

VARIPUMP10901201MAN

**USA**  
English

EVOLUTION  
**AQUA**  
INNOVATION IN WATER

# varipump

High performance controllable pond pump

## INSTRUCTION MANUAL



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

# 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 ground fault circuit interrupter (GFCI) 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 GFCI 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 submerge the controller in water.
- The pump should be operated when permissible temperature is **between 32°F and 95°F (0°C and 35°C)**. The pump should never be operated outside of these temperatures or damage may occur.
- Young children must always be supervised near ponds.



## 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 WEEE 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 VARIPUMP

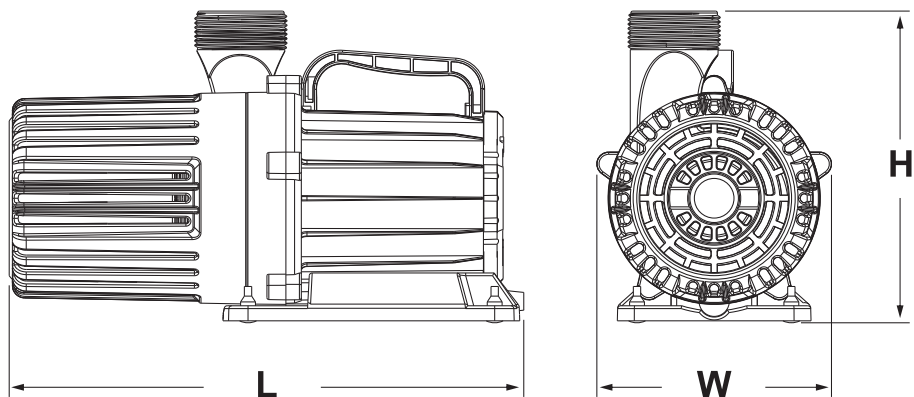
Congratulations on purchasing an Evolution Aqua **Varipump**.

Varipump by Evolution Aqua is a controllable pond pump, suitable for large ponds. Output and energy consumption can be controlled at the push of a button and the six pole, three phase motor is quiet and reliable.

Available in three sizes, Varipump is powerful enough to run the largest of ponds and filters, and in the most demanding of situations. Suitable for use in and out of pond.



DIMENSIONS



	DIMENSIONS
Varipump 10000	10.5" (L) x 4.8" (W) x 6.3" (H)
Varipump 20000	12.6" (L) x 5.6" (W) x 7.13" (H)
Varipump 30000	14.6" (L) x 6.1" (W) x 8" (H)

SPECIFICATIONS

	OUTLET	MAX. FLOW (LITRES PER HOUR)	MAX. FLOW (GALLONS PER HOUR)	MAX. FLOW (US GALLONS PER HOUR)	MAX. HEAD	MAX. WATTS
Varipump 10000	1½"	10,000	2,200	2,640	10ft	75W
Varipump 20000	2"	20,000	4,400	5,280	18ft	190W
Varipump 30000	2"	30,000	6,600	7,925	18ft	450W

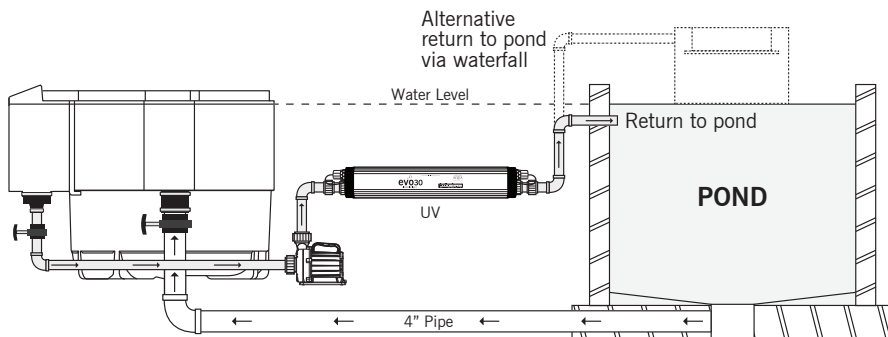
## INSTALLING THE VARIPUMP

Varipump can be installed either dry, as part of a gravity fed filtration system, or submersed in water, as part of a pump fed system. When installing in gravity fed systems ensure unions are fitted (not supplied) to enable removal of the pump for cleaning and maintenance. We recommend using Evolution Aqua unions (EA CODE: K82-76-55) for the 10,000 model. Use unions (EA CODE: K82-76-66) for the 20,000 and 30,000 models.

### INSTALLING THE VARIPUMP - GRAVITY FED

1. The pump suction line should be not smaller than 1½" (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. All wiring (electrical) work must be carried out by qualified electricians and must be installed in accordance to the local codes, see information on page 2.
5. The motor must be grounded.
6. The weight of the plumbing and fittings is to be independently supported and not carried by the pump.
7. 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 check valve (non-return valve) is recommended.
8. The controller must not be submerged in water.

*Gravity fed filter installation example shown below*

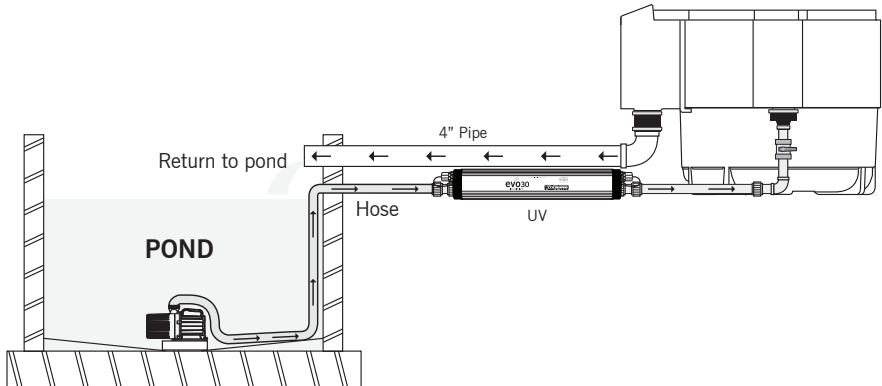


## INSTALLING THE VARIPUMP - PUMP FED

Varipump can be submersed in water, as part of a pump fed system. When installing on pump fed systems ensure we recommend using the hosetails provided to connect up to flexible hose (not supplied).

1. Flexible hose (not supplied) should be the widest possible diameter.
2. Extra steps on hosetails should always be sawn off and removed.
3. A hoseclip (not supplied) must always be used to hold the hose in place on the hosetail.
4. Ensure sealing rings are fitted properly.
5. All wiring (electrical) work must be carried out by qualified electricians and must be installed in accordance to the local codes, see information on page 2.
6. The motor must be grounded.
7. Do not let the pump run dry.
8. The controller must not be submerged in water.

*Pump fed filter installation example shown below*



## OPERATING TEMPERATURE

The permissible temperature is **> than 32°F and < than 95°F** (0°C and < than 35°C). The pump should never be operated outside of these temperatures or damage may occur.

## STARTING UP THE VARIPUMP

Your varipump is supplied with an in-line digital controller. If wired correctly the pump will switch on as soon as it is plugged in. There are three buttons on the controller, one to turn the pump on and off, one to increase flow (and energy consumption) and one to decrease flow (and energy consumption).

Varipump has variable flow control to enable the operator to increase or decrease flow to their, and their filter's exacting requirements. To adjust flow simply press the up and down buttons on the controller to set the flow rate that you are happy with.

## **CLEANING THE VARIPUMP**

**Step 1:** Hold pump by the handle and remove the inlet strainer basket

**Step 2:** Using a Phillips screwdriver, undo the four screws at the base of the pump body

**Step 3:** Remove the volute

**Step 4:** Clean any debris and algae from inside the volute using a brush

**Step 5:** Pull the impeller out of the housing by hand

**Step 6:** Clean the impeller with a brush. Handle carefully to avoid damage

**Step 7:** Clean inside the impeller housing with a brush

**Step 8:** Replace the screws and inlet strainer basket



## CLEANING THE VARIPUMP



Step 1



Step 2



Step 3



Step 4



Step 5



Step 6



Step 7



Step 8

# TROUBLESHOOTING

Symptom	Problem	Resolution
No Flow	Insufficient Prime	Prime system with water and purge all air from suction piping.
	No Power	Wired incorrectly or an GFCI has tripped.
		Pump has been switched off at the controller.
	Flow Restriction	Ensure valves are open.
		Ensure plumbing is clear, including suction strainers, check valves, etc.
		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.
Excessive Noise	Cavitation	Verify airtight plumbing on the suction plumbing especially fittings!
		Clean out leaves or other debris from basket strainer (if applicable).
		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.
	No Power	Wired incorrectly or an GFCI has tripped.
		Pump has been switched off at the controller.
	Flow Restriction	Ensure valves are open.
		Ensure plumbing is clear, including suction strainers, check valves, etc.
		Verify non return valve orientation and direction of permitted flow.

## GUARANTEE



This product is guaranteed against defects in material and workmanship for two years from the date of purchase, under normal usage. The guarantee DOES NOT APPLY in case of improper use, negligence, lack of maintenance or accidental damage to the pump.

If the pump fails due to a manufacturing fault within this period it will be either repaired or replaced free of charge. Moving parts or wearable parts including the impeller and any washers or sealing rings are not covered by the guarantee and are available to order from your Evolution Aqua retailer.

Should your Evolution Aqua product stop working refer first to trouble shooting and if this does not help, return the product to the place of purchase.

Liability is limited to replacement of the faulty product only. No other costs will be reimbursed. This guarantee is not transferable and does not affect your statutory rights.

Do not attempt to tamper with or access electrical components inside the pump body. Doing so will invalidate the warranty.

The manufacturer or supplier shall not be responsible, or held liable for any damages caused by defective components or materials of this product, or for loss incurred by interruption of service, or any consequential/incidental damages and expenses arising from the production, sale use or misuse of this product or any other consequential loss.

Any warranty claim must be accompanied by a valid, dated proof of purchase. Evolution Aqua, its distributors and dealers shall not be held liable for any loss of fish, plants or any other livestock as a result of any failure or defect of this product.

The installation and use of your product outside of our recommendations as printed in this manual may also void the warranty.

## USA CONTACT DETAILS

**Evolution Aqua, USA, Inc.**

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888-417-5837

# EVOLUTION AQUA

INNOVATION IN WATER

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