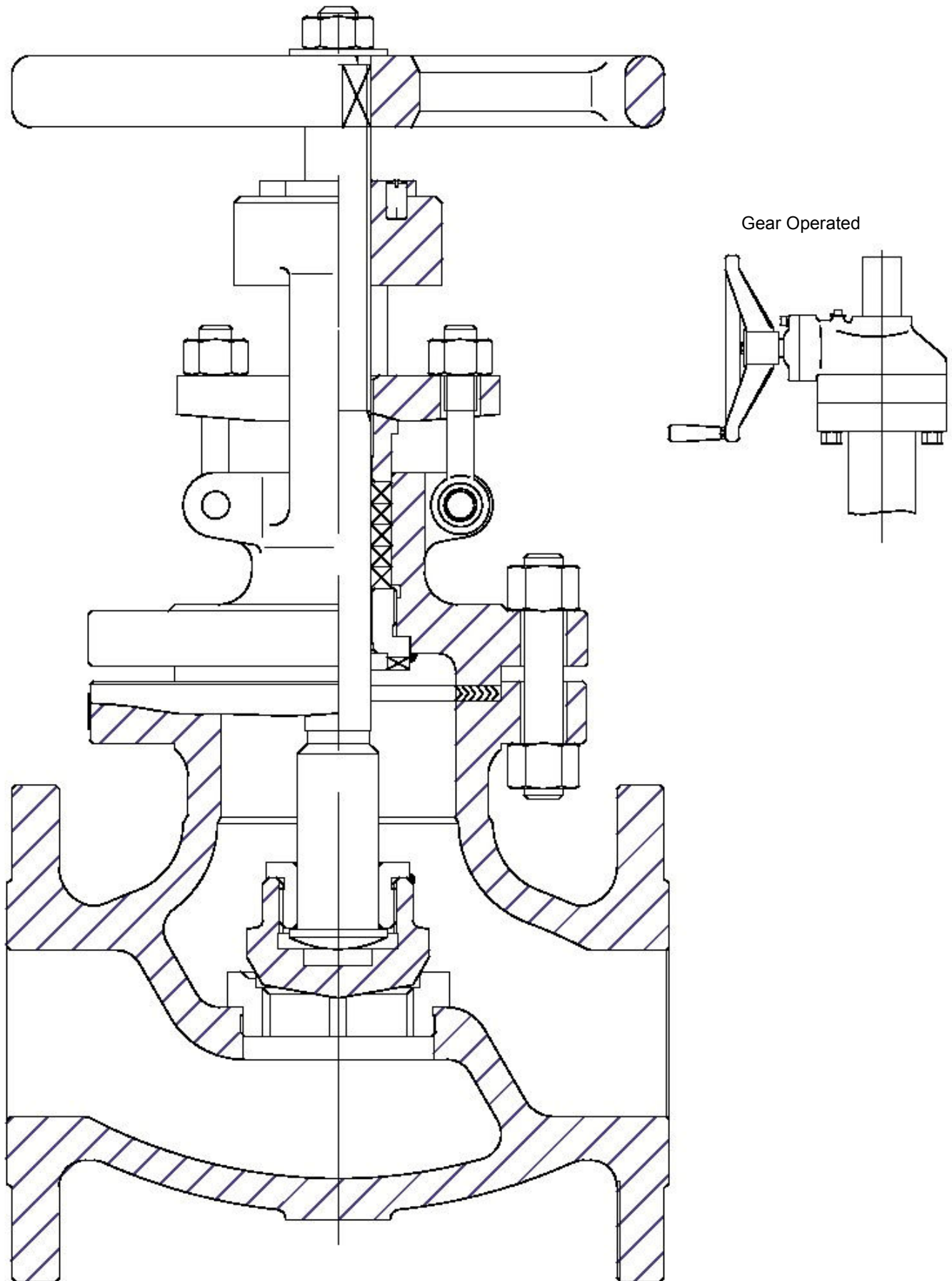


# Globe Valves

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## Globe Valves

**Description:** Bolted bonnet globe valves  
Outside screw and yoke  
Rising stem with plug type disc

**Design Standards:** BS1873  
ASME B16.34

**Wall Thickness:** API600

**Face to Face:** ANSI B16.10

**End Connection:** Raised face  
Ring type joint  
ANSI B16.5  
ASME B16.47 series A or B  
BS4504 PN16, 25, 40, 64, etc  
BS10 table D, E, F, G, H, etc  
Undrilled  
Butt weld ANSI B16.25



**Marking:** MSS-SP-25

| Bill of Materials and Parts for standard material configurations. (Other materials see page 20-21) |   |               |                 |                 |                |
|--|---|---------------|-----------------|-----------------|----------------|
| Part Name  | ASTM Specifications (Specs.-Grades/Types)   |               |                 |                 |                |
|  | A216  | A352          | A217            |                 | A351           |
|  | WCB   | LCC           | WC6             | C5              | CF8M           |
| Body   | A216-WCB                                    | A352-LCC      | A217-WC6        | A217-C5         | A351-CF8M      |
| Seat Ring  | A105, LF2, 316, 304                         |               |                 |                 |                |
| Seat Ring Surface  | 13Cr, HF(STELLITE), 316, 304, Monel         |               |                 |                 |                |
| Disc   | A216-WCB                                    | A352-LCC      | A217-WC6        | A217-C5         | A351-CF8M      |
| Disc Sealing Surface   | 13Cr, HF(STELLITE), 316, 304, Monel         |               |                 |                 |                |
| Disc Thrust Plate  | 13Cr, 316, 304                              |               |                 |                 |                |
| Disc Nut   | 13Cr, 316, 304                              |               |                 |                 |                |
| Stem   | 13Cr, 316, 304, 17-4PH, Monel               |               |                 |                 |                |
| Bolting  | A194-2H/A193-B7                             | A194-4/A320L7 | A194-2H/A193-B7 | A194-2H/A193-B7 | A194-8/A193-B8 |
| Bonnet Gasket  | Soft Iron, Spiral Wound                     |               |                 |                 |                |
| Backseat Bushing   | 13Cr, 316, 304                              |               |                 |                 |                |
| Stem Packing   | Braided Graphite & Die Formed Graphite Ring |               |                 |                 |                |
| Bonnet   | A216-WCB                                    | A352-LCC      | A217-WC6        | A217-C5         | A351-CF8M      |
| Gland  | 13Cr, 316, 304                              |               |                 |                 |                |
| Gland Flange   | A216-WCB                                    | A352-LCC      | A217-WC6        | A217-C5         | A351-CF8M      |
| Stem Nut   | ASTM A439 GR D2C                            |               |                 |                 |                |
| Screw  | Carbon Steel                                |               |                 |                 | 316            |
| Handwheel  | Malleable Iron                              |               |                 |                 |                |
| Handwheel Nut  | Carbon Steel                                |               |                 |                 | 316            |
| Handwheel Washer   | Carbon Steel                                |               |                 |                 | 316            |

# Globe Valves

## ANSI Globe Valves Class 150

| Dimensions and Weights |                 |      |                  |      |                 |      |          |      |                                 | *Gear Operated      |
|------------------------|-----------------|------|------------------|------|-----------------|------|----------|------|---------------------------------|---------------------|
| Nom Size               | Face to Face RF |      | Face to Face RTJ |      | Face to Face BW |      | Height,* |      | Handwheel Diameter <sub>r</sub> | Weight <sub>r</sub> |
|                        | in              | mm   | in               | mm   | in              | mm   | in       | mm   |                                 |                     |
| 2                      | 8.00            | 203  | 8.50             | 216  | 8.00            | 203  | 16.12    | 410  | 200                             | 22                  |
| 2½                     | 8.50            | 216  | 9.00             | 229  | 8.50            | 216  | 17.00    | 432  | 200                             | 30                  |
| 3                      | 9.50            | 241  | 10.00            | 254  | 9.50            | 241  | 17.68    | 450  | 250                             | 42                  |
| 4                      | 11.50           | 292  | 12.00            | 305  | 11.50           | 292  | 19.68    | 500  | 250                             | 60                  |
| 5                      | 14.00           | 356  | 14.50            | 368  | 14.00           | 356  | 21.19    | 538  | 300                             | 77                  |
| 6                      | 16.00           | 406  | 16.50            | 419  | 16.00           | 406  | 21.62    | 550  | 350                             | 101                 |
| 8                      | 19.50           | 495  | 20.00            | 508  | 19.50           | 495  | 24.43    | 620  | 400                             | 161                 |
| 10                     | 24.50           | 622  | 25.00            | 635  | 24.50           | 622  | 30.00    | 762  | 750                             | 308                 |
| 12                     | 27.50           | 698  | 28.00            | 711  | 27.50           | 698  | 33.88    | 860  | 750                             | 410                 |
| 14*                    | 31.00           | 787  | 31.50            | 800  | 31.00           | 787  | 56.00    | 1442 | GO                              | 610                 |
| 16*                    | 36.00           | 914  | 36.50            | 927  | 36.00           | 914  | 64.00    | 1625 | GO                              | 880                 |
| 18*                    | 38.50           | 977  | 39.00            | 990  | 38.50           | 977  | 71.18    | 1820 | GO                              | 1150                |
| 20*                    | 38.50           | 977  | 39.00            | 990  | 38.50           | 977  | 79.64    | 2023 | GO                              | 1650                |
| 24*                    | 51.00           | 1295 | 51.50            | 1308 | 51.00           | 1295 | 87.72    | 2228 | GO                              | 2200                |

## ANSI Globe Valves Class 300

| Dimensions and Weights |                 |     |                  |     |                 |     |          |      |                                 | *Gear Operated      |
|------------------------|-----------------|-----|------------------|-----|-----------------|-----|----------|------|---------------------------------|---------------------|
| Nom Size               | Face to Face RF |     | Face to Face RTJ |     | Face to Face BW |     | Height,* |      | Handwheel Diameter <sub>r</sub> | Weight <sub>r</sub> |
|                        | in              | mm  | in               | mm  | in              | mm  | in       | mm   |                                 |                     |
| 2                      | 10.50           | 267 | 11.13            | 282 | 10.50           | 267 | 16.56    | 420  | 200                             | 31                  |
| 2½                     | 11.50           | 292 | 12.13            | 308 | 11.50           | 292 | 17.13    | 435  | 200                             | 40                  |
| 3                      | 12.50           | 318 | 13.13            | 333 | 12.50           | 318 | 17.68    | 450  | 250                             | 58                  |
| 4                      | 14.00           | 356 | 14.63            | 371 | 14.00           | 356 | 20.50    | 520  | 250                             | 86                  |
| 5                      | 15.75           | 400 | 16.38            | 416 | 15.75           | 400 | 24.38    | 620  | 400                             | 130                 |
| 6                      | 17.50           | 446 | 18.13            | 460 | 17.50           | 446 | 25.56    | 650  | 400                             | 150                 |
| 8                      | 22.00           | 559 | 22.63            | 575 | 22.00           | 559 | 31.50    | 800  | 400                             | 397                 |
| 10                     | 24.50           | 622 | 25.13            | 638 | 24.50           | 622 | 41.00    | 1040 | 500                             | 527                 |
| 12                     | 28.00           | 711 | 28.63            | 727 | 28.00           | 711 | 44.88    | 1140 | 600                             | 608                 |
| 14*                    | 33.00           | 838 | 33.62            | 854 | 33.00           | 838 | 50.59    | 1285 | GO                              | 630                 |
| 16*                    | 34.00           | 863 | 34.61            | 879 | 34.00           | 863 | 56.30    | 1430 | GO                              | 880                 |

## ANSI Globe Valves Class 600

| Dimensions and Weights |                 |     |                  |     |                 |     |          |      |                                 | *Gear Operated      |
|------------------------|-----------------|-----|------------------|-----|-----------------|-----|----------|------|---------------------------------|---------------------|
| Nom Size               | Face to Face RF |     | Face to Face RTJ |     | Face to Face BW |     | Height,* |      | Handwheel Diameter <sub>r</sub> | Weight <sub>r</sub> |
|                        | in              | mm  | in               | mm  | in              | mm  | in       | mm   |                                 |                     |
| 2                      | 11.50           | 292 | 11.63            | 295 | 11.50           | 292 | 16.75    | 425  | 250                             | 57                  |
| 2½                     | 13.00           | 330 | 13.13            | 333 | 13.00           | 330 | 19.75    | 502  | 300                             | 73                  |
| 3                      | 14.00           | 356 | 14.13            | 359 | 14.00           | 356 | 20.50    | 521  | 350                             | 89                  |
| 4                      | 17.00           | 432 | 17.13            | 435 | 17.00           | 432 | 24.38    | 620  | 450                             | 149                 |
| 6                      | 22.00           | 559 | 22.13            | 562 | 22.00           | 559 | 34.88    | 886  | 560                             | 417                 |
| 8                      | 26.00           | 660 | 26.13            | 663 | 26.00           | 660 | 36.69    | 932  | 630                             | 542                 |
| 10*                    | 31.00           | 788 | 31.13            | 790 | 31.00           | 788 | 41.00    | 1040 | GO                              | 700                 |
| 12*                    | 33.00           | 838 | 33.13            | 841 | 33.00           | 838 | 50.38    | 1280 | GO                              | 900                 |

## ANSI Globe Valves Class 900

| Dimensions and Weights |                 |     |                  |     |                 |     |          |      |                                 | *Gear Operated      |
|------------------------|-----------------|-----|------------------|-----|-----------------|-----|----------|------|---------------------------------|---------------------|
| Nom Size               | Face to Face RF |     | Face to Face RTJ |     | Face to Face BW |     | Height,* |      | Handwheel Diameter <sub>r</sub> | Weight <sub>r</sub> |
|                        | in              | mm  | in               | mm  | in              | mm  | in       | mm   |                                 |                     |
| 2                      | 14.50           | 368 | 14.63            | 371 | 14.50           | 368 | 23.63    | 600  | 300                             | 87                  |
| 2½                     | 16.50           | 419 | 16.63            | 422 | 16.50           | 419 | 26.00    | 660  | 350                             | 130                 |
| 3                      | 15.00           | 381 | 15.13            | 384 | 15.00           | 381 | 28.13    | 665  | 350                             | 122                 |
| 4                      | 18.00           | 457 | 18.13            | 460 | 18.00           | 457 | 31.50    | 800  | 500                             | 182                 |
| 6                      | 24.00           | 610 | 24.13            | 613 | 24.00           | 610 | 40.00    | 1015 | 600                             | 434                 |
| 8                      | 29.00           | 737 | 29.13            | 740 | 29.00           | 737 | 45.13    | 1145 | 600                             | 730                 |
| 10*                    | 33.00           | 838 | 33.15            | 842 | 33.00           | 838 | 50.31    | 1278 | GO                              | 1231                |
| 12*                    | 38.00           | 965 | 38.22            | 971 | 38.00           | 965 | 55.55    | 1411 | GO                              | 1568                |

# Globe Valves

## ANSI Globe Valves Class 1500

| Dimensions and Weights |                    |      |                     |      |                    |      |          |      |                         | *Gear Operated |
|------------------------|--------------------|------|---------------------|------|--------------------|------|----------|------|-------------------------|----------------|
| Nom Size               | Face to Face<br>RF |      | Face to Face<br>RTJ |      | Face to Face<br>BW |      | Height,* |      | Handwheel<br>Diameter,† | Weight,†       |
|                        | in                 | mm   | in                  | mm   | in                 | mm   | in       | mm   | mm                      | Kgs            |
| 2                      | 14.50              | 368  | 14.62               | 371  | 14.50              | 368  | 21.50    | 546  | 320                     | 87             |
| 2½                     | 16.50              | 419  | 16.60               | 422  | 16.50              | 419  | 23.20    | 589  | 350                     | 168            |
| 3                      | 18.50              | 470  | 18.62               | 473  | 18.50              | 470  | 28.00    | 711  | 440                     | 250            |
| 4                      | 21.50              | 546  | 21.62               | 549  | 21.50              | 546  | 28.25    | 718  | 500                     | 435            |
| 6                      | 27.75              | 705  | 27.87               | 708  | 27.75              | 705  | 35.04    | 890  | 630                     | 540            |
| 8*                     | 32.75              | 832  | 32.87               | 835  | 32.75              | 832  | 48.82    | 1240 | GO                      | 970            |
| 10*                    | 39.00              | 991  | 39.12               | 994  | 39.00              | 991  | 65.00    | 1651 | GO                      | 1520           |
| 12*                    | 44.50              | 1130 | 44.62               | 1133 | 44.50              | 1130 | 73.62    | 1870 | GO                      | 1960           |

\* Height dimension is from Centreline of valve to top of handwheel in open position.

† These weights and dimensions are for guidance only.