Rainwater harvesting system installation; outdoors

QUICK START

Systems with leaf filter in the turret of the underground tank and submersible pressure-sensitive pump, product ID numbers ending GUK1, DUK2, DUK3, DUK4 or DUK5

1. **Read in advance and follow the installation instructions provided with the system: your guarantee is affected if you do not install correctly.**

2. **Tank:** If the water table is within a metre of the surface of the ground you must concrete it in. Otherwise backfill the tank to the shoulder with pea shingle (top soil round the turret).

3. **Dirt in tank:** Do not install or start the pump before all grit (building rubble) and plastic swarf removed from the bottom of the tank with a separate dirty pump.

4. **Pump input:** Screw the cartridge filter onto the input end of the pump with its arrow pointing towards the pump. Screw the pipe of the floating intake to the filter. Do not use PTFE tape on the input side of the pump because shreds can get into the pump and invalidate warranty.

5. **Pump priming:** It is essential that the pump is primed by removing the half inch black cap and pouring 5 litres of water into the pump through a funnel; otherwise the pump can burn itself out even if submerged.

6. **Pump connections:** Output pipe (usually 1inch MDPE or HDPE) runs out of the top of the pump (Enviro type) and must be cut to length to run straight upwards to a right angle connector (Unidelta compression fitting 70-56-22 or similar) from which the pipe runs in to the house through the 4 inch service pipe. This right angle connector must be within 30cms of the surface of the ground (even if extension sleeves are fitted) so that it can be undone in the future for removal of the pump.

7. The pump must sit securely on the floor of the tank in an upright position, with its nylon cord attached to the wall of the turret. Outlet pipe must be sealed with PTFE tape and tightened securely.
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8. **Pump float switch**: if the pump is fitted with a float switch, connect the cable with a nylon tie wrap to the pump output pipe such that the float is free to fall to just above the floor of the tank when rainwater runs out. If your system has a second float switch for the mains backup, its float switch must be adjusted so that it is higher than the pump’s float switch (both in down (empty) position).

9. **Piping**: Use PTFE in all connections after the pump (but not before) to ensure pressure tight system. Most water company inspectors now require rainwater pipe to be black with green stripes. Ensure no pipes are exposed to the cold on arrival at building.

10. **Filter**: Ensure 4inch downpipe is correct length to bring leaf filter to correct level for the input and output 4inch pipes. Fit calmed inlet to base of downpipe. Ensure 4inch input and output supporting the leaf filter in the turret of the tank are far enough apart to permit removal of the filter for maintenance (and to permit removal of the pump).

11. **Electrical**: Connect cable from wall socket in building to an IP66 rated junction box (or similar waterproof box) fitted to the wall of the turret of the underground tank, then connect the cable of the pump to the junction box.

**PTO**

For indoor installation, see your Rain Director, rain manager or Rain Backup In A Box instructions.

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