

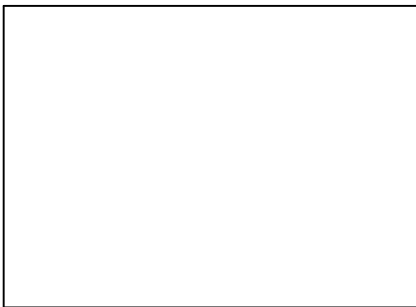


VELJAN

Service Information SS4-00150

VT7QEC

Double vane pump

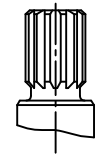
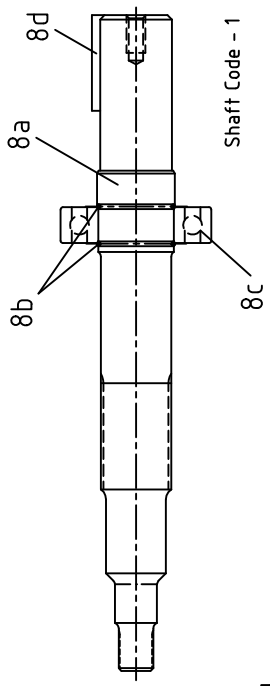
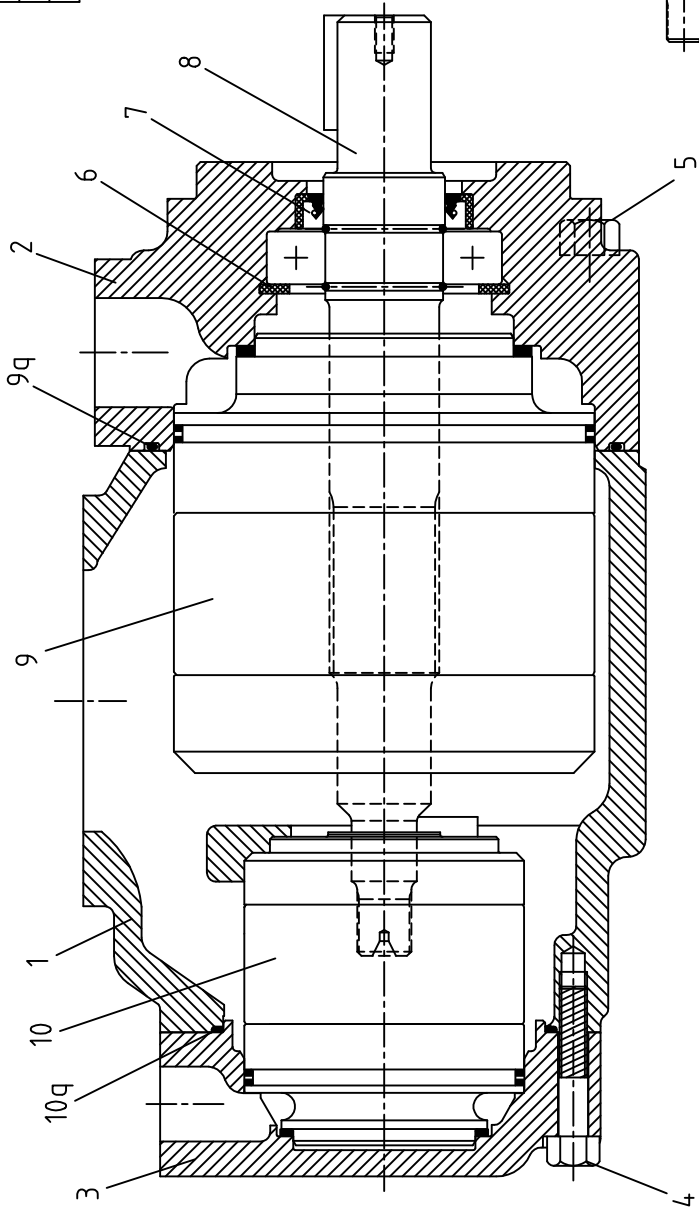


PHOTO

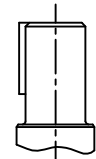
Bold printed are recommended repair kits and assemblies

Mounting torque

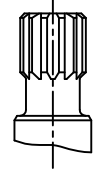
Item pos.	4	5
N-m	68	187
ft-lbs	50	138



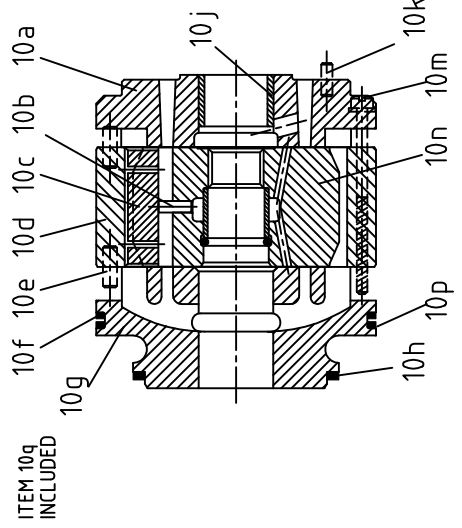
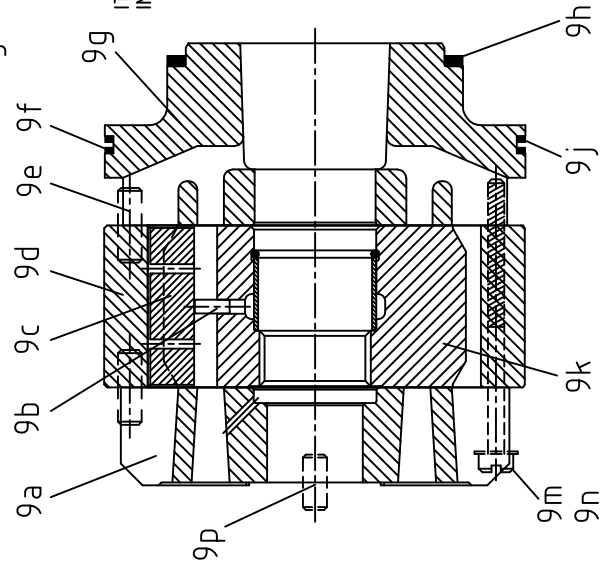
Shaft Code - 3



Shaft Code - 2



Shaft Code - 4



Item pos.	Description	Part No.		Qty
		VT7QEC (Standard)	VT7QEC (Bi-dir plates) (only for P2)	
1	Housing (UNC)	V034-70263	V034-70263	1
	Housing (Metric)	C-034-03069	C-034-03069	
2	Mounting flange (UNC)	V034-70265	V034-70265	1
	Mounting flange (Metric)	C-034-03070	C-034-03070	
3	End cap (UNC)	V034-48579	V034-48579	1
	End cap (Metric)	H-034-71327	H-034-71327	
	End cap (UNC) (IM1099)	C-034-03595	C-034-03595	
	End cap (Metric) (IM1099)	C-034-03596	C-034-03596	
4	Mounting Screw	V306-40111	V306-40111	7
5	Mounting Screw	V306-40216	V306-40216	4
6	Retaining ring	V356-30315	V356-30315	1
7	Shaft seal (S1-0.7 bar)	V620-82064	V620-82064	1
	Shaft seal (S4-S5-7 bar)	V620-82072	V620-82072	
8	Shaft and bearing ass'y (Code-1)	VS14-28178	VS14-28178	1
	Shaft and bearing ass'y (Code-2)	VS24-49213	VS24-49213	
	Shaft and bearing ass'y (Code-3)	VS14-28176	VS14-28176	
	Shaft and bearing ass'y (Code-4)	VS14-28177	VS14-28177	
8a	Shaft (Keyed) (Code-1)	V034-71408	V034-71408	1
	Shaft (Keyed) (Code-2)	V034-66891	V034-66891	
	Shaft (Splined) (Code-3)	V034-71315	V034-71315	
	Shaft (splined) (Code-4)	V034-71409	V034-71409	
8b	Round section ring	V034-70866	V034-70866	2
8c	Ball bearing	V230-03208	V230-03208	1
8d	Key (Code -1)	V034-70330	V034-70330	1
	Key (Code -2)	V034-49676	V034-49676	
9	Cartridge assembly 042 C.W. (P1)	C-S14-72653		1
	Cartridge assembly 042 C.C.W. (P1)	C-S14-72654		
	Cartridge assembly 045 C.W. (P1)	C-S14-72655		
	Cartridge assembly 045 C.C.W. (P1)	C-S14-72656		
	Cartridge assembly 050 C.W. (P1)	C-S14-72657		
	Cartridge assembly 050 C.C.W. (P1)	C-S14-72658		
	Cartridge assembly 052 C.W. (P1)	C-S14-72659		
	Cartridge assembly 052 C.C.W. (P1)	C-S14-72660		
	Cartridge assembly 057 C.W. (P1)	C-S14-72661		
	Cartridge assembly 057 C.C.W. (P1)	C-S14-72662		
	Cartridge assembly 062 C.W. (P1)	C-S14-72663		
	Cartridge assembly 062 C.C.W. (P1)	C-S14-72664		
	Cartridge assembly 066 C.W. (P1)	C-S14-72665		
	Cartridge assembly 066 C.C.W. (P1)	C-S14-72666		
	Cartridge assembly 072 C.W. (P1)	C-S14-72667		
	Cartridge assembly 072 C.C.W. (P1)	C-S14-72668		
Cartridge assembly 085 C.W. (P1)	C-S14-72669			
Cartridge assembly 085 C.C.W. (P1)	C-S14-72670			
9a	Port plate - rear C.W.	H-034-67407		1
	Port plate - rear C.C.W.	H-034-67435		
9b	Pin vane holdout	V034-59161	V034-59161	12
9c	Vane	V034-59162	V034-59162	12
9d	Cam ring - 042	H-034-67503	H-034-67503	1
	Cam ring - 045	H-034-67504	H-034-67504	
	Cam ring - 050	H-034-67505	H-034-67505	
	Cam ring - 052	H-034-67506	H-034-67506	
	Cam ring - 057	H-034-67507	H-034-67507	
	Cam ring - 062	H-034-67508	H-034-67508	
	Cam ring - 066	H-034-67509	H-034-67509	
	Cam ring - 072	H-034-67447	H-034-67447	
Cam ring - 085	H-034-67455	H-034-67455		

Item pos.	Description	Part No.			Qty
		VT7QEC (Standard)	VT7QEC (Bi-dir plates) (only for P2)	VT7QEC- _ Y**	
9e	Dowel pin	V324-22016	V324-22016		2
9f	Back-up ring	V618-15018	V618-15018		1
9g	Port plate - pressure C.W.	H-034-67408			1
	Port plate - pressure C.C.W.	H-034-67434			
9h	Sq. section seal	V691-10237	V691-10237		1
9j	Sq. section seal	V691-10253	V691-10253		1
9k	Rotor-insert ass'y	VS24-10185	VS24-10185		1
9m	Screw	V310-10340	V310-10340		2
9n	Lockwasher internal tooth	V348-10010	V348-10010		2
9p	Dowel pin	V323-82014	V323-82014		1
9q	Sq. section seal	V671-10259	V671-10259		1
10	Cartridge assembly *03 C.W. (P2)	C-S14-71844	C-S14-72595	C-S14-72621	1
	Cartridge assembly *03 C.C.W. (P2)	C-S14-71845	C-S14-72596	C-S14-72622	
	Cartridge assembly *05 C.W. (P2)	C-S14-71846	C-S14-72597	C-S14-72623	
	Cartridge assembly *05 C.C.W. (P2)	C-S14-71847	C-S14-72598	C-S14-72624	
	Cartridge assembly *06 C.W. (P2)	C-S14-71848	C-S14-72599	C-S14-72625	
	Cartridge assembly *06 C.C.W. (P2)	C-S14-71849	C-S14-72600	C-S14-72626	
	Cartridge assembly *08 C.W. (P2)	C-S14-71850	C-S14-72647	C-S14-72649	
	Cartridge assembly *08 C.C.W. (P2)	C-S14-71851	C-S14-72648	C-S14-72650	
	Cartridge assembly *10 C.W. (P2)	C-S14-71852	C-S14-72601	C-S14-72627	
	Cartridge assembly *10 C.C.W. (P2)	C-S14-71853	C-S14-72602	C-S14-72628	
	Cartridge assembly *12 C.W. (P2)	C-S14-71854	C-S14-72603	C-S14-72629	
	Cartridge assembly *12 C.C.W. (P2)	C-S14-71855	C-S14-72604	C-S14-72630	
	Cartridge assembly *14 C.W. (P2)	C-S14-71856	C-S14-72605	C-S14-72631	
	Cartridge assembly *14 C.C.W. (P2)	C-S14-71857	C-S14-72606	C-S14-72632	
	Cartridge assembly *15 C.W. (P2)	C-S14-72651	C-S14-72607	C-S14-72633	
	Cartridge assembly *15 C.C.W. (P2)	C-S14-72652	C-S14-72608	C-S14-72634	
	Cartridge assembly *17 C.W. (P2)	C-S14-71858	C-S14-72609	C-S14-72635	
	Cartridge assembly *17 C.C.W. (P2)	C-S14-71859	C-S14-72610	C-S14-72636	
	Cartridge assembly *20 C.W. (P2)	C-S14-71860	C-S14-72611	C-S14-72637	
	Cartridge assembly *20 C.C.W. (P2)	C-S14-71861	C-S14-72612	C-S14-72638	
	Cartridge assembly *22 C.W. (P2)	C-S14-71862	C-S14-72613	C-S14-72639	
	Cartridge assembly *22 C.C.W. (P2)	C-S14-71863	C-S14-72614	C-S14-72640	
	Cartridge assembly *25 C.W. (P2)	C-S14-71864	C-S14-72615	C-S14-72641	
	Cartridge assembly *25 C.C.W. (P2)	C-S14-71865	C-S14-72616	C-S14-72642	
	Cartridge assembly *28 C.W. (P2)	C-S14-71866	C-S14-72617	C-S14-72643	
	Cartridge assembly *28 C.C.W. (P2)	C-S14-71867	C-S14-72618	C-S14-72644	
Cartridge assembly *31 C.W. (P2)	C-S14-71868	C-S14-72619	C-S14-72645		
Cartridge assembly *31 C.C.W. (P2)	C-S14-71869	C-S14-72620	C-S14-72646		
10a	Port plate - rear C.W.	C-034-03155			1
	Port plate - rear C.C.W.	C-034-03156			
	Port plate - rear Bi-dir		C-034-03181	C-034-03181	
10b	Pin vane holdout	V034-59098	V034-59098	V034-59098	12
10c	Vane	V034-59099	V034-59099	V034-66716	12
10d	Cam ring - 003	C-034-03381	C-034-03381	C-034-03381	1
	Cam ring - 005	C-034-03382	C-034-03382	C-034-03382	
	Cam ring - 006	C-034-03383	C-034-03383	C-034-03383	
	Cam ring - 008	C-034-03384	C-034-03384	C-034-03384	
	Cam ring - 010	C-034-03385	C-034-03385	C-034-03385	
	Cam ring - 012	C-034-03386	C-034-03386	C-034-03386	
	Cam ring - 014	C-034-03387	C-034-03387	C-034-03387	
	Cam ring - 015	C-034-03388	C-034-03388	C-034-03388	
	Cam ring - 017	C-034-03389	C-034-03389	C-034-03389	
	Cam ring - 020	C-034-03390	C-034-03390	C-034-03390	
	Cam ring - 022	C-034-03391	C-034-03391	C-034-03391	
	Cam ring - 025	C-034-03392	C-034-03392	C-034-03392	
	Cam ring - 028	C-034-03393	C-034-03393	C-034-03393	
	Cam ring - 031	C-034-03394	C-034-03394	C-034-03394	
10e	Dowel pin	V324-21208	V324-21208	V324-21208	2

Item pos.	Description	Part No.			Qty
		VT7QEC (Standard)	VT7QEC (Bi-dir plates) (only for P2)	VT7QEC- _ Y**	
10f	Back-up ring	V618-15016	V618-15016	V618-15016	1
10g	Port plate - pressure C.W.	C-SK-00478			1
	Port plate - pressure C.C.W.	C-SK-00479			
	Port plate - pressure		C-034-03182	C-034-03182	
10h	Sq. section seal	V691-10229	V691-10229	V691-10229	1
10j	Bush	V034-70868	V034-70868	V034-70868	1
10k	Dowel pin	V323-82010	V323-82010	V323-82010	1
10m	Screw	V317-06266	V317-06266	V317-06266	2
10n	Rotor-insert ass'y	C-S14-66875	C-S14-66875	C-S14-66875	1
10p	Sq. section seal	V691-10238	V691-10238	V691-10238	1
10q	Sq. section seal	V671-10156	V671-10156	V671-10156	1
7 9f,9h 9j,9q 10f,10h 10p,10q	Seal kit (S1 - 0,7 bar)	C-S14-72566	C-S14-72566	C-S14-72566	1
	Seal kit (S4 - 7 bar)	C-S14-72567	C-S14-72567	C-S14-72567	
	Seal kit (S5 - 7 bar)	C-S14-72568	C-S14-72568	C-S14-72568	
9a	Port plate - rear ass'y C.W. (P1)	C-S14-72564			1
	Port plate - rear ass'y C.C.W. (P1)	C-S14-72565			
10a 10j	Port plate - rear and bush ass'y C.W. (P2)	C-S14-72154			1
	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	

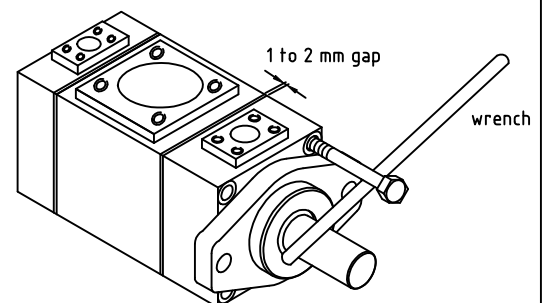
* 0 - Standard
 B - Bi-directional plates/Mobile
 Y - Thinner Vane with Bi-directional plates

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

VT7QEC * - 066 - *10 - 1 R 00 - A 1 - *

Series

Y = Metric port connection, omit for UNC

Cam ring — Displacement — Cam ring — Displacement
 in³/rev (cm³/rev) in³/rev (cm³/rev)

042 = 8.07 (132.30)	062 = 12.00 (196.70)
045 = 8.69 (142.40)	066 = 13.02 (213.30)
050 = 9.67 (158.50)	072 = 13.86 (227.10)
052 = 10.06 (164.80)	085 = 16.46 (269.80)
057 = 11.18 (183.20)	

Cam ring	Displacement	Cam ring	Displacement
in ³ /rev (cm ³ /rev)	in ³ /rev (cm ³ /rev)		
003/B03/Y03 = 0.66 (10.80)	015/B15/Y15 = 3.08 (50.50)		
005/B05/Y05 = 1.05 (17.20)	017/B17/Y17 = 3.56 (58.30)		
006/B06/Y06 = 1.30 (21.30)	020/B20/Y20 = 3.89 (63.80)		
008/B08/Y08 = 1.61 (26.40)	022/B22/Y22 = 4.29 (70.30)		
010/B10/Y10 = 2.08 (34.10)	025/B25/Y25 = 4.84 (79.30)		
012/B12/Y12 = 2.26 (37.10)	028/B28/Y28 = 5.42 (88.80)		
014/B14/Y14 = 2.81 (46.00)	031/B31/Y31 = 6.10 (100.00)		

(Select 'B**' for Mobile and Bi-directional)
 (Select 'Y **' for Bi-directional for cold start)

Type of Shaft

- 1 = Keyed (SAE -CC)
- 2 = Keyed (no SAE)
- 3 = Splined (SAE -C)
- 4 = Splined (SAE -CC)

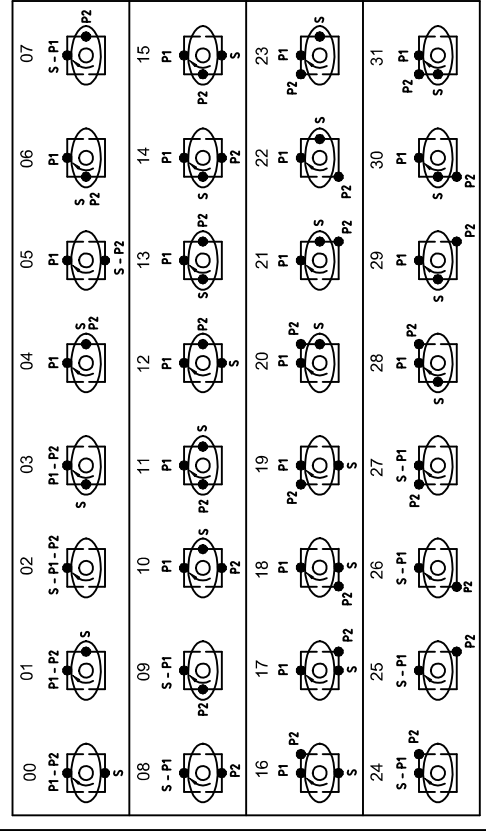
Modification

Seal class

- 1 = S1 - BUNA N
- 4 = S4 - EPDM
- 5 = S5 - VITON

Design letter

Porting combination : (00 = Standard)



Direction of rotation

- R = Clockwise
- L = Counter - clockwise

Print	_____
Replace	_____
Revision	_____

Printed in India