

PROTEGE PUMPS®



SELF-PRIMING PERIPHERAL PUMP

USER MANUAL

[Revision 1.0 April 2016]

RETAIN THIS MANUAL FOR FUTURE REFERENCE

PLEASE READ THIS MANUAL CAREFULLY BEFORE USE

TABLE OF CONTENTS

SAFETY 1

SET-UP..... 1

OPERATION 6

 Priming.....6

MAINTENANCE 7

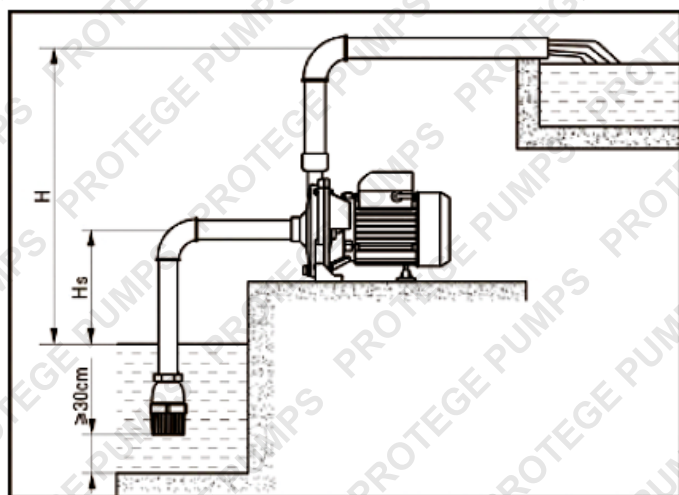
TROUBLESHOOTING 8

SAFETY

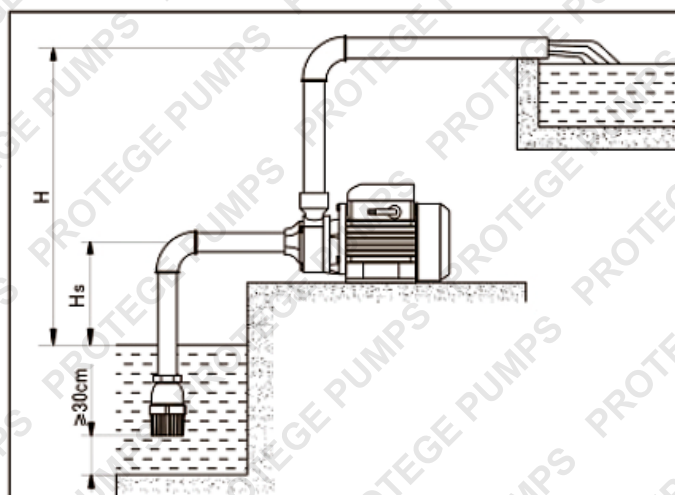
- Please read this user manual first before operating the pump.
- Before operation, make sure that the pump is properly grounded.
- Do not touch the pump while it is running.
- Do not run the electric pump without water.
- Liquid temperatures must not exceed 40°C.
- Liquid PH values should be within the range of 6.5 – 8.5.
- Volume ratio of solid-containing impurities in liquid must not exceed 0.1%, particle size should not be more than 0.2mm.
- For the performance parameters of the pump, refer to the information indicated on the nameplate.
- The pump must be applied under conditions that are indicated on the nameplate.

SET-UP

1. Prior to installation and application, it is necessary to check overall and make sure that there are no damages to the pump during transportation and storage. Check if the cables, plugs, etc. are in good condition. In case of any damages, it is necessary to contact an authorised service centre or technician immediately to make replacements or repairs before using the pump.
2. Prior to the operating the pump, it is necessary to check whether the insulating resistance is bigger than 2MΩ when it is close to the operating temperature.
3. During the installation, it is necessary to fix the whole pump properly. Use steel pipe or hose (should not be too soft so as not to be sucked flat) to connect the bottom valve (if the configuration is made available) with the water inlet of the pump. It is also required that the distance between the bottom valve or strainer mesh and water bottom must be more than 30cm so as to avoid any impact on operation due to the suction of impurities into the pump chamber. The suction height of the pump should not exceed the suction requirement of the pump (see figures A and B).



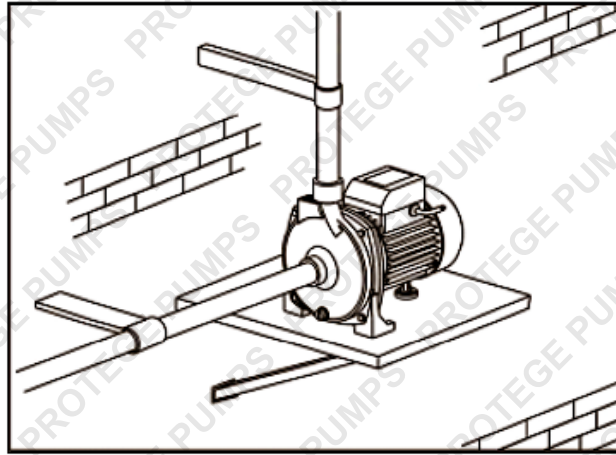
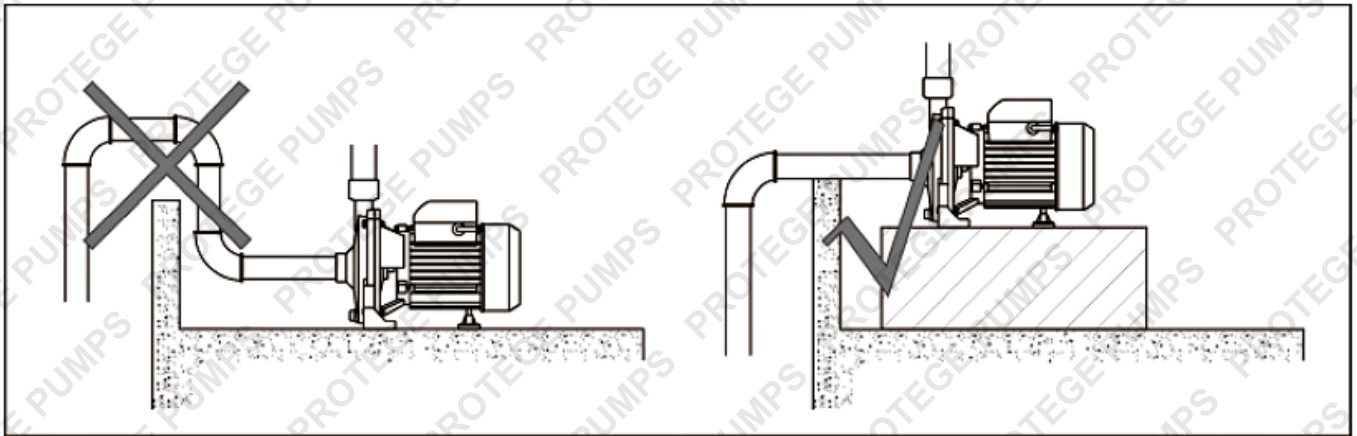
A



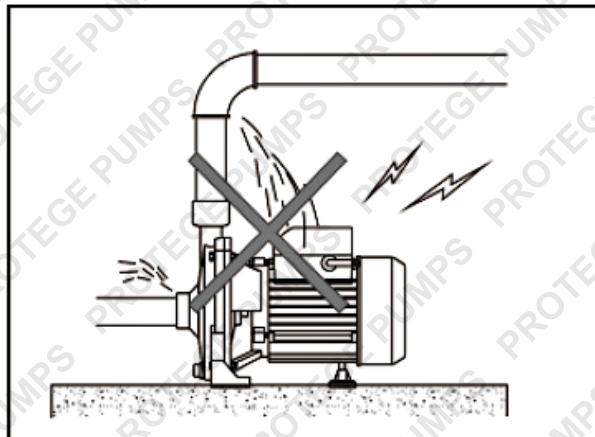
B

SELF-PRIMING PERIPHERAL PUMP

4. Installation of the pump pipelines should be as short as possible, and try to avoid multiple joints. Supporting frame should be arranged at the water inlet and outlet pipelines of the pump. Water inlet and outlet pipelines should not be totally supported by the pump body (see figures C and D).

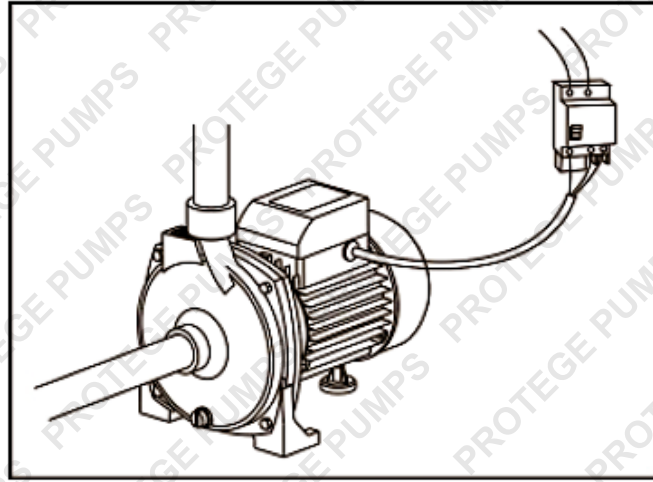
**C****D**

5. Water inlet pipelines and their interfaces should be properly sealed to avoid air leakage. Water outlet pipes should be firmly connected to stop water from splashing on the motor parts and thus cause a short circuit (see figure E).

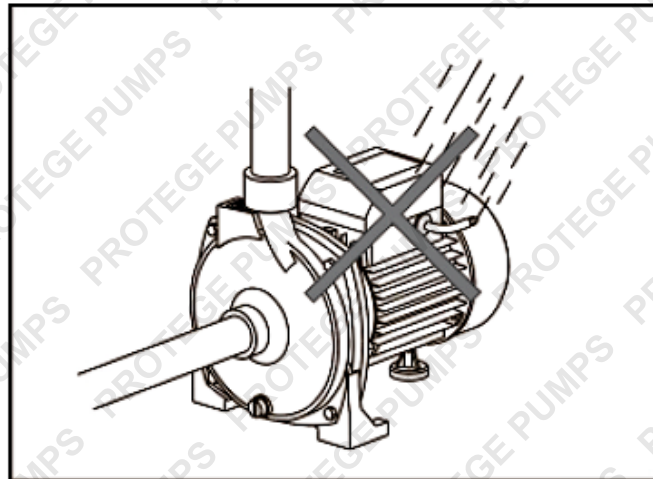
**E**

SELF-PRIMING PERIPHERAL PUMP

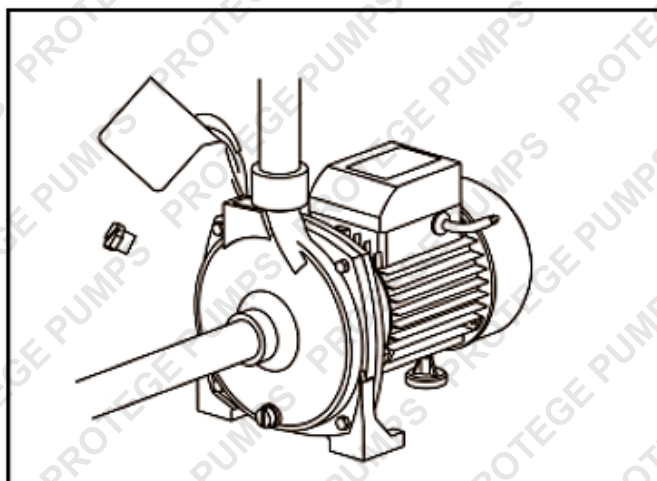
6. A leakage-protection device should be properly installed in the pump, and reliable grounding should be made available at the grounding mark of the pump and cables (except the pump equipped with the plug). In addition, reliable grounding should also be arranged for the electric outlets that are connected (see figure F).

**F**

7. Do not set the pump horizontally or submerge it in water. It is necessary to protect the pump from water splashes, high flow water sprays and prevent the winding insulation from being damaged as a result of exposure to moisture (see figure G).

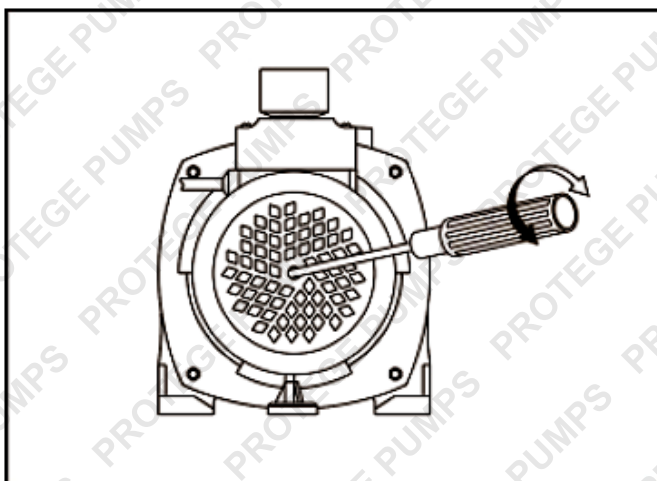
**G**

8. On the pump's first use, it is necessary to enable the pump body to be fully injected with water and tighten the water-injecting screw after the air is totally evacuated (see figure H).



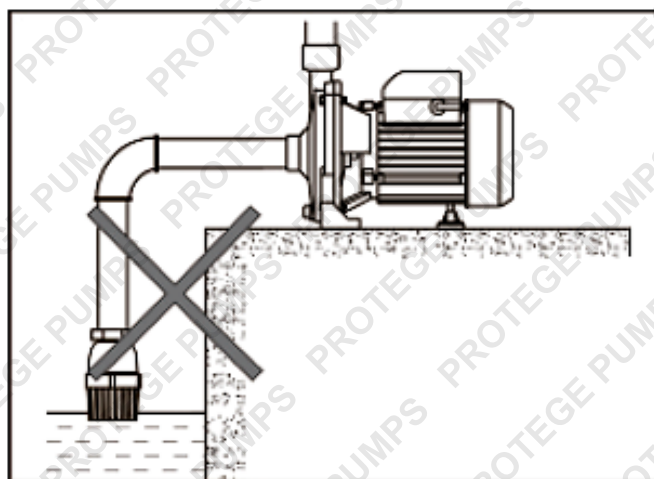
H

9. Screw in the rotating shaft using a screwdriver before starting in order to check if the pump is running smoothly, then start the motor to check if the motor is running normally after the power has been supplied. The fan should be rotating at a clockwise direction (see figure I).



I

10. When the pump is operating, it is necessary to check the decline of the water level, the bottom valve and the end of the water inlet pipe, being careful not to expose it to the water surface (see figure J).



J

11. If the user wants to use the pump's automatic control, it is necessary to install an appropriate pressure-control device at the water outlet.
12. When the pump is in operation and the user wants to touch or re-locate it, it is necessary to turn off the power first so as to avoid any electrically-related injuries or accidents.

OPERATION

PRIMING

Self-priming does not mean the pump will automatically draw water from a water source. Whenever a non-self-priming pumps stop running the water drains. This means that when the pumps needs to be run again, it needs priming.

Self-priming pumps will need an initial prime, however once it stops running, it retains the water. When it needs running again it does not need priming again because the water has not drained. This is what makes the pump self-priming.

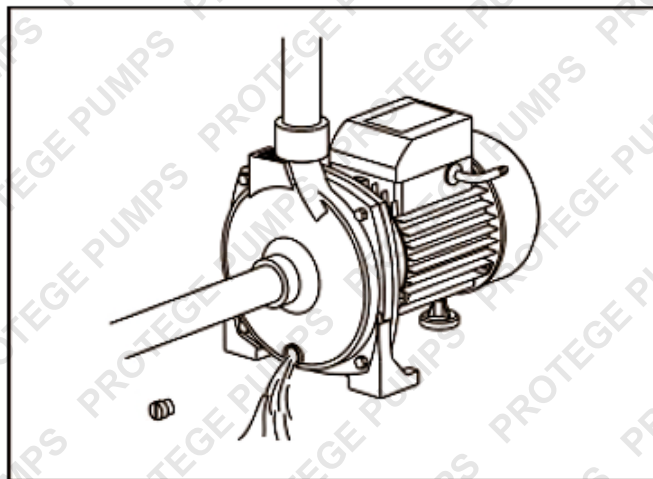
To initially prime this pump, remove priming bolt and fill with clean water. Once completely filled, screw priming bolt back on.

If the pump has not been used for a long period of time or air has made its way into the system, there is a possibility it will need priming again. Always check your plumbing and installing as it may appear the pump is faulty when it could be something else.



MAINTENANCE

- Check the insulation resistance between the pump winding and the enclosure regularly, making sure that the insulation resistance is not less than 2 MΩ. Otherwise, corresponding measures must be taken, and the requirement must be met for operation.
- After 2,000 hours of normal operation, maintenance of the pump should be conducted according to the following procedures:
 - *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 0.2 MPa, which should last 5 minutes until no leaking is found.
 - *Dismantle the pump:* Check all wearing parts, such as rolling bearings, mechanical seal 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 put an anti-freezing agent on the pump so as to prevent the pump body from cracking as a result of frost.
- If the pump is not to be used for a long time, it is necessary to dismantle the pipelines, drain off the water inside the pump (see figure K), clean the main components for anti-rust treatment and put them in a cool, dry place to be stored properly.

**K**

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Stator winding is burnt.	Power voltage too low.	Adjust the voltage to 0.9 – 1.1 times the rated value.
	Pump phase is lost.	Check the switch, cable and terminal.
	Impeller is clogged.	Clean out the parts that are clogged.
	Big loss of cable voltage.	Select the proper cable.
	Stator winding is burnt.	Rewind and overhaul.
Failed water priming.	There is air in the pump chamber.	Fill enough water to remove air.
	Air leakage in the inlet pipe.	Check the joints and pipelines to ensure proper sealing.
	Foot valve is not opening correctly or is heavily clogged; a large resistance exist inside the pipe.	Check whether the foot valve is still flexible. Remove the clogging material and/or shorten the inlet pipe.
	Air leakage inside the pump.	Adjust the submersible depth or replace the airtight packaging.
Less flow of water than usual.	Pipe is too long, head too high or pipe curve too much.	Shorten the pipe, use within head range or change the pipe's curve.
	End valve, strainer, impeller partly clogged.	Remove the clogging material.
	Stator is worn badly.	Replace the impeller.
Pump stops suddenly.	Switch is disconnected or fuse is burnt.	Check whether the power voltage conforms to requirements and adjust accordingly.
	Impeller is clogged.	Remove the clogging material.
	Stator is worn/burnt.	Rewind and overhaul.
Stator is worn/burnt.	Short circuit between phases due to mechanical seal leakage.	Remove the problems, disassemble the pump and re-set according to the original technical requirements. Soak and dry the insulated paint or send the unit to an authorised service centre or technician for repair.
	Impeller is clogged.	
	Pump starts and stops frequently.	
	Pump is running on overload.	
	Power voltage is too low.	



Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

