

## RAPID PRIME PUMP INSTALLATION INSTRUCTIONS

**Pump Protection:** Warranty of these pumps is void unless they are housed correctly and protected from weather, floods, chemicals, dust, vermin, insects etc. Housing used should be weather proof and well vented so that motor heat can escape. To obtain best performance pumps should be installed as close to water as possible. Depending on application they do not have to be bolted down.

**How the pump operates:** The pump is equipped with a suction flap valve and is capable of self priming from a minimum vertical depth of 3m (10 ft.) (see catalogue). The self priming action relies only on water retained in the pump casing. Because of this, good reliability is ensured.

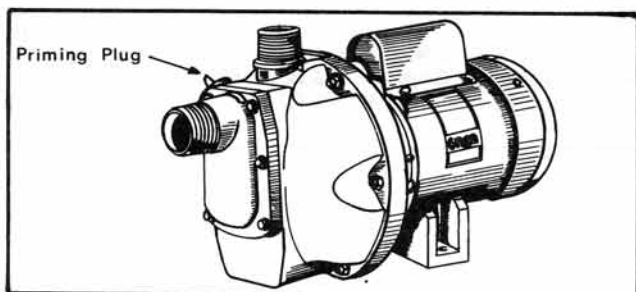
**Suction and discharge pipes:** Suction pipe should be laid so that it rises evenly from water source to pump. This makes priming easy and avoids airlocks.

Pipes should be the same size or larger than the pump inlet and discharge threads. To help self priming the suction pipe should be as small and as short as is possible but large enough to allow the water to flow with reasonable pipe friction (see pipe friction tables).

All pipe joints must be sealed to ensure they are airtight. Although self priming does not depend on the use of a foot valve or the suction pipe, we recommend that one be used as it acts as a strainer prohibiting large foreign bodies from entering the pump and ensures rapid pumping when the valve is operating. Foot valve should be installed at least 6 inches or 15 centimetres above bottom of sump, so that accumulated sediment is not pumped.

**Priming:** To prime pump, remove priming plug and fill pump with water. Because pump is equipped with suction flap valve it should be capable of drawing air out of normal size suction pipes. Replace plug and start pump. If pump pumps a little and stops, then turn pump off, check suction pipe for possible leaks and repeat priming procedure until pump operates satisfactorily.

Self priming pumps, when filled with water, will gradually draw air out of the suction line depending on model to a maximum vertical lift of 7m (25 ft.). If priming a long or large diameter pipe, additional water may have to be added to the pump at 3 minute intervals.



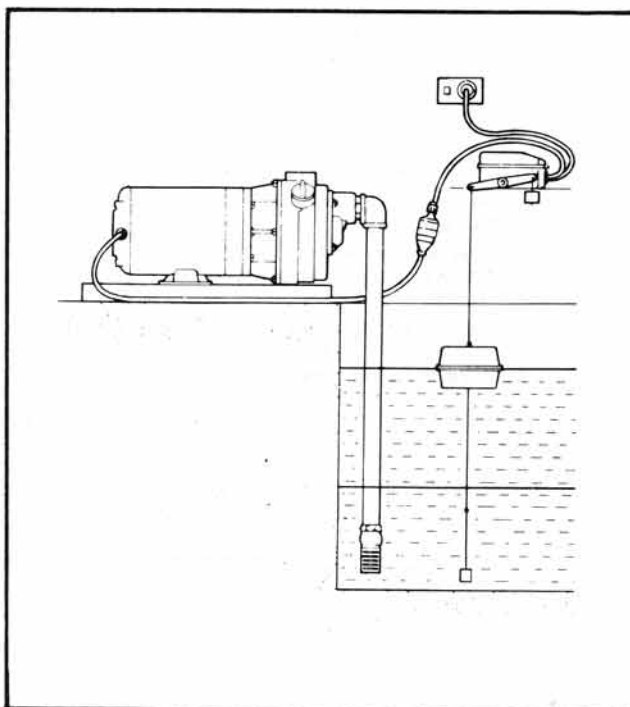
If air has stopped bubbling out of the pump discharge, then the self priming action has ceased. Installation should be checked, pump refilled with water and priming attempted again.

If pump fails to prime, it could be due to a leak in suction pipe, a worn impeller or too great a suction lift. Self priming pumps do not self prime when subject to a high discharge head. Under these conditions suction flap valve should be removed and pump installed with a suction foot or check valve.

**Electrical:** All single phase systems are supplied with cord and plug for connection to 240 volt power outlets - 2 HP systems require a 15 amp plug. 480 volt single and 415 volt 3 phase systems must be equipped with a contactor incorporating thermal overload and wired by an electrician.

**Three phase** equipment can rotate in either direction depending on wiring, when first connected power should be flicked on and off. If direction is incorrect interchange any two power connecting wires.

**Float switch for sump or tank filling use:** This should be set so that the low water level in the sump covers the suction pipe by minimum of 102mm-150mm (4-6 inches) and the high water level is conveniently below the top of the sump and not further than 1.5m (5 ft.) vertical from pump.



**Type of water:** Pumps are capable of pumping septic tank effluent, sink wastes, some dirt or sand, drainage or polluted water and industrial wastes. They are not designed to pump large quantities of foreign matter. If fluid contains large or stringy material, then an adequate suction filter should be used.

If chemicals are to be pumped, compatibility of pump material should be checked with your local Onga office. Special materials are available to handle most applications.

**Suction limit:** No pump can suck water theoretically more than 30 feet (9 metres) vertical, and the practical limit is about 20 feet (6 metres) depending on installation. If pump fails to operate check vertical suction lift.

**Moulded Pumps:**

When attaching pipe or pipe fittings to moulded pumps, care should be taken to support the pipe and not over tighten. Failure to do so may damage the pump casing.

**SERVICE**

**Pump runs but fails to operate:**

Check for an air leak in suction pipe.  
The pump has not been filled with water.  
Water has evaporated leaving pump dry.  
Foreign matter has clogged the impeller or pipe.

**Electric motor not operating:**

No power.

Thermal overload tripping - There are two types.

1. If there is a red button on the pump motor then the thermal is manual. Turn power off and push to reset.
2. On smaller pumps the thermal is automatic and resets after the pump motor has cooled.

If thermal continues to trip there is something wrong with the pump which should be corrected before major repair cost occur.

Fouled impeller, jammed pump, fuse blown, float switch not operating, motor burnt out.

Call for an Onga service motor.

Pump should not be connected to other than the rated voltage.



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