Vane Type Double Pump

3525VQ Series –20 Design
### SAE rated capacity (3525VQ** shaft end pump cartridge)

<table>
<thead>
<tr>
<th>USgpm</th>
<th>Ring</th>
<th>STD. cartridge kit</th>
<th>F3 cartridge Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>394961</td>
<td>413420</td>
<td>421582</td>
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<tr>
<td>25</td>
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<tr>
<td>38</td>
<td>319399</td>
<td>413419</td>
<td>421586</td>
</tr>
</tbody>
</table>

### SAE rated capacity (3525VQ ** * ** cover end pump cartridge)

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<tbody>
<tr>
<td>12</td>
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<tr>
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<td>421580</td>
</tr>
</tbody>
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**NOTE**
Install 419673 sealing ring into body, then install cartridge kit.

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Install 419673 sealing ring into body, then install cartridge kit.

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42955 Bolt (4 Req’d) Oil & torque 189-287 N.m. (140–160) lb. ft.)

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230189 Inlet housing

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**NOTE**
When ordered individually, flex side plate kit includes (4) F3 seal pak subassemblies.

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**NOTE**

Included in flex side plate kit; bronze face of plate must be installed toward the rotor. Kit contains two flex side plates & four seal packs.

*NOTE*

Install 416974 sealing ring into body, then install cartridge kit.

NOTE

Assemble seal with spring loaded sealing member towards bearing. Seals to be completely wetted with oil prior to assembly.

Mounting bracket

Typical cutaway view
With #1 outlet opposite inlet:

- **AA** – #2 outlet – 135° /CCW from inlet
- **AB** – #2 outlet – 45° /CCW from inlet
- **AC** – #2 outlet – 45° CW from inlet
- **AD** – #2 outlet – 135° CW from inlet

With #1 outlet 90° CW from inlet:

- **BA** – #2 outlet – 135° CCW from inlet
- **BB** – #2 outlet – 45° CCW from inlet
- **BC** – #2 outlet – 45° CW from inlet
- **BD** – #2 outlet – 135° CW from inlet

Outlet port positions continued (Viewed from cover end of pump)

With #1 outlet inline with inlet:

- **CA** – #2 outlet – 135° CCW from inlet
- **CB** – #2 outlet – 45° CCW from inlet
- **CC** – #2 outlet – 45° CW from inlet
- **CD** – #2 outlet – 135° CW from inlet

With #1 outlet 90° CW from inlet:

- **DA** – #2 outlet – 135° CCW from inlet
- **DB** – #2 outlet – 45° CCW from inlet
- **DC** – #2 outlet – 45° CW from inlet
- **DD** – #2 outlet – 135° CW from inlet

Mounting

- **F** – Foot (Single shaft seal)
- **S** – Flange (Double shaft seal)

Outlet port positions continued (Viewed from cover end of pump)

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Mounting

**F** – Foot (Single shaft seal)

Outlet port positions continued (Viewed from cover end of pump)

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