Mud and Slurry Relief Valve

“POCO” Pin Design Variation
This intelligent design allows the user to change the set pressure of the valve by simply changing pins. This is done by affixing pin spacers on each end of the Rupture Pin while keeping the overall length of the pin assembly constant.

Advantages
- 1002 and 1502 hammer unions.
- Relief settings from 1,000 to 10,000 PSI with POCO set pressure pins.
- Change the settings by changing the pin. The set pressure is shown on the pin label. The 3” Model IC valve uses the same interchangeable pins. In addition, the pins are color-coded accordingly.
- Reliable settings.
- Simple dependable operation.
- One moving part.
- Fatigue and pulsation are not factors that affect the set pressure of the valve.
- Reaches open position in milliseconds.
- Provides a bubble-tight seal to set point.
- Stainless steel seat and piston are standard.
- Greater washout resistance with no direct impingement on the seat, piston or seal.
- Field repairable.
- Visual indication of opening.
- Unaffected by changing ambient temperatures on the pin.
- Pin cannot fatigue or buckle early.
- No environmental exposure to process fluids.
**Closed**

1. BODY
2. SEAT CAGE
3. BONNET
4. SEAL RETAINER
5. MAIN SEAL
6. PISTON BOLT
7. WEDGE LOCK WASHER (BONNET)
8. O-RING (PISTON)
9. BACK-UP RING (PISTON)
10. PISTON
11. O-RING (UPPER CAGE)
12. O-RING (LOWER CAGE)
13. BUMPER
14. O-RING (BONNET)
15. O-RING (STEM)
16. SLEEVE
17. TOP PLATE
18. HEX NUT (TOP PLATE)
19. HOLDING NUT
20. WEDGE LOCK WASHER (TOP PLATE)
21. RUPTURE PIN
22. OIL FITTING
23. POST
24. SPACER
25. LIFTING LUG
26. BONNET BOLT

**Open**

1. BODY
2. SEAT CAGE
3. BONNET
4. SEAL RETAINER
5. MAIN SEAL
6. PISTON BOLT
7. WEDGE LOCK WASHER (BONNET)
8. O-RING (PISTON)
9. BACK-UP RING (PISTON)
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**OPTIONS**
1. STAINLESS STEEL PIN GUARD
2. PIN CONTAINER
3. PROXIMITY DEVICE

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**How It Works**

Pressure acting on a differential piston area puts an axial force on the pin.

At an exact set point, the pin buckles and the valve opens in milliseconds for immediate pressure relief.

Relieves pressure to prevent pump, hose and system damage on mud and slurry pump systems - ideal for pulsating pressure.

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**STANDARD MATERIALS**


**CONNECTIONS**

Standard and custom connections available.

**CERTIFICATIONS**

Available with domestic offshore and international certifications and standards upon order request.

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**COLOR CODED PINS**

Pins for the Mud Valve are color coded to show each individual set pressure.

<table>
<thead>
<tr>
<th>PIN TYPE</th>
<th>SIZE</th>
<th>COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC - 1,000 PSI</td>
<td>3&quot;</td>
<td>BRONZE</td>
</tr>
<tr>
<td>IC - 1,500 PSI</td>
<td>3&quot;</td>
<td>AQUA</td>
</tr>
<tr>
<td>IC - 2,000 PSI</td>
<td>3&quot;</td>
<td>LT. GREEN</td>
</tr>
<tr>
<td>IC - 2,500 PSI</td>
<td>3&quot;</td>
<td>BRONZE</td>
</tr>
<tr>
<td>IC - 3,000 PSI</td>
<td>3&quot;</td>
<td>GOLD</td>
</tr>
<tr>
<td>IC - 3,500 PSI</td>
<td>3&quot;</td>
<td>BLACK</td>
</tr>
<tr>
<td>IC - 3,800 PSI</td>
<td>3&quot;</td>
<td>WHITE</td>
</tr>
<tr>
<td>IC - 4,000 PSI</td>
<td>3&quot;</td>
<td>DK. BLUE</td>
</tr>
<tr>
<td>IC - 4,500 PSI</td>
<td>3&quot;</td>
<td>ORANGE</td>
</tr>
<tr>
<td>IC - 5,000 PSI</td>
<td>3&quot;</td>
<td>DK. GREEN</td>
</tr>
<tr>
<td>IC - 5,500 PSI</td>
<td>3&quot;</td>
<td>YELLOW</td>
</tr>
<tr>
<td>IC - 6,000 PSI</td>
<td>3&quot;</td>
<td>SILVER</td>
</tr>
<tr>
<td>IC - 6,500 PSI</td>
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<td>LT. BLUE</td>
</tr>
<tr>
<td>IC - 7,000 PSI</td>
<td>3&quot;</td>
<td>TAN</td>
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<tr>
<td>IC - 7,500 PSI</td>
<td>3&quot;</td>
<td>PINK</td>
</tr>
<tr>
<td>IC - 8,000 PSI</td>
<td>3&quot;</td>
<td>SILVER</td>
</tr>
<tr>
<td>IC - 8,500 PSI</td>
<td>3&quot;</td>
<td>FUCHSIA</td>
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<tr>
<td>IC - 9,000 PSI</td>
<td>3&quot;</td>
<td>BROWN</td>
</tr>
<tr>
<td>IC - 9,500 PSI</td>
<td>3&quot;</td>
<td>OLIVE</td>
</tr>
<tr>
<td>IC - 10,000 PSI</td>
<td>3&quot;</td>
<td>PURPLE</td>
</tr>
</tbody>
</table>

*For other set pressures, contact Taylor Valve.