Product Data Sheet

TRITON AQUA PUMP SYSTEM

DESCRIPTION AND USE

When installing Isola Platon Cavity Drainage membranes careful attention must be given to provide a suitable drainage solution. Natural drainage is not normally possible or convenient in below ground situations, so mechanical drainage must be used.

TRITON AQUA PUMP is a ready to use complete water control system principally designed for use in below ground structures to control water ingress. The system consists of a pre-formed polyethylene sump basin, a mains powered 230v submersible pump, a non-return valve assembly and a battery operated high water level alarm, which is linked to an integral float switch. The TRITON AQUA PUMP system can be linked to TRITON AQUA CHANNEL (see Triton Aqua Channel Data) to manage water ingress from retaining walls and in turn pumping out to a suitable drainage point.

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

COMPONENTS

SUMP BASIN – The Sump Basin is a polyethylene pre-formed chamber, measuring 560mm high x 540mm diameter (top) x 460mm diameter (base) and is most commonly located into the floor, finishing flush with the surrounding floor level. The Sump Basin is supplied with a structural foam flat lid, which can accept foot traffic. The lid can be easily removed to allow regular maintenance of the internal submersible pump or pumps.

SUBMERSIBLE PUMP – The pump is positioned within the Sump Basin and is controlled by an automatic snap-action float switch. As the water level increases within the sump the float rises and when the pre-set switch level is reached the pump will automatically operate and discharge the water. The Pump is 230v and requires wiring into an independent fused spur outlet within 1.5m of the pump.

PUMP SPECIFICATION

Discharge Bore	-	38.1mm
Max. Head	-	6m
Max. Capacity	-	195 litres/min @ 1m
Motor Output	-	1/3 Hp
Max.Width	-	214mm
Max.Height	-	258mm
Max Depth	-	270mm
Voltage	-	230v
Fuse rated	-	5.0amp

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 flexible couplings and supplied ready to accept a standard 1½" waste pipe.

HIGH WATER LEVEL ALARM – The High Water Level Alarm is an essential component within the Aqua Pump system. In the event of mechanical failure of the pump or an unexpected power failure, the water will continue to fill the sump. When the water reaches the level of the alarm float switch, the 80db alarm will sound, giving warning of the failure. The alarm is powered by a 9v battery, which should be positioned in a convenient location such as a kitchen/lounge where it will be easily heard. Once the alarm is heard immediate action must be taken to avoid flooding. Additionally a 12v battery operated pump can be installed offering peace of mind to the client, while investigations are made into the failure. See Triton Battery Back-up Pump System data.

PREPARATION AND INSTALLATION

The site conditions or situation being encountered may well determine the positioning of the Triton Aqua Pump System. However, ideally it should be sighted at the lowest point of the room and or closest to the nearest point where water will be discharged. **The most important thing is to make sure that water can get to the pumping station.** Once the pump position has been established, dig a circular hole to a depth of 650mm and to a width of 650mm .
At the base of the walls of the sump basin, drill 4 holes opposite each other, (12mm dia), insert two lengths of reinforcing bar (660mm long) through drilled holes .These will add additional anchoring for the sump basin in the ground.

Fit the high water level alarm float switch sensor into the pre-cut hole provided within the wall of the sump basin and ensure that the (jaw) of the switch sensor is open and hangs downwards. Bring the two cables with bullet connectors attached back into the sump basin either through one of the holes provide or by drilling a hole and leave ready to be connected to the wires of the water alarm. **NB:** if the water discharge pipe from the pump is to be concealed below the floor, then a 1½" hole will need to be cut through the side of the basin. However, the position of this hole can only be determined once the sump basin has been offered into position, otherwise the discharge pipe can be taken through the lid of the basin.

Lay approx 100mm concrete at the base of the hole and insert the sump basin. Using a spirit level, adjust the top of the basin to the level of the finished floor level. Fill the basin two thirds with water, then infill around sump basin with concrete, ensuring it is well compacted. **NB:** If Platon membrane is being installed over the floor, then the concrete will need to be finished 100m lower than top of sump, drill a number of perforations to edge of sump basin and infill void above concrete with 20mm stone. (Drwg no. IP029.1) However, when Platon membrane is not going to be installed over the floor, the concrete should finish flush with top of sump basin.

Insert the Aqua Pump in the base of the sump basin and connect the water discharge pipe to the flexible coupling already attached to the pump. The discharge end of the pipe can be taken through a wall and extended to a gully outlet at ground/street level. Alternatively, the discharge pipe can be connected straight into a soil pipe using a 'boss' connection. **Where a double pump installation is being used (Aqua Pump Plus), each pump must be wired into an independent fused spur outlet. One of the Aqua Pumps (the secondary pump) in the double pump kit will have been fitted with 25mm long spacers at the base of the pump so that this pump is raised off the bottom of the sump basin.**

Connect the wires from the float switch sensor to the wires of the water alarm using the bullet connectors provided. Then connect the pump/s power cable into a fused spur outlet (fuse rating 5amp) and test the pump and alarm for working order.

MAINTENANCE

It is recommended that the Triton Aqua Pump System is maintained /serviced at a minimum every six months. This should be carried out by a competent contractor (under a maintenance contract) or by the property owner. During a service all parts of the Aqua Pump kit should be checked to ensure fully operational. The sump should be cleared of any silt/sludge that may have accumulated to avoid potential damage to the pump/s.

The sump must be filled with water to ensure the automatic float switch and pump are fully operational. We recommend renewal of the 9v battery within the alarm 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. Example of suitable sump, pump and drainage schedule can be found in the Isola manual, or downloaded from the Triton website www.triton-chemicals.com

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

For further information please contact:
TRITON CHEMICAL MANUFACTURING CO LTD T/a TRITON SYSTEMS
Units 3 – 5 Crayford Commercial Centre, Greyhound Way
Crayford, Kent DA1 4HF
Tel: 01322 318830 *Fax:* 01322 524017
www.tritonsystems.co.uk
info@tritonsystems.co.uk