



PRESSURE-FLO

Instruction Manual

Mode d'emploi

Bedienungsanleitung

Manual de instrucciones

Manual de instruções

Handleiding



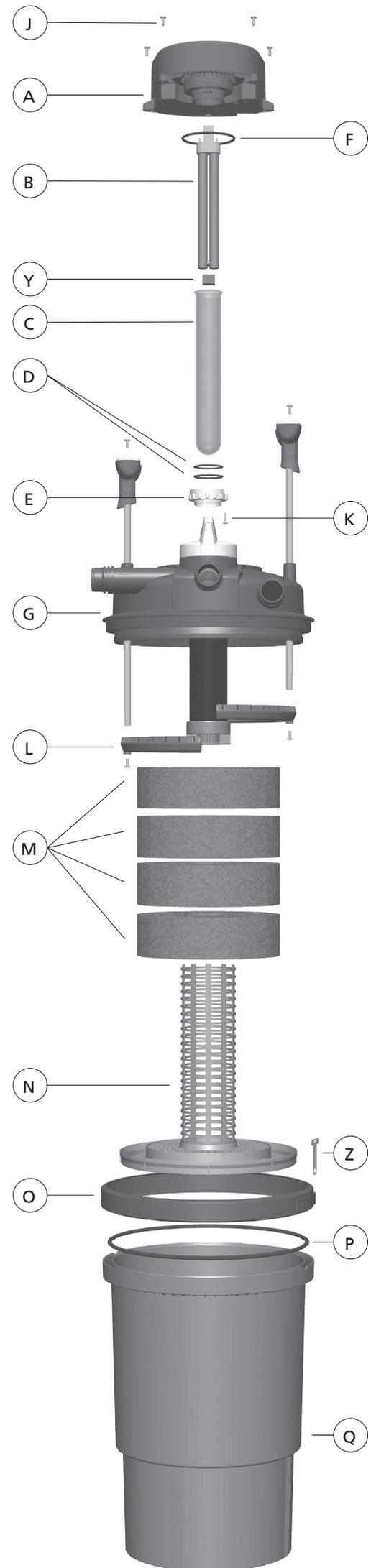
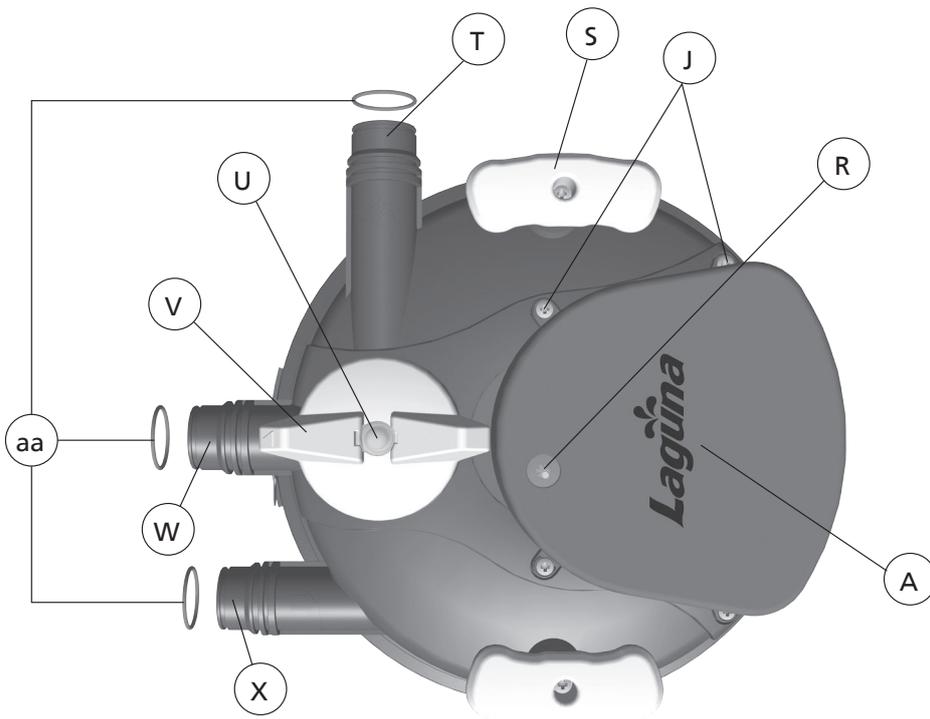
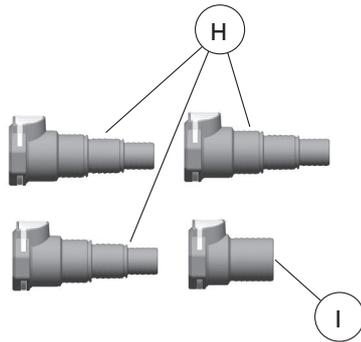
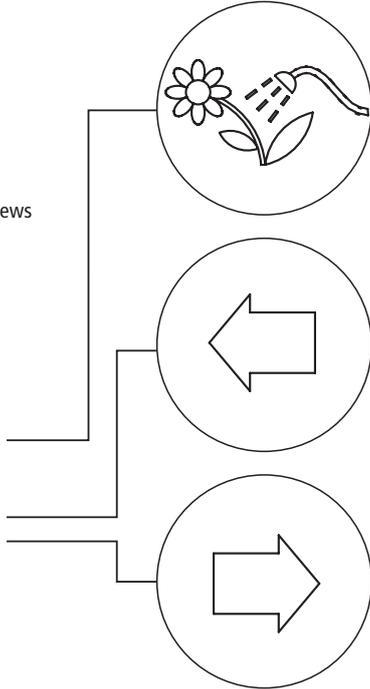
Beautifully simple water gardening

*Aménager un bassin de jardin : merveilleusement simple • Herrlich einfacher Wassergarten • Perfecto para la jardinería acuática
Jardim de água maravilhosamente simples • Een watertuin inrichten: wonderbaarlijk eenvoudig*

English Instructions

Refer to these illustrations when reading instruction manual.

- A** UV-C Head
- B** UV-C Lamp
- C** Quartz Sleeve
- D** O-Rings
- E** Retaining Flange
- F** UV-C Head O-Ring
- G** Filter Lid
- H** Universal Click-Fit
- I** Sealing Cap Click-Fit
- J** Head Screws
- K** Quartz Sleeve Flange Screws
- L** Foam Cleaning Blades
- M** Foam Filters
- N** Foam Support Frame
- O** Lid Clamp
- P** Filter Lid O-Ring
- Q** Filter Case
- R** Lamp Indicator
- S** Cleaning Handles
- T** Drain Outlet
- U** Cleaning Indicator
- V** Mode Selector Switch
- W** Water Outlet
- X** Water Inlet
- Y** Lamp Damper
- Z** Safety lock
- aa** Rubber O-Rings



POND FILTER WITH INTEGRATED UVC UNIT

For freshwater use only; Read thoroughly prior to installation and operation

IMPORTANT SAFETY INSTRUCTIONS

WARNING: To guard against injury, basic safety precautions should be observed, including the following:

1. READ AND FOLLOW ALL SAFETY INSTRUCTIONS and all the important notices on the use and maintenance of this appliance. Disregarding this advice may result in damage to the appliance or personal injury.
 - DANGER – To avoid possible electric shock, special care should be taken since water is employed in the use of pond equipment. For each of the following situations, do not attempt repairs yourself; return the appliance to the store where it was purchased if still under warranty:
 - This is a weather-proof but NOT a submersible product. Do not immerse the product in water! If the appliance falls into the water, DON'T reach for it. First unplug it and then retrieve it.
2. Prior to installing the unit, check the quartz glass sleeve and the UV-C lamp have not been damaged during transportation, as the UV lamp (B) and the quartz sleeve (C) are made of glass. Handle them with care. Do not handle UV lamp with bare hands as this will impede its performance.
 - If the appliance shows any sign of abnormal water leakage or if RCD (or GFCI-Ground Fault Current Interrupter) switches off, disconnect the power supply cord from mains (main power supply).
 - Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet. If electrical components of the appliance get wet, unplug the appliance immediately.
 - Do not operate any appliance if it has a damaged cord or plug, if it is malfunctioning or if it is dropped or damaged in any manner. The power cord of this appliance is a special cord; if it is damaged, it must be replaced by an authorized Laguna service facility or similar qualified person in order to avoid any hazard. Never cut the cord.
 - The UV lamp starter used in this product has a long life and it doesn't require maintenance. If necessary, it must be replaced only by an authorized Laguna service facility or similar qualified person in order to avoid a hazard.
 - The two O-rings (D) of the quartz sleeve (C) must be replaced every time the unit is opened.
3. **WARNING** – This appliance contains a UV-C emitter. Direct exposure to UV-C can damage eyes and skin. Do not operate the UV-C emitter when it is removed from the appliance enclosure.
4. **WARNING** – This appliance can be used by children aged 8 years and above, persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
5. To avoid injury, do not touch moving parts or hot parts.
6. **CAUTION** – Always unplug or disconnect all appliances in the pond from the electrical supply before placing hands in water, before putting on or taking off parts and while the equipment is being installed, maintained or handled. Never yank the cord to pull the plug from outlet. Grasp the plug and pull to disconnect. Always unplug an appliance from an outlet when not in use.
7. This is a Filter unit complete with integrated UV sterilizer for outdoor fresh water garden ponds. Do not use this appliance for other than its intended use. Unintended use of the appliance or damage to the housing may result in the escape of dangerous UV-C radiation. UV-C radiation may, even in little doses, cause harm to the eyes and skin.
 - Do not use this product in swimming pools or other situations where people are immersed;
 - This product is suitable for use in water temps from 4 °C to 35 °C;
- Do not use this product with inflammable or drinkable liquids.
- The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition and will invalidate your warranty.
8. Do not install or store the appliance where it will be exposed to temperatures close to 0 °C (32 °F) or below. In freezing conditions, disconnect the power supply to the filter and drain water from the filter canister. In winter, remove and store the appliance in a sheltered place.
9. Shelter appliance also from direct sunlight. The materials have high stability to sunlight but direct rays may overheat the motor and speed up insulator aging.
 - To avoid overheating, do not place objects on the filter.
 - This product should not be placed where it can fall into the water. Do not install it in an area where flooding can occur or where water can accumulate. It should be placed at least 1m/3.2 feet from the edge of the garden pond, in a dry and protected place, with sufficient ventilation around it. Be sure that there is enough room around it for maintenance operations.
10. **IMPORTANT** – The maximum operating pressure is 0.04 Mpa (0.4 Bar or 5.8 PSI). Do not connect power filter to the water mains.
11. Do not attempt to open the lid clamp (O) and lift the lid when the appliance and the filters are in operation. The lid clamp latch features a safety metal insert to prevent accidental opening.
12. If an extension cord is necessary, ensure connection is watertight and dust proof. A cord with proper rating should be used. A cord rated for less amperes or watts than the appliance rating may overheat. Care should be taken to ensure the cord will not be tripped over or pulled. The connection should be carried out by a qualified electrical installer.
13. **IMPORTANT** – Electrical connection must be in accordance with data on the rating label; the appliance can be operated only after having been correctly installed. The electrical safety is guaranteed only when the item is connected to a residual current device (RCD) or Ground Fault Circuit Interrupter (GFCI) having a rated residual operating current not exceeding 30 mA.
14. **WARNING** – Do not connect power to filter unless filter is fully and correctly assembled. Never use the product without water. The filter must always be fully filled with water when operating.
15. **WARNING** – Risk of electric shock. This appliance is equipped with a grounded, type 3-wire cord (3-prong plug). This plug will only fit into an electrical outlet made for a 3-prong plug. This is a safety feature. If the plug should fail to fit the outlet, contact an electrician to replace the outlet. Do not attempt to defeat the safety purpose of the grounding pin part of the 3-prong plug. Ensure that it is connected only to a properly grounded RCD or GFCI equipped receptacle rated at 30mA.

WARNING – Do not bury cord. Locate cord to minimize damage from lawn mowers, hedge trimmers and other equipment. Permanent installations to the main power supply (hard wiring), must comply with local authority regulations, which may stipulate the use of plastic or metal conduit to protect the cable.

SPECIAL INSTRUCTION FOR U.K.:

IMPORTANT – This product is supplied without plug and is designed to be permanently wired to the mains supply; the connection must be made in a dry, weatherproof enclosure through the use of a double pole switched fused, incorporated in the fixed wiring in accordance with the wiring rules and having a contact separation in all poles that provided full disconnection under overvoltage category III, which complies to BS3676 fitted with a 3 amp fuse. The installation must conform to the regulations of the Local Electricity Authority which could include the use of plastic or metal conduit to protect the cable. A 30mA Residual Current Device (RCD) must be fitted to the mains supply.

WARNING: THIS APPLIANCE MUST BE EARTHED. IMPORTANT – The wires in the mains lead are coloured in accordance with the following code:

BROWN-LIVE • BLUE-NEUTRAL • GREEN/YELLOW-EARTH

- The Brown lead should be connected to the live terminal, which may be marked with an 'L' or coloured brown or red.
- The Blue lead should be connected to the Neutral terminal, which may be marked with an 'N' or coloured blue or black.
- The Green/Yellow lead should be connected to the Earth terminal which may be marked with an 'E' or coloured green or yellow.
- The cord should be protected from abrasion, cuts or any other damage.

Filter specifications		Pressure Flo 1000/3000	Pressure Flo 2000/6000	Pressure Flo 3000/10000	Pressure Flo 4000/14000
Unit size (diameter x Height)		ø11.2" - 13.7" H ø28,5 cm - 35 cm H	ø11.2" - 20" H ø28,5 cm - 51 cm H	ø14.3" - 20.6" H ø36,5 cm - 52.5 cm H	ø14.3" - 25.2" H ø36,5 cm - 64 cm H
Canister Height		9" (23 cm)	15.2" (38,5 cm)	15.7" (40 cm)	19.7" (50 cm)
Canister Volume		2.6 U.S. gal (10 l)	4.6 U.S. gal (17,5 l)	8.2 U.S. gal (31 l)	10.6 U.S. gal (40 l)
Foam Quantity		3		4	5
Bio-Lava/Bio-Rock		-	1600 g	3200 g	4800 g
Hose Connection size		¾", 1", 1 ¼" (19, 25, 32 mm); female 1 ¼" (32 mm)			
UV-C Lamp	120 V - 60 Hz	13W		24 W	36 W
	230-240 V - 50 Hz	11W		18 W	24 W
Recommended Laguna Max-Flo pump ¹		PT8232	PT8236	PT8244	PT8248
Recommended total hose length ²		13 ft - 4 m		19 ft - 6 m	26 ft - 8 m
Minimum hose diameter to achieve above performances		1-¼"			
Recommended max. waterfall height to achieve above performances		24" - 60 cm		39" - 100 cm	

Maintenance of filter will be more frequent during the hot summer months.

¹ If the application includes a higher waterfall than the maximum indicated, choose a bigger pump.

² Total length outlet + inlet. For reference only. The final flow rate depends on many factors, such as the length and the diameter of the hose, hosing kinks or bends, and the height of the waterfalls.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

CONTENTS

Before you begin, please check that the following items are included in the box:

- Pressure-Flo Filter
- UV-C Lamp, installed
- 3 Foam Filters (PF 1000/PF 3000 UVC), 4 Foam Filters (PF 2000/PF 6000 UVC & PF 3000/PF 10000 UVC), 5 Foam Filters (PF 4000/PF 14000 UVC)
- Biological Media (except Pressure-Flo 1000/3000 UVC)
- 1 Lid sealing O-ring (P), supplied in a separate poly bag
- 3 Click-fit couplings (H) for 3/4", 1", and 1-1/4" (19, 25, & 32 mm) diameter hosing
- 1 Click-fit sealing cap (I)
- Instruction manual
- Safety lock (Z)
- 3 Rubber O-rings (aa)

INTENDED USE

The Pressure-Flo filter is a sealed pressure filter with an integrated UV-C sterilizer designed to provide mechanical and biological filtration in outdoor fresh water ornamental ponds with a temperature from +4°C to 35°C (+39.2° to 95° F), with or without fish. The purpose of mechanical filtration is to trap and accumulate debris and waste material coming from the pond. The purpose of biological filtration is to convert toxic by-products of fish metabolism and other organic waste into much less harmful substances. The purpose of UV-C filtration is to inhibit single-celled algae growth.

HOW PRESSURE-FLO FILTERS WORK

Pressure-Flo Filters are designed to provide three important water filtration operations that are essential for keeping pond water clear and healthy: mechanical and biological filtration, and UVC sterilization. The filters are designed to work in tandem with a solids handling pump. For best results, use a Laguna Max-Flo circulating pump. With the filter connected to the outlet of a pump, water enters the unit through water inlet (X). It is then forced to pass through the mechanical filtration stage, consisting of foam filters that intercept and trap dirt and debris. Next, water reaches the biological filtration* chamber where it comes into contact with beneficial bacteria. Finally, dirt-free water passes along the UV-C lamp unit (B), where it is exposed to UV rays that inhibit algae growth. Water then returns to the pond through outlet (W).

*Pressure-Flo 1000/3000 UVC does not feature biological filtration.

BACKWASH-CLEANING SYSTEM

During operation, coarse debris is captured at the surface of the foam filters. As a result, over time, the external surface of the foam filters will clog and hinder proper filtration, because of reduced water flow. The limited water flow through the foam filters reduces the effectiveness of both the biological and UV-C filtration. This condition can easily be detected thanks to the cleaning indicator (U). Pressure-Flo filters feature a unique Backwash-cleaning system that completely cleans the entire surface of the mechanical foam filters. The complete cleaning operation can easily and comfortably be done in a few minutes with no need to open the unit. Cleaning will ensure that the filter will perform at optimal levels. Though the Backwash-Cleaning System prolongs the time between maintenance sessions, thorough cleaning of the unit is necessary periodically. See Cleaning and Maintenance of the Pressure-Flo Filter for more details.

CLEANING INDICATOR

This unit features a cleaning indicator (U), which lets you know when the filter needs backwashing or cleaning. The height of the red cleaning indicator is approximately proportional to the filter clogging level. When the red indicator is low, the filter is clean. When the red indicator is fully exposed, the filter needs cleaning. The cleaning indicator may be affected by many variables, such as waterfall height and pump performance. Its operating characteristics have been calibrated according to specific application conditions indicated in the chart (selecting the right Pressure-Flo and max-Flo pump for your Pond). Different application conditions may lead to different results.

SELECTING THE RIGHT PRESSURE-FLO AND MAX-FLO PUMP FOR YOUR POND

Using the "filterspecification" table, select the correct Laguna Max-Flo pump/Pressure-Flo filter combination according to your pond size and conditions. Due to the high number of variables, the following recommendations are offered as general guidance only.

INSTALLATION

Location of the filter

Choose a suitable location for your Pressure-Flo filter, keeping in mind the following recommendations:

- Place the Pressure-Flo Filter on a firm and level base, where it is safe from flooding and has enough ventilation. Protect the appliance from direct sunlight.
- Place either above ground or buried with the lid clamp (O) at least 5 cm/2 inches above ground level.
- To avoid overheating, do not cover the filter.
- Place the filter at least 1 meter/3.2 feet from the pond edge and make sure it cannot fall into the water in any way.
- Make sure you have full access to the lid of the unit for maintenance.
- Do not operate the filter with a water pressure greater than 0,4 bar or 5.8 PSI of

pressure. Never connect the filter to public water works.

- Orient the filter so that the water inlet (X), water outlet (W) and drain outlet (T) point in the desired directions to avoid sharp bends in the hosing.

Hose connections

Pressure-Flo filter requires the connection of 3 hoses (not included): one for the inlet of the unit (from the pond pump), one for the outlet which takes filtered water to the pond, and one for discharging dirty water from the filter to a location outside the pond during maintenance. When selecting and installing the hoses for your application, maximize potential flow by choosing the largest diameter and shortest hosing possible and avoiding kinks and sharp bends. Pressure-Flo Filters are equipped with 3 universal click-fit couplings (H), which will make connecting and disconnecting the hosing fast and easy. Connect flexible hoses to click-fit couplings and secure them with an adequate hose clamp (not included).

IMPORTANT – Universal Click-Fit couplings (H) allow the connection of different diameter flexible hosing, but it is important to cut off the unused smaller diameter hose-tails to avoid flow restrictions.

When flexible hoses are securely connected to click-fit couplings, you can disconnect hosing from the unit simply by pushing the click-fit coupling button and pulling. To connect click-fit couplings to the unit, insert them onto the male connectors located on the lid of the unit and ensure that the coupling button comes up fully.

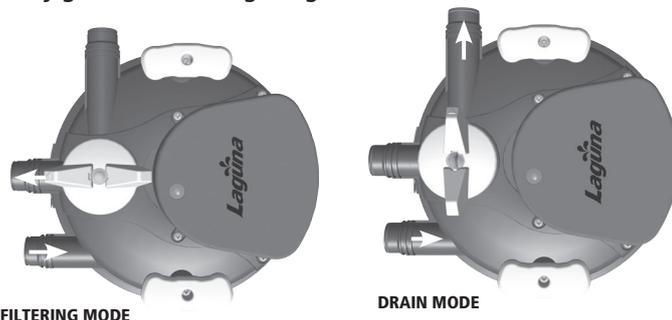
Water Inlet (X): the Water Inlet is where pond water enters the Pressure-Flo filter. Simply connect the outlet of a Laguna Max-Flo solids handling pump to the Pressure-Flo inlet (X) using non-kink hosing. The pump delivers dirty water from the pond to the Pressure-Flo filter.

Water Outlet (W): the Water Outlet returns filtered water to the pond when the filter is operating in filtering mode. Hosing attached to the water outlet (W) can be placed directly in the pond or used to create a watercourse or waterfall. This outlet is activated when the Mode Selector Switch (V) is pointing at the water outlet (W) (Filtering Mode). The end of the outlet hosing should be placed as far away from the pump inlet as possible to maximize water circulation in the pond.

Drain Outlet (T): the Drain Outlet is where dirty water exits the filter when using the Backwash-Cleaning System. Connect a hose to the Drain Outlet to allow dirty water to drain out of the filter and into your garden (See Tip below). This outlet is activated when the Mode Selector Switch (V) is pointing at the Drain Outlet (T) (Drain Mode).

IMPORTANT – During normal "Filtering Mode" operation, close the Drain Outlet (T) using the Click-fit Sealing Cap (I).

Tip: dirty pond water is nutrient-rich and chlorine-free and is particularly good for watering the garden.



FILTER START-UP, OPERATION AND BACKWASH CLEANING

IMPORTANT! – Before the first and every start-up after cleaning filter verify the following:

- Before the first start-up, it is necessary to install the lid O-ring (P), which is supplied in a separate poly bag. This O-ring must be correctly inserted in its seat at the top of the filter canister (Fig. 1).
- This filter comes with the UVC lamp already installed. Before connecting the filter to the power supply, it is necessary to perform the Filter Wet Test. Refer to the section "Changing the UV-C Lamp and Cleaning the Quartz Sleeve" for detailed instructions.
- The Biological Media must be placed in the Filter Case as indicated in the picture (except Pressure-Flo 1000/3000 UV-C)(Fig. 2).

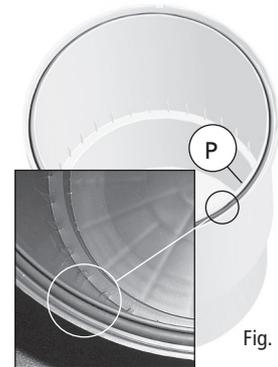


Fig. 1

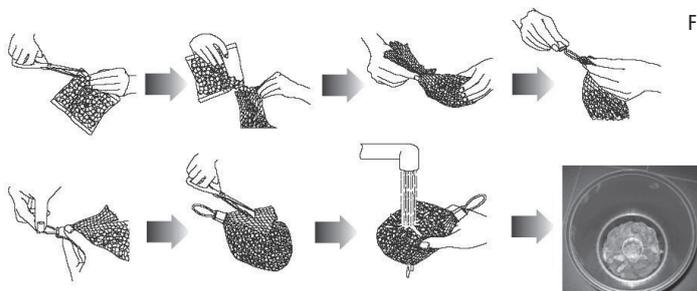


Fig. 2

- Ensure that the lid (G) is securely closed with the lid clamp (O) and the lid O-ring

(P) correctly sitting in its seat. **IMPORTANT:** Before applying the lid clamp (O), the lid (G) must be pressed down until the gap between lid and filter case is eliminated. The lid clamp must be latched, with the safety metal lock (Z) inserted correctly inside the latch slot (Fig. 3). **WARNING:** Pay attention not to catch your fingers or the line cord, while latching the lid clamp. A padlock (not included) can be inserted in the bottom hole of the safety lock (Z) to secure it if necessary.



Fig. 3

- The Mode Selector Switch (V) must be set to the "Filtering Mode" position with the switch pointing at Water Outlet (W). **Mode selector (V) must be fully turned 90°; do not set it at intermediate positions.**

- Ensure that all hoses have been securely connected to the unit and placed in their final position. Ensure that the male section of all Click-Fit couplings is equipped with the rubber O-Ring (aa).

During normal "Filtering Mode" operation, close the Drain Outlet (T) using the Click fit Sealing Cap (I). Always ensure that the Click-fit Sealing Cap is securely locked in place (push button fully up).

CAUTION – Do not operate the UV-C lamp (B) without water flowing through the unit.

After the above verifications, proceed as follows:

1. Turn on the pump and run the filter for several minutes to check that there are no water leaks
2. If everything is OK and water regularly flows through the unit, plug the Pressure-Flo UV-C lamp into the power supply. The UV lamp indicator (R) lights up with a blue shimmer when the UV-C is operating; this light can be better viewed after dusk.

Keep the filter working for 24 hours a day and ideally all year round, provided that there is no frost and water can flow freely through the unit.

BACKWASH-CLEANING SYSTEM

When the foam surface becomes clogged, the Backwash-Cleaning System quickly and efficiently restores normal filter operation without having to open the unit. Cleaning should be done at least weekly or whenever the cleaning indicator (U) detects that the filter is clogged or dirty or when cloudy water comes out of the filter. If the pond is very dirty and during the first weeks the unit is used, the filter may need more frequent cleaning. Proceed as follows:

1. Turn off the power to the pond pump.
2. Remove the click-fit Sealing Cap from the Drain Outlet (T). **CAUTION:** there will be a small flow of water coming out.
3. Connect a drain hose to the Drain Outlet (T) and ensure that it will expel the dirty water where desired.
4. Turn the Mode Selector Switch (V) to the Drain Mode position (point selector fully at drain outlet (T)). A small amount of water may continue to come out of the Water Outlet (W). This is normal. To avoid this, remove the Universal Click-Fit from the Water Outlet and connect the Sealing Cap Click-Fit.
5. Turn on the power to the pond pump
6. Slide both cleaning handles (S) up and down. The up-and-down sliding motion causes the cleaning blades to scrape against the surface of the foam filters, dislodging debris and suspending it in the outer chamber of the filter, where water loaded with the suspended debris is forced out of the filter through the Drain Outlet (T). Proceed for several minutes until you see clear water coming out through the drain hose.
7. **CAUTION –** The cleaning system uses pond water. This fact must be considered when using the cleaning feature. When cleaning is complete, refill the pond to the desired water level.
8. Turn off the power to the pond pump
9. Turn the Mode Selector Switch (V) to the Filtering Mode position (selector fully pointing at Water Outlet (W)). The filter is now in normal filtering mode. A flow of green water coming out for a few seconds is quite normal.
10. Seal the Drain Outlet (T) using the Click-fit Sealing Cap (I). Ensure that it is securely locked in place (push button fully up). If the filter remains clogged at the end of this operation, inspect the Cleaning Indicator to see whether it is clean and unimpeded (refer to Foam and Biological Media Cleaning, point 11, for detailed instructions). If the Cleaning Indicator continues to signal clogged, perform Foam and Biological Media Cleaning as explained below.

11. Turn on the power to the pond pump.
If the filter remains clogged at the end of this operation, perform Foam and Biological Media Cleaning below.

CLEANING AND MAINTENANCE OF THE PRESSURE-FLO FILTER

WARNINGS:

- Do not attempt to open the lid clamp (O) and lift the lid when the pump and the filter are in operation. The lid clamp latch features a safety metal insert to prevent accidental opening.
- **DO NOT ATTEMPT TO VIEW THE LAMP WHEN LIT!** Direct exposure to ultraviolet light can damage eyes and skin.
- The UV-C lamp (B) and the quartz sleeve (C) are made of glass. Handle all parts with care.
- Make sure that the internal electrical parts of the appliance are dry before, during and after the maintenance operations.

- The Mode Selector Switch (V) simply diverts water but does not stop it.

Foam and biological media cleaning

At the start of each season or when the Backwash-Cleaning System does not produce expected results it will be necessary to thoroughly wash or replace the foam filters (M). During the hot summer months, more frequent cleaning is required. During this operation, the biological media can also be cleaned and/or replaced (except Pressure-Flo 1000/3000 UVC).

1. Switch off the UV-C lamp (B) by disconnecting the unit plug from the main power supply.
 2. Switch off the pump that supplies the Pressure-Flo Filter.
 3. Disconnect all hosing from the unit by releasing the click-fit couplings (push the press button and pull).
 4. Slowly lift the Cleaning Handles (S) up to their maximum extension above the filter.
 5. Remove the safety insert from the metallic lid clamp (O). Unlatch the metallic lid clamp.
 6. Remove the Lid (G) by grasping the cleaning handles or by gently levering into the side slots by means of an adequate flatheaded screwdriver. **CAUTION:** do not force the guiding rods sideways as this may damage the unit.
- CAUTION –** The lid integrates the UV-C unit with the lamp and the quartz sleeve, which are made of glass. **HANDLE ALL PARTS WITH CARE!**
7. You now have access to the Foam Filters (M). Remove all of them together by grasping and lifting the internal Foam Support Frame (N).
 8. Free the Foam Filters (M) from the Foam Support Frame (N) and rinse with pond water or replace them as required.
 9. Rinse the biological media located in the lower section of the Filter Case (Q) with pond water or replace as required. Pressure-Flo 1000/3000 UVC does not have a biological media chamber.
 10. Clean the Filter Case (Q) with water, particularly around the top edge where the lid sealing O-ring (P) is seated.

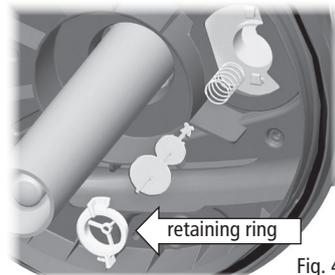


Fig. 4

11. If necessary clean the Cleaning Indicator (U) after disassembling it as follows (the Mode Selector Switch (V) must be set to the "Filtering Mode" position): 1) remove the retaining ring by rotating it counter-clockwise, 2) remove the indicator and its spring. Rinse all parts in water and reassemble them with care (Fig. 4 - Fig. 5).
12. Inspect and clean the two Cleaning Blades (L) and the guide rods. If necessary, replace the blades with new ones. Each blade can easily be detached from the guiding rod by unscrewing the screw in the middle.
13. Put the foam and biological filtering media back in their original locations.



Fig. 5

- Ensure that the foam filters are properly stacked with no space between them.
14. Reassemble the unit with care. Make sure that the biological filtration media does not interfere with the foam support frame (N) and that the frame is refitted correctly.
 15. The filter is now ready for start-up. Read and follow all instructions in Filter Start-up, Operation, and Backwash-Cleaning.
- NEVER** use soap or detergents for cleaning. Any remaining traces may pollute the pond and result in damage to sensitive fish tissues.

Changing the UV-C lamp and cleaning the quartz sleeve

Changing the UV-C lamp: to maintain optimum performance, the UV-C lamp (B) should be replaced every year. An ideal time is Spring, during pre-season pond maintenance.

Cleaning the Quartz Sleeve: although only filtered water passes through the UVC section of the Pressure-Flo filter, the quartz sleeve (C) can become coated with limescale, which will diminish the performance of the UV-C lamp (B). It is recommended to check and clean the quartz sleeve (C) on a regular basis. The frequency of cleaning depends on pond conditions. In order to access the UV-C lamp (B) and the quartz sleeve (C), proceed as follows:

1. Switch off the UV-C lamp by disconnecting the unit plug from the main power supply.
2. Switch off the pump that supplies the Pressure-Flo Filter.
3. Disconnect all hosing from the unit by releasing the click-fit couplings (push the "press" button and pull).
4. Remove the UV-C head (A) (Fig. 6) from the filter by unscrewing the 4 screws (J) that fasten the UV-C head to the filter lid (G). UV-C Head is equipped with anti-loss

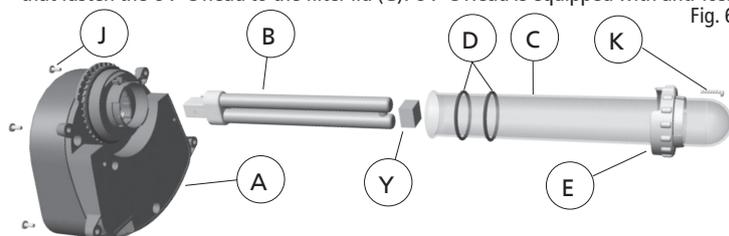


Fig. 6

screws. You do not need to completely remove the screws. Just unscrew them until the UV-C Head is disengaged.

- At this stage it is possible to clean the quartz sleeve (C), if required. **To clean the quartz sleeve, use a damp soft cloth to wipe away limescale and debris. In case of stubborn dirt, some vinegar may be used. Do not use detergents or other chemical cleaners. If it is not necessary to change the UV-C lamp, go straight to point #10.**
- To access the UV-C lamp (B), remove the Quartz Sleeve (C) by first unscrewing, about 3 turns, the security screw (K) of the Retaining Flange (E) that fasten it to the UV-C head. Afterwards turn the Retaining Flange approx 30 deg counterclockwise until the screw is aligned with the arrow present in the UV-C head and pull to disengage it from its place. Important: the Retaining Flange is equipped with one anti-loss safety screw. There is no need to remove the screw completely. Just unscrew the screw until the Retaining Flange is free to be turned and disengaged from its position.
- Pull off the Quartz Sleeve including the O-Rings by exerting a slight rotary movement.
- Once the Quartz Sleeve is removed, pull out the UV-C lamp (B) away from the lamp holder (if it is not the first start-up) and replace it with a new one. **WARNING - DO NOT ATTEMPT TO VIEW THE LAMP WHEN LIT!** Direct exposure to ultraviolet light can damage eyes and skin. Do not test the UV-C lamp unless the filter is fully assembled and closed. **IMPORTANT** – Use original Laguna spare parts only. Refer to the Spare Parts List for correct part number identification.
- Place the Quartz Sleeve (C) and the two O-rings (D) back in their original position. It is recommended to lubricate the O-Rings with an appropriate lubricant. **IMPORTANT** – The Lamp Damper (Y) inside the quartz sleeve must be between the lamp and the bottom of the quartz sleeve. Do not remove it. **IMPORTANT** – **The two O-rings (D) of the quartz sleeve (C) must be replaced every time the unit is opened.**

- Place the retaining flange (E) in its original position. Simply align the screw with the arrow and press the flange towards the UV-C head, then turn the Retaining Flange approx 30 deg clockwise in the direction the security screw (K). At this time fasten the Retaining Flange by screwing the security screw (K) (Fig. 7 - Fig. 8 - Fig. 9).

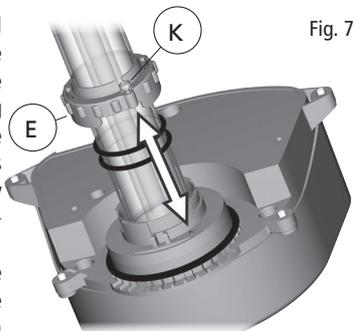


Fig. 7

- Check to ensure that the Quartz Sleeve (C) is not damaged. Check that all the components are present and have been reassembled properly. If in doubt, consult your Laguna dealer.

- Put the UV-C head (A) back on the filter lid (G), ensuring that the inner O-ring (F) is correctly located before securing the UV-C head with the screws (J).

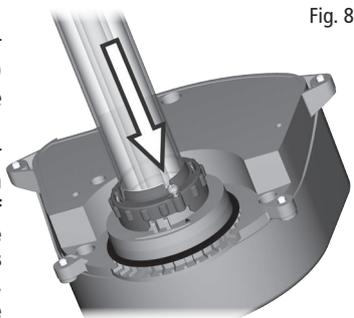


Fig. 8

- Secure the UV-C head (A) to the filter lid by refitting the 4 anti-loss screws on the UV-C Head (J). **WARNING – Risk of Electric Shock: Before powering the lamp, make sure that ALL O-Rings are back in their original position, ALL screws are tightened and there has not been any damage to the unit. Before connecting the unit to the power supply, perform the Filter Wet Test (see below).**

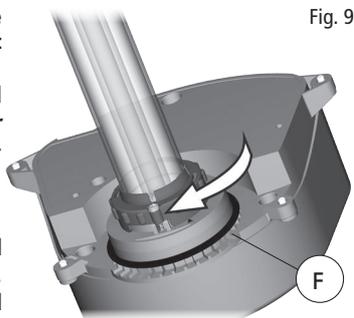


Fig. 9

- The filter is now ready for start-up. Read and follow all instructions in **Filter Start-up, Operation, and Backwash-Cleaning.**

WINTER STORAGE

The unit must be protected from frost. In cold winter weather, the unit may be switched off. It should then be drained of water, removed from its installation and stored in a dry, weather-proof area. It is recommended to keep the unit lid open during storage.

FILTER WET TEST

Once the unit is fully assembled, it must be wet tested before connecting to the power supply. This test must be repeated whenever the lamp and the quartz sleeve are changed or disassembled.

- Install the filter and connect it to the pump following all installation instructions. Do NOT switch on the filter. Switch on the pump only and let it run for 24 hours.
- After 24 hours, switch off the pump and remove the UV-C head (A) from filter by unscrewing the 4 screws (J). Do not disassemble more parts.
- Inspect inside the quartz sleeve (C) for leaks. If you see water inside the quartz sleeve and around the lamp, do NOT connect the unit to power supply but take it to

an authorized Laguna dealer or contact Laguna Customer Service.

If on the contrary no water is visible inside the quartz sleeve (C), carefully reassemble the unit and use it normally according to this Installation and Maintenance Guide.

UVC Spare Parts - 230-240V 50Hz					
		PT1715 PF 3000L	PT1716 PF 6000L	PT1717 PF 10000L	PT1718 PF 14000L
UV-C lamp + 2 pcs O-Rings	B	PT1601	PT1601	PT1602	PT1603
Quartz Sleeve + 2 pcs O-Rings	C D	PT1605	PT1605	PT1606	PT1607

UVC Spare Parts - 120V 60Hz					
		PT1725 PF 1000 US GAL	PT1726 PF 2000 US GAL	PT1727 PF 3000 US GAL	PT1728 PF 4000 US GAL
UV-C lamp + 2 pcs O-Rings	B	PT1701	PT1701	PT1603	PT1703
Quartz Sleeve + 2 pcs O-Rings	C D	PT1704	PT1704	PT1607	PT1706

Universal Spare Parts (See Product Illustrations)					
		Pressure Flo 1000/3000	Pressure Flo 2000/6000	Pressure Flo 3000/10000	Pressure Flo 4000/14000
Quartz Sleeve O-Rings (2 pcs)	D	PT1707	PT1707	PT1708	PT1708
Quartz Sleeve flange	E	PT1711	PT1711	PT1712	PT1712
UV-C Head O-Ring	F	PT1530	PT1530	PT1530	PT1530
Universal Click-fit	H	PT640	PT640	PT640	PT640
Sealing Cap Click-fit	I	PT1543	PT1543	PT1543	PT1543
Foam cleaning blades (2 pcs)	L	PT1513	PT1513	PT1514	PT1514
Foam Filters kit	M	PT1735	PT1736	PT1737	PT1738
Lid sealing O-Ring	P	PT1535	PT1535	PT1536	PT1536
Bio-lava/BioRock	-	-	PT1739	PT1739	PT1739
Rubber O-Rings	aa	PT743	PT743	PT743	PT743

* See Product Illustrations

WARRANTY

To register your warranty or for more information, visit www.hagen.com.

This product is warranted for defects in material or workmanship for a period of three (3) years from date of purchase. This warranty is valid only under normal operating conditions for which the product is intended. This warranty does not apply to any unit that has been subjected to misuse, negligence, tampering, accidental damage or damage due to faulty packaging or mishandling in transit. This warranty does not cover normal wear of parts and does not apply to any unit that has been used for commercial purposes. The UV-C bulb is not covered by the warranty. No liability is assumed with respect to loss or damage to livestock or personal property irrespective of the cause thereof. This warranty does not affect your statutory rights. This warranty does not cover damage or defects caused by or resulting from damages from shipping or repairs, service or alterations to the product or any of its parts, which have been performed by a repair person not authorized by Rolf C. Hagen Inc.

RECYCLING

This item bears the selective sorting symbol for waste electronic and electrical equipment (WEEE). This means that the product must be handled pursuant to European Directive 2002/96/EC in order to be recycled or dismantled to minimize its impact on the environment. For further information please contact your local or regional Authorities.



Electronic products not included in the selective sorting process are potentially dangerous for the environment and human health due to the presence of hazardous substances.

SERVICE

If you have a problem or question about the operation of this product, please let us try to help you before you return the product. Most problems can be handled promptly over the phone. When you call, please have all relevant information, such as model number and/or part numbers.

Call our Customer Service Department:

CANADA ONLY: Toll Free Number 1-800-55HAGEN (1-800-554-2436) Between 9:00 AM and 4:30 PM Eastern Time.

U.S. ONLY: Toll Free Number 1-800-724-2436 Between 9:00 AM and 4:00 PM Eastern Time.

U.K. ONLY: Freephone Number 01977 556622 Between 9:00 AM and 5:00 PM.

AUTHORIZED WARRANTY REPAIR SERVICE

If this product is defective, return it along with proof of purchase to either the store where you bought it or to:

Canada: Rolf C Hagen Inc., 20500 Trans Canada Hwy, Baie d'Urfé, QC H9X 0A2

Rolf C. Hagen Inc.: 8770-24th Street, Edmonton AB T6P 1X8

U.S.A.: Rolf C. Hagen (U.S.A.) Corp., 305 Forbes Blvd, Mansfield, MA. 02048

U.K.: Rolf C. Hagen (UK) Ltd., California Dr, Whitwood Industrial Estate, Castleford, West Yorkshire WF10 5QH

Malaysia: Rolf C. Hagen (SEA) Sdn Bhd 43200 Cheras, Selangor D.E

SERVICE APRÈS-VENTE

Si cet appareil vous semble défectueux ou que vous vous posez des questions quant à son fonctionnement, n'hésitez pas à communiquer avec nous avant de le retourner au marchand. Notre ligne téléphonique nous permet de régler la plupart des problèmes. S.V.P. ayez en main tous les renseignements pertinents (p. ex. le numéro du modèle ou de la pièce).

Pour contacter notre service à la clientèle:

SEULEMENT AU CANADA: numéro sans frais 1 800 55HAGEN (1 800 554-2436)

Entre 9 h et 16 h 30 (HNE)

SEULEMENT EN FRANCE : 01 64 88 14 18 Entre 9 h et 16 h 45

RÉPARATION D'UN ARTICLE SOUS GARANTIE

Si l'appareil est défectueux, le retourner avec une preuve d'achat à l'animalerie de votre région ou à:

Canada : Rolf C Hagen inc., 20500, Trans Canada Hwy, Baie d'Urfé, QC H9X 0A2

France: Hagen France SA., F-77388 Combs la Ville.

KUNDENDIENST

Bei Problemen wenden Sie sich bitte an Ihren örtlichen Zoofachhändler oder den Kundendienst von HAGEN Deutschland GmbH & Co. KG, Lehmweg 99 - 105, D-25488 Holm, zu erreichen über www.hagenservice.de oder die Telefonnummer: 04103 / 960-0

SERVICIO

Si tiene algún inconveniente o preguntas acerca del funcionamiento de este producto, permítanos ayudarlo antes de devolverlo. La mayoría de los problemas puede resolverse inmediatamente mediante una llamada. Cuando llame, tenga disponible toda la información importante, como el número del modelo o los números de las piezas.

Llame a nuestro departamento de Servicio a la clientela.

SOLO EN CANADÁ: Línea gratuita 1-800-55HAGEN (1-800-554-2436)

Entre las 9.00 y las 16.30, hora del Este.

SOLO EN EE. UU.: Línea gratuita 1-800-724-2436

Entre las 9.00 y las 16.00, hora del Este.

SOLO EN EL REINO UNIDO: Línea gratuita 01977 556622

Entre las 9.00 y las 17.00 horas.

SERVICIO DE REPARACIÓN AUTORIZADO CON GARANTÍA

Si este producto resultase defectuoso, devuélvalo junto con la prueba de compra a la tienda donde fue adquirido o bien a:

CANADÁ: Rolf C Hagen Inc., 20500 Trans Canada Hwy, Baie d'Urfé, QC H9X 0A2.

Rolf C. Hagen (USA) Corp.: 8770-24th Street, Edmonton AB T6P 1X8.

EE. UU.: Rolf C. Hagen (U.S.A.) Corp., 305 Forbes Blvd, Mansfield, MA. 02048.

REINO UNIDO: Rolf C. Hagen (UK) Ltd., California, Dr. Whitwood Industrial Estate Castleford, West Yorkshire WF10 5QH.

Spain: Rolf C. Hagen España S.A., Av. de Beniparrell n. 11 y 13, 46460 Silla, Valencia.

For more information on service for your local area please visit: www.lagunaponds.com and/or

www.hagen.com

Pour plus d'information sur les services accessibles dans votre région, veuillez visiter:

www.lagunaponds.com ou www.hagen.com

Weitere Informationen erhalten Sie auf www.lagunaponds.com: www.hagen.com oder auf

www.hagenservice.de

Para obtener más información sobre el servicio para su área local, visite: www.lagunaponds.com

y/o www.hagen.com

Para mais informações no serviço da sua área local visite: www.lagunaponds.com e/ou

www.hagen.com

Meer informatie over de service voor uw regio vindt u op: www.lagunaponds.com en/of

www.hagen.com



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Printed in Italy

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