

Rainwater Harvesting Systems for Garden Watering

Rainwater is nature's gift and is always better for plants than tap water.

With no chlorine or salts and being naturally soft, it is especially kind to sensitive plants like orchids and bromeliads.

In some regions, where tap water is hard, it is particularly good for lime hating species like azaleas, rhododendrons and other ericaceous plants.

Rainwater is also perfect for ponds and aquatic plants, and anyone who keeps livestock will know that animals prefer rainwater to tapwater.

Stored rainwater is safe and clean providing it is filtered before it reaches the tank or water butt.

Wisy® stainless steel rainwater filters supply super clean water with minimum maintenance and maximum efficiency.

Our Garden RainSava® system uses our onepiece GRP tank with external Wisy® Vortex filter. Coupled with our unrivalled professional support, it is the perfect choice for installers and homeowners alike.

Saving water, protecting the environment and reducing surface water run-off have never been so important.

The Garden RainSava® system brings you all the benefits of harvesting rainwater, with the reliability you need to deliver clear, clean rainwater to your garden.



Rainwater Harvesting for Gardens



Special overflow trap with anti-backflow device

Fully automatic submersible pressure pump

Stainless steel calmed inlet diffuser

Wisy® stainless steel *Vortex* filter. 280 micron mesh

Typical example of a simple harvesting system for garden irrigation using a one-piece GRP tank with *Vortex* filter.



System Features

- WISY® filtration technology 280-micron mesh in AISI 1.4301 stainless steel
- Fully automatic pump operation
- RainSava tanks, from 1500L upwards
- Tank supplied with calmed inlet, trapped overflow and cable duct
- Overflow with anti-backflow protection
- Optional mains water back-up unit
- Simple to maintain
- Quick and easy to install

RainSava® Garden System

- simple installation, easy maintenance

RainSava® GRP tanks are UK manufactured to BS 4994 to our own specification. Available in any size from 1500 litres upwards, these tanks are versatile and easy to install. RainSava® tanks are designed specifically for use in rainwater harvesting systems, with in-built flow calmer, pump platform and overflow unit.

The British Standard for Rainwater Harvesting BS EN 16941-1 states that rainwater tanks should be protected against backflow from the storm drain. Our tanks are supplied pre-fitted with a unique anti-surcharge device which provides secure and effective protection.

The vertical shaft of the tank can be supplied to a predetermined length or can be trimmed on site to suit invert levels. Tanks are supplied complete with a pump platform directly below the shaft and a pedestrian-duty inspection cover.



RainSava® Rainwater Tank

- Robust & lightweight
- Manufactured in light but durable GRP
- All connections pre-fitted
- Wide range of sizes
- Bespoke models available





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Wisy WFF 100 Rainwater Filter

- Unique patented design
- Fits standard 110mm pipe
- 0.28mm filtration
- 1.4301 stainless steel
- 30t GVW rated housing
- High efficiency
- Manufactured by Wisy®

Beta Rainwater Pump

- Compact
- Quiet
- Efficient
- Automatic stop-start
- 2 models available
- With or without suction filter



Wisy WFF100 Rainwater Filter

The WFF100 Vortex filter has been carefully designed and engineered by rainwater experts WISY® AG in Germany. It is the only true vortex rainwater filter on the market.

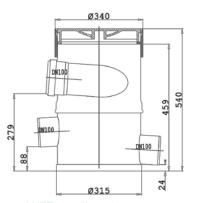
With 280-micron filtration, the filter offers superior performance over its' rivals and remains up to 90% efficient up to 2.7 litres per second - equivalent to 97mm of rain falling on 100m2 roof in one hour.

The unique design uses the adhesive nature of water to achieve such high efficiency at an unrivalled degree of filtration.

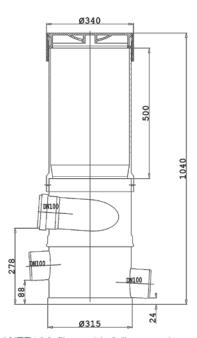


Rainwater passes through the fine mesh and drops in to the tank. Leaves, moss and other debris are wahed out through the waste outlet.

Watch the animation here: https://youtu.be/hvvfn08urnE

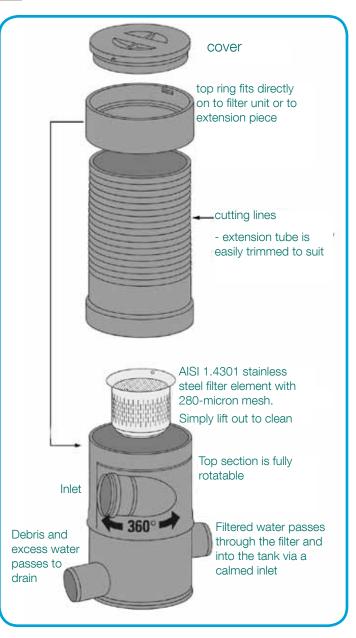


WFF100 filter dimensions



WFF100 filter with full extension





Beta Automatic Rainwater Pumps

Submersible pumps for pumping clean water for garden and landscaping applications.

 Multi-stage submersible pump with integrated electronics, designed to automatically start and stop the pump

 Built-in electronic board, pressure switch, flow sensor and non-return valve

Dry running protection

Corrosion resistant robust construction

15m cable

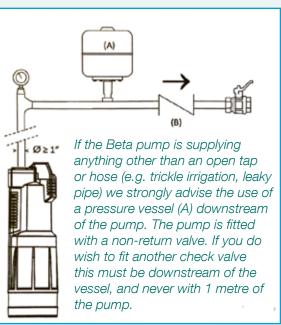
2 models are available; each in 3 different versions:

Beta 1000 with direct suction Beta 1000X with 1" nozzle

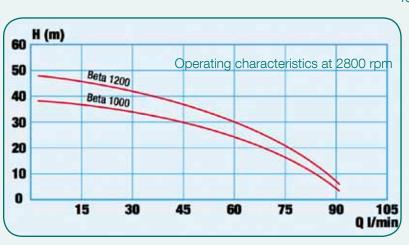
Beta 1000T with 1¹/₄" bsp thread

Beta 1200 with direct suction
Beta 1200X with 1" nozzle

Beta 1200T with $1^{1}/_{4}$ " bsp thread











Other Rainwater Harvesting Filters DOWNPIPE FILTERS



Our unique Wisy® rainwater filters supply super clean water with minimum maintenance and maximum efficiency.

Manufactured in Germany from high grade stainless steel, these filters have been in use for over 30 years and lead the world in rainwater filter technology.

With a working efficiency of well over 90% Wisy® filters are available for fitting below ground, wall mounting or fitting directly into a vertical downpipe. All rely purely upon gravity to work so are to be fitted at a level above the top of the vessel receiving the water.





The FS and GRS versions are generally used in conjunction with above ground tanks, and fit into the downpipe. The filtered water is then simply diverted to a tank or butt via the 50mm outlet. These filters are available to fit most common round section pipes.





The STFS is a modified version of the FS filter for use with underground tanks. This is fitted to the bottom of a downpipe with its' outlet below ground. This provides a more discreet installation whilst giving access to the filter element from ground level.



STFS filter installed with outlet below ground

All Wisy® filters come with a full 5-year guarantee.



Other Rainwater Harvesting Filters

150mm VORTEX FILTER



The WFF150 is a larger version of the WFF100 to fit 150mm nominal bore pipes, and is suitable for up to 500m² of roof surface.

Wisy® Vortex filters are primarily used below ground and are designed to fit horizontal rather than vertical pipes. Due to the larger format these filters have a greater capacity and are immensely strong, being capable of bearing the weight of vehicles up to 30t GVW. They can however, also be used above ground with the addition of a wall mounting bracket:

Known as WFF (Whirl Fine Filter), these are the true original Vortex filters, not to be confused with other inferior models that describe themselves as vortex units. What sets all Wisy® filters apart from other brands is their unique design and operating principle, which reaches peak performance in WFF filters.

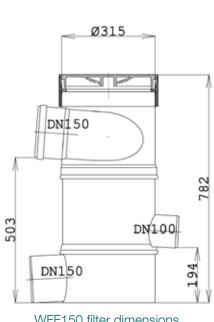


Stainless steel wall bracket for WFF100 and WFF150 filters

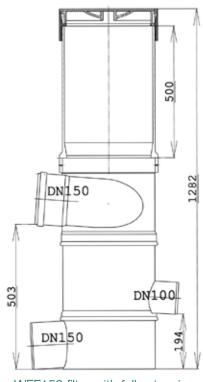
Adhesion is a natural quality of water, best explained by watching raindrops hitting a window pane; they don't just bounce off, rather they merge into a trickle that flows down the glass.

The stainless steel element in all Wisy® filters is constructed of two layers of stainless steel. The inner layer is a fine mesh whilst the outer layer is a smooth perforated steel. The two layers are pressed tightly together at the top of the element, then gradually part company by several millimetres.

Due to water's natural adhesive quality or 'stickiness' it clings to this smooth outer layer, which causes it to be pulled through the inner mesh layer. Any debris larger than the mesh size is therefore left behind, to be washed away by the flow of water. In this way the water is cleaned of leaves, dirt and other particles and simply flows away by gravity in to the storage tank.



WFF150 filter dimensions



WFF150 filter with full extension

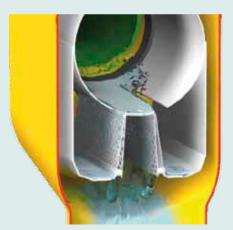


Other Rainwater Harvesting Filters

100mm LINEAR FILTER



The *LineAr* filter has been carefully designed and engineered by rainwater experts Wisy AG in Germany. The design offers superior performance over its' rivals and remains up to 90% efficient up to 1.4 litres per second - that's equivalent to 50mm of rain falling on 100m2 roof in one hour!.



Rainwater passes over the fine mesh and drops in to the tank. Leaves, moss and other debris are washed out through the overflow.

Watch the animation here: https://youtu.be/Q7rWYWx1dps



COMPARISON OF WISY FILTER TYPES

Filter Type	Grade	Maximum Flow Capacity*	For roof areas up to
GRS	0.44mm	4.2 litres per second	100 m ²
FS	0.28mm	4.2 litres per second	150 m ²
STFS	0.28mm	4.2 litres per second	200 m ²
LineAr 100K	0.44mm	4.2 litres per second	200 m ²
WFF 100/280	0.28 mm	4.2 litres per second	200 m ²
WFF 100/440	0.44 mm	4.2 litres per second	200 m ²
WFF 150/280	0.28 mm	12.8 litres per second	500 m ²
WFF 150/440	0.44 mm	12.8 litres per second	500 m ²

^{*} Where connecting pipes are 70% full and laid to 1:100 gradient

Mains Water Top-up Kit

Most garden rainwater systems are supplied as 'stand alone' units - i.e. when the rainwater supply is exhausted, the system simply switches itself off. However, sometimes it might be desirable to have an automatic back-up from the mains water supply. For this purpose we can supply and mains back-up kit consisting of a 'top-up' unit and precision float switch.

This special assembly is designed to provide an automatic mains water back-up supply to any vessel that is used to hold non-potable or 'unwholesome' water. The manual isolating valve incorporates a dirt strainer to prevent any debris from restricting the solenoid valve.

The unit consists of a length of flexible braided hose with a manual isolating valve at one end and a solenoid valve and tundish at the other. The purpose of the tundish is to provide an 'air gap' to comply with the current

UK Water Regulations.

The Regulations prohibit any direct connection between the mains water supply and untreated rainwater, and therefore the mains water connection must be protected against the risk of backflow. The air-gap which the tundish provides prevents this back-flow, and is essential in any rainwater harvesting system in the UK where mains water is incorporated.

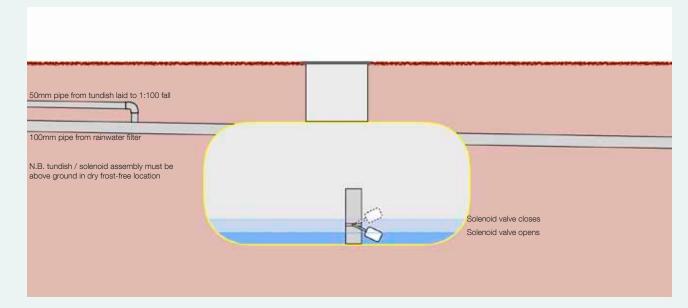


The tundish is designed to fit into standard 50mm pipe and it incorporates a laminar flow device to eliminate splashing. The IP65-rated solenoid valve is activated by a low-level float switch and thus provides mains water when the rainwater storage tank is low. The switch is fitted to a clamp that allows it to be fasted securely to the pump body.

The float switch has a limited hysteresis (difference between on and off levels) so only allows the water level to rise by approximately 9cm before the solenoid valve closes again.

This permits uninterrupted use of the system whilst leaving most of the tank empty to collect the next lot of rainfall.

IMPORTANT: note that in order to be exempt from hose-pipe bans, a mains water top-up unit is NOT permitted.







Our RainSava® system offers a great deal of choice and flexibility.

Tanks - We have a wide range of sizes for either above ground or below ground use, and ranging from a compact 150 litres to a whopping 30,000 litres.

Filters - we use high quality stainless steel filters from German experts Wisy AG to ensure only good clear water reaches the tank. Filtering down to 440 or 280 microns, Wisy filters are the most durable available and come with a full 5-year guarantee.

Pumps - if your system requires a pump, we have a choice of quality products, selected for performance and long life. We have both submersible and suction pumps, including automatic units with built-in control electronics.

and more - if desired your system can have a mains water top up unit so that the tank automatically receives some tap water when the tank runs dry. If you are using drip or trickle irrigation you would benefit from a *Pressurewave* pressure vessel. We also supply float switches, UV disinfection units, hoses & connectors etc.



UK Sole Agent and Main Distributor for



Rainharvesting Systems Ltd.
Calf Way

Bisley Gloucestershire GL6 7BX

01452 772000

sales@rainharvesting.co.uk www.rainharvesting.co.uk

Garden RainSava® - Simple. Flexible. Economic.

