Description

Feed and Power hand pump is meant for applications where initial travel of the Cylinder / Jack, to which it is connected is under no load or very low load. The pump provides considerably high displacement under low pressure for rapid travel of the Cylinder / Jack and then automatically changes to low displacement when pressure starts rising (above 30 bar), thereby reducing the efforts required to operate the pump. The pump has built in Relief valve (factory set at maximum pressure) as a standard feature for safety of pump as well as the equipment connected to it. The pump also has a Release valve to retract the Cylinder / Jack under external force. The telescopic collapsible handle of the pump is meant for shorter hand movement, when working at low pressure. It also makes the pump compact for transportation. To reduce the force applied by hand, the handle should be extended. The pump also has an additional port for connecting a pressure gauge, if required.

Unit dimensions

Dimensions in mm.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tank Surface</td>
<td>13</td>
</tr>
<tr>
<td>100mm Cutout</td>
<td>100</td>
</tr>
<tr>
<td>M8 tap, 15dp (4 nos)</td>
<td></td>
</tr>
<tr>
<td>Release Valve</td>
<td></td>
</tr>
<tr>
<td>Mounting holes for M8 SHC Screw (4 nos)</td>
<td>50</td>
</tr>
<tr>
<td>G ¼ Outlet Port / Outlet Port</td>
<td>95.3</td>
</tr>
<tr>
<td>G ½ Outlet Port</td>
<td>19</td>
</tr>
<tr>
<td>Tank Surface</td>
<td>96</td>
</tr>
<tr>
<td>96</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
</tr>
<tr>
<td>60°</td>
<td></td>
</tr>
<tr>
<td>479 / 634 (extended)</td>
<td>445 / 600 (extended)</td>
</tr>
</tbody>
</table>

Hydraulic symbol

Pump Cartridge Mounting Details:

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 100mm Cutout</td>
<td>100</td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
</tr>
<tr>
<td>M8 tap, 15dp (4 nos)</td>
<td></td>
</tr>
<tr>
<td>G ¼ Gauge Port / Outlet Port</td>
<td>95.3</td>
</tr>
<tr>
<td>125</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
</tr>
<tr>
<td>120</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>20.3</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
</tr>
<tr>
<td>125</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
</tr>
<tr>
<td>100</td>
<td></td>
</tr>
<tr>
<td>125</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
</tr>
<tr>
<td>60°</td>
<td></td>
</tr>
</tbody>
</table>
Technical specifications

Construction: Differential Piston with Single hand lever
Hydraulic medium: Mineral oil, (ISO VG 68 Grade recommended)
Max. working pressure: Refer Table 1.
Displacement: Refer Table 1.
Oil Tank Capacity and Displacement:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Regular tank</th>
<th>Small tank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil tank Capacity</td>
<td>8.5 lts</td>
<td>5 lts</td>
</tr>
<tr>
<td>Oil tank Displacement</td>
<td>7.7 lts</td>
<td>3.7 lts</td>
</tr>
</tbody>
</table>

Force required at the end of hand lever at max. pressure: Refer Table 1.
Viscosity range: 10cst to 380 cst.
Fluid temperature range: -20°C to +70°C.
Fluid Cleanliness requirement: ISO 4406 20/18/15 or better.
Mass:
- Pump cartridge only: 7.8 Kg
- Pump with Regular oil tank (Without oil): 15.5 Kg
- Pump with Small oil tank (without oil): 12.4 Kg
### Table 1.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Unit</th>
<th>HP5012 ST</th>
<th>HP5012 ST-1000</th>
<th>HP5016 ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Working Pre. bar</td>
<td>bar</td>
<td>700</td>
<td>1000</td>
<td>350</td>
</tr>
<tr>
<td>Displacement capacity cm³ / stroke</td>
<td></td>
<td>49</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td>Upto 30 bar</td>
<td></td>
<td>2.8</td>
<td>2.8</td>
<td>5</td>
</tr>
<tr>
<td>Displacement capacity cm³ / stroke</td>
<td></td>
<td>385</td>
<td>550</td>
<td>340</td>
</tr>
<tr>
<td>Above 30 bar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Force required at the end of extended hand lever</td>
<td>N</td>
<td>385</td>
<td>550</td>
<td>340</td>
</tr>
</tbody>
</table>

### Ordering code

<table>
<thead>
<tr>
<th>Pressure (bar)</th>
<th>Displacement (cm³ / stroke)</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upto 30 bar</td>
<td>Above 30 bar</td>
</tr>
<tr>
<td>700</td>
<td>49</td>
<td>2.8</td>
</tr>
<tr>
<td>350</td>
<td>49</td>
<td>5</td>
</tr>
<tr>
<td>1000</td>
<td>49</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Design Code subjected to change. Installation dimension remain same for design code 10 thru 19.