Series MAC 24 API 675 Compliant

Single Acting Reciprocating Pump – Air/Gas Driven
Chemical Injection/Hydrostatic Testing Pump

FEATURES

- API 675 Compliant
- Compact, Portable and Light Weight.
- Non-Lubricated Packing and Piston Cups
- Field adjustable speed/volume control
- Easily maintained
- Can be adapted for use as high Pressure, Air-or Gas Operated Chemical Injection Pump.
- Can be adapted for portable use by specifying a skid base, Guard Rail and Lifting Eyes.
- Virtually Trouble –Free for extended running times if proper lubrication and reasonable care of the pump is maintained.
- The standard unit has two fluid ends, Single Fluid End available if desired.
- Hoses, gauges and other accessories are also available.

SPECIFICATIONS

- Power Cylinder  Size 4”
- Stroke Length 2”
- Adjustable Speed up to 100 Cycles/Min

Performance Chart - Volume & Pressure

<table>
<thead>
<tr>
<th>Plunger/Piston Size(in)</th>
<th>* Volume @ 60 cpm</th>
<th>@ 100 psi input pressure</th>
<th>** Operating Pressure</th>
<th>*** Stall Pressure</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GPM</td>
<td>LPM</td>
<td>PSI</td>
<td>BAR</td>
<td>PSI</td>
</tr>
<tr>
<td>3/16”</td>
<td>0.04</td>
<td>0.15</td>
<td>30,765</td>
<td>2,121</td>
<td>37,350</td>
</tr>
<tr>
<td>⅛”</td>
<td>0.08</td>
<td>0.30</td>
<td>17,297</td>
<td>1,193</td>
<td>21,000</td>
</tr>
<tr>
<td>5/16”</td>
<td>0.12</td>
<td>0.45</td>
<td>11,070</td>
<td>763</td>
<td>13,440</td>
</tr>
<tr>
<td>⅜”</td>
<td>0.17</td>
<td>0.64</td>
<td>7,690</td>
<td>530</td>
<td>9,340</td>
</tr>
<tr>
<td>⅛”</td>
<td>0.31</td>
<td>1.17</td>
<td>4,325</td>
<td>298</td>
<td>5,250</td>
</tr>
<tr>
<td>⅜”</td>
<td>0.49</td>
<td>1.85</td>
<td>2,770</td>
<td>191</td>
<td>3,360</td>
</tr>
<tr>
<td>½”</td>
<td>0.69</td>
<td>2.61</td>
<td>1,920</td>
<td>132</td>
<td>2,330</td>
</tr>
<tr>
<td>1”</td>
<td>1.22</td>
<td>4.62</td>
<td>1,080</td>
<td>74</td>
<td>1,310</td>
</tr>
<tr>
<td>1 1/4”</td>
<td>1.91</td>
<td>7.23</td>
<td>690</td>
<td>48</td>
<td>840</td>
</tr>
<tr>
<td>1 1/2”</td>
<td>2.75</td>
<td>10.41</td>
<td>480</td>
<td>33</td>
<td>580</td>
</tr>
<tr>
<td>1 3/4”</td>
<td>3.75</td>
<td>14.20</td>
<td>350</td>
<td>24</td>
<td>430</td>
</tr>
<tr>
<td>1”</td>
<td>4.9</td>
<td>18.55</td>
<td>270</td>
<td>19</td>
<td>330</td>
</tr>
</tbody>
</table>

* Note: Volume discharge shown above is for two fluid ends manifolded together, single fluid end volume will be half the above volume discharge shown.

* Volume based on 90% theoretical maximum ** Stall Pressure based on 85% efficiency *** Gas Consumption @ 100 psi and 100 cpm = 22 SCFM
**MAC 24 GENERAL ARRANGEMENT**

- Intake Connection Either End
- Air or Gas Inlet
- Pressure Regulator
- Throttle Valve
- Air or Gas Lubricator
- Discharge Connection Either End
- Air Discharge ¼” NPT

**MATERIAL OF CONSTRUCTION**

- Fluid End-Carbon Steel or Stainless Steel
- Plunger-Stainless Steel 17-4 PH Heat Treated
- Power Body-Cast Aluminum / Carbon Steel / St.St
- Air Valve Housing –Aluminum / Carbon Steel / St.St
- Check Valves-Stainless Steel
- Air Valve Core –Brass / Ryton for sour gas application
- Manifolding-Carbon Steel or Stainless Steel

**STANDARD EQUIPMENT**

- Air/ Gas Pressure Regulator
- Air/Gas Pressure Gauge
- Air-Gas Lubricator
- Throttle Control Valve
- Base Plate
- Standard McFarland Blue Color

**OPTIONAL EQUIPMENT**

1. MAC 24 with skid base, drip pan & lifting eyes - Standard McFarland blue color
2. MAC 24 with skid base, guard rail, drip pan and lifting eyes - Standard McFarland blue color.
3. MAC 24 with skid base, guard rail, drip pan, Casters and lifting eyes - Standard McFarland blue color
4. Any of above options with common suction / common discharge manifolding, carbon steel or St.St
5. Any of above options with Demitcote coating for Offshore Environments
6. Any of above options with DNV 2.7-1 Compliant Skid.
7. MAC 24 Pump - Sour Gas Modification for NACE MR0175 Compliance.

**APPLICATIONS**

- Chemical injection at offshore oil wellheads
- Methanol injection in gas systems to prevent freezing
- General high pressure injection applications
- Hydrostatic testing
- Corrosion & Scale inhibitor in pipelines
- Triethylene glycol (TEG)
- Defoamer/Anti-foamer
- H2S gas scavengers

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**McFarland – TriTan, LLC.**

*The “High Pressure” Specialists!*
Flow Rate Vs. Cycles per Minute

Plunger Size (2", 1 ¾", 1 ½", 1 ¼", 1", 3/4")

- Plunger 2" 4.9 GPM
- Plunger 1 ¾" 3.75 GPM
- Plunger 1 ½" 2.75 GPM
- Plunger 1 ¼" 1.91 GPM
- Plunger 1" 1.22 GPM
- Plunger 3/4" 0.69 GPM

Cycles per Minute

Flow Rate Vs. Cycles per Minute