

BioRotator

The BioRotator is a drum filter combined with a continuously rotating biological filter.

The key properties at a glance:

- over 5x more waste substance breakdown by bacteria compared to so-called moving bed filters*
- the biological component ripens faster
- suitable for varying fish quantities/feed intensities
- no energy loss due to the need to pump water upwards compared to a trickle filter
- no air pump -> less nitrogen is dissolved into the water

About 60% of the biological component is above the surface of the water, in an oxygen-rich environment (20% oxygen compared to a maximum of 4% oxygen in water). This ensures optimal oxygen saturation. The effect of a trickle filter is imitated without the need to pump water upwards.

An air pump is not required for this filter type, which significantly reduces the negative effect of dissolving nitrogen in water. Since the biological filter material is surrounded by far more oxygen, the filter ripens faster and more efficiently. This also makes fluctuations in feed intensity easier to handle. Ammonia and nitrite are removed more quickly and more effectively compared to filters with fully submerged filter material. After use of a BioRotator, the water is richer in oxygen. On top of that, it contains fewer anaerobic (harmful) bacteria.

The BioRotator is a high-grade total solution for Koi and swimming ponds with a maximum flow of 50m³/hour.

The BioRotator is available in 3 types and 5 models

- the Compact Small & Medium
- the Medium & Large
- the Large Doppio



Compact BioRotator Small



BioRotator Medium



BioRotator Large Doppio



Method:

The water flows into the drum sieve, where any dirt larger than 70 microns (0.07mm) is removed.

A water level sensor measures whether enough water flows through the drum. If the drum sieve becomes overly clogged, an automatic flushing programme is activated. The collected dirt is automatically removed from the sieve by means of the high-pressure pump and transported to the sewer via nozzles and a flushing channel.

For the Compact models, both the biological component and the drum filter continuously rotate: they are connected. The benefit of this is that only a single motor is required and that the entire surface of the drum filter can be used to collect dirt. Normally, only about half the surface is submerged and available for dirt collection. This results in a lower flushing frequency and reduced water consumption.

The Compact Small uses 50 litres of Hel-X 17 as its biological filter material and can process about 20 m³/hour.

The Compact Medium uses 100 litres of Hel-X 17 as its biological filter material and can process about 35 m³/hour.

The Medium and Large models (incl. Doppio) have a separate motor for the BioRotator and the Drum. They have an integrated flushing pump and connections for the Super UV as standard. These models use 180 litres of Hel-X. On top of that, the Doppio also features 470 litres of capacity for extra biological material.

The BioRotators are very energy efficient, have compact dimensions, are made of high-quality materials and are completely automated. They are suitable for a gravity set-up and can also be used easily pump-fed. UV lamps can easily be mounted in the casing.

All BioRotators come with a lid, control electronics and Hel-X 17mm. The Doppio does not include filter materials for the extra 470-litre capacity.

Specifications

Model	Compact		Medium	Large	Doppio
	Small	Medium			
Input (110 mm)	3	4	3	4	4
Output (110 mm)	3	4	2	3	3
Material	PP	PP	PP	PP	PP
Biological filter material Hel-X17 (litre)	50	100	180	180	180 + 470
Mesh width filter element (microns)	70	70	70	70	70
Dimensions (mm)	1435x570x507	1450x840x786	1335x1045x980	1750x930x1065	2200x916x1150
Integrated flushing pump	-	•	•	•	•
Super UV connection	-	2	2	2	2
Max. flow (m ³ /uur)	20	35	30	50	50
Koi pond (m ³)	20	40	50	80	100
Swimming pond (m ³)	50	100	100	150	150

