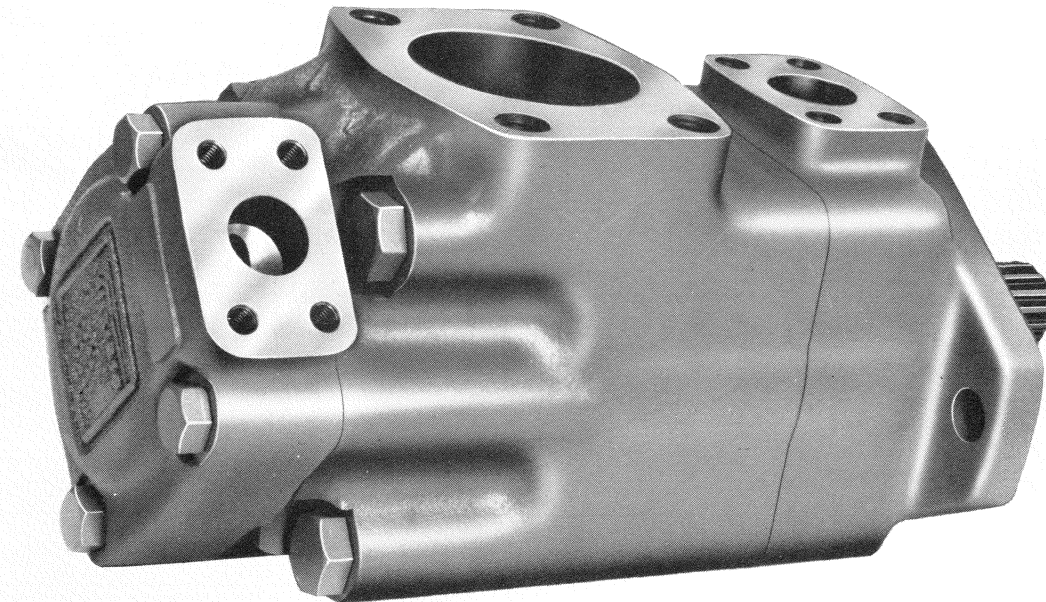


Vane Type Double Pump

2520VQ Series -20 Design



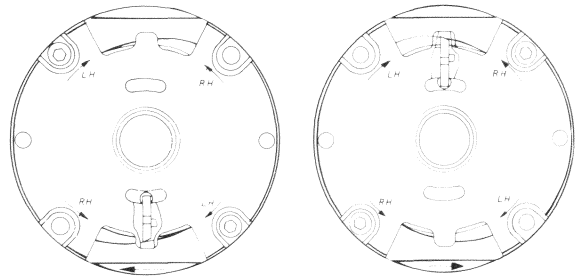
Vickers Incorporated
 A TRINOVA Company
 5445 Corporate Drive
 P. O. Box 302
 Troy, Michigan 48007-0302
 U.S.A.

NOTE

* STANDARD RIGHT HAND SHAFT ROTATION
 CARTRIDGES SHOWN: REVERSE FOR LEFT
 HAND ROTATION.

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. REMOVE COVER CARE-
 FULLY AND TIGHTEN SCREWS TO RECOM-
 MENDED TORQUE.

SHARP EDGE OF VANE MUST
 LEAD DIRECTION OF ROTATION



* COVER END CARTRIDGE R. H. ROTATION * SHAFT END CARTRIDGE R. H. ROTATION

MODEL CODE BREAKDOWN

(F3) - 2520 VQ ** A ** - * 1 ** ** * 20 (*) - 28*

1 2 3 4 5 6 7 8 9 10 11 12 13 14

1 VITON SEALS
 (OMIT IF NOT REQUIRED)

2 SERIES DESIGNATION

2520VQ, DOUBLE PUMP
 2620VQ, DOUBLE PUMP

3 INTRA-VANE PUMP

4 US GPM CAPACITY
 (SHAFT END PUMP)

SAE RATING 1200 RPM - 100 PSI (7 bar)
 12 - 12 GPM 19 - 19 GPM
 14 - 14 GPM 21 - 21 GPM
 17 - 17 GPM

5 SAE PORT CONNECTIONS

MODELS WITHOUT FLOW CONTROL
 CODE INLET OUTLET #1 OUTLET #2
 A 4-BOLT FLG. 4-BOLT FLG. 4-BOLT FLG.
 C 4-BOLT FLG. SAE ST. THD. SAE ST. THD.
 E 4-BOLT FLG. 4-BOLT FLG. SAE ST. THD.
 F 4-BOLT FLG. 4-BOLT FLG. SAE ST. THD.

MODELS WITH FLOW CONTROL

CODE	INLET	OUTLET #1	OUTLET #2	TANK RETURN
C	4-BOLT FLG.	SAE ST. THD.	SAE ST. THD.	SAE ST. THD.
E	4-BOLT FLG.	4-BOLT FLG.	SAE ST. THD.	SAE ST. THD.

6 US GPM CAPACITY
 (COVER END PUMP)

SAE RATING 1200 RPM - 100 PSI (7 bar)
 5 - 5 GPM 11 - 11 GPM
 8 - 8 GPM 12 - 12 GPM
 9 - 9 GPM 14 - 14 GPM

7 MOUNTING

F - FOOT (SINGLE SHAFT SEAL)
 S - FLANGE (DOUBLE SHAFT SEAL)
 OMITTED - FLANGE, SINGLE SHAFT SEAL ASSEMBLY

8 SHAFT

1 - STRAIGHT KEYED
 11 - SPLINED
 123 - SPLINED

9 OUTLET PORT POSITIONS
 (VIEWED FROM COVER END OF PUMP)

With No. 1 Outlet Opposite Inlet :
 AA - No. 2 Outlet - 135° CCW From Inlet
 AB - No. 2 Outlet - 45° CCW From Inlet
 AC - No. 2 Outlet - 45° CW From Inlet
 AD - No. 2 Outlet - 135° CW From Inlet

With No. 1 Outlet 90° CCW From Inlet :
 BA - No. 2 Outlet - 135° CCW From Inlet
 BB - No. 2 Outlet - 45° CCW From Inlet
 BC - No. 2 Outlet - 45° CW From Inlet
 BD - No. 2 Outlet - 135° CW From Inlet

With No. 1 Outlet Inline With Inlet :
 CA - No. 2 Outlet - 135° CCW From Inlet
 CB - No. 2 Outlet - 45° CCW From Inlet
 CC - No. 2 Outlet - 45° CW From Inlet
 CD - No. 2 Outlet - 135° CW From Inlet

With No. 1 Outlet 90° CW From Inlet :
 DA - No. 2 Outlet - 135° CCW From Inlet
 DB - No. 2 Outlet - 45° CCW From Inlet
 DC - No. 2 Outlet - 45° CW From Inlet
 DD - No. 2 Outlet - 135° CW From Inlet

10 CONTROLLED FLOW RATE
 (MODELS WITH FLOW CONTROL)

2 - 2 GPM	7 - 7 GPM	12 - 12 GPM
4 - 4 GPM	8 - 8 GPM	
6 - 6 GPM	10 - 10 GPM	

11 RELIEF VALVE SETTING
 (MODELS WITH FLOW CONTROL)

C - 750 PSI	G - 1750 PSI
D - 1000 PSI	H - 2000 PSI
E - 1250 PSI	J - 2250 PSI
F - 1500 PSI	K - 2500 PSI

**20V Pump only (not for 12 & 14 ring sizes).

12 DESIGN

13 ROTATION
 (VIEWED FROM SHAFT END)

L - LEFT HAND (CCW ROTATION)
 OMITTED - RIGHT HAND ROTATION

14 MOUNTING

282 - SAE 2-BOLT MOUNTING
 283 - FOOT MOUNTING

MODEL	COVER TYPE	COVER S/A
252*VQ*A/F*-***20	4-BOLT	250824
252*VQ*C/E*-***20	STRAIGHT THREAD	252504
252*VQ*C/E*-**2*20	FLOW CONTROL	257560
252*VQ*C/E*-**4*20	FLOW CONTROL	257561
252*VQ*C/E*-**6*20	FLOW CONTROL	257562
252*VQ*C/E*-**7*20	FLOW CONTROL	257563
252*VQ*C/E*-**8*20	FLOW CONTROL	257564
252*VQ*C/E*-**10*20	FLOW CONTROL	257565
252*VQ*C/E*-**12*20	FLOW CONTROL	257999

MODEL	RELIEF VALVE SETTING (PSI)	RELIEF VALVE S/A
252*VQ***-***C20	750	232794
252*VQ***-***D20	1000	232795
252*VQ***-***E20	1250	232796
252*VQ***-***F20	1500	232797
252*VQ***-***G20	1750	232798
252*VQ***-***H20	2000	232799
252*VQ***-***J20	2250	233019
252*VQ***-***K20	2500	233020

**20VQ MODELS ONLY NOT FOR 12 & 14 RING SIZES.

□ WIPE O. D. OF SEAL WITH OIL BEFORE PRESSING INTO BODY. APPLY GREASE TO SEAL I. D. BEFORE INSTALLATION OF SHAFT.

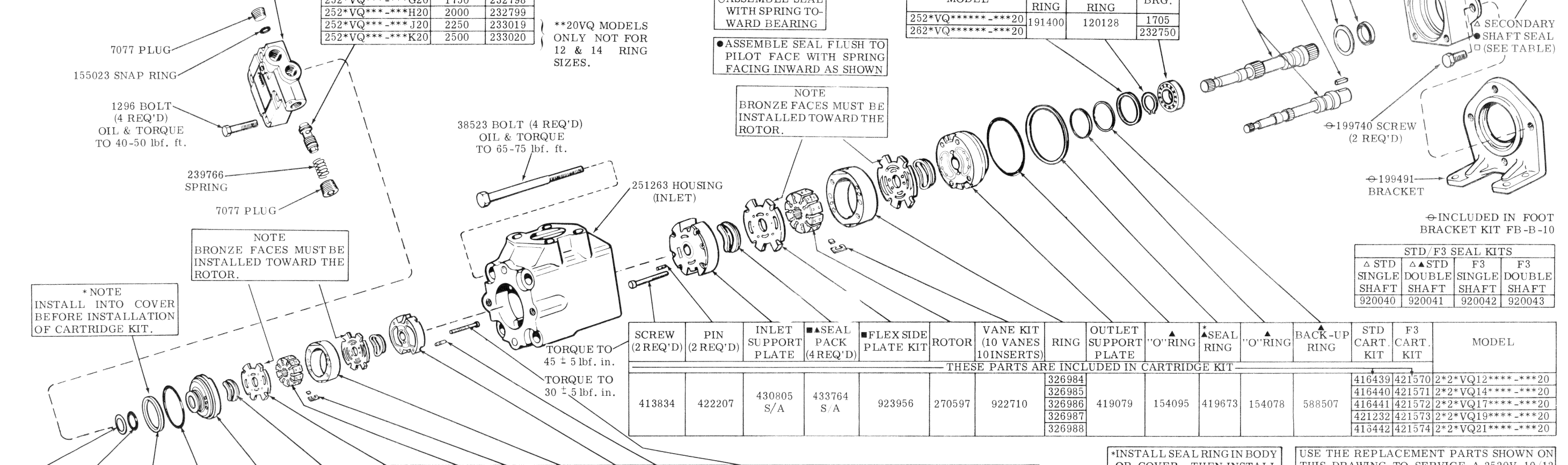
○ ASSEMBLE SEAL WITH SPRING TOWARD BEARING
● ASSEMBLE SEAL FLUSH TO PILOT FACE WITH SPRING FACING INWARD AS SHOWN

NOTE BRONZE FACES MUST BE INSTALLED TOWARD THE ROTOR.

MODEL	LOCK RING	RETAINING RING	BRG.
252*VQ*****-***20	191400	120128	1705
262*VQ*****-***20			232750

SHAFT NO.	TYPE	SECONDARY SHAFT SEAL	2*20 SHAFT	2*21 SHAFT	KEY
1	STR. KEYED		254964	252737	9955
11	SPLINE		254848	252736	
123	SPLINE	429283	413433		

MODEL	BODY	TYPE
2*2*VQ*A/E*-**20	942353	4-BOLT
2*2*VQ*C/F*-**20	942378	STR THD



STD/F3 SEAL KITS			
△ STD SINGLE SHAFT	△▲ STD DOUBLE SHAFT	F3 SINGLE SHAFT	F3 DOUBLE SHAFT
920040	920041	920042	920043

SCREW (2 REQ'D)	PIN (2 REQ'D)	INLET SUPPORT PLATE	▲ SEAL PACK (4 REQ'D)	■ FLEX SIDE PLATE KIT	ROTOR	VANE KIT (10 VANES 10 INSERTS)	RING	OUTLET SUPPORT PLATE	"O" RING	* SEAL RING	"O" RING	BACK-UP RING	STD CART. KIT	F3 CART. KIT	MODEL
413834	422207	430805 S/A	433764 S/A	923956	270597	922710	326984 326985 326986 326987 326988	419079	154095	419673	154078	588507	416439 416440 416441 421232 416442	421570 421571 421572 421573 421574	2*2*VQ12***-***20 2*2*VQ14***-***20 2*2*VQ17***-***20 2*2*VQ19***-***20 2*2*VQ21***-***20

BACK-UP RING	"O" RING	* SEAL RING	"O" RING	OUTLET SUPPORT PLATE	■ SEAL PACK (4 REQ'D)	■ FLEX SIDE PLATE KIT	ROTOR	VANE KIT (10 VANES & INSERTS)	RING	INLET SUPPORT PLATE	PIN (2 REQ'D)	SCREW (2 REQ'D)	STD CARTRIDGE KIT	F3 CARTRIDGE KIT	MODEL
THESE ARE INCLUDED IN CARTRIDGE KIT															
588506	154026	419672	154090	419500	433762 S/A	923955	402690	922741	333624	419502	422206	416426	417053	421588	2*20*** 5** -***20
									374799				417054	421589	2*20*** 8** -***20
									333626				423096	423097	2*20*** 9** -***20
									353901				416427	421590	2*20*** 11* -***20
									353902				416428	421591	2*20*** 12* -***20
588506	154026	419672	154090	419500	433762 S/A	923955	428698	922741	333624	419502	422206	416426	428700	428707	2*21*** 5** -***20
									374799				428701	428708	2*21*** 8** -***20
									333626				428702	428709	2*21*** 9** -***20
									353901				428703	428710	2*21*** 11** -***20
									353902				428704	428711	2*21*** 12** -***20
	428705	428712	2*21*** 14* -***20												

*INSTALL SEAL RING IN BODY OR COVER, THEN INSTALL CARTRIDGE KIT.

■ NOTE: FLEX SIDEPLATE KITS INCLUDE FOUR (4) F3 SEAL PACKS

USE THE REPLACEMENT PARTS SHOWN ON THIS DRAWING TO SERVICE A 2520V-10/12 UNIT. CARTRIDGES MUST BE REPLACED AS A KIT. INDIVIDUAL PARTS OF A CARTRIDGE ARE NOT INTERCHANGEABLE.

VQ REPLACEMENT CARTRIDGES FOR THE 2521 SERIES.

