



Rainwater
Harvesting
Maintenance:
allowing you
to take a
Rain Check[®]

save water,
save money,
save the
environment



The importance of maintaining your Rainwater Harvesting System

It is important to service and maintain your rain water harvesting system on a regular basis. This is to ensure that the water recycling system is operating effectively and efficiently to prolong the lifespan of the rainsystem components. Failure to maintain the rain water system will lead to a loss of system efficiency. Once the filters are completely blocked, instead of using FREE rain water the system will divert to mainswater - and so you will be paying more in water bills when you could be reusing rainwater for free.

An effective regime of cleaning the rainwater

filters, servicing the rainwater pumps within the rainwater tank alongside calibration of the rainwater management equipment are crucial to ensuring clean, clear and odourless rainwater flows through your harvesting system.

The good news is that Rain Maintain® are the experts at rainwater recycling maintenance and we can help you optimise your water savings and water efficiency targets.

Remember: whilst you take a Rain Check® – we'll do the hard work for you!

About Rain Maintain®

We are the UK's leading specialist for the service and maintenance of all types of Rainwater Harvesting systems.

We work with organisations across the UK. Our team of fully qualified service engineers will ensure that your system is properly maintained, giving you maximum peace of mind, to help you save water, save money and save the environment.

With unparalleled experience in maintaining and servicing rain water harvesting systems and a national network of technicians, we have the expertise you need to keep your filtered rain water flowing from the tanks direct to your points of use.

We service rainwater harvesting systems for a wide range of clients both large and small : HM Prison Service, The Ministry of Defence and other government departments, major supermarket

chains such as; Sainsburys, Tesco, Asda, Morrisons, Marks & Spencer, B&Q along with local authorities, universities, schools and private companies across the UK.

We are members of the UKRHA and our enviable reputation is based on our quality, reliability, honesty and value for money.

No matter which rain harvesting system you have, we can keep the system in optimum condition or bring it back to life. We can even help you out if you are not sure which rainwater goods you have on your site – with our rain system 'Health Checks'.

So whilst you enjoy reduced water bills we help you to continue to save FREE water from the roof area of your building. Whether you need assistance immediately, or just want to be safe in the knowledge that if something goes wrong, we're here to help.

Let us do the work whilst you take a Rain Check®!



Parts & Spares



Rainwater Harvesting Maintenance: Its what we do!

Rain harvesting systems can be complicated, technical and often not easy to maintain unless you know what you're looking for.

Our engineers are trained on all types of systems and carefully examine all areas of the system which can impact on its efficient performance.

Our engineers will monitor your system closely during the first 12 months of your contract and advise on any additional maintenance that may need to be carried out between visits. This will depend on your local environmental conditions, water demand and the amount of debris that is passed through the system.

We service and maintain a wide range of equipment from all the major UK suppliers – it really is what we do best and we take rainwater recovery and stormwater management very seriously!

Remember to take a Rain Check® and appoint Rain Maintain® to maintain your rain harvesting system.



Rainwater Storage Tank

Rainwater tanks are usually manufactured from materials such as GRP, concrete or polyethylene.

The rain tanks are usually maintenance free, However during the installation it is common for dirt and debris to enter the tank either via the manway access or via newly installed pipe work unless the installer is careful. It is important that such debris is removed otherwise this can be problematic when operating the rain water pumps and can easily blind the rain water filters – resulting in a reduced life or failure of the rain water pumps or even the management system. Rain Maintain® offer a service to clean out the tanks and jet clean the inside of the raintank including removal of any debris from the base of the rain water tank - so that it looks as good as new!

Storage tanks contain mechanical and electrical equipment along with filters which also require regular inspection and cleaning and this is all carried out as part of our contract with you.



Rainwater Pumps and Filters

Regular checking and cleaning of the pre-tank rainwater filter or any integral rain-filters within the storage tank is essential. Our engineers will ensure that all filters are carefully removed and thoroughly cleaned to enable them to operate effectively.

Lifting the pumps and filters out can be complicated and heavy, demanding work, not to mention re-priming the pumps and re-setting specialist rainwater level sensors. Our engineers are trained and will arrive with equipment to carry out the job safely and efficiently, whether lifting heavy pumps, pressure washing filters or even complete professional tank cleaning service.

Note: Do not enter the storage-tank or rainfilter chamber without the required confined space certification and equipment. Should the rainwater vessel require a full jet-clean we will quote separately for this. The tank cleaning will be carried out during a separate visit to the main service visit due to the specialist equipment required and the time taken to carry out full works along with refitting rainwater tank management equipment.



Rainwater Header Tank

Header-tanks are installed in many building types and our engineer will check the tank integrity along with associated equipment such as: level sensors, mainswater top-up, solenoid valve – ensuring there is no limescale build up that could prevent the valves operating as well as checking for any indication of operational problems. We will also check there is a safe Category 5 Airgap to comply with the Water Supply (Fittings) Regulations 1999 which protects against possible cross contamination of your mains-water supply.

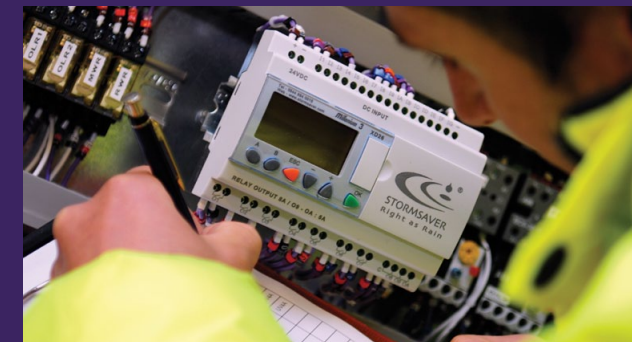
Rainmaintain® do not clean out the header tanks on our standard packages, but this can be arranged should there be an unusual level of fine sediment on the base of the tank or in certain environments the tanks may be subject to temperatures in excess of 25° which may give concerns about legionella. Should you require your tanks to be professionally cleaned, Rainmaintain® offer a specialist tank cleaning service.



Rainwater Disinfection – UV

UV Disinfection is a non chemical form of sterilisation and although not used to disinfect rainwater in all installations it is generally used in buildings where the occupants may have a low level of immunity and therefore susceptible to bacteria or virus' that may be contained in rainwater. Groups that may be at risk may be the young or elderly. Generally disinfection is found in schools, healthcare centers, care homes, hospitals, HM Prisons, supermarkets or other public buildings using filtered rainwater.

Our trained engineers will remove and replace the UV disinfection tube (annually), clean the unit internally and re-fit along with re-connecting to a BMS system where fitted. If a UV steriliser unit is not fitted, but the client would like to include a UV System our engineers will be able to advise on a suitably sized unit, we can then provide a quotation to return to site at a later date to fit the disinfection unit.



Rainwater Management Control System

The rain water control system will be thoroughly checked; ensuring the rainpump is switching correctly, water meters are recording accurately, pressure vessels and timers are working efficiently and backwashing rainwater filters are set correctly. We will also ensure your tank level indicator is calibrated, low level rain sensors are activating correctly to protect the pump against running dry as well as operate the automated mainswater top-up. We will also check the signaling from any Building Management Systems (BMS system).

Rainwater Quality

In a correctly installed system where the rain water system is maintained the water should be clean, clear and odourless. Our engineer will check the filtered-rainwater during the visit. If there is an issue this may indicate a problem with the system or installation. The engineer will aim to establish the cause of problem and highlight this in a full technical report. Sometimes this can be as simple as cleaning filters!

Something gone wrong? Don't panic - call Rain Maintain®



The pump is running continuously?

There are a number of possible causes for this. We will check that all pipework is secure and there are no leaks, even the pump pipework in the tank will be checked. There could perhaps be a problem with the header tank inlet valve, control sensors or the pressure switch? We would suggest a 'Health Check' advisory visit to investigate the fault and recommend a possible solution to avoid wasting water or even a pump failure.

I am not sure if the system is operating correctly?

We recommend a 'Health Check' advisory visit. Our expert engineers will inspect your system. If they find that your system is not operating correctly or not at all, we can offer you an upgrade or replacement of any parts which have failed. Alternatively it may be something very simple and a case of carrying out regular maintenance and re-set the system for operation.

Do you use any chemicals when maintaining the system?

Generally, no chemicals are used during the maintenance of the system. We just need access to water and will bring our own equipment and expertise.

The rainwater is discoloured?

Filtered rainwater is normally clean and clear. Rainwater discoloration may follow a recent rainstorm that has caused disturbance to fine sediment on the base of the tank - in many cases this will settle, but should the problem persist it could indicate that the filters may be dirty or blocked or not fitted correctly. Is rainwater collected from a green roof or sedum roof? There may be excessive levels of sediment or debris in the tank - this can sometimes happen if the tank was not properly cleaned after installation and contains builders debris and rubble. If this is the case comprehensive tank cleaning is required along with inlets and filters. At the same time rainwater guttering and rainwater downpipes should be cleaned to ensure a fresh rainwater supply can be stored.

There is an odour in the water tank?

Filtered rainwater should be odourless. Odour in the tank may indicate that the filters are blocked. Clean filters allow a fresh supply of oxygenated rainwater into the tank, all part of a healthy balance in the tank. A healthy rainwater tank will enable natural bacteria to break down the solids and allow excess water to flow into the rainwater soakaway or stormdrain. The source may come from downstream drainage, or can indicate that surface water has entered the rainwater tank by poor installation? We would recommend a 'Health Check' to investigate further and recommend possible solutions. If appropriate we can arrange to jet-clean and sterilize the rain-tank so that it receives a clean bill of health!

There is a warning light on the rainwater control panel?

Warnings are normally easily explained. They can highlight a build-up of debris on the filters, rainwater leak detection, pump overload, or simply that there is no rainwater in the



main storage cistern? In the first instance we would suggest an advisory 'Health Check' visit to confirm the cause of the alarm. Possible solutions may include a full service, additional parts or simply a report highlighting any recommendations.

The tank level gauge is not showing accurate level measurement of rainwater inside the tank?

In most cases it is likely that the level sensor may not be set correctly or that it requires a clean or recalibration, this would all be covered by a Rainmaintain® service visit.

The rainwater storage tank is empty, even after rainfall?

Generally this highlights that the filter upstream of the tank is completely blocked. Over time the pre-tank filter blocks with fine debris or bio-film. At this stage it is critical to clean the filters to maintain healthy water in the tank and to ensure you make the most of your FREE rainwater supply. Time to call Rainmaintain® for a service. RainMaintain® can offer a 'Health Check' service visit prior to you taking out a contract with us. Should you require any further information or assistance, please contact our technical department on 0844 8840015.

Rainwater System Maintenance

If you want to continue to save money from your rainwater harvesting system then you will need to maintain your system. All rainwater systems require maintenance to keep them running efficiently and effectively.

We know that every building is different and we can tailor a rainwater maintenance package either to suit your requirements or we can offer a standard package where we can service the system annually or on a six monthly basis. So, to ensure you continue to reap the benefits of saving rainwater, saving money whilst helping to protect the environment, be sure to have a specialist service and maintain your rainwater harvesting system today.

As part of our range of care packages, we can offer:

- Site visits to suit your system
- Clean and check pre-tank filter
- Clean and check floating suction filter
- Check float switches and test pumps
- Check service chamber
- Check and test control panel
- Backwash fine filters (where fitted)
- Check header tank (where fitted)
- Replacement parts (with exclusions)
- Technical Helpline 8.30am – 5pm
- Above or below ground tank jet clean at end of contract period
- Contact us for more details



Water Quality Testing

Rainwater harvested by the filtration system is not designated for drinking applications, however we would normally expect rainwater to be clean, clear and odourless. It should be emphasized that there is a difference between “good water quality” for non-potable use and “safe drinking water”.

The harvested rainwater can be used for toilet, urinal, vehicle washing or other industrial application such as tray washing, laundry or irrigation purposes.

Rainmaintain® can arrange water sampling to be carried out for a variety of tests*:

- Selected chemical content: Hardness (calcium + magnesium), Metals (iron etc), nutrients (nitrogen and phosphorus), chloride, sodium, organic compounds, etc.
- Physical Content: Turbidity, colour, odour, etc.
- Biological Content: Fecal coliform, total coliform, viruses, etc

* Note: These tests can be carried out as an extra option to the standard service package.

RainMaintain also offers the opportunity to upgrade the care package to include:

- Replacement parts
- 24 hour technical helpline
- Option to upgrade control panel at reduced cost
- Legionella testing and control
- Water Quality tests
- Underground tank jet clean outs
- Full system upgrade

Legionella Risk Assessments

Although it is impossible to guarantee that pathogenic microorganisms such as Legionella will not exist in a rainwater system, through proactive management and effective control programmes it is possible to dramatically reduce the factors that allow those responsible bacteria to proliferate and spread.

Rainmaintain can arrange:

- Sterilisation and cleaning services.
- Cleaning, chlorination and disinfection programs for water systems and supplies.
- Disinfections for uninterrupted water supplies.
- System monitoring, including microbiological and chemical sampling and analysis.
- System renovations, upgrades and refurbishments.
- Planned, preventive maintenance programmes



Taking care of
your rainwater
harvesting
system.
Rain Maintain®



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