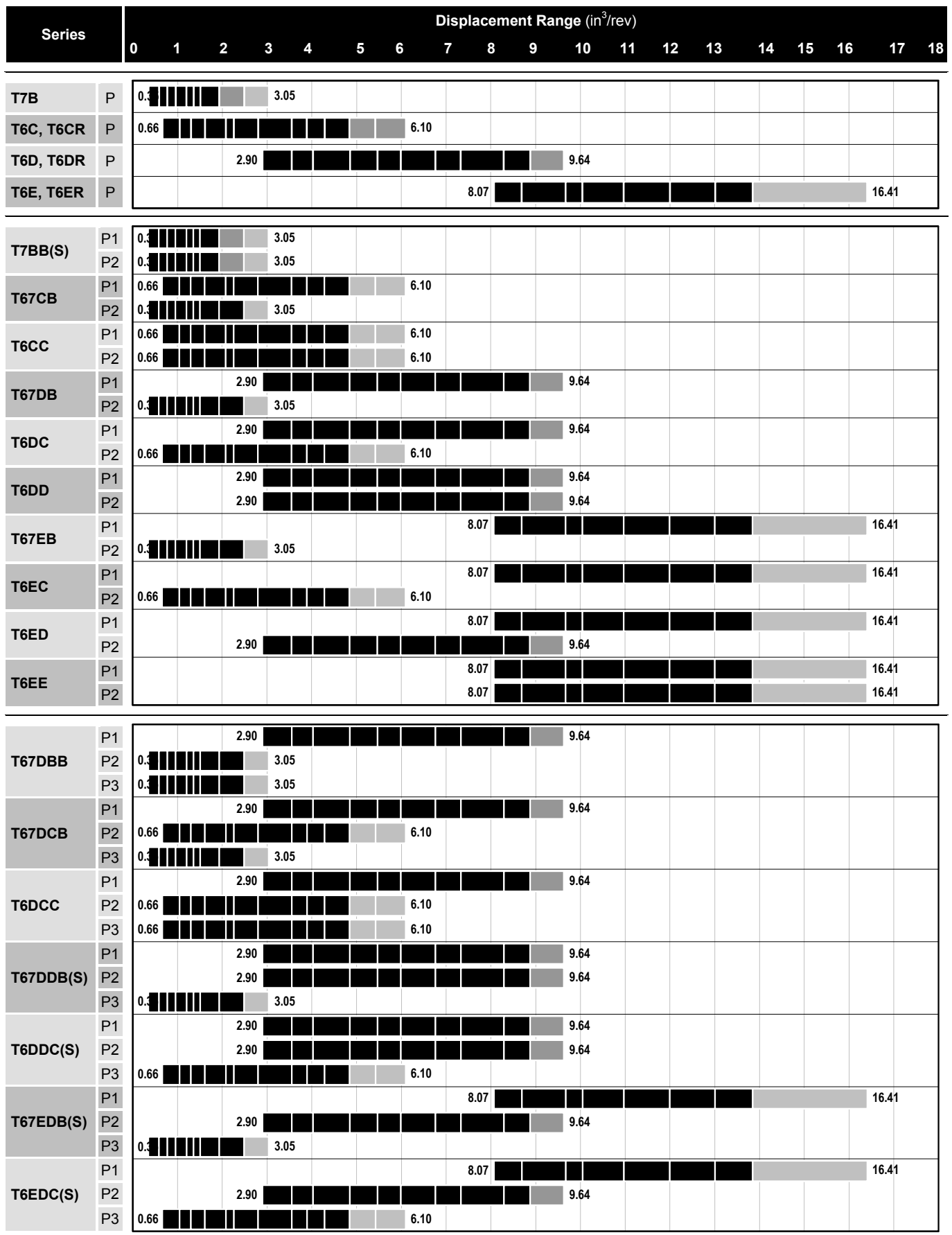


2. Vane Pumps

Versions		Series	Max. Pressure (PSI)			Max. Displacement (in ³ /rev)			Weight	Page
			P1	P2	P3	P1	P2	P3	lbs	
Medium Duty, Single		TB	2800			2.31			15	2 - 2
Industrial & Mobile	Single	T7B(S)	4600			3.05			51	2 - 8
		T6C	4100			6.10			35	
		T6D	3500			9.64			53	
		T6E	3500			16.41			95	
	Double	T7BB(S)	4600	4600		3.05	3.05		57	2 - 10
		T67CB	4100	4400		6.10	3.05			
		T6CC	4100	4100		6.10	6.10			
		T67DB	3500	4400		9.64	3.05			
		T6DC	3500	4100		9.64	6.10			
		T6DD(S)	3500	3500		9.64	9.64			
		T67EB	3500	4400		16.41	3.05			
		T6EC	3500	4100		16.41	6.10			
		T6ED	3500	3500		16.41	9.64			
	Triple	T67DBB	3500	4400	4400	9.64	3.05	3.05	135	2 - 14
		T67DCB	3500	4100	4400	9.64	6.10	3.05	135	
		T6DCC	3500	4100	4100	9.64	6.10	6.10	135	
		T67DDB(S)	3500	3500	4400	9.64	9.64	3.05	146	
		T6DDC(S)	3500	3500	4100	9.64	9.64	6.10	146	
		T67EDB(S)	3500	3500	4400	16.41	9.64	3.05	221	
		T6EDC(S)	3500	3500	4100	16.41	9.64	6.10	221	
	Single Rear Drive	T6CR	4100			6.10			38	2 - 18
		T6DR	3500			9.64			64	
		T6ER	3500			16.41			86	
	Double rear drive	T6EE(S)	3500	3500		16.41	16.41		209	2 - 20
	Triple rear drive	T6DCCR	3500	4100	4100	9.64	6.10	6.10	137	2 - 22
		T6EDCR	3500	3500	4100	16.41	9.64	6.10	221	
Hybrid	Double	T6H20B	4100	4400		2.61	3.05		82	2 - 24
		T6H20C	4100	4100		2.61	6.10		82	
		T6H29B	3000	4400		3.78	3.05		108	
		T6H29C	3000	4100		3.78	6.10		108	
		T6H29D	3000	4100		3.78	9.64		132	
Rear Drive Selection Table										2 - 29
Porting Tables										2 - 30

Vane Pumps - Product Range Overview



Vane Pumps - Performance & Operation Limits, Mineral Oil

Cam	Size	in ³ / rev	Mineral Oil Antiwear petroleum base (HF-0, HF-2)										Size	
			Speed Range ¹	Maximum Outlet Pressure		Minimum inlet pressure (vs. rpm)								
				Int.	Cont.	1200	1500	1800	2100	2200	2300	2500		2800
				rpm	PSI	PSI	PSI (absolute)							
B	B02	0.35	600...3600	4600	4200	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	B02
	B03	0.60												B03
	B04	0.78												B04
	B05	0.97												B05
	B06	1.21												B06
	B07	1.37												B07
	B08	1.52												B08
	B10	1.94												B10
	B12	2.50	600...3000	4400	4000									B12
B15	3.05	4100		3500	12.2	14.5	B15							
C	003	0.66	600...2800	4100	3500	11.6	11.6	11.6	11.6	11.6	11.6	13.1	14.5	003
	005	1.05												005
	006	1.30												006
	008	1.61												008
	010	2.08												010
	012	2.26												012
	014	2.81												014
	017	3.56												017
	020	3.89												020
	022	4.29												022
	025	4.84												600...2500
	028	5.42	14.2	14.5	15.7				-	028				
	031	6.10	12.3	13.1	14.5				16.1	031				
D	014	2.90	600...2500	3500	3000	11.6	11.6	11.6	11.6	12.8	13.8	14.5	-	014
	017	3.55												017
	020	4.03												020
	024	4.85												024
	028	5.47												028
	031	6.00												031
	035	6.77												035
	038	7.34												038
	042	8.30												600...2200
	045	8.89	14.2	15.2	-			-	045					
	050	9.64	14.8	15.8	050									
E	042	8.07	600...2200	3500	3000	11.6	11.6	11.6	13.1	14.5	-	-	-	042
	045	8.69												045
	050	9.67												050
	052	10.06												052
	057	10.97												057
	062	12.00												062
	066	13.02												066
	072	13.86												072
	085	16.41	600...1800	1700	1200			14.5	14.5	14.5				-

¹ For speed below 600 RPM, consult Denison Hydraulics.

Cam	Size	In ³ / rev	Fire Resistant Fluids Water-glycol (HF-4), Synthetic fluids (HF-5)						Size
			Speed Range	Maximum Outlet Pressure		Minimum inlet pressure (vs. rpm)			
				Int.	Cont.	1200	1500	1800	
				rpm	PSI	PSI	PSI (absolute)		
B	B02	0.35	600...1800	3500	3000	14.5	14.5	14.5	B02
	B03	0.60							B03
	B04	0.78							B04
	B05	0.97							B05
	B06	1.21							B06
	B07	1.37							B07
	B08	1.52							B08
	B10	1.94							B10
	B12	2.50							B12
	B15	3.05							B15
C	003	0.66	600...1800	3000	2500	14.5	14.5	14.5	003
	005	1.05							005
	006	1.30							006
	008	1.61							008
	010	2.08							010
	012	2.26							012
	014	2.81							014
	017	3.56							017
	020	3.89							020
	022	4.29							022
	025	4.84							025
	028	5.42							2300
	031	6.10			031				
D	014	2.90	600...1800	3000	2500	14.5	14.5	14.5	014
	017	3.55							017
	020	4.03							020
	024	4.85							024
	028	5.47							028
	031	6.00							031
	035	6.77							035
	038	7.34							038
	042	8.30							16.0
	045	8.89						045	
	050	9.64			2300			16.0	050
E	042	8.07	600...1800	3000	2500	14.5	14.5	14.5	042
	045	8.69							045
	050	9.67							050
	052	10.06							052
	057	10.97							057
	062	12.00						16.0	062
	066	13.02				16.0	16.0	17.4	066
	072	13.86							072
	085	16.41		1700	1200	18.1	18.1	18.1	085

Vane Pumps - Output Flow & Input Power

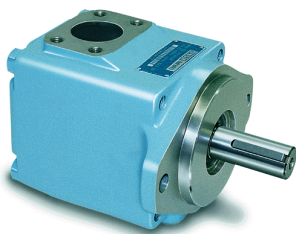
Input Speed : 1200 rpm (Mineral oil, HF-0 / HF-2, 24 cSt)

CAM	SIZE	In ³ / rev	Output Flow (GPM)							Input Power (HP)							SIZE
			0 PSI	1000 PSI	2000 PSI	3000 PSI	3500 PSI	4100 PSI	4600 PSI	0 PSI	1000 PSI	2000 PSI	3000 PSI	3500 PSI	4100 PSI	4600 PSI	
B	B02	0.35	1.9	1.6	1.4	1.2	1.1			0.5	1.7	3.0	4.3	4.8			B02
	B03	0.60	3.1	2.9	2.7	2.5	2.3	2.2	2.1	0.5	2.4	4.4	6.6	7.4	8.6	9.8	B03
	B04	0.78	4.1	3.8	3.7	3.4	3.3	3.1	3.0	0.7	3.0	5.6	8.2	9.3	10.9	12.3	B04
	B05	0.97	5.1	4.8	4.6	4.4	4.3	4.1	4.0	0.7	3.6	6.7	9.9	11.3	13.1	15.0	B05
	B06	1.21	6.3	6.1	5.9	5.6	5.5	5.4	5.2	0.8	4.3	8.2	12.2	13.8	16.1	18.4	B06
	B07	1.37	7.1	6.9	6.7	6.5	6.3	6.2	6.1	0.5	4.6	8.9	13.3	15.3	17.8	20.4	B07
	B08	1.52	7.9	7.7	7.5	7.2	7.1	7.0	6.8	0.8	5.2	10.2	15.0	17.2	19.9	22.7	B08
	B10	1.94	10.1	9.9	9.7	9.4	9.3	9.2	9.0	0.9	6.6	12.7	18.9	21.6	25.1	28.7	B10
	B12	2.50	13.0	12.8	12.6	12.3	12.2	12.1		1.2	8.3	16.2	24.1	27.5	32.1		B12
	B15	3.05	15.9	15.6	15.4	15.2	15.1	14.9		1.3	9.9	19.6	29.1	33.3	38.8		B15
C	003	0.66	3.4	2.8	2.1					1.5	3.5	5.9					003
	005	1.05	5.4	4.8	4.1	3.5	3.3	3.0		1.5	4.7	8.3	11.8	13.4	15.4		005
	006	1.30	6.8	6.1	5.4	4.8	4.7	4.4		1.6	5.5	9.8	14.1	16.0	18.5		006
	008	1.61	8.4	7.7	7.1	6.4	6.3	6.0		1.7	6.4	11.7	17.0	19.3	22.3		008
	010	2.08	10.8	10.2	9.5	8.8	8.7	8.4		1.9	7.9	14.6	21.3	24.3	28.0		010
	012	2.26	11.8	11.1	10.4	9.8	9.6	9.4		1.9	8.5	15.7	23.1	26.2	30.3		012
	014	2.81	14.6	13.9	13.3	12.6	12.5	12.2		2.0	10.2	19.0	28.0	31.9	37.0		014
	017	3.56	18.5	17.8	17.2	16.5	16.4	16.1		2.3	12.5	23.7	35.0	39.8	46.3		017
	020	3.89	20.2	19.6	18.9	18.3	18.1	17.8		2.4	13.4	25.8	38.1	43.3	50.4		020
	022	4.29	22.3	21.6	21.0	20.3	20.2	19.9		2.6	14.8	28.2	41.7	47.6	55.3		022
	025	4.84	25.2	24.5	23.8	23.2	23.0	22.8		2.7	16.4	31.7	46.8	53.4	62.1		025
	028	5.42	28.2	27.5	26.8	26.2				2.8	18.1	35.1	52.2				028
	031	6.10	31.7	31.0	30.4	29.7				3.1	20.3	39.4	58.5				031
D	014	2.90	15.1	14.0	12.7	11.7	11.1			2.4	10.7	20.0	29.2	33.3			014
	017	3.55	18.4	17.4	16.1	15.0	14.5			2.6	12.7	24.0	35.3	40.1			017
	020	4.03	20.9	19.9	18.6	17.5	17.0			2.8	14.2	27.0	39.7	45.1			020
	024	4.85	25.2	24.2	22.8	21.8	21.2			3.0	16.8	32.1	47.2	53.8			024
	028	5.47	28.4	27.4	26.1	25.0	24.5			3.2	18.6	35.8	53.0	60.4			028
	031	6.00	31.2	30.1	28.8	27.7	27.2			3.4	20.3	39.0	57.8	65.8			031
	035	6.77	35.2	34.1	32.8	31.8	31.2			3.6	22.7	43.9	65.0	74.0			035
	038	7.34	38.2	37.1	35.8	34.7	34.2			3.8	24.4	47.3	70.3	80.1			038
	042	8.30	43.1	42.1	40.7	39.7	39.2			4.0	27.4	53.2	79.1	90.1			042
	045	8.89	46.2	45.1	43.8	42.8	42.2			4.3	29.1	56.9	84.5	96.4			045
	050	9.64	50.1	49.0	47.7	46.7				4.4	31.5	61.4	91.5				050
E	042	8.07	42.0	40.6	39.3	38.0	37.5			5.4	27.9	53.0	78.2	88.9			042
	045	8.69	45.2	43.8	42.5	41.2	40.7			5.5	29.8	56.9	83.8	95.5			045
	050	9.67	50.3	48.9	47.6	46.3	45.8			5.8	32.9	62.9	92.9	105.8			050
	052	10.06	52.3	50.9	49.6	48.3	47.8			5.9	34.1	65.2	96.4	109.8			052
	057	10.97	57.0	55.7	54.4	53.1	52.5			6.2	36.9	70.8	104.9	119.5			057
	062	12.00	62.4	61.0	59.7	58.4	57.9			6.6	40.0	77.2	114.4	130.4			062
	066	13.02	67.6	66.3	65.0	63.7	63.1			6.8	43.2	83.4	123.8	141.1			066
	072	13.86	72.0	70.7	69.4	68.0	67.5			7.1	45.7	88.6	131.6	149.9			072
	085	16.41	85.3	84.0						7.9	53.6						085

Vane Pumps - Output Flow & Input Power

Input Speed : 1800 rpm (Mineral oil, HF-0 / HF-2, 24 cSt)

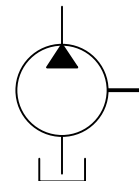
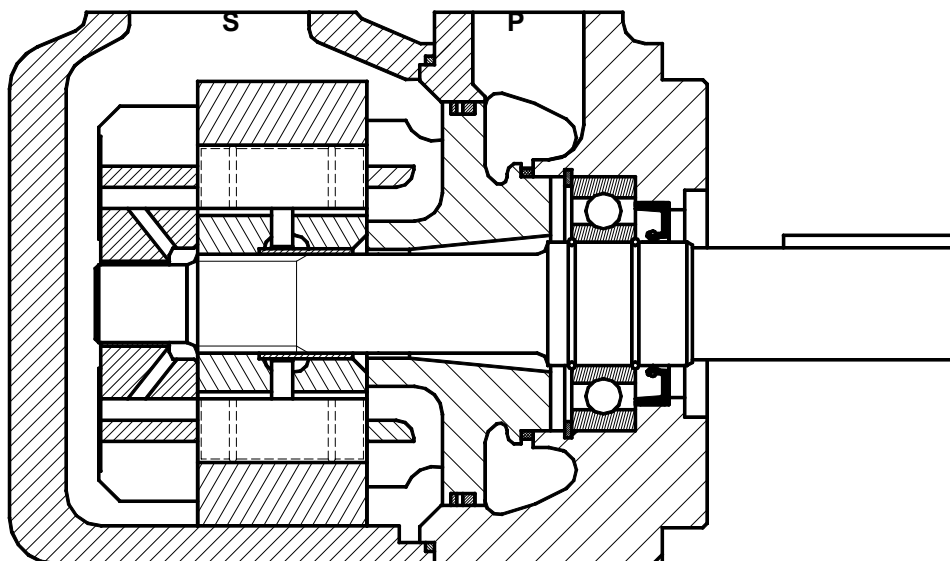
CAM	SIZE	In ³ / rev	Output Flow (GPM)							Input Power (HP)							SIZE
			0 PSI	1000 PSI	2000 PSI	3000 PSI	3500 PSI	4100 PSI	4600 PSI	0 PSI	1000 PSI	2000 PSI	3000 PSI	3500 PSI	4100 PSI	4600 PSI	
B	B02	0.35	2.8	2.5	2.3	2.1	2.0	1.8	1.7	0.9	2.7	4.6	6.7	7.5	8.6	9.7	B02
	B03	0.60	4.7	4.4	4.2	4.0	3.9	3.7	3.6	1.1	3.8	6.8	10.1	11.4	13.0	14.8	B03
	B04	0.78	6.1	5.8	5.7	5.4	5.3	5.2	5.0	1.2	4.6	8.6	12.6	14.2	16.5	18.6	B04
	B05	0.97	7.6	7.3	7.1	6.9	6.8	6.6	6.5	1.2	5.5	10.3	15.2	17.2	20.0	22.7	B05
	B06	1.21	9.4	9.2	9.0	8.8	8.6	8.5	8.4	1.3	6.6	12.5	18.5	21.1	24.3	27.6	B06
	B07	1.37	10.7	10.5	10.3	10.0	9.9	9.8	9.6	0.8	6.6	13.1	19.6	22.5	27.4	30.0	B07
	B08	1.52	11.8	11.6	11.4	11.2	11.0	10.9	10.8	1.5	8.1	15.4	22.8	25.9	30.0	34.2	B08
	B10	1.94	15.1	14.9	14.7	14.5	14.3	14.2	14.1	1.7	9.9	19.3	28.6	32.6	37.8	43.1	B10
	B12	2.50	19.5	19.3	19.1	18.8	18.7	18.6		2.0	12.6	24.4	36.3	41.4	48.1		B12
	B15	3.05	23.8	23.5	23.4	23.1	23.0	22.9		2.3	15.2	29.5	44.0	50.2	58.3		B15
C	003	0.66	5.1	4.5	3.8	3.1	3.0	2.7		2.3	5.4	8.6	11.9	13.4	15.4		003
	005	1.05	8.2	7.5	6.9	6.2	6.1	5.8		2.6	7.1	12.2	17.4	19.6	22.5		005
	006	1.30	10.1	9.5	8.8	8.1	8.0	7.7		2.6	8.3	14.5	20.9	23.6	27.2		006
	008	1.61	12.6	11.9	11.2	10.6	10.4	10.2		2.8	9.7	17.4	25.2	28.6	33.0		008
	010	2.08	16.2	15.6	14.9	14.2	14.1	13.8		3.0	11.9	21.7	31.7	35.9	41.6		010
	012	2.26	17.7	17.0	16.3	15.7	15.5	15.2		3.1	12.7	23.5	34.2	38.9	45.1		012
	014	2.81	21.9	21.2	20.6	19.9	19.8	19.5		3.4	15.3	28.4	41.7	47.5	55.0		014
	017	3.56	27.7	27.1	26.4	25.7	25.6	25.3		3.6	18.6	35.4	52.2	59.3	68.9		017
	020	3.89	30.3	29.7	29.0	28.4	28.2	27.9		3.8	20.3	38.5	56.7	64.6	75.1		020
	022	4.29	33.4	32.8	32.1	31.4	31.3	31.0		4.0	22.1	42.1	62.2	70.9	82.5		022
	025	4.84	37.7	37.0	36.4	35.7	35.6	35.3		4.3	24.7	47.2	69.9	79.5	92.5		025
	028	5.42	42.2	41.6	40.9	40.2				4.6	27.2	52.6	77.9				028
	031	6.10	47.6	46.9	46.2	45.6				4.8	30.4	58.9	87.3				031
D	014	2.90	22.6	21.6	20.3	19.2	18.7			3.9	16.2	29.9	43.6	49.5			014
	017	3.55	27.7	26.6	25.3	24.3	23.7			4.2	19.3	35.9	52.6	59.7			017
	020	4.03	31.4	30.3	29.0	28.0	27.4			4.4	21.5	40.4	59.1	67.2			020
	024	4.85	37.8	36.8	35.4	34.4	33.8			4.8	25.2	47.9	70.5	80.3			024
	028	5.47	42.7	41.6	40.3	39.2	38.7			5.1	28.2	53.6	79.1	90.1			028
	031	6.00	46.7	45.7	44.4	43.3	42.8			5.4	30.6	58.5	86.5	98.4			031
	035	6.77	52.8	51.7	50.4	49.4	48.8			5.6	34.1	65.7	97.2	110.6			035
	038	7.34	57.2	56.1	54.8	53.8	53.2			5.9	36.7	70.9	105.0	119.6			038
	042	8.30	64.7	63.6	62.3	61.2	60.7			6.4	41.2	79.8	118.3	134.8			042
	045	8.89	69.3	68.2	66.9	65.9	65.3			6.7	43.9	85.2	126.5	144.2			045
	050	9.64	75.1	74.1	72.8	71.7				7.0	47.3	92.1	136.9				050
E	042	8.07	62.9	61.6	60.3	58.9	58.4			8.6	42.2	79.7	117.1	133.3			042
	045	8.69	67.7	66.4	65.1	63.8	63.2			8.9	45.1	85.4	125.7	143.0			045
	050	9.67	75.4	74.1	72.7	71.4	70.9			9.3	49.6	94.4	139.3	158.5			050
	052	10.06	78.4	77.0	75.7	74.4	73.9			9.5	51.4	98.0	144.6	164.7			052
	057	10.97	85.5	84.2	82.9	81.5	81.0			9.9	55.7	106.5	157.3	179.2			057
	062	12.00	93.6	92.2	90.9	89.6	89.1			10.3	60.4	116.0	171.5	195.4			062
	066	13.02	101.4	100.1	98.8	97.5	96.9			10.9	65.0	125.3	185.6	211.5			066
	072	13.86	108.0	106.7	105.4	104.0	103.5			11.3	68.9	133.0	197.3	224.8			072
	085	16.41	127.9	126.6						12.3	80.7						085



(T6C)

Single Pumps

T7B(S), T6C, T6D, T6E Series



Key sheet Examples : **T7BS-B10-1R00-A100** - **T6C-025-1R00-C1**

1. **T7BS-B10-1R00-A100** Series

SAE Mounting	T7BS	T6C	T6D	T6E
Metric Mounting	T7B	-	-	-

2. **T7BS-B10-1R00-A100** Cam size

B	C	D	E
B02 0.35	003 0.66	014 2.90	042 8.07
B03 0.60	005 1.05	017 3.55	045 8.69
B04 0.78	006 1.30	020 4.03	050 9.67
B05 0.97	008 1.61	024 4.85	052 10.06
B06 1.21	010 2.08	028 5.47	057 10.97
B07 1.37	012 2.26	031 6.00	062 12.00
B08 1.52	014 2.81	035 6.77	066 13.02
B10 1.94	017 3.56	038 7.34	072 13.86
B12 2.50	020 3.89	042 8.30	085 16.41
B15 3.05	022 4.29	045 8.89	
	025 4.84	050 9.64	
	028 5.42		
	031 6.10		

3. **T7BS-B10-1R00-A100** Shaft

4. **T7BS-B10-1R00-A100** Rotation

CW	R
CCW	L

5. **T7BS-B10-1R00-A100** Porting

6. **T7BS-B10-1R00-A100** Design

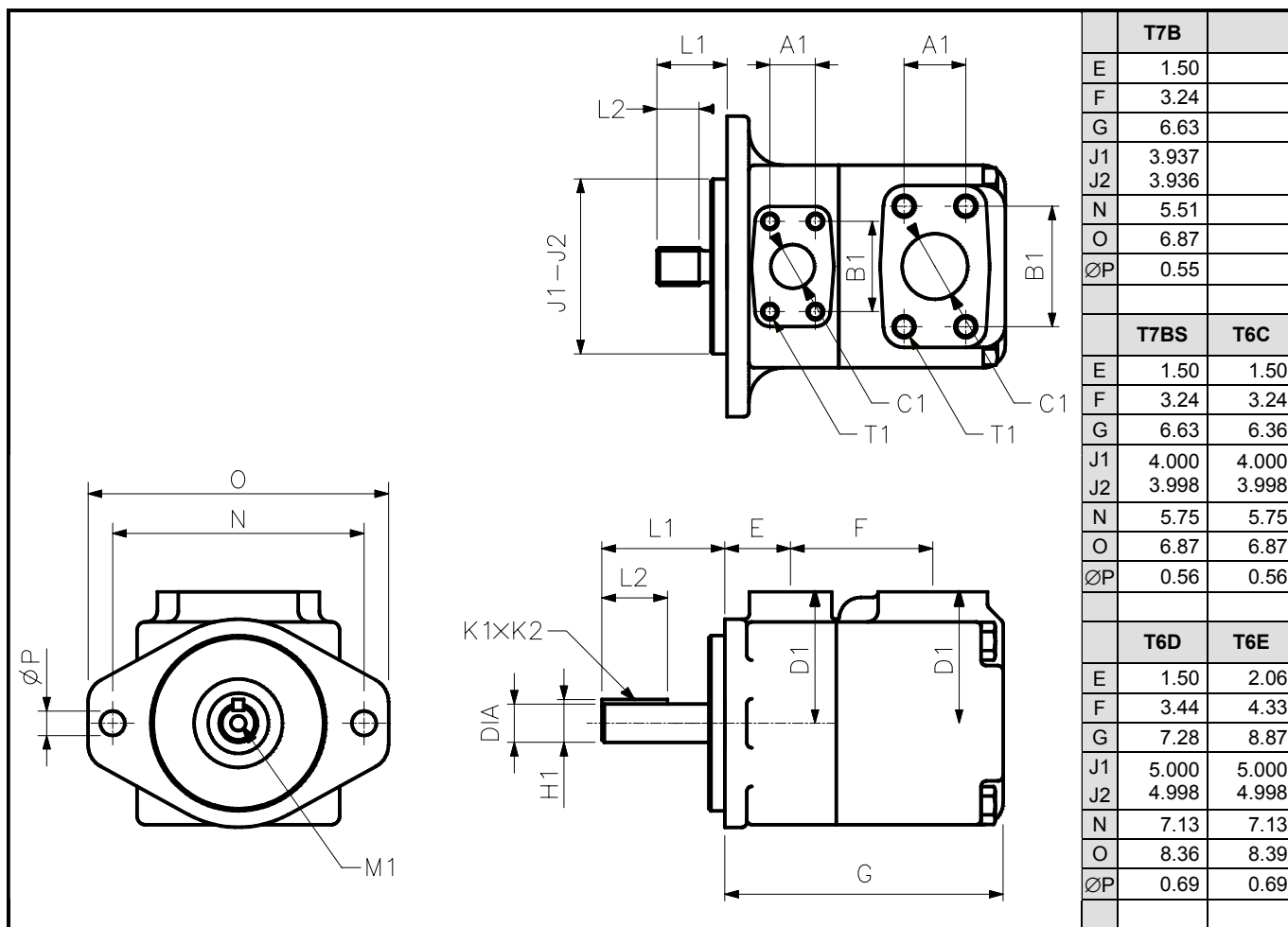
7. **T7BS-B10-1R00-A100** Seal Class

Buna N : mineral oil	1
Viton : mineral oil & fire resistant fluid	5

8. **T7BS-B10-1R00-A100** Connections

T7B / T7BS only	P = 3/4"	P = 1"
T7BS : UNC threads	01	00
T7B : Metric threads	M1	M0

Porting	00	01	02	03



Shafts		Torque Limits (in-lbs.)					Dimensions (in)					
		T7B	T7BS	T6C	T6D	T6E	L1	L2	DIA	K1 x K2	H1	M1
1	Key : SAE B		●	2430			2.81	1.50	0.8750 - 0.8748	0.250 x 0.248	0.98	M8 x 0.63
	Key : SAE C				●		3.29	1.94	1.2500 - 1.248	0.313 x 0.311	1.39	M10 x 0.79
	Key : SAE CC					●	3.58	2.00	1.500 - 1.498	0.375 x 0.373	1.67	M10 x 0.79
2	Key : Non SAE			2110			2.29	1.25	22.225 - 22.200	0.187x0.185	24.53	-
	Key : ISO R775	●					2.76	1.57	24.9935-25.0065	8.00 x 7.00	28.22	-
	Key : Non SAE				5110		2.88	1.50	31.750 - 31.700	0.313x0.311	35.27	-
	Key : Non SAE					5110	2.44	1.50	31.750 - 31.700	0.313x0.311	35.27	
3	Spline : SAE B		●	3040			1.60	0.96	Class 1-J498b, 16/32 d.p. - 13 teeth			
	Spline : SAE C				●	●	2.17	1.50	Class 1-J498b, 12/24 d.p. - 14 teeth			
4	Spline : SAE BB		●	●			1.79	0.96	Class 1-J498b, 16/32 d.p. - 15 teeth			
	Spline : Non SAE				●		3.06	1.89	Class 1-J498b, 12/24 d.p. - 14 teeth			
	Spline : SAE CC					●	2.45	1.24	Class 1-J498b, 12/24 d.p. - 17 teeth			

Ports			Dimensions (in)				
			A1	B1	C1	D1	Threads T1
T7BS	P	01 : 3/4" 00 : 1"	0.87 1.03	1.88 2.06	0.75 1.00	3.00	3/8"-16UNC x 0.75
	S	1 1/2"	1.41	2.76	1.50	3.00	1/2"-13UNC x 0.88
T7B	P	M1 : 3/4" M0 : 1"	0.87 1.03	1.88 2.06	0.75 1.00	3.00	M10 x 0.75
	S	1 1/2"	1.41	2.76	1.50	3.00	M12 x 0.88
T6C	P	1"	1.03	2.06	1.00	3.00	3/8"-16UNC x 0.75
	S	1 1/2"	1.41	2.76	1.50	3.00	1/2"-13UNC x 0.88
T6D	P	1 1/4"	1.19	2.31	1.25	3.25	1/16"-14UNC x 0.88
	S	2"	1.69	3.06	2.00	3.25	1/2"-13UNC x 0.94
T6E	P	1 1/2"	1.41	2.75	1.50	3.88	1/2"-13UNC x 0.94
	S	3"	2.44	4.19	3.00	3.88	5/8"-11UNC x 0.94