



MARCH PUMPS

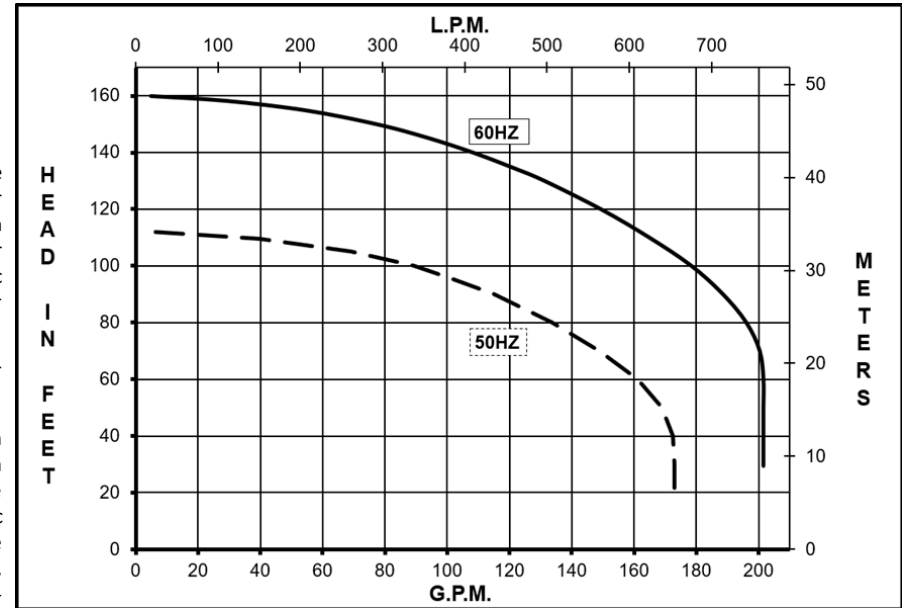
1819 PICKWICK AVE., GLENVIEW, IL 60026-1306, U.S.A
 PHONE: (847) 729-5300 - FAX: (847) 729-7062
 WWW.MARCHPUMP.COM

DESCRIPTION & OPERATION: Series 10 are centrifugal magnetic drive pumps, eliminating the need for a shaft seal. Pumps are serviceable with an adjustable wrench. Screws should be tightened in sequence & uniformly. Do not over tighten the screws or you may crush the plastic housing bosses. See the parts list for a breakdown of parts. Pumps are not self-priming, lack a suction lift, and thus require a **flooded suction**. Pumps **cannot be run dry** because the impeller requires the liquid being pumped for lubrication. The direction of motor rotation should be clockwise when facing the inlet of the pump. For liquids with a specific gravity greater than water, have a higher viscosity, or for elevated temperatures, a trimmed impeller may be necessary. For application assistance, contact March Pump.

ELECTRICAL: The motor is TEFC (Totally Enclosed Fan Cooled), U.L. listed, rated for continuous duty, and has a conduit box for electrical connections.

CAUTION IN ASSEMBLY & DISASSEMBLY: The magnetic coupling in the pump is strong enough to warrant caution. When servicing the pump, the attraction of the impeller magnet and drive magnet may pull the impeller from your grasp. When assembling, hold onto the outer diameter of the impeller vanes with both hands and gently engage the impeller into the magnet field. Hold the impeller firmly and resist the magnetic attraction as you slowly put the impeller back in. The magnetic forces are strongest between 1/3 to 2/3 of engagement and will diminish when the magnets become aligned. Do not allow the impeller to snap into the rear housing, doing so may result in damage. Exercise caution in placing any of the magnets near steel, tools, or other sensitive instruments as doing so may result in damage or personal injury. When attaching drive magnet to motor shaft, position the face of the drive magnet 3/16 inch above the face of the motor bracket.

TE-10P-MD, TE-10K-MD

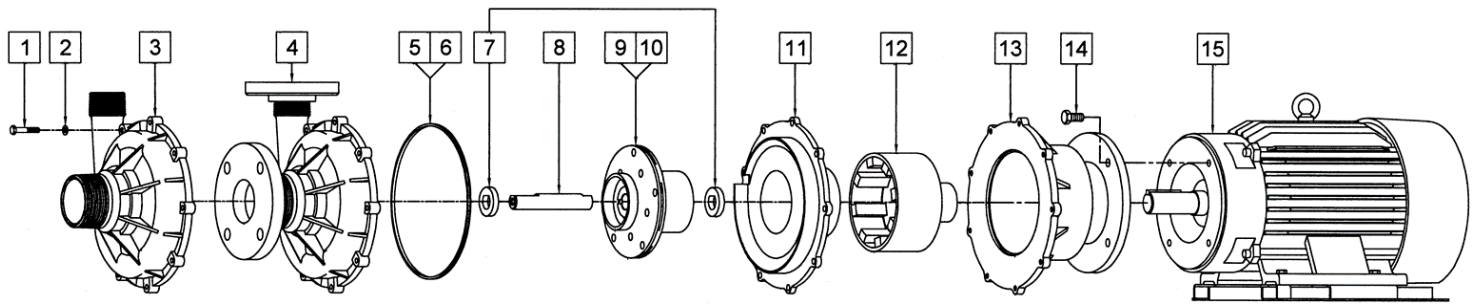


Specifications		TE-10P-MD	TE-10K-MD	TE-10P-MD With Flanges	TE-10K-MD With Flanges
	3Ph	0161-0058-0100	0161-0016-0100	0161-0058-0170	0161-0016-0170
Inlet-Outlet		3" MPT x 2" MPT	3" MPT x 2" MPT	3" Flange x 2" Flange	3" Flange x 2" Flange
Max Internal Pressure		75PSI (517 kPa)	75PSI (517 kPa)	75PSI (517 kPa)	75PSI (517 kPa)
Max Liquid Temperature		190F (87C)	190F (87C)	150F (65C)	190F (87C)

Model	60Hz											50Hz											Packed Weight Pounds
	Max Flow		Max Head			Electrical						Max Flow		Max Head			Electrical						
	GPM	LPM	FT	PSI	M	Ph	V	A	HP	kW	RPM	GPM	LPM	Feet	PSI	M	Ph	V	A	HP	kW	RPM	
TE-10P-MD	200	757	160	69.4	48.8	3	230/460	23.2/11.6	10	7.46	3450	172.8	654	112	48.5	34.1	3	380	14.1	10	7.46	2850	255
TE-10K-MD	200	757	160	69.4	48.8	3	230/460	23.2/11.6	10	7.46	3450	172.8	654	112	48.5	34.1	3	380	14.1	10	7.46	2850	255

*The Threaded and Flange models have the same performance. The Flange Versions weigh 4 pounds more than the threaded.

All specifications & data are based on pumping water & are intended as a guideline only. Specifications may vary with different motors.



TE-10P-MD				TE-10K-MD			
Item	Part Number	QTY REQ	Description	Item	Part Number	QTY REQ	Description
1	0160-0029-1000	9	5/16"-18 x 1-3/4" Lg. Screw (Stainless)	1	0160-0029-1000	9	5/16"-18 x 1-3/4" Lg. Screw (Stainless)
2	0160-0030-1000	9	5/16"ID x 5/8" OD Washer (Stainless)	2	0160-0030-1000	9	5/16"ID x 5/8" OD Washer (Stainless)
3	0161-0056-1000	1	Front Housing (Polypropylene)	3	0161-0008-1000	1	Front Housing (Natural Kynar)
5	0161-0043-1000	1	9.750"ID x 10" OD Gasket (Viton)	5	0161-0043-1000	1	9.750"ID x 10" OD Gasket (Viton)
7	0161-0001-1000	2	Front & Rear Thrust Washer (Ceramic)	7	0161-0001-1000	2	Front & Rear Thrust Washer (Ceramic)
8	0161-0002-1000	1	Shaft (Ceramic)	8	0161-0002-1000	1	Shaft (Ceramic)
9	0161-0053-0300	1	Impeller with Carbon Bushings (Polypropylene)	9	0161-0005-0400	1	Impeller with Carbon Bushings (Glass Filled Kynar)
11	0161-0057-1000	1	Rear Housing (Polypropylene)	11	0161-0009-1000	1	Rear Housing (Natural Kynar)
12	0161-0031-0100	1	Drive Magnet	12	0161-0031-0100	1	Drive Magnet
13	0161-0007-0010	1	Motor Bracket	13	0161-0007-0010	1	Motor Bracket
14	0160-0031-1000	4	1/2"-13 x 1"Lg. Screw (Stainless)	14	0160-0031-1000	4	1/2"-13 x 1"Lg. Screw (Stainless)
15	0161-0012-1000	1	TEFC Motor, 10HP, 230/460V, 3 Phase, 50/60Hz	15	0161-0012-1000	1	TEFC Motor, 10HP, 230/460V, 3 Phase, 50/60Hz
W	0161-0060-0100	1	Wet End Kit (Items: 1,2,3,5,7,8,9,11)	W	0161-0035-0100	1	Wet End Kit (Items: 1,2,3,5,7,8,9,11)
TE-10P-MD With Flanges				TE-10K-MD With Flanges			
1	0160-0029-1000	9	5/16"-18 x 1-3/4" Lg. Screw (Stainless)	1	0160-0029-1000	9	5/16"-18 x 1-3/4" Lg. Screw (Stainless)
2	0160-0030-1000	9	5/16"ID x 5/8" OD Washer (Stainless)	2	0160-0030-1000	9	5/16"ID x 5/8" OD Washer (Stainless)
4	0161-0063-0100	1	Front Housing With Flanges (Polypropylene)	4	0161-0033-0100	1	Front Housing With Flanges (Natural Kynar)
5	0161-0043-1000	1	9.750"ID x 10" OD Gasket (Viton)	5	0161-0043-1000	1	9.750"ID x 10" OD Gasket (Viton)
7	0161-0001-1000	2	Front & Rear Thrust Washer (Ceramic)	7	0161-0001-1000	2	Front & Rear Thrust Washer (Ceramic)
8	0161-0002-1000	1	Shaft (Ceramic)	8	0161-0002-1000	1	Shaft (Ceramic)
9	0161-0053-0300	1	Impeller with Carbon Bushings (Polypropylene)	9	0161-0005-0400	1	Impeller with Carbon Bushings (Glass Filled Kynar)
11	0161-0057-1000	1	Rear Housing (Polypropylene)	11	0161-0009-1000	1	Rear Housing (Natural Kynar)
12	0161-0031-0100	1	Drive Magnet	12	0161-0031-0100	1	Drive Magnet
13	0161-0007-0010	1	Motor Bracket	13	0161-0007-0010	1	Motor Bracket
14	0160-0031-1000	4	1/2"-13 x 1"Lg. Screw (Stainless)	14	0160-0031-1000	4	1/2"-13 x 1"Lg. Screw (Stainless)
15	0161-0012-1000	1	TEFC Motor, 10HP, 230/460V, 3 Phase, 50/60Hz	15	0161-0012-1000	1	TEFC Motor, 10HP, 230/460V, 3 Phase, 50/60Hz
NOTE: Contact Factory for other materials and/or parts not listed.				Special voltage motors are available upon special order.			
Materials in contact with the liquid: TE-10P-MD: Polypropylene, Carbon, Viton, Ceramic TE-10K-MD: Natural Kynar, Glass Filled Kynar, Carbon, Viton, Ceramic							
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. For the complete warranty and to register online go to www.marchpump.com/warranty-registration							



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DESCRIPTION:

Series 5.5 are centrifugal magnetic drive pumps, eliminating the need for a shaft seal. Pumps can be serviced with a screwdriver. Screws should be tightened in sequence and uniformly. Do not over tighten the screws or you may crush the plastic housing bosses. See the parts list for a breakdown of parts.

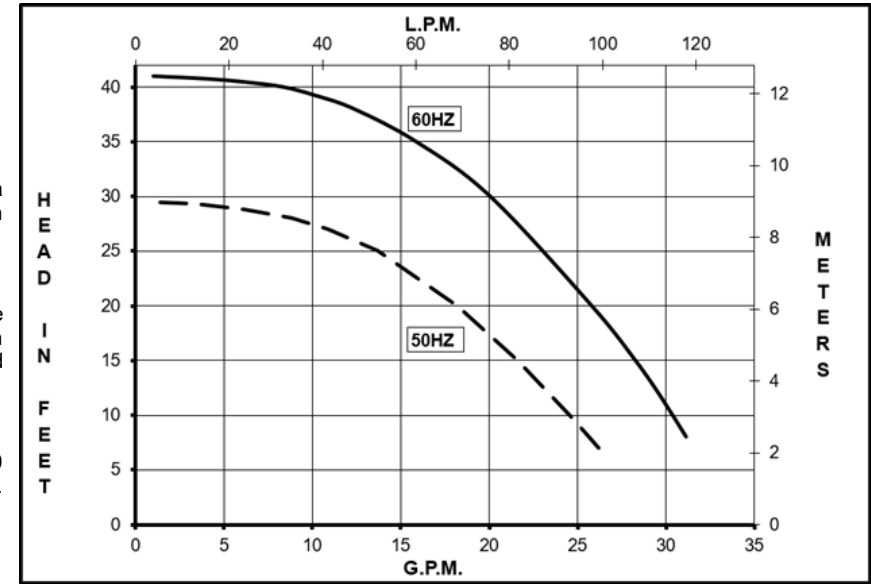
OPERATION:

Pumps are not self-priming, lack a suction lift, and thus require a **flooded suction**. Pumps **cannot be run dry** because the impeller requires the liquid being pumped for lubrication. The direction of motor rotation should be clockwise when facing the inlet of the pump. For liquids with a specific gravity greater than water, have a higher viscosity, or for elevated temperatures, a trimmed impeller may be necessary. For application assistance, contact March Pump.

ELECTRICAL:

TE-5.5-MD pumps are dual voltage 1 phase 115/230 60Hz (110/220 50 Hz) or dual voltage 230/460 60 Hz (190/380 50 Hz), 3 phase, TEFC. Motors are totally enclosed fan cooled and are U.L. listed as well as rated for continuous operation. All motors have a conduit box for electrical connections.

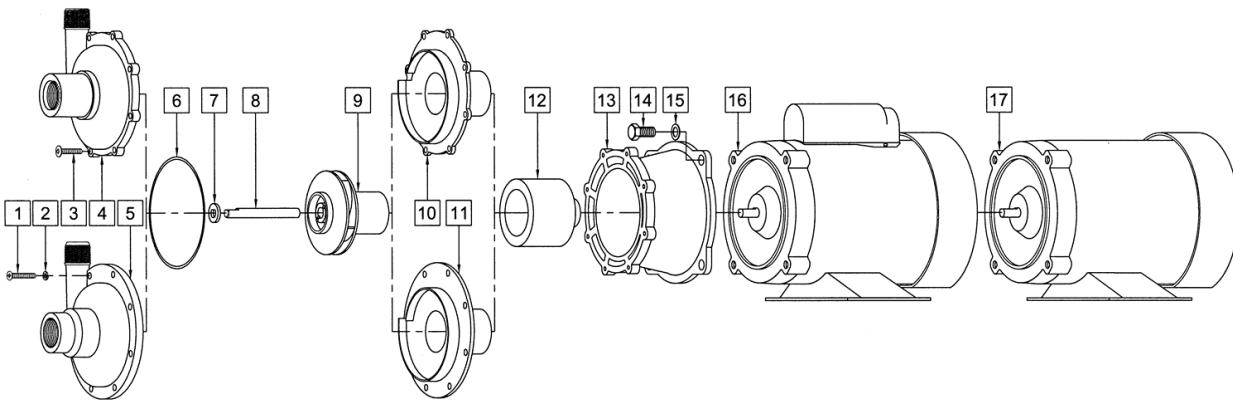
TE-5.5C-MD, TE-5.5K-MD, TE-5.5S-MD



Specifications		TE-5.5C-MD	TE-5.5K-MD	TE-5.5S-MD
Product	1 Phase	0151-0124-0100	0151-0125-0100	0151-0126-0100
	3 Phase	0151-0027-0800	0151-0027-0900	0151-0002-0400
Inlet-Outlet		1" FPT - 3/4" MPT	1" FPT - 3/4" MPT	1" FPT - 3/4" MPT
Max Internal Pressure		50 psi (344 kPa)	75 psi (517 kPa)	200PSI (1378 kPa)
Max Liquid Temperature		190F (87C)	200F (93C)	250F (121C)

Model	60Hz											50Hz										
	Max Flow		Max Head			Electrical						Max Flow		Max Head			Electrical					
	GPM	LPM	FT	PSI	M	Ph	V	A	HP	kW	RPM	GPM	LPM	Feet	PSI	M	Ph	V	A	HP	kW	RPM
TE-5.5C-MD	30	114	41	17.8	12.5	1	115/230	5.3/2.6	1/3	0.25	3450	27	102	29.5	12.8	9	1	110/220	5.7/2.8	1/3	0.25	2850
TE-5.5C-MD	30	114	41	17.8	12.5	3	230/460	1.2/0.6	1/3	0.25	3450	27	102	29.5	12.8	9	3	190/380	1.2/0.6	1/3	0.25	2850
TE-5.5K-MD	30	114	41	17.8	12.5	1	115/230	5.3/2.6	1/3	0.25	3450	27	102	29.5	12.8	9	1	110/220	5.7/2.8	1/3	0.25	2850
TE-5.5K-MD	30	114	41	17.8	12.5	3	230/460	1.2/0.6	1/3	0.25	3450	27	102	29.5	12.8	9	3	190/380	1.2/0.6	1/3	0.25	2850
TE-5.5S-MD	30	114	41	17.8	12.5	1	115/230	5.3/2.6	1/3	0.25	3450	27	102	29.5	12.8	9	1	110/220	5.7/2.8	1/3	0.25	2850
TE-5.5S-MD	30	114	41	17.8	12.5	3	230/460	1.2/0.6	1/3	0.25	3450	27	102	29.5	12.8	9	3	190/380	1.2/0.6	1/3	0.25	2850

All specifications & data are based on pumping water & are intended as a guideline only. Specifications may vary with different motors.



NOTE: When attaching the Drive Magnet to the motor shaft for the TE-5.5C or TE-5.5K position the face of the Drive Magnet flush with the face of the Motor Bracket. For the TE-5.5S, position the drive magnet 1/16 inch below the face of the Motor Bracket.

TE-5.5C-MD				TE-5.5K-MD			
Item	Part Number	QTY REQ	Description	Item	Part Number	QTY REQ	Description
3	0135-0180-1000	8	#10-32 x 1" Long Screw (Stainless)	3	0135-0180-1000	8	#10-32 x 1" Long Screw (Stainless)
4	0151-0027-1000	1	Front Housing (Polypropylene)	4	0151-0044-1000	1	Front Housing (Kynar)
6	0153-0015-1000	1	3/32" CS x 4-7/16" OD "O" Ring (Viton)	6	0153-0015-1000	1	3/32" CS x 4-7/16" OD "O" Ring (Viton)
7	0155-0009-1000	1	Thrust Washer (Ceramic)	7	0155-0009-1000	1	Thrust Washer (Ceramic)
8	0153-0007-1000	1	Shaft (Ceramic)	8	0153-0007-1000	1	Shaft (Ceramic)
9	0151-0029-0500	1	Impeller (Polypropylene)	9	0151-0046-0300	1	Impeller (Kynar)
10	0151-0028-0100	1	Rear Housing (Polypropylene) with Ceramic Thrust Washer	10	0151-0045-0100	1	Rear Housing (Kynar) with Ceramic Thrust Washer
12	0151-0061-0200	1	Drive Magnet	12	0151-0061-0200	1	Drive Magnet
13	0151-0090-0100	1	Motor Bracket	13	0151-0090-0100	1	Motor Bracket
14	0155-0017-1000	4	3/8-16 x 3/4" Long Screw (Stainless)	14	0155-0017-1000	4	3/8-16 x 3/4" Long Screw (Stainless)
15	0155-0019-1000	4	3/8" ID x 5/8" OD Washer (Stainless)	15	0155-0019-1000	4	3/8" ID x 5/8" OD Washer (Stainless)
16	0151-0119-1000	1	1 Phase Motor	16	0151-0119-1000	1	1 Phase Motor
17	0151-0039-1000	1	3 Phase Motor	17	0151-0039-1000	1	3 Phase Motor
W	0151-0069-0100	1	Wet End Kit (Items: 3,4,6,7,8,9,10)	W	0151-0070-0100	1	Wet End Kit (Items: 3,4,6,7,8,9,10)
TE-5.5S-MD							
1	0135-0181-1000	8	#10-32 x 1-1/8" Long Screw (Stainless)	Materials in contact with the solution			
2	0151-0016-1000	8	#10 Lock Washer (Stainless)				
5	0151-0002-0010	1	Front Housing (316 SS)	TE-5.5C-MD	Polypropylene, Ceramic, Viton		
6	0153-0015-1000	1	3/32" CS x 4-7/16" OD "O" Ring (Viton)	TE-5.5K-MD	Glass Filled Kynar, Ceramic, Viton		
7	0155-0009-1000	1	Thrust Washer (Ceramic)	TE-5.5S-MD	316 SS, Carbon Ceramic, Viton		
8	0153-0007-1000	1	Shaft (Ceramic)	<p>NOTE: Contact Factory for other materials and/or parts not listed.</p> <p>Explosion proof and special voltage motors are available upon special order.</p> <p>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. For the complete warranty and to register online go to www.marchpump.com/warranty-registration</p>			
9	0151-0001-0400	1	Impeller (316 SS) with Carbon Bushing				
11	0151-0003-0010	1	Rear Housing (316 SS)				
12	0151-0061-0200	1	Drive Magnet				
13	0151-0090-0100	1	Motor Bracket				
14	0155-0017-1000	4	3/8-16 x 3/4" Long Screw (Stainless)				
15	0155-0019-1000	4	3/8" ID x 5/8" OD Washer (Stainless)				
16	0151-0119-1000	1	1 Phase TEFC Motor				
17	0151-0039-1000	1	3 Phase TEFC Motor				

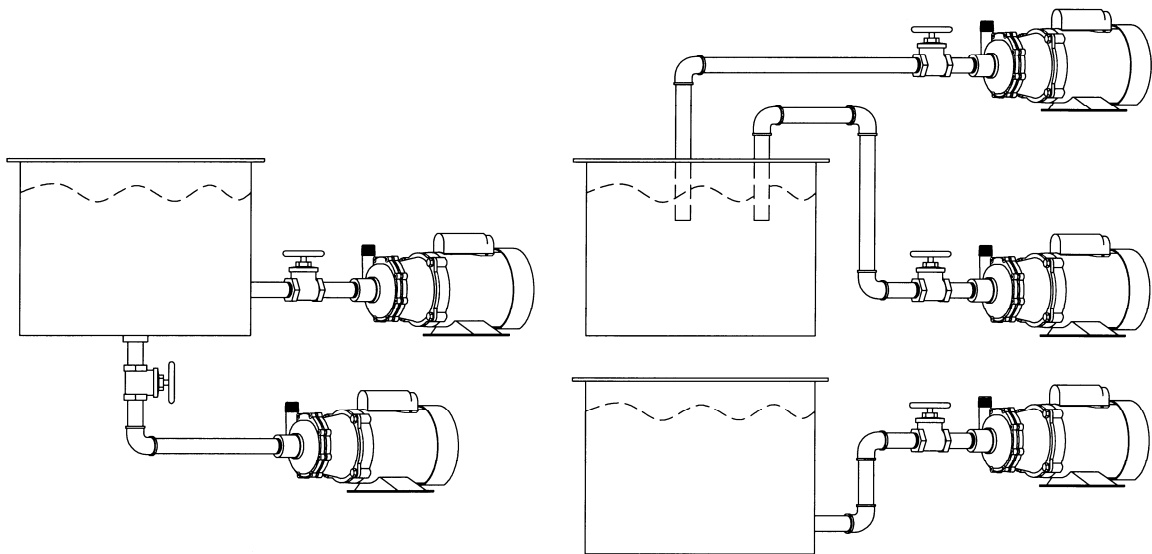


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GENERAL INSTALLATION INSTRUCTIONS

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 valves 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:



CORRECT

INCORRECT

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.
13. If checking the system for leaks with air, do not exceed 20 PSI if plastic pumps are attached.

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 manufacturer's nameplate instructions.

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 connections 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 IS WIDE OPEN ON START UP, 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 effect on pump performance. Caution—Do not operate the motor at varied voltages without consulting a March Distributor first.

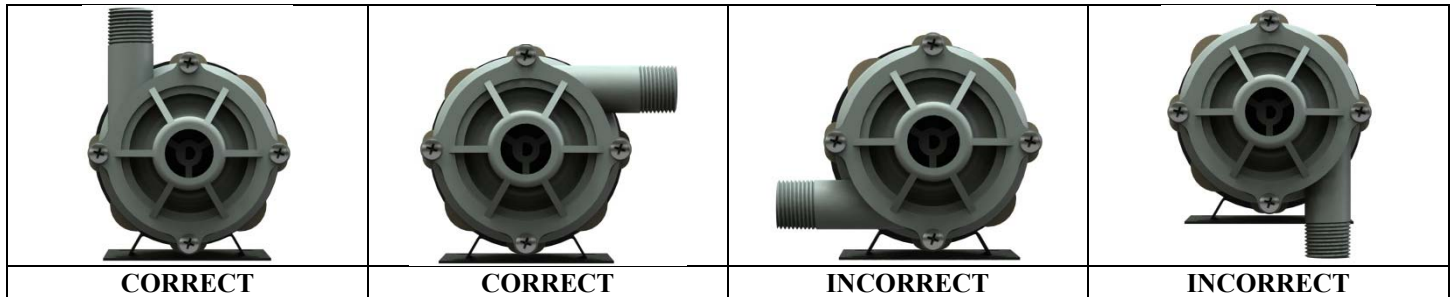
PUMP INSTALLATION POSITIONS

Before running, ensure that all centrifugal pumps are primed as they have limited suction capabilities.

Pumps should be on a flat, stable surface or supports which are suitable to prevent movement of the pump and motor when in operation. It is advisable to mount the motor on a dampening/insulation surface to reduce noise and vibration caused by the moving components while operation.

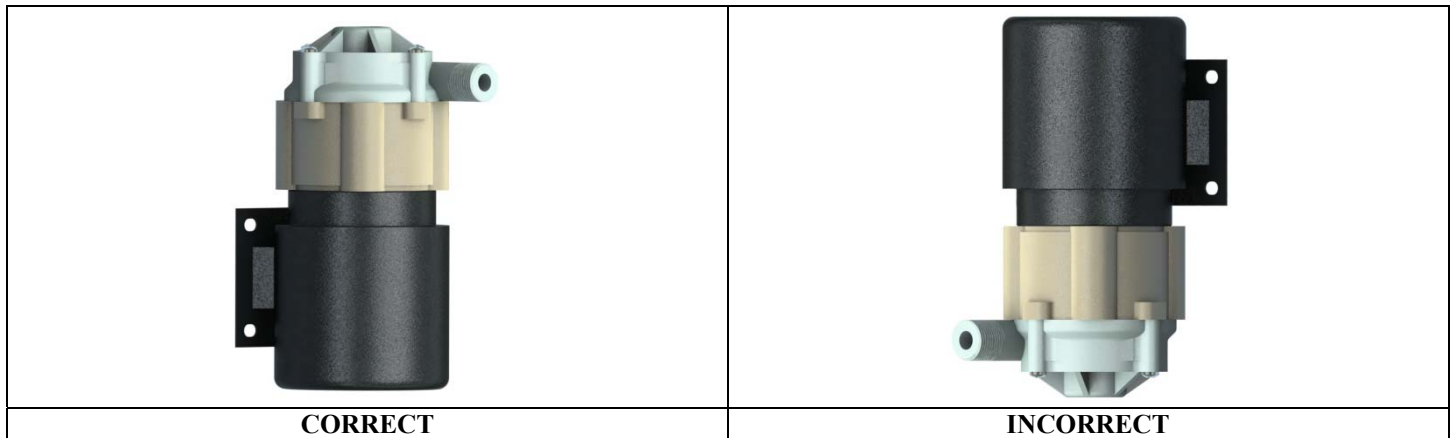
Always ensure that the outlet port is higher than the inlet port. This allows a path for the air to escape through. If the outlet is not higher than air can build up and may cause problems within the system. See figures for examples of correct and incorrect set up.

HORIZONTAL MOUNTING



The pump should never be mounted vertically with the pump head at the lowest point. This will create an air pocket within the pump chamber and may cause problems.

VERTICAL MOUNTING



For application assistance, contact March Pump.