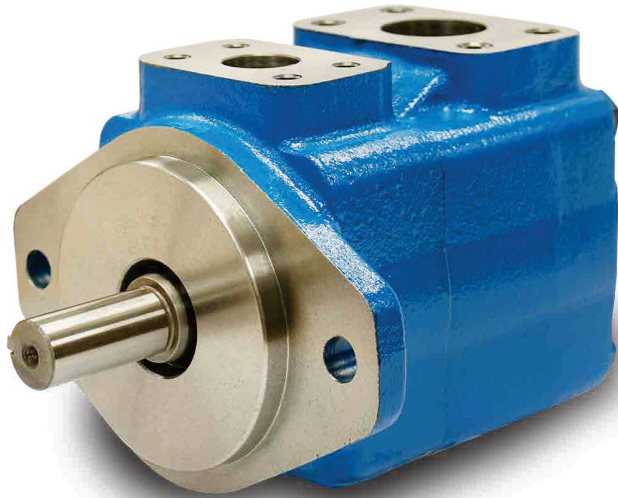




AVP-**V - Single Pump

Features



The AVP series single vane pumps are excellent for medium to low pressure mobile and industrial applications. The hydraulic balancing structure and intravane design provides more stable performance and a longer life span by minimizing the pressure on the stator from the vane. This is achieved by incorporating diametrically opposed inlet and outlet pressure chambers. The 12 vane system provides low amplitude flow pulsation for quiet operation, ideal for industrial applications. Four different outlet position options allow flexibility in various applications. The AVP's cartridge is independent from the drive shaft, which allows for easy servicing without having to remove the pump from its mount.

Operational Specifications

Model	Code	Using anit-wear oil or phosphate ester fluid*			Using water-oil emulsions*			Using water glycol fluid*		
		bar	psi	Max / Min rpm	bar	psi	Max / Min rpm	bar	psi	Max / Min rpm
AVP-20V	2	138	2000	1800 / 600	69	1000	1200 / 600	138	2000	1500 / 600
AVP-20V	5,8,9,11	207	3000	1800 / 600	69	1000	1200 / 600	159	2300	1500 / 600
AVP-20V	12	159	2300	1800 / 600	69	1000	1200 / 600	138	2000	1500 / 600
AVP-20V	14	138	2000	1800 / 600	69	1000	1200 / 600	138	2000	1500 / 600
AVP-25V	10,12,14,17,19,21	172	2500	1800 / 600	69	1000	1500 / 600	159	2300	1500 / 600
AVP-35V	25,30,35,38	172	2500	1800 / 600	69	1000	1500 / 600	159	2300	1500 / 600
AVP-35V	45	138	2000	1800 / 600	69	1000	1500 / 600	138	2300	1500 / 600
AVP-45V	42,45,50,60	172	2500	1800 / 600	69	1000	1500 / 600	159	2300	1500 / 600
AVP-45V	75	138	2000	1800 / 600	69	1000	1500 / 600	138	2000	1500 / 600

*Outlet pressure

Ordering Information



AVP-25V
10
A
1
C
22
L

1
2
3
4
5
6
7

1. Model Series	
	AVP-20V
	AVP-25V
	AVP-35V
	AVP-45V

5. Outlet Port Position (Viewed from the cover end of the pump)	
A	Opposite Inlet
B	90° CCW From Inlet
C	Inline With Inlet (Standard)
D	90° CW From Inlet

2. Displacement (gpm) At 1200 RPM, 100 PSI				
AVP-20V	AVP-25V	AVP-35V	AVP-45V	
2	10	25	42	
5	12	30	45	
8	14	32	50	
9	17	35	60	
11	19	38	75	
12	21			
14				

6. Design Number	
22	Standard

7. Rotation	
R	Right Hand Rotation
L	Left Hand Rotation

3. Port Connection	
A	SAE 4 - Bolt Flange

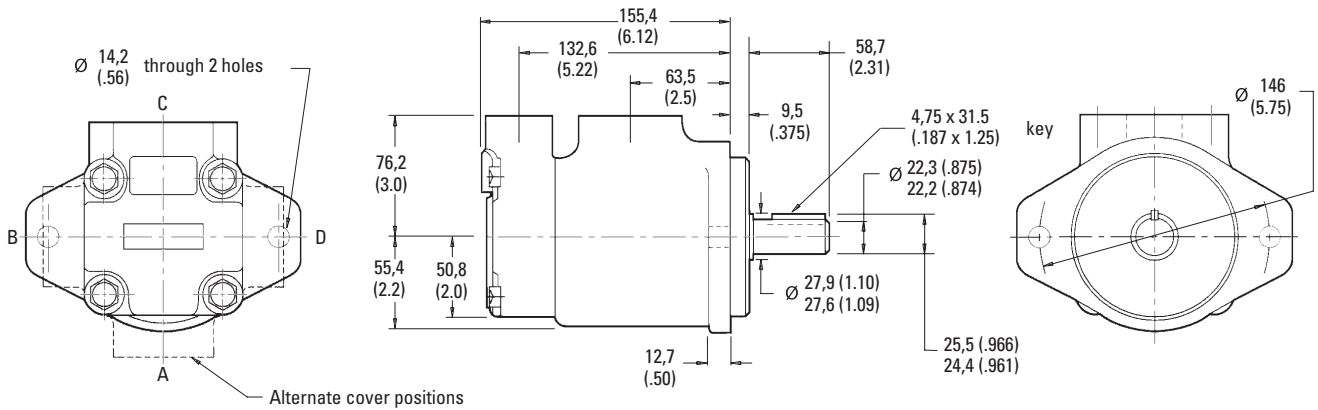
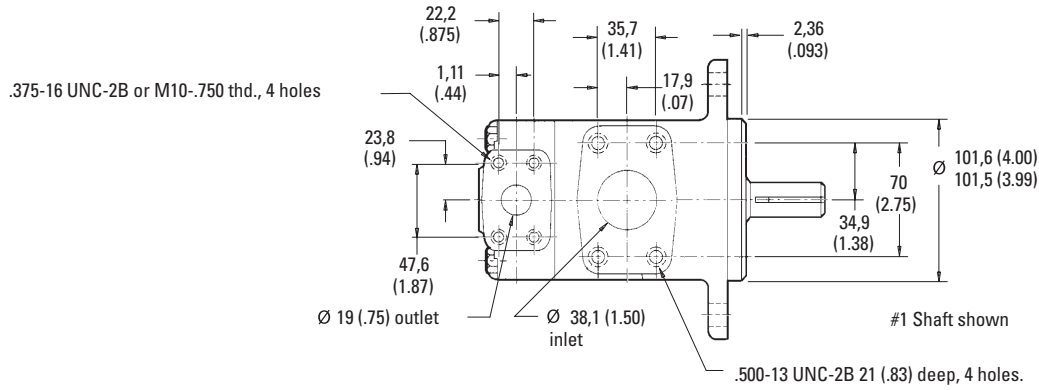
8. Seals	
Omit	Nitrile (Standard)
3	Viton

4. Shaft Type	
1	Straight Keyed (Standard)
11	Splined (Not offered for AVP-20V)
86	Straight Keyed (Heavy Duty) (Not offered for AVP-20V model)
151	Splined (AVP-20V Only)



Installation Dimensions

AVP-20V

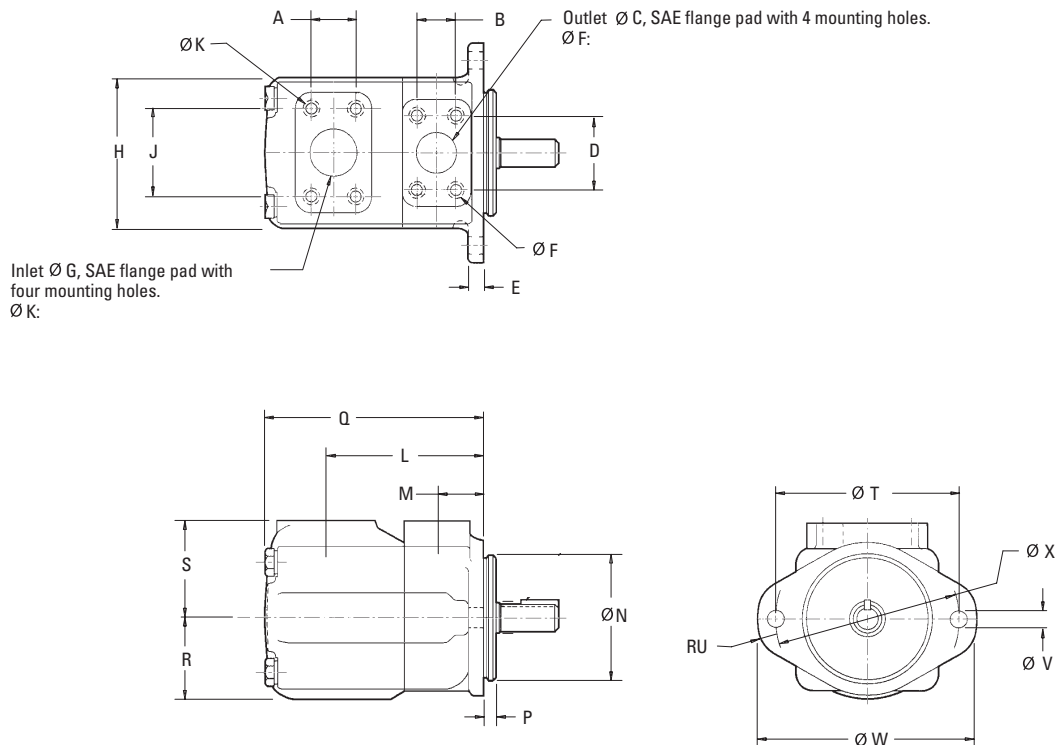


Dimensions in millimeters (inches)

Installation Dimensions



AVP-25V, AVP-35V, AVP-45V



Model	ØF x full thread depth, 4 holes	ØK x full thread depth, 4 holes
AVP25V	3/8"-16 UNC-2B x 19 (0.75) deep	1/2"-13 UNC-2B x 23.8 (0.94) deep
AVP-35V	7/16-14 UNC-2B x 22.3 (0.88) deep	1/2-13 UNC-2B x 22.3 (0.88) deep
AVP-45V	1/2"-13 UNC-2B x 23.8 (0.94) deep	5/8"-11 UNC-2B x 25.4 (1.18) deep

Model	A	B	C	D	E	G	H	J	L	L	M	N	P
AVP-25V	35.7	26.2	25.4	52.4	12.7	38.1	118	69.9	121	149	38.1	101.6	9.53
	(1.41)	(1.03)	(1.00)	(2.06)	(0.50)	(1.50)	(4.62)	(2.75)	(4.76)	(5.88)	(1.50)	101.5 (3.99)	(0.385)
AVP-35V	42.9	30.2	31.8	58.7	16	50.8	140	77.8	125.5	133.4	38.1	127.0 (5.00)	9.53
	(1.69)	(1.19)	(1.25)	(2.31)	(0.63)	(2.00)	(5.50)	(3.06)	(4.94)	(5.25)	(1.50)	126.9 (4.99)	(0.38)
AVP-45V	61.9	35.7	38.1	69.9	16	76.2	159	106.4	153	164	43	127.0 (5.00)	12.7
	(2.43)	(1.41)	(1.50)	(2.75)	(0.63)	(3.00)	(6.25)	(4.19)	(6.03)	(6.44)	(1.69)	126.9 (4.99)	(0.50)

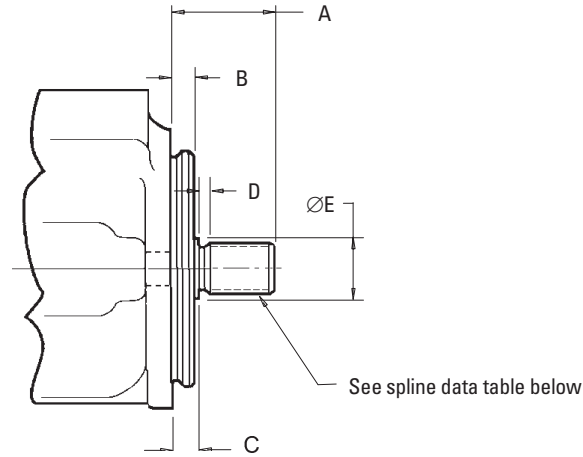
Model	Q	R	S	T	RU	ØV	W	ØX
AVP-25V	162.1	63.5	76.2	146	14	14.2	175	121
	(6.38)	(2.50)	(3.00)	(5.75)	(0.55)	(0.56)	(6.88)	(4.76)
AVP-35V	185	69.9	82.6	181	16	17.5	213	148
	(7.28)	(2.75)	(3.25)	(7.13)	(0.63)	(0.69)	(8.38)	(5.83)
AVP-45V	216	82.6	93.7	181	16	17.5	213	148
	(8.50)	(3.25)	(3.69)	(7.13)	(0.63)	(0.69)	(8.38)	(5.83)

Dimensions in millimeters (inches)



Shaft Dimensions

Splined Shafts



Dimensions in millimeters (inches)

Shaft Dimensions												
Model	Shaft Code	A		B		C		D		E		Spline Data
		in	mm	in	mm	in	mm	in	mm	in	mm	
AVP-20V	151	1.62	44.1	0.375	9.53	0.468	11.9	0.16	4.1	1.09	27.8	A
AVP-25V	11	1.75	44.5	0.375	9.53	0.437	11.1	0.16	4.1	1.09	27.8	A
AVP-35V	11	2.31	58.7	0.375	9.53	0.437	11.1	0.25	6.4	1.38	35.1	D
AVP-45V	11	2.44	61.9	0.500	12.70	0.565	14.3	0.38	9.7	1.56	39.6	D

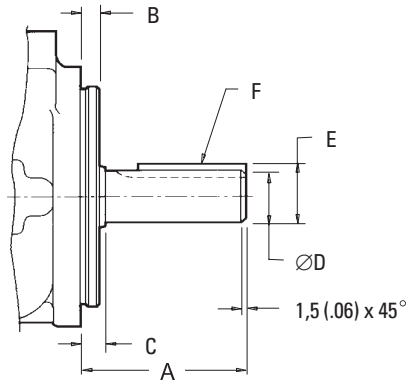
Spline Data Table - Involute splines from above chart

Model	Number of Teeth	Pitch	Major Diameter		Former Diameter		Minor Diameter		Minor Diameter
			in	mm	in	mm	in	mm	
A	13	16/32	0.873 0.872	22.17 22.15	0.749	19.03	0.733 0.722	18.63 18.35	Major diameter fit
D	14	12/24	1.248 1.247	31.70 31.67	1.071	27.20	1.062 1.049	26.99 26.64	Major diameter fit

Shaft Dimensions



Straight Key Shafts



Dimensions in millimeters (inches)

Shaft Dimensions													
Model	Shaft Code	A		B		C		ØD		E		F key width x length	
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
AVP-20V	1	2.31	58.7	0.375	9.53	0.476	12.1	0.875 0.874	22.23 22.20	0.996 0.961	24.5 24.4	0.187 x 1.25	4.76 x 32.0
AVP-25V	1	2.31	58.7	0.375	9.53	0.435	11.1	0.875 0.874	22.23 22.20	0.996 0.961	24.5 24.4	0.187 x 1.25	4.76 x 32.0
	86	3.06	77.7	0.375	9.53	0.435	11.1	0.999 0.998	25.37 25.35	1.11 1.10	28.3 28.1	0.250 x 2.00	6.36 x 50.8
AVP-35V	1	2.88	73.2	0.375	9.53	0.435	11.1	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.313 x 1.50	7.94 x 38.1
	86	3.38	85.9	0.375	9.53	0.435	11.1	1.374 1.373	34.90 34.87	1.52 1.51	38.6 38.3	0.313 x 2.13	7.94 x 54.0
AVP-45V	1	2.44	62.0	0.500	12.70	0.560	14.22	1.250 1.248	31.75 31.70	1.39 1.38	35.36 35.10	0.313 x 1.12	7.94x 28.5
	86	3.44	87.4	0.500	12.70	0.560	14.22	1.499 1.498	38.07 38.05	1.67 1.66	42.4 42.1	0.376 x 2.00	9.54 x 50.8