



RAINHARVESTING · SYSTEMS

RAINHARVESTING SYSTEMS

water conservation for domestic use

- Fresh water is an increasingly scarce and expensive resource
- Modern living makes increasing demands on private water suppliers and costs are escalating
- Installing one of our rainwater harvesting systems could halve your metered water consumption and reduce your impact on the environment
- Water collected from a rainwater harvesting system is clean and suitable for toilet flushing, washing machines and garden watering
- Rainwater harvesting can make a significant contribution towards reducing stormwater runoff
- State of the art filters, pumps and controls and careful attention to design offer high reliability and minimum maintenance



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Rainharvesting Systems Ltd – leaders in rainwater harvesting technology.

Growing from our inception in 1995 as a department of The Green Shop, a long-established Gloucestershire business specialising in ecological products, we became a separate company in 2001. We have acquired a wealth of knowledge in the field of rainwater harvesting and remain one of the few companies in the UK with a prime focus on this technology.

Rainharvesting Systems has supplied many hundreds of systems throughout the country, ranging from small domestic to large commercial applications, including schools, offices, factories & agricultural facilities.

We are a founder member of the UK Rainwater Harvesting Association and the sole UK distributor for WISY AG - pioneers and developers of many rainwater utilisation products, and a leading player in the German market.

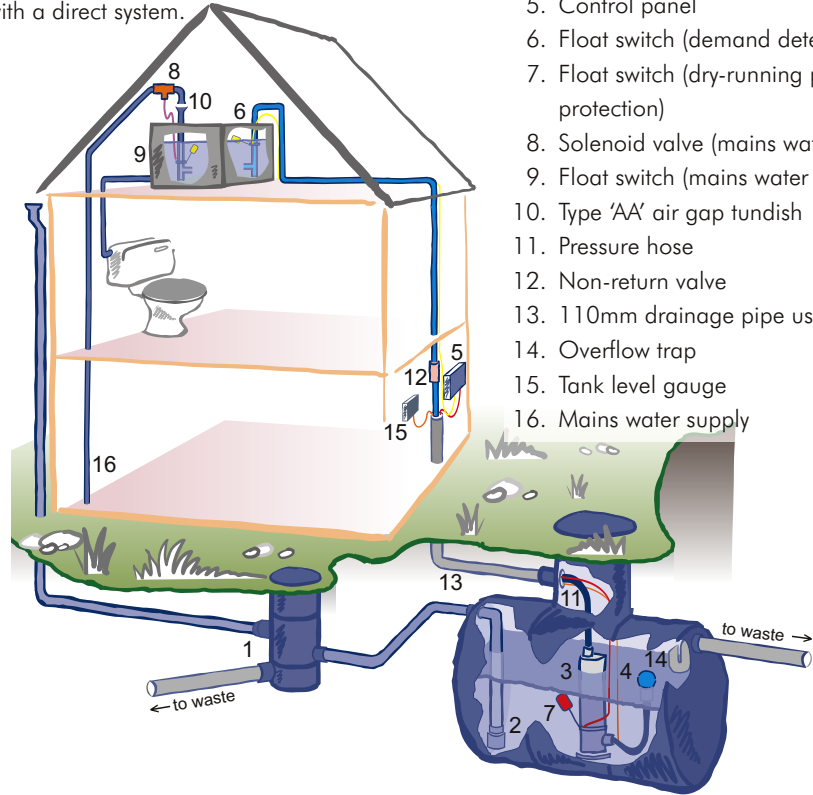
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● **Gravity system**

In some situations it may be beneficial to use a system that incorporates an internal header tank. This is useful where power supply is unreliable as the water is not delivered directly by the pump. The disadvantage is that the resulting pressure is lower than with a direct system.



1. Rainwater filter
2. Calmed inlet
3. Submersible pump
4. Floating suction filter
5. Control panel
6. Float switch (demand detection)
7. Float switch (dry-running pump protection)
8. Solenoid valve (mains water top-up)
9. Float switch (mains water top-up)
10. Type 'AA' air gap tundish
11. Pressure hose
12. Non-return valve
13. 110mm drainage pipe used as duct
14. Overflow trap
15. Tank level gauge
16. Mains water supply

● **WISY Filters**

Wisy filters are chosen for their superior performance and robust high-quality construction. Their unique design makes them reliable and highly efficient. The WFF vortex filters as used in all our domestic and commercial systems are the only ones on the market that can withstand vehicular traffic. For our garden system, the smaller downpipe filter is normally used.

Vortex filter

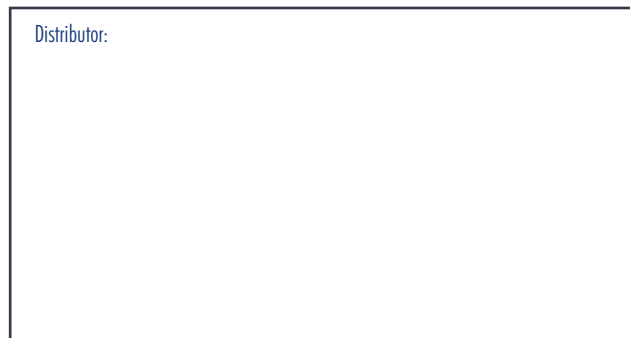


Downpipe filter



Images not to scale

Distributor:



Rainharvesting Systems is one of the founding members of the UK Rainwater Harvesting Association. The Association was formed to protect the reputation of the industry and its products, and to encourage responsible industry standards that protect both the consumer and the environment.



SOLE UK DISTRIBUTOR

SEVERNPRINT



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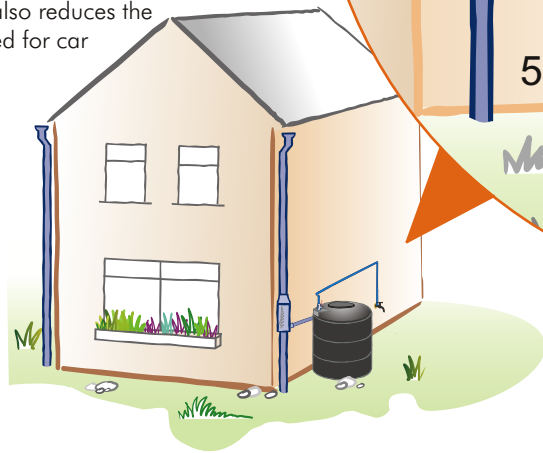
DESIGN: *graham bond* VISUAL COMMUNICATIONS studio@gvisual.com

● Garden irrigation system

A Garden Rainwater Harvesting System designed to provide a good quality, reliable, and cost-effective solution for those wishing to go a stage further than a conventional garden water butt. As there is no back-up connection from the mains supply, the system is not subject to hosepipe bans, and enables the user to store up to 1340 litres of water to get through prolonged dry periods. For extra capacity, additional tanks can be connected together.

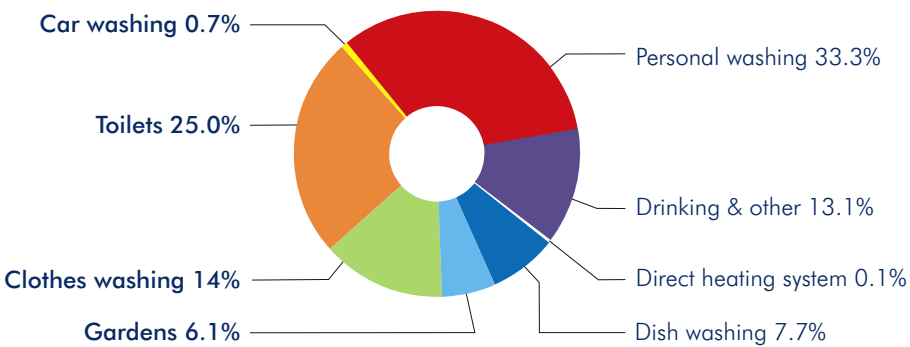
The harvested water is collected by a special filter unit which removes any debris present (leaves, moss, bird lime etc.) and diverts the cleaned water into one or more bulk storage tanks. The debris and a small amount of water continues to the drain in the usual manner.

Being naturally soft and relatively uncontaminated, rainwater is ideal for all plants (especially lime-haters), garden ponds and also reduces the detergent required when used for car washing.



1. Downpipe filter (also acts as tank overflow)
2. Submersible pump with integral flow controller and dry running protection
3. Suction filter
4. Junction box
5. Weatherproof mains socket outlet
6. Tank access cover
7. Isolating valve
8. Further tanks may be added to increase capacity

● Typical components of household demand



Source: Environment Agency

● Further information

- ▶ Technical data sheets are available for all of our products, either as hard copy or to download from our website.
- ▶ For larger non-domestic applications, please request a copy of our commercial brochure.

Collecting and using rainwater from a roof can reduce mains water consumption by up to 50%. It will also reduce the amount of water discharged into the drainage system. Our domestic **Direct Rainwater Harvesting system** is simple to install and suitable for most domestic situations. This provides a pressurised clean water supply directly to a WC, washing machine or garden tap.

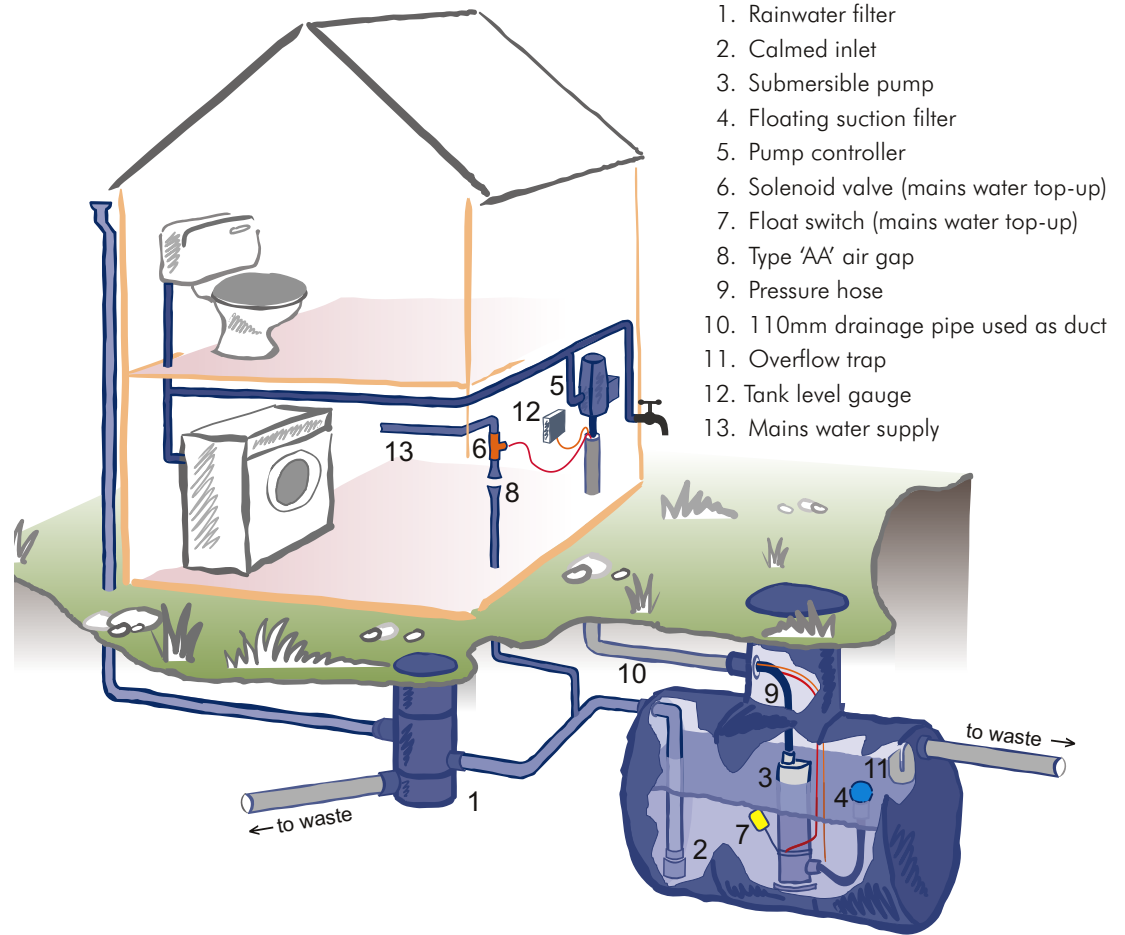
Widely used throughout Europe, it has proven to be one of the highest quality, most reliable and competitively priced systems on the market. Featuring the unique **Wisyr vortex filter**, the system provides clean, usable water reliably and efficiently. Numerous tank options are available giving the flexibility to suit almost any property.

Where preferred, we also supply a **'Gravity' System** which has the addition of an internal header tank. This is particularly useful where it is only intended to supply WCs.

If water is only required for outside use we also offer our **Garden System**, in both above or below ground versions. With no mains water connection, the system is exempt from hosepipe bans, a particular benefit in many parts of the country.

As well as individual homes we can supply a **'Communal' System** suitable for social housing schemes.

● Direct system



1. Rainwater filter
2. Calmed inlet
3. Submersible pump
4. Floating suction filter
5. Pump controller
6. Solenoid valve (mains water top-up)
7. Float switch (mains water top-up)
8. Type 'AA' air gap
9. Pressure hose
10. 110mm drainage pipe used as duct
11. Overflow trap
12. Tank level gauge
13. Mains water supply

● The quality of harvested rainwater

Our systems are designed to provide clean rainwater with the minimum of maintenance. They involve a multi-stage cleaning process. Rainwater is very soft, an excellent quality for washing machines, and being chlorine-free it is ideal for watering the garden.

- Rainwater is first cleaned by the filter unit which excludes leaf debris and other large particles.
- Further cleaning takes place by settlement in the tank. The heavy particles sink to the bottom and the lighter organic material float to the surface. The heavy particles settle to form a beneficial biological layer at the bottom of the tank.
- The overflow is designed specifically to remove any floating particles when the tank overflows.
- Water is extracted from the cleanest part of the tank via a floating suction filter.
- The special tank inlet is designed to aerate the incoming water and to allow it to enter the tank with minimum disturbance.

The quality of rainwater collected using this process is greatly improved and can be stored for long periods without becoming stale.

● The scope of rainwater use

It is important to be aware of the limitations of rainwater use. In its raw state it is not suitable for drinking or bathing and is not recommended for use in hot water systems.

Most properties in the UK will not yield sufficient water to meet all household needs, hence it is customary to limit rainwater use to toilet flushing, laundry, garden watering and car washing.

In exceptional circumstances it may be worthwhile including UV treatment to provide potable water, but this significantly increases costs.

● Maintenance

The most important part of the rainwater system is the filter unit. By removing debris from the water before it enters the tank, organic matter is kept to a minimum. This ensures stored water will keep for long periods without deteriorating in quality.

The filter is the only part of the system which requires regular maintenance. This involves the removal and cleaning of the stainless steel element every two - three months. Having the filter separate from the tank enables safe easy access and simplifies cleaning.