

Filtration system pump - Instruction

OF INSTALLATION, OPERATION AND MAINTENANCE



CE

For your protection, please read these important instructions first.



WARNING

This equipment must be installed and serviced by a qualified technician. Improper installation can create electrical hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.



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GENERAL SAFETY RULES

1. The products mentioned in this manual are specially designed for the pre-filtering and re-circulation of water in swimming pools and spas.
2. They are designed to work with clean water at a temperature not exceeding 40°C.
3. The installation should be carried out in accordance to the safety instructions of swimming pools and the specific instructions for each facility.
4. The compulsory rules on accident prevention should be carefully followed.
5. Any modification of the pump requires the prior consent of the manufacturer. Original replacement parts and accessories authorized by the manufacturer ensure a high level of safety. The manufacturer of the pump assumes no liability for the damage and injuries caused by un-authorized replacement parts and accessories.
6. During operation, some parts of the pump are subject to dangerous electric voltage. Work may only be performed on each pump or on the equipment connected to it after disconnecting them from the main power and after disconnecting the starting device.
7. The user should make sure that assembly and maintenance tasks are carried out by qualified authorized persons and that these persons have first carefully read the instructions for service and installation.
8. The operating safety of the pump is only guaranteed if the installation and service instructions are correctly followed.
9. The limit values stated in the technical table should not be exceeded under any condition.
10. In the event of defective operation or fault, contact the technical support department of the manufacturer or its nearest authorized agents.
11. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person to avoid a hazard.
12. The pump must not be used when people are in the water.
13. The pump must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.
14. Children should be under close supervision to prevent them from playing with the pump.
15. This appliance 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 appliance by a person responsible for their safety.
16. The pump must be protected from running dry.

LOCATION

The pump must be located as close as practical to the pool. The pump must also be in a position that enables easy access for periodic servicing.

Care must also be taken to position the pump in an area that is free from flooding in a well ventilated and dry area.



INSTALLATION

Adopt the latest technology when designing and manufacturing our pumps, a few simple precautions during installation will ensure years of trouble free operation.

1. The pump suction line should not be smaller than 50mm true metric.
2. The suction line is to have as few bends or elbows as possible. There must not be an air traps on the suction line.
3. Installation shall arrange on a solid, flat foundation with the pump bolted securely to it.
4. The pump electrical cable must be wired for the proper voltage and current in accordance with the wiring instructions.
5. All wiring (electrical) work must be carried out by licensed electricians and must be installed in accordance to the local codes.
6. The motor must be grounded.
7. The maximum total head (Hmax) of the pump (in metres) shown on the pump label should be noted by the installer.
8. The permissible temperature is $> 0^{\circ}\text{C}$ and $< 40^{\circ}\text{C}$. The pump should never be operated outside of these temperatures, or damage may occur.

ELECTRICAL CONNECTION

IMPORTANT ELECTRICAL NOTICE

The electrical connection must be done by a licensed electrician.

Each pump requires a circuit breaker to separate the pump from the electrical supply.

The open contact distance of the circuit breaker should be no less than 3 mm.

The pump should be supplied by an isolating transformer or supplied through a residual current device with a rated residual current not exceeding 30mA.

Input quality shall be of 245 IEC57.

- **RESPECT THE VALUES GIVEN IN THE TECHNICAL DATA.**

Check that the information on the nameplate corresponds to the power supply.

Employ a competent electrician to ensure wiring installation is made in accordance with any local electrical codes.

A SINGLE PHASE MOTOR has a built in thermal overload switch.

▲WARNING

1. When connecting electric cables to the motor of the pump, be careful to correctly arrange them inside the connection box, verify that no bits of cable are left inside the box on closing it. See that the ground wire is correctly connected. When connecting the motor, follow the wiring diagram supplied with the pump.
2. Be especially careful that no water enters the motor or electrical parts under voltage.
3. Before starting the pump, verify the calibration of the electrical protection devices of the motor and that the protections against electrical and mechanical contacts are correctly positioned and attached.
4. It is advisable to follow the steps listed below before handling the pump in any way.
 - a) Turn off the voltage to the pump.
 - b) Lock starting devices.
 - c) Verify that there is no voltage in the circuits, including ancillary devices and auxiliary circuits.
 - d) Wait until motor stops completely.



MAINTENANCE

The pump will prime and re-prime providing the filter tank water and there is sufficient supply from the suction point. If you lose water from the filter tank it will be necessary to re-fill it before starting.

1. Remove the translucent lid and fill the pump with water.
2. Replace the lid ensuring the o-ring is correctly located and start the pump.

After you have done this allow a few minutes (maximum) running for the pump to start delivering water.

High suction lift or long suction lines will require additional time to prime and can severely affect the performance of the pump. If the pump will not prime, repeat step 1 and 2 above.

The pumps are required worked or installed below the water level.

Mechanical seals if running dry can be damaged rapidly and may need to be replaced.

ENSURE that there is always adequate water in the filter tank before you start up.

If you are unable to prime the pump please see the trouble-shooting guide.

ENSURE that all suction and discharge valves are open before you start the pump, otherwise will result in damage to the pump.

The strainer basket in the pump should be inspected and cleaned at regular intervals.

1. Remove lid and lift out basket.
2. Remove debris and hose off with clean water if necessary.
3. Inspect the lid gasket, lubricate with SILICON based grease only if needed. If it is damaged, please replace.
4. Replace the strainer.
5. Correctly locate the o-ring.
6. Replace the lid (hand tighten only).
7. Switch on pump.

In Climates where the pump may be exposed to frost or freezing, care must be taken to ensure the pump is protected from damage. It is recommended that if the pump is not used during winter period it should be drained completely and store pump in a dry location. Do not replace the drain plug. Store it in a safe place when not use. An example would be store plug in the pump basket. When you are activate the pump ensure all seals and o-rings are in operational condition, re-grease if necessary, replace if unsure of condition. Check that the motor shaft moves freely before re-activation.

REGULARLY VERIFY

1. The correct attachments of the mechanical parts and of the support screws of the pump.
2. The correct position, attachment and condition of the supply cables and of the insulating parts.
3. The temperature of the motor. In the event of any excessive high, stop immediately and have it repaired.
4. The vibration of the pump. In the case of any excessive high, stop immediately and have it repaired.

TECHNICAL DATA

Code	10114	10116	10118	10110	10112
kW	0,73 kW	0,95 kW	1,5 kW	0,25 kW	0,40 kW
Input power (W)	800	1000	1400	250	400
H. max. (m³/h)	12 m	13 m	14.8 m	6.5 m	9 m
Q. max. (l/min.)	250 L	300 L	360 L	125 L	166 L
V	220~240				
HZ	50				
IP	IPX5				



TROUBLE SHOOTING

SYMPTOMS	PROBABLE CAUSE	WHAT TO DO
Pump will not prime	Suction air leak	Make sure water level is correct through suction points. Ensure baskets and strainers are free of debris. Tighten all unions on the suction side of the pump, remove and replace mechanical seal.
	No water in the pump	Make sure the filter tank is full.
	Closed valves or blocked lines	Open all valves in system, clean skimmer and pump basket, check pump impeller of blockage.
Motor will not run	No power to motor	Check that all electrical switches are on. Ensure the circuit breakers are properly set. Check if timer is set properly. Check motor wiring at terminals.
	Pump jammed	With power switched off turn pump shaft (should spin freely).
Low flow	Dirty filter	Backwash.
	Dirty skimmer and pump strainer	Clean skimmer and pump strainer.
	Suction air leak	See 1.
	Closed valve or blocked line	See 1.
Motor runs hot	Low or incorrect voltage	Supply to be correct by electrician. Motors running hot to touch is normal. Thermal overload protector will function to turn them off if there is an overload or excessive high temperature problem.
	Installed in direct sunlight	Shield from weather.
	Poor ventilation	Do not tightly cover or enclose motor.
Noise pump operation	Bad bearing	Have electrician replace.
	Air leak in suction	See 1.
	Suction blockage	Locate and clean blockage.
	Disturbance in impeller	Contact supplier.
	Cavitations	Improve suction, reduce suction lift, reduce number of fittings, increase pipe size, increase discharge pressure and reduce flow by throttling discharge valve.
Motor overload cuts out	Motor not connected properly	Have electrician check wiring.
	Low incoming voltage	Voltage at motors should be no more than 6% above or below nameplate voltage. Have electrician check voltage, ensure pump is not running on an extension cord, Report low supply to authorities.
	Over load due to binding in pump or wrong size impeller	Contact supplier.

▲WARNING

If the pump is within the stated warranty period and you experience faults always contact your supplier. Failure to do this may void warranty. Refer to warranty documentation supplied with pump.

All electrical work is to be carried out by a Qualified Electrician; under no circumstances should you attempt repairs on the electrical components of pumps unless you are qualified to do so.