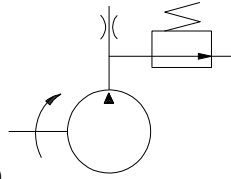


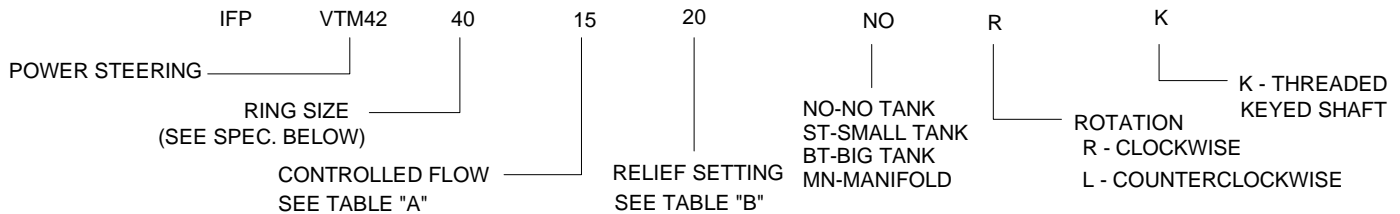
IFP VTM42 POWER STEERING PUMPS



- * Compact Power Source for Steering Assemblies
- * Integral Relief and Flow Control
- * High Efficiency
- * Balanced Cartridge Design
- * Quiet Operation



◆ Power Steering Pump Ordering Specifications



Values based on using anti-wear type petroleum oil 150 SUS at 100°F and 0 PSI inlet pressure.

IFP MODEL SERIES	RING SIZE (DELIVERY USgpm @ 1200 R/MIN & 100 PSI)	DISPL. in ³ /r (cm ³ /r)	MAXIMUM SPEED - RPM			MAXIMUM PRESSURE PSI (BAR)	APPROX. WEIGHT lbs. (kg.)
			@100 PSI 7 BAR	@1500 PSI (100 BAR)	@2000 PSI (140 BAR)		
VTM42	1	0.21 (3.4)	7000	5000	4250	2000 (140)	14 (6.4)
	1.5	0.31 (5.1)	7000	4500	4000		
	2	0.38 (6.2)	7000	4200	3800		
	4	0.79 (12.9)	7000	2800	2800		
	5	0.96 (15.7)	6000	2600	2300		
	6	1.18 (19.3)	5000	2500	2000		

TABLE A Controlled Flow (at 1600 RPM & 100 PSI)

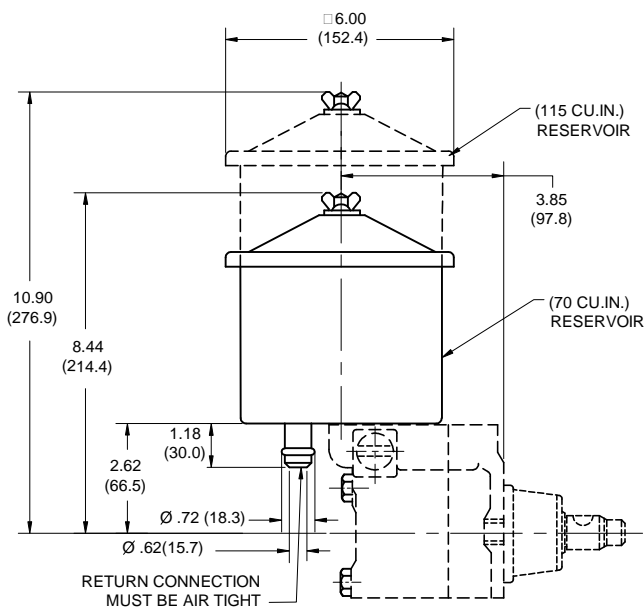
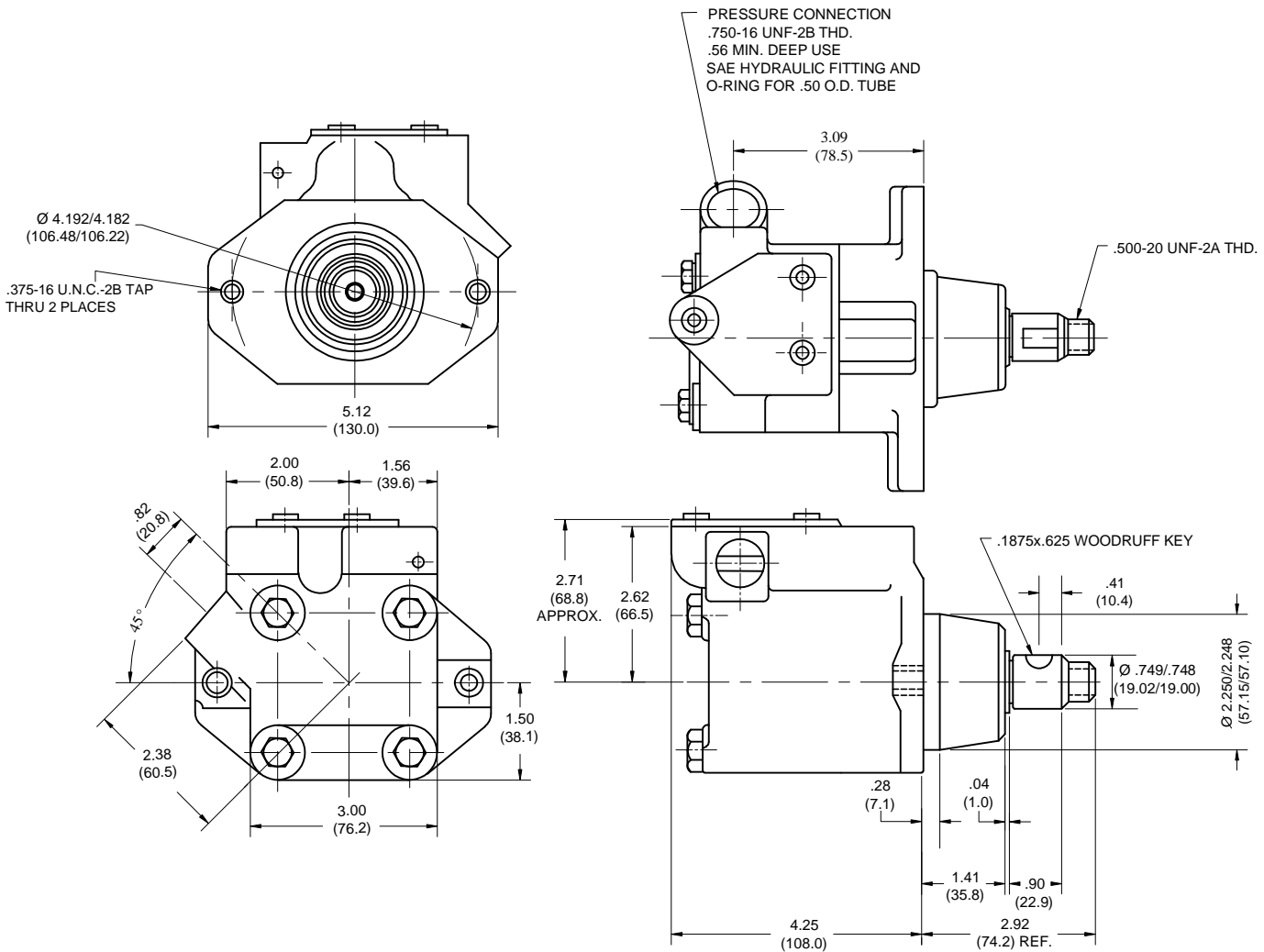
15	-1.5 USgpm (6 L/min)
20	-2.0 USgpm (8 L/min)
25	-2.5 USgpm (9.5 L/min)
30	-3.0 USgpm (11 L/min)
35	-3.5 USgpm (13 L/min)
40	-4.0 USgpm (15 L/min)
45	-4.5 USgpm (17 L/min)
50	-5.0 USgpm (19 L/min)
55	-5.5 USgpm (21 L/min)
60	-6.0 USgpm (23 L/min)
65	-6.5 USgpm (25 L/min)
70	-7.0 USgpm (26.5 L/min)
75	-7.5 USgpm (28 L/min)

TABLE B Relief Setting

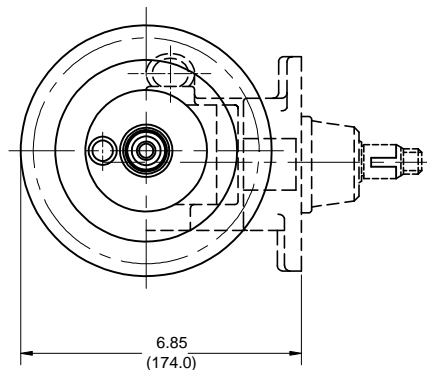
05	-500 psi (35 bar)
07	-750 psi (52 bar)
10	-1000 psi (70 bar)
12	-1250 psi (86 bar)
15	-1500 psi (100 bar)
17	-1750 psi (120 bar)
20	-2000 psi (140 bar)

IFP offers a complete line of economical high performance fixed displacement VTM vane pumps providing flows up to 25 US GPM and pressures to 2000 psi for mobile and marine power steering applications. The integral flow control and relief valve eliminate the need for external valving and combined with the top mounted reservoir, you have a compact power package. Units can be supplied with a manifold assembly to be piped to an external tank or assembled on existing installations. Units are supplied with a threaded shaft and a heavy duty front bearing for gear and pulley drive assemblies.

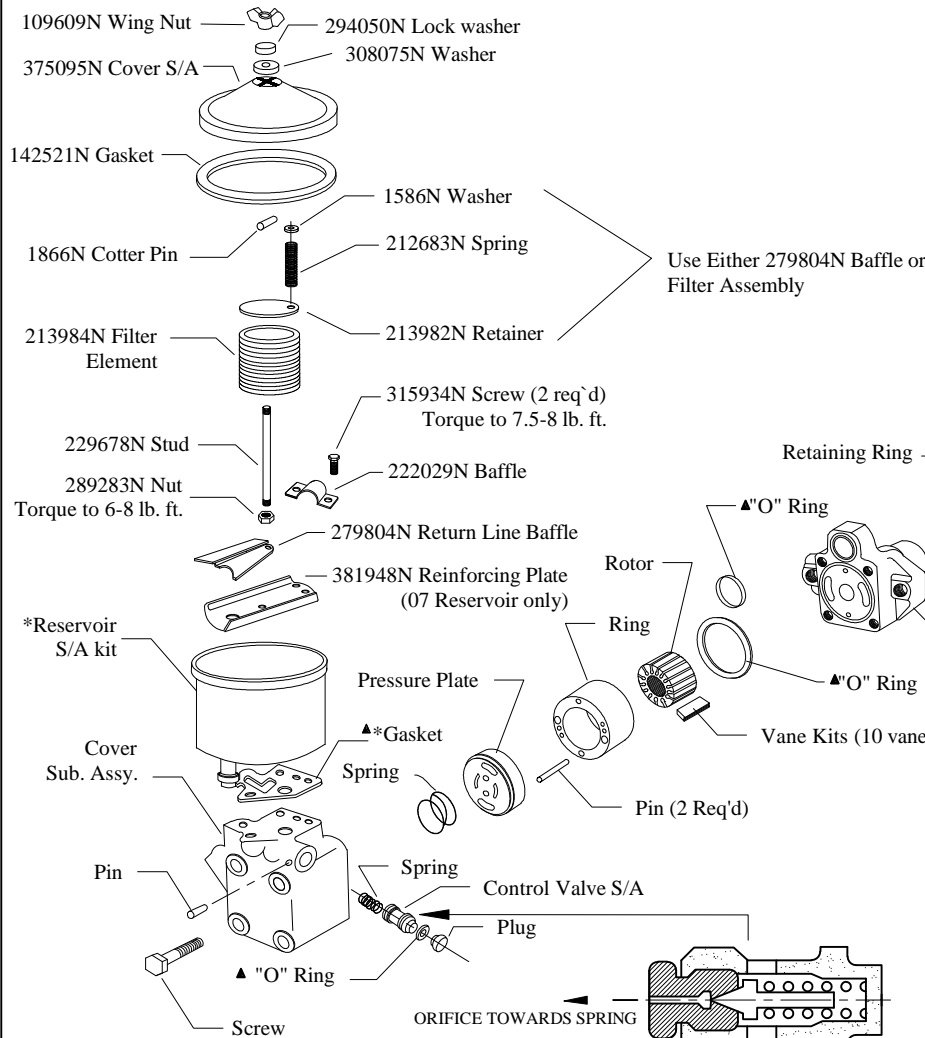
IFP VTM42 POWER STEERING PUMP INSTALLATION/DIMENSIONS



IFP RESERVOIRS ARE PRODUCED WITH A HEAVY GAUGE SIDE WALL THAT ALLOWS 115 CU IN SIZE TO BE MODIFIED TO 70 CU IN SIZE



IFP VTM42 POWER STEERING PUMP SERVICE PARTS INFORMATION



— NOTE —

- TANK COMES COMPLETE WITH ALL HARDWARE(*).
- IFP RESERVOIRS PRODUCED WITH HEAVY GAUGE SIDE WALL THAT ALLOWS 115 CU IN SIZE TO BE MODIFIED TO 70 CU IN SIZE /CUT(2.46") SHORTER.

▲ Included in seal kit 922904N

MODEL	CARTRIDGE	ROTOR	VANE KIT (10 Vanes)	RING	PIN (2 req'd)	PRESSURE PLATE	SPRING
VTM** - 10	923087N	213860N	912139N	296594N	217308N	276396N	289281N
VTM** - 15	923088N			296595N			
VTM** - 20	923089N			296596N			
VTM** - 40	923090N			296597N			
VTM** - 50	923091N	213859N	922594N	296598N	154364N		245507N
VTM** - 60	923092N			296599N			

MODEL	CONTROL VALVE S/A	RELIEF VALVE SETTING
VTM**..**-02	229613	250PSI
VTM**..**-03	255515	300PSI
VTM**..**-05	233018	500PSI
VTM**..**-06	247615	600PSI
VTM**..**-07	232794	750PSI
VTM**..**-08	397339	850PSI
VTM**..**-10	232795	1000PSI
VTM**..**-12	232796	1250PSI
VTM**..**-15	232797	1500PSI
VTM**..**-17	232798	1750PSI
VTM**..**-20	232799	2000PSI

Model	Reservoir S/A Kit	Seal Kit	Body S/A Kit	Needle Bearing	Shaft Seal	Retaining Ring	Ball Bearing	#1 Shaft	Key	Retaining Ring	Filter Element
VTM-42-ST	70 Cu.in. 923837N	922904N	923951N	222440N	263585N	193732N	148423N	250455N	1606N	172376N	213984N
VTM-42-BT	115 Cu.in. 923838N										

CARTRIDGE KIT ROTATION

To change cartridge kit rotation slide cam ring over rotor and vanes, making sure that radius edge of vanes is toward cam ring. Insert locating pins through cam ring, position cam ring so that the arrow on cam ring is pointing in the proper direction.

FLOW CONTROL RELIEF VALVE

When installing control relief valve install hex head first into the cover bore seating on the spring. Press plug fully in and insert lock pin.

**** WARNING ****

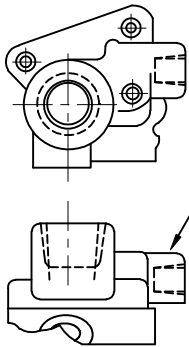
** Failure to follow these steps could cause serious malfunctions and pressures to rise to dangerous levels. **

IFP MANIFOLDS FOR POWER STEERING PUMPS



MANIFOLD "MF" (275276N)

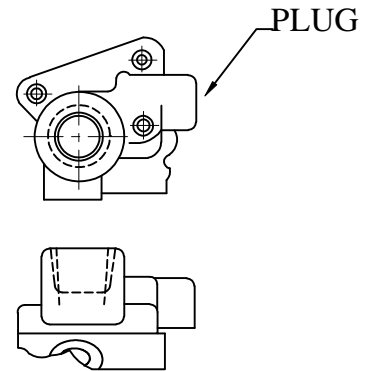
- 3/4 NPT Connection
- C/W 1/4 NPT Bypass



THIS TANK BYPASS CONN. IS REQUIRED FOR INSTALLATIONS WHICH OPERATE AT PUMP RELIEF VALVE PRESSURES FOR PERIODS EXCEEDING 15 SECONDS. CONNECTION MUST BE MADE BELOW OIL LEVEL IN RESERVOIR.

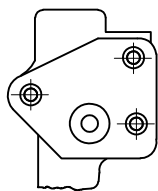
MANIFOLD "ME" (275276N)

- 3/4 NPT Connection
- No Bypass

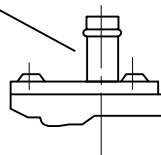


MANIFOLD "MA" (280955N)

- Straight Tube Assembly
- No Bypass

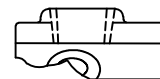
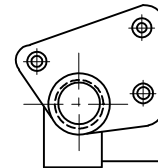


USE .621 I.D. HOSE FASTEN WITH HOSE CLAMP. MUST BE AIR TIGHT.



MANIFOLD "MJ" (292457N)

- 3/4 " SAE Connection
- Casting w/Out Bypass Tube

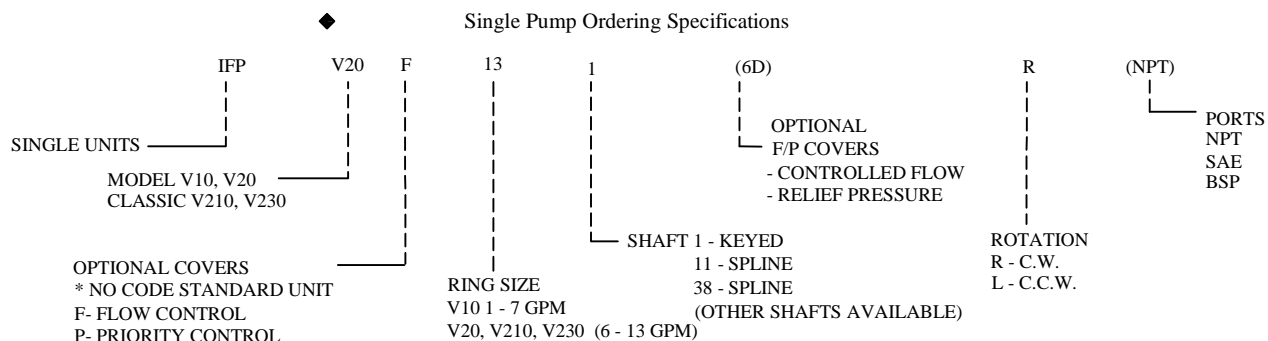


IFP SINGLE VANE PUMPS

V10/V20 - V210/V230



- * High Performance
- * Low Cost
- * Extended Life
- * Versatile
- * Compact
- * Quiet Operation
- * Balanced Cartridge Design



Values based on using anti-wear type petroleum oil 150 SUS at 100°F and 0 PSI inlet pressure.

MODEL SERIES	RING SIZE (DELIVERY USgpm @ 1200 R/MIN & 100 PSI)	DISPL. in ³ /r	MAXIMUM SPEED (RPM)	MAXIMUM PRESSURE (PSI)	TYPICAL DELIVERY (USgpm) @max. speed & pressure	TYPICAL INPUT POWER (HP) @max. speed & pressure	WEIGHT (lbs.)
V10	1	0.20	4800	2500	3.60	07.0	(10 - 15)
	2	0.40	4500	2500	7.30	13.6	
	3	0.60	4000	2500	9.40	17.8	
	4	0.80	3400	2500	10.9	20.4	
	5	1.00	3200	2500	12.8	22.8	
	6	1.19	3000	2500	14.6	26.0	
	7	1.39	2800	2500	16.0	28.0	
V20 V210 V230	6	1.19	3400	2500	16.1	29.0	(16 - 18)
	7	1.39	3000	2500	16.7	29.5	
	8	1.62	2800	2500	17.7	32.5	
	9	1.80	2800	2500	19.8	35.5	
	11	2.22	2500	2500	22.9	37.5	
	12	2.38	2400	2500	23.0	38.5	
	13	2.59	2400	2500	25.9	42.0	

IFP offers a complete line of economical high performance fixed displacement vane pumps providing flows up to 26 US GPM for mobile and industrial applications. Balanced vane design provides quiet operation, high efficiency and long service life for the toughest applications. Units are designed for use with oil or synthetic fire resistant fluid. A large combination of Spline/Keyed Shafts and factory tested cartridges are available for fast, easy conversion and repair. Units are self-priming. However, before starting, fill the pump with system fluid through uppermost port. The housing must be kept full at all times to provide internal lubrication.

IFP V10 SINGLE VANE PUMP INSTALLATION DIMENSION

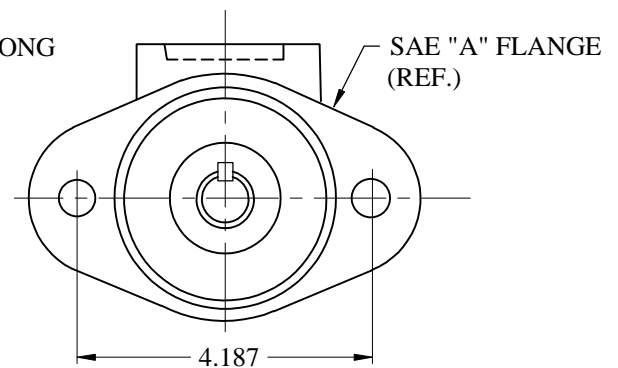
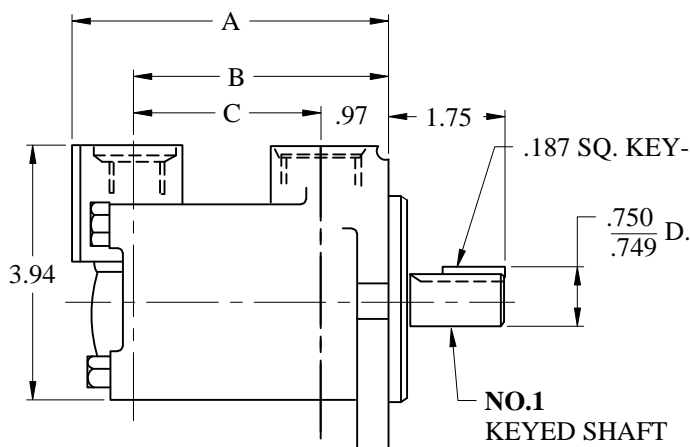
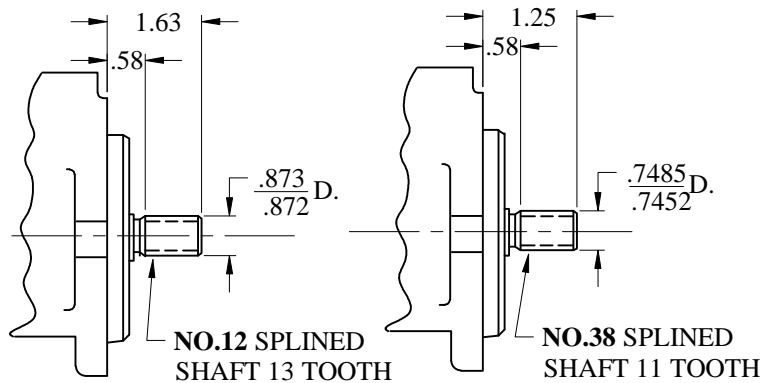
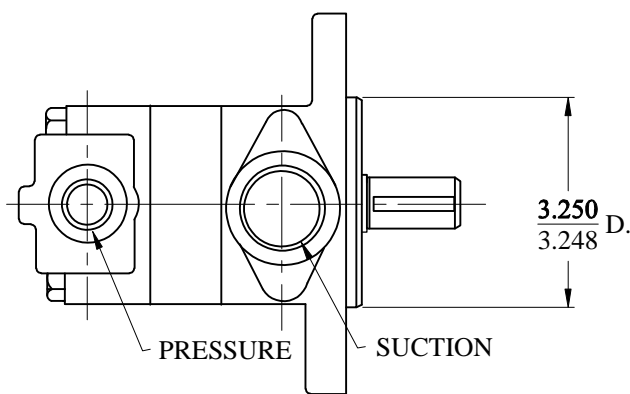
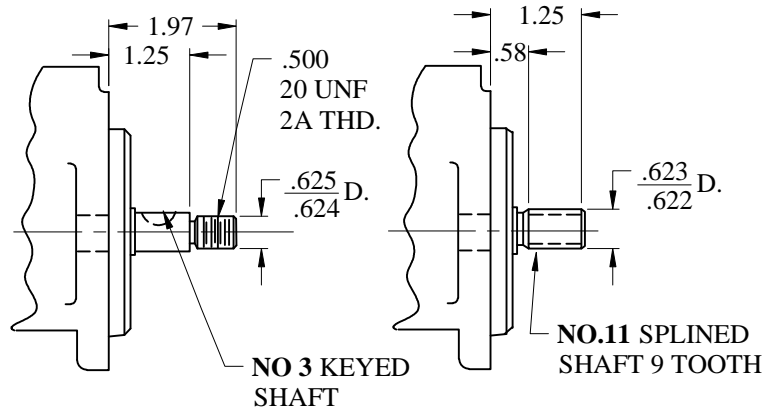


DIMENSION (inches)

DELIVERY @ 1200 RPM & 100 PSI	DIMENSION		
	A	B	C
1 GPM	4.55	3.62	2.65
2 GPM	4.55	3.62	2.65
3 GPM	4.55	3.62	2.65
4 GPM	4.80	3.87	2.90
5 GPM	4.85	3.87	2.90
6 GPM	5.00	4.07	3.10
7 GPM	5.00	4.07	3.10

Weight 10 - 15 lbs
Pressure: 1/2" NPT
Suction: 1" NPT
Optional BSPT/SAE Ports available.

V10 series
Optional Shafts



Foot Bracket available
Part # - IFB - A (see page J 1.1)

FLOW CONTROL/PRIORITY COVERS AVAILABLE.
(SEE Page A2.5)

IFP V20/V210/V230 SINGLE VANE PUMP INSTALLATION DIMENSION

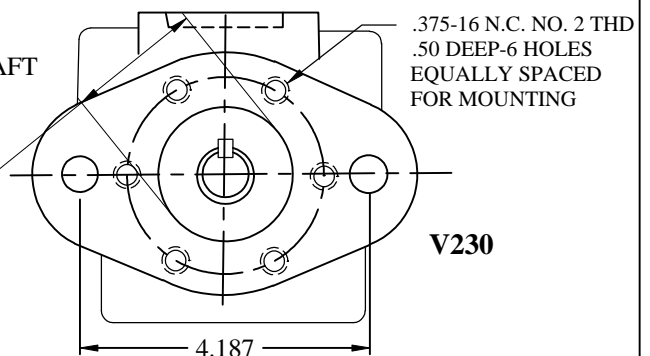
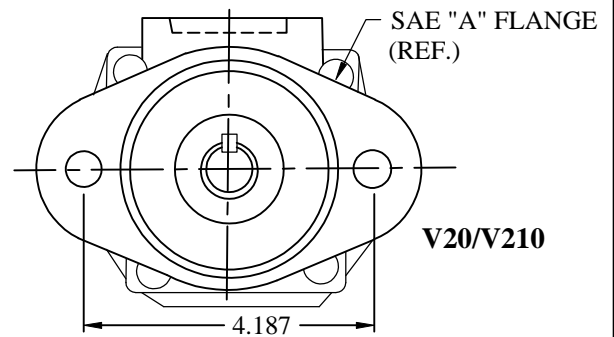
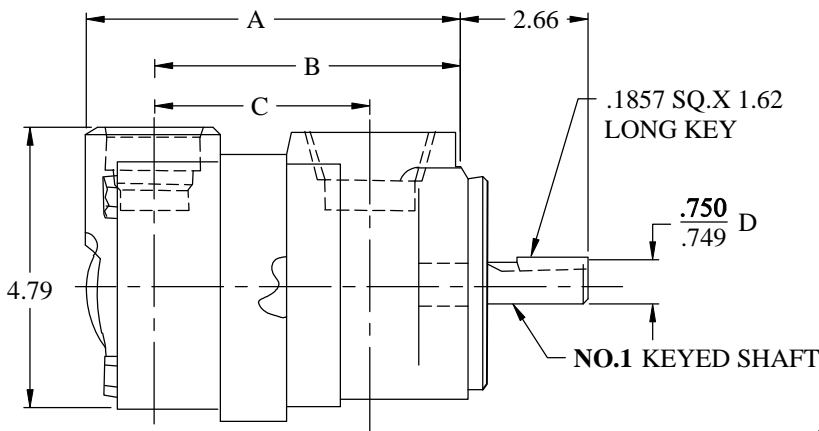
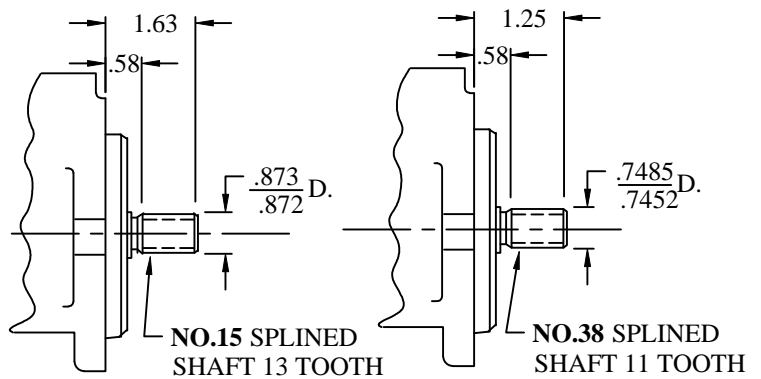
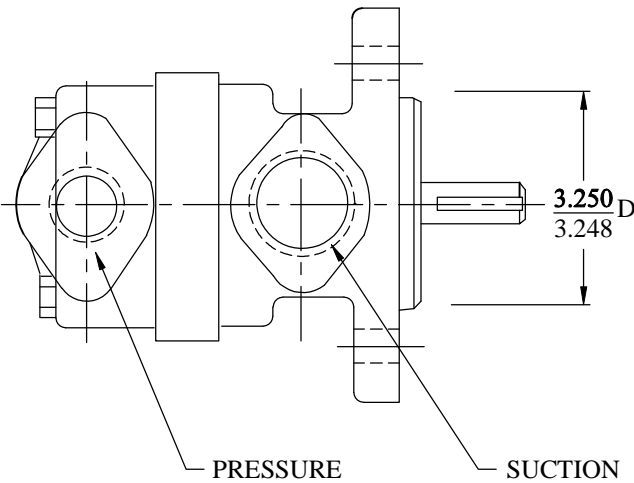
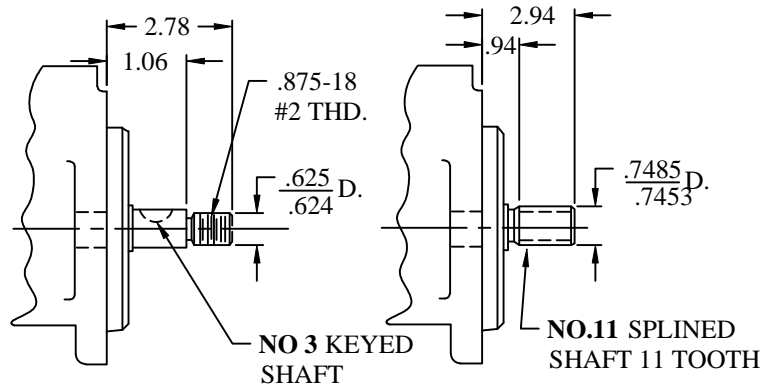


DIMENSION (inches)

DELIVERY @ 1200 RPM & 100 PSI	DIMENSION		
	A	B	C
6	4.93	4.02	2.80
7	5.18	4.27	3.05
8	5.18	4.27	3.05
9	5.18	4.27	3.05
11	5.38	4.47	3.25
12	5.52	4.61	3.39
13	5.52	4.61	3.39

Weight 16 - 18 lbs
 Pressure: 3/4" NPT
 Suction: (V20) 1-1/4" NPT, (V210) 1" NPT
 Optional BSPT/SAE Ports available.

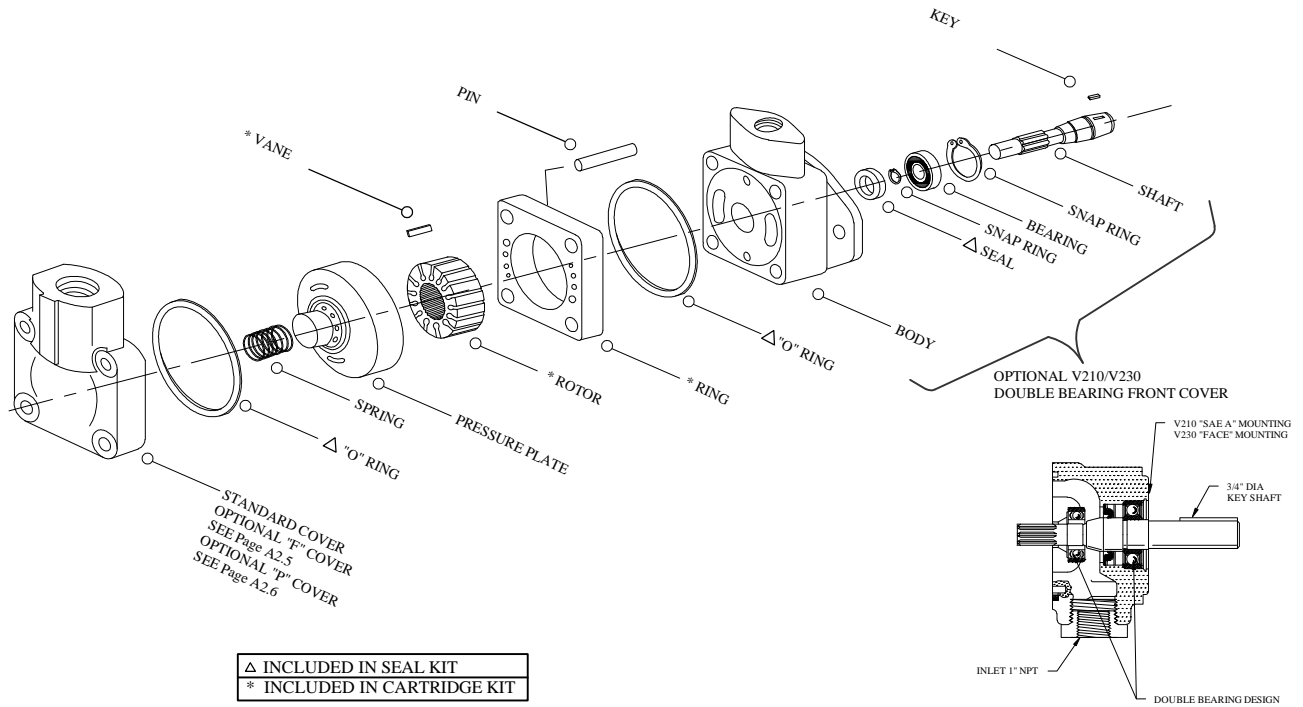
V20 series Optional Shafts



Foot Bracket available
 Part # - IFB - A (see page J 1.1)

**FLOW CONTROL/PRIORITY COVERS AVAILABLE.
 (SEE Page A2.5)**

IFP V10/V20/V210/V230 VANE PUMP SERVICE PARTS INFORMATION



△ INCLUDED IN SEAL KIT
* INCLUDED IN CARTRIDGE KIT

PUMP SE	C. KIT	ROTOR	VANES	RING	SEAL	SEAL KIT	BEARING	PR. PL.	SPRING	BODY	COVER	SHAFT NO.
V10...1	923471N	317681N	923499N	317674N	263585N	923548N	148423N	374343N	345262N	352699N	372863N	SHAFT 1 NO.374338N
...2	923470N			317675N	VITON	VITON						SHAFT 3 NO.374340N
...3	923496N			317676N	388205N	919772N						SHAFT 4 NO.378959N
...4	923469N	351247N	923500N	317677N								SHAFT 6 NO.382250N
...5	923468N			317678N								SHAFT 11 NO.374339N
...6	923497N	357268N	923501N	355641N								SHAFT 12 NO. 375480N
...7	923498N			331813N								SHAFT 38 NO. 387481N
V20...5	924076N	358328N	923485N	388284N	229235N	922733N	098574N	359287N	28422N	V20	313657N	V20
(V210)...6	923480N			328150N	VITON	VITON				280689N		SHAFT 1 NO.280372N
(V230)...7	923481N	358330N	923493N	328152N	279499N	919805N				V210		SHAFT 3 NO.280504N
...8	923483N			331791N						280210N		SHAFT 6 NO.297330N
...9	923484N			331789N						V230		SHAFT 11 NO.280515N
...10	923620N	358332N	923478N	374309N						280230N		SHAFT 15 NO.294922N
...11	923482N			328156N								SHAFT 38 NO.328096N
...12	923486N	358334N	923479N	331806N								V210/V230
...13	923487N			331807N								SHAFT 1 NO.280210N

- All cartridge assemblies are factory tested prior to shipping -

Rear Cover Bolt Torque

V10	40 FT./LBS
V20	80 FT./LBS

Changing Cartridge Rotation

Assemble the ring using the locating pins for alignment making sure the arrow on the perimeter point's in the proper direction of rotation. Install the rotor on shaft and insert vanes in the rotor slots. Be certain the radius edges of the vanes are towards the cam ring.

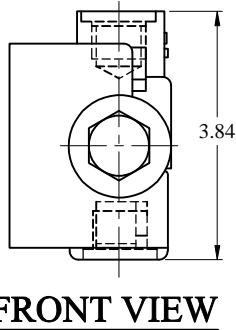
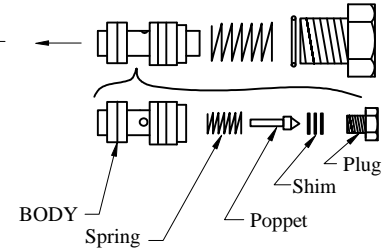
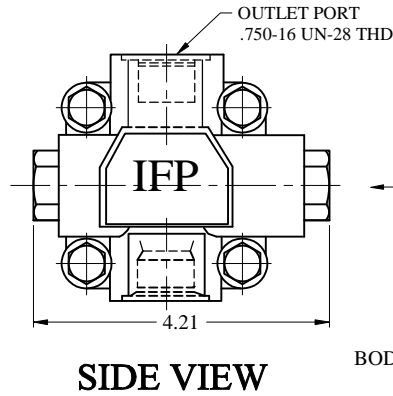
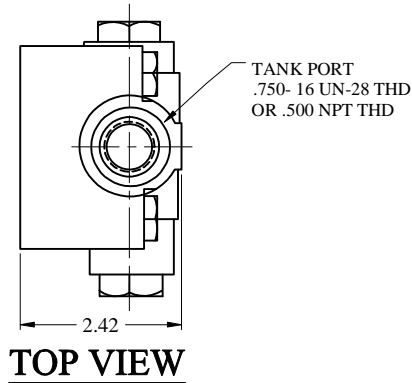
FLOW CONTROL/PRIORITY COVER AVAILABLE

IFP FLOW CONTROL/RELIEF COVER V10/V20F



V10F

PART NUMBER
IFP 379543N



FLOW RATE ORIFICE		RELIEF VALVE NUMBER / PRESSURE SETTING					
2	-2 USgpm	A-	250psi	229613N	H-	2000psi	232799N
3	-3 USgpm	B-	500psi	233018N	J-	2250psi	233019N
4	-4 USgpm	C-	750psi	232794N	K-	2500psi	233020N
5	-5 USgpm	D-	1000psi	232795N	BODY		700283N
6	-6 USgpm	E-	1250psi	232796N	SPRING		700285N
7	-7 USgpm	F-	1500psi	232797N	POPPET		700284N
8	-8 USgpm	G-	1750psi	232798N	SHIM		700890N

FLOW CONTROL RELIEF VALVE

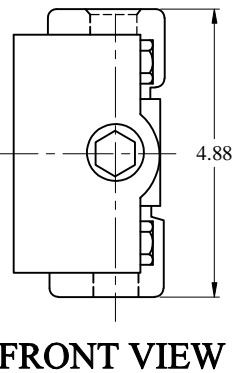
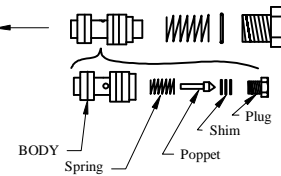
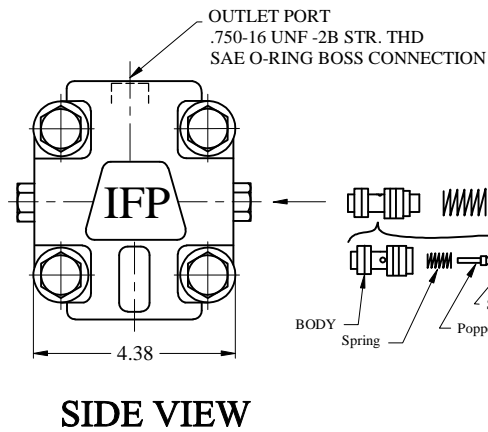
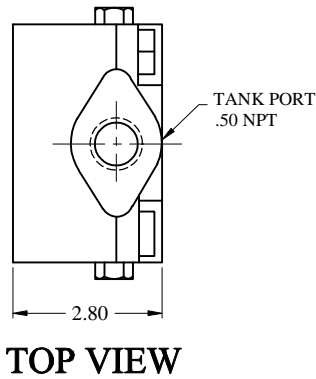
When installing control relief valve, install relief assembly in cover bore, install spring seating on hex head end of relief assembly, compress spring and install cover plug.

*** WARNING ***

Failure to follow these steps could cause serious malfunction and pressures to rise to dangerous levels.

V20F

PART NUMBER
IFP 316090N



FLOW RATE ORIFICE		RELIEF VALVE NUMBER / PRESSURE SETTING					
2	-2 USgpm	A-	250psi	229613N	H-	2000psi	232799N
3	-3 USgpm	B-	500psi	233018N	J-	2250psi	233019N
4	-4 USgpm	C-	750psi	232794N	K-	2500psi	233020N
5	-5 USgpm	D-	1000psi	232795N	BODY		700283N
6	-6 USgpm	E-	1250psi	232796N	SPRING		700285N
7	-7 USgpm	F-	1500psi	232797N	POPPET		700284N
8	-8 USgpm	G-	1750psi	232798N	SHIM		700890N

FLOW CONTROL RELIEF VALVE

When installing control relief valve, install relief assembly in cover bore, install spring seating on hex head end of relief assembly, compress spring and install cover plug.

*** WARNING ***

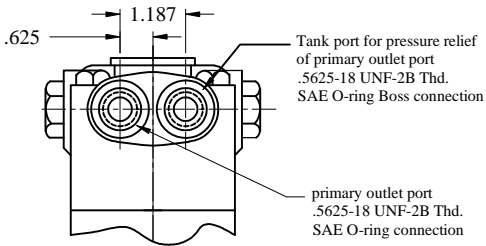
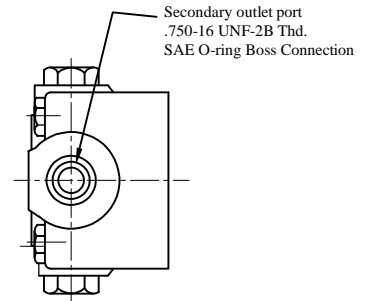
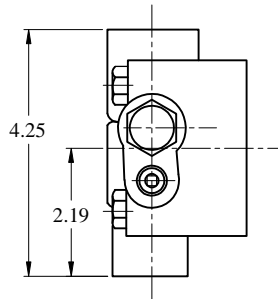
Failure to follow these steps could cause serious malfunction and pressures to rise to dangerous levels.

IFP PRIORITY COVER V10P/V20P



V10P

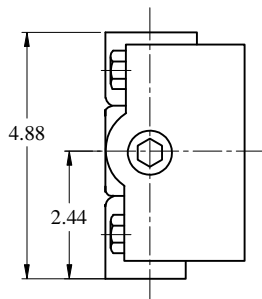
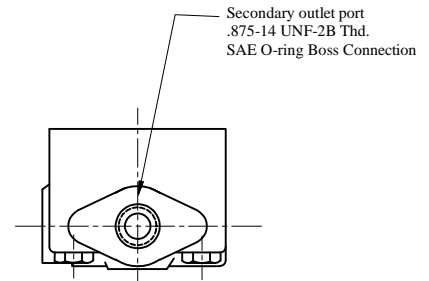
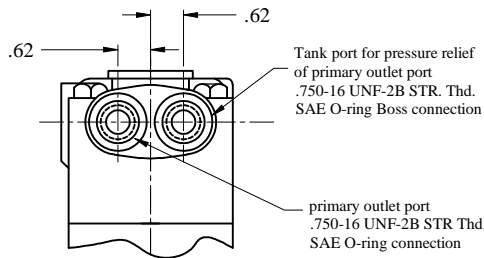
PART NUMBER
IFP 388262N



FLOW RATE ORIFICE		RELIEF VALVE SETTING	
2	-2 USgpm	A-	250psi
3	-3 USgpm	B-	500psi
4	-4 USgpm	C-	750psi
5	-5 USgpm	D-	1000psi
6	-6 USgpm	E-	1250psi
7	-7 USgpm	F-	1500psi
		G-	1750psi
		H-	2000psi
		J-	2250psi
		K-	2500psi

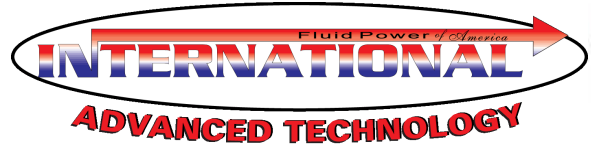
V20P

PART NUMBER
IFP 308121N

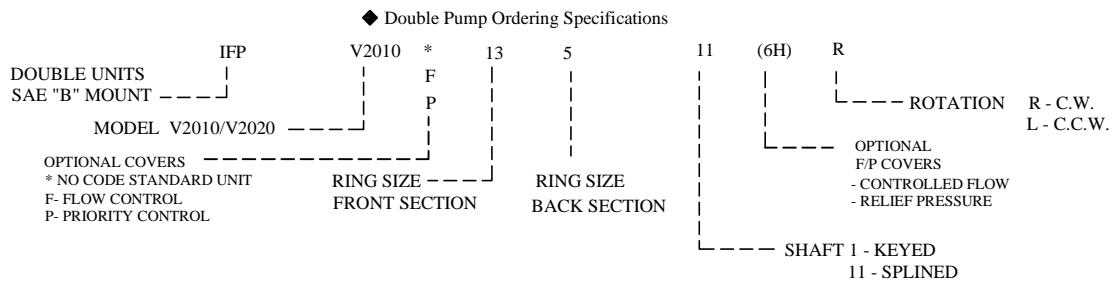
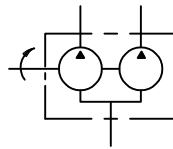


FLOW RATE ORIFICE		RELIEF VALVE SETTING	
2	-2 USgpm	A-	250psi
3	-3 USgpm	B-	500psi
4	-4 USgpm	C-	750psi
5	-5 USgpm	D-	1000psi
6	-6 USgpm	E-	1250psi
7	-7 USgpm	F-	1500psi
8	-8 USgpm	G-	1750psi
		H-	2000psi
		J-	2250psi
		K-	2500psi

IFP V2010/V2020 DOUBLE VANE PUMPS



- * High Performance
- * Low Cost
- * Extended Life
- * Versatile
- * Compact
- * Quiet Operation
- * Hydraulic Balance

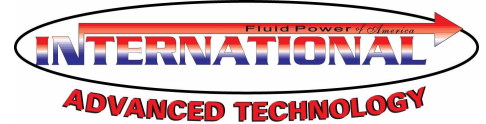


Values based on using anti-wear type petroleum oil 150 SUS at 100°F and 0 PSI inlet pressure.

Model Series	FRONT SECTION						BACK SECTION						Weight lbs.
	Delivery USgpm @ 1200 rpm 100 psi	Displ. cu.in./ rev.	Max. rpm.	Max. psi.	Typical delivery USgpm @ max.speed & pressure	Typical input HP @ max.speed & pressure	Delivery USgpm @ 1200 rpm 100 psi	Displ. cu.in./ rev.	Max. rpm.	Max. psi.	Typical delivery USgpm @ max.speed & pressure	Typical input HP @ max.speed & pressure	
V2010	6	1.19	3000	2500	14.5	24.5	1	.20	3000	2500	2	4.5	30
	7	1.39	3000	2500	16.5	30	2	.40	3000	2500	4.7	9	
	8	1.62	2800	2500	17.5	32.5	3	.60	3000	2500	7	13.4	
	9	1.81	2800	2500	20	36	4	.80	3000	2500	9.5	18	
	11	2.22	2500	2500	23	37.5	5	1.00	3000	2500	12	21.5	
	12	2.38	2400	2500	23	36	6	1.19	3000	2500	14.5	24.5	
V2020	13	2.59	2400	2500	26	39	7	1.39	2800	2500	16	24	35
	6	1.19	3000	2500	14.5	24.5	6	1.19	3000	2500	14.5	24.5	
	7	1.39	3000	2500	16.5	30	7	1.39	3000	2500	16.5	30	
	8	1.62	2800	2500	17.5	32.5	8	1.62	2800	2500	17.5	32.5	
	9	1.81	2800	2500	20	36	9	1.81	2800	2500	20	36	
	11	2.22	2500	2500	23	37.5	11	2.22	2500	2500	23	37.5	
	12	2.38	2400	2500	23	36							
13	2.59	2400	2500	26	39								

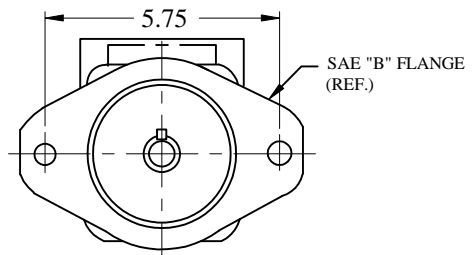
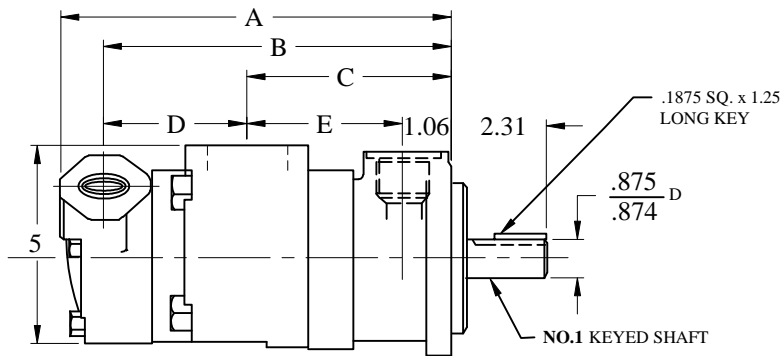
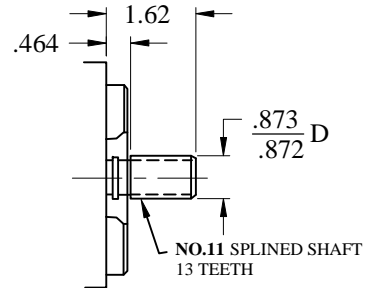
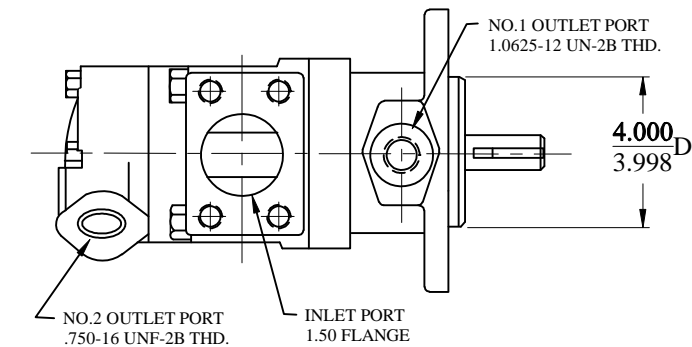
IFP offers a complete line of economical, high performance fixed displacement double vane pumps that provide flows up to 26/23 US GPM per section for mobile and industrial applications. Balanced vane design provides quiet operation, high efficiency and long service life for the toughest applications. Units are designed for use with oil or synthetic fire-resistant fluid. A large combination of factory tested cartridges are available for fast, easy conversion and repairs.

IFP V2010 DOUBLE VANE PUMP INSTALLATION DIMENSIONS



DIMENSIONS (inches)

V2010 Series
Optional Shaft



DIMENSIONS

RATED DELIVERY GPM @ 1200 RPM & 100 PSI		DIMENSIONS				
Shaft End	Cover End	A	B	C	D	E
7, 8 or 9	1, 2 or 3	8.39	7.45	4.46	2.99	3.40
7, 8 or 9	4 or 5	8.64	7.70	4.46	3.24	3.40
7, 8 or 9	6 or 7	8.84	7.90	4.46	3.44	3.40
11	1, 2 or 3	8.59	7.65	4.65	2.99	3.59
11	4 or 5	8.84	7.90	4.65	3.24	3.59
11	6 or 7	9.04	8.10	4.65	3.44	3.59
12 or 13	1, 2 or 3	8.73	7.79	4.79	2.99	3.73
12 or 13	4 or 5	8.97	8.03	4.79	3.24	3.73
12 or 13	6 or 7	8.23	8.03	4.79	3.44	3.73

Weight 30 lbs.

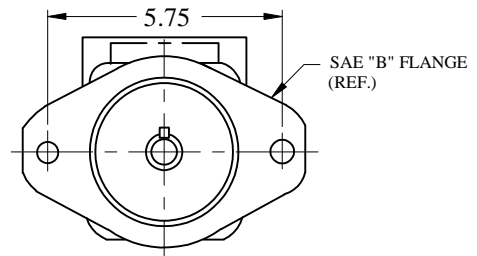
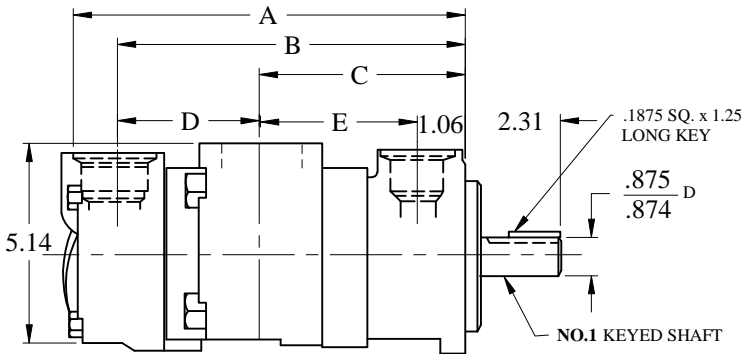
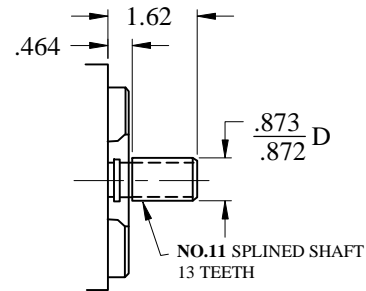
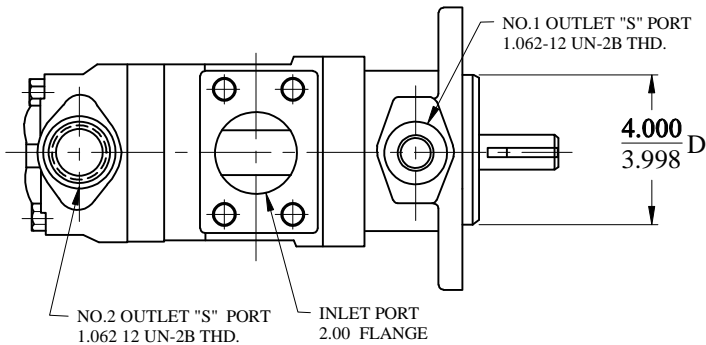
Foot Bracket Available
Part Nbr - IFB-B
(see page J 1.1)

IFP V2020 DOUBLE VANE PUMP INSTALLATION DIMENSIONS



DIMENSIONS (inches)

V2020 Series
Optional Shaft



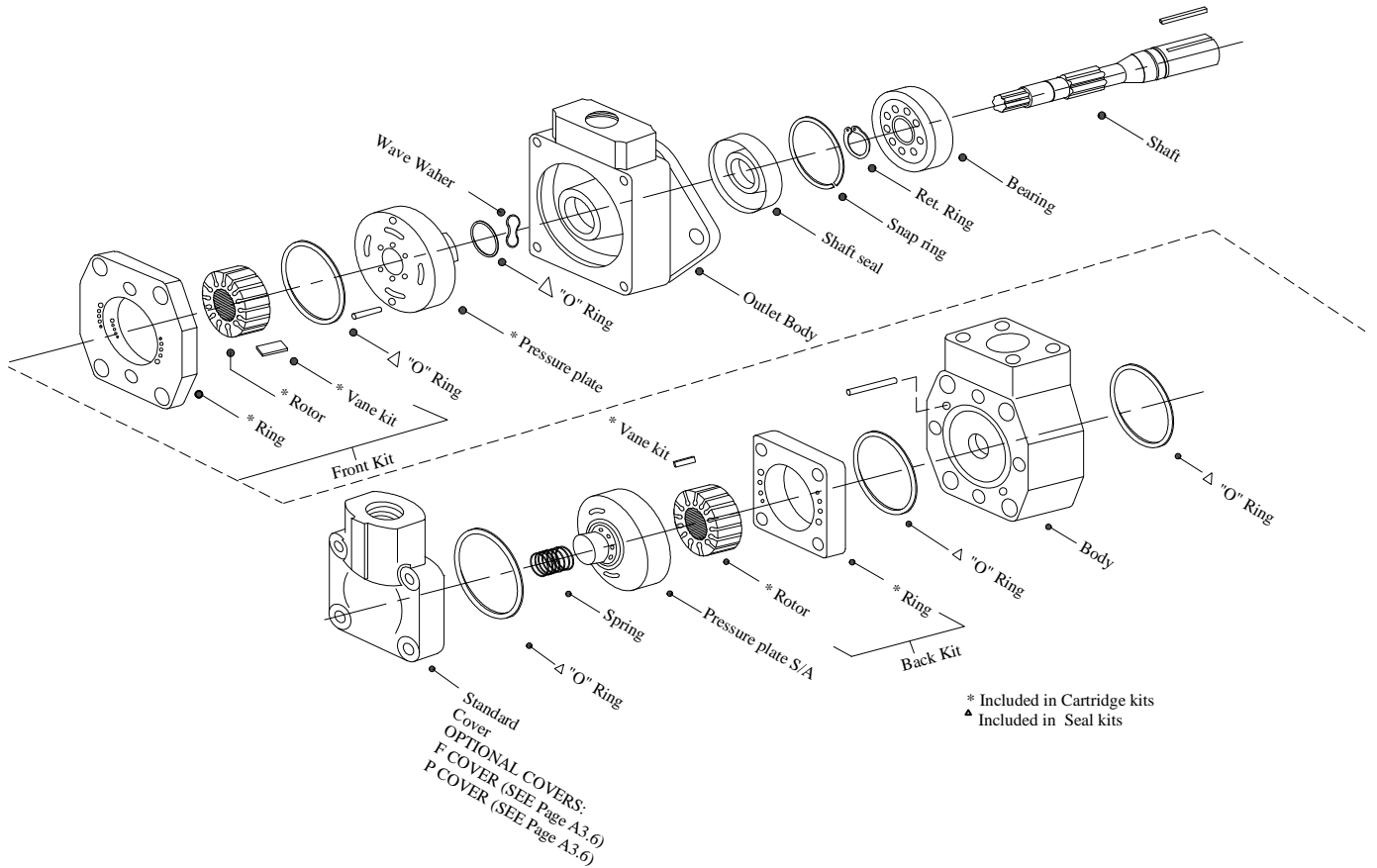
DIMENSIONS

RATED DELIVERY GPM @ 1200 RPM & 100 PSI		DIMENSIONS				
Shaft End	Cover End	A	B	C	D	E
7, 8 or 9	6	8.41	7.39	4.49	2.90	3.43
7, 8 or 9	7, 8 or 9	8.66	7.64	4.49	3.15	3.43
11	6	8.61	7.59	4.69	2.90	3.63
11	7, 8 or 9	8.86	7.84	4.69	3.15	3.63
11	11	9.05	8.03	4.69	3.35	3.63
12 or 13	6	8.75	7.73	4.82	2.90	3.76
12 or 13	7, 8 or 9	8.99	7.97	4.82	3.15	3.76
12 or 13	11	9.19	8.17	4.82	3.35	3.76

Weight 35 lbs.

Foot Bracket Available
Part Nbr - IFB-B
(see page J 1.1)

IFP V2010 DOUBLE VANE PUMP SERVICE PARTS INFORMATION



PUMP SE	FRONT C. KIT	FRONT ROTOR	FRONT VANE	FRONT RING	FRONT PR. PL.	BACK C. KIT	BACK ROTOR	BACK VANE	BACK RING	BACK PR. PL.
V2010	6 923474N	358339N	923485N	328150N	358347N	1 923471N	317681N	923499N	317674N	373795N
	7 923494N	358335N	923493N	328152N		2 923470N			317675N	
	8 923495N			331791N		3 923496N			317676N	
	9 923462N			331789N		4 923469N	351247N	923500N	317677N	
	11 923475N	358336N	923478N	328156N		5 923468N			317678N	
	12 923476N	358337N	923479N	331806N		6 923497N	357286N	923501N	355641N	
	13 923477N			331807N		7 923498N			331813N	

PUMP SE	SEAL KIT	SEAL	BEARING	BODY	SHAFT NO.	OUTLET BODY
V2010	923577N	229236N	82938N	357292N	SHAFT I. NO. 351249N	315120N
					SHAFT II. NO. 321215N	

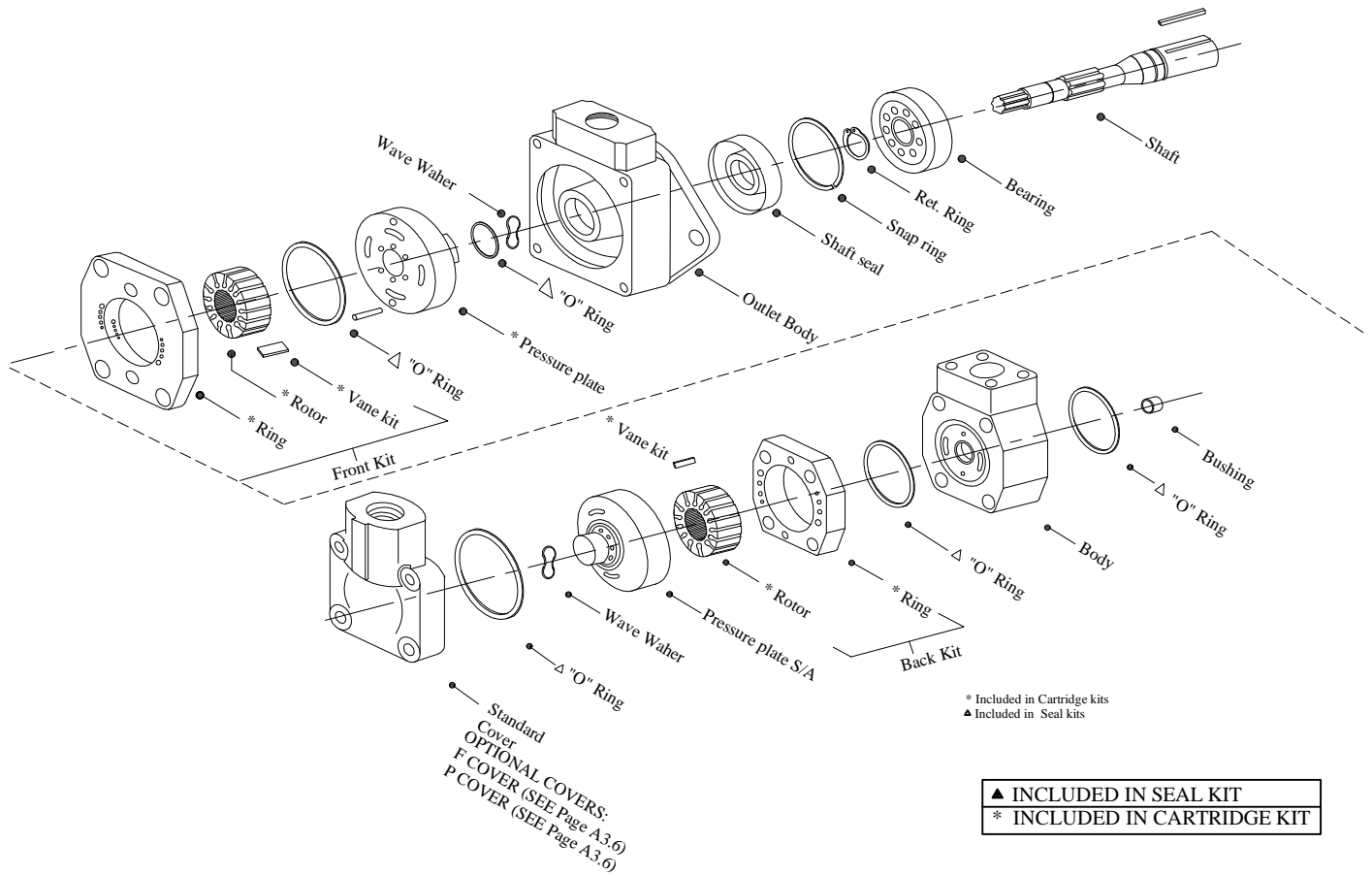
- All Cartridge assemblies are factory tested before shipping -

Bolt Torques	FRONT SECTION	BACK SECTION
V2010	85 LBS/FT.	45 LBS/FT.

Changing Cartridge Rotation

Reposition the ring 90° from its original position using the locating pins for alignment, making sure that the arrow on the perimeter points in the proper direction of rotation. Install the rotor on the shaft and insert vanes in the rotor slots. Be certain that the radius edges of the vanes are towards the cam ring.

IFP V2020 DOUBLE VANE PUMP SERVICE PARTS INFORMATION



PUMP SE	FRONT C. KIT	FRONT ROTOR	FRONT VANES	FRONT RING	FRONT PR. PL.	BACK C. KIT	BACK ROTOR	BACK VANES	BACK RING	BACK PR. PL.
V2020	6 923474N	358339N	923485N	328150N	358347N	6 923480N	358328N	923485N	328150N	358347N
	7 923494N	358335N	923493N	328152N		7 923481N	358330N	923493N	328152N	
	8 923495N			331791N		8 923483N			331791N	
	9 923462N	358336N	923478N	331789N		9 923484N	358332N	923478N	331789N	
	11 923475N			328156N		11 923482N			328156N	
	12 923476N			331806N						
13 923477N	358337N	923479N	331807N							

PUMP SE	SEAL KIT	SEAL	BEARING	BODY	SHAFT NO.	OUTLET BODY
V2020	923174N	229236N	82938N	308681N	SHAFT 1. NO. 308686N	315120N
					SHAFT 11. NO. 308926N	

- All Cartridge assemblies are factory tested before shipping -

Bolt Torques

	FRONT SECTION	BACK SECTION
V2020		81 LBS/FT.

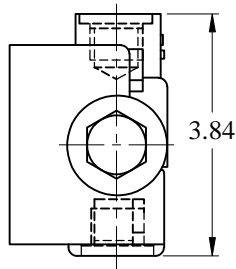
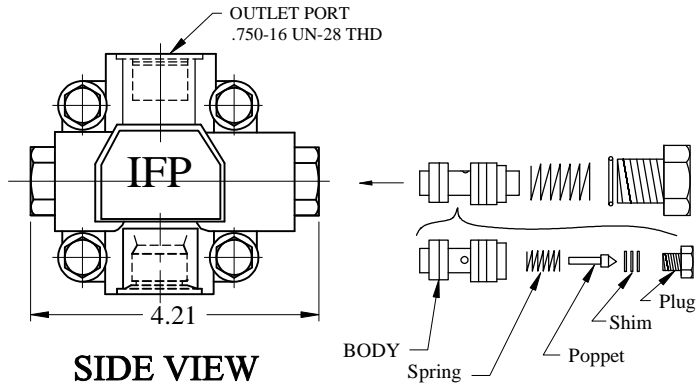
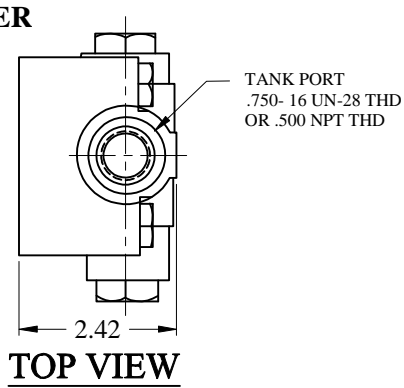
Changing Cartridge Rotation

Reposition the ring 90° from its original position using the locating pins for alignment, making sure that the arrow on the perimeter points in the proper direction of rotation. Install the rotor on the shaft and insert vanes in the rotor slots. Be certain that the radius edges of the vanes are towards the cam ring.

IFP V2010 DOUBLE VANE PUMP FLOW CONTROL/PRIORITY CONTROL COVERS

FLOW CONTROL COVER

PART NUMBER
IFP 379543N



FLOW RATE ORIFICE		RELIEF VALVE NUMBER / PRESSURE SETTING					
2	-2 USgpm	A-	250psi	229613N	H-	2000psi	232799N
3	-3 USgpm	B-	500psi	233018N	J-	2250psi	233019N
4	-4 USgpm	C-	750psi	232794N	K-	2500psi	233020N
5	-5 USgpm	D-	1000psi	232795N			
6	-6 USgpm	E-	1250psi	232796N			
7	-7 USgpm	F-	1500psi	232797N			
8	-8 USgpm	G-	1750psi	232798N			

FLOW CONTROL RELIEF VALVE

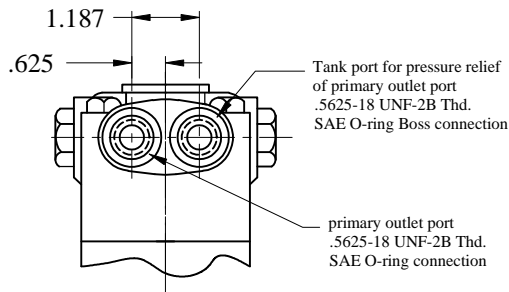
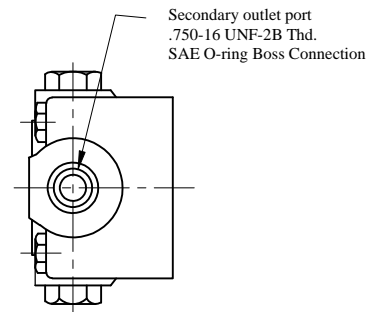
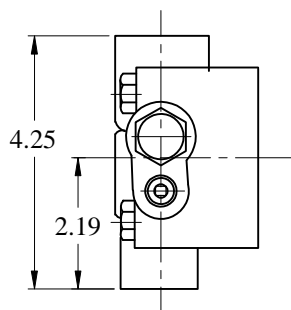
When installing control relief valve, install relief assembly in cover bore, install spring seating on hex head end of relief assembly, compress spring and install cover plug.

*** WARNING ***

Failure to follow these steps could cause serious malfunction and pressures to rise to dangerous levels.

PRIORITY CONTROL COVER

PART NUMBER
IFP 388262N



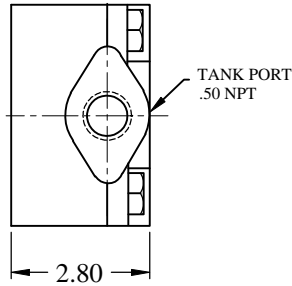
FLOW RATE ORIFICE		RELIEF VALVE NUMBER / PRESSURE SETTING					
2	-2 USgpm	A-	250psi	229613N	H-	2000psi	232799N
3	-3 USgpm	B-	500psi	233018N	J-	2250psi	233019N
4	-4 USgpm	C-	750psi	232794N	K-	2500psi	233020N
5	-5 USgpm	D-	1000psi	232795N			
6	-6 USgpm	E-	1250psi	232796N			
7	-7 USgpm	F-	1500psi	232797N			
8	-8 USgpm	G-	1750psi	232798N			

IFP V2020 DOUBLE VANE PUMP FLOW CONTROL/PRIORITY CONTROL COVERS

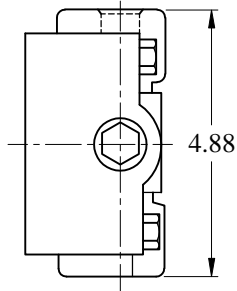


FLOW CONTROL COVER

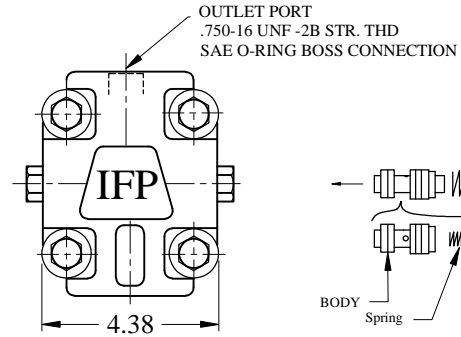
PART NUMBER
IFP 316090N



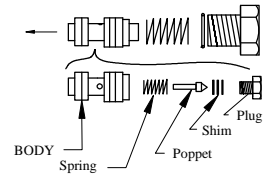
TOP VIEW



FRONT VIEW



SIDE VIEW



FLOW RATE ORIFICE		RELIEF VALVE NUMBER / PRESSURE SETTING					
2	-2 USgpm	A-	250psi	229613N	H-	2000psi	232799N
3	-3 USgpm	B-	500psi	233018N	J-	2250psi	233019N
4	-4 USgpm	C-	750psi	232794N	K-	2500psi	233020N
5	-5 USgpm	D-	1000psi	232795N			
6	-6 USgpm	E-	1250psi	232796N			
7	-7 USgpm	F-	1500psi	232797N			
8	-8 USgpm	G-	1750psi	232798N			

FLOW CONTROL RELIEF VALVE

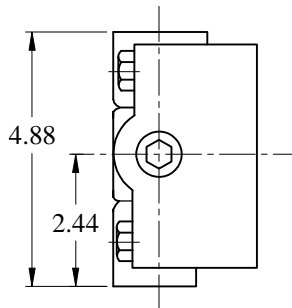
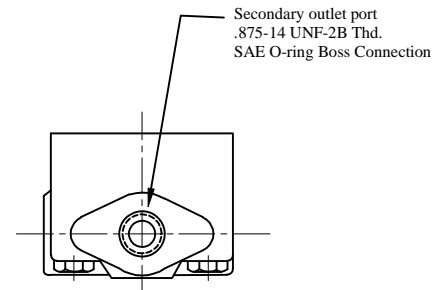
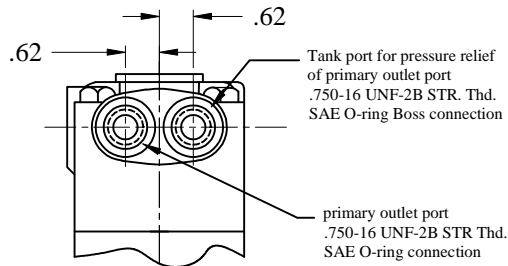
When installing control relief valve, install relief assembly in cover bore, install spring seating on hex head end of relief assembly, compress spring and install cover plug.

*** WARNING ***

Failure to follow these steps could cause serious malfunction and pressures to rise to dangerous levels.

PRIORITY CONTROL COVER

PART NUMBER
IFP 308121N

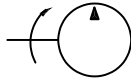


FLOW RATE ORIFICE		RELIEF VALVE NUMBER / PRESSURE SETTING					
2	-2 USgpm	A-	250psi	229613N	H-	2000psi	232799N
3	-3 USgpm	B-	500psi	233018N	J-	2250psi	233019N
4	-4 USgpm	C-	750psi	232794N	K-	2500psi	233020N
5	-5 USgpm	D-	1000psi	232795N			
6	-6 USgpm	E-	1250psi	232796N			
7	-7 USgpm	F-	1500psi	232797N			
8	-8 USgpm	G-	1750psi	232798N			

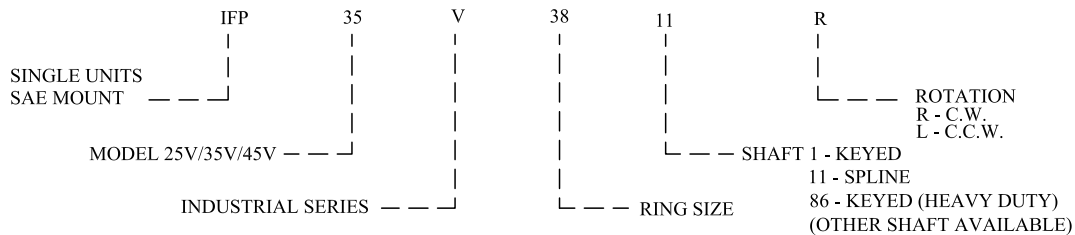
IFP HIGH PERFORMANCE INDUSTRIAL SINGLE INTRA-VANE PUMPS



- * High Volumetric Efficiency
- * Maximum 3000 PSI Operating Pressure
- * Twelve Vane Design for Quiet Operation
- * Hydraulically Balanced for Extended Life
- * Versatile
- * Compact



◆ Single Pump Ordering Specifications



Values based on using anti-wear type petroleum oil 150 SUS at 100°F and 0 PSI inlet pressure.

MODEL SERIES	FLOW IN GPM @ 1200 RPM & 100 PSI	DISPL. in ³ /r	MAXIMUM SPEED (RPM)	MAXIMUM PRESSURE (PSI)	TYPICAL DELIVERY GPM @ max. speed & pressure	TYPICAL INPUT POWER (HP) @ max. speed & pressure	WEIGHT (lbs.)
20V	5	1.10	1800	3000	7.5	15.00	26
	8	1.67	1800	3000	12	22.78	
	11	2.22	1800	3000	15	30.28	
	12	2.47	1800	3000	16.4	33.69	
	14	2.78	1800	3000	18.4	37.91	
25V	12	2.47	1800	2500	16.4	30.75	32
	14	2.78	1800	2500	18.4	34.50	
	17	3.39	1800	2500	22.8	40.00	
	21	4.13	1800	2500	28	45.60	
35V	21	4.13	1800	2500	28	45.60	50
	25	4.94	1800	2500	33	61.00	
	30	5.91	1800	2500	40.8	73.00	
	35	6.83	1800	2500	48	82.40	
	38	7.37	1800	2500	51.2	88.30	
45V	42	8.41	1800	2500	55.0	101.00	75
	50	9.85	1800	2500	67	117.00	
	60	11.75	1800	2500	82	139.00	
50V	72	13.9	1800	1700	97	95.00	138
	85	16.4	1800	1700	128	126.00	
	100	19.25	1800	1700	142	140.00	
	109	20.99	1800	1700	153	150.00	

IFP offers a complete line of high performance (12 vane) single intra-vane pumps for industrial applications. Units are available with a large selection of SAE mounts and shafts. The high pressure capability and multiple displacements, combined with the low flow pulsation and quiet operating characteristics of this 12-vane design, makes them ideal for industrial applications. Factory tested cartridges kits are readily available, providing efficient field serviceability, avoiding costly down time and increasing productivity. These units can operate on a wide variety of fluids.

Contact the local representative with your requirements.

IFP HIGH PERFORMANCE INDUSTRIAL SINGLE INTRA-VANE PUMPS



Performance Data - Typical Flows at 120° F, 10 W oil (128SUS), 0 PSI inlet

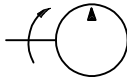
Flow in Gallons Per Minute (GPM).

Pump Model	Displacement (in ³ /rev.)	R.P.M.	100 P.S.I. (INPUT H.P.)	1500 P.S.I. (INPUT H.P.)	2500 P.S.I. (INPUT H.P.)	
20 V	5 (1.10)	1200	5.0 (0.4)	4.5 (5.0)	4.2 (6.0)	
		1500	6.9 (1.0)	6.4 (7.0)	6.0 (8.0)	
		1800	8.5 (1.5)	7.7 (8.5)	7.5 (12.0)	
	8 (1.67)	1200	8.0 (1.0)	7.4 (8.0)	7.1 (14.0)	
		1500	10.5 (1.2)	9.5 (10.5)	9.1 (17.0)	
		1800	13.7 (1.7)	11.9 (12.0)	11.2 (20.5)	
	11 (2.22)	1200	11.0 (1.2)	10.2 (11.0)	9.9 (16.0)	
		1500	14.2 (1.5)	13.5 (14.5)	12.5 (23.0)	
		1800	17.1 (2.8)	16.5 (18.0)	15.5 (28.5)	
	12 (2.47)	1200	12.0 (1.3)	11.6 (12.5)	11.2 (19.0)	} MAX. PSI 2300
		1500	15.0 (1.5)	14.8 (15.5)	14.0 (25.0)	
		1800	18.6 (3.0)	17.8 (19.0)	16.4 (30.0)	
	14 (2.78)	1200	14.0 (1.5)	12.2 (13.5)	11.2 (23.0)	} MAX. PSI 2000
		1500	17.5 (3.0)	16.1 (17.0)	14.5 (29.0)	
		1800	21.0 (3.5)	18.4 (20.0)	18.0 (34.0)	
25 V	12 (2.47)	1200	12.0 (1.0)	10.8 (12.0)	10.2(21.0)	
		1500	15.0 (1.5)	13.8 (14.5)	13.5 (25.0)	
		1800	18.0 (2.5)	16.4 (17.0)	16.4(30.0)	
	14 (2.78)	1200	14.0 (2.0)	12.4 (13.5)	11.5 (23.0)	
		1500	17.5 (2.0)	16.8 (17.0)	14.8 (29.0)	
		1800	21.0 (3.0)	18.6 (20.0)	18.4 (34.5)	
	17 (3.39)	1200	17.0 (2.0)	15.5 (16.5)	15.0 (28.0)	
		1500	21.0 (2.0)	20.0 (20.0)	18.3 (34.0)	
		1800	25.5 (3.0)	23.2 (24.0)	22.8 (40.0)	
	21 (4.13)	1200	21.0 (2.0)	19.5 (20.0)	18.5 (33.0)	
		1500	26.0 (3.6)	24.0 (24.5)	23.5 (42.0)	
		1800	31.5 (3.8)	29.2 (29.0)	28.0 (46.0)	
35 V	21 (4.13)	1200	21.0 (2.0)	19.5 (20.0)	18.5 (31.0)	
		1500	26.0 (3.6)	24.0 (24.5)	23.5 (41.0)	
		1800	31.5 (3.8)	29.2 (29.0)	28.0 (45.0)	
	25 (4.94)	1200	25.0 (2.5)	22.5 (23.0)	21.0 (41.0)	
		1500	31.0 (3.0)	29.0 (30.0)	27.0 (50.0)	
		1800	37.8 (4.0)	35.5 (36.0)	33.0 (61.0)	
	30 (5.91)	1200	30.0 (4.0)	28.0 (28.5)	25.5 (49.0)	
		1500	37.0 (5.0)	35.0 (35.5)	33.0 (61.0)	
		1800	44.8 (6.0)	42.0 (43.0)	40.5 (73.0)	
	35 (6.83)	1200	35.0 (4.0)	32.0 (33.0)	30.5 (54.0)	
		1500	43.0 (5.0)	41.0 (42.5)	39.0 (68.0)	
		1800	52.0 (6.5)	50.0 (51.5)	47.5 (82.0)	
	38 (7.37)	1200	38.0 (4.5)	35.0 (35.5)	32.0 (58.0)	
		1500	46.5(6.0)	43.0 (44.0)	41.5 (73.0)	
		1800	56.5 (7.0)	53.5 (55.0)	51.0 (88.0)	
45 V	42 (8.41)	1200	42.0 (4.0)	36.0 (38.0)	33.0 (68.0)	
		1500	53.0 (6.0)	48.0 (49.0)	44.0 (79.0)	
		1800	64.0 (7.0)	59.0 (60.0)	55.0 (101.0)	
	50 (9.85)	1200	50.0 (4.0)	45.0 (46.0)	42.5 (75.0)	
		1500	62.0 (8.0)	57.5 (59.0)	55.0 (97.0)	
		1800	74.0 (8.0)	69.0 (71.0)	67.0 (117.0)	
	60 (11.75)	1200	60.0 (6.0)	55.0 (57.0)	52.0 (93.0)	
		1500	75.0 (7.0)	69.0 (72.0)	66.0 (116.0)	
		1800	91.0 (9.0)	86.0 (88.0)	82.0 (139.0)	

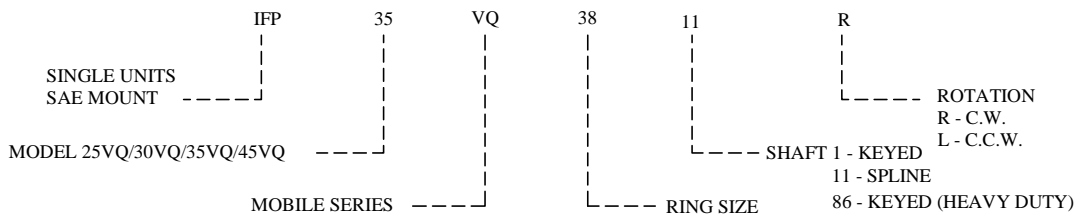
IFP HIGH PERFORMANCE MOBILE SINGLE INTRA-VANE PUMPS



- * 3000 PSI Maximum Operating Pressure
- * High Operating Speeds
- * Pressure Balanced Brass Flex Plates
- * Versatile
- * Compact
- * Contaminant Tolerant



◆ Single Pump Ordering Specifications



Values based on using anti-wear type petroleum oil 150 SUS at 100°F and 0 PSI inlet pressure.

MODEL SERIES	FLOW IN GPM @ 1200 RPM & 100 PSI	DISPL. in ³ r	MAXIMUM SPEED (RPM)	MAXIMUM PRESSURE (PSI)	TYPICAL DELIVERY GPM @ max. speed & pressure	TYPICAL INPUT POWER (HP) @ max. speed & pressure	WEIGHT (lbs.)
20VQ	5	1.10	2700	3000	11.0	24.0	26
	8	1.67	2700	3000	17.0	35.0	
	11	2.22	2700	3000	23.0	47.5	
	12	2.41	2700	2300	22.5	38.0	
	14	2.80	2700	2000	30.0	39.0	
25VQ	12	2.45	2700	3000	23.0	55.0	32
	14	2.77	2700	3000	27.0	62.5	
	17	3.37	2500	3000	31.0	69.5	
	19	3.72	2500	3000	35.0	76.0	
	21	4.12	2500	3000	38.0	83.0	
30VQ	24	4.70	2700	3000	23.0	55.0	36
	28	5.50	2500	3000	31.0	69.5	
35VQ	21	4.12	2500	3000	38.0	83.0	50
	25	4.98	2500	3000	45.0	101.0	
	30	5.96	2500	3000	55.0	117.5	
	35	6.88	2400	3000	60.0	132.0	
	38	7.42	2400	3000	65.0	140.0	
45VQ	42	8.46	2200	2500	66.5	122.5	75
	47	9.54	2200	2500	71.0	131.00	
	50	9.90	2200	2500	79.0	141.00	
	57	11.20	2200	2500	92.0	160.00	
	60	11.80	2200	2500	96.0	170.00	

IFP offers a complete line of high performance single intra-vane pumps for mobile equipment. A large number of SAE mounts, shafts, and displacements, along with their high pressure and speed capabilities, provide the combination best suited for mobile applications. The cartridge assemblies are designed with two flex plates in hydrostatic balance which seal against the rotor to provide optimum running clearances for minimum internal leakage and friction. The bronze face of the flex plates provides excellent wear for cold-start conditions. The availability of our factory tested cartridges offers fast and efficient field serviceability, and the replacement pump cartridge reduces down time to increase productivity. These units can operate on a wide variety of fluids.

Contact the local representative with your requirements.

IFP HIGH PERFORMANCE MOBILE SINGLE INTRA-VANE PUMPS

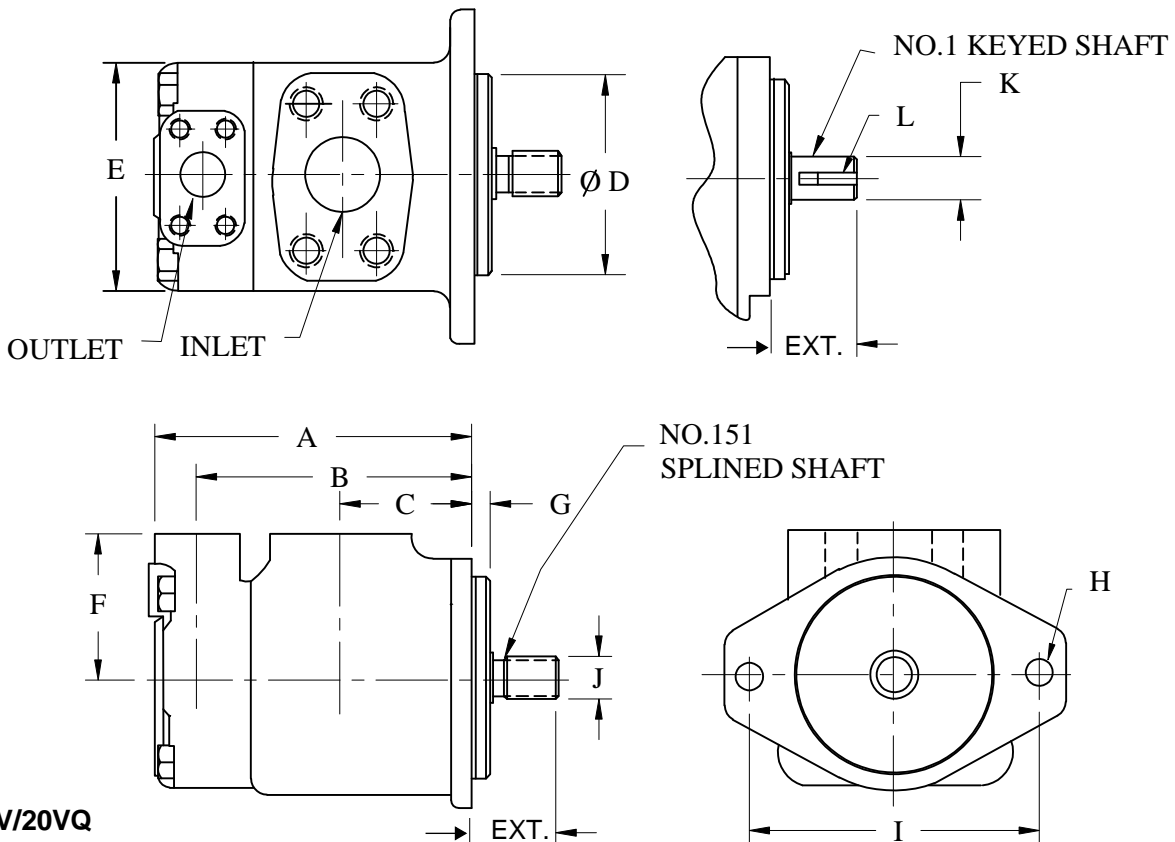
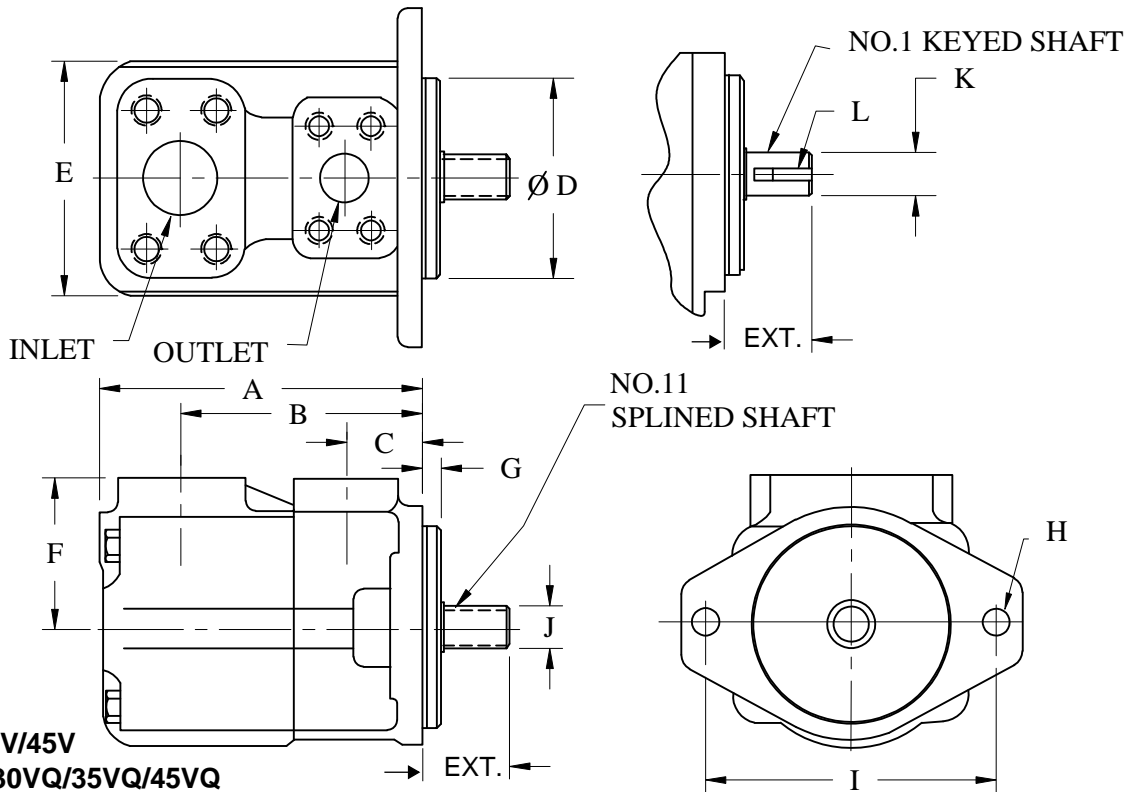


Performance Data - Typical Flows at 120° F, 10 W oil (128SUS), 0 PSI inlet

Flow in Gallons Per Minute (GPM).

Pump Model	Displacement (in ³ /rev.)	R.P.M.	100 P.S.I. (INPUT H.P.)	1500 P.S.I. (INPUT H.P.)	3000 P.S.I. (INPUT H.P.)	
20 VQ	5 (1.10)	1200	5.0 (0.4)	4.3 (5.0)	4.0 (10.0)	} MAX. PSI 2300
		1800	7.5 (1.5)	7.0 (8.5)	7.0 (16.5)	
		2400	10.0 (2.0)	10.2 (12.0)	9.5 (22.0)	
	8 (1.67)	1200	8.0 (1.0)	7.0 (8.0)	6.5 (16.5)	
		1800	12.0 (1.7)	11.5 (12.0)	10.5 (23.0)	
		2400	16.0 (2.8)	16.0 (17.0)	14.9 (32.0)	
	11 (2.22)	1200	11.0 (1.2)	9.8 (11.0)	8.5 (21.5)	
		1800	16.5 (2.8)	15.4 (18.0)	14.2 (31.0)	
		2400	22.0 (3.0)	21.0 (22.0)	20.0 (42.0)	
	12 (2.41)	1200	12.0 (1.5)	11.0 (12.5)	9.8 (22.0)	
		1800	18.0 (3.0)	17.2 (19.0)	16.0 (34.0)	
		2400	24.0 (3.0)	23.4 (23.5)	22.2 (45.0)	
14 (2.80)	1200	14.0 (2.0)	12.9 (13.5)	12.0 (27.5)		
	1800	21.0 (3.0)	18.5 (20.0)	19.0 (39.5)		
	2400	28.0 (3.5)	27.0 (27.0)	26.4 (52.5)		
25 VQ	12 (2.47)	1200	12.0 (1.0)	9.5 (12.0)	7.5 (24.0)	} MAX. PSI 2200
		1800	18.0 (2.5)	16.0 (17.0)	13.5 (35.0)	
		2400	24.0 (3.0)	22.5 (24.0)	20.0 (46.0)	
	14 (2.77)	1200	14.0 (2.0)	11.5 (13.5)	9.5 (26.5)	
		1800	21.0 (3.0)	18.0 (20.0)	16.0 (39.0)	
		2400	28.0 (3.5)	25.0 (25.0)	23.0 (52.0)	
	17 (3.37)	1200	17.0 (2.0)	14.0 (16.5)	12.0 (32.0)	
		1800	25.5 (3.0)	22.0 (24.0)	20.0 (47.0)	
		2400	34.0 (3.5)	31.0 (32.0)	29.0 (62.0)	
	19 (3.72)	1200	19.0 (3.0)	17.0 (20.0)	15.0 (39.0)	
		1800	28.5 (3.5)	25.5 (28.0)	24.0 (58.0)	
		2400	38.0 (4.5)	35.0 (36.0)	32.0 (70.0)	
21 (4.12)	1200	21.0 (2.0)	17.5 (20.0)	15.5 (39.0)		
	1800	31.5 (3.8)	28.0 (29.0)	25.5 (59.0)		
	2400	42.0 (4.5)	39.0 (39.0)	36.5 (76.0)		
30 VQ	24 (4.70)	1200	24.0 (2.2)	21.0 (22.0)	19.0 (46.0)	
		1800	36.0 (3.3)	33.0 (33.0)	31.5 (71.0)	
		2400	48.0 (4.4)	45.0 (47.0)	42.5 (95.0)	
	28 (5.50)	1200	28.0 (2.6)	26.0 (22.0)	23.5 (58.0)	
		1800	42.0 (5.0)	39.0 (33.0)	37.5 (77.0)	
		2400	56.0 (6.5)	52.5 (47.0)	49.5 (98.0)	
35 VQ	21 (4.12)	1200	21.0 (2.0)	17.5 (20.0)	15.5 (39.0)	
		1800	31.5 (3.8)	28.0 (29.0)	25.5 (59.0)	
		2400	42.0 (4.5)	39.0 (39.0)	36.5 (76.0)	
	25 (4.98)	1200	25.0 (2.5)	20.5 (23.0)	17.5 (46.0)	
		1800	37.0 (4.0)	33.5 (36.0)	30.0 (69.0)	
		2400	50.0 (4.5)	42.0 (46.5)	42.5 (92.0)	
	30 (5.96)	1200	30.0 (4.0)	25.0 (28.5)	25.5 (56.0)	
		1800	45.0 (5.0)	40.0 (43.0)	37.0 (82.0)	
		2400	60.0 (6.0)	55.0 (56.0)	52.5 (110.0)	
	35 (6.88)	1200	35.0 (4.0)	29.0 (33.0)	25.0 (67.0)	
		1800	52.5 (5.0)	46.0 (51.0)	42.0 (95.0)	
		2400	70.0 (5.5)	62.5 (64.0)	60.0 (125.0)	
38 (7.42)	1200	38.0 (4.5)	32.0 (35.5)	29.0 (69.0)		
	1800	57.0 (5.5)	50.5 (52.0)	47.0 (102.0)		
	2400	76.5 (6.0)	68.0 (69.0)	65.0 (136.0)		
45 VQ	42 (8.46)	1200	42.0 (4.0)	34.5 (39.5)	30.0 (68.0)	} MAX. PSI 2500
		1800	63.0 (60.0)	56.5 (58.0)	52.0 (104.0)	
		2400	77.0 (7.0)	70.5 (72.0)	66.5 (123.0)	
	47 (9.54)	1200	47.0 (4.0)	39.0 (22.0)	34.0 (46.0)	
		1800	70.0 (5.0)	64.0 (33.0)	60.5 (71.0)	
		2400	94.0 (9.0)	86.0 (47.0)	80.5 (95.0)	
	50 (9.90)	1200	50.0 (4.0)	42.0 (48.0)	38.5 (78.0)	
		1800	75.0 (6.0)	65.5 (70.0)	62.0 (116.0)	
		2400	91.5 (8.0)	81.5 (86.0)	79.0 (141.0)	
	57 (11.20)	1200	57.0 (5.0)	49.0 (22.0)	45.5 (92.0)	
		1800	85.5 (7.5)	76.5 (33.0)	71.5 (125.0)	
		2400	104.5 (8.0)	94.5 (47.0)	89.5 (160.0)	
60 (11.80)	1200	60.0 (5.5)	51.0 (55.0)	47.0 (94.0)		
	1800	90.0 (7.0)	80.0 (82.0)	75.5 (138.0)		
	2400	110.0 (8.5)	99.0 (101.0)	96.0 (170.0)		

IFP MOBILE & INDUSTRIAL SINGLE PUMP INSTALLATION DIMENSIONS



IFP MOBILE & INDUSTRIAL SINGLE PUMP INSTALLATION DIMENSIONS



DIMENSION CHART

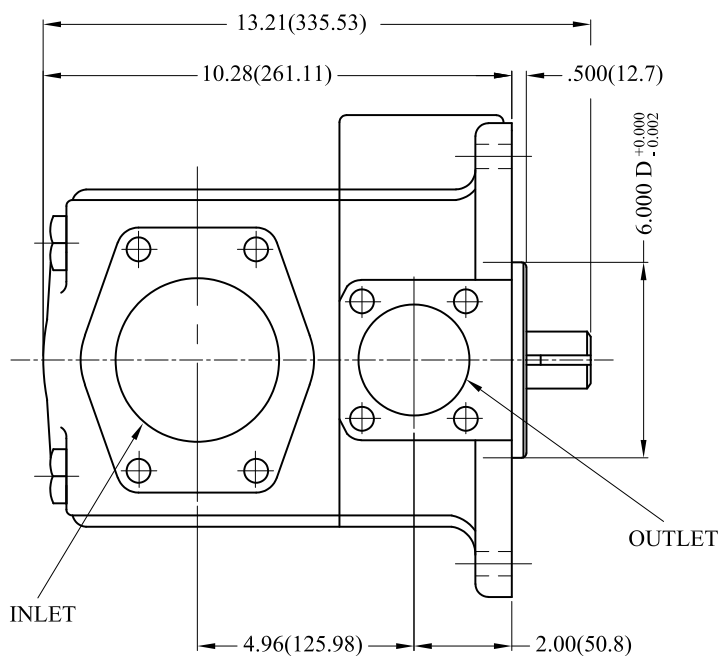
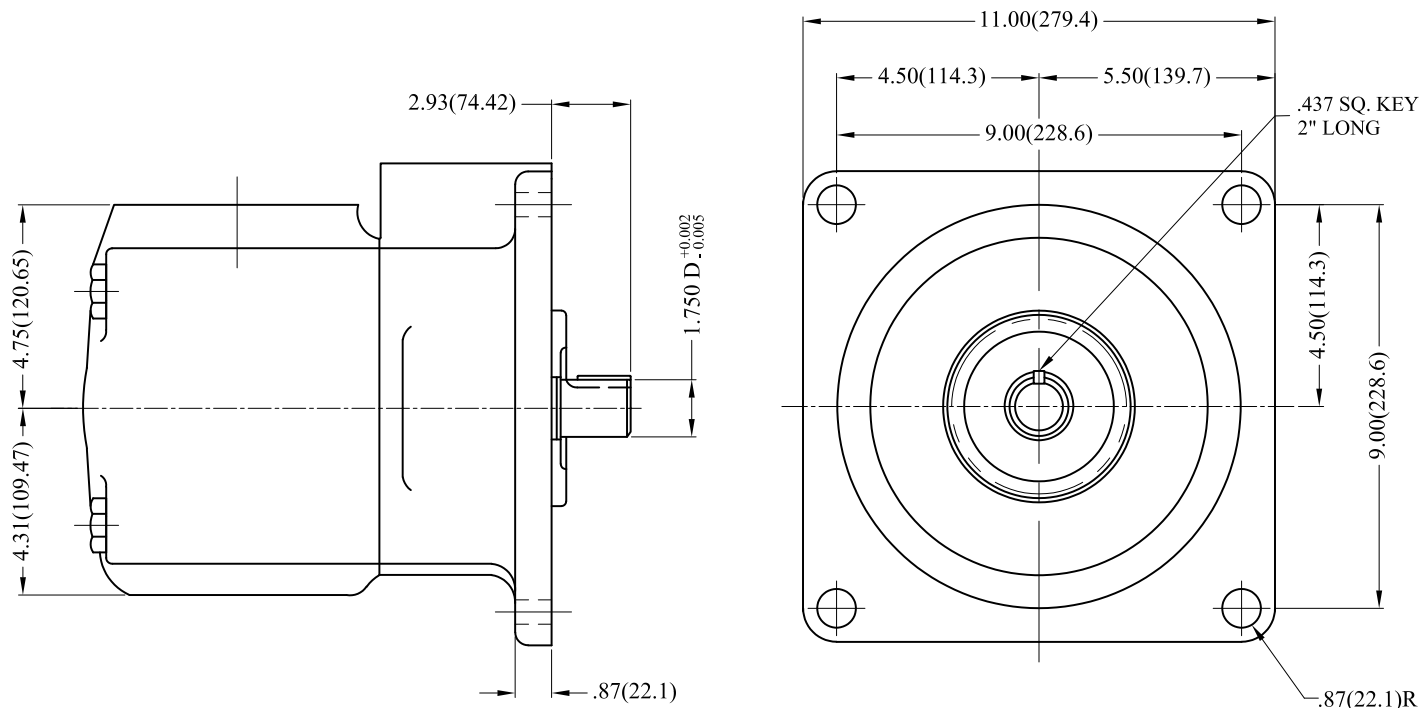
	20 SERIES	25SERIES	30 SERIES	35 SERIES	45 SERIES
A	6.12	6.38	6.96	7.28	8.5
B	5.22	4.75	4.85	4.94	6.02
C	2.5	1.5	1.5	1.5	1.69
D	4"Ø SAE 'B'	4"Ø SAE 'B'	4"Ø SAE 'B'	5"Ø SAE 'C'	5"Ø SAE 'C'
E	4"	4.62	4.62	5.51	6.36
F	3	3	3	3.25	3.69
G	.375	.375	.375	.375	.500
H	.56	.56	.56	.688	.688
I	5.75	5.75	5.75	7.125	7.125
J	.875Ø 13 TH. 1.75 EXT.	.875Ø 13 TH. 1.75 EXT.	.875Ø 13 TH. 1.75 EXT.	1.25Ø 14 TH. 2.31 EXT.	1.25Ø 14 TH. 2.44 EXT.
K	.875Ø EXT. 2.13	.875Ø EXT. 2.31	.875Ø EXT. 2.31	1.25Ø EXT. 2.88	1.25Ø EXT. 2.44
L	KEY .187	KEY .187	KEY .187	KEY .3125	KEY .3125
Inlet	1-1/2" FL.	1-1/2" FL.	1-1/2" FL.	2" FL.	3" FL.
Outlet	3/4" FL.	1" FL.	1-1/4" FL.	1-1/4" FL.	1-1/2" FL.
Foot Bracket	IFB - B	IFB - B	IFB - B	IFB - C	IFB - C
Weight	32 lbs.	32 lbs.	36 lbs.	50 lbs.	75 lbs.

SHAFTS DESCRIPTIONS & CODES

Pump Style	Code	Description	Major Dia.	Ext.
20V/VQ	1	3/16 Square Keyed	0.875	2.310
	151	13T 16/32 Splined	0.875	1.750
25V/VQ	1	13/16 Square Keyed	0.875	2.312
30V/VQ	3	#15 Woodruff Key	0.875	2.440
	11	13T 16/32 Splined	0.875	1.750
	25	14T 12/24 Splined	1.250	1.750
35V/VQ	127	14T 12/24 Splined	1.250	2.310
	1	5/16 Square Keyed	1.250	2.880
	11	14T 12/24 Splined	1.250	2.310
35V/VQ	19	14T 12/24 X-Long Splined	1.250	3.050
	86	5/16 Heavy-Duty Square Keyed	1.375	3.380
45V/VQ	1	15/16 Square Keyed	1.250	2.440
	11	14T 12/24 Splined	1.248	2.440
	19	14T 12/24 X-Long Splined	1.248	3.060
	86	3/8 Heavy-Duty Square Keyed	1.500	3.440

- Other shafts available on request -

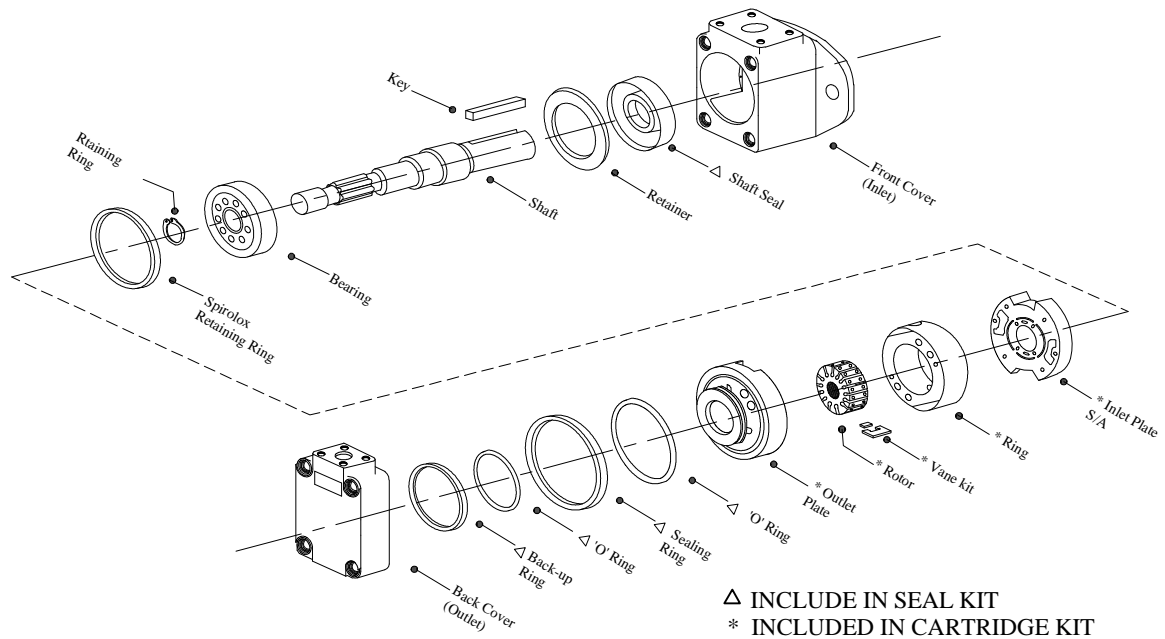
50 V INDUSTRIAL SINGLE PUMP INSTALLATION DIMENSIONS



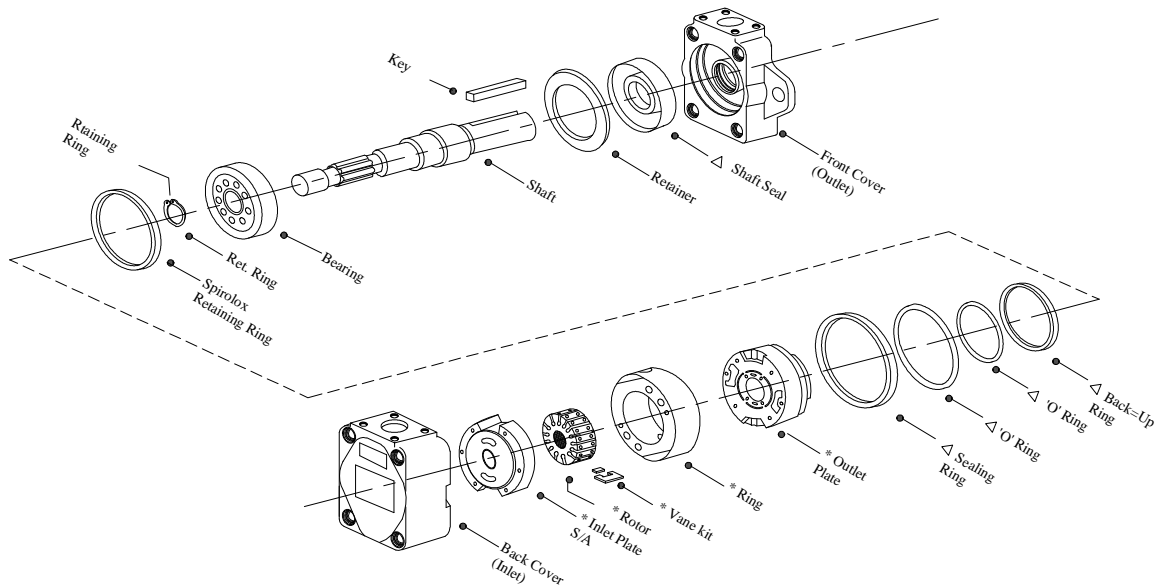
Weight - 138 lbs
 Inlet - 4" Flange Connection
 Outlet - 2" Flange Connection

Note: Pump inlet Pressure may not exceed 20 PSI

IFP INDUSTRIAL SINGLE VANE PUMP SERVICE PARTS INFORMATION



20V



25V/35V/45V

IFP INDUSTRIAL SINGLE VANE PUMP SERVICE PARTS INFORMATION



CARTRIDGE CHART

PUMP SE	CARTRIDGE KITS		ROTOR	VANE KIT	RING	INLET PLATE	OUTLET PLATE	SHAFTS	
20V	5	02-102518N	402690N	02-136720N	333624N	584383N	585382N	1 151	497109N 497113N
	8	02-102519N			333625N				
	11	02-102520N	403539N	02-136721N	333626N	584384N			
	12	02-102521N	353901N						
	14	02-102522N	353902N						
25V	12	02-102532N	584618N	941214N	326984N	591016N	588690N	1	238755N
	14	02-102533N			326985N			11	238929N
	17	02-102534N			326986N			86	419882N
	21	02-102535N			326988N				
35V	21	02-102551N	575478N	941019N	394961N	576265N	575479N	1	233624N
	25	02-102552N			319396N			11	242287N
	30	02-102553N			319397N			86	392669N
	35	02-102554N			319398N				
	28	02-102555N			319399N				
45V	42	02-102572N	578900N	941049N	297510N	578903N	580921N	1	233369N
	50	02-102574N			297502N			11	242885N
	60	02-102575N			297503N			86	361760N

- All Cartridge assemblies are factory tested before shipping -

PUMP SE	BUNA SEAL KIT	VITON SEAL KIT	BUNA SHAFT SEAL	VITON SHAFT SEAL	SECONDARY SHAFT SEAL	BEARING	FRONT COVER	BACK COVER
20V	497125N	981322N	394976N	429286N	429283N	1704N	02-102335N	250824N
25V	922850N	919656N	394976N	429286N	429283N	1705N	942353N	224309N
35V	922851N	919262N	394973N	429284N	429281N	38441N	942355N	234248N
45V	919850N	919632N	394974N	429285N	429282N	131812N	942356N	229633N

BOLT TORQUES

PUMP SE	COVER BOLT (FT. LB.)	CARTRIDGE KIT (IN. LB.)
20V	50	30
25V	50	40
35V	100	90
45V	100	100

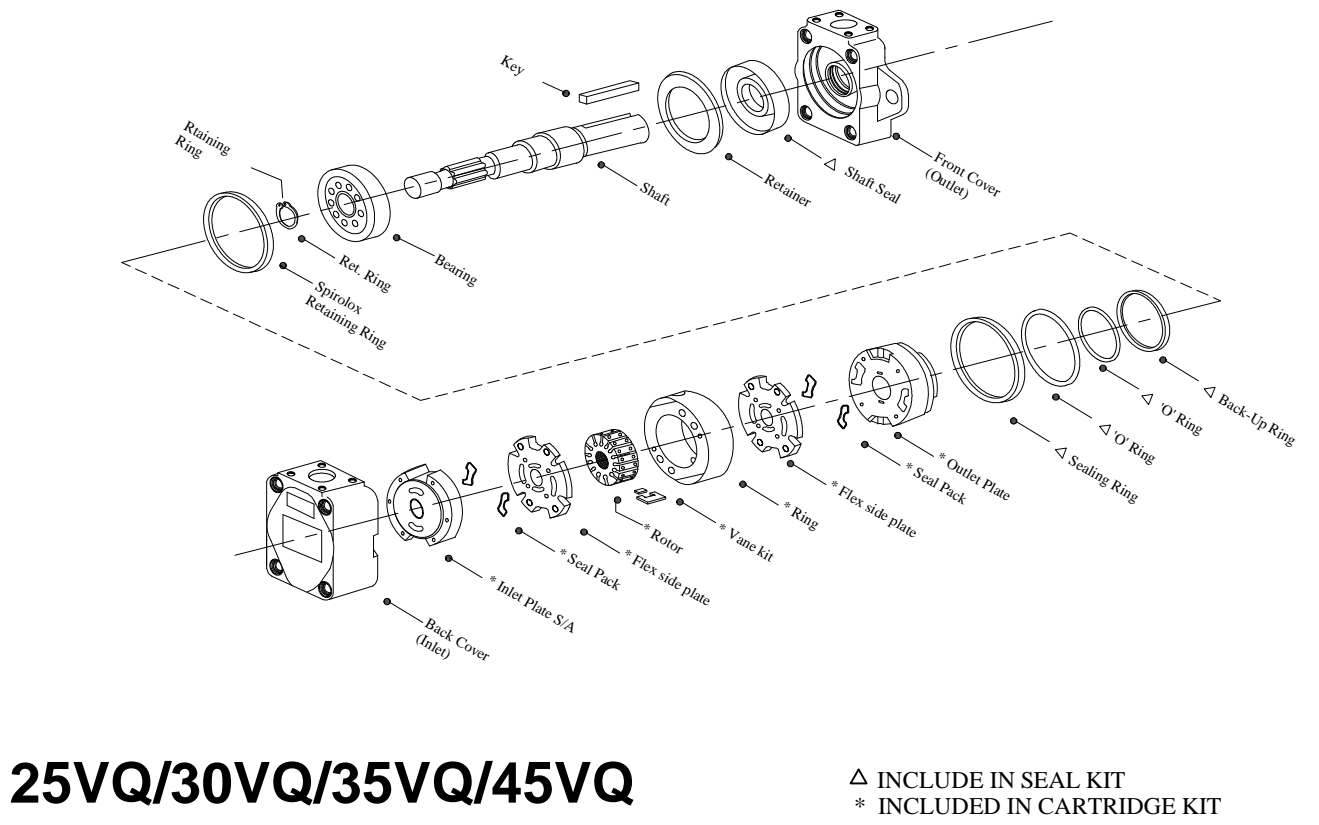
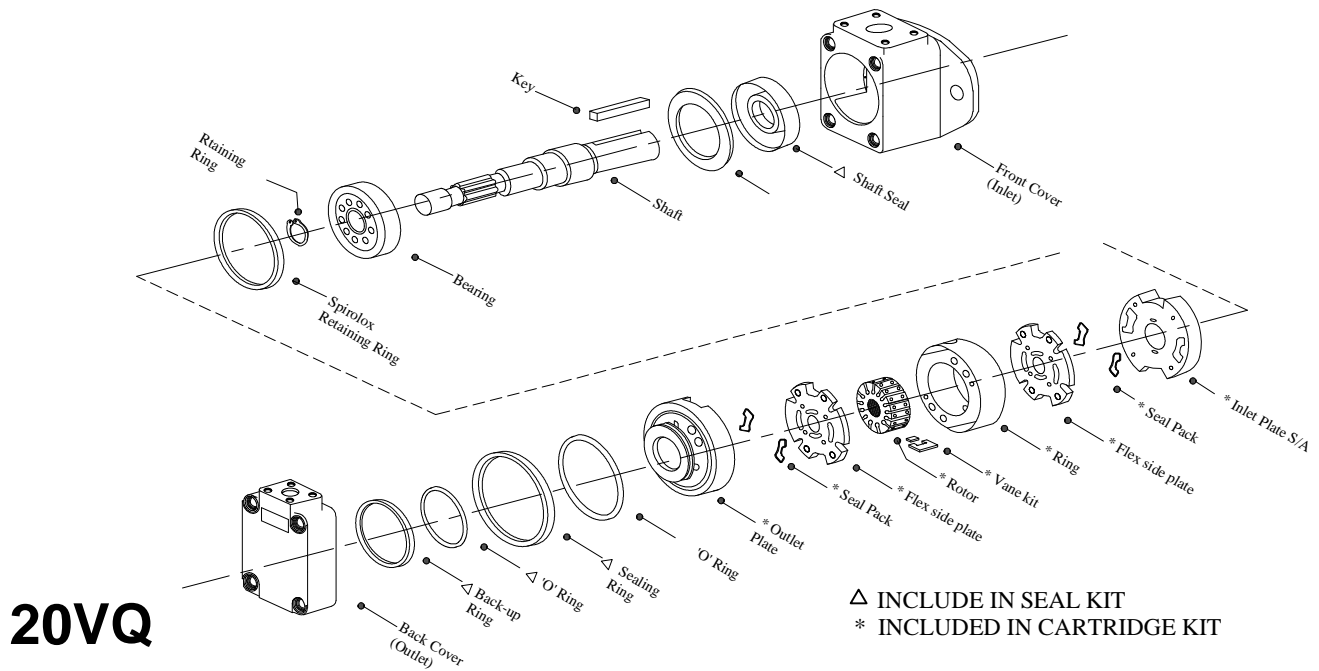
Cartridge Kit Rotation

To change Cartridge Kit rotation, reverse the location of the inlet and the outlet support plates. Hand tighten the cartridge screws and use pump cover to align all the parts. Remove the cover and tighten the cartridge screws to the designated value. Sharp edge of vanes must lead in direction of rotation.

Filtration

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

IFP MOBILE SINGLE VANE PUMP SERVICE PARTS INFORMATION



IFP MOBILE SINGLE VANE PUMP SERVICE PARTS INFORMATION



CARTRIDGE CHART

PUMP SE	CARTRIDGE KITS	ROTOR	VANE	RING	FLEX PLATE	INLET PLATE	OUTLET PLATE	SHAFTS	
20VQ	5 497115N	402690N	922741N	333624N	416423N	419502N	497134N	1	497109N
	8 497118N			333625N				151	497113N
	11 497120N	403539N	922743N	333626N		419501N			
	12 497121N			353901N					
	14 497122N			353902N					
25VQ	12 416439N	270597N	922710N	326984N	923956N	430805N	419079N	1	238755N
	14 416440N			326985N				3	242747N
	17 416441N			326986N				11	238929N
	19 421232N			326987N				25	270187N
	21 416442N			326988N				127	424457N
30VQ	24 417052N	262152N	922642N	234470N	923956N	430805N	419079N	SAME AS 25VQ	
	28 416452N			224525N					
35VQ	21 413420N	262154N	922700N	394961N	923953N	430806N	412003N	1	233624N
	25 413421N			319396N				11	242287N
	30 413422N			319397N				19	275270N
	35 413418N			319398N					
	38 413419N			319399N					
45VQ	42 416435N	283271N	922701N	297510N	923954N	430807N	415382N	1	233369N
	47 421234N			297718N					
	50 416436N			297502N				11	242885N
	57 421233N			306772N					
	60 416437N			297503N				19	265575N

- All Cartridge assemblies are factory tested before shipping -

PUMP SE	BUNA SEAL KIT	VITON SEAL KIT	BUNA SHAFT SEAL	VITON SHAFT SEAL	SECONDARY SHAFT SEAL	BEARING	FRONT COVER	BACK COVER
20VQ	497123N	451471N	394976N	429286N	429283N	001704N	02-102335N	250824N
25VQ	920021N	920023N	394976N	429286N	429283N	1705N	942353N	224309N
30VQ	920021N	920023N	394976N	429286N	429283N	1705N	942354N	224526N
35VQ	920015N	920029N	394973N	429284N	429281N	38441N	942355N	234248N
45VQ	920025N	920027N	394974N	429282N	429285N	131812N	942356N	229633N

BOLT TORQUES

PUMP SE	COVER BOLT (FT. LB.)	CARTRIDGE KIT (IN. LB.)
20VQ	50	30
25VQ	50	45
30VQ	50	45
35VQ	100	100
45VQ	100	105

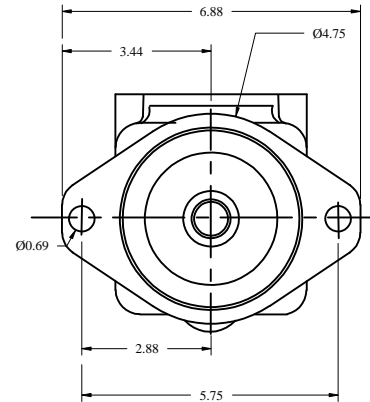
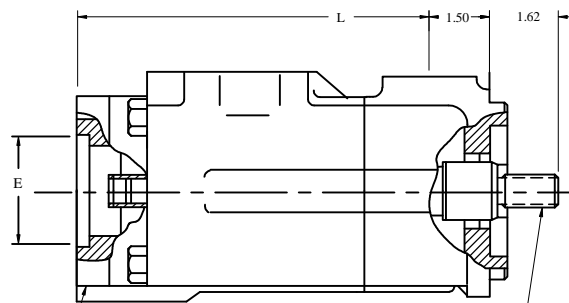
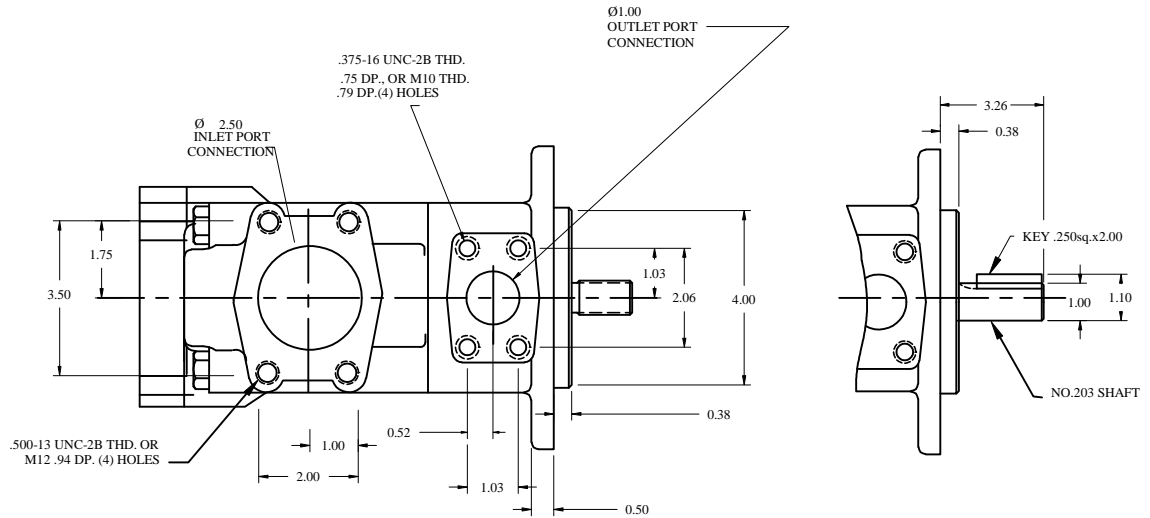
Cartridge Kit Rotation

To change Cartridge Kit rotation, reverse the location of the inlet and the outlet support plates. Hand tighten the cartridge screws and use pump cover to align all the parts. Remove the cover and tighten the cartridge screws to the designated value. Sharp edge of vanes must lead in direction of rotation.

Filtration

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

IFP 25VT/VQT VANE PUMPS

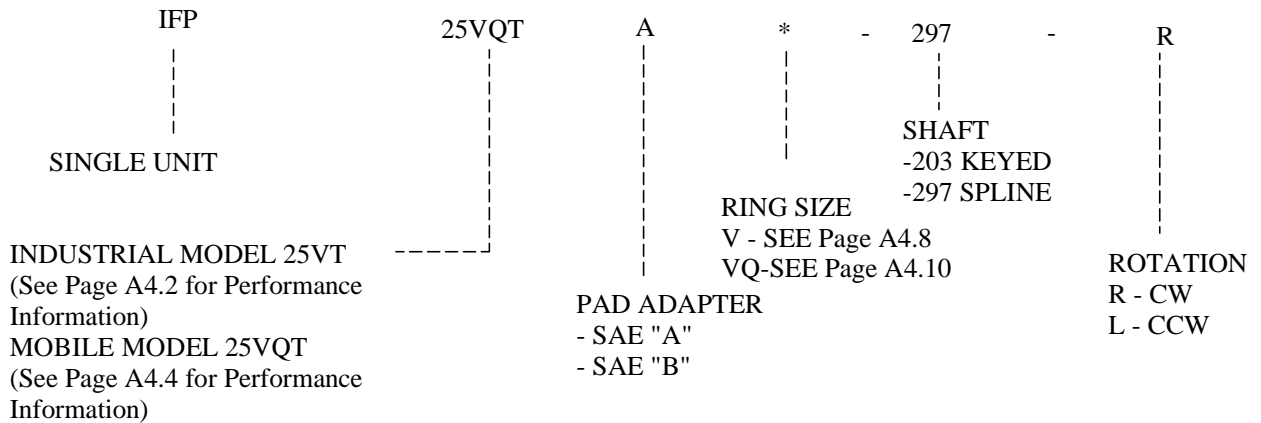


Series	"L"	"E"
25VTA	8.940	3.25
25VTB	9.300	4.00

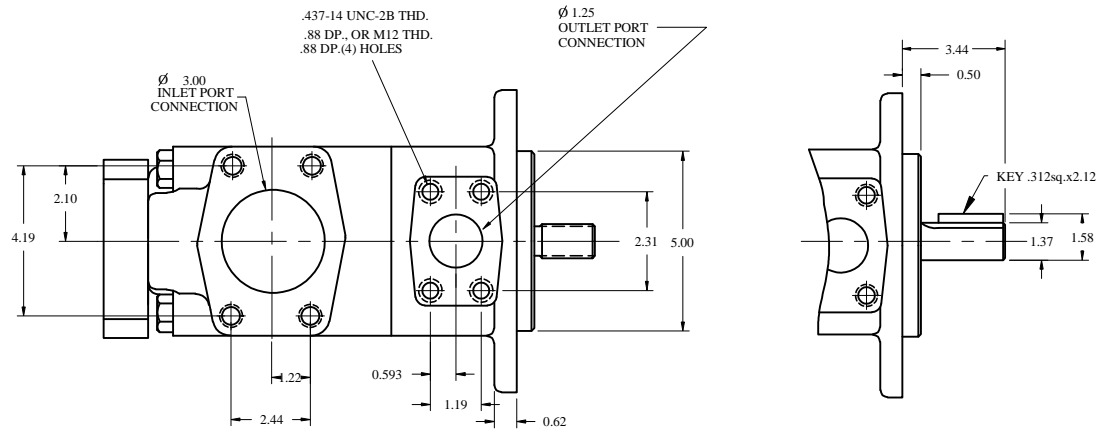
NOTE-A/B ADAPTERS AVAILABLE, SEE PAGE A6.4

NO.297 SHAFT
 INVOLUTE SPLINE.
 FLAT ROOT, SIDE FIT
 13 TEETH, 16/32 PITCH.
 30° PRESSURE ANGLE
 .875/.853 MAJOR DIA.
 .725 MINOR DIAMETER.

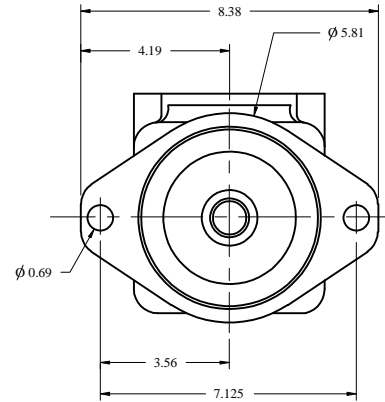
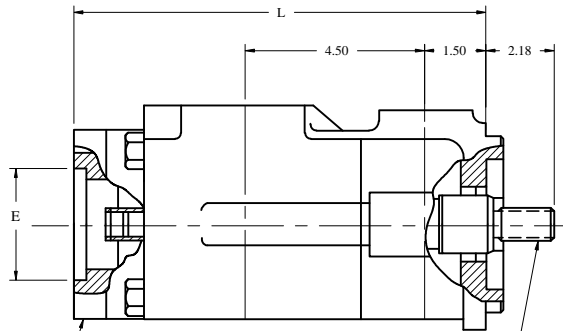
◆ 25VT/VQT Pump Ordering Specifications



IFP 35VT/VQT VANE PUMPS



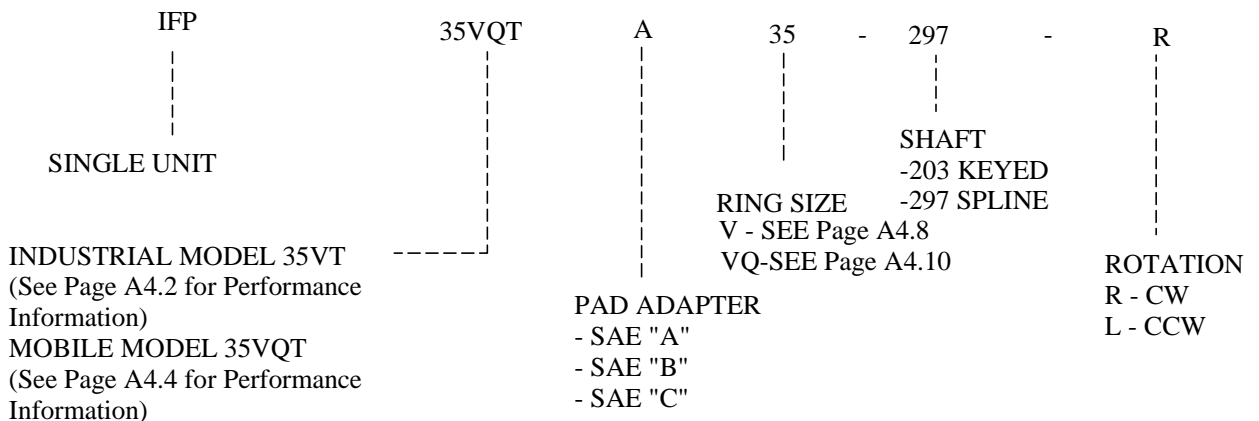
Series	"L"	"E"
35VTA	9.890	3.25
35VTB	10.25	4.00
35VTC	10.50	5.00



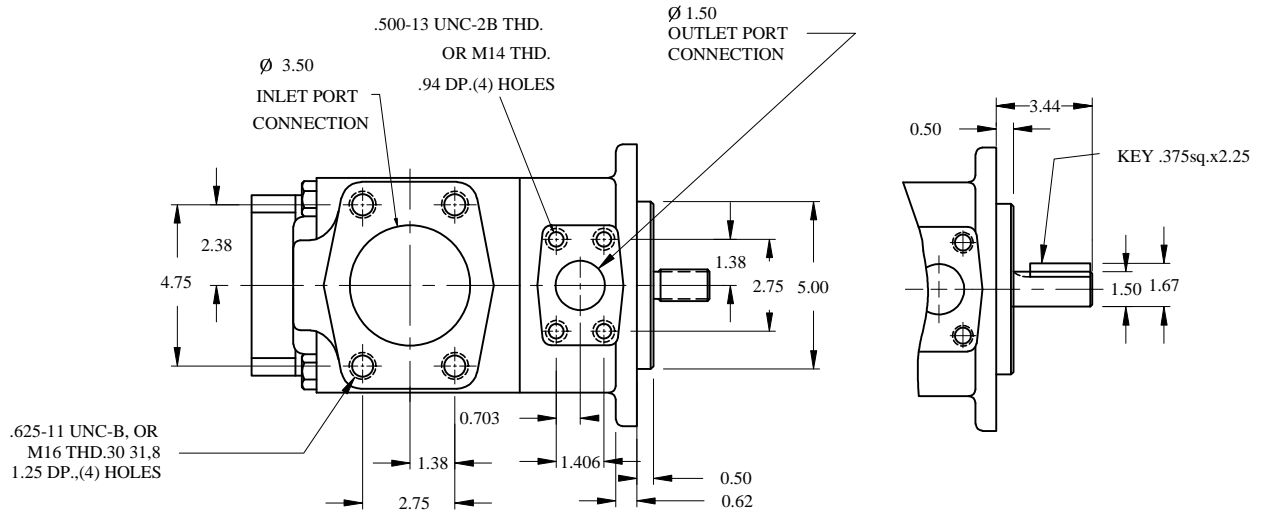
NOTE-A/B ADAPTERS AVAILABLE, SEE PAGE A6.4

NO.297 SHAFT
INVOLUTE SPLINE.
FLAT ROOT, SIDE FIT
14 TEETH, 16/32 PITCH.
30° PRESSURE ANGLE
1.25/1.22 MAJOR DIA.
1.05 MINOR DIAMETER.

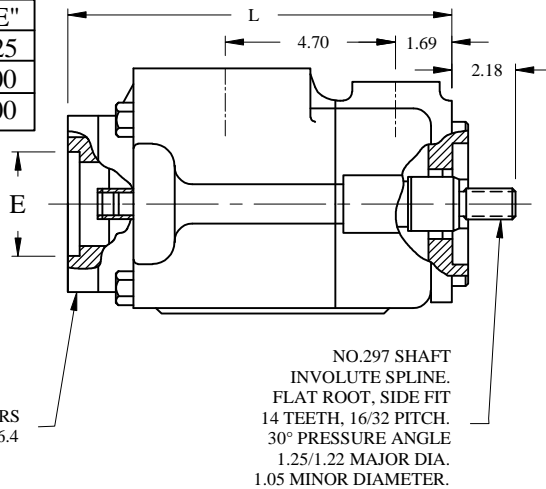
◆ 35VT/VQT Pump Ordering Specifications



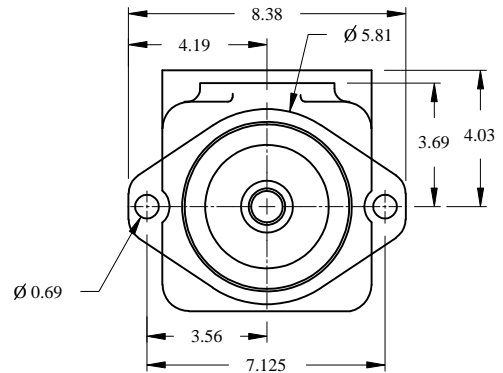
IFP 45VT/VQT VANE PUMP



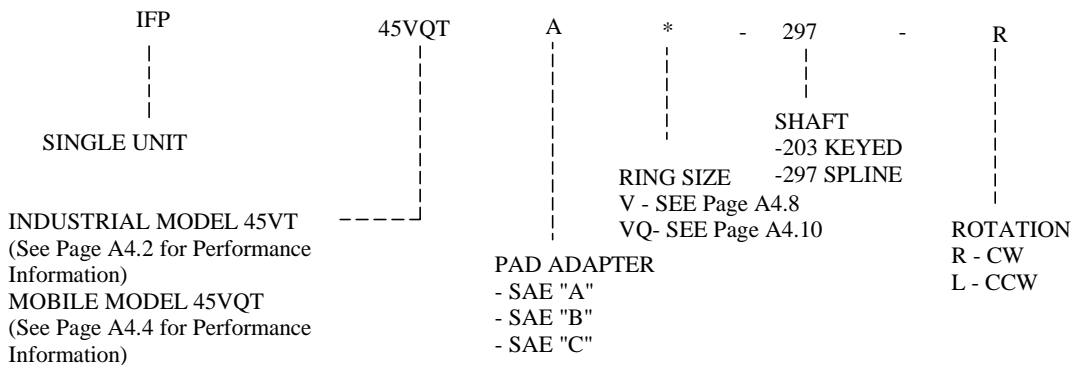
Series	"L"	"E"
45VTA	11.07	3.25
45VTB	11.43	4.00
45VTC	11.75	5.00



NOTE-A/B/C ADAPTERS AVAILABLE, SEE PAGE A6.4



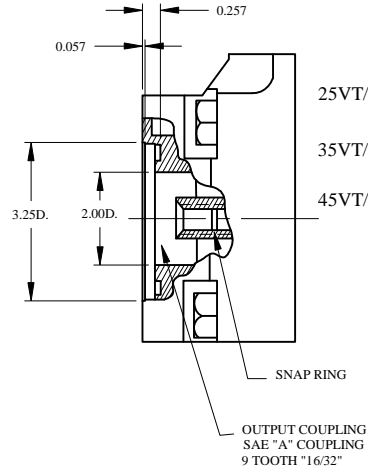
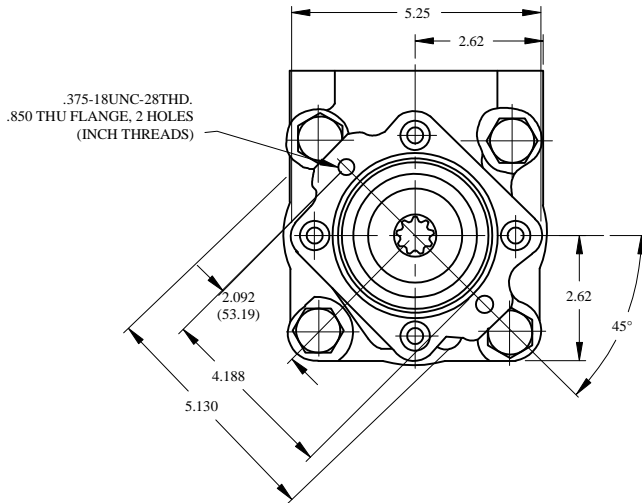
◆ 45VT/VQT Pump Ordering Specifications



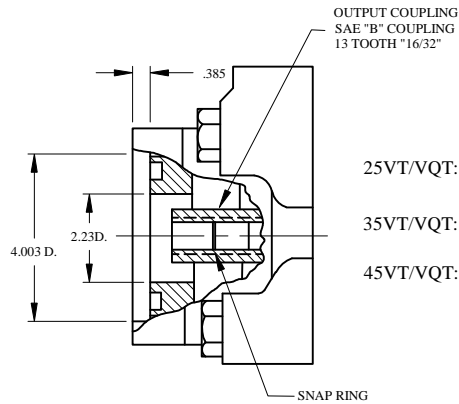
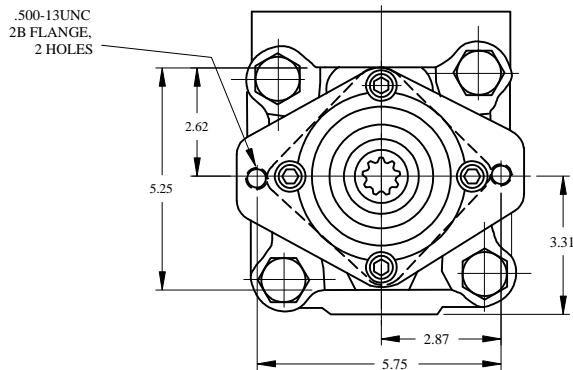
IFP "VT" PUMP ADAPTERS



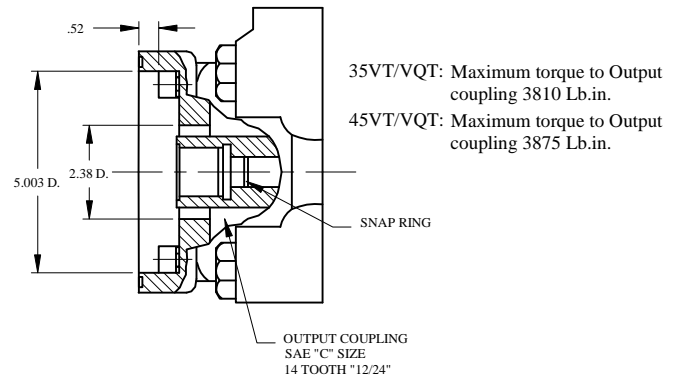
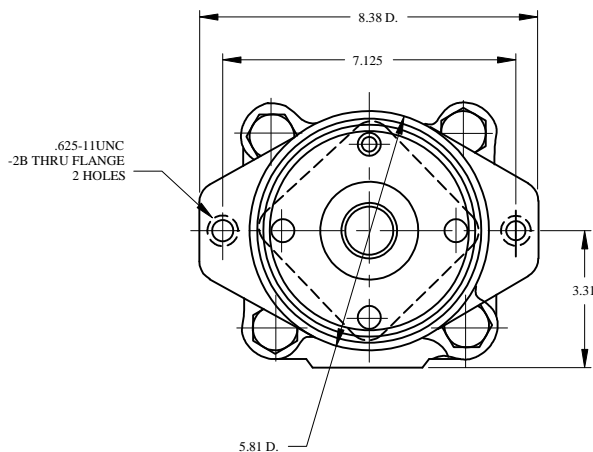
"A" REAR MOUNT



"B" REAR MOUNT



"C" REAR MOUNT



IFP T6 HIGH PERFORMANCE SINGLE & DOUBLE UNITS





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

	IFP 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	T6C	4000	2800	600	.66 ~ 6.10	SAE - B	34	1" S. FLG	1 1/2" S. FLG
	T6D	3500	2500	600	2.90 ~ 9.64	SAE - C	53	1 1/4" S. FLG	2" S. FLG
	T6E	3500	2200	600	8.69 ~ 13.86	SAE - C	95	1 1/2" S. FLG	3" S. FLG
 Double Pump	T6CC	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
	T6DC	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
	T6EC	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
	T6ED	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 T6* Single Vane Pump

IFP	T6*	**	I	R	N
SERIES	RING SIZE	SHAFT	ROTATION		
T6C					
T6D					
T6E		KEYED	R- RIGHT		
		SPLINE	L- LEFT		

◆ Ordering Code T6** Double Vane Pump

IFP	T6**	**	I	R	N
SERIES	RING SIZE	SHAFT	ROTATION		
T6CC					
T6DC					
T6EC		KEYED	R- RIGHT		
T6ED		SPLINE	L- LEFT		

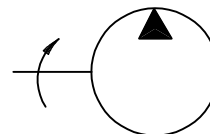
T6C Cartridge / Ring Flow GPM @ 1200 rpm			T6D Cartridge / Ring Flow GPM @ 1200 rpm			T6E Cartridge / Ring Flow GPM @ 1200 rpm		
03	10	22	14	31	45	45	66	
05	12	25	20	35	50	50	72	
06	14	28	24	38		52		
08	17	31	28	42		62		

IFP T6C SERIES HIGH PERFORMANCE VANE PUMPS



High Performance in an Economical Package

International T6C fixed displacement vanepumps are engineered for higher operating pressures (4000 psi) and shaft speeds (2800 rpm) demanded by today's expanding Fluid Power Market. The T6C has an SAE "B" mount with a wide variety of displacements and keyed/splined shafts.



Features:

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

IFP - T6C - 010 - 1 - R - N

Series	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><th>Ring</th><th>Size</th></tr> <tr><td>03</td><td>14</td></tr> <tr><td>05</td><td>17</td></tr> <tr><td>06</td><td>22</td></tr> <tr><td>08</td><td>25</td></tr> <tr><td>10</td><td>28</td></tr> <tr><td>12</td><td>31</td></tr> </table>	Ring	Size	03	14	05	17	06	22	08	25	10	28	12	31	Shaft	Rotation	Design
Ring	Size																	
03	14																	
05	17																	
06	22																	
08	25																	
10	28																	
12	31																	
		1-7/8 keyed 3-Spline SAE "B" 13th 4-Spline SAE "BB" 15th	R - Right L - Left															

General Characteristics

Series	Max. Pressure PSI (MPa)	Speed r/min		Displ. in ³ /rev (cm ³ /rev)	Mounting Standard	Weight lb(kg)	Fluid Connection (SAE 4-bolt)	
		Max.	Min.				Pressure Ports (Front & Back)	Suction Inlet
T6C	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.

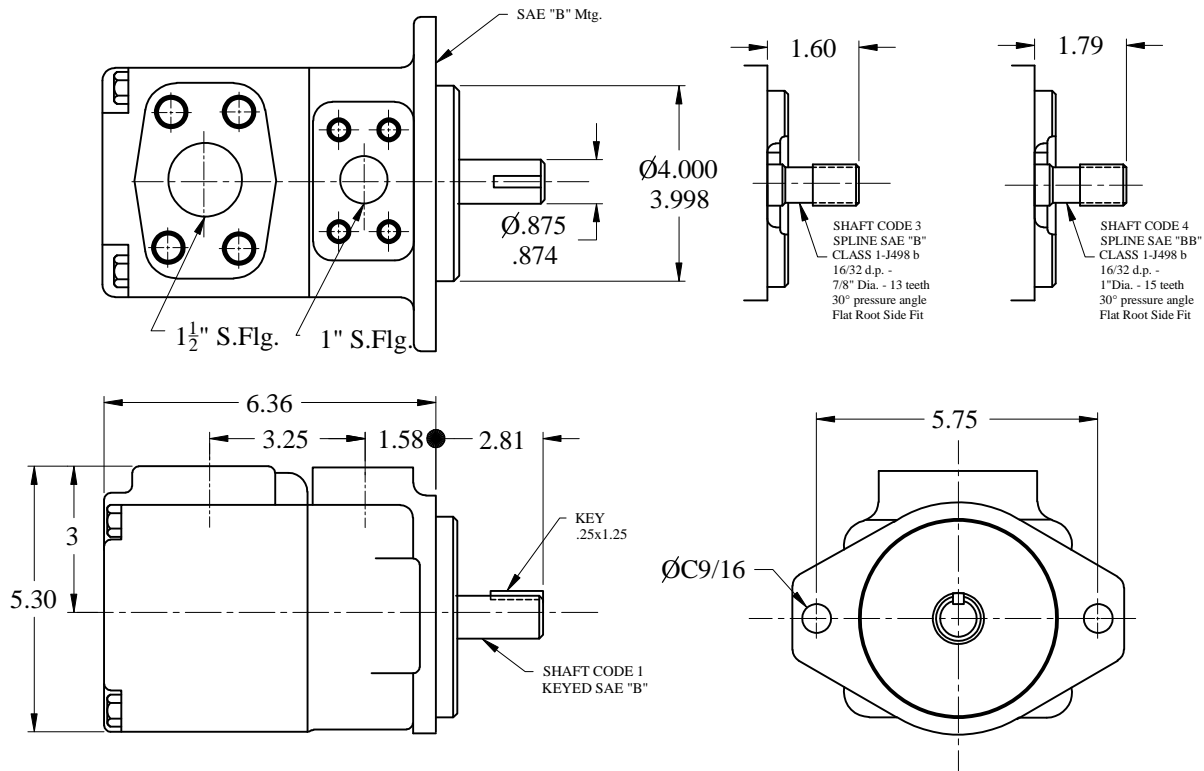
Operating Specifications

Fluid Type	T6C Continuous		T6C 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)

IFP T6C SINGLE VANE PUMP INSTALLATION/DIMENSIONS



Dimension & Operating Characteristics



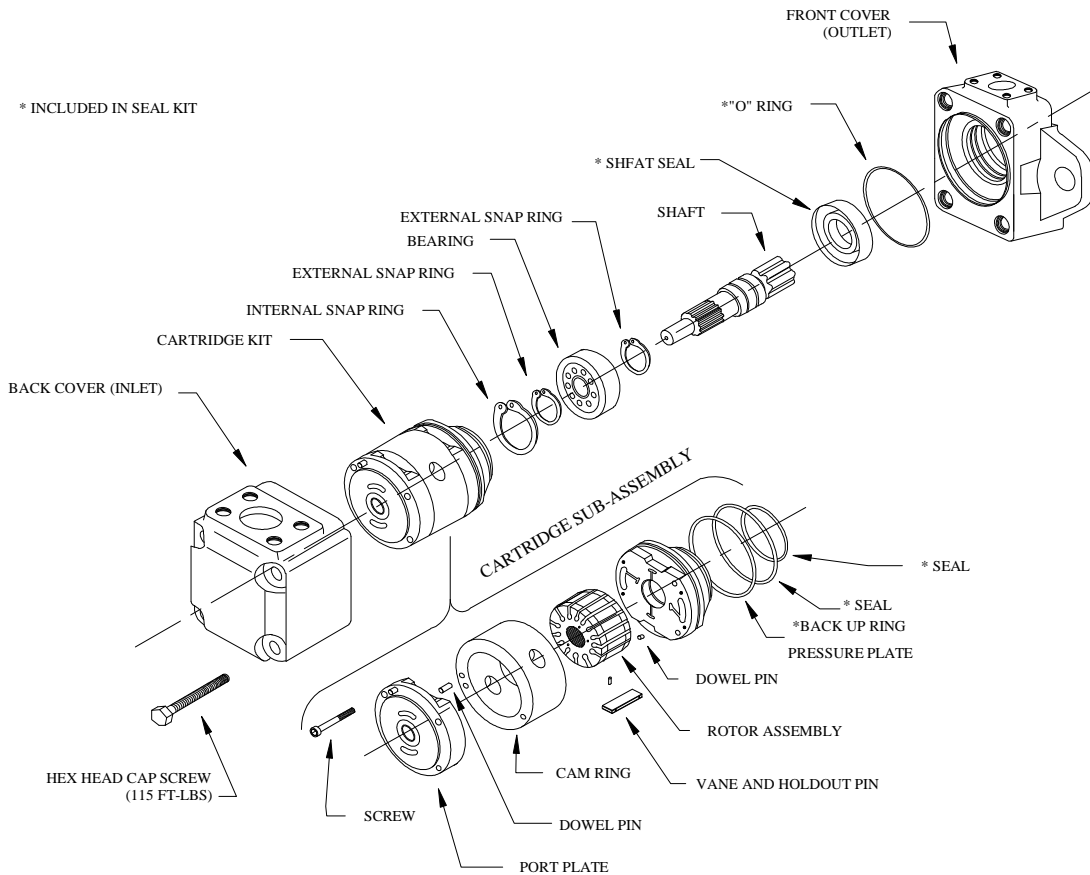
Performance Data - Typical flow at 120°F, 10 W Oil (115 SUS), 0 PSI Inlet

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
T6C-003	.66 in ³ /rev	1200 1800	3.42 5.14	1.83 3.55	Δ 2.44	1.61 2.09	5.80 8.53	Δ 13.51
T6C-005	1.05 in ³ /rev	1200 1800	5.45 8.18	3.86 6.59	2.76 5.48	1.76 2.26	8.21 12.07	13.51 19.63
T6C-006	1.30 in ³ /rev	1200 1800	6.76 10.12	5.17 8.56	4.06 7.42	1.76 2.41	9.66 14.32	16.09 23.65
T6C-008	1.61 in ³ /rev	1200 1800	8.36 12.55	6.78 10.97	5.68 9.86	1.93 2.57	11.58 17.22	19.48 28.49
T6C-010	2.08 in ³ /rev	1200 1800	10.81 16.20	9.23 14.65	8.11 13.50	2.09 2.74	14.32 21.56	24.30 35.88
T6C-012	2.26 in ³ /rev	1200 1800	11.76 17.64	10.47 16.35	9.57 2.74	1.92 2.84	15.53 23.05	26.36 38.92
T6C-014	2.81 in ³ /rev	1200 1800	14.58 21.88	12.99 20.29	11.89 19.18	2.26 3.06	18.83 28.32	32.03 47.47
T6C-017	3.56 in ³ /rev	1200 1800	18.48 27.71	16.99 26.16	15.79 25.01	2.57 3.38	23.23 35.24	39.91 59.38
T6C-020	3.89 in ³ /rev	1200 1800	20.23 30.34	18.94 29.05	18.94 29.05	2.41 3.58	25.41 37.86	43.64 64.85
T6C-022	4.29 in ³ /rev	1200 1800	22.28 37.42	20.70 31.86	19.60 30.72	2.74 3.70	27.84 42.00	47.63 70.97
T6C-025*	4.84 in ³ /rev	1200 1800	25.14 37.69	23.56 36.14	22.44 35.00	2.89 4.02	31.06 46.99	53.42 79.66
T6C-028*	5.42 in ³ /rev	1200 1800	28.15 42.23	26.86 40.94	26.24 40.32**	2.87 4.27	34.66 51.74	51.37 76.73**
T6C-031*	6.10 in ³ /rev	1200 1800	31.70 47.56	30.41 46.27	29.79 45.65**	3.08 4.58	38.80 57.95	57.58 86.06**

*025-028-031 = 2500 R.P.M. max.
**028-031 = 3000 PSI max.Int.

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

IFP T6C-N SINGLE VANE PUMP SERVICE PARTS INFORMATION



CARTRIDGE CHART

PUMP SIZE	CART. KIT	CAM RING	VANE KIT	ROTOR	PRESSURE PLATE	PORT PLATE	SHAFTS
T6C-003	S24-10692N	034-59050N	034-59099N	S24-10350N	034-59772N	034-59774N	#1 034-70814N
T6C-005	S24-10694N	034-59051N					#2 034-70880N
T6C-006	S24-10696N	034-59052N					#3 034-70815N
T6C-008	S24-10698N	034-59053N					#4 034-59426N
T6C-010	S24-10721N	034-59054N					
T6C-012	S24-26478N	034-66595N					
T6C-014	S24-10723N	034-59206N					
T6C-017	S24-10725N	034-59207N					
T6C-020	S24-26859N	034-66607N					
T6C-022	S24-10727N	034-59208N					
T6C-025	S24-10729N	034-59209N					
T6C-028	S24-97761N	034-59245N					
T6C-031	S24-45785N	034-66843N					

- 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
S24-10333-0-N	S24-10333-5-N	620-82012N		230-82054N	034-48565N	034-48564N

Filtration

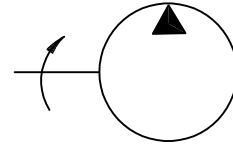
For satisfactory service life, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or better.

IFP T6D SERIES HIGH PERFORMANCE VANE PUMPS



High Performance in an Economical Package

International T6D fixed displacement vane pumps are engineered for higher operating pressures (3500 psi) and shaft speeds (2500 rpm) demanded by today's expanding Fluid Power Market. The T6D has an SAE "C" mount with a wide variety of displacements and keyed/splined shafts.



Features:

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

IFP	-	T6D	-	020	-	1	-	R	-	N												
		Series				Shaft		Rotation		Design												
				<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="padding: 2px;">Ring</th> <th style="padding: 2px;">Size</th> </tr> <tr> <td style="padding: 2px;">014</td> <td style="padding: 2px;">038</td> </tr> <tr> <td style="padding: 2px;">020</td> <td style="padding: 2px;">042</td> </tr> <tr> <td style="padding: 2px;">024</td> <td style="padding: 2px;">045</td> </tr> <tr> <td style="padding: 2px;">031</td> <td style="padding: 2px;">050</td> </tr> <tr> <td style="padding: 2px;">035</td> <td style="padding: 2px;"></td> </tr> </table>	Ring	Size	014	038	020	042	024	045	031	050	035			1- keyed (SAE-C) 2- KEYED (NOT SAE) 3 - SPLINED (SAE-C) 4 - SPLINED (NOT SAE)		R - Right L - Left		
Ring	Size																					
014	038																					
020	042																					
024	045																					
031	050																					
035																						

General Characteristics

Series	Max. Pressure PSI (MPa)	Speed r/min		Displ. in ³ /rev (cm ³ /rev)	Mounting Standard	Weight lb(kg)	Fluid Connection (SAE 4-bolt)	
		Max.	Min.				Pressure Ports (Front & Back)	Suction Inlet
T6D	3500(24.5)	2500	600	2.90 ~ 9.64 (47.3 ~ 157.2)	SAE - C	59.4 (27)	1 1/4" S. FLG.	2" S. FLG.

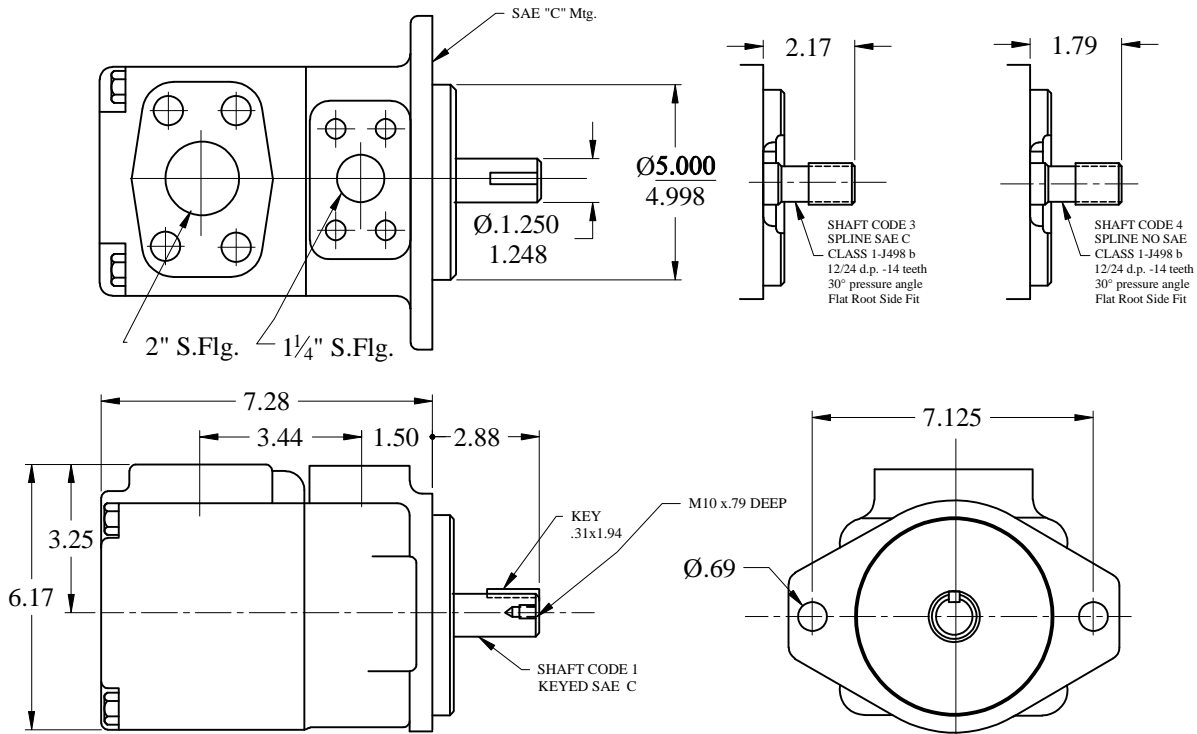
Operating Specifications

Fluid Type	T6D Continuous		T6D Intermittent	
	Speed r/min	Pressure psi(MPa)	Speed r/min	Pressure psi(MPa)
Antiwear Petroleum Base	2500	3000(21.0)	2500	3500(24.5)
Non Antiwear Petroleum Base	2500	2500(17.5)	2500	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)

IFP T6D SINGLE VANE PUMP INSTALLATION/DIMENSIONS



Dimension & Operating Characteristics



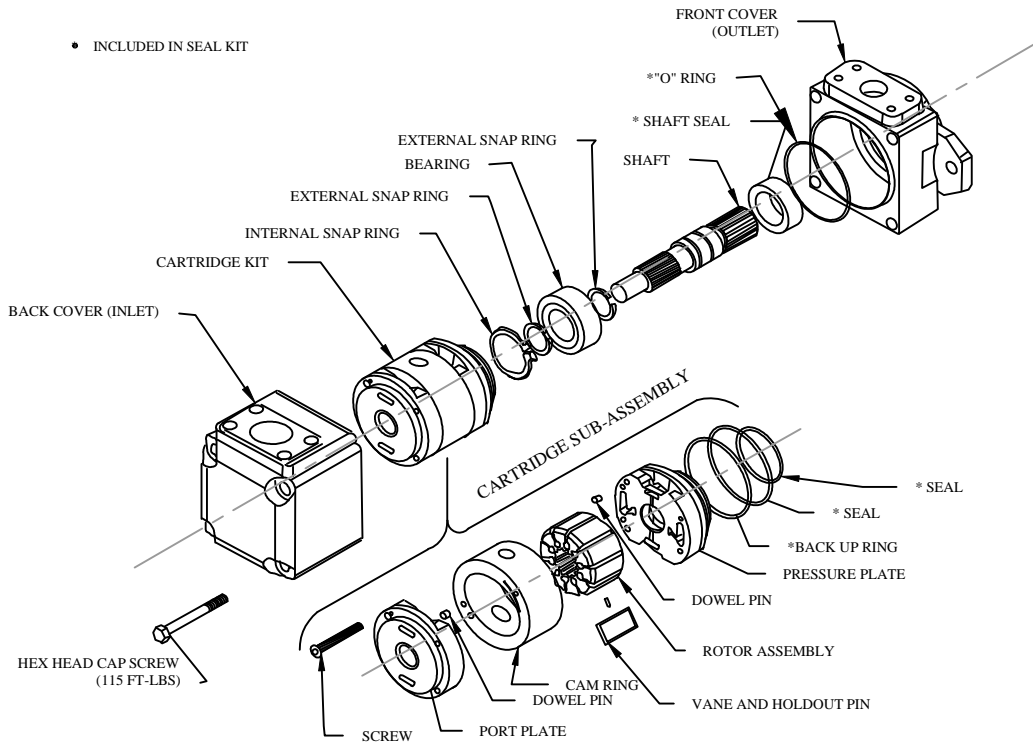
Performance Data - Typical flow at 120°F, 10 W Oil (115 SUS), 0 PSI Inlet

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
T6D-014	2.90 in ³ /rev	1200	15.09	12.14	10.18	2.41	19.47	28.16
		1800	22.64	19.69	17.72	4.02	28.97	49.24
T6D-020	4.00 in ³ /rev	1200	20.93	17.98	16.01	2.74	26.40	45.06
		1800	31.38	28.44	26.47	4.50	39.26	67.10
T6D-024	4.80 in ³ /rev	1200	25.20	22.26	20.29	3.06	31.38	53.57
		1800	37.82	34.87	32.88	4.82	47.63	80.14
T6D-028	5.50 in ³ /rev	1200	28.44	25.49	23.52	3.22	35.40	60.35
		1800	42.64	39.70	37.73	5.15	52.62	89.95
T6D-031	6.00 in ³ /rev	1200	31.16	28.21	26.24	3.38	38.62	65.82
		1800	46.73	43.79	41.82	5.30	57.44	98.16
T6D-035	6.80 in ³ /rev	1200	35.19	32.24	30.28	3.70	43.28	74.03
		1800	52.79	49.84	47.87	5.63	64.52	110.56
T6D-038	7.30 in ³ /rev	1200	38.14	35.20	33.23	3.86	46.82	79.98
		1800	57.19	54.24	52.28	5.95	69.68	119.40
T6D-042*	8.30 in ³ /rev	1200	43.12	40.16	38.21	4.19	52.62	90.12
		1800	64.68	61.73	59.76	6.43	78.37	134.69
T6D-045*	8.90 in ³ /rev	1200	46.19	43.25	41.28	4.34	56.16	96.40
		1800	69.28	66.32	64.36	6.60	83.84	144.02
T6D-050*	9.64 in ³ /rev	1200	50.09	47.14	45.97**	4.50	61.47	91.40**
		1800	75.14	72.19	71.02	7.08	91.72	136.78

*025-045-050 = 2200 R.P.M. max.

**050 = 3000 PSI max.Int.

IFP T6D-N SINGLE VANE PUMP SERVICE PARTS INFORMATION



CARTRIDGE CHART

PUMP SIZE	CART. KIT	CAM RING	VANE KIT	ROTOR	PRESSURE PLATE	PORT PLATE	SHAFTS
T6D-014	S24-33849N	034-66708N	034-53588N	S24-10121N	034-59808N	034-59810N	#1 034-70858N
T6D-020	S24-26486N	034-66596N					#2 034-70980N
T6D-024	S24-97784N	034-59294N					#3 034-70859N
T6D-028	S24-10837N	034-59133N					
T6D-031	S24-10839N	034-59135N					
T6D-035	S24-10841N	034-59137N					
T6D-038	S24-10843N	034-59139N					
T6D-042	S24-10845N	034-59132N					
T6D-045	S24-10847N	034-59131N					
T6D-050	S24-40028N	034-66737N					

- 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
S24-10138-0-N	S24-20047-5N	620-82062N	620-82066N	230-00207N	034-47916N	034-47917N

Filtration

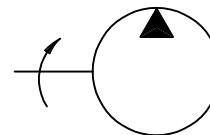
For satisfactory service life, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or better.

IFP T6E SERIES HIGH PERFORMANCE VANE PUMPS



High Performance in an Economical Package

International T6E fixed displacement vane pumps are engineered for higher operating pressures (3500 psi) and shaft speeds (2200 rpm) demanded by today's expanding Fluid Power Market. The T6E has an SAE "C" mount with a wide variety of displacements and keyed/splined shafts.



Features:

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

IFP - T6E - 066 - 1 - R - N

Series	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><th>Ring</th><th>Size</th></tr> <tr><td>045</td><td>062</td></tr> <tr><td>050</td><td>066</td></tr> <tr><td>052</td><td>072</td></tr> </table>	Ring	Size	045	062	050	066	052	072	Shaft	Rotation	Design
Ring	Size											
045	062											
050	066											
052	072											
		1 - keyed (SAE-CC)	R - Right									
		2 - KEYED (NOT SAE)	L - Left									
		3 - SPLINED (SAE-C)										
		4 - SPLINED (SAE-CC)										

General Characteristics

Series	Max. Pressure PSI (MPa)	Speed r/min		Displ. in ³ /rev (cm ³ /rev)	Mounting Standard	Weight lb(kg)	Fluid Connection (SAE 4-bolt)	
		Max.	Min.				Pressure Ports (Front & Back)	Suction Inlet
T6E	3500(24.5)	2200	600	8.70 ~ 13.86 (142.4 ~ 227.7)	SAE - C	81.3 (37)	1 1/2" S. FLG.	3" S. FLG.

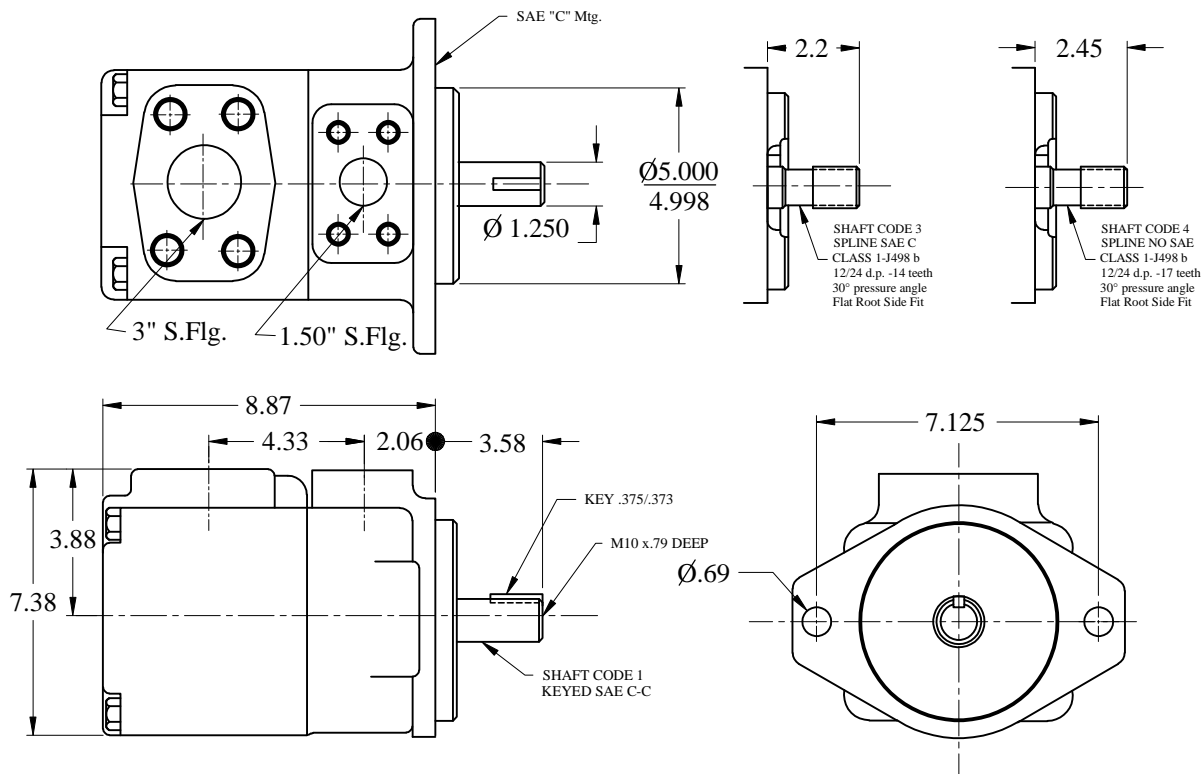
Operating Specifications

Fluid Type	T6E Continuous		T6E Intermittent	
	Speed r/min	Pressure psi(MPa)	Speed r/min	Pressure psi(MPa)
Antiwear Petroleum Base	2200	3000(21.0)	2200	3500(24.5)
Non Antiwear Petroleum Base	2200	2500(17.5)	2200	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)

IFP T6E SINGLE VANE PUMP INSTALLATION/DIMENSIONS



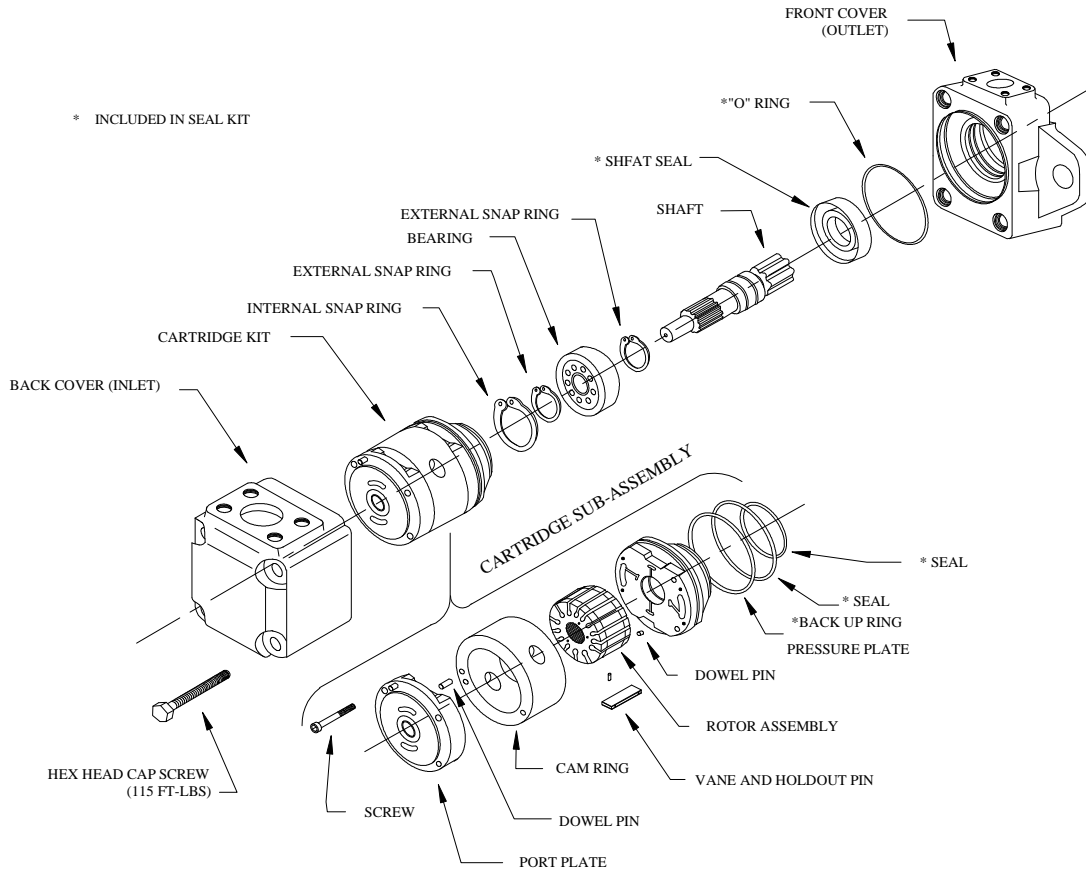
Dimension & Operating Characteristics



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
T6E-045	8.70 in ³ /rev	1200	45.15	41.98	39.72	5.47	55.84	95.27
		1800	67.72	64.55	62.29	8.69	84.00	142.74
T6E-050	9.67 in ³ /rev	1200	50.25	47.08	41.66	5.63	62.76	105.56
		1800	75.36	72.19	69.94	9.17	94.30	158.19
T6E-052	10.0 in ³ /rev	1200	52.25	49.08	46.82	5.80	64.21	109.75
		1800	78.37	75.20	72.95	9.34	96.40	164.30
T6E-062	12.2 in ³ /rev	1200	62.36	59.20	56.94	6.43	75.96	130.19
		1800	93.53	90.36	88.10	10.14	114.25	195.04
T6E-066	13.0 in ³ /rev	1200	67.62	64.55	62.29	6.76	82.24	141.13
		1800	101.42	98.25	96.00	10.62	123.60	211.45
T6E-072	13.86 in ³ /rev	1200	72.00	68.83	66.58	6.92	88.51	149.82
		1800	107.98	104.81	102.56	11.10	132.92	224.49

IFP T6E-N SINGLE VANE PUMP SERVICE PARTS INFORMATION



CARTRIDGE CHART

PUMP SIZE	CART. KIT	CAM RING	VANE KIT	ROTOR	PRESSURE PLATE	PORT PLATE	SHAFTS
T6E-045	S24-10177N	034-59164N	034-59162N	S24-10185N	034-59159N	034-59082N	#1 034-71076N
T6E-050	S24-40645N	034-66744N					#2 034-71078N
T6E-052	S24-10179N	034-59165N					#3 034-71077N
T6E-062	S24-10181N	034-59166N					
T6E-066	S24-10183N	034-59167N					
T6E-072	S24-40026N	034-66736N					

- 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
S24-10186-0-N	S24-10186-5N	620-82064N	620-82064N	230-03208N	034-70249N	034-70247N

Filtration

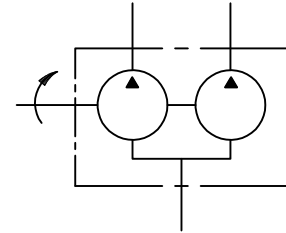
For satisfactory service life, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or better.

IFP T6CC HIGH PERFORMANCE DOUBLE VANE PUMPS



High Performance in an Economical Package

International T6CC 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 T6CC 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

IFP	-	T6CC	-	010	-	10	-	1	-	R	-	N
		Series										
				Front		Back		Shaft		Rotation		Design
				Ring	Size	Ring	Size	1-7/8 keyed		R - Right		
				03	17	03	17	3-Spline		L - Left		
				05	20	05	20	SAE "BB" 15th				
				06	22	06	22	5-Spline				
				08	25	08	25	SAE "B" 13th				
				10	28	10	28					
				12	31	12	31					
				14		14						

General Characteristics

Series	Max. Pressure PSI (MPa)	Speed r/min		Displ. in ³ /rev (cm ³ /rev)	Mounting Standard	Weight lb(kg)	Fluid Connection (SAE 4-bolt)		
		Max.	Min.				Pressure Ports (Front & Back)	Suction STD.	Inlet Opt.
T6CC	4000(28.0)	2800	600	.66 ~ 5.42 (10.8 ~ 88.7)	SAE - B	57.3 (28)	1" S. FLG.	3" S. FLG.	2 1/2" S. FLG.

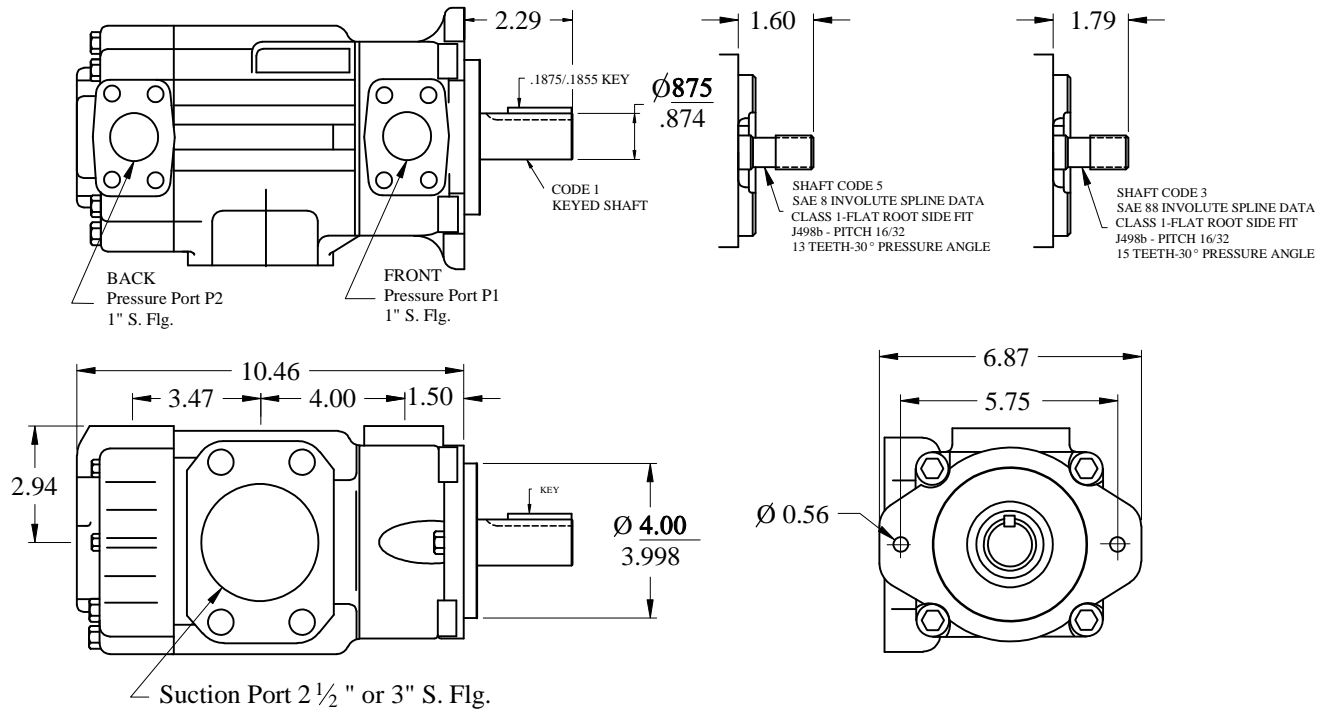
Operating Specifications

Fluid Type	T6CC Continuous		T6CC 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)

IFP T6CC DOUBLE VANE PUMP INSTALLATION/DIMENSIONS



Dimension & Operating Characteristics



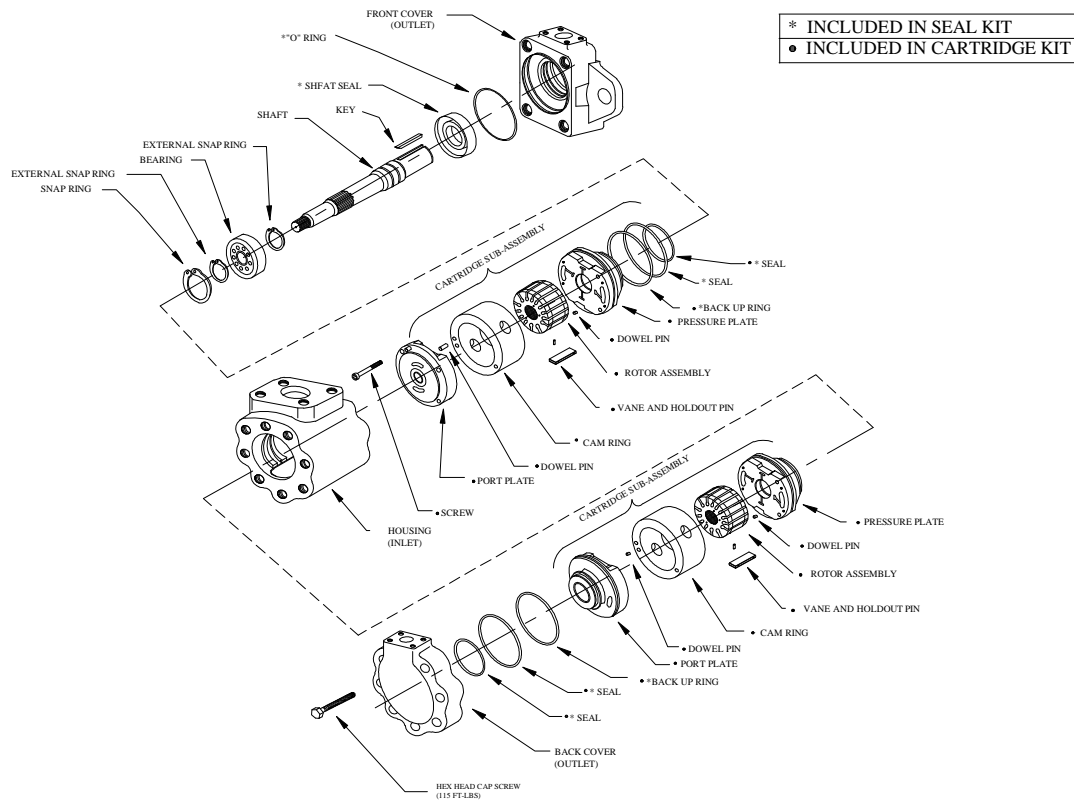
Performance Data - Typical flow at 120°F, 10 W Oil (115 SUS), 0 PSI Inlet

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
T6CC-003	.66 in ³ /rev	1200 1800	3.42 5.14	1.83 3.55	▲ 2.44	1.61 2.09	5.80 8.53	▲ 13.51
T6CC-005	1.05 in ³ /rev	1200 1800	5.45 8.18	3.86 6.59	2.76 5.48	1.76 2.26	8.21 12.07	13.51 19.63
T6CC-006	1.30 in ³ /rev	1200 1800	6.76 10.12	5.17 8.56	4.06 7.42	1.76 2.41	9.66 14.32	16.09 23.65
T6CC-008	1.61 in ³ /rev	1200 1800	8.36 12.55	6.78 10.97	5.68 9.86	1.93 2.57	11.58 17.22	19.48 28.49
T6CC-010	2.08 in ³ /rev	1200 1800	10.81 16.20	9.23 14.65	8.11 13.50	2.09 2.74	14.32 21.56	24.30 35.88
T6CC-012	2.26 in ³ /rev	1200 1800	11.76 17.64	10.47 16.35	9.57 2.74	1.92 2.84	15.53 23.05	26.36 38.92
T6CC-014	2.81 in ³ /rev	1200 1800	14.58 21.88	12.99 20.29	11.89 19.18	2.26 3.06	18.83 28.32	32.03 47.47
T6CC-017	3.56 in ³ /rev	1200 1800	18.48 27.71	16.99 26.16	15.79 25.01	2.57 3.38	23.23 35.24	39.91 59.38
T6CC-022	4.29 in ³ /rev	1200 1800	22.28 37.42	20.70 31.86	19.60 30.72	2.74 3.70	27.84 42.00	47.63 70.97
T6CC-025*	4.84 in ³ /rev	1200 1800	25.14 37.69	23.56 36.14	22.44 35.00	2.89 4.02	31.06 46.99	53.42 79.66
T6CC-028*	6.10 in ³ /rev	1200 1800	28.15 42.23	26.86 40.94	26.24 40.32**	2.87 4.27	34.66 51.74	51.37 76.73**
T6CC-031*	5.42 in ³ /rev	1200 1800	31.70 47.56	30.41 46.27	29.79 45.65**	3.08 4.58	38.80 57.95	57.58 86.06**

*025-028-031 = 2500 R.P.M. max.
**028-031 = 3000 PSI max.Int.

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

IFP T6CC DOUBLE PUMP SERVICE PARTS INFORMATION



CARTRIDGE CHART

PUMP SIZE	FRONT CART. KIT	BACK CART. KIT	CAM RING	VANE KIT	ROTOR	PRESSURE PLATE	PORT PLATE	SHAFTS	
T6CC-003	S24-10732N	S24-10749N	034-59050N	034-59099N	S24-10350N	034-59772N	034-59776N	#1	034-59110N
T6CC-005	S24-10734N	S24-10751N	034-59051N		(FRONT CART. KIT)	(FRONT CART. KIT)	(FRONT CART. KIT)	#2	034-66576N
T6CC-006	S24-10736N	S24-10753N	034-59052N					#3	034-59108N
T6CC-008	S24-10738N	S24-10755N	034-59053N					#5	034-59109N
T6CC-010	S24-10740N	S24-10757N	034-59054N						
T6CC-012	S24-26510N	S24-26482N	034-66595N		S24-10116N	034-59772N	034-59776N		
T6CC-014	S24-10742N	S24-10759N	034-59206N		(BACK CART. KIT)	(BACK CART. KIT)	(BACK CART. KIT)		
T6CC-017	S24-10744N	S24-10761N	034-59207N						
T6CC-022	S24-10746N	S24-10763N	034-59208N						
T6CC-025	S24-10748N	S24-10765N	034-59209N						
T6CC-028	S24-25510N	S24-25547N	034-59245N						

- 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	HOUSING COVER	
							3"	2 1/2"
S24-10352-0-N	S24-10352-5-N	620-82012N	620-82068N	230-82054N	034-59107	034-59425	034-59125	034-59105

Filtration

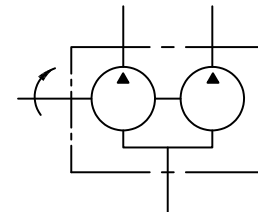
For satisfactory service life, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or better.

IFP T6DC HIGH PERFORMANCE DOUBLE VANE PUMPS



High Performance in an Economical Package

International T6DC fixed displacement vane pumps are engineered for higher operating pressures (3500 psi) and shaft speeds (2500 rpm) demanded by today's expanding Fluid Power market. The T6DC has an SAE "C" 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

IFP	-	T6DC	-	050	-	025	-	1	-	R	-	N	
		Series				Front Ring Size		Back Ring Size		Shaft		Rotation	Design
						14 35		03 12		1 - KEYED SAE C		R - Right	
						20 38		05 14		2 - KEYED NOT SAE		L - Left	
						24 42		06 17		3 - SPLINED SAE C			
						28 45		08 22		4 - SPLINED NO SAE			
						31 50		10 25					
								28 31					

General Characteristics

Series	Max. Pressure PSI (MPa)	Speed r/min		Displ. in ³ /rev (cm ³ /rev)	Mounting Standard	Weight lb(kg)	Fluid Connection (SAE 4-bolt)	
		Max.	Min.				Pressure Ports (Front & Back)	Suction Inlet
T6DC	3500(24.5)	2500	600	.66 ~ 9.64 (10.8 ~ 157.81)	SAE - C	79.2 (36)	(P1)=1 1/4", P2=1" S. FLG.	3" S. FLG.

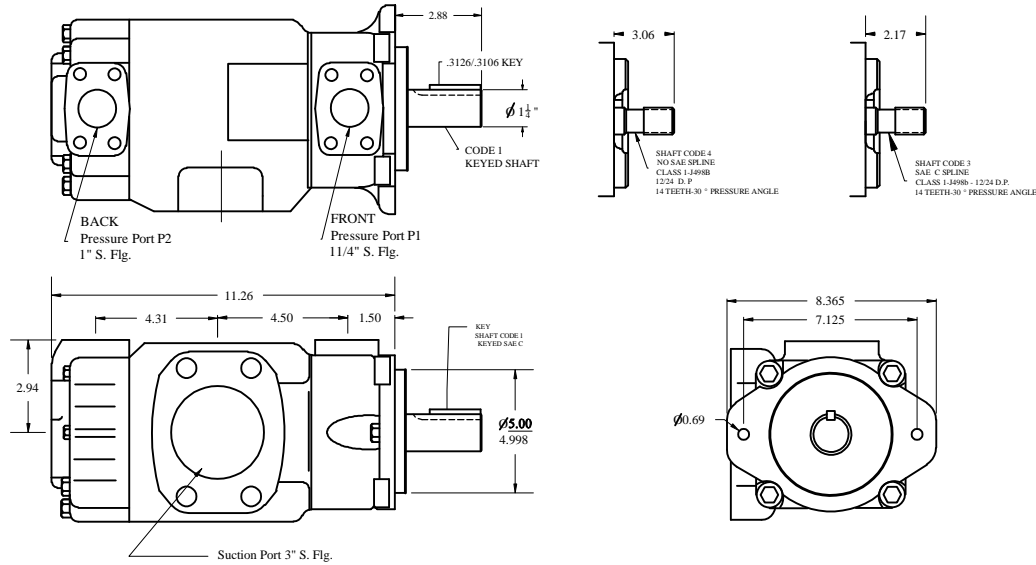
Operating Specifications

Fluid Type	T6DC Continuous		T6DC Intermittent	
	Speed r/min	Pressure psi(MPa)	Speed r/min	Pressure psi(MPa)
Antiwear Petroleum Base	2500	3500(24.5)	2500	4000(28.0)
Non Antiwear Petroleum Base	2500	2500(17.5)	2500	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)

IFP T6DC DOUBLE VANE PUMP INSTALLATION/DIMENSIONS



Dimension & Operating Characteristics



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

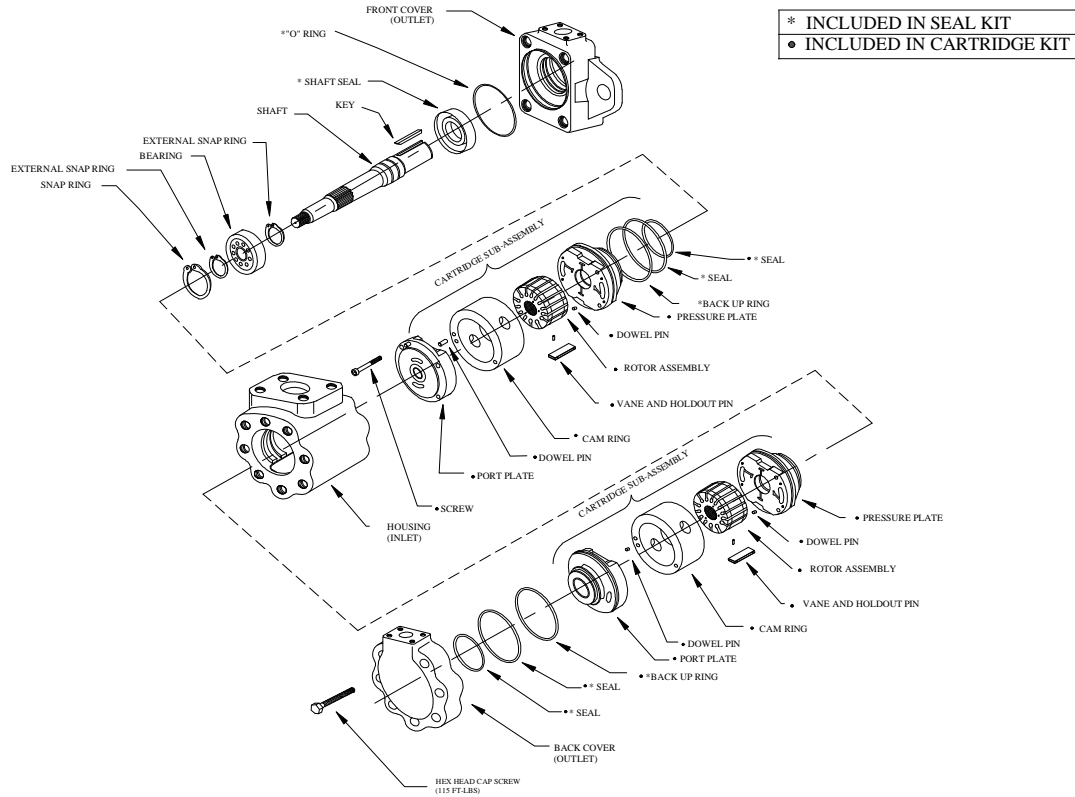
PRESSURE PORT	Series	Volumetric Displ. Vp	Speed n[R.P.M.]	Flow(GPM)			Inputpower(HP)		
				0 PSI	2000 PSI	3500 PSI	100 PSI	2000 PSI	3500 PSI
P1	014	2.90 in ³ /rev	1800	22.64	19.69	17.72	4.02	28.97	49.24
	020	4.00 in ³ /rev	1800	31.38	28.44	26.47	4.50	39.26	67.10
	024	4.80 in ³ /rev	1800	37.82	34.87	32.88	4.82	47.63	80.14
	028	5.50 in ³ /rev	1800	42.64	39.70	37.73	5.15	52.62	89.95
	031	6.00 in ³ /rev	1800	46.73	43.79	41.82	5.30	57.44	98.16
	035	6.80 in ³ /rev	1800	52.79	49.84	47.87	5.63	64.52	110.56
	038	7.30 in ³ /rev	1800	57.19	54.24	52.28	5.95	69.68	119.40
	042***	8.30 in ³ /rev	1800	64.68	61.73	59.76	6.43	78.37	134.69
	045***	8.90 in ³ /rev	1800	69.28	66.32	64.36	6.60	83.84	144.02
	050***	9.64 in ³ /rev	1800	75.14	72.19	71.02	7.08	91.72	136.78**
P2	003	.66 in ³ /rev	1800	5.14	3.55	2.44	2.09	8.53	13.51
	005	1.05 in ³ /rev	1800	8.18	6.59	5.48	2.26	12.07	19.63
	006	1.30 in ³ /rev	1800	10.12	8.56	7.42	2.41	14.32	23.65
	008	1.61 in ³ /rev	1800	12.55	10.97	9.86	2.57	17.22	28.49
	010	2.08 in ³ /rev	1800	16.20	14.65	13.50	2.74	21.56	35.88
	012	2.26 in ³ /rev	1800	17.64	16.35	2.74	2.84	23.05	38.92
	014	2.81 in ³ /rev	1800	21.88	20.29	19.18	3.06	28.32	47.47
	017	3.56 in ³ /rev	1800	27.71	26.16	25.01	3.38	35.24	59.38
	022	4.29 in ³ /rev	1800	37.42	31.86	30.72	3.70	42.00	70.97
	025*	4.84 in ³ /rev	1800	37.69	36.14	35.00	4.02	46.99	79.66
	028*	5.42 in ³ /rev	1800	42.23	40.94	39.53**	4.50	52.62	73.76**
	031*	6.10 in ³ /rev	1800	47.56	45.97	44.86**	4.50	58.74	87.54**

*025-028-031 = 2500 R.P.M. max.

***042-045-050 = 2200 R.P.M. max.

**028-031-050 = 3000 PSI max.Int.

IFP T6DC DOUBLE PUMP SERVICE PARTS INFORMATION



CARTRIDGE CHART

PUMP SIZE	FRONT CART. KIT	CAM(T6D) RING	PUMP SIZE	BACK CART. KIT	CAM(T6C) RING	VANE KIT	ROTOR	PRESSURE PLATE	PORT PLATE	SHAFT		
T6D-014	S24-40791N	034-66708N	T6C-003	S24-10767N	034-59050N	034-53588N (FRONT VANE KIT)	S24-10121N (FRONT CART. KIT)	034-59808N (FRONT CART. KIT)	034-59810N (FRONT CART. KIT)	#1	034-71363N	
T6D-020	S24-26490N	034-66596N	T6C-005	S24-10769N	034-59051N		034-59099N (BACK VANE KIT)	S24-10116N (BACK CART. KIT)	034-59772N (BACK CART. KIT)	034-59774N (BACK CART. KIT)	#2	034-71364N
T6D-024	S24-25891N	034-59294N	T6C-006	S24-10171N	034-59052N						#3	034-71361N
T6D-028	S24-10849N	034-59113N	T6C-008	S24-10773N	034-59053N						#5	034-66578N
T6D-031	S24-10851N	034-59135N	T6C-010	S24-10775N	034-59054N							
T6D-035	S24-10853N	034-59137N	T6C-012	S24-26480N	034-66595N							
T6D-038	S24-10855N	034-59139N	T6C-014	S24-10777N	034-59206N							
T6D-042	S24-10857N	034-59132N	T6C-017	S24-10779N	034-59207N							
T6D-045	S24-10859N	034-59131N	T6C-022	S24-10781N	034-59208N							
T6D-050	S24-40236N	034-66737N	T6C-025	S24-10783N	034-59209N							
			T60-028	S24-97722N	034-59245N							

- 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	HOUSING COVER
S24-10170-0-N	S24-10170-0-N	620-82062N	620-82062N	230-00207N	034-48135	034-48579	034-48133

Filtration

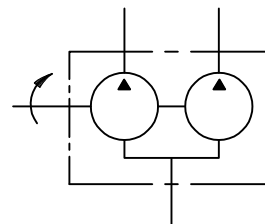
For satisfactory service life, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or better.

IFP T6EC HIGH PERFORMANCE DOUBLE VANE PUMPS



High Performance in an Economical Package

International T6EC fixed displacement vane pumps are engineered for higher operating pressures (3500 psi) and shaft speeds (2200 rpm) demanded by today's expanding Fluid Power market. The T6EC has an SAE "C" 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

IFP	-	T6EC	-	066	-	022	-	1	-	R	-	N
		Series		Front Ring Size		Back Ring Size		Shaft		Rotation		Design
				045	050	03	012	1 - KEYED SAE CC		R - Right		
				062	066	05	014	2 - KEYED NO SAE		L - Left		
				072		06	017	3- SPLINED SAE C				
						08	022	4 - SPLINED SAE CC				
						010	025					
						028	031					

General Characteristics

Series	Max. Pressure PSI (MPa)	Speed r/min		Displ. in ³ /rev (cm ³ /rev)	Mounting Standard	Weight lb(kg)	Fluid Connection (SAE 4-bolt)	
		Max.	Min.				Pressure Ports (Front & Back)	Suction Inlet
T6EC	3500(24.5)	2200	600	.66 ~ 13.86 (10.8 ~ 226.80)	SAE - C	121 (55)	(P1)=1 1/2", P2=1" S. FLG.	3 1/2" S. FLG.

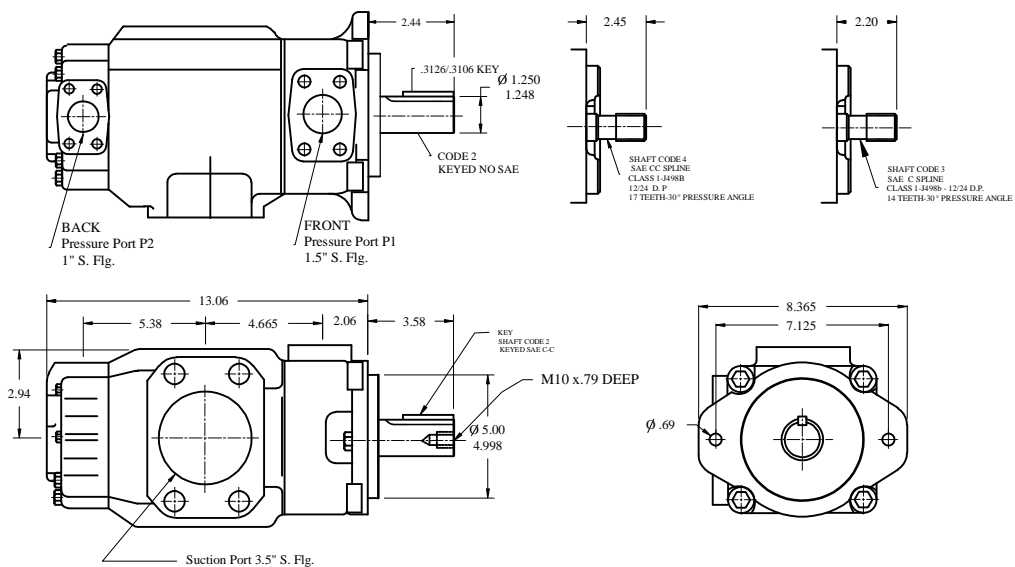
Operating Specifications

Fluid Type	T6EC Continuous		T6EC Intermittent	
	Speed r/min	Pressure psi(MPa)	Speed r/min	Pressure psi(MPa)
Antiwear Petroleum Base	2200	3500(24.5)	2200	3500(24.5)
Non Antiwear Petroleum Base	2200	2500(17.5)	2200	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)

IFP T6EC DOUBLE VANE PUMP INSTALLATION/DIMENSIONS



Dimension & Operating Characteristics



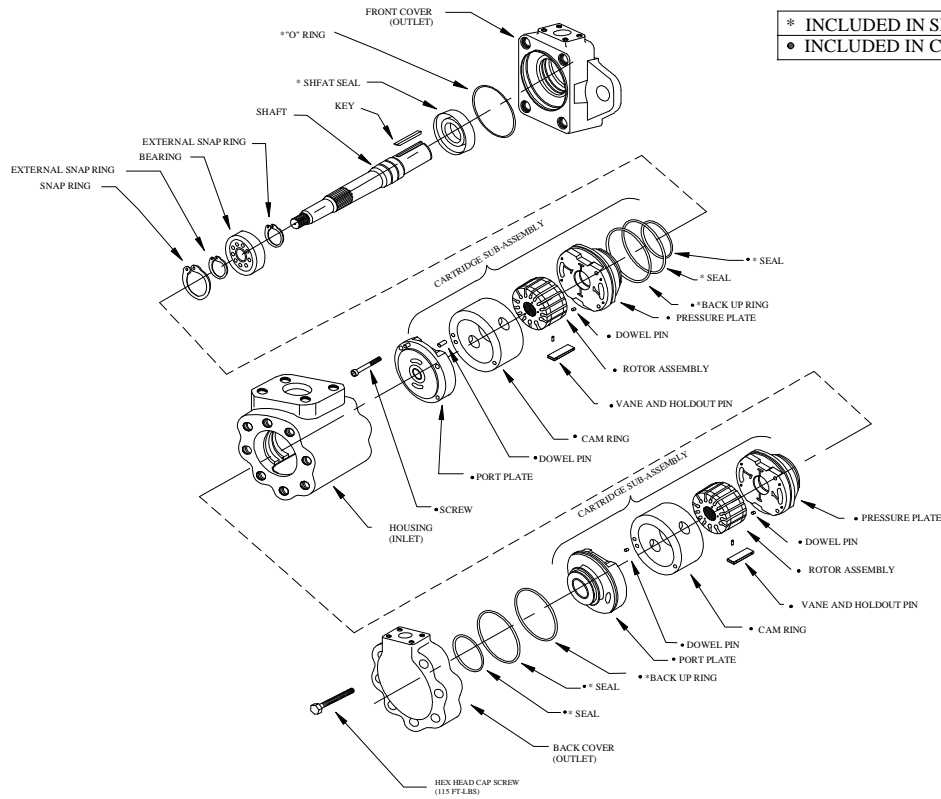
Performance Data - Typical flow at 120°F, 10 W Oil (115 SUS), 0 PSI Inlet

PRESSURE PORT	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
P1	045	8.70 in ³ /rev	1800	67.72	64.55	62.99	8.69	84.00	142.74
	050	9.67 in ³ /rev	1800	75.36	72.19	69.94	9.17	94.30	158.19
	052	10.0 in ³ /rev	1800	78.37	75.20	72.95	9.34	96.40	164.30
	062	12.2 in ³ /rev	1800	93.53	90.36	88.10	10.14	114.25	195.04
	066	13.0 in ³ /rev	1800	101.42	98.25	96.00	10.62	123.60	211.45
	072	13.86 in ³ /rev	1800	107.98	104.81	102.56	11.10	132.92	224.49
P2	003	.66 in ³ /rev	1800	5.14	3.55	2.44	2.09	8.53	13.51
	005	1.05 in ³ /rev	1800	8.18	6.59	5.48	2.26	12.07	19.63
	006	1.30 in ³ /rev	1800	10.12	8.56	7.42	2.41	14.32	23.65
	008	1.61 in ³ /rev	1800	12.55	10.97	9.86	2.57	17.22	28.49
	010	2.08 in ³ /rev	1800	16.20	14.65	13.50	2.74	21.56	35.88
	012	2.26 in ³ /rev	1800	17.64	16.35	15.19	2.84	23.05	38.92
	014	2.81 in ³ /rev	1800	21.88	20.29	19.18	3.06	28.32	47.47
	017	3.56 in ³ /rev	1800	27.71	26.16	25.01	3.38	35.24	59.38
	022	4.29 in ³ /rev	1800	37.42	31.86	30.72	3.70	42.00	70.97
	025*	4.84 in ³ /rev	1800	37.69	36.14	35.00	4.02	46.99	79.66
	028*	5.42 in ³ /rev	1800	42.23	40.94	40.32	4.27	51.74	76.73
	031*	6.10 in ³ /rev	1800	47.56	45.97	44.86**	4.50	58.74	87.54**

*025-028-031 = 2500 R.P.M. max.

**028-031 = 3000 PSI max.Int.

IFP T6EC DOUBLE PUMP SERVICE PARTS INFORMATION



- * INCLUDED IN SEAL KIT
- INCLUDED IN CARTRIDGE KIT

CARTRIDGE CHART

PUMP SIZE	FRONT CART. KIT	CAM(T6E) RING	PUMP SIZE	BACK CART. KIT	CAM(T6C) RING	VANE KIT	ROTOR	PRESSURE PLATE	PORT PLATE	SHAFTS	
T6E*-45	S24-10205N	034-59164N	T6*C-03	S24-10749N	034-59050N	034-59162N (FRONT VANE KIT)	S24-10185N (FRONT CART. KIT)	034-59159N (FRONT CART. KIT)	034-59082N (FRONT CART. KIT)	#1	034-71408N
T6E*-50		034-66744N	T6*C-05	S24-10751N	034-59051N					#2	034-71410N
T6E*-52	S24-10207N	034-59165N	T6*C-06	S24-10753N	034-59052N					#3	034-716151N
T6E*-62	S24-10209N	034-59166N	T6*C-09	S24-10755N	034-59053N					#5	034-71409N
T6E*-66	S24-10211N	034-59167N	T6*C-10	S24-10757N	034-59054N		034-59099N (BACK VANE KIT)	S24-10116N (BACK CART. KIT)	034-59772N (BACK CART. KIT)	034-59776N (BACK CART. KIT)	
T6E*-72		034-66736N	T6*C-12	S24-26482N	034-66595N						
			T6*C-14	S24-10759N	034-59206N						
			T6*C-17	S24-10761N	034-59207N						
			T6*C-22	S24-10763N	034-59208N						
			T6*C-25	S24-10765N	034-59209N						
			T6*C-28	S24-25547N	034-59245N						

- 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	HOUSING COVER
S24-10242-0-N	S24-10242-5-N	620-82064N	620-82064-5N	230-03208N	034-70265	034-48579	034-70263

Filtration

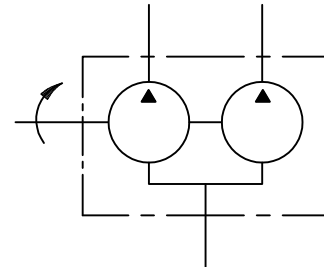
For satisfactory service life, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or better.

IFP T6ED HIGH PERFORMANCE DOUBLE VANE PUMPS



High Performance in an Economical Package

International T6ED fixed displacement vane pumps are engineered for higher operating pressures (3500 psi) and shaft speeds (2200 rpm) demanded by today's expanding Fluid Power market. The T6ED has an SAE "C" 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

IFP	-	T6ED	-	066	-	035	-	1	-	R	-	N
		Series		Front Ring Size		Back Ring Size		Shaft		Rotation		Design
				045 050	062 066	072		1 - KEYED SAE CC 2 - KEYED NO SAE 3- SPLINED SAE C 4 - SPLINED SAE CC		R - Right L - Left		

General Characteristics

Series	Max. Pressure PSI (MPa)	Speed r/min		Displ. in ³ /rev (cm ³ /rev)	Mounting Standard	Weight lb(kg)	Fluid Connection (SAE 4-bolt)	
		Max.	Min.				Pressure Ports (Front & Back)	Suction Inlet
T6ED	3500(24.5)	2200	600	2.90 ~ 13.86 (47.3 ~ 226.80)	SAE - C	184 (84)	(P1)=11/2", P2=11/4" S. FLG.	4" S. FLG.

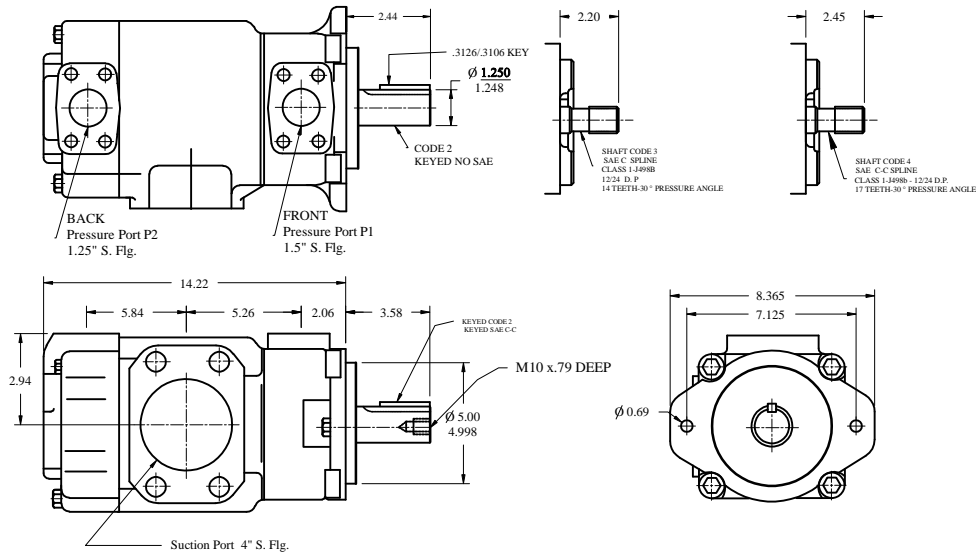
Operating Specifications

Fluid Type	T6ED Continuous		T6ED Intermittent	
	Speed r/min	Pressure psi(MPa)	Speed r/min	Pressure psi(MPa)
Antiwear Petroleum Base	2200	3000(21.0)	2200	3500(24.5)
Non Antiwear Petroleum Base	2200	2500(17.5)	2200	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)

IFP T6ED DOUBLE VANE PUMP INSTALLATION/DIMENSIONS



Dimension & Operating Characteristics



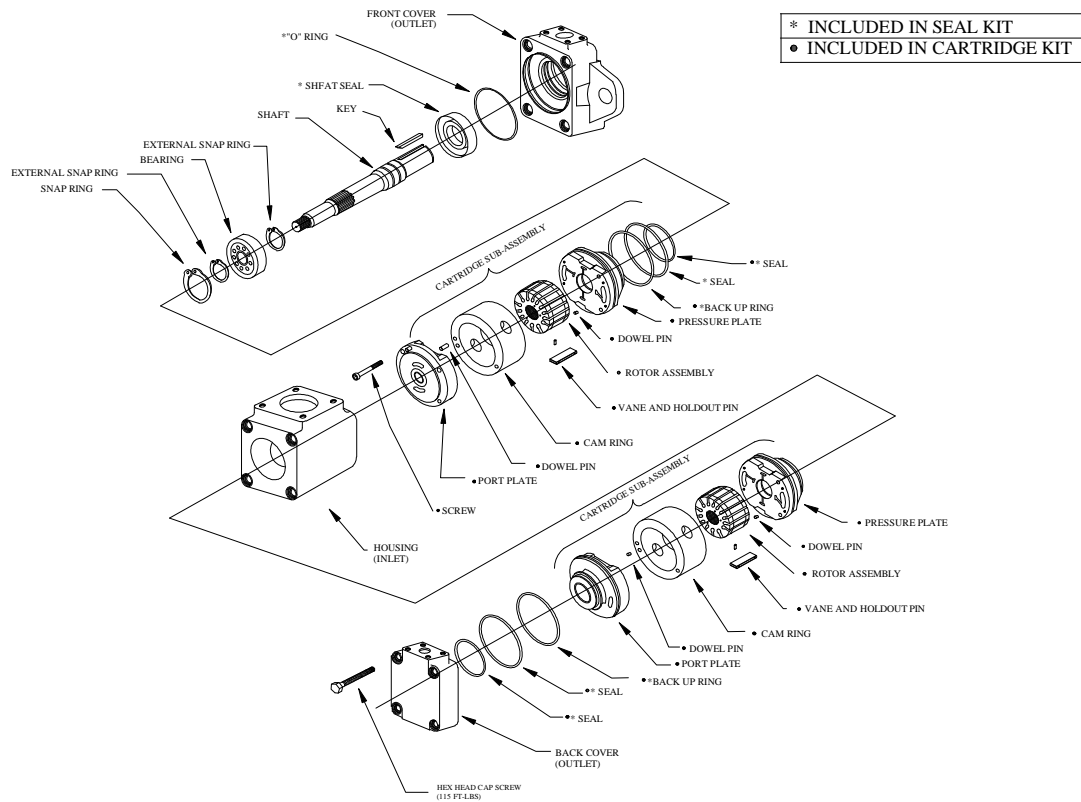
Performance Data - Typical flow at 120°F, 10 W Oil (115 SUS), 0 PSI Inlet

PRESSURE PORT	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
P1	050	9.67 in ³ /rev	1800	75.36	72.19	69.94	9.17	94.30	158.19
	052	10.0 in ³ /rev	1800	78.37	75.20	72.95	9.34	96.40	164.30
	062	12.2 in ³ /rev	1800	93.53	90.36	88.10	10.14	114.25	195.04
	066	13.0 in ³ /rev	1800	101.42	98.25	96.00	10.62	123.60	211.45
	072	13.86 in ³ /rev	1800	107.98	104.81	102.56	11.10	132.92	224.49
P2	014	2.90 in ³ /rev	1800	22.64	19.69	17.72	4.02	28.97	49.24
	020	4.00 in ³ /rev	1800	31.38	28.44	26.47	4.50	39.26	67.10
	024	4.80 in ³ /rev	1800	37.82	34.87	32.88	4.82	47.63	80.14
	028	5.50 in ³ /rev	1800	42.64	39.70	37.73	5.15	52.62	89.95
	031	6.00 in ³ /rev	1800	46.73	43.79	41.82	5.30	57.44	98.16
	035	6.80 in ³ /rev	1800	52.79	49.84	47.87	5.63	64.52	110.56
	038	7.30 in ³ /rev	1800	57.19	54.24	52.28	5.95	69.68	119.40
	042*	8.30 in ³ /rev	1800	64.68	61.73	59.76	6.43	78.37	134.69
	045*	8.90 in ³ /rev	1800	69.28	66.32	64.36	6.60	83.84	144.02
	050*	9.64 in ³ /rev	1800	75.14	72.19	71.02	7.08	91.72	136.78**

*042-045-050 = 2200 R.P.M. max.

**050 = 3000 PSI max. Int.

IFP T6ED DOUBLE PUMP SERVICE PARTS INFORMATION



CARTRIDGE CHART

PUMP SIZE	FRONT CART. KIT	CAM(T6E) RING	PUMP SIZE	BACK CART. KIT	CAM(T6D) RING	VANE KIT	ROTOR	PRESSURE PLATE	PORT PLATE	SHAFTS		
T6E*-45	S24-10205N	034-59164N	T6*D-14	On Request	034-66708N	034-59162N	S24-10185N	034-59159N	034-59082N	#1	034-71416N	
T6E*-50	On Request	034-66744N	T6*D-20	S24-26492N	034-66596N	(FRONT VANE KIT)	(FRONT CART. KIT)	(FRONT CART. KIT)	(FRONT CART. KIT)		#2	034-71418N
T6E*-52	S24-10207N	034-59165N	T6*D-24	S24-25893N	034-50294N						#3	034-714151N
T6E*-62	S24-10209N	034-59166N	T6*D-28	S24-10861N	034-59113N						#5	034-71417N
T6E*-66	S24-10211N	034-59167N	T6*D-31	S24-10863N	034-59135N	034-53588N						
T6E*-72	On Request	034-66736N	T6*D-35	S24-10865N	034-59137N	(BACK VANE KIT)	S24-10121N	034-59808N	034-59810N			
			T6*D-38	S24-10867N	034-59139N		(BACK CART. KIT)	(BACK CART. KIT)	(BACK CART. KIT)			
			T6*D-42	S24-10869N	034-59132N							
			T6*D-45	S24-10871N	034-59131N							
			T6*D-50	On Request	034-66737N		034-66737N					

- 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	HOUSING COVER
S24-10219-0-N	S24-10219-5-N	620-82064N	620-82064-5N	230-03208N	034-70265	034-70275	034-70271

Filtration

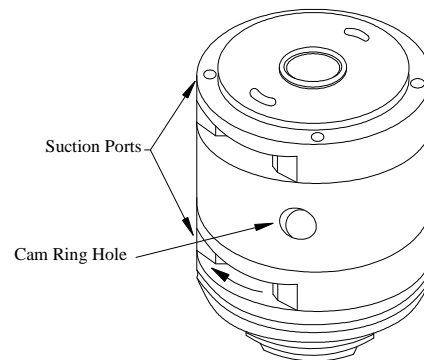
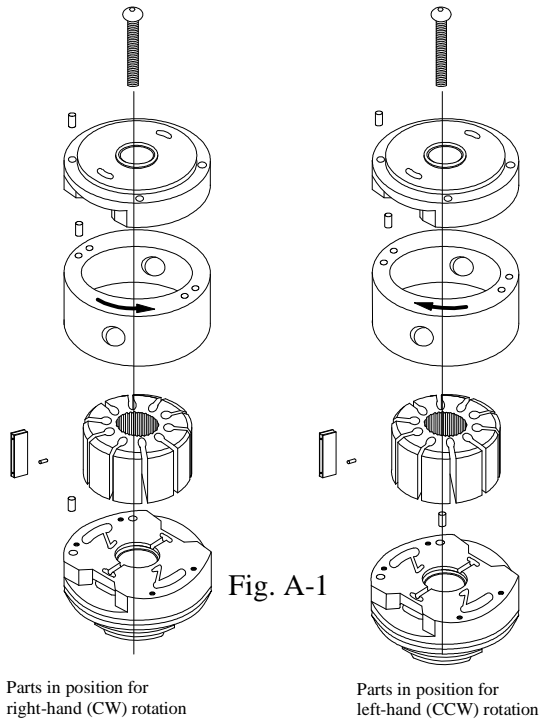
For satisfactory service life, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or better.

IFP T6 VANE PUMP CARTRIDGE KIT ASSEMBLY



Cartridge Assembly/Rotation Change Procedure

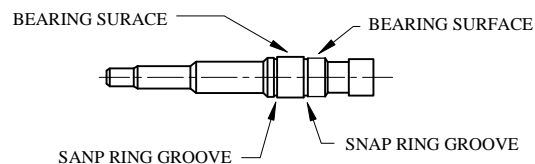
Cartridge assembly rotation may be changed by inverting cam ring and re-positioning diwel pins in holes of the pressure plate and port plate corresponding to the direction of rotation as shown in Fig. A1. Pour clean hydraulic fluid over vane/rotor assembly and tighten two screws to 40 in.lbs. To check proper assembly, both suction ports in the pressure plate should be inline along with fill hole in the cam ring, see Fig.A2(fill hole on cam ring will be slightly offset).



Shaft and Bearing Assembly

-When installing bearing shaft use care not to damage or distort snap ring by applying too much force, Fig. B. Snap ring must be removed by passing over **bearing surface** of the shaft and not the **shaft seal surface**, as this will damage shaft seal surface and cause shaft seal leakage.

-When installing shaft make certain not to damage the seal during installation.



Initial Start Up New or Reconditioned Units

-To prevent possible damage to internal parts, the pump should never be started dry or without internal lubrication.

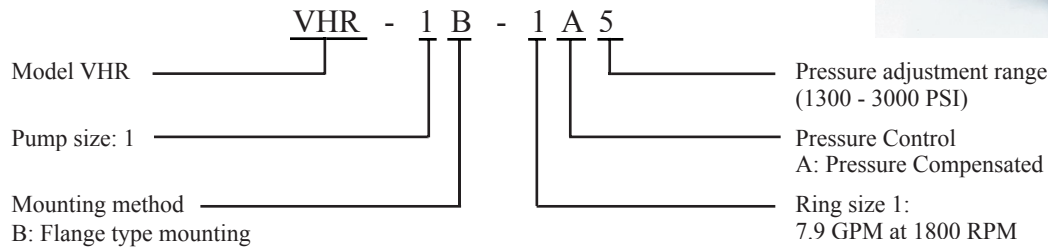
-Manually fill pump housing with system fluid. Prime mover should be jogged until pump has primed.

-Initial start up should be at a low pressure and increased gradually at 500 psi increments until system pressure has been reached.

Take advantage of International Fluid Power's industry leading prices on our full product line

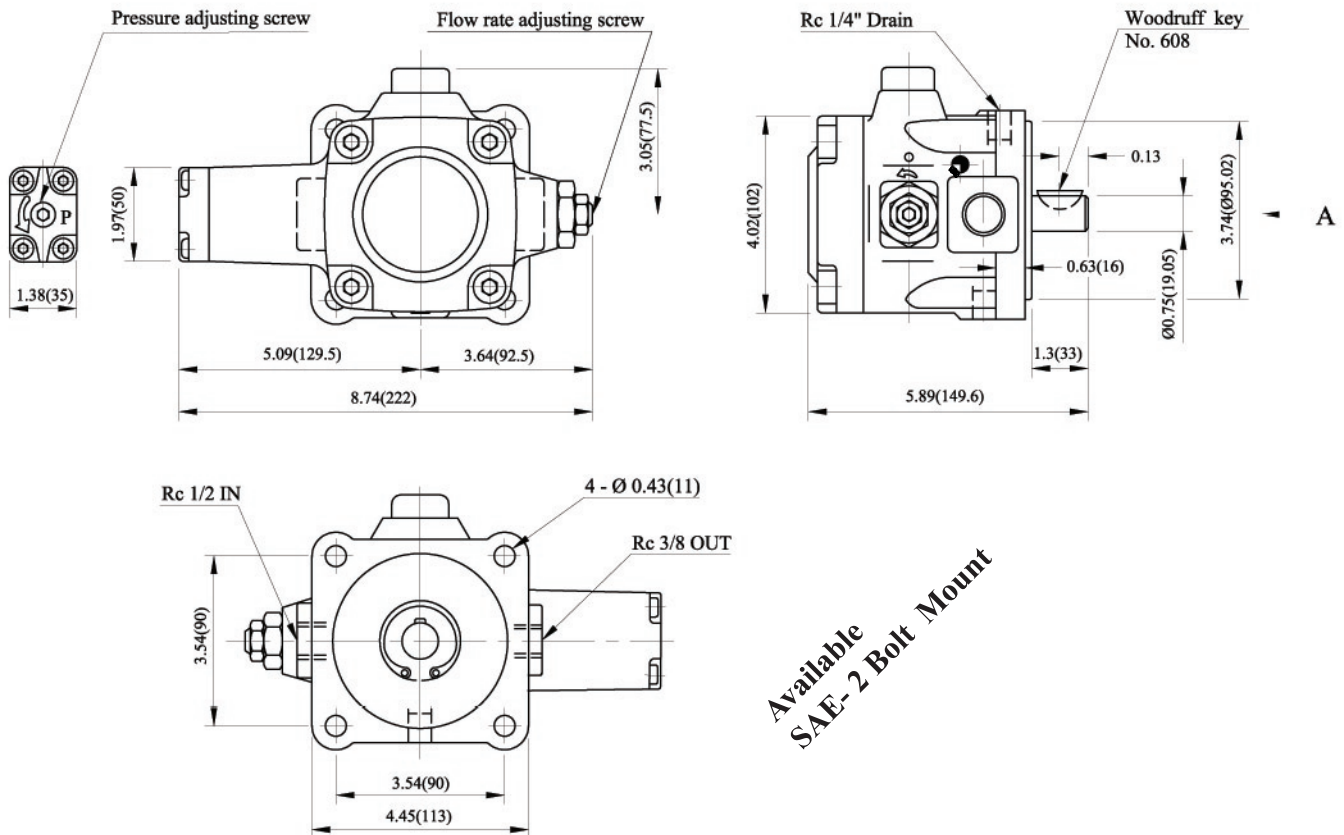
FEATURES:

International Fluid Power's VHR variable volume vane pump is designed with a special bias piston mechanism ensuring stable flow & pressure performance for a wide variety of precision applications. Quiet journal bearings and optimum suction-discharge port design minimize operating noise. VHR are equipped with adjustable flow & pressure adjustments to meet your applications in a compact pump design.



Model No.	Capacity in ³ /rev	No - load Flow Rate (GPM)				Pressure Adjustment Range Mpa (kgf/cm ²)	Allowable Peak Pressure Mpa (kgf/cm ²)	Operating Speed RPM		Weight lbs
		1000 RPM	1200 RPM	1500 RPM	1800 RPM			Min.	Max.	
VHR-1B-1A5	1.02	4.4	5.3	6.6	7.9	1300 - 3000 PSI	3000 PSI	800	1800	20

*Additional flow sizes available upon request



Available SAE- 2 Bolt Mount

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