



sumpflo

designed especially for the removal of groundwater from basement membrane systems

Description

The sumpflo is designed especially for the removal of groundwater from basement membrane systems. Comprising of a polyethylene tank, locking access cover and a powerful waste water submersible pump, sumpflo is also very versatile, enabling the installer to locate inlets to their specifications.

Installation Guidelines

It is important to note that these instructions are for guidance only and it is the contractor's responsibility to satisfy themselves that the installation procedure is in accordance with the prevailing ground conditions and good building practice, to eliminate any potential damage to the pumping station either during or after installation.

The tank is manufactured from 3mm gauge polyethylene and as such is extremely robust. However, as with any preformed tank they are susceptible to floatation and hydrostatic pressures exerted in high water table conditions.

Please read these instructions in full, prior to commencement of installation. If you are unsure on any point then ask for advice before proceeding. Our technical help desk is available on 01706 831223 from 8.30am – 5.30pm, Monday to Friday.

1. Select a suitable location for the pumping station. Where possible, installation of a pumping station in a roadway should be avoided due to the need for periodic maintenance of the pump contained therein. If the location is adjacent to a roadway, the installation method should take account of the imposed loads likely to be transmitted to the tank by traffic etc.
2. In all instances the tank MUST be positioned on a flat, level, set concrete base of dimensions sufficient to fully support the base of the tank. The thickness of the base should be adequate for the ground conditions and of minimum 150mm thickness. Carefully position the tank onto the base slab ensuring that no loose debris is inadvertently knocked onto the base slab, under the tank during this procedure. Position it such that the inlet and outlet pipework is correctly aligned.
3. Once the tank is positioned connect the incoming pipe/s to the tank via the fittings supplied. The discharge pipework can then be connected via the tank connector supplied. We recommend that the discharge pipework be 32mm solvent welded plastic pressure pipe.
4. The electrical cables should now be drawn through a cable duct back to the electrical source.
5. In dry stable ground conditions where the water table will never rise above the base slab the tank may be back filled with a dry lean mix concrete of minimum 150mm thickness. In wet unstable ground conditions a mass

concrete mix must be used in accordance with the ground conditions and be as dry as practical to prevent additional floatation pressures being exerted on the tank. In both instances the tank MUST be ballasted with water at the same rate as back filling such that the level difference between the water and back fill does not exceed 150mm at any time.

6. Where ground water is present in the excavation, de-watering must be undertaken throughout the installation procedure and until the back fill has completely cured.
7. Similarly, the ballast water inside the tank should not be removed until the back fill has fully cured.
8. It is extremely important that once the tank has been installed and all the inlet connections made, before the pump is installed, the system is flushed through and all sand, silt, rubble and general debris removed from the tank. **FAILURE TO DO THIS WILL INVALIDATE THE WARRANTY ON THE PUMP!**
9. The sumpflo should be connected to a 230V 5A fused spur, by a suitably qualified person, in accordance with the Institute of Electrical Engineers Regulations.
10. Before fixing the access cover in position, place 5-10 litres of water in the sump to 'test run' the pump and drainage system to ensure adequate performance.

Technical Specifications

Power Supply	230 V AC
Rated Current	1.4 A
Motor Rating	320 W
Frequency	50 Hz
Revolutions Per Min.	2720 rpm
Max Vertical Output	7 m
Max Horizontal Output	50 m
Max Flow Rate	108 l/m
Max Liquid Temp.	<40°C
Discharge Size	32 mm
Cable Length	3 m
Weight	9 Kg
Colour	White

Dimensions

Diameter	600 mm
Height	600 mm



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Maintenance

The sumpflo requires minimal maintenance. However it is recommended that the unit be cleaned out at least once every six months. To clean out the unit you must first turn off the power supply and remove the cover to gain access to the pump. Next, remove the pump from the tank by disconnecting the pipework and lifting the pump out. It is advisable to check the underside of the pump to ensure there is no build up of debris around the pump and float switch as this can often lead to poor pump performance or damage to the pump itself. You must also clean out the tank ensuring that there is no debris in the bottom of the tank. Now that the tank is clean you can reconnect the pump to the pipework, check the system is operational by placing water in the sump, then replace the access cover.

In addition we recommend that a service contract be taken out (please contact on 01706 831223 for further details).

Health and Safety

Please pay attention to the following regulations when installing the pump or ask your qualified electrician/distributor.

Safety Precautions

In order to minimise the risk of accidents in connection with the service and installation work the following rules should be followed:

- Never work alone. Use a lifting harness, safety line and respirator as required. Do not ignore the risk of drowning.
- Make sure there are no poisonous gases within the work area.
- Check the explosion risk before welding or using electric hand tools.
- Do not ignore health hazards. Observe strict cleanliness.
- Bear in mind the risk of electrical accidents.
- Make sure that the lifting equipment is in good condition.
- Provide a suitable barrier around your work area, e.g. guard rail.
- Make sure you have a clear path of retreat.
- Use a safety helmet, safety goggles and protective shoes.
- All personnel who work with sewage systems must be vaccinated against diseases to which they may be exposed.
- A first aid kit must be close to hand.
- Note that special rules apply to installations in an explosive atmosphere.

Electrical Connections

- The following works should only be done by qualified and authorised electricians.
- Wykamol disclaims all responsibility for work done by untrained or/and unauthorised personnel.

- Heed operating voltage (see name plate and additional labels).
- Take out the main fuses to isolate the mains supply from the control unit before repairs or any other works and ensure it cannot be energised again.
- If the pump is equipped with an automatic level control, there is a risk of a sudden restart.
- Before starting check the efficiency of the protective arrangements of the pump and the monitoring equipment. Failure to heed this warning may cause a lethal accident.
- Do not put the lead ends into water! Irruption of water may cause malfunctions.
- If persons are likely to come into physical contact with the pump or pumped media, the earthed (grounded) socket must have an additional connection to an earth (ground) fault protection device (GFI).
- Use the pump only in accordance to the data stated on the pumps plate respectively. Special rules apply to installations in explosive atmosphere. Intrinsically safe circuits (Exi) are normally required for the automatic level control system by level regulators.
- Connection only to a mains supply installed in accordance to the local regulations. For fusing of d.o.l. starting pumps use only 10A slow fuses or automatic circuit breakers with C or D characteristics. This is because the motor's nominal voltage is measured at the terminal board of the pump; please consider the voltage drop of long supply cables.
- The motors of the three-phase AC pumps must be protected by a suitable over current release. Adjustment as follows:
Direct start +10% of normal current
Star-delta start (nominal current x 0.58) + 10%
If the protective arrangement has triggered, eliminate the trouble.
- Replace the cable if the cable jacket is damaged. Do not pinch the cable or pull it around sharp bends.
- Always install the control unit in a dry and well-ventilated room above the back pressure level. Never install the control unit within the sump.

Earthing

For safety reasons, the earth conductor should be approximately 50mm (2") longer than the phase conductors. If the motor cable is jerked loose by mistake, the earth conductor should be the last conductor to come loose from the first terminal. This applies to both ends of the cable. Ensure the correct earthing of the pump and control unit.



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