

ESK™

Oil/Water Separator with Automatic Shutoff Valve



Our waterways. Our future.

Stormwater360
AUSTRALIA

ESK™

Industrial Site Solution



The ESK™ is a passive high efficiency coalescing separator that removes free oil from contaminated stormwater runoff and has a built-in shutoff valve to prevent spills and storage capacity excess exiting the device. The device is ideally suited for sites where specific effluent targets are specified, or for sites where removal of oil and grease is the greatest concern e.g. fuel stations, fuel distribution stations, car servicing workshops, etc. It is typically sized to remove oil droplets as small as 10 microns and achieve an effluent concentration of 5 mg/L or less.

How does it work?

The design of the separator calms down the flow of polluted water and at the same time forces the division into oil (stored in the separator) and water. Untreated runoff flows enter the ESK™ and are directed downwards via an angled inlet pipe, allowing gravity to start the separation process. Petroleum derivatives lighter than water float to the surface, where they accumulate forming a layer. Small mineral oil droplets that do not have adequate buoyant force form larger drops (coalescence) during their flow through the coalescence material, which facilitates their separation. The submerged outlet prevents the escape of separated contaminations into the receiver while allowing treated water to exit the system. When the volume of captured oil exceeds the maximum design capacity or when a spill occurs onsite, an automatic shutoff check valve will close to prevent effluent leaving the device.



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ESK™ Features



- Separates free oil from water using gravitational and coalescing technology
- Provides discharge of oil concentration as low as <5 PPM with an oil droplet size of approx. 10 µm
- Automatic shutoff valve
- Optional alarm system
- Compliant with European and British EN 858 class 1 standard

Benefits

- Standard products accommodate a large variety of flows
- Easy to install and maintain
- Reusable and washable media
- Smaller footprint and depth than traditional oil/water separators



Available Models

ESK	Chamber Diameter m	Treatment Flow L/s	Recommended Inlet/Outlet Pipe Size mm
ESK20	1200	20	200
ESK40	1500	40	300
ESK100	1800	100	300



Inspection and Maintenance

Inspection and maintenance activities for the ESK™ typically include:

- Visual inspection of cartridge, shutoff valve and tank
- Vacuum extraction of oil, floatable trash/debris, pollutants and sediment from manhole sump.
- External rinsing and re-installing of filter cartridges.
- Replacement of filter cartridge as needed. Cartridge replacement intervals vary by site; but are available upon request.

Applications:

- Service and Refuelling Stations
- Power Substations
- Waste Recycling and Transfer Facilities
- Machinery Maintenance Facilities

Inspection Frequencies:

- The frequency of inspection and maintenance is a function of the magnitude of hydrocarbons washing of the site.
- Monthly inspections during the first year of operation to assess the sediment and floatable pollutant accumulation, and to ensure proper functioning of the system.
- Inspection frequency in subsequent years is based on the inspection and maintenance plan developed in the first year of operation. Minimum frequency should be once per year.
- Inspection is recommended after each major storm event.
- Immediately after an upstream oil, fuel or other chemical spill.

To find out more about the ESK™, speak to your Stormwater360 consultant or call us on 1300 354 722.

Next steps

Learn more

For more detailed technical information about Stormwater360 products and solutions, visit www.stormwater360.com.au

Connect with us

With more than 15 years experience in developing, installing and maintaining innovative and efficient site-specific stormwater management solutions, Stormwater360's highly qualified engineers and consultants can assist you with every aspect of your stormwater project.

Whether it's an initial in-house technical presentation, a request to inspect and clean your existing facility, or assistance with designing a specific stormwater management solution for your site, simply complete the enquiry form at stormwater360.com.au or call **1300 354 722** to speak to a Stormwater360 consultant.

Start a project

If you are ready to begin a project, our engineering team will provide you with everything you need, from a free preliminary design to MUSIC modelling, CAD drawings to maintenance frequency and associated costs schedules. To find out more, simply visit www.stormwater360.com.au and complete the Design Information Request form.

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Jellyfish Filter Australian Patent No. 2008,286, 748

Stormwater360 supplies and maintains a complete range of filtration, hydrodynamic separation, screening and oil/water separation technologies.

Call 1300 354 722

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