Separation Technology for Oilfield Applications
Protection of the environment
Separators are vertical bowl high speed centrifuges, up to 10,000 G, which are primarily applied for the clarification and separation of liquids with and without solids content. Max. particle size is 0.5 mm and a total solids content of 0.1-3 percent can be separated. The throughput capacities of separators range from 50 to 250,000 l/h; a comfortable spectrum which accommodates the units for all process steps of separation technology.

When the solids content in the suspension to be processed is too high, up to 60 percent, it’s time to call in the decanters. They are often placed upstream of a centrifuge and achieve high clarification efficiencies and maximum dewatering. They are also employed for the separation of liquids with simultaneous removal of the solids. The essential preconditions here are a high bowl speed, up to 4000 G, a powerful drive for the scroll and a scroll speed that is automatically adapted to the solids concentration in the feeds.

Available separator and decanter features
- High separation efficiency
- No impact from ship / platform movement
- Achieve down to 5 ppm oil in water
- IMO MEPC.107(49) approved
- Reduced need of chemicals
- Gastight design available
- Self-cleaning or manual centrifuges
- Nozzle centrifuges
- Ex Zone 1 & 2
- ATEX approved
- Compact and robust design
- Plug and play system
Performance, cost savings, safe processes

Demand and requirements applicable for processing rigs and FPSOs for the oil industry are increasing. Operating reliability, weight and space requirements are major parameters. GEA supplies plug and play processing systems which comply with even the most stringent customer and environmental requirements and feature the latest weight and space saving designs.

They handle continuous liquid-liquid-solids separation in a wide range of applications and a wide range of capacities. The centrifuges are specifically designed to cope with the needs and circumstances on site, with permanent reduction of costs.

They are used in the following applications:

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<th>Upstream</th>
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<td><strong>On- and offshore installations</strong>&lt;br&gt;<strong>Oil &amp; gas production</strong>&lt;br&gt;<strong>Drilling Production Utilities</strong>&lt;br&gt;• Brine&lt;br&gt;• Drain water&lt;br&gt;• Drilling mud&lt;br&gt;• Slop water&lt;br&gt;• Solids control&lt;br&gt;• Tank cleaning</td>
<td><strong>Oil refineries</strong>&lt;br&gt;<strong>Gas treatment plants</strong>&lt;br&gt;<strong>Tank terminals</strong>&lt;br&gt;• Crude oil&lt;br&gt;• Drain water&lt;br&gt;• Produced water&lt;br&gt;• Bilge water&lt;br&gt;• Fuel oil&lt;br&gt;• Hydraulic oil&lt;br&gt;• Lube oil&lt;br&gt;• Cat fines&lt;br&gt;• MEG&lt;br&gt;• Slop oil&lt;br&gt;• Slop water&lt;br&gt;• Tank bottoms</td>
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Perfection Counts on Oilfields

Since 1893, GEA has been building centrifuges which combine high separating efficiencies, clarifying efficiencies and throughput capacities with maximum savings in terms of energy, water and disposal costs. GEA is a market leader in the field of centrifugal treatment of mineral oils and their derivates. Modern production facilities guarantee a high standard of workmanship. The first centrifuge was applied for the purification and dewatering of mineral oil back in 1907. Today, ten thousands of centrifuges take care of the reliable and economical treatment of fuel and lube oils as well as oily and watery sludges.

The product range comprises centrifugal separators, decanters and the associated system technology for oilfield applications – onshore and offshore, in power plants, for crude oil production and refineries. With the further development of tried and tested solutions as well as the new development of innovative technology, solutions are found for the centrifugal duties in the marine, oilfield and energy sectors.

GEA Service - For your continued success

Wherever your oilfield needs parts, service or support for the GEA equipment and solution installed, our global oil & gas service network will keep you on track. You have one contact in your region, communicating in your language, acting as your partner always one step ahead.

SPEED AND QUALITY

Our worldwide service network serves as a basis to on-time delivery of spare parts through our logistic hubs, local stock levels and a global network of highly trained and experienced Field Service Engineers as well as Authorized Workshops for comprehensive and safe repairs that only we can provide.
We live our values.
Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 index.