

Extreme Reliability for Severe Applications

Minimal Maintenance

Decreased Downtime

Seamless Integration

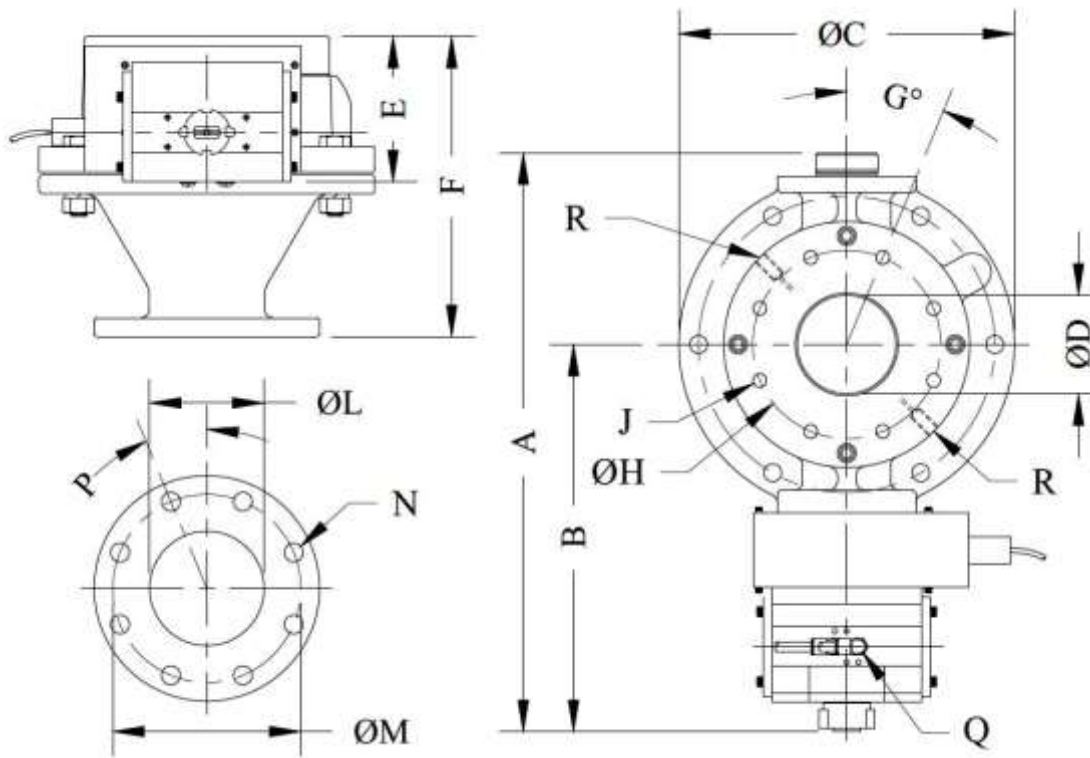
Fully Customizable

The Macawber Dome Valve® is a hemispherical actuating valve utilized as the filling valve to our various low velocity pneumatic conveying systems allowing a full-port flow of material from a material feed source, such as a hopper or silo. Its unique sealing technique ensures the valve is completely leak proof even when handling abrasive bulk materials across high pressure differentials and high temperatures. The seal member is able to compensate for wear achieving long life and reliability. Due to its simplicity, functionality and robust design it has been deployed into various applications from vessel filling valve to emptying valve in reactors, gasifiers, driers and mixer as well as electrostatic precipitators, baghouses and many others.

- Original patent holder (patent no. 4,137,935 | 5,642,751)
- Temperature rating up to < 400°F (204°C)
- Pressure rating up to 1300 psig (91 barg)
- Designs available from 1 inch to 32 inches
- Standard material A278 cast iron
- Standard #150 ANSI inlet flange pattern. Available in standard custom patterns.
- Available in 304/316 stainless steel, aluminum, galvanized, and others
- Food grade, FDA, and pharmaceutical finishes
- Industrial coatings such as Teflon®, tungsten carbide, nickel, and others
- Elastomer options neoprene, silicone, Viton, EPDM, FDA rubber
- Fully assembled and tested prior to shipment / Manufactured in Maryville, TN USA
- Global customer support for service and spare parts
- ISO 9001:2015 Certified

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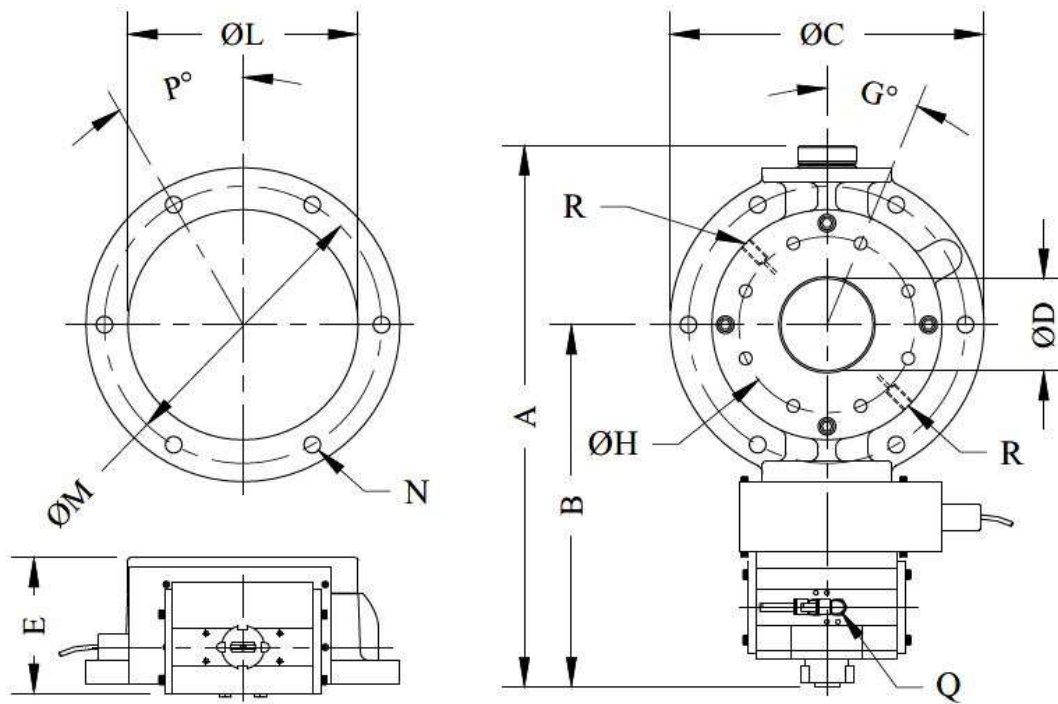
PHO = 212 F PHV = 400 F MAX. / INLINE CONFIGURATION

| VALVE SIZE | A         | B         | C         | D         | E       | F         | Degree G | Inlet Fig. BC H | Inlet Fig. Bolt hole J | No. Inlet Fig. Holes | L       | Outlet Fig. BC M | Outlet Fig. Bolt hole N | No. Outlet Fig. Holes | Degree P | Q        | R        | NET WT (LBS) |
|------------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------------|------------------------|----------------------|---------|------------------|-------------------------|-----------------------|----------|----------|----------|--------------|
| 2"         | 16 5/8"   | 10 1/2"   | 9"        | 2 1/8"    | 6"      | 11 1/4"   | 45       | 4 3/4"          | 5/8" 11UNC             | 4                    | 2"      | 4 3/4"           | 3/4"                    | 4                     | 45       | 1/4" NPT | 1/4" NPT | 46           |
| 4"         | 23 1/16"  | 15 7/16"  | 13 3/8"   | 4 1/8"    | 5 3/8"  | 11 15/16" | 22.5     | 7 1/2"          | 5/8" 11UNC             | 8                    | 4"      | 7 1/2"           | 3/4" THRU               | 8                     | 22.5     | 1/4" NPT | 1/4" NPT | 142          |
| 6"         | 28 13/16" | 18 15/16" | 17 5/16"  | 6 3/16"   | 6 3/4"  | 15 1/8"   | 22.5     | 9 1/2"          | 3/4" 10UNC             | 8                    | 6 1/16" | 9 1/2"           | 7/8" THRU               | 8                     | 22.5     | 1/4" NPT | 1/4" NPT | 238          |
| 8"         | 32 15/16" | 21 5/16"  | 20 1/2"   | 8 1/8"    | 8 1/16" | 17 3/16"  | 22.5     | 11 3/4"         | 3/4" 10UNC             | 8                    | 8"      | 11 3/4"          | 7/8" THRU               | 8                     | 22.5     | 1/4" NPT | 1/4" NPT | 361          |
| 10"        | 39 3/16"  | 24 3/4"   | 24 3/8"   | 9 15/16"  | 9 9/16" | 20 5/8"   | 15       | 14 1/4"         | 7/8" 9UNC              | 12                   | 10"     | 14 1/4"          | 1" THRU                 | 12                    | 15       | 1/4" NPT | 1/4" NPT | 587          |
| 12"        | 43 1/2"   | 27 1/2"   | 27 3/16"  | 12 1/16"  | 11 1/8" | 22 3/4"   | 15       | 17"             | 7/8" 9UNC              | 12                   | 12"     | 17"              | 1" THRU                 | 12                    | 15       | 1/4" NPT | 1/4" NPT | 880          |
| 16"        | 68 9/16"  | 34 1/2"   | 35 13/16" | 15 13/16" | 16 7/8" | 31 11/16" | 11.25    | 21 1/4"         | 1" 8UNC                | 16                   | 15 1/2" | 21 1/4"          | 1 1/8" THRU             | 16                    | 11.25    | 1/4" NPT | 1/4" NPT | 1430         |

OTHER SIZES AVAILABLE UPON REQUEST

INFORMATION NOT CERTIFIED FOR INSTALLATION PURPOSES

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| PHO = 212 F PHV = 400 F MAX. / BULKHEAD CONFIGURATION |           |           |           |           |          |          |                 |                        |                      |           |                  |                         |                       |          |          |          |              |
|---|-----------|-----------|-----------|-----------|----------|----------|-----------------|------------------------|----------------------|-----------|------------------|-------------------------|-----------------------|----------|----------|----------|--------------|
| VALVE SIZE  | A         | B         | C         | D         | E        | Degree G | Inlet Fig. BC H | Inlet Fig. Bolt hole J | No. Inlet Fig. Holes | L         | Outlet Fig. BC M | Outlet Fig. Bolt hole N | No. Outlet Fig. Holes | Degree P | Q        | R        | NET WT (LBS) |
| 2"  | 16 5/8"   | 10 1/2"   | 9"        | 2 1/8"    | 6"       | 45       | 4 3/4"          | 5/8" 11UNC             | 4                    | 5 1/2"    | 7 1/2"           | 5/8" THRU               | 6                     | 30       | 1/4" NPT | 1/8" NPT | 46           |
| 4"  | 23 1/16"  | 15 7/16"  | 13 3/8"   | 4 1/8"    | 5 3/8"   | 22.5     | 7 1/2"          | 5/8" 11UNC             | 8                    | 7 3/4"    | 11 11/16"        | 11/16" THRU             | 6                     | 30       | 1/4" NPT | 1/4" NPT | 98           |
| 6"  | 28 13/16" | 18 15/16" | 17 5/16"  | 6 3/16"   | 6 3/4"   | 22.5     | 9 1/2"          | 3/4" 10UNC             | 8                    | 12 1/4"   | 15 3/8"          | 7/8" THRU               | 8                     | 22.5     | 1/4" NPT | 1/4" NPT | 173          |
| 8"  | 32 15/16" | 21 5/16"  | 20 1/2"   | 8 1/16"   | 8 1/16"  | 22.5     | 11 3/4"         | 3/4" 10UNC             | 8                    | 13 1/4"   | 18 1/2"          | 7/8" THRU               | 8                     | 22.5     | 1/4" NPT | 1/4" NPT | 264          |
| 10"   | 39 3/16"  | 24 3/4"   | 24 3/8"   | 9 15/16"  | 9 9/16"  | 15       | 14 1/4"         | 7/8" 9UNC              | 12                   | 19 5/16"  | 22 3/64"         | 1 1/16" THRU            | 8                     | 22.5     | 1/4" NPT | 1/4" NPT | 417          |
| 12"   | 43 1/2"   | 27 1/2"   | 27 3/16"  | 12 1/16"  | 11 1/8"  | 15       | 17"             | 7/8" 9UNC              | 12                   | 19 11/16" | 24 13/16"        | 1 1/8" THRU             | 12                    | 15       | 1/4" NPT | 1/4" NPT | 630          |
| 16"   | 68 9/16"  | 34 1/4"   | 35 13/16" | 15 13/16" | 16 7/8"  | 11.25    | 21 1/4"         | 1" 8UNC                | 16                   | 26 7/16"  | 33 1/16"         | 1 3/8" THRU             | 20                    | 0        | 1/4" NPT | 1/4" NPT | 955          |
| 20"   | 81"       | 38 15/16" | 44"       | 20 3/16"  | 20 1/8"  | 9        | 25"             | 1 1/8" 7UNC            | 20                   | 34 11/16" | 40 1/2"          | 1 5/8" THRU             | 32                    | 5.625    | 1/4" NPT | 1/4" NPT | 1680         |
| 24"   | 77 5/8"   | 38 13/16" | 48"       | 23 1/4"   | 22 3/16" | 9        | 29 1/2"         | 1 1/4" UNC             | 20                   | 40"       | 44"              | 1 1/8" THRU             | 12                    | 15       | 1/4" NPT | 1/4" NPT | 1705         |
| 30"   | 93 11/16" | 48 13/16" | 53"       | 29 9/16"  | 29 9/16" | 6.4      | 36"             | 1 1/8" UNC             | 28                   | 32 7/8"   | 49 1/2"          | 1 5/8" THRU             | 36                    | 5        | 1/4" NPT | 1/4" NPT | 3000         |

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