

HMV SERIES

Fixed displacement vane motor. Vane motors are positive displacement, hydraulic balanced cartridge units, with drive speed dependent on the motor size and gpm delivery to the inlet port. The units are capable of operating at high speed and high pressures, or higher speeds at lower pressures. These motors may be operated in either direction of rotation, reversed or stalled under load conditions without damage. It's a high volumetric efficiency that is maintained throughout their operating life. The high starting torque efficiency of vane motor allow start under high load without pressure overshoots, jerks and high instantaneous horsepower loads. These motors can be widely used in load hoist winch drives, swing drives, propulsion drives, tractor drives , etc.

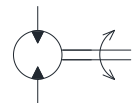


Specifications

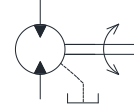
Model Number	Series	Volumetric Displacement cm ³ /rev.	Torque Range Nm/bar	Max. Speed r/min.	Max. Pressure Kg/cm ²	Mass Kg.
HMV1	09	9.2	0.130	4000	175	8
	12	12.3	0.186			
	18	18.5	0.304			
	27	27.8	0.485			
	36	37.1	0.624			

Graphical Symbol

Internal Drain



External Drain



Model Number Designation

F	-HMV1	E	- 36	- F	-B	A	A	- 01	- K1	- 10	80
Special seals	Model Number	Drain Type	Torque Nm/bar	Type of Mounting	Type of Rotation	Port-B Position	Port-A Position	Port Connection	Type of Shaft	Design* Number	Design Std.
					As viewed from shaft end						
F: For Phosphate Ester Type Fluids (Omit if not required)	HMV1	None: Internal Drain	09 : 0.130 12 : 0.186	F: Flange Type (2 Bolt Mounting)	B: Bi-directional	R: CW	A= Inlet	00: SAE Threaded port SAE drain 01: SAE 4 bolt flange BSPP drain 02: BSPP threaded port BSPP drain.	K1: Keyed (no SAE) S1: Splined (SAE-A) S2: Splined (SAE-B)	10	80
		E: External Drain	18 : 0.304 27 : 0.485 36 : 0.624				L: CCW				

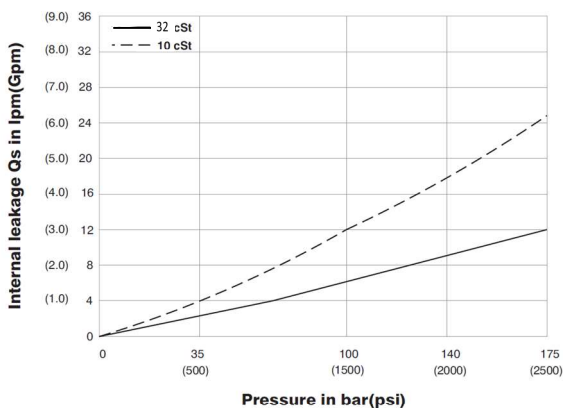
* Design numbers subject to change from 10 to 19, but installation dimensions remain as shown.

* For instructions regarding changing the port positions, consult YUKEN INDIA LIMITED.

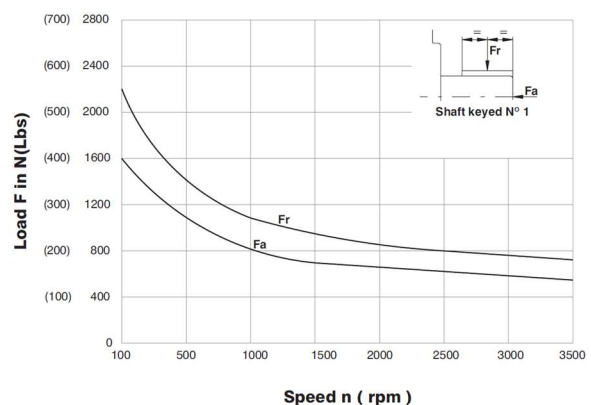
Typical Performance Characteristics

Hydraulic Fluid: Viscosity 32 cSt.

Internal Leakage



Permissible Radial and Axial Loads



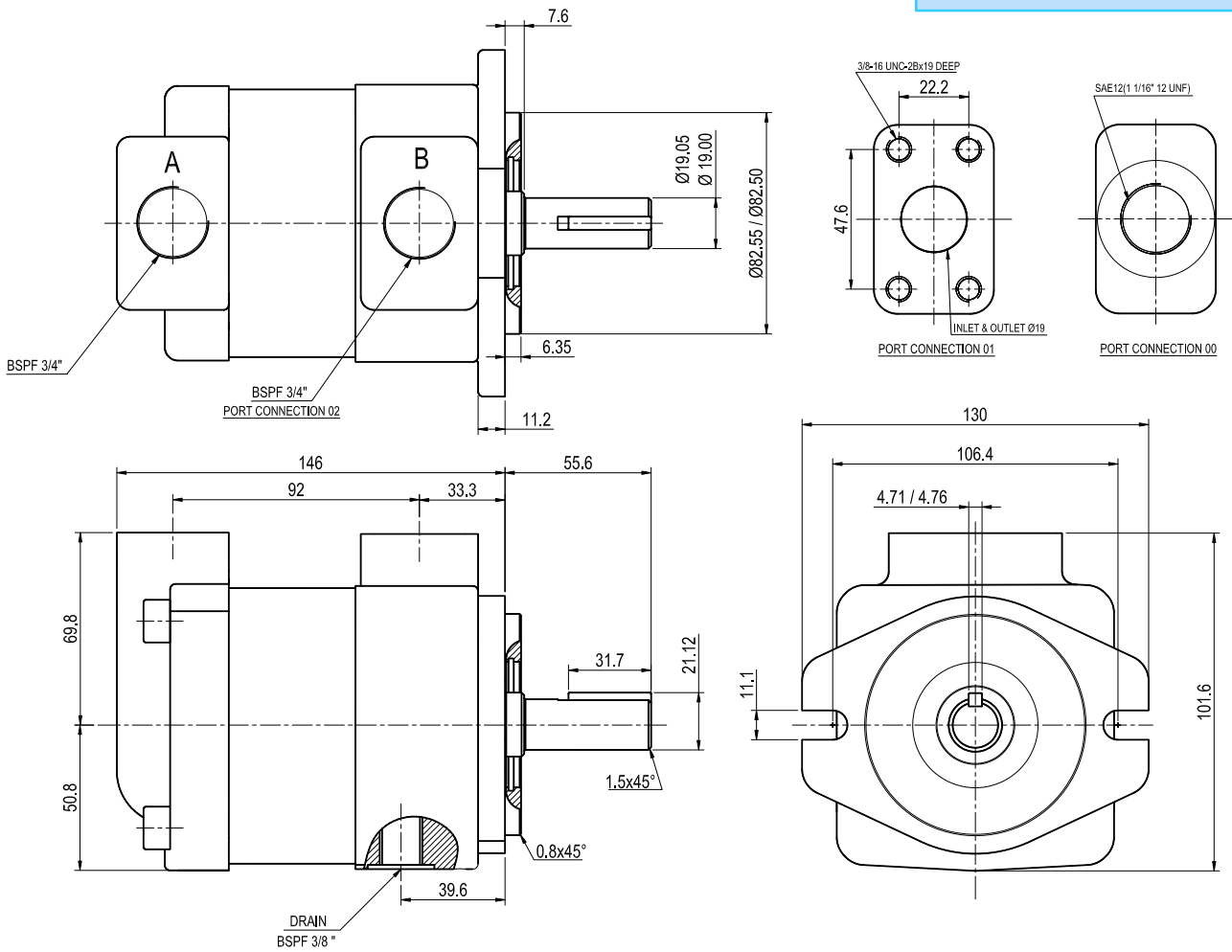
OPERATING CHARACTERISTICS-TYPICAL (32 cSt)

Model Number	Series	Volumetric Displacement cm ³ /rev.	Input		Torque T at n = 2000 rpm	Power output at n = 2000 rpm
			Theoretical	at 175 bar	at 175 bar	at 175 bar
			lpm	lpm	Nm/bar	kw
HMV1	09	9.2	18.4	30.4	19.7	4.3
	12	12.3	24.6	36.6	26.7	5.8
	18	18.5	37.0	49.0	46.6	10.0
	27	27.8	55.6	67.6	77.4	16.3
	36	37.1	74.2	86.2	102.0	21.1

HMV1--**-**-**K1-1080**

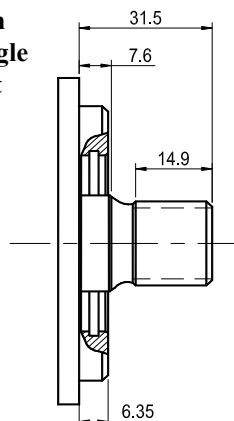
● **Flange Mounting (2 Bolts)**

DIMENSIONS IN MILLIMETRES



● **Shaft S1-Splined (SAE-A)**

Class 1-J498b
16/32 dp. 9 teeth
30° pressure angle
Flat root side fit



● **Shaft S2-Splined (SAE-B)**

Class 1-J498b
16/32 dp. 13 teeth
30° pressure angle
Flat root side fit

