NEX320TI100926MAN

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English

EVOLUTION AQUA

INNOVATION IN WATER

nexus 320Ti

INSTALLATION AND INSTRUCTION MANUAL



Easy to automate your Nexus
nexus AUTO READY
Upgrade kits now available

IMPORTANT PLEASE READ:

Your Nexus320Ti 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 Nexus320Ti 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.

Evolution Aqua Ltd. - Evolution House - Kellet Close - Wigan - Lancashire - United Kingdom - WN5 0LP
www.evolutionaqua.com

INTRODUCING THE NEXUS320TI

The new NexusTi combines Evolution Aqua's trusted Nexus filter with built-in Titanium-Enhanced UV Clarifiers — delivering crystal-clear, healthy water with maximum efficiency and minimal setup. The UV units are built directly into the clean water outlet of the Nexus filter, enabling optimal UV penetration and enhanced photocatalytic performance.

The new NexusTi filters are also supplied "auto ready", with factory fitted fixings already in place, making it even easier to upgrade to the NexusTi Automatic System.

Please read this instruction manual carefully from start to finish before attempting to install your new Nexus320Ti.

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NEXUS320TI PARTS LIST

Your Nexus320Ti comes complete with the following items:



1) Inlet Slide Plate



2) Hosetail Inlet Assembly Pump-Fed Set-Up
(Parts supplied loose in a separate kit bag ready to be glued using solvent weld adhesive)



3) UV Mounting Unit
2 x 48W UVC T5 Bulbs
Quartz Sleeves
& Ballast



4) Eazy Mechanical Filter
K1Micro is supplied in place in the Eazy section of your Nexus320Ti.



5) 2 x 50 litre bags of K+Media
To be placed in the outer chamber of the Nexus320Ti.

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



6) NexusTi 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



8) Holiday Kit
Pre-fitted. Only for use on gravity-fed installations.

NEXUS320TI SPECIFICATIONS

Maximum Flow Rate	**13,000 litres/hr** 2,859 UK gallons/hr 3,431 US gallons/hr
Maximum Pond Size	**34,000 litres** 7,500 UK gallons 9,000 US gallons
Amount of K+Media supplied	**100 litres** in outer chamber **(Biological)**
Amount of K1 Micro supplied	**20 litres** in Eazy **(Mechanical)**
Recommended Air Pump	**Air Pump 95** or above *(See Air Pump recommendation)*
Total volume of water in filter	**840 litres** / 185 UK gallons / 222 US gallons
Volume of water in outer chamber	**635 litres** / 140 UK gallons / 168 US gallons
Volume of water in inner chamber	**205 litres** / 45 UK gallons / 54 US gallons
UV supplied in outlet area	**2 x 48W** Titanium Enhanced UVs

You can increase the biological capacity of your Nexus320Ti 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

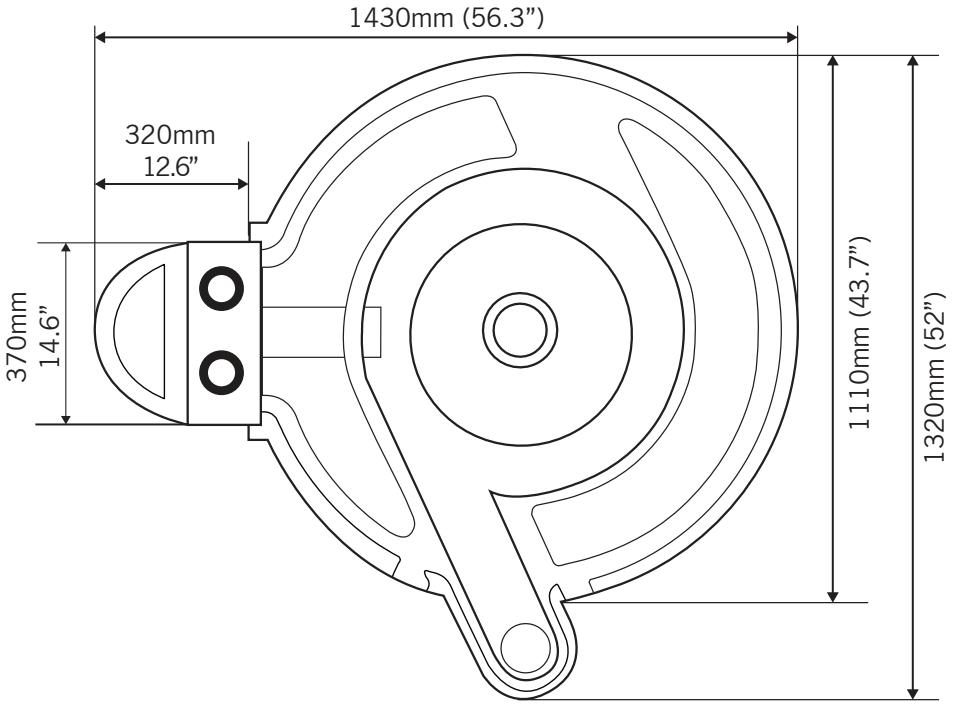
The following Evolution Aqua air pumps are recommended for use with the Nexus320Ti. Our recommendations are based on the amount of K+Media that is in the outer chamber.

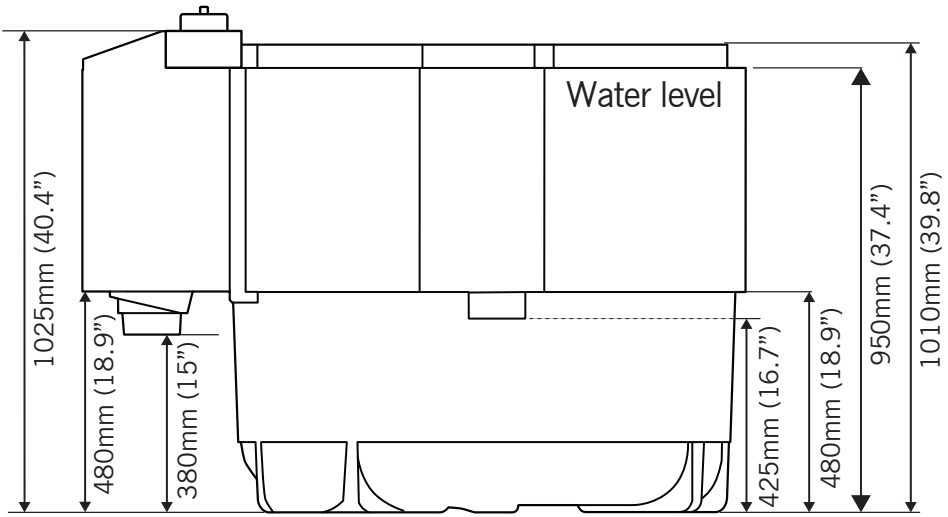
Total amount of K+Media in the outer chamber	Recommended Evolution Aqua Air Pump
100 litres (as supplied)	Air Pump 95
100 - 150 litres	Air Pump 130
150 - 300 litres	Air Pump 150

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.

NEXUS320TI DIMENSIONS





HOW THE NEXUS320TI WORKS

The NexusTi filter is simple yet innovative. Water enters the NexusTi 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 UV clarification takes place, before 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.

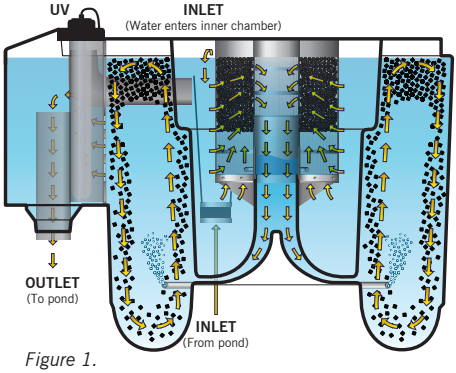
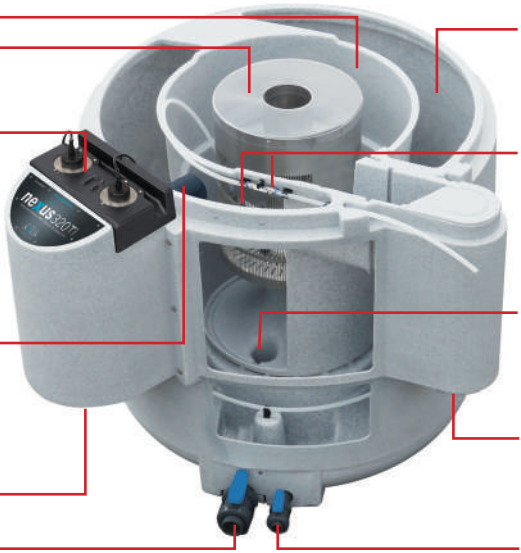


Figure 1.



INNER CHAMBER WITH EAZY (Mechanical Stage)

EXIT CHAMBER (Fitted with 2 x 48W Titanium Enhanced UVs)

HOLIDAY MODE BY-PASS (Gravity-Fed installations only)

OUTLET

WASTE VALVE (Large 1½")

OUTER CHAMBER (Biological Stage with K+ Media)

AIRLINE & VALVES (12mm airline & air valves)

WASTE OUTLET & SETTLEMENT AREA

INLET

OUTER CHAMBER MAINTENANCE VALVE (¾")

Figure 2.

HOW THE NEXUS320TI WORKS

The Eazy (Mechanical Filtration)

The Eazy is a stainless steel vessel containing a set volume of static K1 Micro Media (20 litres for Nexus320Ti) which is located within the inner chamber of the NexusTi. After water enters the NexusTi 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 NexusTi should it be needed.

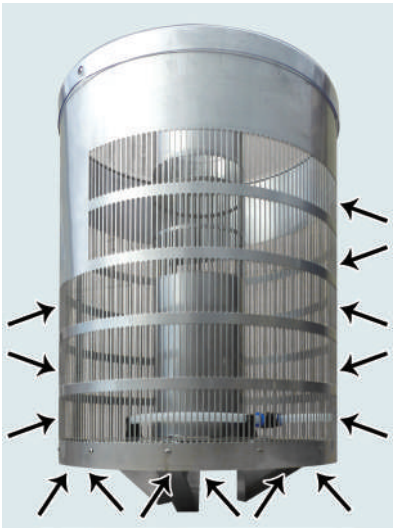


Figure 3. Illustration shows improved water flow through the Eazy.

Outer Chamber (Biological Filtration)

The outer chamber of the NexusTi 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 NexusTi maintain a pond pH of 7 or higher. Bacteria conversion rates are reduced in cooler temperatures.

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

HOW ARE YOU GOING TO CONFIGURE THE NEXUS320TI?

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.**

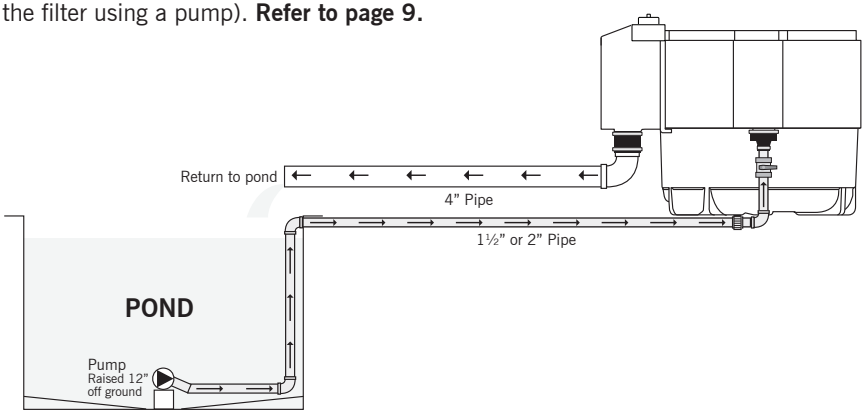


Figure 4.

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.**

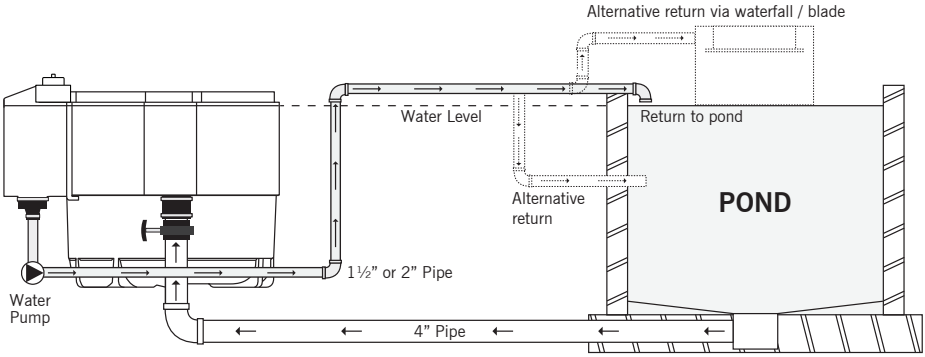


Figure 5.

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

nexus 320Ti

PUMP FED INSTALLATION INSTRUCTIONS



TO INSTALL THE NEXUS320TI ON A PUMP FED SET-UP PLEASE FOLLOW THE INSTRUCTIONS ON PAGES 10 TO 15.

IMPORTANT NOTE: It is not sufficient to support the NexusTi using just blocks underneath the feet, as this will lead to damage to the NexusTi. **Incorrect installation will render the warranty invalid.**

IMPORTANT PREPARATION

A **solid** and **level base** is required. It should be a **minimum of 1.2m (3.9 feet) x 1.0m (3.27 feet)**, to allow easy access to valves and for maintenance purposes. The NexusTi filter needs to be well supported, this is to prevent distortion and damage when it is full of water. The best option for this is a **level, 100mm (3.9") thick, concrete plinth**, although decking or paving slabs would be sufficient as long as the NexusTi sits level and is not allowed to deform under the weight of the water.

Before installation check that all the jubilee clips on the 3 x EazyConnectors are tight to prevent leaks. These EazyConnectors can be found on the inlet, outlet and underneath the centre chamber (this should be accessed before installation by lifting the Nexus320Ti).

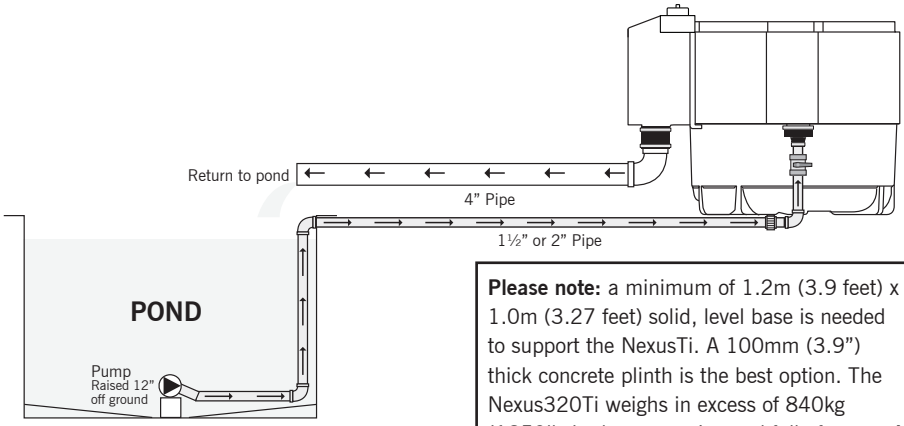


Figure 6.

Please note: a minimum of 1.2m (3.9 feet) x 1.0m (3.27 feet) solid, level base is needed to support the NexusTi. A 100mm (3.9") thick concrete plinth is the best option. The Nexus320Ti weighs in excess of 840kg (1850lbs) when operating and full of water. An unlevel base will cause irreparable damage to the unit.

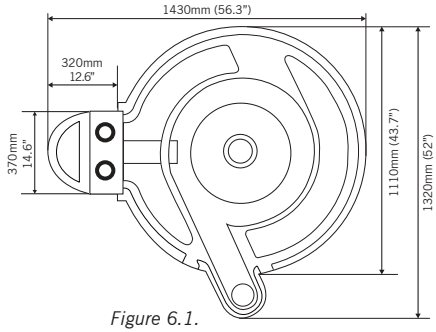


Figure 6.1.

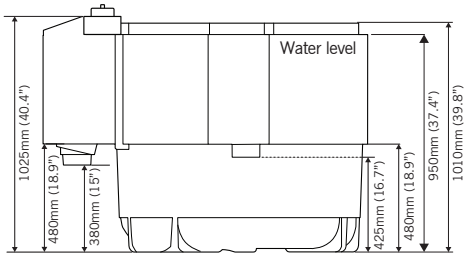


Figure 6.2.

INSTALLATION EQUIPMENT REQUIRED

1. **Pond Pump**, with an actual flow rate that delivers to the filter a maximum of 13,000 litres/hour (3,431 US Gallons/hour) or the entire volume of water in the pond, every 2 to 3 hours, whichever is the greater.
2. **Air Pump**. See Air Pump Recommendation on page 4.
3. A valve should be fitted before the NexusTi so that the unit can be cleaned as per the cleaning instructions on page 14.

NEXUS320TI PUMP FED INSTALLATION

Your Nexus320Ti has been supplied to you ready for you to set up for Pump fed operation.

Pump Fed Installation Steps:

1. Glue the components together to make the Hosetail Assembly (Figure 7.1). We recommend using solvent weld adhesive (not supplied).
2. Once glued, connect the Hosetail assembly to the EazyConnector on the NexusTi Inlet (A).
3. Connect the hose / pipework from your pump to the hosetail (G), cutting down the hose tail to fit the correct hose, we recommend using 1½" hose.
4. Connect your 4" return pipework to the EazyConnector on the Exit (B).
5. Pour the 2 X 50L K+Media bags into the outer chamber (C) of the NexusTi.
6. Connect your air pump to the NexusTi air inlet (E).
7. Connect the waste valves (F) to your waste outlet as described on the next page.

For the first few days to one week of operation, both the K+Media and K1 Micro will tend to float. This is perfectly normal and will operate normally as it begins to mature.

FOR UVC INSTALLATION SEE PAGE 26

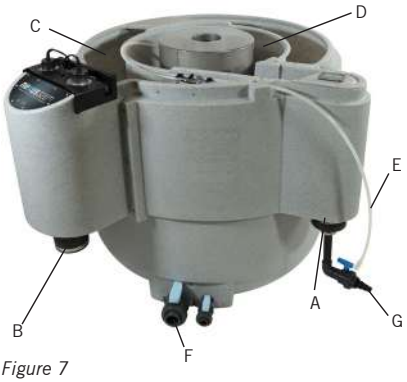


Figure 7



IMPORTANT: You must assemble and use solvent weld adhesive to glue the components together as shown below to create the Hosetail Assembly.

Figure 7.1. Hosetail assembly

WASTE PIPE CONNECTION

The waste valves are where the waste from your NexusTi is discharged when cleaning and prior to draining. The 1½" valve is for the Inner Chamber and is used for when cleaning the Eazy, while the ¾" valve is for draining the outer chamber (only when and if required).

Both of these valves can be connected using a waste pipe kit (optional extra) as shown in Figure 8.1 - 8.3 or can just be discharged individually. If the NexusTi is located below your drain height the waste can be either discharged into a sump where a submersible pump can be used to pump the waste away or an in-line pump can be connected to the waste line where it can pump directly to waste.

Once your NexusTi is installed and plumbed in as described, you are ready to fill the NexusTi and begin treating your pond water.



Figure 8.1. Installed



Figure 8.2. Exit to left



Figure 8.3. Exit to right

NEXUSTi AUTOMATIC UPGRADE KITS - NOW AVAILABLE

Your NexusTi is supplied with pre-drilled fittings making it even easier to install the NexusTi Automatic Kit.

The Auto Kit upgrade enables you to benefit from a **fully automated** cleaning cycle on your multi award winning NexusTi filtration systems. Physically turning ball valves and manually switching pumps on and off will now be a thing of the past thanks to the NexusTi Automatic System. All of the key processes that form the cleaning cycle are now controlled automatically with this **easy to install** kit.

Speak to your Evolution Aqua stockist or visit **www.evolutionaqua.com** for more details.

NexusTi FILTERS NOW WITH PRE-DRILLED FITTINGS FOR AUTO KIT UPGRADES







OPERATING YOUR NEXUS320TI PUMP FED

Once your NexusTi is installed and plumbed in as instructed, you are ready to fill the NexusTi and begin filtering your pond water.

To fill your NexusTi first you need to open the inlet valve. With a pump fed unit you then need to switch on your pump.

Once the NexusTi is full, you will notice that both the K+Media in the outer chamber and the K1 Micro in the Eazy will float on the surface of the water. In a pond containing fish, the media will absorb pond water and become semi-buoyant within a week.
This is perfectly normal.

Now your NexusTi is full it is time to turn on your air pump to circulate the media making sure the air valve to the outer chamber is open and the valve to the Eazy is closed.

CLEANING YOUR NEXUS320TI PUMP FED

The central Eazy section of the NexusTi will collect all the debris and suspended solids that come into the filter. In time you will find out how often you need to clean this, and probably get into a routine to keep the filter working at its optimum. Each pond is different, and the regularity of cleaning is affected by stocking levels and feeding rates along with other factors such as algae in the pond.

WHEN TO CLEAN?

We recommend cleaning the Eazy every 1 to 2 weeks. If however the water in the centre of the NexusTi rises up 5 - 8cm as shown then the Eazy is blocked and requires cleaning (Figure 9).

Normally we would not recommend leaving the filter uncleaned more than 3 weeks. The filter can be left longer if absolutely necessary but this would not be best practice.



Figure 9

CLEANING YOUR NEXUS320TI ON A PUMP FED INSTALLATION

IMPORTANT: Turn the UVC off on NexusTi models before starting the cleaning cycle and turn back on once cleaning has finished.

1. **Turn off the power to the UVC.**
2. **Insert** cleaning pipe into the centre of the Eazy. Water level in the filter will start to rise.
3. Once the water level to a level just below the overflow, **close** the inlet valve.
4. **Switch** water pump **off**.
5. **Insert** inlet slide plate.
6. **Open** air valve to the **inner chamber**.
7. **Close** the air valve to the **outer chamber**.
8. Allow the K1 Micro in the Eazy to **agitate** for **5 minutes**.
9. **Open** the larger waste valve and wait for the **inner chamber** to empty.
10. At this stage you may want to **hose down** any debris from underneath the Eazy.
11. **Close** the waste valve.
12. **Open** the air valve to the **outer chamber**.
13. **Close** the air valve to the **inner chamber**.
14. **Open** NexusTi inlet valve.
15. **Remove** inlet slide plate and then **switch** pump **on**.

Steps 3 to 15 should be repeated until the Eazy is clean. It is likely that you will need to do this 2 to 3 times depending on your pond.

16. When water level rises to the same level as the **outer chamber** **remove** the cleaning pipe.
17. **Turn on the power to the UVC.**

FURTHER MAINTENANCE

From time to time, you may find that the level of water in the inner chamber overflows and the normal cleaning procedure does not prevent this happening. At this point it may be necessary to carry out a **Back Flush** of your NexusTi. This is a simple operation which can be done during your normal cleaning procedure.

To perform a **Back Flush**:

- Pause the cleaning procedure at step 10. Double check that air valve to the outer chamber is closed. The inner chamber and Eazy will be empty of water.
- Pull out the cleaning pipe and stand back. Water will purge back from the outer chamber up through the centre pipe clearing any blockage in the transfer points. When the water has stopped running backwards through the centre column, install cleaning pipe back into the centre. After this continue the cleaning procedure from step 10.
- Back flushing can be done with the Eazy installed or removed. (A greater purge can be achieved with the Eazy removed. See below for removing the Eazy.)

REMOVING THE EAZY

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

Periodically you may want to remove the Eazy in order to clean the air bar (recommended every 6 - 12 months).

The Eazy has been designed so that it can be easily lifted out of the NexusTi. To do this:

- Empty the inner chamber of water as you would during a cleaning procedure.
- Turn off the air pump.
- Disconnect the airline from the airline valve to the inner chamber by pulling back the blue collar on the valve and gently removing the airline.
- Lift out the Eazy, taking note of its original position.

When you replace the Eazy it is essential that it is installed in the correct position for optimum performance. To do this check that the seam on the Eazy aligns with the centre of the overflow, see Figure 10. To do this:

- Install the Eazy back in the centre chamber (check seam is aligned with overflow pipe)
- Reconnect the airline to the inlet airline valve (push-fit)
- Turn the air pump back on.
- You can then fill the inner chamber with water as you would when completing the cleaning procedure.



Figure 10. Align the Eazy seam to the centre of the overflow pipe.

nexus 320Ti

GRAVITY FED INSTALLATION INSTRUCTIONS

The Nexus320Ti is supplied configured for a Pump Fed installation. Components will need to be removed before a gravity fed installation can be carried out. See pages 17 to 25.



IMPORTANT NOTE: It is not sufficient to support the NexusTi using just blocks underneath the feet, as this will lead to damage to the NexusTi. **Incorrect installation will render the warranty invalid.**

NEXUS320TI GRAVITY FED INSTALLATION

A **solid** and **level** base is required. It should be a **minimum of 1.2m (3.9 feet) x 1.0m (3.27 feet)**, to allow easy access to valves and for maintenance purposes. The NexusTi filter needs to be well supported, this is to prevent distortion when it is full of water. The best option for this is a **level, 100mm (3.9") thick, concrete plinth**, although decking or paving slabs would be sufficient as long as the NexusTi sits level and is not allowed to deform under the weight of the water.

A gravity fed system is where the water level in the NexusTi is at the same height as the water level in the pond, therefore it is critical that the NexusTi is installed so that the lip at the top of the NexusTi should be level with the proposed finished surface water level of the pond. The plinth for your NexusTi, should be 950mm (37.4") below where you want the finished pond water surface to be. Please see diagram below.

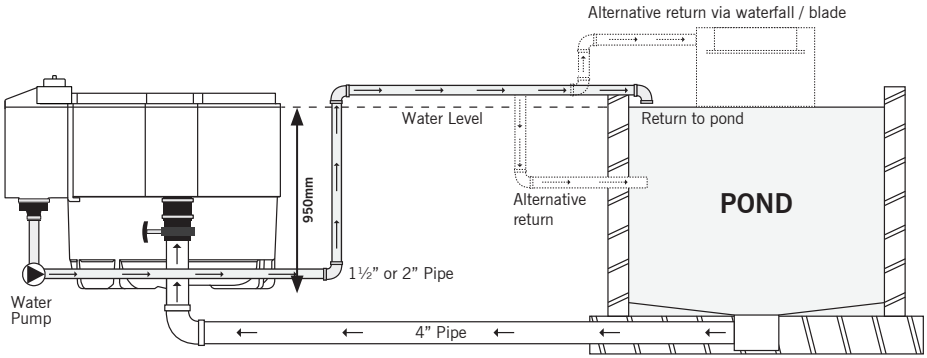


Figure 11.

Please note: a minimum of 1.2m (3.9 feet) x 1.0m (3.27 feet) solid, level base is needed to support the NexusTi. A 100mm (3.9") thick concrete plinth is the best option. The Nexus320Ti weighs in excess of 840kg (1850lbs) when operating and full of water. An unlevel base will cause irreparable damage to the unit.

NEXUS320TI GRAVITY FED INSTALLATION

The water on a Gravity fed system should be fed from an appropriately placed bottom drain through at least a 4 inch (110mm) pipe with as short a length and fewer bends as possible (For optimum flow swept bends should be used). At the end of the bottom drain line before entering the NexusTi, a valve is required so that the line can be shut and the NexusTi isolated.

For long bottom drain pipe runs, it is recommended that a 'T' purge valve line is installed to remove solids that may settle in the bottom drain line. This should discharge straight to waste (if possible) or into a suitably sized sump.

It is very important that when laying the bottom drain line that there is no section where the pipework rises then falls as airlocks can form in this area which will block flow. Figure 12 below describes what should and shouldn't be done.

Pipework should be level until reaching the filterhouse where it should ideally go through a swept bend 90 into the NexusTi inlet.

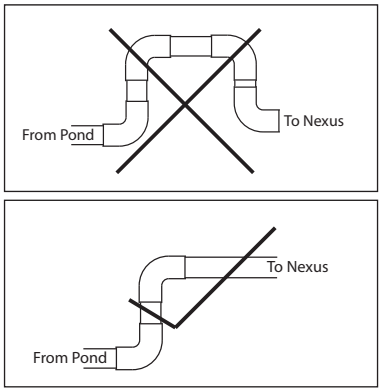


Figure 12.

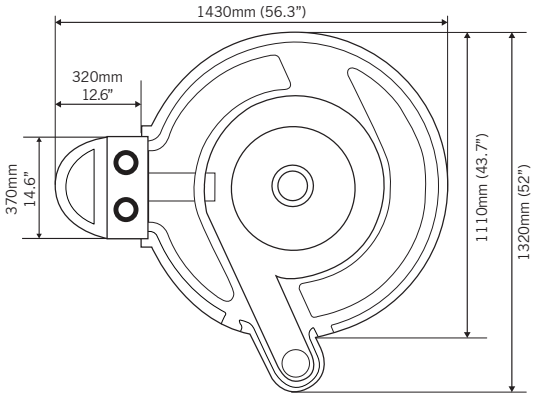


Figure 12.1.

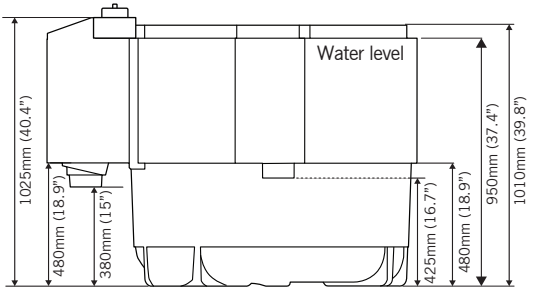


Figure 12.2.

IMPORTANT - You **MUST** remove the stand pipe from the outlet when setting up the filter for gravity fed installations. Follow these instructions shown below.

CONFIGURE YOUR NEXUS320TI FOR GRAVITY FED INSTALLATION

Your Nexus320Ti comes with a standpipe in the outlet. This is for use in **PUMP FED SET-UPS ONLY**. Please remove the standpipe from the NexusTi outlet by undoing the jubilee clips (Figure 13.1) and removing the 4"- 4" EazyConnector (Figure 13.2), remove the 3 retaining screws (Figure 13.3) and slide out the 4" PVC pipe (Figure 13.4).



Figure 13.1



Figure 13.2

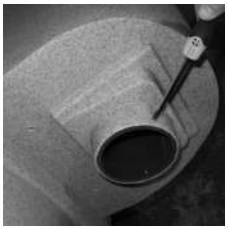


Figure 13.3



Figure 13.4



Figure 13.5



Figure 13.6



Figure 13.7



Figure 13.8

1. Remove the 4"- 1½" EazyConnector from NexusTi inlet (A) (Figure 13.5).
2. On the NexusTi Outlet (B) (Figure 13.6) attach the 4"- 1½" EazyConnector (Figure 13.7).
3. Attach the 4"- 4" EazyConnector to the NexusTi Inlet (A) (Figure 13.8).
4. Ensure the EazyConnector underneath the NexusTi is also tight at this time.

INSTALLING YOUR NEXUS320TI

1. Connect the pipework from your pond to the EazyConnector on the NexusTi Inlet (A).
2. Connect your water pump to the 4”- 1½” EazyConnector (B) on the outlet using suitable pipe work. A valve should be positioned between the pump and the NexusTi, to isolate the NexusTi during cleaning.
3. Pour the 2 x 50L K+Media into the outer chamber (C) of the NexusTi (Figure 14).
4. Connect your air pump to the NexusTi air inlet (E).
5. Connect your water pump outlet to the remainder of your pipework.
6. Connect the waste valves (F) to your waste outlet.

FOR UVC INSTALLATION SEE PAGE 26



Figure 14

For the first few days to one week of operation, both the K+Media and K1 Micro will tend to float. This is perfectly normal and will operate normally as it begins to mature.

WASTE PIPE CONNECTION

The waste valves are where the waste from your NexusTi is discharged when cleaning and prior to draining. The 1½" valve is for the Inner Chamber (D) and is used for when cleaning the Eazy, while the ¾" valve is for draining the outer chamber (C) (only when and if required).

Both of these valves can be connected using a waste pipe kit (optional extra) as shown in Figure 15.1 to 15.3 or can just be discharged individually. If the NexusTi is located below your drain height the waste can be either discharged into a sump where a submersible pump can be used to pump the waste away or an in-line pump can be connected to the waste line where it can pump directly to waste.

Once your NexusTi is installed and plumbed in as described, you are ready to fill the NexusTi and begin treating your pond water.



Figure 15.1. Installed



Figure 15.2. Exit to right



Figure 15.3. Exit to left

NEXUSTI AUTOMATIC UPGRADE KITS - NOW AVAILABLE

Your NexusTi is supplied with pre-drilled fittings making it even easier to install the NexusTi Automatic Kit.

The Auto Kit upgrade enables you to benefit from a **fully automated** cleaning cycle on your multi award winning NexusTi filtration systems. Physically turning ball valves and manually switching pumps on and off will now be a thing of the past thanks to the NexusTi Automatic System. All of the key processes that form the cleaning cycle are now controlled automatically with this **easy to install** kit. Speak to your Evolution Aqua stockist or visit **www.evolutionaqua.com** for more details.

NEXUSTI FILTERS NOW WITH PRE-DRILLED FITTINGS FOR AUTO KIT UPGRADES







OPERATING YOUR NEXUS320TI GRAVITY FED

Once your NexusTi is installed and plumbed in as instructed, you are ready to fill the NexusTi and begin filtering your pond water. To fill your NexusTi first you need to open all the valves before and after the NexusTi. The system should be filled until the water levels are equal.

Once the NexusTi is full, you will notice that both the K+Media in the outer chamber and the K1 Micro in the Eazy will float on the surface of the water. In a pond containing fish, the media will absorb pond water and become semi-buoyant within a week.
This is perfectly normal.

Now your NexusTi is full it is time to turn on your air pump to circulate the media making sure the air valve to the outer chamber is open and the air valve to the Eazy is closed.

CLEANING YOUR NEXUS320TI GRAVITY FED

The central Eazy section of the NexusTi will collect all the debris and suspended solids that come into the filter. In time you will find out how often you need to clean this, and probably get into a routine to keep the filter working at its optimum. Each pond is different, and the regularity of cleaning is affected by stocking levels and feeding rates along with other factors such as algae in the pond.

WHEN TO CLEAN?

You may also notice that the water level in the outer chamber – the Biological stage – lowers as water is prevented from getting through the Eazy as quickly as it is being pumped back into the pond. When this water level falls 10 to 15cm beneath its normal operating level (Figure 16), this is the indication that you should clean the Eazy. We recommend cleaning the Eazy every 1 to 2 weeks.

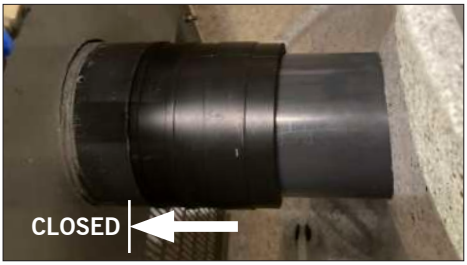
Normally we would not recommend leaving the filter uncleaned more than 3 weeks. The filter can be left longer if absolutely necessary but this would not be best practice.
In this instance, use the *"Holiday Mode"* see page 23.



Figure 16

HOLIDAY MODE - HOW IT WORKS

Your NexusTi is supplied with the Holiday Mode by-pass pipe factory fitted. Holiday Mode is only for use on gravity-fed installations.



NORMAL OPERATION



BY-PASS ACTIVATED

At times, when you cannot clean the Nexus for a period of time or you are going on holiday, you can use the *"Holiday Mode"*. This is a manual by-pass, which will prevent the biological stage from emptying, and potentially starving your pump of water, should the Eazy become blocked.

To activate the by-pass *"Holiday Mode"* simply slide the black rubber sleeve across to reveal a series of slots in the pipe. These slots allow water to escape into the biological chamber.

When activated we advise that you make sure your pond is filled to its highest water level, particularly if you don't have an automatic top-up fitted. We also recommend turning the pump power down to reduce the flow passing through the NexusTi.

CLEANING YOUR NEXUS320TI ON A GRAVITY FED INSTALLATION

IMPORTANT: Turn the UVC off on NexusTi models before starting the cleaning cycle and turn back on once cleaning has finished.

For cleaning instructions, refer to the red cleaning guide supplied with your NexusTi or follow the instructions below:

1. **Turn off the power to the UVC.**
2. **Switch** the circulation pump **off**. Wait for 1 minute.
3. **Insert** the inlet slide plate.
4. **Insert** the cleaning pipe into the centre of the Eazy.
5. **Open** air valve to the **inner chamber**.
6. **Close** the air valve to the **outer chamber**.
7. Allow the K1 Micro in the Eazy to **agitate** for **5 minutes**.
8. **Open** the larger waste valve and wait for the **inner chamber** to empty.
9. At this stage you may want to **hose down** any debris from underneath the Eazy.
10. **Close** the waste valve.
11. **Open** the air valve to the **outer chamber**.
12. **Close** the air valve to the **inner chamber**.
13. **Remove** the inlet slide plate and wait until the **inner chamber** has filled with water.
14. Once **inner chamber** has filled, **remove** the cleaning pipe.

Steps 3 to 14 should be repeated until the Eazy is clean. It is likely that you will need to do this 2 to 3 times depending on your pond.

15. **Switch** the circulation pump **on**.
16. **Turn on the power to the UVC.**

FURTHER MAINTENANCE

From time to time, you may find that the level of water in the outer chamber runs lower than normal and the normal cleaning procedure does not rectify this. At this point it may be necessary to carry out a **Back Flush** of your NexusTi. This is a simple operation which can be done during your normal cleaning procedure.

To perform a **Back Flush**:

- Pause the cleaning procedure at step 9. Double check that air valve to the outer chamber is closed. The inner chamber and Eazy will be empty of water.
- Pull out the cleaning pipe and stand back. Water will purge back from the outer chamber up through the centre pipe clearing any blockage in the transfer points. When the water has stopped running backwards through the centre column, install cleaning pipe back into the centre. After this continue the cleaning procedure from step 9.
- Back flushing can be done with the Eazy installed or removed. (A greater purge can be achieved with the Eazy removed. See below for removing the Eazy.)

REMOVING THE EAZY

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

Periodically you may want to remove the Eazy in order to clean the air bar (recommended every 6 - 12 months).

The Eazy has been designed so that it can be easily lifted out of the NexusTi. To do this:

- Empty the inner chamber of water as you would during a cleaning procedure.
- Turn off the air pump.
- Disconnect the airline from the airline valve to the inner chamber by pulling back the blue collar on the valve and gently removing the airline.
- Lift out the Eazy, taking note of its original position.

When you replace the Eazy it is essential that it is installed in the correct position for optimum performance. To do this check that the seam on the Eazy aligns with the centre of the overflow, see Figure 17. To do this:

- Install the Eazy back in the centre chamber (check seam is aligned with overflow pipe)
- Reconnect the airline to the inlet airline valve (push-fit)
- Turn the air pump back on.
- You can then fill the inner chamber with water as you would when completing the cleaning procedure.

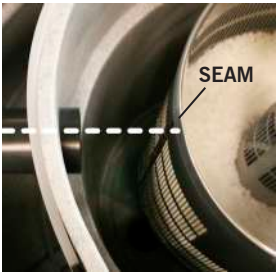


Figure 17. Align the Eazy seam to the centre of the overflow pipe.

IMPORTANT SAFETY INSTRUCTIONS

ELECTRICAL SAFETY

WARNING - (UK / EU models): The supply circuit must be protected by a Residual Current Device (RCD/RCCB) with a tripping current ≤ 30 mA. Provide a means of disconnection with ≥ 3 mm contact separation on all poles.

WARNING - (USA models): Risk of electric shock. Connect only to a branch circuit protected by a GFCI. If you cannot verify GFCI protection, contact a qualified electrician.

- This unit must be earthed (Class I) when an earth conductor is supplied.
- Do not use extension cords to connect the unit; provide a correctly located outlet of the correct rating.
- Never fit a fuse larger than [3 A] on the power lead.
- Disconnect power before installation, servicing, or putting hands into water.
- Do not submerge the unit in its entirety. Ensure the IP rating is suitable for the intended installation location.

UV-C RADIATION SAFETY

WARNING - UV-C radiation. Avoid exposure of eyes and skin.

- Do not operate the UV-C emitter when it is removed from the appliance enclosure.
- Unintended use or damage to the housing may result in escape of dangerous UV-C radiation. Never look directly at an illuminated UV lamp.
- Ensure all supplied covers are fitted before energising. If the quartz sleeve is cracked, switch off and replace immediately.
- User servicing: Follow the instructions for cleaning (method and frequency) and for lamp/sleeve replacement, including PPE (e.g. gloves, eye protection). Dispose of UV-C lamps according to local requirements.



MAINTENANCE & SERVICE



WARNING - Disconnect from the supply and allow components to cool before maintenance.

- Inspect seals and the quartz sleeve regularly; replace if damaged.
- Follow the cleaning schedule and lamp replacement interval specified. Use only manufacturer-approved parts.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons to avoid a hazard.

SAVE THESE INSTRUCTIONS

EPA Est. No. 100154-GBR-1

IMPORTANT SAFETY INSTRUCTIONS

INSTALLATION & USE

- This product is intended for use only in pond and ornamental water treatment systems. Do not use for any other purpose.
- **DO NOT** operate the UV-C lamp without water flowing through the filter system. Operating the unit without water flow may cause overheating and damage to the equipment.
- **UV-C RADIATION HAZARD**. Never operate the unit if the lamp or quartz sleeve is damaged or exposed. Avoid direct exposure of eyes or skin to UV-C radiation.
- Protect the system from frost and freezing conditions. Where freezing may occur, ensure pipework and equipment are adequately insulated or drained as required.
- Install the UV-C ballast in a sheltered, well-ventilated location, protected from direct sunlight and operating within the stated ambient temperature range.
- The ballast must be installed in a dry location and protected from continuous splashing, heavy rain, or standing water.
- This appliance is not intended for use by children. Children should be supervised to ensure that they do not play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.

INSTALLATION & LOCATION

Mounting the UVC ballast:

- **DO NOT** mount the ballast directly onto the Nexus unit.
- Avoid installing the ballast in confined or enclosed spaces where heat may accumulate.
- Mount the ballast at least 0.5 m (1.6 ft) above potential water sources. Never place the ballast on the ground where it may sit in standing water.
- Ensure the ballast is protected from heavy rain, for example beneath a roof, awning, or similar cover. An ideal installation location is on a fence panel or wall within the garden, where the ballast is elevated, sheltered, and airflow around the unit is unrestricted.

SAVE THESE INSTRUCTIONS

EPA Est. No. 100154-GBR-1

INSTALLING THE UVC

CAUTION: HANDLE UV BULBS AND QUARTZ CAREFULLY.
USE A DRY CLOTH WHEN HANDLING THE UV BULB.

SCAN QR CODE
for installation
video



Slide the UV mounting unit with quartz sleeves pre-fitted into the titanium shrouds.



Secure the UV mounting unit to the Nexus using the four screws (and black caps) supplied. Use the long screws for the top and smaller ones for the sides.



Unscrew the gland from the boss to pull the cable. If the washer or nut loosen, re-fit them.



Carefully unpack a UV bulb and connect it to the 4 pin connector. Use a dry cloth when holding the glass bulb.



Gently slide the bulb into the quartz sleeve, feed the wire through the gland until the bulb makes contact with the bottom of the sleeve.



Tighten the gland on each unit.



Secure the bulb boss using the screws provided. Repeat on the other side.



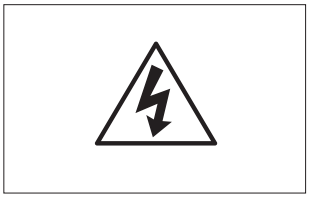
Refer to pages 26 and 27 for guidance on locating and positioning the UV ballast.



Cable management: There are 5 self adhesive mounting cable clips provided to fix the UVC cables to the Nexus for tidiness.



Space them out and fit them to the black plastic housing and down one side of the Nexus outlet. Push fit the clamp to secure the cables in position.



Follow instructions on page 29 to connect to the mains electrical supply.

CONNECTING UV TO ELECTRICAL SUPPLY

ELECTRICAL INSTALLATIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN

The power supply must meet the specifications on the product. The cores in the supply cable are coloured in accordance with the following code:

UK / EU: Brown = Live. Blue = Neutral. Earth = Green/Yellow

USA: Black = Live. White = Neutral. Green = Earth

The UVC on a EUROPEAN and USA model is fitted with a plug. Not applicable for UK models.

Do not use the cable to lift the UVC as this may cause damage.

WARNING - A Residual Current Device (RCD), also known as the Residual Current Circuit Breaker (RCCB), with a tripping current not exceeding 30mA must be installed in the supply circuit. A means of disconnection from the supply having a contact separation of at least 3mm in all poles must be incorporated in the wiring.

Caution: Use in the area of the garden pond only if the installation complies with the relevant wiring regulations. Please consult a qualified electrician.

Caution: Always disconnect all pond appliances from the mains supply before putting your hands into the water.

All electrical installations and wiring must be adequately protected to prevent any damage.

Enough electrical cable is supplied with the UVC to connect to the mains electrical supply. This unit must be connected to permanent wiring. A switch with 3mm contact separation must be provided in the fixed wiring to provide disconnection from the electricity supply.

WARNING - Never look directly at an illuminated UV bulb.



EUROPEAN / USA MODELS EPA Est. No. 100154-GBR-1

For EUROPEAN and USA models the UVC is fitted with a plug. Please follow electrical installation guidance applicable for your specific country before installing the UVC.

GROUNDING INSTRUCTIONS - This appliance must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This appliance is equipped with a cord having an appliance-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is installed and grounded in accordance with all local codes and ordinances.

WARNING - Improper connection of the appliance-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you are in doubt whether the appliance is properly grounded. Do not modify the plug provided with the appliance; if it will not fit the outlet, have a proper outlet installed by a qualified technician.

CLEANING THE UV QUARTZ SLEEVE



WARNING: NEVER LOOK DIRECTLY AT AN ILLUMINATED UV BULB

It is good practice to clean the UV quartz sleeve as and when required.

- Drain water out of the NexusTi.
- Turn off the power supply to the pump and the UVC.
- Unscrew the screws from the UVC collar/boss and carefully pull out the UV bulb unit. Do not touch the UV bulb. Store this safely.
- Unscrew the screws from the quartz sleeve collar/boss.
- Carefully ease out the quartz sleeve and slide it out of the filter. This may be tight.
- Clean with a damp cloth, and dry it. If damaged, purchase a replacement sleeve from an EA stockist.
- Re-fit the quartz sleeve.
- Screw the screws on the boss/collar.
- Re-fit the bulb unit.
- Screw the screws on the boss/collar.
- Re-fill the NexusTi with water.
- Turn the power supply to the UVC and pump back on.

REPLACING THE UV BULB



WARNING: NEVER LOOK DIRECTLY AT AN ILLUMINATED UV BULB

Replace the UV bulb when needed or once a year for optimum performance.

- Drain water out of the NexusTi.
- Turn off the power supply to the pump and the UVC.
- Unscrew the screws from the UVC collar/boss and carefully pull out the UV bulb unit. Do not touch the UV bulb. Store this safely.
- Hold the UV bulb with a dry cloth and carefully pull the plastic transit clip.
- Carefully pull out the UV bulb from the 4 pin socket.
- Replace the UV bulb with a new 48W T5 UV bulb, 4 pins, available from EA stockists.
- Slide the UV bulb back in.
- Screw the screws on the boss/collar.
- Re-fill the NexusTi with water.
- Turn the power supply to the UVC and pump back on.

HOW TO GET THE BEST FROM YOUR NEXUS320TI FILTER

Using conventional methods, maturing a biological filter can take some time. To speed up this process we recommend using Evolution Aqua's award winning **PURE**POND products.



PURE+FILTERSTART**Gel -** Live, concentrated bacteria culture for use in new pond filters. The gel based solution will stick to the filter media, allowing the nitrifying bacteria it contains to rapidly colonise your filter. Simply coat the K**+**Media and K1 Micro with the gel once the NexusTi has been installed.

Available in 1 litre for ponds up to 10,000 litres and 2.5 litre for ponds up to 25,000 litres.



PUREPOND **-** Live bacteria and enzymes delivered in gel-like balls to maintain crystal clear, healthy water by converting ammonia and nitrite and cleaning up organic waste. Simply add the balls into the biological chamber of the NexusTi for maximum effectiveness.

Available in 500ml for ponds up to 10,000 litres, 1 litre for ponds up to 20,000 litres and 2.5 litre for ponds up to 40,000 litres.



PUREPOND DUO PACK **-** Two products in one pack to boost water quality and to digest sludge in ponds. The pack contains one **PURE**POND**BOMB** and one **PURE**SLUDGE**BOMB** that can be simply dropped into biological chamber of the NexusTi or straight into the pond, as and when needed.

Use products on their own or together in ponds up to 20,000 litres.

TOP TIPS

For optimum biological performance:

- Maintain a pond pH of 7 or higher.
- Maintain a pond Nitrate reading of 50mg/l or less.
- Always dechlorinate your mains water. Use an Evolution Aqua Dechlorinator for removal of harmful chlorine when topping up with mains water.
- Feed your fish Evolution Aqua's own food range which has been designed to create less fish waste.

NEXUS AUTOMATIC CLEANING UPGRADE

You can also upgrade the NexusTi to benefit from a fully automated cleaning cycle. Physically turning ball valves and manually switching pumps on and off will now be a thing of the past thanks to the easy to install Nexus Automatic System. Scan the QR code to learn more.

TROUBLESHOOTING

K1 Micro is floating but K+Media is not, why is this?

The K+Media in normal conditions becomes semi-buoyant within 48 hours. However, the K1 Micro (only in the Eazy) takes longer to absorb water. This can take up to one week.

The K1 Micro in the Eazy doesn't move well during the cleaning cycle.

The reasons for this could be one of the following:

- The air pump is not powerful enough (see Air Pump Recommendation on page 4)
- There isn't enough water in the NexusTi – check that you used the cleaning pipe to maintain the level on a pump fed system.
- Check all air fittings and air line for leaks and blockages.
- Please ensure that there is no more than 20 litres of K1 Micro in the Eazy. If the media is not moving well enough you can take a few small handfuls out if needed.

I have an Ammonia and / or Nitrite reading.

A typical filter can take approximately 8 weeks to mature. During this time Ammonia and Nitrite levels will rise and fall. This process can be accelerated by using PUREPOND.
If you still experience Ammonia and Nitrite readings after this period of time, check the following:

- NexusTi is adequately sized for the pond.
- Check flow rate is correct - ensure the pond water is being turned over through the NexusTi every 2 to 3 hours without exceeding the maximum flow of the unit.
- Check chlorine levels of tap water and pond water - ensure a dechlorinator is used on mains water top ups.
- Ensure pond water pH is above 7. If it is above pH 7 keep it as stable as possible.
- Check feeding and stocking rates of pond.

I have an issue with green water.

Follow the maintenance steps on page 30 to be sure the UVC is working correctly.

I have excessive blanket weed growing in my pond and filter maintenance is slightly higher than normal.

Use a full course of Stop Blanketweed treatment to eliminate the weed and fine algae particles. Normal filter maintenance will be resumed.

My pond has been running for longer than 2 months and my water is cloudy.

- It is important that the Eazy is flushed a minimum of 2 times during cleaning. This ensures that all the debris collected is flushed out to waste. If the unit is only cleaned once some debris can be returned to the pond, clouding the water. Flush the unit 2 to 3 times as per the cleaning instructions and water clarity should be restored within 3 to 7 days.
- Check your pond food is of a good quality and it is not discolouring your water. If it is please use Evolution Aqua's range of pond food.
- Check that the UV-C is working and the bulb has not exceeded its 9000 hours lifespan. It is recommended to change a UV-C bulb at the start of each pond season.
- Check that you turned your circulating pump off and that you have used the cleaning pipe, so that the dirt in the K1 Micro hasn't returned to the pond.
- Check that you have the correct amount of K1 Micro in the Eazy.

WARRANTY CARD

EVOLUTION AQUA
INNOVATION IN WATER

nexus 320Ti

WARRANTY CARD

WARRANTY PROVISIONS

1. Your NexusTi Filter is covered by your warranty for 1 year from the date of purchase (2 years if the warranty card is correctly completed and returned) provided that:
   a. It is installed, operated and regularly maintained in accordance with the instruction manual.
   b. Any warranty repairs to the NexusTi must be undertaken by Evolution Aqua Ltd or its authorised representatives.

2. Though the warranty period may not have expired, payment for repairs must be made in the following cases:
   a. When the fault is due to misuse or unauthorised repairs have been attempted.
   b. When the fault is due to cold weather, fire, natural disaster, act of God etc.
   c. If the warranty has been lost, incorrectly completed or details fraudulently changed.

Evolution Aqua Ltd. accepts no responsibility or liability for any consequential loss caused by or arising from the use of any Evolution Aqua products. Therefore, any dispute arising from the provisions of the warranty will be dealt with under the laws of England and Wales subject to the exclusive jurisdiction of the English Courts.

**ACTIVATE YOUR 1 YEAR EXTRA FREE WARRANTY COVER,
COMPLETE THE FORM & POST IT TODAY,
OR GO TO www.evolutionaqua.com
AND COMPLETE ONLINE.**

NEXUSTI WARRANTIES - EVOLUTION AQUA - KELLET CLOSE - WIGAN - LANCASHIRE - WN5 0LP - TEL: 01942 216554

WARRANTY CARD

Or register online at www.evolutionaqua.com

EVOLUTION AQUA
INNOVATION IN WATER

Your Name:

Customer Address:

Postcode:

Country:

Tel:

Mobile:

Email

Purchased From:

Address:

Postcode:

Country:

Tel:

Web:

Date of Purchase: / /

Model:

Serial Number:

I have read and accept the terms and conditions listed in the warranty card, and understand the obligations of the Customer under this warranty.

Signature: Date: / /

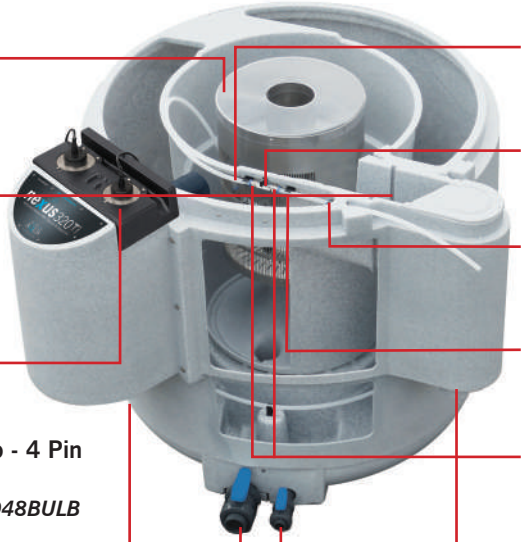
EMAIL NEWSLETTER

If you want to receive marketing information, please sign up to receive our newsletter online at our website.

NEXUSTI WARRANTIES - EVOLUTION AQUA - KELLET CLOSE - WIGAN - LANCASHIRE - WN5 0LP - TEL: 01942 216554

NEXUS320TI SPARE PARTS LIST

There are a number of spare parts for the Nexus320Ti that are readily available from Evolution Aqua dealers. See diagram below for relevant spare parts and product codes:



Eazy lid
EA Product Code:
EAZYLID

Inlet Slide Plate
EA Product Code:
INLETSLIDE-PLATE320



48W T5 UVC Lamp - 4 Pin (QTY x 2)
EA Product Code: ***EVO48BULB***

48W UVC Quartz Sleeve Glass (QTY x 2)
EA Product Code: ***EVO48QS***

96W Ballast Box (QTY x 1)
UK Version
EA Code: ***NEXUS320TISPBAL96UK***

EURO Version
EA Code: ***NEXUS320TISPBAL96EU***

USA Version
EA Code: ***NEXUS320TISPBAL96US***

OUTLET



Pump Fed Set-up:
NexusTi Outlet EazyConnector
EA Product Code: ***NPC125***



Gravity Fed Set-up:
NexusTi Outlet EazyConnector
EA Product Code: ***DACE122-48***

12mm air line / hose
EA Product Code:
1000-135

Air valve
EA Product Code:
1000-085

12mm t-piece
EA Product Code:
1000-030

12mm airline clips
EA Product Code:
K81-10-05

Air valve stud connectors
(2 per valve)
EA Product Code:
1000-080

INLET



Pump Fed Set-up:
NexusTi Inlet EazyConnector
EA Product Code:
DACE122-48



Gravity Fed Set-up:
NexusTi Inlet EazyConnector
EA Product Code:
NPC125

Outer chamber maintenance valve
(¾" Double Union)
EA Product Code:
K25-50-25

Waste valve
(1½" Double Union)
EA Product Code:
K25-50-50

ADDITIONAL ITEMS:



NexusTi Cleaning Pipe
(Eazy Isolation Pipe 90mm)
EA Product Code:
5000-329



K+Media
(50 Litre)
EA Product Code:
KPLUSMEDIA50L

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Evolution Aqua Ltd
Kellet Close
Wigan
Lancashire
United Kingdom
WN5 0LP

www.evolutionaqua.com