Enviro-Valve

(Stormwater Management)

Technical Guide SW 15

A complete water diversion system ready to install directly into washpad areas, either on its own, or in series with new or existing treatment systems.



Applications

Truck and car wash areas

Industrial wash down facilities

Supermarket refuse areas

Spill diversion and management

Product Attributes

Efficient over a wide range of flows

Simple to install & easy to specify

Connect to a standard 240V power supply

Safe 12V AC operation

Can be fitted to existing interceptors

Instrinsically safe option available

Approvals/Standards

NZS3109, Concrete Construction

Quality

ISO 9001:2008 Quality Management Standard



Designed for sites that require the separation, discharge or containment of stormwater and trade waste.

The Enviro-Valve controls the quantity of unnecessary flow that may enter the wastewater network which can result in an overflow risk to the downstream reticulation or additional costs to treat and pump waste. The device can be operated in reverse to contain any potential contamination from entering the stormwater system.

Design and sizing

The Enviro-Valve is available in the following:

- Suitable for heavy traffic loading
- Outlet pipes are 150mmø

Installation

The concrete tank is manufactured in accordance with AS/NZS. It comes complete with rain sensor, timer, flow switch, and is ready to be installed either on its own or in series with other industrial treatment process. Refer to Table 1 for key dimensions and weights.

TABLE	1	Enviro	-Valve	e Variar	ıts

Unit	Description	Weight (T)
ENVIROVSIDEKIT	1050ø x 600H Flanged Based Manhole with 200mm thick lid	1.95



FIG. 1 Enviro-Valve

How it Works

1. Hydraulic Ram

The hydraulic ram controls the flow to either stormwater or sewer outlets. During the "First Flush" of rainfall and wash-down conditions, the inlet to the stormwater pipe is closed. Once a predetermined rate of rainfall has been measured, the ram changes position and closes the sewer outlet pipe, diverting all subsequent flow to the stormwater network.

2. Water Flow Switch

The flow-switch is installed on the wash-down water supply and connected to the control panel. When flow is detected the switch sends a signal to the controller to shut off the stormwater side and open up the trade waste side.

3. Weather Sensor

Collects and measures the rainfall using electronic sensors. The flow is diverted once a predetermined rate of rainfall has been recorded.

4. Mains Water Pressure

The hydraulic ram is connected to mains water supply via a solenoid valve that is used to control the flow to the hydraulic ram.

5. Control Panel

Controls the flow between the sewer and stormwater outlets. Displays the position of the hydraulic ram, power connection and highlights faults if they occur. Connects to a 240V power source via an AC adaptor (supplied).



FIG. 2 Internal relay box



FIG. 3 Enviro-Valve actuator



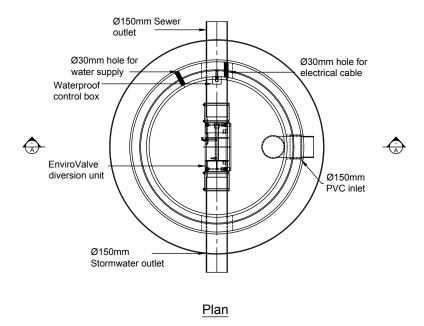
FIG. 4 Control panel



FIG. 5 Rain sensor



FIG. 6 Flow switch



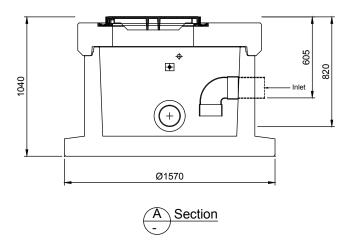


FIG. 7 General arrangement drawing

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