

OIL-WATER MANAGEMENT SYSTEMS

HYNDS ECOSEP™ OIL-WATER SEPARATOR

Introduction

The Hynds ecoSep oil-water separator is a below ground device that permanently separates oil from water. It also virtually eliminates the formation of oil emulsions within the unit. The system provides cost effective, high efficiency elimination of sediments and oil from sites where water quality treatment is required.

Advantages

- Permanently separates oil from water.
- Far exceeds environmental standards.
- Automatic hydrocarbon spill control.
- Separates light liquids (specific gravity below 0.95).
- Separates free oils to less than 5ppm in discharge.
- High operational reliability.
- All stainless steel internal components.
- High quality precast concrete chambers.
- Low maintenance and waste disposal costs.

Applications

The ideal oil-water separation solution for:

- Fuelling facilities, transformers and oil storage areas.
- Treatment of non-detergent washing water from vehicle washing and repair workshops.
- Treatment of industrial process waste water.
- Treatment of waste water from oil removal plants.
- Purification upstream from emulsion breakers and micro filtration units.

How They Work

The Hynds ecoSep oil-water separator is normally supplied as a two tank design and makes optimum use of three purification methods:

1. sedimentation;
2. gravity oil-water separation; and
3. final effluent polishing in a residual oil coalescing medium.

Performance

The performance of Hynds ecoSep oil-water separator has been proven by independent testing authorities to exceed the strict European standards for the separation of free non-emulsified oil from water (5ppm separation ratios).

Sizing & Design See Table 1

Three standard sizes are available for the Hynds ecoSep oil-water separator and are based on the influent flow rates.

Installation

Hynds ecoSep oil-water separator is easy to install. The stainless steel components are housed in precast concrete tanks that normally require no ballast slab, hold-down straps or load deflecting concrete pad at ground level.

Maintenance

Hynds ecoSep oil-water separator is easy to maintain. Annual maintenance costs can be substantially reduced compared with conventional separator systems.

The large hatch opening provides full access to all basic elements of the Hynds ecoSep oil-water separator and allows the system to be visually inspected in a matter of minutes. This minimises confine entry requirements for routine cleaning and maintenance.

Note: the accumulated oil can be continuously removed with the addition of an automatic oil draw-off device (ADD), saving disposal costs and avoiding emulsification.

Table 1: Hynds ecoSep Design

ecoSep Model	max Flowrate (l/s)	Grit Chamber (m)	Separation Chamber (m)	Approx Height (m)	Inlet Pipe (mm)	Outlet Pipe (mm)	Effluent Oil Conc. (ppm)
NS 3	3	0.9 - 1.2	1.5	1.8	100	100	<5
NS10	10	0.9 - 1.2	1.8	1.8	150	150	<5
NS20	20	1.2 - 1.5	2.4	2.44	200	200	<5
>20	>20	Custom design. Please contact Hynds Environmental					



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HYNDS ECOSTOP™ SPILL CONTROL SYSTEM

Introduction

Hynds ecoStop spill control system is a secure and reliable hydrocarbon spill management system suitable for any site with a potential for spills. Because the system detects and responds to spills automatically, it minimises the chances of failures caused by human error.

Advantages

- Closure valve watertight to 50kPa (5m head).
- High quality precast concrete chambers.
- High operational reliability.
- Simple to install or retrofit.
- All stainless steel internal components.
- Low maintenance.
- Minimises failures caused by human error.

Applications

The ideal spill control solution for:

- Petrol stations and other fuelling facilities.
- Electrical transformers and generators.
- Oil storage areas.
- Transportation fuelling systems.
- Any site where hydrocarbons are stored.

How They Work

The system is installed in a precast concrete chamber, downstream from a segregated hydrocarbon containment drainage area.

The float actuated shut-off valve stops flow through the system when maximum hydrocarbon storage capacity or certain liquid level is reached. This prevents the discharge of free hydrocarbon to municipal sewers or direct discharge outfalls. Hynds ecoStop spill control system maintains the spill on site where it can be contained either below ground, in an underground storage tank or large diameter pipe, or above ground in a bunded area.

Sizing & Design

(see table 2)

Three standard sizes are available for the Hynds ecoStop and are based on the influent flow rates.

Systems for pipes larger than 200mm can be custom designed by Hynds Environmental.



Installation

Hynds ecoStop spill control system is easy to install. The system can be installed in-line and downstream from any hydrocarbon containment drainage area used to treat runoff.

The stainless steel components are housed by the precast concrete tank that normally requires no ballast slab, hold-down straps or load deflecting concrete pad at ground level.

Maintenance

Hynds ecoStop spill control system contains the spill on site. In the event of a spill, clean up is required in the upstream containment area and within the Hynds ecoStop spill control system. The system can simply be made operational again by emptying the float and re-attaching it to the shutdown valve. Regular maintenance is also recommended to remove pollutants accumulated under normal conditions.

Table 2: Hynds ecoStop Design

ecoStop Model	Separation chamber (m)	Approx Height (mm)	Inlet Pipe (mm)	Outlet Pipe (mm)
DN 100	1.2	1800	100	100
DN 150	1.2	1800	150	150
DN 200	1.2	1800	200	200
>200	Custom design. Please contact Hynds Environmental			

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protecting our environment

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