



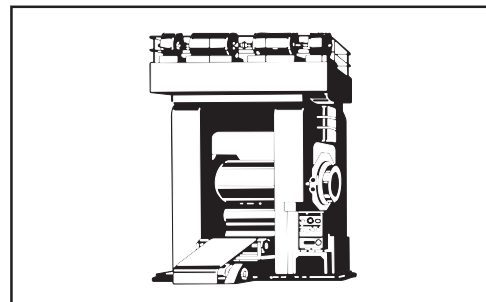
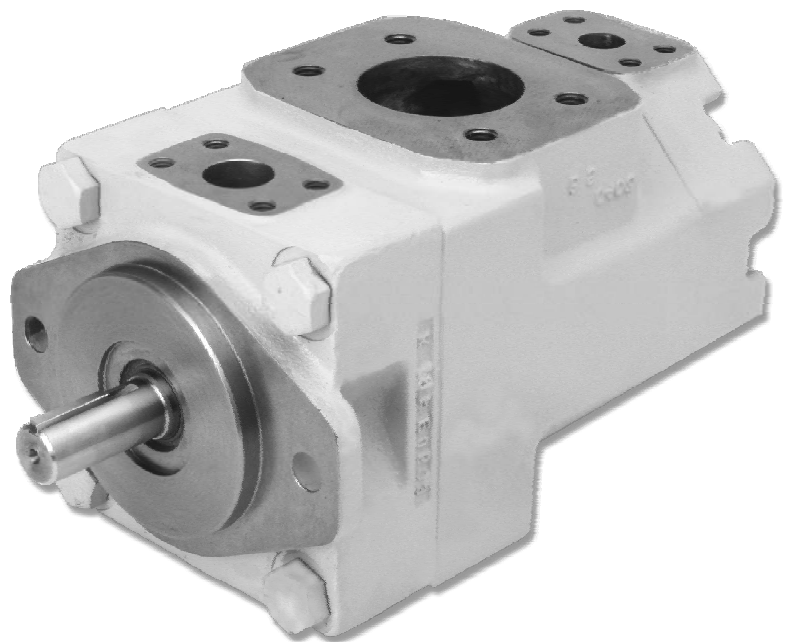
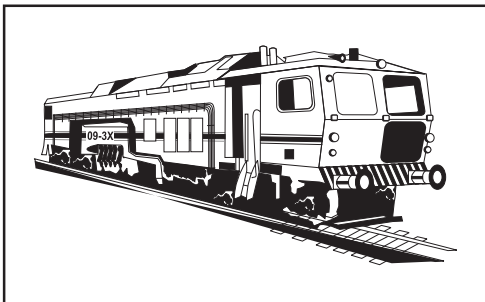
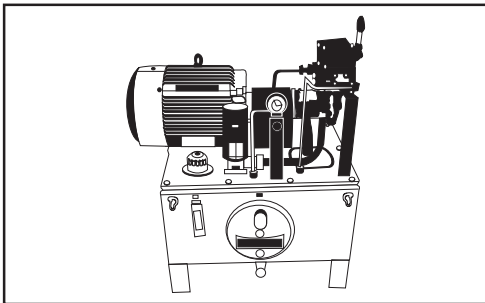
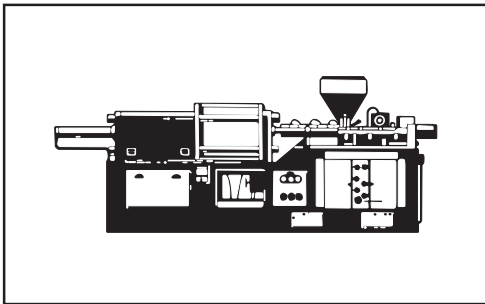
VELJAN

Service Information

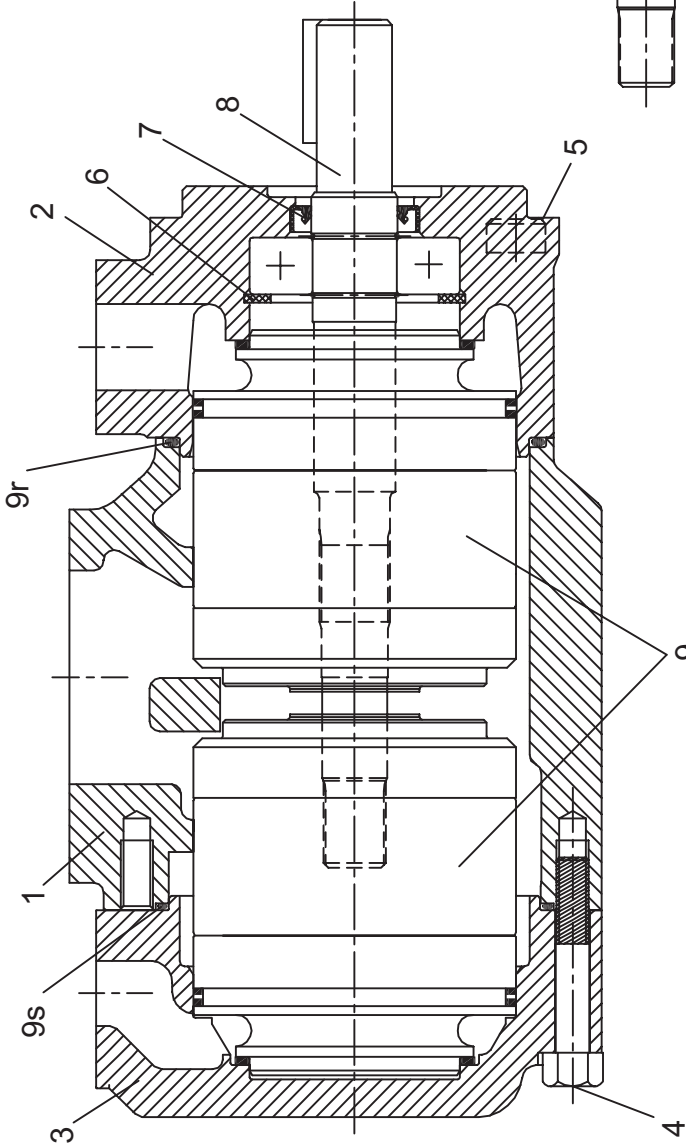
SS4 - 00120

VT7QCC

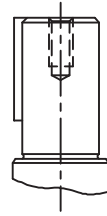
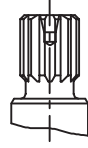
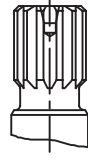
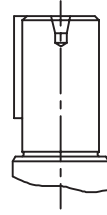
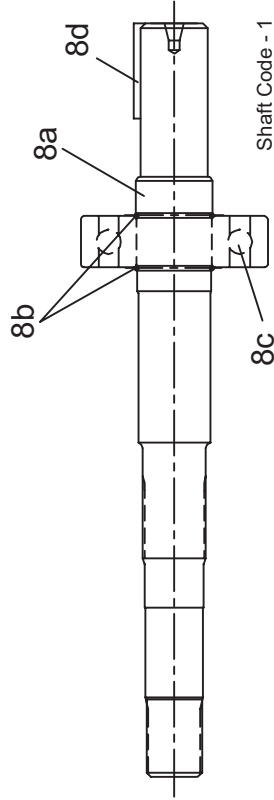
Double vane pump



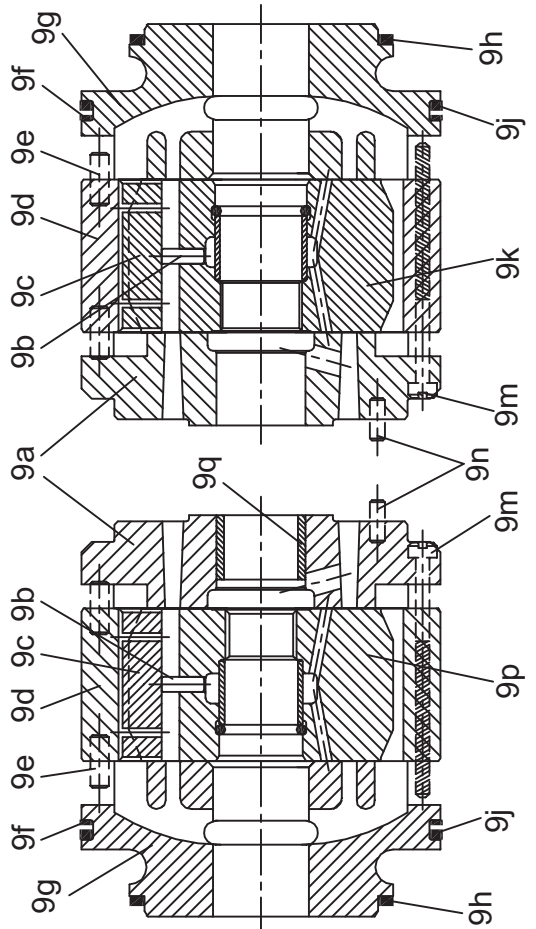
Bold printed are recommended repair kits and assemblies



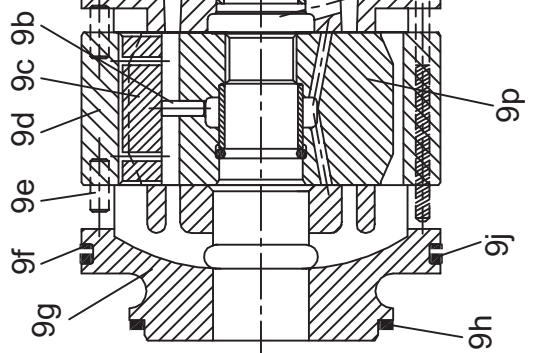
Mounting torque	
Item pos.	4 5
N-m	80 187
ft-lbs	59 138



P1 ITEM 9r INCLUDED



P2 ITEM 9s INCLUDED



Item pos.	Description	Part No.			Qty
		VT7QCC - _ 0** (Standard)	VT7QCC - _ 0** (Bi-dir plates)	VT7QCC - _ Y**	
1	Housing (UNC) (S = 2½")	C-034-03208	C-034-03208	C-034-03208	1
	Housing (Metric) (S = 2½")	C-034-03210	C-034-03210	C-034-03210	
	Housing (UNC) (S = 3")	C-034-03209	C-034-03209	C-034-03209	
	Housing (Metric) (S = 3")	C-034-03211	C-034-03211	C-034-03211	
2	Mounting flange (UNC) (for Shafts 1-3-5) (VT7QCC1)	C-034-03207	C-034-03207	C-034-03207	1
	Mounting flange (Metric) (for Shafts 1-3-5) (VT7QCC1)	C-034-03206	C-034-03206	C-034-03206	
	Mounting flange (UNC) (for Shaft 2-B) (VT7QCC1)	C-034-03228	C-034-03228	C-034-03228	
	Mounting flange (Metric) (for Shaft 2-B) (VT7QCC1)	C-034-03229	C-034-03229	C-034-03229	
	Mounting flange (UNC) (for Shafts 1-3-5) (VT7QCC2)	C-034-03235	C-034-03235	C-034-03235	
	Mounting flange (Metric) (for Shafts 1-3-5) (VT7QCC2)	C-034-03227	C-034-03227	C-034-03227	
	Mounting flange (UNC) (for Shaft 2-B) (VT7QCC2)	C-034-03230	C-034-03230	C-034-03230	
	Mounting flange (Metric) (for Shaft 2-B) (VT7QCC2)	C-034-03231	C-034-03231	C-034-03231	
3	End cap (UNC) (P2 = ¾")	C-034-03212	C-034-03212	C-034-03212	1
	End cap (Metric) (P2 = ¾")	C-034-03214	C-034-03214	C-034-03214	
	End cap (UNC) (P2 = 1")	C-034-03213	C-034-03213	C-034-03213	
	End cap (Metric) (P2 = 1")	C-034-03215	C-034-03215	C-034-03215	
4	Mounting Screw	V306-40111	V306-40111	V306-40111	7
5	Mounting Screw	V306-40156	V306-40156	V306-40156	4
6	Retaining ring	V356-30244	V356-30244	V356-30244	1
7	Shaft seal (S1-0.7 bar) (for Shafts 1-3-5)	V620-82012	V620-82012	V620-82012	1
	Shaft seal (S4-S5-7 bar) (for Shafts 1-3-5)	V620-82068	V620-82068	V620-82068	
	Shaft seal (S1-0.7 bar) (for Shaft 2-B)	V620-82046	V620-82046	V620-82046	
	Shaft seal (S4-7 bar) (for Shaft 2-B)	V620-82046-4	V620-82046-4	V620-82046-4	
	Shaft seal (S5-7 bar) (for Shaft 2-B)	V620-82046-5	V620-82046-5	V620-82046-5	
8	Shaft and bearing ass'y (Code-1)	VS24-10346	VS24-10346	VS24-10346	1
	Shaft and bearing ass'y (Code-2)	VS24-26208	VS24-26208	VS24-26208	
	Shaft and bearing ass'y (Code-3)	VS24-10348	VS24-10348	VS24-10348	
	Shaft and bearing ass'y (Code-5)	VS24-10347	VS24-10347	VS24-10347	
	Shaft and bearing ass'y (Code-B)	C-S14-72159	C-S14-72159	C-S14-72159	
8a	Shaft (Keyed) (Code-1)	V034-59110	V034-59110	V034-59110	1
	Shaft (Keyed) (Code-2)	H-034-66576	H-034-66576	H-034-66576	
	Shaft (Splined) (Code-3)	V034-59108	V034-59108	V034-59108	
	Shaft (Splined) (Code-5)	V034-59109	V034-59109	V034-59109	
	Shaft (Splined) (Code-B)	C-034-03188	C-034-03188	C-034-03188	
8b	Round section ring (1-3-5)	V034-70777	V034-70777	V034-70777	2
	Round section ring (2-B)	V034-70777	V034-70777	V034-70777	1
8c	Ball bearing	V230-82054	V230-82054	V230-82054	1
8d	Key (Code -1)	V034-49622	V034-49622	V034-49622	1
	Key (Code -2)	V034-48690	V034-48690	V034-48690	
	Key (Code -B)	V034-49676	V034-49676	V034-49676	
9	Cartridge assembly *03 C.W. (P1)	C-S14-71704	C-S14-72078	C-S14-71900	1
	Cartridge assembly *03 C.C.W. (P1)	C-S14-71705	C-S14-72079	C-S14-71901	
	Cartridge assembly *05 C.W. (P1)	C-S14-71706	C-S14-72080	C-S14-71902	
	Cartridge assembly *05 C.C.W. (P1)	C-S14-71707	C-S14-72081	C-S14-71903	
	Cartridge assembly *06 C.W. (P1)	C-S14-71708	C-S14-72082	C-S14-71904	
	Cartridge assembly *06 C.C.W. (P1)	C-S14-71709	C-S14-72083	C-S14-71905	
	Cartridge assembly *08 C.W. (P1)	C-S14-71710	C-S14-72084	C-S14-71906	
	Cartridge assembly *08 C.C.W. (P1)	C-S14-71711	C-S14-72085	C-S14-71907	
	Cartridge assembly *10 C.W. (P1)	C-S14-71712	C-S14-72086	C-S14-71908	
	Cartridge assembly *10 C.C.W. (P1)	C-S14-71713	C-S14-72087	C-S14-71909	
	Cartridge assembly *12 C.W. (P1)	C-S14-71714	C-S14-72088	C-S14-71910	
	Cartridge assembly *12 C.C.W. (P1)	C-S14-71715	C-S14-72089	C-S14-71911	
	Cartridge assembly *14 C.W. (P1)	C-S14-71716	C-S14-72090	C-S14-71912	
	Cartridge assembly *14 C.C.W. (P1)	C-S14-71717	C-S14-72091	C-S14-71913	

Item pos.	Description	Part No.			Qty
		VT7QCC - _ 0** (Standard)	VT7QCC - _ 0** (Bi-dir plates)	VT7QCC - _ Y**	
	Cartridge assembly *15 C.W.(P1)	C-S14-71756	C-S14-72092	C-S14-71926	
	Cartridge assembly *15 C.C.W. (P1)	C-S14-71757	C-S14-72093	C-S14-71927	
	Cartridge assembly *17 C.W.(P1)	C-S14-71718	C-S14-72094	C-S14-71914	
	Cartridge assembly *17 C.C.W. (P1)	C-S14-71719	C-S14-72095	C-S14-71915	
	Cartridge assembly *20 C.W. (P1)	C-S14-71720	C-S14-72096	C-S14-71916	
	Cartridge assembly *20 C.C.W. (P1)	C-S14-71721	C-S14-72097	C-S14-71917	
	Cartridge assembly *22 C.W. (P1)	C-S14-71722	C-S14-72098	C-S14-71918	
	Cartridge assembly *22 C.C.W. (P1)	C-S14-71723	C-S14-72099	C-S14-71919	
	Cartridge assembly *25 C.W. (P1)	C-S14-71724	C-S14-72100	C-S14-71920	
	Cartridge assembly *25 C.C.W. (P1)	C-S14-71725	C-S14-72101	C-S14-71921	
	Cartridge assembly *28 C.W. (P1)	C-S14-71726	C-S14-72102	C-S14-71922	
	Cartridge assembly *28 C.C.W. (P1)	C-S14-71727	C-S14-72103	C-S14-71923	
	Cartridge assembly *31 C.W. (P1)	C-S14-71728	C-S14-72104	C-S14-71924	
	Cartridge assembly *31 C.C.W. (P1)	C-S14-71729	C-S14-72105	C-S14-71925	
	Cartridge assembly *03 C.W. (P2)	C-S14-71730	C-S14-72106	C-S14-71928	
	Cartridge assembly *03 C.C.W. (P2)	C-S14-71731	C-S14-72107	C-S14-71929	
	Cartridge assembly *05 C.W. (P2)	C-S14-71732	C-S14-72108	C-S14-71930	
	Cartridge assembly *05 C.C.W. (P2)	C-S14-71733	C-S14-72109	C-S14-71931	
	Cartridge assembly *06 C.W. (P2)	C-S14-71734	C-S14-72110	C-S14-71932	
	Cartridge assembly *06 C.C.W. (P2)	C-S14-71735	C-S14-72111	C-S14-71933	
	Cartridge assembly *08 C.W. (P2)	C-S14-71736	C-S14-72112	C-S14-71934	
	Cartridge assembly *08 C.C.W. (P2)	C-S14-71737	C-S14-72113	C-S14-71935	
	Cartridge assembly *10 C.W. (P2)	C-S14-71738	C-S14-72114	C-S14-71936	
	Cartridge assembly *10 C.C.W. (P2)	C-S14-71739	C-S14-72115	C-S14-71937	
	Cartridge assembly *12 C.W. (P2)	C-S14-71740	C-S14-72116	C-S14-71938	
	Cartridge assembly *12 C.C.W. (P2)	C-S14-71741	C-S14-72117	C-S14-71939	
	Cartridge assembly *14 C.W. (P2)	C-S14-71742	C-S14-72118	C-S14-71940	
	Cartridge assembly *14 C.C.W. (P2)	C-S14-71743	C-S14-72119	C-S14-71941	
	Cartridge assembly *15 C.W. (P2)	C-S14-71758	C-S14-72120	C-S14-71954	
	Cartridge assembly *15 C.C.W. (P2)	C-S14-71759	C-S14-72121	C-S14-71955	
	Cartridge assembly *17 C.W. (P2)	C-S14-71744	C-S14-72122	C-S14-71942	
	Cartridge assembly *17 C.C.W. (P2)	C-S14-71745	C-S14-72123	C-S14-71943	
	Cartridge assembly *20 C.W. (P2)	C-S14-71746	C-S14-72124	C-S14-71944	
	Cartridge assembly *20 C.C.W. (P2)	C-S14-71747	C-S14-72125	C-S14-71945	
	Cartridge assembly *22 C.W. (P2)	C-S14-71748	C-S14-72126	C-S14-71946	
	Cartridge assembly *22 C.C.W. (P2)	C-S14-71749	C-S14-72127	C-S14-71947	
	Cartridge assembly *25 C.W. (P2)	C-S14-71750	C-S14-72128	C-S14-71948	
	Cartridge assembly *25 C.C.W. (P2)	C-S14-71751	C-S14-72129	C-S14-71949	
	Cartridge assembly *28 C.W. (P2)	C-S14-71752	C-S14-72130	C-S14-71950	
	Cartridge assembly *28 C.C.W. (P2)	C-S14-71753	C-S14-72131	C-S14-71951	
	Cartridge assembly *31 C.W. (P2)	C-S14-71754	C-S14-72132	C-S14-71952	
	Cartridge assembly *31 C.C.W. (P2)	C-S14-71755	C-S14-72133	C-S14-71953	
9a	Port plate - rear C.W. (P1)	C-034-03155			1
	Port plate - rear C.C.W.(P1)	C-034-03156			
	Port plate - rear C.W. (P2)	C-034-03155			
	Port plate - rear C.C.W.(P2)	C-034-03156			
	Port plate - rear Bi-dir		C-034-03181	C-034-03181	2
9b	Pin vane holdout	V034-59098	V034-59098	V034-59098	24
9c	Vane	V034-59099	V034-59099	V034-66716	24
9d	Cam ring - 003	V034-59050	V034-59050	V034-59050	2
	Cam ring - 005	V034-59051	V034-59051	V034-59051	
	Cam ring - 006	V034-59052	V034-59052	V034-59052	
	Cam ring - 008	V034-59053	V034-59053	V034-59053	
	Cam ring - 010	V034-59054	V034-59054	V034-59054	
	Cam ring - 012	V034-66595	V034-66595	V034-66595	
	Cam ring - 014	V034-59206	V034-59206	V034-59206	
	Cam ring - 015	C-034-66893	C-034-66893	C-034-66893	
	Cam ring - 017	V034-59207	V034-59207	V034-59207	
	Cam ring - 020	V034-66607	V034-66607	V034-66607	

Item pos.	Description	Part No.			Qty
		VT7QCC - _ 0** (Standard)	VT7QCC - _ 0** (Bi-dir plates)	VT7QCC - _ Y**	
	Cam ring - 022	V034-59208	V034-59208	V034-59208	
	Cam ring - 025	V034-59209	V034-59209	V034-59209	
	Cam ring - 028	V034-59245	V034-59245	V034-59245	
	Cam ring - 031	V034-66843	V034-66843	V034-66843	
9e	Dowel pin	V324-21208	V324-21208	V324-21208	4
9f	Back-up ring	V618-15016	V618-15016	V618-15016	2
9g	Port plate - pressure C.W. (P1)	C-SK-00478			1
	Port plate - pressure C.C.W. (P1)	C-SK-00479			
	Port plate - pressure C.W. (P2)	C-SK-00478			
	Port plate - pressure C.C.W. (P2)	C-SK-00479			
	Port plate - pressure Bi-dir		C-034-03182	C-034-03182	
9h	Sq. section seal	V691-10229	V691-10229	V691-10229	2
9j	Sq. section seal	V691-10238	V691-10238	V691-10238	2
9k	Rotor-insert ass'y	C-S14-71703	C-S14-71703	C-S14-71703	1
9m	Screw	V317-06266	V317-06266	V317-06266	4
9n	Dowel pin	V323-82010	V323-82010	V323-82010	2
9p	Rotor-insert ass'y	C-S14-66875	C-S14-66875	C-S14-66875	1
9q	Bearing bush	V034-59412	V034-59412	V034-59412	1
9r	O' ring	V671-00244	V671-00244	V671-00244	1
9s	Sq. section seal	V671-10156	V671-10156	V671-10156	1
9s,9r	Seal kit (S1 - 0.7 bar) (for Shafts 1-3-5)	VS24-10352	VS24-10352	VS24-10352	1
9j,9h	Seal kit (S4 - 7 bar) (for Shafts 1-3-5)	VS24-10352-4	VS24-10352-4	VS24-10352-4	
9f,7	Seal kit (S5 - 7 bar) (for Shafts 1-3-5)	VS24-10352-5	VS24-10352-5	VS24-10352-5	
	Seal kit (S1 - 0.7 bar) (for Shaft 2-B)	VS14-97724	VS14-97724	VS14-97724	
	Seal kit (S4 - 7 bar) (for Shaft 2-B)	VS14-97724-4	VS14-97724-4	VS14-97724-4	
	Seal kit (S5 - 7 bar) (for Shaft 2-B)	VS14-97724-5	VS14-97724-5	VS14-97724-5	
9a,9r	Port plate - rear ass'y C.W. (P1)	C-S14-72151			1
	Port plate - rear ass'y C.C.W. (P1)	C-S14-72152			
	Port plate - rear ass'y Bi-dir (P1)		C-S14-72153	C-S14-72153	
9a,9c	Port plate - rear and bush ass'y C.W. (P2)	C-S14-72154			1
9n	Port plate - rear and bush ass'y C.C.W. (P2)	C-S14-72155			
	Port plate - rear and bush ass'y Bi-dir (P2)		C-S14-72156	C-S14-72156	

*0 - Standard
B - Bi-directional plates
Y - Thinner Vane with Bi-directional plates

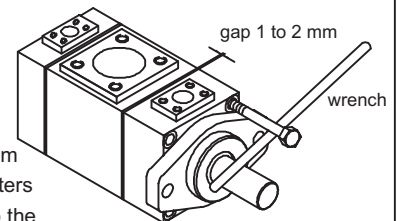
To change porting position, follow the steps below:

1. Secure pump and remove 4 bolts from mounting flange. Move the mounting flange 1 to 2 mm away from housing.

Insert one bolt halfway to mounting flange. Install a wrench between the shaft and bolt and turn in the desired way, so that the required position of P1 port with respect to Suction is obtained. Reinstall the bolts and tighten to corresponding mounting torque as provided on page 2.

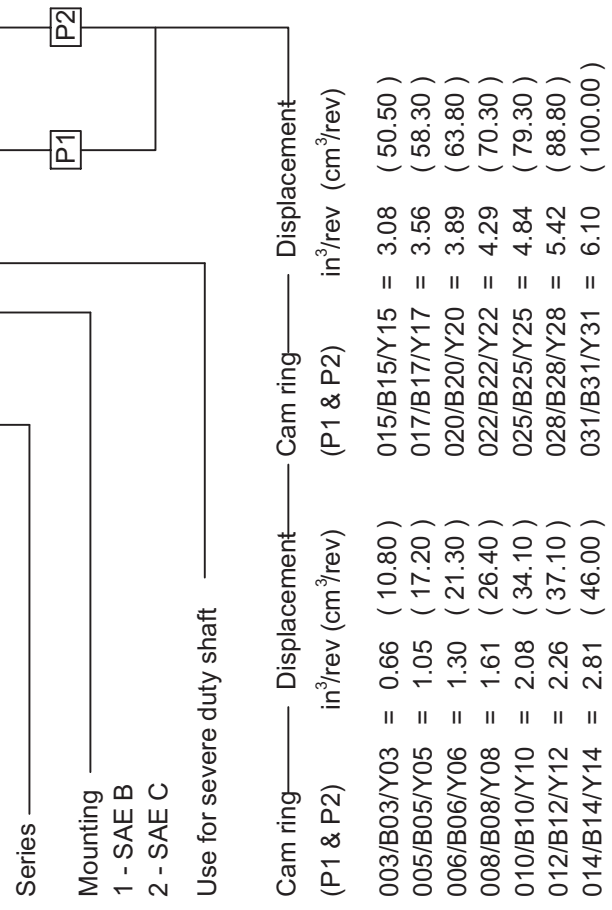
2. Follow similar procedure for changing P2 position. Use wrench between two bolts placed diagonally opposite.

Instruction : Do not remove mounting flange/end cap completely from the housing but only just 1 to 2 mm to avoid the cartridge pin to move out from the housing dowel pin hole. Make sure no piece of paint enters into the gap to avoid leakage. If it is difficult to turn mounting flange/end cap put some hydraulic oil in to the pressure port to lubricate the pressure port seals.



MODEL CODE

VT7QCC 1 W - *22 - *10 - 1 R 00 - D 1 01 - *



Port connection variables
SAE 4 bolt flange (J518c)

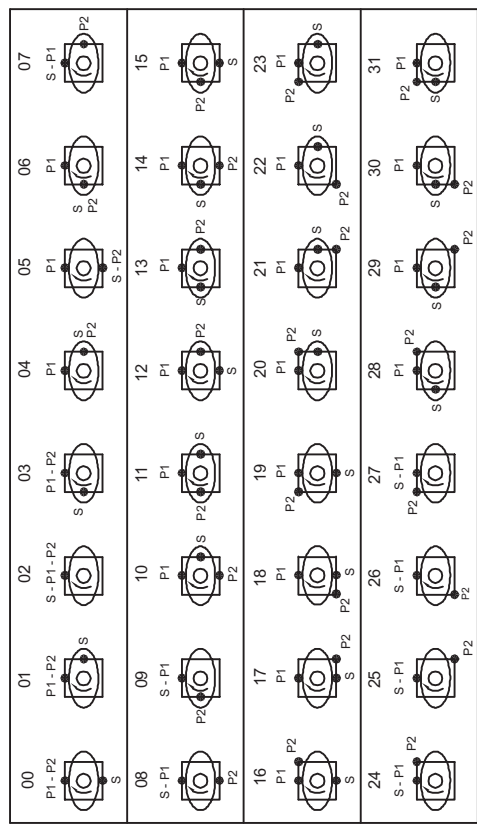
CODE	UNC	METRIC	P1	P2	S
00	OM	1"	1"	3"	3"
01	W0	1"	3/4"	3"	3"
10	1M	1"	1"	2 1/2"	2 1/2"
11	W1	1"	3/4"	2 1/2"	2 1/2"

Seal class

- 1 = S1 - BUNAN
- 4 = S4 - EPDM
- 5 = S5 - VITON

Design letter

Porting combination : (00 = Standard)



Direction of rotation

- R = Clockwise
- L = Counter - clockwise

Select 'B**' for Bi-dir plates
 Select 'Y**' for Thinner vane with Bi-dir plates for cold start.

Type of Shaft

- 1 = Keyed (no SAE)
- 3 = Splined (SAE-BB)
- 5 = Splined (SAE-B)

Severe duty

- 2 = keyed (SAE BB)
- B = Keyed

Notes : To change port position see previous page