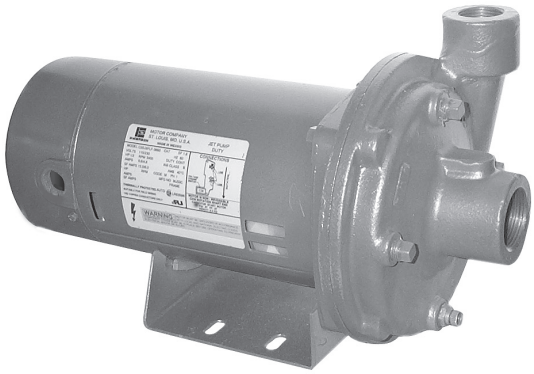
IMPORTANT NOTICE - READ CAREFULLY

92000 Series Centrifugal Pumps



SPECIFICATIONS

MODEL NO.	HP	VOLTAGE & PHASE	PORTS Suct.	PORTS Disch	WEIGHT Lbs.
92030	.33	115/230/1	1.25”	1.00”	31
92050	.50	115/230/1	1.25”	1.00”	32
92070	.75	230/115/1	1.25”	1.00”	34
92100	1	230/115/1	1.25”	1.00”	37
92150	1.5	230/115/1	1.25”	1.00”	41
92200	2	230/1	1.50”	1.25”	52
92250	2.5	230/1	2.00”	1.50”	52
92300	3	230/1	2.00”	1.50”	52

All Models are also available in 3 Phase -
Specify voltage & Use 93XXX Model No.

INSTALLATION & LOCATION

SUCTION PIPING

Install the pump as close to the water source as possible to minimize the length of your suction pipe. The diameter of the suction pipe should be identical to the suction opening of the pump, except as noted. Make sure the piping is free of all air leaks, and that it slopes continuously upward from the water source to the pump. The pipeline should be free of high spots which can trap air.

Where possible, avoid bends such as elbows and fittings which affects your friction loss adversely. Install a foot valve or check valve to maintain prime.

DISCHARGE PIPING

The discharge piping should be of a size similar to that of the pump discharge outlet, except as noted. It is recommended that you install a “T” and a gate valve with a union. This will enable you to easily prime your pump or disconnect the system to allow for service when required.

NOTE: It is recommended that suction/discharge piping size utilized be larger than pump size if long runs of piping are being used.

LOCATION:

The pump should be permanently mounted on a solid and level foundation. The location should be accessible for service, yet sufficiently protected against flooding, or excessive moisture.

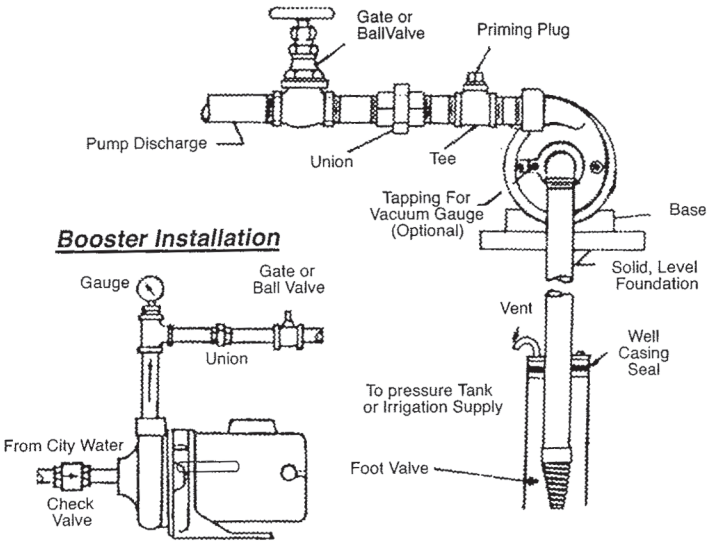
PIPING

To avoid strain on the pump, and for better serviceability, the pump should not be used to support piping. Pump suction and discharge piping must be independently supported. Make sure to hold and support both suction and discharge by means of pipe wrench when installing or dismantling pump piping.

PUMP PRIMING

Fill pump and suction pipe completely with water before starting the system. If pump does not deliver water within 20 to 30 seconds, stop the system. Check for air leaks or traps. Reprime and start the system again. **DO NOT RUN PUMPS DRY.** This will damage the seal and possibly the molded impeller

Shallow Well Installation



GROUNDING & ELECTRICAL INSTALLATION

Use copper conductors only, and be certain wire and fuses of the correct size are installed.

(DO NOT GROUND TO GAS OR FUEL LINES)

Prior to making electrical connections, check the motor name plate and/or terminal board wiring against the motor name plate and wiring diagram/ voltage switch to verify compatibility with power available (voltage, phase and cycles).

ATTENTION!
Important information for installers of this equipment!

This equipment is intended for installation by technically qualified personnel. Failure to install it in compliance with national and local electrical codes and with motor suppliers recommendations, may result in electrical shock or fire hazard, unsatisfactory performance, and equipment failure. Installation information is available from pump manufacturers and directly from motor suppliers. Retain this information sheet with the equipment for future reference.

WARNING!

Serious or fatal electrical shock may result from failure to connect the motor, control enclosures, metal plumbing, and all other metal near the motor or cable, to the power supply ground terminal using wire no smaller than motor cable wires. To reduce risk of electrical shock, disconnect power before working on or around the water system.

It is recommended that the ground be connected to a metal underground pipe or casing of at least 10 feet. Plastic pipes and fittings do not serve this purpose. Remember a licensed electrical contractor is the best assurance for proper installation.

Single phase motors are available as follows:
-115/230 volts 60 or 50 Hz.
-230/115 volts 60 or 50 Hz.

Three phase motors are availabe in 208/230/460 volts, 60 Hz. or 230/380, 50 Hz.

Three phase motors require the use of a compatible magnetic starter. Check motor for rotation. To do so, remove motor back cover and start unit: the shaft must rotate clockwise. To change rotation on 3 phase, reverse any two leads to the starter.

PUMP MAINTENANCE

Proper installation and reasonable occasional care will assure long trouble-free service. The motors used are a ball-bearing type that require minimal attention.

To protect the system against freezing, always made sure the pump is drained prior to exposure to freezing conditions. All our pumps are provided with a drain plug for this purpose.

It is recommended that the opening for motor lead is properly sealed to prevent water, dirt, dust, and insects from entering the motor. This type of contamination will damage the motor.

SEAL & SEAL SEAT REMOVAL

A shaft seal may get damaged and must be replaced. The seal change is a simple procedure which is outlined as followed.

CAUTION!
Seal surfaces are easily damaged. Please handle carefully. Follow manufacturers instructions.

1. Remove diffuser/volute from pump.
2. To remove impeller, it is recommended that the motor shaft be held from rotating.
3. Remove impeller.
4. Once the seal is exposed, remove the entire back plate and pry loose the ceramic seal seat by applying pressure from the back plate.
5. Clean seal seat cavity and motor shaft. Avoid using sharp tools that may damage cavity or shaft.

SEAL/SEAL SEAT INSTALLATION

1. Dip the rubber cup of the seal in soap solution and insert in the plate cavity. Press firmly in this position using caution not to scratch the ceramic surface. It may be necessary to use the cardboard disk provided for this purpose. Place the cardboard disk on the ceramic surface and press firmly in place using a 3/4” pipe.

2. Remove the cardboard disk and make sure the seal surfaces and shaft are clean. Apply soap solution to the inner diameter of seal, as well as the black rubber drive ring. Insert seal on the shaft, polished surface facing and touching ceramic surface of seal seat.

3. Install impeller. Make sure the impeller hub rests on the shaft’s shoulder. Where applicable, assemble impeller screw.

TROUBLESHOOTING / REMEDY

Troubleshooting must be performed by a qualified person. Little or no service is required providing care is taken in the selection and installation of the pump. The following is a sampling of solutions we recommend in case of need:

1. **Pump won’t deliver water:**
   A. Review priming instructions. Make sure the pump and suction line are full of water.

2. **Loss of prime:**
   A. Check the suction line and foot valve for leaks. The entire suction side of the system must be completely airtight.
   B. Make sure the water level hasn’t dropped enough to uncover the suction inlet. Sufficient pipe should be used to prevent this from happening.

3. **Reduced flow or pressure:**
   A. Check suction piping for leaks.
   B. Check the impeller and suction line for clogging. If clogged, remove all foreign material.

4. **Excessive Noise:**
   A. The pump and its piping must be supported properly.
   B. Make sure suction lift does not exceed 20 ft.(6 meters).
   C. Check discharge piping for excessive bends, elbows or airtraps.
   D. Check motor bearing and shaft for damage.

WARNING: It is unlawful in **CALIFORNIA & VERMONT (effective 1/1/2010); MARYLAND (effective 1/1/2012); LOUISIANA (effective 1/1/2013) and the UNITED STATES OF AMERICA (effective 1/4/2014)** to use any product in the installation or repair of any public water system or any plumbing in a facility or system that provides water for human consumption if the wetted surface area of the product has a weighted average lead content greater than 0.25%. This prohibition does not extend to service saddles used in California, Louisiana or under USA Public Law 111-380.