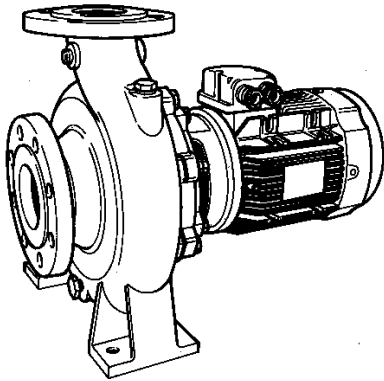


**M-FLO END SUCTION CENTRIFUGAL**



End-suction centrifugal pumps for continuous service, handling non-abrasive hot and cold liquids in general pumping, water supply and building service applications

**OPERATING LIMITS**

Temperature range C	-15 to + 120
Maximum pressure bar	10 (optional 16)
Performance test standard	BSS5316 part 1:1976/ISO 2548
Standard electric supply	380/415 V, 3Phase, 50Hz-code E3 220/240 V, 1 Phase, 50Hz-code E1

The maximum ambient temperature for standard motors is 40 C.

**INSTALLATION**

**Location**

The pump should be located in a clean, dry, ventilated environment and be easily accessible for servicing. Do not position near hot surfaces. Isolating valves should be fitted to the inlet and outlet of the pump.

The pump must be mounted on a Foundation substantial enough to reduce vibrations and rigid enough to avoid any twisting or misalignment.

**CAUTION** - Water must not be allowed to enter the motor terminal box.

**INSTALLATION ARRANGEMENTS**

- 1 - Before installing the equipment complete all necessary pipework and flush until clean.
- 2- pumps can be base-frame or plinth mounted in either vertical or horizontal arrangements. In the vertical arrangement, the electric motor must be arranged above the pump end.
- 3 - Both suction and discharge pipework should be independently supported, near the pump, so that no strain will be transferred to the pump casing.
- 4 - Suction and Discharge pipework and Valves, must be sized to accommodate the system design flow. Pipework should be least as large as the pump branches.
- 5 - Suction lines must be as short and straight as possible to ensure maximum available suction head on the pump.
- 6 - Avoid installing the pump in the lowest part of the system where sediment can collect. In atmospheric systems the pump must be positioned so that it does not pump over the feed and expansion tank vent or suck air down the vent.

**ELECTRICAL**

The operating voltage and electrical data are indicated on the motor nameplate and connection should be made as shown on the wiring diagram. The equipment must be earthed.

A suitable starter with overload protection must be provided. Overload should be set to the same value indicated on the motor nameplate.

**OPERATION**

**CAUTION** - Do not run the pump dry - otherwise the mechanical seal will be damaged - and leak.

Open the isolating valves on the inlet and outlet of the pump.

Vent the pump by carefully slackening the vent plug (when fitted) until water is seen to escape. Tighten the vent plug.

Check the pump is free to turn by removing the motor fan cowl and carefully rotating the pump and motor rotating assembly using the motor fan.

Check rotation by quickly turning the pump on and off to see if the motor shaft turns in the correct direction. Rotation can be reversed on three phase motors by interchanging any two of the incoming phases.

Replace the motor fan cowl, the pump can now be started. Any initial noise may be due to air in the system and should cease provided the system is fully vented.

When the pump is operating verify that the voltage and running amps are within the motor nameplate data.

**CAUTION** - Do not vent the pump whilst hot.

**MAINTENANCE**

Generally, M-Flo centrifugal pumps do not require any special maintenance, periodic checks that the pump is operating satisfactorily is all that is required.

Replace any worn or damaged parts when necessary - mechanical seals and motor bearings are normal wearing parts.

Any idle pump may tend to stick when it does not operate for prolonged periods, - test periodically.

**LUBRICATION**

The motor bearings are correctly packed with grease on assembly which is sufficient for an acceptable service life under normal conditions.

The recommended standard grease is Shell Alvania RA or equivalent.

please consult Fluid Automation where extreme service conditions exist.