H2O ®

VACUDEST®

German Engineering

H2O

Clearcat. State of the art technology guarantees oil-free distillate.

Sustainable processing of oily industrial wastewater. State of the art technology from the experts for zero liquid discharge technology.

Clearcat conden-sation system:
- Crystal clear, oil-free distillate
- Highest reliability
- Lowest operating cost

Industrial wastewater is often polluted with oil and fat, thus disposal into public sewer systems or open waters is not allowed. Instead, such wastewater must be disposed of expensively with specialized waste management companies. Even for modern wastewater treatment systems, processing of such wastewater is a challenge.

To reduce the COD* and oil index** of industrial wastewater far enough that it can either be recycled to the production process, or be disposed of into the sewer system, requires mostly complex multi-stage treatment processes. In our future-oriented application center for zero liquid discharge production we continuously work on progressive solutions. This includes the patented Clearcat condensation system***.

This functional group for our state of the art VACUDEST vacuum distillation systems allows processing of oily industrial wastewater in a single process step, efficiently and reliably. The quality of the treated water sets bench-marks and fulfills even highest environmental standards. In the meantime, more than 70 percent of the VACUDEST vacuum distillation systems supplied are equipped with the proven Clearcat condensation system.

* COD (Chemical Oxygen Demand): A measure for the pollution of wastewater with organic substances
** Oil index: Oil and fat content of the industrial wastewater, analyzed according to DIN EN ISO 9377-2
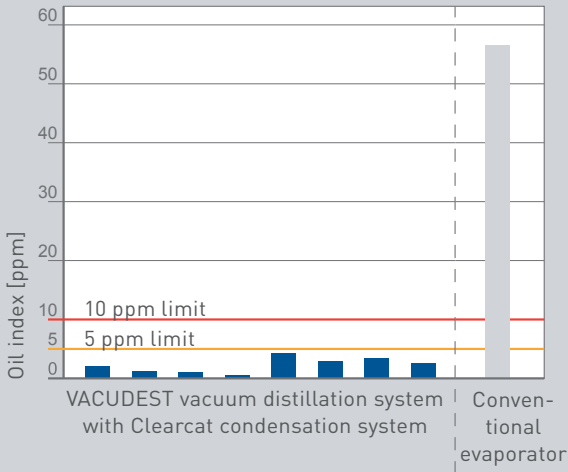*** US Patent No.: US 8,206,558 B2

Even for modern wastewater treatment systems, processing of oily industrial wastewater is a challenge. Mostly complex multi-stage treatment processes are required.
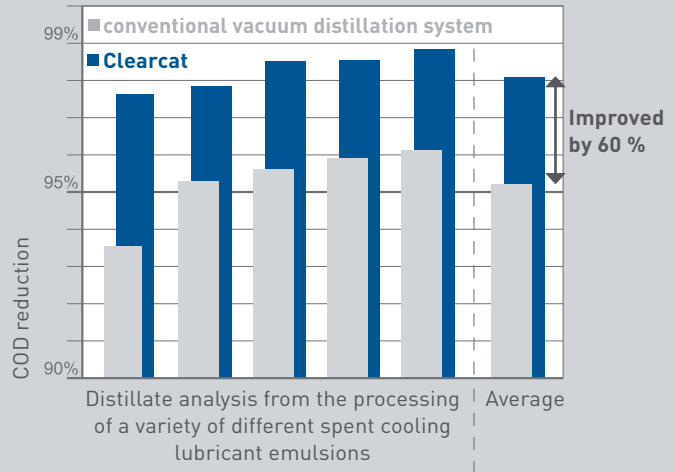

A simple optical comparison of distillate from conventional vacuum evaporators and VACUDEST Clearcat shows that the future proof Clearcat condensations system is setting benchmarks regarding quality of the treated industrial wastewater.

Less than 10 mg/l oil*
(Hydrocarbon Oil Index, DIN EN ISO 9377-2)

Oil index [ppm]

60
50
40
30
20
10 — 10 ppm limit
5 — 5 ppm limit
0

VACUDEST vacuum distillation system
with Clearcat condensation system

Conven-
tional
evaporator

The future proof Clearcat condensation system allows better reduction of the oil index than conventional evaporators combined with post treatment steps.

COD reduction of more than 98 %*

COD reduction

99% ■ conventional vacuum distillation system
■ Clearcat
95%
90%

Improved
by 60 %

Distillate analysis from the processing
of a variety of different spent cooling
lubricant emulsions

Average

The Clearcat condensation system stands for crystal clear distillate, including a COD reduction improved by 60 percent compared to conventional evaporators.

* Depending on the type of industrial wastewater to be treated

More time for the essentials.

The innovative Clearcat condensation system persuades by its efficiency. In a single process step, oily industrial wastewater is treated reliably without any additional operating efforts. That provides more time for important tasks.

No operating cost.

The functional principle of the Clearcat condensation system is based on physical and catalytical effects, thus this state of the art technology neither requires additional energy nor auxiliary or operating materials. This allows you to improve the quality of the treated water without additional operating cost.

Low space requirement.

The Clearcat condensation system is integrated into the vacuum distillation system as a functional group from our VACUDEST Modular-System. No space is required for additional post treatment of the distillate, thus you are saving valuable space for your production.

Quality you can rely on.

Other processes just reach the legal disposal limits based on additional equipment and processing steps, whereas the Clearcat condensation system sets benchmarks regarding quality of the treated water. Even highest environmental standards are kept. A valuable investment in a future worth living in.

Clearcat condensation system for the treatment of:
- Spent cooling lubricant emulsions
- Die casting release emulsions
- Rinsing water from degreasing
- Rinsing water from parts cleaning
- Oil and fat polluted industrial wastewater

H2O GmbH | Wiesenstrasse 32 | 79585 Steinen | Germany
Phone: +49 7627 9239-0 | Fax: +49 7627 9239-100
E-Mail: info@h2o-de.com | www.h2o-de.com