



OIL / WATER SEPARATOR

A Constant Solution for a Changing Environment

Oil / Water Separators



Technical >

The O Reilly Oakstown Environmental oil/water separator consists of a coalescent plate pack (see picture) which speeds up the natural process of rising oil to the top of water. The mathematical relationship that describes the separation process is

$$V_R = \frac{g (P_w - P_o) D_o^2}{18\eta}$$

18n

Why do we need oil/water separators?

- Prevent contamination of groundwater, streams and rivers
- To eliminate the substantial cost of cleaning up oil spills
- Clean industrial water for reuse
- To comply with Environmental Protection Regulation

O Reilly Oakstown Environmental, based in Trim, Co. Meath have teamed up with Austrian manufacturers **FREYLI** to produce a range of Class 1 oil/water separators for the Irish market.

FREYLI have earned a reputation as one of the leading companies worldwide in the design and supply of enhanced gravity separators to industry, in particular the global oil industry. Among their clients are companies such as **Shell, BP, AGIP, DEA, TEXACO, OMV, Q8 OILS, ESSO, MOBIL, EMARAT.**

Description/Advantages

The Freylit Enhanced gravity unit is housed in a concrete tank. Each system is fitted with a unique automatic shut off valve which will control the amount of fluid entering the tank in the event of a large oil spill. The volume of the tank allows for silt settlement on the floor of the tank. However, in some cases a separate silt chamber may be advisable where silt levels are high.

The key advantages of the O Reilly Oakstown Environmental Separator are:

- Little or no operation costs
- No power supply needed
- Minimum maintenance
- No spare/mechanical parts, no wear and tear

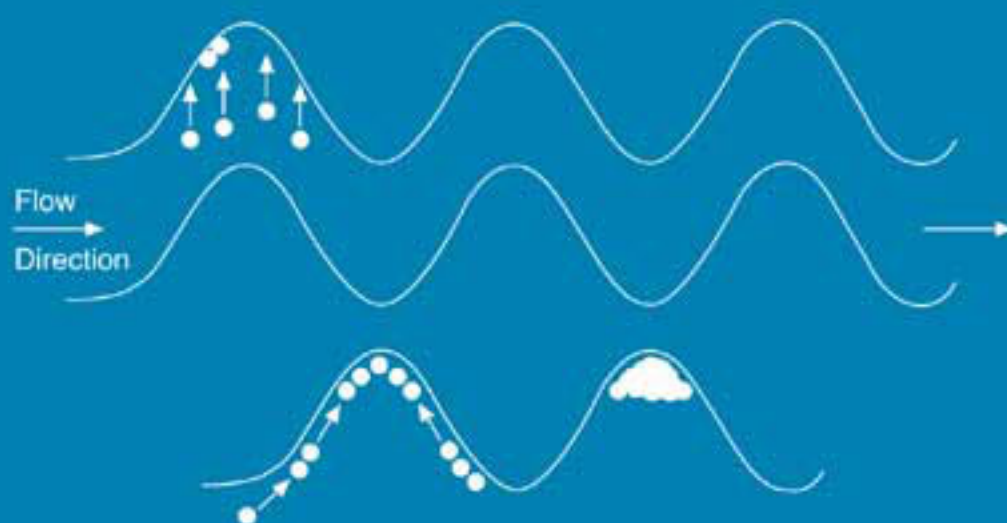
- No changing of filters or medium
- Life long concrete structure suitable for all areas
- Large capacity - Less desludging
- No back-filling with readymix required
- Exceptionally long working life 10 years guarantee on plates
- Proven success throughout the world

Stokes Law

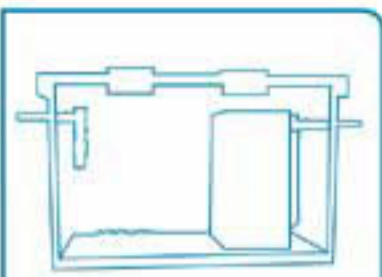
- V_R = rise velocity of the oil droplet in cm/sec
- g = gravitational constant (980 cm/sec²)
- η = viscosity of water in poise
- P_w = density (gm/cm³) or specific gravity of the water
- P_o = density (gm/cm³) or specific gravity of the oil
- D_o = diameter of the oil droplet in cm

O Reilly Oakstown Environmental oil/water separators are designed to enhance this natural process by, firstly-making oil droplets larger coalescence and therefore making them rise faster, and secondly-reducing the time needed for separation by reducing the distance an oil droplet must rise by using horizontal parallel coalescent plates. The oil then forms a layer on the surface of the water while the clean water flows away.

The O Reilly Oakstown Environmental oil/water separator is designed to **Class 1** specification. It will discharge water at a quality of 5ppm. All sizes of separators are designed to the European standard EAN-858. This standard is above current local authority requirements. A comprehensive site report may be produced on request by O Reilly Oakstown Environmental for architects, engineers, local authorities or clients detailing the type of separator proposed for each project.



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No back-filling
Guarantee on plates
Proven success



3D VISUAL FOR ILLUSTRATION PURPOSES ONLY

Criteria

O Reilly Oakstown Environmental specialise in site specific products. Each site will require detailed information to allow us to supply the correct type of separator.

The following information should be provided:

- Total yard area for drainage to separator
- Nature of business
- Proximity to water courses
- Location of existing/proposed fuel pumps (if any)
- Location of existing/proposed washing points (if any)
- Hours of operation
- Local authority/engineers requirements

The protection and enhancement of our environment has become a basic standard by which we all abide today. Civil engineers, local authorities, architects and other interested parties are duty bound to consider all forms of water quality protection and recycling wherever possible.

Every site demands specific environmental planning. But some things are common for all conditions: Durability, Longevity, Quality, Capacity, Compatibility and Flexibility.

O Reilly Oakstown Environmental are customer led and service driven. We produce a full range of environmental concrete products. We manufacture and assemble large concrete tanks on site for industrial and domestic applications. Rainwater attenuation or storage tanks can be made to any specific size or dimensions.

We provide design specifications and drawings where required. Site visits and advice are all part of the complete package that we offer.

Full Range of Environmental Products:

- BAF Domestic Sewage Treatment System
- Site Specific Large Sewage Treatment Systems (25-2000 people)
- Oil/Water Separators (all sizes)
- Attenuation Tanks (all sizes)
- Moveable Retainable L walls

O Reilly Oakstown Environmental is a subsidiary of
O Reilly Concrete Limited.



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Now available from O Reilly Oakstown Environmental:

Attenuation Tanks

Site Specific, Concrete Holding Tanks.
Robust and Lifelong Structure.

