

**CLARK****Compact Series Rotary Vane Pumps**

Flow to 63 GPH, Pressure to 230 PSI

**DESCRIPTION**

The Compact and Compact Plus series rotary vane pumps are the smallest series of our line of positive displacement pumps. Capable of high performances despite the small size, the Compact and Compact Plus series is the choice when space is an issue.

The Compact series housing is brass made only, while the Compact Plus series, equipped with ball bearings supporting the rotor, is available in brass or stainless steel AISI 303.

Both are assembled with a stainless steel AISI 303 rotor, carbon graphite pumping chamber and NBR seals. The inlet and outlet ports are 3/8" NPT threaded.

The pumps can be connected to direct coupling motors with a stainless steel clamp.

The "Compact" pump is equipped (depending on model number) with a built-in relief valve. Shaft sealing is provided by a mechanical face seal. The inlet and outlet ports are 3/8" NPT female threaded.

**SPECIFICATIONS**

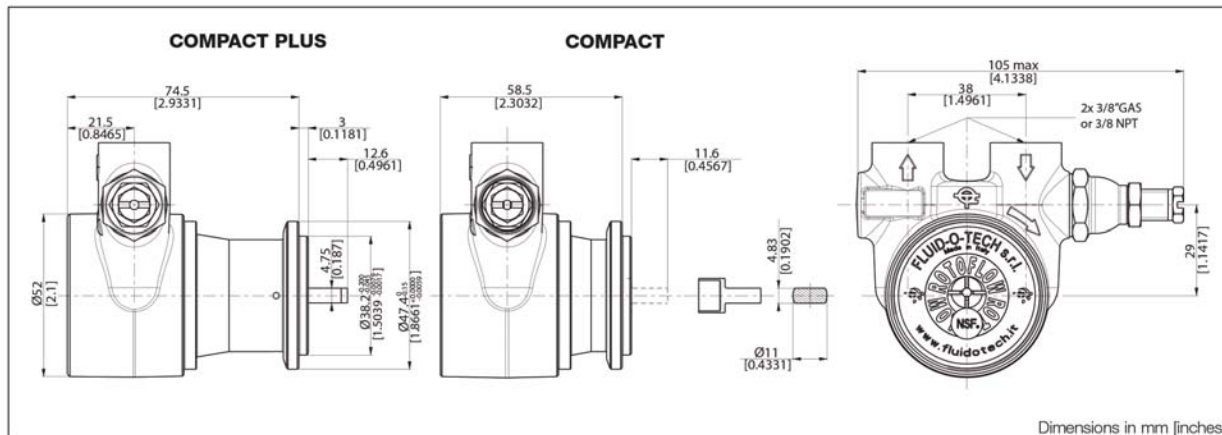
Pump Housing: Brass or AISI 303 Stainless Steel  
 Pumping Chamber: Carbon Graphite  
 Ports: 3/8" NPT  
 Max Temperature : 70° C (158° F)  
 Seals: NBR (Viton, EPDM upon request)

**TYPICAL APPLICATIONS**

- Beverage vending machines
- Cooling systems
- Ultra Filtration
- Cooling systems



Max Size Solid Particles : 10 microns  
 Max Motor Speed : 1725 rpm  
 Min. Starting Torque: 0.5 Nm  
 Max System Pressure : 20 Bar (290 psi)  
 Pump Weight: CA, 850g (1.9 lb)  
 MA 1 Kg (2.2 lb)

**DIMENSIONS**

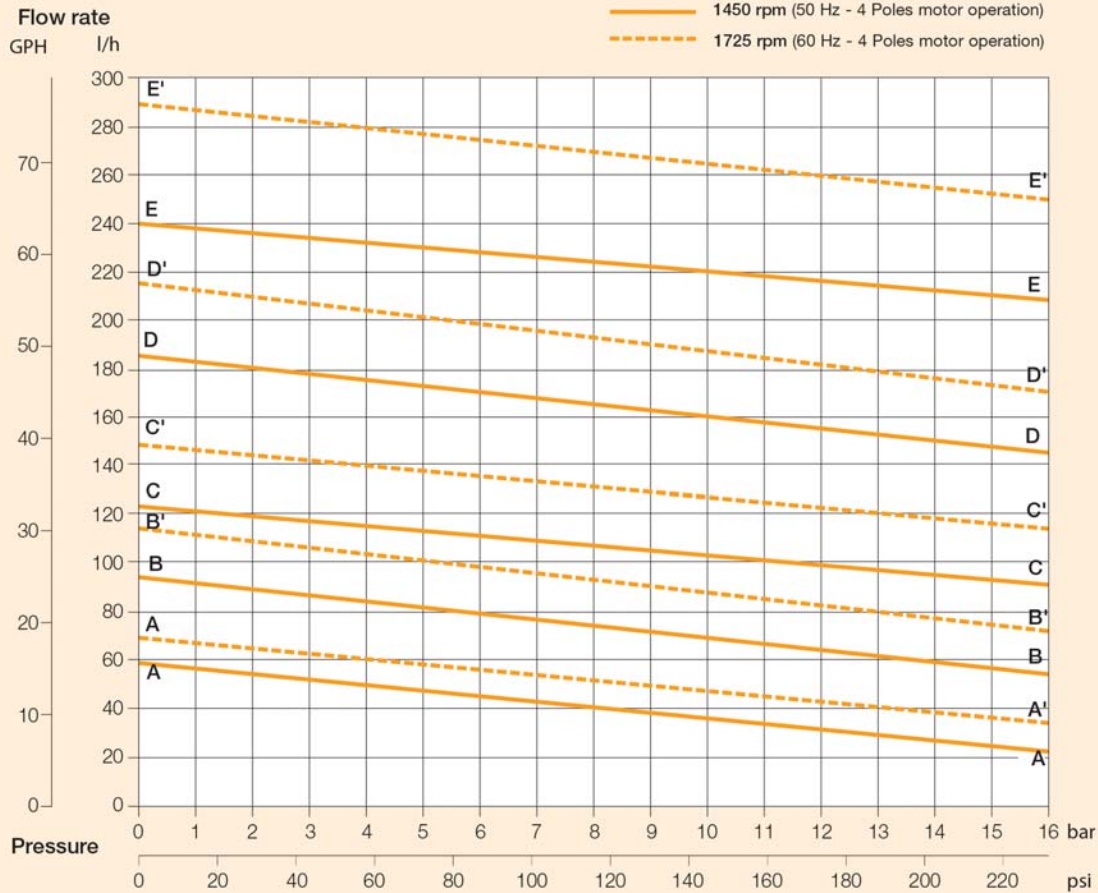
Relief valves are offered on select models of rotary vane pumps throughout the product line. Two types of relief valves are offered:

- 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 180 PSI for CA & MA 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/NEMA 56C ADAPTER**



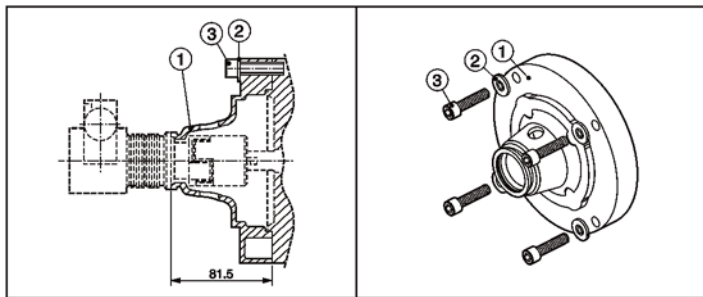
Note: Characteristics at constant motor speed, water at 20 °C (68 F) and relief valve closed. When coupling the pump to the motor the min. starting torque should be no less than 0.5 Nm. For applications involving other fluids, high temperatures or unusual processing conditions, please consult the factory or an authorized Fluid-o-Tech distributor.

Model	CA050	CA051	CA054	CA070	CA071	CA074	CA100	CA101	CA104	CA150	CA151	CA154	CA200	CA201	CA204
Flow Figure	A-A			B-B			C-C			D-D			E-E		
Relief Valve	NO	STD	BAL	NO	STD	BAL	NO	STD	BAL	NO	STD	BAL	NO	STD	BAL

Model-Stainless	MA0510	MA0511	MA0514	MA0710	MA0711	MA0714	MA110	MA111	MA114	MA1510	MA1511	MA1514	MA210	MA211	MA214
Model-Brass	MA050	MA051	MA054	MA070	MA071	MA074	MA100	MA101	MA104	MA150	MA151	MA154	MA200	MA201	MA204
Flow Figure	A-A			B-B			C-C			D-D			E-E		
Relief Valve	NO	STD	BAL	NO	STD	BAL	NO	STD	BAL	NO	STD	BAL	NO	STD	BAL

**Model 92-80-03 NEMA 56C Adapter**

#	Description
1	NEMA 56C Adapter
2	10 mm Washer
3	Screw 1 3/8-16x38 UNC



**Model 91-81-11 NEMA 56C Coupling**

#	Description
1	Coupling w/5/8" Bore
2	M6 x 8 Set Screw
3	Spider
4	Coupling, Flat Side

