

## AWWA C500 Metal Seated Gate Valves

Metal Seated Gate Valves are used as isolation valve in a broad range of water and wastewater applications and are suitable for both above ground and underground installation.

### Design Features:

- ✦ Metal Seated Gate Valves fully meet or exceed AWWA C500 and MSS SP 70 standards.
- ✦ High strength ductile iron body used for lowering the weight and improving long term durability.
- ✦ All iron parts are coated inside & outside with fusion bonded epoxy for corrosion resistance per AWWA C550.
- ✦ Design with solid wedge and bronze trim to reduce wear and tear.
- ✦ Upper O-Rings are replaceable with valve fully open under operating pressure.
- ✦ ANSI B16.1 Class 125 and ANSI B16.5 Class 150 flanges are both available. Mechanical Joints connection available as option.
- ✦ NSF61 & NSF372 certified for Drinking Water.
- ✦ UL listed Valve.



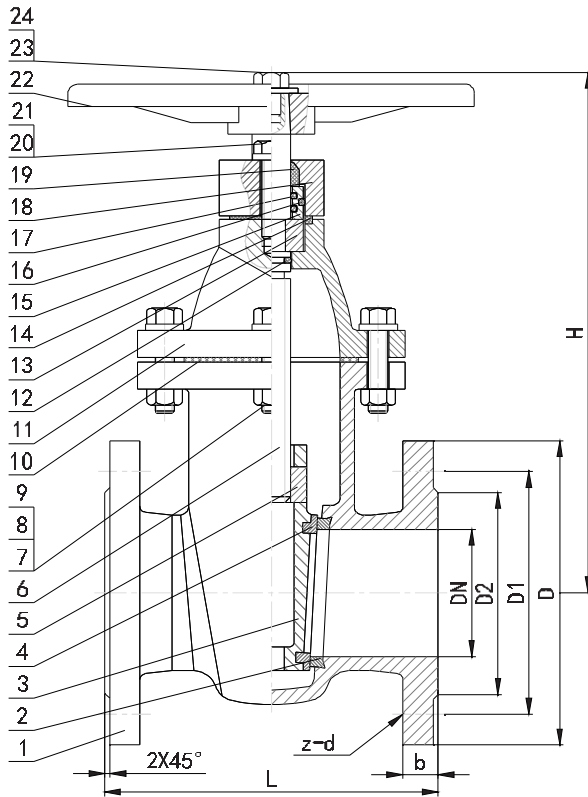
### Typical Applications:

General Water Supply, Fire Fighting, HVAC, District Cooling & Sewage System

### Technical Data:

|                      |                         |
|----------------------|-------------------------|
| Design Standard:     | AWWA C500 / MSS SP 70   |
| Size Range:          | 2" – 24"                |
| Pressure Rating:     | 200 psi / 300 psi       |
| Working Temperature: | -10°C – 80°C            |
| End Connection:      | ANSI B16.1 / ANSI B16.5 |
| Face-to-Face:        | AWWA C500               |
| Test & Inspection:   | AWWA C500               |

## Metal Seated Gate Valves (Non-Rising Stem) 2" - 24"



### Parts List & Materials

| No. | Parts Name      | Materials       | Standards  |
|-----|-----------------|-----------------|------------|
| 1   | Body            | Ductile Iron    | ASTM A536  |
| 2   | Body Seat Ring  | Bronze          | ASTM B62   |
| 3   | Wedge           | Ductile Iron    | ASTM A536  |
| 4   | Wedge Seat Ring | Bronze          | ASTM B62   |
| 5   | Stem Nut        | Bronze          | ASTM B62   |
| 6   | Stem            | Stainless Steel | SS420      |
| 7   | Bonnet Bolt     | Carbon Steel    | A3         |
| 8   | Nut             | Carbon Steel    | A3         |
| 9   | Washer          | Carbon Steel    | A3         |
| 10  | Gasket          | NBR             | ASTM D2000 |
| 11  | Bonnet          | Ductile Iron    | ASTM A536  |
| 12  | O-Ring          | NBR             | ASTM D2000 |
| 13  | Locating Ring   | Bronze          | ASTM B62   |
| 14  | Minipad         | Teflon          | -          |
| 15  | Seal Ring       | Bronze          | ASTM B62   |
| 16  | O-Ring          | NBR             | ASTM D2000 |
| 17  | O-Ring          | NBR             | ASTM D2000 |
| 18  | Gland           | Ductile Iron    | ASTM A536  |
| 19  | Dust Ring       | NBR             | ASTM D2000 |
| 20  | Bolt            | Carbon Steel    | A3         |
| 21  | Washer          | Carbon Steel    | A3         |
| 22  | Handwheel       | Ductile Iron    | ASTM A536  |
| 23  | Washer          | Carbon Steel    | A3         |
| 24  | Bolt            | Carbon Steel    | A3         |

### Main Dimensions

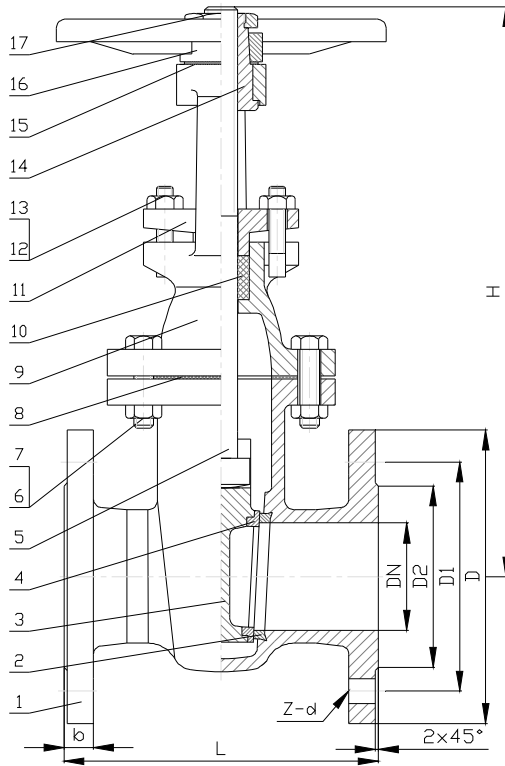
unit: inch

| NPS    | D      | D1     | D2     | L      | b     | H      | Z-d        |
|--------|--------|--------|--------|--------|-------|--------|------------|
| 2"     | 6      | 3 5/8  | 4 3/4  | 7      | 5/8   | 10 3/8 | 4 - 3/4    |
| 2 1/2" | 7      | 4 1/8  | 5 1/2  | 7 1/2  | 3/4   | 11 3/8 | 4 - 3/4    |
| 3"     | 7 1/2  | 5      | 6      | 8      | 3/4   | 12 1/2 | 4 - 3/4    |
| 4"     | 9      | 6 1/8  | 7 1/2  | 9      | 1     | 13 7/8 | 8 - 3/4    |
| 5"     | 10     | 7 3/8  | 8 1/2  | 10     | 1     | 16 1/8 | 8 - 7/8    |
| 6"     | 11     | 8 1/2  | 9 1/2  | 10 1/2 | 1     | 17 1/2 | 8 - 7/8    |
| 8"     | 13 1/2 | 10 5/8 | 11 3/4 | 11 1/2 | 1 1/8 | 21 1/8 | 8 - 7/8    |
| 10"    | 16     | 12 3/4 | 14 1/4 | 13     | 1 1/4 | 24 1/4 | 12 - 1     |
| 12"    | 19     | 15     | 17     | 14     | 1 1/4 | 27 3/8 | 12 - 1     |
| 14"    | 21     | 16 1/4 | 18 3/4 | 15     | 1 3/8 | 30 3/4 | 12 - 1 1/8 |
| 16"    | 23 1/2 | 18 1/2 | 21 1/4 | 16     | 1 1/2 | 33 3/4 | 16 - 1 1/8 |
| 18"    | 25     | 21     | 22 3/4 | 17     | 1 1/2 | 36 3/4 | 16 - 1 1/4 |
| 20"    | 27 1/2 | 23     | 25     | 18     | 1 3/4 | 39 3/4 | 20 - 1 1/4 |
| 24"    | 32     | 27 1/4 | 29 1/2 | 20     | 1 7/8 | 46     | 20 - 1 3/8 |

unit: mm

| DN  | D   | D1    | D2  | L   | b  | H    | Z-d     |
|-----|-----|-------|-----|-----|----|------|---------|
| 50  | 152 | 120.5 | 92  | 178 | 16 | 280  | 4 - 19  |
| 65  | 178 | 139.5 | 105 | 190 | 18 | 310  | 4 - 19  |
| 80  | 191 | 152.5 | 127 | 203 | 19 | 335  | 4 - 19  |
| 100 | 229 | 190.5 | 157 | 229 | 24 | 375  | 8 - 19  |
| 125 | 254 | 216   | 186 | 254 | 24 | 420  | 8 - 22  |
| 150 | 279 | 241.5 | 216 | 267 | 26 | 465  | 8 - 22  |
| 200 | 343 | 298.5 | 270 | 292 | 29 | 555  | 8 - 22  |
| 250 | 406 | 362   | 324 | 330 | 31 | 640  | 12 - 25 |
| 300 | 483 | 432   | 381 | 356 | 32 | 715  | 12 - 25 |
| 350 | 533 | 476   | 413 | 381 | 35 | 810  | 12 - 29 |
| 400 | 597 | 539.5 | 470 | 406 | 37 | 890  | 16 - 29 |
| 450 | 635 | 577.9 | 533 | 432 | 39 | 980  | 16 - 32 |
| 500 | 699 | 635   | 584 | 457 | 43 | 150  | 20 - 32 |
| 600 | 813 | 749.5 | 692 | 508 | 48 | 1210 | 20 - 35 |

## Metal Seated Gate Valves (OS&Y) 2" - 6"



### Parts List & Materials

| No. | Parts Name      | Materials       | Standards  |
|-----|-----------------|-----------------|------------|
| 1   | Body            | Ductile Iron    | ASTM A536  |
| 2   | Body Seat Ring  | Bronze          | ASTM B62   |
| 3   | Wedge           | Ductile Iron    | ASTM A536  |
| 4   | Wedge Seat Ring | Bronze          | ASTM B62   |
| 5   | Stem            | Stainless Steel | SS420      |
| 6   | Bonnet Bolt     | Carbon Steel    | A3         |
| 7   | Nut             | Carbon Steel    | A3         |
| 8   | Gasket          | NBR             | ASTM D2000 |
| 9   | Bonnet          | Ductile Iron    | ASTM A536  |
| 10  | Packing         | Graphite        | -          |
| 11  | Gland           | Ductile Iron    | ASTM A536  |
| 12  | Bolt            | Carbon Steel    | A3         |
| 13  | Nut             | Carbon Steel    | A3         |
| 14  | Stem Nut        | Bronze          | ASTM B62   |
| 15  | Washer          | Carbon Steel    | A3         |
| 16  | Handwheel       | Ductile Iron    | ASTM A536  |
| 17  | Locking Nut     | Bronze          | ASTM B62   |

### Main Dimensions

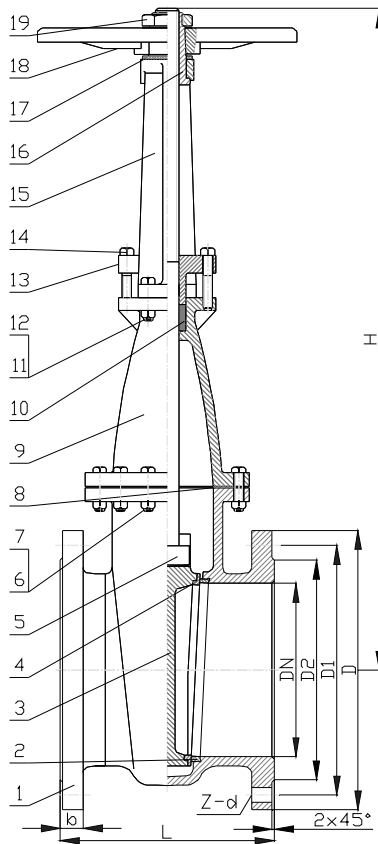
unit: inch

| NPS    | D     | D1                            | D2                            | L      | b                           | H                              | Z-d                             |
|--------|-------|-------------------------------|-------------------------------|--------|-----------------------------|--------------------------------|---------------------------------|
| 2"     | 6     | 3 <sup>5</sup> / <sub>8</sub> | 4 <sup>3</sup> / <sub>4</sub> | 7      | <sup>5</sup> / <sub>8</sub> | 10 <sup>3</sup> / <sub>8</sub> | 4 - <sup>3</sup> / <sub>4</sub> |
| 2 1/2" | 7     | 4 <sup>1</sup> / <sub>8</sub> | 5 1/2                         | 7 1/2  | <sup>3</sup> / <sub>4</sub> | 11 <sup>3</sup> / <sub>8</sub> | 4 - <sup>3</sup> / <sub>4</sub> |
| 3"     | 7 1/2 | 5                             | 6                             | 8      | <sup>3</sup> / <sub>4</sub> | 12 1/2                         | 4 - <sup>3</sup> / <sub>4</sub> |
| 4"     | 9     | 6 <sup>1</sup> / <sub>8</sub> | 7 1/2                         | 9      | 1                           | 13 <sup>3</sup> / <sub>8</sub> | 8 - <sup>3</sup> / <sub>4</sub> |
| 5"     | 10    | 7 <sup>3</sup> / <sub>8</sub> | 8 1/2                         | 10     | 1                           | 16 <sup>1</sup> / <sub>8</sub> | 8 - <sup>7</sup> / <sub>8</sub> |
| 6"     | 11    | 8 1/2                         | 9 1/2                         | 10 1/2 | 1                           | 17 1/2                         | 8 - <sup>7</sup> / <sub>8</sub> |

unit: mm

| DN  | D   | D1    | D2  | L   | b    | H   | Z-d    |
|-----|-----|-------|-----|-----|------|-----|--------|
| 50  | 152 | 120.5 | 92  | 178 | 16   | 329 | 4 - 19 |
| 65  | 178 | 139.5 | 105 | 190 | 17.5 | 372 | 4 - 19 |
| 80  | 191 | 152.5 | 127 | 203 | 19   | 426 | 4 - 19 |
| 100 | 229 | 190.5 | 157 | 229 | 24   | 496 | 8 - 19 |
| 125 | 254 | 216   | 186 | 245 | 24   | 576 | 8 - 22 |
| 150 | 279 | 241.5 | 216 | 267 | 25.5 | 630 | 8 - 22 |

## Metal Seated Gate Valves (OS&Y) 8" - 24"



### Parts List & Materials

| No. | Parts Name      | Materials       | Standards  |
|-----|-----------------|-----------------|------------|
| 1   | Body            | Ductile Iron    | ASTM A536  |
| 2   | Body Seat Ring  | Bronze          | ASTM B62   |
| 3   | Wedge           | Ductile Iron    | ASTM A536  |
| 4   | Wedge Seat Ring | Bronze          | ASTM B62   |
| 5   | Stem            | Stainless Steel | SS420      |
| 6   | Bonnet Bolt     | Carbon Steel    | A3         |
| 7   | Nut             | Carbon Steel    | A3         |
| 8   | Gasket          | NBR             | ASTM D2000 |
| 9   | Bonnet          | Ductile Iron    | ASTM A536  |
| 10  | Packing         | Graphite        | -          |
| 11  | Bolt            | Carbon Steel    | A3         |
| 12  | Nut             | Carbon Steel    | A3         |
| 13  | Gland           | Ductile Iron    | ASTM A536  |
| 14  | Bolt            | Carbon Steel    | A3         |
| 15  | Yoke            | Ductile Iron    | ASTM A536  |
| 16  | Stem Nut        | Bronze          | ASTM B62   |
| 17  | Washer          | Carbon Steel    | A3         |
| 18  | Handwheel       | Ductile Iron    | ASTM A536  |
| 19  | Locking Nut     | Bronze          | ASTM B62   |

### Main Dimensions

unit: inch

| NPS | D      | D1     | D2     | L      | b     | H      | Z-d        |
|-----|--------|--------|--------|--------|-------|--------|------------|
| 8"  | 13 1/2 | 10 5/8 | 11 3/4 | 11 1/2 | 1 1/8 | 21 1/8 | 8 - 7/8    |
| 10" | 16     | 12 3/4 | 14 1/4 | 13     | 1 1/4 | 24 1/4 | 12 - 1     |
| 12" | 19     | 15     | 17     | 14     | 1 1/4 | 27 3/8 | 12 - 1     |
| 14" | 21     | 16 1/4 | 18 3/4 | 15     | 1 3/8 | 30 3/4 | 12 - 1 1/8 |
| 16" | 23 1/2 | 18 1/2 | 21 1/4 | 16     | 1 1/2 | 33 3/4 | 16 - 1 1/8 |
| 20" | 27 1/2 | 23     | 25     | 18     | 1 3/4 | 39 3/4 | 20 - 1 1/4 |
| 24" | 32     | 27 1/4 | 29 1/2 | 20     | 1 7/8 | 46     | 20 - 1 3/8 |

unit: mm

| DN  | D   | D1    | D2  | L   | b  | H    | Z-d     |
|-----|-----|-------|-----|-----|----|------|---------|
| 200 | 343 | 298.5 | 270 | 292 | 29 | 555  | 8 - 22  |
| 250 | 406 | 362   | 324 | 330 | 31 | 640  | 12 - 25 |
| 300 | 483 | 432   | 381 | 356 | 32 | 715  | 12 - 25 |
| 350 | 533 | 476   | 413 | 381 | 35 | 810  | 12 - 29 |
| 400 | 597 | 539.5 | 470 | 406 | 37 | 890  | 16 - 29 |
| 500 | 699 | 635   | 584 | 457 | 43 | 1015 | 20 - 32 |
| 600 | 813 | 749.5 | 692 | 508 | 48 | 1210 | 20 - 35 |

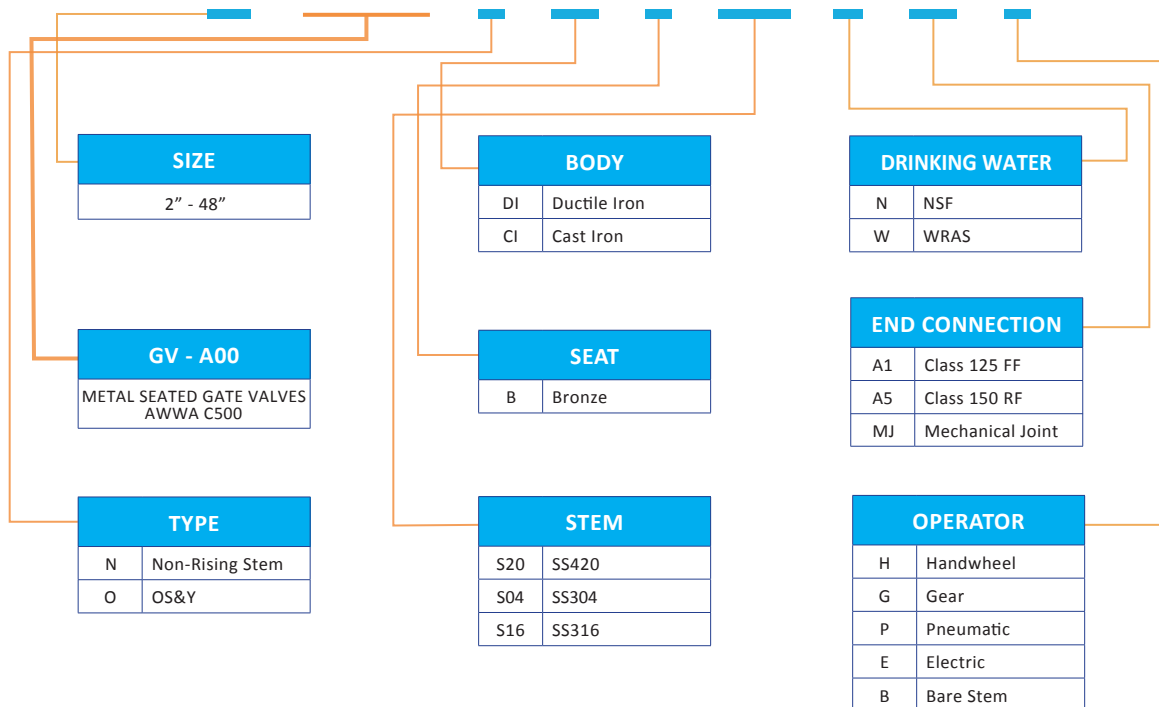
## Technical Parameters

| NPS | DN  | Torque (N.m) * | Weight (kg) | Number of turns |
|-----|-----|----------------|-------------|-----------------|
| 4"  | 100 | 120            | 35          | 14.2            |
| 5"  | 125 | 170            | 43          | 14.2            |
| 6"  | 150 | 200            | 54          | 16.7            |
| 8"  | 200 | 250            | 89          | 18.5            |
| 10" | 250 | 300            | 137         | 22.8            |
| 12" | 300 | 330            | 190         | 26.8            |
| 18" | 450 | 450            | 405         | 58.1            |
| 20" | 500 | 500            | 470         | 64.3            |
| 24" | 600 | 550            | 680         | 77              |

\* Not including safety factor.

## PRODUCT SELECTION

**VT - XX - GV-A00 - X - XX - X - XXX - X - XX - X**



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