

### FEATURES

- Investment Cast Body Construction
- 3 Pieces Body Design
- ISO 5211 Direct Mounting Flange
- Blow-Out-Proof Stem Design & Anti-Static Device
- Integral Seat & Body Seal Design for 2-1/2" ~ 4"
- 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" ~ 4" ( DN8 ~ DN100 )
- End Connection Threaded / Socket / Butt Weld Ends
- Working Pressure 2000 PSI ( CWP ) for 1/4" ~ 1"  
1500 PSI ( CWP ) for 1-1/4" ~ 2"  
1000 PSI ( CWP ) for 2-1/2" ~ 4"
- Steam Pressure 150 PSIG. Saturated Steam for RTFE.
- Temperature Range -4 to 356 °F ( -20 to 180 °C ) for RTFE.

### STANDARDS

- Design ASME/ANSI B16.34
- Mounting Flange ISO 5211
- 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
- Material ASTM
- Pressure Testing API 598

### CERTIFICATE

- Fire Safe **OPTION** API 607 Fire Safe Design
- Fugitive Emission TA - LUFT
- Quality Assurance ISO 9001
- Material Certificate EN 10204-3.1 MTR
- CE Approval PED 97/23/EC Module H
- Canadian Certificate CRN

### MATERIAL LIST

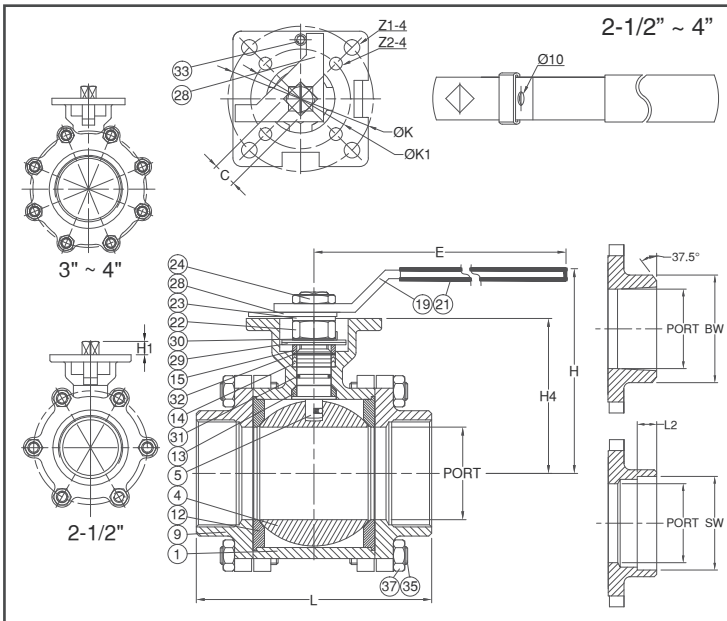
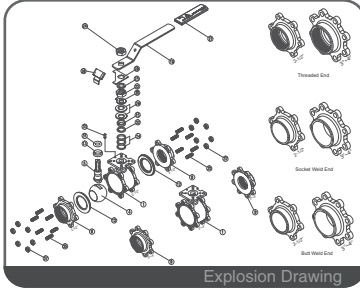
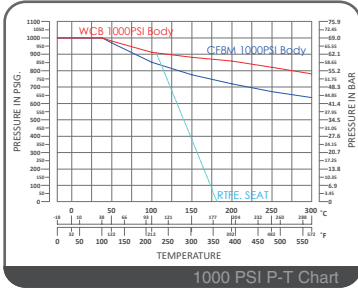
| NO. | PART NAME         | MATERIAL<br>( more options available ) |
|-----|-------------------|--|
| 1   | BODY              | ASTM A351 Gr.CF8M   ASTM A216 Gr.WCB   |
| 4   | BALL              | ASTM A351 Gr.CF8M                      |
| 5   | STEM              | ASTM A276 Gr.316                       |
| 9   | END CAP           | ASTM A351 Gr.CF8M   ASTM A216 Gr.WCB   |
| 11  | BODY SEAL         | PTFE.                                  |
| 12  | SEAT              | RTFE.(15%G.F.)                         |
| 13  | THRUST WASHER     | RTFE.(15%G.F.)                         |
| 14  | STEM PACKING      | RTFE.(15%G.F.)                         |
| 15  | GLAND BUSH        | SS304                                  |
| 19  | HANDLE            | SS304                                  |
| 21  | HANDLE COVER      | PLASTIC                                |
| 22  | STEM NUT          | SS304                                  |
| 23  | HANDLE WASHER     | SS304                                  |
| 24  | HANDLE NUT        | SS304                                  |
| 28  | LOCKING DEVICE    | SS304                                  |
| 29  | BELLEVILLE WASHER | SUS301                                 |
| 30  | TAB WASHER        | SS304                                  |
| 31  | STEM O-RING       | VITON®                                 |
| 32  | PACKING FOLLOWER  | PTFE.+25%G.F.                          |
| 33  | STOP PIN          | SS304                                  |
| 35  | BODY BOLT         | SS304                                  |
| 37  | BOLT NUT          | SS304                                  |

### DIMENSION

| SIZE | PORT   |      | L     |       | L1    | E    | H     | H1    | H4   | C    | ØK   | ØK1 | Z1  | Z2 | L2  | SW  | BW  |      |      |      |
|------|--------|------|-------|-------|-------|------|-------|-------|------|------|------|-----|-----|----|-----|-----|-----|------|------|------|
|      | TH/SW  | BW   | TH/SW | BW    |       |      |       |       |      |      |      |     |     |    |     |     |     |      |      |      |
| DN8  | 1/4"   | 11.5 | 11.0  | 67.9  | 62.5  | 22.5 | 112.0 | 77.9  | 8.0  | 42.0 | 9.0  | 50  | F05 | 36 | F03 | 7.0 | 6.0 | 10.0 | 14.2 | 13.7 |
| DN10 | 3/8"   | 12.5 | 12.5  | 67.9  | 62.5  | 22.5 | 112.0 | 77.9  | 8.0  | 42.0 | 9.0  | 50  | F05 | 36 | F03 | 7.0 | 6.0 | 10.0 | 17.5 | 17.1 |
| DN15 | 1/2"   | 15.0 | 15.0  | 67.9  | 66.1  | 22.5 | 112.0 | 77.9  | 8.0  | 42.0 | 9.0  | 50  | F05 | 36 | F03 | 7.0 | 6.0 | 10.0 | 21.8 | 21.3 |
| DN20 | 3/4"   | 20.0 | 20.0  | 76.1  | 77.1  | 27.5 | 112.0 | 81.8  | 8.5  | 45.0 | 9.0  | 50  | F05 | 36 | F03 | 7.0 | 6.0 | 13.0 | 27.4 | 26.7 |
| DN25 | 1"     | 25.0 | 25.0  | 84.6  | 83.6  | 34.0 | 136.0 | 90.5  | 9.5  | 53.5 | 9.0  | 50  | F05 | 36 | F03 | 7.0 | 6.0 | 13.0 | 34.1 | 33.4 |
| DN32 | 1-1/4" | 32.0 | 32.0  | 98.1  | 96.1  | 42.5 | 185.0 | 98.0  | 9.5  | 59.0 | 9.0  | 50  | F05 | 36 | F03 | 7.0 | 6.0 | 13.0 | 42.7 | 42.2 |
| DN40 | 1-1/2" | 38.0 | 38.0  | 111.2 | 107.2 | 52.0 | 197.9 | 114.7 | 14.0 | 74.8 | 14.0 | 70  | F07 | 50 | F05 | 9.0 | 7.0 | 13.0 | 49.0 | 48.3 |
| DN50 | 2"     | 50.0 | 50.0  | 126.7 | 118.5 | 63.5 | 197.9 | 124.0 | 13.7 | 83.5 | 14.0 | 70  | F07 | 50 | F05 | 9.0 | 7.0 | 16.0 | 61.2 | 60.3 |

### DIMENSION

| SIZE | PORT   |      | L     |      | L1   | E    | H    | H1   | H4   | C    | ØK   | ØK1  | Z1  | Z2   | L2  | SW   | BW   |      |      |      |
|------|--------|------|-------|------|------|------|------|------|------|------|------|------|-----|------|-----|------|------|------|------|------|
|      | TH/SW  | BW   | TH/SW | BW   |      |      |      |      |      |      |      |      |     |      |     |      |      |      |      |      |
| DN8  | 1/4"   | 0.45 | 0.43  | 2.67 | 2.46 | 0.89 | 4.41 | 3.07 | 0.31 | 1.65 | 0.35 | 1.97 | F05 | 1.42 | F03 | 0.28 | 0.24 | 0.39 | 0.56 | 0.54 |
| DN10 | 3/8"   | 0.49 | 0.49  | 2.67 | 2.46 | 0.89 | 4.41 | 3.07 | 0.31 | 1.65 | 0.35 | 1.97 | F05 | 1.42 | F03 | 0.28 | 0.24 | 0.39 | 0.69 | 0.67 |
| DN15 | 1/2"   | 0.59 | 0.59  | 2.67 | 2.60 | 0.89 | 4.41 | 3.07 | 0.31 | 1.65 | 0.35 | 1.97 | F05 | 1.42 | F03 | 0.28 | 0.24 | 0.39 | 0.86 | 0.84 |
| DN20 | 3/4"   | 0.79 | 0.79  | 3.00 | 3.04 | 1.08 | 4.41 | 3.22 | 0.33 | 1.77 | 0.35 | 1.97 | F05 | 1.42 | F03 | 0.28 | 0.24 | 0.51 | 1.08 | 1.05 |
| DN25 | 1"     | 0.98 | 0.98  | 3.33 | 3.29 | 1.34 | 5.35 | 3.56 | 0.37 | 2.11 | 0.35 | 1.97 | F05 | 1.42 | F03 | 0.28 | 0.24 | 0.51 | 1.34 | 1.31 |
| DN32 | 1-1/4" | 1.26 | 1.26  | 3.86 | 3.78 | 1.67 | 7.28 | 3.86 | 0.37 | 2.32 | 0.35 | 1.97 | F05 | 1.42 | F03 | 0.28 | 0.24 | 0.51 | 1.68 | 1.66 |
| DN40 | 1-1/2" | 1.50 | 1.50  | 4.38 | 4.22 | 2.05 | 7.79 | 4.52 | 0.55 | 2.94 | 0.55 | 2.76 | F07 | 1.97 | F05 | 0.35 | 0.28 | 0.51 | 1.93 | 1.90 |
| DN50 | 2"     | 1.97 | 1.97  | 4.99 | 4.67 | 2.50 | 7.79 | 4.88 | 0.54 | 3.29 | 0.55 | 2.76 | F07 | 1.97 | F05 | 0.35 | 0.28 | 0.63 | 2.41 | 2.37 |



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| 13  | THRUST WASHER     | RTFE.(15%G.F.)                       |
| 14  | STEM PACKING      | RTFE.(15%G.F.)                       |
| 15  | GLAND BUSH        | SS304                                |
| 19  | HANDLE            | SS304                                |
| 21  | HANDLE COVER      | PLASTIC                              |
| 22  | STEM NUT          | SS304                                |
| 23  | HANDLE WASHER     | SS304                                |
| 24  | HANDLE NUT        | SS304                                |
| 28  | STOP PLATE        | SS304                                |
| 29  | BELLEVILLE WASHER | SUS301                               |
| 30  | TAB WASHER        | SS304                                |
| 31  | O-RING            | VITON®                               |
| 32  | PACKING FOLLOWER  | PTFE.+25%G.F.                        |
| 33  | STOP PIN          | SS304                                |
| 35  | BODY BOLT         | SS304                                |
| 37  | BOLT NUT          | SS304                                |

### DIMENSION

| SIZE        | PORT  |       | L     |       | L1    | E   | H     | H1 | H4    | C  | ØK  | ØK1 | Z1 | Z2  | L2 | SW | BW |       |       |
|-------------|-------|-------|-------|-------|-------|-----|-------|----|-------|----|-----|-----|----|-----|----|----|----|-------|-------|
|             | TH/SW | BW    | TH/SW | BW    |       |     |       |    |       |    |     |     |    |     |    |    |    |       |       |
| DN65 2-1/2" | 65.0  | 65.0  | 165.0 | 158.5 | 85.5  | 267 | 155.0 | 18 | 108.8 | 17 | 102 | F10 | 70 | F07 | 11 | 9  | 16 | 77.0  | 73.0  |
| DN80 3"     | 80.0  | 80.0  | 208.0 | 187.2 | 102.0 | 267 | 160.7 | 18 | 118.3 | 17 | 102 | F10 | 70 | F07 | 11 | 9  | 16 | 90.2  | 88.9  |
| DN100 4"    | 100.0 | 100.0 | 232.5 | 222.0 | 128.5 | 322 | 216.7 | 18 | 153.8 | 17 | 102 | F10 | 70 | F07 | 11 | 9  | 20 | 115.5 | 114.3 |

### DIMENSION

| SIZE        | PORT  |      | L     |      | L1   | E     | H    | H1   | H4   | C    | ØK   | ØK1 | Z1   | Z2  | L2   | SW   | BW   |      |      |
|-------------|-------|------|-------|------|------|-------|------|------|------|------|------|-----|------|-----|------|------|------|------|------|
|             | TH/SW | BW   | TH/SW | BW   |      |       |      |      |      |      |      |     |      |     |      |      |      |      |      |
| DN65 2-1/2" | 2.56  | 2.56 | 6.50  | 6.24 | 3.37 | 10.51 | 6.10 | 0.71 | 4.28 | 0.67 | 4.02 | F10 | 2.76 | F07 | 0.43 | 0.35 | 0.63 | 3.03 | 2.87 |
| DN80 3"     | 3.15  | 3.15 | 8.19  | 7.37 | 4.02 | 10.51 | 6.33 | 0.71 | 4.66 | 0.67 | 4.02 | F10 | 2.76 | F07 | 0.43 | 0.35 | 0.63 | 3.55 | 3.50 |
| DN100 4"    | 3.94  | 3.94 | 9.15  | 8.74 | 5.06 | 12.68 | 8.53 | 0.71 | 6.06 | 0.67 | 4.02 | F10 | 2.76 | F07 | 0.43 | 0.35 | 0.79 | 4.55 | 4.50 |