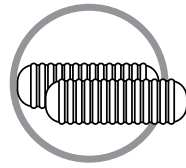
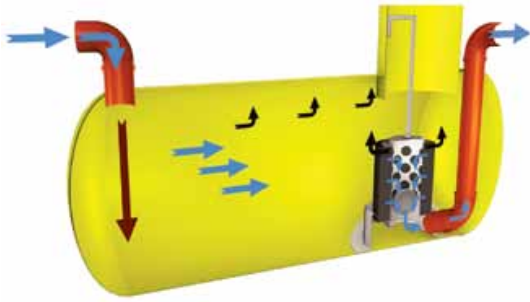


## Separator range



**ENVIROTANK**

### Clereflo™ Class 1 Oil Water Separators by Envirotank

- Envirotank Clereflo™ forecourt separators
- Envirotank Clereflo™ full retention separators
- Clereflo™ bypass separators
- Alarm systems



Quality  
ISO 9001

## Demand Special Treatment

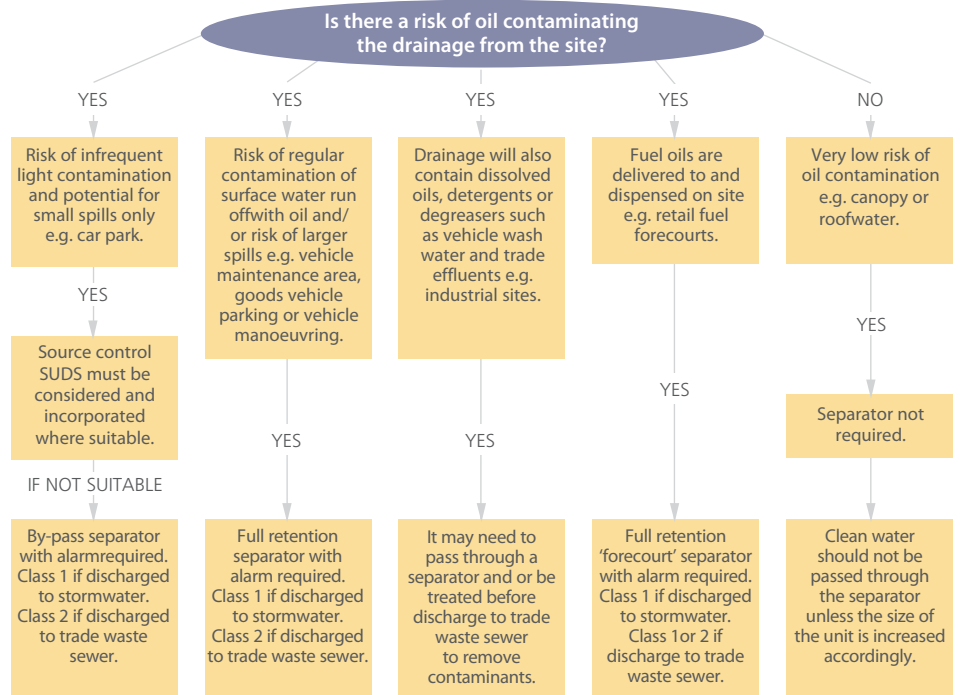
# product selector

This chart can be used to identify the correct type of Clereflo™ Oil Separator your project requires. The chart is intended to provide guidance for the use of Separators for discharge to storm water and surface water drainage systems that discharge directly in to waterways.

**Note:** Although trade waste discharge to sewer is generally not covered by this chart, a Clereflo™ Separator may still be used.

Please contact Envirotank for further advice.

**Note:** Local authorities and utilities require prior approval and licenses to discharge waste water directly to sewer systems and should be contacted prior to purchase & installation.



# separators

Pollution prevention is a critical part of sustainable drainage systems and verified oil separators are designed to protect the environment and prevent the pollution of our waterways, by containing and preventing silts and hydrocarbons (eg diesel, petrol or engine oil) that can enter the stormwater drainage system.

There are applicable Federal, State and Local safety, construction and environmental laws, regulations, codes and/or guidelines for the control and discharge of hydrocarbons.

The Clereflo range of oil separators from Envirotank fully conform to the European standard BSEN-858-1-2 and are proven to effectively separate oil and water. Under test, the Clereflo Separators performed to less than 1 mg/l and can, therefore, protect the environment and public safety as required by the Authorities.

## TWO 'CLASSES' OF SEPARATOR:

Class 1 separators are designed to achieve a concentration of less than 5mg/l of oil under standard test conditions. These separators are required for discharges to stormwater drains and the environment.

Class 2 separators are designed to achieve a concentration of less than 100mg/l oil under standard test conditions and are suitable for dealing with discharges where a lower quality requirement applies such as discharges to trade waste sewers (with consent from the local authority).

Both classes can be produced as 'Full Retention', 'By-Pass' or 'Forecourt' separators.

All oil separators are required by legislation to be fitted with an oil level alarm system and it is recommended that this alarm is installed, tested, commissioned and regularly serviced by a qualified technician. This automatic warning device will indicate when the separator is in need of immediate maintenance in order for it to continue to work effectively. Envirotank can offer a full technical and service package for a variety of alarm options.



## clereflo bypass separator

Bypass separators fully treat all flows generated by rainfall rates of up to 65mm/hr. These separators are used when it is considered an acceptable risk not to provide full treatment for high flows, for example where only small spillages occur and the risk of spillage is small such as on short stay car parks.

### FEATURES & BENEFITS

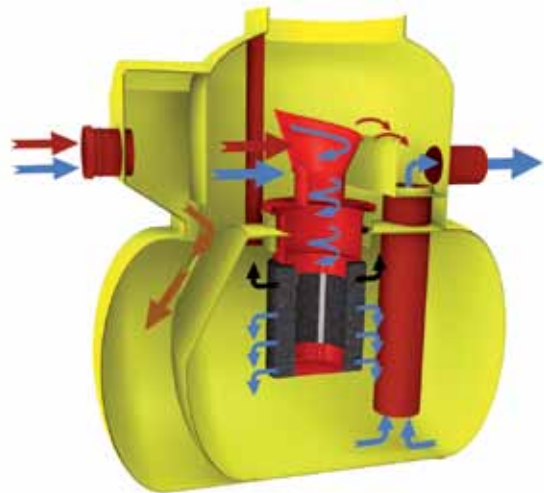
- Innovative design light & easy to handle
- Competitively priced • Fully compliant to Environment Guidelines • Major installed cost savings
- Fully tested and verified with a range from CNSB 3 to CNSB 1000 (class 1) • Exceeds industry standards
- Easy to maintain

### PROCESS & PERFORMANCE

The Envirotank range of Bypass separators are designed to treat all of the flow up to the designed nominal size. Any flow in excess of the nominal size is allowed to bypass the separation chamber thus keeping the separated and trapped oil safe.

During the early part of a rain storm which is a time of high oil contamination, all of the contaminated water flow passes through a sediment collection chamber and enters the separation chamber through a patented oil skimming and filter device. This ensures that all of the oil proceeds to the separation chamber where it is separated to the Class 1 standard of 5 mg/l and safely trapped. As the rain storm builds up to its maximum

and the level of oil contamination reduces significantly, the nominal size flow continues to pass through the separation chamber and any excess flow of virtually clean water is allowed to bypass directly to the outlet.



### APPLICATION AREAS

- Car parks
- Roadways & major trunk roads
- Light industrial & goods yards
- Discharge to sensitive environment

#### KEY

- RED = Bypass flow path
- BROWN = Silt
- BLUE = Treated flow
- BLACK = Oil separation

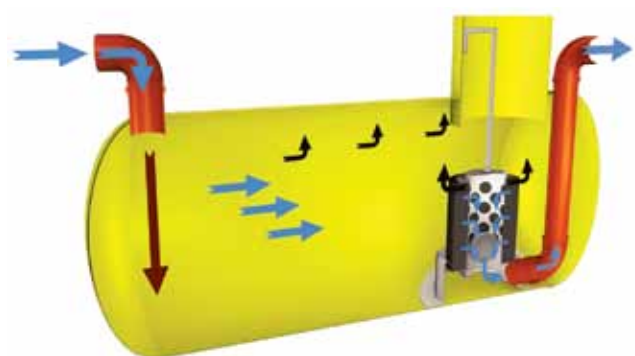
## clereflo full retention separator

Full retention separators treat the full flow that can be delivered by a drainage system, which is normally equivalent to the flow generated by the maximum local rainfall intensity. Full retention separators are used where there is a risk of regular contamination with oil and a foreseeable risk of significant spillages eg refuelling facilities, vehicle maintenance & workshop areas and retail fuel forecourts.

All full retention separators have an automatic closure device (ACD) fitted within the coalescing filter as standard. This protects the ACD's operation from being interfered with by silts, solids and other organics and rubbish found in the storm water flow. The ACD is compulsory for all compliant full retention separators, the ACD prevents accumulated pollutants flowing through the unit when the maximum storage level is reached.

### PROCESS & PERFORMANCE

Contaminated water enters the separator, the liquid is retained for a sufficient period to ensure that the lighter than water pollutants, such as oils and petrol, separate and rise to the surface of the water and are retained within the separator. Decontaminated water is discharged. Retained oil must be emptied from the separator once the level of oil is reached, or the oil level alarm is activated and the closure device operated.



#### KEY

- BROWN = Silt / BLUE = Treated flow / BLACK = Oil separation

### APPLICATION AREAS

- Sites with hi-risk of oil contamination
- Fuel storage depots
- Refuelling facilities
- Petrol Forecourts
- Vehicle maintenance areas/workshops

### FEATURES & BENEFITS

- All surface water treated
- Available in Class 1 & 2
- ACD Fitted as standard

## forecourt separator

The Clereflo Forecourt separator is a full retention separator constructed to retain, on site, the maximum spillage likely to occur on a service station. They are required for both safety and environmental reasons and are capable of containing and treating spillages that may occur during normal vehicle refuelling and road tanker delivery operations. The size of the forecourt separator is increased in order to retain the possible on site loss of a compartment on a road tanker, which as a minimum standard is 8,000 litres, larger capacities are available on request.

All Forecourt separators are Class 1.

### FEATURES & BENEFITS

- All surface water treated
- Class 1 Separator
- ACD Fitted as standard
- Oil Level Probe as standard
- Includes 2000L silt capacity

### APPLICATION AREAS

- Petrol forecourts
- Refuelling facilities
- Fuel storage depots

## alarm systems

All separators are provided with a robust device to provide visual and audible warning (if necessary to a remotely located supervisory point) when the level of oil reaches 90% of the oil storage volume. This automatic warning device indicates that the separator is in need of immediate emptying for it to continue to work effectively.

Envirotank can supply a full range of visual and audible warning devices including: mains powered, solar powered alarms (with flashing beacon) or solar GSM (sends txt message to a mobile phone of your choice). Up to three (3) probes can be fitted in the separator to automatically monitor the oil level, silt and high liquid level. The probes will also indicate exactly when the Separator needs emptying, eliminating unnecessary waste management visits.

### MAINS POWERED SYSTEM

This option is best suited to new build situations or sites where installation of the necessary cabling and conduits is straightforward and economical.

### SOLAR POWERED SYSTEM – FLASHING BEACON

This option requires no mains power supply or any significant cabling and ducting making it economical for large sites and retrofitting alarms to existing oil separators. A High Intensity Beacon will flash when a problem is detected.

### SOLAR GSM ALARM

The Solar GSM alarm sends a status report of your separator to a mobile phone number of your choice. The status of the GSM alarm can also be tested at any time by simply sending a pre-recorded text message via your dedicated mobile phone.

## wash down & silt separators

### CWS WASH DOWN SEPARATOR

Where there is no trade waste drainage available, any effluent from vehicle wash down areas must be contained within a sealed drainage system or catchpit for disposal by a licensed waste contractor.

Silt build-up is the main problem with wash down facilities, the Envirotank CWS range of wash down and silt separators are used to remove the silt and will allow some separation of hydrocarbons.

Detergents that are used in wash down areas will break down and disperse the hydrocarbons, hindering the separation process. Therefore it is important to remember that the main function of wash down separators is to remove silt.

Although it is recognised that single stage separators give the most efficient separation, 2 and 3 chamber CWS silt separators are available on request.

### APPLICATION AREAS

- Car wash facilities
- Tool hire depots
- Pressure washer facilities

## service & accessories

Envirotank recommend as a minimum that, every six months a suitably qualified and experienced person should:

- Physically inspect the integrity of the separator and all mechanical parts
- Assess the depth of accumulated oil and silt
- Service all electrical equipment such as alarms and separator management systems
- Check the condition of any coalescing device and replace it if necessary
- Keep a detailed log of when the separator is inspected, maintained, emptied and serviced.
- **Separator waste is a “special waste” and should be removed from the separator by a suitably qualified and licensed waste disposal contractor.**

### SEPARATOR ACCESSORIES

#### Coalescing Filters

This filter (a cylindrical cartridge of open cell material – with handle for easy removal and cleaning) separates residual oil in already separated oil/water and ensures discharge quality of less than 5mg/litre of oil in water under test conditions. It is simple to maintain and replace.

### ALARM ACCESSORIES

- Flashing beacons
- Flashing beacons with siren kit
- Kiosks
- High level probe
- Silt level probe
- Oil level probe