



Trinamic 20000

# trinamic

High-performance biological filters for heavily stocked fish and koi ponds up to 20,000 litres (5,000 gallons)

The Trinamic delivers excellent water purity for healthier and more active fish. As the name suggests, this is a 'three stage process' incorporating a 'dynamic' moving bed of Kaldnes K3 biomed.



## Stage 1 Moving-bed biological filtration for healthy fish

- A** The water enters the filter at high velocity and spins unique Kaldnes K3 biomed chaotically around the bio-module. A set of venturi introduce oxygen to the water.
- B** The beneficial bacteria growing on the inside and outside of the K3 biomed thrive in an oxygen-rich environment and breakdown harmful soluble pollutants at a very efficient rate. The patented Kaldnes Moving Bed Technology™ is widely regarded as one of the most advanced biological filtration processes. The individual pieces of plastic K3 biomed continuously knock into one another. In this dynamic environment only the strongest most efficient bacteria grip onto the biomed. So, the Kaldnes Moving Bed Technology™ uses Darwin's theory of survival of the fittest to optimise the efficiency of biological filtration.

The dynamic nature of the moving bed ensures that the ammonia and oxygen in the water is evenly distributed among the biomed so all bacteria can thrive and that it is self-cleaning - pond debris passes through to the foam module. Should sludge collect in the K3 bio-module it can be easily flushed to waste via the sludge drain.

Finally, the K3 moving-bed allows for very efficient break down of harmful pollutants within a small area. For this reason, the Trinamic filters can support the same amount of fish as much larger filters but are much easier to hide near the pond.

## Stage 2 Easy-clean foams for crystal clear water

- C** Water passes evenly through a perforated plate and into a series of fine foams, which remove solid matter.
- D** An indicator alerts the user when the foams need to be cleaned, without removing them from the filter, using the plunging tool provided.
- E** Once plunged, sludge from the foams can be flushed away via a sludge drain at the end of the filter. (not shown)

## Stage 3 Denitrifying bacteria provide an important second biological process

- F** Below the foam water passes through denitrifying bacteria, which grow on Cyprapak biomed in a dark still environment.
- G** Clean healthy water is then returned to the pond.

## Trinamic Filters Performance Data

Model	Max Litres (Max Gallons)	Max Fish CM (Weight)	LPH (GPH)	H <sub>2</sub> O MAX	UVC	Titan	Filter
Trinamic 12500	12500 (3000)	900cm (29' 05")	6800LPH (1500GPH)		Vorton 18000 (18w)	Titan 8000	40mm
Trinamic 20000	20000 (5000)	1400cm (45' 09")	9000LPH (2000GPH)		Vorton 27000 (22w)	Titan 12000	40mm
Trinamic+ 12500	12500 (3000)	900cm (29' 05")	6800LPH (1500GPH)		Vorton 18000 (18w)	Titan 8000	40mm
Trinamic+ 20000	20000 (5000)	1400cm (45' 09")	9000LPH (2000GPH)		Vorton 27000 (22w)	Titan 12000	40mm



Vorton UVC 27000

Trinamic 20000

Titan 12000

# trinamic+

Complete advanced filtration systems for heavily stocked ponds up to 20,000 litres (5,000 gallons)

The Trinamic+ is a complete advanced filtration system for large fishponds combining a Trinamic filter with a Titan solids handling pump and Vorton ultra-violet clarifier.

Dirty water is pumped from the pond through the Hozelock Cyprio Vorton UVC to flocculate algae. The rotating inlet of the Vorton UVC makes it very easy to attach the hose from the pond. The Vorton firmly attaches to a robust rigid metal plate, which connects to the top of the Trinamic vessel. The outlet of the Vorton UVC attaches directly to the inlet of the Trinamic.

The unique turbulating technology of the Vorton UVC and robust design of the Titan filter pump combine with the Trinamic to provide a system that delivers outstanding results.

The Trinamic+ kit format simplifies consumer product selection and provides a complete system for a given size of pond and fish stock regardless of environmental considerations.

Part number	Description	Product Bar Code	Pack Qty
1565	Trinamic 12500	50 10646 04348 9	1
1566	Trinamic 20000	50 10646 04349 6	1
1567	Trinamic+ 12500	50 10646 04350 2	1
1568	Trinamic+ 20000	50 10646 04351 9	1
1569	Trinamic 12500 Foam Set	50 10646 04354 0	1
1570	Trinamic 20000 Foam Set	50 10646 04355 7	1