McCANNA/MARPAC Quarter Turn Valves for Saturated Steam Service

Wide choice of models, sizes \( \frac{1}{4}'' \) through 12''

Proven in performance on saturated steam services up to 720 psig at 800°F
Select the Flowserve McCANNA quarter turn valves that match your steam service conditions most cost effectively.

As you can see from the charts on page 3, the wide choice of Flowserve McCANNA quarter-turn valves for saturated steam service ranges from, economy type McCANNA 400® and 800® models, available off the shelf to handle saturated steam pressures up to 150 psig at temperatures to 366°F all the way up to our McCannaSeal® top entry ball valve, specially prepared for saturated steam service pressures up to 720 psig at 510°F.

Flowserve McCANNA quarter-turn valve modes are available with a wide choice of body, seat and trim materials to resist various degrees of temperatures and pressures as well as the corrosive and erosive conditions in your particular steam service.

Our application engineers draw from more than 50 years of Flowserve specialized experience in matching the correct McCANNA valve model and materials of construction to a specific service. This is a basic reason why McCANNA quarter turn valves work and keep on working in so many different saturated steam services. McCANNA quarter turn valves are proven in performance on all of these saturated steam services and more:

- Laundry unites
- Condensate drains
- Locomotive end valves
- Bypass lines
- Metal pickling solution tanks
- Drip legs

Flowserve McCANNA 800 ball valves, steam services to 150 psig @ 366°F.

Low cost, McCANNA 800 ball valves with threaded ends are available off the shelf. Blowout proof stem design and Fire Seal® seats are standard in all sizes. McCANNA 800 valves sizes ⅜” through 2” are qualified to API-607 fire-safe standards.

Flowserve McCannaFlo® ball valves, steam services up to 250 psig at 406°F.

Standard McCannaFlo with certain body, seat and trim materials handle low pressure saturated steam services to 150 psig at 366°F and when supplied in the thermopac version up to 250 psig at 406°F. McCannaFlo flanged ball valves have a ⅜” hole in the ball stem slot to ensure cavity pressure relief in the open position.

Flowserve McCannaSeal top entry valves, steam services to 720 psig @ 800°F.

McCannaSeal ball valves top entry design makes in-line servicing quick and easy. Proven reliability and top entry design make McCannaSeal ball valves ideal for steam service, where scheduled maintenance is vital for safety and cost considerations. Entry through the top takes only minutes. Simply remove the bonnet bolting. McCannaSeal valve body stays in the line.

Standard McCannaSeal ball valves with certain body, seat and trim materials handle low-pressure saturated steam services to 150 psig at 366°F. For high-pressure saturated steam service above 150 psig, McCannaSeal ball valves are specially prepared with TFE coated stems.

Whether standard or specially prepared for steam service, McCannaSeals stem seals provide superior sealing. At low line pressures, the compression spring in the body cavity provides a leak preventing preload of the lower packing seals and as line pressure increases, these seals are further compressed due to the back seated design. The upper stem seal is adjustable, permitting frequently cycled valves to have long life without excessive stem torque.
**McCANNA F602 & 800 Saturated Steam Ratings - R Seats**

- **Maximum Rating Saturated Steam:** 150 psig @ 350°F

**McCannaFlo Flanged Saturated Steam Ratings - R Seats**

- **Maximum Rating Saturated Steam:** 150 psig @ 350°F

**McCannaFlo Flanged Saturated Steam Ratings Thermopac Seats**

- **Maximum Rating Saturated Steam:** 250 psig @ 400°F

**McCannaSeal Saturated Steam Ratings - J Seats**

- **Prepared for High Pressure Steam:**
  - 200 psig max. for Cl 150 CS
- **Maximum Rating Superheated Steam:** 150 psig @ 350°F

**McCannaSeal Saturated Steam Ratings - W Seats**

- **Prepared for High Pressure Steam:**
  - 200 psig max. for Cl 150 CS
- **Maximum Rating Superheated Steam:** 150 psig @ 350°F

**McCannaSeal Saturated Steam Ratings - G Seats**

- **Prepared for High Pressure Steam:**
  - 720 psig @ 510°F

**McCannaSeal Saturated Steam Ratings - M (Stellite) Seats**

- **Prepared for High Pressure Steam:**
  - 720 psig @ 510°F

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* Refer to Low Pressure Steam Service table on back cover.

** Refer to High Pressure Steam Service table on back cover.
Valve Selection Guide for Saturated Steam Service

Low Pressure Steam Service (Standard, off the shelf valves)

<table>
<thead>
<tr>
<th>Valve Type</th>
<th>McCanna 800®</th>
<th>McCannaFlo Flanged</th>
<th>McCanna Seal®</th>
<th>McCanna Seal®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Steam Service</td>
<td>150 psig @ 366°F</td>
<td>150 psig @ 366°F</td>
<td>150 psig @ 366°F</td>
<td>150 psig @ 366°F</td>
</tr>
<tr>
<td>Body Materials</td>
<td>Carbon Steel SS 316</td>
<td>Carbon Steel SS316</td>
<td>Bronze (F602 only)</td>
<td>Carbon Steel SS 316</td>
</tr>
<tr>
<td>Seat Materials &amp; Design</td>
<td>R-Reinforced TFE Fire-Seal</td>
<td>R-Reinforced TFE Fire-Seal</td>
<td>W-HiLoad TFE Fire-Seal</td>
<td>W-HiLoad TFE Fire-Seal</td>
</tr>
<tr>
<td>Trim Materials</td>
<td>SS316</td>
<td>SS316</td>
<td>Bronze (F602 only)</td>
<td>SS316</td>
</tr>
</tbody>
</table>

Note: • End connections: threaded, flanged, or weld end, * Threaded ends only

High-Pressure Steam Service (Specify: Prepare for high-pressure steam service)

<table>
<thead>
<tr>
<th>Valve Type</th>
<th>McCanna 800®</th>
<th>McCannaFlo Flanged</th>
<th>McCanna Seal®</th>
<th>McCanna Seal®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Steam Service</td>
<td>250 psig @ 406°F</td>
<td>250 psig @ 406°F</td>
<td>700 psig @ 750°F</td>
<td>720 psig @ 800°F</td>
</tr>
<tr>
<td>Body Materials</td>
<td>Carbon Steel SS 316</td>
<td>Carbon Steel SS316</td>
<td>Carbon Steel SS 316</td>
<td>Carbon Steel SS 316</td>
</tr>
<tr>
<td>Trim Materials</td>
<td>SS316</td>
<td>SS316</td>
<td>SS316</td>
<td>SS316</td>
</tr>
</tbody>
</table>

Note: • End connections: threaded, flanged, or weld end ▲ Body material limits Carbon steel - 200 psig @ 388°F, ANSI Class 150 SS 316 - 195 psig @ 386°F, ANSI Class 150 † Maximum saturated steam for J&G seats - 300 psig @ 422°F † Maximum superheated steam for J seat - 425 psig @ 500°F † Maximum superheated steam for G seat - 700 psig @ 750°F ■ Maximum saturated steam for M seat - 720 psig @ 510°F

For thermal fluid service McCannaSeal valves have provisions to be insulated with no contact between the insulation and the moving stem. Longer packing if results as the critical rings operate at a lower temperature. An accessible packing nut provides for visual leak detection and easy adjustment.

For actuator selection refer to Actuator Selection Guides of appropriate brochure for torque ratings.

Note: The right is reserved to change or modify product design or construction without prior notice and without incurring any obligation to make such changes and modification on products previously or subsequently sold.