



Service Information SS4-00143

VT67EDB

Triple vane pump



PHOTO

Item pos.	Description	Part No.		Qty
		VT67EDB (Standard)	VT67EDB (Bi-dir plates) (Only for P2 & P3)	
1	Housing (Pedestal mounting)	V034-66782	V034-66782	1
	Housing (Face mounting)	V034-66796	V034-66796	
2	Mounting flange	V034-66781	V034-66781	1
3	Port block	V034-66783	V034-66783	1
4	End cap (Metric) (P3 = 3/4")	H-034-66765	H-034-66765	1
	End cap (Metric) (P3 = 1")	H-034-71327	H-034-71327	
5	Mounting Screw	V361-11264-3	V361-11264-3	7
6	Mounting Screw	C-314001616	C-314001616	4
7	Mounting Screw	V361-14464-3	V361-14464-3	4
8	Retaining ring	V356-30315	V356-30315	1
9	Shaft seal (S1-0.7 bar)	V620-00018-3	V620-00018-3	1
	Shaft seal (S4-S5-7 bar)	V620-00019-3	V620-00019-3	
10	Shaft and bearing assy (Code-1)	VS24-44516	VS24-44516	1
10a	Shaft (Keyed) (Code-1)	H-034-66785	H-034-66785	1
10b	Round section ring	V034-70866	V034-70866	1
10c	Ball bearing	V230-90018-3	V230-90018-3	1
10d	Key	H-034-66786	H-034-66786	1
11	Cartridge assembly 042 C.W. (P1)	VS24-49390	VS24-49390	1
	Cartridge assembly 042 C.C.W. (P1)	VS24-49391	VS24-49391	
	Cartridge assembly 045 C.W. (P1)	VS24-10205	VS24-10205	
	Cartridge assembly 045 C.C.W. (P1)	VS24-10206	VS24-10206	
	Cartridge assembly 050 C.W. (P1)	VS24-40769	VS24-40769	
	Cartridge assembly 050 C.C.W. (P1)	VS24-40770	VS24-40770	
	Cartridge assembly 052 C.W. (P1)	VS24-10207	VS24-10207	
	Cartridge assembly 052 C.C.W. (P1)	VS24-10208	VS24-10208	
	Cartridge assembly 057 C.W. (P1)	VS24-77059	VS24-77059	
	Cartridge assembly 057 C.C.W. (P1)	VS24-72446	VS24-72446	
	Cartridge assembly 062 C.W. (P1)	VS24-10209	VS24-10209	
	Cartridge assembly 062 C.C.W. (P1)	VS24-10210	VS24-10210	
	Cartridge assembly 066 C.W. (P1)	VS24-10211	VS24-10211	
	Cartridge assembly 066 C.C.W. (P1)	VS24-10212	VS24-10212	
	Cartridge assembly 072 C.W. (P1)	VS24-40375	VS24-40375	
	Cartridge assembly 072 C.C.W. (P1)	VS24-40376	VS24-40376	
	Cartridge assembly 085 C.W. (P1)	VS24-59352	VS24-59352	
	Cartridge assembly 085 C.C.W. (P1)	VS24-68983	VS24-68983	
11a	Port plate - rear C.W.	V034-59083	V034-59083	1

Item pos.	Description	Part No.		Qty
		VT67EDB (Standard)	VT67EDB (Bi-dir plates) (Only for P2 & P3)	
	Port plate - rear C.C.W.	V034-59082	V034-59082	
11b	Pin vane holdout	V034-59161	V034-59161	12
11c	Vane	V034-59162	V034-59162	12
11d	Cam ring - 042	V034-66899	V034-66899	1
	Cam ring - 045	V034-59164	V034-59164	
	Cam ring - 050	V034-66744	V034-66744	
	Cam ring - 052	V034-59165	V034-59165	
	Cam ring - 057	C-034-03202	C-034-03202	
	Cam ring - 062	V034-59166	V034-59166	
	Cam ring - 066	V034-59167	V034-59167	
	Cam ring - 072	V034-66736	V034-66736	
	Cam ring - 085	V034-67030	V034-67030	
11e	Dowel pin	V324-22016	V324-22016	2
11f	Back-up ring	V618-15018	V618-15018	1
11g	Port plate - pressure C.W.	V034-59159	V034-59159	1
	Port plate - pressure C.C.W.	V034-59160	V034-59160	
11h	Sq. section seal	V691-10237	V691-10237	1
11j	Sq. section seal	V691-10253	V691-10253	1
11k	Rotor-insert ass'y	VS24-10185	VS24-10185	1
11m	Screw	V310-10340	V310-10340	2
11n	Lockwasher internal tooth	V348-10010	V348-10010	2
11p	Dowel pin	V323-82014	V323-82014	1
11q	Sq. section seal	V671-10259	V671-10259	1
12	Cartridge assembly *14 C.W. (P2)	VS24-40795	C-S14-71672	1
	Cartridge assembly *14 C.C.W. (P2)	VS24-40796	C-S14-71673	
	Cartridge assembly *20 C.W. (P2)	VS24-26492	C-S14-71674	
	Cartridge assembly *20 C.C.W. (P2)	VS24-26493	C-S14-71675	
	Cartridge assembly *24 C.W. (P2)	VS14-25893	C-S14-71676	
	Cartridge assembly *24 C.C.W. (P2)	VS24-25894	C-S14-71677	
	Cartridge assembly *28 C.W. (P2)	VS24-10861	VS24-10220	
	Cartridge assembly *28 C.C.W. (P2)	VS24-10862	VS24-10221	
	Cartridge assembly *31 C.W. (P2)	VS24-10863	VS24-10222	
	Cartridge assembly *31 C.C.W. (P2)	VS24-10864	VS24-10223	
	Cartridge assembly *35 C.W. (P2)	VS24-10865	VS24-10224	
	Cartridge assembly *35 C.C.W. (P2)	VS24-10866	VS24-10225	
	Cartridge assembly *38 C.W. (P2)	VS24-10867	VS24-10226	
	Cartridge assembly *38 C.C.W. (P2)	VS24-10868	VS24-10227	
	Cartridge assembly *42 C.W. (P2)	VS24-10869	VS24-10228	
	Cartridge assembly *42 C.C.W. (P2)	VS24-10870	VS24-10229	

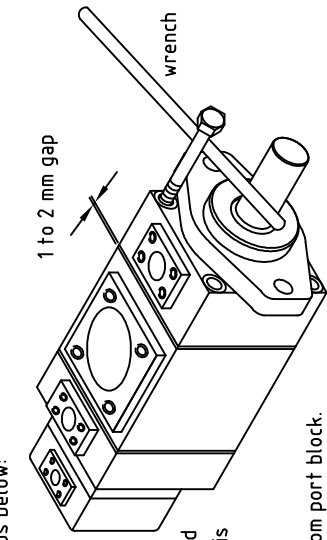
	Cartridge assembly *45 C.W. (P2)	VS24-10871	VS24-10230	
	Cartridge assembly *45 C.C.W. (P2)	VS24-10872	VS24-10231	
	Cartridge assembly *50 C.W. (P2)	VS24-40387	C-514-71680	
	Cartridge assembly *50 C.C.W. (P2)	VS24-40388	C-514-71681	
12a	Port plate - rear C.W.	V034-59812		1
	Port plate - rear C.C.W.	V034-59813		
	Port plate - rear Bi-dir		V034-59119	
12b	Pin vane holdout	V034-59130	V034-59130	10
12c	Vane	V034-53588	V034-53588	10
12d	Cam ring - 014	V034-66708	V034-66708	1
	Cam ring - 017	V034-67028	V034-67028	
	Cam ring - 020	V034-66596	V034-66596	
	Cam ring - 024	V034-59294	V034-59294	
	Cam ring - 028	V034-59133	V034-59133	
	Cam ring - 031	V034-59135	V034-59135	
	Cam ring - 035	V034-59137	V034-59137	
	Cam ring - 038	V034-59139	V034-59139	
	Cam ring - 042	V034-59132	V034-59132	
	Cam ring - 045	V034-59131	V034-59131	
	Cam ring - 050	V034-66737	V034-66737	
	Cam ring - 061	V034-66127	V034-66127	
12e	Dowel pin	V324-21612	V324-21612	2
12f	Back-up ring	V618-15017	V618-15017	1
12g	Port plate - pressure C.W.	V034-59808		1
	Port plate - pressure C.C.W.	V034-59809		
	Port plate - pressure		V034-59057	
12h	Sq. section seal	V691-10232	V691-10232	1
12j	Sq. section seal	V691-10244	V691-10244	1
12k	Rotor-insert ass'y	VS24-10121	VS24-10121	1
12m	Screw	V317-10320	V317-10320	2
12n	Lockwasher internal tooth	V348-10010	V348-10010	2
12p	Dowel pin	V323-82004	V323-82004	1
12q	Bush	V034-59901	V034-59901	1
12r	Sq. section seal	V671-10159	V671-10159	1
13	Cartridge assembly *02 C.W. (P3)		S24-50610	1
	Cartridge assembly *02 C.C.W. (P3)		S24-50611	
	Cartridge assembly *03 C.W. (P3)		S24-50612	
	Cartridge assembly *03 C.C.W. (P3)		S24-50613	
	Cartridge assembly *04 C.W. (P3)		S24-50614	
	Cartridge assembly *04 C.C.W. (P3)		S24-50615	
	Cartridge assembly *05 C.W. (P3)		S24-50616	
	Cartridge assembly *05 C.C.W. (P3)		S24-50617	

	Cartridge assembly *06 C.W. (P3)		S24-50618	
	Cartridge assembly *06 C.C.W. (P3)		S24-50619	
	Cartridge assembly *07 C.W. (P3)		S24-59907	
	Cartridge assembly *07 C.C.W. (P3)		S24-59908	
	Cartridge assembly *08 C.W. (P3)		S24-50620	
	Cartridge assembly *08 C.C.W. (P3)		S24-50621	
	Cartridge assembly *09 C.W. (P3)		S24-72910	
	Cartridge assembly *09 C.C.W. (P3)		S24-72697	
	Cartridge assembly *10 C.W. (P3)		S24-50622	
	Cartridge assembly *10 C.C.W. (P3)		S24-50623	
	Cartridge assembly *11 C.W. (P3)		S24-77173	
	Cartridge assembly *11 C.C.W. (P3)		S24-76880	
	Cartridge assembly *12 C.W. (P3)		S24-59009	
	Cartridge assembly *12 C.C.W. (P3)		S24-59010	
	Cartridge assembly *14 C.W. (P3)		S24-77174	
	Cartridge assembly *14 C.C.W. (P3)		S24-77176	
	Cartridge assembly *15 C.W. (P3)		S24-59011	
	Cartridge assembly *15 C.C.W. (P3)		S24-59012	
13a	Port plate - rear		C-034-03220	1
13b	Pin vane holdout		H-034-66920	12
13c	Vane		H-034-66917	12
13d	Cam ring - B02		H-034-66909	1
	Cam ring - B03		H-034-66910	
	Cam ring - B04		H-034-66911	
	Cam ring - B05		H-034-66912	
	Cam ring - B06		H-034-66913	
	Cam ring - B07		H-034-67063	
	Cam ring - B08		H-034-66914	
	Cam ring - B09		H-034-67383	
	Cam ring - B10		H-034-66915	
	Cam ring - B11		H-034-67461	
	Cam ring - B12		H-034-67032	
	Cam ring - B14		H-034-67409	
	Cam ring - B15		H-034-67034	
13e	Dowel pin		V324-21208	2
13f	Back-up ring		V618-15016	1
13g	Port plate - pressure		H-034-66923	1
13h	Sq. section seal		V691-10229	1
13j	Sq. section seal		V691-10238	1
13k	Screw		V317-06266	2
13m	Dowel pin		V323-82010	1
13n	Bearing bush		V034-59412	1
13p	Rotor-insert ass'y		H-S24-49820	1
13q	Sq. section seal		V691-10156	1

Item pos.	Description	Part No.		Qty
		VT67EDB (Standard)	VT67EDB (Bi-dir plates) (Only for P2 & P3)	
9	Seal kit (S1 - 0,7 bar)	VS24-44823	VS24-44823	1
11f, 11h	Seal kit (S4 - 7 bar)	VS24-44823-4	VS24-44823-4	
11j, 11q	Seal kit (S5 - 7 bar)	VS24-44823-5	VS24-44823-5	
12f, 12h				
12j, 12q				
13f, 13h				
13j, 13q				
11a	Port plate - rear assy C.W. (P1)	VS24-10214	VS24-10214	1
11p	Port plate - rear assy C.C.W. (P1)	VS24-10215	VS24-10215	
12a	Port plate - rear and bush assy C.W. (P2)	VS24-10833		1
12p	Port plate - rear and bush assy C.C.W. (P2)	VS24-10834		
12q	Port plate - rear and bush assy Bi-dir (P2)		VS24-10216	
13a	Port plate - rear and bush assy Bi-dir (P3)		VS24-50642	1
13p				
13n				
		* 0 - Standard	B - 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 torque.
2. To change P2 position, remove 4 bolts from port block. Remove 2 bolts (diagonally opposite) from end cap and insert them halfway to end cap. Install a wrench between these two bolts and turn in the desired way, so that required position of P2 port with respect to suction is obtained.
3. Follow the similar procedure for changing P3 position. Use wrench between two bolts placed diagonally opposite.

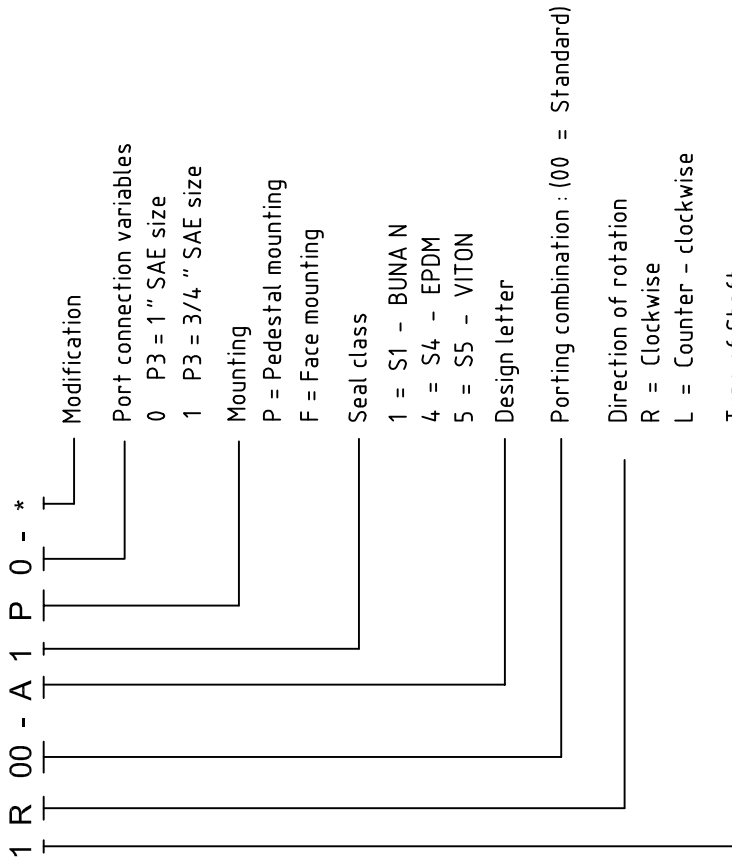


Instruction : Do not remove mounting flange/port block/end cap completely from the housing/port block cartridge pin to move out from the housing dowel pin hole, make sure no piece of paint enters in to the gap to avoid leakage. If it is difficult to turn housing put some hydraulic oil to the pressure ports to lubricate the pressure port seals.

PORTING COMBINATION

00	01	02	03	04	05	06	07
08	09	10	11	12	13	14	15
16	17	18	19	20	21	22	23
24	25	26	27	28	29	30	31
32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47
48	49	50	51	52	53	54	55
56	57	58	59	60	61	62	63

MODEL CODE



Port connection variables
 0 P3 = 1" SAE size
 1 P3 = 3/4" SAE size

Mounting
 P = Pedestal mounting
 F = Face mounting

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

Type of Shaft

VT6EDC
 1 = Keyed
 (G45N-IS03019-2)

Series	Cam ring	Displacement	Cam ring	Displacement
	in ³ /rev	(cm ³ /rev)	in ³ /rev	(cm ³ /rev)
	042 =	8.07	062 =	12.00
	045 =	8.70	066 =	13.00
	050 =	9.67	072 =	13.86
	052 =	10.00	085 =	16.40
	057 =	11.02		180.70

Cam ring	Displacement	Cam ring	Displacement
in ³ /rev	(cm ³ /rev)	in ³ /rev	(cm ³ /rev)
014/B14 =	2.90	038/B38 =	7.30
020/B20 =	4.00	042/B42 =	8.30
024/B24 =	4.85	045/B45 =	8.90
028/B28 =	5.00	050/B50 =	9.64
031/B31 =	6.00	061/B61 =	11.62
035/B35 =	6.80		111.00

Select '0' ** for Uni-directional Select 'B' ** for Bi-directional

Cam ring	Displacement	Cam ring	Displacement
in ³ /rev	(cm ³ /rev)	in ³ /rev	(cm ³ /rev)
B02 =	0.35	B09 =	1.71
B03 =	0.60	B10 =	1.94
B04 =	0.78	B11 =	2.13
B05 =	0.97	B12 =	2.50
B06 =	1.21	B14 =	2.75
B07 =	1.37	B15 =	3.05
B08 =	1.52		24.9

Print	_____
Replace	_____
Revision	_____

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