



MFCInternational
by RESPIREX
ENGINEERED INFLATABLE PRODUCT SOLUTIONS

Submersible Pump

Product **Manual**



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WARNING: Carefully read this manual before operating the Submersible Pump.

NOTICE: The manufacturer takes no responsibility for the consequences of actions not complying with the instructions given in this manual.

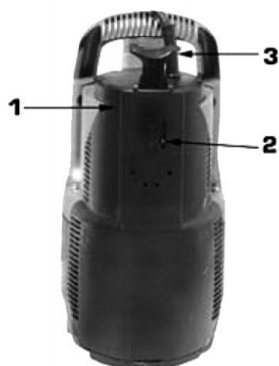


Fig. A



Fig. B

Safety Measures

For safety reasons, the pump must not be used by anyone who has not read these instructions. The pump must not be used by anyone under 16 years of age; keep children well away from the pump when in operation.

The power cord and floating switch must never be used to carry out or move the pump. Always use the pump's handle.

WARNING: All contact with water should be avoided while the pump is connected to the electric power supply.

Protect the plug from humidity. The plug must be accessible when the pump is running.

Never remove the plug by pulling on the power cord.

Before taking any action on the pump, always remove the plug from the power socket.

Use of Pump

Use of Pump

The submersible pumps with integrated float switch specifically designed for uses in narrow pits with dimensions down to 20 cm x 20 cm. Suitable to pump clear water containing particles with maximum diameter up to 5mm.

The temperature of the fluid being pumped must never exceed 35°C.

WARNING: The pump must not be used to pump salt water, sewage (ACI models), flammable, corrosive or explosive liquids (e.g. petroleum oil, petrol, thinners), grease, oils or foodstuffs.

If the power supply cord has been damaged, it must be replaced by the manufacturer in order to avoid all risks.

WARNING: Before starting the pump, make sure that:

The voltage and frequency specified on the pump's nameplate coincide with those of the available power supply.

There are no signs of damage to the pump or its power cord.

The electric connection is made in a dry place, protected against any risk of flooding.

For safety reasons, make sure that the pump is powered via a differential switch the nominal operating differential current of which does not exceed 30mA and that there is an effective grounding system.

The length of the power cord is no more than 10 meters. Any extension cords must comply with the requirements of the DIN VDE standard 0620.

Note: Given the different provisions applicable to the safety of electric systems in different countries, make sure that the pump system, as concerns its intended use, in accordance with current legislation.

Starting the Pump

Insert the plug on the power cord in a suitable power socket.

Automatic operation (A):

The integrated float switch starts and stops the pump automatically when the indicator (2) is positioned on "A" (Fig. A).

Manual operation (M):

To start the pump, lift the knob (3) positioning the indicator (2) on "M" (Fig. A). In these conditions the suction level of the pump will be down to 2-3 mm.

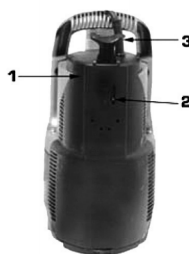


Fig. A



Fig. B

In order to check the correct working and to clean the float switch, open the cover (1) positioning the indicator on "O" (Fig. A-B).

To ensure the proper operation of the pump, it is important to comply with the following recommendations:

- The pump must never be allowed to run dry
- Never leave the pump in operation when the delivery pipe is clogged
- The pump must only be used when it is immersed in water. If the water runs out, the pump must be stopped immediately by removing the plug from the power supply
- Pay careful attention when the pump is operated in manual mode
- The pump must be placed in a stable position inside a collection pit or in the lowest part of the place where it is installed
- The recommended dimensions for the pit are: 20cm x 20cm
- It is absolutely essential to prevent any risk of the pump freezing. In the event of freezing temperatures, remove the pump from the liquid, empty it and keep it in a place where it cannot freeze
- To avoid the obstruction of the suction side, periodically, it is advisable to make sure that no dirt (leaves, sand, etc.) has been accumulated in the collection pit.

Overload protection

The pump has a thermal overload safety device. In the event of any overheating of the motor, this device automatically switches off the pump.

The cooling time is roughly 15 to 20 minutes, then the pump automatically comes on again. If the overload cut out is tripped, it is essential to identify and deal with the cause of the overheating. See troubleshoot section on the next page.

WARNING: Before taking any troubleshooting action, disconnect the pump from the power supply (i.e. remove the plug from the socket).

If there is damage to the power cord or pump, any necessary repairs or replacements must be handled by the manufacturer or by an equally qualified partner, in order to prevent all risks.

| Fault | Possible causes | Solutions |
|---|--|---|
| The motor does not start or makes no noise | <ul style="list-style-type: none"> a) Make sure the motor is powered. b) The pump is not enabled by the float. | <ul style="list-style-type: none"> b) Make sure the float can move freely. Increase the depth of the pit |
| The pump delivers no water | <ul style="list-style-type: none"> a) The suction grid or piping are clogged. b) The impeller is worn or stuck. c) The required head is too high for the characteristics of the pump. d) Water level under the suction minimum. | <ul style="list-style-type: none"> a) Remove the obstruction. b) Replace the impeller or remove the obstruction. |
| The pump does not stop | <ul style="list-style-type: none"> a) The pump is not disabled by the float. | <ul style="list-style-type: none"> a) Make sure the float can move freely. |
| The flow rate is too low | <ul style="list-style-type: none"> a) Make sure the suction grid is not partially clogged. b) Make sure the impeller or delivery pipe are not partially clogged or fouled. | <ul style="list-style-type: none"> a) Remove any obstructions. b) Remove any obstructions. |
| The pump stops running (possible intervention of the thermal overload switch) | <ul style="list-style-type: none"> a) Make sure the fluid being pumped is not too dense, causing the motor to overheat. b) Make sure the temperature of the water is not too high. c) Make sure there is no solid body obstructing the impeller. d) Power supply doesn't comply with nameplate's data. | <ul style="list-style-type: none"> a) Disconnect the power cord, correct the reason for overheating; then wait until the pump is cooled, plug the cord and resume operation. |

Maintenance

After each use of the pump it is necessary to wipe the dirt off the submersible pump.

On normal working conditions it is necessary to check the pump completely and its functionality.

The submersible pump must be stored in a dry (not dusty) place.

If you have any queries regarding the maintenance of the submersible pump, please contact MFC International on +44 (0)1443 433075.

Repairs

As a general rule, repairs/damaged products will need to be assessed in two categories:

a) that which is repairable at the base, or b) serious damage that will need to be repaired by MFC International.

If in doubt as to the extent of the damage and the level of repairs necessary, please contact the MFC service department on +44 (0)1443 433 075.

WARNING: Repairs may only be carried out by the manufacturer, or people certified by MFC International Ltd.



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