

Amazing Water

Purifying
Moving
Shaping
Vitalising
Illuminating
Installing



UV-C technology, filters and equipment pits

Programme and technical specifications 2026

WATER PURIFYING



Swimming ponds.



Fountain ponds.



Koi ponds.

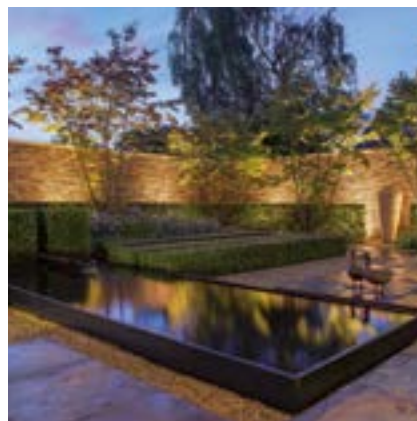


To keep water clear and vital in constructed water features, basins or other water projects, the use of filter technology is practically always necessary.

AUGA designs and builds complete systems for mechanical and biological water purification.



Ornamental ponds.



Mirror ponds.



A UV-C lamp is a safe and effective device for combating excessive growth of micro-organisms, such as suspended algae, which can multiply extremely multiply and turn pond water green. Excessively large quantities of micro-organisms can also affect the health of humans and animals.

The unit must be selected with the correct lamp power, in accordance with the desired flow-through capacity.



PURIFYING WATER

Calculating hourly capacity for filter systems, pumps and UV-C units

Details make the difference; optimal water management is achieved with systems that are perfectly matched to one another. What has been installed incorrectly once cannot easily be changed afterward.

Each pond type has its own specific installation requirements, as this is directly related to the desired water quality. The choice of the right filtration method and technology is decisive for the result everyone wants: clear and healthy water for humans and animals.

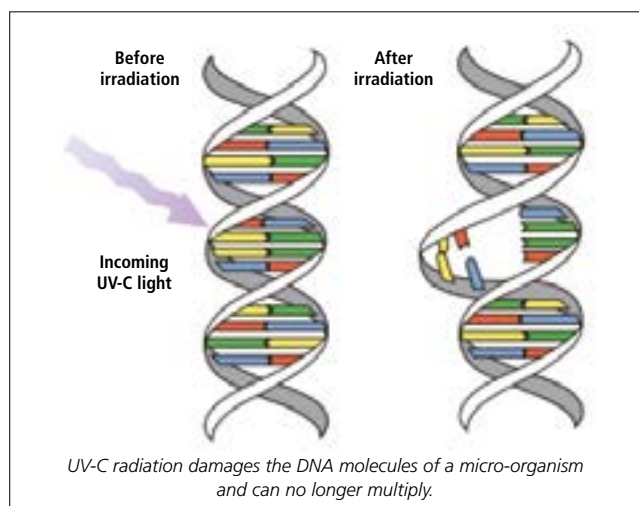
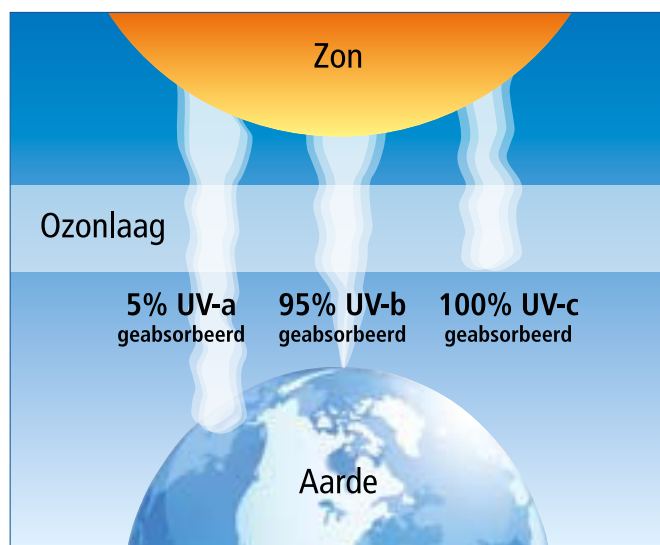
The table shows the recirculation time of different pond types, i.e. the time in hours in which the entire water volume of the pond is pumped around, and with which the entire system technology is determined.

Pond type	Recirculation time, pond volume
Koi pond (depending on fish stocking)	1x in 1 > 2 hours
Pond with fish (no koi) and planting	1x in 3 hours
Pond without plants and fish	1x in 4 hours
Swimming pond (depending on size)	1x in 5 > 8 hours

How UV-C works

UV-C, a product of nature

UV radiation exists in the UV-A, UV-B and UV-C spectrum; the sun continuously radiates these to earth. UV-C, however, is blocked by the ozone layer. This radiation is harmful to humans and animals on direct contact.



UV-C is electromagnetic radiation that penetrates the cell wall of a micro-organism and damages the cell nucleus. As a result, they lose the ability to multiply, die off, and need to be filtered out.

UV-C is very safe, as long as the lamp is built into a housing and the radiation does not come into direct contact with humans and animals. In the case of plastic housings, these must be UV-C resistant (ASA plastic). Non-resistant plastics break down over time.

The radiation range in distance is short, which is why UV-C lamps are built into appropriately matched housings, related to the flow-through capacity. The radiation can only destroy organisms that are carried past the lamp through the unit.



Green water caused by suspended algae.



Clear water through a good filter with UV-C.

UV-C for pond and swimming water

UV-C is mainly used to combat suspended algae, which multiply extremely quickly in warming water and cause a green soup; the radiation intensity does not need to be high to destroy this micro-organism.

Useful organisms, such as nitrifying bacteria, do not float freely in the water but attach themselves to carriers such as liner, plants, filter media, etc. Filamentous algae also do not enter the unit, because they too attach themselves.

When it comes to combating a broader spectrum of organisms, such as parasites that can cause diseases in humans and animals, more intensive irradiation is needed. This has been scientifically established.

The amount of water that flows through a unit, combined with the lamp power, determines the irradiation time on an organism and thus the success of elimination. This is called dosage and is expressed in mJ/cm^2 .

VarioClean®-S UV-C units

VarioClean S UV-C units for destroying suspended algae, the cause of green pond water.

Type	Max. flow-through-capacity l / h	Lamp-power W	Voltage V / Hz	Max. pressure Bar	Connections In/out hose (Ø mm)	L x W x H (mm)	Art. no.
VarioClean® S-18	3000	18	230 / 50	1	20 / 25 / 32 / 40	340 x 160 x 110	202011
VarioClean® S-36	6000	36	230 / 50	1	20 / 25 / 32 / 40	550 x 160 x 110	202012

- Attached transformer with lamp holder, quick-connect system.
- UV-C lamp removable without stopping the system.
- Water flows in a spiral around the UV-C lamp, for a longer contact time.
- Reflective inner wall for improved radiation reflection.
- Horizontal and vertical mounting possible.

VarioClean® S-18



VarioClean® S-36



Type	Basin volume m3		
	water only	fish & plants	plants only
VarioClean® S-18	6	9	15
VarioClean® S-36	12	18	27

Scope of delivery

- VarioClean® S UV-C unit with 5 metres of cable.
- Hose couplings.

Materials

- Housing made of dimensionally stable ASA plastic, resistant to UV-C radiation.

Construction and safety

- The UV-C units fully comply with the European directives.



Warranty

- 2-year warranty per the general terms.

Water flows in a spiral shape around the lamp



Repl. lamp and quartz glass for VarioClean® S UV-C units

Type	Brand	Art. no
Repl. lamp 18 W PL	AUGA	992036
Repl. lamp 36 W PL	AUGA	992037
Quartz glass 18 W	AUGA	992055
Quartz glass 36 W	AUGA	992056

VarioClean® Pro UV-C units

VarioClean® Pro UV-C units for destroying suspended algae and combating micro-organisms that, in excessive quantities, affect the health of humans and animals in ponds and swimming ponds.

Type	Max. flow-through-capacity l / h	Lamp-power W	Voltage V / Hz	Max. pressure Bar	Connections (Ø mm)		L x W x H (mm)	Art. no.
					In/out + hose	In/out glue		
VarioClean® Pro 36	10.000	36	230 / 50	1	1½" Ø 50 - 40 - 32	Ø 75 - 63 - 50	520 x 180 x 150	202036
VarioClean® Pro 55	15.000	55	230 / 50	1	1½" Ø 50 - 40 - 32	Ø 75 - 63 - 50	640 x 180 x 150	202055
VarioClean® Pro 75	20.000	75	230 / 50	1	1½" Ø 50 - 40 - 32	Ø 75 - 63 - 50	960 x 180 x 150	202075

- 360° rotatable connections.
- SS 316L pipe Ø 80 mm, thick-walled.
- VarioClean Pro 75 fitted with Philips UV-C lamp.
- Horizontal and vertical mounting possible.
- Very low resistance losses.



Lamp power per m3 of water	1.3 W	2 W	2 W	3 W	3 W
Type / pond volume m3	Plants only	Swimming pond	Fish & plants	Water only	Fish only
VarioClean® Pro 36	27	18	18	12	12
VarioClean® Pro 55	42	28	28	18	18
VarioClean® Pro 75	60	40	40	25	25

Scope of delivery

- VarioClean® Pro UV-C unit with 5 metres of cable.
- Hose and solvent couplings.
- Transformer, cast into the base.

Materials

- Lamp housing SS 316L.
- In/out housing, dimensionally stable ASA plastic, resistant against UV-C radiation.

Construction and safety

- The UV-C units fully comply with the European directives.

Warranty

- 2-year warranty per the general terms.

Installation guide

- The lamp housing must remain filled with water during operation, to ensure good cooling of the lamp and to ensure its service life.

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CE

Rotatable inlets and outlets



Repl. lamp and quartz glass for VarioClean® Pro UV-C units

Type	Brand	Art. no.
Repl. lamp 36 W PL	AUGA	992037
Repl. lamp 55 W PL	AUGA	992038
Repl. lamp 75 W TL	Philips	992039
Quartz glass 36 W	AUGA	992043
Quartz glass 55 W	AUGA	992044
Quartz glass 75 W	AUGA	992045

PURIFYING WATER

Lamp power per m3 of water

Messner Movefinity clear UV-C units are suitable for professional water projects for intensive combating of suspended algae and other micro-organisms that contaminate water and can harm the health of humans and animals.

Type	Flow-through-capacity m³/h max	Lamp power W	Voltage V/Hz	Max. press. Bar	Connection M thr	Cable m	Dimension h x w x l mm	Art. no
Movefinity clear e 55	45000	55	230 / 50	1	2" M thr 2½" F thr 3" M thr 90 mm	5	710 x 220 x 190	ME6300
Movefinity clear e 95	45000	95	230 / 50	1	2" M thr 2½" F thr 3" M thr 90 mm	5	710 x 220 x 190	ME6301

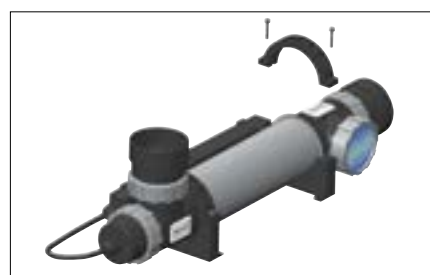
Lamp power per m3 of water	1.3 W	2 W	2 W	3 W	3 W
Type / pond volume m3	Plants only	Swimming pond	Fish & plants	Water only	Fish only
Movefinity clear e 55	42	28	28	18	18
Movefinity clear e 95	72	48	48	31	31

The table shows the recirculation time of different pond types, i.e. the time in hours in which the entire water volume of the pond is pumped around and the system technology is determined, such as pumps, filters and UV-C units.



The technical + points of Messner UV-C units

- SS 316L housing Ø 100 mm - minimal flow-through losses.
- Built-in Helix spiral - longer contact time of flowing water with UV-C radiation.
- Rotatable connections - for versatile installation, including inline.
- UV-C lamp replaceable without tools and without interrupting water flow.
- Electronic ballasts - for higher efficiency, efficiency class EEI A2 BAT.
- Large connections up to 3" / 90 mm for optimal flow.
- Philips PLL lamps.







Mechanical and biological purification

A water feature can be kept free of dirt with a mechanically operating filter system; however, this does not filter out dissolved organic substances - that happens through biological processes: micro-organisms attach themselves to filter material, walls and plants, forming a biomass that feeds on the dissolved organic substances.



Filter technology

Biological purification is needed to maintain the biological balance in water for the pond life present; water plants make a major contribution to the biological purification of a pond. Mechanical purification is used for water features without fish and plants, or as pre-filtration for biological working filter systems.

Everything you want to know about a pressure filter

A crystal-clear pond. Of course everyone wants that. A pressure filter helps with this. With a pressure filter, you ensure pure water and combat algae with a single system.

What is a pressure filter

A pressure filter is an easily operated, closed pond filtration system. Pressure filters are suitable for all types of ponds. A pressure filter ensures that the water in a pond stays clean and clear.

A pressure filter is a completely closed vessel. Water flowing through the filter cannot overflow. This is the case with open filter systems, such as shore filters or multi-chamber filters.

How does a pressure filter work

Because it is a closed system, the pump pressure is retained, allowing water to be routed through a pipe after the filter. The water can even be raised to a limited extent, for example to a waterfall. This is a major advantage compared to open filter systems, where water flows back down under gravity. In addition, a pressure filter partially buried or placed in a filter pit at the most suitable location near a pond. This is also a major advantage, as it allows a pressure filter to be placed out of sight!

AUGA pressure filters purify pond water and combat algae

AUGA pressure filters are fitted with a built-in UV-C unit, which combats green suspended algae and filters them out immediately with the built-in filter media.

Cleaning a pressure filter

- **Manual cleaning**

The entry-level VarioPress pressure filters are fitted with manual cleaning. A simple, easy and inexpensive system! The filter mats are compressed, discharging dirt with water via the filter's dirt discharge connection.

- **Electric cleaning**

If you want more comfort and a greater filtration capacity, choose the VarioPress® Pro-E series. This allows ponds of up to 75 m³ in volume to be purified. The cleaning work is reduced to switching the backwash lever on the filter. This starts the cleaning process electrically, as the E series is fitted with a built-in electric motor.

And what about the pressure?

All pressure filters are designed to purify optimally with

low pump pressure and the lowest possible energy consumption. After all, the more pump pressure a pump has to deliver, the more energy is consumed. Because pond filter systems operate 24/7 to maintain the biological balance in a pond, you naturally want to avoid unnecessary energy consumption.

Pressure filters are therefore low-pressure filters. Connecting pumps that are too large, pipes that are too small, or too much head after the filter, can cause leakage. Filter, pump and application must therefore be well matched to one another. The maximum pressure may be 0.3 Bar, which is the sum of pump pressure and the head of the water to the highest point, measured from the water surface.

The pressure in the filter also rises if the filter media becomes saturated and is not cleaned in time. The advice is to briefly flush at least once a week, depending on the degree of contamination.



Press. filter, VarioPress® Pro E series

The VarioPress® Pro-E series has a large filter media pack; it is cleaned by the electrically driven AUTO-CLEAN system, which starts when the cleaning lever is switched. The built-in UV-C lamp can be set to the desired operating hours with the built-in timer, at 24-12-0 hours.

Type	Pond volume m3			UV-C W	Connections			Tank-content Ltr	Dimensions ø x H mm	Article-number
	Only water	With plants and fish*	Only plants		in/mm	out/mm	inch"			
VarioPress® Pro E-15	15	10	25	24	32/40	40	3 x 1½	38	385 x 760	201113
VarioPress® Pro E-25	25	13	30	36	40/50	50	3 x 2	50	450 x 560	201114
VarioPress® Pro E-35	35	20	50	55	40/50	50	3 x 2	75	450 x 725	201115
VarioPress® Pro E-55	55	35	60	55	40/50	50	3 x 2	170	600 x 825	201116
VarioPress® Pro E-70	70	40	75	55	40/50	50	3 x 2	300	750 x 890	201117

*) For use with koi ponds: seek advice from your pond specialist/dealer.

Features

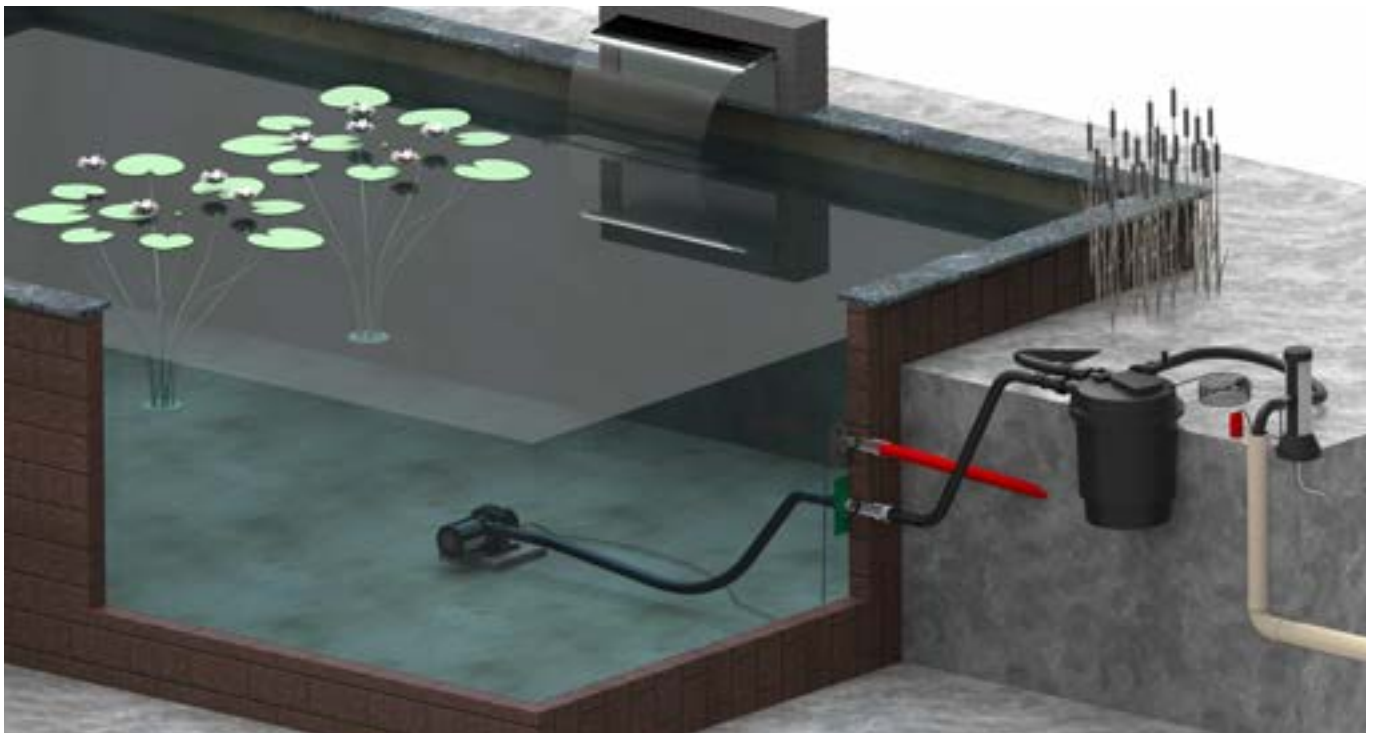
- Dual-action filter technology with filter sponge pack and Bio-Cell filter beads.
- Mechanical and biological purification.
- Built-in UV-C lamp with timer setting.
- AUTO-CLEAN, electrically driven cleaning system.
- Protection class IP 67, maximum protection against moisture.
- Extremely easy to open and maintain periodically.
- Acoustic signal during and after cleaning.
- 5 metres of power cable.
- 3-year warranty per the general terms.



AUTO-CLEAN,
electric
driven
cleaning system.

Application

The advantages of pressure filters have already proven themselves many times in practice. The completely closed filter is compact and can be placed practically anywhere, even below the waterline next to the pond. The filter can be partially buried or placed in an equipment pit.



VarioPress® Pro E pressure filter



Strong gear transmission
cleaning system.



All electrical components sealed watertight.



Removing the lid separately
from the filter media.

Specifications, pressure filter VarioPress® Pro E series

- **Watertight housing, protection class IP 67.**

The high protection class safeguards the service life of all built-in electrical components against moisture from outside.

- **Built-in UV-C lamp with timer.**

Algae mainly develop in summer. With the timer switch you switch the UV-C lamp: off, 12 hours a day, or continuous operation. In spring and autumn, the timer can be set to 12 hours. Less power consumption, lower power costs and a longer service life of the lamp.

- **Optimised drive technology for cleaning the filter media.**

Comfortable backwash system. The built-in electric motor drives the cleaning system of the filter media. The drive system relieves the forces on the filter media and extends its service life.

- **All electrical components are individually encapsulated in a watertight housing.**

The risk of moisture ingress is effectively eliminated with this. The electrical connections are fitted with watertight connector plugs and easily disassembled individually if necessary.

- **Filter lid and filter media can be separately**

disassemble.

When removing the lid, the filter media stays in place and is not attached to the lid.

This makes periodic maintenance of the filter very easy. And the lid is relieved of load, because no weight hangs from it.

- **Contamination indication and acoustic signal during cleaning.**

The built-in contamination indicator shows when the filter needs to be flushed. During flushing, the filter gives a pulsing signal as a reminder that the cleaning cycle is still running and water is being pumped from the pond. After flushing, it gives a continuous signal.

- **Light, easy-to-operate flush lever.**

The backwash lever requires no force and can be easily operated by anyone.



PURIFYING WATER



VarioPress® Pro E-15



VarioPress® Pro E-25



Pond water is pumped through the filter foam pack to the BioCell or Bioball media. The cleaned water then flows past the UV-C unit for elimination of suspended algae. After that, the water flows back to the pond.



Project: Esselink hoveniers De Heurne

VarioPress® Pro E-35



VarioPress® Pro E-55 and E-70

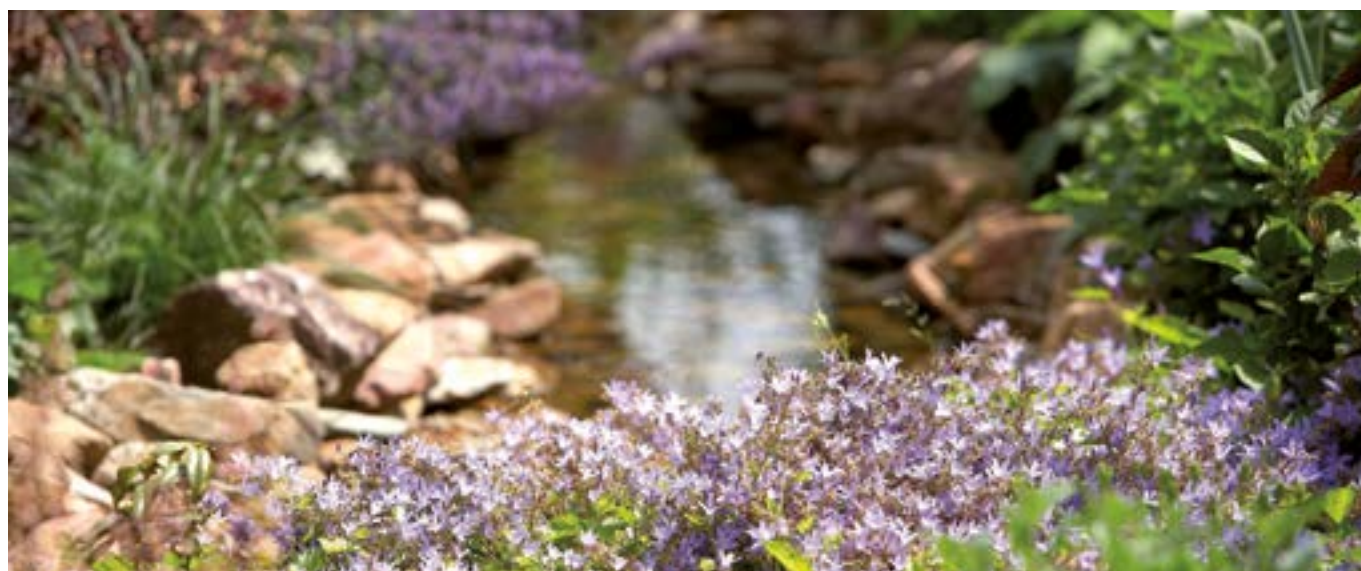
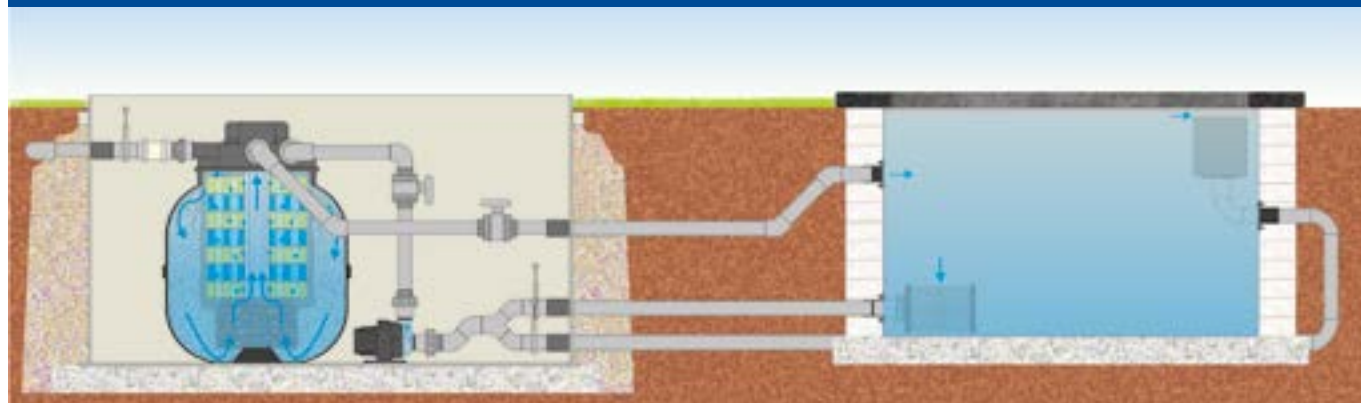


Pond water is pumped through the filter foam pack to the BioCell or Bioball media. The cleaned water then flows past the UV-C unit for elimination of suspended algae. After that, the water flows back to the pond.

VarioPress® Pro E pressure filters

Type	Filter material			Flow-through capacity m3/h		Recommended pump type
	Foam discs	BioBall	BioCell	Advice	Max.	
	Number	Number	kg			
						
VarioPress® Pro E-15	7 x ø 260 mm	2 x 30	–	4	9	- AquaFlow® E-10000 - VarioFlow® E-10
VarioPress® Pro E-25	5 x ø 360 mm	–	~0.5	6,5	11	- AquaFlow® E-10000 - VarioFlow® E-10
VarioPress® Pro E-35	7 x ø 360 mm	–	~1.0	10	12	- AquaFlow® E-15000 - VarioFlow® E-20
VarioPress® Pro E-55	7 x ø 360 mm	2 x 30	~5.0	13	14	- AquaFlow® E-20000 - VarioFlow® E-20
VarioPress® Pro E-70	7 x ø 360 mm	2 x 30	~10.0	15	15	- AquaFlow E-20000 - VarioFlow® E-20

Example of a pressure filter in an equipment pit



Pressure filters, VarioPress® series

The entry-level VarioPress® series, with hand-operated cleaning system, for purifying smaller water features that are not heavily loaded by fish stocking, such as ornamental ponds and mirror ponds. The filter media is cleaned using the turning handle and switching the by-pass knob, to discharge dirty water.

- Mechanical purification.
- Built-in UV-C lamp.
- Hand-operated cleaning system.
- Cleaning indicator.



Type	Filter material		Flow-through capacity m3/h		Recommended pump type
	Foam discs	BioBalls	Advice	Max.	
	Number	Number			
					
VarioPress® 7000	4 x ø 260 mm	–	2,5	4,0	- Compact E-6000 - AquaFlow® E-5000
VarioPress® 14000	5 x ø 260 mm	24	3,5	7,0	- Compact E-8000 - VarioFlow® E-10

Type	Pond volume m ³			
	Water only	With plants and fish (no koi)	Plants only	Koi
VarioPress® 7000	7	5	10	–
VarioPress® 14000	14	7	18	–

Type	UV-C W	Cleaning-method	Connections		Dimensions Ø x H mm	Tank-content ltr	Art. no.
			Hose ø mm	M thr.			
VarioPress® 7000	11	Manual	20 / 25 / 32 / 40	3 x 1½"	380 x 410	20	201100
VarioPress® 14000	18	Manual	20 / 25 / 32 / 40	3 x 1½"	380 x 520	25	201101

Wall skimmer filter S-100

Complete, fully assembled wall skimmer filter for swimming ponds, with built-in low-voltage pump.

Type	Flow-through cap. ltr/h	Built-in pump	Voltage	Dimension l x w x h (cm)		Art. no.
				Filter	Skimmer neck	
Wall skimmer filter set S-100	max. 15,000	SuperFlow LV 12	230 / 12 V	58,5 x 40 x 47,5	38 x 14,5 x 10,3	201998

Product description

The wall skimmer filter is suitable for direct mounting to liner basins. With the built-in 12 V low-voltage pump, surface debris is quickly and effectively carried along carried and collected in the filter in the supplied catch net. The filter can be partially buried. With the built-in 12 V low-voltage pump, this filter may be placed directly at the pond edge.

- Suitable for liner ponds.
- Built-in 12 V low-voltage pump.
- Skimmer neck runs beneath the edging.

Scope of delivery

- Wall skimmer with skimmer neck.
- 12 V low-voltage pump, type SuperFlow LV 12.
- Catch net for dirt collection.
- Separation mat for pump protection.
- Pump coupling for discharge connection.



Wall skimmer WXL 200-Pro

Robust wall skimmer with 110 mm conical, resistance-reducing pipe connection. The visible parts are made of black plastic made. Wide/tall intake mouth for better flow.

Type	Max. flow-through cap. l/h	Connection diam. mm	Dimensions L x W1 x H2 mm	Art. no.
WXL 200-Pro	15.000	110	588 x 435 x 557	207020

1 = width of skimmer mouth. 2 = basic set without extension.

Version

- Skimmer lid can be raised with the supplied spacer ring.
- Fitted on both sides with an overflow connection 40 mm.
- Includes assembly lid to close off the skimmer against contamination during construction.
- Includes large skimmer basket.
- Suitable for liner ponds/pools.
- Made of UV-resistant ABS.

Wall skimmer WXL 200-Pro



Spacer ring* for raising the skimmer lid



*) Included with delivery.



Skimmer housing extension with fine filter for wall skimmer WXL 200-Pro

Large filter net with skimmer housing extension for Skimmer WXL 200-Pro.

Type	Total height skimmer incl. extension (mm)	Art. no.
ES 200	805	207021

Application

In periods with a lot of debris - such as leaves and insects - the fine-mesh filter net is an excellent solution to catch these and reduce the load on the biological filter. It is important, however, to clean the filter net regularly to ensure good flow-through.

Implementation only possible for skimmers directly coupled to a pump.

Version

- 2-part skimmer extension.
- Filter net 650 µm.

Skimmer housing extension



Large filter net



Cross-section, skimmer with extension and filter net



Wetland skimmer 300

Skimmers catch a large part of the debris that ends up in a swimming pond.

Type	Flow-through cap. ltr/h		Water depth mm from 15,000 ltr/h		Dimension Ø H mm	Connections Ø mm	Art. no.
	Min.	Max.	Min.	Max.			
Wetland skimmer 300	9.000	25.000	320	470	490 x 310	75 x 63	ME2395

Fixed-installation skimmer for placement in reed bed filters of swimming ponds.

- Large, removable filter basket 7.5 litres.
- For pond surface areas up to 120 m².
- Stable base plate for fixed installation in the substrate bed.
- SS outer jacket, no disassembly needed in winter.
- SS handle for easy removal of the basket.
- Built in accordance with ÖNORM, including amphibian protection.
- Level difference up to 150 mm.



SS outer and inner wall



Stable base plate



Large filter basket



With amphibian escape

Pipe skimmer 300

Pipe skimmer for mounting on a PVC pipe in the pond.

Type	Flow-through cap. ltr/h		Water depth mm from 15,000 ltr/h		Dimension Ø H mm	Connections Ø mm	Art. no.
	Min.	Max.	Min.	Max.			
Pipe skimmer 300	9.000	18.000 ¹ / 25.000 ²	390	540	280 x 390	160	ME2390

Fixed-installation pipe skimmer for placement in ponds.

- Large, removable filter basket 7.5 litres.
- For pond surface areas up to 90 m² (1 gravity).
- For pond surface areas up to 120 m² (2 pump-fed).
- Level difference up to 150 mm.
- SS outer jacket, no disassembly needed in winter.
- SS handle for easy removal of the basket.
- Built in accordance with ÖNORM, including amphibian protection.

Pipe skimmer 300



SS handle for filter basket



Large filter basket



Pipe skimmer 200

The pipe skimmer is mounted on the wall of a basin using a bulkhead and connected to an equipment pit.

Type	Max. flow-through-capacity l / h	Connection (Ø mm)	Minimum water depth mm	Art. no.
Pipe skimmer 200T	18.000	125	250	ME 2397

Pipe skimmer



- Connection to a 125 mm PVC pipe.
- Incl. skimmer basket for easy dirt removal.

Fixed-installation skimmers

Type	Max. flow-through-capacity l / h	Connections		Minimum water depth mm	Art. no.
		F thr	hose (Ø mm)		
Skimmer 140	3.000	1"	–	240	ME 2393
Skimmer 200	18.000	1½"	–	430	ME 2396
Skimmer 200 T	18.000	5/4"	40 / 50	370	ME 2399

- Skimmer 140: Connection directly to the suction side of the pond pump.
- Skimmer 200: Connection to the suction side of a pump by means of a hose connection.
- Skimmer 200 T: Teleskimmer min. 375 max. 900 mm, connection to a pump by means of a hose connection.
- Incl. skimmer basket for easy dirt removal.

Skimmer 140



Skimmer 200



Teleskimmer 200



Floating skimmers

Skimmers catch the vast majority of the contamination that enters a pond or basin from outside, such as leaves, seeds, insects, pollen, etc. Before these sink to the bottom and start to rot, a skimmer ensures perfect removal of wind-blown debris.

Type	Max. flow-through-capacity l / h	Connections		Minimum water depth mm	Art. no.
		F thr	hose (Ø mm)		
Floating skimmer 140F	3.000	1"	19 / 25 / 32	300	ME 2394
Floating skimmer 200F	18.000	5/4"	–	600	ME 2398

- Connection to the suction side of a pond pump, by means of a hose connection.
- Incl. skimmer basket for easy dirt removal.

Floating skimmer





Reed bed filters

A reed bed filter is a plant filter that works as a fully biologically functioning filter system, and is used in particular for purifying swimming ponds. Water plants and bacteria form the biotope and purify the water with the help of filter material such as lava, substrate and zeolite; a pump provides the circulation. There are 2 filtration principles:

Upflow reed bed filter

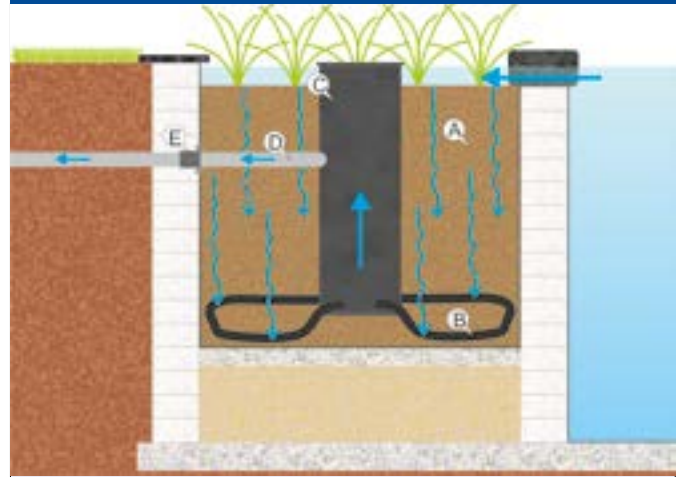


Required materials 1

- A Bulkhead.
- B Grille with separation mat.
- C Clean lava or pond substrate.
- D Bio pellets.
- E Emergency shaft.

1 Quantities, diameter and lengths vary per project.

Downflow reed bed filter



Required materials 1

- A Clean lava or pond substrate.
- B PE drainage pipe with sockets.
- C Drain collector.
- D PVC pipe.
- E Bulkhead.

1 Quantities, diameter and lengths vary per project.

How the Upflow reed bed filter works

Unfiltered water flows via bottom drains and/or skimmers to the equipment pit and is then pumped into the bottom of the filter bed and flows through the filter back to the swimming pond. Periodically, remaining dirt can be pumped away via the dirt-remover using a submersible pump.

With this system, floating debris is already collected in any installed skimmers and arc-sieve pre-filter, before it can reach the filter bed. This means the reed bed filter is loaded much less.

Features, Upflow filtration

- Excellent control of dirt input.
- Less load on the substrate bed.
- Lower maintenance frequency.
- Pre-filtration possible.
- Higher installation costs.

How the Downflow reed bed filter works

Unfiltered water flows over the pond overflow into the reed bed filter and settles. The pump in the equipment pit draws in the purified water through perforated drainage hose, which is connected to the drain collector, and pumps the water back into the swimming pond.

Dirt will collect on the filter bed with the flow and must be removed periodically.

Features, Downflow filtration

- Lower technology costs.
- Maintenance frequency is higher.
- More substrate-bed contamination.
- Pre-filtration not possible with this construction.

Application, reed bed filters

These structural filtration systems can be used for any pond type where larger water volumes need to be biologically purified. The required dimensions and provisions are, however, often the practical obstacles to achieving this. The combination of a (smaller) reed bed filter with a pre-filter (arc sieve or drum sieve) is a widely used alternative.

Technology for reed bed filters

A reed bed filter is a structural system that is integrated into a pond project; various components are available for its composition.

Type	Application	Dimension (cm)		Connection (Ø mm)	Material	Art. no.
		H	Ø			
Emergency shaft	Upflow	150	31,5	–	PE	209502
Emergency shaft lid	Upflow	–	31,5	–	PE	209503
Drain collector	Downflow	100	40	8 x 50* suction connection	PE	209500
Drain collector lid	Downflow	–	40	–	PE	209501
Grille 120	Upflow	120 x 80 x 2,6		–	PE	209034
Separation mat	Upflow	100 x 2500		–	PE	209036
Drainage hose	Downflow	5000	5	50	PE	614050
Coupling for drainage hose	Downflow	–	5	50	PE	614051

* = other connection sizes for drainage hose possible. A discharge connection for the drain collector is custom-made per order.

Emergency shaft



Drain collector



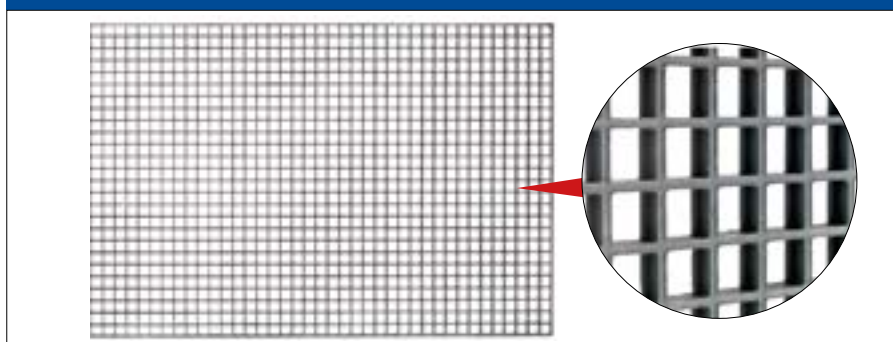
Drainage hose



Coupling for drainage hose



Grille



Reed bed filter system "Down-Flow"

Complete technology set for a plant filter in swimming ponds.

Type	Application	Dimension (mm)			Pump type	Voltage	Art. no.
		Drain collector	Connection	Outlet			
DFS 20	Down Flow	1000 x 400	8 x 50	1 x 63	SuperFlow LV 12	230 / 12 V	201996

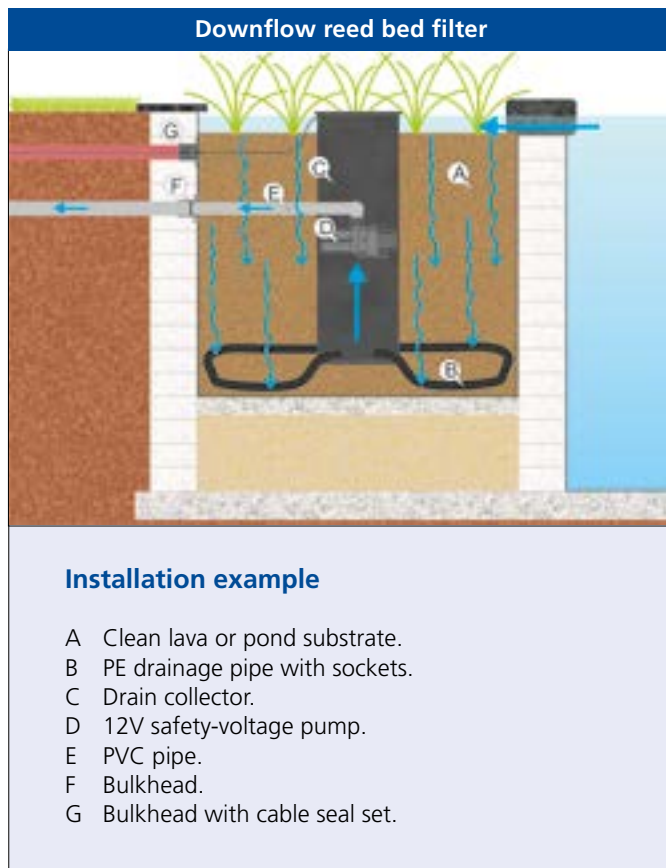
Application

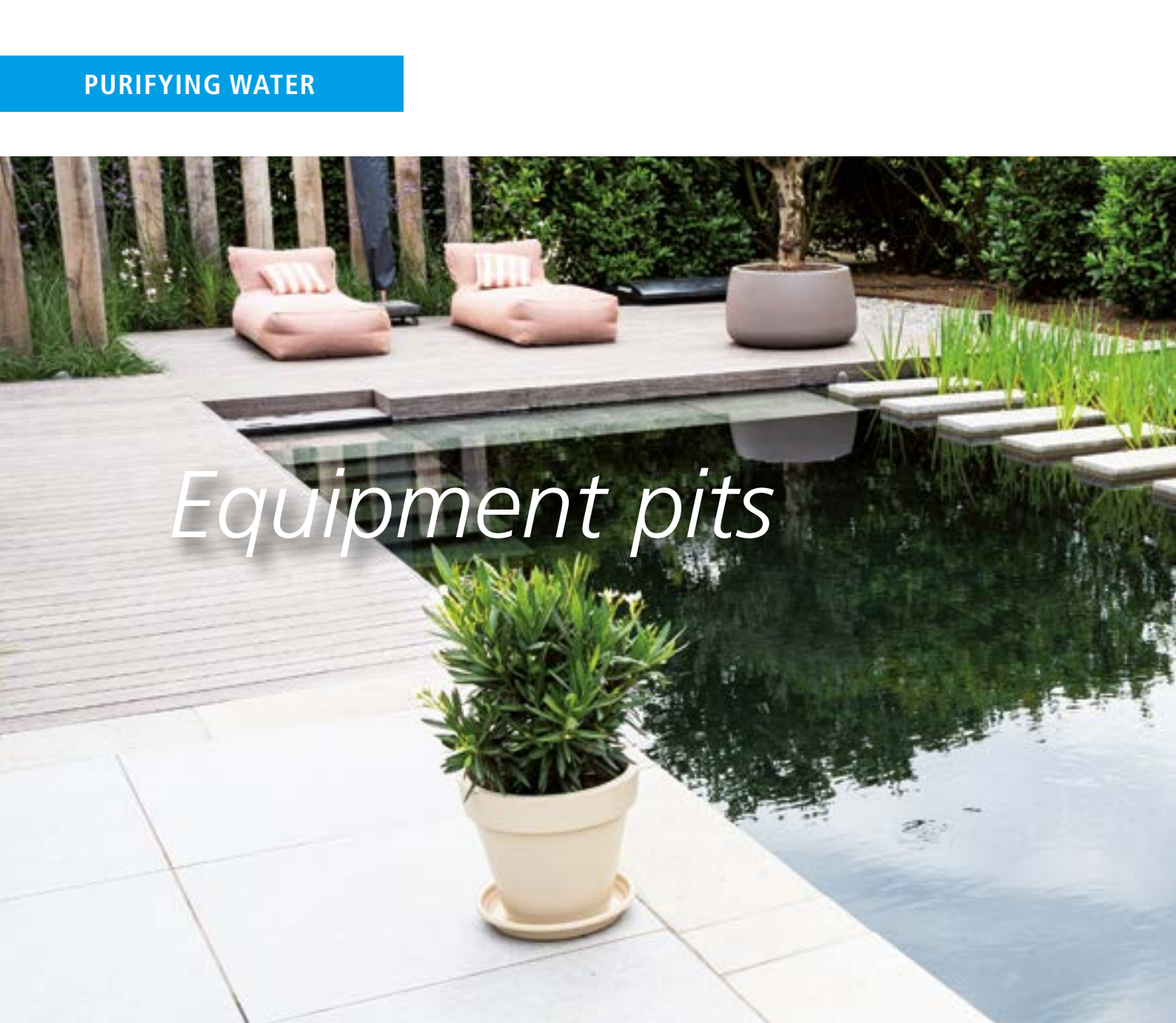
Unfiltered water flows over the pond overflow into the reed bed filter and settles. The low-voltage pump is placed in the drain collector and draws in the purified water through the perforated drainage hose connected to the drain collector, and pumps the water back into the swimming pond.

Tip: With a UV-C unit - placed in the return line - the water becomes truly crystal clear.

Scope of delivery

- Drain collector 100 x 40 cm with 8 connections 50 mm.
- Lid for drain collector.
- Low-voltage pump SuperFlow LV 12.
- 1 roll of drainage hose 50 m.
- 8 couplings for 50 mm drainage hose.
- Coupling pieces.



A photograph of a modern garden pond. In the foreground, a light-colored potted plant sits on a stone patio. The pond is surrounded by a wooden deck. In the background, there are two pink lounge chairs with striped cushions, a large grey planter with a tree, and a wooden fence. The text "Equipment pits" is overlaid in a white, italicized font.

Equipment pits

Installing ponds and swimming ponds becomes much easier with completely pre-assembled equipment pits, all components built together and fully matched to the pond type. Connect the pipes and main power supply, carefully bury the pit, and the work is essentially done. The “all-in” warranty on the entire system is an extra reason to choose a complete system.



Custom-made technology

The systems are built in-house, which offers the possibility of tailoring an equipment pit to individual customer requirements.



AquaTec equipment pits with UV-C units, series UV

Complete, fully assembled equipment pit for combating suspended algae.

Type	Flow-through cap. m3/h		Pumps type	W total	UV-C type	W total	Art. no.
	Max	Advice					
AquaTec UV-2	17	15	1x VarioFlow® E-20	175	2x VarioClean® Pro 55	110	201904
AquaTec UV-4	34	30	2x VarioFlow® E-20	350	4x VarioClean® Pro 55	220	201905

Version

- Polyester pit with lid, fitted with ventilation grilles.
- Suitable for burial (stabilised sand)*.
- Feed-throughs suitable for solvent connection.
- Distribution box.
- Main switch.
- Supply voltage 230 V / 50 Hz.

* Precautions must be taken in case of a high groundwater level.

** A matching down-flow reed bed filter is needed; seek advice from your pond specialist/dealer.

Application

- Swimming ponds**.

The series-UV equipment pits are fitted with UV-C units and high-efficiency pumps.

Type	Dimensions L x W x H mm	Connections (Ø mm)		
		In	Off	Power
AquaTec UV-2	810 x 625 x 760	1 x 63	1 x 63	1 x PG 9>16 1 x PG 2.5
AquaTec UV-4	1190 x 790 x 800	2 x 63	2 x 63	1 x PG 9>16 1 x PG 2.5

- Electronically adjustable high-efficiency pumps.
- UV-C VarioClean Pro units with large SS housings.

Type	Recommended basin volume m3
	Swimming pond
AquaTec UV-2	60
AquaTec UV-4	120

AquaTec equipment pit with UV-C units - series UV



AquaTec equipment pits with pressure filter, series D

Complete, fully assembled equipment pit for purifying water in ponds without heavy loading.

Type	Flow-through cap. m3/h		Recommended basin volume m3		Connections (Ø mm)				Art. no.
	Max.	Advice	Water	Plants & fish	In	Off	Dirt	Power	
AquaTec D2	6	6	24	13	1 x 63	1 x 63	1 x 50	1xPG 9>16	201901
AquaTec D4	12	10	40	22	2 x 63	1 x 63	1 x 50	1xPG 9>16	201902
AquaTec D6	16	14	60	40	2 x 63	2 x 63	1 x 50	1xPG 9>16	201903

Version

- Polyester pit and lid with ventilation grilles.
- Suitable for burial (stabilised sand)*.
- Feed-throughs suitable for solvent connection.
- Distribution box.
- Main switch.
- Supply voltage 230 V/50Hz.

* Extra precautions are needed in case of a high groundwater level.

** For use with koi ponds: seek advice from your pond specialist/dealer.

*** A matching up-flow reed bed filter is needed; seek advice from your pond specialist/dealer.

Application

- Mirror ponds.
- Fish ponds**.
- Fountain ponds.
- Ornamental ponds.
- Swimming ponds***.

The series D equipment pits are fitted with a pressure filter with a built-in UV-C unit and a high-efficiency pump, suitable for purifying many types of water features without heavy loading.

Type	Press. filter type	UV-C W	Pump		Dimensions L x W x H mm
			Type	W	
AquaTec D2	VarioPress® Pro E-25	36	AquaFlow E-10000	80	1190 x 790 x 800
AquaTec D4	VarioPress® Pro E-35	55	AquaFlow E-15000	115	1190 x 790 x 800
AquaTec D6	VarioPress® Pro E-55	55	AquaFlow E-20000	175	1650 x 910 x 1000

- Electrically operated cleaning system.
- Mechanical and limited biologically working filter system.
- Press. filter with built-in UV-C lamp.
- High-efficiency pump, not electronically adjustable.

AquaTec equipment pit with pressure filter - series D



Equipment pits AquaTec® B-20 and B-35

Complete, fully assembled equipment pit, fitted with an arc sieve as pre-filtration.

Type	Arc sieve type	Flow-through cap. m3/h		Dimensions L x W x H mm	Connections mm	Art. no.
		Max	Advice			
AquaTec® B-20	BZ 30	22	20	2000 x 635 x 950	2 x 110, 2 x 63 and 1 x 50	201920
AquaTec® B-35	BZ 45	33	30	2000 x 905 x 950	3 x 110, 2 x 63 and 1 x 50	t.b.d.

Version model B-20

- 1 x arc sieve max. cap. 30 m³/h (screen mesh 300 / 200µm).
- 1 x VarioFlow E-30 (max. 285 W).
- 2 x 55 W UV-C (2 x 55W).
- 1 x distribution box.
- 2 x 110 mm supply.
- 2 x 63 mm return.
- 1 x 50mm outlet (arc sieve outlet).

Version model B-35

- Not yet exactly known (status Feb. 2026).

Construction, model B-20 and B-35

- Plastic PP plate thickness 15 mm.
- High rigidity, outer walls extra reinforced with cross beams.
- Lid internally reinforced and fitted with ventilation openings.

Example, AquaTec B-20 fully assembled





AquaTec equipment pits

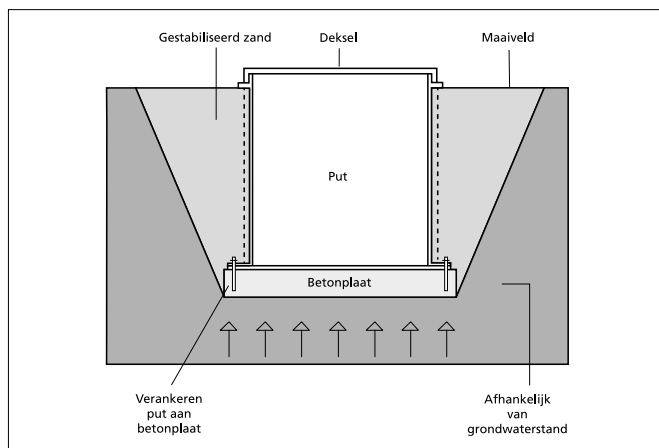
Why choose a complete, fully assembled AUGA equipment pit?

It may seem easy and even cheaper to build an equipment pit yourself, but there are plenty of reasons not to do this yourself.

The advantages of a complete, fully assembled equipment pit

- All built-in technology is matched to the specific calculated and tailored per project.
- The system is calculated for the lowest possible power consumption.
- Stress-free installation of devices and pipes with flexible couplings.
- An equipment pit complies with legal regulations for use with swimming ponds.
- Function test and watertightness check prior to delivery.

Warranty on technology and watertightness.



material and construction defects. If other devices are used (at the customer's request), the supplier's warranty terms apply to these. Pits are supplied watertight; each pit is pressure-tested to detect any leaks.

Technical guidance

We think and work along from the initial design through to completion. This way, we guarantee an optimal result and the proper functioning of systems we supply.

It is therefore in everyone's interest to be involved at an early stage in the design of ponds, swimming ponds and other water features.

After-sales service

AUGA has its own service department that can be called upon should a problem arise with a supplied equipment pit.

Custom-built

We supply serially built and customer-specific equipment pits. Common modifications include:

- Hinged lid with gas struts.
- Dry-run protection for UV-C units and/or pumps.
- Anchoring system for attachment to a concrete foundation (if required).
- Air pump for supplying a reed bed filter.
- Control cabinet for underwater lighting.
- Adjusted pit dimensions.

On all built-in AUGA devices, we provide a 3-year warranty on



Biological swimming pond Up-Flow

- No chlorine.
- Clear and healthy water.
- Little maintenance.
- Mechanical/biological purification.
- Larger swimming pond surface.
- Smaller filter surface.
- Optimal circulation.

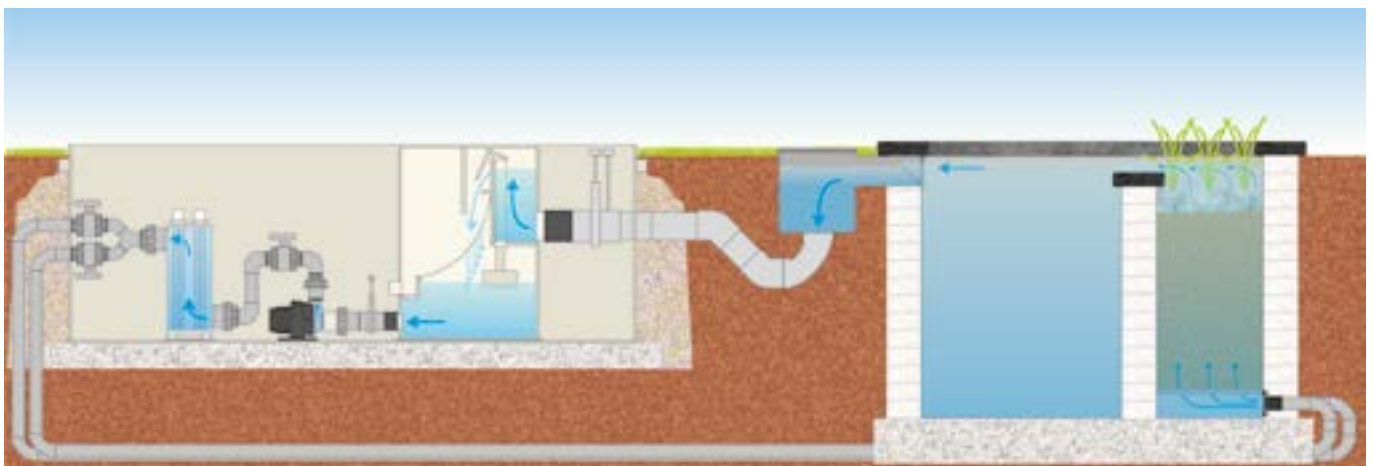
Swimming in clear and clean water without chemicals, chlorine and with less maintenance; the up-flow system is the most efficient filtration process for a biological pool.

Twigs, leaves and dust make up as much as 80% of wind-blown, floating debris. Wall skimmers carry this along with the water flow to the filter, before it can sink. Bottom drains ensure better vertical flow-through of the swimming pond.

The wall skimmer carries floating debris with the incoming water to the arc sieve in the equipment pit, where dirt is separated from the water. The pond pump behind the arc sieve then pumps the pre-purified water into the reed bed filter, via the bulkheads into the empty space beneath the plastic grilles.

Bacteria and water plants provide biological final purification, and the purified water flows back into the swimming pond. That's how easily the Up-Flow circulation and purification process! A UV-C unit is a good option, to always being assured of clear water.

How Up-Flow works



Biological swimming pond Down-Flow

- No chlorine.
- Clear and healthy water.
- Little maintenance.
- Full biological purification.
- Little technology
- Low installation costs

The most naturally purified pool! Purification is left entirely to biological processes; the pond pump is the only technology needed.

A sleek-shaped pool with clear and clean swimming water, part of which is set up as a reed bed filter. Here, nature does most of the work.

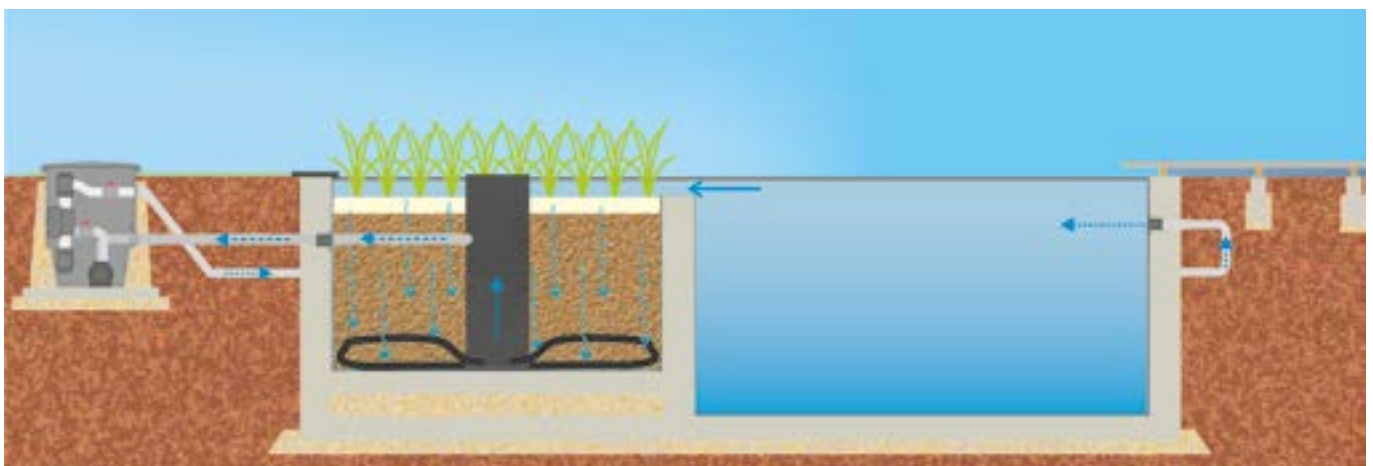
How Down-Flow works

The pond pump provides circulation and moves floating debris to the reed bed filter, where it settles. Water plants, lava and bacteria carry out the natural purification process, which is

stimulated by aeration. The purified water is pumped back into the pond via jets.

The technology costs are low with this system, offset by against the fact that the reed bed filter needs to be somewhat larger, to ensure good purification.

A point of attention is maintenance, which does take somewhat more time. By installing a UV-C unit, clear water is always ensured.



Mirror pond

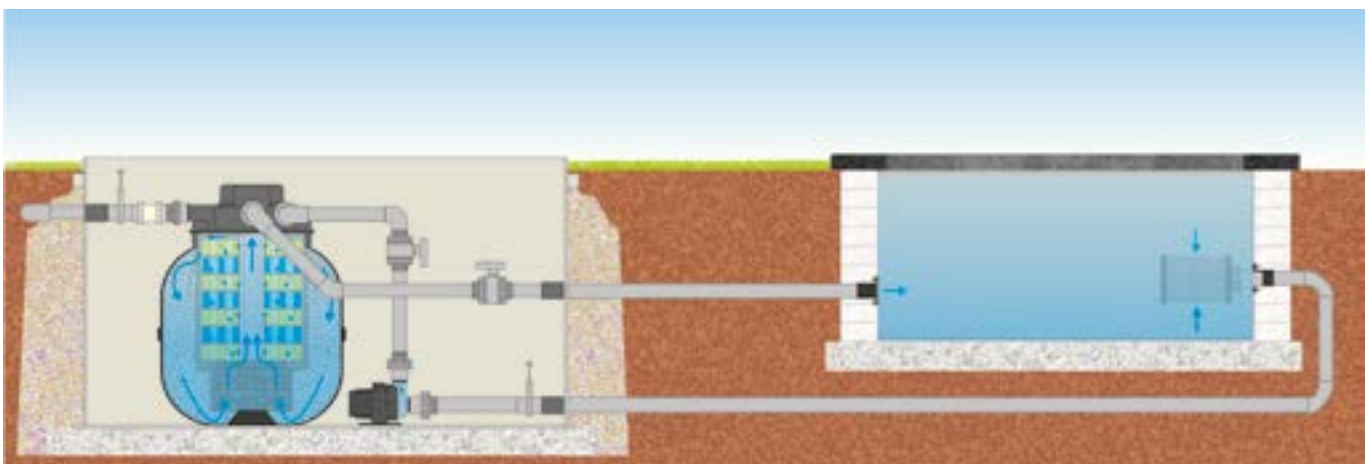
- Mirror-smooth water surface.
- Clear water.
- Formal design.
- Beautiful water feature.
- Limited installation costs.

Minimalism elevated to water art, in which the surroundings beautifully reflect in the mirror-smooth water surface; that is the definition of a mirror pond.

The interplay between the practically still water and the formal design forms a beautiful object of tranquillity in gardens, and is an eye-catcher at commercial buildings.

Clear water is the essential condition

Contamination and green water caused by warming water disturb the effect of a mirror pond, which simply has to be crystal clear. A pressure filter with the right UV-C unit is the best solution. Any bottom debris that remains can easily be removed with a pond vacuum cleaner.



Natural pond

- Organic design.
- Flora and fauna life.
- Limited technology.
- Little maintenance.
- Fits in any garden.
- Low purchase costs.

Back to nature; flora, fauna and design are decisive for this pond type.

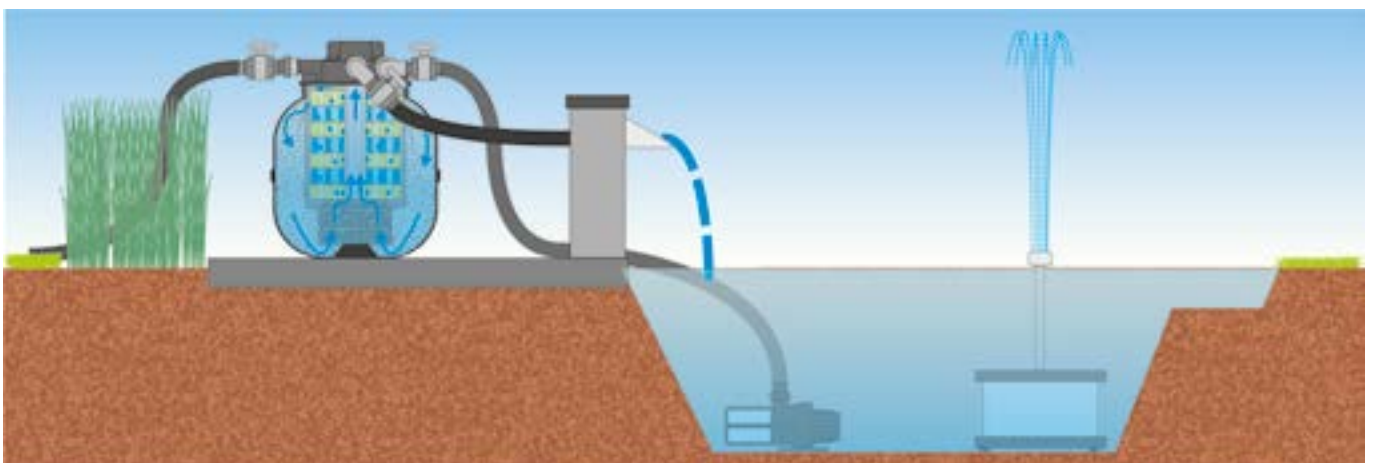
A garden pond with lots of water plants for natural purification and the ideal habitat for insects, birds, fish and other aquatic animals.

Water ecology in one's own garden is once again in the spotlight; nature does the purifying work. Technology is not a must, but to always be assured of clear and clean water, an AUGA pressure filter with a built-in UV-C unit is excellent support - it

filters all suspended dirt particles out of the water.

With the purified return water, a stream or waterfall can be created. A fountain pump provides extra oxygen in the water and is a beautiful eye-catcher.

LED underwater spotlights extend the enjoyment of a pond into the late evening.





AUGA 2026

Further developments and technical subject to change.

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