

Service Data

Thru-Drive Vane Type Pump

(F3)-45VQT*(M)-**A(M)2-**-*-20/21-*



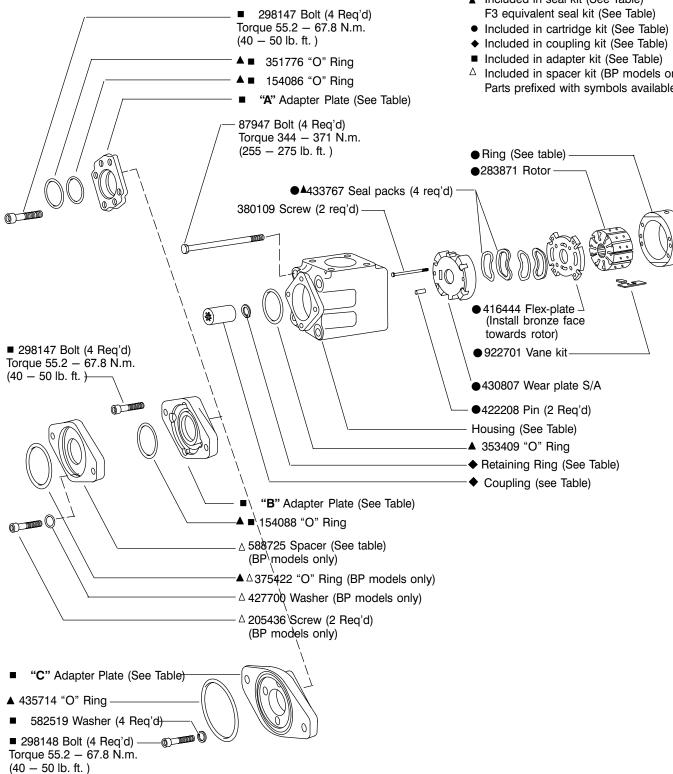
Rev. 2/98

MODEL	ADAPTER PLATE	ADAPTER KIT	SPACER KIT	RETAINING RING	COUPLING	COUPLING KIT
VQTA	584936	941296		223172	426770	02-136810
VQTB	584922	941297		83003 (1)	584924	02-136813
VQTBP	364922	941297	02-136817	83003 (2)	564924	02-136814
VQTC	581833	941298		103989	585658	02-136816

NOTE FOR BP MODELS AN ADAPTER KIT AND SPACER KIT IS REQUIRED.



- ▲ Included in seal kit (See Table)
- △ Included in spacer kit (BP models only) Parts prefixed with symbols available only in kits.



MODEL	SHAFT	KEY
45VQTAS-203	502418	
45VQTB(P)S-203	502419	239751
45VQTCS-203	502467	
45VQTAS-297	502475	
45VQTB(P)S-297	502480	
45VQTCS-297	883274	

MODEL	HOUSING	BODY S/A
45VQT*S**A	252283	02-136923
45VQT*S**AM	478507	02-136924

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

-194878 Washer Shaft (See Table)

▲ ●154107 "O" Ring —	
▲□ 429282 Secondary shaft seal— (-21 design only)	
▲ □ 394974 Shaft Seal—	\ \ \
Key (See table) –	

Body S/A (See Table) -

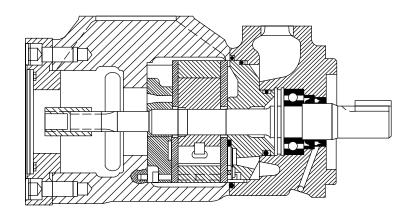
131812 Bearing 102949 Retaining Ring 158630 Retaining Ring A \$658509 Ring
▲ ●154087 "O" Ring A ● 419675 Seal Ring (Install into body, then install catrtidge kit) ■ 425510 Pressure plate ● 416444 Flex-plate (Install bronze face

towards rotor)

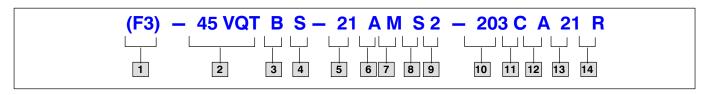
MODEL	RING	● CART KIT	F3 CART KIT
45VQT42	297510	416435	419511
45VQT50	297502	416436	419510
45VQT60	297503	416437	419509

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 Code



1 Viton seals

Omit - Standard seals

2 Intravane pump series-Thru drive 45VQT — Standard bearing

3 Thru-drive connection mounting adapter

Codo	SAE Designation		
Code	J744C J744Oct83		
Α	A 82-2		
В	B 101-2		
BP	Special mounting with spacer		
	for Vickers PVE19/21		
С	C 127-2		

4 Front mounting flange

Model	SAE Designation		
series	J744C	J744Oct83	
45VQT	С	127-2	

5 Geometric displacement

Code - SAE rating (USgpm) at 1200 rpm, 6.9 bar (100 psi)

Frame Size	Code	cm ³ /r	in ³ /r
45VQT	42	138	8.41
	50	162	9.85
	60	193	11.75

6 Port connections

A - SAE 4-bolt flange

7 Metric threads on port connection

(Omit for inch threads.)

8 Double shaft seal

S – Double shaft sealBlank – Single shaft seal

9 Thru-drive coupling

2 – SAE splined coupling included with pump

10 Shaft

203 - Straight key

297 – Splined

11 Outlet positions

(Viewed from adapter end of pump)

A – Opposite inlet port

B – 90° CCW from inlet

C - In line with inlet

D - 90° CW from inlet

12 Adapter mounting orientation

(Viewed from adapter end of pump)

Code	A adapter	B or C adapter
A –	Rotated 45° CW with respect to pump mtg. flg.	In line with pump mtg. flg.
B —	Rotated 45° CCW with respect to pump mtg. flg.	Rotated 90° with respect to pump mtg. flg.

13 Design

- -20 design single shaft seal
- -21 design double shaft seal

14 Rotation

(Viewed from shaft end of pump)

L - Left hand (counterclockwise)

R – Right hand (clockwise)

NOTE

To reverse cartridge kit rotation, remove the two screws and reverse the location of the inlet support plate and outlet support plate. Re—install the two screws hand tight. Use pump cover to align all sections of the cartridge. Carefully remove the cover and tighten the screws.

NOTE

When ordering spare cartridge parts, it is recommended they be obtained in cartridge kits. Kits are assembled and tested by Vickers for either right or left hand rotation. If left hand rotation is required, it should be specified on parts order by adding suffix "L" to cartridge kit number.

