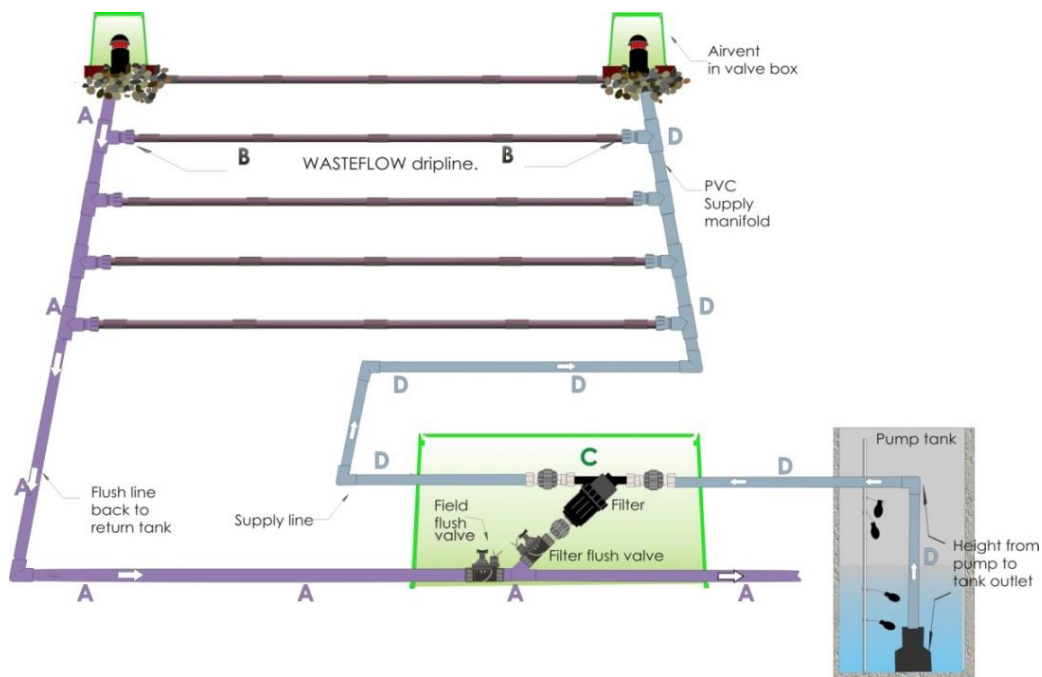


Domestic System Schematic-not to scale



Drip System Operation

- Wastewater tanks can contain poisonous odourless gasses that can kill. Tanks should only be opened by experienced wastewater specialists.
- Electricity mixed with water can kill. Alarm events should only be dealt with by trained electrical wastewater specialists.
- The drip system receives the partially treated wastewater from the dwelling into a pump tank containing a submersible pump operated by float switches and controlled by an electrical panel located nearby. The network is designed to operate at pressures of 1 to 4 bar.
- The pump may operate on demand or on a programmed intermittently timed basis over the 24 hour day.
- The pump is operated by 4 electrical float switches which are set to signal to the pump control panel based on 4 individual water levels in the tank. These are: 1 pump on; 2 pump at normal level; 3 pump at high usage level; 4 high water alarm.
- The water is pumped to the PVC supply manifold through the headworks containing a fine mesh filter which screens the residual fine particles from the water before entering the dripfield.
- Air release valves in housing will be located on the PVC supply and flush lines to release air and prevent soil being sucked into the system when the pump stops.
- Drip fields should be landscaped to shed surface water and grassed and mowed using domestic mowers.
- An audible alarm buzzer and light will be activated if the water level in the pump tank rises beyond the design operating level.

- An alarm event can be due to many causes such as:
 - excess water entering the tank or upstream in the system
 - a constant leak in the house plumbing
 - a blocked filter due to excess solids or lack of servicing
 - a pump or electrical switch malfunction.
- Alarm events can be intermittent or continuous. Intermittent alarms may be due to extra water usage in the house. A continuous alarm may be due to a pump or electrical malfunction.

Recommended Servicing

- The drip system requires regular servicing and monitoring to ensure a long life.
- Servicing should only be done by trained wastewater specialists familiar with pressure systems.
- The submersible pump should be inspected and cleared of any debris and tested.
- The float switches and control panel should be inspected and tested.
- The headworks filter cartridge should be removed and replaced.
- The complete system should be flushed at least once or twice per year or more often depending on the level of treatment of the influent domestic wastewater.
- The dripfield should be walked over and visually inspected for satisfactory operation.
- System pressure readings should be taken to ensure the dripfield is operating satisfactorily within the design pressure.
- Grass should be mowed using a domestic mower.

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All Dripline supplied by Ashtecs is guaranteed genuine Geoflow WASTEFLOW PC dripline featuring:

a) nano-ROOTGUARD®

Wasteflow dripline has nano-ROOTGUARD®. The risk of root intrusion with an emitter slowly releasing nutrient rich effluent directly into the soil is well known. Geoflow drip emitters are guaranteed against root intrusion. This patented process fuses the root-growth inhibitor, TREFLAN®3 into each drip emitter during manufacturing. With an expected life of 30 years, nano-ROOTGUARD carries a 15-year warranty against root intrusion.

b) Geoshield™ protection

Geoflow's WASTEFLOW has an inner lining impregnated with an antimicrobial, Tributyl tin maleate, to inhibit adhesion of biological growth on the inside walls of the tube and on the emitters. It does not have any measurable biological effect on the effluent passing through the tube. This minimizes the velocity required to flush WASTEFLOW dripline. It is not necessary to scour growth off the inside wall of WASTEFLOW tubing. Just opening the flush valve will usually achieve this degree of flushing.

c) **WASTEFLOW PC Dripline** has turbulent flow path emitters with nano-ROOTGUARD and Geoshield protection with a silicone rubber diaphragm that moves up and down over the emitter outlet to equalize flows regardless of pressure disparities. To ensure a long life the recommended operating range is 0.7 to 3 bar.

Pumps and electrical components carry a one year warranty subject to proper installation, handling and servicing.

Ash Environmental Technologies. December 2015