



# MD-32

## Two Pieces Flanged Ball Valve

API 607 6<sup>th</sup> Edition / ISO 10497 Certified

ANSI Class 300 / Full Bore  
Flanged End / 1/2" ~ 6"



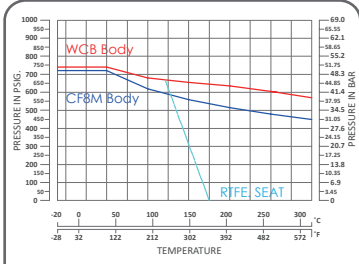
### FEATURES

- 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

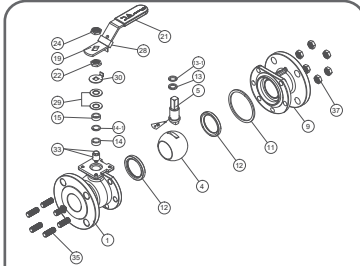
**AUTOMATION AVAILABLE**

### SPECIFICATIONS

- Size Range: 1/2" ~ 6" (DN15 ~ DN150)
- End Connection: Flanged End, RF
- Working Pressure: CF8M - 720 PSI (CWP)  
WCB - 740 PSI (CWP)
- Steam Pressure: 150 PSIG. Saturated Steam for RTFE.
- Temperature Range: -4 to 356 °F (-20 to 180 °C) for RTFE.



ANSI Class 300 P-T Chart



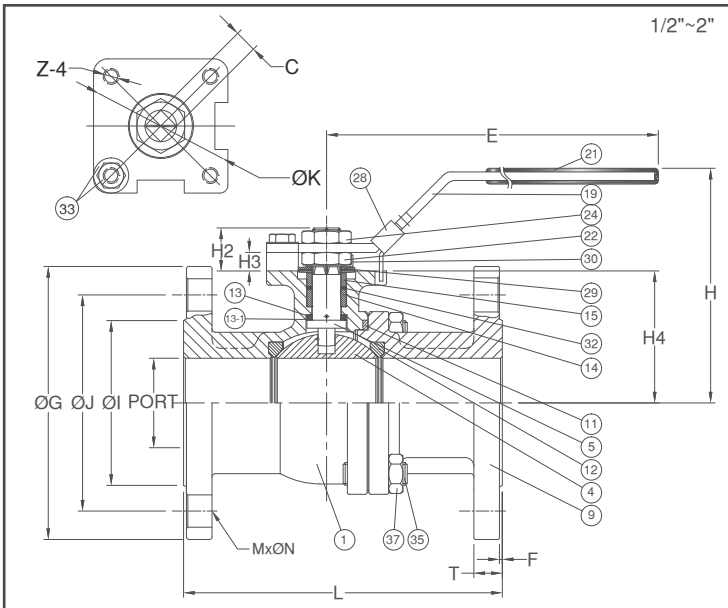
Explosion Drawing

### STANDARDS

- Design: ASME/ANSI B16.34 / API 608
- Mounting Flange: ISO 5211
- Face to Face: ASME/ANSI B16.10 Class 300
- Flange Dimension: ASME/ANSI B16.5 Class 300 RF
- Material: ASTM
- Pressure Testing: API 598

### CERTIFICATE

- Fire Safe: API 607 6<sup>th</sup> 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

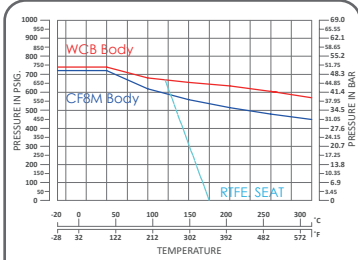
| NO.  | PART NAME         | MATERIAL<br>(more options available) |                  |
|------|-------------------|--------------------------------------|------------------|
| 1    | BODY              | ASTM A351 Gr.CF8M                    | ASTM A216 Gr.WCB |
| 4    | BALL              | ASTM A351 Gr.CF8M                    |                  |
| 5    | STEM              | ASTM A276 Gr.SS316                   |                  |
| 9    | END CAP           | ASTM A351 Gr.CF8M                    | ASTM A216 Gr.WCB |
| 11   | BODY SEAL         | GRAPHITE                             |                  |
| 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

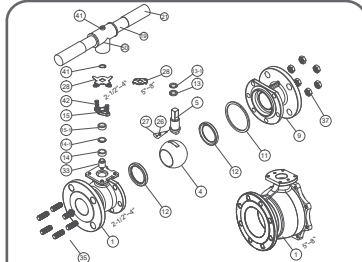
| SIZE | PORT   | unit : mm |       |     |       |      |      |       |    |       |       |      |      |      |         |        |          |
|------|--------|-----------|-------|-----|-------|------|------|-------|----|-------|-------|------|------|------|---------|--------|----------|
|      |        | L         | E     | H   | H2    | H3   | H4   | C     | ØG | ØJ    | ØI    | T    | F    | MxØN | ØK      | Z      |          |
| DN15 | 1/2"   | 15.0      | 140.0 | 132 | 80.0  | 16.0 | 8.0  | 38.5  | 9  | 95.0  | 66.6  | 35.1 | 12.7 | 2.0  | 4xØ16   | 42/F04 | M5x0.8P  |
| DN20 | 3/4"   | 20.0      | 152.5 | 132 | 84.5  | 15.0 | 6.5  | 42.5  | 9  | 117.4 | 82.6  | 43.0 | 14.3 | 2.0  | 4xØ19   | 42/F04 | M5x0.8P  |
| DN25 | 1"     | 25.0      | 165.0 | 166 | 102.0 | 20.5 | 11.5 | 52.0  | 11 | 124.0 | 89.0  | 50.8 | 15.9 | 2.0  | 4xØ19   | 50/F05 | M6x1.0P  |
| DN32 | 1-1/4" | 32.0      | 178.0 | 166 | 105.0 | 20.0 | 11.0 | 56.0  | 11 | 133.4 | 98.6  | 63.5 | 17.5 | 2.0  | 4xØ19   | 50/F05 | M6x1.0P  |
| DN40 | 1-1/2" | 38.0      | 190.0 | 203 | 125.0 | 23.0 | 15.0 | 65.25 | 14 | 155.5 | 114.3 | 73.2 | 19.1 | 2.0  | 4xØ22.3 | 70/F07 | M8x1.25P |
| DN50 | 2"     | 50.0      | 216.0 | 203 | 132.0 | 22.5 | 13.0 | 73.75 | 14 | 165.1 | 127.0 | 92.0 | 20.7 | 2.0  | 8xØ19   | 70/F07 | M8x1.25P |

### DIMENSION

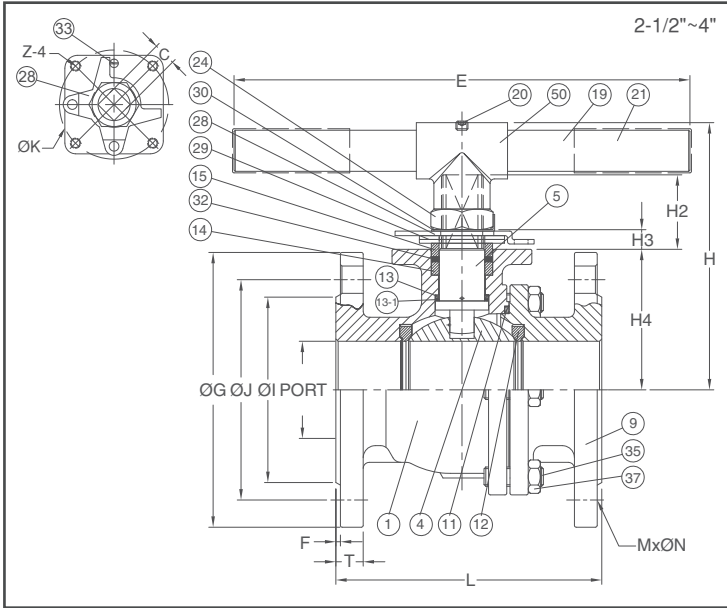
| SIZE | PORT   | unit : inch |      |      |      |      |      |      |      |      |      |      |      |      |         |          |          |
|------|--------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|---------|----------|----------|
|      |        | L           | E    | H    | H2   | H3   | H4   | C    | ØG   | ØJ   | ØI   | T    | F    | MxØN | ØK      | Z        |          |
| DN15 | 1/2"   | 0.59        | 5.51 | 5.20 | 3.15 | 0.63 | 0.32 | 1.52 | 0.35 | 3.74 | 2.62 | 1.38 | 0.50 | 0.08 | 4xØ0.63 | 1.65/F04 | M5x0.8P  |
| DN20 | 3/4"   | 0.79        | 6.00 | 5.20 | 3.33 | 0.59 | 0.26 | 1.67 | 0.35 | 4.62 | 3.25 | 1.69 | 0.56 | 0.08 | 4xØ0.75 | 1.65/F04 | M5x0.8P  |
| DN25 | 1"     | 0.98        | 6.50 | 6.54 | 4.02 | 0.81 | 0.45 | 2.05 | 0.43 | 4.88 | 3.50 | 2.00 | 0.63 | 0.08 | 4xØ0.75 | 1.97/F05 | M6x1.0P  |
| DN32 | 1-1/4" | 1.26        | 7.01 | 6.54 | 4.13 | 0.79 | 0.43 | 2.20 | 0.43 | 5.25 | 3.88 | 2.50 | 0.69 | 0.08 | 4xØ0.75 | 1.97/F05 | M6x1.0P  |
| DN40 | 1-1/2" | 1.50        | 7.48 | 7.99 | 4.92 | 0.91 | 0.59 | 2.57 | 0.55 | 6.12 | 4.50 | 2.88 | 0.75 | 0.08 | 4xØ0.88 | 2.76/F07 | M8x1.25P |
| DN50 | 2"     | 1.97        | 8.50 | 7.99 | 5.20 | 0.89 | 0.51 | 2.90 | 0.55 | 6.50 | 5.00 | 3.62 | 0.81 | 0.08 | 4xØ0.75 | 2.76/F07 | M8x1.25P |



ANSI Class 300 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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### SPECIFICATIONS

- Size Range: 1/2" ~ 6" ( DN15 ~ DN150 )
- End Connection: Flanged End, RF
- Working Pressure: CF8M - 720 PSI ( CWP )  
WCB - 740 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 300
- Flange Dimension: ASME/ANSI B16.5 Class 300 RF
- Material: ASTM
- Pressure Testing: API 598

### CERTIFICATE

- Fire Safe: API 607 6<sup>th</sup> 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

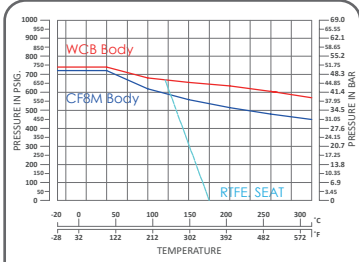
| NO.  | PART NAME         | MATERIAL<br>(more options available) |                  |
|------|-------------------|--------------------------------------|------------------|
| 1    | BODY              | ASTM A351 Gr.CF8M                    | ASTM A216 Gr.WCB |
| 4    | BALL              | ASTM A351 Gr.CF8M                    |                  |
| 5    | STEM              | ASTM A276 Gr.316                     |                  |
| 9    | END CAP           | ASTM A351 Gr.CF8M                    | ASTM A216 Gr.WCB |
| 11   | BODY SEAL         | GRAPHITE                             |                  |
| 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

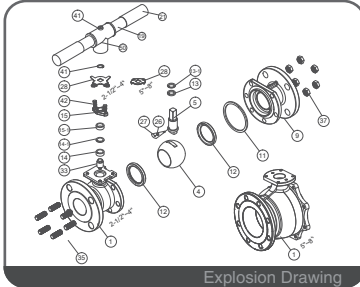
|       |        |       |     |     |       |      |      |        |    |       |       |       |      |      |       |         |          |  | unit : mm |  |  |
|-------|--------|-------|-----|-----|-------|------|------|--------|----|-------|-------|-------|------|------|-------|---------|----------|--|-----------|--|--|
| SIZE  | PORT   | L     | E   | H1  | H2    | H3   | H4   | C      | ØG | ØJ    | ØI    | T     | F    | MxØN | ØK    | Z       |          |  |           |  |  |
| DN65  | 2-1/2" | 64.0  | 241 | 300 | 178.0 | 50.0 | 27.5 | 92.5   | 17 | 190.5 | 149.4 | 104.7 | 23.8 | 2.0  | 8xØ22 | 102/F10 | M10x1.5P |  |           |  |  |
| DN80  | 3"     | 76.0  | 283 | 300 | 188.0 | 50.0 | 27.5 | 101.65 | 17 | 209.6 | 168.1 | 127.0 | 27.0 | 2.0  | 8xØ22 | 102/F10 | M10x1.5P |  |           |  |  |
| DN100 | 4"     | 100.0 | 305 | 450 | 205.1 | 47.5 | 28.0 | 119.0  | 17 | 254.0 | 200.2 | 157.2 | 30.2 | 2.0  | 8xØ22 | 102/F10 | M10x1.5P |  |           |  |  |

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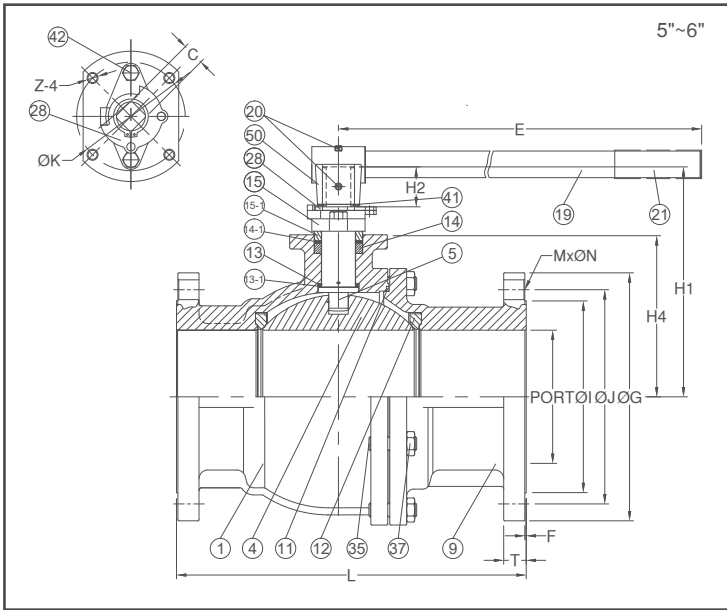
|       |        |      |       |       |      |      |      |      |      |       |      |      |      |      |         |          |          |  | unit : inch |  |  |
|-------|--------|------|-------|-------|------|------|------|------|------|-------|------|------|------|------|---------|----------|----------|--|-------------|--|--|
| SIZE  | PORT   | L    | E     | H1    | H2   | H3   | H4   | C    | ØG   | ØJ    | ØI   | T    | F    | MxØN | ØK      | Z        |          |  |             |  |  |
| DN65  | 2-1/2" | 2.52 | 9.49  | 11.81 | 7.01 | 1.97 | 1.08 | 3.64 | 0.67 | 7.50  | 5.88 | 4.12 | 0.94 | 0.08 | 8xØ0.88 | 4.02/F10 | M10x1.5P |  |             |  |  |
| DN80  | 3"     | 2.99 | 11.14 | 11.81 | 7.40 | 1.97 | 1.08 | 4.00 | 0.67 | 8.25  | 6.62 | 5.00 | 1.06 | 0.08 | 8xØ0.88 | 4.02/F10 | M10x1.5P |  |             |  |  |
| DN100 | 4"     | 3.94 | 12.01 | 17.72 | 8.07 | 1.87 | 1.10 | 4.69 | 0.67 | 10.00 | 7.88 | 6.19 | 1.19 | 0.08 | 8xØ0.88 | 4.02/F10 | M10x1.5P |  |             |  |  |



ANSI Class 300 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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- 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                          |                  |
| 12   | SEAT           | RTFE.(15%G.F.)                    |                  |
| 13   | THRUST WASHER  | GRAPHITE                          |                  |
| 13-1 | THRUST WASHER  | RTFE.(15%G.F.)                    |                  |
| 14   | STEM PACKING   | GRAPHITE                          |                  |
| 14-1 | STEM PACKING   | RTFE.(15%G.F.)                    |                  |
| 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                             |                  |
| 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    | M   | ØN | ØK   | Z                 |  |  |
| DN125 | 5"   | 125.0 | 381.0 | 450.0 | 239.0 | 163.0 | 27 | 279.4 | 235.0 | 186.0 | 33.4 | 2.0 | 8  | 22.3 | 125/F12 M12x1.75P |  |  |
| DN150 | 6"   | 150.0 | 403.0 | 800.0 | 258.5 | 182.5 | 27 | 317.5 | 269.8 | 216.0 | 35.0 | 2.0 | 12 | 22.3 | 125/F12 M12x1.75P |  |  |

### DIMENSION

|       |      |      |       |       |       |      |      |       |       |      |      |      |    |      | unit : inch        |  |  |
|-------|------|------|-------|-------|-------|------|------|-------|-------|------|------|------|----|------|--------------------|--|--|
| SIZE  | PORT | L    | E     | H1    | H4    | C    | ØG   | ØJ    | ØI    | T    | F    | M    | ØN | ØK   | Z                  |  |  |
| DN125 | 5"   | 4.92 | 15.00 | 17.72 | 9.41  | 6.42 | 1.06 | 11.00 | 9.25  | 7.32 | 1.31 | 0.08 | 8  | 0.88 | 4.92/F12 M12x1.75P |  |  |
| DN150 | 6"   | 5.91 | 15.87 | 31.50 | 10.18 | 7.19 | 1.06 | 12.50 | 10.62 | 8.50 | 1.38 | 0.08 | 8  | 0.88 | 4.92/F12 M12x1.75P |  |  |