Hydraulic Piston Pump
P1/PD 45cc
P1/PD 45cc Piston Pump
New 45cc/rev Model Added To Parker’s P1/PD Line Of Quiet, Compact Variable Displacement Piston Pumps For Mobile and Industrial Applications

Parker Hannifin’s Hydraulic Pump Division has added a 45cc/rev model to its P1/PD Series of medium pressure (280 bar/4,060 psi), variable displacement, axial piston pumps intended for open circuit applications on mobile equipment (P1) and industrial applications (PD).

Designated as the P1/PD-045, the pumps are based on a new design featuring a compact, round housing that is both smaller and quieter than typical “flat surfaces” noise amplifying pump designs with comparable capabilities. The round housing used on the P1/PD pumps is much quieter than a conventional housing. Additionally, the new design offers easier maintenance accessibility and exceptionally high operating efficiency.

Rated for continuous operation at 2600 rpm, the P1/PD-045 is optimized for mobile equipment and industrial applications to further enhance performance, the new P1/PD is fitted with the new “A” series mechanical and remote control pilot operated compensator. The “A” compensator takes advantage of new spool and dart design that allows Parker to provide two functions in one body rather than the 3 body “R” style.

Standard options for the P1/PD include a full power through drive, a choice of SAE and ISO mounting flanges and ports, end or side inlet and outlet ports, and case drain ports for horizontal, vertical, or shaft-up mounting. An innovative elastomer seal eliminates gaskets and external leakage, while large capacity cylindrical input shaft bearings, hydrostatic cam bearings, and simplified hydraulic controls with “no-leak” adjustments assure a long, trouble-free operating life. Optional features include minimum and maximum displacement adjustments and case-to-inlet check valves to extend seal life. A variety of standard control options are also available on P1/PD pumps, including:

Electronic Proportional Control – provides maximum pressure control for 12 and 24-volt applications.
Pressure Limiter Control – to limit maximum system pressure.
Load Sensing and Pressure Limiter Control – to match pump flow and pressure to system demands to avoid wasted horsepower.
Pilot Operated Control with ISO 4401 (NG6 Interface) or Remote Control Port Z – to allow the pump pressure compensator setting to be adjusted from a remote relief valve.
Torque Limiter – Adjusts flow to maintain constant HP without stalling regardless of load.

For additional information contact:

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Shaft Input Power
P1/PD 45cc Piston Pump
Pump Installation - End Ports & Side Ports
“L” Control Option

End Port

Side Port

Overall Efficiency

P1/PD 045 Port Sizes

<table>
<thead>
<tr>
<th></th>
<th>SAE 4 Bolt</th>
<th>SAE Threaded</th>
<th>ISO</th>
<th>BSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>“A” Inlet</td>
<td>38mm Code 61³</td>
<td>SAE-24</td>
<td>38mm DN51ª</td>
<td>-</td>
</tr>
<tr>
<td>“B” Outlet</td>
<td>25mm Code 61</td>
<td>SAE-16</td>
<td>25mm DN25º</td>
<td>-</td>
</tr>
<tr>
<td>“BG”</td>
<td>SAE-4º</td>
<td>M12x1.5º</td>
<td>1/4º</td>
<td></td>
</tr>
<tr>
<td>D1 D2 D3</td>
<td>SAE-10º</td>
<td>M22x1.5º</td>
<td>1/2º</td>
<td></td>
</tr>
<tr>
<td>“X”</td>
<td>SAE-4º</td>
<td>M12x1.5º</td>
<td>1/4º</td>
<td></td>
</tr>
</tbody>
</table>

Note A: Metric o-ring boss port conforms to ISO 6149-1
Note B: Inch o-ring port conforms to SAE J514
Note C: BSPP port conforms to ISO 228-1
Note D: Inch 4-bolt flange port conforms to SAE J518
Note E: Metric 4-bolt flange port conforms to ISO 6162