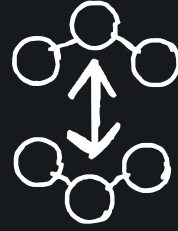




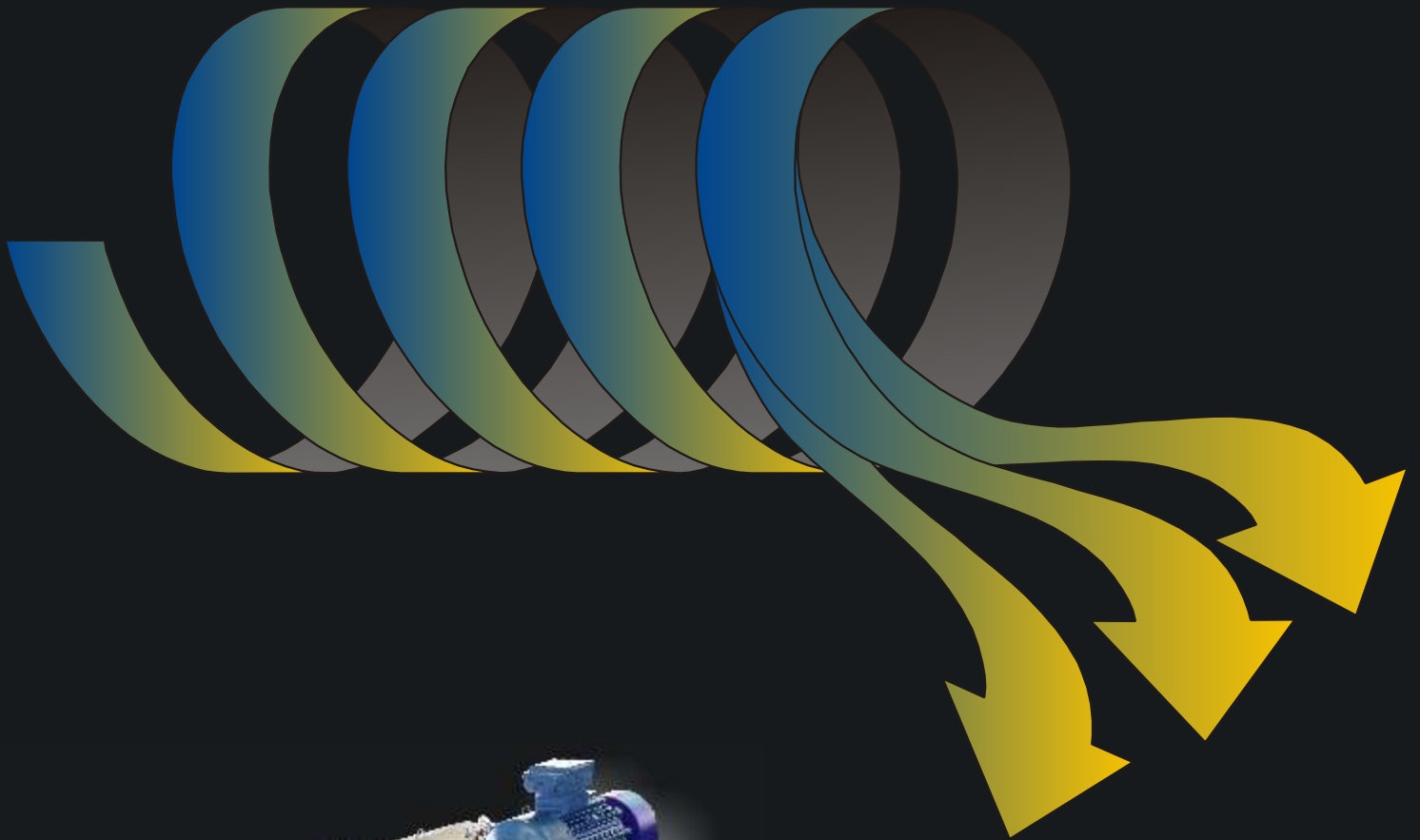
HILLER

separation & process



Electrical forces acting between the molecules of a liquid are the cause for drop formation and surface tension; they are named after Johannes van der Waal (1837-1923).

3-phase centrifuges for high-efficiency oil recovery and oil production



Centrifuge technology for oil recovery and oil production



„Water is the principle of all things.“
(Thales, Greek philosopher, approx. 620-540 b.c.)

Principle of operation

The **HILLER - DecaOil 3-phase** centrifuge is a solid-bowl centrifuge especially designed for highly efficient, simultaneous sedimentation of solids, and separation of two immiscible liquid phases.

The feed enters the rotating bowl through a stationary feed tube and is thrown radially outwards against the bowl wall.

Typical applications:

- Glycerine / fatty acid / salt separation in biodiesel production
- Used cooking oil processing as alternative fuel oil
- Olive oil production
- Avocado oil production
- Animal fat production from slaughtering offal
- Tallow recovery from fleshings
- Fishmeal stickwater
- Slop oil processing
- Crude oil storage tank bottom sludge
- Oil lagoon clearing
- Oily sludges from oil fields, oil refineries, petrol stations, metal industry, etc.
- Tar processing on coking plants and in tar chemistry
- Oil recovery from caustic in barrel washing

Your application is not included?
Please, talk to us. We have the solution.

The centrifugal force generated by the rotation of the bowl rapidly settles the solids particles at the bowl wall, where they are moved towards the solids discharge ports by a screw conveyor.

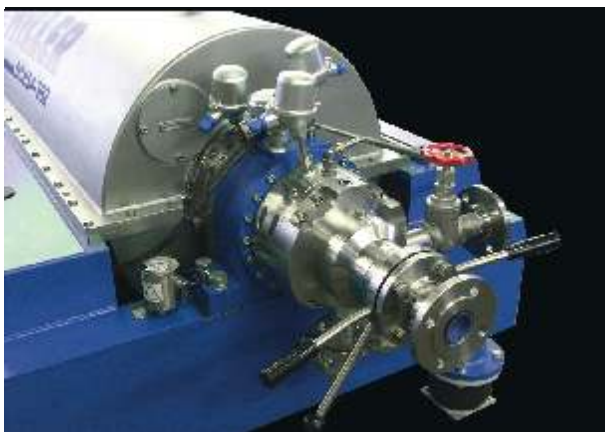
As the clarified liquid flows along the bowl towards the liquids discharge zone, the centrifugal force causes the light and heavy liquid phases (typically oil and water) to separate; the oil moving upwards to the rotating axis and the water gathering between the oil and the sediment layers.

A weir or underflow baffle in the liquids discharge zone separates the two phases, allowing oil and water to flow into separate discharge chutes outside the rotor.



The levels of the oil and water discharges are adjusted according to the relative densities of the phases and their respective quantities, in order to achieve optimal separation of the two liquids. Liquid phase discharge can be by weir plates, nozzles or centripetal pump.

The liquid levels in the rotor and the conveyor's differential speed are the controls for optimal solids removal, highest cake dryness, and highest purities of the liquid phases.

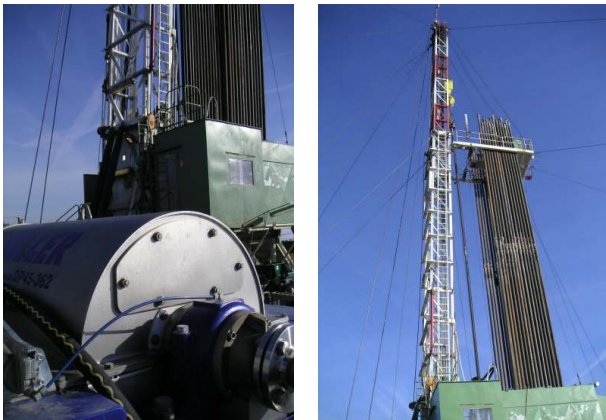


You set the task - we provide the solution.



HILLER high-performance decanter centrifuges guarantee optimal process results with the highest level of reliability.

The space-saving concept of the solid bowl centrifuge, together with optimal process results, make **HILLER - DecaOil 3-phase centrifuges** the first choice for oil recovery and oil production applications.



Features:

- Automated operation with our proprietary control systems
- All modern scroll drive systems
- Product-specific choice of materials
- Special machine design up to individual production
- Explosion-proof construction possible
- Research and development in laboratory and full scale up to in-house process development
- Design and construction of turn-key plants



The **HILLER - DecaOil** series are manufactured in our modern factory in Vilsbiburg (Bavaria) and are subject to strict quality controls. The care which is taken for manufacture is reflected in the satisfaction of our clients.

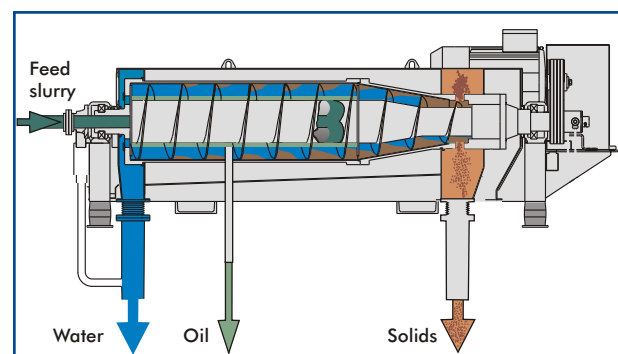
Mechanical features

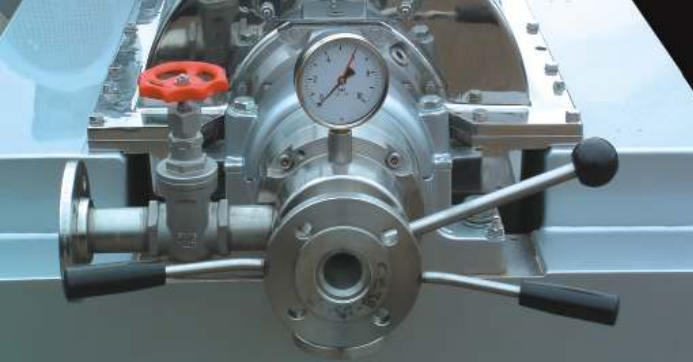
- Corrosion resistant materials, individually selected for the process: high-tensile carbon steel, stainless steel or special alloys
- Designs for operation at high temperatures
- Various wear protection systems available
- Gas-tight designs for hazardous environments
- Liquid discharge by open gravity systems or with externally adjustable centripetal pump

HILLER has a number of trial units which enable us to demonstrate the capabilities of the **HILLER** centrifuge in full scale. These mobile units can be easily integrated into your process and enable you to assess the achievable separation performance on site with your own product.

Economy and quality

- Very little operator attendance required
- Highest purity of liquid phases maximises value of the product
- Highest cake dryness minimises disposal costs
- Various wear protection systems for long lifetimes
- Simple and service-friendly design
- Low specific power consumption per unit product processed










DecaOil® 3-phase decanter centrifuge series

Type	DO31	DO37	DO45	DO54	DO66
drive motor (kW)	from 11 kW up to 75/90 kW				

HILLER can provide competent solutions for these industries and special applications:

-  Foods and beverages / DecaFood / OV
-  Mineral oils, gas and regenerative energy / DecaOil
-  Chemical, processing and pharmaceutical industry / DecaChem / DecaPharm
-  Environmental technology / DecaPress / DecaThick / DecaDrain
-  Mining, tunnel construction, mineral raw materials and drilling fluids / DecaDrillingFluid

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