



**Messner**  
*moves water...*

# Tec2 : Edition **6**

eco-Tec2 4500

eco-Tec2 7500

eco-Tec2 10000

eco-Tec2 13000

eco-Tec2 16000

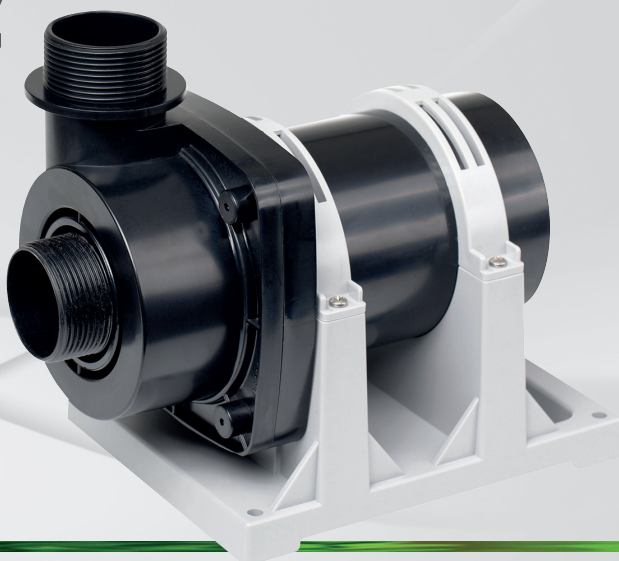
eco-Tec2 20000

eco-Tec2 plus 10000

eco-Tec2 plus 15000

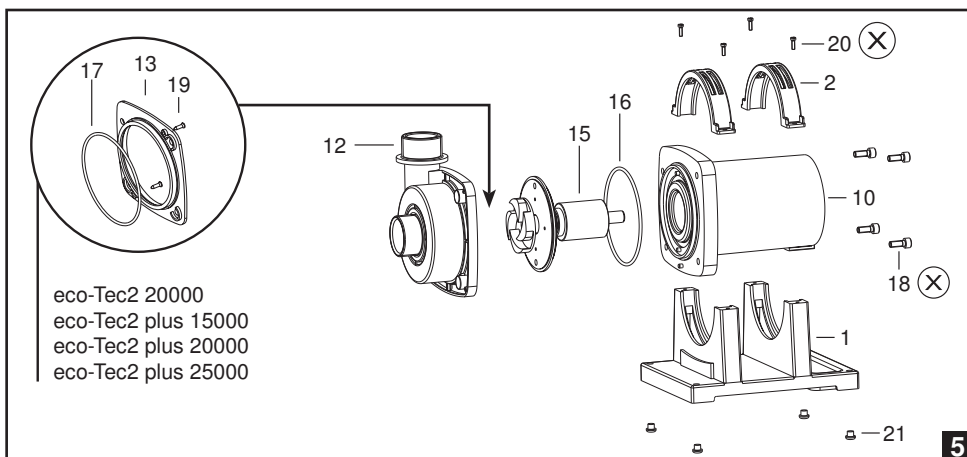
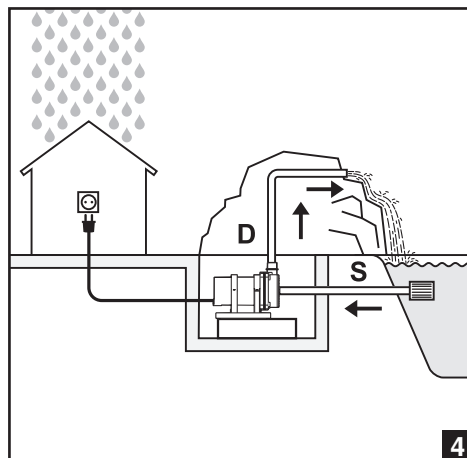
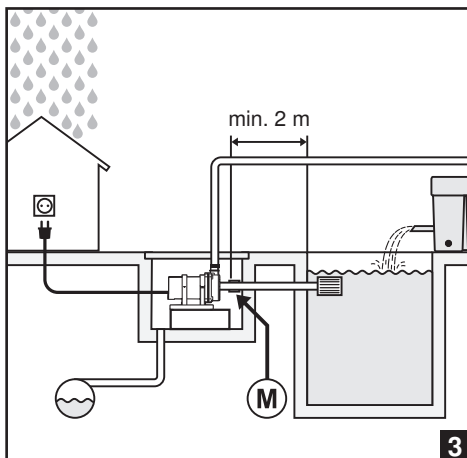
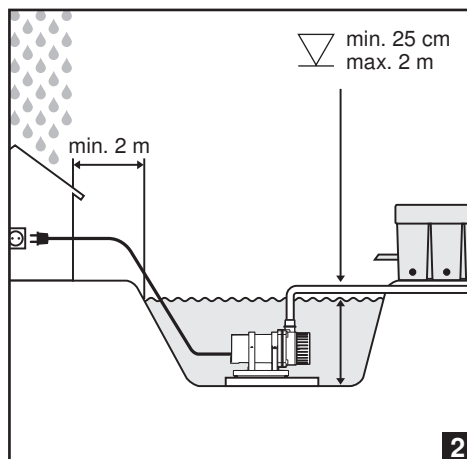
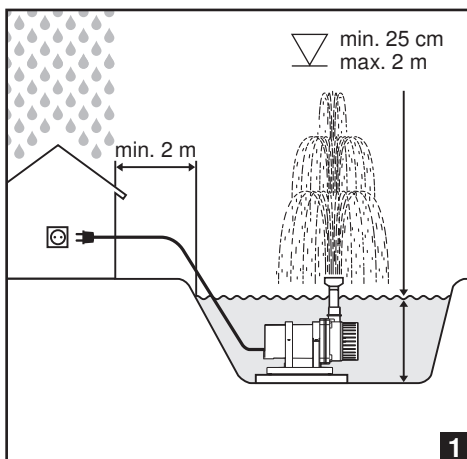
eco-Tec2 plus 20000

eco-Tec2 plus 25000



| eco-Tec2<br>4500  |                       | eco-Tec2<br>7500       |                         | eco-Tec2<br>10000       |                         | eco-Tec2<br>13000       |  | eco-Tec2<br>16000 |  | eco-Tec2<br>20000 |  |
|---|-----------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--|-------------------|--|-------------------|--|
|  | 82 l/min<br>4.900 l/h | 122 l/min<br>7.300 l/h | 183 l/min<br>11.000 l/h | 210 l/min<br>12.600 l/h | 257 l/min<br>15.400 l/h | 327 l/min<br>19.600 l/h |  |                   |  |                   |  |
|  | 3,1 m                 | 4,0 m                  | 5,4 m                   | 5,5 m                   | 5,8 m                   | 5,5 m                   |  |                   |  |                   |  |
|  | 48 W                  | 75 W                   | 110 W                   | 140 W                   | 190 W                   | 205 W                   |  |                   |  |                   |  |
|  | 230 V / 50 Hz         | 230 V / 50 Hz          | 230 V / 50 Hz           | 230 V / 50 Hz           | 230 V / 50 Hz           | 230 V / 50 Hz           |  |                   |  |                   |  |
|  | 230 x 145 x 192       | 230 x 145 x 192        | 245 x 145 x 192         | 245 x 145 x 192         | 245 x 145 x 192         | 260 x 145 x 192         |  |                   |  |                   |  |
|  | G 1¼" - A             | G 1¼" - A              | G 1½" - A               | G 1½" - A               | G 1½" - A               | G 2" - A                |  |                   |  |                   |  |
|  | G 1¼" - A             | G 1¼" - A              | G 1½" - A               | G 1½" - A               | G 1½" - A               | G 2" - A                |  |                   |  |                   |  |
|  | Ø 32/40               | Ø 32/40                | Ø 40/50                 | Ø 40/50                 | Ø 40/50                 | Ø 50/63                 |  |                   |  |                   |  |
| Art.-No.  | 156 / 005020          | 156 / 005021           | 156 / 005022            | 156 / 005023            | 156 / 005024            | 156 / 005025            |  |                   |  |                   |  |

| eco-Tec2 plus<br>10000  |                        | eco-Tec2 plus<br>15000  |                         | eco-Tec2 plus<br>20000  |  | eco-Tec2 plus<br>25000 |  |
|---|------------------------|-------------------------|-------------------------|-------------------------|--|------------------------|--|
|  | 165 l/min<br>9.900 l/h | 245 l/min<br>14.700 l/h | 300 l/min<br>18.000 l/h | 403 l/min<br>24.200 l/h |  |                        |  |
|  | 2,4 m                  | 3,2 m                   | 3,6 m                   | 3,8 m                   |  |                        |  |
|  | 60 W                   | 105 W                   | 155 W                   | 190 W                   |  |                        |  |
|  | 230 V / 50 Hz          | 230 V / 50 Hz           | 230 V / 50 Hz           | 230 V / 50 Hz           |  |                        |  |
|  | 245 x 145 x 192        | 260 x 145 x 195         | 260 x 145 x 195         | 260 x 145 x 195         |  |                        |  |
|  | G 1½" - A              | G 2" - A                | G 2" - A                | G 2" - A                |  |                        |  |
|  | G 1½" - A              | G 2" - A                | G 2" - A                | G 2" - A                |  |                        |  |
|  | Ø 40/50                | Ø 50/63                 | Ø 50/63                 | Ø 50/63                 |  |                        |  |
| Art.-No.  | 156 / 005026           | 156 / 005027            | 156 / 005028            | 156 / 005029            |  |                        |  |



## GB

**Please read the instructions thoroughly before using the pump! Otherwise you may not use it!**



This appliance is not suitable for use by persons (including children) with limited physical, sensory or mental capabilities or lacking experience and/or knowledge, except if they are supervised by a person responsible for their safety or have been instructed in the use of the appliance. Children should be supervised in order to make sure that they do not play with the appliance.



### Construction

These modern, powerful pumps are equipped with a single-phase alternating-current motor (canned motor with capacitor). The motor is waterproof encapsulated in synthetic resin (IP68) and provided with an overload protection.

**Please refer to the type plate for technical specifications or the table on page 2 + 3.**



### Use

These pumps are designed for the transport of water, for the operation of filter systems, water displays, waterfalls, etc., as well as for oxygenating and circulating the water.



**Area of application: garden ponds, fishponds, outdoor and patio fountains! (see fig. 1 + 2)**



- **Attention!** Use in garden ponds and their protected zone is permitted only if the installation is performed in compliance with the applicable regulations. Please consult a licensed electrician.
- **Before performing any work on the pump, the fountain, or the pond, disconnect the mains plug. Do not operate the pump if people are in the water! (disconnect the pump from the power source)**



**Area of application: swimming pond or swimming pool (if people are in the water)! (see fig. 3 + 4)**



**Attention! Here operation of the pump is permitted only if the pump is permanently installed outside of the water at least 2 m or more away from the pool.**

The following measures must be undertaken: (see fig. 3)

- Build a shaft with pedestal for the pump, **at least 2 m away from the edge of the water.**
- Protect the shaft with a cover.
- To protect the pump from flooding build a drain for the shaft.
- Attach the pump to the pedestal with screws.
- Install a "M" metal socket in the suction line, toward the pump, to connect to the equipotential bonding of the swimming pond/swimming pool system!
- Please consult a licensed electrician. Also refer to "Non submersible use" and "Safety Measures."



### Safety measures

- Before use: Check whether mains lead and plug are intact.
- Mains voltage and kind of current have to conform to the information on the type plate.
- **The pump may only be connected to a proper earthing-contact type socket through a residual current device (RCD, 30 mA).**
- **The connection box should be located in a water-protected area and at least 2 m away from the edge of the water (see fig. 1 + 2).**
- Always keep the plug dry.
- **Important!** If the mains lead or the motor housing are damaged, the pump cannot be used anymore. It cannot be repaired since the lead is permanently encapsulated in the motor housing.
- Do never hang up or transport the pump by the mains lead.



### Start-up (see fig. 1 - 4)

**Important! Do not let the pump run „dry“. This could cause damages to the appliance.**

- Immerse the pump completely in your pond. This causes the pump body to be filled with water.
- A minimum water depth of 25 cm is required for underwater operation to avoid the pump taking in air.
- $\nabla$  The maximum depth for submerged operation of the 2 m pump is 2 m!
- The water temperature may not exceed 35°C.
- The pump must be protected from frost.
- The pump is switched on by putting the plug in the socket.
- To prevent the pump becoming unnecessarily dirty, place it above the sludge deposits in your pond, in a firm and horizontal position (on a stone slab)!
- A range of accessories may be fitted onto the threaded connections of the pump.
- For intake protection in clear water select a pre-filter **Art.-No. 168 / 009137 - 168 / 009140 or 168 / 009050** from our line of accessories (**catalog**).
- The pressure duct can be mounted on top or on the side depending on the particular implementation!
- To do this loosen the screws (20) and turn the entire pump (10) to the desired position.
- Suitable fountain jets can be found in our range of accessories (**catalog**).

**“Non submersible use” (see fig. 3 + 4)**

The pump can be used in a nonsubmerged type application.

- Position the pump below the surface of the water, at the side of the pond so that the water can flow into the pump (not self-priming).
  - Connect suction hose (S) and pressure hose (D) to the pump. Connection should be watertight.
  - Suction hose and pump must be filled with water before switching-on.
  - **TIP!** To prevent the pump becoming clogged, provide the suction hose with a pre filter
- Art.-No. 168 / 009137 - 168 / 009140 or 168 / 009050** covered in our range of accessories.

**Overload protection**

In case the pump is becoming overheated the built-in thermal overload trip switches it off.

The pump must cool down.

The pump will not start automatically without the necessary controlling when it is cool.

Check the following operating conditions:

- Is there a sufficient water supply?
- Has the filter become clogged?
- Has dirt entered the pump housing (Follow the cleaning instructions below)?
- Have hoses or jets become clogged?
- Has the pump cooled down?

As soon as you have solved the problems, you can switch on the pump again by pulling the plug out of the socket and putting it in again after a short time (1 min.)

**Dismantling (see fig. 5)**

1. Follow the safety measures. **Disconnect pump from mains!**

2. Loosen the 4 screws (18).

3. Pull apart pump housing (12) and motor housing (10).

4. Remove rotor assembly (15) from motor housing (10). Take care of the O-ring (16) on the motor housing (10).

5. Clean all parts with clear water and a soft sponge. **Note!** In case of massive calcination please use Messner decalcifier for pumps **Art.-No. 168 / 009115**.

**Assembly (see fig. 5)**

1. Push the O-ring (16) onto the starting point on the motor housing (10).

2. Carefully slide the rotor assembly (15) into the motor housing (10) and twist the bearing cover so that the two holes fit onto the pins on the motor housing (10).

3. Check whether the rotor assembly can be rotated easily.

4. Check the position of the O-ring (16) on the motor housing (10).

5. Put the pump housing (12) on the motor housing (10) and attach it firmly and evenly with the 4 screws (18).

**Maintenance**

In order to prolong the service life of your pump significantly and to keep it in sound operating condition, it is recommended to carry out maintenance and cleanup regularly.

This can be done by everyone, quickly and easily. **See „Dismantling/Assembly“**

**Servicing intervals**

- In the beginning check proper performance of your pump every day. If necessary, clean the filters.
- Since servicing intervals (complete cleaning) will vary depending on the level of pond pollution, repeat the periodic service to your pump in accordance with the pollution of the pond water.

Should you determine that there are **damaged or worn parts**, replace them. **See „Spare parts“**

**Important! When used in calcareous water, the rotor assembly (15) and the stainless steel can split tube in the motor housing (10) should be cleaned at regular intervals.**

**Pump care in wintertime****Protect your pump from freezing-up!**

Take the pump out of your pond in autumn.

Clean the pump completely according to the instructions.

During the winter months store the pump in a tank filled with water to prevent the bearings from drying out.

Store the tank in a frostproof room.

**Spare parts**

To order spare parts, please indicate the pump type, the designation and the Art.-No. from the table below (see also fig. 5).

| Item | Designation                  | Pump Type                                | Art.-No.     | Number |
|------|------------------------------|--|--------------|--------|
| 1    | Pump stand                   | eco-Tec2 4500 - 20000                    | 104 / 003506 | 1      |
| 2    | Clip                         | eco-Tec2 plus 10000 - 25000              | 104 / 003505 | 2      |
| 12   | Pump housing G 1 1/4"        | eco-Tec2 4500 - 20000                    | 104 / 003279 | 1      |
|      | Pump housing G 1 1/2"        | eco-Tec2 plus 10000 - 25000              | 104 / 003280 | 1      |
|      |                              | eco-Tec2 4500, eco-Tec2 7500             |              |        |
|      |                              | eco-Tec2 10000, eco-Tec2 13000           |              |        |
|      |                              | eco-Tec2 16000                           |              |        |
|      | Pump housing G 1 1/2" - Ø 35 | eco-Tec2 plus 10000                      | 104 / 003570 | 1      |
|      | Pump housing G 2"            | eco-Tec2 20000                           | 104 / 003409 | 1      |
|      | Pump housing G 2" - Ø 45     | eco-Tec2 plus 15000                      | 104 / 003508 | 1      |
|      | Pump housing G 2" - Ø 109    | eco-Tec2 plus 20000                      | 104 / 004627 | 1      |
| 13   | Connection flange C3 G 2"    | eco-Tec2 20000                           | 104 / 003410 | 1      |
|      | Connection flange C3 Ø 109   | eco-Tec2 plus 15000, eco-Tec2 plus 20000 | 104 / 004612 | 1      |
| 15   | Rotor assembly               | eco-Tec2 4500                            | 168 / 009156 | 1      |
|      | Rotor assembly               | eco-Tec2 7500                            | 168 / 009157 | 1      |
|      | Rotor assembly               | eco-Tec2 10000                           | 168 / 009158 | 1      |
|      | Rotor assembly               | eco-Tec2 13000                           | 168 / 009159 | 1      |
|      | Rotor assembly               | eco-Tec2 16000                           | 168 / 009160 | 1      |
|      | Rotor assembly               | eco-Tec2 20000                           | 168 / 009161 | 1      |
|      | Rotor assembly               | eco-Tec2 plus 10000                      | 168 / 009162 | 1      |
|      | Rotor assembly               | eco-Tec2 plus 15000                      | 168 / 009163 | 1      |
|      | Rotor assembly               | eco-Tec2 plus 20000                      | 168 / 009164 | 1      |
|      | Rotor assembly               | eco-Tec2 plus 25000                      | 168 / 009175 | 1      |
| 16   | O-ring 96 x 3                | eco-Tec2 4500 - 20000                    | 112 / 000030 | 1      |
|      |                              | eco-Tec2 plus 10000 - 25000              |              |        |
| 17   | O-ring 105 x 3               | eco-Tec2 20000                           | 112 / 000047 | 1      |
|      |                              | eco-Tec2 plus 15000, eco-Tec2 plus 20000 |              |        |
| 18   | O-Ring 105 x 2,5             | eco-Tec2 plus 25000                      | 112 / 000069 | 1      |
|      | Screw M 6 x 16               | eco-Tec2 4500 - 16000                    | 114 / 000048 | 4      |
|      |                              | eco-Tec2 plus 10000                      |              |        |
|      | Screw M 6 x 20               | eco-Tec2 20000, eco-Tec2 plus 15000      | 114 / 000079 | 4      |
|      |                              | eco-Tec2 plus 20000, eco-Tec2 plus 25000 |              |        |
| 19   | Screw Ø 3,5 x 13             | eco-Tec2 20000                           | 114 / 000078 | 2      |
|      |                              | eco-Tec2 plus 15000 - 25000              |              |        |
| 20   | Screw Ø 3,9 x 16             | eco-Tec2 4500 - 20000                    | 114 / 000042 | 4      |
|      |                              | eco-Tec2 plus 10000 - 25000              |              |        |
| 21   | Rubber buffer                | eco-Tec2 4500 - 20000                    | 114 / 000172 | 4      |
|      |                              | eco-Tec2 plus 10000 - 25000              |              |        |

**Guarantee conditions**

This pump comes with a **72-month** guarantee that is effective from the date of delivery. The invoice will be the proof of the date. In case of damages due to defects in material or manufacturing, we shall either do a free repair during the guarantee period or replace the damaged part, the choice being ours.

Damages that occur due to installation and operating errors, lime deposits, insufficient care, frost action, normal wear and tear or improper repair attempts will not come under this guarantee. The guarantee will not be valid in case of modifications to the pump, e.g. cutting off the line connection or the line cord. We will not accept responsibility for consequential damages resulting from breakdown of the pump or improper operation.

When making use of the guarantee, please send us the pump, along with the corresponding invoice, free of charge via the specialist dealer who sold you the pump.

**Waste disposal**

waste disposal of electronic devices by the user in private households of the EU

It is not allowed to dispose the product along with the regular waste disposal, instead it has to be collected separately. It is your responsibility to dispose and recycle the device in a proper place and protect the environment through this. More information, where to dispose your devices can be obtained at the local departments.



Stamp and Signature of Dealer / Date of purchase

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