Industrial Skimmers

Proven oil spill technology
What is ATEX? ATEX directive - Electrical and mechanical equipment for use in explosive atmospheres

The ATEX directive (2014/34/EU) requires equipment and protective systems intended for explosive atmospheres to be designed and manufactured to minimize the occurrence and limit the severity of accidental explosions.

It applies to among others:

- New ‘equipment’ intended for use in ‘explosive atmospheres’ such as electrical components and apparatus and machinery.
- Separately supplied protective systems for controlling unavoidable explosions in explosive atmospheres such as explosion vents, suppression systems, etc.
- An ‘explosive atmosphere’ is a mixture of flammable substances (gases, vapours, mists or dusts) with air, under atmospheric conditions capable of causing a hazardous explosion if ignited.
- ‘Equipment’ is equipment capable of igniting the explosive atmosphere under normal or fault conditions. It is divided into electrical and non-electrical equipment.
- Equipment and protective systems that comply with the Directive can bear the CE and Ex markings; components do not bear the CE marking. Further markings form a code defining the category and suitability for different types of explosive atmospheres. A Declaration of Conformity is required.

### TRADITIONAL METHOD

Weir or ‘c’ pipe
Standing oil
Weir / c pipe
Water

- High water content, typically 60% water / 40% oil
- High waste disposal costs

### DESMI DISC SKIMMING METHOD

Disc Skimmer
Standing oil
Oil discharged into weir / c pipe
Water

- Low water content, typically 5% water / 95% oil
- Skimmed oil can be re-introduced to the refining process
- Low to ‘no’ waste disposal costs
The DESMI DBD5 is developed in accordance with directive 94/9/EC for devices intended for use in explosion-endangered environments and as such assessed with conformity to:

- Equipment group: II; Category 2G
- Explosion group: IIC
- Temperature class: T4
  (max. surface temperature <135°C)

The DBD5 Stainless Steel is a small sized skimmer containing one rotating oleophillic disc bank. The skimmer excels in light to medium level oil viscosity.

As the disc bank rotates through the water, oil adheres to the surface, and is then scrapped off the collection surface and deposited into the central sump of the skimmer head.

Housed in a compact and stainless steel body, and without the weight of an on-board pump, the DBD5 Stainless Steel has a minimum of draft, which allows deployment in shallow water and narrow locations. This makes the DBD5 a highly efficient skimmer for industrial applications.

Delivered in combination with a DESMI Power Pack with built in suction pump the skimmer system is easy to operate.

With a single lifting point and the suction / discharge, hose located in the waterline the DBD5 lays stable in the water during operation.

All the above features ensure a lightweight package that can skim and transfer many types of oil and can operate effectively in industrial environments.

**Basic physical properties:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating draft</td>
<td>0.14 m</td>
</tr>
<tr>
<td>Suction/Discharge coupling</td>
<td>2” Camlock</td>
</tr>
<tr>
<td>Hydraulic drive couplings</td>
<td>3/8” Tema SS</td>
</tr>
<tr>
<td>Hydraulic supply</td>
<td>0-5 l/min at 120 bar</td>
</tr>
<tr>
<td>Recovery rate (with disc)</td>
<td>5 m³/h max.</td>
</tr>
<tr>
<td>Length (excl. handles)</td>
<td>1.20 m</td>
</tr>
<tr>
<td>Width</td>
<td>0.8 m</td>
</tr>
<tr>
<td>Height</td>
<td>0.4 m</td>
</tr>
<tr>
<td>Weight approx. (with disc)</td>
<td>50 kg</td>
</tr>
</tbody>
</table>
DESMI DBD 16 Stainless Steel – Industrial Skimmer Floating Disc Skimmer

The DESMI DBD16 is developed in accordance with directive 94/9/EC for devices intended for use in explosion-endangered environments and as such assessed with conformity to:

- Equipment group: II; Category 2G
- Explosion group: IIC
- Temperature class: T4
  (max. surface temperature <135°C)

The DBD16 Stainless Steel is a medium sized skimmer containing two rotating oleophillic disc banks. The skimmer excels in light to medium level oil viscosity.

As the disc banks rotate through the water, oil adheres to the surface, and is then scrapped off the collection surface and deposited into the central sump of the skimmer head.

Housed in a compact and stainless steel body, and without the weight of an on-board pump, the DBD16 Stainless Steel has a minimum of draft, which allows deployment in shallow water and narrow locations. This makes the DBD16 a highly efficient skimmer for industrial applications.

Delivered in combination with a DESMI Power Pack with built in suction pump the skimmer system is easy to operate.

With a single lifting point and the suction / discharge, hose located in the waterline the DBD16 lays stable in the water during operation.

All the above features ensure a lightweight package that can skim and transfer many types of oil and can operate effectively in industrial environments.

**Basic physical properties:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating draft</td>
<td>0.14 m</td>
</tr>
<tr>
<td>Suction/Discharge coupling</td>
<td>3” Camlock</td>
</tr>
<tr>
<td>Hydraulic drive couplings</td>
<td>3/8” Tema SS</td>
</tr>
<tr>
<td>Hydraulic supply</td>
<td>0-5 l/min at 120bar</td>
</tr>
<tr>
<td>Recovery rate (with disc)</td>
<td>16 m³/h max.</td>
</tr>
<tr>
<td>Length (excl. handles)</td>
<td>1.22 m</td>
</tr>
<tr>
<td>Width</td>
<td>0.93 m</td>
</tr>
<tr>
<td>Height</td>
<td>0.66 m</td>
</tr>
<tr>
<td>Weight approx. (with disc)</td>
<td>70 kg</td>
</tr>
</tbody>
</table>
The multi-purpose Power Pack consists of an electrically driven hydraulic pump and an integrated DESMI Lobe pump which offers a discharge capacity of 10 cbm / hour.

The Power Pack is equipped with a two-section proportional valve enabling two hydraulically driven pieces of equipment, to be operated simultaneously at variable speed.

The Power Pack is galvanised for maximum durability. At a comfortable operational height is placed a panel for the hydraulic manoeuvring valve and pressure gauge. An EExd zone 2 start/stop box with a -12.5 amp thermo relay is provided.

All components of the Power Pack are tested with maximum load before leaving the factory. The Power Pack is manufactured in Denmark. All Couplings are stainless steel Tema.

Hydraulic system
- At 50 Hz the motor has 1450 rpm
- Pump capacity: max 23 l/m
- Hydraulic tank: approx. 100 l

Hydraulic controls
- DESMI AL25 Lobe Pump:
  (Internal pump)
- Skimmer Disc Drive: 5 l/m at 140 bar

**Basic physical properties:**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (excl. handles)</td>
<td>108 cm</td>
</tr>
<tr>
<td>Width</td>
<td>80 cm</td>
</tr>
<tr>
<td>Height</td>
<td>102 cm</td>
</tr>
<tr>
<td>Weight (full tanks)</td>
<td>480 Kg</td>
</tr>
</tbody>
</table>
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