Service Data

 $\text{Vickers}^{\text{\tiny{\circledR}}}$

Vane Pumps



Vane Type Double Pump

4525VQ Series -20 Design



■ SAE rated capacity (4525VQ** shaft end pump cartridge)

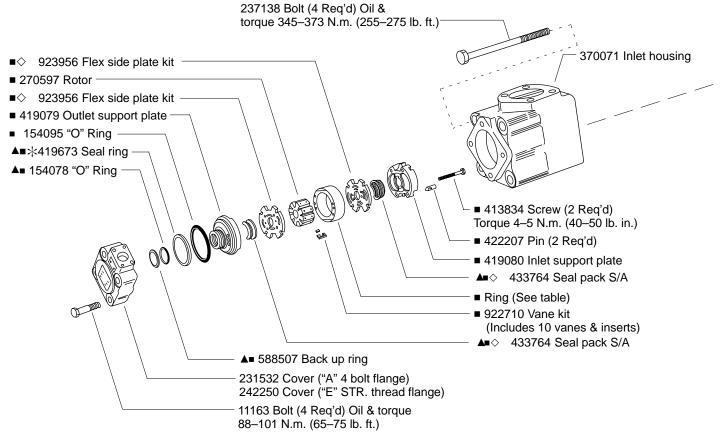
USgpm	■ Ring	■ STD. cartridge kit	● F3 cartridge kit
42	297510	416435	419511
47	297718	421234	421954
50	297502	416436	419510
57	306772	421233	421955
60	297503	416437	419509

6 SAE rated capacity (4525VQ ** * **) cover end pump cartridge)

■ USgpm	■ Ring	■ STD. cartridge kit	■ F3 cartridge Kit
12	326984	421244	421576
14	326985	421235	421577
17	326986	421236	421578
19	326987	421237	421579
21	326988	421238	421580

NOTE:

* Install 419673 sealing ring into body, then install cartridge kit.



- Included in 4525VQ shaft end cart. kit.
- Included in 4525VQ cover end cart. kit.
- ▲ Included in single shaft seal kit 920068
 F3 equivalent shaft seal kit 920070
- ★ Included in double shaft seal kit 920069 F3 equivalent shaft seal kit 920071
- ◆ Included in mounting kit FB-C-10

					NOTE
8 Shaft part number	Key part number	Secondary shaft seal	Shaft number	Shaft type	NOTE: Assemble seal with spring loaded
233524	217596		1	STR. keyed standard	sealing member towards bearing.
233527			11	Spline	Seals to be completely wetted with
247102			19	Spline	oil prior to assembly.
361762	239751		86	STR. keyed heavy duty	
413024		429282	114	Spline	◆ Mounting bracket ———
	e must be insta	lled toward	▲ □ 394	4974 Primary shaft seal	
	it contains two	flex side		Key (See table)	
plates & fou	ır seal packs.			Shaft (See table)	
			58630 Lockring		
▲ ◇● 433768 ◇● 923954 F	■ 154107 tlet support pla Seal pack (2 F lex side plate k flex side plate Table)	5 Seal ring — "O" Ring — te — Req'd) — sit —	922701 Vane	kit	■ 942356 Body S/A ◆ Screw (2 Req'd) ★⊞ Secondary shaft seal (See table) (Use on "S" flange mounted models only) 131812 Bearing 102949 Retaining ring 588509 Back up ring
		ir	ncludes 10 vane nserts) > 923953 Fley ncludes 2 flex si > 433768 Se 430807 Inlet 422208 Pin (2	c side plate kit de plates) eal pack (2 Req'd) plate S/A	 A● 154087 "O" Ring NOTE: Body S/A includes body, ball, & plug (Ball and plug not shown) NOTE: Assemble seal flush with pilot face

NOTE:

* Install 419675 sealing ring into body, then install cartridge kit.

Typical cutaway view

• 380109 Screw (2 Req'd)

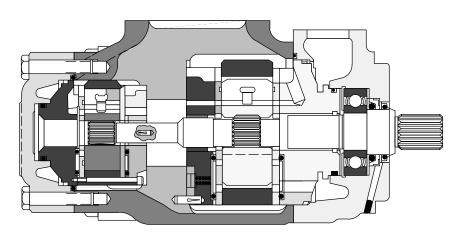
Torque 11–12 N.m. (100–110 lb.in.)

⊞ Assemble seal flush with pilot face

with spring loaded sealing member facing inward as shown. Seals to be

completely wetted with oil prior to

assembly.



Model Code

(F3) - 4525 VQ ** A **-* 1** 20 (*) - 28*

- 1 Viton seals (Omit if not required)
- 2 Series designation
- 3 Intra-vane pump
- 4 US GPM capacity (Shaft end pump)

SAE rating 1200 rpm-100 psi (7 bar)

42 – 42 USgpm **47** – 47 USgpm

57 – 57 USgpm **60** – 60 USgpm

50 – 50 USgpm

5 SAE port connections

Code	Inlet	Outlet #1	Outlet #2
A –	4 bolt	4 bolt	4 bolt
	flange	flange	flange
E –	4 bolt	4 bolt	SAE ST.
	flange	flange	THD.

6 US GPM capacity (Cover end pump)

SAE rating 1200 rpm-100 psi (7 bar)

12 – 12 USgpm **14** – 14 USgpm **19** – 19 USgpm **21** – 21 USgpm

17 – 17 USgpm

Mounting

F - Foot (Single shaft seal)

S – Flange (Double shaft seal)

Omitted – Flange, single shaft seal assembly

8 Shaft type

1- Straight with square key standard

11- Splined

19- Splined

86– Straight with square key heavy duty

114-Splined

9 Outlet port positions

(Viewed from cover end of pump)

With #1 outlet opposite inlet:

AA - # 2 outlet - 135° CCW from inlet

AB - # 2 outlet - 45° CCW from inlet

AC - # 2 outlet - 45° CW from inlet

AD - # 2 outlet - 135° CW from inlet

With #1 outlet 90° CCW from inlet:

BA – # 2 outlet – 135° CCW from inlet

BB – # 2 outlet – 45° CCW from inlet

BD – # 2 outlet – 45° CW from inlet **BD** – # 2 outlet – 135° CW from inlet

BC – # 2 outlet – 45° CW from inlet

Outlet port positions continued (Viewed from cover end of pump)

With #1 outlet inline with inlet:

CA – # 2 outlet – 135° CCW from inlet

CB – # 2 outlet – 45° CCW from inlet

CC - # 2 outlet - 45° CW from inlet

CD – # 2 outlet – 135° CW from inlet

With #1 outlet 90° CW from inlet:

DA - # 2 outlet - 135° CCW from inlet

DB – # 2 outlet – 45° CCW from inlet

DC – # 2 outlet – 45° CW from inlet

DD - # 2 outlet - 135° CW from inlet

10 Design

11 Rotation

(Viewed from shaft end of pump)

L – Left hand (CCW rotation)

Omitted - Right hand rotation

12 Mounting

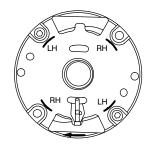
282 - SAE 2-bolt mounting

283 – Foot mounting

NOTE:

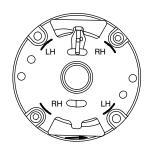
Standard right hand shaft rotation cartridges shown. Reverse for left hand rotation; refer to note.

Cover end cartridge R. H. Rotation



Sharp Edges of Vane Must Lead in Direction of Rotation

Shaft end cartridge R. H. Rotation



Sharp Edges of Vane Must Lead in Direction of Rotation

NOTE:

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