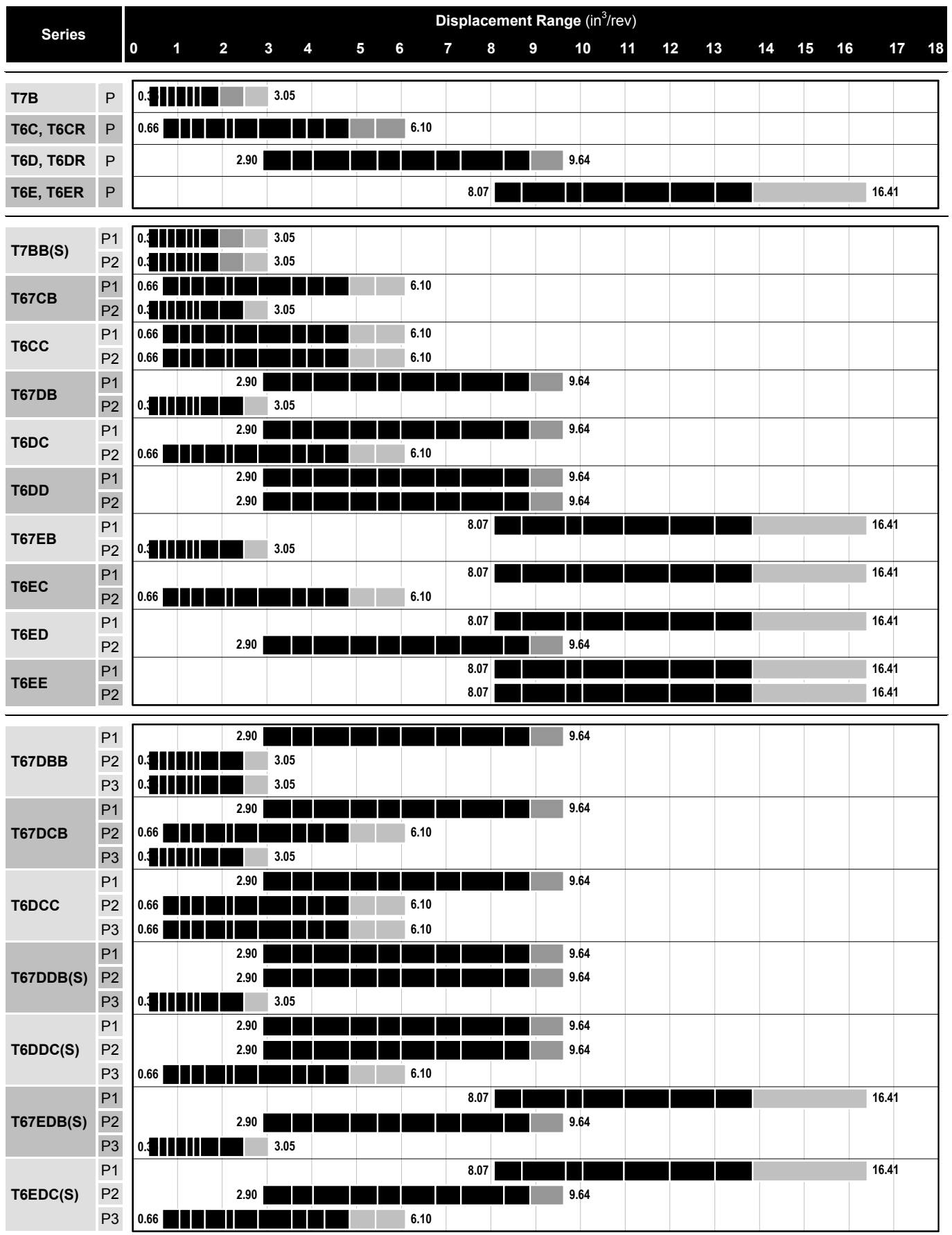


2. Vane Pumps

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	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	13.1	14.5	003					
	005	1.05											005					
	006	1.30								006								
	008	1.61								008								
	010	2.08								010								
	012	2.26							12.3	13.3	13.8	14.9	012					
	014	2.81											014					
	017	3.56											017					
	020	3.89							12.3	13.1	13.8	14.2	15.2	020				
	022	4.29												022				
	025	4.84												025				
	028	5.42												028				
	031	6.10							600...2500	3000	2300			12.3	13.1	14.5	16.1	-
	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	12.3							13.3	13.8	14.5	17.1		17.8	028		
031		6.00														031		
035		6.77														035		
038		7.34														038		
042		8.30														042		
045		8.89	600...2200	3000	2300	14.2	15.2	-	-		045							
050		9.64									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				12.3	13.8	15.8	15.2	062								
	066	13.02								066								
	072	13.86				600...1800	1700	1200	14.5	14.5				14.5	-	-		072
	085	16.41																085

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	028
	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	042
	045	8.89								045
	050	9.64								2300
	E	042			8.07			600...1800	3000	2500
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

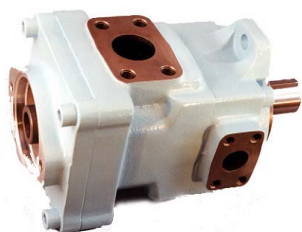
Input Speed : 1200 rpm (Mineral oil, HF-0 / HF-2, 24 cSt)

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)

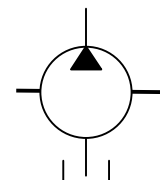
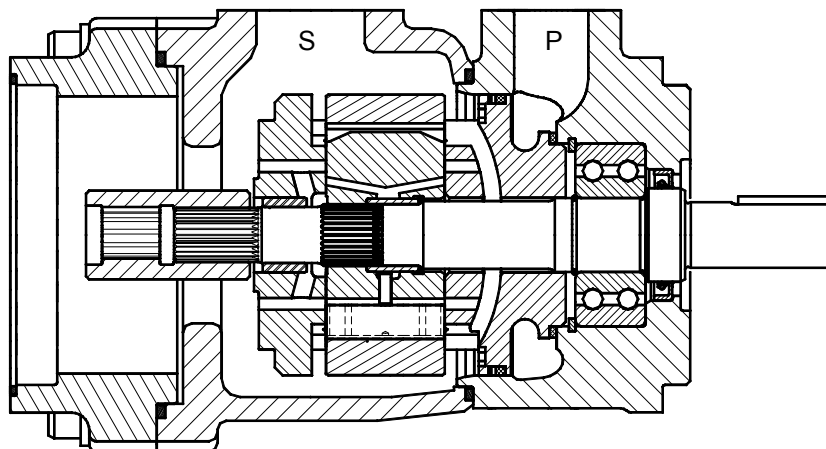
CAM	SIZE	In ³ / rev	Output Flow (GPM)							Input Power (HP)							SIZE
			0 PSI	1000 PSI	2000 PSI	3000 PSI	3500 PSI	4100 PSI	4600 PSI	0 PSI	1000 PSI	2000 PSI	3000 PSI	3500 PSI	4100 PSI	4600 PSI	
B	B02	0.35	2.8	2.5	2.3	2.1	2.0	1.8	1.7	0.9	2.7	4.6	6.7	7.5	8.6	9.7	B02
	B03	0.60	4.7	4.4	4.2	4.0	3.9	3.7	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



(T6CR)

Single Rear Drive Pumps

T6CR, T6DR, T6ER Series



Key sheet Example : T6DR-031-1R00-B10-A1

1. **T6DR**-031-1R00-B10-A1 Series

Series	T6CR	T6DR	T6ER
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2. **T6DR**-**031**-1R00-B10-A1 Cam size

T6CR	T6DR	T6ER
003..... 0.66	014..... 2.90	042..... 8.07
005..... 1.05	017..... 3.55	045..... 8.69
006..... 1.30	020..... 4.03	050..... 9.67
008..... 1.61	024..... 4.85	052..... 10.06
010..... 2.08	028..... 5.47	057..... 10.97
012..... 2.26	031..... 6.00	062..... 12.00
014..... 2.81	035..... 6.77	066..... 13.02
017..... 3.56	038..... 7.34	072..... 13.86
020..... 3.89	042..... 8.30	085..... 16.41
022..... 4.29	045..... 8.89	
025..... 4.84	050..... 9.64	
028..... 5.42		
031..... 6.10		

3. **T6DR**-031-**1**R00-B10-A1 Shaft

4. **T6DR**-031-1**R**00-B10-A1 Rotation

CW	R
CCW	L

5. **T6DR**-031-1R**00**-B10-A1 Porting

6. **T6DR**-031-1R00-**B**10-A1 Rear Adapter

	SAE - A	SAE - B	SAE - C
Rear Adapter	A	B	C

7. **T6DR**-031-1R00-B**10**-A1 Rear Coupling

	SAE	A	B	BB	C	16/32-11 teeth
Coupling	1	2	3	4	5	

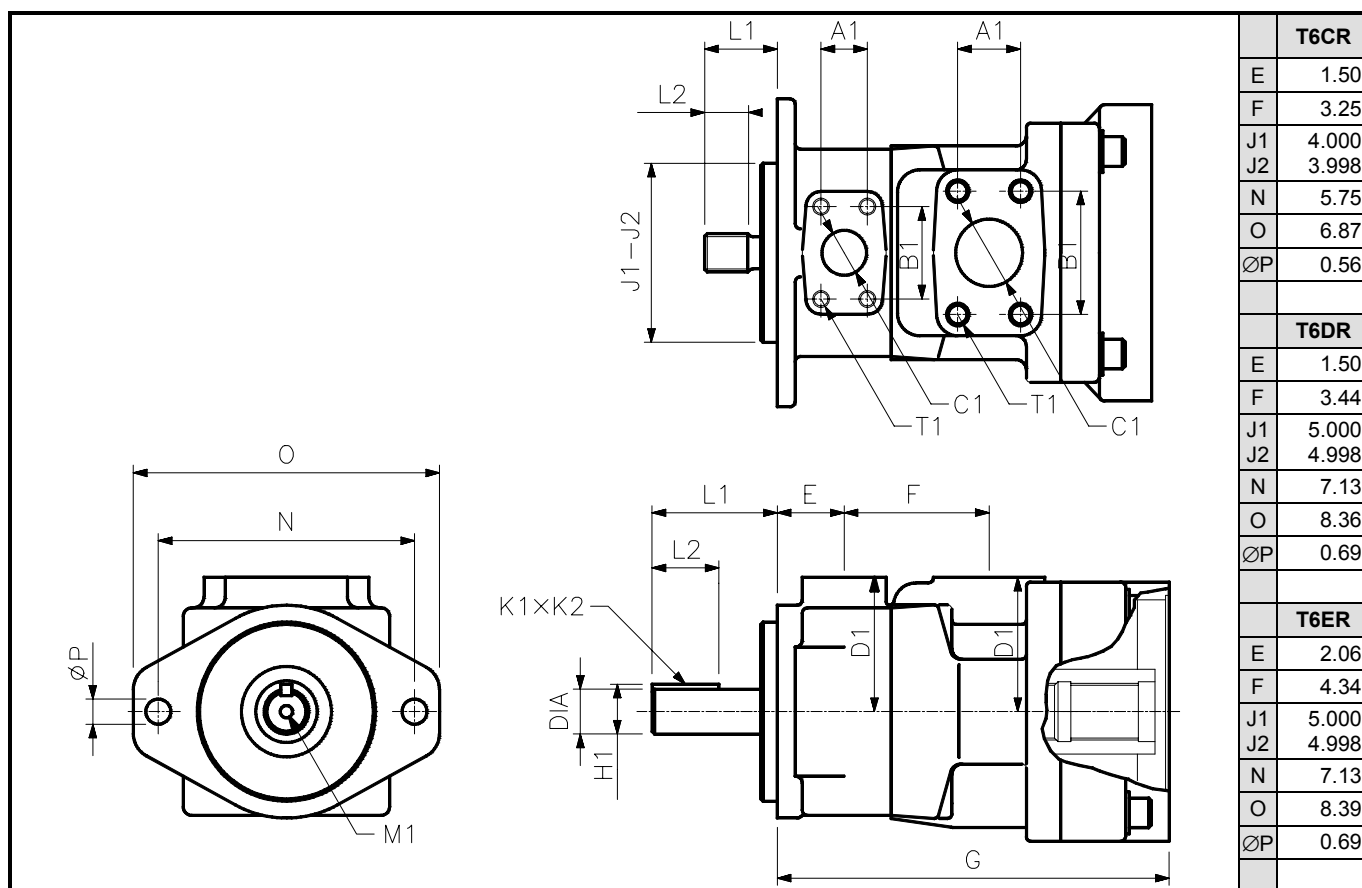
8. **T6DR**-031-1R00-B1**0**-A1 Adapter Porting

9. **T6DR**-031-1R00-B10-**A**1 Design

10. **T6DR**-031-1R00-B10-A**1** Seal Class

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

Porting	00	01	02	03
Adapter Porting	0	1	2	3



Shafts		Torque Limits (in-lbs.)			Dimensions (in)				
		T6CR	T6DR	T6ER	L1	L2	DIA	K1 x K2	H1
1	Key : SAE BB	3160			2.81	1.50	1.000 - 0.999	0.250x0.248	1.11
	Key : SAE C		6380		3.31	1.94	1.250 - 1.248	0.313x0.311	1.39
	Key : SAE CC			11890	3.58	2.00	1.500 - 1.498	0.375x0.373	1.67
2	Key : Non SAE	2110			2.31	1.25	0.875 - 0.874	0.187x0.185	0.97
	Key : SAE CC		9750		3.56	2.00	1.500 - 1.498	0.375x0.373	1.67
3	Spline : SAE B	3040			1.63	0.96	Class 1-J498b, 16/32 d.p. - 13 teeth		
	Spline : SAE C		9030		2.17	1.50	Class 1-J498b, 12/24 d.p. - 14 teeth		
	Spline : SAE C			9030	2.17	1.08	Class 1-J498b, 12/24 d.p. - 14 teeth		
4	Spline : SAE BB	●			1.82	0.72	Class 1-J498b, 16/32 d.p. - 15 teeth		
	Spline : SAE CC			17740	2.43	1.24	Class 1-J498b, 12/24 d.p. - 17 teeth		
5	Key : Non SAE	2110			2.19	1.50	1.250 - 1.248	0.313x0.311	1.39
	Key : Non SAE		8210		3.28	1.93	1.374 - 1.372	0.313x0.311	1.51

Ports			Dimensions (in)				Threads T1
			A1	B1	C1	D1	
T6CR	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
T6DR	P	1 1/4"	1.19	2.31	1.25		7/16"-14UNC x 0.88
	S	2"	1.69	3.06	2.00		1/2"-13UNC x 0.94
T6ER	P	1 1/2"	1.41	2.71	1.46	3.88	1/2"-13UNC x 0.92
	S	3"	2.44	4.19	2.95	3.88	5/8"-11UNC x 0.94

Rear adapter		R1 - R2	D2	G		
Code	Type			T6CR	T6DR	T6ER
A	SAE-A	3.254 - 3.252	M10	8.23	9.33	10.71
B	SAE-B	4.004 - 4.002	M12	8.78	9.88	11.26
C	SAE-C	5.004 - 5.002	M16	9.17	10.28	11.65

See annex pages for rear drive selection table

Rear coupling		Torque limit (in-lbs.)		
Code	Type	T6CR	T6DR	T6ER
1	SAE-A	1620	1620	1620
2	SAE-B	3040	3040	3040
3	SAE BB	3260	4820	4820
4	SAE-C	3260	5510	9810
5	SAE 16/32-11 teeth	2340	2340	2340