



Triton Aqua Pump ECO & Aqua Pump ECO Plus

A range of pump kits designed for use with a cavity drain membrane/drainage conduit waterproofing system in cellar conversion or new build basement projects.

Description and use

Triton Aqua Pump ECO and Aqua Pump ECO Plus are sump and pump kits which use the same high grade moulded and shaped red sump chamber from the Triton Aqua Pump Pro range, one or two (Plus) automatic float switch pumps, non-return valves and pipework kits. Options include a light pedestrian duty steel lid and a battery powered water level alarm.

Triton Aqua Pump ECO contains a single, mains powered automatic pump, for use in low risk environments or where specific client-imposed limitations and instructions specify that a back-up pump is not required.

Triton Aqua Pump ECO Plus contains two mains powered pumps and is recommended as the basic minimum for any cellar conversion or basement build. Battery back-up pumping systems are available in our Pro and Pro XL ranges.

Triton Aqua Pump ECO sump and pump kits are intended to be used as part of an overall waterproofing strategy which, as a minimum, incorporates a cavity drain membrane system and drainage conduit to deal with and manage away ingressing water. Primary forms of waterproofing such as barrier membranes or watertight concrete should also be considered as part of a risk assessment which takes into account the form of construction, groundwater level, intended usage, ground gas etc, as laid out in BS 8102:2009.

IMPORTANT NOTE: The Triton Aqua Pump ECO kits must only be used for pumping groundwater. The pump should not be used to pump grey water from sinks/washing machines/dishwashers/condensing boilers or effluent. Triton Systems will not accept responsibility or liability for pump failure or damage caused due to the misuse of the pump kits.

Components

The sump measures 600mm high x 500mm wide (top) x 550mm diameter (base) and is commonly fitted through the floor to finish flush with the surrounding floor, taking into account the depth of the optional steel lid and frame or other heavier duty options.

The Aqua Pump ECO kit contains a single Triton EA31 automatic pump, 6.7m head maximum, flow rate at 3m head = 2.2 litres per second, plus internal pipe kit and tank connector.

The Aqua Pump ECO Plus kit includes a pair of Triton EA31 automatic pumps as above, plus internal pipe kits and tank connector.

All require a separate, fused, unswitched spur leading back to the main distribution board and are 5A rated.

Non-Return Valve Assembly: To avoid any discharged water backing-up into the sump basin, a non-return valve assembly is provided. This is fitted directly to the submersible pump outlet via bespoke pipe kits and supplied ready to accept a standard 1½" solvent weld waste pipe for the discharge line.

High Water Level Alarm: A water level alarm is included as an option in the ECO kits – the ECO sump is compatible with other, mains powered alarms allowing a tailored approach to the alarm specification. In the event of mechanical pump failure or an unexpected power outage, water will continue to fill the sump. When the water reaches the level of the alarm float switch, the alarm will sound. The alarm is powered by a 9v battery, which should be positioned in a location where it will be easily heard. Once the alarm sounds, immediate action must be taken to avoid flooding. Dual or 'Plus' sump and pump kits offer protection against mechanical failure of the primary pump.

Triton UPS (uninterruptible power supply) 2000 will run one mains pump as a power back-up.

Triton Aquapump Pro BBPS offers a full package of dual pump, battery back-up and water level alarm, see separate data sheet.

Preparation and installation

Ensure that water will run to the location chosen for the sump. Two inlets from the Aquachannel drainage conduit should be present. Use large bore pipe or cross-floor Aquachannel to connect to the sump chamber.

Allow for power and discharge line conduits.

Pre-form concrete 'boxes' within and through the floor slab if possible, to house the sump, firmly anchored or back-filled with concrete. If an excavation is made, ensure that the sump is firmly anchored and cannot float.

Fit and connect the pumps and test a number of times by filling the sump with water. Check the non-return valve, clean as necessary and re-test the operation of the pump(s).

Site the water level alarm and float switch and check that it works.

Where there are two pumps within the sump ensure that the standby pump is raised higher than the primary one. The ECO chamber has a step for this purpose.

Maintenance

It is recommended that the **Triton Aqua Pump ECO** system is inspected and cleaned after the first 6 months and then annually thereafter unless conditions are poor in which case a more frequent interval is recommended. This should be carried out by a competent contractor (under a maintenance contract) or by the property owner. During an inspection and clean all parts of the **Aqua Pump ECO** kit should be checked to ensure full functionality. If there is any evidence of free-lime build-up the checks should extend to the Aquachannel system via the inspection ports. Flush the system with Anti-Lime Solution.

The sump must be filled with water to ensure the automatic float switch and pump are fully operational. We recommend renewal of the water level alarm battery at 12-month intervals and that the alarm float switch checked to ensure the alarm sounds. Any defective parts must be replaced /repaired to avoid failure of the system.

We recommend records of each service be kept by the property owner.

Further information is available at www.tritonsystems.co.uk

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