

NEX320110121MAN

**UK**  
English

EVOLUTION  
**AQUA**

INNOVATION IN WATER

# nexus<sup>320+</sup>

## INSTALLATION AND INSTRUCTION MANUAL



### IMPORTANT PLEASE READ:

Your Nexus 320+ **MUST** be installed on a solid, level base, a minimum of 1.2 metres x 1 metre. Failure to do this will cause irreparable damage to the filter and will therefore invalidate your warranty.

Your Nexus 320+ is supplied ready for pump fed installation. You **MUST** remove the outlet stand pipe if setting up on gravity fed installations and make other adjustments. Carefully read installation instructions.

## INTRODUCING THE NEXUS 320+

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 Nexus+ 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. 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.

Please read this instruction manual carefully from start to finish before attempting to install your new Nexus 320+.

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**WARNING:** The stainless steel eazy has very sharp edges, take care when handling

# NEXUS 320+ PARTS LIST

Your Nexus 320+ comes complete with the following items:



1) Inlet Slide Plate



2) Hosetail Inlet Assembly  
*(For use in pump fed set-up only)*



3) Overflow / By-Pass Collar  
*(Pre-installed)*



4) Eazy Mechanical Filter  
K1Micro is supplied in place in the Eazy section of your Nexus 320+.

**WARNING:** THE STAINLESS STEEL EAZY HAS VERY SHARP EDGES, TAKE CARE WHEN HANDLING



5) 2 x 50 litre bags of K+Media  
To be placed in the outer chamber of the Nexus 320+.



6) Nexus Cleaning Instructions:

- Red coloured instructions for cleaning Gravity Fed installations.
- Blue coloured instructions for cleaning Pump Fed installations.



7) Cleaning Pipe  
Used during cleaning procedure

## NEXUS 320+ SPECIFICATIONS

<b>Maximum Flow Rate</b>	<b>13,000 litres/hr</b> 2,859 UK gallons/hr 3,431 US gallons/hr
<b>Maximum Pond Size</b>	<b>34,000 litres</b> 7,500 UK gallons 9,000 US gallons
<b>Amount of K+Media supplied</b>	<b>100 litres</b> in outer chamber ( <b>Biological</b> )
<b>Amount of K1 Micro supplied</b>	<b>20 litres</b> in Eazy ( <b>Mechanical</b> )
<b>Recommended Air Pump</b>	<b>Air Pump 95</b> or above ( <i>See Air Pump recommendation</i> )
<b>Total volume of water in filter</b>	<b>840 litres</b> / 185 UK gallons / 222 US gallons
<b>Volume of water in outer chamber</b>	<b>635 litres</b> / 140 UK gallons / 168 US gallons
<b>Volume of water in inner chamber</b>	<b>205 litres</b> / 45 UK gallons / 54 US gallons

You can increase the biological capacity of your Nexus 320+ by adding up to **200 litres** of additional K+Media into the outer chamber. You will however need to ensure that you have the correct size of air pump to enable the K+Media to move sufficiently (see below for recommended size of air pump).

### AIR PUMP RECOMMENDATION

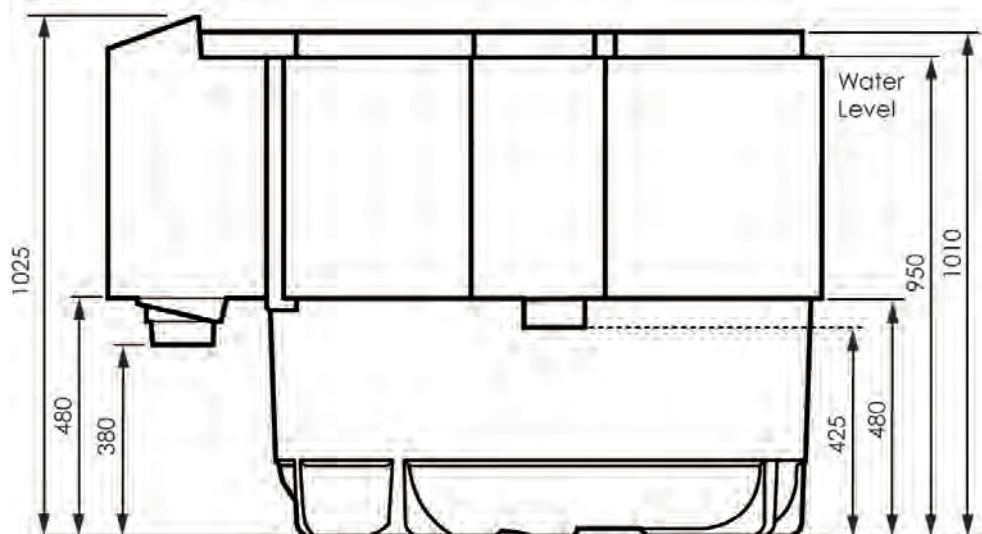
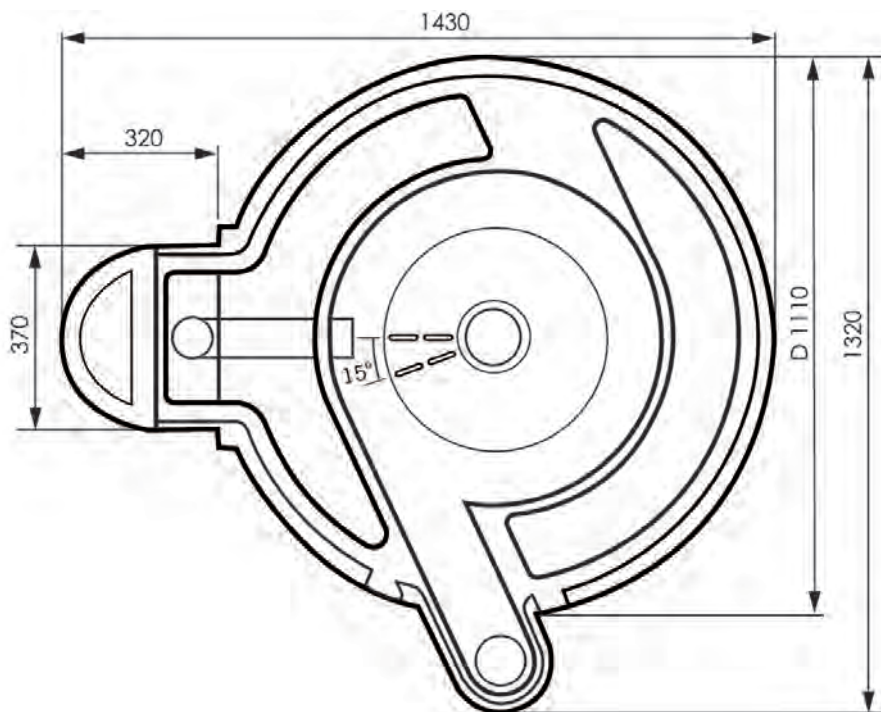
The following Evolution Aqua air pumps are recommended for use with the Nexus 320+. Our recommendations are based on the amount of K+Media that is in the outer chamber.

<b>Total amount of K+Media in the outer chamber</b>	<b>Recommended Evolution Aqua Air Pump</b>
100 litres (as supplied)	Air Pump 95
100 - 150 litres	Air Pump 130
150 - 300 litres	Air Pump 150

### FLOW RATES

One of the factors that can have a significant influence on the general parameters of our ponds is turn over rate. This is the time that it takes for the total volume of the pond to pass through the filter system once. We recommend that for ideal performance a turn over rate of every 2 to 3 hours is found to be best.

## NEXUS 320+ DIMENSIONS



## HOW THE NEXUS 320+ WORKS

The Nexus filter is simple yet innovative. Water enters the Nexus+ via the inlet into the inner chamber which works as a basic 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 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. Waste is then discharged through the larger waste ball valve.

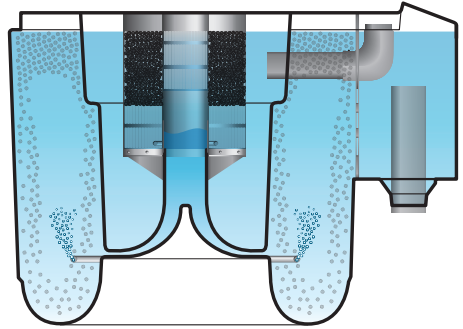


Figure 1.

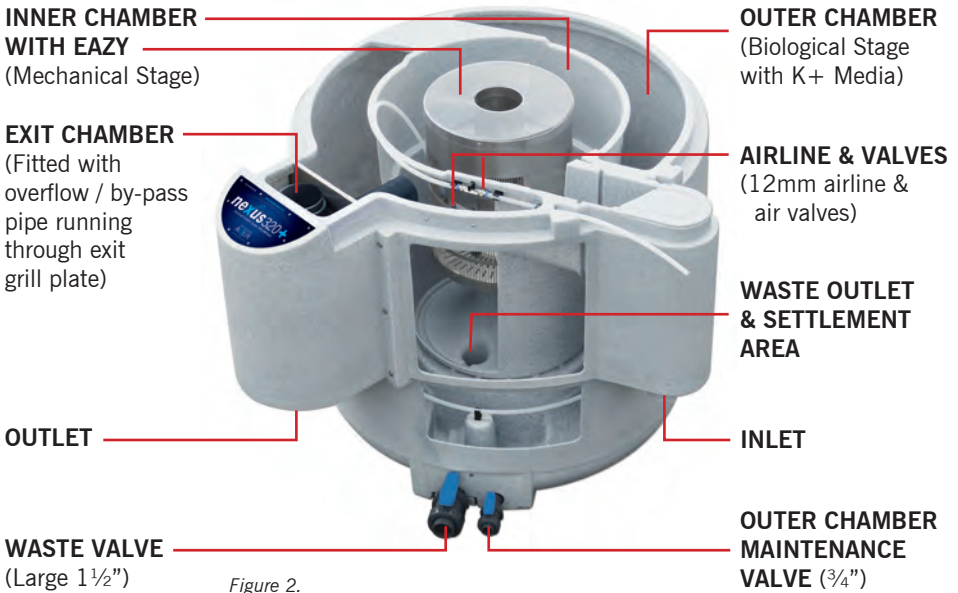


Figure 2.

# HOW THE NEXUS 320+ WORKS

## The Eazy (Mechanical Filtration)

The Eazy is a stainless steel vessel containing a set volume of static K1 Micro Media (20 litres for Nexus 320+) which is located within the inner chamber of the Nexus. After water enters the Nexus it rotates around the Eazy in the inner chamber with a downward motion allowing the larger solids to settle to the bottom of the chamber before passing through the slots of the Eazy into the static K1 Micro. The water flows from all angles through the K1 Micro where improved mechanical filtration and settlement takes place and fine particles are caught within the K1 Micro. The water then flows through the slots in the centre column and into the outer chamber.

The Eazy has been designed so that it can be easily lifted out of the Nexus should it be needed.

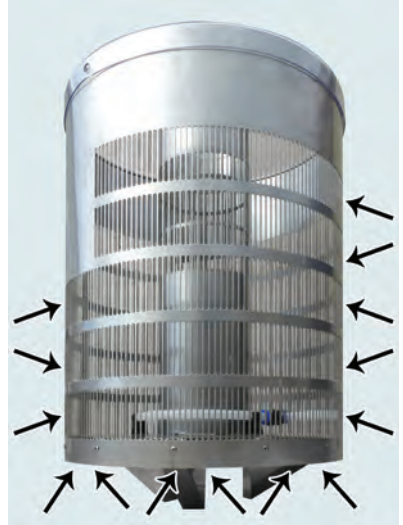


Figure 3. Illustration shows improved water flow through the Eazy.

## Outer Chamber (Biological Filtration)

The outer chamber of the Nexus+ contains the moving bed of K+Media. This is where the final stage of biological treatment occurs. Biological breakdown occurs through different strains of bacteria living on the protected surface area on each piece of the K+Media. These bacteria convert Ammonia and Nitrite into harmless Nitrate. The amount of Ammonia and Nitrite produced in the pond is dependant on feed rates and the type of food used. For higher feed rates additional K+Media should be added into the outer chamber.

In optimum conditions 250g per day of average protein content food will be broken down by 50 litres of K+Media. To ensure excellent biological filtration of a Nexus+ maintain a pond pH of 7 or higher. Bacteria conversion rates are reduced in cooler temperatures.



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# HOW ARE YOU GOING TO CONFIGURE THE NEXUS 320+?

## PUMP FED

By this we mean that if your pump is going to be used to supply the water to the filter, and the filtered water then returns back into your pond via gravity, i.e. down a waterfall, or through a large diameter pipe, this is referred to as **PUMP FED** (i.e. the water is fed to the filter using a pump). **Refer to page 9.**

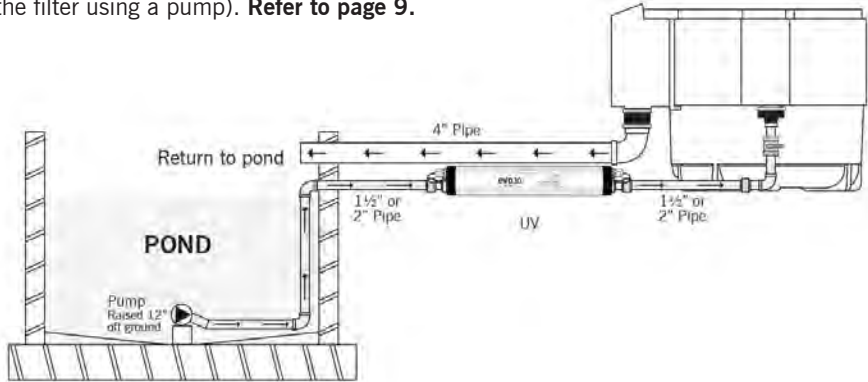


Figure 4.

## GRAVITY FED

By this we mean that your pump is going to be used to return the filtered water to the pond and therefore your filter will be supplied by gravity via a larger diameter pipe. In this situation the water level in the filter will be at the same level as the pond. **Refer to page 16.**

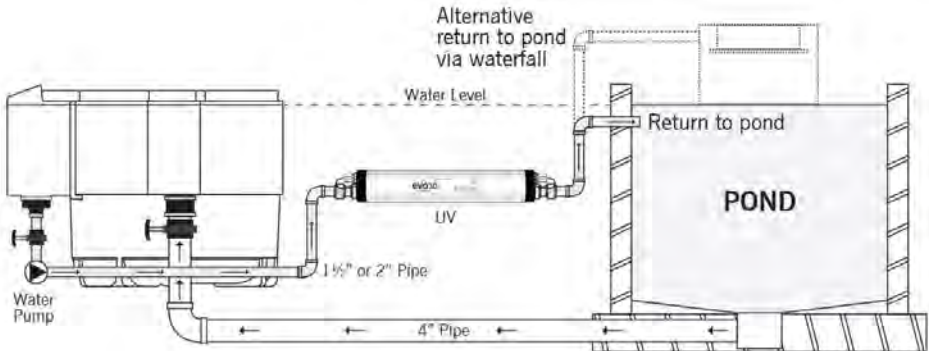


Figure 5.

**ENSURE THAT ONCE YOU HAVE ESTABLISHED WHICH SET-UP YOU WANT TO USE, REFER ONLY TO THE CORRECT SECTION IN THIS MANUAL.**