Description
Feed and power hand pump models HP5012**-D and HP5016**-D are meant for applications where initial travel of the cylinder / jack, to which it is connected, and 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.

These hand pumps are provided with integrated Rotary Directional Control Valves with two outlet ports for switching of the hand pump power between the two sides of a double acting cylinder.

Unit dimensions
Dimensions in mm.

Hydraulic symbol

Pump Cartridge Mounting Details:
- 100mm Cutout
- M8 tap, 15dp (4 nos)
- G1/4 Gauge port / Outlet port
- Mounting holes for M8x25L S.H.C Screws (4 nos. (Grade 12.9)
- Tightening torque 39 Nm.
Technical specifications

Construction: Differential piston with single hand lever.

Hydraulic medium: Mineral oil. (ISO VG68 grade recommended).

Maximum working pressure: Refer table no.1

Displacement: Refer table no.1

Oil tank capacity and displacement: Oil tank capacity 8.5 lts, 5 lts; Oil tank displacement 7.7 lts, 3.7 lts

Force required at the end of the pump: Refer table no.1

Hand lever at max. pressure (Approx): Refer table no.1

Viscosity range: 10 cSt to 380 cSt

Fluid temperature range: -20°C to +70°C

Fluid cleanliness requirement: ISO 4406 20/18/15 or better.

Mass (Approx): Pump cartridge only 10 Kg.; Pump with regular oil tank (without oil) 18 Kg.; Pump with small oil tank (without oil) 16.5 Kg.
Table no. 1

<table>
<thead>
<tr>
<th>Specification</th>
<th>Unit</th>
<th>HP5012</th>
<th>HP5016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Working Pressure</td>
<td>bar</td>
<td>500</td>
<td>350</td>
</tr>
<tr>
<td>Pump discharge upto 30 bar</td>
<td>cm^3/stroke</td>
<td>49</td>
<td>49</td>
</tr>
<tr>
<td>Pump discharge above 30 bar</td>
<td>cm^3/stroke</td>
<td>2.8</td>
<td>5.0</td>
</tr>
<tr>
<td>Force required at the end of the pump hand lever when fully extended at maximum pressure (approx).</td>
<td>N</td>
<td>270</td>
<td>340</td>
</tr>
</tbody>
</table>

Note: Torque required to operate the lever of Rotary DCV under pressure is approximately 14 Nm at 500 bar.

Ordering code

Hand pump

5012
5016

For pump cartridge only (without tank) K
Omit for pump with tank

RT D 03

Design code subjected to change. Installation dimensions remain same for design code 01 thru 09.

With Rotary Directional Control Valve

ST Small tank
RT Regular tank
Omit for pump with cartridge only (without tank)