NACHI
Energy Saving
Hydraulic Units
Space Saving
Low Ambient Temperature - More Accuracy
Noise Reducing
Precise Pressure & Flow Control

NSP Standard Series
NSP-i Inverter Drive Series
Power Fit (NPQ) Series
Power Meister (UPS) Series

It is same efficiency as the competitors’ inverter drive unit.
**NSP - Standard & NSP-i - Inverter Drive Hydraulic Units**

**• Compact Variable Vane Pump for Machine Tool**
**• Added Inverter Drive to compact body to make even more environmentally friendly & quiet**

Energy Consumption Reduced by Approximately 64% (compared to our standard unit while dwelling)
The base NSP unit consumes about 40% less energy than our standard unit. By adding the inverter drive we increase energy savings to 64% compared to our standard unit.

**Dwelling Energy Consumption**

<table>
<thead>
<tr>
<th>Energy consumption (Units: kW)</th>
<th>Conventional</th>
<th>40% less</th>
<th>Inverter drive NSP-i unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The NSP-i series benefits your entire system by lowering oil temperature to improve machining accuracy, lengthen the life of seals and hydraulic fluid, and reduce factory air conditioning costs.

**Greatly Reduce the Volume of Hydraulic Fluid**

<table>
<thead>
<tr>
<th>Tank Size</th>
<th>Conventional</th>
<th>83% less</th>
<th>Inverter drive NSP-i unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>60L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10L</td>
<td></td>
<td>10L</td>
<td></td>
</tr>
</tbody>
</table>

**Explain the Model Numbers**

**NSP - **E** - **V** - **A** - * - 20**

- **Design No.:**
  - **G:** Fluid level gauge guard
  - **H:** Temperature switch
  - **J:** Resin tank (10L only)
  - **M:** Magnet separator
  - **S:** Float switch
  - **T:** Temperature gauge (with fluid level gauge)
- **Options:****
  - **X:** Fan cooler = 1 (AC 230V-50/60Hz)
  - **AC 230V-50/60Hz:**
    - **4:** 400V
    - **15:** 1.5kW
    - **22:** 2.2kW
  - **Motor power supply:**
    - **No sign:** 200V
    - **4:** 400V
  - **Electric motor capacity:**
    - **15:** 1.5kW
    - **22:** 2.2kW
  - **Tank size:**
    - **10:** 10L
    - **20:** 20L
**Power Fit (NPQ) Hydraulic Units**

- **Variable Displacement Piston Pump Drive**
- **High Pressure** 3625 psi (PVS) 4060 psi (PZS)
- **High Flow** 23.8 gpm (PVS) 37.0 gpm (PZS)

### Energy Consumption Reduced by Approximately 80%

![Energy Consumption Graph]

### Temperature Reduced

![Temperature Graph]

### Greatly Reduce the Volume of Hydraulic Fluid

![Tank Size Graph]

### Greatly Reduce the Noise Level when Dwelling

![Noise Level Reduction Graph]

### Explanation of Model Numbers

**NPQ - 60 E - 55 PV 45 N 3 A 2 - ** - 6161A**

- **Design No.**
- **Options**
  - G: Guard level gauge
  - H: Thermostat
  - M: Microseparator
  - T: Level gauge with thermometer
- **Solenoid Valve Source** 2: AC200V
- **Cut-off Pressure Range**
  - 3: 3 ~ 25MPa (435-3625 psi)
  - 4: 2 ~ 28MPa (290-4060 psi)
- **Variable Control Mechanisms**
  - NA: 2-flow type
- **Pump Capacity**
  - 45: 45 cm³/rev (2.75 in³/rev) (PVS)
  - 70: 70 cm³/rev (4.27 in³/rev) (PZS)
- **Pump Type**
  - PV: PVS; PZ: PZS
- **Motor capacity**
  - 55: 5.5kW (7.4 hp)
  - 75: 7.5kW (10 hp)
- **Control Box**
  - E: with control box
  - Nothing: without control box
- **Reservoir** 60.80 L (15.9, 21.2 Gallon)
- **Power Fit**
Range of Differential Valve Pressure

- Compact Hydraulic System for Energy Savings & High Precision
- High Pressure - 4350 psi
- High Speed Processing of the Servo Controller

Energy Consumption Reduced by Approximately 90%

Temperature Reduced

Compact All-in-One design saves space

Explanation of Model Numbers

UPS - 0 A - 7 V 20 C S 1 HS - 10 (11)

Design No. 10: For motor power 05, 10, 15, 20, 55 & 75
11: For motor power 29 & 44

Options
- No option
H: Temperature switch
S: Float switch (for lower)

Voltage of Shut-off Valve 4: 24 V DC

Range of Differential Valve Pressure
1: 0.8 ~ 7MPa (116-1015 psi)

Option of Circuit
- No Option
C: Differential pressure valve
S: Shut off valve

Servo Motor Output
20: 2.0kW (2.7 hp)

Installation
V: Vertical; H: Horizontal

Pump Capacity
7: 6.7 cm³/rev (0.41 in³/rev) Available in other capacities

Mounting
A: Foot type mounting
00: Pump capacity 2 & 4
01: Pump capacity 5 & 7
1: Pump capacity 11, 13 & 16

Power Meister