



## Endura® MC-Series General Description

The Endura-MC is a **M**agnetically **C**oupled end-suction centrifugal pump series, manufactured by Liquiflo Equipment Company. This series is available in Long-Coupled (Power Frame) or Close-Coupled (C-Face mounting) styles.

### DIMENSIONAL ENVELOPE

The **long-coupled** option is, dimensionally, in **full compliance with ANSI B73.1** specifications and will retrofit any existing ANSI pump installation.

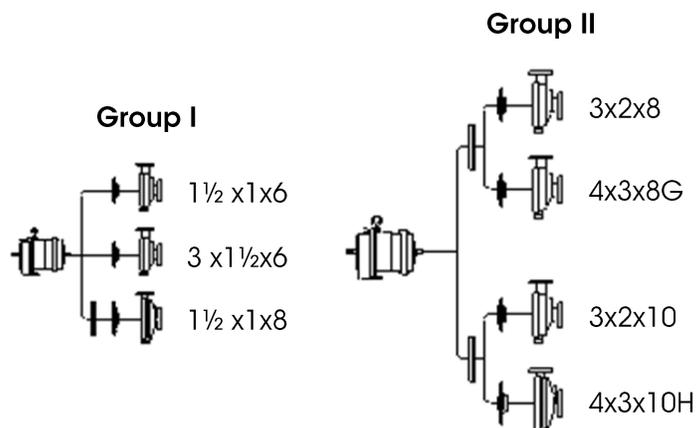
The **close-coupled** option involves **no piping modifications**. The magnetic coupling mounts directly onto the motor shaft, requiring the motor to be moved forward. This C-Face mounting eliminates the need for manual coupling alignment.

The back pull-out design enables the removal of the rotating assembly without removing the casing from the piping.

### AVAILABLE STANDARD SIZES

<b>Group I:</b>	<b>Max RPM</b>
1.5x1x6	3550
3x1.5x6	3550
1.5x1x8	3550

<b>Group II:</b>	<b>Max RPM</b>
3x2x8	3550
4x3x8G	3550
3x2x10	3550
4x3x10H	1750



### IMPELLER

All MC pumps use a closed impeller design. Closed impellers extend pump life by minimizing axial loads. No axial adjustment of the impeller is required.

### FLANGES

The MC is fitted with a 150# serrated Raised Face standard flanged casing. 300# serrated Raised Face flanged casings are optional.

### MATERIALS

The standard material of construction is 316 Stainless Steel. For Hastelloy-C or other materials, please contact the factory. For chemical compatibility information, refer to the Engineering section of the Liquiflo Product Catalog.

Sleeve bearings for the MC pumps are pure alpha-sintered silicon carbide (SiC). The stationary bearings have O-rings for support and alignment. In all pumps, shaft bearings are held in place with Hastelloy-C tolerance rings.

## O-RINGS & GASKETS

Teflon (PTFE) is the standard material for the MC casing O-ring or gasket and the containment can O-ring. Viton and Kalrez O-rings are optional. Consult the factory for additional materials.

## TEMPERATURE RANGE

The standard MC can be applied at temperatures up to +350 °F. Normal "N" temperature range is -20 to +350 °F for Group 1 pumps and +10 to +350 °F for Group 2 pumps. Low "L" temperature range is -100 to +100 °F. Contact factory for low temperature applications.

## PRESSURE CAPABILITY

MC pumps are rated for 275 PSIG at temperatures up to +100 °F. Above 100 °F, the rated pressure is linearly de-rated. At 350 °F, the rated pressure is 205 PSIG (316 SS).

## CONTAINMENT SHELL

The standard MC containment shells match the metallurgy of the casing. However, containment shells made out of Transformation-Toughened Zirconia (TTZ), a ceramic and non-conductive material, are available which eliminate eddy current power losses.

All containment cans are 100% hydrostatically tested at 412 PSI.

## MINIMUM FLOW RATE

A generally accepted industry practice for minimum flow rate is 15% of the flow rate at the Best Efficiency Point (BEP).

## SOLIDS HANDLING CAPABILITY & DRY RUNNING

The MC pump is capable of running with up to 2% solids by volume, and should not be run dry under any circumstances. Pumping abrasive particles is not suggested with these pumps.

## MAXIMUM VISCOSITY

The maximum viscosity is similar to any comparable ANSI pump and is generally applied at less than 200 centipoise (cP). For fluid viscosities over 2 cP, a Viscosity Correction per Standard ANSI/HI 9.6.7 is required to size the pump and motor. Consult Liquiflo or the local distributor for assistance with sizing of viscous fluid applications.

## VENT & DRAIN

The MC pump is self-venting due to its top discharge, ANSI design, and is supplied with a standard ½" NPT drain plug on the front of the casing.

## SPECIAL FEATURES

The impeller is keyed to the shaft and secured with a nut to prevent backing-off if rotation is reversed. The shaft is oversized to minimize deflections.

## SPARES

*Module* – complete spare rotating assembly. The module is a complete pump, less the casing, outer magnet and mounting bracket. It is recommended when a quick turn-around is essential for plant operation.

*Parts* – all individual parts can be purchased separately (refer to Bill of Materials).