

Service Data

Vickers®

# Piston Pumps

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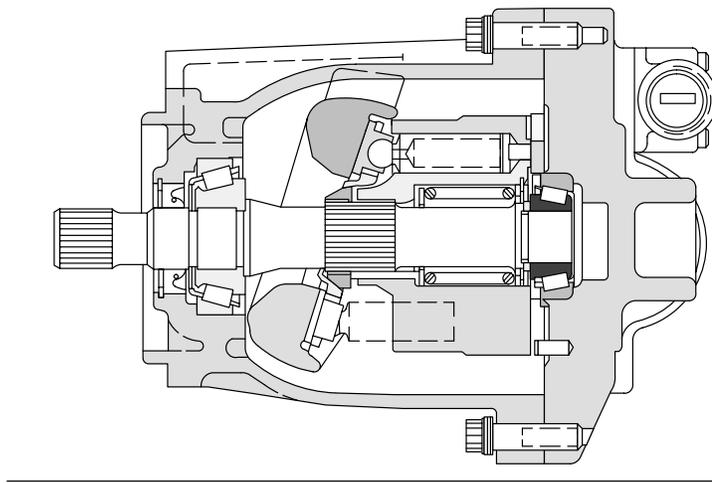
## Variable Displacement Piston Pumps with Pressure Compensator

PVE19/21-\*\*-\*-20-C\*\*\*-1\*

PVE19/21-\*\*-\*-30-C\*\*\*-1\*

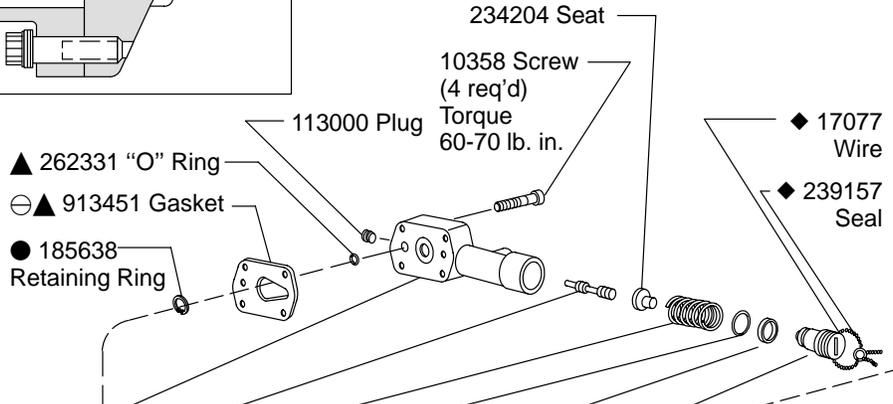
# C, CG & CV Compensator

(Shown for right hand shaft rotation.  
Rotate 180° for left hand shaft rotation.)



**NOTE**  
The "CVP" compensator may be ordered as a complete factory tested part by ordering part number shown in table below.

Included in	
▲ Seal Kit Piston Pump	923989
Bearing Spacer Kit	942401
Shim Kit	923938

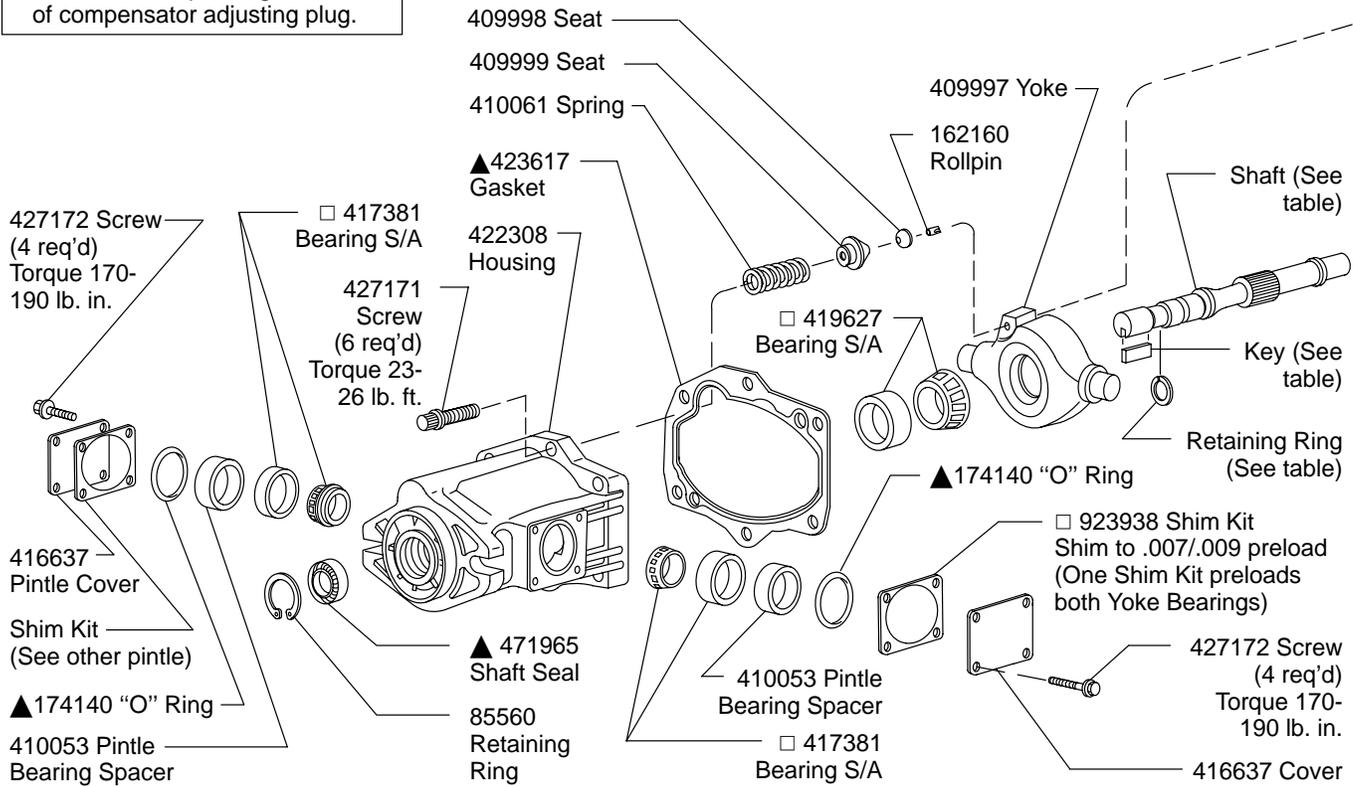


Model	Body	Spool	Spring	"O" Ring	Back-up Ring	Plug	Compensator S/A Kit
PVE**-"C"-10	241568	241717	239371	▲262335	—	241621	02-334115
PVE**-"CG"-10	412890	296234	—	—	▲287144	412940	942480
PVE**-"CV"-10	—	278711	417649	—	—	—	942441

■ Included in Rotating Group S/A

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

Model	Retaining Ring	Key	Shaft	Type
PVE**-1	112531	58303	428883	Keyed
PVE**-2	—	—	423415	Splined
PVE**-9	—	—	424544	



# CVP (C) Compensator

(Shown for right hand shaft rotation.  
Rotate 180° for left hand shaft rotation.  
See table below for 'CVP' S/A part number.)

113000 Plug (2 req'd)

▲262331 "O" Ring

\*▲913451 Gasket

### ◆ Assembly Note

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

500815 Body

924040 Check Valve S/A

113000 Plug

433543 Orifice

(Torque 15-20 lb. in.)

(CVP) 581073 Spring (160 psi)

(CVPC) 581072 Spring (350 psi)

596366 Seat

585164 Set Screw

▲154126 "O" Ring

343740 Plug

(Torque 50-75 lb. in.)

10358 Screw (4 req'd)

(Torque 60-70 lb. in.)

422233 Spool (Comp.)

234204 Seat

239371 Spring

▲262335 "O" Ring

◆ 239157 Seal

◆ 17077 Lockwire

241621 Adj. Plug

363889 Plug

(Torque 50-75 lb. in. after final adjustment.)

▲154127 "O" Ring

● 404957 Rod

● 404958 Piston

▲427682 "O" Ring

■ Cylinder Block (See table)

■ 410050 Pin Retainer

■ 402650 Shoe Plate

Piston Shoe S/A Kit (Includes 9 Piston Shoe S/A) (See table)

■ 248810 Pin (3 req'd)

■ 402580 Spherical Washer

■ 402579 Spring (Color coded red)

■ 402580 Spherical Washer

Δ942401 Bearing Spacer Kit (Chamfer toward shoulder of shaft) (Select spacer to provide .001/.003 preload)

■ 404932 Spring Washer

■ 402579 Spring (Color coded red)

■ 402580 Spherical Washer

■ 423368 Spring Washer

7074 Plug

429325 Pin (2 req'd) (Install in housing)

Δ473914 Bearing S/A

Wafer Plate (See table)

■ 99907 Retaining Ring

248910 Pin

181792 Plug (-30 Design only)

▲154130 "O" Ring (-30 Design only)

Inlet Port

Valve Block (right hand shown) (See table)

410054 Spring

402644 Valve

402643 Seat

Model	CVP-12 S/A	CVPC-12 S/A
PVE19	924061	924062
PVE21	924063	924064

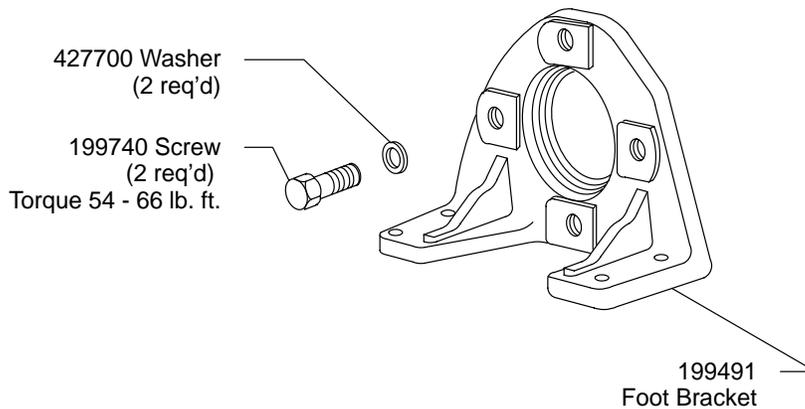
Model	Rotation Viewed from Shaft End	-20 Valve Block	-30 Valve Block	Wafer Plate	■ Cylinder Block	Piston Shoe S/A ■ Includes 9 Piston Shoe S/A	■ Rotating Group
PVE19-R	C/Wise	423337	429729	425412	426454	923939	923948
PVE19-L	CC/Wise	423329	435281	425415	418215	923946	923947
PVE21-R	C/Wise	423337	429729	425413			
PVE21-L	CC/Wise	423329	435281	425416			

● Included in 923960 Compensator Piston & Rod S/A Kit

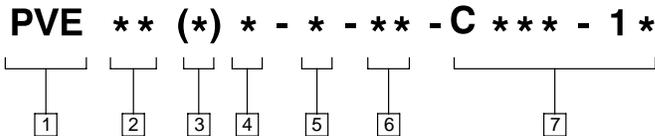
■ Included in 923987 Yoke Bearing Kit

▲ Included in 923988 Shaft Bearing Kit

# Model Code



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



**1 Model Series**

**PVE** - Pump, variable displacement, series inline piston unit

**2 Flow Rating**  
@ 1800 rpm

**19** - 19 USgpm  
**21** - 21 USgpm

**3 Mounting**

**F** - Foot mounting  
**Omit** - For flange

**4 Shaft Rotation**

(Viewed from shaft end)

**R** - Right Hand (CW)  
**L** - Left Hand (CCW)

**5 Input Shaft**

**1** - SAE B-B straight thread  
**2** - SAE B-B 15 tooth spline  
**9** - SAE B 13 tooth spline

**6 Pump Design**

**20** - Single drain port  
**30** - Dual drain port

**7 Control Type & Design**

**C-10** - Pressure compensated (PVE19, 250-3000 psi) (PVE21, 250-2700 psi)

**CG-10**- Remote control pressure compensator adjustable from 350-3000 psi using an external relief valve

**CV-10**- Load sensing PVE19/21

**CVP-12**- Load sensing (160 PSID) with pressure compensation PVE 19/21

**CVPC-12**- Load sensing (350 PSID) with pressure compensation PVE19/21

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 Eaton OFF, OFR and OFRS series are recommended.