

Garden & Rainwater Pump Installation Guide

Suction Line

1 VALVE

Minimum 1" gate valve or ball valve fitted to water tank. A ball valve is recommended for this application due to their superior reliability and fast action.

2 SUCTION LINE

Minimum suction line recommended is 300mm of 25mm inside diameter flexible hose. Flexible hose is highly recommended, this will compensate for any movement in the installation and to avoid the use of elbows between the tank and the pump as these can cause cavitation.

3. Y-STRAINER

Y-Strainers are devices for mechanically removing solids from flowing liquids by means of perforated stainless steel or wire mesh straining element.

At ClayTech pumps we are aware of many incidents of poly swarf, remaining in poly water tanks as remnants of their construction, making its way to and becoming lodged in the check valves of the Hydrotronic controllers used on our pumps.

The result of this is frequent cycling of the pump. This is due to a loss of pressure situation on the discharge side of the pump because the checkvalve is not able to close properly and maintain pressure in the discharge line.

Another issue has been the partial blockage of the nozzle on the pump injectors or eye of the impellers. The pump will fail to reach its cutout pressure. In the case of "pressure switch" models this can lead to pump damage and seizure due to the uncontrolled running of the pump and the resulting heat build up. On the Hydrotronic models the pump will go to alarm because the Hydrotronic detects that there is a loss of pressure.

The initial investment of a "Y-strainer" should be considered in light of their long service life, robust construction and the reliability benefits that they provide to a pressurised rain water delivery system.

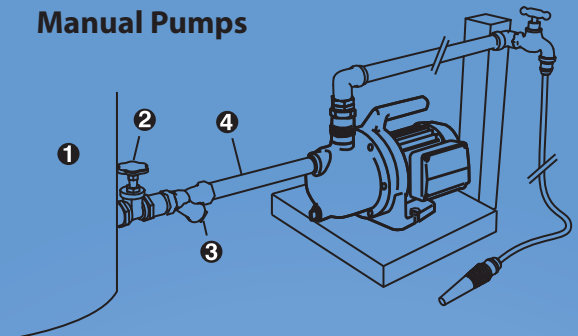
Discharge Line

1 The minimum recommended discharge line is 20mm inside diameter pipe.

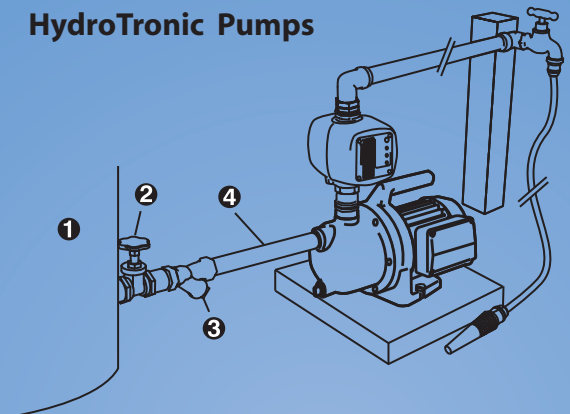
2 If an elbow has to be fitted then install a 25mm inside diameter elbow first then use a reducer to overcome friction loss.

3 When fitting a discharge line to a garden tap, ensure that the tap is attached to either a wall or post as a permanent fixture and with at least one metre of line between the pump and the tap, this will allow the controller to operate most efficiently. Do not install taps directly above the pump as this can allow water to be discharged directly onto the pump itself in the event of failure of the tap or connections.

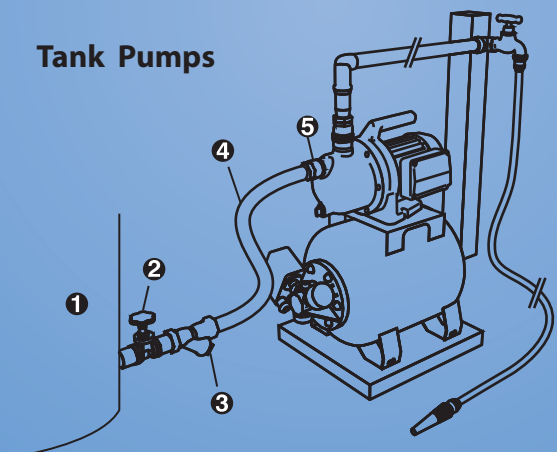
Manual Pumps



HydroTronic Pumps



Tank Pumps



- ① Tank
- ② Valve
- ③ Y strainer
- ④ Flexible Line
- ⑤ Non-return valve

DO NOT FIT A TAP DIRECTLY TO THE TOP OF A PUMP OR CONTROLLER UNIT.

USE TEFLON PIPE TAPE ON ALL THREADED FITTINGS.

PUMPS MUST BE PROTECTED FROM THE ELEMENTS TO ENSURE A LONG SERVICE LIFE.