Features
1. Since the pressure and flow rate are supplied corresponding to load, the power can be saved and the rise of oil temperature is restrained, ensuring economic operation.
2. Since the pressure compensating mechanism is provided, the relief valve, unload valve, etc. can be dispensed with.

Cautions on use
Please read the Operating Manual carefully to ensure correct usage.
- Direction of rotation is to right (CW) viewed from the shaft end.
- The pump can be used for R&O type and abrasion-resistant type hydraulic fluid applications.
- The pump cannot be used for water-glycol fluid.
- Please read the “Cautions on Using Pumps and Motors”, A-2 and A-3 pages.
* It is not compatible with old type HVP-VB1-F*A*-A.

General performance characteristics
![Diagram showing discharge rate vs. outlet pressure]

Description of the model designation
HVP-VB1-F12A2-C

Specifications
<table>
<thead>
<tr>
<th>Model</th>
<th>Discharge rate under no load (L/min)</th>
<th>Pressure adjustment range (MPa)</th>
<th>Rotating speed (min⁻¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVP-VB1-F12A2-C</td>
<td>8</td>
<td>0.8 to 3.5</td>
<td>1,800</td>
</tr>
<tr>
<td>HVP-VB1-F12A3-C</td>
<td>12</td>
<td>3 to 7</td>
<td>1,800 720</td>
</tr>
</tbody>
</table>

Outside dimensions
![Dimensional drawing of HVP-VB1-F12A*-C]

Mass: 4.5kg
VARIABLE-DISPLACEMENT VANE PUMP (HVP-VC1)

Features
1. Since the pressure and flow rate are supplied corresponding to load, the power can be saved and the rise of oil temperature is restrained, ensuring economic operation.
2. Since the pressure compensating mechanism is provided, the relief valve, unload valve, etc. can be dispensed with.

Cautions on use
- Direction of rotation is to right (CW) viewed from the shaft end.
- The pump can be used for R&O type and abrasion-resistant type hydraulic fluid applications.
- When using water-glycol hydraulic fluid, specify “G” at the end of model designation. The maximum rotating speed, however, becomes 1,200 min⁻¹. For brand names of water-glycol hydraulic fluid, please consult us.
- Please read the “Cautions on Using Pumps and Motors”, A-2 and A-3 pages.

Description of the model designation
HVP-VC1-F26A1-C (G)
- Kind of hydraulic fluid
  - No code: Petroleum based hydraulic fluid
  - G: Water-glycol hydraulic fluid
- Model No.
  - Pressure adjustment range
    - 0.8 to 1.8 MPa
    - 1.4 to 3.5 MPa
    - 3.0 to 7.0 MPa
- Pressure-discharge rate characteristics
  - A: Fixed displacement type
- Flange type
- Kind of hydraulic fluid
  - G: Water-glycol hydraulic fluid

Specifications
<table>
<thead>
<tr>
<th>Model</th>
<th>Discharge rate under no load (L/min)</th>
<th>Pressure adjustment range (MPa)</th>
<th>Rotating speed (min⁻¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gasket type</td>
<td>Flange type</td>
<td>At rated speed</td>
</tr>
</tbody>
</table>

Outside dimensions

HVP-VC1-G26A1-B
- Discharge rate adjustment screw
  - (CW: Decreases discharge rate.)

HVP-VC1-G26A1-C
- Discharge rate adjustment screw
  - (CW: Decreases discharge rate.)

Mass: 13kg

Mass: 10.2kg
### General performance characteristics

<table>
<thead>
<tr>
<th>Model</th>
<th>Discharge rate under no load (L/min)</th>
<th>Pressure adjustment range (MPa)</th>
<th>Rotating speed (min⁻¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVP-VD1-G45A1-C</td>
<td>1,500</td>
<td>0.8 to 1.8</td>
<td>38</td>
</tr>
<tr>
<td>HVP-VD1-G45A2-C</td>
<td>1,200</td>
<td>1.4 to 3.5</td>
<td>45</td>
</tr>
<tr>
<td>HVP-VD1-G45A3-C</td>
<td>920</td>
<td>3 to 7</td>
<td>3</td>
</tr>
</tbody>
</table>

### Features

1. Since the pressure and flow rate are supplied corresponding to load, the power can be saved and the rise of oil temperature is restrained, ensuring economic operation.
2. Since the pressure compensating mechanism is provided, the relief valve, unload valve, etc. can be dispensed with.

### Cautions on use

- Please read the Operating Manual carefully to ensure correct usage.
- Direction of rotation is to right (CW) viewed from the shaft end.
- The pump can be used for R&O type and abrasion-resistant type hydraulic fluid applications.
- When using water-glycol hydraulic fluid, specify "G" at the end of model designation. The names of water-glycol fluid, please consult us.
- The pump can be used for R&O type and abrasion-resistant type hydraulic fluid applications.
- Please read the “Cautions on Using Pumps and Motors”, A-2 and A-3 pages.

### Description of the model designation

**HVP-VD1-F45A1-C (~G)**

- Kind of hydraulic fluid
  - No code: Petroleum based hydraulic fluid
  - G: Water-glycol hydraulic fluid
- Model No.
- Pressure adjustment range
  - 1: 0.8 to 1.8 MPa
  - 2: 1.4 to 3.5 MPa
  - 3: 3 to 7 MPa
- Pressure-discharge rate characteristics
  - A: Fixed displacement type
  - B: Variable displacement type
- Mounting method
  - G: Gasket type
  - F: Flange type

### Specifications

(Note) Where the sub-plate is not required, specify “-970” at the end of model designation.

<table>
<thead>
<tr>
<th>Gasket type</th>
<th>Model</th>
<th>Discharge rate under no load (L/min)</th>
<th>Pressure adjustment range (MPa)</th>
<th>Rotating speed (min⁻¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVP-VD1-G45A1-C</td>
<td>1,500</td>
<td>0.8 to 1.8</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>HVP-VD1-G45A2-C</td>
<td>1,200</td>
<td>1.4 to 3.5</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>HVP-VD1-G45A3-C</td>
<td>920</td>
<td>3 to 7</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

### Outside dimensions

**HVP-VD1-G45A1-C**

- Mass: 27kg

**HVP-VD1-F45A1-C**

- Mass: 21.1kg
VARIABLE-DISPLACEMENT VANE PUMP (HVP-VF1)

- **Features**
  1. Since the pressure and flow rate are supplied corresponding to load, the power can be saved and the rise of oil temperature is restrained, ensuring economic operation.
  2. Since the pressure compensating mechanism is provided, the relief valve, unload valve, etc. can be dispensed with.

- **Cautions on use**
  Please read the Operating Manual carefully to ensure correct usage.
  - Direction of rotation is to right (CW) viewed from the shaft end.
  - The pump can be used for R&O type and abrasion-resistant type hydraulic fluid applications.
  - When water-glycol fluid is used, specify “G” at the end of model designation. For brand names of water-glycol fluid, please consult us.
  - Please read the “Cautions on Using Pumps and Motors”, A-2 and A-3 pages.

- **Description of the model designation**

  - **HVP-VF1-L56A1-B (-G)**
    - Kind of hydraulic fluid
      - No code: Petroleum based hydraulic fluid
      - G: Water-glycol hydraulic fluid
    - Model No.
    - Pressure adjustment range
      - 1: 0.8 to 1.8 MPa
      - 2: 1.4 to 3.5 MPa
      - 3: 2 to 7 MPa
    - Pressure-discharge rate characteristics
      - A: Fixed displacement type
      - B: Variable displacement type

- **General performance characteristics**

- **Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>Discharge rate under no load (L/min)</th>
<th>At rated speed</th>
<th>Pressure adjustment range (MPa)</th>
<th>Rotating speed (min⁻¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVP-VF1-L56A1-B</td>
<td>47</td>
<td>56</td>
<td>0.8 to 1.8</td>
<td>Rated 1,200 Max. 1,200 Lowest 750</td>
</tr>
<tr>
<td>HVP-VF1-L56A2-B</td>
<td>75</td>
<td>90</td>
<td>1.4 to 3.5</td>
<td>Rated 1,200 Max. 1,200 Lowest 750</td>
</tr>
<tr>
<td>HVP-VF1-L56A3-B</td>
<td>100</td>
<td>120</td>
<td>0.8 to 1.8</td>
<td>Rated 1,200 Max. 1,200 Lowest 750</td>
</tr>
<tr>
<td>HVP-VF1-L90A1-B</td>
<td>95</td>
<td>75</td>
<td>3 to 7</td>
<td>Rated 1,200 Max. 1,200 Lowest 750</td>
</tr>
<tr>
<td>HVP-VF1-L90A2-B</td>
<td>153</td>
<td>110</td>
<td>1.4 to 3.5</td>
<td>Rated 1,200 Max. 1,200 Lowest 750</td>
</tr>
<tr>
<td>HVP-VF1-L90A3-B</td>
<td>209</td>
<td>145</td>
<td>3 to 7</td>
<td>Rated 1,200 Max. 1,200 Lowest 750</td>
</tr>
<tr>
<td>HVP-VF1-L120A1-B</td>
<td>342</td>
<td>242</td>
<td>0.8 to 1.8</td>
<td>Rated 1,200 Max. 1,200 Lowest 750</td>
</tr>
<tr>
<td>HVP-VF1-L120A2-B</td>
<td>486</td>
<td>324</td>
<td>1.4 to 3.5</td>
<td>Rated 1,200 Max. 1,200 Lowest 750</td>
</tr>
</tbody>
</table>

- **Outside dimensions**

  - **HVP-VF1-L* A* -B**
    - Mass: 48.8kg
### Features
1. Since the pressure and flow rate are supplied corresponding to load, the power can be saved and the rise of oil temperature is restrained, ensuring economic operation.
2. Since the pressure compensating mechanism is provided, the relief valve, unload valve, etc. can be dispensed with.

**Cautions on use**
- Please read the Operating Manual carefully to ensure correct usage.
- Direction of rotation is to right (CW) viewed from the shaft end.
- The pump can be used for R&O type and abrasion-resistant type hydraulic fluid applications.
- When using water-glycol hydraulic fluid, specify “G” at the end of model designation. For brand names of water-glycol hydraulic fluid, please consult us.*
- Please read the “Cautions on Using Pumps and Motors”, A-2 and A-3 pages.

### Description of the model designation

HVP-VG1-G125A2-B (-G)

- Kind of hydraulic fluid
  - No code: Petroleum based hydraulic fluid
  - G: Water-glycol hydraulic fluid

- Model No.

- Pressure adjustment range
  - 2: 1.4 to 3.5 MPa
  - 3: 3 to 7 MPa

- Pressure-discharge rate characteristics
  - A: Fixed displacement type

(Note) Where the sub-plate is not required, specify “-70” at the end of model designation.

### General performance characteristics

![Graph showing general performance characteristics](image)

- **VARIABLE-DISPLACEMENT VANE PUMP (HVP-VG1)**

### Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Discharge rate under no load (L/min)</th>
<th>Pressure adjustment range (MPa)</th>
<th>Rotating speed (min⁻¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVP-VG1-G125A2-B</td>
<td>104</td>
<td>1.4 to 3.5</td>
<td>1,200</td>
</tr>
<tr>
<td>HVP-VG1-G125A3-B</td>
<td>133</td>
<td>3 to 7</td>
<td>1,200</td>
</tr>
<tr>
<td>HVP-VG1-G160A2-B</td>
<td>133</td>
<td>1.4 to 3.5</td>
<td>3 to 7</td>
</tr>
<tr>
<td>HVP-VG1-G160A3-B</td>
<td>133</td>
<td>3 to 7</td>
<td>600</td>
</tr>
</tbody>
</table>

### Outside dimensions

- **HVP-VG1-G*A**-

![Diagram showing outside dimensions](image)

- Mass: 89kg