

CLARK

Model TH 500-1000 Magnet Drive Rotary Vane Pump

Flow to 1250 LPH (330 GPH)

DESCRIPTION

The principle of the TH pump magnet drive is the driving force of the pole-to-pole alignment of 2 magnets. The driven magnet is attached to the pump shaft within the pump, while the driving magnet is attached to the motor shaft and closely located to the driven magnet. By means of magnetic attraction, the pump rotates in response to motor shaft rotation.

The TH housing is either brass or AISI 303 stainless steel with carbon graphite internal components. The pumps can be equipped with an optional built-in relief/bypass valve. Inlet and outlet ports have 1/2" NPT female threads. All models are available with NBR, Viton or EPDM static seals. Compared to conventional coupling, the magnet drive has several advantages :

- 1) No Mechanical Seals
- 2) Totally Sealed Body
- 3) Longer service life
- 4) Low Power Consumption
- 5) Noiseless operation



TYPICAL APPLICATIONS

- Solar heating systems
- Refrigerating gas transfer
- Cooling systems
- Carpet cleaners



SPECIFICATIONS

Pump Housing: Brass or AISI 303 Stainless Steel
 Pumping Chamber: Carbon Graphite
 Ports: 1/2" NPT
 Max Temperature : 70° C (158° F)

Seals: NBR (Viton, EPDM upon request)
 Max Size Solid Particles : 20 microns
 Max Motor Speed : 1725 rpm
 Max System Pressure : 18 Bar (260 psi)
 Pump Weight: 2.1 kg(4.6 lb)

DIMENSIONS (MM)

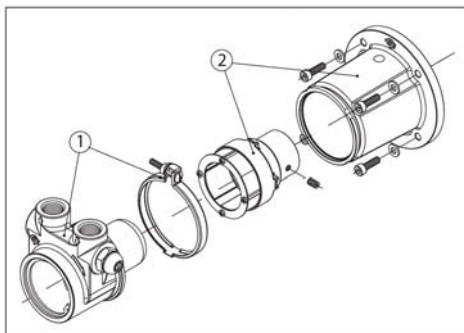
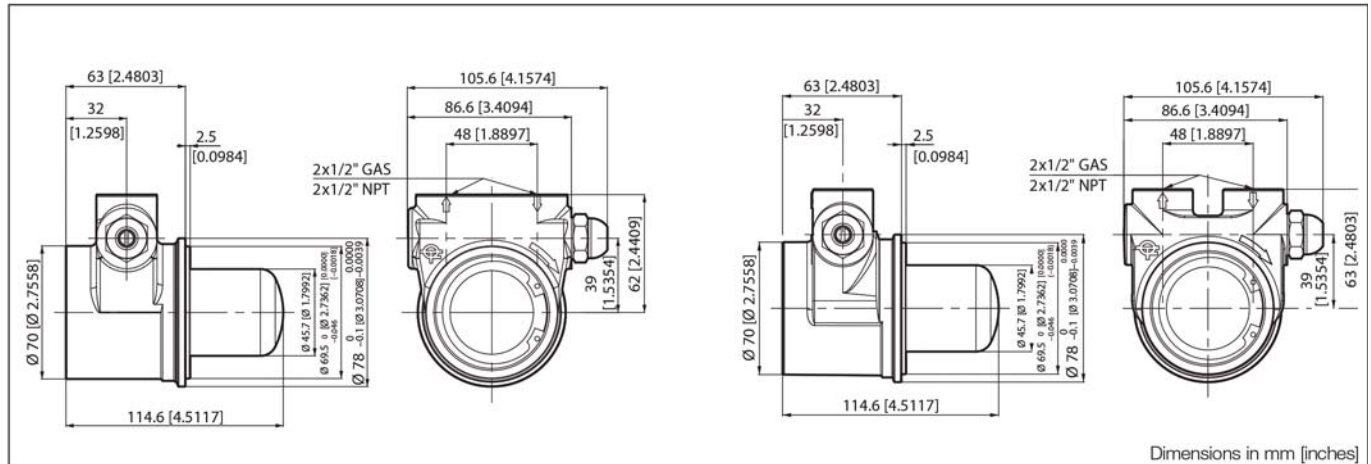


Table 1

Motor Adapter		
Position	Description	Part Number
1	TH Series Pump	Table 2
2	NEMA 56 Frame Motor mounting Assembly	THBS5BC

ABOUT RELIEF VALVES

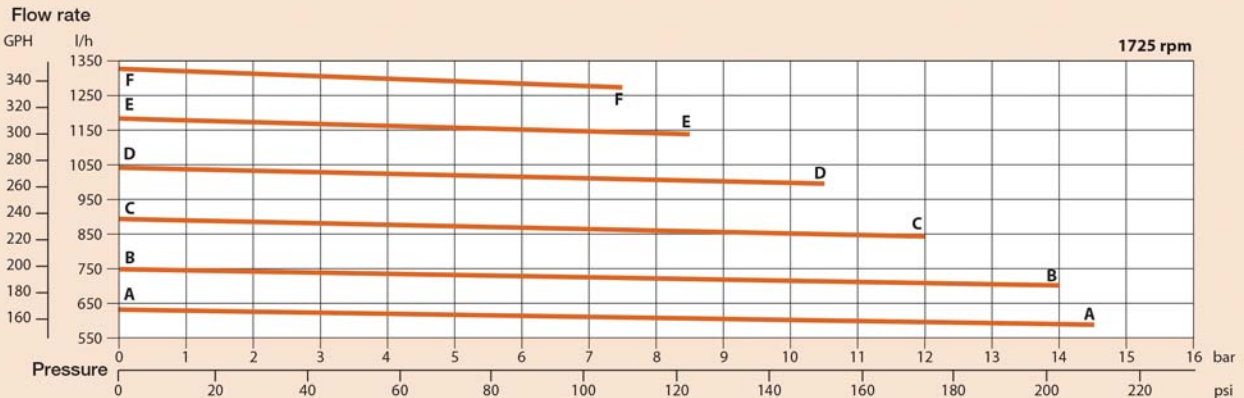
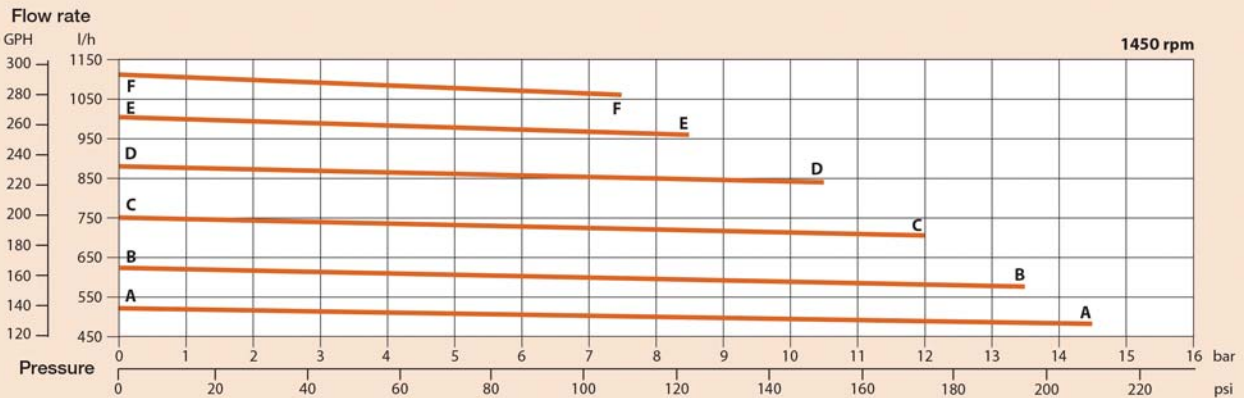
Relief valves are offered on select models of rotary vane pumps throughout the product line. Two types of relief valves are offered:

- 1) Standard Relief valve: A spring loaded bypass check valve diverts flow from the pump outlet to the pump inlet when outlet pressure exceeds setpoint (set with spring tensioning set screw).
- 2) Balanced relief valve: A pressure compensation plunger with dynamic seal and referenced (ported on one side) to atmosphere is added to the downstream side of the standard check-valve assembly. This insures that cracking pressure of the relief valve remains unchanged regardless of changes in inlet pressure (that might be a condition in a pressurized system).

The cracking pressure can be field set by adjusting the spring tension with the adjusting screw. If the cracking pressure is not customer specified it is factory preset at approximately 220 PSI for TM 500-1000 series.

It is not recommended to use the relief/bypass valve for flow control. This will result in premature wear of the valve assembly and require frequent maintenance.

PUMP MODEL SELECTION/FLOW CURVES



Note: Characteristics with water at 20 °C (68 F) and without bypass - Use filter before pump inlet not larger than 20 microns.

For applications involving other fluids, high temperatures, unusual processing conditions or speed higher than 1725 rpm consult the factory or an authorized Fluid-o-Tech distributor.

Table 2

Model	By-Pass	Housing	Figure
THSS500A	No	Stainless Steel	A-A
THSS600A			B-B
THSS700A			C-C
THSS800A			D-D
THSS900A			E-E
THSS1000A			F-F
THSS501A	Standard	Stainless Steel	A-A
THSS601A			B-B
THSS701A			C-C
THSS801A			D-D
THSS901A			E-E
THSS1001A			F-F

Model	By-Pass	Housing	Figure
THOT500A	No	Brass	A-A
THOT600A			B-B
THOT700A			C-C
THOT800A			D-D
THOT900A			E-E
THOT1000A			F-F
THOT501A	Standard	Brass	A-A
THOT601A			B-B
THOT701A			C-C
THOT801A			D-D
THOT901A			E-E
THOT1001A			F-F