

# INSTRUCTIONS & REPAIR PARTS FOR MODEL TE-7.5K-MD



MODEL TE-7.5K-MD ASS'Y. P/N 0156-0001-0100

#### **PUMP CONSTRUCTION & SERVICING**

March "Orbital" Magnetic Drive Pumps eliminate the conventional shaft seals found in most pumps. This means that there is no rotating shaft or seal to wear and allow the liquid being pumped to leak out. The only seal in the pumps is a stationary Viton<sup>®</sup> "O" ring seal between the front and rear Housings.

The Pump can be serviced with the use of an adjustable wrench. The only moving part in the pump, other than the motor, is the Impeller-Magnet Assembly which rotates on a stationary ceramic spindle and up against a ceramic thrust washer. These are the only parts that might wear, and may require replacement. See the Repair Parts List for replacement parts.

### **CAUTION IN ASSEMBLY/DISASSEMBLY**

The magnetic couplings in the series 7.5 pumps are made of rare earth cobalt material and are very powerful. If you disassemble the pump and remove the Impeller Assembly from the Rear Pump Housing, great care should be taken in handling. The attraction of the Impeller Magnet and the Drive Magnet may pull the Impeller from your grasp.

You should hold onto the O.D. of the Impeller vanes with both hands and slowly engage the Impeller into the magnetic field. As you feel the axial magnetic pull, hold the Impeller firmly and resist the pull of the magnets, but slowly allow the Impeller to be pulled into the field. The axial magnetic pull is greatest between  $\frac{1}{3}$  to  $\frac{2}{3}$  engagement. The axial pull will diminish as the two magnets become aligned.

If you allow the Impeller Assembly to snap into the rear housing, you may damage the carbon bushing, the rear thrust washer or the plastic. Care must be taken if you set the magnets down on or near a steel surface due to the powerful magnetic pull. These individual magnets may affect the calibration or damage sensitive electronic instruments if set next to the instrument.

#### **ELECTRICAL & OPERATION**

The standard pump motor is a TEFC, 230/460 volts, 60 cycle, 3 phase, 3450 r.p.m. rated as continuous duty. A junction box is located on the side of the motor for making the electrical hook up. The wiring instructions are located on the motor label or on the junction box cover. The motor has U.L. yellow card recognition.

Pumps are not self priming and will not produce a suction lift and must be installed with a positive flooded suction. March relies on the liquid being pumped to lubricate the Impeller-Magnet assembly bushing spinning on the stationary ceramic spindle. If the pump is run dry for longer than 60 seconds, the Impeller bushing may "freeze" onto the spindle. The direction of motor rotation should be clockwise looking into the inlet of the pump.

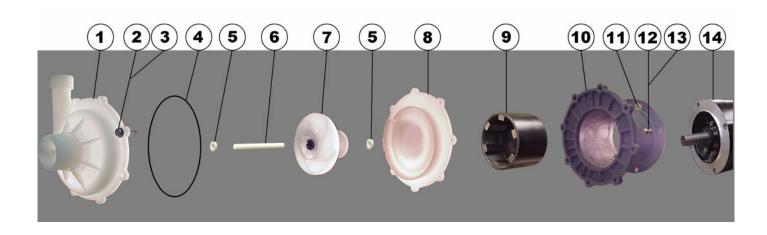
Totally enclosed explosion proof and special voltage motors are available upon special order.

#### **PUMP MATERIALS**

All plastic parts of the pump are molded out of natural Kynar<sup>®</sup> (PVDF). The stationary spindle and Thrust Washers are made of porcelain ceramic. The "O" ring for the housing is Viton<sup>®</sup> rubber. The bushings in the impeller Assembly are carbon

There are no other materials in contact with the solution. Contact the factory for other materials that are available, or if you are uncertain of the material compatibility with your specific solution.

						F	RATING	GS AN	D SPE	CIFICA	TIONS						
Γ	MODEL	CONN	ECTORS		ELECTRI	CAL		GP	M AT LIS	STED HE	AD		PSI	DII	MENSIO	NS	PACK
	NO.	INLET	OUTLET	HP	<b>VOLTS</b>	AMPS	10 FT.	45 FT.	55 FT.	65 FT.	80 FT.	85 FT.	GAGE	HT.	WD.	LG.	WT.
Г	ΓΕ-7.5K-MD	2"MPT	1½"MPT	2	230/460	5.2/2.6	82	78	71	60	33	14	37.8	10"	8 ½"	20 1/8"	53 lbs.



MODEL TE-7.5K-MD REPAIR PARTS LIST								
ITEM	DESCRIPTION	QTY.	PART NO.					
1	Front Housing (PVDF)	1	0156-0001-1000					
2	Screw (1/4-20 x 1 1/2 Lg. Hex Hd.)	8	0153-0011-1000					
3	Washer (Flat¼ I.D. x 5/8 O.D. x 1/16 Thk.)	8	0157-0023-1000					
4	"O" RingViton® 165mm I.D. x 4mm Thk.	1	0156-0010-1000					
5	Thrust Washer (Ceramic)	2	0156-0016-1000					
6	Impeller Shaft (Ceramic)	1	0156-0007-1000					
7	Impeller Final Assy. w/Carbon Bushing	1	0156-0004-0200					
8	Rear Housing (PVDF)	1	0156-0002-1000					
9	Drive Magnet assembly	1	0156-0009-0100					
10	Motor Connecting Bracket (Ryton®)	1	0156-0041-1000					
11	Hex Nut (1/4-20)	8	0156-0053-1000					
12	Screw (%-16 x 1" Lg. Hex Hd.)	4	0155-0017-1000					
13	Washer (Flat %)	4	0155-0019-1000					
14	Motor T.E.F.C. 3 PH., 3450 RPM	1	0156-0008-1000					

Contact factory for other materials and/or parts not listed.

## **LIMITED WARRANTY**

March pumps are guaranteed only against defects in workmanship or materials for a period of one year from date of manufacture pumping water. On all other solutions, contact the factory for application assistance. March Pump Application Worksheet 750-130-10 is available for additional warranty information.