

## TABLE OF CONTENTS

<p><b>Chap.1-</b> General</p> <p><b>Chap.2-</b> Limitations</p> <p><b>Chap.3-</b> Installation</p> <p><b>Chap.4-</b> Electrical connection</p>	<p><b>Chap.5-</b> Start-up</p> <p><b>Chap.6-</b> Maintenance</p> <p><b>Chap.7-</b> Troubleshooting</p>
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**Notice for the safety of people and things.**

**Pay special attention to the procedures marked by the following symbols:**



**DANGER**  
Risk of electrocution

It warns that failure to comply with the directions provided involves a risk of electrocution.



**DANGER**

It warns that failure to comply with the directions provided involves a very serious risk for people and/or things.



**WARNING**

It warns that failure to comply with the directions provided involves the risk of damaging the electropump or equipment.

**WARNING:** *before installing the pump, carefully read the content of this manual. Damages due to failure to comply with its directions will not be covered by the warranty.*

### CHAP. 1 GENERAL

The **VERSAILLES** electropumps has been designed for use in fountains, waterworks and waterfalls in water parks, they are professional, strong, noiseless, reliable and safe.

They are completely made of STAINLESS steel.

They are provided with a large intake filter that ensures a good operation of the pump for a long time.

As a standard, they are provided with 230 V - 50 Hz power supply, ready to use since they already have an internal condenser and a power supply cable.

On request, they can be supplied with 24V and 42 V low voltage, alternated current, without condensers and control panel.

At assembly, every electropump is carefully tested and packaged.

**Upon delivery, check the electropump for damages; if it has suffered damages during shipment, immediately contact the retailer, in any case no later than eight days from the date of purchase.**

### CHAP. 2 LIMITATIONS



**WARNING**

The electropump is not suitable for pumping flammable or hazardous fluids.



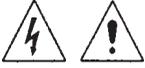
**WARNING**

Use of the electropump without fluids is strictly forbidden.

MAX TEMPERATURE OF PUMPED FLUID .....	50°C max.
MAX IMMERSION DEPTH.....	7 m, with 10 m power supply cable
MAX SIZE OF PUMPED SOLIDS.....	1,5 mm
MAX NUMBER OF START-UPS/HOUR.....	30 equally shared

Pumps with power supply cable measuring less than 10 m long must not be used outdoors.

### CHAP. 3 INSTALLATION



**DANGER**  
Risk of  
electrocution

All operations required for installing the pump must be carried out with the pump disconnected from the power supply system.

- Screw the selected accessory to the outlet of the electropump.
- Fit the filter sponge kit in the intake section, if required.
- Place the pump inside the tank; it must be completely under water.
- During handling, do not use the power supply cable to lift the pump.
- Fit the sprayer on the pump, always above water level.
- The pump can be secured to the resting table inside the tank, using the anchor plate, but because of the pump size this may be skipped.
- Take care of leaving a gap around the pump so that the filtering section can be easily disassembled and removed.
- The sponge kit is separately supplied; it should be used only when the sprayers need a gap of less than 1.5 mm in diameter.

### CHAP. 4 ELECTRICAL CONNECTION



**WARNING**

Make sure the rated voltage and frequency match those of the available power supply.



**DANGER**  
Risk of  
electrocution

The installer will be responsible for checking that the power supply is provided with an efficient earthing system, pursuant to the applicable regulations.



**DANGER**  
Risk of  
electrocution

Check that the power supply is provided with a high-sensitivity differential switch  $\Delta = 30 \text{ mA}$  (DIN VDE 0100T739).

- Install the pump as directed and very carefully; have it installed by skilled personnel if possible, and keep children out of reach.
- Do not connect the plug if the power supply cable or the pump are damaged.
- **Warning: never put your hands in or get into the water without first disconnecting the pump and all the other powered accessories from the power supply, before doing anything.**
- **The pump can be operated on in tanks, ponds or other, indoors or outdoors, provided no one is in contact with water.**

#### Single-phase model

230 V, 50 Hz single-phase models are equipped with a double-earthing plug at the end of the power supply cable; in this case, the pump is earthed when the plug is fitted into the socket.

24 or 42 V, 50 Hz models do not have either condenser or plug; in this case, it will be the installer's responsibility to prepare the power board and complete it with a condenser.

### Three-phase model

In three-phase models, the earthing wire (yellow green) of the power supply cable must be connected to the earthing system of the power supply.

To connect the pump to the power supply, use a magnetothermal omnipolar disconnecting switch, which disconnects efficiently from the power system.

### Overload protection

The **VERSAILLES** single-phase pumps features a thermal motor-protector with an automatic resetting function, so they do not need any external protection.

For protecting **VERSAILLES** three-phase pumps, use a magnetothermal motor protector or a contactor with a thermal relay, both suitably gauged to the rated power.

### Check of direction of rotation in three-phase pumps

If the pump rotates in reverse, both its flow rate and head remarkably decrease.

The correct direction of rotation is clockwise, looking at the pump from above.

When pressing the Start switch, the pump will recoil in the opposite direction to its rotation; the pump will be rotating in the correct direction, therefore, if it recoils anticlockwise.

Otherwise, disconnect the pump from the power supply, and invert two of its three phases.

## CHAP. 5 START-UP (See Fig. 1)



**WARNING**

Use the electropump within its rated performance range.



**WARNING**

Do not operate the pump without fluids, since this could damage its hydraulic components and seals.

Before starting a **VERSAILLES** electropump, install the accessories; plunge it in water, leaving the sprayer above water level.

## CHAP.6 MAINTENANCE



**DANGER**

Risk of electrocution

Before servicing the pump, disconnect it from the power supply.



**DANGER**

Risk of electrocution

The powersupply cable must be replaced by the manufacturer or by the assistance service by means of special tools.

Under standard service conditions, the **VERSAILLES** electropumps does not need any maintenance, but, for prevention and depending on its **use (occasional, non-stop or heavy-duty)**:

- Provide for planned inspections, to have skilled personnel check, at regular intervals, the wearing of seals and the general state of the pump and power cable.
  - Check the filtering section at regular intervals to see if it is dirty; do it more often if there are flowers or ornamental plants in the water or nearby.
  - To clean the intake section of the pump and the filters inside, loosen the 3 wing nuts on the back of the pump, remove dirt with a brush, a jet of clean water or compressed air. Do not use chemicals.
- Occasionally, clean the hydraulic components or replace the impeller as required.



## CHAP.7 TROUBLESHOOTING

TROUBLE	POSSIBLE CAUSE	REMEDY
<b>THE ELECTROPUMP DOES NOT DELIVER, THE MOTOR DOES NOT RUN</b>	<ol style="list-style-type: none"><li>1) There is no power.</li><li>2) The plug has not been correctly fitted in.</li><li>3) The differential switch has tripped.</li><li>4) The impeller is jammed.</li><li>5) The motor or condenser are damaged.</li></ol>	<ol style="list-style-type: none"><li>2) Check the power supply and fit the plug well into the socket.</li><li>3) Rearm the switch. If it trips again, contact a qualified electrician.</li><li>4) Loosen up the impeller.</li><li>5) Contact the retailer.</li></ol>
<b>THE PUMP DOES NOT DELIVER, THE MOTOR RUNS</b>	<ol style="list-style-type: none"><li>1) The intake grid is clogged.</li><li>2) The check valve is jammed.</li><li>3) The filter is dirty.</li></ol>	<ol style="list-style-type: none"><li>1) Clean the grid.</li><li>2) Clean or replace the valve.</li><li>3) Clean the pump filter and/or sponge kit.</li></ol>
<b>THE PUMP DELIVERS A REDUCED FLOW RATE</b>	<ol style="list-style-type: none"><li>1) The intake grid is partly clogged.</li><li>2) The delivery piping is partly clogged.</li><li>3) The impeller is worn out.</li><li>4) Reverse rotation (three-phase models).</li><li>5) The filter is dirty.</li></ol>	<ol style="list-style-type: none"><li>1) Clean the grid.</li><li>2) Remove clogs.</li><li>3) Replace the impeller.</li><li>4) Check the direction of rotation and reverse if required.</li><li>5) Clean the pump filter and/or sponge kit.</li></ol>
<b>INTERMITTENT OPERATION (SINGLE-PHASE MODELS)</b>	<ol style="list-style-type: none"><li>1) Solids prevent the impeller rotating freely.</li><li>2) The temperature of the fluid is too high.</li><li>3) The motor is faulty.</li></ol>	<ol style="list-style-type: none"><li>1) Remove obstructions.</li><li>3) Contact the retailer.</li></ol>