

# Models 50 & 51 Threaded Style Back Pressure Check Valves *Product Information*



Model 50



Model 51





### **PRODUCT CERTIFICATIONS**



**Underwriters Laboratories, Inc.**Listed for propane, butane, and anhydrous ammonia



Canadian Registration Number OC13500.5C



**CE Mark** Certified to Pressure Equipment Directive 2014/68/EU

## **APPLICATION**

MGM Models 50 and 51 Back Pressure Check Valves are designed to allow flow in one direction only. The check mechanism is held in the closed position by a spring, which stops flow in the reverse direction. When pressure from flow in the permitted direction overcomes the force of the spring, the check mechanism opens. When flow stops or reverses, the check closes. The metal-to-metal seating allows slight leakage after closure. The valves are recommended for use in inflowing lines.

Models 50 and 51 Back Pressure Check Valves are designed for installation in lines that flow into pressure tanks. Model 50 has male pipe threads on top (inlet) end and female pipe threads on lower end. Model 51 has male pipe threads on top (inlet) and bottom ends and female threads on bottom. These valves should be used in inflowing lines when outward flow is never required. Models 50 and 51 Back Pressure Check Valves are machined from solid bar stock.

Models 50 and 51 Back Pressure Check Valves can be mounted in any orientation. Each valve will have the proper flow direction indicated by an arrow stenciled into the body. As with all MGM Back Pressure Check Valves, do not reduce outlet pipe size. Back Pressure Check Valves should be installed as close as possible to the container, with the poppet stem pointed inwardly toward the container.

#### **FEATURES**

- Designed with male and female NPT threaded connections.
- Available in ½" to 3" NPT threads.
- Generous flow channels provide minimal pressure drops.
- Heavy duty steel construction will withstand temperatures from -50° F (-45° C) to +300° F (+148° C) and internal pressures up to 1800 psig (124 barg).
- Complete stainless steel construction available for greater range of operating temperatures.

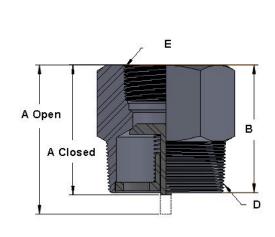
# **STANDARD MATERIALS**

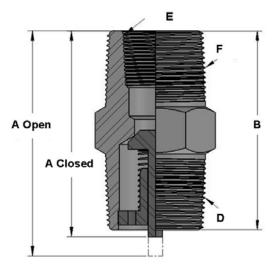
The table below lists standard material configuration for carbon steel and 316 stainless steel valves.\*

|                                   | Carbon Steel    | 316 Stainless |  |
|-----------------------------------|-----------------|---------------|--|
| Body                              | Low-temp Carbon | 316-SS        |  |
| Guide                             | Low-temp Carbon | 316-SS        |  |
| Spring                            | 316- or 302-SS  |               |  |
| Poppet (incl. nut and cotter pin) | 316-SS          |               |  |

<sup>\*</sup>Alternative materials available at additional cost

# METAL GOODS MANUFACTURING Product Information **Models 50 & 51 Threaded Style Back Pressure Check Valves**





Model 50

Model 51

|                               | Dimensions (Inches) |            |               |      |              |              |              |  |
|-------------------------------|---------------------|------------|---------------|------|--------------|--------------|--------------|--|
| Model                         | HEX.                | A-<br>OPEN | A -<br>CLOSED | В    | D (NPT)      | E (NPT)      | F (NPT)      |  |
| MODEL 50 ORDERING INFORMATION |                     |            |               |      |              |              |              |  |
| 50:FD                         | 1.38                | 2.71       | 2.47          | 2.38 | 1-11 1/2     | 1/2-14       |              |  |
| 50:GD                         | 1.75                | 2.84       | 2.59          | 2.50 | 1 1/4-11 1/2 | 1/2-14       |              |  |
| 50:GE                         | 1.75                | 3.10       | 2.82          | 2.69 | 1 1/4-11 1/2 | 3/4-14       |              |  |
| 50:HE                         | 2.00                | 3.10       | 2.82          | 2.69 | 1 1/2-11 1/2 | 3/4-14       |              |  |
| 50:HF                         | 2.00                | 3.34       | 2.99          | 3.01 | 1 1/2-11 1/2 | 1-11 1/2     |              |  |
| 50:IF                         | 2.50                | 3.41       | 3.05          | 2.94 | 2-11 1/2     | 1-11 1/2     |              |  |
| 50:IG                         | 2.50                | 3.84       | 3.28          | 3.25 | 2-11 1/2     | 1 1/4-11 1/2 |              |  |
| 50:JF                         | 3.00                | 3.47       | 3.12          | 3.00 | 2 1/2-8      | 1-11 1/2     |              |  |
| 50:KI                         | 3.50                | 4.38       | 3.82          | 3.75 | 3-8          | 2-11 1/2     |              |  |
| MODEL 51 ORDERING INFORMATION |                     |            |               |      |              |              |              |  |
| 51:FFD                        | 1.38                | 2.97       | 2.72          | 2.63 | 1-11 1/2     | 1/2-14       | 1-11 1/2     |  |
| 51:GGE                        | 1.75                | 3.22       | 2.94          | 2.81 | 1 1/4-11 1/2 | 3/4-14       | 1 1/4-11 1/2 |  |
| 51:HHE                        | 2.00                | 3.41       | 3.13          | 3.00 | 1 1/2-11 1/2 | 3/4-14       | 1 1/2-11 1/2 |  |
| 51:HHF                        | 2.00                | 3.47       | 3.12          | 3.00 | 1 1/2-11 1/2 | 1-11 1/2     | 1 1/2-11 1/2 |  |
| 51:IIF                        | 2.50                | 3.72       | 3.37          | 3.25 | 2-11 1/2     | 1-11 1/2     | 2-11 1/2     |  |
| 51:IIG                        | 2.50                | 3.84       | 3.28          | 3.25 | 2-11 1/2     | 1 1/4-11 1/2 | 2-11 1/2     |  |
| 51:JJF                        | 3.00                | 4.34       | 3.99          | 3.88 | 2 1/2-8      | 1-11 1/2     | 2 1/2-8      |  |
| 51:JJG                        | 3.00                | 4.47       | 3.91          | 3.88 | 2 1/2-8      | 1 1/4-11 1/2 | 2 1/2-8      |  |
| 51:JJH                        | 3.00                | 4.53       | 3.98          | 3.88 | 2 1/2-8      | 1 1/2-11 1/2 | 2 1/2-8      |  |
| 51:KKG                        | 3.50                | 4.97       | 4.41          | 4.38 | 3-8          | 1 1/4-11 1/2 | 3-8          |  |
| 51:KKH                        | 3.50                | 5.03       | 4.48          | 4.38 | 3-8          | 1 1/2-11 1/2 | 3-8          |  |
| 51:KKI                        | 3.50                | 5.11       | 4.44          | 4.38 | 3-8          | 2-11 1/2     | 3-8          |  |