



Messner
moves water...

eco-X2 4500

eco-X2 7500

eco-X2 10000

eco-X2 13000

eco-X2 16000

eco-X2 20000

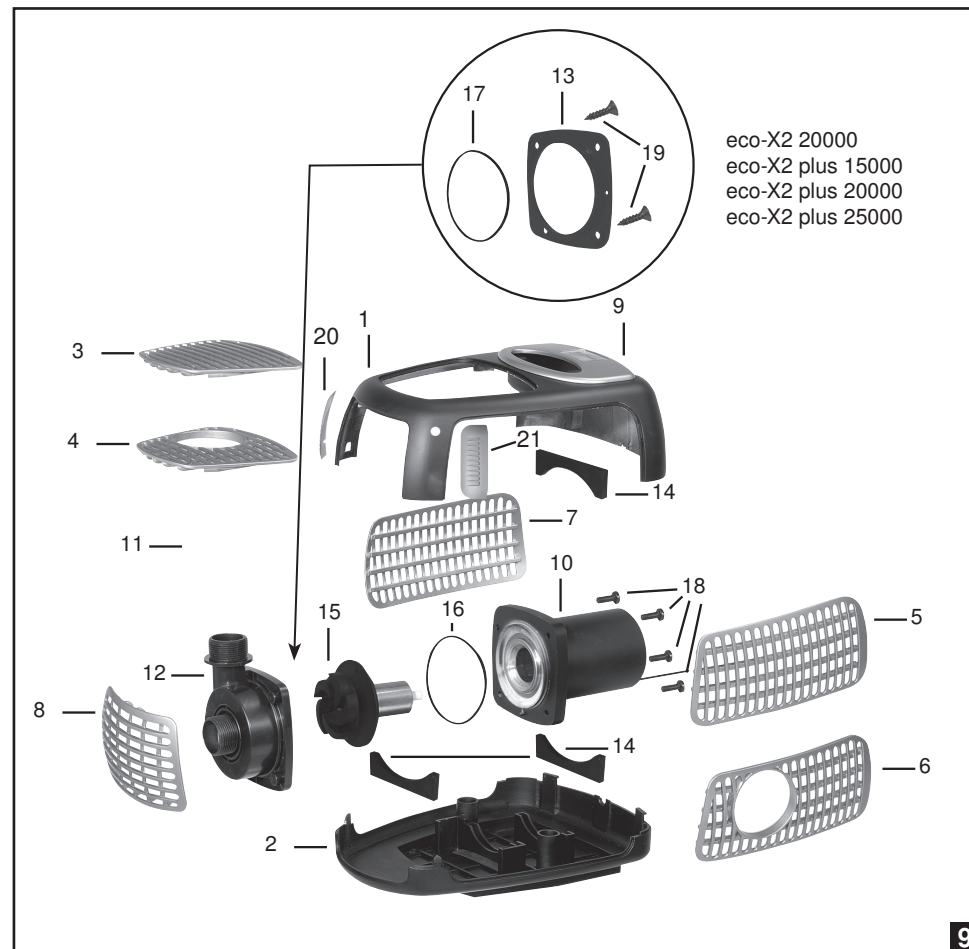
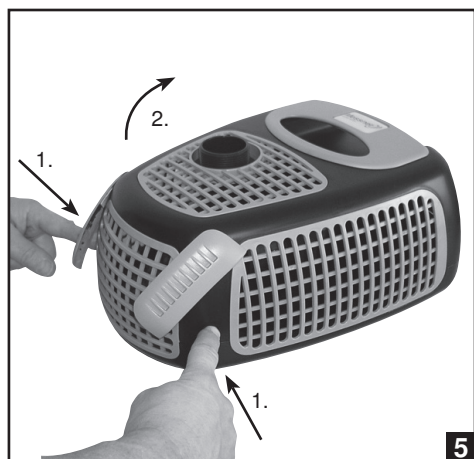
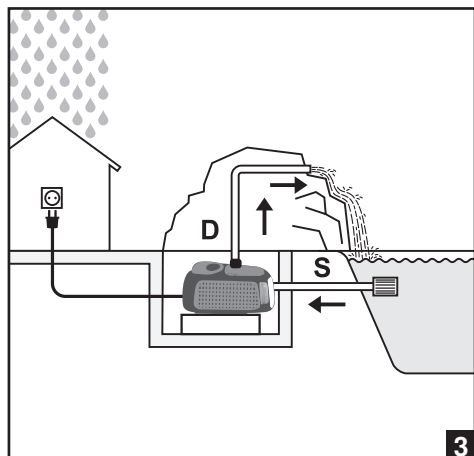
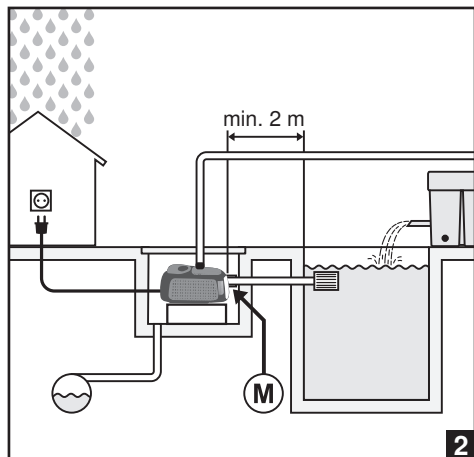
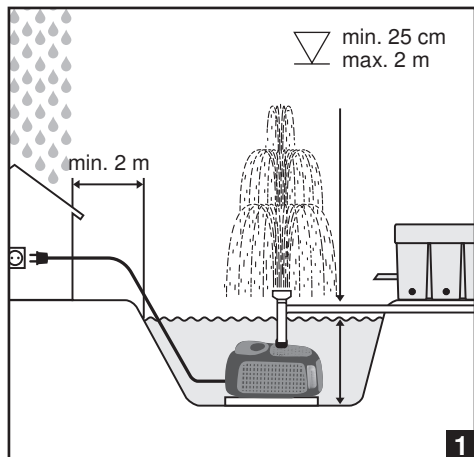
eco-X2 plus 10000

eco-X2 plus 15000

eco-X2 plus 20000

eco-X2 plus 25000





eco-X2 4500		eco-X2 7500		eco-X2 10000		eco-X2 13000		eco-X2 16000		eco-X2 20000	
	82 l/min 4.900 l/h	122 l/min 7.300 l/h	183 l/min 11.000 l/h	210 l/min 12.600 l/h	257 l/min 15.400 l/h	327 l/min 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					
	IP 68	IP 68	IP 68	IP 68	IP 68	IP 68					
	35 °C	35 °C	35 °C	35 °C	35 °C	35 °C					
	2 m	2 m	2 m	2 m	2 m	2 m					
Art.-No.	156 / 005000	156 / 005001	156 / 005002	156 / 005003	156 / 005004	156 / 005005					

eco-X2 plus 10000		eco-X2 plus 15000		eco-X2 plus 20000		eco-X2 plus 25000	
	165 l/min 9.900 l/h	245 l/min 14.700 l/h	300 l/min 18.000 l/h	403 l/min 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			
	IP 68	IP 68	IP 68	IP 68			
	35 °C	35 °C	35 °C	35 °C			
	2 m	2 m	2 m	2 m			
Art.-No.	156 / 005006	156 / 005007	156 / 005008	156 / 005009			



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!



- **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)!

Pump suitable for installation and operation in systems and rooms according to DIN VDE 0100 Part 702 and Part 737, if the erection requirements per DIN VDE 100 and the manufacturer's specifications (assembly and operating instructions) are followed.

Installation of these pumps at swimming ponds or swimming pools must comply with the following standards: DIN EN 13451 Part 1 to Part 8, and DIN VDE 0100 Part 702 and Part 737.



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. 2)

- 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).**
- 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 - 3)

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.
- $\sum_{2m}$ The maximum depth for submerged operation of the 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.
- The supplied screen inserts are sufficient as protection from intake in clear water.



- Depending on the field of use, the outlet side can be mounted upwards or sideways. Carry out step 1 - 3 Dismantling and step 6 - 8 Assembly!
- Suitable fountain jets can be found in our range of accessoires (**catalog**).



"Non submersible use" (see fig. 2 + 3)

- 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).
- Remove strainer insert (8) (see fig. 5).
- 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 / 009051** 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. 4 - 9)

1. Follow the safety measures. **Disconnect pump from mains!**
2. Grasp the two clips (20 + 21) on the front of the pump, on the lower end, and turn them upward and forward.
3. Push the two flaps at the front side of the pump inwards. Lift and remove upper shell (1). Now the screen inserts on the front (8), on the right side (7) and on the left side (5/6) work loose.
4. Remove the entire pump (10) with pump housing (12) from the lower shell (2).
5. Loosen the 4 screws (18).
6. Pull apart pump housing (12) and motor housing (10).
7. Remove rotor assembly (15) from motor housing (10). Take care of the O-ring (16) on the motor housing (10).
8. 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. 4 - 9)

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).
6. Put the pump (10) into the lower shell (2) in the desired position (the outlet of the pump housing (12) directed upwards or sideways).
7. Attach the upper shell (1) to the rear hook of the lower shell (2) and lock it into the front flaps.
8. Grasp the two clips (20 + 21) on the lower end and turn them to the rear, this locks the upper shell (1) and the lower shell (2).
9. Insert the respective screen inserts into the openings on top (3 or 4) and on the left (5 or 6) or on the front (8) and on the right (7).



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. 9).

Item Designation	Pump Type	Art.-No.	Number
1 Upper shell	eco-X2 4500 - 20000 eco-X2 plus 10000 - 25000	104 / 004317	1
2 Lower shell	eco-X2 4500 - 20000 eco-X2 plus 10000 - 25000	104 / 004318	1
3 Top screen insert	eco-X2 4500 - 20000 eco-X2 plus 10000 - 25000	104 / 003441	1
4 Top screen insert 1 1/4"	eco-X2 4500, eco-X2 7500	104 / 003451	1
Top screen insert 1 1/2"	eco-X2 10000, eco-X2 13000	104 / 003450	1
Top screen insert 2"	eco-X2 16000, eco-X2 plus 10000 eco-X2 20000, eco-X2 plus 15000	104 / 003449	1
5 Left screen insert	eco-X2 plus 20000, eco-X2 plus 25000 eco-X2 4500 - 20000	104 / 003442	1
6 Left screen insert 1 1/4"	eco-X2 plus 10000 - 25000 eco-X2 4500, eco-X2 7500	104 / 003448	1
Left screen insert 1 1/2"	eco-X2 10000, eco-X2 13000	104 / 003447	1
Left screen insert 2"	eco-X2 16000, eco-X2 plus 10000 eco-X2 20000, eco-X2 plus 15000	104 / 003446	1
7 Right screen insert	eco-X2 plus 20000, eco-X2 plus 25000 eco-X2 4500 - 20000	104 / 003443	1
8 Front screen insert	eco-X2 plus 10000 - 25000 eco-X2 4500 - 20000	104 / 003440	1
9 Handle	eco-X2 4500 - 20000 eco-X2 plus 10000 - 25000	104 / 003444	1
12 Pump housing 1 1/4"	eco-X2 4500, eco-X2 7500	104 / 003279	1
Pump housing 1 1/2"	eco-X2 10000, eco-X2 13000 eco-X2 16000	104 / 003280	1
Pump housing 1 1/2" - Ø 35	eco-X2 plus 10000	104 / 003570	1
Pump housing 2"	eco-X2 20000, eco-X2 plus 15000	104 / 003409	1
Pump housing 2" - Ø 47	eco-X2 plus 20000	104 / 003508	1
Pump housing 2" - Ø 109	eco-X2 plus 25000	104 / 004627	1
13 Connection flange C3 2"	eco-X2 20000 eco-X2 plus 15000, eco-X2 plus 20000	104 / 003410	1
Connection flange C3 Ø 109	eco-X2 plus 25000	104 / 004612	1
14 Rubber lagging C3	eco-X2 4500 - 20000 eco-X2 plus 10000 - 25000	104 / 003452	3
15 Rotor assembly	eco-X2 4500	168 / 009156	1
Rotor assembly	eco-X2 7500	168 / 009157	1
Rotor assembly	eco-X2 10000	168 / 009158	1
Rotor assembly	eco-X2 13000	168 / 009159	1
Rotor assembly	eco-X2 16000	168 / 009160	1
Rotor assembly	eco-X2 20000	168 / 009161	1
Rotor assembly	eco-X2 plus 10000	168 / 009162	1
15 Rotor assembly	eco-X2 plus 15000	168 / 009163	1
Rotor assembly	eco-X2 plus 20000	168 / 009164	1
Rotor assembly	eco-X2 plus 25000	168 / 009175	1
16 O-ring 96 x 3	eco-X2 4500 - 20000 eco-X2 plus 10000 - 25000	112 / 000030	1
17 O-ring 105 x 3	eco-X2 20000 eco-X2 plus 15000, eco-X2 plus 20000	112 / 000047	1
O-ring 105 x 2,5	eco-X2 plus 25000	112 / 000069	1
18 Screw M 6 x 16	eco-X2 4500 - 16000 eco-X2 plus 10000	114 / 000048	4
18 Screw M 6 x 20	eco-X2 20000, eco-X2 plus 15000 eco-X2 plus 20000, eco-X2 plus 25000	114 / 000079	4



Item Designation	Pump Type	Art.-No.	Number
19 Screw Ø 3,5 x 13	eco-X2 20000 eco-X2 plus 15000 - 25000	114 / 000078	2
20 Clip C3 right	eco-X2 4500 - 20000 eco-X2 plus 10000 - 25000	104 / 004270	1
21 Clip C3 left	eco-X2 4500 - 20000 eco-X2 plus 10000 - 25000	104 / 004269	1



Warranty conditions

This pump is covered for warranty claims for a period of **60 months**, beginning on the day of supply. The date in the proof of purchase document denotes the authoritative day of supply. In case of damage caused by material or processing faults which arises during the warranty period, we shall repair or replace the item free of charge. In each case we shall elect whether to repair or replace the item. Damage which is caused by installation and operating errors, lime deposits, insufficient care, frost, normal wear or improper attempts to perform repairs are not covered by this warranty.

Spare parts, such as rotors, impellers, lighting accessories etc. are subject to normal wear or have a certain service life due to their design. They are therefore not covered by the warranty. The warranty will be rendered null and void if any modifications are made to the pump, e.g. cutting off the mains connection cable or the mains plug.

We shall not be liable for any consequential damages caused by failure of the pump or improper operation. For all warranty claims please return the device to us together with proof of purchase, carriage paid and at your own transportation risk.



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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