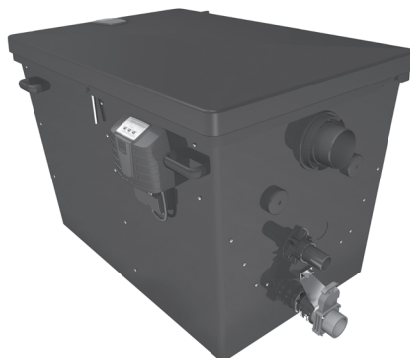




ProfiClear Premium *Compact L*

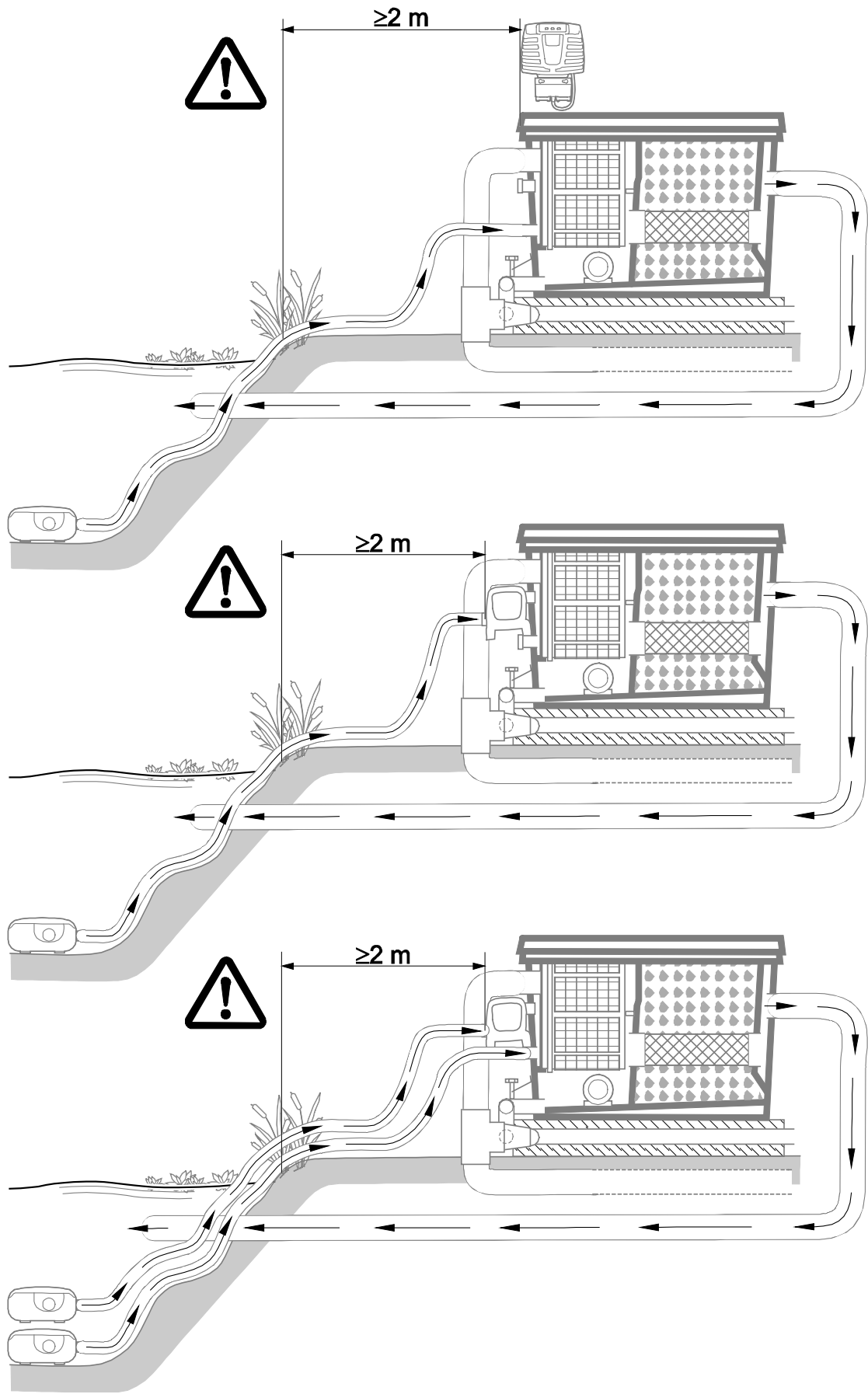


- DE **Gebrauchsanleitung**
- EN **Operating instructions**
- FR **Notice d'emploi**
- NL **Gebruiksaanwijzing**
- ES **Instrucciones de uso**
- IT **Istruzioni d'uso**
- DA **Brugsanvisning**
- SV **Bruksanvisning**
- HU **Használati útmutató**
- PL **Instrukcja użytkowania**
- CS **Návod k použití**
- RU **Руководство по эксплуатации**

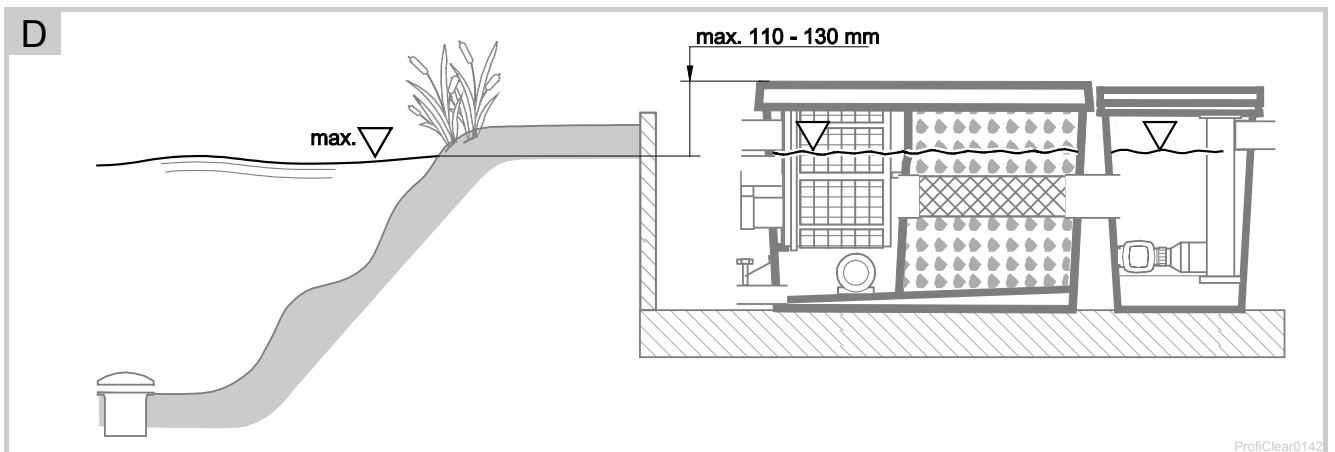
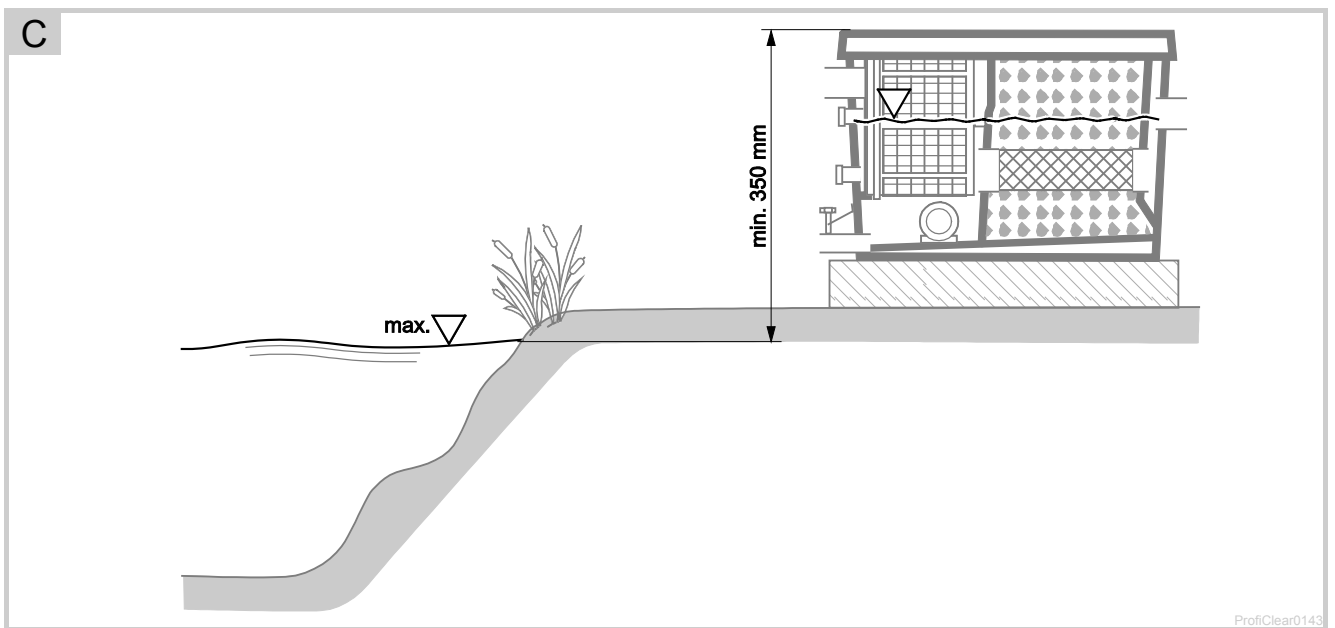
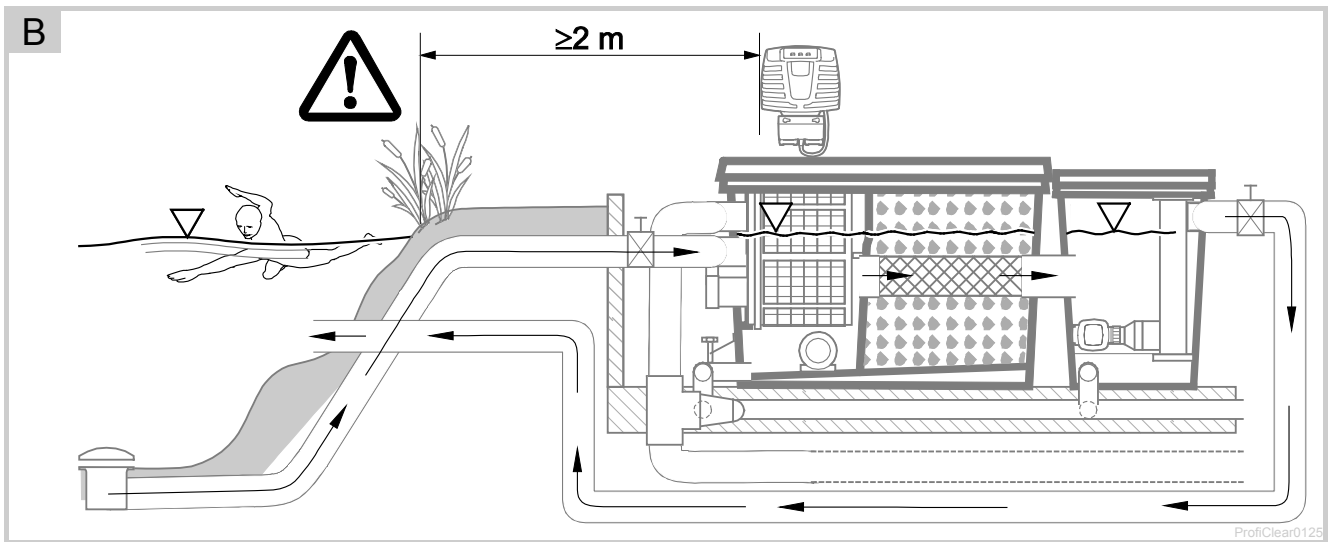


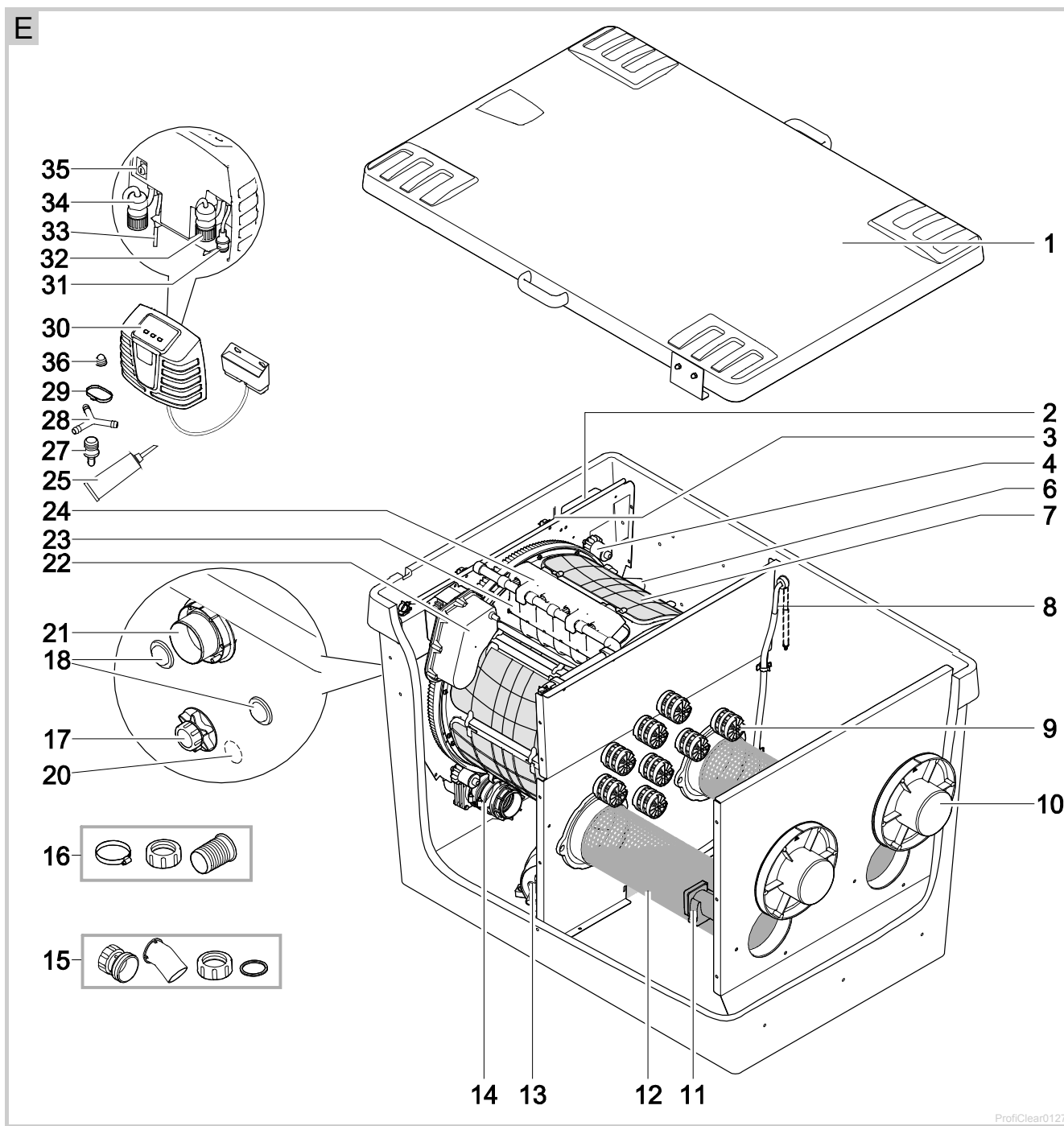


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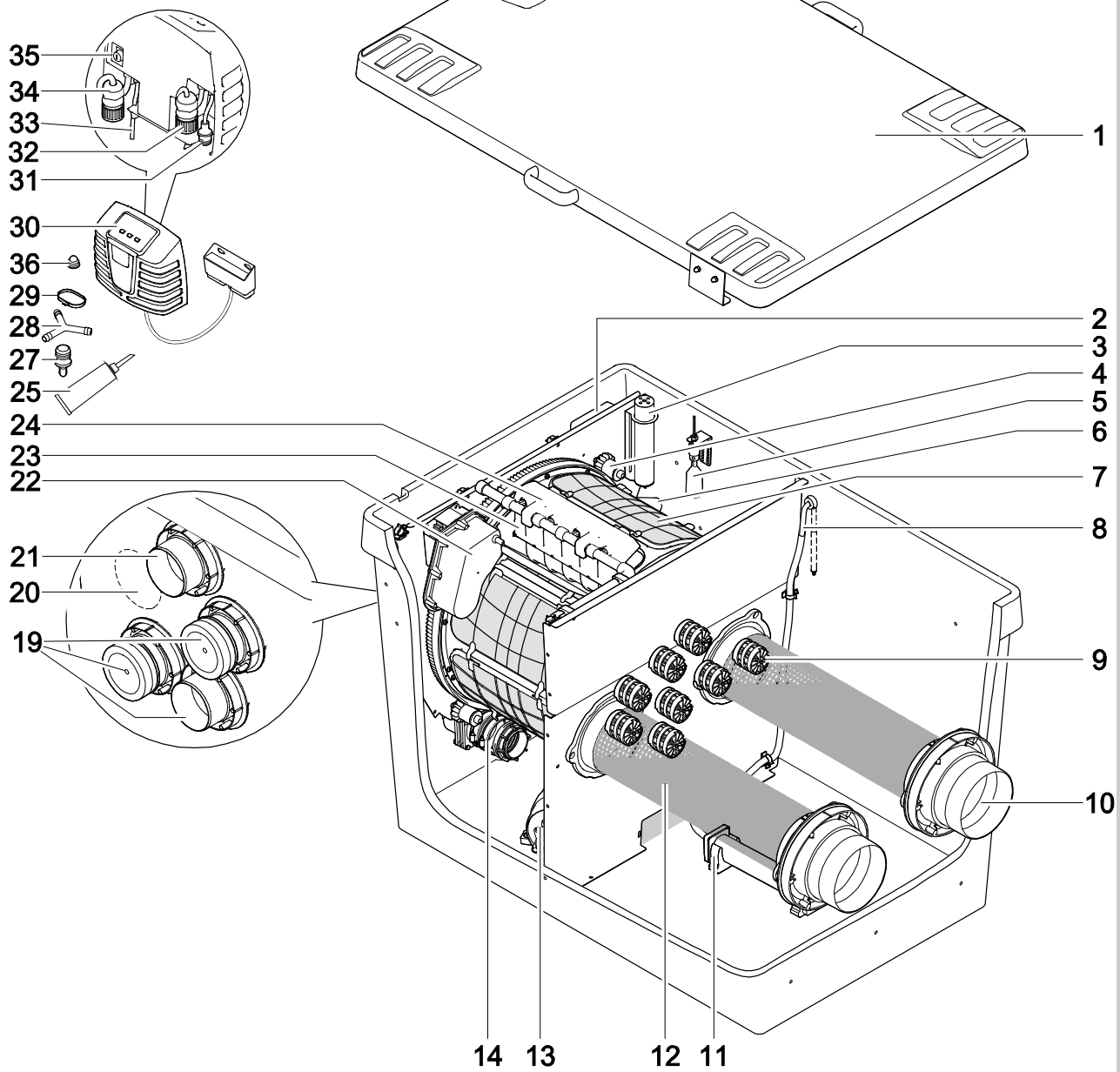
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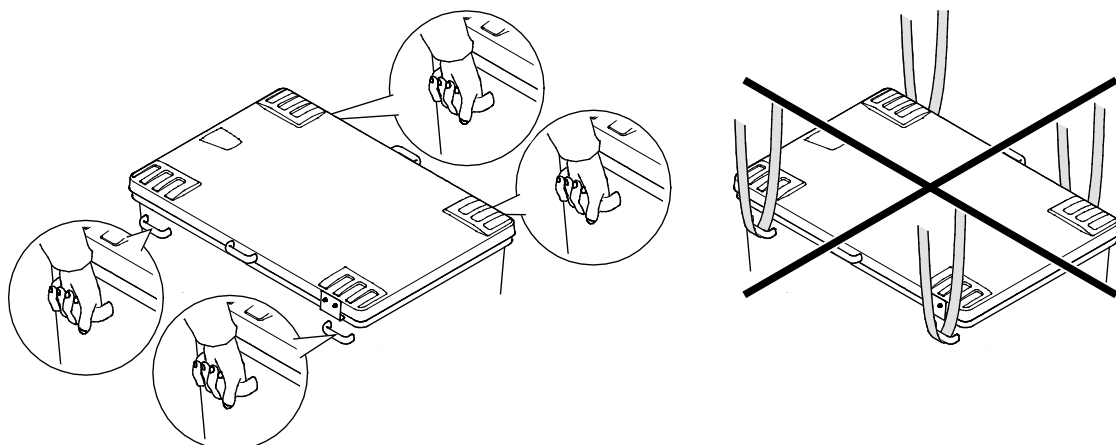


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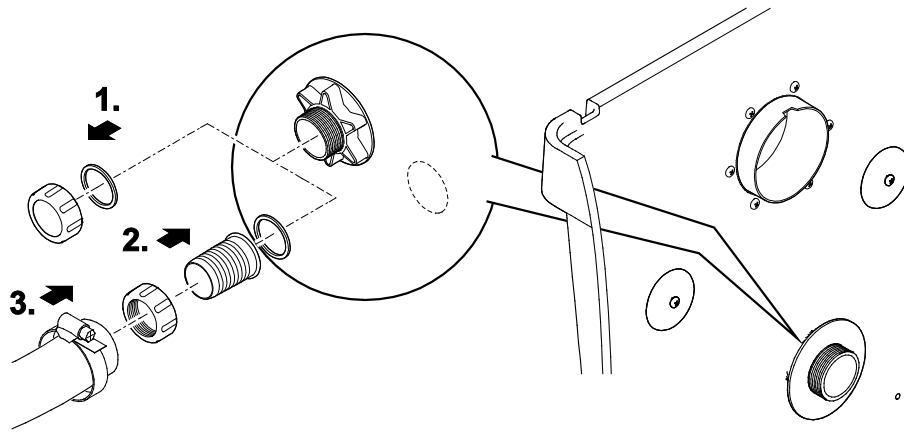
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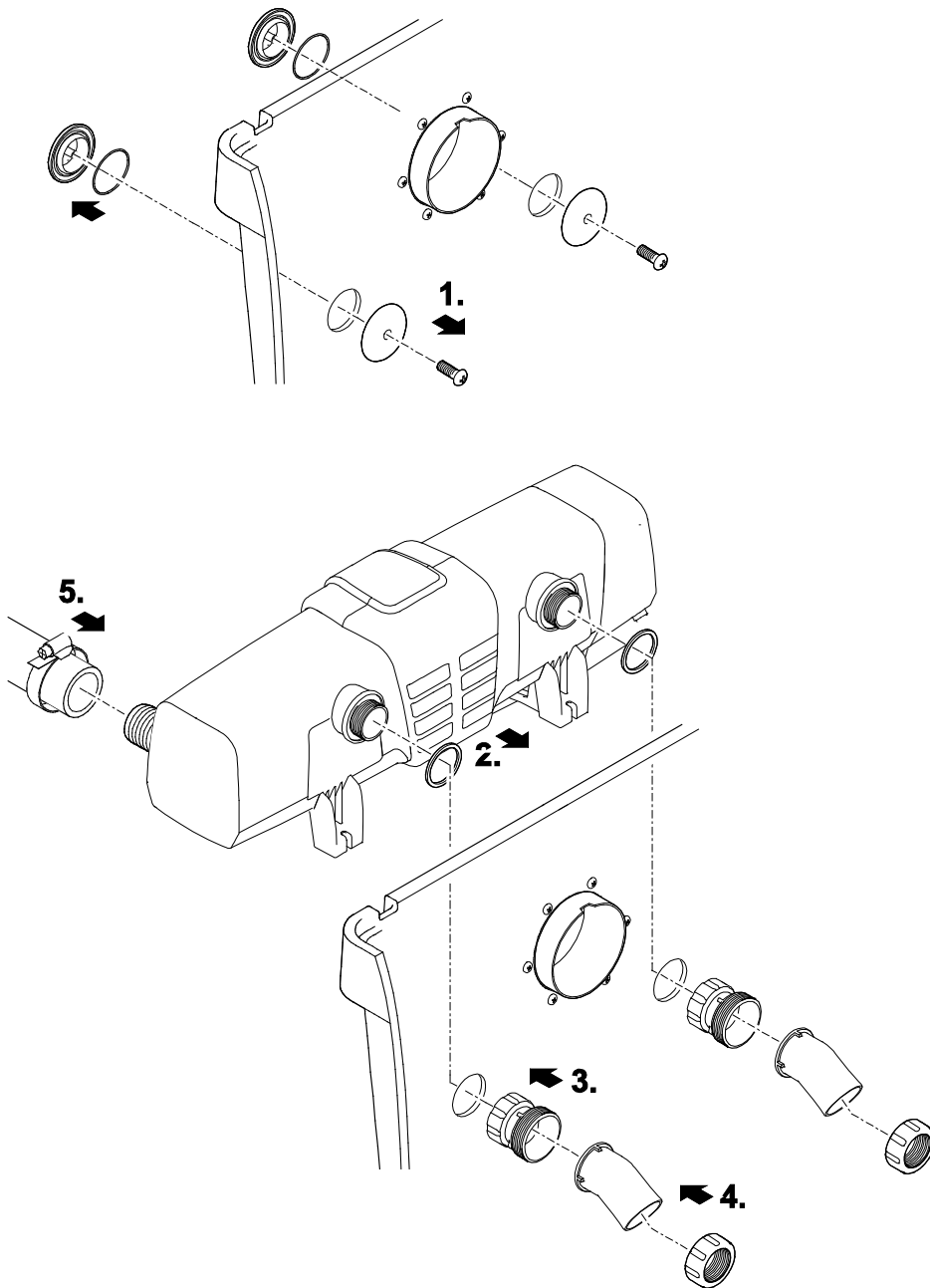


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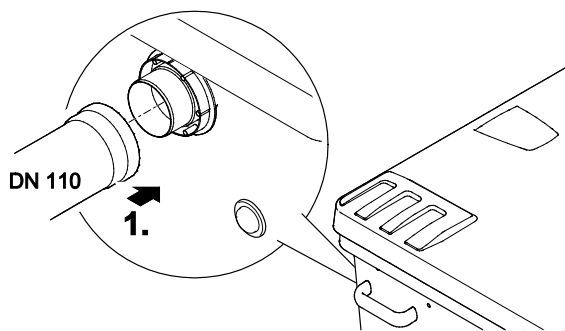
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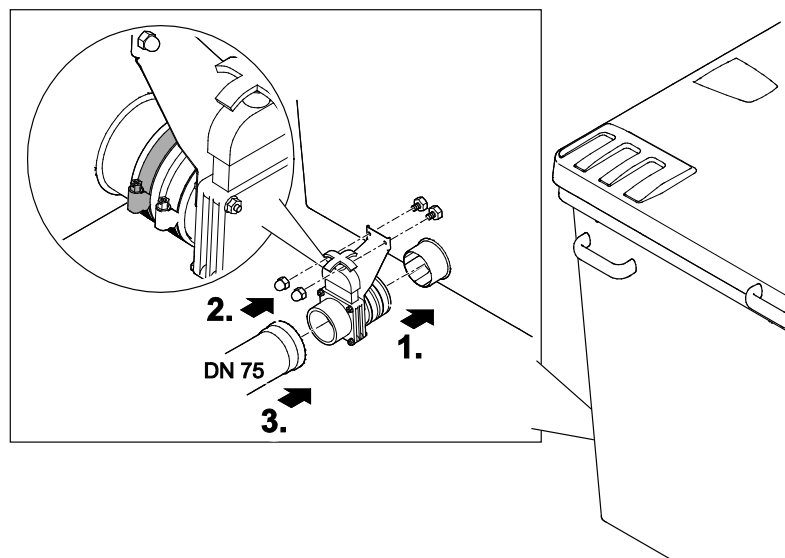


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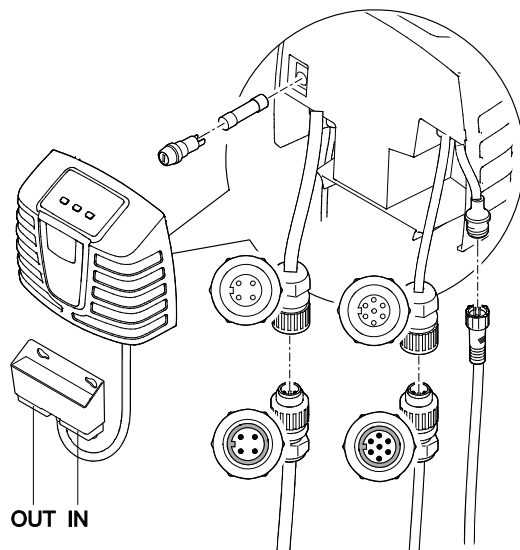
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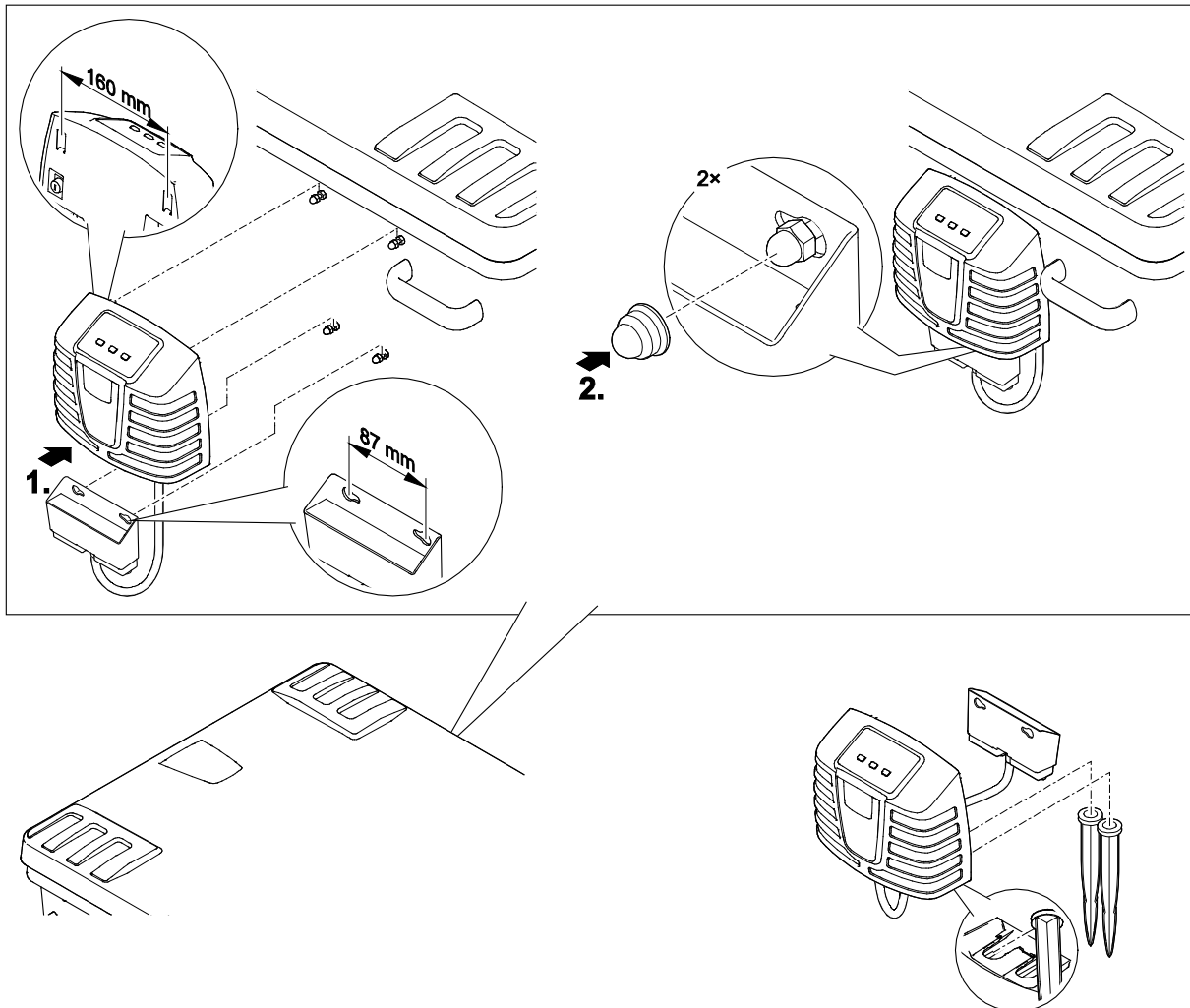
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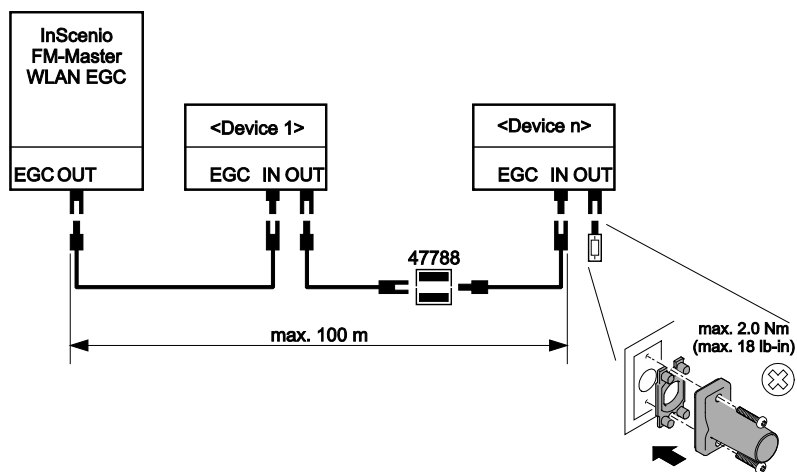


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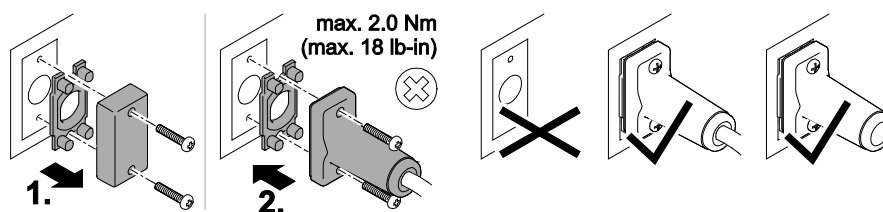
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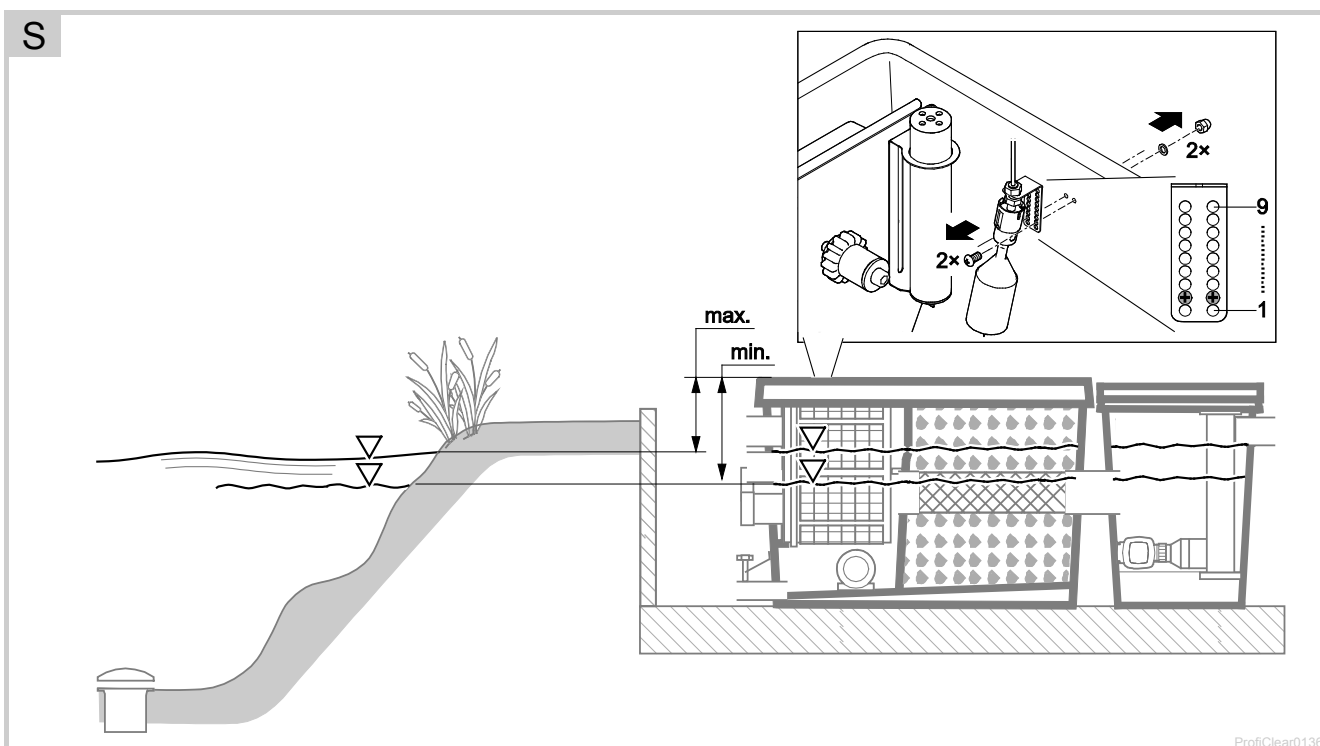
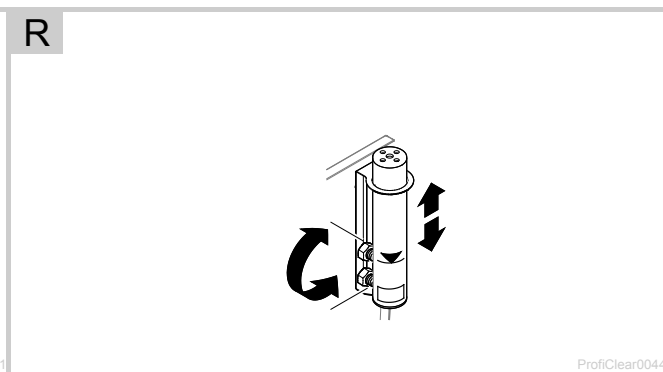
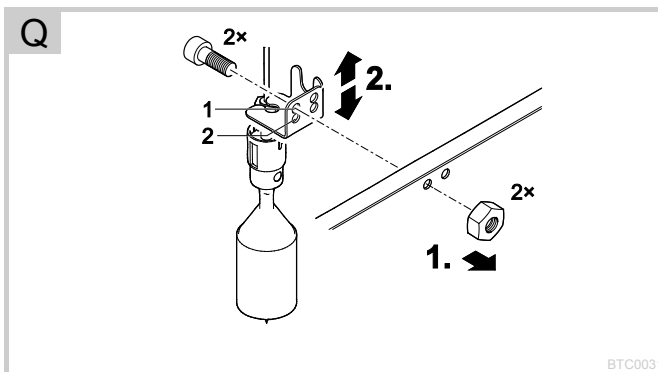
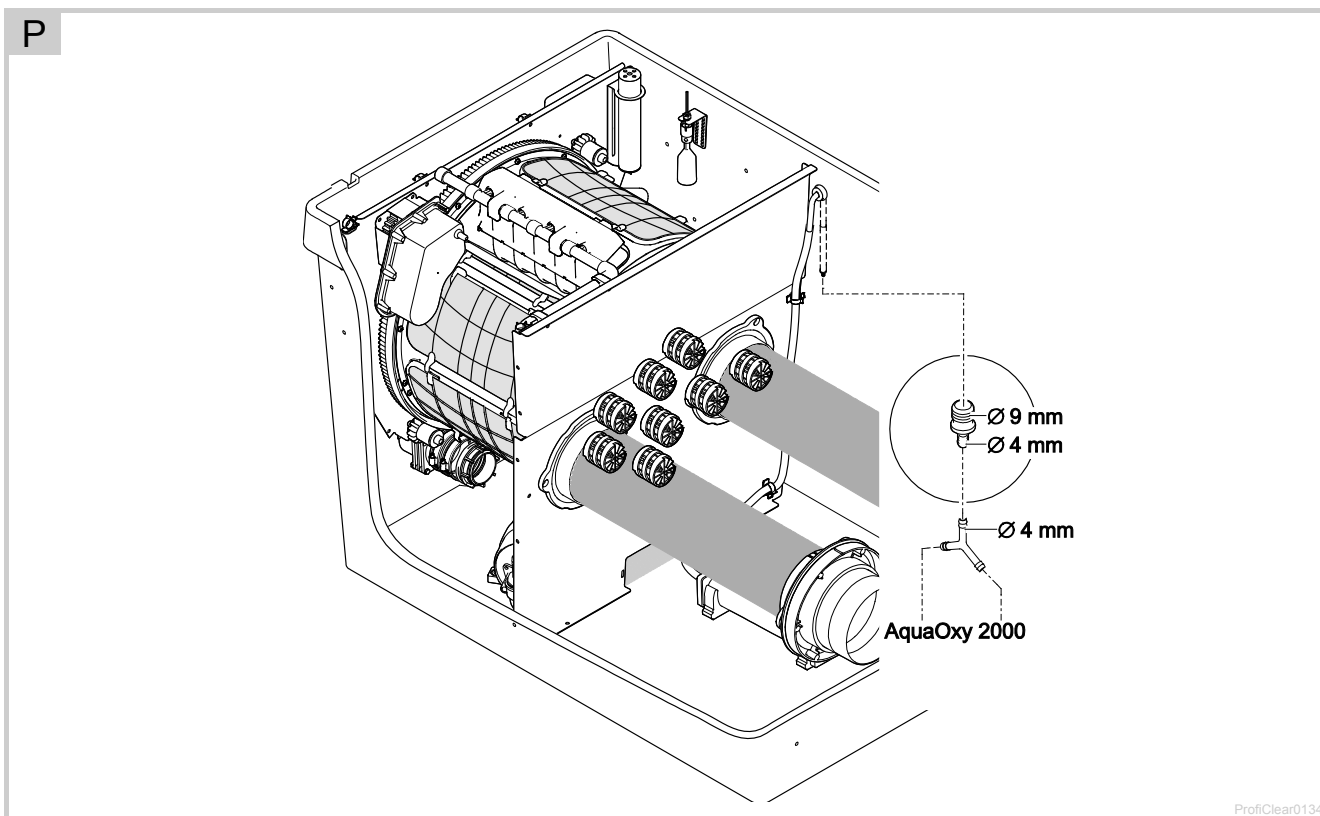


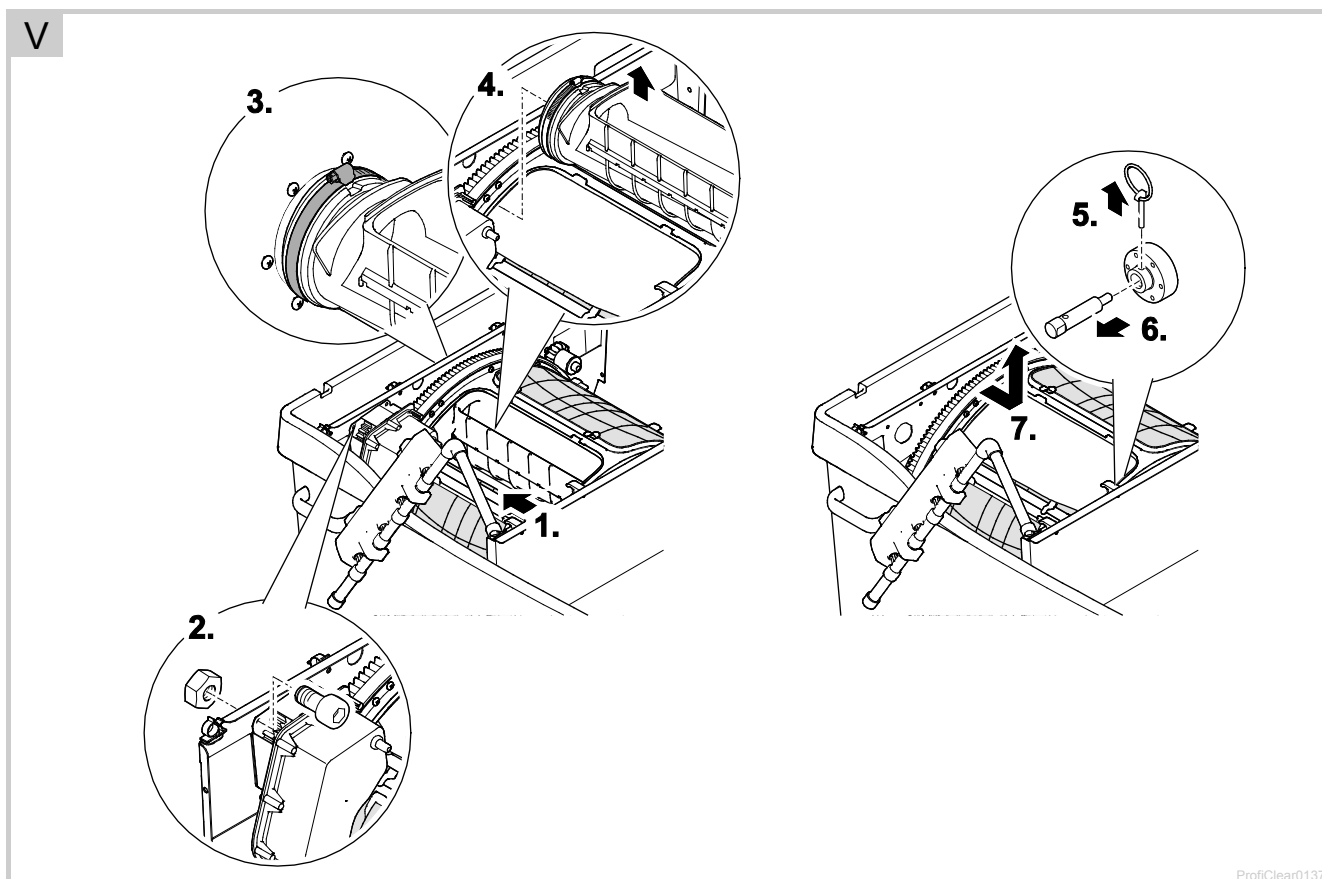
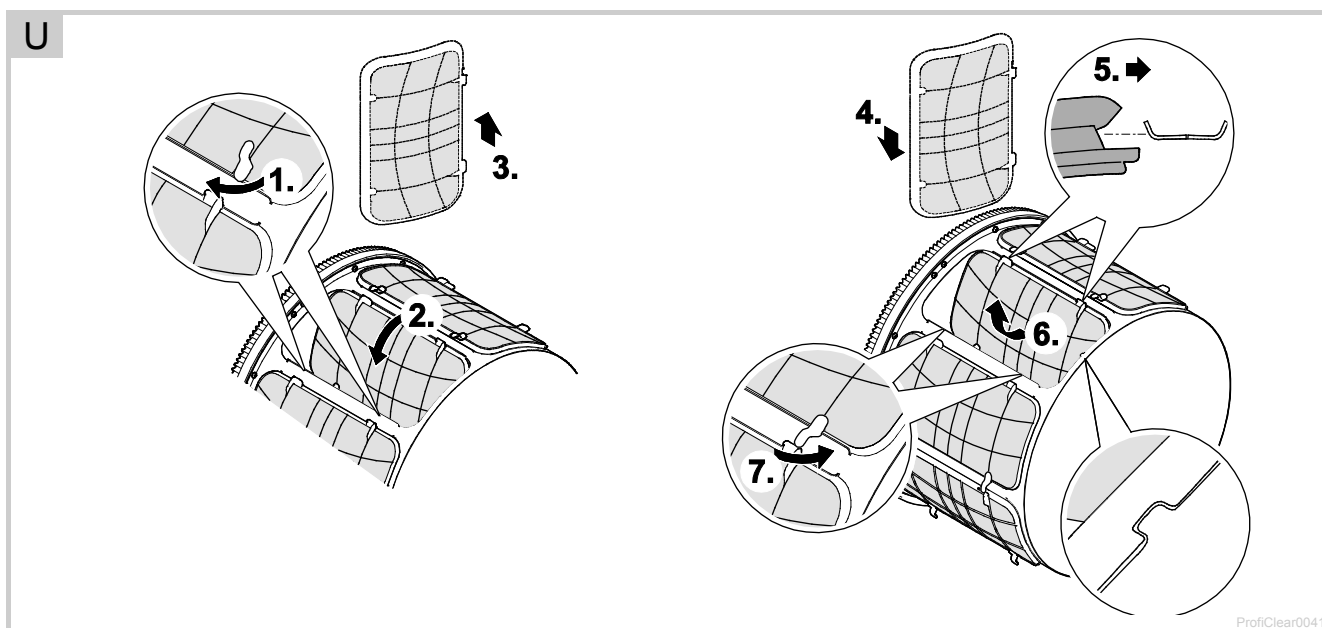
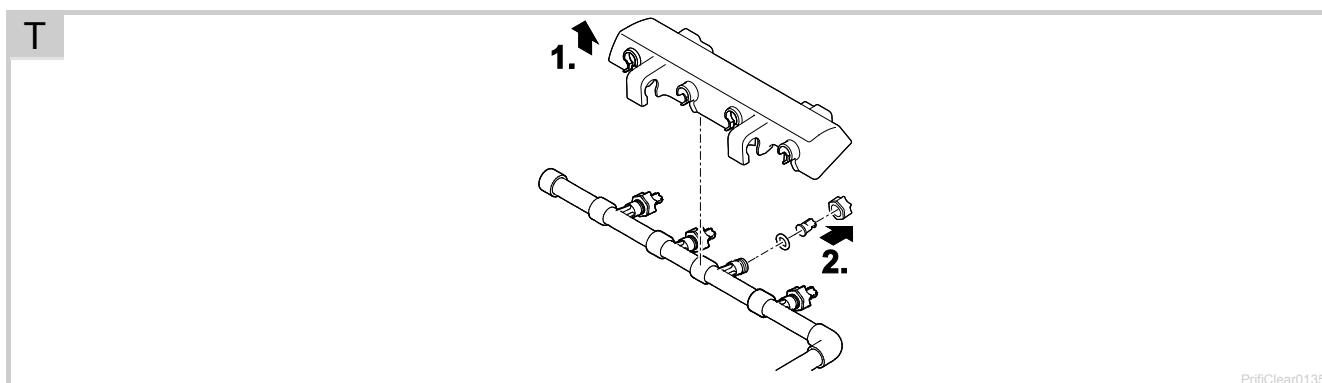
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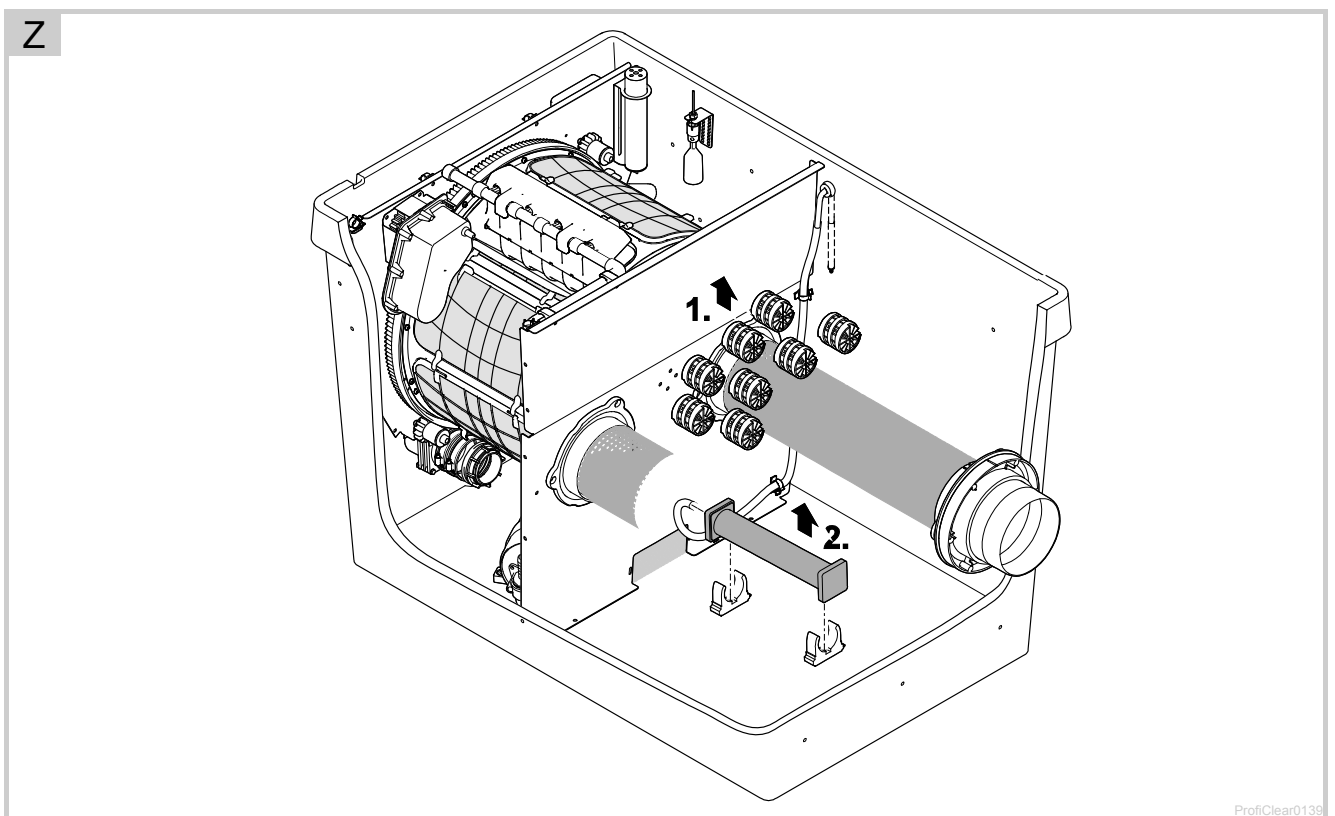
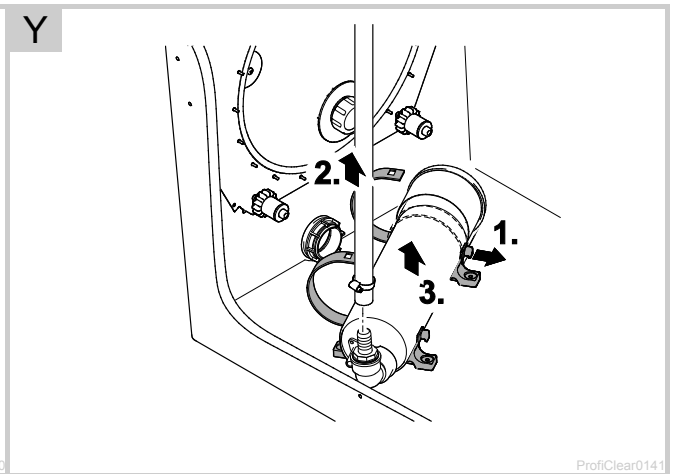
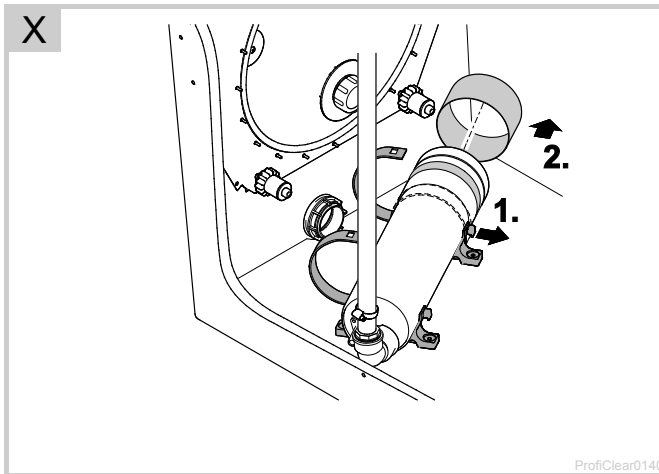
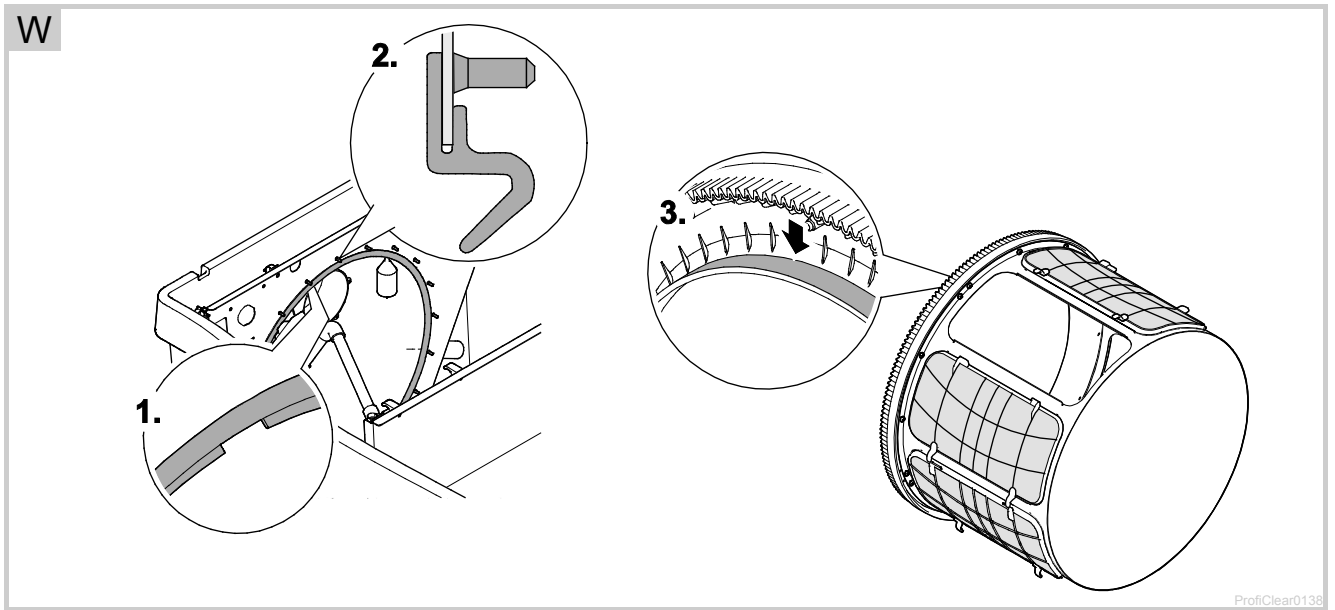
O



EGC0003







Translation of the original Operating Instructions**WARNING**

- ▶ This unit can be used by children aged 8 and above and by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they are supervised or have been instructed on how to use the unit in a safe way and they understand the hazards involved.
- ▶ Do not allow children to play with the unit.
- ▶ Only allow children to carry out cleaning and user maintenance under supervision.
- ▶ Ensure that the unit is fused for a rated fault current of max. 30 mA by means of a fault current protection device.
- ▶ Only connect the unit if the electrical data of the unit and the power supply correspond. The unit data is to be found on the unit type plate, on the packaging or in this manual.
- ▶ Possible death or severe injury from electrocution! Before reaching into the water, disconnect all electrical units in the water from the mains.
- ▶ A damaged connection cable cannot be replaced. Dispose of the unit.

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1 Information about this operating manual

Welcome to OASE Living Water. You made a good choice with the purchase of this product **ProfiClear Premium Compact-L EGC**.

Prior to commissioning the unit, please read the instructions of use carefully and fully familiarise yourself with the unit. Ensure that all work on and with this unit is only carried out in accordance with these instructions.

Adhere to the safety information for the correct and safe use of the unit.

Keep these instructions in a safe place! Please also hand over the instructions when passing the unit on to a new owner.

1.1 Warnings used in these instructions

The warning information is categorised by signal words, which indicate the extent of the hazard.



DANGER

Indicates an immediately dangerous situation, which will lead to death or severe injuries, if not avoided.



WARNING

Indicates a possibly dangerous situation, which could lead to death or severe injuries, if not avoided.



CAUTION

Indicates a possibly dangerous situation, which could lead to medium or minor injuries, if not avoided.



NOTE

Indicates a possibly dangerous situation, which could lead to damage to property or the environment, if not avoided.

1.1.1 Cross-references used in these instructions

A Reference to a figure, e.g. Fig. A.

→ Reference to another section.

2 Safety information

2.1 Electrical connection

- ▶ Electrical installations must meet the national regulations and may only be carried out by a qualified electrician.
- ▶ A person is regarded as a qualified electrician if, due to his/her vocational education, knowledge and experience, he or she is capable of and authorised to judge and carry out the work commissioned to him/her. This also includes the recognition of possible hazards and the adherence to the pertinent regional and national standards, rules and regulations.
- ▶ For your own safety, please consult a qualified electrician.
- ▶ The device may only be connected if the electrical data of the device and the power supply coincide. The device data is to be found on the device type plate, on the packaging or in this manual.
- ▶ Only connect the unit to a correctly fitted socket.
- ▶ Extension cables and power distributors (e.g. outlet strips) must be suitable for outdoor use (splash-proof).
- ▶ Protect the plug connection from moisture.

2.2 Danger for persons with pacemakers

- ▶ The container cover contains a magnet with a strong magnetic field that may affect the operation of pacemakers or implantable cardioverter defibrillators (ICDs). Always keep magnets at least 20 cm away from implanted devices.

2.3 Safe operation

- ▶ Never operate the unit if the housing is defective!
- ▶ Never operate the unit if an electrical cable is defective!
- ▶ Never carry or pull the unit by the electrical cable.
- ▶ Route cables such that they are protected from damage and do not present a tripping hazard.
- ▶ Never carry out technical changes to the unit.
- ▶ Only carry out work on the unit that is described in this manual. If problems cannot be overcome, please contact an authorised customer service point or, if in doubt, the manufacturer.
- ▶ Only use original spare parts and accessories for the unit.
- ▶ Disconnect the unit from the power supply during thunderstorms.
- ▶ Overvoltage in the mains could lead to operating malfunctions of the unit. For information, please refer to chapter "Remedy of faults".
- ▶ Do not breathe in the spray from the rinsing device. The spray may contain harmful bacteria. When the container cover is lifted up, the rinsing device continues operating.

3 Product Description

The OASE filter system ProfiClear Premium Compact includes the drum filter unit ProfiClear Premium Compact and the ProfiClear Premium individual module. Depending on the module, the filter system can be operated as a pump fed or gravity fed system. An additional Moving Bed module can be connected to the gravity fed system.

3.1 Intended use

ProfiClear Premium Compact-L EGC may only be used as follows:

- ▶ For cleaning garden ponds.
- ▶ Operate in accordance with instructions. (→ Technical data)

The following restrictions apply to the unit:

- ▶ Only operate with water at a water temperature of +4 °C to +35 °C.
- ▶ Never use the unit with fluids other than water.
- ▶ Do not use for commercial or industrial purposes.
- ▶ Not suitable for salt water.
- ▶ Never run the unit without water.
- ▶ Do not use in conjunction with chemicals, foodstuff, easily flammable or explosive substances.

3.2 Pump fed system

A

The filter system must be installed above the water level of the pond. A filter pump pumps the dirty pond water out of the pond into the filter system. The clean water is returned to the pond through a pipe via gravity.

Advantages of the pump fed system:

- ▶ Minimal installation work required
- ▶ System can be easily extended
- ▶ Simple upstream connection of UVC clarifiers.
- ▶ Perfectly tailored to the AquaMax Eco Premium filter pump from OASE

3.3 Gravity fed system

B

The filter system is completely buried (filter pit). The inlet opening is located beneath the water level of the pond. The dirty pond water enters the drum filter unit via bottom drains or skimmers and then flows into the downstream pump chamber. According to the principle of communicating pipes (hydrostatic pressure), the water level balances out in the containers to the level of the pond. A pump in the pump chamber pumps the clean water via a pipe back into the pond.

Advantages of the gravity fed system:

- ▶ Excellent transport and thus effective removal of suspended particles using the principle of gravity
- ▶ Energy efficient due to negligible height differences and low frictional losses
- ▶ Can be unobtrusively integrated in a water garden
- ▶ UVC clarifiers can be connected in series downstream and are subject to less soiling.
- ▶ Perfectly tailored to the AquaMax Gravity Eco filter pump from OASE

3.4 Unit configuration

<input type="checkbox"/> E	Pump fed	<input type="checkbox"/> F	Gravity fed	Description
	1		1	Container cover
	2		2	Signal box with level detection device (3) and temperature probe (7) • The signal box is connected to the control system (30, 32)
	3		3	Level detection device • Signals the water level in the filter system
	4		4	Rollers for guiding the filter drum
	—		5	Pump status detection • Signals a pump failure
	6		6	Filter drum with 8 screen elements • Screen elements for coarse dirt down to 60 µm in size, optionally available for 30 + 150 µm
	7		7	Temperature probe • monitors the water temperature
	8		8	Air hose 9 mm
	9		9	Hel-X 13 biomedica in Moving Bed filter chamber
	10		10	2 × outlet DN 110
	11		11	Aerator rod
	12		12	Meshed tube • Prevents the Hel-X biomedica from being flushed out
	13		13	Rinsing pump for supplying the rinsing device (24)
	14		14	1 x dirt outlet DN 75 with slide valve
	15		—	2 × adapters, 2 × 30° inlet bend with union nut for connection of the UVC clarifier Bitron to 38 mm (1½ ") connections (18)
	16		—	Connection set for filter pumps • 1 × 50 mm (2 ") hose connector, 1 × union nut for hose connector, 1 × 40 ... 60 mm hose clip, 1 × flat seal (2 ") 56 mm × 43 mm × 3 mm
	17		—	1 × inlet 50 mm (2 ") • For connecting a filter pump
	18		—	2 × 38 mm (1½ ") inlet, closed with sealing plugs • For connecting an optional UVC clarifier Bitron
	—		19	3 × inlet DN 110 with cover cap
	20		20	1 × optional inlet DN 110 • Must be cut out, if required (connection not included in the scope of delivery)
	21		21	1 × coarse dirt outlet DN 110
	22		22	Drum motor for filter drum • the motor is connected to the control system (30, 31)
	23		23	Dirt channel • Collects the coarse dirt and rinsing water from the screen elements (6)
	24		24	Rinsing device • Sprays water at high pressure onto the screen elements (6) to rinse off the coarse dirt
	25		25	Grease for the drum seal
	—		26	2 × ground stakes for installing the control system
	27		27	9/4 mm transition piece
	28		28	Y piece
	29		29	2 × cable binders for fastening the air hoses to the Y piece
	30		30	Control system with EGC box • Allows integration with cables into an EGC network.
	31		31	Connector for drum motor
	32		32	Connector for signal box
	33		33	Mains connection cable
	34		34	Connector for rinsing pump
	35		35	Fuse holder • Fuse protection of the control system with 5 × 20 mm, T8 A 250 V safety fuse
	36		36	2 × caps, cap nuts for fixing the EGC box • Required for mounting the EGC box on the container wall

3.5 Function description

ProfiClear Premium Compact combines the removal of coarse dirt particles and biological filtration in one unit. Screens (60 µm) separate all types of dirt particles before the water reaches the biological filtration. By separating the suspended solids, the filter removes most of the nutrient matter from the water. Following this mechanical filtration, the Hel-X biomedica in the moving bed system carry out the biological filtration of the pond water.

The control system with an integrated micro-controller system automatically controls and monitors the filtration process. The automatic self-cleaning function can be individually adjusted to meet the user's requirements.

The drum filter unit ProfiClear Premium Compact can be extended by the ProfiClear Premium Individual Module + Moving Bed Module when installed as a gravity fed system.

Hel-X bio-elements ensure the effective break-down of nutrients and contaminants in the water. Over the course of time, the surface of the bio-elements is colonised by bacteria responsible for nitrification and denitrification. They clean the water before it leaves the container. The fluidized bed process (action of the water flow and oxygen supply) and the bypass technology ensure optimum movement of the Hel-X bio-elements even at high flow rates. The biological system is self-cleaning and does not need additional maintenance.

60 l of Hel-X biomedica are able to break down the nutrients from approx. 408 g fish food per day, given optimum conditions. If required, this can be increased to 80 l or 85 l, i.e. 544 g/day or respectively 578 g/day.

The development of the biology in the filter takes several days. It can be accelerated by adding BioKick starter bacteria.

BioKick contains millions of active micro-organisms. They start cleaning the water immediately. The biology in the filter is fully developed within only a few weeks.

Nitrification is the process by which ammonia/ammonium and nitrite are removed from the water by special bacteria. These substances can build up in the water, for example as a result of fish food and fish excrement. Ammonia is particularly toxic for fish.

Nitrification takes place in two steps. In the first step, the bacteria convert the ammonia/ammonium into nitrite. In the second step, other bacteria convert this nitrite into nitrate, which although non-toxic, promotes the growth of algae. Both steps use oxygen that is taken from the water.

Denitrification is the process by which nitrate is broken down to gaseous nitrogen. In the event of a low oxygen content, the bacteria use the nitrate nitrogen as a source of oxygen and convert it into atmospheric nitrogen. Atmospheric nitrogen cannot be used by algae and aquatic plants.

3.6 Easy Garden Control System (EGC)

This product can communicate with the Easy Garden Control-System (EGC). EGC allows convenient control in the garden and pond via smartphone or tablet, and ensures maximum convenience and reliability. Information about EGC and the possibilities it offers can be found at www.oase-livingwater.com/egc-start.

4 Installation and connection



CAUTION

Risk of injury due to sharp-edged components.

- ▶ Proceed with caution during any work on the filter container to prevent injuries caused by sharp-edged components.
-

Important: If the planned installation deviates significantly from the recommendations contained in this manual:

- ▶ Have your specialist retailer check whether all technical specifications were adhered to. This is crucial for a problem-free operation.
-

4.1 Transporting the filter container



WARNING

Due to the high weight of the unit, spinal injuries or crushing of limbs is possible when carrying the unit. The unit weighs more than 25 kg.

- ▶ Have a minimum of 4 persons carry the container on the handles to avoid spinal injuries.
 - ▶ Protect limbs from crushing.
 - ▶ Do not transport the unit when it is filled.
-

G

The filter container has four handles for carrying. Do not use any other carrying or transport aids (e.g. transport by crane).

4.2 Fitting the filter container



WARNING

Dangerous electrical voltage.

Possible consequences: Death or severe injuries caused by electric shock from electrical units operated in or near water.

Protective measures for swimming ponds:

- ▶ Only use electrical units or installations with a rated voltage of $U \leq 12$ V in the water.
 - ▶ Electrical installations with a rated voltage of $U > 12$ V must be located at a distance of at least 2 m from the water.
-

The filter system operates day and night and causes rinsing noises during the automatic cleaning cycles.

- ▶ Please protect the general public and your neighbourhood from noise disturbance and comply with the statutory noise regulations.
 - ▶ Enclose the filter system such that the enclosure effectively absorbs the noises.
 - ▶ Select the location of the filter system in order to avoid noise disturbance.
-

Plan the installation of the filter system. With careful planning, taking the ambient conditions into account, you will obtain optimum operating results.

The following conditions must be met:

- ▶ As the filter module is very heavy when filled, it must be placed on a suitable base (at least on slabs, but preferably on a poured concrete base) to prevent it from subsiding.
- ▶ Horizontally align the base slab.
 - The filter system must be positioned horizontally (max. deviation $d \pm 5$ mm).
 - Tip: Use commercially available concrete slabs, each measuring 500×500 mm. Five slabs are required (one base slab for each corner and 1 for the centre). For the gravity fed system, an additional slab for the Individual Module is required.
- ▶ Plan sufficient space for carrying out cleaning and maintenance work.
- ▶ Drain the dirty water into the drain or far enough away from the pond so that it cannot flow back into the pond.
 - If the coarse soiling and dirty water both run into the same pipe, it is important to use at least DN 110 pipes.
- ▶ Position the inlet in the pond (e.g. via a water course or waterfall) so that it is lower than the outlet of the filter system.

A water course or waterfall guarantees optimum water return to the pond. In this way, the filtered pond water is enriched with oxygen before it is returned to the pond.

4.2.1 Pump fed system

A, C

System specific requirements

- ▶ Horizontally align the base slab.
- ▶ Position the inlet in the pond (e.g. via a water course or waterfall) so that it is lower than the outlet of the filter system.

4.2.2 Gravity fed system

B, D

System specific requirements

The correct installation and constant water level in the pond are important prerequisites for ensuring optimum and fault-free operation of the gravity fed system.

Making a filter pit:

- ▶ Excavate a pit of sufficient dimensions to accommodate the filter system.
- ▶ Horizontally align the base slab.
- ▶ Secure the walls of the pit from falling in (with masonry or concrete).
- ▶ Ensure that the pit is protected from flooding. Provide a rain water drain.

Installing the filter system:

- ▶ Determine the max. water level of the pond.
- ▶ The base slab supporting the filter system must be 690 mm below the max. water level. Tolerances of up to -20 mm are permitted.
- ▶ Keeping the water level constant: A constant water level in the pond is necessary for operating the gravity fed system. Tolerances of up to -20 mm from the max. water level are permitted.
 - If the max. water level in the pond is exceeded, water flows out of the Drum Filter Module via the dirt channel until the max. water level is reached again.
 - If the water level goes below the max. water level by more than 20 mm, it is not possible to achieve optimum or fault-free operation.
- ▶ Install the OASE ProfiClear Guard refill system. The ProfiClear Guard refill system automatically supplies water to the pond if the water level goes below the specified water level.

4.3 Connecting the drum filter

4.3.1 Information regarding pipes

- ▶ Use suitable pipes.
- ▶ Do not use any right-angled bends. Bends with a maximum angle of 45° are very efficient.
- ▶ Glue plastic pipes to ensure a permanent and reliable joint or use socket joints with clips to stop them from coming apart.
- ▶ Standing water in pipes can freeze when there is a hard frost and cause pipes to burst. For this reason, lay the pipes and hoses with a gradient (50 mm/m) to ensure that they can run empty.
- ▶ For gravity fed systems, it must be possible to shut off the supply from the pond and the return to the pond for maintenance and repair work. For this reason, install suitable slide valves.
- ▶ In the case of the gravity fed system, the sum of the losses in the supply line must not exceed 7 mbar (7 cm).
 - Otherwise the water level in the filter system will go below the minimum water level during operation. Optimum, fault-free operation will no longer be possible.
- ▶ In the gravity fed system, the ideal flow rate per DN 110 supply line is between 6000 l/h and 8500 l/h. Provide sufficient supply lines.

4.3.2 Connecting the inlet



WARNING

The container is made of glass fibre reinforced plastic. Hazardous glass fibre particles are released during drilling or sanding.

- ▶ Always wear a suitable respirator mask when drilling or sanding.

Pump fed system

The filter system is equipped with a 50 mm (2 ") inlet for the filter pump. If necessary, the connection set (18798) can be used to install a second 50 mm (2 ") inlet for another filter pump. The maximum flow rate of the filter system remains 20000 l/h.

- ▶ Markings for the through holes of the second inlet are provided on the container wall. Ensure that the through hole is cut out.
- ▶ Leave any unused inlets closed.
- ▶ You can also connect a UVS clarifier. (→ Fitting the UVC clarifier)

How to proceed:

A, H

1. Undo the threaded cap with flat seal from the connection.
2. Screw the union nut with 50 mm (2 ") hose connector and flat seal onto the connection. Hand-tighten the union nut.
3. Slip the 50 mm (2") hose of the filter pump onto the hose connector and secure with a hose clip.

Gravity fed system

B, J

The filter system has three inlets DN 110. If necessary, the connection set (19005) can be used to install a fourth inlet DN 110. In this case, the maximum flow rate of the filter system increases to 33000 l/h.

- ▶ Markings for the through holes of the fourth inlet are provided on the container wall. Ensure that the through hole is cut out.
- ▶ Recommendation: Limit the flow rate to 8500 l/h per DN 110 inlet.
- ▶ Use suitable DN 110 pipes for connecting the bottom outlet and/or skimmer and the inlet.
- ▶ Secure the pipes so that fish cannot swim into them.

4.3.3 Fitting the UVC clarifier**Pump fed system**

The Bitron UVC clarifier is fitted to the filter container. The maximum flow rate of the filter system remains 20000 l/h.

- ▶ It is necessary to remove a screen element to access the sealing plugs. (→ Removing/fitting a screen element)
- ▶ A filter pump is connected to the UVC clarifier for operation with two filter pumps. The other filter pump is connected to the 50 mm (2 ") inlet. (→ Connecting the inlet)

A non-return valve is installed in the connection for the filter pump to prevent water from returning. If a filter pump each is to be connected to the Bitron and to the connection for the filter pump, the pump on the connection for the filter pump can be switched on/off as required without any problems.

How to proceed:

I

1. Undo the screws with a screwdriver and remove the sealing plugs.
2. Guide the outlet sockets of the Bitron with flat seals through the holes in the container wall.
3. Screw the adapters onto the outlet sockets and hand-tighten.
4. Screw the 30° inlet bends with cap nuts onto the adapters and hand-tighten.
 - Position the inlet bends so that they are pointing downwards.
 - Correctly positioned inlet bends prevent unintended overflow (emptying of the pond) and also serve to reduce noise emissions.
5. Connect the Bitron to the filter pump in accordance with the operating manual.

Gravity fed system

The Bitron Gravity UVC clarifier is fitted in the Individual Module. (→ Please refer to the "Bitron Gravity" and "ProfiClear Premium Individual Module" operating manuals.)

4.3.4 Connecting the coarse dirt outlet

J

The coarse dirt that collects in the dirt channel drains away via the DN 110 coarse dirt outlet (top outlet on the container) on the input side.

- ▶ Connect a suitable DN 110 pipe and drain the dirty water into the sewer system.

4.3.5 Connecting the dirt outlet

The water in the container can be drained via the DN 75 dirt outlet with slide valve at the bottom of the container if required (for cleaning, repair, overwintering).

- ▶ Connect a suitable DN 75 pipe and drain the dirty water into the sewer system.

How to proceed:

K

1. Remove the cap nuts and push the dirt outlet onto the connection.
2. Tighten the hose clip.
3. Tighten the cap nuts.

Connect the DN 75 pipe to the DN 110 pipe for the coarse dirt, and drain the dirty water via a DN 110 pipe into the sewer system. This will ensure that the dirty water pipe will be conveniently flushed out with sufficient pressure.

4.4 Connecting the control system with EGC box

4.4.1 Connecting the control system

For the pump fed system and for the gravity fed system, the cable harness contains the connection cables of the signal box, drum motor and rinsing pump. These connection cables have to be connected, the EGC box is already connected.

L

- ▶ Connect the three connectors of the cable harness to the control system sockets. Hand-tighten the union nuts.
 - The connections are designed to prevent misconnection.
 - First flood the container with water, then connect the control system to the mains voltage/power supply.

4.4.2 Connecting the EGC box

Integration of the filter system into the EGC network is optional and not necessary for operation. (→ Easy Garden Control System (EGC))

The Connection Cable EGC cable is required for connecting the EGC box.

The correct fastening of the plug connector is important for a secure connection and an interference-free EGC network.

How to proceed:

N, O

1. Remove the protection cap from the unit.
2. Fit the plug connector and secure with the two screws (max. 2.0 Nm).
 - Ensure that the rubber seal is clean and fits exactly.
 - Replace the rubber seal if damaged.
3. Remove the protection cap from EGC-OUT of the last unit in the EGC network, fit the terminal resistor EGC and secure it with the two screws (max. 2.0 Nm).
 - Ensure that on EGC-OUT of the last unit in the EGC network, the terminal resistor EGC is installed instead of an EGC connection cable, to ensure that the EGC network is closed off properly.
 - The scope of delivery of InScenio FM-Master WLAN or InScenio EGC Controller each contains a terminal resistor EGC.

4.4.3 Connecting an additional EGC compatible unit

An additional EGC compatible unit can be connected to the EGC box.

- ▶ Ensure the correct connection.

How to proceed:

N, O

1. Remove the protection cap from EGC-OUT on the EGC box and fit the plug connector of the EGCConnection Cable.
2. Remove the protection cap from EGC-IN on the additional unit and fit the other plug connector of the EGC Connection Cable.
3. Remove the protection cap from EGC-OUT on the additional unit and fit the terminal resistor or connect an additional EGC unit.

4.5 Installing the control system with EGC box

4.5.1 Pump fed system

- ▶ Install the control system at a minimum distance of 2 m from the pond.
- ▶ Protect the control system from direct sun radiation.
- ▶ The control system is splash-proof and may be exposed to rain.

How to proceed:

L

1. Either attach the control system and EGC box to the container wall or use threaded hooks to mount it in different position.
2. If the EGC box is attached to the container wall, fit both caps onto the cap nuts.
 - The caps fix the EGC box in place.

4.5.2 Gravity fed system

L

- ▶ Install the control system at a minimum distance of 2 m from the pond.
- ▶ Protect the control system from direct sun radiation.
- ▶ The control system is splash-proof and may be exposed to rain.
- ▶ Push both ground stakes onto the control system and push the ground stakes into the ground.



NOTE

If the ground is hard:

- ▶ Protect the control system from knocks/impact.
- ▶ Push both ground stakes onto the control system.
- ▶ With light pressure push the ground stakes into the ground to mark the position.
- ▶ Detach the ground stakes from the control system and drive them into the ground.

Then push the control system onto the stakes.

4.6 Connecting an external aerator pump

- ▶ Connect the aerator rod in the container to an external aerator pump. OASE recommends:

Volume Hel-X biomedica	Minimum air volume	OASE recommendation
60 l	1200 l/h at 1.0 mWS	AquaOxy 2000
80/85 l	2000 l/h at 1.2 mWS	AquaOxy 4800

How to proceed:

O

1. Connect the hose from the external aerator pump to the air connection and fit the air connection onto the container.
 - For thinner \varnothing 4 mm air hoses, use the 4/9 mm adapter and secure the connection with a cable binder if necessary.

During the run-up phase, only use an air volume of approx. 1000 l/h to circulate the Hel-X biomedica. Excessive turbulence delays the initial colonisation of micro-organisms.

If the movement of the Hel-X biomedica in the bio chamber keeps stopping, move the bubbler stone slightly to optimise circulation.

5 Commissioning/start-up

- ▶ Thoroughly clean the pond before starting up the filter system for the first time to ensure that the filter system is not overloaded by excessively soiled water. OASE recommends using the PondoVac pond vacuum cleaner for cleaning the pond.
 - This cleaning measure is normally not necessary for newly installed ponds.
- ▶ It is necessary to operate the filter system for 24 hours a day during the pond season.



WARNING

Possible death or severe injury from hazardous electrical voltage!

- ▶ Prior to reaching into the water, isolate (switch off and disconnect) all units/devices used in the water.
 - ▶ Isolate the device (disconnect from the power supply) before carrying out any work on it.
-



NOTE

A dimmer or timer will destroy the device.

- ▶ Only connect the device to a power supply without dimmer.
 - ▶ Do not use a timer.
-



NOTE

Never allow the rinsing pump to run dry. Possible consequences: The rinsing pump will be destroyed.

- ▶ Check the water level at regular intervals. Ensure that the rinsing pump is always under water during operation.
 - ▶ Do not switch on the control system until the container is flooded with water.
-

During commissioning, *E-88* is indicated in the display of the control system,

- ▶ for as long as the final water level is not reached in the filter container,
- ▶ when the pump status detection is not correctly set.

If the filter system operates correctly, the system message will reset automatically.

5.1 Pump fed system

5.1.1 Order of starting up steps

How to proceed:

E

1. Close the slide valve for the dirt outlet at the bottom of the container.
2. Check that the entire filter system (pipes and hoses) is complete.
3. Remove the container cover.
 - The filter drum is stopped for safety reasons if the filter cover is lifted and *E-11* is indicated in the display of the control system.

Moving bed filter chamber

The moving bed filter chamber contains three 20 l sacks of Hel-X 13 biomedica (60 l). Optionally, 80 l can be used (supplementary kit Order No.: 43383).

4. Tip the Hel-X biomedica from the bags into the moving bed filter chamber.
 - Ensure that the Hel-X biomedica can move around freely in the container.
 - It can take several weeks for the Hel-X biomedica to become completely colonised. Uncolonised Hex-X biomedica tend to float more.

When using the supplementary kit, add the biomedica gradually. We recommend adding max. 5 l per week.

Filter drum

5. Manually turn the filter drum for one whole rotation to ensure unobstructed movement.
6. Fill the filter with water until the rinsing pump is submerged (dry run protection of the rinsing pump).
7. Fit the container cover.

Switching on the control system and additional units, checking the pipes

8. Switch on the control system and perform any necessary adjustments. (→ Operation)
9. Switch on the filter pump and UVC clarifier (if applicable).
 - Ensure that the water is returned to the pond via the return pipe.
10. Check all pipes, hoses and their connections for leaks.
 - Expansion seals may leak initially until they have fully expanded on contact with water.
11. Adjust the level detection device, if necessary. (→ Setting the level detection device)

New filters take approx. 3 to 4 weeks before the bacteria in the unit are fully established. During this time – or at a water temperature of <10 °C – the filter may overflow. In this case the filter does not need to be cleaned.

- ▶ When using filter starters, medicines or pond water treatments, leave the UVC pre-clarifier switched off for at least 36 hours so as not to impair their efficacy.
-

5.1.2 Setting the level detection device

A rise in the water level during operation indicates that the system is contaminated. The level detection device signals possible soiling to the control system and the cleaning cycle is started.

The water level in the filter system is independent of the water level in the pond. The water level in the filter system is dependent upon the circulation capacity. Therefore it may be necessary to adjust the level detection device.

The level detection device can be fitted in two positions.

- ▶ Position 1: Suitable for circulation capacities greater than 15000 l/h (factory default setting).
- ▶ Position 2: Suitable for circulation capacities smaller than 15000 l/h and fewer automatic cleaning intervals.

How to proceed:

Q

1. Undo both lock nuts. Remove nuts and Allen screws.
2. Move the level detection device according to the hole pattern and fix in place with Allen screws and lock nuts. Tighten both nuts.

5.2 Gravity fed system

5.2.1 Order of starting up steps

How to proceed:

F

1. Close the slide valve for the dirt outlet at the bottom of the container.
2. Check that the entire filter system (pipes and hoses) is complete.
3. Remove the container cover.
 - The filter drum is stopped for safety reasons if the filter cover is lifted and *Er-11* is indicated in the display of the control system.

Moving bed filter chamber

The moving bed filter chamber contains three 20 l sacks of Hel-X 13 biomedica (60 l). Optionally, 85 l can be used (supplementary kit Order No.: 42904).

4. Tip the Hel-X biomedica from the bags into the moving bed filter chamber.
 - Ensure that the Hel-X biomedica can move around freely in the container.
 - It can take several weeks for the Hel-X biomedica to become completely colonised. Uncolonised Hex-X biomedica tend to float more.

When using the supplementary kit, add the biomedica gradually. We recommend adding max. 5 l per week.

Filter drum

5. Manually turn the filter drum for one whole rotation to ensure unobstructed movement.
6. Fill the filter with water until the rinsing pump is submerged (dry run protection of the rinsing pump).
7. Open the slide valve at the inlet and outlet, if applicable, to fill the filter system with water.
8. Fill the pond until the maximum water level is reached.
9. Check the water level in the Drum Filter Module. Refer to the sticker with level markings on the inside wall of the container.
 - Ideal water level: 110 mm below the top edge of the container
 - Permissible tolerance: -20 mm (130 mm below the top edge of the container)
 - Correct the installation if the minimum water level is not reached.
10. Fit the container cover.

Switching on the control system and additional units, checking the pipes

11. Switch on the control system and perform any necessary adjustments. (→ Operation)
12. Switch on the filter pump and UVC clarifier (if applicable).
 - Ensure that the water is returned to the pond via the return pipe.
13. Check all pipes, hoses and their connections for leaks.
 - Expansion seals may leak initially until they have fully expanded on contact with water.
14. Adjust the level detection device, if necessary. (→ Setting the level detection device)

New filters take approx. 3 to 4 weeks before the bacteria in the unit are fully established. During this time – or at a water temperature of <math><10\text{ }^{\circ}\text{C}</math> – the filter may overflow. In this case the filter does not need to be cleaned.

- ▶ When using filter starters, medicines or pond water treatments, leave the UVC pre-clarifier switched off for at least 36 hours so as not to impair their efficacy.
-

5.2.2 Setting the level detection device

Adjust the level detection device to the water level in the container to ensure the optimum operation of the filter system. A 10 mm open jaw spanner is required for this adjustment.

How to proceed:

R

1. Remove the container cover.
 - The filter drum is stopped for safety reasons if the filter cover is lifted and *Err1* is indicated in the display of the control system.
2. Switch off the filter pumps and check the water level.
 - Ensure that the water level reaches the height of the maximum mark on the inside wall of the container, at least above the Min. mark.
 - Adjust the water level in the pond if necessary.
3. Switch off the mains voltage (ensure that the control system is isolated).
4. Loosen both screws of the level detection device so that it can be easily moved.
5. Fit the container cover.
6. Switch on the control system and filter pumps and start a cleaning cycle.
7. Isolate the control system and remove the container cover.
8. Move the level detection device until the marking on the housing coincides with the water level.
9. Tighten the two screws of the level detection device.
10. Replace the container cover and switch on the control system.

-
- ▶ Perform the setting quickly following the cleaning cycle. The screen elements continually trap dirt particles. This causes the water level to drop in the container.
 - ▶ Subsequently start a new cleaning cycle and check the setting. Check the setting if necessary.
 - ▶ Check the setting again when the desired water quality has been reached.
-

5.2.3 Setting the filter pump status detection

Setting is only necessary in the following circumstances:

- ▶ The installation height of the filter container differs from the system-specific requirements.
- ▶ The admissible frictional resistances in the supply lines differ considerably from those specified.

The filter pump status detection signals via the system message *E-88* if the filter pump is operating correctly. The system message *E-88* is not triggered unless the status detection is activated for 10 minutes continuously. This prevents brief fluctuations in the water level from triggering the system message *E-88*.

Check the setting according to the water level in the filter container and correct it if necessary to ensure that the status detection signals correctly. In addition, the losses in the supply line due to the filter pump must be at least 3.5 mbar (3.5 cm).


- ▶ The status detection can be deactivated if necessary. (→ *E7*: Pump status detection)

How to proceed:

S

1. Remove the container cover.
 - The filter drum is stopped for safety reasons if the filter cover is lifted and *E-11* is indicated in the display of the control system.
2. Switch off the filter pump.
3. Switch off the mains voltage (ensure that the control system is isolated).
4. Measure the distance between the top edge of the container and the level of the water and determine the necessary position of the holder according to the table.
5. If the determined position differs from the current position, correct it as required
 - Undo and remove both screws of the holder. Push the holder into the correct position and fasten with both screws.
6. Fit the container cover.
7. Switch on the control system and filter pumps and check the function of the status detection.

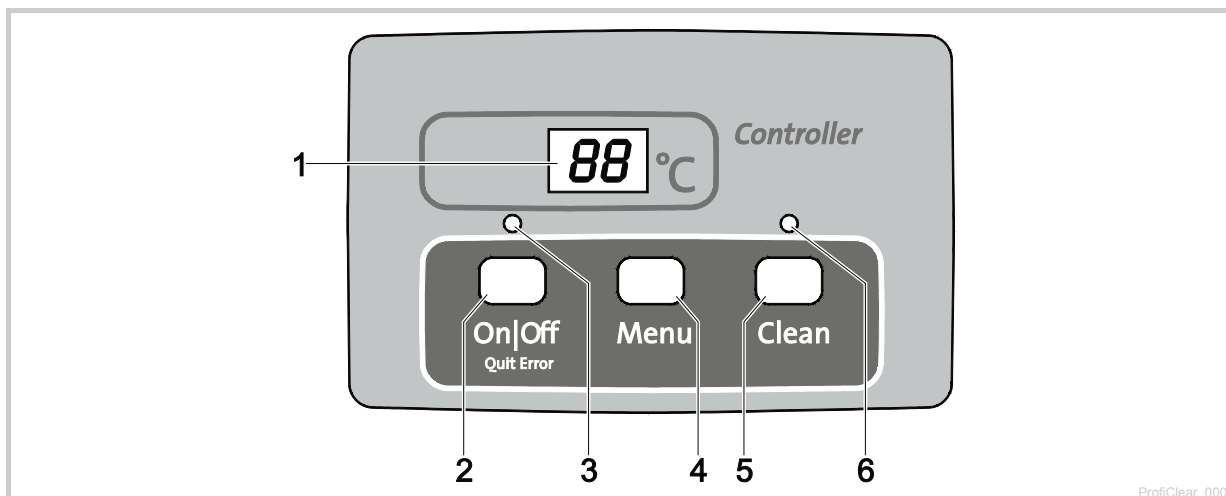
The status detection is correctly set when the float sinks with the filter pump switched on and the system message *E-88* is only triggered 10 minutes after the filter pump is switched off.

<input type="checkbox"/> S		
Water level in the filter container/pond (measured from the top edge of the container with the filter pump switched off)		
max.	min.	
159 mm	179 mm	9
152 mm	172 mm	8
145 mm	165 mm	7
138 mm	158 mm	6
131 mm	151 mm	5
124 mm	144 mm	4
117 mm	137 mm	3
110 mm	130 mm	2 1)
103 mm	123 mm	1

1) Factory setting

6 Operation

6.1 Control system overview





- 1 Display
 - for displaying the operating status
 - for displaying the menus and values for setting the drum filter
 - Pump status display
 - the current water temperature [°C] is displayed as standard
- 2 On|Off button, Quit Error
 - for switching the drum filter on or off
 - for resetting error messages
- 3 LED, 2 colours
 - LED is lit red: Control system switched OFF (*OFF*)
 - LED is lit green: Control system switched ON (*ON*)
- 4 Menu button

For selecting the following menus and changing the values:

 - cleaning time "Cleaning" (*EL*)
 - extended cleaning time "Extra Cleaning" (*EC*)
 - time-dependent cleaning "Interval" (*In*)
 - Pump status detection (*E7*)
- 5 Clean button
 - for starting the manual cleaning cycle and for cancelling the active cleaning cycle
 - LED (6) is lit when the cleaning cycle is active
- 6 Blue LED
 - LED is lit: Cleaning cycle active


6.2 Switching ON/OFF

Proceed as follows	Information
Switching on: Press  for 3 s. • LED (3) is lit green. • The display indicates <i>On</i> for approx 5 s.	<ul style="list-style-type: none"> • The display indicates the water temperature by default. • If there is a voltage interruption, the control system will remain switched on.
Switching off: Press  for 3 s. • LED (3) is lit red. • The display indicates <i>OFF</i> .	<ul style="list-style-type: none"> • The control system switches off all functions. • If there is a voltage interruption, the control system will remain switched off.

6.3 Operating modes

Description	Information
Automatic mode: • Operating mode for normal operation.	<ul style="list-style-type: none"> • The display indicates the water temperature as standard. • A cleaning cycle is automatically started if the level detection device signals an excessive deviation in the water level. • The level exceeds a certain water level. • After 20 automatic cleaning cycles, a cleaning cycle with extended cleaning time is performed.
Time-dependent operation	<ul style="list-style-type: none"> • In addition to the automatic cleaning cycle (depending on the water level in the drum filter), a time-controlled cleaning cycle can be executed. (→ <i>ln</i>: Time-dependent cleaning "Interval") • The duration of the cleaning cycle corresponds to the time set in the cleaning time "Cleaning" menu. (→ <i>ℓ</i>: Cleaning time "Cleaning")

6.4 Manual cleaning

How to proceed	Information
Press for  3 s – LED (6) is lit – The display indicates <i>ℓ</i> – To cancel the process: Press the button again	<ul style="list-style-type: none"> – The drum motor is stopped for safety reasons if the filter cover is lifted. The rinsing pump can still be manually started to check the function of the nozzles. – Each active cleaning cycle (automatic, time-dependent or manual) can be stopped by pressing the button.










6.5 Settings in the menus

Settings can only be made in the menus when the control system is switched on.

6.5.1 *ℓ*: Cleaning time "Cleaning"

Setting the cleaning time changes the duration of the cleaning cycle. Extend the cleaning time if the dirt is not completely carried away by the water, This may become necessary if, for instance, very long drain pipes or drain pipes with many bends were installed or there is a particularly large amount of sticky dirt (e.g. during spawning).

Please take into consideration that an extended cleaning time leads to increased water consumption. The default setting of 10 s is normally sufficient (corresponds to approx. a $\frac{7}{8}$ drum rotation).

Proceed as follows	Information
1. Press  several times until <i>ℓ</i> appears in the display.	• To cancel and exit the menu: Either wait for 10 s or press  or  .
2. Press  for 5 s until the time is indicated in the display.	• To cancel and exit the menu: Either wait for 5 s or press  or  .
3. Press  several times to change the value. • To change the value quickly: Hold down the button	<ul style="list-style-type: none"> • Adjustable range: 10 – 30 s • Increment: 1 s • The number can only be changed upwards. Once the value 30 is reached, the display returns to 10. • Saving the set value: Wait for 5 s until the menu is automatically exited. • Cancel without saving and exit the menu: Press  or .

6.5.2 **EC: Extended cleaning time "Extra Cleaning"**

To prevent larger deposits from building up in the dirt channel or pipework, the unit performs a cleaning cycle with an extended cleaning time after every 20 cleaning cycles. This ensures that the pipework is flushed out at regular intervals.

However, if dirt and residue build up due to unfavourable conditions, you can increase the cleaning time and flush out the pipe with additional water. The default setting for the extended cleaning time is 20 s.

Proceed as follows		Information
1.	Press Menu several times until EC appears in the display.	• To cancel and exit the menu: Either wait for 10 s or press On/Off or Clean .
2.	Press Menu for 5 s until the cleaning time is indicated in the display.	• To cancel and exit the menu: Either wait for 5 s or press On/Off or Clean .
3.	Press Menu several times to change the value. • To change the value quickly: Hold down the button.	<ul style="list-style-type: none"> • Adjustable range: 10 – 60 s • Increment: 1 s • The number can only be changed upwards. Once the value 60 is reached, the display returns to 10. • Saving the set value: Wait for 5 s until the menu is automatically exited. • Cancel without saving and exit the menu: Press On/Off or Clean.

6.5.3 **Int: Time-dependent cleaning "Interval"**

In addition to automatic cleaning, the unit can also perform a time-dependent cleaning cycle. This is particularly useful for ponds containing fish, because even if there is only a small amount of dirt, excrement is always removed from the water cycle before it leads to a build-up of nutrients.

Adjust the time interval to meet the requirements. The Drum Filter Module is normally optimally set with a time interval of 20 minutes (default setting). The function is deactivated with a time setting of 0 minutes.

The time-dependent cleaning cycle does not have any influence on the automatic cleaning cycle that starts when the water level is too low. After each automatic cleaning cycle, the time interval is reset and starts again from the beginning.

Proceed as follows		Information
1.	Press Menu several times until Int appears in the display.	– To cancel and exit the menu: Either wait for 10 s or press On/Off or Clean .
2.	Press Menu for 5 s until the time is indicated in the display.	– To cancel and exit the menu: Either wait for 5 s or press On/Off or Clean .
3.	Press Menu several times to change the value. – To change the value quickly: Hold down the button.	<ul style="list-style-type: none"> – Adjustable range: 0.3 – 60 min – 0 min: No time-dependent cleaning – Increment: 1 min – The number can only be changed upwards. Once the value 60 is reached, the display returns to 0. – Saving the set value: Wait for 5 s until the menu is automatically exited. – Cancel without saving and exit the menu: Press On/Off or Clean.

The time-dependent cleaning cycle also protects the filter system from freezing. For this, please refer to the information about safe overwintering.

6.5.4 E7: Pump status detection

The pump status detection signals via the system message *E7-88* if the pump is operating correctly. The status detection is activated in the default setting.



Proceed as follows	Information
1. Press Menu several times until <i>E7</i> appears in the display.	<ul style="list-style-type: none"> To cancel and exit the menu: Either wait for 10 s or press On/Off or Clean.
2. Keep Menu pressed for 5 s until the value 0 or 1 is indicated in the display.	<ul style="list-style-type: none"> To cancel and exit the menu: Either wait for 5 s or press On/Off or Clean.
3. Press Menu to change the value.	Adjustable range: 0 or 1 <ul style="list-style-type: none"> 0: The pump status detection is deactivated. 1: The pump status detection is activated. Cancel without saving and exit the menu: Press On/Off or Clean.

6.6 Reading out the number of cleaning cycles



6.6.1 Cleaning cycles in 24 hours

Proceed as follows	Information
Press Menu and Clean for 5 s.	<p>The sum of the automatic and time-dependent cleaning cycles is saved. The 4-digit value is displayed in groups of two digits that appear in succession in the display.</p> <p>Example: <i>01-17</i>: Represents 117 cleaning cycles The number is repeated five times after an extended pause to make it easier to read: <i>01-17--01-17--01-17--01-17--01-17</i></p> <p>Note: If the mains voltage is switched off, the counter is reset to 0.</p> <p>Note: Due to the self-test of the filter system very different values may be displayed. The self-test monitors the automatic cleaning process. The test is carried out continuously in a 2 × 24 hour cycle. The test is only active from a water temperature >12 °C.</p> <ul style="list-style-type: none"> • First 24 hour cycle <ul style="list-style-type: none"> – If at least one automatic cleaning process is detected, the cycle is repeated after the cleaning process has finished. – If no automatic cleaning process is detected, the second 24 hour cycle starts once the first has finished. • Second 24 hour cycle <ul style="list-style-type: none"> – The time-dependent cleaning cycle is deactivated. This reduces the number of cleaning cycles. – If at least one automatic cleaning process is detected, the first 24 hour cycle starts again once the cycle has finished. – If no automatic cleaning process is detected, the system message <i>E7-22</i> is triggered at the end of the cycle. The time-dependent cleaning cycle starts again. If an automatic cleaning process is then detected, the first 24 hour cycle starts again. The system message <i>E7-22</i> is automatically reset.

6.6.2 Total cleaning cycles



How to proceed	Information
Press  and  for 5 s.	<p>The sum of the automatic, manual and time-dependent cleaning cycles is saved. The 8-digit value is divided into four groups of two digits that appear in the display in succession.</p> <p>Example: <i>00-00-12-44</i>: Corresponds to 1244 cleaning cycles The number is repeated four times after an extended pause to make it easier to read: <i>00-00-12-44--00-00-12-44--00-00-12-44--00-00-12-44</i></p> <p>Note: If the mains voltage is switched off, the number of cycles is rounded off to the nearest hundred and saved.</p>



6.7 Loading default settings

Proceed as follows	Information
Press  and  for 10 s until <i>rE</i> appears in the display.	<p>All individually set values are overwritten! The following values are set:</p> <ul style="list-style-type: none"> • Cleaning time <i>EL</i>: 10 s • Extended cleaning time <i>EC</i>: 20 s • Interval of the time-dependent cleaning <i>ln</i>: 20 min

6.8 System messages

The 4-digit system message is indicated in the display by two groups of two digits in succession.

System message		Functions that are still available	Possible cause	Remedy	Resetting the system message
Er11	Container cover raised	<ul style="list-style-type: none"> Manual cleaning (only nozzles, filter drum not rotating) 	Container cover raised	Refit the container cover	Automatic when the container cover is fitted.
			Container cover incorrectly fitted	Turn the container cover around so that the magnets in the container cover are located over the signal box	
			Signal box not connected	Connect the signal box to the control system	
Er22	Water temperature > 12 °C AND the last automatic cleaning process was carried out more than 24 hours ago.	<ul style="list-style-type: none"> Manual cleaning Automatic mode Time-dependent cleaning 	Screen elements leaking	Check screen elements, replace if necessary	<ul style="list-style-type: none"> Press  key for 5 s Automatic as soon as the level detection device is triggered
			Drum seal leaking	Check the drum seal	
			Level detection device stuck or defective	Clean the level detection device to ensure that the mechanics operate freely, replace if necessary.	
			Level detection device set incorrectly	Adjusting the level detection device	
		<ul style="list-style-type: none"> Manual cleaning Automatic mode 	24 hour check mode is active and time-dependent cleaning is deactivated.	Time-dependent cleaning is automatically activated by floats after check mode.	
Er33	20 cleaning cycles in succession	<ul style="list-style-type: none"> Manual cleaning Time-dependent cleaning 	Level detection device stuck or defective	Clean the level detection device to ensure that the mechanics operate freely, replace if necessary.	Press  key for 5 s
			Screen elements heavily soiled	Clean/descale the screen elements (→ Removing/fitting a screen element)	
			Rinsing pump not operating	<ul style="list-style-type: none"> Clean the bottom of the container, clean the rinsing pump (→ Cleaning the rinsing pump) Check the pump connection 	
			Rinsing nozzle clogged	Clean the rinsing nozzle	
			Filter drum not rotating	<ul style="list-style-type: none"> Check the motor connection Check the rotating movement of the filter drum. Tip: Mark the filter drum and check on the basis of the markings if the drum rotates.	
			Level detection device set too low	Adjusting the level detection device	
			Water level in the system too high:	<ul style="list-style-type: none"> Clean outlet pipes Enlarge outlet opening Reduce flow quantity (adjust pump capacity) 	
			<ul style="list-style-type: none"> Outlet pipes soiled Outlet opening too small Excessive flow quantity (pump capacity too high) The pond water is very dirty and the filter pump is conveying an excessive amount of dirt. A large amount of dirt has entered the filter system, water is flowing over (instead of through) the foam filters. 	<ul style="list-style-type: none"> Thoroughly clean the pond. Install the pump in an elevated position. Clean foam filters 	

System message		Functions that are still available	Possible cause	Remedy	Resetting the system message
Er 44	Motor blocked (The control system attempted to start up the motor three times - 5 times per attempt)	None	Filter drum rotating sluggishly or jammed	<ul style="list-style-type: none"> • Clean edge of the drum/drum seal and grease edge of the drum Only use original OASE grease (order number 27872). • Ensure that the rollers move smoothly • Remove larger particles (e.g. snails, stones) from the sprocket 	Press  key for 5 s
			The lips of the drum seal were squeezed when the drum was installed.	Disassemble the drum and ensure that the drum seal is positioned correctly during re-assembly	
			The drum load is distributed unevenly	Align the container horizontally	
Er 55	More than 960 cleaning cycles in 48 hours	<ul style="list-style-type: none"> • Manual cleaning • Automatic mode • Time-dependent cleaning 	Temporary heavy soiling	Wait until the soiling decreases	<ul style="list-style-type: none"> • Press  key for 5 s • Automatic if the number of cleaning procedures drops below 960.
			<ul style="list-style-type: none"> • Start-up phase of the filter system (e.g. during the first start-up) • Fish are spawning 	<ul style="list-style-type: none"> • This operating status is atypical. Avoid long-term operation in this state. 	
			Pond heavily soiled	<ul style="list-style-type: none"> • Clean the pond • Reduce the amount of soiling • Install the filter pump in an elevated position. 	
			Screen elements heavily soiled	Clean the screen elements, descale (→ Replacing screen element)	
			Insufficient cleaning effect due to soiled nozzle	<ul style="list-style-type: none"> • Clean nozzle 	
Water level in the system too high:	<ul style="list-style-type: none"> • Outlet pipes soiled • Outlet opening too small • Max. flow rate exceeded • A large amount of dirt has entered the filter system, water is flowing over (instead of through) the foam filters. 	<ul style="list-style-type: none"> • Clean outlet pipes • Enlarge outlet opening • Reduce flow rate • Clean foam filters 			
Er 66	Switch element for rinsing pump in the control system overheated	None	Control system is exposed to excessive heat (sun, ambient temperature)	Protect the control system from heat	Automatic when cooled down
Er 88	The filter pump is not supplying any water or insufficient water.	<ul style="list-style-type: none"> • Manual cleaning • Automatic mode • Time-dependent cleaning 	Pump status detection incorrectly set	Set the pump status detection. (→ Er: Pump status detection)	Automatic after elimination of the cause
			The filter pump is switched off.	Switch on the filter pump.	
			The impeller unit of the filter pump is blocked.	Clean the filter pump.	

7 Remedy of faults

Malfunction	Possible cause	Remedy
No flow of water	Filter pump not switched on.	Switch on the filter pump, connect the power plug.
	Supply to filter system or return to pond blocked.	Clean the supply and/or return.
Water flow insufficient	Bottom drain, pipe or hose blocked	Clean, replace if necessary.
	Hose kinked	Check hose, and replace if necessary.
	Excessive loss in lines	Reduce line length to necessary minimum.
Water remains cloudy	Insufficient pump capacity	Adjust the pump capacity accordingly <ul style="list-style-type: none"> For AquaMax Eco Premium 12000, 16000, 20000, switch off the SFC (Seasonal Flow Control). SFC reduces the quantity of water by up to 50 %.
	The water is extremely soiled.	<ul style="list-style-type: none"> Remove algae and leaves from the pond. If the water is particularly contaminated, change 30 % of the water to avoid damage to the fish.
	Dirt particles are not reaching the Drum Filter Module.	<ul style="list-style-type: none"> Optimise the water flow so that the skimmer and/or the filter pump can draw in the dirt particles. Align the skimmer and/or filter pump in relation to the water flow so that they can draw in dirt particles.
	Too many pond animals	Reduce number of pond animals
	Screen elements clogged or damaged	Clean or replace screen elements
	Drum seal incorrectly positioned	Check the seating of the drum seal
	Drum seal is damaged	Replace the drum seal
Unusual noises in the drum	Large dirt particles have collected in the filter drum	Remove a screen element and remove dirt particles from the filter drum
Rinsing channel blocked	Large particles of dirt such as string algae are blocking the dirt channel.	Remove a screen element and clean the dirt channel.
Filter drum is partially soiled, cannot be cleaned	Rinsing nozzle clogged	Clean the rinsing nozzle, replace if necessary
	Floater switch jammed	Clean floater switch
Pump fed system: Water is flowing via the emergency overflow.	Screen elements clogged	Clean/descale the screen elements
	Pump capacity too high	Reduce the pump capacity.
	The pipe of the dirt outlet is blocked.	Clean the pipe
Gravity fed system: Filter pump has run dry.	Screen elements clogged	Clean/descale the screen elements
	Water level in the pond is too low	Adhere to system-specific requirements (→ Installation and connection)
	The pipe of the dirt outlet is blocked.	Clean the pipe
Insufficient flow rate	Supply pipe to the inlet blocked	Clean supply pipe
Time-dependent cleaning function (interval) does not start	<p>The control system checks the function of the level detection device.</p> <ul style="list-style-type: none"> This check is started automatically if too few automatic cleaning procedures have been carried out. 	<ul style="list-style-type: none"> Wait. The check takes a maximum of 24 hours. The check is completed once the level detection function is triggered. An automatic cleaning procedure is carried out. If the level detection device is not triggered within 24 hours, E-r22 is displayed. The time-dependent cleaning cycle is activated. (→ System messages)
No display on the control system	Control system has switched off due to overheating (temperature switch)	<p>Protect the control system from heat and allow it to cool down</p> <ul style="list-style-type: none"> The control system will switch back on automatically when it has cooled down. Error message E-r55 gives a warning before the control system overheats.

Malfunction	Possible cause	Remedy
	Safety fuse has tripped due to a blockage of the rinsing pump (excessive current consumption)	Clean the rinsing pump(→ Cleaning the rinsing pump) Replace the fuse • Only use 5 × 20 mm, 8 A slow-blow / 250 V safety fuse.
	Cable not connected	Check cable connection
Oil film in the drum filter module	Harmless food-grade oil may leak from a new rinsing pump for a short time when first used	No measure is necessary
Water contains too much ammonia/nitrite.	Insufficient Hel-X biomedica used	Use more Hel-X biomedica if necessary.
	Unit has only been in operation for a short time.	The full biological cleaning effect is only achieved after several weeks.
Hel-X biomedica are being flushed out.	The meshed tube has slipped.	Correct the position of the meshed tube.
	Defective meshed tube	Replace the meshed tube.
Less movement of the Hel-X biomedica	Aerator rod is blocked.	Replace the aerator rod.
	Aerator pump malfunction	Check the aerator pump.
Less movement of the new Hel-X biomedica	Hel-X biomedica are not yet fully colonised.	It takes several weeks for the biomedica to become colonised by bacteria. Wait for the natural process to take place.

8 Maintenance and cleaning



WARNING

Possible death or severe injury from hazardous electrical voltage!

- ▶ Prior to reaching into the water, isolate (switch off and disconnect) all units/devices used in the water.
- ▶ Isolate the device (disconnect from the power supply) before carrying out any work on it.



CAUTION

Risk of injury due to sharp-edged components.

- ▶ Proceed with caution during any work on the filter container to prevent injuries caused by sharp-edged components.

8.1 Cleaning the device

- ▶ Do not use aggressive cleaning agents or chemical solutions as they could attack the housing or impair the function of the unit.
- ▶ Recommended cleaning agent for removing stubborn limescale deposits:
 - Pump cleaning agent PumpClean from OASE.
 - Vinegar- and chlorine-free household cleaning agent.
- ▶ After cleaning, thoroughly rinse all parts in clean water.

8.2 Regular tasks

The filter system is self-cleaning. Carry out the following work regularly to ensure the optimum cleaning capacity of the filter system.

Regular checks

- ▶ Check the display of the control system for any system messages. (→ System messages)
- ▶ Check the area in front of the separating plate and the inside of the filter drum for excessive soiling (e.g. string algae). To do this, remove a screen element. (→ Removing/fitting a screen element)

Removing accumulated dirt

Dirt that cannot be collected by the filter drum, sinks to the bottom and has to be removed.

- ▶ Open the DN 75 dirt outlet for approx. 10 seconds once per month.
- ▶ Remove accumulated dirt in front of the filter drum.
- ▶ Remove string algae from the dirt channel.
- ▶ Remove accumulated dirt from the level detection device.

8.3 Cleaning the entire filter system

- ▶ The entire filter system only needs to be taken out of operation for cleaning and maintenance if it is extremely soiled.
- ▶ Do not use any chemical cleaning agents as they would kill the filter bacteria.

How to proceed:

1. Switch off all filter pumps.
2. Switch off all other electrical units of the filter system (e.g. UVC clarifier).
3. Gravity fed systems only: Close the slide valves (supply and return) of the filters connected in series to prevent further water flow.
4. Open the slide valve for the DN 75 dirt outlet at the bottom of the container and dispose of the soiled water in a permissible way.
5. Carry out cleaning measures.
 - Rinse the Hel-X bio-elements in the container with running water.
6. Close the slide valve (dirt outlet).
7. Start up the filter system again. (→ Commissioning/start-up)

8.4 Cleaning the rinsing device

How to proceed:

T

1. Remove the cover and start a manual cleaning cycle to check that the rinsing nozzles are functioning perfectly. (→ Manual cleaning)
2. Loosen the union nut on a clogged nozzle, remove it together with the nozzle and seal from the rinsing pipe and clean the parts.
3. Push the union nut onto the nozzle and screw it together with the seal onto the rinsing pipe.
 - Align the nozzle so that the marking is at the top.
 - Hand-tighten the union nut.
 - Replace the cover.

8.5 Cleaning the screen element

8.5.1 Removing/fitting a screen element

How to proceed:

U

Removing

1. Turn the filter drum manually until the screen element is located opposite the drum motor. Undo the locking mechanism (turn through 180°).
2. Lower the screen element completely into the filter drum.
3. Remove the screen element from the filter drum.

Fitting

4. Lower the screen element completely into the filter drum.
5. Turn the screen element and push the two hinges onto the support of the filter drum.
6. Use the cross element to pull the screen element up.
7. Close the locking mechanism (turn through 180°).

8.5.2 Decalcifying the screen elements

The error messages *E-33*, *E-55* or an excessive rise in the frequency of cleaning cycles (counter) indicate that there are limescale deposits on the screen elements. (→ Reading out the number of cleaning cycles) Oase recommends that you descale the unit every two to three months as a preventative measure if the water is very hard.

- ▶ Recommended cleaning agent for removing stubborn limescale deposits:
 - Pump cleaning agent PumpClean from OASE.
 - Vinegar- and chlorine-free household cleaning agent.

How to proceed:

1. Remove a screen element. (→ Removing/fitting a screen element)
2. Descale the screen element using a descaler (follow the manufacturer's instructions).
 - Do not remove the rubber seal of the screen element.
3. Scrub the screen element with a soft brush under running water and rinse well.
4. Refit the screen element.

8.6 Removing/fitting the filter drum

Remove a screen element to allow work to be carried out inside the filter drum. (→ Removing/fitting a screen element)

Removing

How to proceed:

V

1. Pull the rinsing device out of the fastening clips and separating plate.
2. Undo and remove both Allen screws (width across flats 5), pull the drum motor out of the hole in the separating plate and remove.
 - Do not allow the drum motor to hang from the connection cable.
3. Undo the hose clip fastening the dirt channel.
4. Pull the dirt channel from the socket of the dirty water outlet and place it in the filter drum.
5. Open the cotter pin and pull it out.
6. Pull out the drum shaft.
7. Pull the filter drum from the separating plate and lift it out of the container.
 - Proceed carefully: The fastening clips on the container wall could damage the screen elements.

Fitting

How to proceed:

V, W

Before fitting the filter drum check that the drum seal is undamaged and correctly positioned. Lubricate the seal with the supplied grease. Replace the drum seal if damaged.

1. Fitting a new drum seal: Ensure that the recess in the drum seal is at the top.
 2. Ensure that the separating plate is completely seated in the groove of the drum seal.
- ▶ Continue to assemble in the reverse order.

8.7 Cleaning the rinsing pump

It is often possible to remove soiling from the rinsing device and rinsing pump by cleaning the rinsing device without the nozzle/nozzles.

- ▶ Remove the nozzle/nozzles for cleaning so that the dirt particles are flushed out.
-

Remove the inner cover to allow work to be carried out on the rinsing pump.

How to proceed:

X

1. Undo the fastening device. To do this, unhook both rubber straps.
2. Lift the rinsing pump, remove the rubber ring and filter sock.
 - Clean all parts in clean water.

8.8 Replacing the rinsing pump

Remove the inner cover to allow work to be carried out on the rinsing pump.

How to proceed:

Y

1. Undo the fastening device. To do this, unhook both rubber straps.
2. Loosen the union nut and disconnect the hose.
3. Take out the rinsing pump and replace.
 - Disconnect the connection cable from the cable harness.
4. Fit the rinsing pump in the reverse order.

8.9 Replace the aerator rod

How to proceed:

Z

1. Remove approx. 2/3 of the Hel-X bio-elements and keep moist. After completing the maintenance measures, return the Hel-X bio-elements to the container.
2. Pull the aerator rod out of the clamping holder at the bottom of the container.
3. Disconnect the hose from the aerator rod and fit it onto the new aerator rod.
4. Press the new aerator rod into the clamping holder.

9 Storage/overwintering

The unit is protected from frost:

The unit can be operated as long as the water temperature does not go below +4 °C.

- ▶ Set the interval for time-dependent cleaning to 20 minutes to avoid damage to the rinsing device in the event of frost.
- ▶ Install the control system in such a way that it is protected. The minimum operating temperature of the control system is -10 °C.

The deeper areas of the pond have a water temperature of approx. +4 °C in winter and are essential for the fish. By taking the following measures it is possible to reduce the cooling effect on the water of the circulation by the filter system:

- ▶ Position the pump nearer to the surface of the water so that only colder water closer to the surface of the pond enters the pump.
- ▶ Insulate the return pipes from the filter system into the pond.
- ▶ Do not allow water to flow into the pond via a water course.

The unit is not protected from frost:

Take the unit out of operation at water temperatures below +8° C or, at the latest, when freezing temperatures are to be expected.

- ▶ Drain the unit as far as possible, clean thoroughly and check for damage.
- ▶ Empty all hoses, pipes and connections as far as possible.
- ▶ Leave the slide valves open.
- ▶ Cover the filter container to prevent the penetration of rain water.
- ▶ Protect pipes and slide valves that are in contact with water from frost.

10 Wear parts

- ▶ Capacitor of the rinsing pump
 - Do not open the rinsing pump. Send the rinsing pump to OASE. You will be sent an immediate replacement.
- ▶ Safety fuse
- ▶ Screen elements
- ▶ Drum seal
- ▶ Aeration stone and air hoses

11 Disposal



NOTE

Do not dispose of this unit with domestic waste.

- ▶ Render the unit unusable beforehand by cutting the cables and dispose of the unit via the return system provided for this purpose.

12 Spare parts

The use of original parts from OASE ensures continued safe and reliable operation of the unit.








Please visit our website for spare parts drawings and spare parts.



www.oase-livingwater.com/spareparts

13 Technical data

ProfiClear Premium Compact-L EGC			Pump fed system	Gravity fed system
Control device	Rated voltage	V AC	230	230
	Mains frequency	Hz	50	50
	Power consumption in idle state	W	5	5
	Power consumption during cleaning cycle	W	1050	1050
	Rinsing pump output voltage	V AC	230	230
	Drum motor output voltage	V DC	12	12
	Signal box output voltage	V DC	12	12
	Ambient temperature	°C	-10 ... +35	-10 ... +35
	Safety fuse 5 × 20 mm, 250 V	A	T8	T8
	Length of power cable	m	5	5
Permissible water temperature		°C	+4 ... +35	+4 ... +35
Length of cable harness		m	1	5
Airborne noise emitted		dB(A)	< 70	< 70
Dimensions	L × W × H	mm	1340 × 900 × 820	1375 × 900 × 820
Weight	Without water	kg	106	102
	With water	kg	≈460	≈460
Rinsing pump	Water pressure	bar	6	6
	Water consumption per rinsing cycle	l	≈1.6	≈1.6
Drum	Diameter	mm	500	500
	Width	mm	160	160
Screen elements	Quantity	pcs.	8	8
Removal of coarse dirt particles	Pore size	µm	60	60
Inlet	Quantity	pcs.	1 + 1 (optional)	3 + 1 (optional)
	Connection		50 mm (2 ")	DN 110
Outlet	Quantity	pcs.	2	2
	Connection		DN 110	DN 150
Option UVC pre-clarifier			Bitron Eco 120 W... 240 W, Bitron C 72 W ... 110 W	ProfiClear Premium Individual Module (with Bitron Gravity)
Dirt drain	Quantity	pcs.	1	1
	Connection		DN 75	DN 75
Coarse dirt outlet	Quantity	pcs.	1	1
	Connection		DN 110	DN 110
Circulation capacity	Max.	l/h	20000	25000 + 8000 (optional)
	Min.	l/h	10000	10000
Hel-X biomedica	Volume supplied	l	60	60
	Refill volume	l	20	25
Aeration	Aerator rods	pcs.	1	1
	Connection to		AquaOxy 2000/4800	AquaOxy 2000/4800
Minimum height top edge of container including container cover above water level of the pond		mm	—	125
Permissible tolerance of the water level in the pond		mm	—	-20
Permissible frictional losses in supply lines		mbar (cm)	—	7 (7)
Required friction losses for status detection of the filter pump		mbar (cm)	—	3.5 (3.5)

	IP 44							
DE	Staubgeschützt. Geschützt gegen Spritzwasser	Schmelzsicherung 8 A / 250 V, träge	Mögliche Gefahren für Personen mit Herzschritt- machern!	Vor direkter Sonneneinstrahlung schützen	Bei Frost das Gerät deinstallieren!	Nicht in Einlauf oder Auslauf greifen. Verletzungsgefahr durch Scherbewegung.	Achtung! Lesen Sie die Gebrauchsanleitung.	Nicht mit normalem Hausmüll entsorgen!
EN	Dust protected. Splash water protected	8 A / 250 V slow-blow safety fuse	Possible hazard for persons wearing pace makers!	Protect from direct sun radiation.	Remove the unit at temperatures below zero (centigrade)!	Do not reach into the inlet or outlet. Risk of injury due to shearing movement.	Attention! Read the operating instructions.	Do not dispose of together with household waste!
FR	Protection contre la poussière. Protection contre la projection d'eau	Fusible 8 A / 250 V, à action retardée	Dangers possibles pour des personnes ayant des stimulateurs cardiaques !	Protéger contre les rayons directs du soleil.	Retirer l'appareil en cas de gel !	Ne pas exécuter de manipulations dans les conduits d'admission et d'écoulement. Risque de blessure par le mouvement de cisaillement.	Attention ! Lire la notice d'emploi.	Ne pas recycler dans les ordures ménagères !
NL	Stofvrij. Beschermd tegen spatwater	Smeltzekering 8 A / 250 V, traag	Mogelijke gevaren voor mensen met een pacemaker!	Beschermen tegen direct zonlicht.	Bij vorst moet het apparaat gedeïnstalleerd worden!	Niet in inloop of uitloop grijpen. Verwondingsgevaar door schaarbeweging.	Let op! Lees de gebruiksaanwijzing.	Niet bij het normale huisvuil doen!
ES	Protegido contra polvo Protegido contra chorros de agua	Fusible 8 A / 250 V, retardado	Posibles peligros para las personas con marcapasos.	Protéjase contra la radiación directa del sol.	Desinstale el equipo en caso de heladas.	No toque en la entrada ni en la salida. Peligro de lesión por el movimiento de cizalla.	¡Atención! Lea las instrucciones de uso.	¡No deseche el equipo en la basura doméstica!
DA	Støvs beskyttet. Stærkvands beskyttet	Smeltesikring 8 A / 250 V, træg	Mulig fare for personer med pacemaker	Beskyt mod direkte sollys.	Afinstaller enheden ved frostvejrl!	Grib ikke fat i indløbet eller afløbet. Risiko for kvæstelser ved skydebevægelse.	OBS! Læs brugsanvisningen.	Må ikke bortskaffes med det almindelige husholdningsaffald
SV	Dammskyddad. Skyddad mot droppvatten	Smältsäkring 8A/250V, trög	Möjlig risk för personer med pacemaker!	Skydda mot direkt solstrålning.	Demontera apparaten innan första frosten!	Stick inte ner handen i inloppet eller utloppet. Skaderisk genom skjuvning.	Varning! Läs igenom bruksanvisningen.	Får inte kastas i hushållssoporna!
HU	Porvédett. Fröccsvíz-védett	Olvadóbiztosíték 8 A / 250 V, késleltetéses	A készülék veszélyes lehet szívritmus- szabályozóval rendelkező személyekre!	Óvja közvetlen napsugárzástól.	Fagy esetén a készüléket szerelje le!	Nem szabad a bemenetbe vagy a kimenetbe nyúlni. A vágó mozgás sérülésveszélyes.	Figyelem! Olvassa el a használati útmutatót.	A készüléket nem a normál háztartási szeméttel együtt kell megsemmisíteni!
PL	Ochrona przed pyłem. Odporne na rozpryskującą się wodę	Bezpiecznik topikowy 8 A / 250 V, zwłoczny	Możliwość wystąpienia zagrożeń dla osób ze stymulatorami	Chronić przed bezpośrednim nasłonecznieniem.	W razie mrozu zdeinstalować urządzenie!	Nie wkładać rąk do wlotu ani do wylotu. Zagrożenia odniesienia ran w wyniku ścianania.	Uwaga! Przeczytać instrukcję użytkowania!	Nie wyrzucać wraz ze śmiećmi domowymi!
CS	Chráněný proti prachu. Chráněný proti odstřikující vodě	Tavná pojistka 8 A / 250 V, setrvačná	Možná nebezpečí pro osoby s kardiostimulátory!	Chránit před přímým slunečním zářením.	Při mrazu přístroj odinstalovat!	Nesahejte do přívodu nebo výústění. Nebezpečí poranění v důsledku strážného pohybu.	Pozor! Přečtěte Návod k použití!	Nelikvidovat v normálním komunálním odpadu!
RU	Пылезащищен. Защищен от водяных брызг	Плавкий предохранитель 8 A / 250 В медленного срабатывания	Возможная опасность для лиц с кардиостимулятором!	Защищать от прямого воздействия солнечных лучей.	При наступлении морозов прибор демонтировать!	Не прикасаться к входу или выходу. Опасность травмирования в связи с режущими движениями.	Внимание! Прочитайте инструкцию по использованию.	Не утилизировать вместе с домашним мусором!



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