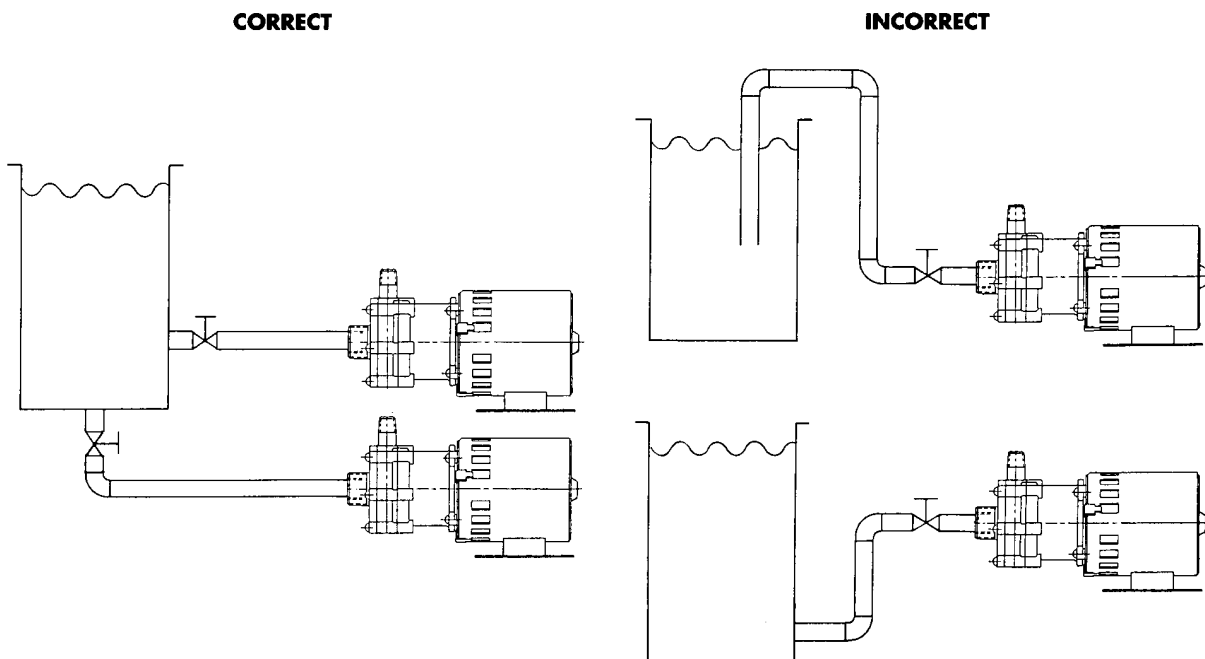


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GENERAL INSTALLATION INSTRUCTIONS

1. The Pump should be mounted horizontally on a foundation and secured by Anchor Bolts.
2. Install the pump as near to the suction source and as low as possible. Suction must be flooded. When using an elbow, valve, etc., the suction must have straight piping in length at least five (5) times the diameter of the pipe.
3. Suction piping should not be smaller than the pump suction size and preferably one size larger than pump suction. Liquid supply vessel should not have a pipe size smaller than the pump suction and then increased to pump suction size.
4. Piping and valving should be independently supported. Do not allow the pump to support the weight of the piping.
5. All suction piping should be direct and short as possible with as little bending as possible. Excessive bending and pump suction length will lead to flow distortion and pump cavitation.
6. Available NPSH should exceed 120% of pump required NPSH. Contact a March Distributor for pump requirements.
7. Suction velocity should not exceed 6.5 feet per second. Viscous and hot liquids will have an effect on velocity.
8. If reducers or increasers are necessary, caution is to be used as to proper installation so as not to trap air.
9. Use a vacuum gauge in the suction line and it should be as close as possible to the pump suction. This is for monitoring the performance of the pump while in operation.
10. Ball valves may be installed on the suction side to allow maintenance and service. NEVER use the valve to limit flow into the pump.
11. Negative suction or suction lift is not recommended and should not be used. See illustration below:



12. Suction Pressure:

Systems utilizing high suction pressure where a pump is used to boost system pressure is of concern. Be sure that the pressures do not exceed that of pump design, otherwise severe damage and possible operator injury could result.

DISCHARGE

1. All discharge piping size should be determined by flow velocity which should not exceed 15 feet per second.
2. A Throttling Valve should be installed for flow and pressure control. Caution—Location of check valves on long discharge piping, high static discharge of 50 feet or more and two or more pumps used on the same common piping.
3. Install Discharge Pressure Gauge to monitor performance during operation.
4. Connect electrical power to the motor in accordance with motor manufacturers nameplate instruction.

OPERATION

1. Check pump for proper rotation by allowing fluid into the pump and turning power to motor on and off in a quick manner. If motor is not rotating in proper rotation, the leads should be changed to conform to motor manufacturer's nameplate. Improper rotation reduces capacity.

—CAUTION—

2. Do not run pump without liquid. Be sure liquid is in the pump. If pump is run dry, excessive heat will occur damaging internal parts and could result in operator injury.
3. Open suction valve completely.
4. Open discharge valve slightly (crack).
5. Observe all connection for leaks. If leaks occur, close all valves and repair all leaks before further operation.
6. Start motor.
7. Open discharge valve gradually until desired flow and pressure is attained.

—CAUTION—

IF DISCHARGE VALVE ON START UP IS WIDE OPEN, DECOUPLING COULD OCCUR OR MOTOR OVERLOAD IS POSSIBLE.

8. Operating the pump for excessive periods of time at shut off (discharge valve fully closed) or at near shut off conditions could cause the liquid to rise in temperature which could cause failure of internal parts and failure of pump.
9. Flow rates should be controlled by the discharge valve only, never by the suction valve.
10. Electrical operation is also critical. High or low voltage could have an affect on pump performance. Caution—Do not operate the motor at varied voltages, without contacting a March Distributor first.



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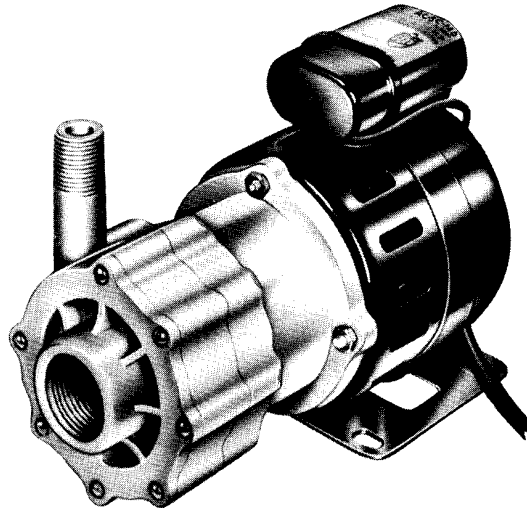
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P/N 750-404-10 Rev 2

MARCH

INSTRUCTIONS AND REPAIR PARTS FOR MODEL AC-5C-MD PUMP



MODEL
AC-5C-MD
ASS'Y. NO. 150-026-01

PUMP CONSTRUCTION & SERVICING

March "Orbital" Magnetic Drive Pumps eliminate the conventional shaft seals found in most pumps. This means that there is no rotating seal to wear and allow the liquid being pumped to leak out. The pumping action may eventually fail, however the liquid can never leak out. The Model AC-5C-MD has an open air fan cooled, moisture protected motor, allowing the pumps to be run continuously.

All pumps can be serviced with the use of a screwdriver. The only moving part in the pump, other than the motor, is the impeller-magnet assembly. This assembly rotates on a stationary spindle and up against a thrust washer. These are the only parts that can wear, and may need to be replaced. See the Repair Parts List for replacement parts.

ELECTRICAL CONNECTIONS AND RUNNING DRY

All models are standard in 115 volt, 50/60 cycle, 1 phase, A.C. The motors are thermal overload protected, and the motor and overload combinations are U.L. and C.S.A. listed. All cord sets are U.L. approved 18/3 wire, SJO or SJT cords. The AC style pumps have 3 foot long cords with no plug attached.

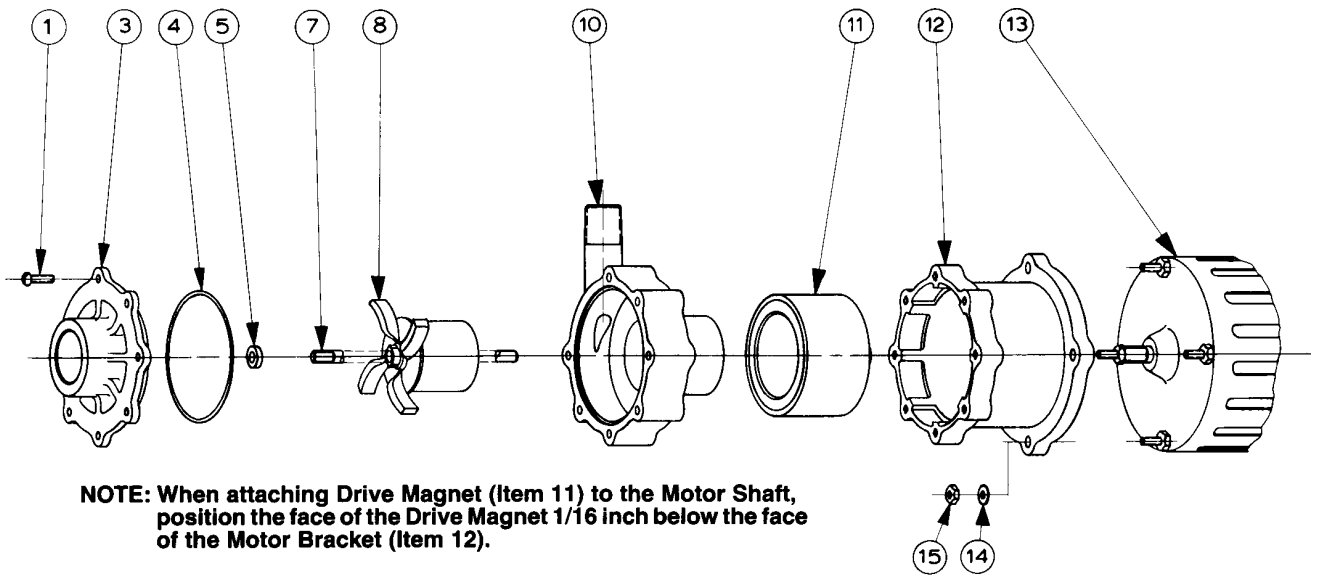
We rely on the liquid being pumped to lubricate the impeller-magnet assembly spinning on the stationary spindle. The pump is not to run dry as the plastic may "freeze" onto the spindle. Bronze, Teflon, and Carbon bushings are available if needed for dry running. Contact the factory for special applications.

PUMP MATERIALS

All screws are type 18-8 stainless.
All "O" ring gaskets are Buna-N rubber.
All stationary spindles are ceramic.
All wetted plastic parts are Glass Filled Polypropylene Plastic. Motor Bracket on AC-5 is Glass Filled Polypropylene.
The thrust washer is ceramic.
Other materials are available, contact the factory for other than standard parts.

RATINGS AND SPECIFICATIONS

MODEL NO.	CONNECTORS		ELECTRICAL			G.P.M. AT LISTED HEAD						PSI GAGE	DIMENSIONS			PACK WT.
	INLET	OUTLET	HP	WATTS	AMPS	1 FT.	3 FT.	6 FT.	12 FT.	18 FT.	24 FT.		HT.	WD.	LG.	
AC-5C-MD	1" FPT	1/2" MPT 13/16 O.D.	1/8	227	2.2	18	16.3	15	12.5	9.5	4.2	11.2	6-3/16"	4-1/2"	9-1/8"	14 LBS.



MODEL AC-5C-MD REPAIR PARTS LIST

ITEM	PART NUMBER	DESCRIPTION	QTY. REQ'D.
1	150-021-10	#8 x 1 3/4 Long Screws	7
3	150-032-10	Cover	1
4	135-007-10	"O" Ring, Buna-N	1
4A	135-023-10	"O" Ring, Viton	1
5	130-028-10	Ceramic Thrust Washer	1
7	130-024-10	Spindle	1
8	150-030-01	Impeller-Magnet Ass'y.	1
8A	150-030-02	Impeller-Magnet Ass'y. with Stainless Cover	1
8B	150-030-03	Impeller-Magnet Ass'y. with Bronze Bushing	1
8C	150-030-04	Impeller-Magnet Ass'y. with Cover and Bushing	1
10	150-031-10	Pump Housing	1
11	150-081-01	Drive Magnet Ass'y.	1
12	150-070-10	Motor Bracket	1
13	150-027-10	Motor, 115 Volt	1
14	802-006-10	Bracket Washer	4
15	625-024-10	Bracket Nuts	4

LIMITED WARRANTY

This pump is guaranteed against defective workmanship or material for a period of one year from date of manufacture. Warranty may be extended up to one year from date of purchase if the enclosed warranty card is filled out completely and returned at date of installation. All pumps not warranty registered at March will be limited to one year from date of manufacture. Warranty void if pump is connected to wrong voltage or if otherwise abused. All pumps must be shipped to March freight prepaid. Warranty pumps will be either repaired or replaced, at our option. See Warranty Card F4109, which is packed with each pump.

MARCH MANUFACTURING COMPANY

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