



Rainwater Harvesting Specification – 6500 litre system



6500 litre complete rainwater harvesting system with Rain Director rainwater management.

The kit comprises:

- **6500 litre underground tank**
- **Pump, Filter and connections**
- **Header Tank for roof space**
- **Rain Director rainwater management system to deliver rainwater where you need it.**

The revolutionary Rain Director is an intelligent domestic rainwater storage and distribution system. There are two components - a **Smart loft header tank** and a **12v Valve Control Panel** to direct the water flow.

The **Smart Header Tank** is controlled by electronic level sensors, valves and control panel. The advantages over normal rainwater pumping systems are:

- Variable rainwater level in the smart header tank (all water is used before it is refilled) eliminates pump cycling and reduces power consumption.
- The header tank only refills once it is completely empty (while normal rainwater systems make the pump start every time any amount of water is used) so wear on the pump and electricity usage are both reduced.
- The tank provides a constant flow of rainwater under gravity at any time, including during power cuts and of course is built with fail-safe controls.

The control panel controls the water delivery - whether rainwater or mains water. The Rain Director's control panel provides a simple set of buttons to set the operation. For example, the Rain Director's auto-flush function detects when the occupant is away from home (for example, for holidays) and empties header tank to avoid rainwater there becoming discoloured (dark coloured water and stained toilet bowl), to be avoided

In summary the combination of controlling the water flow to and from a header tank and the ability to flush through the header tank with mains water using the 12v valve control panel brings a number of unique benefits:-

- Saves energy and prolongs pump life
- Avoids water discolouration in header tank
- Assures water supply during a power cut
- Low voltage controls and no internal pump noise

The Rain Director solves many of the problems faced by consumers wishing to use rainwater around the home. Here are some examples:

Problem 1: Typical rainwater systems have a pressure sensitive pump in or near the rainwater tank which maintains pressure on the pipe run to toilets, washing machines and any non-drinking-water tap. As pressure in the pipe run drops, the pump will start up again even when there has been no demand on the water supply. This creates a situation where the pump will cycle all day, i.e. turns itself on and off periodically, day and night. The moment of the pump starting draws a peak surge in power, which is repeated many times an hour. This effort also accelerates the wear on the pump bearings, seals and motor.

The Rain Director solution: The low level sensor will start the pump only when all the water in the header tank has been used. No cycling. A 114 litre header tank will last for more than 10 full toilet flushes, or two clothes washing machine cycles. In a typical home the pump would only cycle about once a day. Less electricity is used and there is much less wear on the pump.

Problem 2: Rainwater in a header tank inside the house gets discoloured after time (rainwater stored under ground is maintained at a temperature hardly ever above 5 degrees C, so it does not get brackish).

Rain Director solution: Rain Director's auto-empty function detects when the occupant is away from home (for example, on holiday) and empties the header tank every three days. Unused water is returned to the underground rain water storage tank. When occupant returns home and starts using water, the system reverts to rain mode automatically.

External HDPE Rainwater Pipe included. It is important to identify a source of a water supply. Untreated rainwater is not for human consumption and so water companies are recommending (and in some cases requiring) that **Black and Green HDPE pipe** is used for piping rainwater from the tank to the point of use - eg the garden tap. The point of use should be clearly labelled to show that rain water is the source. We include 25mm black and green HDPE pipe and labels with this kit with the option to buy further rolls of pipe.

Components list for 6500 litre system:

- Underground tank, 6500 litres
- Dome (turret)
- Lid, telescopic, made of PE (green)
- Calmed inlet (into base of tank)
- 1" Strainer
- Overflow siphon (high water level outlet, fits filter)
- 6500 accessory pack including tank sealing kit
- Tank dome sealing kit
- Pro Filter
- Submersible pump and inline filter



- Rainwater pipe HDPE 25mm diameter 25 metre coil
- Rain Director
- Haulage, UK mainland included (Highlands & Islands on request)

Dimensions:

Tank	6500 Litres
Product Code	370004
Weight	220 kg
Length	2390mm
Width	2190mm
Height	2100mm
Total Height	2710mm
Half Height ie before assembly (for access)	1050mm