TYPE E MAIN VALVE

SIZES 3/8" - 12"
PRESSURES to 600 PSIG at 750°F

- Normally Closed
- Single Seat
- Balanced Metal Diaphragms
- Protected Main Spring
- Fluid, Gas & Vapor Applications
- Multiple Trims for Precise Sizing
- ANSI/FCI 70-2 Class IV Shutoff
- Virtually Frictionless for Long Service Life
- Packless Construction
- Easy In-line Maintenance
- Wide Variety of Pilots for Many Applications
- Minimum Operating ∆P 10 psi (.7 bar)
- Lifetime Warranty against Wiredrawing of Seat & Disc*

OPTIONS
- Composition Disc
- Parabolic Disc
- Balanced Construction
- Integral Mount Pilot
- Insulcap Insulating Jacket
- Secoweld
- High Temperature Construction
- Dashpot
- Low ∆P (LP) Main Spring
- EZ Connections

TYPICAL CONFIGURATIONS

PRESSURE REDUCING ................. TYPE ED SERIES
AIR ADJUSTED ......................... TYPE EA SERIES
BACK PRESSURE ..................... TYPE EQ SERIES
PUMP GOVERNOR .................... TYPE EP SERIES
LOAD ALLOCATING .................. TYPE EFD
AIR CONTROLLED ................. TYPE EAP60
ELECTRONIC SLOW START .......... TYPE ED208D
SOLENOID CONTROLLED .......... TYPE EMD
SOLENOID ACTUATED ................. TYPE EM
DIFFERENTIAL ......................... TYPE EN
TEMPERATURE CONTROL ........... TYPE ET SERIES

APPLICATION DATA
- Pressure Regulating for Steam Distribution
- Regulating for Process Control (Temperature or Pressure)
- Maintain Back Pressure or Differential Pressure
- For use with Self-contained, Pneumatic or Electronic Pilots
- Single Point or Multiple Use Applications
- Slow Start-up or Shutdown

Valve Ends
ASME/ANSI | Pressure PSIG (bar) | Temperature °F (°C)
----- | ----------- | -----
CAST IRON
Class 250 NPT | 250 (17.2) | @ 450 (232)
B16.1 Class 125 Flanged | 125 (8.6) | @ 450 (232)
B16.1 Class 250 Flanged | 250 (17.2) | @ 450 (232)
CAST STEEL
B16.34 Class 300 NPT | 300 (21.0) | @ 600 (315)†
B16.34 Class 150 Flanged | 150 (10.3) | @ 500 (260)
B16.34 Class 300 Flanged | 300 (21.0) | @ 600 (315)†
B16.34 Class 600 Flanged | 600 (41.4) | @ 600 (315)†

†750°F (400°C) construction available on request.
Other pressure/temperature ratings available; consult factory.
Maximum downstream pressure is 300 psi.
Canadian Registration # OC 0591.9C

Installation Tip: Add EZ Connections for ease of maintenance
SEE PAGE 42

RATED FLOW COEFFICIENTS (Cv)

<table>
<thead>
<tr>
<th>SEAT FACTOR</th>
<th>1/8</th>
<th>1/4</th>
<th>1</th>
<th>11/4</th>
<th>11/2</th>
<th>2</th>
<th>21/2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full</td>
<td>1.5</td>
<td>2.8</td>
<td>5.4</td>
<td>8.8</td>
<td>14.1</td>
<td>19.8</td>
<td>31</td>
<td>44</td>
<td>74</td>
<td>109</td>
<td>169</td>
<td>248</td>
<td>444</td>
<td></td>
</tr>
<tr>
<td>Full 75 %</td>
<td>—</td>
<td>2.1</td>
<td>4.0</td>
<td>6.6</td>
<td>10.6</td>
<td>14.8</td>
<td>23.3</td>
<td>33</td>
<td>56</td>
<td>82</td>
<td>127</td>
<td>186</td>
<td>333</td>
<td></td>
</tr>
<tr>
<td>Full 50 %</td>
<td>—</td>
<td>1.4</td>
<td>2.7</td>
<td>4.4</td>
<td>7.0</td>
<td>9.9</td>
<td>15.5</td>
<td>22</td>
<td>37</td>
<td>55</td>
<td>85</td>
<td>124</td>
<td>222</td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td>.65</td>
<td>1.5</td>
<td>4.8</td>
<td>7.5</td>
<td>10.4</td>
<td>14.6</td>
<td>17.6</td>
<td>24</td>
<td>43</td>
<td>78</td>
<td>115</td>
<td>151</td>
<td>249</td>
<td></td>
</tr>
<tr>
<td>Normal 75 %</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>18</td>
<td>33</td>
<td>59</td>
<td>87</td>
<td>114</td>
<td>187</td>
<td></td>
</tr>
<tr>
<td>Normal 50 %</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>12</td>
<td>22</td>
<td>39</td>
<td>58</td>
<td>76</td>
<td>125</td>
<td></td>
</tr>
</tbody>
</table>

* When installed according to factory specifications.
**TYPE E MAIN VALVE**

**SPECIFICATION**

The valve shall be self-operated, external pilot type, single seated, metal diaphragm actuated, normally closed design. The valve will function quickly and shut tight on dead end service. Internal parts including seats, discs, stems and diaphragms shall be of stainless steel. There shall be no springs in the steam space and no stuffing box. The valve shall be easy to maintain with all parts accessible without removal from the line.

**MATERIALS OF CONSTRUCTION**

- **Body, Cast Iron** ………………………… ASTM A126 Cl. B
- **Body, Cast Bronze** …………………… ASTM B61 UNS C92200
- **Body, Cast Steel** ………………………… ASTM A216 WCB
- **Stem** …………………………… 303 St. Stl. ASTM A582
- **Disc 3/4 - 5”** …………………… 420 St. Stl. ASTM A743 CA-40
- **Disc 6 - 12”** …………………… 304 St. Stl. ASTM A167/A240
- **Seat 3/4 - 5”** …………………… 420 St. Stl. ASTM A743 CA-40
- **Seat 6 - 12”** …………………… 316 St. Stl. ASTM A743-79 CF-8M
- **Gasket** ……………………………………… Non-asbestos
- **Diaphragm** ………………… Stainless Steel MIL-S-5-5059C
- **Spring** ……………………………………… Steel

*Add 65% to D dimension for stem removal clearance.

---

**DIMENSIONS** inches (mm) AND **WEIGHTS** pounds (kg)

<table>
<thead>
<tr>
<th>SIZE</th>
<th>ANSI NPT</th>
<th>ANSI 125,150</th>
<th>ANSI 250</th>
<th>ANSI 300</th>
<th>ANSI 600</th>
<th>ANSI 600</th>
<th>ANSI 600</th>
<th>CI &amp; Brz. Steel</th>
<th>All</th>
<th>Steel</th>
<th>Steel</th>
<th>APPROX. WT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>5/8</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(149)</td>
</tr>
<tr>
<td>1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>6</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(152)</td>
</tr>
<tr>
<td>3/4</td>
<td>4/8</td>
<td>4/8</td>
<td>—</td>
<td>—</td>
<td>6 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(155)</td>
</tr>
<tr>
<td>1</td>
<td>5/8</td>
<td>5/8</td>
<td>6 1/2</td>
<td>6 1/2</td>
<td>6 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(178)</td>
</tr>
<tr>
<td>1 1/4</td>
<td>6/4</td>
<td>6 1/2</td>
<td>7 1/2</td>
<td>7 1/2</td>
<td>7 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(200)</td>
</tr>
<tr>
<td>1 1/2</td>
<td>7 1/4</td>
<td>7 1/4</td>
<td>8 1/2</td>
<td>8 1/2</td>
<td>8 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(203)</td>
</tr>
<tr>
<td>2</td>
<td>7 1/4</td>
<td>8 1/4</td>
<td>10 1/2</td>
<td>10 1/2</td>
<td>10 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(206)</td>
</tr>
<tr>
<td>2 1/2</td>
<td>7 1/4</td>
<td>9 1/4</td>
<td>11 1/2</td>
<td>11 1/2</td>
<td>11 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(209)</td>
</tr>
<tr>
<td>3</td>
<td>7 1/4</td>
<td>10 1/2</td>
<td>12 1/2</td>
<td>12 1/2</td>
<td>12 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(212)</td>
</tr>
<tr>
<td>4</td>
<td>7 1/4</td>
<td>11 1/2</td>
<td>12 1/2</td>
<td>12 1/2</td>
<td>12 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(215)</td>
</tr>
<tr>
<td>5</td>
<td>7 1/4</td>
<td>13 1/4</td>
<td>14 1/2</td>
<td>14 1/2</td>
<td>14 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(218)</td>
</tr>
<tr>
<td>6</td>
<td>7 1/4</td>
<td>15 1/4</td>
<td>16 1/2</td>
<td>16 1/2</td>
<td>16 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(221)</td>
</tr>
<tr>
<td>8</td>
<td>7 1/4</td>
<td>17 1/4</td>
<td>18 1/2</td>
<td>18 1/2</td>
<td>18 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(224)</td>
</tr>
<tr>
<td>10</td>
<td>7 1/4</td>
<td>19 1/4</td>
<td>20 1/2</td>
<td>20 1/2</td>
<td>20 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(227)</td>
</tr>
<tr>
<td>12</td>
<td>7 1/4</td>
<td>21 1/4</td>
<td>22 1/2</td>
<td>22 1/2</td>
<td>22 1/2</td>
<td>2 1/4</td>
<td>3 1/2</td>
<td>3 1/2</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>(230)</td>
</tr>
</tbody>
</table>

---

[Diagram of TYPE E MAIN VALVE]