

The Model 5500 is a durable and reliable control valve, well suited for throttling or on/off control of non-lubricating, viscous, or other hard-to-handle fluids. The Model 5500 is used over a broad range of pressure drops and temperatures where accurate and reliable control is required. This valve is available in a wide variety of integral end connection styles, and comes complete with a pneumatic spring return fail-open or fail-close diaphragm actuator.

### Features:

- **Rugged Construction** - The heavy-duty steel body / bonnet constructions enable the Model 5500 to provide reliable service in harsh industrial environments.
- **Optimized Flow Path** - Engineered with wide flow passages for maximized flow capacities.
- **Variety of Trim Materials** - Available with 316 SST, or 17-4PH SST plug / cage / seat materials. Hardened seating surfaces (Alloy 6 for cage control or tungsten carbide for plug control) are available for erosive / abrasive services and TFE soft seating surface is available for tight shutoff requirements.
- **Variety of Trim Designs** - Available with equal percentage, linear, or quick opening flow characteristic for cage control and modified percent characteristic for plug control. Anti-cavitation or noise abatement trim sets are also available (cage control design only).
- **Balanced Trim Design** - The pressure-balanced plug reduces actuator thrust requirements, enabling cost savings on the valve actuator.
- **Excellent Shutoff Performance** - Zero leakage (ANSI Class VI) is achieved with the TFE soft seating trim option.
- **Spring-loaded Packing** - Packing is "Live Loaded" by means of a load spring so the packing does not need to be constantly adjusted.
- **Simple Maintenance** - The design of the Model 5500 allows for fast and easy inspection or replacement of the trim without removing the valve from the line. Special tools are not required.



## Specifications

### Available Body Sizes

2", 3", 4", or 6"

### End Connections / Pressure Ratings<sup>1</sup>

|                   |                     |
|-------------------|---------------------|
| FNPT <sup>2</sup> | 3750 psig (259 bar) |
| 150# RF           | 290 psig (20 bar)   |
| 300# RF           | 750 psig (52 bar)   |
| 600# RF           | 1500 psig (103 bar) |
| 600# RTJ          | 1500 psig (103 bar) |
| 900# RF           | 2250 psig (155 bar) |
| 900# RTJ          | 2250 psig (155 bar) |
| 1500# RF          | 3750 psig (259 bar) |
| 1500# RTJ         | 3750 psig (259 bar) |

### Flow Characteristics

Equal Percent (Cage Control)  
 Linear (Cage Control)  
 Quick Opening (Cage Control)  
 Anti-cavitation (Cage Control)  
 Noise Abatement (Cage Control)  
 Modified Percent (Plug Control)

### Flow Coefficients

See Tables 1A and 1B

### Allowable Pressure Drops

See Tables 2A through 2K

### Temperature Limits

Standard Valve Configuration:

- -20 to 400° F (-29 to 204° C)

Modified Valve Configurations<sup>3</sup>:

- -50 to 750° F (-46 to 400° C)

### Materials of Construction

See Tables 3A and 3B

### Leakage Rates

| Metal-to-Metal Seating | ANSI Leakage Class |
|------------------------|--------------------|
| 0.25" - 0.75"          | IV                 |
| 1.00"                  | III                |
| 1.5" - 6.0"            | IV                 |
| Soft Seating           | ANSI Leakage Class |
| All Sizes              | VI                 |

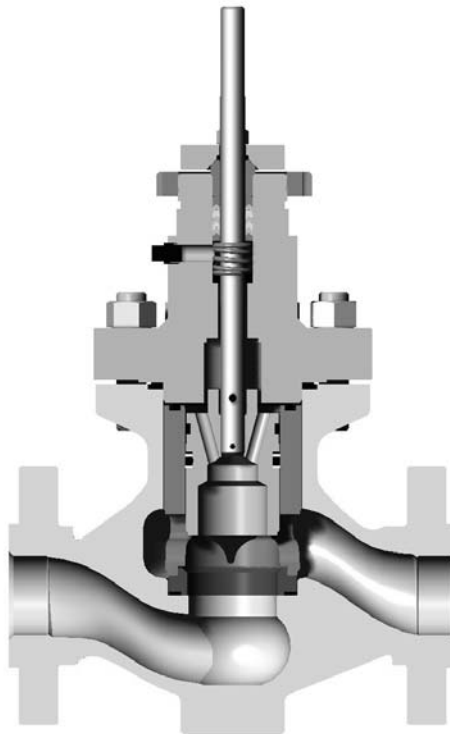


Figure 2. Sectional View

1. Pressure ratings @ 100°F (38°C).  
 2. 2" valve body only.  
 3. Consult Factory.

Table 1A. Flow Coefficients ( $C_v$ ), Modified Percent and Quick-Opening

| Body Size | Orifice Size | Valve Opening (% Travel) |      |      |      |      |      |      |      |      |      |
|-----------|--------------|--------------------------|------|------|------|------|------|------|------|------|------|
|           |              | 10                       | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  |
| 2"        | 0.25"        | .284                     | .506 | .657 | .767 | .875 | .989 | 1.10 | 1.20 | 1.32 | 1.43 |
|           | 0.38"        | .311                     | .621 | .942 | 1.28 | 1.64 | 2.07 | 2.51 | 2.93 | 3.35 | 3.70 |
|           | 0.50"        | .592                     | 1.17 | 1.76 | 2.34 | 2.95 | 3.70 | 4.57 | 5.50 | 5.95 | 6.08 |
|           | 0.75"        | .882                     | 1.76 | 2.76 | 3.82 | 5.53 | 6.57 | 8.49 | 10.8 | 15.0 | 16.2 |
|           | 1.00"        | 1.01                     | 2.02 | 3.14 | 5.07 | 9.68 | 11.9 | 14.9 | 17.2 | 19.3 | 20.9 |
|           | 1.5"         | 4.74                     | 7.67 | 9.53 | 12.9 | 18.4 | 24.9 | 33.6 | 44.0 | 53.4 | 59.5 |
|           | 2.0"         | 5.01                     | 11.0 | 20.3 | 33.8 | 48.9 | 61.4 | 67.2 | 69.5 | 70.8 | 71.6 |
| 3"        | 0.25"        | .284                     | .506 | .657 | .767 | .875 | .989 | 1.10 | 1.20 | 1.32 | 1.43 |
|           | 0.38"        | .311                     | .621 | .942 | 1.28 | 1.64 | 2.07 | 2.51 | 2.93 | 3.35 | 3.70 |
|           | 0.50"        | .592                     | 1.17 | 1.76 | 2.34 | 2.95 | 3.70 | 4.57 | 5.50 | 5.95 | 6.08 |
|           | 0.75"        | .882                     | 1.76 | 2.76 | 3.82 | 5.53 | 6.57 | 8.49 | 10.8 | 15.0 | 16.2 |
|           | 1.00"        | 1.01                     | 2.02 | 3.14 | 5.07 | 9.68 | 11.9 | 14.9 | 17.2 | 19.3 | 20.9 |
|           | 1.5"         | 4.74                     | 7.67 | 9.53 | 12.9 | 18.4 | 26.2 | 35.6 | 46.2 | 57.0 | 65.1 |
|           | 2.0"         | 5.01                     | 9.85 | 16.6 | 30.6 | 47.2 | 62.9 | 77.0 | 88.8 | 96.4 | 101  |
| 4"        | 0.25"        | .284                     | .506 | .657 | .767 | .875 | .989 | 1.10 | 1.20 | 1.32 | 1.43 |
|           | 0.38"        | .311                     | .621 | .942 | 1.28 | 1.64 | 2.07 | 2.51 | 2.93 | 3.35 | 3.70 |
|           | 0.50"        | .592                     | 1.17 | 1.76 | 2.34 | 2.95 | 3.70 | 4.57 | 5.50 | 5.95 | 6.08 |
|           | 0.75"        | .882                     | 1.76 | 2.76 | 3.82 | 5.53 | 6.57 | 8.49 | 10.8 | 15.0 | 16.2 |
|           | 1.00"        | 1.01                     | 2.02 | 3.14 | 5.07 | 9.68 | 11.9 | 14.9 | 17.2 | 19.3 | 20.9 |
|           | 1.5"         | 4.74                     | 7.67 | 9.53 | 12.9 | 18.4 | 26.2 | 37.9 | 50.6 | 62.1 | 67.4 |
|           | 2.0"         | 6.20                     | 11.5 | 20.9 | 37.1 | 53.1 | 70.3 | 82.1 | 93.3 | 104  | 110  |
| 4"        | 3.0"         | 7.60                     | 19.0 | 36.1 | 59.1 | 80.6 | 111  | 135  | 151  | 166  | 172  |
|           | 4.0"         | 8.42                     | 21.6 | 38.3 | 71.5 | 114  | 148  | 177  | 196  | 207  | 211  |

Table 1B. Flow Coefficients ( $C_v$ ), Equal Percentage

| Body Size | Orifice Size | Valve Opening (% Travel) |      |      |      |      |      |      |      |      |      |
|-----------|--------------|--------------------------|------|------|------|------|------|------|------|------|------|
|           |              | 10                       | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  |
| 2"        | 1.5"         | 1.03                     | 1.52 | 2.15 | 2.89 | 4.08 | 6.52 | 9.85 | 15.1 | 21.7 | 27.4 |
|           | 2.0"         | 1.20                     | 2.54 | 4.75 | 7.84 | 12.6 | 19.2 | 28.8 | 40.1 | 50.4 | 62.2 |
| 3"        | 2.0"         | 1.40                     | 2.73 | 4.96 | 8.12 | 12.8 | 20.4 | 32.6 | 49.7 | 71.6 | 90.4 |
|           | 3.0"         | 2.95                     | 5.89 | 8.76 | 16.2 | 26.9 | 44.2 | 68.1 | 92.6 | 111  | 124  |
| 4"        | 3.0"         | 3.14                     | 6.04 | 8.96 | 16.8 | 27.8 | 46.3 | 74.3 | 108  | 124  | 148  |
|           | 4.0"         | 4.51                     | 10.2 | 19.0 | 31.1 | 51.7 | 78.4 | 120  | 155  | 183  | 192  |
| 6"        | 4.0"         | 5.2                      | 11.4 | 21.2 | 33.0 | 53.8 | 83.9 | 129  | 178  | 220  | 265  |
|           | 6.0"         | 11.3                     | 24.5 | 42.8 | 67.5 | 102  | 161  | 239  | 319  | 358  | 392  |

Table 1C. Flow Coefficients ( $C_v$ ), Anti-Cavitation (linear characteristic)

| Body Size | Orifice Size | Valve Opening (% Travel) |      |      |      |      |      |      |      |      |      |
|-----------|--------------|--------------------------|------|------|------|------|------|------|------|------|------|
|           |              | 10                       | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  |
| 2"        | 1.5"         | 0.47                     | 0.58 | 2.03 | 4.82 | 7.46 | 10.2 | 12.5 | 14.6 | 16.6 | 18.0 |
|           | 2.0"         | 0.89                     | 1.09 | 3.84 | 9.11 | 14.1 | 19.3 | 23.6 | 27.5 | 31.4 | 34.0 |
| 3"        | 3.0"         | 1.97                     | 2.40 | 8.47 | 20.1 | 31.1 | 42.7 | 52.0 | 60.7 | 69.3 | 75.1 |
| 4"        | 4.0"         | 3.26                     | 21.3 | 40.7 | 59.6 | 76.9 | 94.3 | 109  | 123  | 135  | 142  |
| 6"        | 6.0"         | 6.58                     | 8.03 | 28.3 | 67.3 | 104  | 143  | 174  | 203  | 232  | 251  |

Table 2A. Plug Control Allowable Pressure Drops, PSID - No. 70 Actuator, Direct Acting (Fail Open), Flow Up

| Trim Size | Air to Diaphragm, psig |      |      |      |
|-----------|------------------------|------|------|------|
|           | 18                     | 20   | 33   | 35   |
| 1.5"      | 880                    | 1300 | 1560 | 2260 |
| 2.0"      | 700                    | 1040 | 1260 | 1800 |
| 3.0"      | 470                    | 830  | 970  | 1270 |
| 4.0"      | 280                    | 520  | 680  | 890  |

Table 2B. Plug Control Allowable Pressure Drops, PSID - No. 120 Actuator, Direct Acting (Fail Open), Flow Up

| Trim Size | Air to Diaphragm, psig |      |      |      |
|-----------|------------------------|------|------|------|
|           | 18                     | 20   | 33   | 35   |
| 1.5"      | 1560                   | 2340 | 2820 | 3750 |
| 2.0"      | 1250                   | 1900 | 2330 | 3375 |
| 3.0"      | 870                    | 1330 | 1740 | 2360 |
| 4.0"      | 640                    | 920  | 1350 | 1550 |

Table 2C. Plug Control Allowable Pressure Drops, PSID - No. 70 Actuator, Reverse Acting (Fail Close), Flow Up

| Trim Size | Initial Actuator Spring Setting <sup>1</sup> , psig |      |      |               |      |      |      |
|-----------|---|------|------|---------------|------|------|------|
|           | 3   | 6    | 9    | 6             | 9    | 12   | 15   |
|           | (3-15 spring)                                       |      |      | (6-30 spring) |      |      |      |
| 1.5"      | 980   | 1260 | 1600 | 940           | 1280 | 1450 | 1850 |
| 2.0"      | 890   | 1100 | 1300 | 850           | 1120 | 1160 | 1560 |
| 3.0"      | 520   | 660  | 910  | 500           | 680  | 860  | 1290 |
| 4.0"      | 370   | 440  | 660  | 350           | 460  | 570  | 970  |

Table 2D. Plug Control Allowable Pressure Drops, PSID - No. 120 Actuator, Reverse Acting (Fail Close), Flow Up

| Trim Size | Initial Actuator Spring Setting <sup>1</sup> , psig |      |      |               |      |      |      |
|-----------|---|------|------|---------------|------|------|------|
|           | 3   | 6    | 9    | 6             | 9    | 12   | 15   |
|           | (3-15 spring)                                       |      |      | (6-30 spring) |      |      |      |
| 1.5"      | 1700  | 2620 | 3750 | 1550          | 2700 | 3340 | 3750 |
| 2.0"      | 1380  | 2120 | 3180 | 1400          | 2360 | 2680 | 3400 |
| 3.0"      | 990   | 1530 | 2280 | 840           | 1460 | 1990 | 2550 |
| 4.0"      | 800   | 1200 | 1780 | 760           | 990  | 1370 | 1780 |

1. Initial Actuator Spring Setting is the signal pressure to the diaphragm required to initially lift the plug from the valve seat, while the valve is not in service. (Sometimes referred to as "bench set".)

Table 2E. Cage Control Allowable Pressure Drops, PSID - No. 70 Actuator, Direct Acting (Fail Open), Flow Down

| Trim Size | Air to Diaphragm, psig |     |      |      |
|-----------|------------------------|-----|------|------|
|           | 18                     | 20  | 33   | 35   |
| 1.5"      | 330                    | 720 | 3280 | 3750 |
| 2.0"      | 280                    | 670 | 3180 | 3550 |
| 3.0"      | 180                    | 570 | 2950 | 3350 |
| 4.0"      | 70                     | 370 | 2350 | 2650 |

Table 2F. Cage Control Allowable Pressure Drops, PSID - No. 120 Actuator, Direct Acting (Fail Open), Flow Down

| Trim Size | Air to Diaphragm, psig |      |      |      |
|-----------|------------------------|------|------|------|
|           | 18                     | 20   | 33   | 35   |
| 1.5"      | 750                    | 1440 | 3750 | 3750 |
| 2.0"      | 690                    | 1350 | 3750 | 3750 |
| 3.0"      | 585                    | 1225 | 3750 | 3750 |
| 4.0"      | 400                    | 900  | 3750 | 3750 |
| 6.0"      | 120                    | 400  | 2250 | 2535 |

Table 2G. Cage Control Allowable Pressure Drops, PSID - No. 180 Actuator, Direct Acting (Fail Open), Flow Down

| Trim Size | Air to Diaphragm, psig |      |      |      |
|-----------|------------------------|------|------|------|
|           | 18                     | 20   | 33   | 35   |
| 4.0"      | 780                    | 1550 | 3750 | 3750 |
| 6.0"      | 330                    | 750  | 3500 | 3750 |

Table 2H. Cage Control Allowable Pressure Drops, PSID - No. 70 Actuator, Reverse Acting (Fail Close), Flow Down

| Trim Size | Initial Actuator Spring Setting <sup>1</sup> , psig |     |      |               |      |      |      |
|-----------|---|-----|------|---------------|------|------|------|
|           | 3   | 6   | 9    | 6             | 9    | 12   | 15   |
|           | (3-15 spring)                                       |     |      | (6-30 spring) |      |      |      |
| 1.5"      | 320   | 920 | 1520 | 800           | 1400 | 2100 | 3350 |
| 2.0"      | 270   | 850 | 1440 | 730           | 1320 | 2000 | 3200 |
| 3.0"      | 185   | 750 | 1300 | 640           | 1190 | 1850 | 3000 |
| 4.0"      | 70  | 520 | 980  | 400           | 850  | 1420 | 2350 |

Table 2J. Cage Control Allowable Pressure Drops, PSID - No. 120 Actuator, Reverse Acting (Fail Close), Flow Down

| Trim Size | Initial Actuator Spring Setting <sup>1</sup> , psig |      |      |               |      |      |      |
|-----------|---|------|------|---------------|------|------|------|
|           | 3   | 6    | 9    | 6             | 9    | 12   | 15   |
|           | (3-15 spring)                                       |      |      | (6-30 spring) |      |      |      |
| 1.5"      | 750   | 1780 | 2800 | 1600          | 2600 | 3750 | 3750 |
| 2.0"      | 690   | 1700 | 2700 | 1530          | 2520 | 3650 | 3750 |
| 3.0"      | 580   | 1540 | 2500 | 1400          | 2330 | 3450 | 3750 |
| 4.0"      | 400   | 1175 | 1950 | 1000          | 1700 | 2750 | 3100 |
| 6.0"      | 120   | 550  | 975  | 400           | 800  | 1400 | 2100 |

Table 2K. Cage Control Allowable Pressure Drops, PSID - No. 180 Actuator, Reverse Acting (Fail Close), Flow Down

| Trim Size | Initial Actuator Spring Setting <sup>1</sup> , psig |      |      |               |      |      |      |
|-----------|---|------|------|---------------|------|------|------|
|           | 3   | 6    | 9    | 6             | 9    | 12   | 15   |
|           | (3-15 spring)                                       |      |      | (6-30 spring) |      |      |      |
| 4.0"      | 780   | 1950 | 3120 | 1740          | 3320 | 3750 | 3750 |
| 6.0"      | 340   | 970  | 1600 | 780           | 1400 | 2250 | 3000 |

1. Initial Actuator Spring Setting is the signal pressure to the diaphragm required to initially lift the plug from the valve seat, while the valve is not in service. (Sometimes referred to as "bench set".)

Table 3A. Materials of Construction

| Part             | Material                 | Temperature Limits |            |
|------------------|--------------------------|--------------------|------------|
|                  |                          | °F                 | °C         |
| Body             | WCC Steel                | -20 to 1000        | -29 to 538 |
|                  | 316 SST                  | -50 to 1000        | -45 to 538 |
| Bonnet           | A105 Forged Carbon Steel | -20 to 1000        | -29 to 538 |
|                  | CF8M Forged Carbon Steel | -50 to 1000        | -45 to 538 |
| Yoke             | Ductile Iron             | -20 to 1000        | -29 to 538 |
| Valve Stem       | 316 Stainless Steel      | -50 to 1000        | -45 to 538 |
| Packing          | PTFE V-Ring              | -50 to 400         | -45 to 204 |
|                  | Graphoil                 | -50 to 750         | -45 to 400 |
| Actuator Housing | Steel                    | -20 to 1000        | -29 to 538 |
| Actuator Spring  | Steel                    | -20 to 1000        | -29 to 538 |
| Diaphragm        | Nylon-Reinforced Buna-N  | -20 to 200         | -29 to 93  |

Table 3B. Materials of Construction - Trim Options

| Trim Code          | Cage                | Guide   | Plug  | Seat  | Seal Ring <sup>(7)</sup> |
|--------------------|---------------------|---------|---|---|--------------------------|
| 1 <sup>(1,2)</sup> | 17-4PH SST (H1150M) | ---     | 17-4PH SST (H1150M)                             | 17-4PH SST (H1150M)                             | TFE                      |
| 2 <sup>(5)</sup>   | 316 SST             | 316 SST | 316 SST with tungsten carbide insert            | 316 SST with tungsten carbide seating surface   | TFE                      |
| 3 <sup>(3)</sup>   | 316 SST             | 316 SST | 316 SST   | 316 SST   | TFE                      |
| 6 <sup>(4)</sup>   | 17-4PH SST (H1150M) | ---     | 316 SST with Alloy 6 hard-faced seating surface | 316 SST with Alloy 6 hard-faced seating surface | TFE                      |
| 8 <sup>(6)</sup>   | 316 SST             | 316 SST | 316 SST with TFE insert                         | 316 SST with TFE insert                         | TFE                      |

- Standard material combination for Cage Control trim design.
- Standard material combination for Plug Control trim design, sizes 1" and smaller.
- Standard material combination for Plug Control trim design, sizes greater than 1".
- Available for Cage Control trim only.
- Available for Plug Control trim only.
- For Cage Control trim, TFE insert is part of the seat. For Plug Control trim, TFE insert is part of the plug.
- Consult Factory for temperature requirements above 400°F.

## HOW TO ORDER

### If Valve Specifics are Known:

- Specify Valve Size with Model 5500.  
(Example: 3" 5500)
- Locate the product model code on the back page of this bulletin and select the proper code corresponding to the specifications required.
- Call Mallard Control or your local representative with the valve size, model, and model code for pricing and delivery.

### If Valve Specifics are Unknown:

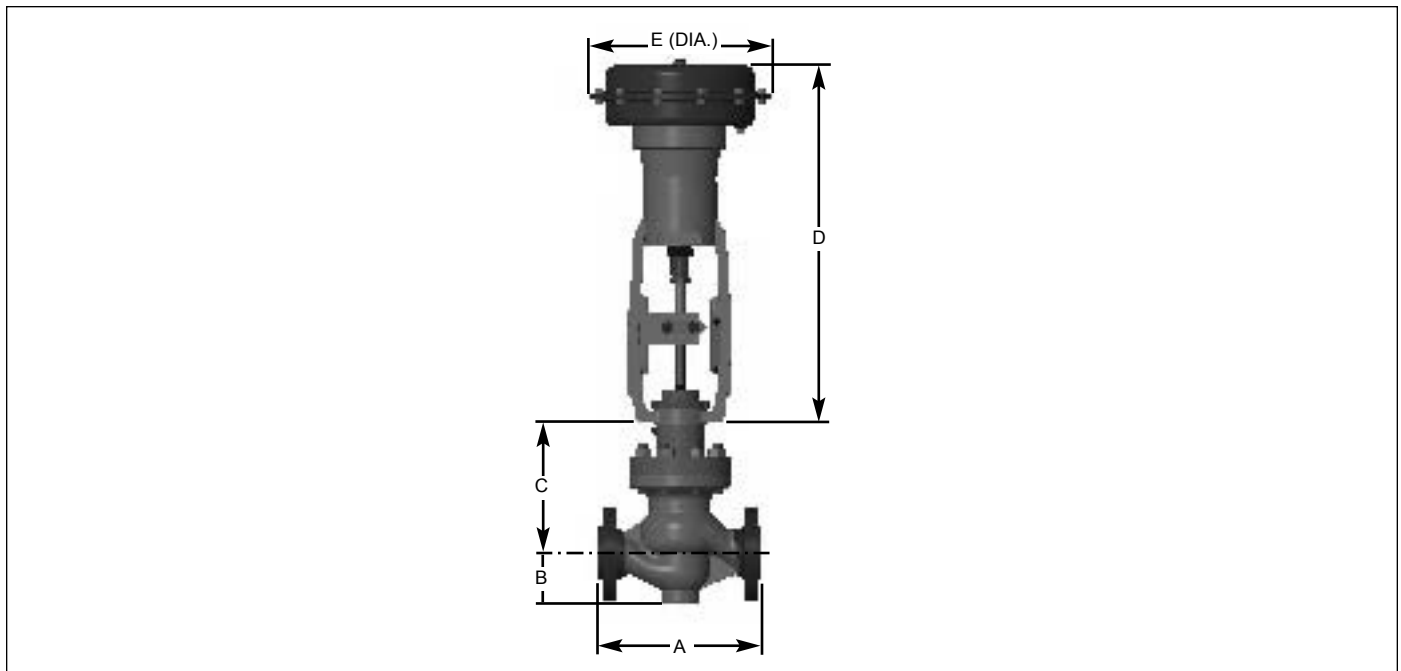
- Collect as much information about the application as possible per the following guidelines:
  - Valve application (i.e. suction, back pressure, pressure reducing, dumping, recycle, etc.)
  - Media being controlled (i.e. water, oil, natural gas, carbon dioxide, steam, etc.)
  - Specific gravity
  - Operating temperature
  - Shut-off pressure(s)
  - Inlet pressure(s)
  - Outlet pressure(s) or pressure drop(s)
  - Flow rate(s)
  - Actuator action, fail open or close
  - Accessories (if any)
- Call Mallard Control or your local representative with the information for assistance in valve sizing, model code development, pricing, and delivery.

**Valve Body Dimensions, inches (mm)**

| Body End Connection Style | 2"          |            |            | 3"          |            |            | 4"          |            |             | 6"          |             |             |  |
|---------------------------|-------------|------------|------------|-------------|------------|------------|-------------|------------|-------------|-------------|-------------|-------------|--|
|                           | A           | B Max.     | C          | A           | B Max.     | C          | A           | B Max.     | C           | A           | B Max.      | C           |  |
| FNPT                      | 11.25 (286) | 5.38 (136) | 9.00 (228) |             |            |            |             |            |             |             |             |             |  |
| BWE                       | 11.25 (286) |            |            |             |            |            |             |            |             |             |             |             |  |
| SWE                       | 11.25 (286) |            |            |             |            |            |             |            |             |             |             |             |  |
| 150# RF                   | 10.00 (254) | 5.38 (136) | 9.00 (228) | 11.75 (298) | 6.75 (171) | 9.25 (235) | 13.88 (352) | 7.75 (197) | 10.12 (257) | 17.75 (451) | 10.50 (267) | 12.63 (321) |  |
| 300# RF                   | 10.50 (266) |            |            | 12.50 (317) |            |            | 14.50 (368) |            |             | 18.62 (473) |             |             |  |
| 600# RF                   | 11.25 (286) |            |            | 13.25 (336) |            |            | 15.50 (393) |            |             | 20.00 (508) |             |             |  |
| 600# RTJ                  | 11.38 (289) |            |            | 13.38 (339) |            |            | 15.62 (397) |            |             | 20.12 (511) |             |             |  |
| 900# RF                   | 14.75 (374) |            |            | 15.50 (393) |            |            | 17.00 (431) |            |             |             |             |             |  |
| 900# RTJ                  | 14.88 (378) |            |            | 15.62 (397) |            |            | 17.12 (435) |            |             |             |             |             |  |
| 1500# RF                  | 14.75 (374) |            |            | 18.12 (460) |            |            | 20.88 (530) |            |             |             |             |             |  |
| 1500# RTJ                 | 14.88 (378) |            |            | 18.25 (463) |            |            | 21.00 (533) |            |             |             |             |             |  |

**Actuator Dimensions, inches (mm)**

| Actuator Size | D           |             | E           | Boss Size |           |
|---------------|-------------|-------------|-------------|-----------|-----------|
|               | Direct      | Reverse     |             |           |           |
| No. 70        | 24.12 (612) | 23.88 (606) | 12.50 (317) | 2.81 (71) |           |
| No. 120       | 29.50 (749) | 31.38 (796) | 16.75 (425) | 2.81 (71) |           |
| No. 180       | 30.12 (765) | 32.12 (816) | 20.50 (521) | 2.81 (71) | 3.50 (89) |



### Model Number Information

Sample Model Number: 5500 - **2 F 6 - G 73 R S - 3 A E**

| BODY SIZE | CODE |
|-----------|------|
| 2"        | 2    |
| 3"        | 3    |
| 4"        | 4    |
| 6"        | 6    |

| END CONNECTIONS              | CODE |
|------------------------------|------|
| Female NPT                   | S    |
| Raised Face (RF) Flange      | F    |
| Ring Type Joint (RTJ) Flange | J    |

| ANSI CLASS (PRESSURE RATING) | CODE |
|------------------------------|------|
| 150 (275 psig)               | 1    |
| 300 (740 psig)               | 3    |
| 600 (1480 psig)              | 6    |
| 900 (2220 psig)              | 9    |
| 1500 (3750 psig)             | 5    |

| MATERIALS OF CONSTRUCTION               | CODE |
|---|------|
| Carbon Steel - Standard Service         | -    |
| Carbon Steel - High Temperature Service | H    |
| Carbon Steel - NACE MR-01-75            | N    |

| BODY STYLE                           | CODE |
|--------------------------------------|------|
| Globe                                | G    |
| Globe with Drain                     | D    |
| Globe with Pressure Connection Ports | P    |

| ACTUATOR SELECTION                | CODE |
|-----------------------------------|------|
| No. 70 Actuator with 3-15 Spring  | 73   |
| No. 70 Actuator with 6-30 Spring  | 76   |
| No. 120 Actuator with 3-15 Spring | 23   |
| No. 120 Actuator with 6-30 Spring | 26   |
| No. 180 Actuator with 3-15 Spring | 83   |
| No. 180 Actuator with 6-30 Spring | 86   |

| ACTUATOR TYPE                            | CODE |
|--|------|
| Reverse Acting (spring closes/air opens) | R    |
| Direct Acting (spring opens/air closes)  | D    |

| GASKET MATERIAL                 | CODE |
|---------------------------------|------|
| 304/Grafoil - Standard          | S    |
| Inconel/Grafoil - NACE MR-01-75 | N    |

| TRIM MATERIAL   | CODE |
|---|------|
| 17-4PH SST Cage, Plug and Seat Ring   | 1    |
| 316 SST Cage, Plug, and Seat Ring with Tungsten Carbide Seating Surfaces              | 2    |
| 316 SST Cage, Plug, and Seat Ring   | 3    |
| 17-4PH SST Cage / 316 SST Plug and Seat Ring with Alloy 6 Hard-faced Seating Surfaces | 6    |
| 316 SST Cage, Plug, and Seat Ring with TFE Soft-Seat Insert                           | 8    |

| TRIM SIZE   | CODE |
|---|------|
| Full Port   | A    |
| Reduced Port, one size down (6" body X 4" trim, 3" body X 2" trim, 2" body X 1.5" trim) | B    |
| Reduced Port, two sizes down (4" body X 2" trim, 3" body X 1.5" trim)                   | C    |
| Reduced Port, three sizes down (4" body X 1.5" trim)                                    | D    |
| 1/4"  | 2    |
| 3/8"  | 3    |
| 1/2"  | 4    |
| 3/4"  | 6    |
| 1"  | 8    |

| TRIM CHARACTERISTIC    | CODE |
|------------------------|------|
| Equal Percentage       | E    |
| Linear                 | L    |
| Quick Opening (on/off) | Q    |
| Anti-cavitation        | C    |
| Noise Abatement        | D    |
| Modified Percent       | M    |

While this information is presented in good faith and believed to be accurate, Mallard Control Company does not guarantee results based upon such information. Mallard Control Company reserves the right to change the design or specifications of these products without notice.

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