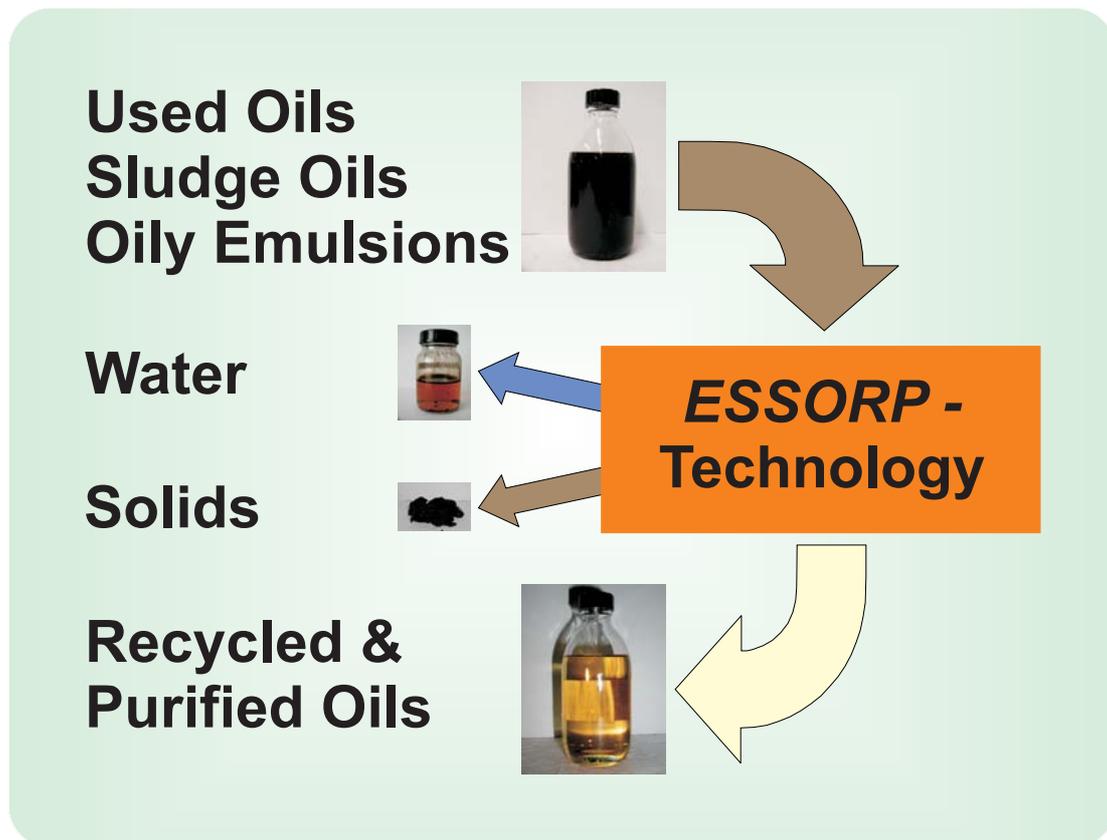


ESSORP-Technology



**Treatment of
Sludge Oils & Emulsions
from Ships & the Industry
by means of**

Recovery of Oil

Separation of Water

Separation of Solids

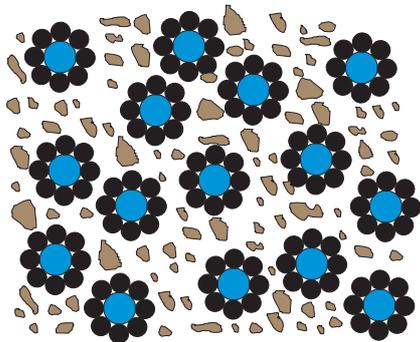
Environmental E_S Systems

Ultrasonic-
Technology

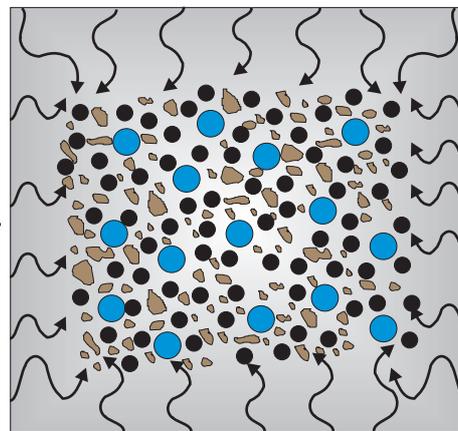
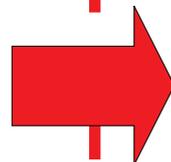
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Separation-
Technology

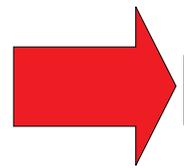
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Used Oils
Sludge Oils
Waste Oils
Oily Emulsions
etc.



Splitting of extreme
stabilised Emulsions
by the purpose-made
Ultrasonic-Technology



Application / Treatment of

- Used Oils
- Sludge Oils
- Bilgeoils/ -water
- Coolant Lubricants
- Oily Emulsions
- Extreme high viscous Oils
- Oils with high content of solids
- Natural Oils / Biooils
- etc.

Advantages of the E

- Reliable removal of the water also from extreme stabilised emulsions
- Reliable removal of solids down to 1 micron
- Recover of the oil
- No use of chemicals
- No use of process-water as for example necessary for Separators

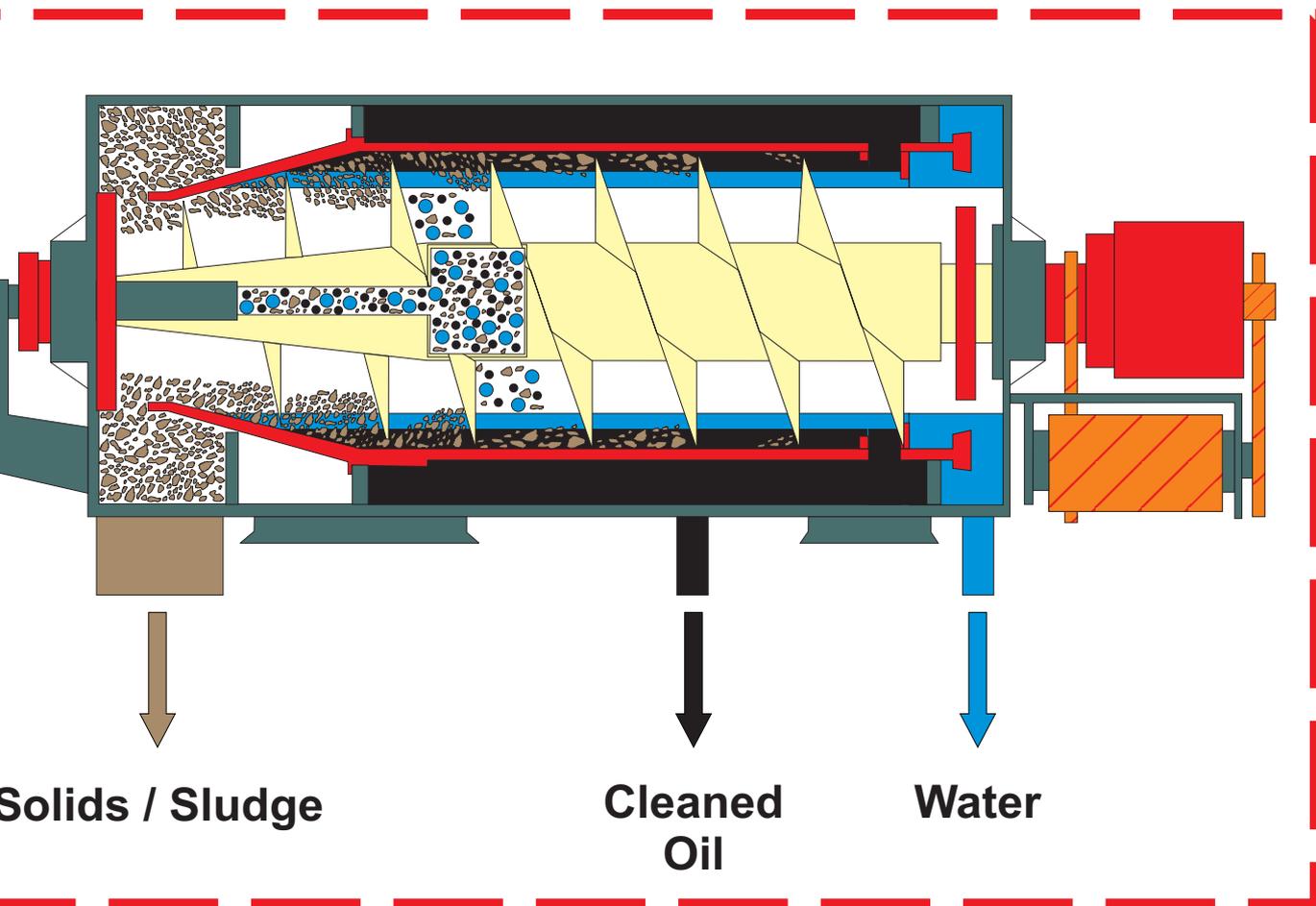
Environmental ES Systems

Optimal
Oil-Treatment

=

ESSORP-
Technology

ESSORP-Technology



ESSORP-Technology

- Continuous cleaning of the Oils without interruption of the process
- Reduction of operational costs
- Individual design of the system according to application, installation and specification
- Ready to install units, internally wired & piped
- Modular upgradable

optional Components

- Membranefiltration for the separated water (oil-content in cleaned water less 10 ppm)
- Briquetting-Unit for the separated solids / sludge
- Exhaust-Air-Cleaning-System
- Installation in Container

Environmental ES Systems

Example : Land based Sludge Oil-Treatment with optional fine-filtration

without ESSORP-Technology



Sample after treatment by a centrifuge. Only a small amount of water was separated.

Result:
The Water/Oil-Emulsion can not be separated by using a centrifuge.

with ESSORP-Technology



Sample after treatment by the special ESSORP-Ultrasonic-Technology. The complete emulsified water was separated from the oil.

Typical sample from the operation of Lube Oil-& Heavy Fuel Oil-Separators. The free water content of the Sludge Oil was drained before taking the sample. Therefore the oil still remains the non-visible emulsified water.

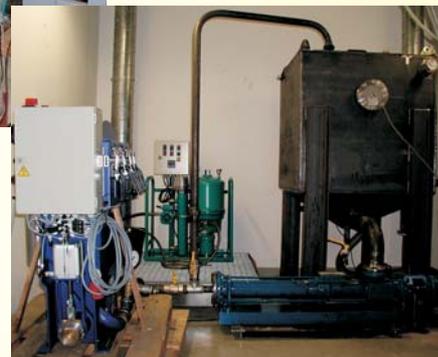
Only by application of the purpose-made ESSORP-Ultrasonic-Technology for Sludge Oils the complete amount of water is separated from the oil!



Left picture: purpose-made ESSORP-Ultrasonic-Technology with downstream 3-Phase-Decanter



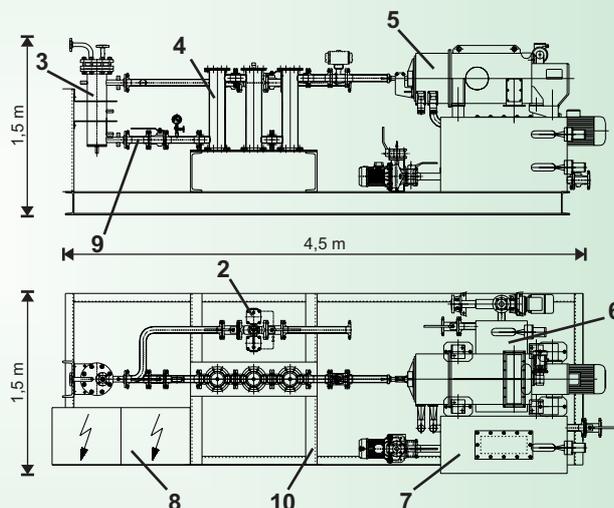
Separator-Room



Tank-Unit with optional fine-filtration and briquetting of the separated solids

Example: ESSORP-Technology for the treatment of 1.000 liter Sludge Oil/ hour

- 1 Feeding Pump
(Not illustrated, because of separate location /installation)
- 2 Change-Over Filter
- 3 Heat Exchanger
- 4 Special Ultrasonic-System
- 5 3-Phase-Decanter
- 6 Oiltank-Unit
- 7 Watertank-Unit
- 8 Electric Control Cabinet with SPS
- 9 Piping & Armatures
- 10 Frame



If you have additional questions about our **ESSORP-System**, we are pleased to consult you detailed & individually.



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