

## “How it works”

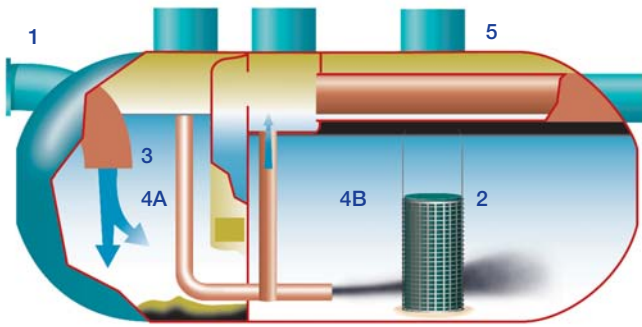


DIAGRAM A - LOW FLOW

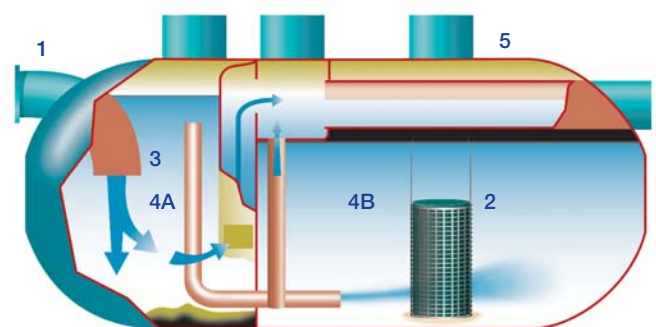


DIAGRAM B - HIGH FLOW

**SPEL STORMCEPTOR™ CLASS 1\*** is a horizontally configured two chamber stormwater quality improvement device (SQID) equipped with a gravity enhancing coalescer unit.

The design, facilitated by a retention period of approximately 6 minutes generates quiescent conditions within the secondary chamber, efficiently promoting the separation of total suspended solids (TSS), light liquids and pollutants.

Treatable flow rates range from 0.1LPS to 400LPS (max. flow rate to 4,000 LPS) and can fit pipe sizes from 160mm to 1500mm.

\* **STORMCEPTOR™ CLASS 2** model with no coalescer is available for medium to low-risk applications.

### 1. BY PASS

#### **NORMAL CONDITIONS:** DIAGRAM A

Low flow or first flush is through the separation chamber, where the quiescent conditions and the coalescer enhancement allow the pollutants to separate out efficiently. Clean water flows from the separation chamber to the by-pass chamber and thence to the outlet.

#### **HIGH FLOW CONDITIONS:** DIAGRAM B

During a storm the level in the primary chamber rises and the storm water passes upwards from the cleanest zone over the weir via the storm cover duct into the by-pass chamber and to the outlet.

The design keeps the turbulence within the separation chamber to a minimum which avoids agitating the pollutants held.

### 2. COALESCER

Provides a coalescing process for the separation of smaller globules of light liquids to reduce the light liquid content in the outlet to **5mg/litre or less**.

### 3. HYDRAULIC DWELL TIME

Designed to contain enough volume to retain the inflow for a period of approximately 6 minutes.

### 4. INLET DIP PIPE - FLAME TRAP

For a minimum turbulence and to prevent inflammable vapours passing through the drainage system.

### 5. TWO CHAMBER

A non-turbulent flow through two horizontal treatment chambers - PRIMARY CHAMBER (4A) and SEPARATION CHAMBER (4B) utilising the underflow principle to retain suspended solids and light liquids in all flow conditions.

### 6. MAINTENANCE

Easy and safe with no entering of the tank required. For further details, refer maintenance page 12.