

Piston Pumps

Low Noise Industrial Piston Pump

ENGINEERING
TOMORROW

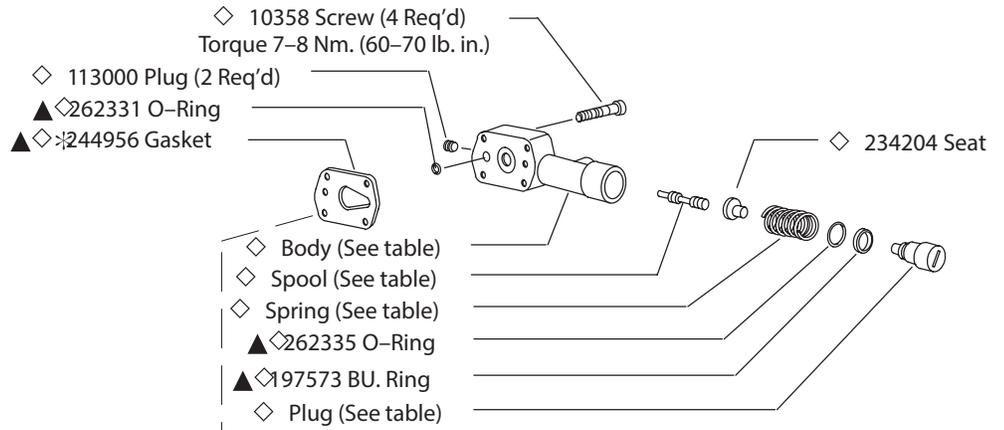


PVQ 40-B2/M2 * *** - ** * * - 10 C** *** ** * - 10/11/12/20

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

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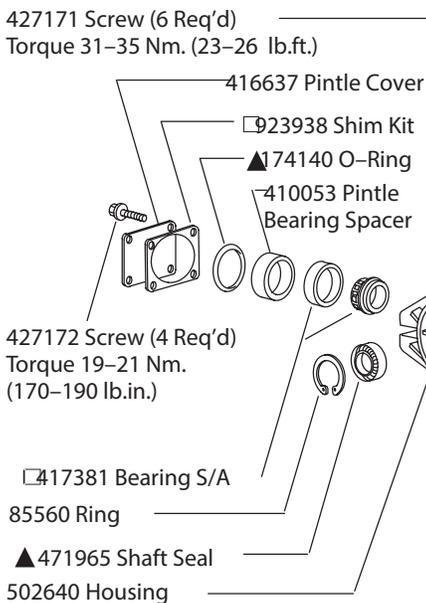
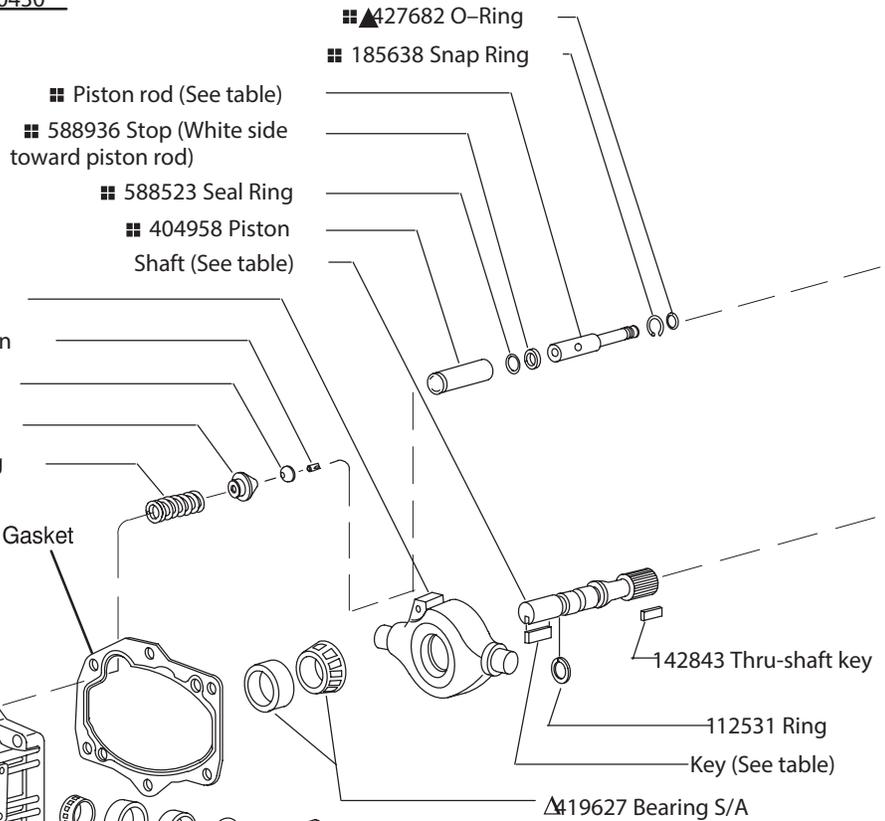
C, CM Compensator shown for R. H. rotation. Rotate 180° for L. H. shaft rotation.



* **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.

◆ 343740 Plug Torque 15 –18 Nm.
(130–160 lb. in.)

- ◆ ▲ 154126 O –Ring
- ◆ 500815 Body
- ◆ 113000 Plug (2 Req 'd)
- ◆ ▲ 262331 O –Ring
- ◆ ▲ 244956 Gasket

◆ 10358 Screw (4 Req 'd)
Torque 7 –8 Nm. (60 –70 lb. in.)

- ◆ 422233 Spool (COMP)
- ◆ 234204 Seat
- ◆ 265693 Spring "CA" control
- ◆ 239371 Spring "C" control
- ◆ ▲ 262335 O –Ring
- ◆ 360430 Plug

◆ 924040 Check Valve S/A

◆ 113000 Plug

◆ 433543 Orifice Plug
Torque 1.6 –2.3 Nm.
(15–20 lb. in.)

◆ 363889 Plug Torque 6 –8 Nm.
(50–75 lb. in.) after final adjustment.

◆ ▲ 154127 O –Ring

◆ 585164 Set Screw

◆ 596366 Seat

◆ 596359 Seat

◆ 581073 Spring

◆ 422234 Spool (load sensing)

▲ 473914 Bearing S/A

Valve block (see table)
Right hand shown

181792 Plug

▲ 154130 O –Ring

▲ 419671 Shaft Seal
(Thru –shaft only)

7074 Plug

Inlet port

248910 Pin

429325 Pin (2 Req 'd)
install in housing

410054 Spring

402644 Valve

402643 Seat

Wafer Plate (See table)

▲ 942401 Bearing Spacer Kit
(chamfer toward shaft shoulder)

■ 9907 Ring

■ 23386 Spring Washer

■ Spring (See table)

■ 404932 Spring Washer

■ 26454 Cylinder Block (PVQ40)

■ 18215 Cylinder Block (PVQ45)

■ 248810 Pin (3 Req 'd)

■ 402650 Shoe
Plate

■ 10050 Pin Retainer

■ 402580 Spherical Washer

■ 23939 Piston & Shoe S/A (PVQ40)

■ 23946 Piston & Shoe S/A (PVQ45)
(includes 9 pistons & shoes)

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					
PVQ40*L*SE	Right hand (CW)	629539	————	857668	351776
PVQ4**RAFS			————	627149	375422
PVQ4**RBSS			Left hand (CCW)	631476	————
PVQ4**LAFS	————	627541			375422
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

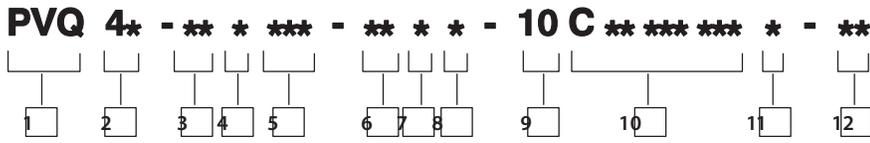
Thru-Drive Couplings

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

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

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

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 by Danfoss)
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

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**Danfoss
Power Solutions (US) Company**
2800 East 13th Street
Ames, IA 50010, USA
Phone: +1 515 239 6000

**Danfoss
Power Solutions GmbH & Co. OHG**
Krokamp 35
D-24539 Neumünster, Germany
Phone: +49 4321 871 0

**Danfoss
Power Solutions ApS**
Nordborgvej 81
DK-6430 Nordborg, Denmark
Phone: +45 7488 2222

**Danfoss
Power Solutions Trading
(Shanghai) Co., Ltd.**
Building #22, No. 1000 Jin Hai Rd
Jin Qiao, Pudong New District
Shanghai, China 201206
Phone: +86 21 2080 6201