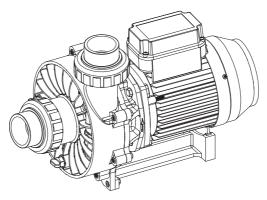




# ••• eaProPump



## INSTALLATION AND INSTRUCTION MANUAL 8000 / 10000 / 12000 / 16000 / 21000

## **IMPORTANT**

This is an external "out of pond" pump.It is NOT submersible. Protect from rainfall and frost.Do NOT allow this pump to become submerged.Never run the pump dry.

PLEASE READ all of the instruction manual before attempting to install or operate the eaProPump

**Evolution Aqua Ltd.** - Evolution House - Kellet Close - Wigan - Lancashire - United Kingdom - WN5 0LP t +44 (0) 1942 216554 - f +44 (0) 1942 418 489 - e info@evolutionaqua.com - w www.evolutionaqua.com

## WARNING: PLEASE READ THE FOLLOWING SAFETY INFORMATION FIRST.

#### **IMPORTANT SAFETY INFORMATION**

- Please read the instruction manual carefully.
- The electrical installation is to be done by a qualified electrician, in accordance with applicable electrical codes.
- **WARNING:** Always shut off electrical power before installation and / or servicing this pump.
- A residual current device (RCD), also known as the residual current circuit breaker (RCCB), with a tripping current not exceeding 30mA must be installed in the supply circuit.
- A means of disconnection from the supply having a contact separation of at least 3mm in all poles must be incorporated in the wiring.
- Check the pumps name plate for the following: Voltage, Amp draw and Cycle.
- Carefully, examine the power cord before use.
- Do not use this power cord if there is any visible damage.
- Do not use this power cord in water or if the motor or electrical receptacle is in contact with any standing water.
- This power cord should only be plugged into a properly installed RCD.
- Always test cycle a RCD to determine its condition before use.
- Improper installation can create electrical hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.
- Do not submerse the unit in water it is not a submersible pump.
- Do not allow the pump to become submerged, especially during periods of heavy rain and take care to protect the pump from frost.
- The pump should be operated when permissible temperature is **between 0°C and 35°C**. The pump should never be operated outside of these temperatures or damage may occur.

#### **Disposal Of Your Old Product**

Your product is designed and manufactured with high quality material and components, which can be recycled and reused. When this crossed-out wheeled bin symbol is attached to a product, it means the product is covered by the European Directive 2002/96/EC. Please contact your local authority about correct disposal for electrical and electronic equipment. Our WEE Registration Number is WEE/FE1471RR.

Please act according to your local rules and do not dispose of your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.









#### INTRODUCING THE EVOLUTION AQUA EA PRO PUMP

Congratulations on purchasing an Evolution Aqua **eaProPump**.

Our range of external, fully marinised pond pumps have been manufactured for maximum reliability and performance. The pump body and bracket is moulded in engineering plastic material for maximum strength, durability and long life. The design of the adjustable wet end makes the pump very quiet during operation and the Noryl impellor provides maximum strength and durability. eaProPumps also use low energy consuming motors delivering optimum levels of performance.



#### SPECIFICATIONS

	INLET	OUTLET	MAX. FLOW (LITRES PER HOUR)	MAX. FLOW (GALLONS PER HOUR)	MAX. HEAD	MIN. WATTS	MAX. WATTS	IP RATING
eaProPump8000	2"	2"	9,300	2,045	2.26m	87	96.1	IPX5
eaProPump10000	2"	2"	10,200	2,244	2.41m	89	100.9	IPX5
eaProPump12000	2"	2"	11,700	2,574	2.40m	88	104.5	IPX5
eaProPump16000	2"	2"	16,900	3,717	4.69m	193	211.3	IPX5
eaProPump21000	2"	2"	21,000	4,619	5.25m	201	250.5	IPX5

#### RATINGS

	VOLTAGE	Hz	CURRENT	MAX. WATER TEMP.
eaProPump8000	220 - 240 V	50 Hz	0.42 A	35°C
eaProPump10000	220 - 240 V	50 Hz	0.44 A	35°C
eaProPump12000	220 - 240 V	50 Hz	0.46 A	35°C
eaProPump16000	220 - 240 V	50 Hz	0.96 A	35°C
eaProPump21000	220 - 240 V	50 Hz	1.13 A	35°C

#### LOCATION OF THE PUMP

Locate the pump as near the water source as possible. We recommend a flooded suction installation.

#### THIS PUMP MUST NOT BE RUN DRY. NO AIR INTAKE INTO THE PUMP

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 OF THE PUMP**

- 1. The pump suction line should be not smaller than  $1^{1}\!/\!_{2}"$  (40mm imperial) or 50mm true metric.
- 2. 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. Tighten the pump fittings only as much as is required to ensure a tight connection. Excessive torque is unnecessary and may cause damage to the pump.
- 4. The pump electrical cable must be wired for the proper voltage and rotation in accordance with the wiring instructions.
- 5. All wiring (electrical) work must be carried out by qualified electricians and must be installed in accordance to the local codes.
- 6. The motor must be earthed.
- 7. The weight of the plumbing and fittings is to be independently supported and not carried by the pump.
- 8. The pump is not self-priming. Therefore, if the water level is below the pump, a non-return valve must be installed below water level. The pump and inlet line must be primed prior to start up. For non-flooded installations, a strainer basket and check valve (non-return valve) are recommended.

#### **PIPEWORK INSTALLATION**

Use the relevant fittings supplied to connect the pump to 2" imperial pipe.

To connect the pumps to  $1\frac{1}{2}$ " imperial pipe you will need to purchase an additional  $1\frac{1}{2}$ " Evolution Aqua reducing bush fitting, Evolution Aqua order code **R81-063**.



#### **STARTING & PRIMING THE PUMP**

#### DO NOT RUN THE UNIT DRY AS THIS WILL DAMAGE THE PUMP SEALS

The pump is not self-priming. Therefore, if the water level is below the pump, a non-return valve must be installed below water level. The pump and inlet line must be primed prior to start up.

For non-flooded installations, a strainer basket and check valve (non-return valve) are recommended.

#### FLUID TEMPERATURE

The permissible temperature is > than 0°C and < than 35°C. The pump should never be operated outside of these temperatures or damage may occur.

#### MAINTENANCE

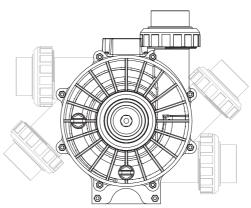
Always protect the pump from frost. Never run the pump dry.

There are no user serviceable parts inside the pump. Any repairs should only be carried out by Evolution Aqua or an authorised representative.

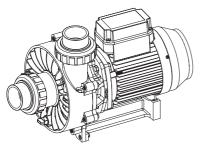
It can often be good practice to have a spare pump which can be used as a back up.

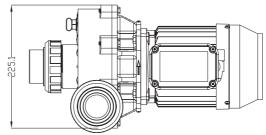
#### WET END ADJUSTMENT

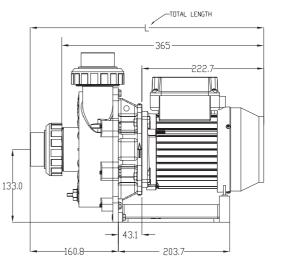
The outlet port of the eaProPump can be configured into 5 different positions. To do this, unscrew the 8 nuts on the rear of the wet end casing, re-align the wet end casing with the outlet in the position you require and tighten up the nuts.

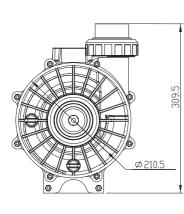


#### DIMENSIONS





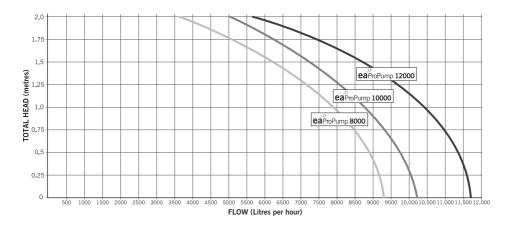




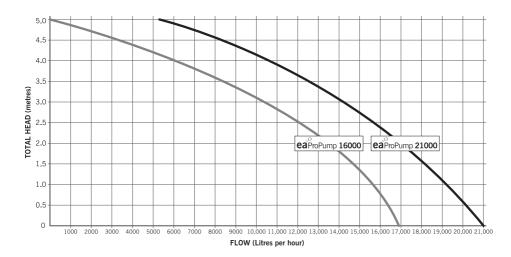
	TOTAL LENGTH	BODY LENGTH (EXCLUDING FITTING)	HEIGHT	WIDTH	
eaProPump8000	426mm	365mm	310mm	225mm	
eaProPump10000	426mm	365mm	310mm	225mm	
eaProPump12000	426mm	365mm	310mm	225mm	
eaProPump16000	426mm	365mm	310mm	225mm	
eaProPump21000	426mm	365mm	310mm	225mm	

#### **PUMP CURVES**

The chart below shows the pump curves for eaProPump 8000, 10000 and 12000.



The chart below shows the pump curves for eaProPump 16000, 21000.



#### TROUBLESHOOTING

Symptom	Problem	Resolution				
	Insufficient Prime	Prime system with water and purge all air from suction piping.				
		Install non return valve.				
	Insufficient Power	Verify power supply and connection from panel to pump.				
		Verify proper voltage.				
No Flow		Ensure valves are open.				
NO FIOW	Flow	Ensure plumbing is clear, including suction strainers, check valves, etc.				
	Restriction	Verify non return valve orientation and direction of permitted flow.				
		Clean out leaves or other debris from basket strainer (if applicable).				
	Air leak	Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake side.				
	System Incompatibility	Verify hydraulic compatibility: i.e. pump & pipe are sized for the system.				
		Verify airtight plumbing on the suction plumbing especially fittings!				
		Clean out leaves or other debris from basket strainer (if applicable				
	Cavitation	Increase pipe size where possible.				
		Decrease suction pipe length, reduce the number of elbows, etc.				
Excessive Noise		Verify hydraulic compatibility: i.e. pump and pipe are sized for the system.				
	Insufficient Power	Verify power supply and connection from panel to pump.				
	Insumcient Fower	Verify proper voltage.				
		Ensure valves are open.				
	Flow Restriction	Ensure plumbing is clear, including suction strainers, check valves, etc.				
		Verify non return valve orientation and direction of permitted flow.				

#### TROUBLESHOOTING

Symptom	Problem	Resolution				
Sporadic Operation	Insufficient Power	Verify power supply and connection from panel to pump.				
		Verify proper voltage.				
	Poor Ventilation	Ensure adequate airflow over motor to prevent overheating.				
	Auto Motor Reset	The pump motor has an auto reset causing motor to restart without warning.				
	Air Leak	Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake side.				
	System Incompatibility	Verify hydraulic compatibility: i.e. pump & pipe are sized for the system.				
	Insufficient Power	Verify power supply and connection from panel to pump.				
		Verify proper voltage.				
		Ensure valves are open.				
Low	Flow Restriction	Ensure plumbing is clear, including suction strainers, check valves, etc.				
Flow		Verify non return valve orientation and direction of permitted flow.				
		Verify airtight plumbing on the suction plumbing especially fittings!				
		Clean out leaves or other debris from basket strainer (if applicable).				
	Cavitation	Increase pipe size where possible.				
		Decrease suction pipe length, reduce the number of elbows, etc.				
		Verify hydraulic compatibility: i.e. pump and pipe are sized for the system.				

### 2 YEAR GUARANTEE\*



Your pump is covered against defects in manufacture and materials for a period of 2 years, excluding the mechanical seal and capacitor which are covered for a period of 12 months against manufacturing defect.

#### IMPORTANT: Evolution Aqua eaProPumps are not for submersible use.

Warranty claims are subject to the following conditions:

- The Pump must be installed and operated in accordance with the instruction manual.
- Any repairs or spare parts fitted during the warranty period must be undertaken by Evolution Aqua Ltd or its authorised representatives.
- It is the customer's responsibility to return the pump, at their cost, together with a **valid proof of purchase**, along with a brief description of the fault and any other relevant information, to Evolution Aqua at the address below. Evolution Aqua will not be liable for the costs of returning the pump to our technical department, and accepts no responsibility for damage during transit or consequential loss relating to this.
- Before returning any pump for warranty appraisal, you must contact Evolution Aqua to obtain a customer returns number (CRN number). Please quote this CRN number on all correspondence and ensure that the pump has this number clearly marked.

Evolution Aqua will examine the pump, and if the fault is covered by the warranty, will repair and return to the customer at the earliest opportunity. The cost of returning the pump to the customer will be met by Evolution Aqua.

If the Evolution Aqua eaProPump is found not to be covered by the warranty, we will contact you and, if it is possible to repair your pump, give you a quote for repairing and shipping it back to you.

Evolution Aqua will not guarantee the Evolution Aqua eaProPump:-

- When the fault is due to misuse or when unauthorised repairs have been attempted.
- When the fault is due to fire or any other natural cause, including frost damage.
- This warranty is not transferable.

Evolution Aqua Ltd. accepts no responsibility or liability for any consequential loss caused by or arising from the use of any Evolution Aqua products. Therefore, any dispute arising from the provisions of the warranty will be dealt with under the laws of England and Wales subject to the exclusive jurisdiction of the English Courts.

## \*Mechanical seal and capacitor are covered for a period of 12 months against manufacturing defect.

#### Evolution Aqua Ltd.

Evolution House, Kellet Close, Wigan, Lancashire, United Kingdom, WN5 OLP



INNOVATION IN WATER

**Evolution Aqua Ltd** Evolution House, Kellet Close Wigan, Lancashire, United Kingdom WN5 0LP

t: +44 (0) 1942 216554 f: +44 (0) 1942 418489 e: info@evolutionaqua.com w: www.evolutionaqua.com