FluiDyne™
FLUID POWER

Veljan TXB Single Vane Pumps

- For Mobile or Industrial Use
- 12 Displacements Available
- Maximum Pressure: 3000 psi and 210 bar
- Maximum Speed - 2500 rpm

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Model Code Breakdown

TXB 1 B03 2 R 00 D 1 01 *

Series

Mounting
1 - SAE A

Cam Ring
Volumetric Displacement cm³ /rev (in³/rev)
B02 = 5.8 (0.35)
B03 = 9.8 (0.59)
B04 = 12.8 (0.78)
B05 = 15.9 (0.97)
B06 = 19.8 (1.21)
B07 = 22.5 (1.37)
B08 = 24.9 (1.52)
B09 = 28.0 (1.71)
B10 = 31.8 (1.94)
B11 = 34.9 (2.13)
B12 = 41.0 (2.50)(cont. 175 bar, max. int 210 bar)
B14 = 45.0 (2.75)(cont. 140 bar, max. int 175 bar)

Type of Shafts
TXB1
1 - Keyed (Non SAE)
2 - Keyed
3 - Splined
4 - Splined
5 - Keyed
V - Splined

Direction of Rotation (view on shaft end)
R - clockwise
L - counter-clockwise

Modifications

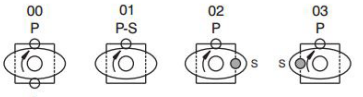
Port Connections

CODE	S	P
00	SAE 20 1" 5/8 12 UNF-EB	SAE 12 1" 1/16 12 UNF-2B
01	1" 1/4 SAE 4 bolt (UNC)	3/4" SAE 4 bolt (UNC)
03	1" 1/4 NPTF	SAE 12 1" 1/16 12 UNF-2B
0X	1" 1/4 NPTF	3/4" NPTF

Seal Class
1 - S1 Buna (for mineral oil)
5 - S5 Viton (for minearl oil and fire resistant fluids)

Design Letter

Porting Combination
00 - Standard

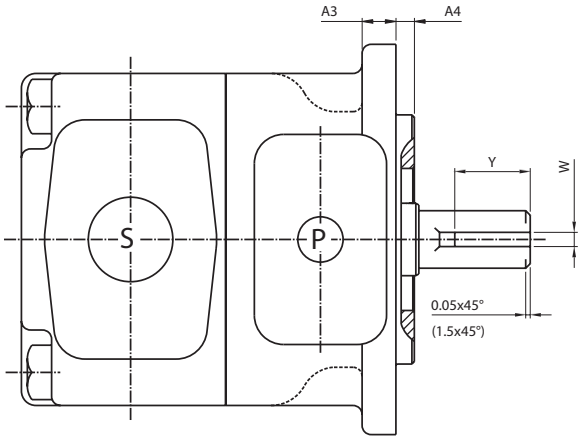


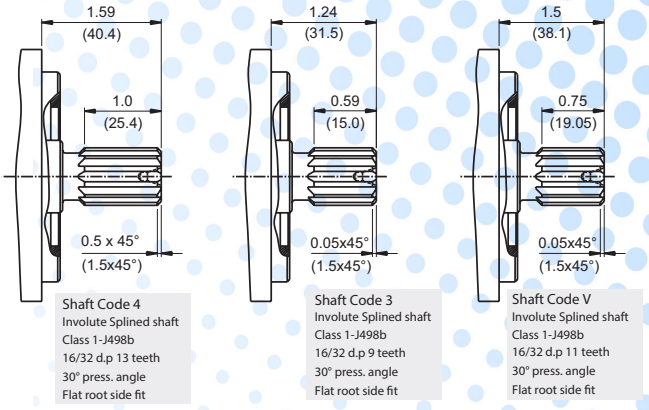
S - Suction port **P - Pressure port**

Operating Characteristics (24 cSt)

Pressure Port	Series	Volumetric Displacement Vp		Flow Q & N = 1500 rpm						Input Power P & N = 1500 rpm					
				p = 0 bar (0 psi)		p = 140 bar (2000 psi)		p = 210 bar (3000 psi)		p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 210 bar (3000 psi)	
		in3/rev	cm3/rev	gpm	lpm	gpm	lpm	gpm	lpm	hp	kw	hp	kw	hp	kw
TXB1	B02	0.35	5.8	2.30	8.7	1.4	5.9	-	-	0.53	0.4	2.81	2.1	-	-
	B03	0.59	9.8	3.88	14.7	2.9	11.9	-	-	0.67	0.5	3.62	2.7	-	-
	B04	0.78	12.8	5.08	19.2	4.33	16.4	3.97	15.0	0.93	0.7	5.23	3.9	10.06	7.5
	B05	0.97	15.9	6.31	23.8	5.55	21.0	5.18	19.6	1.00	0.75	6.64	4.9	11.2	8.3
	B06	1.21	19.8	7.85	29.7	7.12	26.9	6.66	25.2	1.07	0.8	8.05	6.0	12.34	9.2
	B07	1.37	22.5	8.92	33.7	8.17	30.9	7.80	29.5	1.20	0.9	9.05	6.7	14.02	10.4
	B08	1.52	24.9	9.89	37.4	9.15	34.6	8.78	33.2	1.34	1.0	10.05	7.5	15.69	11.7
	B09	1.71	28.0	11.11	42.0	10.37	39.2	10.00	37.8	1.47	1.1	11.94	8.9	23.60	17.6
	B10	1.94	31.8	12.61	47.7	11.87	44.9	11.51	43.5	1.6	1.2	13.0	9.7	26.0	19.6
	B11	2.13	34.9	13.85	52.3	13.09	49.5	12.72	48.1	1.7	1.3	14.0	10.5	28.0	21.0
	B12	2.50	41.0	16.27	61.5	15.53	58.7	*	*	1.8	1.4	15.02	11.2	*	*
	B14	2.75	45.0	17.86	67.5	17.12	64.7	**	**	2.1	1.6	15.42	11.5	**	**

- Not to use because internal leakage greater than 50% of theoretical flow.
* B12 = 210 bar (3000 psi) Max.Int
** B14 = 175 bar (2500 psi) Max.Int

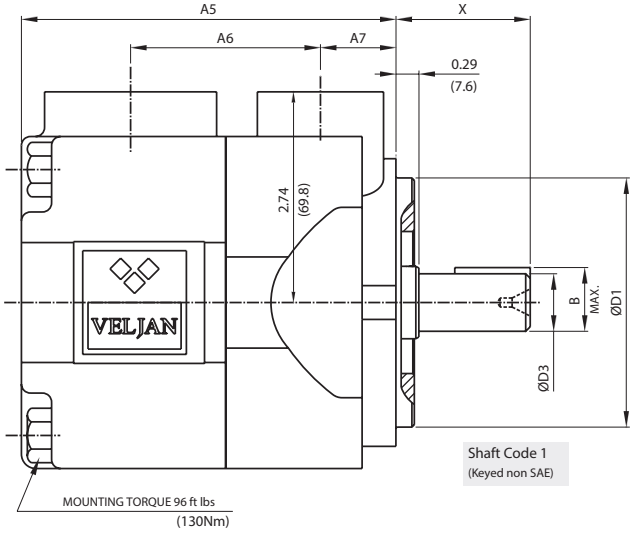




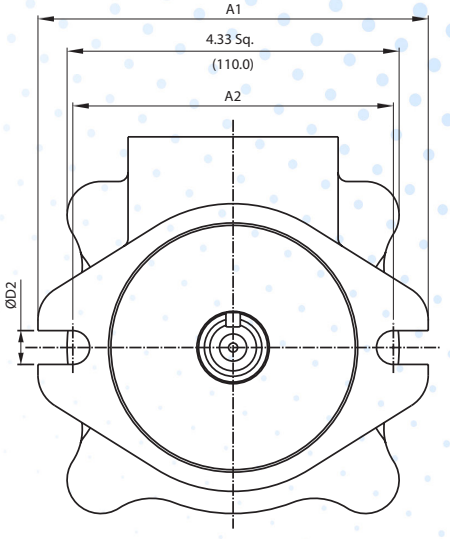
Shaft Code 4
Involute Splined shaft
Class 1-J498b
16/32 d.p 13 teeth
30° press. angle
Flat root side fit

Shaft Code 3
Involute Splined shaft
Class 1-J498b
16/32 d.p 9 teeth
30° press. angle
Flat root side fit

Shaft Code V
Involute Splined shaft
Class 1-J498b
16/32 d.p 11 teeth
30° press. angle
Flat root side fit



Shaft Code 1
(Keyed non SAE)



Dimensions of Keyed Shaft in Inches (mm)						
MODEL	CODE	X	Y	D3	B	W
TXB1	1	1.75 (44.5)	0.98 (25)	0.75/0.74 (19.05/19.00)	0.83 (21.1)	0.187/0.185 (4.75/4.70)
	2	1.96 (50.0)	0.98 (25)	0.625/0.624 (15.88/15.85)	0.69 (17.7)	0.156/0.155 (3.97/3.94)
	5	2.66 (67.6)	1.61 (41)	0.75/0.74 (19.05/19.00)	0.83 (21.1)	0.187/0.185 (4.75/4.70)

Dimensions in Inches (mm)									
MODEL	A1	A2	A3	A4	A5	A6	A7	D1	D2
TXB1	5.11 (130.0)	4.18 (106.2)	0.44 (11.2)	0.24 (6.1)	4.88 (124.1)	2.47 (62.9)	0.98 (25.0)	3.25/3.24 (82.55/82.50)	0.44 (11.2)

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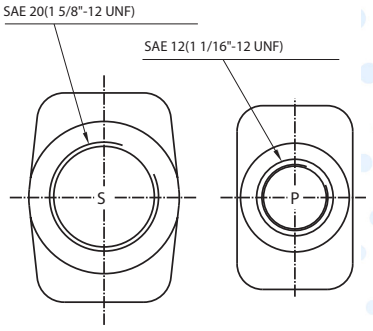
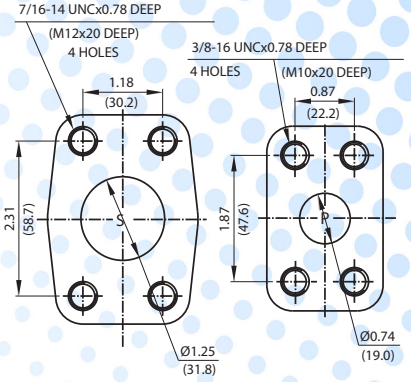
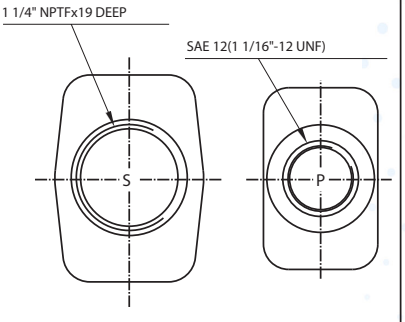


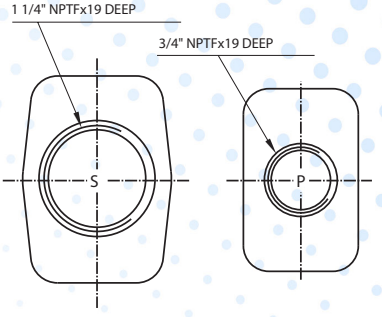
PORT CONNECTION 00



PORT CONNECTION 01&M0

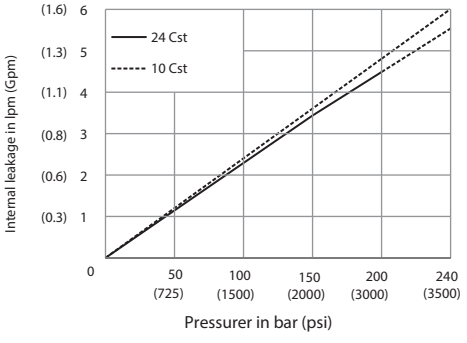


PORT CONNECTION 03



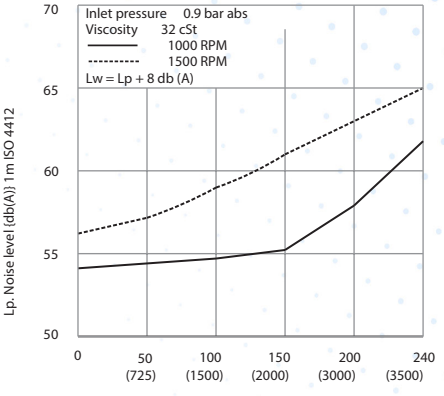
PORT CONNECTION 0X

INTERNAL LEAKAGE (TYPICAL)

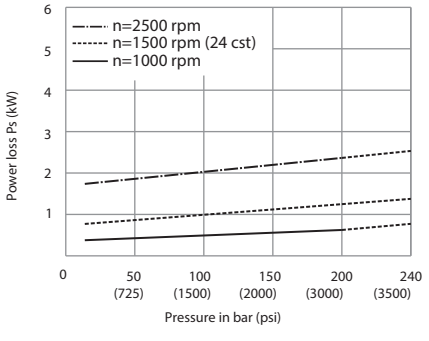


Do not operate pump for more than 5 seconds at any speed or viscosities if internal leakage is more than 50% of theoretical flow.

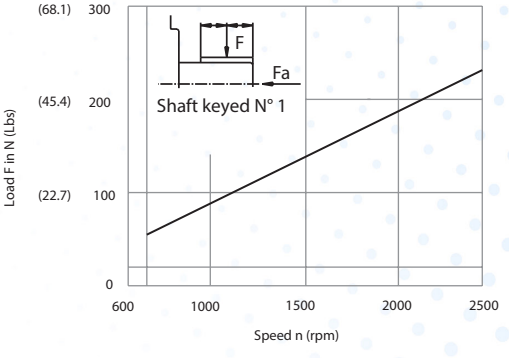
NOISE LEVEL (TYPICAL)



POWER LOSS HYDROMECHANIAL (TYPICAL)



PERMISSIBLE RADIAL LOAD



Maximum axial load permissable Fa = 500 N (113.6 lbs)

Part Numbers:

PART NUMBER	DESCRIPTION
VCS14-72364	TXB B02 CART KIT CW
VCS14-72365	TXB B02 CART KIT CCW
VCS14-72366	TXB B03 CART KIT CW
VCS14-72367	TXB B03 CART KIT CCW
VCS14-72368	TXB B04 CART KIT CW
VCS14-72369	TXB B04 CART KIT CCW
VCS14-72433	TXB B05 CART KIT CW
VCS14-72434	TXB B05 CART KIT CCW
VCS14-72370	TXB B06 CART KIT CW
VCS14-72371	TXB B06 CART KIT CCW
VCS14-72435	TXB B07 CART KIT CW
VCS14-72443	TXB B07 CART KIT CCW
VCS14-72372	TXB B08 CART KIT CW
VCS14-72373	TXB B08 CART KIT CCW
VCS14-72374	TXB B09 CART KIT CW
VCS14-72375	TXB B09 CART KIT CCW
VCS14-72444	TXB B10 CART KIT CW
VCS14-72445	TXB B10 CART KIT CCW
VCS14-72446	TXB B11 CART KIT CW
VCS14-72447	TXB B11 CART KIT CCW
VCS14-72376	TXB B12 CART KIT CW
VCS14-72377	TXB B12 CART KIT CCW
VCS14-72419	TXB B14 CART KIT CW
VCS14-72420	TXB B14 CART KIT CCW

PART NUMBER	DESCRIPTION
VCS14-72378	TXB1 SHAFT #1 KEYED ASSY
VCS14-72379	TXB1 SHAFT #2 KEYED ASSY
VCS14-72466	TXB1 SHAFT #3 SPLINE ASSY
VCS14-72380	TXB1 SHAFT #3 SPLINE ASSY 13T
VCS14-72429	TXB1 SHAFT #5 KEYED ASSY

PART NUMBER	DESCRIPTION
V034-03486-0	TXB 002 CAM RING
V034-03487-0	TXB 003 CAM RING
V034-03488-0	TXB 004 CAM RING
V034-03497-0	TXB 005 CAM RING
V034-03489-0	TXB 006 CAM RING
V034-03498-0	TXB 007 CAM RING
V034-03490-0	TXB 008 CAM RING
V034-03491-0	TXB 009 CAM RING
V034-03500-0	TXB 010 CAM RING
V034-03501-0	TXB 011 CAM RING
V034-03492-0	TXB 012 CAM RING
V034-03426-0	TXB 014 CAM RING

PART NUMBER	DESCRIPTION
VCS14-01068-0	TXB SEAL KIT BUNA
VCS14-01068-5	TXB SEAL KIT VITON
VCS14-01070-5	TXB SEAL KIT VITON

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FluiDyne supports the distributors providing local knowledge and assistance to fluid power customers.

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- Identification of parts within units
- Advice on component repair and assembly
- Component failure analysis
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THE FPDA MOTION & CONTROL NETWORK MEMBER

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QAS INTERNATIONAL ISO 9001:2015 REGISTERED FIRM

09/2021