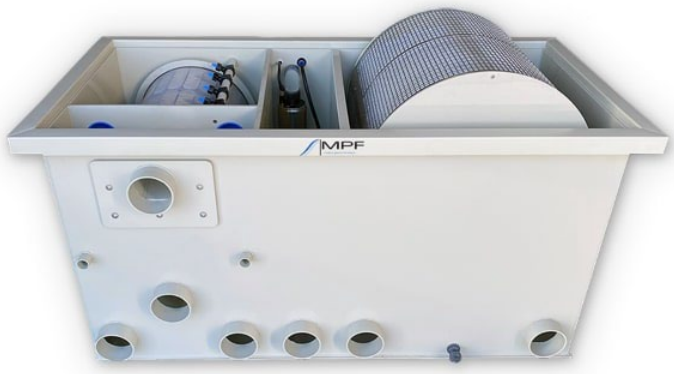
MPF

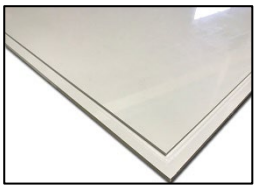
For crystal clear pond water



MPF FILTERSYSTEMS FOR PONDS, KOIPONDS EN SWIMMINGPONDS

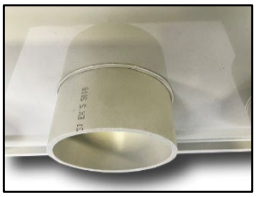
MPF or 'Makoi Pond Filtration' is a specialist in drum filters for koi ponds and swimming ponds. Our systems guarantee a crystal clear pond or swimming pond.

"Our knowledge, passion and love for koi and pond technology come together in an MPF filter."



From our own passion for koi and koi ponds, we know all the ins and outs of a healthy water system. We have translated our many years of knowledge into our own drum filters and combi-drum filters. This has resulted in an innovative, durable and reliable filter system for ponds, swimming ponds and koi ponds. Clear and healthy water with the right values forms the basis for a healthy ecosystem. This results in a crystal-clear swimming pond or a koi pond in which koi can grow up in the most ideal conditions.

- *Why choose an MPF filter?*
- *Very clear pond without having to clean the filter daily.*
- *Strong and durable motor (210Nm) especially suitable for MPF filters.*
- *Assembly takes place in our factory in the Netherlands.*
- *High-quality components such as industrial electronics, industrial components and stainless steel 316 materials.*
- *Extra strong connection in and out due to unique welding connection.*
- *MPF filters are designed, tested, and manufactured in-house.*
- *We know the product verry well and continue to develop and innovate our filters.*



All plates are milled with our Biesse Skill milling machine. The 110mm inputs and outputs are plastered. This ensures that the connection becomes much stronger compared to a welded pipe. Pipes that are welded to a polypropylene (PP) plate can burst more easily, with all the consequences that entails. Two bypass feedthroughs in the drum wall ensure that the filter continues to work in case of calamities and that the biological part at the Biodrum is killed.

The filter comes standard with a 2-year warranty (excl. filterscreen).

CUSTOMIZATION

MPF produces and assembles all its filter systems in-house. This makes customization possible in almost any shape. All PP material is milled with our own CNC milling machine.

All our filter systems are invented and designed by ourselves. This allows us to easily deliver custom work in almost any desired size and shape. Several customers have already preceded you who have had a specially designed drum filter, multi-chamber filters, filter chamber, etc. custom made by us.

Do you have an idea for a filter system, or does one of our filters not fit in your situation? Make an appointment with us to discuss your wishes and ideas.

MPF offers the best value for money on the market.

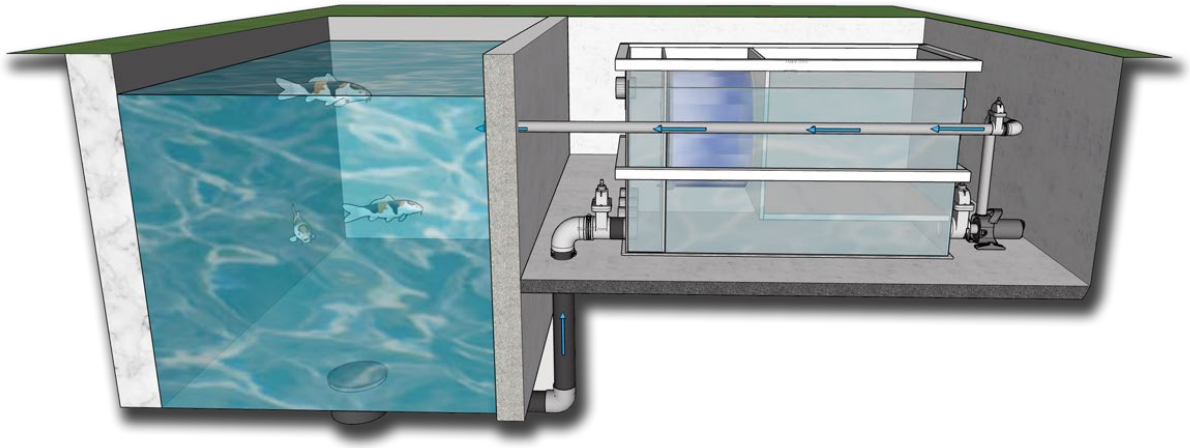
Does your customer have special wishes? Customization is possible.

Also available as a private label product for our dealers.

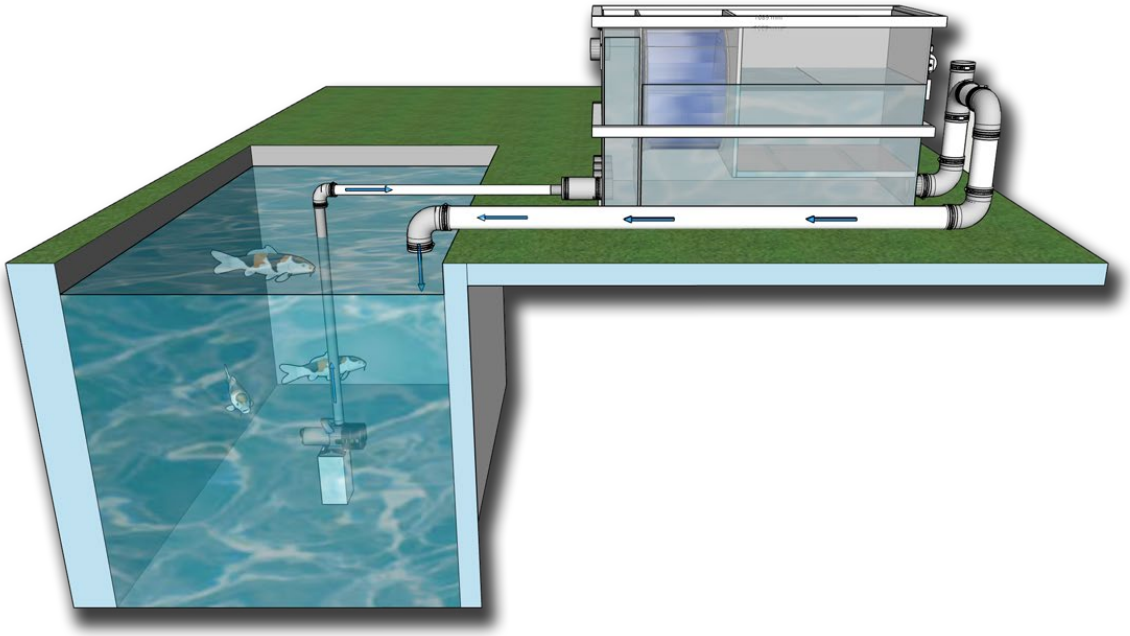
FILTER PLACEMENT

The MPF filters can be placed both gravity and pump fed

Gravity:
We always advise to set up the filter in gravity. The filter is placed at water level and will then protrude approximately 11-14 cm above the water level. Because of gravity, your filter fills up with water. A pond pump moves the water from your filter back to the pond.



Pump fed
If a pump-fed system is chosen, there are a few things to consider. First, pump fed systems have less capacity. Take into account a loss of at least 30%. For example, a Biodrum 100 can handle a maximum of 50m3 per hour in gravity setup, and a pump fed system a maximum of 35m3. The biological part will also not be completely filled with water, so less biological material will be able to enter. Our advice is to always go for a gravity system.



CONTROL PANEL

Through years of testing and innovation, we have developed 2 types of controls for our drum and combi filters. The industrial MPF controller and the MPF professional drum control.

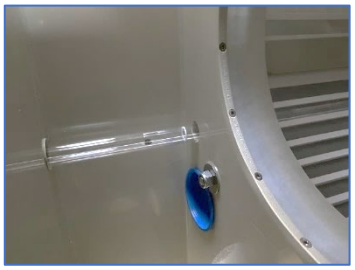
MPF CONTROLLER:

Supplied as standard with every Drumfilter or Biodrum.

- *The pond pump stops when the water level is too low and switches on again when the water level in the pond is raised.*
- *Provides automatic rinses*
- *Industrial Relays*
- *Industrial electronics cabinet in a compact housing*
- *Manual rinsing by push button*
- *Digital display*

DRUM UV CONNECTIONS.

Each MPF filter is equipped with one or two Drum-UV inputs. This makes it easy to place an MPF Drum UV by means of a rubber coupling.



TYPE	ART.NR
Flexible rubber reducer 32x25 ** For Drum UV*	90210-32x25
Flexible rubber endkap 32mm * For *Drum UV*	90220-32

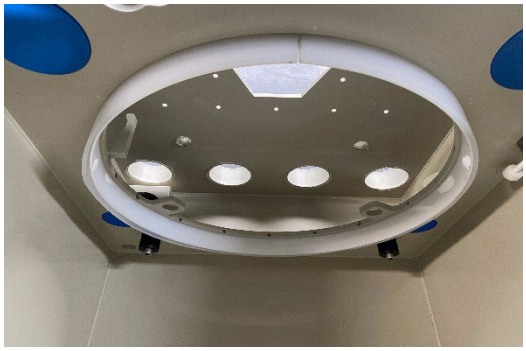
WASTE CHUTE AUTO FLUSHING SYSTEM.

A built-in waste chute flush ensures that the chute is cleared of the dirt lying in the waste chute. Sometimes, for example, leaves or twigs remain in the waste chute and the spray nozzles do not spray this away properly.

We have devised a system that makes it easy to flush away this contamination. By means of a tap, you can easily flush away the fill lying in the gutter. The tap in connected to the built-in flushing pump. You can flush the drum manually by keeping the button pressed on the MPF controller or by pressing the green button of MPF Professional Drum control once. If you open the tap, the gutter will be flushed. You can also choose to always open the tap so that the gutter is automatically flushed when the drum filter is cleaned (automatic flushing cycle).

SILICONE SEAL: UV RESISTANT AND BETTER RESISTANT TO CONTAMINATION

One of the most striking features of our new silicone seal is its UV resistance. By placing a UV resistant ring on the silicone ring, we have ensured that the silicone band is protected against UV light. The durability against UV radiation prevents degradation and significantly extends the life of the seal, resulting in less maintenance and replacements in the long term.

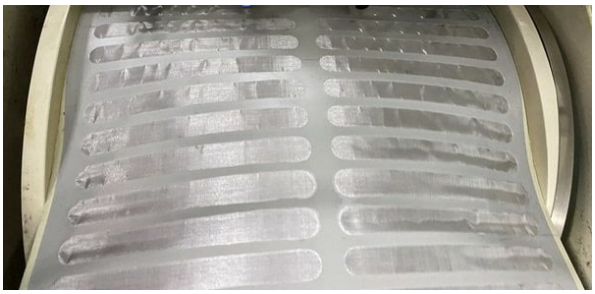


PP SCREEN WITH STAINLES STEEL 120MICRON

Our screens are characterized by their extreme strength and durability thanks to an innovative fusion of stainless steel mesh with the PP material.

Material: Advanced polypropylene combined with stainless steel mesh for long life and resistance to wear.

Available in 120 (STANDARD) and 70 and 40 micron



MOTORS

The motors THAT TURN THE DRUM are known for their industrial reliability and high performance.

The MPF motors deliver an impressive 210 Nm of torque, significantly higher than many other brands. This ensures powerful and consistent operation, even under tough conditions.

The motors are equipped with a centered mounting system, which prevents deformation and leakage. This extends the service life and ensures efficient operation.

OPTIONS

Various additional options are available at an additional cost.

PROFESSIONAL DRUM CONTROL

This electronics with Siemens Logo 8 control and a built-in 20A relay is a new generation logic module that is suitable for every customer requirement and is extremely reliable.
Completely freely adjustable. Many possibilities to expand to control the drum according to your wishes.

WIDE WASTE CHUTE 50m3 systems

A wide gutter may not seem like such a big difference, but it can have many advantages for your pond. It is a small difference that can solve many problems, if you have to deal with a lot of filamentous algae and/or a lot of leaf fall. This can often cause a normal gutter to become clogged up. Hence our solution: the wide gutter! With this, a clogged gutter is a thing of the past .

HIGH CAPACITY SPRAY NOZZLES

These black nozzles have a higher water release than the standard blue ones. The black nozzles exert a higher water force on the cloth. As a result, the filter cloth is rinsed clean better. The gutter will also stay cleaner because more water is delivered by the nozzles. Less dirt will be left in the gutter

ENGINE COVER

To protect your engine from rain and weather. A customized engine cover made of PP material.
Approx. dimensions: 320x220x300mm / 460x220x400mm (L x W x H).

PIN SENSOR OR FLOAT SWITCH

You can equip your filter with a float switch (standard) or a Pin sensor/switch (only for gravity systems). A sensor has no moving parts and will fail less quickly. If you have a lot of pollution or a lot of snails, this is a good option compared to a float switch.

DRUMFILTERS

A drum filter is a pre-filter that can easily filter very fine pollution from a water stream.

A drum filter guides the dirty water through a drum sieve/screen. The screen is fitted on a drum that can rotate, similar to a washing machine. If the screen is dirty, it is sprayed clean with a few pressure sprayers, whereby the dirty water runs out of the system.

The filter continuously measures the water level on the "clean" side of the drum with a float switch. At a certain point, the screen is polluted and will let less water through. This lowers the water level on the other side of the drum. As soon as it is too low, the float switch detect that and the drum will rotate one or more circles. A pressure pump and a number of nozzles spray will clean the screen. The dirt runs out of the filter through a waste chute.
It is advisable to let this drain flow into a container, after which it overflows into the sewer. Connecting directly to the sewer can lead to clogging. After all, in the spring we can filter large plugs of filamentous algae out of the water.

The water consumption of the drum filter is low due to the high pressure used for cleaning. However, it is advisable to always top up the pond with a float valve. The water that is refreshed with this can be considered negligible. It is therefore not wise to include this in the weekly refresh. However, it depends on the settings whether you rinse the drum at a height difference of 1 cm or at 10 cm. The smaller the allowed difference, the more often it will flush and therefore the more water is consumed.

DRUM 30IS

CODE: Groep 3

Measurements L x B x H	*1020 x 690 x 516 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*30 m³/uur*
Inlet (mm)	*3 x 110 mm*
Outlet (mm)	*3 x 110 mm*
Koivijver	*60 m³*
Swmmingpond	*90 m³*
Motor	*Industrieel 210Nm*
Control box:	*MPF Controller*
Flushing pump	*Intern*
Art. Nr	*T30IS*

DRUM 50

CODE: Group 3

Measurements L x B x H	*1017 x 836 x 786 mm*
Panel measurements L x Ø	*400 x 650 mm*
Max. Flow	*50 m³/hour*
Inlet (mm)	*4 x 110 mm*
Outlet (mm)	*4 x 110 mm*
Koipond max.	*100 m³*
Swimming pond.	*150 m³*
Motor	*Industrial 210Nm*
Control box	*MPF Controller*
Flushing pump	*Intern*
Art. Nr	*T50*

DRUM 50 PRO

CODE: Group 3

Measurements L x B x H	*1017 x 836 x 786 mm*
Panel measurements L x Ø	*400 x 650 mm*
Max. Flow	*50 m³/hour*
Inlet (mm)	*4 x 110 mm*
Outlet (mm)	*4 x 110 mm*
Koipond max.	*100 m³*
Swimming pond.	*150 m³*
Motor	*Industrial 210Nm*
Control box	*MPF Controller*
Flushing pump	*Intern*
Art. Nr	*T50*

DRUM 100

CODE: Group 3

Measurements L x B x H	*1450 x 840 x 786 mm*
Panel measurements L x Ø	*800 x 650 mm*
Max. Flow	*100 m³/hour*
Inlet (mm)	*8 x 110 mm*
Outlet (mm)	*4 x 110 mm*
Koipond max.	*200 m³*
Swimming pond.	*300 m³*
Motor	*Industrial 210Nm*
Control box	*MPF Controller*
Flushing pump	*extern*
Art. Nr	*T100*

DRUM 100 Pro

CODE: Group 3

Measurements L x B x H	*1450 x 840 x 786 mm*
Panel measurements L x Ø	*800 x 650 mm*
Max. Flow	*100 m³/hour*
Inlet (mm)	*8 x 110 mm*
Outlet (mm)	*4 x 110 mm*
Koipond max.	*200 m³*
Swimming pond.	*300 m³*
Motor	*Industrial 210Nm*
Control box	*MPF Controller*
Flushing pump	*intern*
Art.Nr	*T100P*

DRUM 200

CODE: Group 3

Measurements L x B x H	*1450 x 1105 x 925 mm*
Panel measurements L x Ø	*800 x 650 mm*
Max. Flow	*200 m³/hour*
Inlet (mm)	*10x110 mm*
Outlet (mm)	*5x110 mm*
Koipond max.	*300 m³*
Swimming pond.	*400 m³*
Motor	*Industrial 210Nm*
Control box	*MPF Controller*
Flushing pump	*Intern 2x*
Art.Nr	*T200*

BIODRUM / COMBI FILTERS

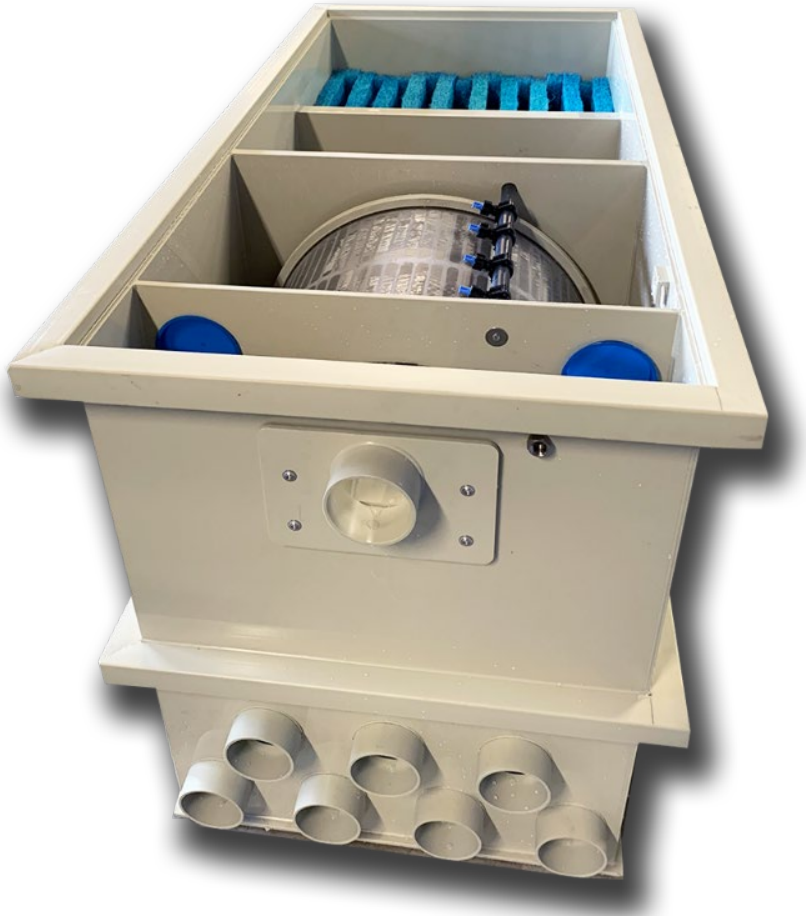
Our Biodrum/combi filters are equipped with an ingenious drum filter technology, and a moving bed system for optimal water movement and filtration. These filters combine a drum and moving bed filter in a compact housing.

The polluted pond water first flows into the collection chamber. The second chamber houses a drum filter and provides mechanical filtration. An air saucer / stone is installed at the bottom of the third chamber to be connected to an external air pump. This ensures that there is movement in the third chamber. This chamber will have to be filled to a maximum of 70% of the content with moving bed material (for example Helix). After a few weeks, bacteria will settle on this moving bed material to filter the water biologically. Because the material is constantly in motion, no dirt will accumulate, the material stays clean and requires no more maintenance!

The filter consists of high-quality materials such as stainless steel and PP and aims to guarantee perfect water quality in a simple and reliable way.

An internal flushing pump is standard on the MPF Biodrum 50, 80, 100, 120, 100XL, 120, Rotator filters and the Drum 200.

The MPF drum filters (Drum 30/50/100) come with an external flushing pump from Oase with a 3-year warranty. There is the option to have an internal flushing pump built into the Drum 50 and 100.



BIODRUM 30

CODE: Group 3

Measurements L x B x H	*930 x 1040 x 765 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*30 m^3/hour*
Inlet (mm)	*3 x 110 mm*
Outlet (mm)	*1 x 110 mm*
Koipond	*30 m^3*
Swimming pond/bad	*60 m^3*
Bewegendbed inhoud	*130 liter*
Motor	*Industrial 210Nm*
Control box	*MPF Controller*
Flushing pump	*Intern*
Art.Nr	*B30*

BIODRUM 40

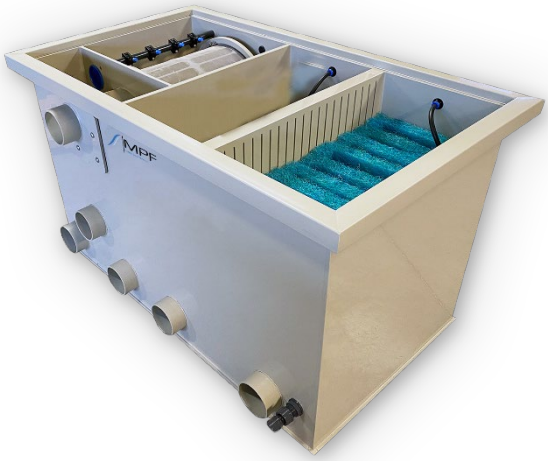
CODE: Group 3

Measurements L x B x H	*1335 x 1040 x 765 mm*
Panel measurements L x Ø	*400 x 30 mm*
Max. Flow	*30 m^3/hour*
Inlet (mm)	*3 x 110 mm*
Outlet (mm)	*2 x 110 mm*
Koipond max.	*40 m^3*
Swimming pond.	*80 m^3*
Bewegendbed inhoud	*260 liter*
Motor	*Industrial 210Nm*
Flushing pump	*Intern*
Control box	*MPF Controller*
Art.Nr	*B40*

BIODRUM 40 + Matting chamber

CODE: Group

Measurements L x B x H	*1335 x 1040 x 765 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*30 m^3/hour*
Inlet (mm)	*3 x 110 mm*
Outlet (mm)	*2 x 110 mm*
Koipond max.	*40 m^3*
Swimming pond.	*80 m^3*
Bewegendbed inhoud	*130 liter*
Motor	*Industrial 210Nm*
Flushing pump	*Intern*
Control box	*MPF Controller*
Art.Nr	*B40M*



BIODRUM 50 small

CODE: Group 3

Measurements L x B x H	*1440 x 570 x 1083 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*30 m^3/hour*
Inlet (mm)	*3 x 110 mm*
Outlet (mm)	*2 x 110 mm*
Koipond max.	*40 m^3*
Swimming pond.	*80 m^3*
Bewegendbed inhoud	*225 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*Intern*
Control box	*MPF Controller*
Art.Nr	*B50S*

BIODRUM 50

CODE: Group 3

Measurements L x B x H	*1941 x 686 x 947 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*30 m^3/hour*
Inlet (mm)	*3 x 110 mm*
Outlet (mm)	*2 x 110 mm*
Koipond max.	*50 m^3*
Swimming pond.	*100 m^3*
Bewegendbed inhoud	*320 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*Intern*
Control box	*MPF Controller*
Art.Nr	*B50*

BIODRUM 50 + Matting chamber

CODE: Group 3

Measurements L x B x H	*1941 x 686 x 947 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*50 m^3/hour*
Inlet (mm)	*3 x 110 mm*
Outlet (mm)	*2 x 110 mm*
Koipond max.	*50 m^3*
Swimming pond.	*100 m^3*
Bewegendbed inhoud	*190 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*Intern*
Control box	*MPF Controller*
Art.Nr	*B50M*

BIODRUM 80

CODE: Group 3

Measurements L x B x H	*1750 x 930 x 765 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*50 m³/hour*
Inlet (mm)	*4 x 110mm*
Outlet (mm)	*2 x 110mm*
Koipond max.	*80 m³*
Swimming pond.	*150 m³*
Bewegendbed inhoud	*315 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*Intern*
Control box	*MPF Controller*
Art.Nr	*B80*

BIODRUM 80 mattenkamer

CODE: Groep 3

Afmeting L x B x H	*1750 x 930 x 765 mm*
Paneelafmeting L x Ø	*400 x 430 mm*
Max. Flow	*50 m³/uur*
Inlaat (mm)	*4 x 110mm*
Uitlaat (mm)	*2 x 110mm*
Koivijver max.	*80 m³*
Zwemvijver/bad max.	*150 m³*
Bewegendbed inhoud	*150l*
Mattenkamer	*4 x Japanse Matten*
Motor:	*Industrieel 210Nm*
Spoelpomp:	*Intern*
Besturing:	*MPF Controller*
Art.Nr	*B80M*

BIODRUM 100

CODE: Group 3

Measurements L x B x H	*1941 x 836 x 973 mm*
Panel measurements L x Ø	*400 x 650 mm*
Max. Flow	*50 m³/hour*
Inlet (mm)	*4 x 110 mm*
Outlet (mm)	*2 x 110 mm*
Koipond	*100 m³*
Swimming pond/bad	*200 m³*
Bewegendbed inhoud	*420 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*intern*
Control box	*MPF Controller*
Art.Nr	*B100*

BIODRUM 100 PRO

CODE: Groep 3

Abmessungen L x B x H	*1941 x 836 x 973 mm*
Paneel-Abmessungen L x Ø	*400 x 650 mm*
Max. Flow	**60***m^3/uur*
Einlass (mm)	**6** *x 110 mm*
Auslass (mm)	**4** *x 110 mm*
Koi-Teich	*100 m^3*
Schwimmteich/Pool	*200 m^3*
Inhalt Moving Bed	*420 liter*
Motor:	*Industrieel 210Nm*
Spülpumpe	*intern*
Steuerung	*MPF Controller*
Art.Nr	*B100pro*

BIODRUM 100 + Matting chamber

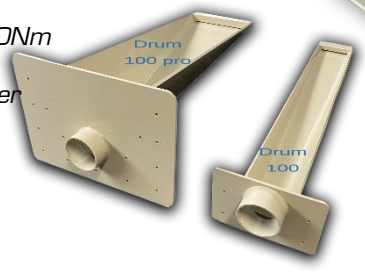
CODE: Group 3

Measurements L x B x H	*1941 x 836 x 973 mm*
Panel measurements L x Ø	*400 x 650 mm*
Max. Flow	*50 m^3/hour*
Inlet (mm)	*4 x 110 mm*
Outlet (mm)	*2 x 110 mm*
Koipond	*100 m^3*
Swimming pond/bad	*200 m^3*
Bewegendbed inhoud	*25liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*intern*
Control box	*MPF Controller*
Art.Nr	*B100M*

BIODRUM 100XXL

CODE: Group 3

Measurements L x B x H	*2450 x 1100 x 1025 mm*
Panel measurements L x Ø	*400 x 715 mm*
Max. Flow	*80 m^3/hour*
Inlet (mm)	*8 x 110 mm*
Outlet (mm)	*3 x 110 mm*
Koipond	*150 m^3*
Swimming pond/bad	*250 m^3*
Bewegendbed inhoud	*930 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*intern*
Control box	*MPF Controller*
Art.Nr	*B100XXL*



BIODRUM 120

CODE: Group 3

Measurements L x B x H	*1745 x 1330 x 765 mm*
Panel measurements L x Ø	*800 x 650 mm*
Max. Flow	*100 m^3/hour*
Inlet (mm)	*8 x 110 mm*
Outlet (mm)	*3 x 110 mm*
Koipond	*120 m^3*
Swimming pond/bad	*240 m^3*
Bewegendbed inhoud	*520 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*intern*
Control box	*MPF Controller*
Art.Nr	*B120*

BIODRUM 200

CODE: Group 3

Measurements L x B x H	*2380 x 840 x 980 mm*
Panel measurements L x Ø	*800 x 650 mm*
Max. Flow	*100 m^3/hour*
Inlet (mm)	*8 x 110 mm*
Outlet (mm)	*3 x 110 mm*
Koipond max.	*100 m^3*
Swimming pond.	*150 m^3*
Bewegendbed inhoud	*420 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*intern 2x*
Control box	*MPF Controller*
Art.Nr	*B200*

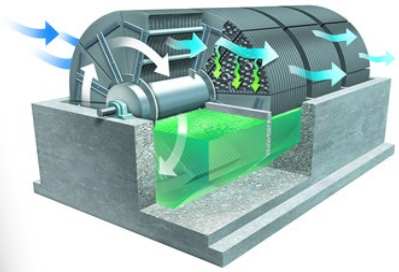
Large waste chute!

BIODRUMROTATOR

The MPF Biodrum Rotator is our top model among the Biodrum filters! This model is a major upgrade over a standard Biodrum. The moving bed has been replaced here by Japanese mats and a Rotating Biological Drum (RBC). The RBC is standard filled with Helix as a biologist, with a cassette of Japanese mats underneath! This can also be filled with other biological material if desired.

*The RBC is a rotating trickle / drip filter concept that requires no head from the pump! The RBC is 40% under water, and 60% above water for maximum oxygen saturation. The big secret of this design is that oxygen can contain up to 4% * in water and 20% in air. This gives the pond bacteria the best conditions to perform their work efficiently.*

The rotating movement of the RBC ensures that a trickle / drop filter is created without a lift head. The industrial motor of 250nM of 60 watts turns the RBC.



Ammonia and nitrite removal:

Scientific studies in fish farming have shown that an RBC guarantees a very high ammonia and nitrite removal, 50% better than trickle filters and many times better than moving bed filters!

A ROTATOR CAN FEED 4X MORE THAN A MOVING BED WITH THE SAME AMOUNT OF BIOMEDIUM!
THERE ARE 100 LITERS IN A MOVING BED? THIS IS COMPARED TO 25 LITERS IN A ROTATOR!

ADVANTAGES:

- *Better biological effect*
- *No more head compared to a trickle filter*
- *2x as efficient as a moving bed*
- *Faster start-up than a moving bed*
- *No cooling in winter compared to trickle filters*
- *No noise*
- *More stable bacterial culture with use of medication and changing water values*
- *No need for an air pump anymore*
- *water is of better quality*
- *You can feed more*

TAN values research:*
Rotator 1.21g/m2/day
Trickle filter 0.64g/m2/day (=50% less efficient)
Fixed bed 0.46g/m2/day (=62% less efficient)
Moving bed 0.27g/m2/day (= 78% less efficient)

** A COMPARATIVE ANALYSIS OF THREE BIOFILTER TYPES TREATING WASTEWATER PRODUCED IN RECIRCULATING AQUACULTURE SYSTEMS By Antar Gamble Hall*
**Ammonia Removal in Selected Aquaculture Water Reuse Biofilters Gary L. Rogers. University of Hawaii, Hawaii Institute of Marine Biology, PO Box 1346, Kaneohe,*

BIODRUM ROTATOR 30

CODE: Group 3

Measurements L x B x H	*1435 x 725 x 559 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*20 m^3/hour*
Inlet (mm)	*3 x 110 mm*
Outlet (mm)	*3 x 110 mm*
Koipond max.	*30 m^3*
Swimming pond.	*40 m^3*
Inhhoud Rotator	*70liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*intern*
Control box	*MPF Controller*
Art.Nr	*BR30*

BIODRUM ROTATOR 50

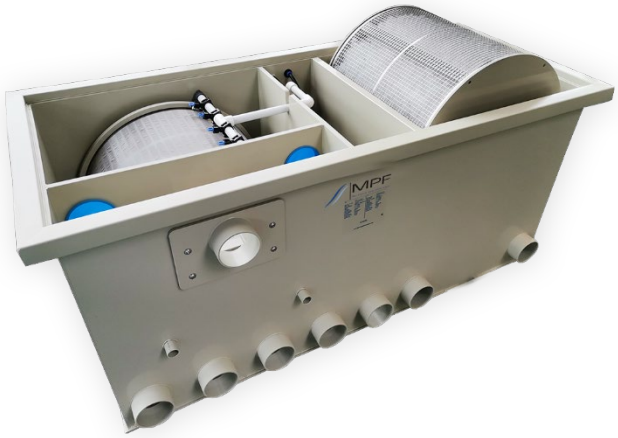
CODE: Group 3

Measurements L x B x H	*1535 x 1045 x 980 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*30 m^3/hour*
Inlet (mm)	*4 x 110 mm*
Outlet (mm)	*2 x 110 mm*
Koipond max.	*50 m^3*
Swimming pond.	*100 m^3*
Inhhoud Rotator	*180 liter*
Inhoud extra kamer	*85 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*intern*
Control box	*MPF Controller*
Art.Nr	*BR50*

BIODRUM ROTATOR 80

CODE: Group 3

Measurements L x B x H	*1750 x 930 x 900 mm*
Panel measurements L x Ø	*400 x 650 mm*
Max. Flow	*50 m^3/hour*
Inlet (mm)	*4 x 110 mm*
Outlet (mm)	*3 x 110 mm*
Koipond max.	*80 m^3*
Swimming pond.	*150 m^3*
Inhoud Rotator	*180 liter*
Inhoud extra kamer	*85 liter*
motor:	*Industrial 210Nm*
Flushing pump:	*intern*
Control box	*MPF Controller*
Art.Nr	*BR80*



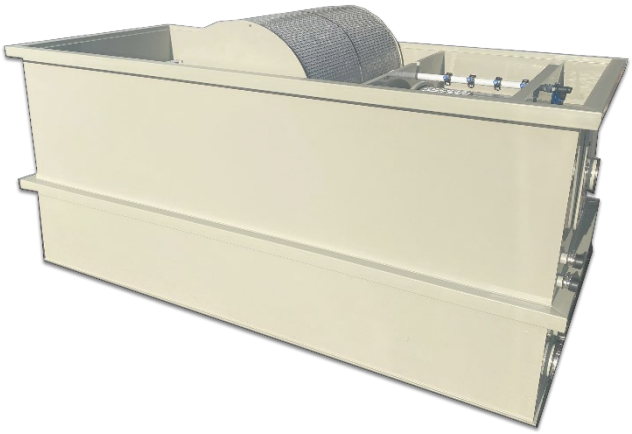
BIODRUM ROTATOR 100

CODE: Group 3

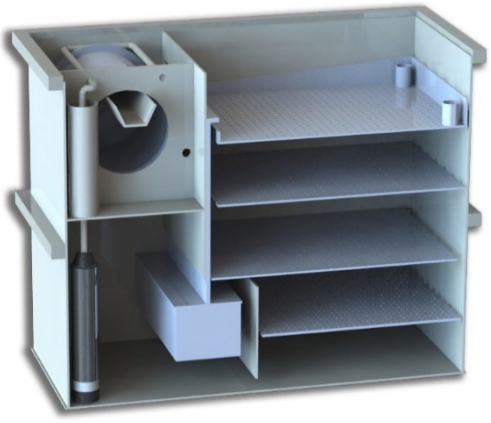
Measurements L x B x H	*2200 x 916 x 1150 mm*
Panel measurements L x Ø	*400 x 650 mm*
Max. Flow	*50 m^3/hour*
Inlet (mm)	*4 x 110 mm*
Outlet (mm)	*3 x 110 mm*
Koipond max.	*100 m^3*
Swimming pond.	*150 m^3*
Inhoud Rotator	*180 litr*
Inhoud extra kamer	*300 liter*
Motor:	*Industrial 210Nm*
Flushing pump:	*intern*
Control box	*MPF Controller*
Art.Nr	*BR100*

BIODRUM ROTATOR 100XXL

Afmeting L x B x H	*2450 x 1100 x 1025 mm*
Paneelafmeting L x Ø	*400 x 715 mm*
Max. Flow	*80 m^3/uur*
Inlaat (mm)	*8 x 110 mm*
Uitlaat (mm)	*3 x 110 mm*
Koivijver	*150 m^3*
Zwemvijver/bad	*250 m^3*
Bewegendbed inhoud	*900 liter*
Inhoud Rotator	*200 liter*
Motor:	*Industrieel 210Nm*
Spoelpomp:	*intern*
Besturing:	*MPF Controller*
Art.Nr	*BR100XXL*



BIODRUM GRAVITY TRICKLE



After the development of the Biodrum Rotator, MPF has again developed a unique and innovative design for the pond market. The Biodrum Gravity Trickle!

A combination of a drum filter as a pre-filter with a tricklefilter /bakki shower behind it that can be set up in gravity.

The unique concept of the Biodrum Gravity Trickle is the gravity setup. All trickle filters must be installed above water level, which is often an aesthetic problem and is not energy saving!

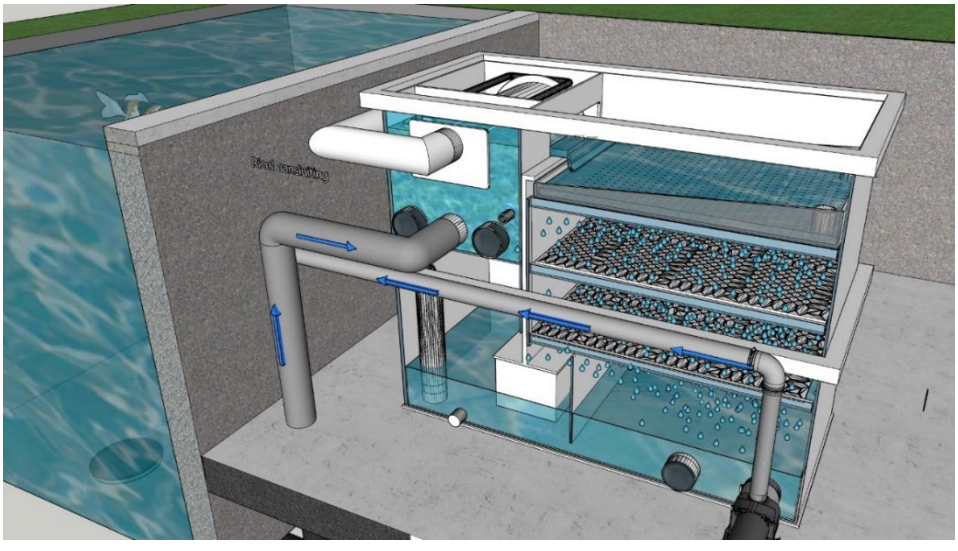
With a special designed water level regulator, the water flows on the upper drip plate. As a result, the water is optimally distributed over the underlying material. This water level controller ensures that the water level remains regardless of the capacity of the pond pump.

This design creates the best pre-filtration through the drum filter and the best biological cleaning through the trickle section. The water breaks continuously and at a high rate, which means that the oxygen uptake in the water is enormous. As a result, there is continuous outgassing of ammonium and Co2. And so the Biodrum Gravity Trickle produces better water quality and healthy koi.

'A BIODRUM GRAVITY TRICKLE CAN PROCESS
2.5X AS MUCH FEED THEN A MOVING BED WITH THE SAME AMOUNT OF BIOMEDIUM!'

ADVANTAGES :

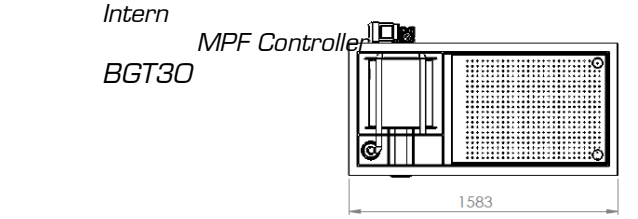
- *Better biological effect*
- *ENERGY SAVING!*
- *Can be placed GRAVITY*
- *Rapid startup of biology*
- *Clear water*
- *Stable bacterial culture*
- *No more air pump needed*
- *Very oxygen-rich way of filtering*
- *Outgassing of ammonia by large amounts of oxygen and splashing water*
- *Little to no maintenance*
- *Can process 2.5x as much feed as a moving bed*

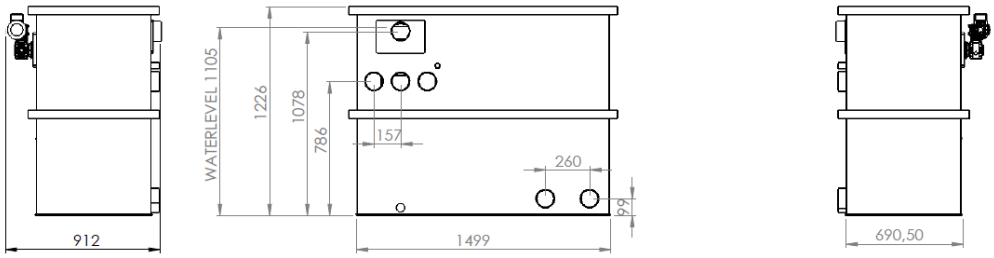


BIODRUM GRAVITY TRICKLE 30

CODE: Group 3

Measurements L x B x H	*1583 x 912 x 1226 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*25 m³/hour*
Inlet (mm)	*3 x 110 mm*
Outlet (mm)	*2 x 110 mm*
Koipond max.	*50 m³*
Inhoud trickle	*300 liter**
Motor:	*Industrial 210Nm*
Flushing pump:	*Intern*
Control box	*MPF Controller*
Art.Nr	*BGT30*

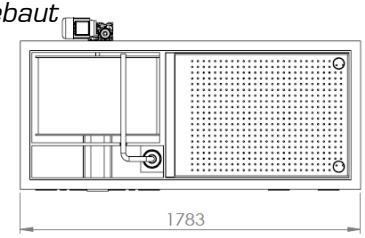


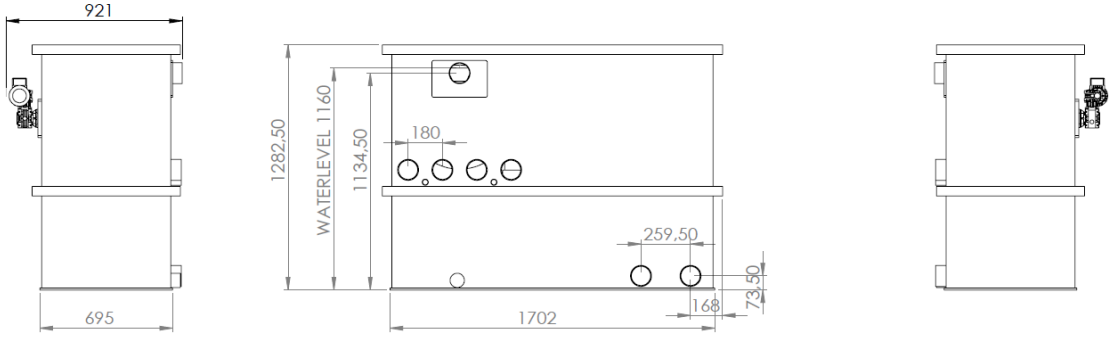


BIODRUM GRAVITY TRICKLE 50

CODE: Gruppe

Measurements L x B x H	*1785x925x1285 mm*
Panel measurements L x	*650 x 430 mm*
Max. Flow	*40 m³/hour*
Inlet (mm)	*4x110 mm*
Outlet (mm)	*2x110 mm*
Koipond max.	*100 m³*
Volume trickle	*300 Liter*
Motor	*Industriell 210Nm*
Control Box	*MPF Controller*
Flushing pump	*Intern eingebaut*
Art.Nr	*BGT50*



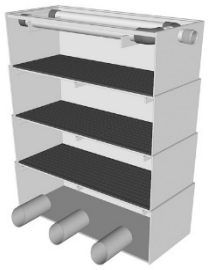


TRICKLE FILTERS

Trickle filters effectively convert harmful, dissolved waste products (such as proteins, ammonium, nitrite, etc.) in the pond water into harmless compounds.

The water enters the top of the inflow tray where it is distributed over 1 spray tube. Below that, the segments are placed, which have a perforated bottom through which the water flows easily.

A trickle filter consists of several floors, provided with filter medium (not included) of possibly different types. These are often stacked trays, each with a layer of medium. The water is pumped up to the top floor with a pond pump. There the water sprays out of a tube with perforated holes, so that the water is evenly distributed over the top layer.



The drip units are filled by you with a filter material of your choice. An optimum oxygen saturation of the water is thus achieved. Due to the excess of oxygen, there is hardly any oxygen deficiency in the pond, even during the warm periods of the year.

To facilitate the use of a trickle filter in combination with our Biodrums, we have precisely tailored the trickle filters to connect seamlessly to our Biodrums.

Thanks to the customization that we provide, you can also choose any desired size in consultation.

TRICKLE LARGE (for Biodrum 50/100/200)

CODE: Groep 2

Measurements L x B x H	*920 x 380 x 1215 mm*
Max. Flow	*30 m^3/hour*
Inlaat buis (mm)	*1 x 63 mm*
Outlet	*Open*
Hoeveelheid segmenten	*4*
Inhoud per segment	*65 liter*
Incl. Lid	
Art.Nr	*TR01*

TRICKLE MEDIUM (for Biodrum 40)

CODE: Groep 2

Measurements L x B x H	*730x410x120 mm*
Max. Flow	*30 m^3/hour*
Inlaat buis (mm)	*1 x 63 mm*
Outlet	*Open*
Hoeveelheid segmenten	*4*
Inhoud per segment	*50 liter*
Incl. Lid	
Art.Nr	*TR02*

TRICKLE SMALL (for Biodrum 20/30)

CODE: Groep 2

Measurements L x B x H	*530 x 330 x 910 mm*
Max. Flow	*15 m^3/hour*
Inlaat buis (mm)	*1 x 63 mm*
Outlet	*Open*
Hoeveelheid segmenten	*3*
Inhoud per segment	*35 liter*
Incl. Lid	
Art.Nr	*TR03*

OPTIONS FOR TRICKLE FILTERS

CODE: Groep 1

Optionally, the spouts can also be ordered with a 110 mm outlet or with a waterfall out. This allows you to easily place the filter next to your pond.

TYPE	ART.NR.
110mm out extra +	*EU110*
WATERVAL out 60CM	*WU60*

VERDEELUNITS VOOR TRICKLE FILTER

Distribution units are designed to distribute water evenly across the filter media. This balanced distribution is essential for maximising filtration efficiency and ensuring the clarity and health of the pond water.

The efficiency of a DISTRIBUTION UNIT / distribution tank compared to a spray tube is remarkable; it provides a saving of up to 25% on pump power. This means that when using a spray tube, the pump has to be running at full power to get the same amount of water through the filter as when using a distribution tank at only 75% power.

Another significant advantage of the distribution tank is the water distribution. The water spreads out completely over the layer below, which ensures an even distribution. In addition, the use of a distribution tank does not reduce the biological volume of the Trickle filter and adds extra oxygen to the upper layer thanks to the holes provided.

VB01 for Trickle Large / VB02 for Trickle medium / VB03 for Trickle Small.

VERDEEL UNIT LARGE

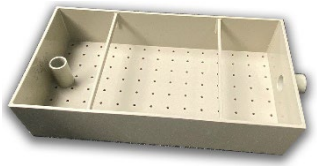
MPF | CODE: Groep 2

Max. Flow *30 m^3/uur*
Inlaat buis (mm) *1 x 63 mm*
Incl. Lid
Art.Nr *VB01*

VERDEEL UNIT MEDIUM

MPF | CODE: Groep 2

Max. Flow *20 m^3/uur*
Inlaat buis (mm) *1 x 63 mm*
Incl. Lid
Art.Nr *VB02*



VERDEEL UNIT LARGE

MPF | CODE: Groep 2

Max. Flow *15 m^3/uur*
Inlaat buis (mm) *1 x 63 mm*
Incl. Lid
Art.Nr *VB03*

PLUG AND PLAY chambers

Our fully assembled filter chamber offer great ease of installation and you immediately know what a complete system costs, including pond pump, UV lamp and possibly air pump.

The construction of ponds and water features becomes a lot easier with a fully prepared filter unit, all components are assembled and fully coordinated.

Connecting pipes, digging the well carefully, and the work is!

Supply and discharge pipes as well as all couplings, taps, pipes and wall sockets are always pre-assembled. The filter pit is delivered "plug & play", so that only connections for supply and discharge pipes need to be made.

All filter pits can also be arranged as desired in consultation.

FILTERCHAMBER 1 Drum 50

CODE: Group 3

Measurements L x B x H	*2320 x 955 x 850mm*
Filter integrated:	*Drum 50*
Pondpump	*Oase Titanium 51m3*
UV lamp:	*1 x 55 watt Amalgaam*
Max. Flow	*50 m³/hour*
Inlaat	*3 x 110 mm*
Outlet	*1 x 110 mm*
Afvoer	*1 x 110 mm*
Koipond max.	*50 m³*
Swimming pond.	*150m³*
Art.Nr	*PAP1*

FILTERCHAMBER 2 Drum 100

CODE: Group 3

Measurements L x B x H	*2320 x 955 x 850mm*
Filter integrated:	*Drum 100*
Pondpump	*Oase Titanium 51m3*
UV lamp:	*2 x 55 watt Amalgaam*
Airpomp:	*Optional*
Max. Flow	*50 m³/hour*
Inlaat	*4 x 110 mm*
Outlet	*1 x 110 mm*
Afvoer	*1 x 110 mm*
Koipond max.	*100 m³*
Swimming pond.	*300 m³*
Art.Nr	*PAP2*

FILTERCHAMBER 3 Rotator 40

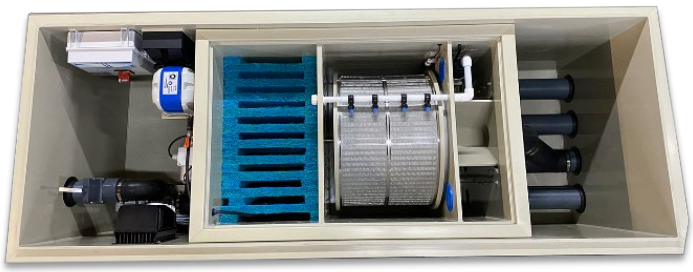
CODE: Group 3

Measurements L x B x H	*2320 x 955 x 850mm*
Filter integrated:	*Rotator 40*
Pondpump	*Oase Titanium 51m3*
UV lamp:	*2 x 55 watt Amalgaam*
Max. Flow	*50 m^3/hour*
Inlet	*3 x 110 mm*
Outlet	*1 x 110 mm*
Afvoer	*1 x 110 mm*
Koipond max.	*40 m^3*
Swimming pond.	*120m^3*
Art.Nr	*PAP3*

FILTERCHAMBER 4 Biodrum 100 small

CODE: Group 3

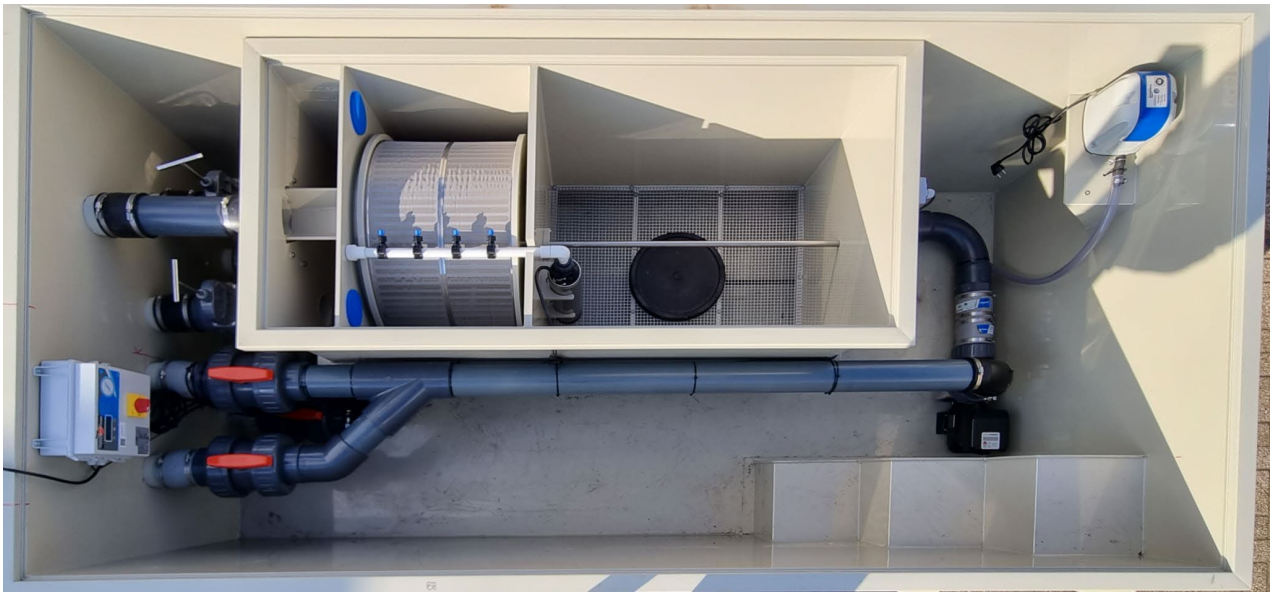
Measurements L x B x H	*2320 x 955 x 850mm*
Filter geïntegreerd:	*Biodrum100 small*
Pondpump	*Oase Titanium 31m3*
UV lamp:	*1 x 55 watt Amalgaam*
Air pump:	*1x Thomas 60*
Max. Flow	*30 m^3/hour*
Inlaat	*3 x 110 mm*
Outlet	*1 x 110 mm*
Afvoer	*1 x 110 mm*
Koipond max.	*25 m^3*
Swimming pond.	*75m^3*
Art.Nr	*PAP4*



FILTERCHAMBER 5 Biodrum 100

CODE: Group 3

Measurements L x B x H	*3000 x 1570 x 1055mm*
Filter integrated:	*Biodrum 100*
Pondpump	*Oase Titanium 51m3*
UV lamp:	*2 x 55 watt Amalgaam*
Air pump:	*1x Thomas 80*
Max. Flow	*50 m^3/hour*
Inlet	*4 x 110 mm*
Outlet	*1 x 110 mm*
Afvoer	*1 x 110 mm*
Koipond max.	*100 m^3*
Swimming pond.	*200m^3*
Art.Nr	*PAP5*



ILEX DRUMFILTER EN BIODRUM/COMBI FILTERS

Ilex filtration, the little brother of the MPF filter systems.

The Ilex Pond filters are very price competitive and are available in different models. The difference with the MPF filters are the smaller installation dimensions, the motor that rotates the drum is slightly less powerful and the control is simpler.

The Ilex filter systems are for the price-conscious buyer, or when space is limited for the filter system.

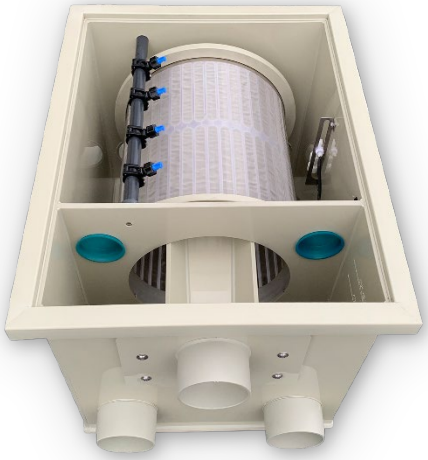
All Ilex biodrum filters are supplied incl. Helix moving bed.

The filter comes standard with an external Flushing pump of 3000 litres/hour and approximately 3 bar. The filter comes standard with a 2-year warranty (excl. filter cloth).

Ilex Drum 20

CODE: Groep 2

Afmeting L x B x H	*880 x 570 x 515 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*20 m3/hour*
Inlet (mm)	*2x110mm*
Outlet (mm)	*2x110mm*
Koipond	*30m3*
Swimming pond/bad	*40m3*
Motor	*120Nm*
Flushing pump	*extern*
Control box	*Ilex*
Art.Nr	*IT20*



Ilex Drum 40

CODE: Groep 2

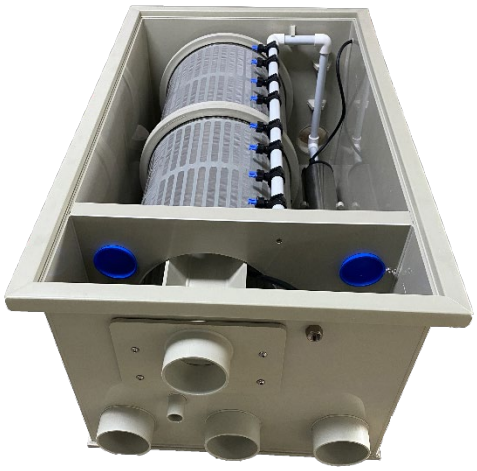
Afmeting L x B x H	*1435 x 570 x 515 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*40 m3hour*
Inlet (mm)	*3x110mm*
Outlet (mm)	*3x110mm*
Koipond	*80m3*
Swimming pond/bad	*120m3*
Motor	*120Nm*
Flushing pump	*extern*
Control box	*Ilex*
Art.Nr	*IT40*

Incl. waste chute connection

Ilex Drum 40 internal flushing pump

CODE: Groep 2

Afmeting L x B x H	*1435 x 690 x 515 mm*
Paneelafmeting L x Ø	*400 x 430 mm*
Max. Flow	*40 m3uur*
Inlaat (mm)	*3x110mm*
Uitlaat (mm)	*3x110mm*
Koivijver	*80m3*
Zwemvijver/bad	*120m3*
Motor	*120Nm*
Spoelpomp	*intern*
Besturing	*Ilex*
Art.Nr	*IT40*



Ilex Biodrum 20

CODE: Groep 2

Afmeting L x B x H	*900 x 850 x 550 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*20 m3/hour*
Inlet (mm)	*3x110mm*
Outlet (mm)	*1x110mm*
Koipond	*15m3*
Swimming pond/bad	*40m3*
Motor	*120Nm*
Flushing pump	*extern*
Moving bed	*incl. helix 30 liter*
Control box	*Ilex*
Art.Nr	*IB20*

Ilex Biodrum 20 + Matting chamber

CODE: Groep 2

Afmeting L x B x H	*1210 x 850 x 550 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*20 m3/hour*
Inlet (mm)	*3x110m*
Outlet (mm)	*2x110mm*
Koipond	*20m3*
Swimming pond/bad	*50m3*
Motor	*120Nm*
Flushing pump	*extern*
Moving bed	*incl. helix 30 liter*
Japanse matten	*incl.*
Control box	*Ilex*
Art.Nr	*IB20M*

Ilex Biodrum 20 + Matting chamber XL

CODE: Groep 2

Afmeting L x B x H	*1210 x 850 x 900 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*20 m3/hour*
Inlet (mm)	*3x110m*
Outlet (mm)	*2x110mm*
Koipond	*30m3*
Swimming pond/bad	*50m3*
Motor	*120Nm*
Flushing pump	*intern*
Moving bed	*incl. helix 50 liter*
Japanese matting	*incl.*
Control box	*Ilex*
Art.Nr	*IB20MXL*

Ilex Biodrum 25

CODE: Groep 2

Afmeting L x B x H	*1440 x 570 x 760 mm*
measurements L x Ø	*400 x 430 mm*
Max. Flow	*25 m3/hour*
Inlaat (mm)	*3x110mm*
Outlet (mm	*2x110mm*
Koipond	*25m3*
Swimming pond/bad	*50m3*
Motor	*120Nm*
Flushing pump	*extern*
Moving bed	*incl. helix 50 liter*
Control box	*Ilex*
Art.Nr	*IB25*

Panel

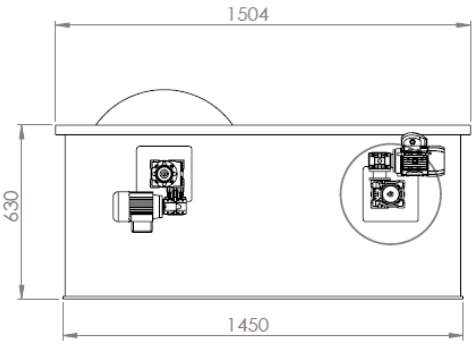
Ilex Biodrum 35

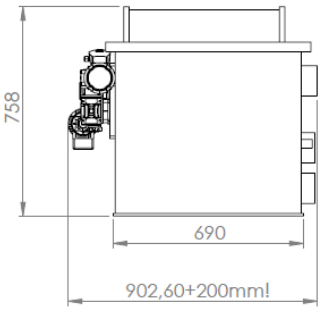
CODE: Groep 2

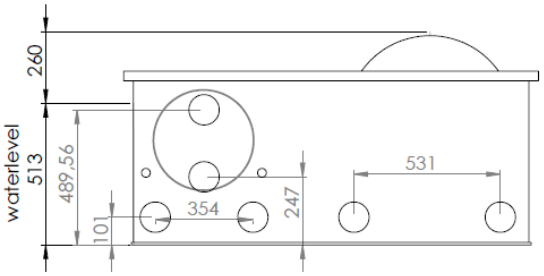
Afmeting L x B x H	*1550 x 910 x 919 mm*
Panel measurements L x Ø	*400 x 430 mm*
Max. Flow	*30 m3/hour*
Inlaat (mm)	*3x110mm*
Outlet (mm	*2x110mm*
Koipond	*30m3*
Swimming pond/bad	*60m3*
Motor	*120Nm*
Flushing pump	*intern*
Control box	*Ilex*
Moving bed	*incl. helix 100 liter*
Mattenpakket:	*Meerprijs*
Art.Nr	*IB35*

Ilex Biodrum Rotator 45

Afmeting L x B x H	*1504 x 902.6 x 760 mm*
Paneelafmeting L x Ø	*400 x 430 mm*
Max. Flow	*30 m3/uur*
Inlaat (mm)	*3x110mm*
Uitlaat (mm)	*2x110mm*
Koivijver	*45m3*
Zwemvijver/bad	*90m3*
Inhoud Rotator	*180 liter*
Inhoud extra kamer	*85 liter*
Motor	*120Nm*
Spoelpomp	*extern*
Meerprijs intern	*artnr/ IBR45IS*
Besturing	*Ilex*
Art.Nr	*IBR45*







OTHER PRODUCTS

MPF DRUM-UV AMALGAM

CODE: Group 3

The MPF -DRUM UVs are specially made for the MPF and Ilex filter systems. By means of a rubber adapter (not included) you can easily integrate this immersion UV in the filter system. The ballast can be used on all replacement units.

Very high efficiency
13,000 burning hours
clear water
UV radiation power decreases less quickly during lifetime
More resistant to switching the lamp on and off
Cable length: 5 m

TYPE	ART.NR.
BALLAST 40-105W	DUB
40W AMALGAM REPLACE UNIT	DU40
55W AMALGAM REPLACE UNIT	DU55
75W AMALGAM REPLACE UNIT	DU75
105W AMALGAM REPLACE UNIT	DU105

BLAUWE BOWL

CODE: Groep 3

BLUE BOWL Ø120x50cm for measuring / photographing or viewing koi
Material HDPE 6MM

	ART.NR.	Price incl. vat
BOWL 120CM	BB120	€ 350
BOWL 120CM incl. lid	BB120D	€ 459
Lid 120CM	DBB120	€ 119

MPF SCREENS

CODE: Groep 1

New generation of screens for drum filters. Screens made of PP material. The stainless steel mesh is fused to the PP material.

Extremely strong and durable.

Dimensions 114cm x 40cm x 5mm (L x W x D) for 30m3/hour drum filters.
Dimensions 189cm x 40cm x 5mm (L x W x D) for 50m3/hour drum filters.

Our 100m3/hour filter systems have 2 sieve cloths of 189cm. The 200m3 has 4x 114cm screens

TYPE	ART.NR.
114cm x 40cm PP standard	ZD114S
189.5cm x 40cm PP standard	ZD189S
114cm x 40cm High Flow iso standard	ZD114HF/ST
189.5cm x 40cm High Flow ipv standard	ZD189HF/ST
114cm x 40cm High Flow 70Mu ipv standard	ZD114HF70/ST
189.5cm x 40cm High Flow 70Mu los ipv stndard	ZD189HF70/ST
114cm x 40cm PP High Flow standard	ZD114HF
189.5cm x 40cm PP High Flow standard	ZD189HF
114cm x 40cm PP High Flow 70 micron	ZD114HF70
189.5cm x 40cm PP High Flow 70 micron	ZD189HF70

MPF SCREENCLEANER

CODE: Group 4

For effective removal of brown (greasy) deposits on your drum filter, sieve element or drum filter screen. Clean your screen cloth regularly with MPF Screen Cleaner + to maintain a good flow, so that you flush away less water and your filter can do its job better.Spray the screen cloth, let it work for a few minutes and then brush it off with a washing-up brush and water and rinse your filter manually several times.

Repeat this cleaning procedure at least monthly or whenever you notice it is necessary for the best flow through your sieve filter or drum filter.
NB! Switch off your drum filter first before carrying out any work. This is to prevent injury. Avoid overuse

Content: 500 ml

TYPE	ART.NR.
Screencleaner 500ml	*SC1000*

MPF MOVING BED TURBO BACTERIA

CODE: Groep 4

Specially developed for Moving Bed filters and Biological filters that start up slowly. Multiplication of the bacteria from 5°C. Six carefully selected bacterial strains compete against harmful bacteria and (pathogenic) fungi. The Turbo Start bacteria secrete various enzymes and EPS. The EPS deposits, among other things, on the carrier material in the biological filter and on the pond walls. The bacteria release antibodies against harmful organisms and are immune to certain chemical substances, for example potassium permanganate. The bacteria also ensure faster breakdown of ammonium and nitrite. The Enzyme Peroxidase helps to break down thread algae and ensures clear and healthy pond water and reduced stress in fish.

In our opinion the best start-up bacteria available on the market! Also the best product to remove nitrite!

Verry high concentrated! 6 times as much as MPF micro bacteria

1 kg good for 50,000 liters of pond water

TYPE	ART.NR.
Moving bed turbo bacteria 1kg	*TB1000*

PF MICRO BACTERIA

CODE: Groep 4

For starting up moving bed filters behind high-quality drum filters in combination with MPF Pond Booster and MPF Enzyme booster.
Operation:
The cysts of the Micro Bacteria burst open releasing the spores. The spores consist of a cortex shell containing genetic material. When the cortex breaks open, the genetic material comes out in the form of heterotrophic bacteria. These heterotrophic bacteria (Bacillis Subtillis sp.p.) start to grow. The growth rate depends on the nutrient medium present and the ambient temperature. The bacteria then secrete various enzymes and EPS. The EPS deposits, among other things, on the carrier material in the biological filter and on the pond walls. Specially selected bacterial strains to make moving bed filters start faster.

Usage advice:
Dosage per 10,000 liters of pond water: 100 grams of Micro Bacteria, 100 ml of Pond Booster and 100 ml of Enzyme Booster

Inhoud: 1 kg
1 kg goed voor 50.000 liter Vijverwater

TYPE	ART.NR.
Micro bacteria 1kg	*MB1000*

GENERAL DATA

MPF / MAKOIBV
Duurzaamheidstraat 19A
8094SC Hattemerbroek
info@mp-f.com

tel: +31382001556 / +31384447366

Website: https://www.mp-f.com
Emailadres: info@mp-f.com

MPF

For crystal clear pond water