

NEXUS+ FILTRATION SYSTEMS
13/08/2020

EVOLUTION AQUA LAUNCH NEXUS+ FILTRATION SYSTEMS

NEW ADVANCED FILTRATION SYSTEMS WITH K+ MEDIA

Award winning aquatics company **Evolution Aqua** have launched the new **Nexus320+** and **Nexus220+** filtration systems. Building on the **tried and tested technology** that has been ever present in their **world renowned** Nexus filtration systems, the team at Evolution Aqua have gone even further to **enhance their number one Koi pond filter**.

Nexus320+ and **Nexus220+** filters now come with a new filter media called **K+Media** in the moving bed outer chamber for **vastly improved biological filtration** and **faster filter maturation**. The new **Nexus+** filters are also supplied “**auto ready**”, with factory fitted fixings already in place, making it **even easier** to upgrade to the **Nexus Automatic System**.

- **K+Media** replaces K1 Media in moving bed for **improved biological filtration**
- **K+Media** provides a **class leading overall surface area** of **1,350m² per m³** with a **vast protected surface area** of **1,025m² per m³**
- **Minerals, magnesium, calcium, salt** and **enzymes** incorporated into **K+Media** during the extrusion process to **speed up filter maturation times**
- **Design and structure** of **K+Media** allows a **stable bio-film** to form
- **Fixings are pre-installed on the filter** to make fitting the **Nexus Automatic Upgrade Kit** much easier than before
- **Nexus220+** is suitable for ponds up to 18,000 litres (4,000 gallons)
- **Nexus320+** is suitable for ponds up to 34,000 litres (7,500 gallons)

NEW EVOLUTION AQUA K+MEDIA – ADVANCED FILTER MEDIA

Plastic media, for use in biological pond filters - specifically in moving bed bio reactors, was **pioneered by Evolution Aqua**, some 20 years ago. In recent years, other plastic media have come onto the market, usually with the aim of trying to get more and more surface area. However, one drawback to using plastic media has always been the time it takes to establish a stable biofilm – essential for good filtration.

After **many years of research**, Evolution Aqua have now developed a new media that not only gives **class leading surface area**, but also overcomes the problem of long maturation times.

K+Media is designed and manufactured in the UK by Evolution Aqua. This advanced media, with its innovative design, and class leading surface area provides enhanced biological and mechanical filtration.

As Evolution Aqua extrude **K+Media**, Minerals and Enzymes are added to the raw material. The result of this process, unique to Evolution Aqua, is a filtration media that not only outperforms most of its competitors due to its **large protected surface area**, but also answers the problem of how to **speed up** the time taken to **mature your filter**.

- MINERALS ADDED FOR FASTER FILTER MATURATION

During the extrusion process, Evolution Aqua add a range of **minerals**, along with **magnesium, calcium, enzymes** and **salt** to the raw material that is used to manufacture **K+Media**. The result means that **K+Media** will mature much faster than many other types of media.

- The addition of these minerals creates a **rough surface** on the media. This textured surface has a microscopic honeycomb of peaks and craters that allow waste particles to collect, and **nitrifying bacteria** to form.

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- The minerals act as a **food source** for the bacteria, helping the bacteria to **develop** and **multiply** at a faster rate, further **improving maturation times**.
- Calcium alone has **proven advantages** for developing and maintaining effective bio-films.
- The **enzymes** that are added also help to make the media “sticky” so waste particles can adhere to media easier.
- Salt is added during the extrusion process, which is dissolved during the cooling process, leaving a rough surface on which **bio-film can easily adhere**.

- INCREASED SURFACE AREA

With a **new shape** and **profile**, **K+Media** has also been designed to have an **increased** and **class leading surface area**, meaning an **overall surface area of 1,350m² per m³**. More importantly for biological filtration, the **protected surface area of K+Media is 1,025m² per m³**. This allows a **stable bio-film** to form and remain intact when used in moving bed biological filtration, as in the new **Nexus+**.

- STABLE BIO-FILM DEVELOPMENT

The shape of **K+Media** optimises the amount of “*quiet zones*” within the media where a stable bio-film can develop. Whilst **K+Media** keeps the integral profile of K1 Media at its core, there is an extra layer of cells and fins around the outside of each piece that enable microscopic organisms such as **Rotifers** and **Vorticella** to thrive. This is an additional benefit as competitor media do not have such “*quiet zones*” that would allow these higher lifeforms of filter feeders to develop. The bacteria and organisms that form within the bio-film ensure the media delivers optimum levels of biological filtration in the moving bed, which has been **proven filtration technology** for many years in the fishkeeping hobby.

- USE WITH PURE POND PRODUCTS

Evolution Aqua also recommend using **K+Media** in combination with the **PURE POND** and **PURE+ FILTER START GEL** to **boost bacteria levels** which in turn will stick to the media and **speed up the maturation process even more**.

PLUS EVEN EASIER AUTOMATIC CLEANING

Every **Nexus+** filter is also supplied with fittings that have been pre-fitted at the factory that make upgrading to the **Nexus Automatic System even easier**. To benefit from automatic cleaning on the Nexus, purchase the appropriate upgrade kit and fit it to the Nexus, it couldn't be easier!

Automatic cleaning upgrade kits have a host of benefits for Nexus owners, with the main one being you can set the filter to **clean on a repeat cycle**, even when you're not there, and you won't get your hands dirty. The cleaning cycle can even be adjusted so the filter can **clean as often as you want, at any time of day**, which is particularly beneficial throughout the warmer months when Koi are feeding more.

PRECISION ENGINEERING

As with all Evolution Aqua filtration systems, **Nexus+** are precisely manufactured at their factory in the UK. The shell of the unique multi chamber filter is formed using **specialist rotational moulding machinery**. High density polyethylene (HDPE) is injected into a Nexus shaped mould where it is rotated through 360 degrees whilst being exposed to incredibly high temperatures. Once formed, the robust, toughened shell is removed from the mould and left to cool. **Precision cut** stainless steel panels are fabricated to make the EAZY and grill plates which are then inserted into position inside the unit. A series of pipework, connectors and valves are installed that make the unit ready to hold water. Airline and fixings are also carefully installed which enable the moving bed and cleaning process to function. K1 Micro is added to the EAZY and **K+Media** is packed ready for adding into the outer chamber. A name plate with serial number is fitted to the front of the **Nexus+** once the filter has been through a vigorous quality control check before leaving the factory ready to be installed on ponds throughout the world.

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Combining our tried and tested, precision manufacturing process with award winning design, and with **K+Media** and K1 Micro at the heart of the filtration, the **Nexus+** will consistently deliver crystal clear, healthy water, allowing Koi and pond fish to thrive. With automatic cleaning functionality now even easier to install, **Nexus+** is the ultimate filter system of choice.

OVERVIEW OF HOW THE NEXUS+ WORKS

The **Nexus+** filter is an innovative **biological** and **mechanical** filter system in one. Water enters the **Nexus+** via the inlet into the inner chamber which forms as a vortex allowing larger solids to settle out. The water then passes through the **Eazy** where the finer particles are removed at the mechanical stage of filtration. From the Eazy the water passes into the outer chamber where the biological stage of filtration takes place using the new **K+Media Moving Bed**.

The water then passes through the grill into the Exit Chamber, where it is returned to the pond through the outlet. The Eazy is cleaned by diverting the air from the Outer Chamber to the Eazy using the air valves or by installing the automatic cleaning system which makes the cleaning process even easier, as the filter can be cleaned even when you're not there.

Nexus+ filter systems can be easily installed on gravity-fed or pump-fed set ups.

SPECIFICATIONS

Nexus320+

Max. pond size = 34,000 Litres / 7,500 UK Gallons / 9,000 US Gallons
Max. flow rate = 13,000 Litres/hr / 2,859 UK Gallons/hr / 3,431 US Gallons/hr
Recommended flow rate = 11,000 Litres/hr / 2,420 UK Gallons/hr / 2,905 US Gallons/hr
Volume of water in nexus = 840 Litres / 185 UK Gallons / 222 US Gallons
Amount of K1 Micro supplied in EAZY filter = 20 Litres of K1 Micro inside the EAZY
Amount of K+Media supplied in Bio Chamber = 100 Litres of K+Media in bio chamber
Max. capacity for K+Media = 300 Litres K+Media in bio chamber

Nexus220+

Max. pond size = 18,000 Litres / 4,000 UK Gallons / 4,800 US Gallons
Max. flow rate = 10,000 Litres/hr / 2,200 UK Gallons/hr / 2,640 US Gallons/hr
Recommended flow rate = 6,000 Litres/hr / 1,320 UK Gallons/hr / 1,585 US Gallons/hr
Volume of water in nexus = 510 Litres / 112 UK Gallons / 135 US Gallons
Amount of K1 Micro supplied in EAZY filter = 18 Litres of K1 Micro inside the EAZY
Amount of K+Media supplied in Bio Chamber = 50 Litres of K+Media in bio chamber
Max. capacity for K+Media = 150 Litres of K+Media in bio chamber