REEFE™

REEFE RSM STAINLESS STEEL PUMP

OWNERS MANUAL

SAFETY RULES

NOTE: Before installing and using the electrical pump, carefully read the instructions provided below.

This manual contains fundamental instructions that must be followed during installation, operation and maintenance. This manual must be consulted by the person in charge of assembly and by all qualified personnel who will follow its operation, as designated by the installation manager. In addition, this manual must always be available at the location where the electrical pump is used.

Identification of the coded instructions contained in this manual:

The safety rules in this manual whose lack of observance can cause physical damage are marked with the general danger symbol.

Risks deriving from the failure to observe safety rules

The failure to respect the safety rules can cause physical and material damage in addition to possibly polluting the environment. The failure to observe safety rules can void the warranty.

To cite a few examples, the failure to respect safety rules can cause:

- the failure of the installation or the electrical pump's principal functions,
- compromised maintenance operations,
- mechanical or electrical damage to people.

GENERAL INFORMATION

This electrical pump has been manufactured using the most recent and advanced techniques, in full respect for laws in force, and has been subjected to strict quality control.

This manual will help you understand its operation and will help you become familiar with its possible applications.

The operation manual contains important recommendations for the correct and economical operation of the electric pump. It is necessary to respect these recommendations in order to guarantee its reliability and longevity, as well as to avoid the risk of accident deriving from improper use.

The electrical pump must never be used outside the limitations described in the technical specifications. It is necessary to respect the instructions regarding nature, density, temperature, flow rate and pressure of the pumped liquid, speed and direction of rotation and power of motor as well as all other instructions contained in this manual or in the documentation attached to the contract

The name plate indicates the model, the principal service specifications and the serial number. It is important to provide this information when requesting assistance or support and to request replacement parts.

The manufacturer declines all responsibility in the case of accident or damage caused by negligence, improper use of the electrical pump or the failure to observe the instructions provided in this manual or use under conditions other than those stated in the name plate data.

1. PRELIMINARY INSPECTION

1.1 Delivery and Packing

Submerged electrical pumps are supplied in their original packing, in which they must remain until installation.
Remove the electrical pump from its packing and verify its integrity. Also verify that the data on the name plate corresponds to that desired. Immediately contact the supplier if there are any anomalies, indicating the nature of the defect.

If you are unsure about the safety of the electric pump, do not use it.

2.APPLICATIONS

These submerged electrical pumps are designed for a wide range of applications, such as water supply to private homes, for irrigating small areas and for pressure boosting. They are indispensable in the case of lowering of the water table and to increase pressure.

Do not use the electrical pump in swimming pools, garden ponds and similar places where and when people are in the water.

2.1 Liquids Pumped

Clean, non-aggressive liquids compatible with the materials used to construct the pump, without solid particles or fibers.

Any sand in the water must not exceed 50 g/m³. A higher concentration of sand will reduce the life of the electrical pump and increase the risk of its locking up.

3. PREPARATION / INSTALLATION

3.1 Conditions of Use

The electrical pump is suitable for both vertical and horizontal installation and must be used with respect for the following conditions:

- Maximum operating pressure: 10 bar.
- Maximum temperature of the liquid: +40 ºC.
- Maximum density of the liquid pumped: 1.1kg/dm³.
- Voltage variation allowed: ±5% (single-phase voltage 220÷240V 50Hz - 220÷230V 60Hz, 3-phase 380÷415V 50Hz - 380÷400V 60Hz).
- Protection degree: IP 68.
- Maximum immersion depth: 20 m.
- Maximum diameter of the sucked solid bodies: 2 mm.

3.2 Diameter of the electrical pump

The maximum diameter of the electrical pump is 134 mm. Verify that the well does not offer restrictions or obstacles to the descent of the electrical pump.

4. ELECTRICAL CONNECTIONS

Before beginning to work on the electrical pump, make sure that you have disconnected the electricity from the power supply mains and that it cannot be accidentally reconnected.

4.1 General Information

Connections must only be performed by an authorized electrician in compliance with law in force.

Verify that the data on the name plate match the nominal values for the power line. Make the connection after verifying the existence of a working grounding circuit.

It is the installer's responsibility to perform the connection in compliance with regulations in force in the country of installation.

Single-phase versions are equipped with a different internal condenser according to the power, as given in the table below.

Power P2 (kW) on name plate		Capacitor µF	
50 Hz	60 Hz	50 Hz	60 Hz
0,55		16	
0,75	0,75	20	20
0,9	0,9	30	20
1,1	1,1	30	25

For all single-phase versions, motor is protected against overloads by a thermal device (motor safety device) inserted in the winding.

For the connection of the three-phase versions refer to the instructions here below.

BLUE or GREY	U
BROWN	V
BLACK	W

The three-phase versions need external protection (rapid disconnect magnetic overload cut-out) with intervention time calibrated to:

- Less than 10 seconds with 5 times I_N
- Less than 10 minutes with 1.5 times I_N

I_N = maximum value of current shown on name plate
Moreover, it is necessary to install a differential switch upstream of the electrical pump (max 30mA).

4.2 Checking the direction of rotation

After connecting the power supply, the direction of rotation can be inverted in the three-phase versions; in this case, performance will be significantly lower than the nominal values. To verify a correct connection, proceed as follows:

1. Start the electrical pump before it is installed. By reaction, it must tend to rotate in a counter-clockwise direction as viewed from above. **Caution! This operation will be performed dry and must not last more than a few seconds.**

2. With the electrical pump operating, installed and submerged in the fluid to be pumped, use a clamp meter to measure the current absorbed. If the rotation is incorrect, you will see values about double those indicated on the name plate. To correct the problem, just reverse two of the phases.

5. INSTALLING THE ELECTRICAL PUMP

Before beginning to work on the electrical pump, make sure that you have disconnected the power supply from the power supply mains and that it cannot be accidentally reconnected.

The installation of the electrical pump can involve a certain amount of complexity. For this reason, it must be performed by competent and authorized installers.

5.1 Delivery Pipe

The diameter of the delivery pipe depends on the flow rate and pressure available at the points of use. For installations with long lengths of delivery pipe, friction loss can be reduced by using a pipe diameter larger than the discharge outlet on the pump. It is advisable to install a check valve after the discharge outlet to avoid dangerous water hammers in the event the electrical pump should stop suddenly. Do not use excessive force when screwing the pipe to the discharge outlet in order to avoid damage. The electrical pump can be installed for use with either a metal pipe (which can be used to support it) or flexible tubing. In the latter case, the electrical pump must be supported by a cable made of material with long-lasting resistance, passing through the eyelet at its head.

Fix the power cable to the delivery pipe using suitable strap.

Caution! Do not underestimate the risk of drowning if the installation must be performed in a well of a certain depth. Make sure there is no danger of toxic vapors or harmful gases in the work atmosphere.

5.2 Inserting the Electrical pump in the Well

We recommend verifying that the well is not obstructed for its entire length.

Lower the electrical pump into the well, avoiding damage to the electrical cable.

Do not use the power cable to lower or support the pump in the well.

6. MAINTENANCE AND SERVICE

The electrical pump requires no particular maintenance. Having the electrical pump repaired by personnel who are not authorized by the manufacturer will void the guarantee and leave you working with equipment that is unsafe and potentially dangerous.

Before beginning to work on the electrical pump, make sure that you have disconnected the power supply from the power supply mains and that it cannot be accidentally reconnected.

Should the cable be damaged, it is necessary to have it replaced by the manufacturer or by authorized people. Moreover, it is suggested to verify periodically the status of cables and fairleads, especially on the connection points, as well as the cleaning of the suction grate.

DECLARATION OF CONFORMITY

The above listed products comply with the following Directives:
Machinery Directive 98/37/EC.
Low Voltage Directive 2006/95/EC.
Electromagnetic Compatibility 2004/108/EC.
They are also subject to the following harmonized standards: EN 809, EN 60335-2-41

WARRANTY CONDITIONS

1. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. If you are a consumer as defined by the Australian Consumer Law, you are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The following conditions form part of the instructions and do not over-ride your statutory rights.
2. This warranty against defects covers failure due to manufacturing defects within the period as stated in the table below from the date of original purchase, for EXTERNAL CONSTANT PRESSURE PUMPS supplied by ASCENTO GROUP AUSTRALIA that are purchased and used in mainland Australia. In the case of a failure caused by a defect in the product, within the specified period from the date of original purchase, you can return it to the place of purchase for a refund or you can request for us to arrange for the pump to be repaired.
3. Faults or losses or failure caused due to but not restricted to any of the following: improper use, foreign objects inside the pump or pump controller, normal wear and tear, accidents, misuse, lack of maintenance, not following these instructions, damage caused by lightning strike or power surges or power spikes or power brownouts or operating the pump on power other than correct mains power, or operating the pump on power supplied by a domestic generator - are not covered by warranty.
4. The complete Impeller set (including shaft), Seals and O-rings are all wearing items and therefore are not covered for "normal wear and tear". They are covered by this warranty if they fail due to a manufacturing defect.
5. Warranty will be void if any tampering or removal of identification labels or electrical cables has occurred, or any non-genuine parts have been fitted, or repairs have been carried out by unqualified persons. No warranty applies for goods sold or used for HIRE or RENT or LEASE
6. If an exact replacement is not available, the closest equivalent product will be supplied at our discretion.
7. This product is guaranteed as fit for the purpose of pumping CLEAN FRESH WATER and for NO OTHER USE. Performance data quoted is approximate and is generally derived from test data and does not take into account factors in the installation such as loss of pressure and flow due to pipework & pipe-fittings & valves.
8. IMPORTANT: No electrical appliances last forever. Therefore ALL installations of PUMPS must be constructed to allow the owner to easily remove the pump for servicing, and to easily remove the pump for replacement, warranty replacement or upgrading. The installation must NOT be constructed in such a manner that specialized tools, or paid tradespersons, or external paid contractors, are required to be engaged in order to remove and/or replace and/or refit the pump. Warranty replacement does not normally include costs of removal and re-installation as we have no control over the method of installation.
9. Before installing or servicing disconnect from the power supply. All pumps must be installed using barrel-union connections to facilitate easy servicing or replacement. A ball-valve or gate-valve must be fitted on the suction, and the Town-water backup supply where fitted. Additionally a Y-Strainer or Pre-filter must be installed on the suction to prevent particles entering the pump. This instruction is a condition of warranty; all warranty is void if this instruction is not followed.
10. This pump is not to be used as your sole water supply. For critical applications where loss of water supply could cause serious consequences, use a DUAL PUMP System so you have a backup water supply or use a TOWN-WATER BACK-UP System.
11. This pump MUST NOT be installed in any manner that if it were to leak that it would cause damage or loss to property or persons. It MUST be installed in a well-ventilated and drained area. All warranty is void if this condition is not heeded and no liability can be accepted in the case of damage or loss caused by failing to comply with this condition.
12. The Pump must be connected to a suitable circuit with an integral RCD (safety switch) in the circuit breaker. All warranty is void if this instruction is not followed.
13. In the case of a fault, refer to the Trouble Shooting Guide first. If these steps do not rectify the problem, and the fault is due to a manufacturing defect or product failure not caused by improper installation, improper use or lack of maintenance, return the faulty appliance to the original place of purchase with proof of purchase for replacement or refund. Alternatively you can mail us at PO BOX 650 MORNINGSIDE QLD 4170 or send an email to sales@ascento.com.au with copy of your purchase receipt, a description of the problem, and your name and address and phone number - we will review your request and send you a replacement directly if we accept your warranty claim. Or call us on 1800807604 with the above information; however we will always require a copy of your purchase receipt. Do not send the product to us unless we ask you to do so.
14. This warranty does not exclude any non-excludable rights according to Australian Law. However any condition that is made void by Australian Law does not void the remaining conditions, which shall stand unaltered.

WARRANTY PERIODS
REEFE RSM STAINLESS STEEL SUBMERSIBLE PUMPS: 2 Years

PRIVACY STATEMENT
We will not use your name, address or phone or fax number, or email address for marketing without your express permission. We will not sell or provide it to any other third party for the purpose of marketing.

Thank you for purchasing our product. We trust it gives you years of trouble-free pumping!
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