

# Rainman

## **Rainwater Harvesting System - Installation**

Conserve Resources | Innovative Rainwater Harvesting



# **Rainman Installation**

### **Pre Installation**

#### Excavation

The excavator must be on site on the morning of the delivery of the system. The client must indicate the level of the inlet pipe at the hole if pipe not provided. If ground conditions are dry the hole can be dug before technician arrival, however if conditions are wet, the hole should only be excavated through the dry material and not below until the installer arrives. The client must have adequately sized rock breaking equipment where required. All excavation is the responsibility of the client.

NB. In cases where the soil conditions are wet or rocky, it is recommended to make a 400mm hardcore bed to stand tank. Also note that if it is a high water table area, it is recommended to fill tank with water to prevent buoyancy.

#### Pipework

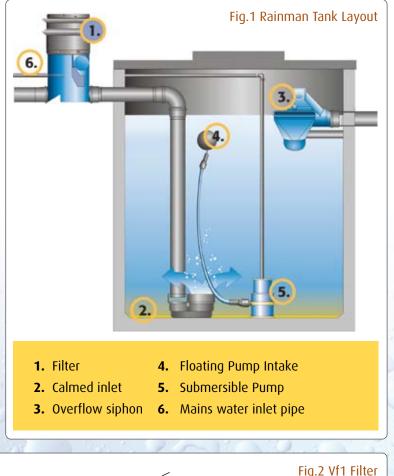
Standard Pipework specification is 100mm inlet & outlet collars. Larger pipework can be accommodated but advance notice must be given. Run pipes to a central location where it will be connected to the filter.

### **Installation of Rainman System**

• Shay Murtagh personnel arrive on site with the Rainman and components

Filter Installation – The above mentioned pipes are connected to the filter. Please note it is important to accommodate a 300mm level for the Rainwater filter. It should be placed in the ground with good bedding of either sand or lean-mix concrete to avoid movement.
The overflow from the filter is connected to the soakpit/stormwater drainage. (See Fig.2)

• **Tank Installation** – Shay Murtagh Ltd., personnel will place the tank in the ground with assistance of a truck mounted crane. Our personnel will assemble all internal components within the Rainman tank. The tank overflow is to be connected to the soakpit/stormwater drainage. The tank is backfilled by the excavator.





# **Rainman Installation**

### **Plumbing Installation**

• To connect the Rainman to the house/building, Shay Murtagh Ltd. supply 1.00M of 25mm hydrodare externally from the submersible pump within the tank. Mains top-up installation requires the plumber to teeoff the mains water within the house. At this point the plumber will install a solenoid valve supplied by Shay Murtagh Ltd., that will be activated by a float switch within the Rainman tank. This float switch is in turn activated when water levels are low and drop below a certain point.

• To ensure that a correct AA airgap is achieved, Shay Murtagh Ltd. supply a 3p Tundish with overflow to prevent pollution by backflow of potable water. This complies with BS EN13076 standards. (See Fig.3)

To improve the longevity of pump performance, Shay Murtagh Ltd highly recommend the installation of a pressure vessel of adequate size.

### **Electrical Installation**

• Our standard system is supplied with a submersible pump that has a built in pressure switch which activates and deactivates the pump.

• Shay Murtagh Ltd supplies a 5 core SWA cable from the Rainman to the solenoid top up valve within the house. It is the clients responsibility to bring mains power from a separate MCB on the fuseboard to this point. See wiring diagram.

### **Optional Extras**

Shay Murtagh Ltd can also supply the following optional additions to our standard Rainman Systems.

- Rainman Monitoring Panel
- Pump Operation Signal via Green LED
- Additional Motor Protection via Red LED (Alarm)
   Connection for external Float-Switch signal low water level inside the tank via Extra Red LED
- Connection for Float-Switch Mains Water Top-Up;
   Cable Connection for Solenoid Valve with LED
- Backwater Valve Added protection from Rain water backflow into your Mains water supply.
- Level Guage
- Pressure Vessels of adequate sizes are available on request

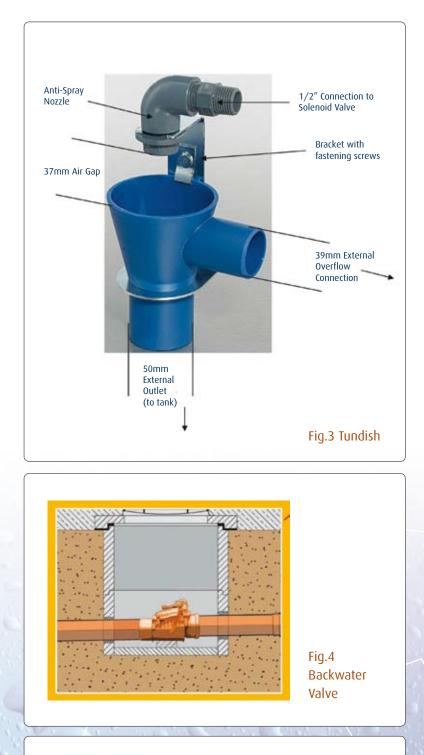


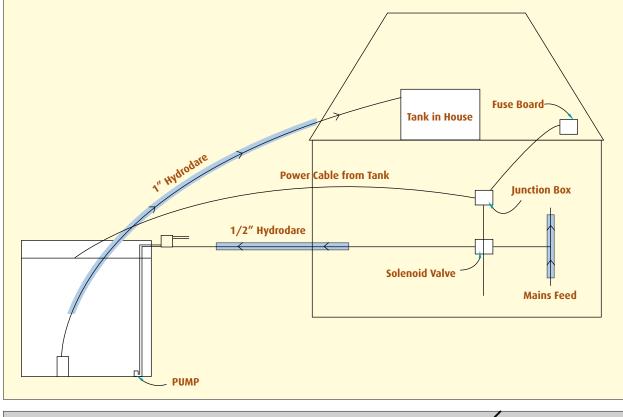


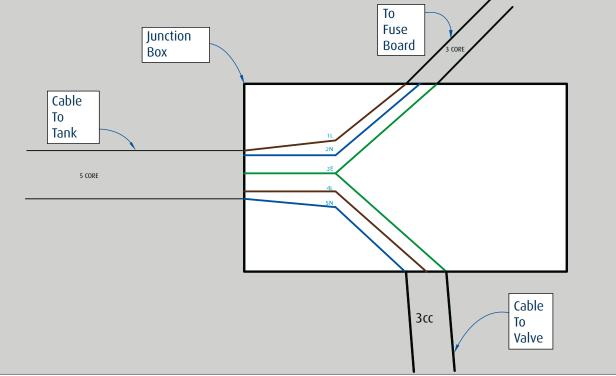


Fig.5 Control Panel

Fig.6 Pressure Vessel

### Schematic Wiring Diagrams





\*Where control panel is installed the wiring layout will differ

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