Variable Displacement Piston Pumps with Pressure Compensator
PVE19/21-B2*-41-C***-12/13/20/30
C**, CG & CV** Compensator
(Shown for right hand shaft rotation. Rotate 180° for left hand shaft rotation.)

NOTE
The "C**VP(C)**B" compensator may be ordered as a complete factory tested part by ordering part number shown in table below.

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| Included in | Seal Kit Piston Pump | 02-348242 |
| Seal Kit ATTACK | Bearing Spacer Kit | 942401 |
| Shim Kit | 923938 |

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<table>
<thead>
<tr>
<th>Model</th>
<th>Body</th>
<th>Spool</th>
<th>Spring</th>
<th>O-Ring</th>
<th>Back-up Ring</th>
<th>Plug</th>
<th>Compensator S/A Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVE19-C21-12</td>
<td>934147</td>
<td>241717</td>
<td>239371</td>
<td>262335</td>
<td>–</td>
<td>241621</td>
<td>02-348245</td>
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<tr>
<td>PVE21-C19-12</td>
<td>932966</td>
<td>937406</td>
<td>278711</td>
<td>417649</td>
<td>997049</td>
<td>412940</td>
<td>02-348243</td>
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<tr>
<td>PVE**-CG-30</td>
<td>–</td>
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<td>–</td>
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<td>–</td>
<td>–</td>
<td>02-348246</td>
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<tr>
<td>PVE**-CV11-20</td>
<td>–</td>
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<td>–</td>
<td>–</td>
<td>–</td>
<td>02-348246</td>
</tr>
</tbody>
</table>

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CAUTION
Position gasket with small end of teardrop hole pointing in direction of compensator adjusting plug.

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C**VP(C)**B Compensator
(Shown for right hand shaft rotation.
Rotate 180° for left hand shaft rotation.
See table below for "C**VP(C)**B" S/A part number.)

398071 Plug (2 req’d)
Torque 40-50 lb. in.
★ 263492 O-Ring (2 req’d)
★ 262331 O-Ring
○ 913451 Gasket

★ 398071 Plug
Torque 40-50 lb. in.
★ 263492 O-Ring
★ 343740 Orifice
(Torque 15-20 lb. in.)
★ 423543 Orifice
(CVP) 581073 Spring (160 psi)
(CVPC) 581072 Spring (350 psi)
★ 924040 Check Valve S/A
★ 398071 Plug
Torque 40-50 lb. in.
★ 263492 O-Ring
★ 422234 Spool
(Install in housing)
★ 422234 Spool
(Load sensing)
★ 596359 Seat
★ 585164 Set Screw
★ 407533 Plug
Torque 55-66 lb. in.
★ 248910 Pin
★ 404957 Rod
★ 404958 Piston
★ 410050 Pin Retainer
★ 402650 Shoe Plate
★ 402580 Spherical Washer
★ 248810 Pin (3 req’d)
★ 427682 O-Ring
★ 363889 Plug
(Torque 50-75 lb. in. after final adjustment.)
★ 263499 O-Ring
★ 263493 O-Ring
★ 263498 O-Ring
★ 429325 Pin
(2 req’d)
(Install in housing)
★ 402644 Valve
★ 402643 Seat
★ 596366 Seat
★ 10358 Screw (4 req’d)
(Torque 60-70 lb. in.)
★ 234204 Seat
★ 239371 Spring
★ 262335 O-Ring
★ 239157 Seal
★ 17077 Lockwire
★ 241621 Adj. Plug
★ 363889 Plug
(Torque 50-
75 lb. in. after final adjustment.)
★ 263495 O-Ring
★ 263492 O-Ring
★ 263492 O-Ring
★ 263492 O-Ring
★ 263492 O-Ring
★ 263492 O-Ring
★ 263492 O-Ring

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PVE19 | 02-347532 | 02-347530 | – | –
PVE21 | – | – | 02-347531 | 02-347529

Assembly Note
Adjust compensator, then drill thru with a 01089 drill. Insert lockwire thru seal, then compress seal with a suitable tool.

Adjust compensator, then drill thru with a 01089 drill. Insert lockwire thru seal, then compress seal with a suitable tool.

Model Viewed from STE Valve Block STS Valve Block Wafer Plate Cylinder Block Piston Shoe S/A Rotating Group
PVE19-R C/Wise 933017 933002 425412 426454 923939 923948
PVE19-L CC/Wise 933007 933016 425415 425413 923946 923947
PVE21-R C/Wise 933017 933002 425412 426454 923939 923948
PVE21-L CC/Wise 933007 933016 425415 425413 923946 923947

● Included in 02-328397 Compensator Piston & Rod S/A Kit
△ Included in 923988 Shaft Bearing Kit
□ Included in 923987 Yoke Bearing Kit
**Model Code**

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**Model Series**

| PVE | Pump, variable displacement, inline piston unit |

**Flow Rating**

- **@ 1800 rpm**
- **19** – 19 USgpm
- **21** – 21 USgpm

**Mounting Flange**

| B2 | SAE B 2 bolt flange |

**Shaft Rotation**

- **R** - Right hand (clockwise)
- **L** - Left hand (counterclockwise)

**Thru Drive**

- **Blank** - None
- **B26** - Female SAE “B” 2 bolt flange w/26 tooth thru shaft
- **A11** - Female SAE “A” 2 bolt flange w/11 tooth thru shaft
- **A9** - Female SAE “A” 2 bolt flange w/9 tooth thru shaft

**Port Configuration**

| STE | SAE tube end port |
| MTE | Metric tube end port |
| STS | SAE tube side port |
| MTS | Metric tube side port |
| SFE | SAE flange end port |
| MFE | Metric flange end port |
| SFS | SAE flange side port (A9, A11 only) |
| MFS | Metric flange side port (A9, A11 only) |

**Input Shaft**

- **1** - SAE BB 1.00 dia. straight keyed
- **2** - SAE BB splined 15T, 16/32 flat root, side fit
- **8** - Tapered key, SAE B (torque limited)
- **9** - SAE B splined 13T
- **13** - SAE BB tapered key
- **16** - SAE B .875 dia. straight keyed (torque limited)
- **28** - 28 tooth splined

**Seals**

- **F** - Flurocarbon (standard)
- **N** - No shaft seal

**Pump Design**

**Control Type and Design**

- **C** - Pressure compensator
- **C** - Pressure compensator
  - **PVE19**: 20-207 bar (300-3000 psi)
  - Standard setting is “C21”.
  - Indicating 207 bar (3000 psi).
  - Range is 02-21 in tens of bar.
- **C** - Pressure compensator
  - **PVE21**: 20-186 bar (300-2700 psi)
  - Standard setting is “C19”.
  - Indicating 186 bar (2700 psi).
  - Range 11-17 bar

**Control Bleed Down**

- **Blank** - For C, CV, CA, CG, CD
- **B** - Bleed down orifice
- **P** - Plug, no orifice

**Control Option**

- **Blank** - W/o max. adjust. stop (standard)
- **D** - Max. adjustable stop (not available on thru drive pumps)

**Control Design**

**Special feature Suffix**

For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code 20/18/15 or cleaner. Selections from Vickers OFP, OFR and OFRS series are recommended.

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Note: To convert flange model to foot bracket model, order FB-B-10 (Assembly 422583).