



## **Cast Steel & Stainless Steel Globe Valves**

# Globe Valve, BB, CS

## Design

LEAD cast steel globe valves are designed and manufactured to provide maximum service life and dependability. All globe valve are full ported and meet the design requirements of American Petroleum Institute standard API600& 6D.BS EN 13709 and generally conform to American Society of Mechanical Engineers standard ASME B16.34. Valves are available in a complete range of body/bonnet materials and trims.

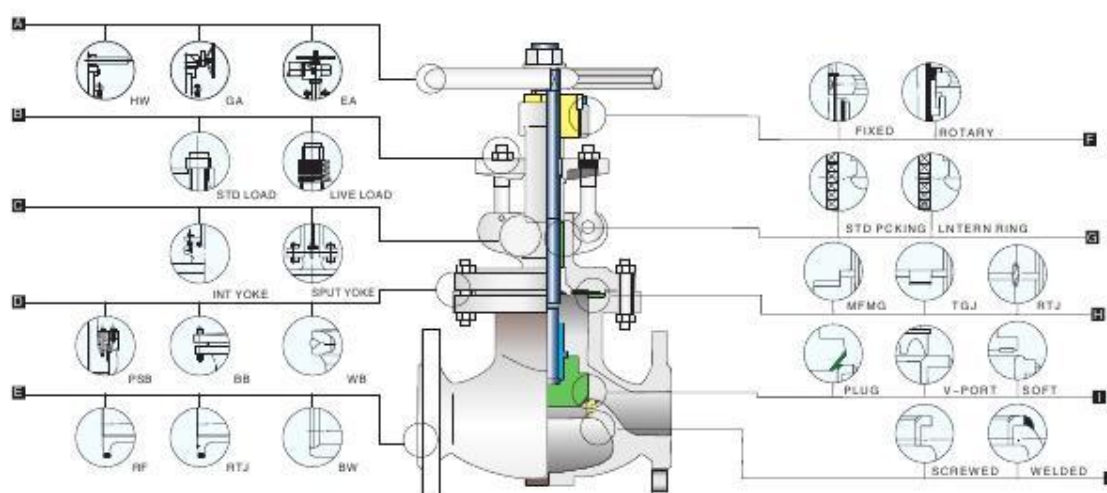
## Range of Materials

Standard body/bonnet materials include nine grades of carbon, low alloy and stainless steel, for special applications they can be supplied in other grades of alloy and stainless steel, there's a full range of trim materials to match any service optional packing and gasket materials are available for a full range of service conditions.

## Available Modifications for LEAD Cast Globe Valves

Trim changes  
End connection modifications  
Packing and gasket changes  
Operator mounting  
Handwheel extensions

Pressure equalizing  
By-pass  
Customer specified coatings  
Weld end bore changes  
Oxygen & chlorine cleaning & packaging



### A Operation

Large handwheels for easy operation. Also available with gearing, motor actuators, pneumatic or hydraulic actuators for more difficult services.

### B Live Load Packing

In services requiring frequent cycling or with high pressure/temperature variations; live loading extends the service life between maintenance periods packing gland adjustments. Belleville spring are employed to provide constant packing gland stress.

### C OS & Y

Outside screw and yoke: Cast steel globe valve yoke integral with bonnet for 10 & smaller.

### D BB

Bolted bonnet welding bonnet and pressure seal bonnet in services requiring frequent cycling or with high pressure/temperature variations.

### E End Connections

A choice of flanged, RTJ flanged or butt welding end for piping flexibility.

### F Yoke sleeve

Furnished in aluminum bronze to reduce operating torque. Most size furnished with ball bearing yoke sleeves.

### G Lantern Ring And Double Packing Set

Lantern ring with leak-off fitting connection and double packing stack is optionally available for critical services.

### H Body-to-Bonnet Joint

A male and female joint or tongue and groove joint is used 150Lb to 600Lb valves, ring joint is used in the body to bonnet connection in 900Lb & higher rated valves.

### I Disc

Plug disc is stem guided on all size. Disc has a differential angle from the seat to provide a line contact for maximum sealing. The bottom of v-port disc is fluid by the body seat ring for maximum disc stability in throttling applications, the soft teflon ring is excellent for lower temperature service where tight shut off required.

### J Seat Rings

Separate heavy duty, full ported rings for easy maintenance. Screwed or welded connection into body.

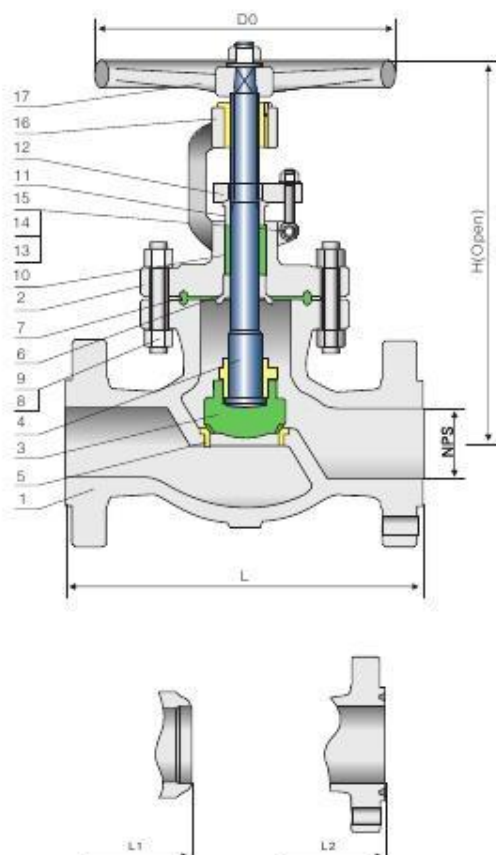
# Cast Steel Globe Valve 150Lb/300Lb

## Applicable Standards:

- STEEL GLOBE VALVES BS EN 13709/API 600
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES, ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST, API 598

## Design descriptions:

- STRAIGHT PATTERN BODY DESIGN
- OS&Y, OUTSIDE SCREW AND YOKE
- BB, BOLTED BONNET
- YOKE INTEGRAL WITH BONNET
- RISING STEM AND HANDWHEEL
- LOOSE DISC, CHOICE OF PLUG OR BALL
- RENEWABLE SEAT RING
- IMPACT HANDWHEEL FOR 10" & ABOVE
- HORIZONTAL SERVICE
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH BG OPERATOR



## Materials of parts

| No | Part Name       | ASTM Materials |                               |               |
|----|-----------------|----------------|-------------------------------|---------------|
|    |                 | Carbon Steel   | 1 1/4Cr-1/2Mo                 | Carbon Steel  |
| 1  | Body            | A216-WCB       | A217-WC6                      | A352-LCB      |
| 2  | Bonnet          | A216-WCB       | A217-WC6                      | A352-LCB      |
| 3  | Disc            | A105+CR13      | A182-F11+HF                   | A350-LF2+CR13 |
| 4  | Stem            | A182-F6a       | CR-MO-V                       | A182-F6a      |
| 5  | Seat Ring       | A105+HF        | A182-F11+HF                   | A350-LF2+HF   |
| 6  | Stem Backseat   | A276-420       | A276-304                      | A276-420      |
| 7  | Bonnet Gasket   | Steel Ring     | 304SS Ring                    | Steel Ring    |
| 8  | Bonnet Stud     | A193-B7        | A193-B16                      | A320-L7       |
| 9  | Bonnet Stud Nut | A194-2H        | A194-7                        | A194-4        |
| 10 | Packing         | Graphite       |                               |               |
| 11 | Gland           | A276-420       | A276-304                      | A276-420      |
| 12 | Gland Flange    | A216-WCB       | A217-WC6                      | A352-LCB      |
| 13 | Eyebolt Pin     | Carbon Steel   | A276-420                      | Carbon Steel  |
| 14 | Eyebolt         | Carbon Steel   | A193-B7                       | Carbon Steel  |
| 15 | Eyebolt Nut     | Carbon Steel   | A194-2H                       | Carbon Steel  |
| 16 | Yokesleeve      |                | Aluminum-Bronze <sup>1)</sup> |               |
| 17 | Handwheel       |                | Malleable Iron                |               |

Note 1) Ductile Ni-resist optional

2) Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

## Dimensional datas

| NPS             | DN  | L/L1<br>(RF/BW) |     | L2<br>(RTJ) |     | H<br>(open) |      | D0 |     | WT(kg) |     | L/L1<br>(RF/BW) |     | L2<br>(RTJ) |     | H<br>(open) |     | D0 |     | WT(kg) |     |  |  |
|-----------------|-----|-----------------|-----|-------------|-----|-------------|------|----|-----|--------|-----|-----------------|-----|-------------|-----|-------------|-----|----|-----|--------|-----|--|--|
| ANSI Class150Lb |     |                 |     |             |     |             |      |    |     |        |     | ANSI Class300Lb |     |             |     |             |     |    |     |        |     |  |  |
| 2               | 50  | 8.00            | 203 | 8.00        | 203 | 15.00       | 380  | 7  | 180 | 18     | 14  | 10.50           | 267 | 11.12       | 282 | 16.75       | 425 | 8  | 200 | 25     | 20  |  |  |
| 2 1/2           | 65  | 8.50            | 216 | 8.50        | 216 | 21.00       | 535  | 10 | 240 | 30     | 22  | 11.50           | 292 | 12.12       | 308 | 19.00       | 485 | 10 | 240 | 32     | 22  |  |  |
| 3               | 80  | 9.50            | 241 | 9.50        | 241 | 17.50       | 445  | 11 | 280 | 41     | 33  | 12.50           | 318 | 13.12       | 333 | 19.88       | 505 | 11 | 280 | 38     | 27  |  |  |
| 4               | 100 | 11.50           | 292 | 11.50       | 292 | 20.25       | 515  | 11 | 280 | 64     | 43  | 14.00           | 356 | 14.62       | 371 | 22.50       | 570 | 13 | 320 | 56     | 41  |  |  |
| 6               | 150 | 16.00           | 406 | 16.00       | 406 | 22.00       | 560  | 13 | 320 | 86     | 72  | 17.50           | 444 | 18.12       | 460 | 25.25       | 640 | 16 | 400 | 96     | 75  |  |  |
| 8               | 200 | 19.50           | 495 | 19.50       | 495 | 24.25       | 615  | 13 | 320 | 110    | 88  | 22.00           | 559 | 22.62       | 575 | 33.25       | 845 | 18 | 450 | 150    | 117 |  |  |
| 10              | 250 | 24.50           | 622 | 24.50       | 622 | 32.00       | 815  | 16 | 400 | 280    | 245 | 24.50           | 622 | 25.12       | 638 | 35.50       | 900 | 20 | 500 | 380    | 310 |  |  |
| 12              | 300 | 27.50           | 698 | 27.50       | 698 | 35.88       | 910  | 18 | 450 | 380    | 345 | 28.00           | 711 | 28.62       | 727 | 38.62       | 980 | 24 | 600 | 550    | 492 |  |  |
| 14              | 350 | 31.00           | 787 | 31.00       | 787 | 48.38       | 1230 | 20 | 500 | 510    | 450 | -               | -   | -           | -   | -           | -   | -  | -   | -      | -   |  |  |
| 16              | 400 | 36.00           | 914 | 36.00       | 914 | 57.00       | 1450 | 24 | 600 | 740    | 665 | -               | -   | -           | -   | -           | -   | -  | -   | -      | -   |  |  |
| in              | mm  | in              | mm  | in          | mm  | in          | mm   | in | mm  | RF     | BW  | in              | mm  | in          | mm  | in          | mm  | in | mm  | RF/RTJ | BW  |  |  |

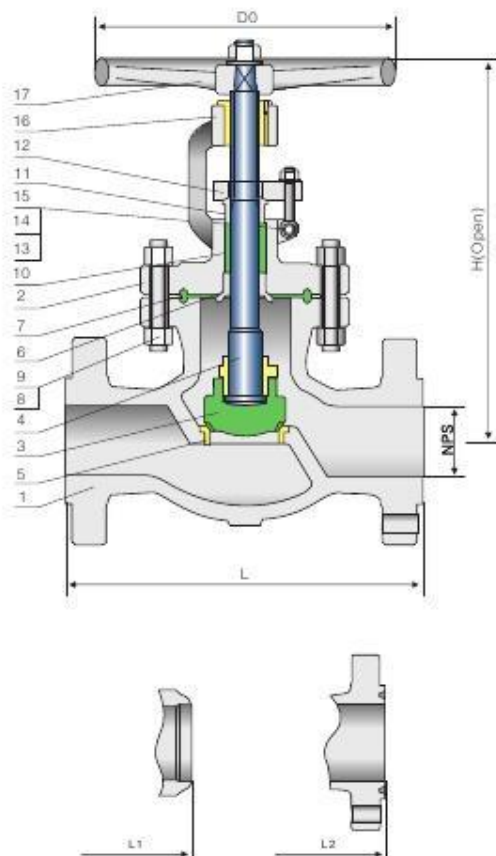
# Cast Steel Globe Valve 600Lb/900Lb

## Applicable Standards:

- STEEL GLOBE VALVES BS EN 13709/API 600
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES, ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST, API 598

## Design descriptions:

- STRAIGHT PATTERN BODY DESIGN
- OS&Y, OUTSIDE SCREW AND YOKE
- BB, BOLTED BONNET
- YOKE INTEGRAL WITH BONNET
- RISING STEM AND HANDWHEEL
- LOOSE DISC, CHOICE OF PLUG OR BALL
- RENEWABLE SEAT RING
- IMPACT HANDWHEEL FOR 10" & ABOVE
- HORIZONTAL SERVICE
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH BG OPERATOR



## Materials of parts

| No | Part Name       | ASTM Materials |                               |               |
|----|-----------------|----------------|-------------------------------|---------------|
|    |                 | Carbon Steel   | 1 1/4Cr-1/2Mo                 | Carbon Steel  |
| 1  | Body            | A216-WCB       | A217-WC6                      | A352-LCB      |
| 2  | Bonnet          | A216-WCB       | A217-WC6                      | A352-LCB      |
| 3  | Disc            | A105+CR13      | A182-F11+HF                   | A350-LF2+CR13 |
| 4  | Stem            | A182-F6a       | CR-MO-V                       | A182-F6a      |
| 5  | Seat Ring       | A105+HF        | A182-F11+HF                   | A350-LF2+HF   |
| 6  | Stem Backseat   | A276-420       | A276-304                      | A276-420      |
| 7  | Bonnet Gasket   | Steel Ring     | 304SS Ring                    | Steel Ring    |
| 8  | Bonnet Stud     | A193-B7        | A193-B16                      | A320-L7       |
| 9  | Bonnet Stud Nut | A194-2H        | A194-7                        | A194-4        |
| 10 | Packing         | Graphite       |                               |               |
| 11 | Gland           | A276-420       | A276-304                      | A276-420      |
| 12 | Gland Flange    | A216-WCB       | A217-WC6                      | A352-LCB      |
| 13 | Eyebolt Pin     | Carbon Steel   | A276-420                      | Carbon Steel  |
| 14 | Eyebolt         | Carbon Steel   | A193-B7                       | Carbon Steel  |
| 15 | Eyebolt Nut     | Carbon Steel   | A194-2H                       | Carbon Steel  |
| 16 | Yokesleeve      |                | Aluminum-Bronze <sup>1)</sup> |               |
| 17 | Handwheel       |                | Malleable Iron                |               |

Note 1) Ductile Ni-resist optional

2) Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.

## Dimensional datas

| NPS             | DN  | L/L1<br>(RF/BW) |     | L2<br>(RTJ) |     | H<br>(open) |      | D0 |     | WT(kg) |      | L/L1<br>(RF/BW) |     | L2<br>(RTJ) |     | H<br>(open) |      | D0 |     | WT(kg) |      |
|-----------------|-----|-----------------|-----|-------------|-----|-------------|------|----|-----|--------|------|-----------------|-----|-------------|-----|-------------|------|----|-----|--------|------|
| ANSI Class600Lb |     |                 |     |             |     |             |      |    |     |        |      | ANSI Class900Lb |     |             |     |             |      |    |     |        |      |
| 2               | 50  | 11.50           | 292 | 11.62       | 295 | 17.50       | 445  | 10 | 240 | 35     | 27   | 14.50           | 368 | 14.62       | 371 | 22.00       | 560  | 11 | 280 | 57     | 41   |
| 2 1/2           | 65  | 13.00           | 330 | 13.12       | 333 | 19.75       | 502  | 11 | 280 | 50     | 34   | 16.50           | 419 | 16.62       | 422 | 23.25       | 590  | 13 | 320 | 82     | 53   |
| 3               | 80  | 14.00           | 356 | 14.12       | 359 | 21.00       | 533  | 13 | 320 | 60     | 42   | 15.00           | 381 | 15.12       | 384 | 25.25       | 640  | 16 | 400 | 91     | 58   |
| 4               | 100 | 17.00           | 432 | 17.12       | 435 | 24.50       | 622  | 16 | 400 | 110    | 84   | 18.00           | 457 | 18.12       | 460 | 31.88       | 810  | 18 | 450 | 168    | 117  |
| 6               | 150 | 22.00           | 559 | 22.12       | 562 | 29.50       | 750  | 18 | 450 | 230    | 192  | 24.00           | 610 | 24.12       | 613 | 41.38       | 1050 | 20 | 500 | 365    | 238  |
| 8               | 200 | 26.00           | 660 | 26.12       | 663 | 36.50       | 927  | 20 | 500 | 410    | 350  | 29.00           | 737 | 29.12       | 740 | 53.50       | 1360 | 24 | 600 | 665    | 538  |
| 10              | 250 | 31.00           | 787 | 31.12       | 790 | 44.88       | 1140 | 24 | 600 | 770    | 680  | 33.00           | 838 | 33.12       | 841 | 61.88       | 1570 | 24 | 600 | 1250   | 1060 |
| 12              | 300 | 33.00           | 838 | 33.12       | 841 | 53.12       | 1350 | 24 | 600 | 1140   | 1030 | -               | -   | -           | -   | -           | -    | -  | -   | -      | -    |
| in              | mm  | in              | mm  | in          | mm  | in          | mm   | in | mm  | RF/RTJ | BW   | in              | mm  | in          | mm  | in          | mm   | in | mm  | RF/RTJ | BW   |

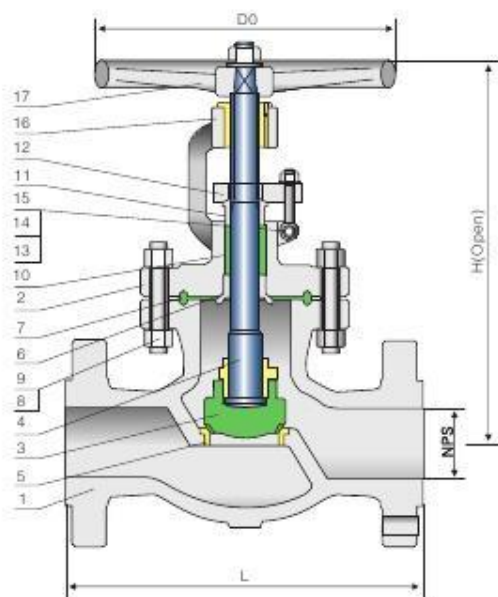
# Cast Steel Globe Valve 1500Lb/2500Lb

## Applicable Standards:

- STEEL GLOBE VALVES BS EN 13709/API 600
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES, ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST, API 598

## Design descriptions:

- STRAIGHT PATTERN BODY DESIGN
- OS&Y, OUTSIDE SCREW AND YOKE
- BB, BOLTED BONNET
- YOKE INTEGRAL WITH BONNET
- RISING STEM AND HANDWHEEL
- LOOSE DISC, CHOICE OF PLUG OR BALL
- RENEWABLE SEAT RING
- IMPACT HANDWHEEL FOR 10" & ABOVE
- HORIZONTAL SERVICE
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH BG OPERATOR

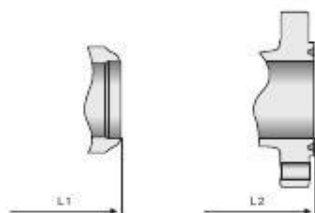


## Materials of parts

| No | Part Name       | ASTM Materials |                               |               |
|----|-----------------|----------------|-------------------------------|---------------|
|    |                 | Carbon Steel   | 1 1/4Cr-1/2Mo                 | Carbon Steel  |
| 1  | Body            | A216-WCB       | A217-WC6                      | A352-LCB      |
| 2  | Bonnet          | A216-WCB       | A217-WC6                      | A352-LCB      |
| 3  | Disc            | A105+CR13      | A182-F11+HF                   | A350-LF2+CR13 |
| 4  | Stem            | A182-F6a       | CR-MO-V                       | A182-F6a      |
| 5  | Seat Ring       | A105+HF        | A182-F11+HF                   | A350-LF2+HF   |
| 6  | Stem Backseat   | A276-420       | A276-304                      | A276-420      |
| 7  | Bonnet Gasket   | Steel Ring     | 304SS Ring                    | Steel Ring    |
| 8  | Bonnet Stud     | A193-B7        | A193-B16                      | A320-L7       |
| 9  | Bonnet Stud Nut | A194-2H        | A194-7                        | A194-4        |
| 10 | Packing         | Graphite       |                               |               |
| 11 | Gland           | A276-420       | A276-304                      | A276-420      |
| 12 | Gland Flange    | A216-WCB       | A217-WC6                      | A352-LCB      |
| 13 | Eyebolt Pin     | Carbon Steel   | A276-420                      | Carbon Steel  |
| 14 | Eyebolt         | Carbon Steel   | A193-B7                       | Carbon Steel  |
| 15 | Eyebolt Nut     | Carbon Steel   | A194-2H                       | Carbon Steel  |
| 16 | Yokesleeve      |                | Aluminum-Bronze <sup>1)</sup> |               |
| 17 | Handwheel       |                | Malleable Iron                |               |

Note 1) Ductile Ni-resist optional

2) Disc and seat ring may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown.



## Dimensional datas

| NPS   | DN  | L/L1<br>(RF/BW)  |     | L2<br>(RTJ) |     | H<br>(open) |      | D0 |     | WT(kg) |     | L/L1<br>(RF/BW)  |     | L2<br>(RTJ) |     | H<br>(open) |      | D0 |     | WT(kg) |     |
|-------|-----|------------------|-----|-------------|-----|-------------|------|----|-----|--------|-----|------------------|-----|-------------|-----|-------------|------|----|-----|--------|-----|
|       |     | ANSI Class1500Lb |     |             |     |             |      |    |     |        |     | ANSI Class2500Lb |     |             |     |             |      |    |     |        |     |
| 2     | 50  | 14.50            | 368 | 14.62       | 371 | 22.00       | 560  | 13 | 320 | 68     | 57  | 17.75            | 451 | 17.88       | 454 | 25.50       | 650  | 16 | 400 | 97     | 72  |
| 2 1/2 | 65  | 16.50            | 419 | 16.62       | 422 | 23.25       | 590  | 16 | 400 | 97     | 81  | 20.00            | 508 | 20.50       | 414 | 28.12       | 715  | 18 | 450 | 138    | 95  |
| 3     | 80  | 18.50            | 470 | 18.62       | 473 | 29.50       | 750  | 18 | 450 | 116    | 95  | 22.75            | 578 | 23.00       | 584 | 32.50       | 825  | 20 | 500 | 167    | 108 |
| 4     | 100 | 21.50            | 546 | 21.62       | 549 | 36.00       | 915  | 20 | 500 | 215    | 184 | 26.50            | 673 | 26.88       | 683 | 47.00       | 1195 | 24 | 600 | 305    | 196 |
| 6     | 150 | 27.75            | 705 | 28.00       | 711 | 48.62       | 1235 | 24 | 600 | 445    | 347 | 36.00            | 914 | 36.50       | 927 | 70.50       | 1790 | 28 | 700 | 633    | 351 |
| 8     | 200 | 32.75            | 832 | 33.12       | 841 | 65.00       | 1650 | 28 | 700 | 795    | 635 | -                | -   | -           | -   | -           | -    | -  | -   | -      | -   |
| in    | mm  | in               | mm  | in          | mm  | in          | mm   | in | mm  | RF/RTJ | BW  | in               | mm  | in          | mm  | in          | mm   | in | mm  | RF/RTJ | BW  |

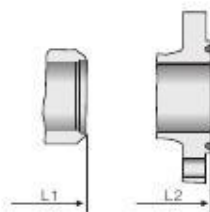
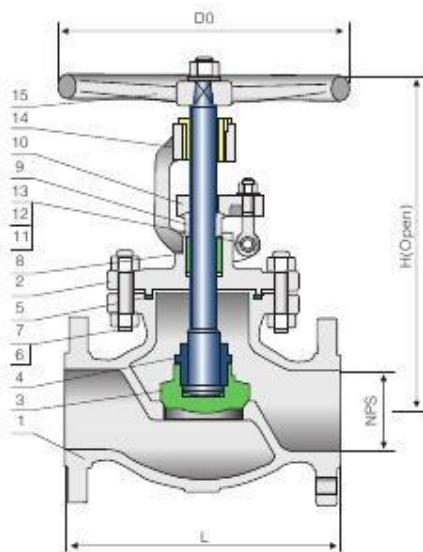
# API603 Corrosion-Resistant Valves Cast Stainless Steel Globe Valves 150Lb

## Applicable Standards:

- STEEL GLOBE VALVES, API 603
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES, ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST, API 598

## Design descriptions:

- STRAIGHT PATTERN BODY DESIGN
- OS&Y, OUTSIDE SCREW AND YOKE
- BB, BOLTED BONNET
- YOKE INTEGRAL WITH BONNET
- RISING STEM AND HANDWHEEL
- LOOSE DISC, CHOICE PLUG OR BALL
- SEAT RINGS INTEGRAL WITH BODY
- IMPACT HANDWHEEL FOR 10" & ABOVE
- HORIZONTAL SERVICE
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH BG OPERATOR



## Materials of parts

| No | Part Name                   | ASTM Materials                |              |               |
|----|-----------------------------|-------------------------------|--------------|---------------|
|    |                             | 18Cr-18Ni                     | 18Cr-9Ni-2Mo | 17Cr-9Ni-2Mo  |
| 1  | Body                        | A351-CF8                      | A351-CF8M    | A351-CF3M     |
| 2  | Bonnet                      | A351-CF8                      | A351-CF8M    | A351-CF3M     |
| 3  | Disc                        | A351-CF8                      | A351-CF8M    | A351-CF3M     |
| 4  | Stem                        | A182-F304                     | A182-F316    | A182-F316L    |
| 5  | Bonnet Gasket <sup>1)</sup> | Graphite+304                  | Graphite+316 | Graphite+316L |
| 6  | Bonnet Stud                 | A193-B8                       | A193-B8M     | A193-B8M      |
| 7  | Bonnet Stud Nut             | A194-8                        | A194-8M      | A194-8M       |
| 8  | Packing <sup>2)</sup>       | Graphite                      |              |               |
| 9  | Gland                       | A276-304                      | A276-316     | A276-316L     |
| 10 | Gland Flange                | A351-CF8                      | A351-CF8M    | A351-CF8M     |
| 11 | Eyebolt Pin                 | A276-304                      | A276-316     | A276-316      |
| 12 | Eyebolt                     | A193-B8                       | A193-B8      | A193-B8       |
| 13 | Eyebolt Nut                 | A194-8                        | A194-8       | A194-8        |
| 14 | Yokesleeve                  | Aluminum-Bronze <sup>3)</sup> |              |               |
| 15 | Handwheel                   | Malleable Iron                |              |               |

Note: 1) Spiral wound construction, teflon optional

2) Teflon optional

3) Ductile Ni-resist optional

4) Disc and seat integral with body may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown

## Dimensional datas

| NPS<br>DN               | 1/2<br>15   | 3/4<br>20   | 1<br>25     | 1 1/2<br>40 | 2<br>50      | 2 1/2<br>65  | 3<br>80      | 4<br>100     | 6<br>150     | 8<br>200     | 10<br>250    | 12<br>300    | 14<br>350     | 16<br>400     | in<br>mm     |
|-------------------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|--------------|
| <b>ANSI Class 150Lb</b> |             |             |             |             |              |              |              |              |              |              |              |              |               |               |              |
| L/L1<br>(RF/BW)         | 4.25<br>108 | 4.62<br>117 | 5.00<br>127 | 6.50<br>165 | 8.00<br>203  | 8.50<br>216  | 9.50<br>241  | 11.50<br>292 | 16.00<br>406 | 19.50<br>495 | 24.50<br>622 | 27.50<br>698 | 31.00<br>787  | 36.00<br>914  | in<br>mm     |
| L2<br>(RTJ)             | —<br>—      | —<br>—      | —<br>—      | —<br>—      | 8.50<br>216  | 9.00<br>229  | 10.00<br>254 | 12.00<br>305 | 16.50<br>419 | 20.00<br>508 | 25.00<br>635 | 28.00<br>711 | 31.50<br>800  | 36.50<br>927  | in<br>mm     |
| H<br>(open)             | 7.00<br>180 | 7.5<br>190  | 8.25<br>210 | 9.25<br>235 | 15.00<br>380 | 21.00<br>535 | 17.50<br>445 | 20.25<br>515 | 22.00<br>560 | 24.25<br>615 | 32.00<br>815 | 35.88<br>910 | 48.38<br>1230 | 57.00<br>1450 | in<br>mm     |
| D0                      | 4<br>100    | 4<br>100    | 4<br>100    | 6<br>140    | 7<br>180     | 10<br>240    | 11<br>280    | 11<br>280    | 13<br>320    | 13<br>320    | 16<br>400    | 18<br>450    | 20<br>500     | 24<br>600     | in<br>mm     |
| WT(kg)                  | 3<br>2.5    | 3.5<br>3    | 4.5<br>4    | 11<br>8     | 18<br>14     | 30<br>22     | 41<br>33     | 64<br>43     | 86<br>72     | 110<br>88    | 280<br>245   | 380<br>345   | 510<br>450    | 740<br>665    | BW<br>RF/RTJ |

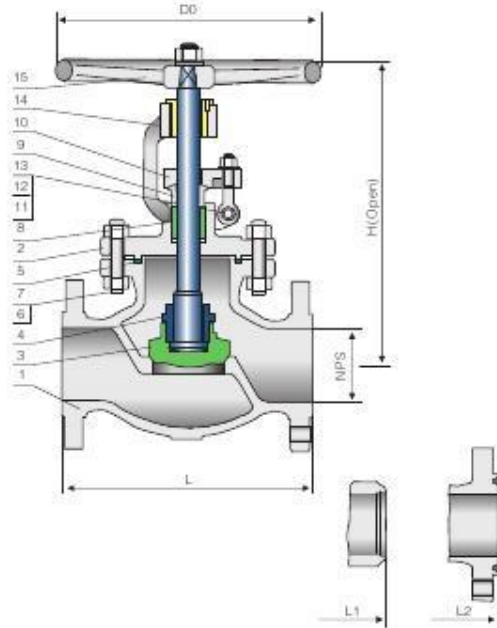
# API 603 Corrosion-Resistant Valves Cast Stainless Steel Globe Valves 300Lb/600Lb

## Applicable Standards:

- STEEL GLOBE VALVES, API 603
- STEEL VALVES, ASME B16.34
- FACE TO FACE, ASME B16.10
- END FLANGES, ASME B16.5
- BUTTWELDING ENDS, ASME B16.25
- INSPECTION AND TEST, API 598

## Design descriptions:

- STRAIGHT PATTERN BODY DESIGN
- OS&Y, OUTSIDE SCREW AND YOKE
- BB, BOLTED BONNET
- YOKE INTEGRAL WITH BONNET
- RISING STEM AND HANDWHEEL
- LOOSE DISC, CHOICE PLUG OR BALL
- SEAT RINGS INTEGRAL WITH BODY
- IMPACT HANDWHEEL FOR 10" & ABOVE
- HORIZONTAL SERVICE
- FLANGED OR BUTTWELDING ENDS
- AVAILABLE WITH BG OPERATOR



## Materials of parts

| No | Part Name                   | ASTM Materials                |              |               |
|----|-----------------------------|-------------------------------|--------------|---------------|
|    |                             | 18Cr-18Ni                     | 18Cr-9Ni-2Mo | 17Cr-9Ni-2Mo  |
| 1  | Body                        | A351-CF8                      | A351-CF8M    | A351-CF3M     |
| 2  | Bonnet                      | A351-CF8                      | A351-CF8M    | A351-CF3M     |
| 3  | Disc                        | A351-CF8                      | A351-CF8M    | A351-CF3M     |
| 4  | Stem                        | A182-F304                     | A182-F316    | A182-F316L    |
| 5  | Bonnet Gasket <sup>1)</sup> | Graphite+304                  | Graphite+316 | Graphite+316L |
| 6  | Bonnet Stud                 | A193-B8                       | A193-B8M     | A193-B8M      |
| 7  | Bonnet Stud Nut             | A194-8                        | A194-8M      | A194-8M       |
| 8  | Packing <sup>2)</sup>       | Graphite                      |              |               |
| 9  | Gland                       | A276-304                      | A276-316     | A276-316L     |
| 10 | Gland Flange                | A351-CF8                      | A351-CF8M    | A351-CF8M     |
| 11 | Eyebolt Pin                 | A276-304                      | A276-316     | A276-316      |
| 12 | Eyebolt                     | A193-B8                       | A193-B8      | A193-B8       |
| 13 | Eyebolt Nut                 | A194-8                        | A194-8       | A194-8        |
| 14 | Yokesleeve                  | Aluminum-Bronze <sup>3)</sup> |              |               |
| 15 | Handwheel                   | Malleable Iron                |              |               |

Note: 1) Spiral wound construction, teflon optional

2) Teflon optional

3) Ductile Ni-resist optional

4) Disc and seat integral with body may either be solid facing material or a base material equal to or better than the body/bonnet material with facing as shown

## Dimensional datas of ANSI Class 300Lb

| NPS<br>DN       | 1/2<br>15   | 3/4<br>20   | 1<br>25     | 1 1/2<br>40 | 2<br>50      | 2 1/2<br>65  | 3<br>80      | 4<br>100     | 6<br>150     | 8<br>200     | 10<br>250    | 12<br>300    | 14<br>350 | 16<br>400 | in<br>mm     |
|-----------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------|-----------|--------------|
| L/L1<br>(RF/BW) | 6.00<br>152 | 7.00<br>178 | 8.00<br>203 | 9.00<br>229 | 10.50<br>267 | 11.50<br>292 | 12.50<br>318 | 14.00<br>356 | 17.50<br>444 | 22.00<br>559 | 24.50<br>622 | 28.00<br>711 | -         | -         | in<br>mm     |
| L2<br>(RTJ)     | -           | -           | -           | -           | 11.12<br>282 | 12.12<br>308 | 13.12<br>333 | 14.62<br>371 | 18.12<br>460 | 22.62<br>575 | 25.12<br>638 | 28.62<br>727 | -         | -         | in<br>mm     |
| H<br>(open)     | 7.00<br>180 | 7.50<br>190 | 8.25<br>210 | 9.25<br>235 | 16.75<br>425 | 19.00<br>485 | 19.88<br>505 | 22.50<br>570 | 25.25<br>640 | 33.25<br>845 | 35.50<br>900 | 38.62<br>980 | -         | -         | in<br>mm     |
| D0              | 4<br>100    | 4<br>100    | 4<br>100    | 6<br>140    | 8<br>200     | 10<br>240    | 11<br>280    | 13<br>320    | 16<br>400    | 18<br>450    | 20<br>500    | 24<br>600    | -         | -         | in<br>mm     |
| WT(kg)          | 4<br>3      | 4.5<br>3.5  | 6<br>5      | 15<br>12    | 25<br>20     | 32<br>22     | 38<br>27     | 56<br>41     | 96<br>75     | 150<br>117   | 360<br>310   | 550<br>492   | -         | -         | BW<br>RF/RTJ |

## Dimensional datas of ANSI Class 600Lb

| NPS<br>DN       | 1/2<br>15   | 3/4<br>20   | 1<br>25     | 1 1/2<br>40  | 2<br>50      | 2 1/2<br>65  | 3<br>80      | 4<br>100     | 6<br>150     | 8<br>200     | 10<br>250     | 12<br>300     | 14<br>350 | 16<br>400 | in<br>mm     |
|-----------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|-----------|-----------|--------------|
| L/L1<br>(RF/BW) | 6.50<br>165 | 7.50<br>190 | 8.50<br>216 | 9.50<br>241  | 11.50<br>292 | 13.00<br>330 | 14.00<br>356 | 17.00<br>432 | 22.00<br>559 | 26.00<br>660 | 31.00<br>787  | 33.00<br>838  | -         | -         | in<br>mm     |
| L2<br>(RTJ)     | -           | -           | -           | -            | 11.62<br>295 | 13.12<br>333 | 14.12<br>359 | 17.12<br>435 | 22.12<br>562 | 26.12<br>663 | 31.12<br>790  | 33.12<br>841  | -         | -         | in<br>mm     |
| H<br>(open)     | 7.25<br>185 | 7.62<br>195 | 9.00<br>230 | 11.00<br>280 | 17.50<br>445 | 19.75<br>502 | 21.00<br>533 | 24.50<br>622 | 29.50<br>750 | 36.50<br>927 | 44.88<br>1140 | 53.12<br>1350 | -         | -         | in<br>mm     |
| D0              | 4<br>100    | 4<br>100    | 6<br>140    | 5<br>200     | 10<br>240    | 11<br>280    | 13<br>320    | 16<br>400    | 18<br>450    | 20<br>500    | 24<br>600     | 24<br>600     | -         | -         | in<br>mm     |
| WT(kg)          | 6<br>4.8    | 8<br>6.2    | 14<br>9.5   | 23<br>16.5   | 35<br>27     | 50<br>34     | 60<br>42     | 110<br>84    | 230<br>192   | 410<br>350   | 770<br>680    | 1140<br>1030  | -         | -         | BW<br>RF/RTJ |