

**VELJAN**

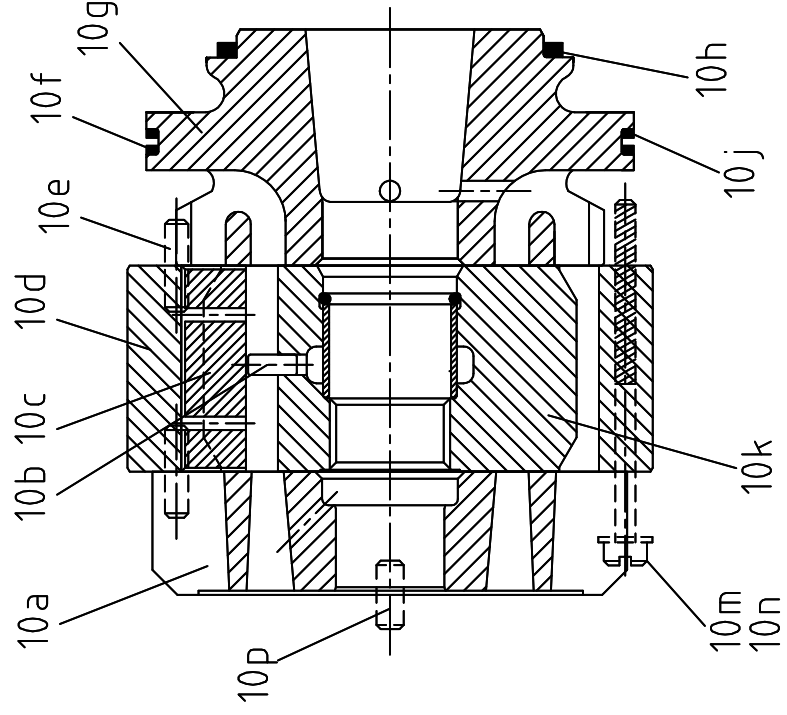
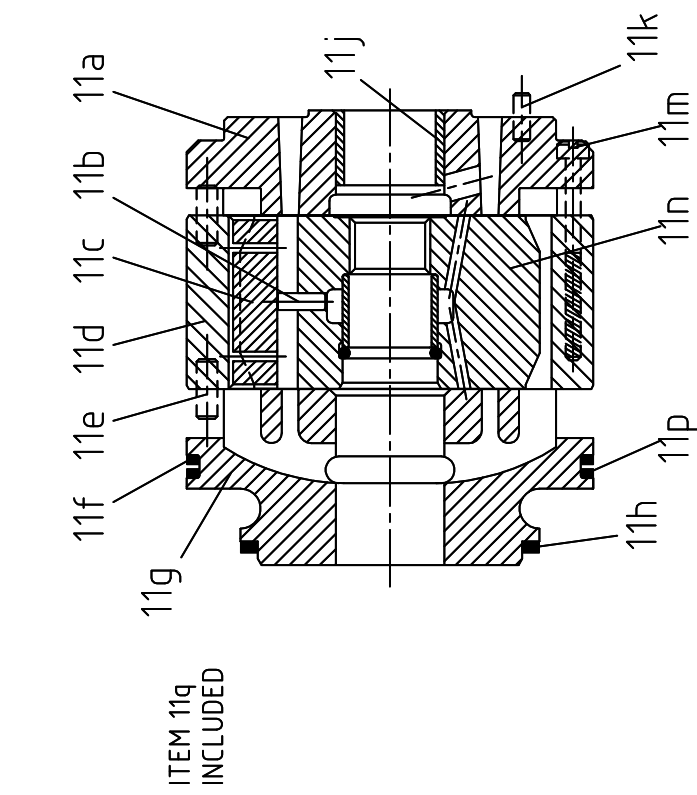
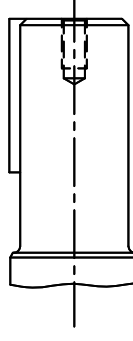
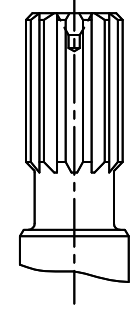
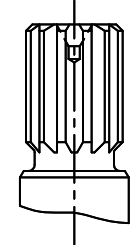
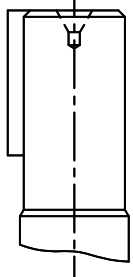
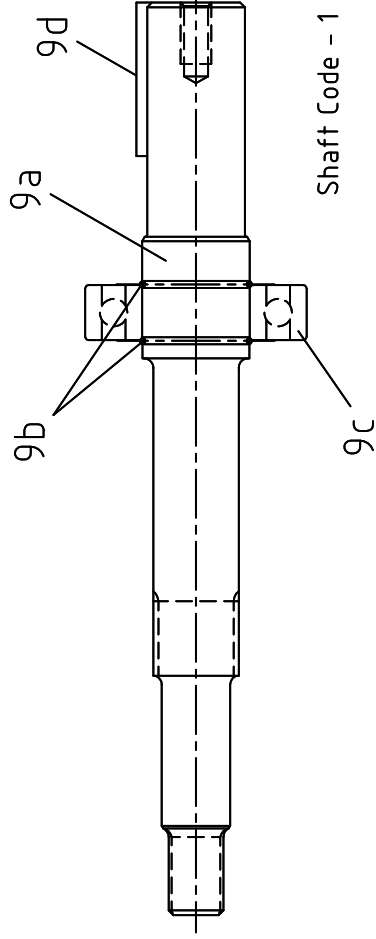
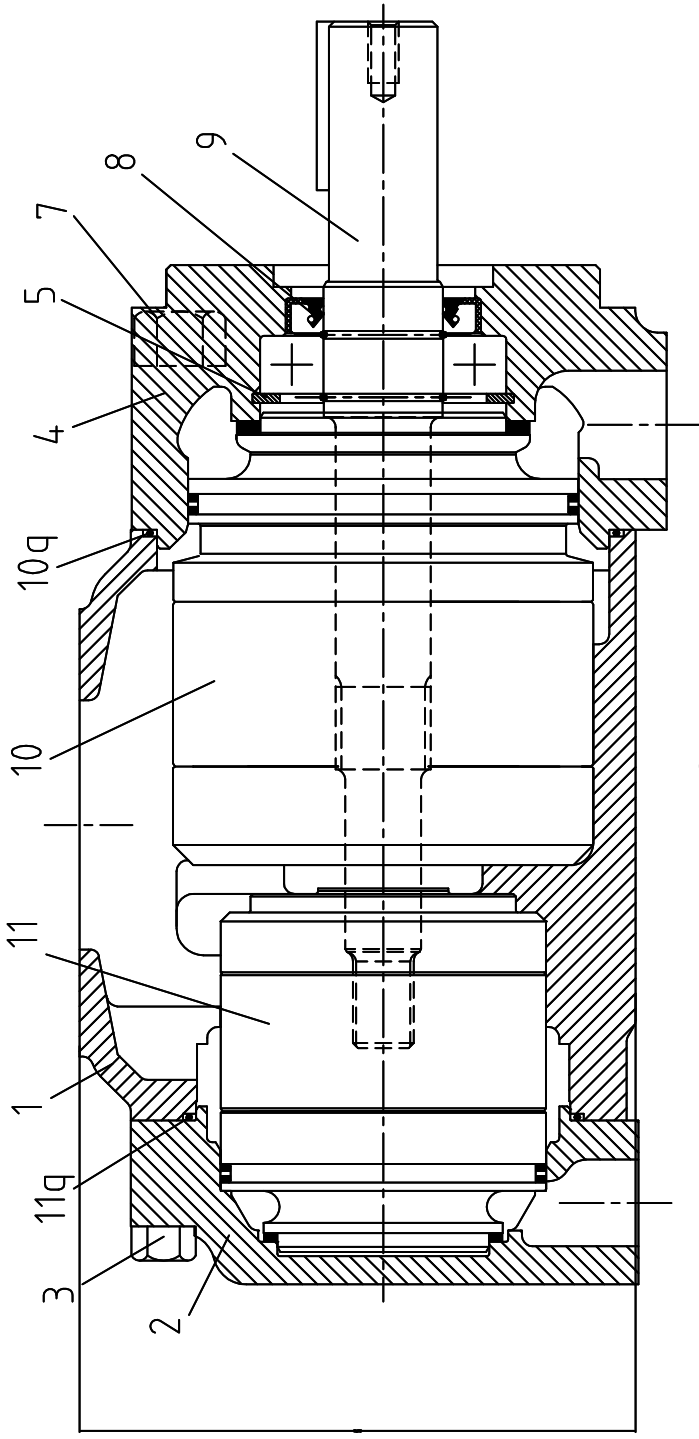
**Service Information SS4-00105**

**VT67DC**

**Double vane pump**

Mounting torque

Item pos.	3	7
N-m	68	187
ft-lbs	50	138



Item pos.	Description	Part No.			Qty
		VT67DC (Standard)	VT67DC (Bi-dir plates)		
1	Housing (UNC)	V034-48133			1
	Housing (Metric)	C-034-03065			
2	End cap (UNC) (P3=3/4")	V034-66523			1
	End cap (Metric) (P3=3/4")	H-034-66765			
	End cap (UNC) (P3=1")	V034-48579			
	End cap (Metric) (P3=1")	H-034-71327			
3	Mounting Screw	V306-40111			7
4	Mounting flange (UNC) (Shaft 1-2-3-4)	V034-48135			1
	Mounting flange (Metric) (Shaft 1-2-3-4)	C-034-03067			
	Mounting flange (UNC) (Shaft-5)	V034-66495			
	Mounting flange (Metric) (Shaft-5)	H-034-66748			
5	Retaining ring	V356-32283			1
7	Mounting Screw	V306-40156			4
8	Shaft seal (S1-0.7 bar) (for Shafts 1-2-3-4)	V620-82062			1
	Shaft seal (S4-S5-7 bar) (for Shafts 1-2-3-4)	V620-82066			
	Shaft seal (S1-0.7 bar) (for Shafts 5-T)	V620-82064			
	Shaft seal (S4-S5-7 bar) (for Shafts 5)	V620-82072			
9	Shaft and bearing ass'y (Code-1)	VS14-42520			1
	Shaft and bearing ass'y (Code-2)	VS14-42521			
	Shaft and bearing ass'y (Code-3)	VS14-42518			
	Shaft and bearing ass'y (Code-4)	VS14-42519			
	Shaft and bearing ass'y (Code-5)	VS24-26206			
9a	Shaft (Keyed) (Code-1)	V034-71363			1
	Shaft (Keyed) (Code-2)	V034-71364			
	Shaft (Splined) (Code-3)	V034-71361			
	Shaft (splined) (Code-4)	V034-71362			
	Shaft (Keyed) (Code-5)	V034-66578			
9b	Round section ring (for Shafts 1-2-3-4)	V034-70853			2
	Round section ring (for Shafts 5)	V034-70853			
9c	Ball bearing	V230-00207			1
9d	Key (Code -1 & 5)	V034-46754			1
	Key (Code -2)	V034-49676			
10	Cartridge assembly *14 C.W. (P1)		VS24-76963		1
	Cartridge assembly *14 C.C.W. (P1)		VS24-76964		
	Cartridge assembly *17 C.W. (P1)		VS24-76965		
	Cartridge assembly *17 C. C.W. (P1)		VS24-76966		
	Cartridge assembly *20 C.W. (P1)		VS24-76967		
	Cartridge assembly *20 C.C.W. (P1)		VS24-76968		
	Cartridge assembly *22 C.W. (P1)		VS24-76969		
	Cartridge assembly *22 C.C.W. (P1)		VS24-76970		
	Cartridge assembly *24 C.W. (P1)		VS24-76971		
	Cartridge assembly *24 C.C.W. (P1)		VS24-76972		
	Cartridge assembly *28 C.W. (P1)		VS24-76973		
	Cartridge assembly *28 C.C.W. (P1)		VS24-76974		
	Cartridge assembly *31 C.W. (P1)		VS24-76975		
	Cartridge assembly *31 C.C.W. (P1)		VS24-76976		
	Cartridge assembly *35 C.W. (P1)		VS24-76977		
	Cartridge assembly *35 C.C.W. (P1)		VS24-76978		
	Cartridge assembly *38 C.W. (P1)		VS24-76979		
	Cartridge assembly *38 C.C.W. (P1)		VS24-76980		
	Cartridge assembly *42 C.W. (P1)		VS24-76981		
	Cartridge assembly *42 C.C.W. (P1)		VS24-76982		
Cartridge assembly *45 C.W. (P1)		VS24-10859			
Cartridge assembly *45 C.C.W. (P1)		VS24-10860			
Cartridge assembly *50 C.W. (P1)		VS24-40236			
Cartridge assembly *50 C.C.W. (P1)		VS24-40237			
10a	Port plate - rear (Except cam rings 045-050) - P1		H-034-67478		1
	Port plate - rear C.W (Only cam rings 045-050) - P1		V034-59810		
	Port plate - rear C.C.W (Only cam rings 045-050) - P1		V034-59811		

Item pos.	Description	Part No.			Qty
		VT67DC (Standard)	VT67DC (Bi-dir plates)		
10b	Pin vane holdout (Except cam rings 045-050)		V034-59098		12
	Pin vane holdout (Only cam rings 045-050)		V034-59130		10
10c	Vane (Except cam rings 045-050)		H-034-67453		12
	Vane (Only cam rings 045-050)		V034-53588		10
10d	Cam ring - B14		H-034-67469		
	Cam ring - B17		H-034-67470		
	Cam ring - B20		H-034-67159		
	Cam ring - B22		H-034-67482		
	Cam ring - B24		H-034-67158		1
	Cam ring - B28		H-034-67157		
	Cam ring - B31		H-034-67156		
	Cam ring - B35		H-034-67155		
	Cam ring - B38		H-034-67154		
	Cam ring - B42		H-034-67153		
	Cam ring - 045		V034-59131		
	Cam ring - 050		V034-66737		
10e	Dowel pin		V324-21612		2
10f	Back-up ring		V618-15017		1
10g	Port plate - pressure (Except cam rings 045-050) - P1		H-034-67479		
	Pressure port plate C.W (Only cam rings 045-050) - P1		V034-59808		
	Pressure port plate C.C.W (Only cam rings 045-050) - P1		V034-59809		
10h	Sq. section seal		V691-10232		1
10j	Sq. section seal		V691-10244		1
10k	Rotor-insert ass'y (Exept cam rings 45-50) - P1		H-S24-73783		1
	Rotor-insert ass'y (Only cam rings 45-50) - P1		VS24-10121		
10m	Screw		V317-10320		2
10n	Lockwasher internal tooth		V348-10010		2
10p	Dowel pin		V323-82004		1
10q	Sq. section seal		V671-10159		1
11	Cartridge assembly *03 C.W. (P2)	VS24-10767	VS24-26607		1
	Cartridge assembly *03 C.C.W. (P2)	VS24-10768	VS24-26608		
	Cartridge assembly *05 C.W. (P2)	VS24-10769	VS24-26609		
	Cartridge assembly *05 C.C.W. (P2)	VS24-10770	VS24-26610		
	Cartridge assembly *06 C.W. (P2)	VS24-10771	VS24-26611		
	Cartridge assembly *06 C.C.W. (P2)	VS24-10772	VS24-26612		
	Cartridge assembly *08 C.W. (P2)	VS24-10773	VS24-26613		
	Cartridge assembly *08 C.C.W. (P2)	VS24-10774	VS24-26614		
	Cartridge assembly *10 C.W. (P2)	VS24-10775	VS24-26615		
	Cartridge assembly *10 C.C.W. (P2)	VS24-10776	VS24-26616		
	Cartridge assembly *12 C.W. (P2)	VS24-26480	VS24-26617		
	Cartridge assembly *12 C.C.W. (P2)	VS24-26481	VS24-26618		
	Cartridge assembly *14 C.W. (P2)	VS24-10777	VS24-26619		
	Cartridge assembly *14 C.C.W. (P2)	VS24-10778	VS24-26620		
	Cartridge assembly *15 C.W. (P2)	C-S14-72362	C-S14-72339		
	Cartridge assembly *15 C.C.W. (P2)	C-S14-72363	C-S14-72340		
	Cartridge assembly *17 C.W. (P2)	VS24-10779	VS24-26621		
	Cartridge assembly *17 C.C.W. (P2)	VS24-10780	VS24-26622		
	Cartridge assembly *20 C.W. (P2)	VS24-40234	C-S14-71678		
	Cartridge assembly *20 C.C.W. (P2)	VS24-40235	C-S14-71679		
	Cartridge assembly *22 C.W. (P2)	VS24-10781	VS24-26623		
	Cartridge assembly *22 C.C.W. (P2)	VS24-10782	VS24-26624		
	Cartridge assembly *25 C.W. (P2)	VS24-10783	VS24-26625		
Cartridge assembly *25 C.C.W. (P2)	VS24-10784	VS24-26626			
Cartridge assembly *28 C.W. (P2)	VS14-97722	VS24-26627			
Cartridge assembly *28 C.C.W. (P2)	VS24-25791	VS24-26628			
Cartridge assembly *31 C.W. (p2)	VS24-45789	VS24-26629			
Cartridge assembly *31 C.C.W. (P2)	VS24-45790	VS24-26630			
11a	Port plate - rear C.W.	V034-59777			1

Item pos.	Description	Part No.			Qty
		VT67DC (Standard)	VT67DC (Bi-dir plates)		
	Port plate - rear C.C.W.	V034-59776			
	Port plate - rear Bi-dir		V034-59118		
11b	Pin vane holdout	V034-59098	V034-59098		10
11c	Vane	V034-59099	V034-59099		10
11d	Cam ring - 003	V034-59050	V034-59050		1
	Cam ring - 005	V034-59051	V034-59051		
	Cam ring - 006	V034-59052	V034-59052		
	Cam ring - 008	V034-59053	V034-59053		
	Cam ring - 010	V034-59054	V034-59054		
	Cam ring - 012	V034-66595	V034-66595		
	Cam ring - 014	V034-59206	V034-59206		
	Cam ring - 015	C-034-66893	C-034-66893		
	Cam ring - 017	V034-59207	V034-59207		
	Cam ring - 020	V034-66607	V034-66607		
	Cam ring - 022	V034-59208	V034-59208		
	Cam ring - 025	V034-59209	V034-59209		
	Cam ring - 028	V034-59245	V034-59245		
Cam ring - 031	V034-66843	V034-66843			
11e	Dowel pin	V324-21208	V324-21208		2
11f	Back-up ring	V618-15016	V618-15016		1
11g	Port plate - pressure C.W.	V034-59772			1
	Port plate - pressure C.C.W.	V034-59773			
	Port plate - pressure		H-034-66453		
11h	Sq. section seal	V691-10229	V691-10229		1
11j	Bush	V034-70868	V034-70868		1
11k	Dowel pin	V323-82010	V323-82010		1
11m	Screw	V317-06266	V317-06266		2
11n	Rotor-insert ass'y	VS24-10116	VS24-10116		1
11p	Sq. section seal	V691-10238	V691-10238		1
11q	Sq. section seal	V671-10156	V671-10156		1
8,10f	Seal kit (S1-0.7 bar) (Shaft 1-2-3-4)	VS24-10170	VS24-10170		1
10h,10j	Seal kit (S4-7 bar) (Shaft 1-2-3-4)	VS24-10170-4	VS24-10170-4		
10q,11f	Seal kit (S5-7 bar) (Shaft 1-2-3-4)	VS24-10170-5	VS24-10170-5		
11h,11p	Seal kit (S1-0.7 bar) (Shaft 5)	VS24-26207	VS24-26207		
11q	Seal kit (S4-7 bar) (Shaft 5)	VS24-26207-4	VS24-26207-4		
	Seal kit (S5-7 bar) (Shaft 5)	VS24-26207-5	VS24-26207-5		
10a	Port plate rear ass'y (Except cam rings 045-050) - P1		VS24-76916		1
	Port plate rear ass'y C.W (Only cam rings 045-050) - P1		VS24-10831		
	Port plate rear ass'y C.C.W (Only cam rings 045-050) - P1		VS24-10832		
11a	Port plate rear and bush ass'y C.W "P2"	VS24-10809			1
11g	Port plate rear and bush ass'y C.C.W "P2"	VS24-10810			
	Port plate rear and bush ass'y Bi-dir "P2"		VS24-10139		

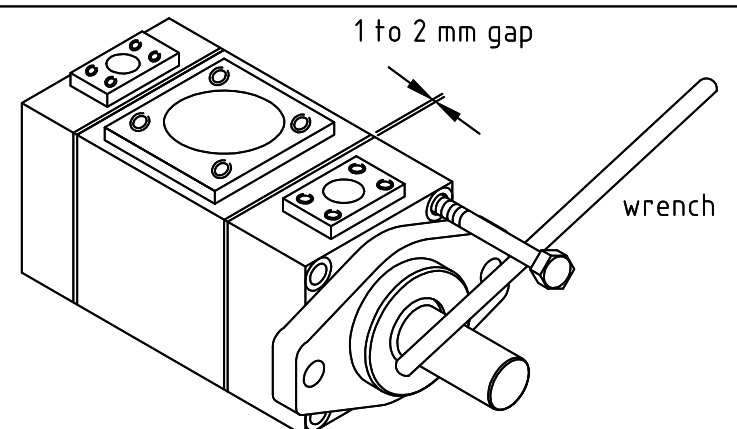
\* 0 - Standard  
B - Bi-directional plates/Mobile

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

VT67DC

W \* - \*35

- \*10

- 1 R 00 - C 1 00 - \*

Series

Use for severe duty shaft only

Cam ring	Displacement in <sup>3</sup> /rev (cm <sup>3</sup> /rev)	Cam ring	Displacement in <sup>3</sup> /rev (cm <sup>3</sup> /rev)
B14	= 2.68 (43.9)	B31	= 6.05 (99.1)
B17	= 3.36 (55.0)	B35	= 6.92 (113.4)
B20	= 4.03 (66.0)	B38	= 7.36 (120.6)
B22	= 4.29 (70.3)	B42	= 8.39 (137.5)
B24	= 4.95 (81.1)	045	= 8.89 (145.7)
B28	= 5.49 (89.9)	050	= 9.64 (157.9)

Cam ring	Displacement in <sup>3</sup> /rev (cm <sup>3</sup> /rev)	Cam ring	Displacement in <sup>3</sup> /rev (cm <sup>3</sup> /rev)
003/B03	= 0.66 (10.80)	015/B15	= 3.08 (50.50)
005/B05	= 1.05 (17.20)	017/B17	= 3.56 (58.30)
006/B06	= 1.30 (21.30)	020/B20	= 3.89 (63.80)
008/B08	= 1.61 (26.40)	022/B22	= 4.29 (70.30)
010/B10	= 2.08 (34.10)	025/B25	= 4.84 (79.30)
012/B12	= 2.26 (37.10)	028/B28	= 5.42 (88.80)
014/B14	= 2.81 (46.00)	031/B31	= 6.10 (100.00)

Select 'B\*\*' for Mobile and Bi-directional

Type of Shaft

VT67DC/VT67DCM

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

Type of Shaft

VT67DCW

- 5 = Keyed (no SAE)

Modification

Mounting w/connection variables

UNC	METRIC
00	M0
P2	1" 3/4"
	1" 3/4"

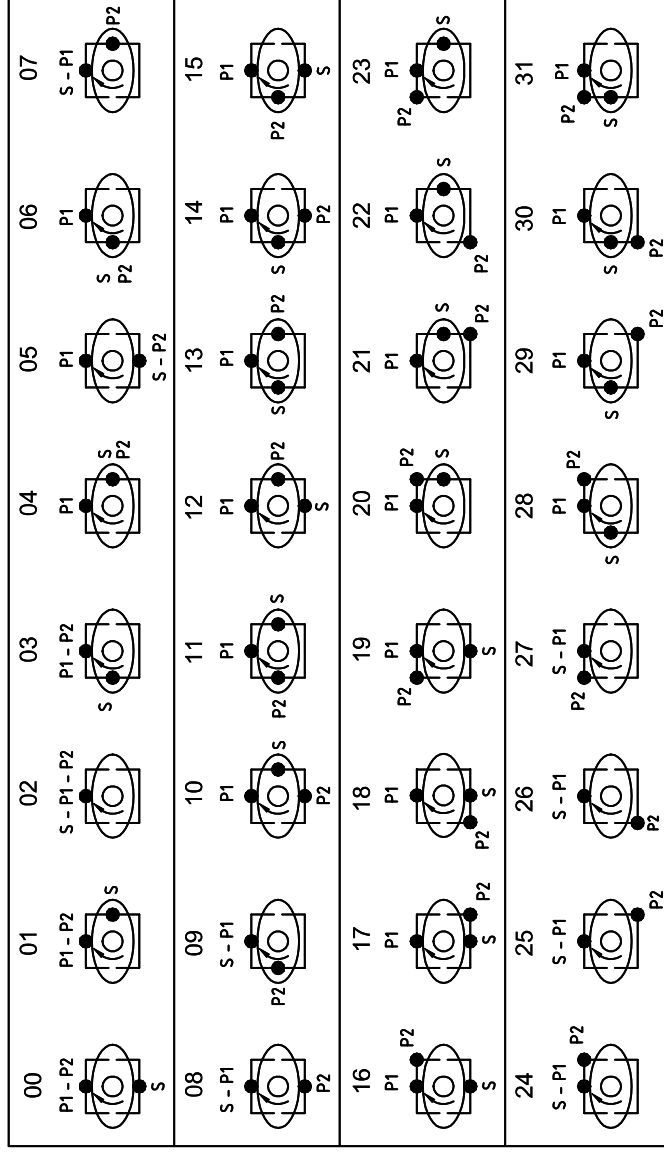
Seal class

- 1 = S1 (for mineral oil)
- 4 = S4 (for fire resistant fluids)
- 5 = S5 (for mineral oil and fire resistant fluids)

Design letter

B = Industrial C = Mobile

Porting combination : (00 = Standard)



Direction of rotation

- R = Clockwise
- L = Counter - clockwise

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Print	
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Revision	

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