The
Water Garden Workshop
Company

Under-Gravel Spider Filter™ System.

INSTALLATION GUIDELINES

Crystal clear water, naturally...

We are very pleased that you have selected to use the revolutionary under-gravel Spider filter™ system in your pond...

By following the instructions in this leaflet, you will be very satisfied with the results from the Spider Filter. However, should any problems arise when installing the filter, please call our helpline and one of our experienced pond personnel will be able to assist in answering your query. **Helpline Tel: 01590 641433.**

The Spider Filter has been designed to fit most major pumps currently on the market. If you have one of the following pumps listed below, you will need to use **PumpLink (WS61)** to connect your pump to the Spider Filter. For fitting instructions for other makes and sizes of pumps please see page 5.

Pumps which fit to the Spider Filter via PumpLink (WS61)

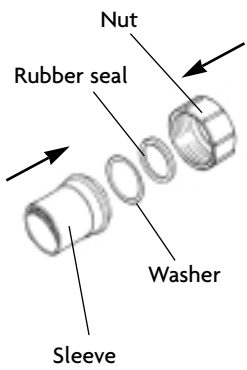
Lotus Performance	2000, 2500, 3000, 3500, 4000.
Blagdon Amphibious	2000, 2500, 3000, 3500, 4000.
Trident (New) Otter	3000, 4000, 5000, 7500, 9000.
Laguna Power Jet	2000, 3000, 5000, 7000.
Heissner (P)	3600, 4800, 6000, 8000.
Hozelock Cascade	1000, 1500, 2000, 3000, 4000, 6000.

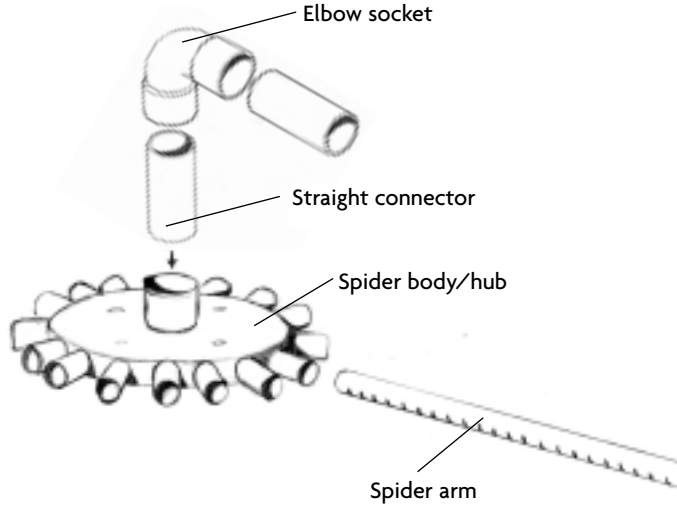
The table below recommends which pumps can be used with various pond sizes.

Pond volume Gallons	Recommended Turnover p/hour	Pump Suggestions
100 – 150	390 GLS	Blagdon Amphibious 2000, Lotus Performance 2000 Hozelock Cascade 2000
150 – 200	490 GLS	Blagdon Amphibious 2500, Lotus Performance 2500
200 – 350	590 GLS	Blagdon Amphibious 3000, Lotus Performance 3000 Laguna Power Jet 2000
350 – 400	690 GLS	Blagdon Amphibious 3500, Oase Nautilus 3000 Hozelock Cascade 3000, Heissner P3600 Laguna Power Jet 3000, Lotus Performance 3500
400 – 550	790 GLS	Blagdon Amphibious 4000, Trident Otter 3000 Lotus Performance 4000, Hozelock Cascade 4000 Oasis Mirage Power 800
550 – 700	1400 GLS	Laguna Power Jet 7000, Oase Nautilus 6000 Oasis Mirage Power 1300, Hozelock Cascade 6000 Heissner P6000
700 – 1000	1900 GLS	Blagdon Amphibious 8000/9000, Heissner 8000 Lotus Performance 8000/9000, Oase Nautilus 8000 Trident Otter 9000
1000 – 1500	2300 GLS	Oase Nautilus 12000
1500 – 2000	2600 GLS	Oase Nautilus 12000
2000 – 3000	3000 GLS	Oasis Mirage Power 2900
3000 – 4000	3800 GLS	Oasis Mirage Power 4000 Oase Atlantis 200

For larger volumes call our **Technical Advice Helpline** — **01590 641433** or ask your local stockist.

Fitting Instructions using PumpLink (WS61)





PumpLink (WS61)

Push the straight connector into the top of the centre hub, then fit elbow socket.

Locate the centre hub in a suitable position inside the pond that will ensure maximum arm coverage, then fit the arms to the centre hub by simply pushing them onto the hub making sure that all grooves are facing downwards and all arm end caps are firmly in place. The hub must be located flat on pond base.

In some cases you may need to reduce the length of the arms so that the spider will fit neatly into the pond. Simply cut arms using a junior hacksaw from the non-cap end.

Once your filter is fitted to the pond, fit the pump on to the system.

The pump can be located on top of the centre hub, or plumbed away to the edge of the pond. Simply fit a length of 1¼" black rigid/flexible anti-kink pipe between the elbow socket and PumpLink (WS61).

To fit the pump to the PumpLink (WS61) take the PumpLink and remove nut.

Push the nut over the pump inlet (this will become exposed once the pre-filter is removed).

Push the rubber seal down in-between the inside of the nut and the pump inlet extension, followed by the washer. dia (a)

The unit includes the following components:

1 x Centre hub

1 x Elbow socket 1 ¼"

2 x Straight pipe connectors 1 ¼"

1 x Short length pipe ¾"

2 x Short arm extension sleeves/ small pump accessory

1 x PumpLink (WS61)

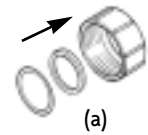
16 x Spider Filter arms

1 x Jubilee Clip *(If required)*

1 x 5" Length flexihose
(May be required for alternative pump connection)

1 x Grey reducer
(May be required for Smaller Pump Connection i.e. Oase 3000 or similar)

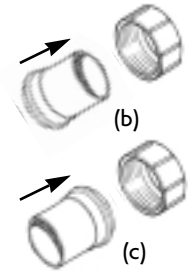
1 x Instruction leaflet



(a)

Using the non-threaded end of the remaining pump link sleeve component — push firmly down onto the washer to reveal the inside thread of the nut. dia (b)

Then reverse the sleeve component and screw into the nut tightly. dia (c)



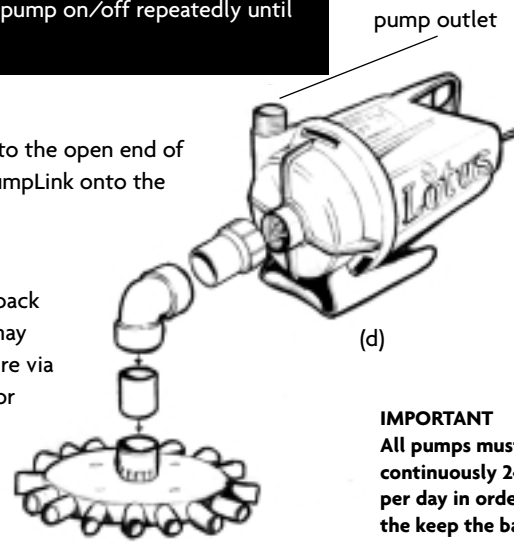
Note: Once the filter is installed with pump fitted and peagravel dressed you may turn on the pump once the water level has reached the top of the pump body.

If an airlock occurs, simply turn the pump on/off repeatedly until airlock clears.

Fit the second straight connector into the open end of elbow socket. Push the pump, via PumpLink onto the connector. dia (d)

Fitting Is now complete.

The facility for returning the water back into the pond is not affected. You may run your waterfall, fountain or feature via the pump outlet. See your stockist or dealer for advice.



(d)

IMPORTANT
All pumps must run continuously 24hrs per day in order to the keep the bacteria bed oxygen rich and efficiently feed the filter.

IMPORTANT

If you have decided to run a fountain only we strictly recommend that you open up the valve on the T-Piece to allow the excess water that would have run to a waterfall or feature to re-circulate below water level.

This ensures the pump is turning over the required volume of water per hour in order to feed the bacteria efficiently.

DO NOT allow any peagravel to enter the centre hub or pump as this will jam the pump and will need removing.


Trident (New)
Otter 3000–9000


Laguna Powerjet
2000–7000


Hozelock Cascade
1000–6000

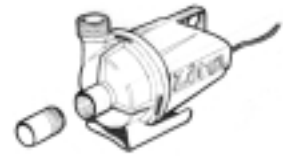

Blagdon/Amphibious 2000–4000
Lotus Performance 2000–40000

These pumps also fit to the spider via the PumpLink as described above.

Fitting Instructions

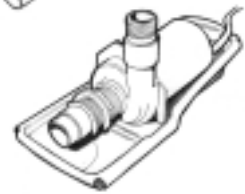
Follow the instructions below to fit larger pumps without the PumpLink component.

Blagdon Amphibious 8000/9000 and Lotus Performance 8000/9000
In both instances remove pre-filter and screw a 1¼" tank connector into the pump inlet, as both models have an internal thread on the inlet. Continue as per original fitting instruction without the use of the PumpLink.

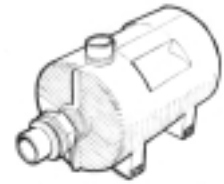


Oasis Mirage 670/820.
Remove pre-filter, push and screw small length of 1¼" straight pipe (supplied) on to pump inlet and then simply connect to centre hub via elbow socket.

Oasis Mirage Power 2900/4000
Remove side clips and pump housing.
From the pump inlet reduce down to 1¼" by screwing a 1½" tank connector with a 1½" –1¼" reducer inside. Then fit 1¼" straight pipe between pump outlet and elbow socket and then into centre hub. The above pumps are suitable for a multiple spider arrangement.

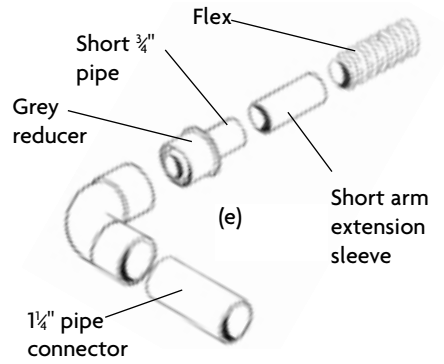


Oase Nautilus 3000, 4000, 6000, 8000, 12000.
All nautilus pumps require a conversion kit/dry pump housing. With very basic dry plumbing using tank connectors and reducers they will all fit cleanly onto the Spider Filter System. Fittings from housing to pump are included with system. See dia (e) below.



Oasis Atlantis 200.
Remove outer casing. Push 1½ straight connector pipe onto inlet. Then fit a 1½ – 1¼ reducer and then push in 1¼ straight pipe. You can then connect pump to your multiple spider filters.

Extra fittings and a reducer have been provided with the filter, which will assist you in the event that you wish to use another pump not listed.



Fitting a Spider Filter system to your existing pond

Equipment required.

Holding tank (paddling pool), catch net, tank cover net, flexihose, buckets, dust pan, tape measure, hacksaw, pressure cleaner (optional).

If you have fish, use your existing or new pump at mid water and pump at least 20% of your pond water into your holding vessel. Discard excess and silty water.

When the pond is nearly empty begin to remove fish. This will cause the fish less stress than chasing them around with a net in a full pond, and will enable you to transfer the fish into your holding vessel quickly and easily.

Remove plants and debris, you may find that a dustpan and bucket will be useful for this job. Scrub and pressure clean the pond, this will help you to set precedence for keeping a clean and healthy pond.

We would recommend that you oxygenate your temporary housed fish water with your existing pump until ready to return into the pond.

Stocking or re-stocking your pond

Before filling with water, add your aquatic plants and lilies etc.

With a new pond, top up via a hosepipe and allow the chlorine to neutralise for at least one week before you add fish. Start off by introducing small quantities ensuring that they are purchased from good stock. Once you are satisfied that your chosen supplier is selling good stock you may add to your collection.

Your filter or filters will give you clear healthy water. It is not advised to overstock your pond with fish. Approximately 30 averaged sized fish in a 300/400 gallon pond would be acceptable.

It is also important to remember that overfeeding your fish can cause problems with pollution and as with any creature will result in them becoming fat and unhealthy.

Returning existing fish to a newly filtered pond

Providing that you have been able to keep your fish temporarily housed in at least 20% of the original pond water, this may now be returned to your newly filtered pond. Whilst in the process of returning this water you may also return your fish when the level has reached a suitable depth, normally around 100mm or 4" will be enough.

Then continue to refill and top up with tap water.

The original water chemistry will assist greatly in absorbing the unnatural elements in your household water supply.

Summer fitting

When fitting a Spider Filter in mid-summer it is quite likely that an algae bloom may occur as your bacteria bed within the peagravel will not have matured quickly enough to deal with the bloom.

Algae is the first form of life that will appear naturally in your pond and develop by using the energy from the sunlight.

However, in nature there is always something ready to consume plant or vegetable matter, and in this case, that something is naturally encouraged bacteria. The pump draws the algae contaminated water down through the peagravel into the "legs" of the spider.

In the process, the algae is force-fed to the bacteria. Further, the bacteria will naturally develop in numbers to balance the "food" supply.

The filter's highly effective natural cleaning cycle is kept alive by the continual circulation of pond water from the pump.

The filters at this time of year may take several weeks to mature so a little patience will be required.

However in most cases your water will become crystal clear within a few days, and remain so.

Note — do not overstock the pond with fish, build up gradually over a period of months. Depending on fish stocking levels the average fish keeper will need to service the pond every 2½ — 3 years. Repeat the process for fish holding. (SEE FITTING A SPIDER TO EXISTING POND)

It is not necessary to remove the filter or peagravel for this (spring clean) exercise.

Simply remove pump and service as per manufacturer's specification.

Back flush the filter using a hosepipe via centre hub and elbow socket.

Rinse peagravel in situ and remove debris by pumping out and removing floating elements by net.

Return fish with water to the pond and top up.

The water will re-clear normally overnight.

Linking units

Spider Filters can be linked together via the centre hubs, by fitting a length of 1 ¼" ridged waste pipe between the elbow sockets that are mounted on each hub.

Then insert a T-piece from the connecting pipe and fit to pump via another small length of 1 ¼" pipe and pump link component.

If you would like to install multiple units for larger volumes of water, contact your local stockist or call our technical **Advice Helpline 01590 641433**.

External use of Spider Filters

Spider Filters also operate in reverse flow by installing the unit into a header pool.

Once the Spider Filter is fitted to the header, simply place your pump into the main pond and connect to filter centre hub via a length of flexible hose with a non-return valve from the pump outlet.

Cover the Spider Filter with at least 8/10" of peagravel.

When the pump is turned on the water is delivered to the header pool and is filtered in an upward method. The filtered water is returned to the main pond via overflow lip/waterfall.

Winter

We would recommend that your Spider Filter be left running whilst water temperatures remain above 40°F (4°C) during mild weather.

You may turn off your pump in extremely cold weather conditions i.e. below 40°F (4°C)

In the event of ice forming, a hole is best kept in the ice to allow toxic gases to escape from plant break down.

Important

Having tested the Spider Filter system for the past 11 years it is essential that you follow the Gallonage-pump size guide. *As shown on page 2.*

Although the rate at which we turn over the water does vary slightly from one size pond to another, we have taken into account the loss in pressure when connecting to a waterfall/feature and also the effect that photosynthesis has on small, average and large volumes of pond water.

Remember also why the Spider Filter is so effective. We require the pump to force-feed the bacteria bed with the algae contaminated water.

Peagravel volume guide

1kg of peagravel per 1 gallon of water.

With a basic fish stock a depth of (4" min) 10mm peagravel is required. Do not skimp on the peagravel depth.

If the pond is to be stocked with Koi 12" in length or more a depth of 6" of peagravel is required.

The peagravel depth in all cases represents a minimum requirement above the filter arms.