

Important Safety Instructions

SAVE THESE INSTRUCTIONS - This manual contains important instructions that should be followed during installation, operation, and maintenance of the product. Save this manual for future reference.

⚠ This is the safety alert symbol. When you see this symbol on your pump or in this manual, look for one of the following signal words and be alert to the potential for personal injury!

⚠ DANGER indicates a hazard which, if not avoided, will result in death or serious injury.

⚠ WARNING indicates a hazard which, if not avoided, could result in death or serious injury.

⚠ CAUTION indicates a hazard which, if not avoided, could result in minor or moderate injury.

NOTICE addresses practices not related to personal injury.

CALIFORNIA PROPOSITION 65 WARNING:

⚠ WARNING This product and related accessories contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. **Carefully read and follow all safety instructions in this manual and on pump.**

Keep safety labels in good condition. Replace missing or damaged safety labels.

1. Read these rules and instructions carefully. Failure to follow them could cause serious bodily injury and/or property damage.
2. Check your local codes before installing. You must comply with their rules.
3. Vent sewage or septic tank according to local codes.
4. Do not install pump in any location classified as hazardous by National Electrical Code, ANSI/NFPA 80-1984 or the Canadian Electrical Code.

⚠ WARNING Risk of electric shock. Can shock, burn or kill. During operation the pump is in water. To avoid fatal shocks, proceed as follows if pump needs servicing:

Do not smoke or use devices that can generate sparks in a septic (gaseous) environment.

- 5A. Disconnect power to outlet box before unplugging pump.
- 5B. Take extreme care when changing fuses. Do not stand in water or put your finger in the fuse socket.
- 5C. Do not modify the cord and plug. When using the cord and plug, plug into a grounded outlet only. When wiring to a system control, connect the pump ground lead to the system ground.
6. Be sure that construction and access to septic sumps conform with all OSHA requirements.
7. **⚠ CAUTION Risk of burns.** Do not run the pump dry. Dry running can overheat the pump, (causing burns to anyone handling it) and will void the warranty.
8. **⚠ CAUTION Risk of burns.** The pump normally runs hot. To avoid burns when servicing pump, allow it to cool for 20 minutes after shutdown before handling.

9. The pump is permanently lubricated. No oiling or greasing is required in normal operation. for overhaul, see instructions under *Service*.

When used in effluent dosing or S.T.E.P. applications, the pump must be installed in a separate tank or compartment at the discharge side of the septic tank.

NOTICE Never install the pump in the main tank where sludge collects. Do not use the pump for raw sewage.

Description

This submersible / effluent pump is designed for effluent dosing, Septic Tank Effluent Pumping (S.T.E.P.) and wastewater removal, sump drainage, dewatering and flood control. Units have built in thermal overload protection with automatic reset. The mechanical seal and sleeve bearings on the motor shaft are permanently lubricated. Stainless steel hardware and a heavy duty lift out handle allow for easy disassembly after extended use.

NOTICE This unit is not designed for applications involving salt water or brine! Use with salt water or brine will void warranty.

NOTICE This pump is not approved for, and should not be used in, swimming pools or fountains.

Specifications

Power Supply See Table 1 Motor Specifications
Maximum Liquid Temperature..... 120° F (49°C)
Discharge Adapter..... 1-1/2" NPT
Maximum Solids Handling..... 3/4"
Motor Type..... Shaded Pole
RPM..... 1550
Motor Insulation..... Class A
Overload Protection..... Internal with Automatic Reset
Bearings..... Double Sleeve
Starting Switch Required..... None
Control Panel Required..... None

Performance

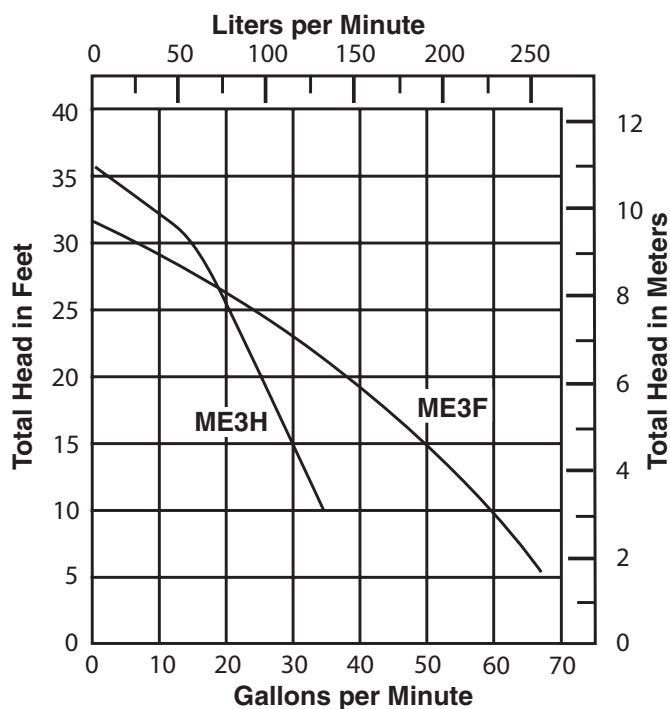


Table 1: Motor Specifications

Model Number	Pump Type	HP	Volts/Hz/Ph	Cord Length	Winding Branch Resistance In Ohms	Max. Amps.	Locked Rotor Amps	Circuit Req'd (Amps)
ME3H-11	Manual	1/3	115/60/1	20'	1.2	12.0	16.0	15
ME3F-11	Manual							
ME3H-11P	Auto							
ME3F-11P	Auto							
ME3H-21	Manual	1/3	230/60/1	20'	4.3	6.0	8.2	
ME3F-21	Manual							
ME3H-21P	Auto							
ME3F-21P	Auto							
ME3F-11P-30	Auto		115/60/1	30'	1.2	12.0	16.0	

Installation

⚠ WARNING Risk of electric shock. Can shock, burn or kill. Do not lift pump by the power cord. See *Cord Lift Warning* below.

NOTICE Install the pump on a hard, level surface (cement, asphalt, etc.). Never place the pump directly on earth, clay or gravel surfaces. Install the pump in a sump basin with a minimum diameter of 18" (46cm).

Piping

Piping must not be smaller than pump discharge.

The pump is designed to operate partially or completely submerged in effluent liquids and pump semi-solid fluids up to 3/4" (51mm) in diameter.

When installed in an effluent system, the pipe must be capable of handling semi-solids of at least 3/4" (19mm) in diameter.

The rate of flow in the discharge pipe must keep any solids present in suspension in the fluid. To meet minimum flow requirements (2 feet per second in the discharge line), size the pipe as follows:

A Pipe Size Of:	Will Handle a Flow Rate Of:
1-1/2" (38mm)	12 GPM
2" (51mm)	21 GPM
2-1/2" (64mm)	30 GPM
3" (76mm)	48 GPM

In an effluent system use a 1-1/2" (38mm) check valve in pump discharge to prevent backflow of liquid into sump basin. The check valve should be a free flow valve that will easily pass solids. Be sure check valve installation complies with local codes.

Be sure that the float switch hangs freely. It should not be able to come in contact with the sides or bottom of the sump pit.

Make sure the sump pit is free of any debris that could obstruct the intake volute or switch.

Use plumbing materials that are approved by local building codes when connecting pipes between pump and sewer outlet.

NOTICE For critical indoor installations where additional high water protection is desired, install an audible alarm system in the sump pit. For outdoor installations, confer with your distributor.


Connect the power cord to a 3-prong grounded AC receptacle.

⚠ WARNING Risk of electric shock. Can shock, burn or kill. DO NOT remove the grounding pin from the power cord. Avoid using extension cords or 2-prong adapter plugs.

Insert the piggyback plug that comes from the float switch directly into the power receptacle.

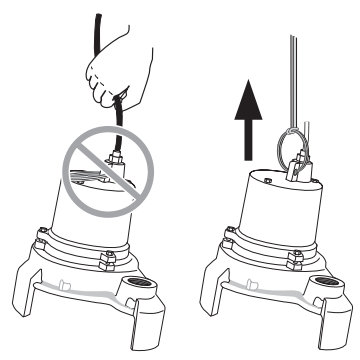
Insert the pump power cord directly into the back of the switch's piggyback plug/receptacle.

Cord Lift Warning



⚠ WARNING

Risk of electrical shock.
Can burn or kill.
Do not lift pump by power cord.



1. Attempting to lift or support pump by power cord can damage cord and cord connections.
2. Cord may pull apart, exposing bare wires with possibility of fire or electrical shock.
3. Lifting or supporting pump by power cord will void warranty.
4. Use lifting ring or handle on top of pump for all lifting/lowering of pump. Disconnect power to pump before doing any work on pump or attempting to remove pump from sump.