



RAINHARVESTING SYSTEMS

OPERATION AND MAINTENANCE

RainSava GRP underground Storage Tank

RainSava tanks are of one-piece GRP construction with a resin coated internal surface, manufactured in the UK to BS EN 4994.

The tanks should only ever be used for collecting and storing clean, filtered rainwater with pre-tank filtration of <1mm. This will effectively prevent the rapid build-up of sediments.



Annual inspection

The tank should be visually inspected on an annual basis;-

- confirm that there is no significant accumulation of sediments (n.b. if so, this indicates a problem with the pre-tank filter).
- if the tank contains submersible pump(s) check that they are vertical and that delivery hoses are not twisted / kinked
- check that the pump suction filter(s) are clean; in the case of floating suction filters check that the ball float is present and free to rise and fall unimpeded
- check the access shaft for any visual cracks / deformities and for any ingress from surrounding soils / bedding material
- check that the tank access cover is secure and in good order

Every 10 years

(or sooner if required)

Depending on the size and the depth of the tank, it may be necessary to enter the tank via the access shaft in order to carry out the cleaning process. Where an operative is required to enter the tank, this must be done in compliance with The Confined Spaces Regulations 1997.

Refer to the HSE publication: *Safe work in confined spaces - 'Approved Code of Practice, Regulations and Guidance'*

Under normal conditions the tank itself should not require any maintenance other than internal cleaning at 10-year intervals. This is done by first emptying the tank (ideally this should be done after a long dry spell when there is little water in the tank anyway). If the system is of the direct type (i.e. tank receives a backup feed from the mains water supply), commence by turning off the electrical supply to the mains water top-up unit.

- If a garden tap is supplied by the rainwater system, the pump can be used to empty the tank as much as possible.
- Switch off power to the pump controller.
- Lower a sump pump into the tank taking care not to interfere with the rainwater pump, suction filter etc. Get the pump to sit on the bottom of the tank alongside the pump platform.
- Switch on the power to the sump pump and empty the tank of water.
- When water level is almost at the bottom of the tank, use a hose fed from mains supply (or better still a pressure washer) to wash down the inside of the tank in order to dislodge any sediment.
- Pay particular attention to the bottom of the tank, and also wash the rainwater pump and other fittings if required. Repeat this process until the water in the tank appears to be clear.
- Remove the sump pump and check that the rainwater pump is correctly in place and that the suction filter and float switch are free to move.
- If relevant, turn power supply on again to the top-up unit. The tank should now begin to fill with mains water and should continue to do so until the float switch rises (about 30cm depth)
- If the harvesting system is of the indirect type, then it will not begin to refill until the next rainfall event.
- The system is now ready for use again.

The above process should be carried out in addition to the regular annual check.