

# Rainwater Harvesting System

(How it Works)

The Rainwater Harvesting System is designed to be installed underground. It is designed to harvest clean rainwater for use in the home and the garden (e.g. supplying washing machines, toilets and garden taps)

This system will lead to more efficient washing - saving up to 50% on detergents. Soft rainwater prolongs the life of washing machines. No lime scale/ salt build up in toilets and urinals. There is no better water for plant irrigation. Soft water in toilets allows better treatment of effluent in McGrath's Aquamax Wastewater Treatment System.

**Step 1**  
The system initially treats the rainwater from the roof with a high specification vortex filter. This Filter removes all significant solids suspended in the rainwater before it enters the underground storage tank.

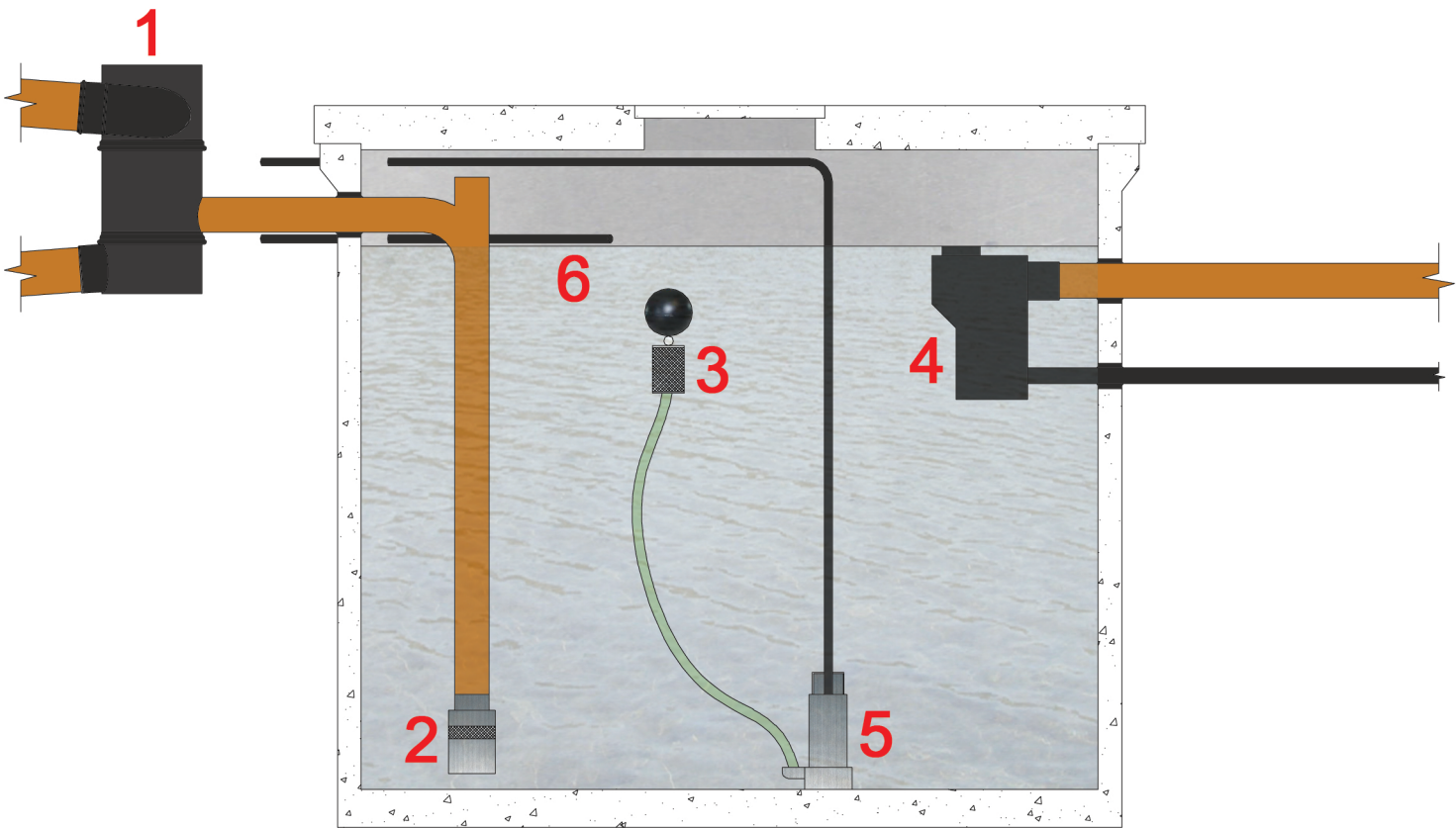
**Step 2**  
On entering the tank the filtered rainwater is passed through a stainless steel diffuser located at the bottom of the inlet pipe. This calms the ingress of rainwater into the tank, avoiding disturbing fine silt that may have built up on the bottom of the tank.

**Step 3**  
Suspended from a ball float, a fine mesh filter is connected by a flexible hose to a stainless steel booster pump. This arrangement means means water is taken from just below the water surface, ensuring only the cleanest water in the tank is pumped into the house.

**Step 4**  
Any floating particles on the surface of the water, (e.g. flower pollen or bugs) are skimmed off through a unique overflow siphon. This overflow siphon ensures only the best quality water remains in the storage tank minimising the potential for "souring" of the water.

**Step 5**  
The stainless steel submersible pump situated at the bottom of the tank is used to pump water directly to allocated household services or pump water to the header tank in the attic {\*via an optional expansion vessel}. The pump will be wired to the customers distribution board (fuseboard) via a pressure switch (by a qualified electrician), this will regulate the pump and provide an "on / off switch". The flow rate varies from 20 to 80 litres per minute, depending on demand.

**Step 6**  
The simple automatic mains water top up valve allows mains water to top up the tank when the water level drops to a minimum level. The valve will continue to top up the tank until rainwater refills the tank.



Tank Type	Rainwater Harvesting System
	(How it Works)

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