

## USER INSTRUCTIONS T-FLOW TRONIC



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**SERVICE PARTS** for T-Flow Tronic Art. nr.

1	<b>Anode</b>	for T-Flow 05	126685
	<b>Anode</b>	for T-Flow 15	126690
	<b>Anode</b>	for T-Flow 35	126695
	<b>Anode</b>	for T-Flow 75	126700
2	<b>Cathode</b>	for T-Flow 05/15	126716
	<b>Cathode</b>	for T-Flow 35/75	126717
3	<b>End cap &amp; cable</b>	for T-Flow 05/15	126701
	<b>End cap &amp; cable</b>	for T-Flow 35/75	126702
4	<b>Hose swivel set</b>	for T-Flow 05/15	126713
	<b>Hose swivel set</b>	for T-Flow 35/75	126714
5	<b>Operating display</b>	for T-Flow	126672
	<b>Trafo universal</b>	for T-Flow	124827

## GB USER INSTRUCTIONS FOR T-FLOW TRONIC

### WHAT YOU NEED TO KNOW ABOUT ALGAE

A pond is a closed eco-system in which plants and fish live together. Algae are vegetable organisms that need sunlight (photosynthesis) as well as nutrients (carbon dioxide, nitrogen, and phosphates) to grow and produce oxygen. Pond fish need this oxygen to live. A pond is a relatively small area in which the balance between these processes can be easily disturbed. When you remove algae, you take away an important source of oxygen too. **Extra aeration of the water may then be necessary to ensure a sufficient oxygen supply for the fish.** Nutrients may accumulate and can cause harm to the fish. To avoid this, we recommend that you add nutrient absorbing materials such as zeolite to your pond filter or that you partially refresh the water.

### WHAT YOU NEED TO KNOW ABOUT THE T-FLOW TRONIC

With this T-Flow Tronic Velda brings a revolutionary system to the market that eliminates fibrous and slime algae from your garden pond in a way that is safe for fish and plants. The core of the T-Flow consists of an anode (1), made from a mineral copper alloy developed by Velda, and a stainless steel cathode (2). By means of the microprocessor controlled display unit (5), pulses are generated, which are led to the core of the T-Flow. Through these pulses, positively charged copper ions are released, also known as mineralization. In a defined concentration, these ions form a natural barrier against algae. Velda brings 4 different models of the T-Flow Tronic to the market. The function of the models is identical. The difference lies in the capacity to bring the copper ions to the active concentration of circa 0.3 ppm for any pond size.

Model	Content pond	Pump capacity	Recommended pump
<b>T-Flow 05</b>	< 5000l	2000 - 8000l/h	High-Stream / Eco-Stream Stand 6000
<b>T-Flow 15</b>	3000-15.000l	6000-10.000l/h	High-Stream / Eco-Stream Stand 8000
<b>T-Flow 35</b>	10.000-35.000l	10.000-20.000l/h	High-Stream / Eco-Stream Stand 15000
<b>T-Flow 75</b>	20.000-75.000l	15.000-25.000l/h	High-Stream / Eco-Stream Stand 20000

### WHAT YOU NEED TO KNOW ABOUT THE WATER QUALITY AND THE T-FLOW

- If sodium has been added to the pond water (for example kitchen salt or sea salt) the water should be completely refreshed before using the T-Flow Tronic.
- Avoid using water treatment products and the T-Flow simultaneously. If it is necessary to use these treatments, the T-Flow must be turned off during this period.
- Measure the values of the pond water and adjust them if necessary. Make sure the water is hard enough, with a minimum carbonate hardness (KH) of 6 °GH and a minimum general hardness (GH) of 8 °GH. The pH-value should be at least pH 7 before using the T-Flow Tronic.

## INSTALLATION

- The housing contains the copper anode and the stainless steel cathode, which together form the core of the T-Flow Tronic. Unscrew the end cap (3), tighten the anode (1) and place the cathode (2) over it. The water flow brings the copper ions in the pond water.
- On the housing, a pond pump must be connected. The hose connectors (4) can be mounted with the quick release couplings and shortened according to the diameter of the pump hose. **Place the T-Flow Tronic, using the clip, outside the pond, on or under the water level. Activate the pump.**
- It comes with a splash-proof operating display by which the T-Flow Tronic is controlled. **Connect the display unit and place it in a area protected against rain and sun.** On the basic screen you can check the rate of ions and the water temperature.



ATTENTION: First install the pump and activate the water supply, before connecting the display unit. Set the ionisation power at 5% activation. Wenn the water flow is not running, the message appears: ERROR 1.

## SETTINGS: ionisation power

This function enables you to regulate the power intensity and the amount of copper ions injected (0 - 100%). Use the arrow keys to select the right setting. The LED on the end cap will light up when the T-Flow Tronic is activated. The settings are preserved even after power failure and / or error.

There are various settings, which can be adjusted to every pond situation. From light to heavy algae growth, variable settings from 5 to 100% can be chosen. **We recommend always beginning with 5% setting when starting up the**

**T-Flow Tronic.** If after a week there is no visible change in the amount or color (turns white) of the algae growth, the setting can be increased by 5%. By repeating this (if necessary), you will get the correct setting for removing the fibrous algae from your pond. Experience teaches at what percentage your pond will remain algae-free also in the long term. To keep the chance of a disturbance of the balance as small as possible, we recommend always beginning with a low setting and increasing this gradually (instead of beginning with a maximum setting and then gradually decreasing). **Wenn the algae are gone, the setting can be turned to 5% to keep the pond algae-free.**



In case of hard water the anode (1) and cathode (2) may become filthy as a result of the ionization process. To reduce this pollution, the electric supply will be reversed regularly. During polarity reversing the LED on the end cap lights up red and green.

### Temperature sensor

The temperature sensor will calibrate first and after about 15 minutes it will indicate the right temperature. At water temperatures below 12°C the system will shut down automatically. The settings are preserved and above 12°C the device will switch on again. The T-Flow Tronic can be switched off manually by lowering the rate to 0% (Off).



### Locking the keys

The display unit has a key deactivation function to prevent inadvertent changes to the settings. Press the middle key for 3 seconds to lock the keys. The message appears **hold 3 sec. to (un)lock**. Pressing the middle key for 3 seconds unlocks the keypad. This function can be turned on or off at any time.



### Screen sleep mode

If no input is made to the operating display for 30 seconds, it enters 'sleep mode' and the screen light is turned off. This maintains the optimal quality and lifetime of the screen. As soon as a key is touched, the light turns on again. After 3 minutes, the keypad locks automatically.

## STORAGE AND CLEANING

At water temperatures below 12°C the system will shut down automatically. **During winter time, you should remove the T-Flow Tronic from the pond. Store it in a dry and frost-free place.**

In proportion to the amount of use, the size of the anode will decrease. If the anode needs replacing or becomes dirty, this is indicated on the display with the message ERROR 1. Continuous use at a high dose, may cause the anode to be replaced after only a few weeks. With variable use, it can be active from a few months to a year. When performing maintenance, always unplug the pump first. After removing the cathode (2), the anode (1) can be unscrewed from the housing and it can be replaced.

**Remove the dirt from the anode (1) and cathode (2) using water and the little brush, after a failure of the pump or ERROR. To be sure of an optimum operation, the end cap with cast in contact points should be replaced at least once a year.**

New anodes (1) and end caps (3) are available at the specialized trade.

## SAFETY REGULATIONS

Ensure a durable grounded connection to the electric mains and use an earth leakage circuit breaker of nominal 30 mA. With damage to the device, control display or cable the apparatus should no longer be used. With activity in or around the pond, all electrical pond apparatuses should be unplugged. This also applies to the T-Flow Tronic. The T-Flow is meant for use next to a pond. Any other use is forbidden by the manufacturer.

## REPORTING OF ERRORS AND SOLUTIONS

If the message **ERROR 1** appears on the display (flashing) and the LED on the end cap is flashing red or green, this can have different causes. Step by step, you can solve the problem.

### 1. check water flow: there is no water flowing through the apparatus.

Solution: Check whether the pump has been connected and/or whether it provides sufficient water pressure. There should be free water transit. Keep in mind that the net pump capacity depends on the pond situation. Clean the anode (1) and cathode (2) using the little brush.



### 2. clean or replace contacts: the contact points in the end cap have become filthy, oxidized or worn.

Solution: Remove deposit, using the little brush enclosed or replace the end cap (3).



### 3. LED off = cable fracture: there is a break in the cable.

The LED on the end cap will light up when the T-Flow is activated and is temporarily off during polarity reversing. When the LED remains off for a long period, it is a question of a break in the cable. Solution: Replace the end cap (3).



### 4. replace copper anode: the diameter of the copper anode has strongly reduced.

Solution: Replace the copper anode (1).



### 5. see manual (velda.com) Solution: When these measures have no effect and the message ERROR 1 remains displayed, visit [www.velda.com/service](http://www.velda.com/service) for assistance.



If the message **ERROR 2** appears on the display (flashing) and the LED on the end cap is flashing red or green, this can have different causes. Step by step, you can solve the problem.

### 1. clean copper anode: strong aggregation of copper residues in the end cap. Solution: Remove the residue from the anode (1) and cathode (2), using the little brush.



### 2. refresh water: dissolved conducting substances in the pond water, like salt. Solution: Refresh part of the water in order to reduce the conductivity of the water.



### 3. see manual (velda.com) Solution: When these measures have no effect and the message ERROR 2 remains displayed, visit [www.velda.com/service](http://www.velda.com/service) for assistance.



## **SUMMARY**

- Carefully read the instructions and visit [www.velda.com](http://www.velda.com) for further information.
- Measure the pH, GH, and KH values of the pond water and adjust them if necessary.
- Always place the T-Flow Tronic horizontally and outside the pond, on or under the water level.
- Always start with 5% activation and if necessary, increase weekly by 5%.
- Perform regular maintenance on the T-Flow Tronic, so that it works optimally.
- At water temperatures below 12°C the system will shut down automatically. Remove the T-Flow from the pond and store it in a dry and frost-free place.

## **WARNING FOR SIDE EFFECTS**

You should realize that, by removing fibrous algae, you influence the balance of the pond environment and thus the composition of the water. This may occur not only when using algae killers, but also when removing algae by hand. The fact that an important oxygen source is gone, can make extra aeration necessary to ensure a sufficient oxygen supply for the fish. Although problems will seldom occur, risks, including death of fish, can never be entirely excluded. This also applies to the use of the T-Flow Tronic. If the T-Flow is applied in the way described in the present user instructions, problems will almost certainly not occur. However, as the environment and composition of pond water will differ from pond to pond, Velda can not exclude death of fish for 100%, also in case the T-Flow Tronic is used. After activating the system, the fish may exhibit a shock reaction lasting a few days. This has no side-effect and after a short time, normal behavior is restored. If fish should go on behaving in a deviant way, we recommend to leave the T-Flow switched off for a couple of days. The T-Flow Tronic can be switched off manually by lowering the rate to 0% (Off). It is a generally known fact that copper (Cu) ions with a concentration of 0.2 to 0.3 ppm (0.2 to 0.3 mg per litre water) hinder algae growth. According to the European drinking water standards, even a Cu ion concentration of 2 ppm presents no danger for people and animals, with the exception of invertebrates such as snails and mussels. The T-Flow has been constructed so, that normal pond water, having a pH value 7 or higher, can not contain too high concentrations of Cu ions. However, because Velda has no supervision over individual use of this apparatus and has no input regarding the environmental circumstances of the pond, Velda bears no responsibility for possible failures or damage.

## **GUARANTEE**

Velda guarantees the correct functioning of this apparatus for a period of 24 months after purchase. If a claim to guarantee can be laid, a dated receipt should be presented. See the terms on the enclosed guarantee card and visit [www.velda.com/service](http://www.velda.com/service) for the warranty procedure.



T-Flow Tronic online

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