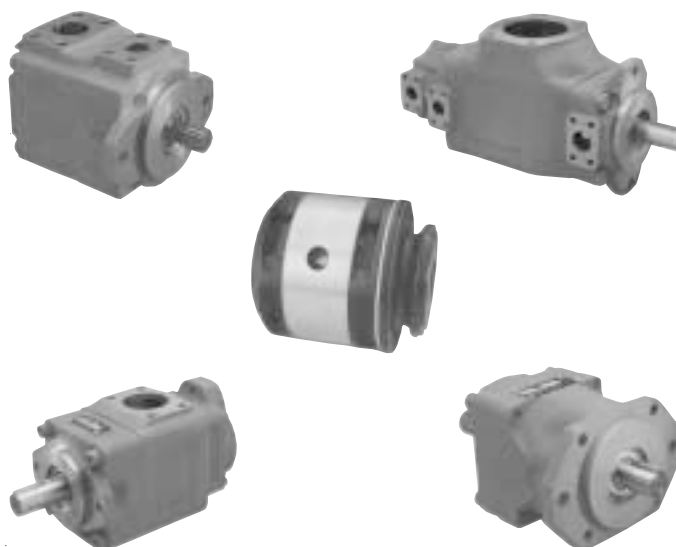


# TIDAL VT6 HIGH PERFORMANCE SINGLE & DOUBLE PUMPS



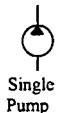

## FEATURES:

- Pre-tested / Reversible Cartridge Assemblies
- High Pressure 4000 PSI (275 bar)
- Wide Range of Displacements
- High Volumetric Efficiency
- Double Lip Pin Vane Design
- Lower Noise Level



## Operating Specifications

Based on using petroleum oil at 120° F (49 °C), viscosity 150 SUS at 100° F (32 cSt at 38 °C), and 0 psi inlet pressure

	TFP model series	Max. pressure PSI	Speed r/min		Displ. in / rev	Mounting Standard	Weight lb	Fluid Connection (SAE 4-bolt)	
			Max.	Min.				Pressure Port	Suction Port
 Single Pump	VT6C	4000	2800	600	.66 ~ 6.10	SAE - B	34	1" S. FLG	1 1/2" S. FLG
	VT6D	3500	2500	600	2.90 ~ 9.64	SAE - C	53	1 1/4" S. FLG	2" S. FLG
	VT6E	3500	2200	600	8.69 ~ 13.86	SAE - C	95	1 1/2" S. FLG	3" S. FLG
 Double Pump	VT6CC	4000	2800	600	p1-. .66 ~ 6.10 p2-. .66 ~ 6.10	SAE - B	57	P1- 1" S. FLG P2- .1" S. FLG	3 or 2 1/2" S. FLG
	VT6DC	3500	2500	600	p1- 2.90 ~ 9.64 p2- .66 ~ 6.10	SAE - C	80	P1- 1 1/4" S. FLG P2- 1" S. FLG	3" S. FLG
	VT6EC	3500	2200	600	p1- 8.69 ~ 13.86 p2- .66 ~ 6.10	SAE - C	121	P1- 1 1/2" S. FLG P2- 1" S. FLG	3 1/2" S. FLG
	VT6ED	3500	2200	600	p1- 8.69 ~ 13.86 p2- 2.90 ~ 9.64	SAE - C	145	P1- 1 1/2" S. FLG P2- 1 1/4" S. FLG	4" S. FLG

### ◆ Ordering Code VT6\* Single Vane Pump

VT6\*      \*\*\*      1      R      N

SERIES	RING SIZE	SHAFT	ROTATION
VT6C			
VT6D			
VT6E		KEYED SPLINE	R- RIGHT L- LEFT

### ◆ Ordering Code VT6\*\* Double Vane Pump

T6\*\*      \*\*\*      \*\*\*      1      R      N

SERIES	RING SIZE	RING SIZE	SHAFT	ROTATION
T6C				
T6D				
T6E			KEYED SPLINE	R- RIGHT L- LEFT

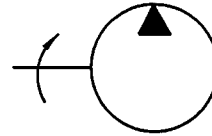
VT6C Cartridge / Ring Flow GPM @1200 rpm			VT6D Cartridge / Ring Flow GPM @1200 rpm			VT6E Cartridge / Ring Flow GPM @1200 rpm		
B03	B10	B22	B14	B31	B45	042	062	
B05	B12	B25	B20	B35	B50	045	066	
B06	B14	B28	B24	B38	B61	050	072	
B08	B17	B31	B28	B42		052	085	

# TIDAL VT6C SERIES HIGH PERFORMANCE VANE PUMPS



## High Performance in an Economical Package

TIDAL VT6C fixed displacement vane pumps are engineered for higher operating pressures (4000 psi) and shaft speeds (2800 rpm) demanded by today's expanding Fluid Power Market. The VT6C has an SAE "B" mount with a wide variety of displacements and keyed/splined shafts.



### Features:

- \* High Volumetric Efficiency
- \* Double Lip Vane Design
- \* Lower Noise Levels
- \* Large Variety Displacements

VT6C	-	010	-	1	-	R	-	N														
Series		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><th>Ring</th><th>Size</th></tr> <tr><td>B03</td><td>B14</td></tr> <tr><td>B05</td><td>B17</td></tr> <tr><td>B06</td><td>B22</td></tr> <tr><td>B08</td><td>B25</td></tr> <tr><td>B10</td><td>B28</td></tr> <tr><td>B12</td><td>B31</td></tr> </table>	Ring	Size	B03	B14	B05	B17	B06	B22	B08	B25	B10	B28	B12	B31		Shaft 1-7/8 keyed 3-Spline SAE "BB" 13th 5-Spline SAE "B" 15th		Rotation R - Right L - Left		Design
Ring	Size																					
B03	B14																					
B05	B17																					
B06	B22																					
B08	B25																					
B10	B28																					
B12	B31																					

### General Characteristics

Series	Max. Pressure PSI (MPa)	Speed r/min		Displ. in <sup>3</sup> /rev (cm <sup>3</sup> /rev)	Mounting Standard	Weight lb(kg)	Fluid Connection (SAE 4-bolt)	
		Max.	Min.				Pressure Ports (Front & Back)	Suction Inlet
VT6C	4000(28.0)	2800	600	.66 ~ 5.42 (10.8 ~ 88.7)	SAE - B	34 (15.5)	1" S. FLG.	1-1/2" S. FLG.

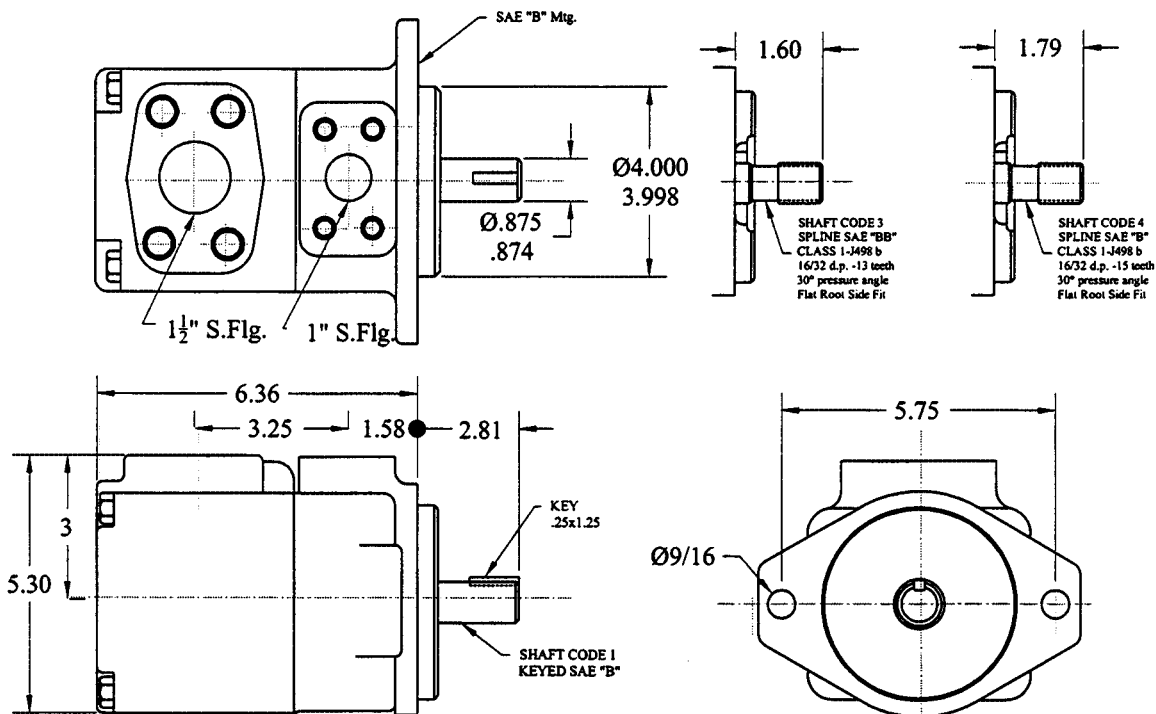
### Operating Specifications

Fluid Type	VT6C Continuous		VT6C Intermittent	
	Speed r/min	Pressure psi(MPa)	Speed r/min	Pressure psi(MPa)
Antiwear Petroleum Base	2800	3500(24.5)	2800	4000(28.0)
Non Antiwear Petroleum Base	2800	2500(17.5)	2800	3000(21.0)
Water in Oil Emulsions	1800	2000(14.0)	1800	2500(17.5)
Water Glycols	1800	2000(14.0)	1800	2500(17.5)
Synthetic Fluids	1800	2500(17.5)	1800	3000(21.0)

# TIDAL VT6C SINGLE VANE PUMP INSTALLATION/DIMENSIONS



## Dimension & Operating Characteristics



Performance Data - Typical flow at 120°F, 10 W Oil (115 SUS), 0 PSI Inlet

Series	Volumetric Displ. Vp	Speed n[R.P.M.]	Flow(GPM)			Inputpower(HP)		
			0 PSI	2000 PSI	3500 PSI	100 PSI	2000 PSI	3500 PSI
VT6C-B03	.66 in <sup>3</sup> /rev	1200	3.42	1.83	△ 2.44	1.61	5.80	△ 13.51
		1800	5.14	3.55		2.09	8.53	
VT6C-B05	1.05 in <sup>3</sup> /rev	1200	5.45	3.86	2.76	1.76	8.21	13.51
		1800	8.18	6.59	5.48	2.26	12.07	19.63
VT6C-B06	1.30 in <sup>3</sup> /rev	1200	6.76	5.17	4.06	1.76	9.66	16.09
		1800	10.12	8.56	7.42	2.41	14.32	23.65
VT6C-B08	1.61 in <sup>3</sup> /rev	1200	8.36	6.78	5.68	1.93	11.58	19.48
		1800	12.55	10.97	9.86	2.57	17.22	28.49
VT6C-B10	2.08 in <sup>3</sup> /rev	1200	10.81	9.23	8.11	2.09	14.32	24.30
		1800	16.20	14.65	13.50	2.74	21.56	35.88
VT6C-B12	2.26 in <sup>3</sup> /rev	1200	11.76	10.47	9.57	1.92	15.53	26.36
		1800	17.64	16.35	2.74	2.84	23.05	38.92
VT6C-B14	2.81 in <sup>3</sup> /rev	1200	14.58	12.99	11.89	2.26	18.83	32.03
		1800	21.88	20.29	19.18	3.06	28.32	47.47
VT6C-B17	3.56 in <sup>3</sup> /rev	1200	18.48	16.99	15.79	2.57	23.23	39.91
		1800	27.71	26.16	25.01	3.38	35.24	59.38
VT6C-B20	3.89 in <sup>3</sup> /rev	1200	20.23	18.94	18.94	2.41	25.41	43.64
		1800	30.34	29.05	29.05	3.58	37.86	64.85
VT6C-B22	4.29 in <sup>3</sup> /rev	1200	22.28	20.70	19.60	2.74	27.84	47.63
		1800	37.42	31.86	30.72	3.70	42.00	70.97
VT6C-B25*	4.84 in <sup>3</sup> /rev	1200	25.14	23.56	22.44	2.89	31.06	53.42
		1800	37.69	36.14	35.00	4.02	46.99	79.66
VT6C-B28*	5.42 in <sup>3</sup> /rev	1200	28.15	26.86	26.24	2.87	34.66	51.37
		1800	42.23	40.94	40.32**	4.27	51.74	76.73**
VT6C-B31*	6.10 in <sup>3</sup> /rev	1200	31.70	30.41	29.79	3.08	38.80	57.58
		1800	47.56	46.27	45.65**	4.58	57.95	86.06**

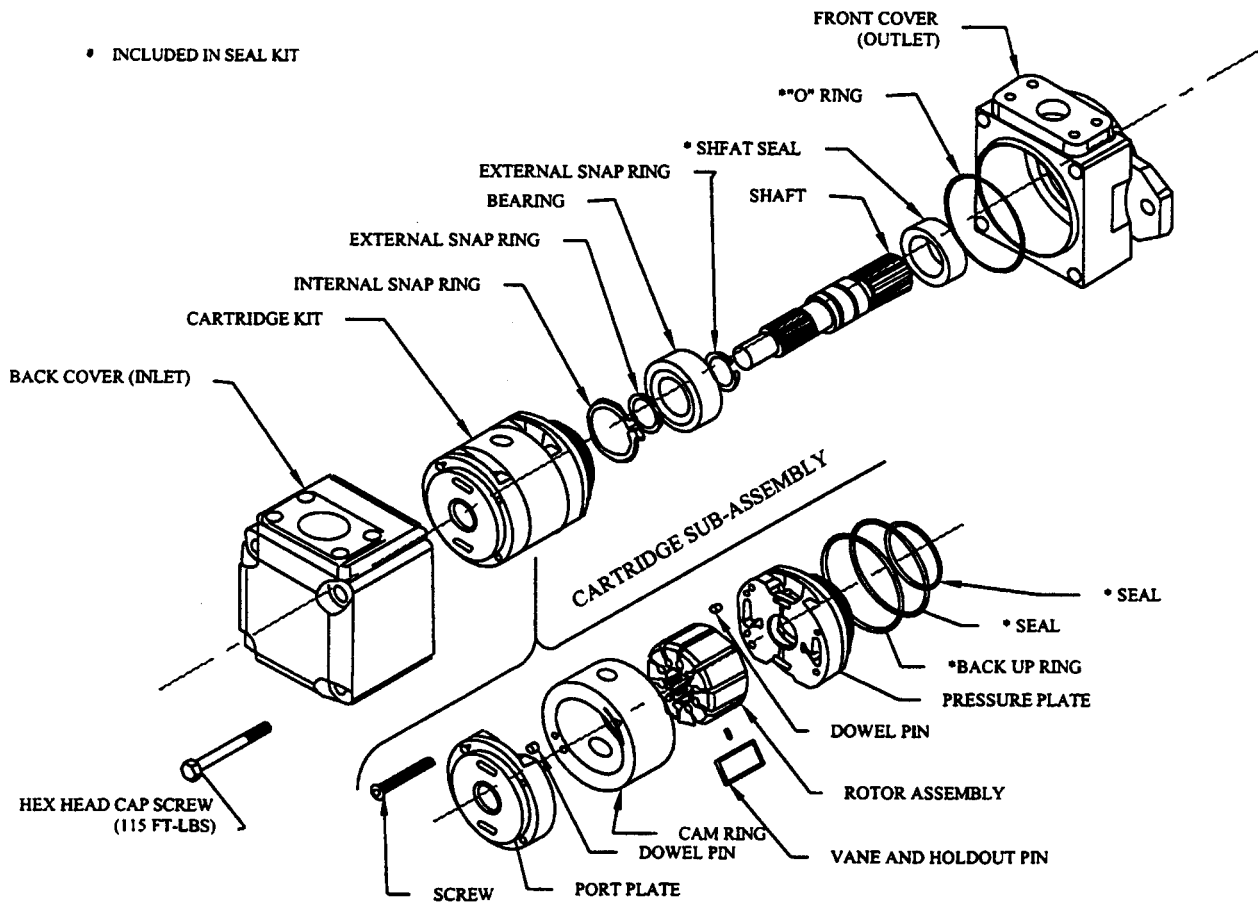
\*B25-B28-B31 = 2500 R.P.M. max.  
\*\*B28-B31 = 3000 PSI max. Int.

△ Not used because internal leakage is greater than 50 % theoretical flow

# TIDAL VT6C SINGLE VANE PUMP SERVICE PARTS INFORMATION



• INCLUDED IN SEAL KIT



## VT6C SPARE PARTS CHART

PUMP SIZE	CART. KIT	CAM RING	VANE KIT	ROTOR	PRESSURE PLATE	PORT PLATE	SHAFT
VT6C-B03	VS14-97604	V034-59050	V034-59099	VS24-10116	V034-59772	V034-45604	#1 V034-70814
VT6C-B05	VS14-97606	V034-59051					#2 V034-70880
VT6C-B06	VS14-97608	V034-59052					#3 V034-70815
VT6C-B08	VS14-97610	V034-59053					#4 V034-59426
VT6C-B10	VS14-97612	V034-59054					
VT6C-B12	VS24-26494	V034-66595					
VT6C-B14	VS14-97614	V034-59206					
VT6C-B17	VS14-97616	V034-59207					
VT6C-B20	VS24-31767	V034-66607					
VT6C-B22	VS14-97618	V034-59208					
VT6C-B25	VS14-97620	V034-59209					
VT6C-B28	VS14-97622	V034-59245					
VT6C-B31	VS24-50671	V034-66843					

**- All cartridge assemblies are factory tested prior to shipping -**

STANDARD SEAL KIT	VITON SEAL KIT	STANDARD SHAFT SEAL	VITON SHAFT SEAL	BEARING	FRONT COVER	BACK COVER
VS24-10333-0-N	VS24-10333-5-N	V620-82012N	V620-82068	V230-82054N	V034-48565N	V034-48564N

### Filtration

For satisfactory service life, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or better.