



## Gate Valve

### Standard Features

- Straight-through flow with minimal pressure drop
- Unique sliding cylindrical plug design provides larger seating area than conventional gate valves
- Made of durable, corrosion resistant plastic
- No metal to media contact anywhere in valve
- Clean-out (drain) plug in bottom area of valve body in models with polypropylene gate
- Rated for full vacuum service
- Light weight for easier and economical installation
- Positive bubble-tight shut-off, both PP and CPVC-SBR lined gates
- Visual position indicator

### Features (ON CPVC-SBR-LINED PLUG MODELS)

- Shallow seat recess in bottom of valve body makes valve self-cleaning and eliminates sediment build-up
- Soft seal for easy shut-off

### Options

- 2" square operating nut
- Stem extensions
- Locking handles
- Electric actuation, up to 3"
- Viton<sup>®†</sup> seals

### Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

## Specifications

Sizes: 1-1/2" - 14"  
 Body: High Impact PVC  
 Models: Flanged (ANSI)  
 Threaded (Type S, 2")  
 Types / Sizes: 1. "P" Type: PP, 1-1/2" - 14"  
 2. "S" Type: CPVC-SBR-lined<sup>‡</sup>  
 (Non-Rising Stem) 1-1/2" - 8"  
 Seals: EPDM, Viton<sup>®†</sup> (Optional)

† Registered Trademark of E. I. du Pont de Nemours and Company  
 ‡ SBR: Styrene Butadiene Rubber

### Type P Parts (Sizes 1-1/2" - 6")

| PARTS |                   |       |                     |
|-------|-------------------|-------|---------------------|
| NO.   | DESCRIPTION       | PCS.  | MATERIAL            |
| 1     | Body              | 1     | PVC                 |
| 2     | Gate (Plug)       | 1     | PP                  |
| 3     | Stem              | 1     | PVC                 |
| 4     | Bonnet (A)        | 1     | PVC                 |
| 5     | Bonnet (B)*       | 1     | PVC                 |
| 6     | Thrust Bearing    | 1 Set | PP                  |
| 7     | Bolt, Nut, Washer | -     | Stainless Steel 304 |
| 8     | Hand Wheel        | 1     | PP                  |
| 9     | Indicating Cover  | 1     | PC                  |
| 10    | Indicating Ring   | 1     | PVC                 |
| 11    | Guide Pin         | 1     | Stainless Steel 304 |
| 12    | Guide Pin Holder  | 1     | PVC                 |
| 13    | Gasket            | 1     | EPDM                |
| 14    | O-Ring (A)        | 1     | EPDM                |
| 15    | Washer            | 1     | PVC                 |
| 16    | Nut               | 1     | Stainless Steel 304 |
| 17    | O-Ring (B)        | 1     | EPDM, Others        |
| 18    | O-Ring (C)        | 2     | EPDM, Others        |
| 23    | Sheet Gasket      | 1     | EPDM, Others        |
| 24    | Plug              | 1     | PVC                 |

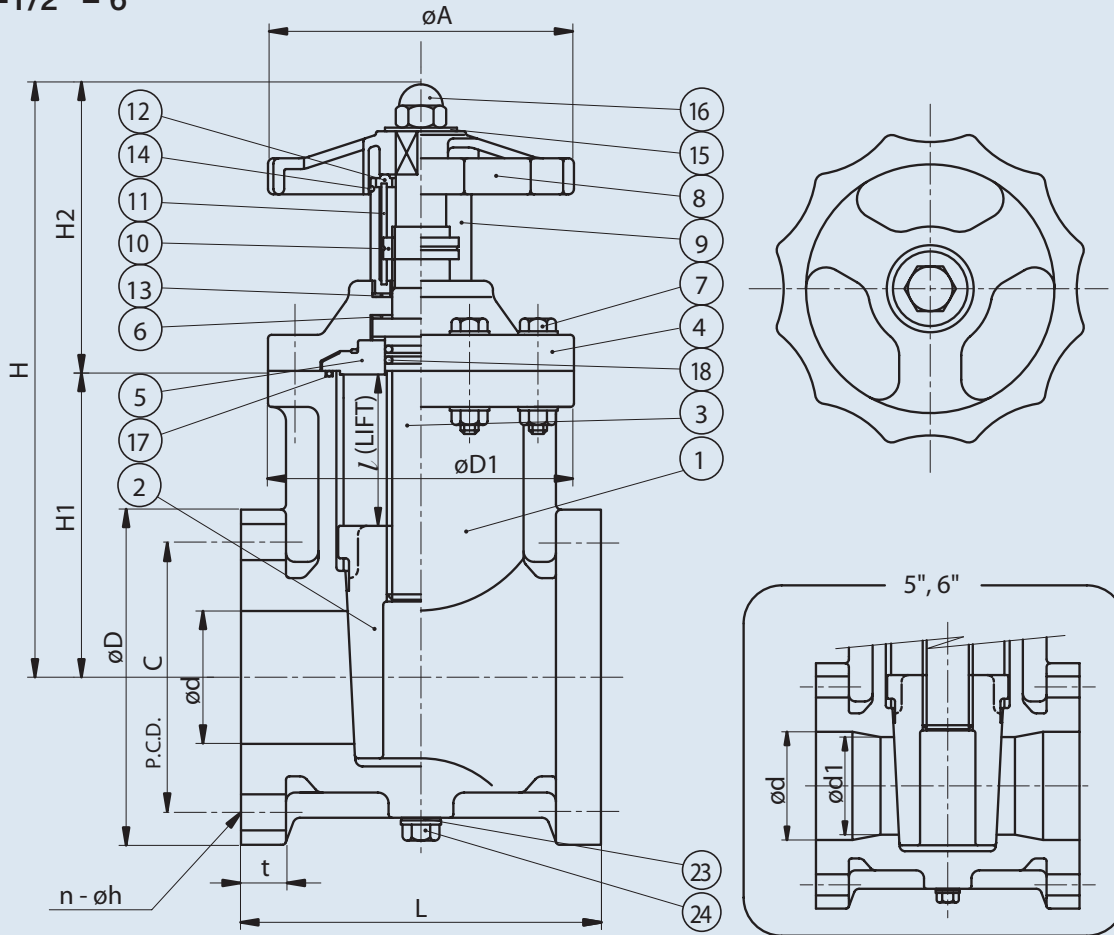
\* Stem holder



# Type P

# Gate Valves

Sizes 1-1/2" - 6"



## Troubleshooting

### What if fluid still flows when fully closed?

1. Body or plug is worn or damaged. Replace.
2. Seat is worn or damaged. Replace.
3. Foreign material caught at the bottom of body. Needs cleaning.

### What if handle does not engage with stem?

1. Stem damaged or broken. Change stem.

2. Engaging part of stem and/or plug damaged or broken. Need to replace stem and/or plug.

### What if there are leaks between bonnet and body?

1. Bolts are not tightened properly. Tighten diagonally and evenly.
2. O-ring between body and bonnet damaged or worn. Change O-ring.

## Dimensions (Sizes 1-1/2" - 6")

| NOMINAL SIZE |     | ANSI CLASS 150 |      |       |      |   |      |       |      |       |       |      |       |      |       |  |
|--------------|-----|----------------|------|-------|------|---|------|-------|------|-------|-------|------|-------|------|-------|--|
| INCHES       | mm  | d              | d1   | D     | C    | n | h    | L     | t    | D1    | A     | l    | H1    | H2   | H     |  |
| 1 1/2        | 40  | 1.57           | -    | 5.00  | 3.88 | 4 | 0.62 | 6.50  | 0.87 | 4.72  | 4.72  | 1.93 | 4.21  | 5.20 | 9.41  |  |
| 2            | 50  | 1.97           | -    | 6.00  | 4.75 | 4 | 0.75 | 7.01  | 0.91 | 5.12  | 5.12  | 2.36 | 5.28  | 5.35 | 10.63 |  |
| 2 1/2        | 65  | 2.56           | -    | 7.00  | 5.50 | 4 | 0.75 | 7.48  | 0.94 | 6.10  | 6.10  | 2.95 | 5.98  | 5.91 | 11.89 |  |
| 3            | 80  | 2.95           | -    | 7.50  | 6.00 | 4 | 0.75 | 7.99  | 0.98 | 6.69  | 6.69  | 3.35 | 6.69  | 6.10 | 12.79 |  |
| 4            | 100 | 3.94           | -    | 9.00  | 7.50 | 8 | 0.75 | 9.02  | 1.06 | 7.68  | 7.68  | 4.33 | 8.15  | 6.42 | 14.57 |  |
| 5            | 125 | 4.92           | 4.33 | 10.00 | 8.50 | 8 | 0.88 | 10.24 | 1.06 | 9.25  | 9.25  | 4.61 | 8.94  | 7.09 | 16.03 |  |
| 6            | 150 | 5.91           | 5.91 | 11.00 | 9.50 | 8 | 0.88 | 10.51 | 1.06 | 10.63 | 10.63 | 5.43 | 10.35 | 7.17 | 17.52 |  |

## Pressure vs. Temp.

(PSI, WATER, NON-SHOCK)

| NOMINAL SIZE |         | 30° F<br>120° F |
|--------------|---------|-----------------|
| INCHES       | mm      |                 |
| 1 1/2 - 8    | 40-200  | 150             |
| 10           | 250     | 110             |
| 12-14        | 300-350 | 75              |

## Type P Parts (Sizes 8" – 14" )

| PARTS |                      |       |                      |
|-------|----------------------|-------|----------------------|
| NO.   | DESCRIPTION          | PCS.  | MATERIAL             |
| 1     | Body                 | 1     | PVC                  |
| 2     | Gate (Plug)          | 1     | PP                   |
| 3     | Stem                 | 1     | PVC                  |
| 4     | Bonnet (A)           | 1     | PVC                  |
| 4a    | Bush (A)             | 1     | PP                   |
| 4b    | Knock Pin (A)        | 1     | PP                   |
| 5     | Bonnet (B)*          | 1     | PVC                  |
| 5a    | Bush (B)             | 1     | PP                   |
| 5b    | Knock Pin (B)        | 1     | PP                   |
| 6     | Thrust Bearing       | 1 Set | High Carbon Chromium |
| 7     | Bolt, Nut, Washer    | -     | Stainless Steel 304  |
| 8     | Hand Wheel           | 1     | PP                   |
| 9     | Indicating Cover     | 1     | PC                   |
| 10    | Indicating Ring      | 1     | PVC                  |
| 11    | Guide Pin            | 1     | Stainless Steel 304  |
| 12    | Guide Pin Holder     | 1     | PVC                  |
| 13    | Gasket               | 1     | EPDM                 |
| 14    | O-Ring (A)           | 1     | EPDM                 |
| 15    | Washer               | 1     | PVC                  |
| 16    | Nut                  | 1     | Stainless Steel 304  |
| 17    | Screw                | 1     | Stainless Steel 304  |
| 18    | O-Ring (B)           | 1     | EPDM, Others         |
| 19    | O-Ring (C)           | 3     | EPDM, Others         |
| 20    | O-Ring (D)           | 1     | EPDM, Others         |
| 21    | O-Ring (E)           | 1     | EPDM, Others         |
| 22    | O-Ring (F)           | 1     | EPDM, Others         |
| 23    | Sheet Gasket         | 1     | EPDM, Others         |
| 24    | Plug                 | 1     | PVC                  |
| 1a    | Body Metal Inserts** | -     | Copper Alloy         |

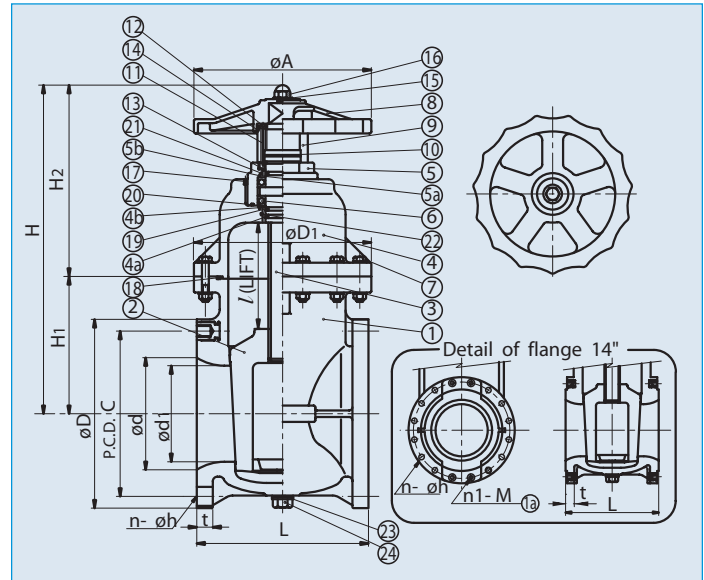
\* Stem holder

\*\* 8" and 12" sizes: 4 inserts; 14" size: 8 inserts

## Sample Specification

All Gate Valves shall be constructed of High Impact PVC and have no metal-to-media contact. The gate shall be a tapered cylindrical plug design (PP or SBR). PVC shall conform to ASTM D1784 Cell Classification 12454-A, & PP to ASTM D4101 Cell Classification PP0210B67272. Valves shall have a pressure rating of 150 psi at 70 degrees F sizes 1-1/2" through 8", 110 psi at 70 degrees F size 10", and

## Sizes: 8" – 14"



## Cv Values

| NOMINAL SIZE |     | Cv   |
|--------------|-----|------|
| INCHES       | mm  |      |
| 1 1/2        | 40  | 130  |
| 2            | 50  | 180  |
| 2 1/2        | 65  | 415  |
| 3            | 80  | 470  |
| 4            | 100 | 690  |
| 5            | 125 | 1000 |
| 6            | 150 | 1400 |
| 8            | 200 | 2900 |
| 10           | 250 | 3700 |
| 12           | 300 | 5200 |
| 14           | 350 | 7000 |

## Weight (POUNDS)

| NOMINAL SIZE |     | FLANGED |
|--------------|-----|---------|
| INCHES       | mm  |         |
| 1 1/2        | 40  | 7.50    |
| 2            | 50  | 10.20   |
| 2 1/2        | 65  | 13.00   |
| 3            | 80  | 16.60   |
| 4            | 100 | 22.00   |
| 5            | 125 | 29.00   |
| 6            | 150 | 42.00   |
| 8            | 200 | 68.50   |
| 10           | 250 | 95.00   |
| 12           | 300 | 150.00  |
| 14           | 350 | 188.00  |

75 psi at 70 degrees F sizes 12" and 14". The valve shall have a non-rising stem, come standard with sealed position indicator, clean-out plug (PP gate style only) and EPDM or Viton® seals as manufactured by Asahi/America Inc.

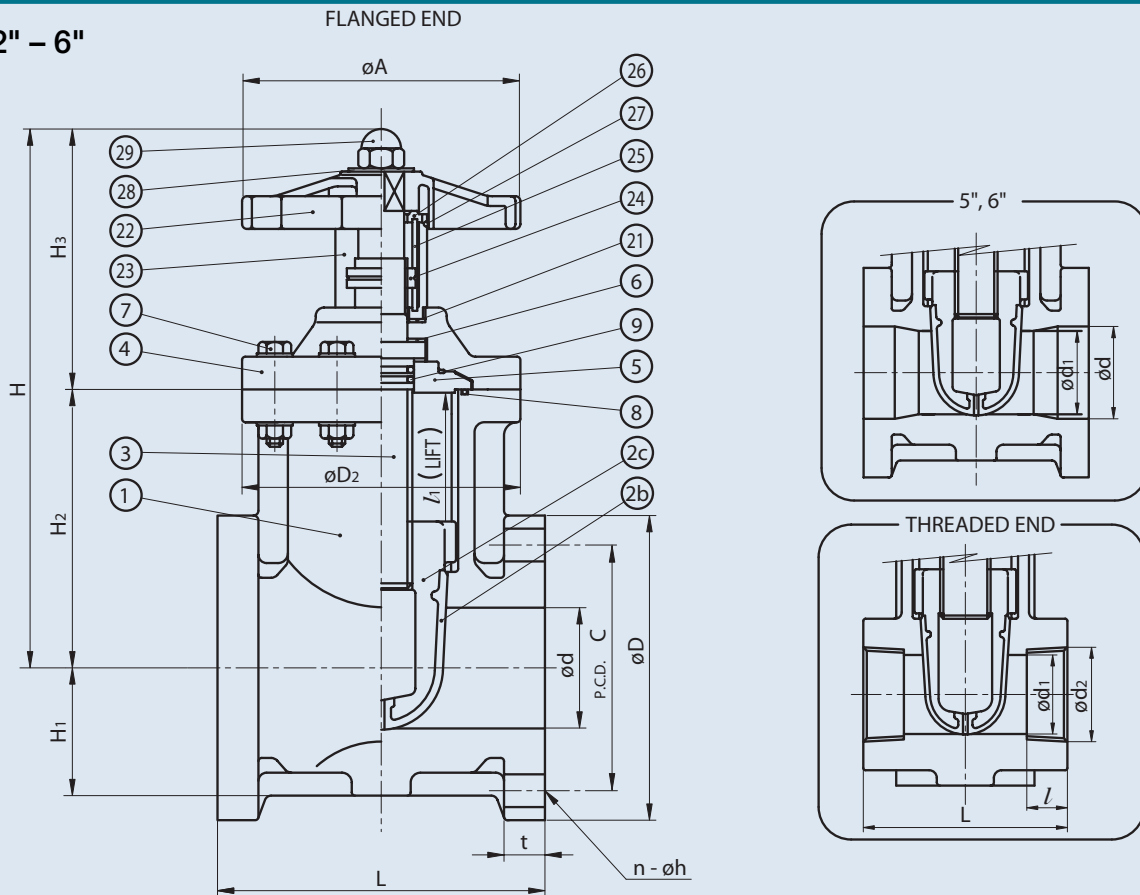
## Dimensions (Sizes: 8" – 14")

| NOMINAL SIZE |     | ANSI CLASS 150 |       |       |       |    |      |           | L     | t    | D1    | A     | l     | H1    | H2    | H     |
|--------------|-----|----------------|-------|-------|-------|----|------|-----------|-------|------|-------|-------|-------|-------|-------|-------|
| INCHES       | mm  | d              | d1    | D     | C     | n  | h    | n1 – M    |       |      |       |       |       |       |       |       |
| 8            | 200 | 7.72           | 6.61  | 13.50 | 11.75 | 6  | 0.88 | 2 – W 3/4 | 11.50 | 1.10 | 12.20 | 12.20 | 7.09  | 9.45  | 13.27 | 22.72 |
| 10           | 250 | 9.72           | 8.27  | 16.00 | 14.25 | 12 | 0.98 | -         | 14.96 | 1.18 | 14.17 | 14.17 | 8.90  | 10.63 | 16.54 | 27.17 |
| 12           | 300 | 11.73          | 10.04 | 19.00 | 17.00 | 10 | 0.98 | 2 – W 7/8 | 15.75 | 1.22 | 16.14 | 16.14 | 10.75 | 12.60 | 18.90 | 31.50 |
| 14           | 350 | 13.70          | 11.69 | 21.00 | 18.75 | 8  | 1.14 | 4 – W 1   | 16.93 | 1.26 | 17.32 | 17.91 | 12.56 | 12.20 | 23.62 | 35.83 |

# Type S

# Gate Valves

Sizes 2" – 6"



## Type S Parts – "Soft Seal" (Sizes 2" – 6" )

## Type S Dimensions (Sizes 2" – 6" )

| PARTS |                   |       |                     |
|-------|-------------------|-------|---------------------|
| NO.   | DESCRIPTION       | PCS.  | MATERIAL            |
| 1     | Body              | 1     | PVC                 |
| 2a    | Seat              | 1     | SBR                 |
| 2c    | Gate (A)          | 1     | CPVC                |
| 3     | Stem              | 1     | PVC                 |
| 4     | Bonnet (A)        | 1     | PVC                 |
| 5     | Bonnet (B)        | 1     | PVC                 |
| 6     | Thrust Ring       | 1 Set | PP                  |
| 7     | Bolt, Nut, Washer | -     | Stainless Steel 304 |
| 8     | O-Ring (B)        | 1     | EPDM                |
| 9     | O-Ring (C)        | 2     | EPDM                |
| 21    | Packing           | 1     | EPDM                |
| 22    | Hand Wheel        | 1     | PP                  |
| 23    | Indicating Cover  | 1     | PC                  |
| 24    | Indicating Ring   | 1     | PVC                 |
| 25    | Guide Pin         | 1     | Stainless Steel 304 |
| 26    | Guide Pin Holder  | 1     | PVC                 |
| 27    | O-Ring (G)        | 1     | EPDM                |
| 28    | Washer            | 1     | PVC                 |
| 29    | Box Nut           | 1     | Stainless Steel 304 |

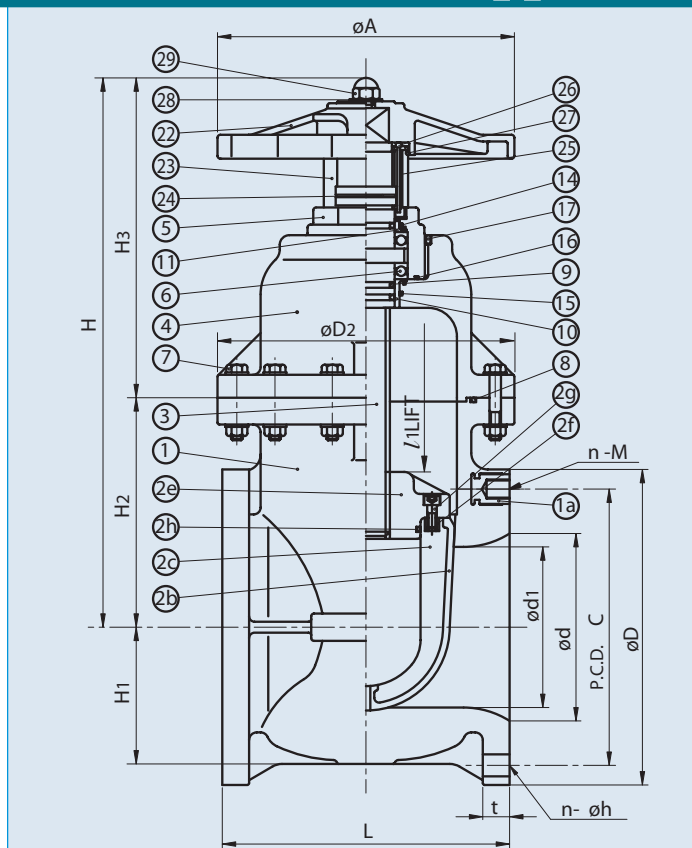
| NOMINAL SIZE |     | FLANGED        |      |       |      |   |      |       |      |       |
|--------------|-----|----------------|------|-------|------|---|------|-------|------|-------|
|              |     | ANSI CLASS 150 |      |       |      |   |      |       |      |       |
| INCHES       | mm  | d              | d1   | D     | C    | n | h    | L     | t    | A     |
| 2            | 50  | 1.97           | 1.97 | 6.00  | 4.75 | 4 | 0.75 | 7.00  | 0.91 | 5.12  |
| 2 1/2        | 65  | 2.56           | -    | 7.00  | 5.50 | 4 | 0.75 | 7.50  | 0.94 | 6.10  |
| 3            | 80  | 2.95           | -    | 7.50  | 6.00 | 4 | 0.75 | 8.00  | 1.00 | 6.69  |
| 4            | 100 | 3.94           | -    | 9.00  | 7.50 | 8 | 0.75 | 9.00  | 1.06 | 7.68  |
| 5            | 125 | 4.92           | 4.33 | 10.00 | 8.50 | 8 | 0.88 | 10.25 | 1.06 | 9.25  |
| 6            | 150 | 5.91           | 5.12 | 11.00 | 9.50 | 8 | 0.88 | 10.50 | 1.06 | 10.63 |

## Type S Dimensions

| NOMINAL SIZE |     | THREADED     |      |      |       |      |       |      |       |      |
|--------------|-----|--------------|------|------|-------|------|-------|------|-------|------|
|              |     | d2           | l    | L    | D2    | l1   | H     | H1   | H2    | H3   |
| INCHES       | mm  |              |      |      |       |      |       |      |       |      |
| 2            | 50  | 2-11 1/2 NPT | 1.10 | 5.12 | 5.12  | 2.05 | 10.63 | 2.28 | 5.28  | 5.35 |
| 2 1/2        | 65  | -            | -    | -    | 6.10  | 2.64 | 11.89 | 2.68 | 5.98  | 5.91 |
| 3            | 80  | -            | -    | -    | 6.69  | 3.03 | 12.79 | 3.03 | 6.69  | 6.10 |
| 4            | 100 | -            | -    | -    | 7.68  | 4.02 | 14.57 | 3.50 | 8.15  | 6.42 |
| 5            | 125 | -            | -    | -    | 9.25  | 4.41 | 16.03 | 3.50 | 8.94  | 7.09 |
| 6            | 150 | -            | -    | -    | 10.63 | 5.20 | 17.52 | 4.02 | 10.35 | 7.17 |

## Type S Parts – "Soft Seal" (Size 8" )

| PARTS |                        |         |                              |
|-------|------------------------|---------|------------------------------|
| NO.   | DESCRIPTION            | PCS.    | MATERIAL                     |
| 1     | Body                   | 1       | PVC                          |
| 1a    | Body Metal Inserts     | 4       | Copper Alloy                 |
| 2a    | Seat                   | 1       | SBR                          |
| 2c    | Gate (A)               | 1       | CPVC                         |
| 2e    | Gate (B)               | 1       | PP                           |
| 2f    | Gate Metal Inserts (A) | 4       | Copper Alloy                 |
| 2g    | Bolt (A)               | 4       | Stainless Steel 304          |
| 2h    | O-Ring (A)             | 1       | EPDM                         |
| 3     | Stem                   | 1       | PVC                          |
| 4     | Bonnet (A)             | 1       | PVC                          |
| 5     | Bonnet (B)             | 1       | PVC                          |
| 6     | Thrust Ring            | 1 Set   | High Carbon Chromium Bearing |
| 7     | Bolt, Nut, Washer      | 12 Sets | Stainless Steel 304          |
| 8     | O-Ring (B)             | 1       | EPDM                         |
| 9     | O-Ring (C)             | 3       | EPDM                         |
| 10    | Bushing (A)            | 1       | PP                           |
| 11    | Bushing (B)            | 1       | PP                           |
| 14    | O-Ring (E)             | 1       | EPDM                         |
| 15    | O-Ring (F)             | 1       | EPDM                         |
| 16    | O-Ring (D)             | 1       | EPDM                         |
| 17    | Set Screw (A)          | 1       | Stainless Steel 304          |
| 22    | Hand Wheel             | 1       | PP                           |
| 23    | Indicating Cover       | 1       | PC                           |
| 24    | Indicating Ring        | 1       | PVC                          |
| 25    | Guide Pin              | 1       | Stainless Steel 304          |
| 26    | Guide Pin Holder       | 1       | PVC                          |
| 27    | O-Ring (G)             | 1       | EPDM                         |
| 28    | Washer                 | 1       | PVC                          |
| 29    | Box Nut                | 1       | Stainless Steel 304          |



## Type S Dimensions (Size 8" )

| NOMINAL SIZE |     | ANSI CLASS 150 |      |       |       |   |      |    |       |       |
|--------------|-----|----------------|------|-------|-------|---|------|----|-------|-------|
| INCHES       | mm  | d              | d1   | D     | C     | n | h    | n1 | M     | A     |
| 8            | 200 | 7.72           | 6.61 | 13.50 | 11.75 | 6 | 0.88 | 2  | W 3/4 | 12.20 |

## Type S Dimensions

| NOMINAL SIZE |     | L     | t    | D2    | /1   | H     | H1   | H2   | H3    |
|--------------|-----|-------|------|-------|------|-------|------|------|-------|
| INCHES       | mm  |       |      |       |      |       |      |      |       |
| 8            | 200 | 11.50 | 1.10 | 12.20 | 6.89 | 22.72 | 5.63 | 9.45 | 13.27 |

## Troubleshooting

### What if fluid still flows when fully closed?

1. Body or plug is worn or damaged. Replace.
2. Seat is worn or damaged. Replace.
3. Foreign material caught at the bottom of body. Needs cleaning.

### What if there are leaks between bonnet and body?

1. Bolts are not tightened properly. Tighten diagonally and evenly.
2. O-ring between body and bonnet damaged or worn. Change O-ring.

## Troubleshooting

### What if there is difficulty in rotating handle?

1. Foreign material build-up on plug. Needs to be cleaned.
2. Disc damaged or swollen. Check chemical compatibility.
3. Visual indicator not set properly

### What if handle does not engage with stem?

1. Stem damaged or broken. Change stem.
2. Engaging part of stem and/or plug damaged or broken. Need to replace stem and/or plug.