INSTRUCTIONS & REPAIR PARTS FOR MODELS TE-7R-MD, TE-7K-MD, AND TE-7S-MD PUMPS

PUMP CONSTRUCTION & SERVICING

The TE-7-MD pump was designed to handle a wide range of acids, bases, caustics, solvents and other corrosive liquids.

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 pump is a stationary “O” ring seal between the front and the rear Housings. The only moving part other than the motor is the Impeller-Magnet Assembly, which rotates on a stationary spindle and up against a thrust washer. These are the only parts that might wear and, may require replacement.

METAL PUMP ONLY

The Impeller (item 7), ceramic shaft (item 6), and ceramic Thrust washer (item 5) are packed separately within the pump carton to prevent damage during shipping. These items need to be assembled into the pump before installation. Be sure all parts are assembled per the exploded view shown.

PUMP DISASSEMBLY AND INSPECTION

To disassemble the pump, simply remove the six Housing Screws (item 1). The entire wet end assembly up to the Motor Bracket (item 10) will now slide apart. The Impeller Magnet Assembly (item 7) will slide off the Spindle (item 6).

The Spindle is a snug fit into the front Pump Housing and the rear Impeller Magnet Housing. It may be necessary to twist the Spindle to pull it free. Replace any worn or damaged parts if necessary.

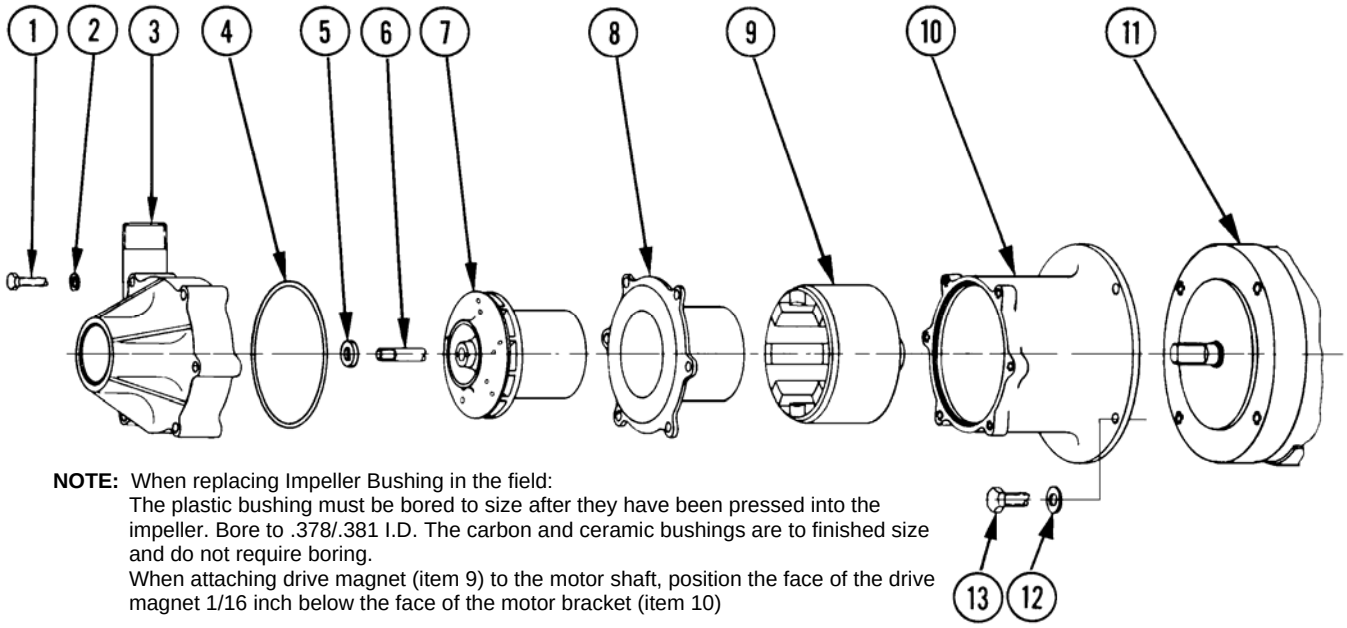
ELECTRICAL & OPERATION

Pumps are not self priming and will not produce a suction lift and must be in stalled with a positive flooded suction. The only moving parts inside the pump volute are the Impeller-Magnet Assembly (item 7) and the Impeller Bushing, which rotates on the Ceramic Spindle (item 6). If the pump is run with no liquid inside the pump volute, there is danger of damaging the Impeller Bushing. Short runs of 30 seconds or less will not damage the pump. This will allow you time to check your electrical hookup. The electrical wiring diagram is located inside the cover of the motor conduit box. The Impeller must rotate in a clockwise direction when viewed through the inlet of the pump. The totally enclosed motor for 7R,7K is ¾ H.P., 115/230 volts; 50/60 Hz; single phase; rated for continuous duty; capacitor start; No. 56 “C” Nema Frame with rigid base. Standard Nema motor mounting on 11/32 wide slots on 3-inch centerlines. Motors available in 230/460 three phase current, 50/60 Hz, TEFC, in ¾ H.P,1 H.P., and 1½ H.P. Explosion-proof motors are also available in 1 and 1½ H.P.

RATINGS AND SPECIFICATIONS

MODEL NO.	MOTOR SPECIFICATIONS					MAX. G.P.M.	MAX. HEAD	CONNECTORS		DIMENSIONS		
	VOLTS	PHASE	RPM	H.P.	AMPS			INLET	OUTLET	HT.	WD.	LG.
7R,7K	115/230	One	3450	¾	10/5	53	60 Ft.	1-1/2” FPT	1” MPT	9-1/16”	9-1/4”	18”
	230/460	Three			2.2/1.1							
7S	115/230	One		1	11.8/5.9							18-3/8”
	230/460	Three			3/1.5							

Ratings based on pumping water. Overall dimensions may vary depending on the motor used.



NOTE: When replacing Impeller Bushing in the field:
The plastic bushing must be bored to size after they have been pressed into the impeller. Bore to .378/.381 I.D. The carbon and ceramic bushings are to finished size and do not require boring.
When attaching drive magnet (item 9) to the motor shaft, position the face of the drive magnet 1/16 inch below the face of the motor bracket (item 10)

REPAIR PARTS				
USED IN	**ITEM**	**DESCRIPTION**	**QTY.**	**PART NO.**
All 7s	1	Screw – Stainless	6	0155-0014-1000
7R, 7K	2	Washer – Stainless	6	0155-0021-1000
7R	3	Front Housing – Polypropylene	1	0155-0011-1000
7K	3A	Front Housing – Kynar®	1	0155-0125-1000
7S	3B	Front Housing – 316 Stainless	1	0155-0036-0000
All 7s	4	"O" Ring – Viton®	1	0155-0010-1000
All 7s	5	Washer – Ceramic	1	0155-0009-1000
7R, 7K	6	Shaft – Ceramic	1	0155-0039-1000
7S	6A	Shaft – Ceramic	1	0155-0117-1000
7R	7	Impeller Assembly – Polypropylene (w/Teflon® / Ryton® Bushing)	1	0155-0159-0500
7K	7A	Impeller Assembly – Kynar® (w/Carbon Bushing)	1	0155-0160-0200
7S	7B	Impeller Assembly – 316 Stainless (w/Carbon Bushing)	1	0155-0112-0400
7R	8	Rear Housing – Ryton (w/Rear Ceramic Thrust Washer)	1	0155-0067-0100
7K	8A	Rear Housing – Kynar (w/Rear Ceramic Thrust Washer)	1	0155-0124-0100
7S	8B	Rear Housing – 316 Stainless	1	0155-0035-0000
All 7s	9	Drive Magnet Assembly	1	0155-0130-0200
All 7s	10	Motor to Pump Connecting Bracket – Ryton	1	0155-0092-0100
7R, 7K	11	Motor – TEFC – ¾ H.P. – 1 Phase – 115/230 Volts	1	0155-0016-1000
7R, 7K	11A	Motor – TEFC – ¾ H.P. – 3 Phase – 208/230/460 Volts	1	0155-0022-1000
7S	11B	Motor – TEFC – 1 H.P. – 1 Phase – 115/230 Volts	1	0155-0173-1000
7S	11C	Motor – TEFC – 1 H.P. – 3 Phase – 208/230/460 Volts	1	0155-0174-1000
All 7s	12	Washer – Stainless	4	0155-0019-1000
All 7s	13	Screw – Stainless	4	0155-0017-1000

Alternate materials are available. Contact the factory for assistance in determining the best recommended materials for your particular applications.

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.

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