

**VT7ED or VT7EDS - 042 - B22 - 1 R 00 - A 1 01 \***

**Series**

**VT7ED** series-125-A2 HW  
ISO 2 bolts 3019-2 mounting flange  
**VT7EDS** series- SAE C 2 bolts  
Mounting flange J744

**Cam ring for "P1"**

Volumetric displacement cm<sup>3</sup>/rev (in<sup>3</sup>/rev)

042 = 132.2 (8.07)	057 = 183.2 (11.18)
045 = 142.5 (8.70)	062 = 196.6 (12.0)
050 = 158.5 (9.67)	066 = 213.0 (13.0)
052 = 163.8 (10.0)	072 = 227.1 (13.86)
054 = 170.9 (10.43)	085 = 268.7 (16.40)

**Cam ring for "P2"**

Volumetric displacement cm<sup>3</sup>/rev (in<sup>3</sup>/rev)

B14 = 43.9 (2.68)	B31 = 99.1 (6.05)
B17 = 55.0 (3.36)	B35 = 113.4 (6.92)
B20 = 66.0 (4.03)	B38 = 120.6 (7.36)
B22 = 70.3 (4.29)	B42 = 137.5 (8.39)
B24 = 81.1 (4.95)	045 = 145.7 (8.89)
B28 = 89.9 (5.49)	050 = 157.9 (9.64)

**Modifications**

**Mounting W/connection variables**  
4 bolts SAE flange J518

P1= 11"	P2= 11"	S=4"
	VT7EDS	VT7ED-VT7EDS
Type	UNC	METRIC
code	01	M1

**Seal class**

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

**Design letter**

**Porting combination** (see page BM-1-5)  
00 - standard

**Direction of rotation (view on shaft end)**

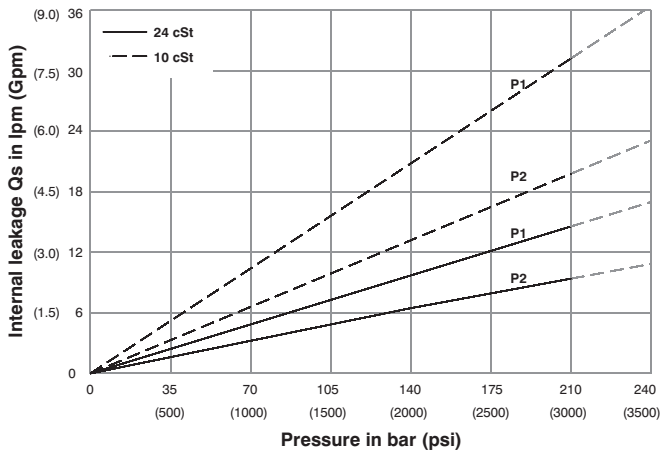
- R - clockwise
- L - counter-clockwise

**Type of shaft VT7EDS**

- 1 - keyed (SAE CC)
- 2 - keyed (no SAE)
- 3 - splined (SAE C)
- 4 - splined (SAE CC)

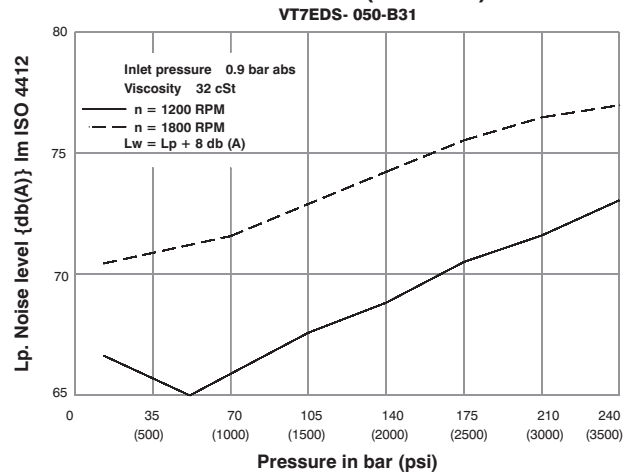
**Type of shaft VT7ED- VT7EDS**  
5 - keyed (ISO/R775 -G38M)

**INTERNAL LEAKAGE ( TYPICAL )**



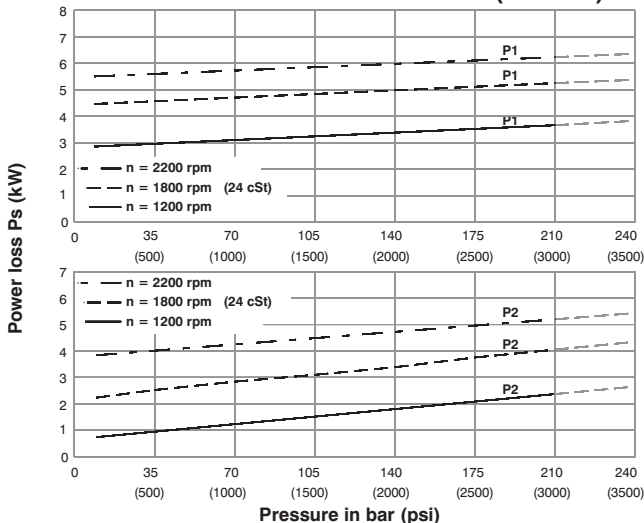
Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is more than 50% of theoretical flow. Total leakage is the sum of each section loss at its operating conditions.

**NOISE LEVEL ( TYPICAL )**



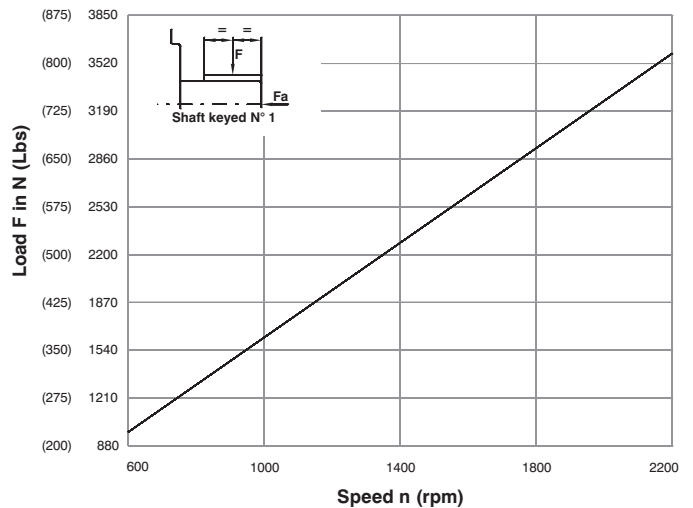
Double pump noise level is given with each section discharging at the pressure noted on the curve.

**HYDROMECHANICAL POWER LOSS ( TYPICAL )**



Total hydromechanical power loss is the sum of each section at its operating conditions.

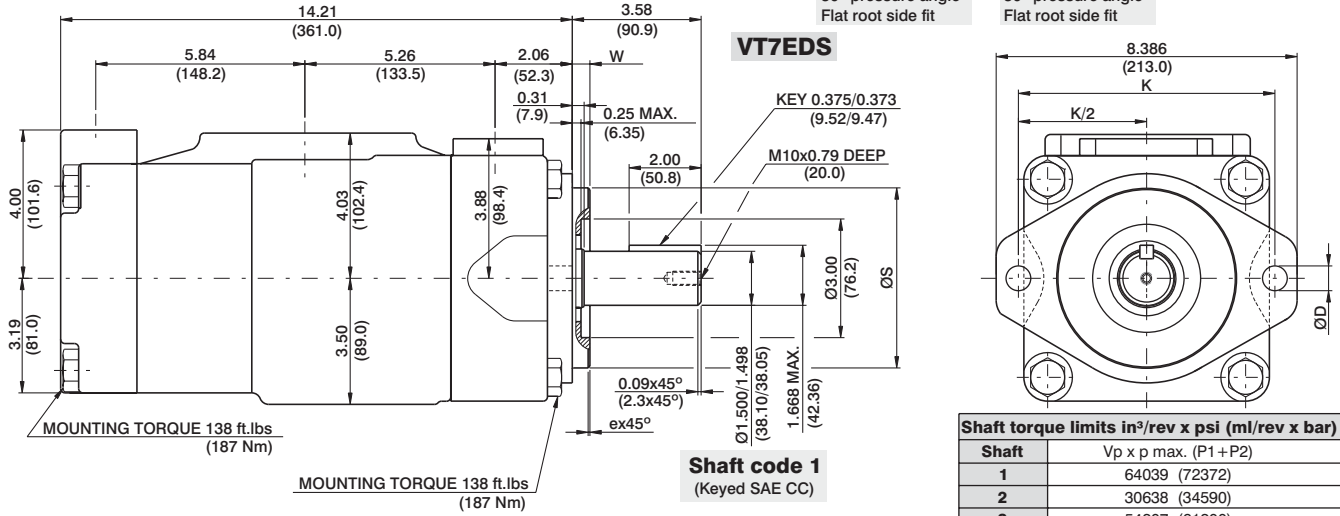
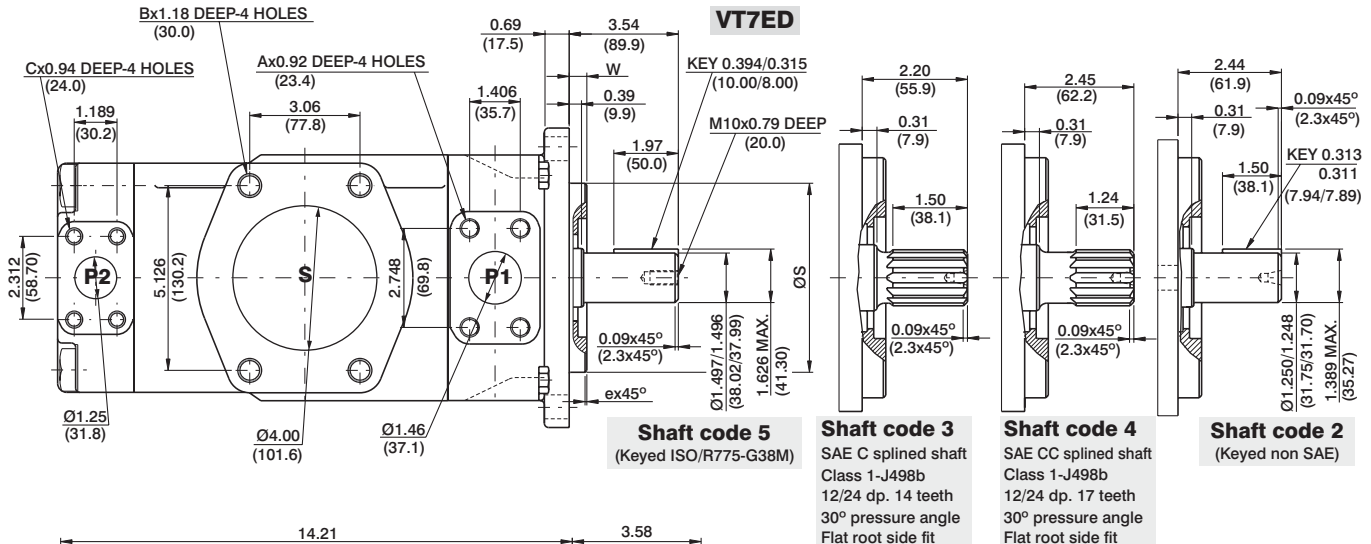
**PERMISSIBLE RADIAL LOAD**



Maximum permissible axial load Fa = 2000 N (449 Lbs)



# HIGH PERFORMANCE VANE PUMP VT7ED / VT7EDS



Shaft	Vp x p max. (P1+P2)
1	64039 (72372)
2	30638 (34590)
3	54207 (61200)
4	60673 (68568)
5	60673 (68568)

Series	ØS		ex45°	W	K	ØD
	MAX.	Min.				
VT7ED	4.921 (124.99)	4.919 (124.94)	0.079 (2.0)	0.374 (9.49)	7.087 (180.0)	0.709 (18.0)
VT7EDS	5.00 (127.00)	4.998 (126.94)	0.051 (1.3)	0.50 (12.7)	7.126 (181.0)	0.689 (17.5)

	O1	M1
A	1/2-13 UNC	M12
B	5/8-11 UNC	M16
C	7/16-14 UNC	M12

## OPERATING CHARACTERISTICS - TYPICAL (24 cST) (Input power p (KW) for one cartridge only)

Pressure port	Series	Volumetric Displacement Vp		Flow q & n = 1800 rpm						Input power p & n = 1800 rpm							
		in <sup>3</sup> /rev		cm <sup>3</sup> /rev		gpm		lpm		hp		kw		hp		kw	
		p = 0 bar (0 psi)	p = 140 bar (2000 psi)	p = 240 bar (3500 psi)	p = 7 bar (100 psi)	p = 140 bar (2000 psi)	p = 240 bar (3500 psi)	p = 7 bar (100 psi)	p = 140 bar (2000 psi)	p = 240 bar (3500 psi)							
P1	042	8.07	132.2	62.92	237.8	60.37	228.2	58.52	221.2	8.09	6.03	78.44	58.49	133.80	99.77		
	045	8.70	142.5	67.72	255.9	65.17	246.3	63.32	239.3	8.37	6.24	84.04	62.66	143.60	107.08		
	050	9.67	158.5	75.38	284.9	72.83	275.3	70.98	268.3	8.82	6.58	92.97	69.32	159.24	118.75		
	052	10.00	163.8	78.37	296.2	75.82	286.6	73.97	279.6	8.99	6.70	96.47	71.94	165.36	123.31		
	054	10.43	170.9	81.27	307.2	78.72	297.6	76.87	290.6	9.17	6.84	99.75	74.38	177.46	132.33		
	057	11.18	183.2	87.12	329.3	84.57	319.7	82.72	312.7	9.51	7.09	106.57	79.47	189.84	141.56		
	062	12.00	196.6	93.54	353.6	90.99	343.9	89.14	336.9	9.88	7.37	114.17	85.13	196.34	146.41		
	066	13.00	213.0	101.44	383.4	98.89	373.8	97.04	366.8	10.34	7.71	123.38	92.0	212.46	158.43		
	072	13.86	227.1	108.00	408.2	105.45	398.6	103.60	391.6	10.72	7.99	131.04	97.71	225.86	166.42		
085	16.40	268.7	127.79	483.0	126.13 <sup>1)</sup>	476.7 <sup>1)</sup>	--	--	11.88	8.85	101.66 <sup>1)</sup>	75.80 <sup>1)</sup>	--	--			
P2	B14	2.68	43.9	20.92	79.1	19.18	72.5	17.81	67.3	3.46	2.6	27.77	20.7	47.03	35.07		
	B17	3.36	55.0	26.16	98.8	24.41	92.3	23.04	87.0	3.77	2.8	33.88	25.3	57.71	43.03		
	B20	4.03	66.0	31.39	118.6	29.64	112.0	28.27	106.8	4.07	3.0	39.98	29.8	68.39	50.99		
	B22	4.29	70.3	33.43	126.4	31.69	119.8	30.32	104.6	4.19	3.1	42.37	31.6	72.57	54.11		
	B24	4.95	81.1	38.57	145.8	36.82	139.2	35.45	134.0	4.49	3.4	48.36	36.1	83.06	61.93		
	B28	5.49	89.9	42.80	161.8	41.06	155.2	39.69	150.0	4.74	3.5	53.30	39.7	91.70	68.38		
	B31	6.05	99.1	47.18	178.3	45.43	171.7	44.06	166.5	4.99	3.7	58.41	43.6	100.63	75.03		
	B35	6.92	113.4	53.93	203.9	52.18	197.2	50.81	192.0	5.39	4.0	66.29	49.4	114.42	85.32		
	B38	7.36	120.6	57.35	216.8	55.61	210.2	54.24	204.9	5.59	4.2	70.28	52.4	121.42	90.54		
	B42	8.39	137.5	65.39	247.2	63.65	240.6	62.28	235.4	6.05	4.5	79.66	59.4	137.83	102.77		
	045	8.89	145.7	69.29	262.0	67.11	253.6	65.31	246.8	6.74	5.0	83.75	62.4	145.79	108.71		
	050	9.64	157.9	75.14	284.0	72.96	275.8	71.78 <sup>2)</sup>	271.3 <sup>2)</sup>	7.08	5.3	90.58	67.5	134.50 <sup>2)</sup>	100.3 <sup>2)</sup>		

1) 085 = 90 bar (1300 psi) max.int.

2) 050 = 210 bar (3000 psi) max. int