



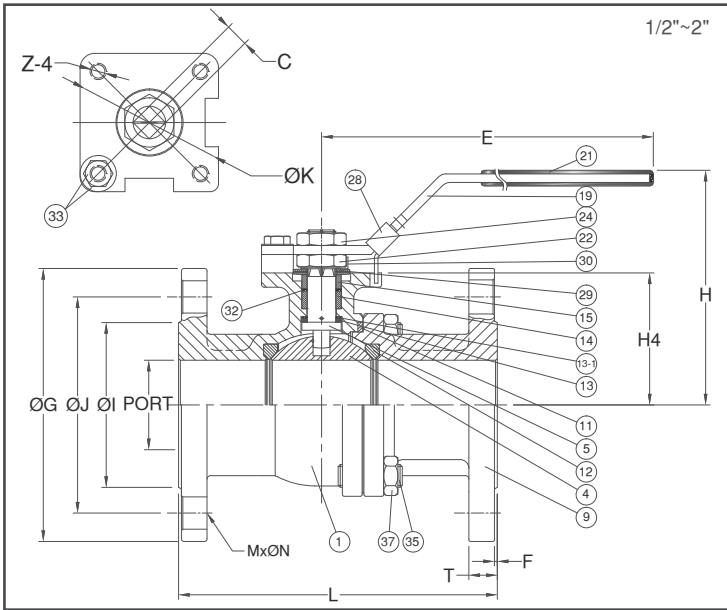
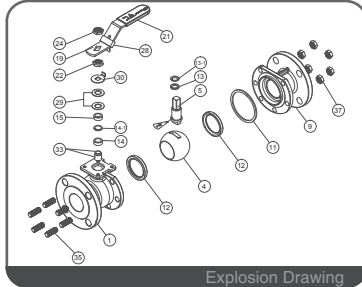
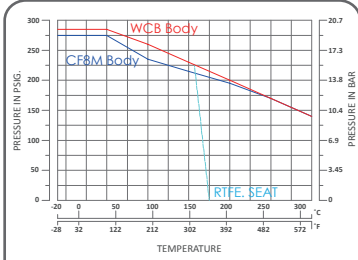
MD-32

Two Pieces Flanged Ball Valve

API 607 6th Edition / ISO 10497 Certified

ANSI Class 150 / Full Bore

Flanged End / 1/2" ~ 6"



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body 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: 1/2" ~ 6" (DN15 ~ DN150)
- End Connection: Flanged End, RF
- Working Pressure: CF8M - 275 PSI (CWP)
WCB - 285 PSI (CWP)
- 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 / API 608
- Mounting Flange: ISO 5211
- Face to Face: ASME/ANSI B16.10 Class 150
- Flange Dimension: ASME/ANSI B16.5 Class 150 RF
- Material: ASTM
- Pressure Testing: API 598

CERTIFICATE

- Fire Safe: API 607 6th Edition / ISO 10497
- 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

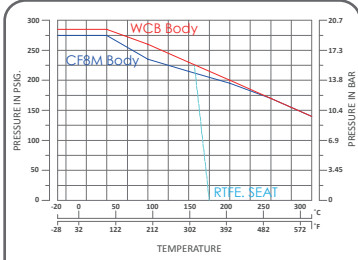
| NO. | PART NAME | MATERIAL (more options available) | |
|------|-------------------|-------------------------------------|------------------|
| 1 | BODY | ASTM A351 Gr.CF8M | ASTM A216 Gr.WCB |
| 4 | BALL | ASTM A351 Gr.CF8M | |
| 5 | STEM | ASTM A276 Gr.SS316 | |
| 9 | END CAP | ASTM A351 Gr.CF8M | ASTM A216 Gr.WCB |
| 11 | BODY SEAL | GRAPHITE+SS316 SPIRAL WOUND WIRE | |
| 12 | SEAT | RTFE.(15%G.F.) | |
| 13 | THRUST WASHER | GRAPHITE | |
| 13-1 | THRUST WASHER | RTFE.(15%G.F.) | |
| 14 | STEM PACKING | GRAPHITE | |
| 15 | GLAND BUSH | SS304 | |
| 19 | HANDLE | STEEL | |
| 21 | HANDLE COVER | PLASTIC | |
| 22 | STEM NUT | SS304 | |
| 24 | HANDLE NUT | SS304 | |
| 28 | LOCKING DEVICE | SS304 | |
| 29 | BELLEVILLE WASHER | SS301 | |
| 30 | TAB WASHER | SS304 | |
| 32 | PACKING FOLLOWER | RTFE.(15%G.F.) | |
| 33 | STOP PIN SET | SS304 | |
| 35 | BODY BOLT | ASTM A193 Gr.B8 | ASTM A193 Gr.B7 |
| 37 | BOLT NUT | ASTM A194 Gr.8 | ASTM A193 Gr.2H |

DIMENSION

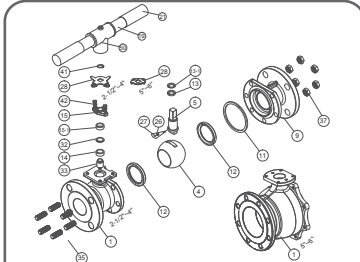
| SIZE | PORT | unit : mm | | | | | | | | | | | | | | |
|------|--------|-----------|-------|-----|-------|-------|----|-------|-------|------|------|------|-------|--------|----------|--|
| | | L | E | H | H4 | C | ØG | ØJ | ØI | T | F | MxØN | ØK | Z | | |
| DN15 | 1/2" | 15.0 | 108.0 | 132 | 80.0 | 38.5 | 9 | 90.0 | 60.5 | 35.0 | 11.6 | 2.0 | 4xØ16 | 42/F04 | M5x0.8P | |
| DN20 | 3/4" | 20.0 | 117.0 | 132 | 84.5 | 42.5 | 9 | 98.6 | 70.0 | 43.0 | 13.2 | 2.0 | 4xØ16 | 42/F04 | M5x0.8P | |
| DN25 | 1" | 25.0 | 127.0 | 166 | 102.0 | 52.0 | 11 | 108.0 | 79.2 | 51.0 | 14.7 | 2.0 | 4xØ16 | 50/F05 | M6x1.0P | |
| DN32 | 1-1/4" | 32.0 | 140.0 | 166 | 105.0 | 56.0 | 11 | 117.5 | 88.9 | 63.5 | 16.6 | 2.0 | 4xØ16 | 50/F05 | M6x1.0P | |
| DN40 | 1-1/2" | 38.0 | 165.0 | 203 | 125.0 | 65.25 | 14 | 127.0 | 98.6 | 73.2 | 17.9 | 2.0 | 4xØ16 | 70/F07 | M8x1.25P | |
| DN50 | 2" | 50.0 | 178.0 | 203 | 132.0 | 73.75 | 14 | 152.5 | 120.7 | 92.0 | 19.1 | 1.6 | 4xØ19 | 70/F07 | M8x1.25P | |

DIMENSION

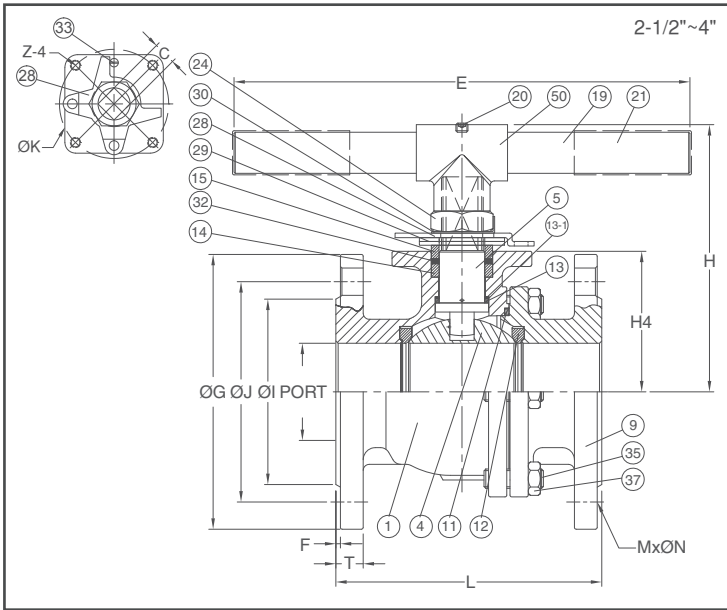
| SIZE | PORT | unit : inch | | | | | | | | | | | | | | |
|------|--------|-------------|------|------|------|------|------|------|------|------|------|------|---------|----------|----------|--|
| | | L | E | H | H4 | C | ØG | ØJ | ØI | T | F | MxØN | ØK | Z | | |
| DN15 | 1/2" | 0.59 | 4.25 | 5.20 | 3.15 | 1.52 | 0.35 | 3.54 | 2.38 | 1.38 | 0.46 | 0.08 | 4xØ0.63 | 1.65/F04 | M5x0.8P | |
| DN20 | 3/4" | 0.79 | 4.61 | 5.20 | 3.33 | 1.67 | 0.35 | 3.88 | 2.76 | 1.69 | 0.52 | 0.08 | 4xØ0.63 | 1.65/F04 | M5x0.8P | |
| DN25 | 1" | 0.98 | 5.00 | 6.54 | 4.02 | 2.05 | 0.43 | 4.25 | 3.12 | 2.01 | 0.58 | 0.08 | 4xØ0.63 | 1.97/F05 | M6x1.0P | |
| DN32 | 1-1/4" | 1.26 | 5.51 | 6.54 | 4.13 | 2.20 | 0.43 | 4.63 | 3.50 | 2.50 | 0.65 | 0.08 | 4xØ0.63 | 1.97/F05 | M6x1.0P | |
| DN40 | 1-1/2" | 1.50 | 6.50 | 7.99 | 4.92 | 2.57 | 0.55 | 5.00 | 3.88 | 2.88 | 0.70 | 0.08 | 4xØ0.63 | 2.76/F07 | M8x1.25P | |
| DN50 | 2" | 1.97 | 7.01 | 7.99 | 5.20 | 2.90 | 0.55 | 6.00 | 4.75 | 3.62 | 0.75 | 0.06 | 4xØ0.75 | 2.76/F07 | M8x1.25P | |



ANSI Class 150 P-T Chart



Explosion Drawing



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body 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: 1/2" ~ 6" (DN15 ~ DN150)
- End Connection: Flanged End, RF
- Working Pressure: CF8M - 275 PSI (CWP)
WCB - 285 PSI (CWP)
- 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 / API 608
- Mounting Flange: ISO 5211
- Face to Face: ASME/ANSI B16.10 Class 150
- Flange Dimension: ASME/ANSI B16.5 Class 150 RF
- Material: ASTM
- Pressure Testing: API 598

CERTIFICATE

- Fire Safe: API 607 6th Edition / ISO 10497
- 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

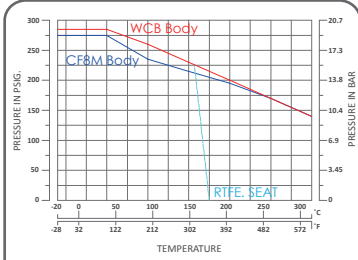
| NO. | PART NAME | MATERIAL (more options available) |
|------|-------------------|----------------------------------------|
| 1 | BODY | ASTM A351 Gr.CF8M ASTM A216 Gr.WCB |
| 4 | BALL | ASTM A351 Gr.CF8M |
| 5 | STEM | ASTM A276 Gr.316 |
| 9 | END CAP | ASTM A351 Gr.CF8M ASTM A216 Gr.WCB |
| 11 | BODY SEAL | GRAPHITE+SS316 SPIRAL WOUND WIRE |
| 12 | SEAT | RTFE.(15%G.F.) |
| 13 | THRUST WASHER | GRAPHITE |
| 13-1 | THRUST WASHER | RTFE.(15%G.F.) |
| 14 | STEM PACKING | GRAPHITE |
| 15 | GLAND BUSH | SS304 |
| 19 | HANDLE | STEEL |
| 20 | SET BOLT | SS304 |
| 21 | HANDLE COVER | PLASTIC |
| 24 | HANDLE NUT | SS304 |
| 28 | STOP PLATE | SS304 |
| 29 | BELLEVILLE WASHER | SS301 |
| 30 | TAB WASHER | SS304 |
| 32 | PACKING FOLLOWER | RTFE.(15%G.F.) |
| 33 | STOP PIN | SS304 |
| 35 | BODY BOLT | ASTM A193 Gr.B8 ASTM A193 Gr.B7 |
| 37 | BOLT NUT | ASTM A194 Gr.8 ASTM A194 Gr.2H |
| 50 | HANDLE ADAPTER | ASTM A351 Gr.CF8 |

DIMENSION

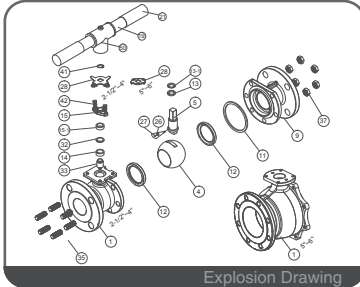
| unit : mm | | | | | | | | | | | | | | | |
|-----------|--------|-------|-----|-----|-------|--------|----|-------|-------|-------|------|------|-------|---------|----------|
| SIZE | PORT | L | E | H1 | H4 | C | ØG | ØJ | ØI | T | F | MxØN | ØK | Z | |
| DN65 | 2-1/2" | 64.0 | 190 | 300 | 178.0 | 92.5 | 17 | 180.0 | 139.7 | 105.0 | 22.7 | 2.0 | 4xØ19 | 102/F10 | M10x1.5P |
| DN80 | 3" | 76.0 | 203 | 300 | 188.0 | 101.65 | 17 | 190.0 | 152.4 | 127.0 | 24.3 | 2.0 | 4xØ19 | 102/F10 | M10x1.5P |
| DN100 | 4" | 100.0 | 229 | 450 | 202.0 | 119.0 | 17 | 228.6 | 190.5 | 157.2 | 23.9 | 1.6 | 8xØ19 | 102/F10 | M10x1.5P |

DIMENSION

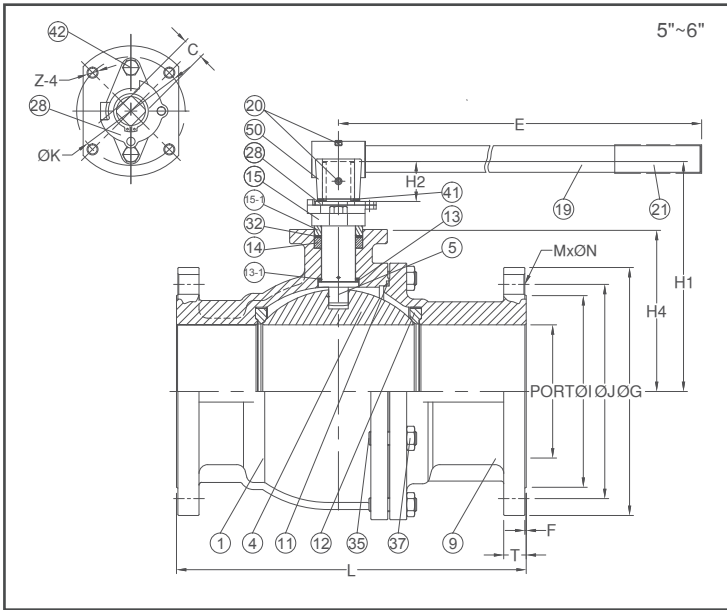
| unit : inch | | | | | | | | | | | | | | | |
|-------------|--------|------|------|-------|------|------|------|------|------|------|------|------|---------|----------|----------|
| SIZE | PORT | L | E | H1 | H4 | C | ØG | ØJ | ØI | T | F | MxØN | ØK | Z | |
| DN65 | 2-1/2" | 2.52 | 7.48 | 11.81 | 7.01 | 3.64 | 0.67 | 7.09 | 5.50 | 4.13 | 0.89 | 0.08 | 4xØ0.75 | 4.02/F10 | M10x1.5P |
| DN80 | 3" | 2.99 | 7.99 | 11.81 | 7.40 | 4.00 | 0.67 | 7.48 | 6.00 | 5.00 | 0.96 | 0.08 | 4xØ0.75 | 4.02/F10 | M10x1.5P |
| DN100 | 4" | 3.94 | 9.02 | 17.72 | 7.95 | 4.69 | 0.67 | 9.00 | 7.50 | 6.19 | 0.94 | 0.06 | 8xØ0.75 | 4.02/F10 | M10x1.5P |



ANSI Class 150 P-T Chart



Explosion Drawing



FEATURES

- Investment Cast Body Construction
- 2 Pieces Body Design
- ISO 5211 Mounting Flange
- Blow-Out-Proof Stem Design
- Anti-Static Device
- Available for Pneumatic or Electric Actuator
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MATERIAL LIST

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| 5 | STEM | ASTM A276 Gr.316 |
| 9 | END CAP | ASTM A351 Gr.CF8M / ASTM A216 Gr.WCB |
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| 12 | SEAT | RTFE.(15%G.F.) |
| 13 | THRUST WASHER | GRAPHITE |
| 13-1 | THRUST WASHER | RTFE.(15%G.F.) |
| 14 | STEM PACKING | GRAPHITE |
| 15 | GLAND FLANGE | ASTM A216 Gr.WCB |
| 15-1 | GLAND BUSH | SS304 |
| 19 | HANDLE | STEEL |
| 20 | SET BOLT | SS304 |
| 21 | HANDLE COVER | PLASTIC |
| 28 | STOP PLATE | SS304 |
| 32 | PACKING FOLLOWER | RTFE.(15%G.F.) |
| 35 | BODY BOLT | ASTM A193 Gr.B8 / ASTM A193 Gr.B7 |
| 37 | BOLT NUT | ASTM A194 Gr.8 / ASTM A194 Gr.2H |
| 41 | SNAP RING | SS304 |
| 42 | GLAND BOLT | SS304 |
| 50 | HANDLE ADAPTER | ASTM A351 Gr.CF8 |

DIMENSION

| | | | | | | | | | | | | | | | unit : mm | | |
|-------|------|-------|-----|-----|-------|-------|----|-------|-------|-------|------|------|---------|-------------------|-----------|--|--|
| SIZE | PORT | L | E | H1 | H4 | C | ØG | ØJ | ØI | T | F | MxØN | ØK | Z | | | |
| DN125 | 5" | 125.0 | 356 | 450 | 232.4 | 163.0 | 27 | 254.0 | 216.0 | 186.0 | 24.4 | 2.0 | 8xØ22.3 | 125/F12 M12x1.75P | | | |
| DN150 | 6" | 150.0 | 394 | 800 | 251.9 | 182.5 | 27 | 279.4 | 241.3 | 216.0 | 25.4 | 1.6 | 8xØ22.3 | 125/F12 M12x1.75P | | | |

DIMENSION

| | | | | | | | | | | | | | | | unit : inch | | |
|-------|------|------|-------|-------|------|------|------|-------|------|------|------|------|---------|--------------------|-------------|--|--|
| SIZE | PORT | L | E | H1 | H4 | C | ØG | ØJ | ØI | T | F | MxØN | ØK | Z | | | |
| DN125 | 5" | 4.92 | 14.02 | 17.72 | 9.15 | 6.42 | 1.06 | 10.00 | 8.50 | 7.32 | 0.96 | 0.08 | 8xØ0.88 | 4.92/F12 M12x1.75P | | | |
| DN150 | 6" | 5.91 | 15.51 | 31.50 | 9.92 | 7.19 | 1.06 | 11.00 | 9.50 | 8.50 | 1.00 | 0.06 | 8xØ0.88 | 4.92/F12 M12x1.75P | | | |