

M-Series Magnetic Drive



General

- All of the standard advantages of a magnetic coupling have been retained :
 - Contamination-free mixing
 - Zero leakage to atmosphere
 - continuous, high-speed operation
 - High torque capacity with small drive
 - Wetted parts 316SS and A-286 (others available)
 - Top cover O-ring Viton
- This new design incorporates a field replaceable impeller shaft using threads with an aligning feature. Design allows bearing replacement without disconnecting the main cover closure or the Magnetic Drive/Cover connection.

Features

- 16 ~ 120 in-lbs of torque
- Easily replaceable bearings through top access
- Easily replaceable impeller shaft
- 10 ~ 25mm diameter impeller shaft
- Magnet coupling designed to help hold thrust loads
- Carbon graphite sleeve bearings
- Design pressure 5,000psig at 500`C

Safety Information

To avoid potential injury and/or equipment damage while using our Magnetic Drive, please follow the comments and safety information provided below;

- Do not connect the Magnetic Drive to the power source until all components are assembled and the Magnetic Drive is properly installed.
- Be sure that all fasteners are properly torqued to the valve.
- The Magnetic Drive should never be operated above the rated pressure and temperature specified hereunder.
- Prior to all serving, be sure that all pressure is relieved and all electrical power is cut off.
- Do not touch any part of the magnetic Drive that is rotating. The Magnetic Drive must be installed with a properly designed beltguard to avoid users' injury.
- Do not make any field changes or modifications to the Magnetic Drive without reviewing the change with us before trying anything.

Product Specifications

Description :

Our Magnetic Drive is a magnetically coupled mixer that eliminates all rotary seals and the need for lubrication because advanced rare earth magnets have been designed into this product. This Magnetic Drive is a radial, synchronous drive.

There are two magnet sets and each is formed from the most powerful magnetic material that modern technology has to offer. The driven set is attached to the mixer shaft and the driver set is located in the outer housing.

Installation

Storage :

Do not remove any protective coating or wrapping until the mixer is ready to be put into service. If extended storage is required, store the mixer and its accessories in a clean, dry location with sufficient air circulation and freedom from wide, rapid shifts in temperature. The mixer should not be stored on shelves made of steel and should be kept away from any other magnetic material. It is advisable to store the Magnetic Drive on wood or plastic shelving.

Installation :

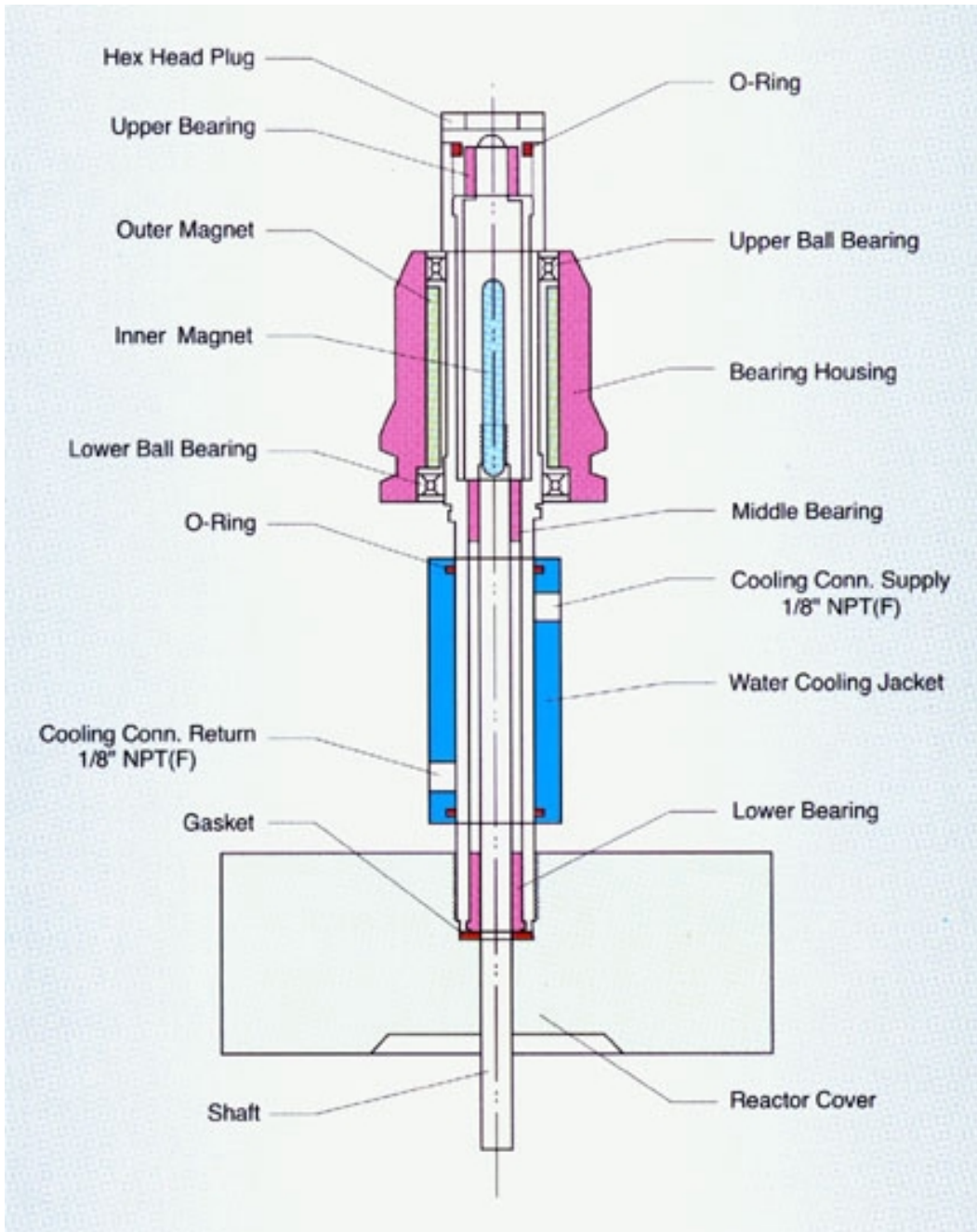
Install the assembled unit on the pressure vessel, tank or reactor being certain that the gasket is properly in place. Tighten the cover or mounting flange bolts to the specified torque. All thread lubricant suitable for the operating temperatures. Torque the Magnetic Drive into the mounting flange using the torque values shown belows :

Normally, drive motors are not installed by REI and therefore, proper wiring techniques are the responsibility of the user.

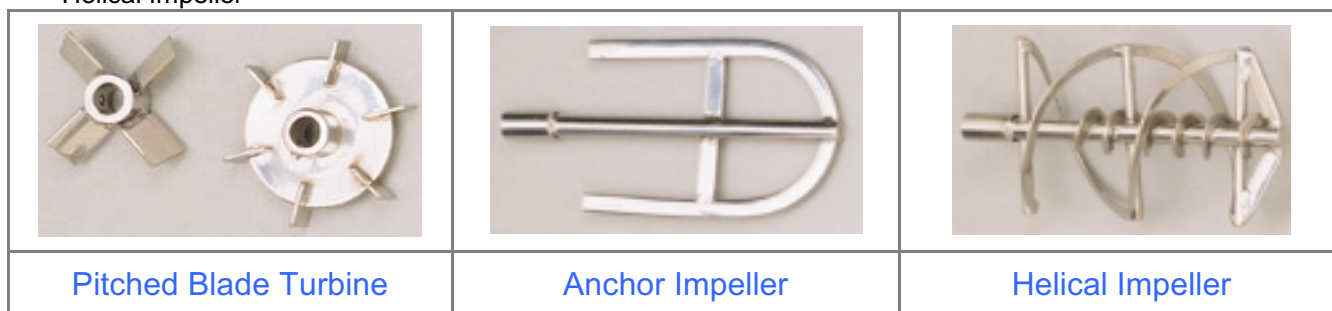
Model	Teflon Gasket	Metal Gasket
M-222445	75-80 FtLb 102-109 Nm	100-110 FtLb 136-150 Nm
M-333445	200-250 FtLb 272-340 Nm	350-400 FtLb 476-544 Nm

Check the amount of tension in the belt. If the belt tension is too low, the belt can tend to whip causing excessive belt wear, lower power transmission or belt slip. If the belt is too tight, the higher belt loads can cause excessive and uneven bearing wear in both the motor and the Magnetic Drive. Adjust the motor mount accordingly.

Magnetic Drive



cf. Figure : Impeller
 Anchor Impeller
 Pitched Blade Turbine
 Straight Blade Turbine
 Helical Impeller



Ordering Information

Series	Torque	Drive Shaft	Nozzle	RPM	Pressure	Temperature
M	1. 8in-lbs	1. 8mm	1. M20-1.5P	1. 200 rpm	1. 500 psig	1. 100`C
	2. 16in-lbs	2. 10mm	2. M24-1.5P	2. 500 rpm	2. 1000 psig	2. 200`C
	3. 32in-lbs	3. 15mm	3. M28-1.5P	3. 1000 rpm	3. 3000 psig	3. 300`C
	4. 64in-lbs	4. 20mm	4. M32-1.5P	4. 2000 rpm	4. 5000 psig	4. 400`C
	5. 120in-lbs	5. 25mm	5. Other	5. 2500 rpm	5. 10000 psig	5. 500`C
	6. Other	6. Other		6. Other	6. Other	6. Other

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