

# Piston Pumps

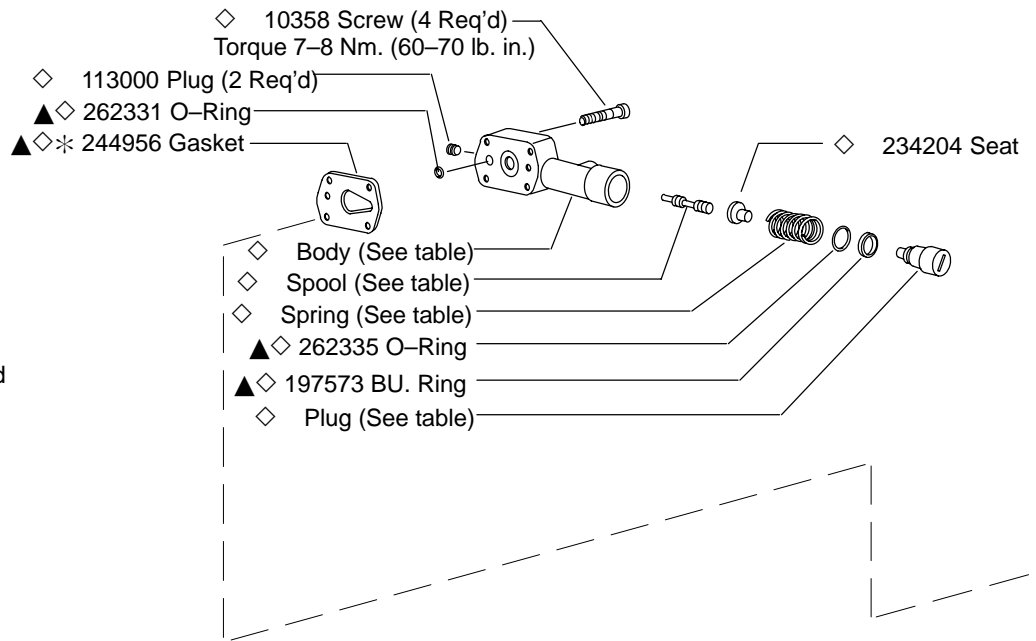
---



## Low Noise Industrial Piston Pump

PVQ 40-B2/M2 \* \*\*\* - \*\* \* \* - 10 C\*\* \*\*\* \*\*\* \* - 10/11/12/20  
PVQ 45-B2/M2 \* \*\*\* - \*\* \* \* - 10 C\*\* \*\*\* \*\*\* \* - 10/11/12/20

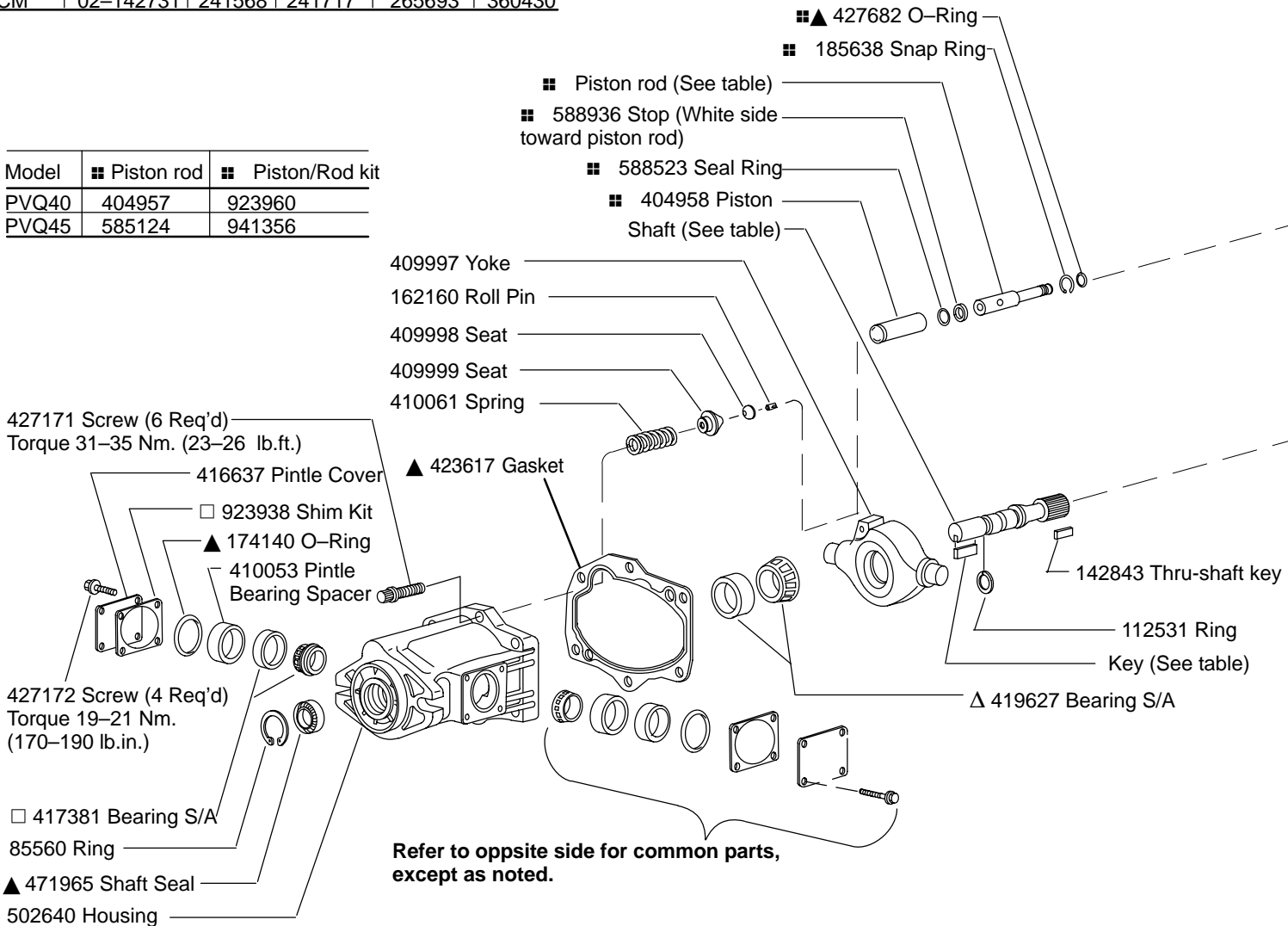
**C, CM Compensator** shown for R. H. rotation. Rotate 180° for L. H. shaft rotation.



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

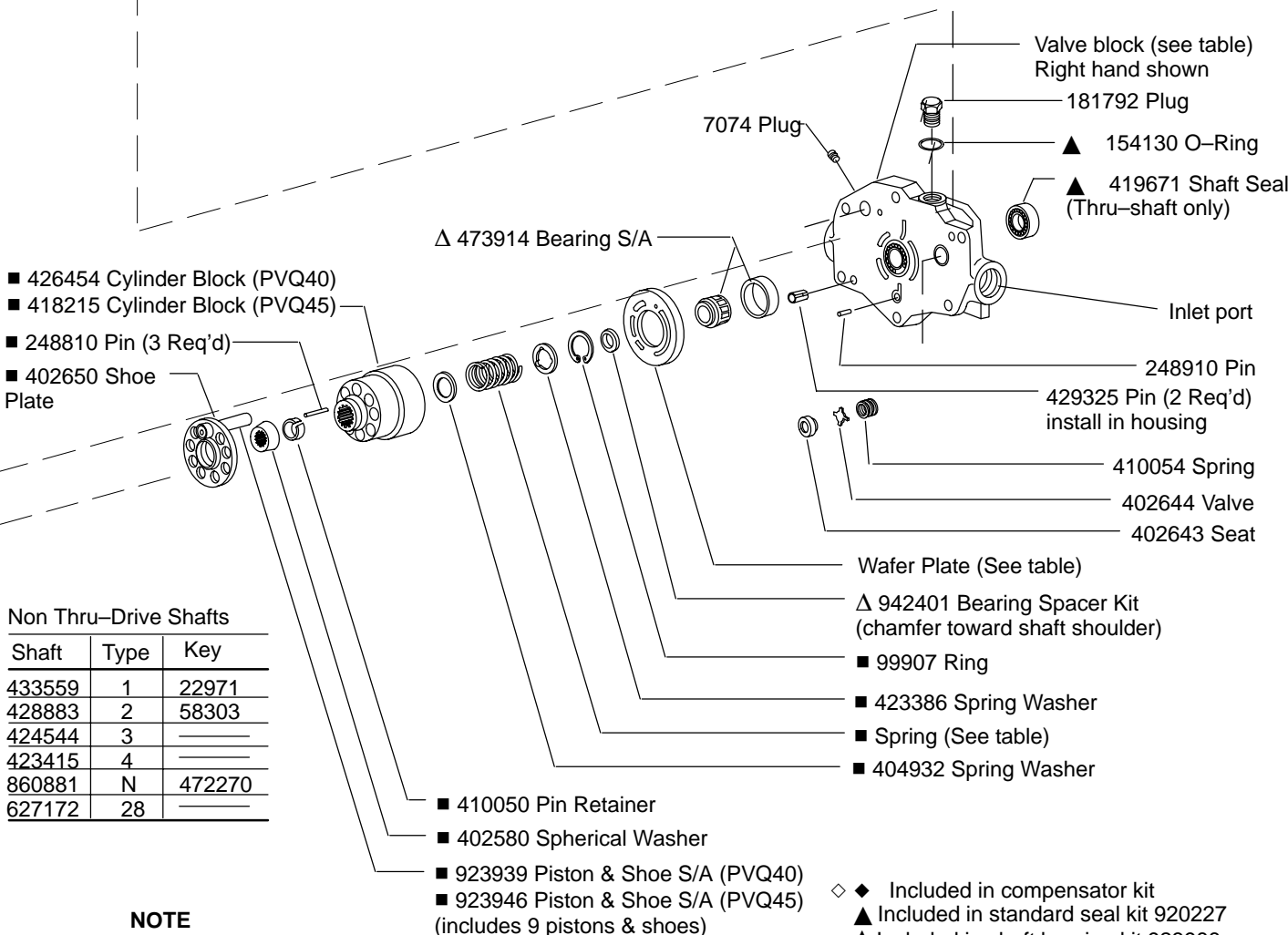
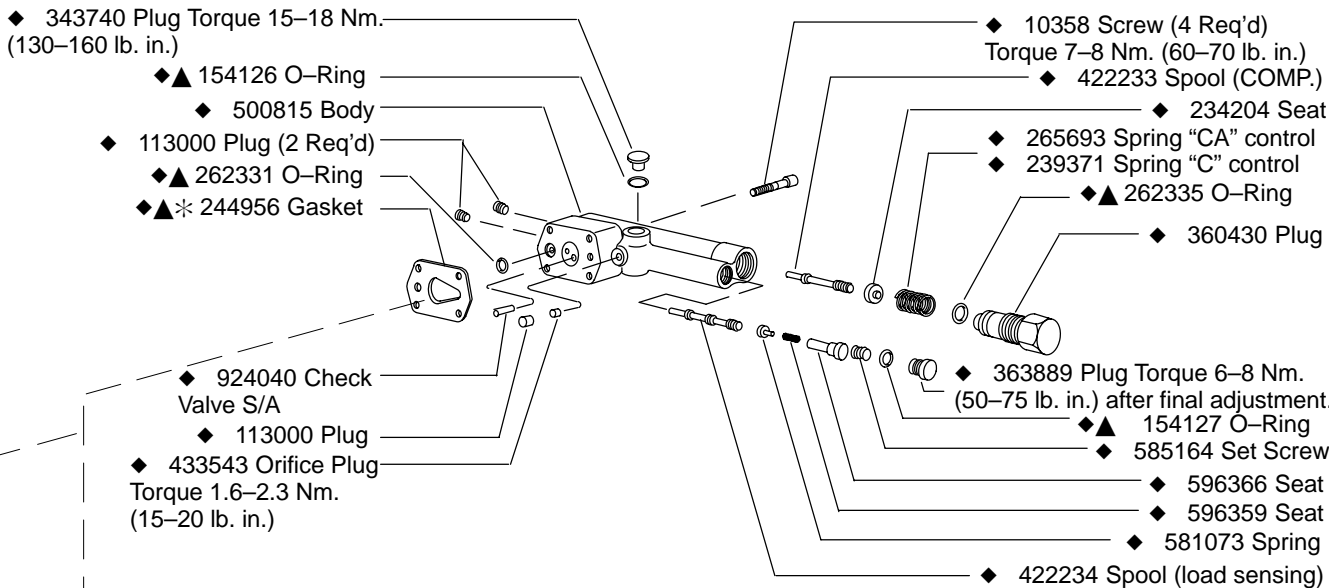
◇ Type	◇ Comp. kit	◇ Body	◇ Spool	◇ Spring	◇ Plug
C	02-142732	241568	241717	239371	360430
CG	942480	412890	296234	239371	412940
CM	02-142731	241568	241717	265693	360430

Model	■ Piston rod	■ Piston/Rod kit
PVQ40	404957	923960
PVQ45	585124	941356



Refer to opposite side for common parts, except as noted.

**CVP Compensator** shown for R. H. rotation. Rotate 180° for L. H. shaft rotation.  
See table for compensator kit part number.



Non Thru-Drive Shafts

Shaft	Type	Key
433559	1	22971
428883	2	58303
424544	3	
423415	4	
860881	N	472270
627172	28	

**NOTE**

For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or cleaner. OFP, OFR, and OFRS series filters are recommended.

Model	Spring	Color
PVQ40	632570	Yellow
PVQ45	402579	Red

- ◆ Included in compensator kit
- ▲ Included in standard seal kit 920227
- △ Included in shaft bearing kit 923988
- Included in yoke bearing kit 923987
- Rotating group kit 923948 (PVQ40)
- Rotating group kit 923947 (PVQ45)



**CAUTION**

Model PVQ45C compensator pressure adjustment shall not exceed 2750 psi.

**10 NOTE**

See model code for pressure range settings of individual compensator kits.

Model	◆ Comp. kit	◆ Comp. Spring	◆ Load Sense Spring
PVQ**C	942158	239371	————
PVQ**CM	942159	265693	————
PVQ**CG	942480	239371	————
PVQ**C**V(C)11B	02-142729	239371	581073
PVQ**C**V(C)11P	02-142728	239371	581073
PVQ**C**V(C)24B	02-142730	239371	581072
PVQ**C**V(C)24P	02-142727	239371	581072
PVQ**CD****	(Refer to service parts information I-3255-S)		

Model	Shaft end rotation	Wafer plate	Valve block	Thru-Drive valve block	O-Ring
PVQ45*R*SS	Right hand (CW)	629539	429729	————	————
PVQ40*R*SS			677096	————	
PVQ45*R*SE			————	————	
PVQ40*R*SE	Left hand (CCW)	631476	435281	————	————
PVQ45*L*SS			677097	————	
PVQ40*L*SS			————	————	
PVQ45*L*SE	Right hand (CW)	629539	————	857668	351776
PVQ40*L*SE			————	627149	375422
PVQ4**RAFS			————	568082	351776
PVQ4**RBSS	Left hand (CCW)	631476	————	627541	375422
PVQ4**LAFS			————	————	————
PVQ4**LBSS	————	————	————	————	————

Thru-Drive Shafts

5 Model	Shaft	7 Input Type
PVQ**A9	883098	2 Str. Keyed SAE B-B
	586131	4 Splined SAE B-B
PVQ**B26	677131	2 Str. Keyed SAE B-B
	423416	4 Splined SAE B-B

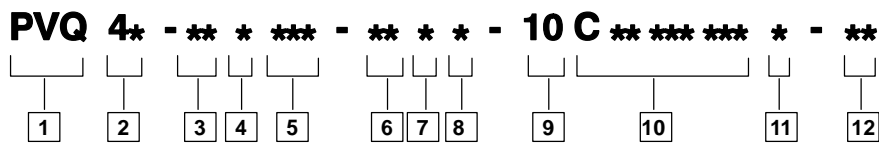
Thru-Drive Couplings

Thru-Drive Model Code	Coupling	O-Ring	Model Code Rear Pump	Rear Pump Shaft Type
PVQ**A9	864224	351776	PVQ10	3
			V10	11
			V20	62
PVQ**B26	627168	375422	PVE12	28
			PVQ40/45	28
			PVQ20/32	28
	475134		2520V	166

Thru-Drive Couplings	Type	Description
864224	A	"A" 9 tooth spline
627168	B	26 tooth
475134	B	Step coupling 26 to 15 tooth "B-B" spline

Rear pump, couplings, O-rings, capscrews and washers must be ordered separately to mount rear pump.

# Model Code



## 1 PVQ Series

**P** – Inline piston pump  
**V** – Variable volume  
**Q** – Quiet series

## 2 Displacement

(CC/Rev & Pressure ratings)

**40** – 40 CC/Rev (2.50 CIR)  
 210 bar (3000 psi)  
**45** – 45 CC/Rev (2.75 CIR)  
 190 bar (2700 psi)

## 3 Mounting flange

**B2** – SAE “B” 2-bolt  
**MB** – ISO 3019/2 “B” 2-bolt (available with “N” drive shaft only)

## 4 Rotation

(viewed from shaft end)

**R** – Right hand (CW) (standard)  
**L** – Left hand (CCW) (optional)

## 5 Thru drive

(without coupling) Available with side ports only.

**Blank** – No thru drive  
**A9** – SAE “A” 2-bolt with 9T shaft  
**A11** – SAE “A” 2-bolt with 11T shaft  
**B13** – SAE “B” 2-bolt with 13T shaft  
**B26** – SAE “B” 2-bolt with 26T shaft (Available only with #4 main input shaft)

## 6 Ports

(type and location)

**SE** – Inch O-Ring boss rear port (standard)  
**SS** – Inch O-Ring boss side port (optional)  
**FS** – Flange side port (SAE “A” thru-drive only)

## 7 Shafts

(input)

**1** – Straight keyed SAE “B”(not on thru drives)  
**2** – Straight keyed SAE “B-B”  
**3** – Splined SAE “B” modified 13T, 16/32 DP flat root side fit (not on thru drives)  
**4** – Splined SAE “B-B” modified 15T, 16/32 DP flat root side fit  
**N** – ISO 3019/2 short straight keyed (available with “MB” mounting only) Not available on thru-drives.  
**28** – 26 tooth splined shaft (Vickers) Used to mount PVQ40/45 on PVQ40/45 thru-drive pump

## 8 Seals

**S** – Buna N (standard)  
**F** – Fluorocarbon (optional)

## 9 Pump design number

**10** – First design

## 10 Control type

**C\*\*** – Pressure compensator, PVQ40: Std. model is C21, indicating factory setting of 210 bar (3000 psi). Range is 02–21 in tens of bar (350–3000 psi)  
 PVQ45: Std. model is C19, indicating factory setting of 190 bar (2750 psi). Range is 02–19 in tens of bar (350–2750 psi)  
**CM\*\*** – Low pressure compensator, Std. model is CM7, indicating factory setting of 70 bar(1000 psi). Range is 02–10 in tens of bar (350–1500 psi)  
**C\*\*V\*\*B** – Pressure compensator C\*\*, as above, with load sensing. Std. load sensing setting is 11 bar (160 psi). Range 10–17 bar (150–250 psi), with bleed down orifice. Example: C21V11B indicates PVQ40 compensator with 210 bar pressure setting and 11 bar load sense differential.  
**C\*\*V\*\*P** – Pressure compensator with load sensing as C\*\*V\*\*B above, but with bleed down orifice plugged.  
**C\*\*VC\*\*B** – Pressure compensator with load sensing. Compensator same as C\*\* above. Std. load sensing setting is 24 bar (350 psi). Range 17–31 bar (250–450 psi), with bleed down orifice  
**C\*\*VC\*\*P** – Pressure compensator with load sensing. Same as C\*\*VC\*\*B above, but with bleed down orifice plugged.  
**CG** – Pressure compensator modified for hydraulic remote control.  
**CD\*\*\*\*** – Electric dual range compensator. PVQ40: Std. model is CD2110, indicating dual pressure settings of 210 and 100 bar, adjustment ranges are 20–210 bar (high) and 20–100 bar (low). PVQ45: Std. model is CD1910, indicating settings of 190 and 100 bar, adjustment ranges are 20–190 bar (high) and 20–100 bar (low).

## 11 Control option

**Blank** – Without adjustable Max. displacement stop (standard)  
**D** – Max. adjustable displacement stop (optional)

## 12 Control design

**10** – For C\*\* & CM\*\*  
**11** – For C\*\*D & CM\*\*D  
**12** – For C\*\*V(C)\*\*B & C\*\*V(C)\*\*P  
**20** – CD\*\*\*\* & CG