ACO Construction & Building Products

Oil-Water Separators

ACO ENVIRONMENT

Oleopator P Leaflet

Polyethylene Body Coalescing Oil-Water Separator
The ACO Group

Founded in 1946, the ACO Group manufactures products for the building and construction industry.

Today, ACO employs over 3,800 people world-wide and has sales and manufacturing operations in more than 40 countries.

ACO is the pioneer and world leader of modular trench drain systems. ACO drainage systems are used in a variety of applications from domestic environments to airports. ACO products have been used at many prestigious locations, including Olympic stadiums, since 1972.

ACO Environment

In a world where environmental pollution controls are becoming stricter ACO has developed products to help businesses comply with these regulations. Products are designed with easy installation, operation and maintenance in mind to ensure full customer satisfaction.

ACO produces a range of light liquids and solids separators and spill containment systems manufactured from corrosion resistant fiberglass, polymer concrete, polyethylene and other materials.
ACO. The future of drainage.

System Chain

ACO is a global leader in surface water management. With products to collect, clean, hold and release water; addressing all phases of the water cycle and supporting sustainable drainage (SD, SUDS), Low Impact Development (LID) and LEED principles.

**Collect**
- Trench drains
- Catch basins

**Clean**
- Oil/water separators

**Hold**
- Detention/Retention devices

**Release**
- Infiltration systems
- Flow control

Oleopator P

The ACO Oleopator P is a range of light liquid separators that allows suspended solids and hydrocarbons to be separated out simultaneously in one tank.

They are designed to achieve high performance at large flows in a compact polyethylene tank.

This process uses gravitation and coalescence principles to separate contaminated water into 3 components:

- Clean water
- Oils
- Sludge

All separators include, as standard features, coalescing units and automatic outlet closing devices for situations when maximum oil storage capacities are exceeded.

The ACO Oleopator P separators are designed and constructed to comply with EN 858 standards and are CE marked and independently tested for hydraulic performance and structural stability.

Alarm sensor systems are available to notify personnel when maintenance is required. Oil level sensors are required for compliance with UL 2215.

All tank units use a coalescing unit which traps oil drops that are too small to float to the surface and coalesces them together to form larger oil drops capable of being separated out. This coalescing unit consists of a cylindrical HDPE supporting basket, wrapped with a coalescence mat, centrally positioned around the float cage.

Capable of achieving effluent quality of 5 parts per million (ppm)
**Oleopator P Features**

- **Height adjustable shaft**
  - Manufactured from rotationally molded MDPE.

- **Inlet pipe - 4” or 6”**

- **Anti-scouring baffle on inlet**

- **Rotationally molded MDPE tank body**

- **Anti-buoyancy ribs**
  - Resists uplift forces from water table up to the finished grade (depending upon backfill materials).

- **Integrated sludge trap**
  - Provides an area for settled suspended solids storage.

- **Compact design**
  - Reduces excavation and installation costs. Structural stability guaranteed for 50 years.

- **Vent pipe fitting**
  - Multiple positions

- **Outlet pipe - 4” or 6”**

- **Float cage and float**
  - Once oil reaches 100% capacity the float will sink and close outlet pipe.

- **Coalescence unit**
  - Knitted wire mesh, perforated steel or polyurethane material (dependant on unit size)

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  - Knitted wire mesh, perforated steel or polyurethane material (dependant on unit size)

- **24” diameter cast iron access cover**
  - Pedestrian & heavy duty options (requires concrete support ring)

- **Choice of sizes to suit application**
  - Sized by through flow (l/s; gpm) and oil/sludge capacity. Maximum wet volume is 427 gallons (1,615 liters) per tank; multiple tanks can be used in series, or parallel for larger volumes.

- **Anti-scouring baffle on inlet**

- **Height adjustable shaft**
  - Manufactured from rotationally molded MDPE.

**Optional extras**

- Alarm systems available for high liquid level, maximum oil and maximum solids storage capacities reached
- Remote emptying system
- HDPE sampling shaft
Tank Details

<table>
<thead>
<tr>
<th>Model number</th>
<th>Maximum flow*</th>
<th>Pipes size D</th>
<th>Volume solids trap</th>
<th>Volume oil storage</th>
<th>Total capacity</th>
<th>H</th>
<th>H1</th>
<th>H2</th>
<th>Wgt</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS3/450</td>
<td>50 (3)</td>
<td>4 (100)</td>
<td>119 (450)</td>
<td>64 (240)</td>
<td>205 (775)</td>
<td>54 (1,377)</td>
<td>40 (1,020)</td>
<td>39 (1,000)</td>
<td>147.4</td>
<td>3903.80.00</td>
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<tr>
<td>NS3/670</td>
<td>50 (3)</td>
<td>4 (100)</td>
<td>177 (670)</td>
<td>64 (240)</td>
<td>263 (995)</td>
<td>63 (1,594)</td>
<td>48 (1,230)</td>
<td>48 (1,210)</td>
<td>182.6</td>
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<tr>
<td>NS3/950</td>
<td>50 (3)</td>
<td>4 (100)</td>
<td>251 (950)</td>
<td>64 (240)</td>
<td>339 (1,280)</td>
<td>74 (1,865)</td>
<td>59 (1,500)</td>
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<td>NS6/660</td>
<td>95 (6)</td>
<td>6 (150)</td>
<td>175 (660)</td>
<td>62 (235)</td>
<td>257 (970)</td>
<td>63 (1,594)</td>
<td>48 (1,210)</td>
<td>47 (1,190)</td>
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<td>3906.80.00</td>
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<tr>
<td>NS6/1210</td>
<td>95 (6)</td>
<td>6 (150)</td>
<td>320 (1,210)</td>
<td>62 (235)</td>
<td>404 (1,525)</td>
<td>84 (2,129)</td>
<td>69 (1,740)</td>
<td>68 (1,720)</td>
<td>222.2</td>
<td>3916.80.00</td>
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<tr>
<td>NS10/1080</td>
<td>160 (10)</td>
<td>6 (150)</td>
<td>286 (1,080)</td>
<td>69 (260)</td>
<td>427 (1,615)</td>
<td>84 (2,129)</td>
<td>69 (1,740)</td>
<td>68 (1,720)</td>
<td>231.0</td>
<td>3910.80.00</td>
</tr>
</tbody>
</table>

* Maximum flow indicated is for optimum performance - under 0.00004173 lb/gal (5mg/L) hydrocarbons in effluent; higher flows can run through separator

Cover & Extension

Shaft Details

Pedestrian duty cover
(shown with extension shaft)

Heavy duty cover
(shown with extension shaft and load distribution plate - by others)

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Wgt</td>
<td>319.0</td>
<td>374.0</td>
<td>424.6</td>
<td>627.0</td>
<td>3301.17.00</td>
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<tr>
<td>Part No.</td>
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<td>3301.14.01</td>
<td>3301.14.02</td>
<td>3301.17.00</td>
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</table>
Oleopator Accessories

Alarms

The optional alarm system makes separator operation even easier and ensures compliance with UL2215.

It does not replace the visual maintenance but ensures timely disposal of oil and/or sludge to guarantee correct operation of the system.

The sensors will alert when;
• Oil alarm - alerts when oil has reached 80% maximum capacity (once oil reaches 100% capacity the float will sink and close the outlet pipe). The oil level sensor is also able to identify if the tank has failed and liquids are leaking into the ground - it will alert if not submerged in liquid (ie - liquids are leaking out of tank)
• Sludge alarm - alerts when sludge has reached a specified capacity (recommend 50% maximum capacity). Excessive sludge will affect separator performance and immediate maintenance may be required
• Hi level alarm - alerts when liquids in the separator reach a specific level indicating that the outlet pipe is blocked

When any of these events occur a signal is sent to the central control panel or building management system, which can send out audio, visual and SMS alerts to ensure maintenance can be carried out before the separator system fails.

<table>
<thead>
<tr>
<th>Description</th>
<th>Part No.</th>
<th>Weight lbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACO Oilset 1000 oil alarm (1 sensor)</td>
<td>96078</td>
<td>7.0</td>
</tr>
<tr>
<td>ACO Sandset 1000 sludge alarm (1 sensor)</td>
<td>96079</td>
<td>7.0</td>
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<tr>
<td>ACO Set-2000 high level/oil alarm (2 sensors)</td>
<td>96080</td>
<td>7.0</td>
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</table>
Sample Shafts

The ACO Oleopator P sampling unit offers a compact rotationally molded HDPE body with adjustable height access cover shaft.

As a sampling shaft it is positioned downstream from the separator and provides access to the discharge from the separator and allows water quality testing to be performed.

The unit can also be positioned upstream from the separator to act as an inspection chamber to provides access to the system inlet pipe.

Class B installations the Installation depth 'E' can be between 25.6' - 47.25' (650mm-1200mm). Inlet depth 'T' is 17.32' - 44.1' (440mm-1120mm).

Class D installations the Installation depth 'E' can be between 29.5' - 59.0' (750mm-1500mm). Inlet depth 'T' is 21.25' - 55.9' (540mm-1420mm).

### Description

<table>
<thead>
<tr>
<th>Description</th>
<th>Part No.</th>
<th>Wgt lbs</th>
<th>H1 in (mm)</th>
<th>H2 in (mm)</th>
<th>L1 in (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling chamber - 4” pipe 6.3” gradient (100mm pipe 160mm gradient)</td>
<td>3300.13.10</td>
<td>264.0</td>
<td>5.43 (138)</td>
<td>4.13 (105)</td>
<td>14.96 (380)</td>
</tr>
<tr>
<td>Sampling chamber - 4” pipe 1.2” gradient (100mm pipe 30mm gradient)</td>
<td>3300.13.11</td>
<td>264.0</td>
<td>10.16 (258)</td>
<td>4.13 (105)</td>
<td>14.96 (380)</td>
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<tr>
<td>Sampling chamber - 6” pipe 6.3” gradient (150mm pipe 160mm gradient)</td>
<td>3300.13.20</td>
<td>265.0</td>
<td>6.10 (155)</td>
<td>3.15 (80)</td>
<td>11.81 (300)</td>
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<tr>
<td>Sampling chamber - 6” pipe 1.2” gradient (150mm pipe 30mm gradient)</td>
<td>3300.13.21</td>
<td>265.0</td>
<td>9.41 (239)</td>
<td>3.15 (80)</td>
<td>11.81 (300)</td>
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<tr>
<td>Extension shaft - 4.0” - 25.6” (100mm - 650mm)</td>
<td>3300.13.00</td>
<td>25.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sampling equipment*</td>
<td>8800.00.10</td>
<td>5.5</td>
<td>-</td>
<td>-</td>
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</tr>
</tbody>
</table>

*Sampling equipment consisting of manual pump and suction coupling, connecting hose and suction coupling and bolt connection. Suitable for inlet invert maximum T = 118” (3,000 mm)

System Layout

<table>
<thead>
<tr>
<th>Inspection shaft</th>
<th>Sludge trap</th>
<th>Separator</th>
<th>Sampling shaft</th>
</tr>
</thead>
<tbody>
<tr>
<td>(optional)</td>
<td>(optional)</td>
<td></td>
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</tr>
</tbody>
</table>

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Other ACO products

- **ACO DRAIN**
The world's leading modular trench drain system for commercial, industrial and landscape applications.

- **ACO SPORT**
Surface drainage and building accessories for track & field, used at Olympic sites since 1972.

- **AQUADUCT**
Custom designs and manufactures fiberglass trench drain systems to meet individual project requirements.

- **ACO INFRASTRUCTURE**
Surface drainage for highways, urban roads and bridges.

- **ACO STORMBRIXX**
A unique and patented plastic geocellular stormwater management system.

- **ACO WILDLIFE**
Tunnel and fence system designed to guide amphibians and other small creatures safely across roads.

- **ACO MARKANT**
Simple plastic and polymer concrete trench units for use around the home, garden and office.

- **QUARTZ BY ACO**
Stainless steel shower drains and accessories for tiled showers.