



**FEATURES**

- Full Bar Machined Construction
- 3 Pieces Body Design
- High Pressure Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design & Anti-Static Device
- Available for Pneumatic or Electric Actuator
- NACE MR0175 is available upon request
- Super Alloy materials for highly corrosive medium are available upon request

**AUTOMATION AVAILABLE**

**SPECIFICATIONS**

- Size Range: 1/4" ~ 2" ( DN8 ~ DN50 )
- End Connection: Threaded / Socket / Butt Weld Ends
- Working Pressure: 3000PSI / PN210 (CWP)
- Steam Pressure: 150 PSIG. Saturated Steam for RTFE.
- Temperature Range: -4 to 356 °F ( -20 to 80 °C ) for DELRIN  
 -4 to 356 °F ( -20 to 250 °C ) for PEEK

**STANDARDS**

- Design: ASME/ANSI B16.34
- Threaded End: NPT/ BS 21 ( BSP ) / BSPT / ISO 228-1 / DIN 2999 / ISO 7-1Rp
- Socket Weld End: ASME/ANSI B16.11
- Butt Weld End: ASME/ANSI B16.25
- Face to Face: MFG Standard
- Material: AISI
- Pressure Testing: API 598

**CERTIFICATE**

- Fire Safe: API 607 5th Edition / ISO 10497-5
- Quality Assurance: ISO 9001
- Material Certificate: EN 10204-3.1 MTR
- CE Approval: PED 97/23/EC Module H
- Canadian Certificate: CRN

**MATERIAL LIST**

| NO.  | PART NAME         | MATERIAL<br>( more options available ) |
|------|-------------------|--|
| 1    | BODY              | AISI 316 / AISI 1045                   |
| 4    | BALL              | ASTM A351 Gr.CF8M                      |
| 5    | STEM              | 17-4 PH                                |
| 9    | END CAP           | AISI 316 / AISI 1045                   |
| 11   | BODY SEAL         | GRAPHITE                               |
| 11-1 | BODY SEAL         | PTFE                                   |
| 12   | SEAT              | DELRIN® / PEEK                         |
| 13   | THRUST WASHER     | GRAPHITE                               |
| 13-1 | THRUST WASHER     | PTFE                                   |
| 14   | STEM PACKING      | GRAPHITE                               |
| 15   | GLAND BUSH        | SS304                                  |
| 19   | HANDLE            | SS304                                  |
| 20   | HANDLE BOLT       | SS304                                  |
| 21   | HANDLE COVER      | PLASTIC                                |
| 22   | STEM NUT          | SS304                                  |
| 24   | HANDLE NUT        | SS304                                  |
| 28   | STOP PLATE        | SS304                                  |
| 29   | BELLEVILLE WASHER | SUS304-CSP                             |
| 30   | TAB WASHER        | SS304                                  |
| 31   | O-RING            | VITON®                                 |
| 32   | PACKING FOLLOWER  | TFM™1600                               |
| 33   | STOP PIN          | SS304                                  |
| 35   | BODY BOLT         | SS304 / SCM440                         |
| 36   | BODY WASHER       | SS304 / S45C                           |
| 37   | BOLT NUT          | SS304 / S45C                           |
| 50   | HANDLE ADAPTER    | ASTM A351 Gr.CF8                       |

**DIMENSION**

|      |        |      |     |    |    |     |     |       |      |    |    |             |    |     |    |      | unit : mm |      |  |  |
|------|--------|------|-----|----|----|-----|-----|-------|------|----|----|-------------|----|-----|----|------|-----------|------|--|--|
| SIZE | PORT   | L    | L1  | L2 | E  | H   | H1  | H2    | C    | M  | ØN | ØK          | Z  | SW  | ØD | BW   |           |      |  |  |
| DN8  | 1/4"   | 9.5  | 85  | 13 | 10 | 151 | 61  | 12.6  | 7.0  | 9  | 4  | 5/16"-18UNC | 36 | F03 | M5 | 14.0 | 9.2       | 13.7 |  |  |
| DN10 | 3/8"   | 11.6 | 85  | 13 | 10 | 151 | 61  | 12.6  | 7.0  | 9  | 4  | 5/16"-18UNC | 36 | F03 | M5 | 17.6 | 12.5      | 17.1 |  |  |
| DN15 | 1/2"   | 12.5 | 85  | 13 | 10 | 151 | 61  | 12.6  | 7.0  | 9  | 4  | 5/16"-18UNC | 36 | F03 | M5 | 21.7 | 15.8      | 21.3 |  |  |
| DN20 | 3/4"   | 16.0 | 89  | 13 | 13 | 151 | 67  | 19.55 | 10.3 | 9  | 4  | 5/16"-18UNC | 42 | F04 | M5 | 27.3 | 20.9      | 26.7 |  |  |
| DN25 | 1"     | 20.0 | 102 | 17 | 13 | 183 | 81  | 16.4  | 10.0 | 9  | 6  | 5/16"-18UNC | 42 | F04 | M5 | 33.9 | 26.6      | 33.4 |  |  |
| DN32 | 1-1/4" | 25.0 | 111 | 20 | 13 | 183 | 95  | 24.05 | 13.3 | 11 | 6  | 5/16"-18UNC | 42 | F04 | M5 | 42.8 | 35.1      | 42.2 |  |  |
| DN40 | 1-1/2" | 32.0 | 119 | 20 | 13 | 285 | 113 | 34.5  | 17.5 | 14 | 6  | 3/8"-16UNC  | 50 | F05 | M6 | 48.7 | 40.9      | 48.3 |  |  |
| DN50 | 2"     | 38.0 | 126 | 20 | 16 | 285 | 117 | 32.1  | 17.5 | 14 | 6  | 1/2"-13UNC  | 50 | F05 | M6 | 61.0 | 52.5      | 60.3 |  |  |

**DIMENSION**

|      |        |      |      |      |      |       |      |      |      |      |    |             |      |     |    |      | unit : inch |      |  |  |
|------|--------|------|------|------|------|-------|------|------|------|------|----|-------------|------|-----|----|------|-------------|------|--|--|
| SIZE | PORT   | L    | L1   | L2   | E    | H     | H1   | H2   | C    | M    | ØN | ØK          | Z    | SW  | ØD | BW   |             |      |  |  |
| DN8  | 1/4"   | 0.37 | 3.35 | 0.51 | 0.39 | 5.94  | 2.40 | 0.50 | 0.28 | 0.35 | 4  | 5/16"-18UNC | 1.42 | F03 | M5 | 0.55 | 0.36        | 0.54 |  |  |
| DN10 | 3/8"   | 0.46 | 3.35 | 0.51 | 0.39 | 5.94  | 2.40 | 0.50 | 0.28 | 0.35 | 4  | 5/16"-18UNC | 1.42 | F03 | M5 | 0.69 | 0.49        | 0.67 |  |  |
| DN15 | 1/2"   | 0.49 | 3.35 | 0.51 | 0.39 | 5.94  | 2.40 | 0.50 | 0.28 | 0.35 | 4  | 5/16"-18UNC | 1.42 | F03 | M5 | 0.85 | 0.62        | 0.84 |  |  |
| DN20 | 3/4"   | 0.63 | 3.50 | 0.51 | 0.51 | 5.94  | 2.64 | 0.77 | 0.41 | 0.35 | 4  | 5/16"-18UNC | 1.65 | F04 | M5 | 1.07 | 0.82        | 1.05 |  |  |
| DN25 | 1"     | 0.79 | 4.02 | 0.67 | 0.51 | 7.20  | 3.19 | 0.65 | 0.39 | 0.35 | 6  | 5/16"-18UNC | 1.65 | F04 | M5 | 1.33 | 1.05        | 1.31 |  |  |
| DN32 | 1-1/4" | 0.98 | 4.37 | 0.79 | 0.51 | 7.20  | 3.74 | 0.95 | 0.52 | 0.43 | 6  | 5/16"-18UNC | 1.65 | F04 | M5 | 1.69 | 1.38        | 1.66 |  |  |
| DN40 | 1-1/2" | 1.26 | 4.69 | 0.79 | 0.51 | 11.22 | 4.45 | 1.36 | 0.69 | 0.55 | 6  | 3/8"-16UNC  | 1.97 | F05 | M6 | 1.92 | 1.61        | 1.90 |  |  |
| DN50 | 2"     | 1.50 | 4.96 | 0.79 | 0.63 | 11.22 | 4.61 | 1.26 | 0.69 | 0.55 | 6  | 1/2"-13UNC  | 1.97 | F05 | M6 | 2.40 | 2.07        | 2.37 |  |  |