

Self-Priming Water Pump

User Manual

[Revision 1.0 June 2017]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

Safety

Basic precautions, including the following important safety instructions, should always be followed when using this equipment. Read all instructions before use.

- Use this product for its intended use only as described in this user manual. Do not use attachments not supplied or recommended by the manufacturer.
- Never operate the unit with a damaged cord or plug, or if it is malfunctioning. If it has been dropped or damaged, have the unit inspected/repairs by an authorized service center.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons to avoid it being a potential hazard.
- This equipment must be connected to a nominal 240VAC / 50Hz mains electrical supply that is properly grounded.
- The pump must be installed in such a way as to be protected from the elements (rain, moisture and sun). Provide a suitable enclosure.
- Do not attempt any maintenance or adjustments other than those described in this user manual. Should any problems arise, discontinue use and consult an authorized service centre.
- Do not carry or pull the equipment by its power cord or use the cord as a handle.
- Do not touch the pump while it is operating. Before touching the pump, disconnect it from the electrical supply and ensure it has cooled sufficiently before touching it.
- This equipment is for domestic household use only.
- This equipment is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the equipment by a person responsible for their safety.

General Pump Safety

- Do not operate the pump without an adequate liquid supply.
- Liquid temperatures must not exceed 40°C (104°F).
- Liquid pH values should be within the range of 6.5 to 8.5.
- The pumped liquid volume to solid-containing impurities ratio must not exceed 0.1%. Solid impurity size should not be more than 0.2mm.
- The equipment must be used under conditions that are indicated on the nameplate.

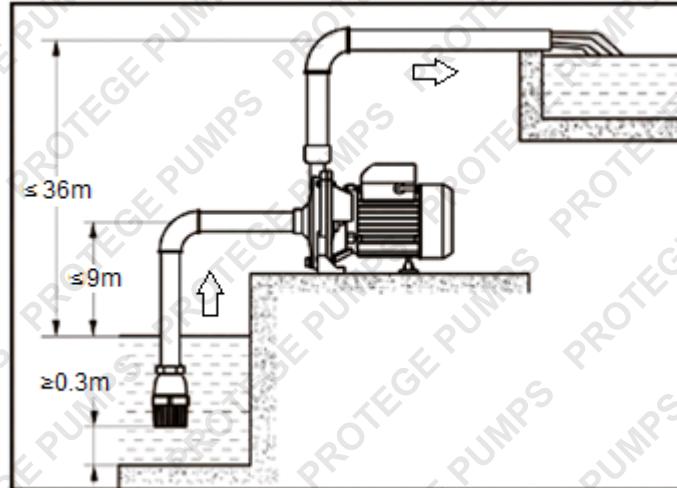
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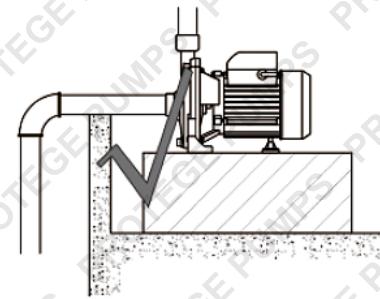
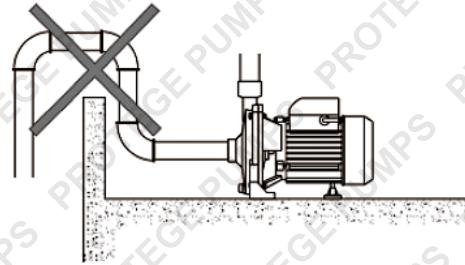
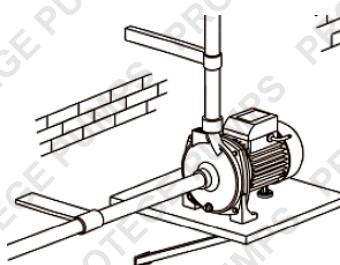
Installation



Before installation and use, check that all parts have been supplied and the pump and electrical cable and plug are in good condition. • The pump must be installed in such a way as to be protected from the elements (rain, moisture and sun). Provide a suitable enclosure. • Piping, particularly on the inlet side of the pump, should be of a rigid material that will not collapse under the suction generated by the pump. Use of "soft" plastic hosing is NOT recommended. • Ensure that the end of the inlet piping is at least 30cm above the bottom of the reservoir to help reduce the possibility of impurities being drawn into the pump. • Ensure the inlet suction height and output height are within the limitation of the pump.



1. Secure the pump to a solid, flat and level surface. The pump has 4 mounting holes in the base for fixing. Use suitable 6mm / $\frac{1}{4}$ " fasteners (not supplied).
2. Install the necessary plumbing to connect the pump to the water supply and the outlet. When plumbing the pump, be sure to use 1" internal diameter pipe. Note the following:
 - Inlet and outlet plumbing should be as short as possible.
 - Use as few joints and changes of direction in the plumbing as possible.
 - Provides supports for the plumbing – do NOT use the pump to support the plumbing.
 - Seal all plumbing joints properly. Use plumbers Teflon tape (not supplied) at threaded plumbing connections. For PVC pipe, use the correct type of joining cement.



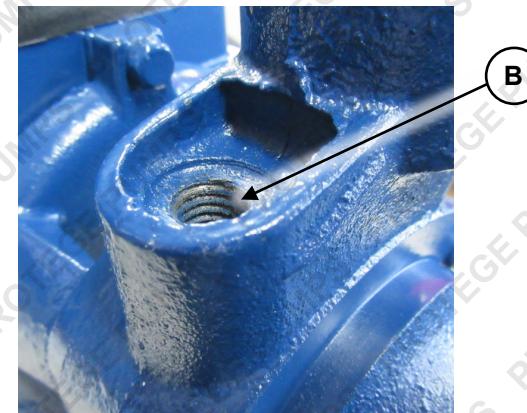
Priming and Operation



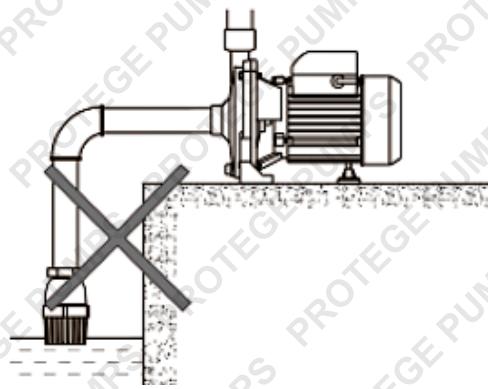
Self-priming does not mean the pump will automatically draw water from the water source. Self-priming pumps require an initial prime to remove air from the inlet plumbing. When the pump stops running, it retains the water in the inlet plumbing, so priming is not necessary. • If the pump has not been used for an extended period or air has made its way into the system, there is a possibility it will need priming.

To prime the pump:

1. Unscrew (rotate left) the priming port bolt (**A**) and remove it.
2. Pour clean water into the pump through the priming port (**B**) – this water will replace air in the inlet plumbing. Continue filling until water is overflowing from the priming port.
3. Re-install the priming bolt and tighten (rotate right). Do not over-tighten as this may damage the O-ring seal under the head of the bolt.



3. Once the pump is primed, it is ready for operation – switch on the electrical supply to the pump.
4. During use, regularly check the water reservoir level and ensure that the end of the inlet plumbing remains submerged.



Maintenance



Do not have the pump running during inspection and maintenance unless specifically required. • The pump should be cool enough to touch before performing maintenance activities. • Some maintenance activities described may be beyond the scope of some users. For procedures that you are not comfortable with or have the tools or experience for, or if problems persist after following all suggested actions, contact a service centre or qualified technician.

- Check the insulation resistance between the motor winding and the enclosure regularly, making sure that the resistance is not less than 2MOhm. If it is less than 2MOhm, have the unit inspected and repaired – do NOT use the pump until checked.
- After each 2000 hours of normal operation, do the following:
 - *Air tightness test:* After the pump has been dismantled for repair or seal replacement, it is necessary to carry out water (air) pressure test on the pump parts. Testing pressure should be 0.2MPa, which should last a minimum 5 minutes before any pressure drop is detected.
 - *Dismantle the pump:* Check all wearing parts, such as bearings, seals and impeller. Check the valve, bottom valve, etc. Replacements should be arranged if there are any damages.
- When the temperature is lower than 4°C, it is necessary to apply an anti-freezing agent to the pump body to prevent possible cracking.
- If the pump is not to be used for an extended period, disconnect it from the plumbing, drain any water from it, clean the main components, then apply an anti-rust treatment before storing it in a cool, dry place.

Troubleshooting



Do not have the pump running during inspection and maintenance unless specifically required. • The pump should be cool enough to touch before performing maintenance activities. • Some maintenance activities described may be beyond the scope of some users. For procedures that you are not comfortable with or have the tools or experience for, or if problems persist after following all suggested actions, contact a service centre or qualified technician.

The following information may assist in identifying a problem and rectifying it.

Problem	Possible Causes	Solutions
<i>Stator winding burnt</i>	Voltage too low.	Ensure electrical supply conforms to pump requirements.
	Electrical phase lost.	Check all electrical connections and cables.
	Impeller obstructed.	Clean and remove all obstructions.
	Voltage drop in electrical supply cable.	Use suitable cable with greater wire size.
	Short circuit between phases due to mechanical seal leakage.	Replace seals and overhaul pump.
	Stator winding failure.	Rewind and overhaul.
<i>Failed priming</i>	Air leakage in inlet plumbing.	Check the joints and pipelines to ensure proper sealing. Re-prime.
	Pump valve not opening correctly or inlet plumbing obstructed.	Check pump valves and seals and replace as necessary. Remove all obstructions.
	Air leakage in pump.	Replace seals and overhaul pump.
<i>Reduced outlet flow</i>	Plumbing incorrect.	Shorten plumbing and ensure within specifications for suction and head.
	Plumbing / impeller obstruction.	Remove all obstructions.
	Stator worn.	Replace or rewind and overhaul.
<i>Pump stops suddenly</i>	Electrical supply failure.	Ensure electrical supply conforms to pump requirements. Check any fuses in circuit.
	Impeller obstructed and unable to rotate.	Remove all obstructions.
	Stator winding failure.	Rewind and overhaul.



Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death, consult the points below and additionally, the information available at www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognized training course before being given access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third-party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example), there is always a small chance of technical issues that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error after considering the points above, simply contact the retailer directly for details of their returns policy, if required.



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