3	4	6
A (RF and WE)	mm	368	419	470	546	705
	in	14 1/2	16 1/2	18 1/2	21 1/2	27 3/4
A* (RTJ)	mm	371	422	473	549	711
	in	14 5/8	16 5/8	18 5/8	21 5/8	28
B	mm	477	537	622	733	933
	in	18 3/4	21 1/4	24 1/2	28 7/8	36 3/4
C	mm	350	350	450	450	640
	in	14	14	18	18	25
E	mm	216	244	267	311	394
	in	8 1/2	9 5/8	10 1/2	12 1/4	15 1/2
Weight 5308RF	Kg	82	121	161	252	574
	lb	180	266	354	554	1262
Weight 5308WE	Kg	68	100	134	214	487
	lb	150	221	294	471	1072

# CAST STEEL GLOBE VALVES, CLASS 1500 (GEAR OPERATED)

## Design Features

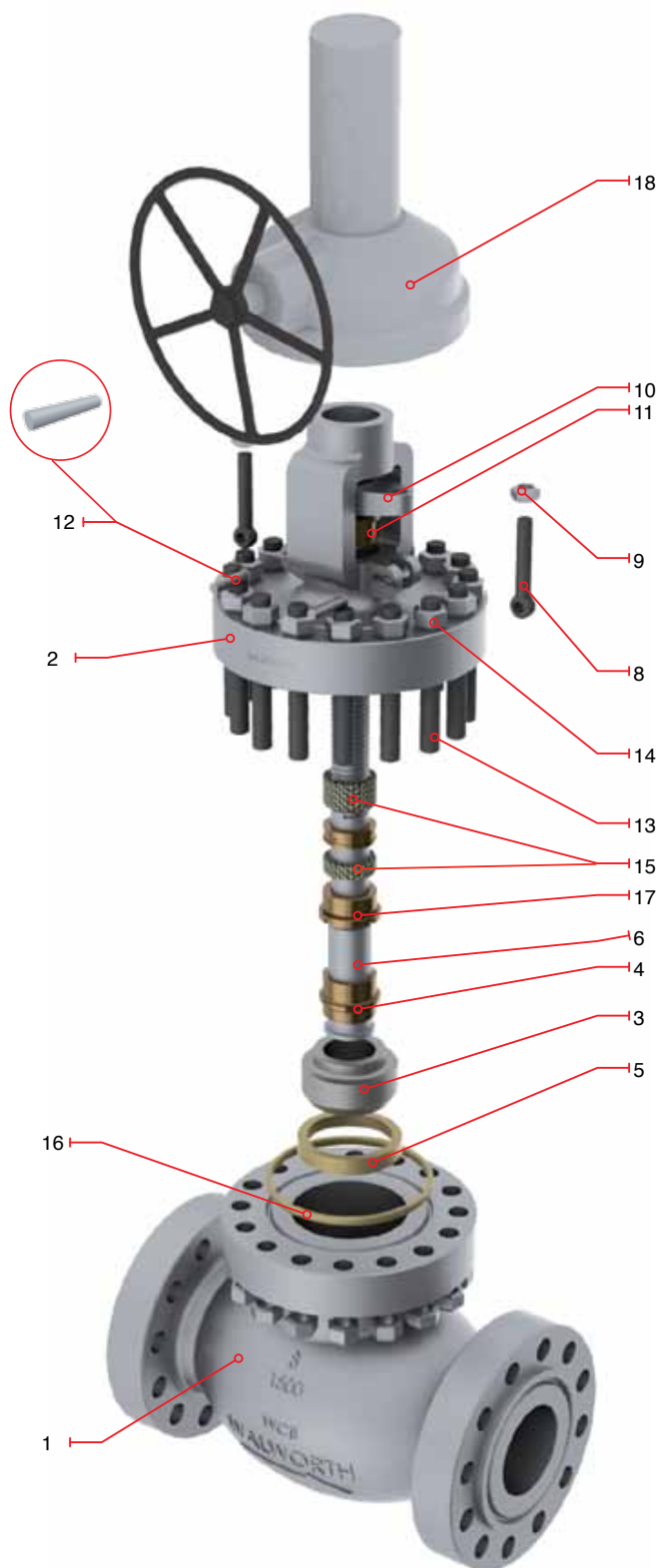
- Design in accordance with API-623
- Rising stem
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Yoke with Bearings: 3" and larger
- Size 8" and up Gear operated as standard

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5308RF	5308F	Flanged Raised Face
5308RTJ	5308RJ	Flanged Ring Type Joint
5308WE	5308WE	Buttweld

## Regular Bill of Materials

No.	Description	STANDARD MATERIAL
1	Body	ASTM A 216 GR WCB
2	Bonnet	ASTM A 216 GR WCB
3	Disc	ASTM A 276 Type 410
4	Disc Lock Nut	Alloy Steel
5	Seat Ring	ASTM A 515 GR 70 + ST6
6	Stem	ASTM A 276 Type 410
*7	Stem Nut	ASTM B 148 UNS C95600
8	Eyebolt	Alloy Steel
9	Eyebolt Nut	ASTM A 307
10	Gland Flange	ASTM A 515 GR 70
11	Packing Bushing	ASTM A 108 GR 1020
12	Eyebolt Pin	Alloy Steel
13	Bonnet Stud	ASTM A 193 GR B7
14	Bonnet Stud Nut	ASTM A 194 GR 2H
15	Stem Packing	Graphite
16	Ring type Joint Gasket	ASTM A 108 GR 1010
17	Bonnet Bushing	ASTM A 276 Type 410
18	Gear Operator	as customer requirements
*19	Operator Bolts	Alloy Steel
*20	Identification Plate	Stainless Steel

\*Not Shown



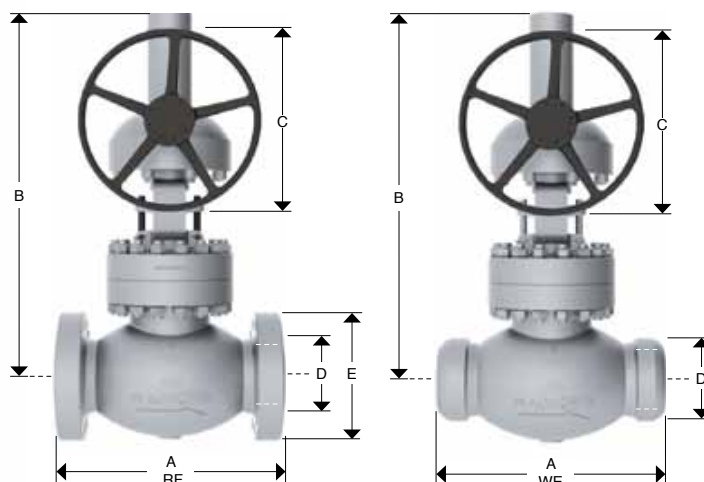
## CAST STEEL GLOBE VALVES, CLASS 1500

### Design Features

- Design in accordance with API-623
- Rising stem
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25 Yoke with Bearings:
- Yoke with Bearings: 3" and larger
- Size 8" and up to 24" Gear operated as standard



Catalog Figure No.	ID Plant Figure No.	Type of Ends
5308RF	5308F	Flanged Raised Face
5308RTJ	5308RJ	Flanged Ring Type Joint
5308WE	5308WE	Buttweld



### Dimensions and Weights

D Nominal Diameter	mm	203	254	305	356	406	457	508	610
	in	8	10	12	14	16	18	20	24
A (RF and WE)	mm	832	991	1130	1257	PCR	PCR	PCR	PCR
	in	32 3/4	39	44 1/2	49 1/2	PCR	PCR	PCR	PCR
A* (RTJ)	mm	842	1001	1146	1276	PCR	PCR	PCR	PCR
	in	33 1/8	39 3/8	45 1/8	50 1/4	PCR	PCR	PCR	PCR
B	mm	1029	1618	1675	1800	PCR	PCR	PCR	PCR
	in	40 1/2	63 3/4	66	70 3/4	PCR	PCR	PCR	PCR
C	mm	640	600	600	600	PCR	PCR	PCR	PCR
	in	25	23 5/8	23 5/8	23 5/8	PCR	PCR	PCR	PCR
E	mm	483	585	673	750	825	915	985	1170
	in	19	23	26 1/2	29 1/2	32 1/2	36	38 3/4	46
Weight 5308RF	Kg	949	2238	3308	4678	PCR	PCR	PCR	PCR
	lb	2088	4924	7278	10292	PCR	PCR	PCR	PCR
Weight 5308WE	Kg	807	2081	3076	4351	PCR	PCR	PCR	PCR
	lb	1775	4579	6768	9571	PCR	PCR	PCR	PCR

PCR = Per customer request