

HIGH PERFORMANCE VANE PUMP HUT7D / HUT7DS

SP

HU7D or HU7DS - B42 - 1 R 00 - A 1 M0 -

Series

VT7D series-125 A2 HW

ISO 2 bolts 3019-2 mounting flange

VT7DS series- SAE C 2 bolts

Mounting flange J744

Camring

Volumetric displacement cm^3/rev (in^3/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)

Type of shaft VT7DS

1 - keyed (SAE C 32-1)

2 - keyed (no SAE)

3 - splined (SAE C 32-4)

4 - splined (no SAE)

Type of shaft VT7D - VT7DS

5 - keyed (ISO 3019-2-G32M)

Direction of rotation (view on shaft end)

R - clockwise

L - counter-clockwise

Modifications

Mounting w/connection variables

4 bolts SAE flange J518

P = 1"1/4 S = 2"	
UNC	METRIC
VT7D	M0
VT7DS	00 M0 Y0 1)

1) 250 bar (3630 psi) max. int.

Seal class

1 - S1 (for mineral oil)

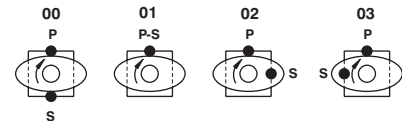
4 - S4 (for fire resistant fluids)

5 - S5 (for mineral oil and fire resistant fluids)

Design letter

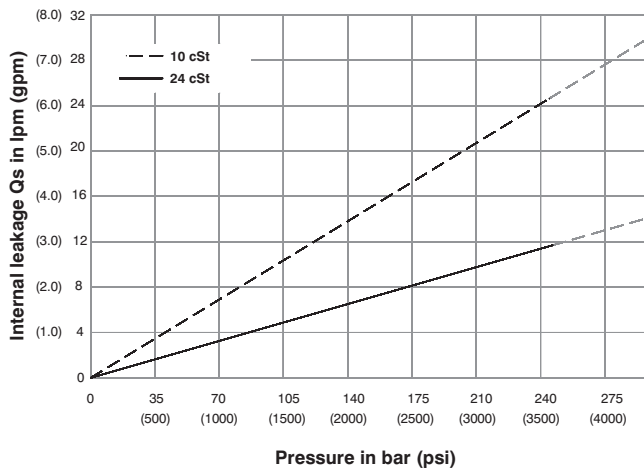
Porting combination

00 - standard



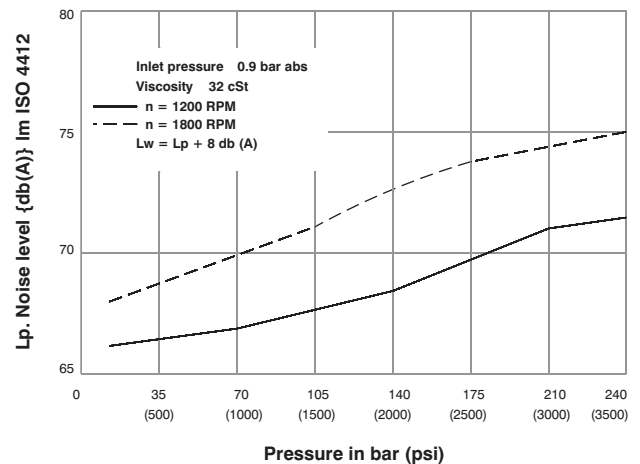
S - Suction port P - Pressure port

INTERNAL LEAKAGE (TYPICAL)

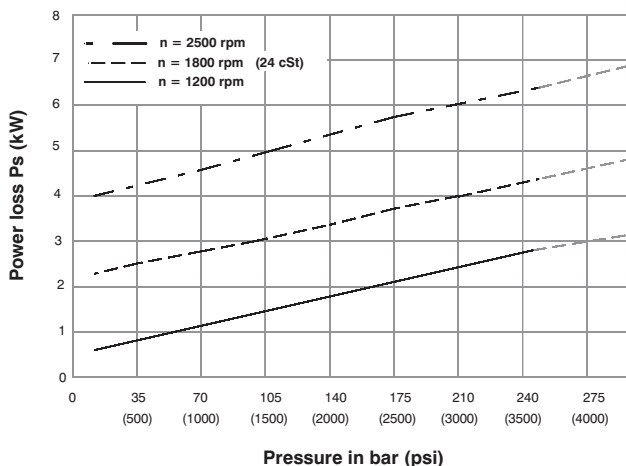


NOISE LEVEL (TYPICAL)

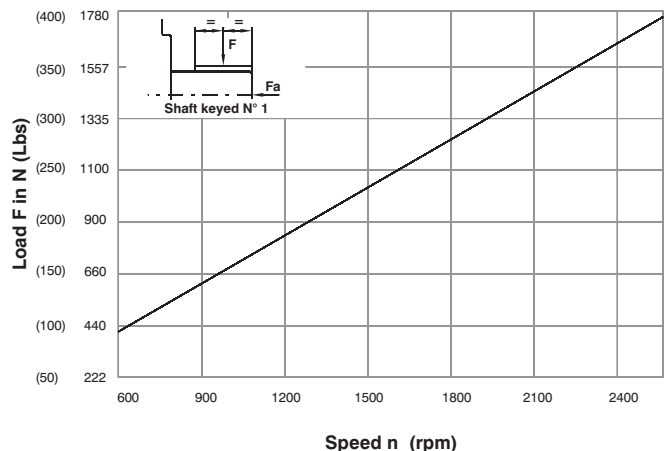
VT7D- B31



HYDROMECHANICAL POWER LOSS (TYPICAL)



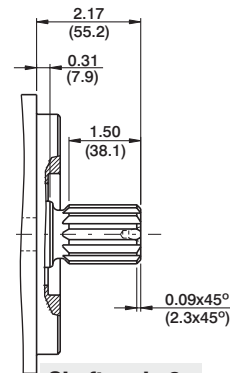
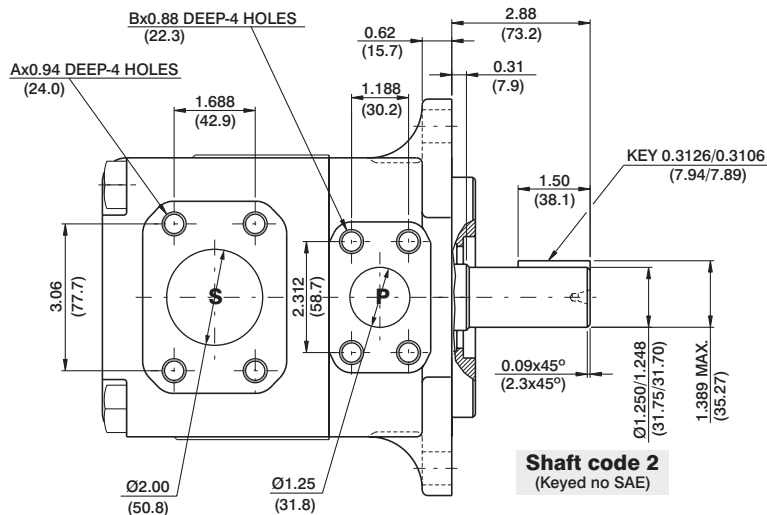
PERMISSIBLE RADIAL LOAD



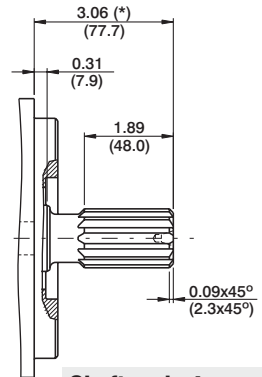
Maximum axial load permissible $F_a = 1200 \text{ N}$ (270 Lbs)

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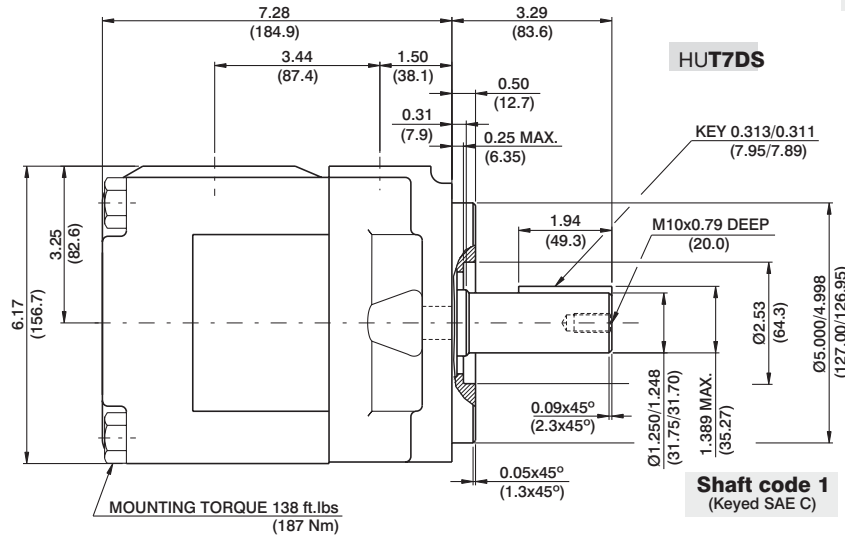
SP



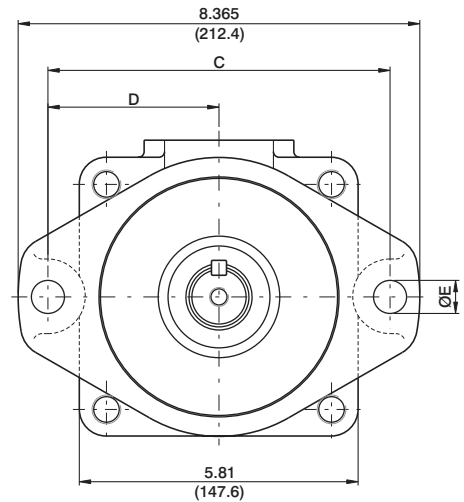
Shaft code 3
SAE C splined shaft
Class 1-J498b
12/24 dp. 14 teeth
30° pressure angle
flat root side fit



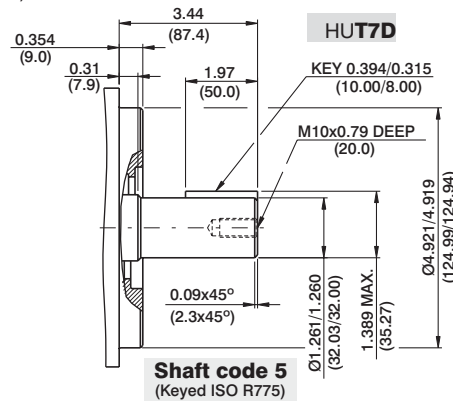
Shaft code 4
SAE C spc(*) splined shaft
Class 1-J498b
12/24 dp. 14 teeth
30° pressure angle
flat root side fit



Shaft code 1
(Keyed SAE C)



Shaft torque limits in ³ /rev x psi (ml/rev x bar)	
Shaft	Vp x p max.
1	38299 (43283)
2	30638 (34590)
3	54207 (61200)
4	54207 (61200)
5	39238 (44344)



Shaft code 5
(Keyed ISO R775)

	HUT7DS		HUT7D	
	00	M0	Y0 ¹⁾	M0
A	1/2-13 UNC	M12	M12	M12
B	7/16-14 UNC	M12	M10	M12
C	7.12 (181.0)		7.09 (180.0)	
D	3.56 (90.5)		3.54 (90.0)	
E	0.69 (17.5)		0.71 (18.0)	

1) 250 bar (3630 psi) max.int.

OPERATING CHARACTERISTICS - TYPICAL (24 cST)

Pressure port	Series	Volumetric Displacement Vp		Flow q & n = 1800 rpm						Input power p & n = 1800 rpm					
				p = 0 bar (0 psi)		p = 140 bar (2000 psi)		p = 300 bar (4350 psi)		p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 300 bar (4350 psi)	
		in ³ /rev	cm ³ /rev	gpm	lpm	gpm	lpm	gpm	lpm	hp	kw	hp	kw	hp	kw
HUT7 D	B14	2.68	43.9	20.92	79.1	19.18	72.5	17.19	64.9	3.46	2.6	27.77	20.7	58.49	43.6
	B17	3.36	55.0	26.16	98.8	24.41	92.3	22.42	84.7	3.77	2.8	33.88	25.3	71.92	53.6
	B20	4.03	66.0	31.39	118.6	29.64	112.0	27.65	104.5	4.07	3.0	39.98	29.8	85.35	63.6
	B22	4.29	70.3	33.43	126.4	31.69	119.8	29.70	112.3	4.19	3.1	42.37	31.6	90.60	67.6
	B24	4.95	81.1	38.57	145.8	36.82	139.2	34.83	131.6	4.49	3.4	48.36	36.1	103.78	77.4
	B28	5.49	89.9	42.80	161.8	41.06	155.2	39.06	147.6	4.74	3.5	53.30	39.7	114.65	85.5
	B31	6.05	99.1	47.18	178.3	45.43	171.7	43.44	164.2	4.99	3.7	58.41	43.6	125.88	93.7
	B35	6.92	113.4	53.93	203.9	52.18	197.2	50.44 ¹⁾	190.6 ¹⁾	5.39	4.0	66.29	49.4	130.39 ¹⁾	97.2 ¹⁾
	B38	7.36	120.6	57.35	216.8	55.61	210.2	53.87 ¹⁾	203.6 ¹⁾	5.59	4.2	70.28	52.4	138.38 ¹⁾	103.2 ¹⁾
	B42	8.39	137.5	65.39	247.2	63.65	240.6	62.15 ²⁾	234.9 ²⁾	6.05	4.5	79.66	59.4	149.39 ²⁾	111.4 ²⁾
HUT7 DS	045	8.89	145.7	69.29	262.0	67.11	253.6	65.47 ³⁾	247.5 ³⁾	6.74	5.0	83.75	62.4	144.41 ³⁾	107.7 ³⁾
	050	9.64	157.9	75.14	284.0	72.96	275.8	71.78 ⁴⁾	271.3 ⁴⁾	7.08	5.3	90.58	67.5	134.54 ⁴⁾	100.3 ⁴⁾

1) B35-B38 = 280 bar (4060 psi) max.int.

2) B42 = 260 bar (3770 psi) max.int.

3) 045 = 240 bar (3500 psi) max. int.

4) 050 = 210 bar (3000 psi) max. int.

* special 2"1/2 (2.5 dia) suction also available - Please contact VELJAN