

Pumps & Drainage

- Sumps, pumps and drainage channels for cavity drained waterproofing systems (BS 8102 2009 Type C)
- Battery back up pumps
- Control panels and alarms



About Triton

The company holds British Board of Agreement approvals and is a BS EN ISO 9001 Quality Assured Company. Triton was represented on the technical committee responsible for drafting British Standard BS 8102 (2009) – the Code of Practice for protection of below ground structures against water from the ground – and supplies systems and products to meet the requirements of all three methods of waterproofing as defined by the Standard.

Triton also supplies associated products including anti-condensation products, ground gas barriers, flood resilience and remediation systems, cavity wall ties, damp proofing and timber preservation systems.

Triton was the first company in the waterproofing industry to offer architects and specifiers the opportunity to download BIM objects from the NBS National BIM Library. To further support architects, surveyors and contractors, a full programme of training courses has been created including RIBA approved CPD seminars on basement waterproofing, concrete waterproofing and green roof construction. More details can be found at tritonsystems.co.uk/training



Typical cavity drain membrane system installation

Pumps and Drainage

The products and systems described in this brochure provide effective mechanical drainage solutions. They are installed in conjunction with cavity drained waterproofing systems in new build and renovation projects. The systems are designed to be fully maintainable, as is a requirement of Type C drained protection in accordance with BS 8102 (2009) - the Code of Practice for protection of below ground structures against water from the ground.

Available for download at tritonsystems.co.uk

- Technical drawings
- Installation guides
- Product data sheets
- Typical pump maintenance schedules



Aqua Pump XL

Pumps and Pump Kits

TRITON AQUA PUMP PRO

- Quick and easy to install
- Maximum head 7m
- Pump capacity 168 L/m

Primarily developed for the new build specification market, the Aqua Pump Pro range is designed to remove ground water from basement cavity drain systems. The Aqua Pump Pro kit comprises a polyethylene sump which features flanges to key in to the placed concrete, a galvanized, locking access cover and one mains powered, submersible sump. The system is highly versatile and enables installers to locate inlets to suit on-site requirements.

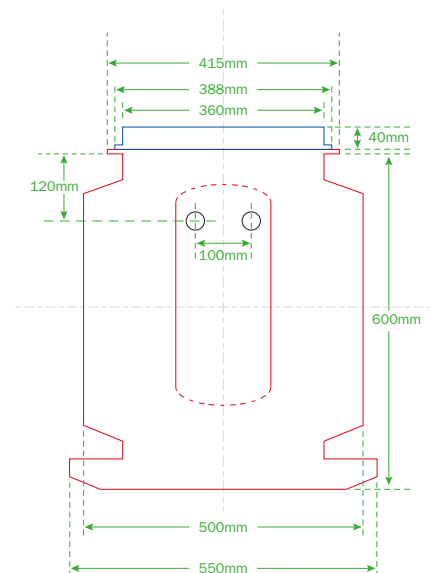
Technical Data (Aqua Pump Pro)

Power supply	230V
Rated current	1.9A
Motor rating	180W
Frequency	50Hz
Revolutions/minute	2800 rpm
Vertical output	7M
Maximum flow rate	168 L/m
Maximum liquid temperature	<40°C
Discharge size	1¼"
Cable length	5M
Weight	9kg
Cable size	1.5mm
Cable	3-core

TRITON AQUA PUMP PRO PLUS

This kit is identical to the Aqua Pump Pro above but is supplied with two mains powered pumps. These can be plumbed to either a single discharge outlet or to two separate outlets from the sump. The second mains powered pump is located on the raised foot within the chamber and provides back up to the primary pump and additional capacity to the system if required.

NBS Specification: R18



TRITON AQUA PUMP PRO BATTERY BACK UP

The Aqua Pump Pro Battery Back Up (BBPS) is specially designed for the removal of ground water from basement cavity drain membrane systems and comprises a polyethylene sump, galvanized locking access cover, one mains powered pump and one 24V back up pump. The system is highly versatile enabling installers to locate inlets to suit on-site requirements.

Technical Data

Power supply	24V
Number of pumps	2 (1 x 24V)
Rated current	1.9A
Motor rating	180W
Frequency	50Hz
Revolutions/minute	2800 rpm
Vertical output	7M
Maximum flow rate	168 litres/minute
Maximum liquid temperature	<40°C
Discharge size	1¼"
Cable length	5M
Weight	20kg
Cable size	1.5mm
Cable	3-core

NBS Specification: R18

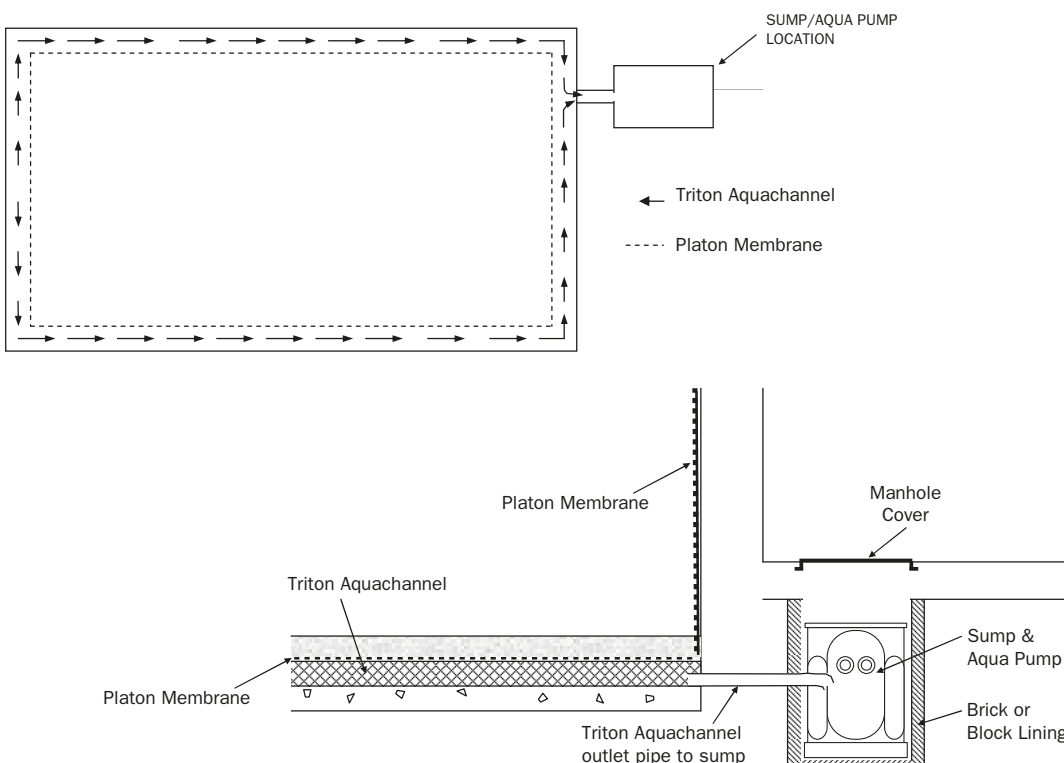


Aqua Pump Pro Range Sump Dimensions:

Sump: 550mm diameter x 600mm high
Cover: 400mm x 400mm x 40mm



TYPICAL AQUACHANNEL TO EXTERNAL AQUAPUMP DETAIL



TRITON AQUA PUMP XL

The Triton Aqua Pump XL kit can be specified for where a greater ingress of water is anticipated, where there is a greater depth to the basement or to enable the number of pumps to be reduced. The kit can be supplied in either single or dual pump configuration with a choice of three pump types which should be specified depending on the pump performance (flow and head) required. The sump features a large 450 x 450mm opening for ease of maintenance/installation, locking access cover, two pre-moulded anchor points and a split level base to provide pump height differential in dual pump configuration. The system is very versatile enabling the installer to locate inlets, discharge and cable/vent ducts to suit on-site requirements.

Auto and manual versions of the kit can be supplied. The manual version includes a single or dual assist control panel and independent float switches that fully operate the pump/s and monitor their usage.

Technical Data

XL Pump type	301	303	RS55
Power supply	230V AC	230V AC	230V AC
Rated current	1.9A	4.9A	5.0A
Motor rating	180W	380W	550W
Frequency	50Hz	50Hz	50Hz
Revolutions/minute	2800rpm	2800rpm	2900rpm
Maximum vertical output	7M	12M	14M
Maximum flow rate	168L/minute	228M/minute	300L/minute
Maximum liquid temperature	<40°C	<40°C	<40°C
Discharge size	1 ¼"	1 ¼"	2.0"
Cable length	5M	5M	10M
Weight	29kg	30kg	45kg
Cable size	1.5mm	1.5mm	1.5mm
Cable	3-core	3-core	3-core

NBS Specification: R18

Triton Aqua Pump XL Sump Dimensions:

Sump: 750mm diameter x 1000mm high

Cover: 450mm x 450mm



Triton Aqua Pump XL Sump



Triton Aqua Pump XL Sump – single pump configuration



Triton Aqua Pump XL Sump – dual pump configuration



The powerful RS55 Pump has a 550W motor and offers a 14M maximum vertical output. Shown here with Single Pump Control Panel.



Control Panels and Alarms

Triton offers a range of mains and battery powered high level water alarms as well as control and monitoring panels for all configurations of pump kit. Please speak to your local Triton technical representative to discuss your specific requirements.

CONTROL PANELS

Where two mains powered pumps are located within one sump, the Dual Assist Control Panel will alternate their operation and also activate both pumps simultaneously when required. Supplied complete with integral high level water alarm and monitoring counters for each pump which record the number of activations and run times. This unit is designed for high risk areas of potential water ingress. A single pump control panel is also available.

TELEMETRIC SYSTEM

The Telemetric System is designed to alert the end user by telephone should a high water level or loss of power occur. It can be supplied as part of a new alarm system or retrofitted.



Mains Powered High Level Alarm (left) and Mains/Battery Powered High Level Alarm



Dual Assist Control Panel

Pump servicing and maintenance

In accordance with BS 8102 (2009), Type C drained protection waterproofing systems should be maintained. The service period, usually every 6 – 12 months, should be agreed at the outset with the installing contractor or a specialist pump servicing company. Triton can provide details of such companies on request. A typical pump service schedule is available for download at tritonsystems.co.uk

As an aid to maintenance, Triton supplies a ready to use Anti-Lime Solution that is designed to remove lime scale and other build up within the drainage system.

This image shows how a pump can be affected by free lime when no Anti-Lime Coating is used or the system has not been maintained.



Triton Anti-Lime Solution for cleaning free lime deposits from sumps, pumps and drainage components.



Pump contaminated with free lime



Telemetric System



Triton Anti-Lime Coating can be spray applied to new concrete

Triton Aqua Channel

Part of a cavity drain system and designed to be used in conjunction with Platon cavity drain membranes. Triton Aquachannel is a moulded PVC drainage conduit which is placed around the perimeter of the basement or along a retaining wall, in a recess formed in the edge of the slab or within a spacing layer created by XPS insulation or sacrificial screed. Any water entering the below ground areas of the building is managed and controlled by the cavity membrane and intercepted by the Aquachannel. The clear space created by the Aquachannel allows the water to drain rapidly and freely to the discharge points leading to mechanical (sump and pumps) or natural (gravity) drainage.

Triton Aquachannel forms part of a reliable and maintainable waterproofing and drainage system. Aquachannel is available with or without an upstand along the rear edge, to suit the expected usage, eg without upstand when crossing a floor or when offset from a retaining wall, and with upstand when placed against the wall with a cavity membrane lining. Supplied in 2m lengths.

Aquachannel Accessories

A range of additional components including those which provide access for maintenance, including ports, connectors, corners, 'T' pieces, large bore bottom outlets and end outlets. These items enable installation work to be carried out efficiently and neatly and minimise onsite fabrication.

Universal Channel Outlet/Drain Finial: Moulded connector piece with 110mm bottom outlet to fit into 'pop-up' pipework running through or under the floor slab, ensuring that water runs as quickly as possible, directly back to a sump. Also functions as an inspection port.

Channel End Outlet: Clips on to the end of the Aquachannel run and provides conversion to 50mm solvent weld ABS waste pipe. Used with gravity fed drainage or as one of at least two connections to a sump.

Inspection Port/ Rodding Eye: Used to provide cleaning, inspection, and maintenance access to the Aquachannel system. Typically installed at 10-12m intervals along runs of channel and adjacent to corners and changes of direction. The large stub opening on the topside of the 170mm channel piece accepts 50mm solvent weld ABS waste pipe which can be configured with commonly available elbows, bends and end caps.

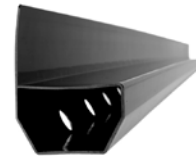
Corner Piece: A smooth 90° bend, fully swept corner connector that ensures that water flows easily, and inspection cameras or flushing hoses can negotiate the change of direction without snagging.

T Piece: An in-line connector piece that allows the main run of Aquachannel to connect at right angles to a secondary 'arm' of cross-floor Aquachannel (without upstand) and drain across the surface of the floor to an offset or centrally placed sump chamber. T Pieces can also provide a connection link between parts of the main Aquachannel run, to create shortcuts especially in awkwardly shaped basements.

Connector piece: A simple connector piece to firmly hold together lengths of Aquachannel.

Servicing and maintenance

All pumps and Aquachannel installations should be serviced and maintained. For further details please contact Triton on 01322 318830.



Triton Aquachannel
(with upstand)



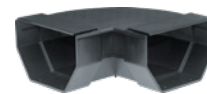
Universal Channel Outlet/
Drain Finial



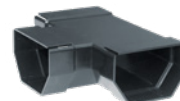
Channel End Outlet



Inspection Port/Rodding Eye



Corner Piece



T Piece



Connector Piece



Aqua Channel offset from wall



Triton Systems supplies high performance cavity drain, watertight concrete, cementitious and liquid applied waterproofing systems designed to meet BS 8102 (2009). These are complemented by flooring, roofing and gas barrier systems and traditional timber preservation and damp proofing products.

Available for download at tritonsystems.co.uk:

- Technical and safety data sheets
- Training course/RIBA approved CPD seminar booking forms
- Detail drawings in PDF and DWG format
- Installation guides
- Product literature
- BBA, BDA and CE Marking Certificates
- Case studies



Triton Systems

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