



Evolution Water & Lighting Solutions

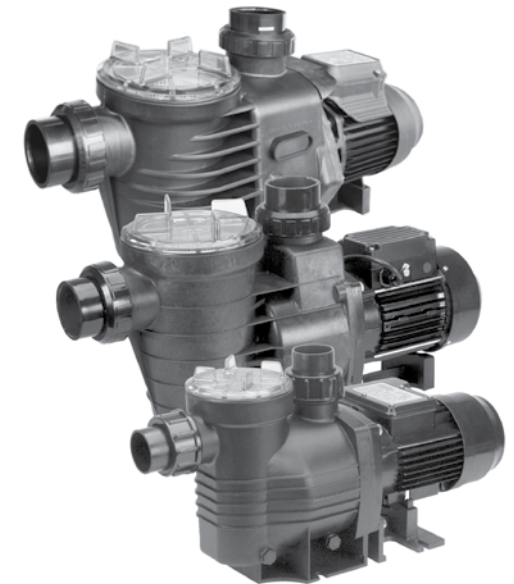
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Evoflow Pump Manual - V1

evoflow

HIGH PERFORMANCE PUMPS

EVOFLOW
POOL & SPA PUMPS



Installation and Operation Manual
Storm ECO-V | Storm | Tuf | Stream

⚠ 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.



Notice to Installer

This manual contains important information about the installation, operation and safe use of this product. Once the product has been installed **this manual must be given to the owner/operator of this equipment.**



EVOFLOW POOL & SPA PUMPS



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1.0 INTRODUCTION

1.1.1 Congratulations on your recent purchase of an Evolution Evoflow Pump. Please take a moment to read through the entire manual before using the pump. The pump must be installed and operated as specified.

2.0 SAFETY

- 2.1.1 The machines mentioned in the manual are specially designed for the pre-filtering and re-circulation of water in swimming pools.
- 2.1.2 They are designed to work with clean water at a temperature not exceeding 35 degrees Celsius (95 degrees Fahrenheit).
- 2.1.3 The installation should be carried out in accordance to the safety instructions of swimming pools, especially Standard HD 384.7.702, and the specific instructions for each facility.
- 2.1.4 The rules enforce on accident prevention should be carefully followed.
- 2.1.5 Any modification of the pump requires the prior consent of the manufacturer. Original replacement parts and accessories authorised 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-authorised replacement parts and accessories.
- 2.1.6 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 mains power, and after disconnecting the starting device.
- 2.1.7 The user should make sure that assembly and maintenance tasks are carried out by qualified authorised persons and that these persons have first carefully read the instructions for service and installation.
- 2.1.8 The operating safety of the pump is only guaranteed if the installation and service instructions are correctly followed.
- 2.1.9 The limit values stated in the. Technical table should not be exceeded under any condition.
- 2.1.10 In the event of defective operation or fault, contact the technical support department of the manufacturer or its nearest authorised agents.
- 2.1.11 If the supply cord is damaged, it must be replaced by an authorised service agent.

- 2.1.12 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.
- 2.1.13 The appliance is not intended for use by young children. Young children should be supervised to ensure that they do not play with the appliance. Cut and fit the pipe and fittings onto the pump and the Cartridge Filter. REFER to Pump Installation Manual for correct pump plumbing procedures.

3.0 GENERAL INSTALLATION

- 3.1.1 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.
- 3.1.2 Care must also be taken to position the pump in an area that is free from flooding in a well ventilated and dry area (The pump motor cooling fan must have a minimum clearance of 150mm).
- 3.1.3 The pump suction line should be not smaller than 40mm (1 1/2").
- 3.1.4 The suction line is to have as few bends or elbows as possible. There must not be an air trap on the suction line.
- 3.1.5 Use only the pump barrel unions supplied with the pump.
- 3.1.6 Bolt the pump to the required position (prevent movement).
- 3.1.7 The pump electrical cable must be wired for the proper voltage and rotation in accordance with the wiring instructions.
- 3.1.8 All wiring (electrical) work must be carried out by licensed electricians and must be installed in accordance to the local codes.
- 3.1.9 The motor must be grounded.
- 3.1.10 The weight of the plumbing and fittings is to be independently supported and not carried by the pump.
- 3.1.11 The pump motor cooling fan must have a minimum clearance of 150mm.

4.0 ELECTRICAL CONNECTION

- 4.1.1 Employ a competent electrician to ensure wiring installation is made in accordance with any local electrical codes. Every motor requires either a fused disconnect switch or a circuit breaker.
- 4.1.2 Check that the information on the nameplate corresponds to the power supply.
- 4.1.3 A single phase motor has a built in thermal overload switch.

5.0 PRIMING

- 5.1.1 The pump will prime and re prime providing the hair and lint pot bowl is full of water and there is sufficient supply from the suction point.
- 5.1.2 If you lose water from the hair and lint pot bowl it will be necessary to re fill it before starting.
- 5.1.3 Remove the clear lid and fill the hair and lint pot bowl with water. Replace the lid ensuring the o-ring is correctly located and start the pump.
- 5.1.4 After you have done this allow a few minutes (maximum) for the pump to start delivering water.
- 5.1.5 **⚠WARNING:** 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 (flow), repeat step 1 and 2 above.
- 5.1.6 **⚠WARNING:** Mechanical seals if allowed to run dry can be damaged rapidly and may need to be replaced.
- 5.1.7 ENSURE that there is always adequate water in the hair and lint pot bowl before you commence start up.
- 5.1.8 If you are unable to prime the pump please see the trouble-shooting guide.
- 5.1.9 Ensure all suction and discharge valves are open before you start the pump, operating the pump with these valves shut can damage the pump.

6.0 MAINTENANCE

6.1.1 The strainer basket in the hair and lint pot bowl 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 replace.
4. Replace the strainer.
5. Re-prime the hair and lint pot bowl.
6. Correctly locate the o-ring.
7. Replace the lid (hand tighten) only.
8. Switch on pump.

6.1.2 In Climates where the pump may be exposed to frost or freezing, care must be taken to ensure the pump is protected from damage.

6.1.3 It is recommended that if the pump is not used during this winter period it should be drained completely. Drain plugs can be supplied for this purpose.

6.1.4 Do not replace the drain plug. Store it in a safe place until you require the use of the pump. An example would be within the hair and lint pot bowl basket.

6.1.5 If at all possible remove the pump away and store it in a dry location during this period.

6.1.6 When you re activate the pump ensure all seals and o-rings are in operational condition, re-grease if necessary (replace) if unsure of condition.

6.1.7 Check that the motor shaft moves freely before re-activation.

7.0 TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SOLUTIONS
1. 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 fittings / unions on the suction side of the pump, remove and replace mechanical seal.
	No water in the pump	Make sure hair and lint pot is full.
	Closed valves or blocked lines	Open all valves in system, clean skimmer and pump basket, check pump impeller of blockage.
2. 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). If not contact electrician or Evolution for service.
3. Low flow	Dirty filter	Backwash or clean cartridge.
	Dirty Skimmer and Pump strainer	Clean skimmer and pump strainer.
	Suction air leak	See 1.
	Closed valve or blocked line	See 1.
4. Motor runs hot	Low or incorrect voltage	Supply to be corrected by Electrician. Motors run hot to touch and is normal. Thermal overload protector will function to turn them off if there is an overload or high temperature problem.
	Cooling fan clearance	The pump motor cooling fan must have a minimum clearance of 150mm.
	Installed in direct sunlight	Shield from the weather.
	Poor ventilation	Do not tightly cover or enclose motor.
5. Noisy pump operation	Bad bearing	Have electrician replace.
	Air leak in suction	See 1.
	Suction blockage	Locate and clear blockage.
	Foreign matter in impeller	Dismantle pump and remove foreign matter and debris from around impeller.
	Cavitations	Improve suction, reduce suction lift, reduce number of fittings, increase pipe size, increase discharge pressure and reduce flow by throttling discharge valve.
6. Motor over load cut outs	Motor not connected properly	Have electrician check wiring.
	Low incoming 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 Evolution for service.