

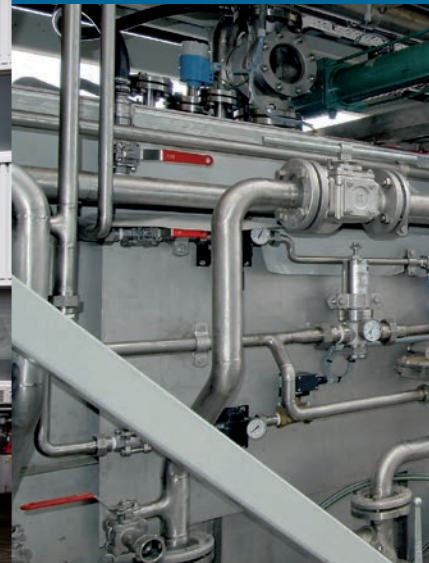
# Oil-sludge separation with mobile gas-tight decanters

FILTRATEC offers a range of services in the areas of sludge treatment, filtration and oil-sludge separation – with teams of well-trained personnel and high quality equipment





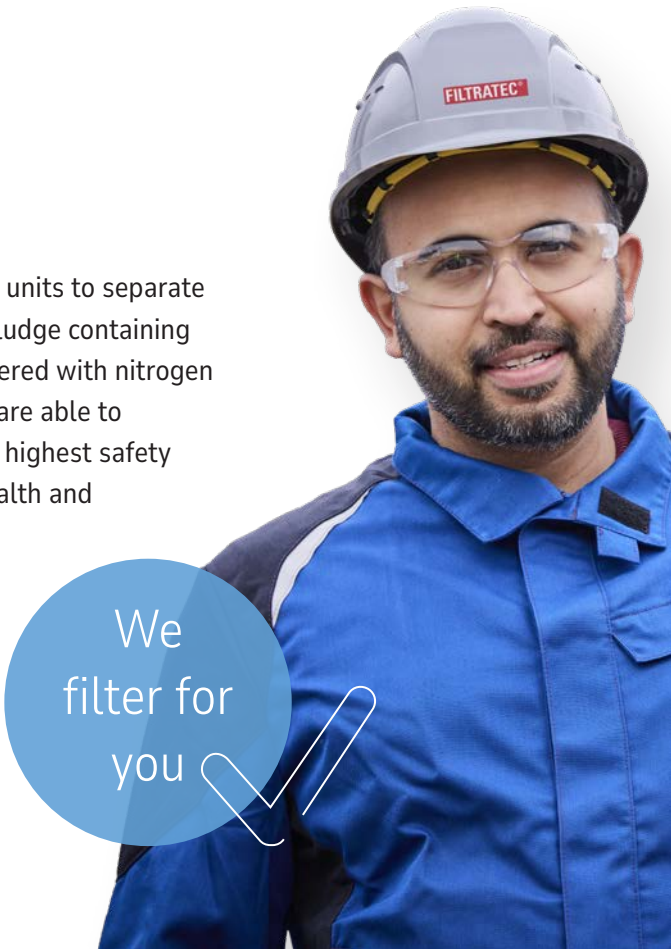
The nitrogen covering means no explosive zone arises within the plant. The system is technically leakproof, so no (diffuse) emissions can get outside either



TECHNOLOGY

# Gas-tight three-phase decanter

FILTRATEC operates mobile gas-tight, three-phase decanter units to separate combustible and harmful substances from each other. The sludge containing systems are fully compliant with the ATEX Directive and covered with nitrogen at all times. Not only are the end results outstanding as we are able to treat the material at high temperatures, we also achieve the highest safety standards – preventing explosions and protecting human health and the environment.



We filter for you ✓



Our clients from the chemical and petrochemical industry, the iron/steel sector as well as the construction and waste management business have been using our services for more than 50 years



A complex system of pipes with an integrated heat exchanger



**ATEX Directive**

Our gas-tight units are covered with nitrogen, comply fully with the ATEX Directive and can be used to process substances with a flashpoint of below 21°C.

The system is fully sealed to protect human health and the environment. Absolutely no emissions are released from the unit – a particularly important factor when carcinogenic or poisonous substances, such as hydrogen sulphide or benzene, are being treated.

Using mobile equipment to treat flammable or harmful substances at the place they are actually generated considerably reduces the amount of waste and, as a result, waste transport costs.

The recovery of recyclable materials, such as oil, helps to protect our environment. Our clients have lower waste disposal costs and higher recovery rates.

**These units are particularly suitable for processing:**

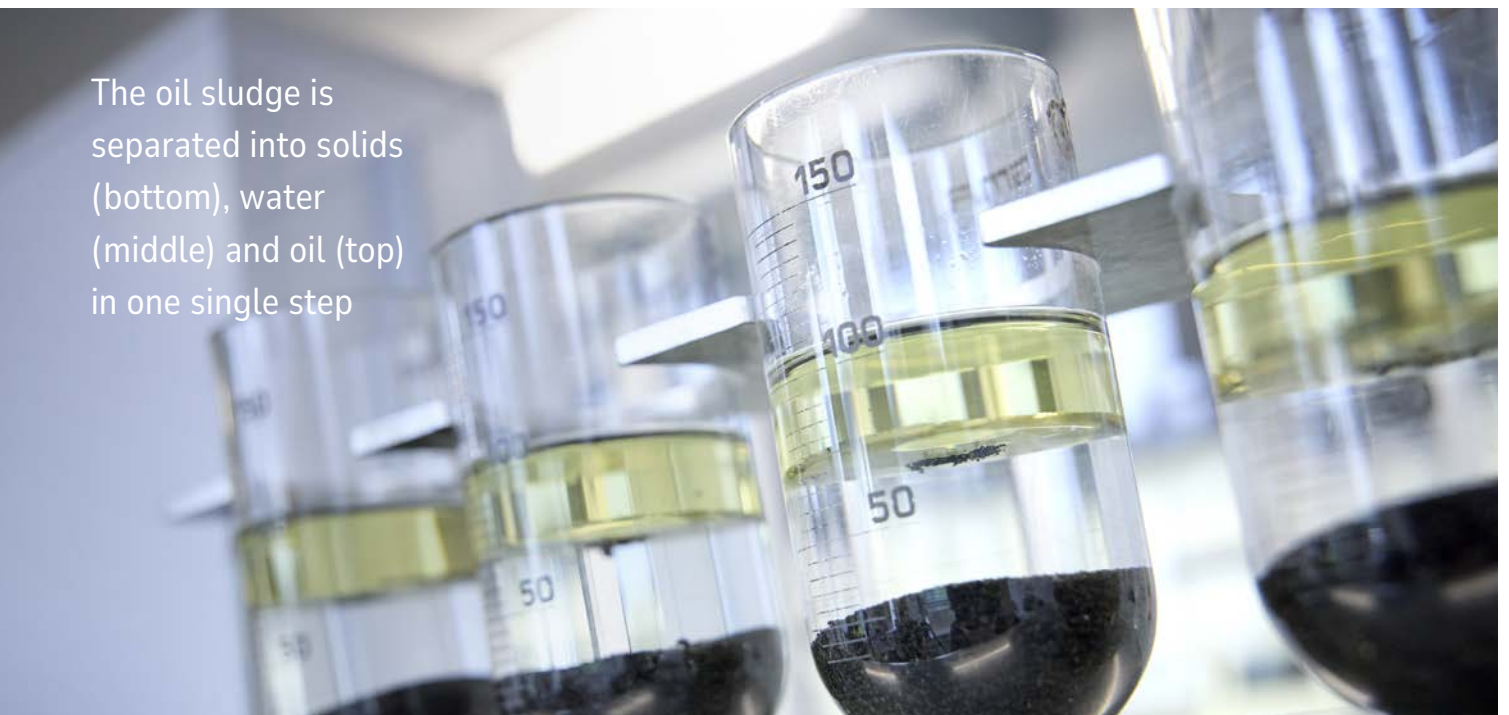
- ✓ Crude-oil sludge
- ✓ Oily waste-water sludge
- ✓ Slop residue
- ✓ Sludge containing solvents
- ✓ Residue from tank cleaning



# Your advantages: Higher quality, lower costs

Separating oil sludge in decanters is a specialist service mainly used by the petrochemical industry. This technology enables sludge to be separated into oil, water and solids in one single step. These gas-tight decanters offer a whole range of advantages compared to conventional systems – especially when it comes to safety and costs.

The oil sludge is separated into solids (bottom), water (middle) and oil (top) in one single step



## **Safety**

The units are constructed in accordance with ATEX 114 (2014/34/EU Directive).

FILTRATEC operates the units in line with ATEX 137 (1999/92/EC Directive). This guarantees protection against explosions (both electrical and mechanical). Our customers can be assured that all valid rules and regulations concerning explosive atmospheres in the workplace are fully complied with at all times.

## **Cost effective**

In the past, mobile units were unable to be fully protected against such explosive atmospheres. New developments now make this possible, opening up completely new horizons.

With such comprehensive measures in place to prevent explosive atmospheres, sludge can now be safely separated at temperatures above its flashpoint. An integrated heat exchanger is used here to heat up the material.

Separating substances into three phases at the right temperature produces particularly dry solid material as well as clean oil and water.

This helps to reduce the costs for disposing of the solid waste and the liquids can be sent on for further processing.

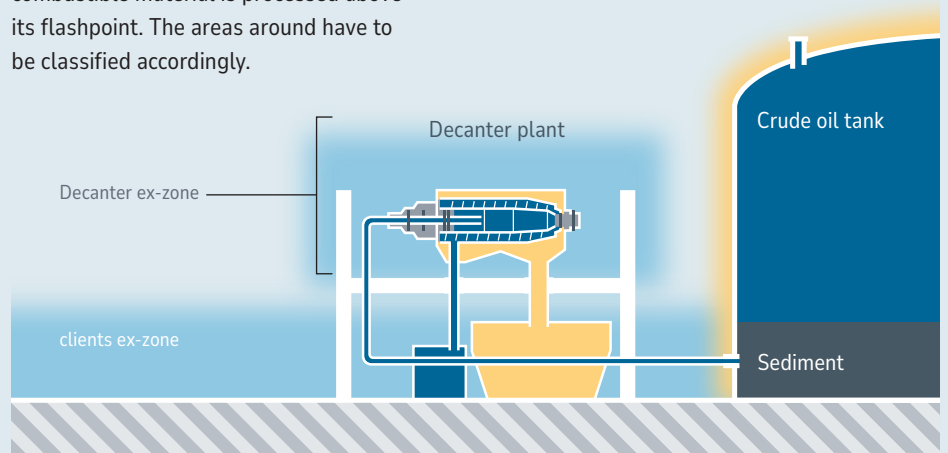
# CONVENTIONAL

A conventional decanter without an integrated system to prevent explosions

Conventional “non-gas-tight” decanters always generate their own explosive zone no matter where they are placed – even if the decanters are equipped with electrical explosion-protection systems. An ex-zone is created inside the decanter as soon as combustible material is processed above its flashpoint. The areas around have to be classified accordingly.

This system, therefore, creates its own explosive zone which means the operator must ensure all relevant safety measures are in place.

A conventional decanter (i.e. not gas tight) draws in a considerable amount of air, contaminates it with combustible substances and then releases it back into the atmosphere



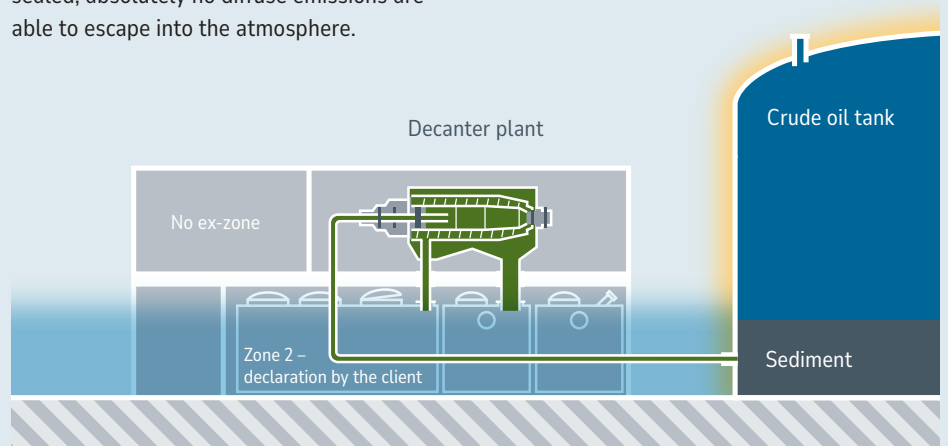
# GAS-TIGHT

Gas-tight decanter with an integrated system to prevent explosions

An explosive atmosphere is unable to be created within the unit as the whole sludge containing system in this gas-tight decanter is covered in nitrogen – there is no oxygen present. Moreover, as the system is completely sealed, absolutely no diffuse emissions are able to escape into the atmosphere.

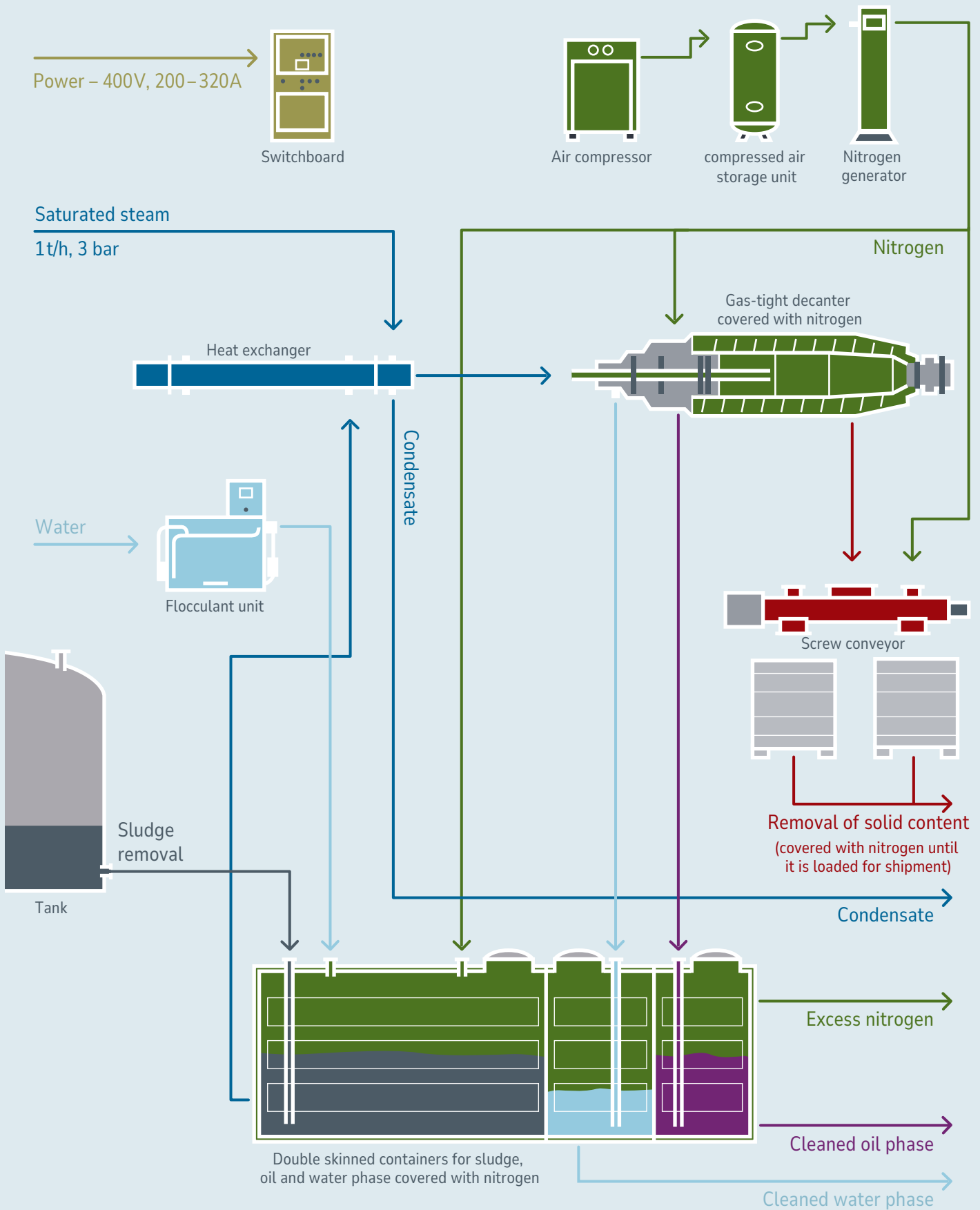
The gas-tight decanter in the upper container is unable to create its own explosive zone. The lower container is defined as a ‘Zone 2’ area as a precautionary measure.

As the unit is allowed to be placed in the Zone 2 area, the sludge can be processed close to the point it is produced, for example next to the tank



# HOW IT WORKS

How our **gas-tight decanters** work



# Safety first – Don't compromise on explosion protection


Top priority is always put on health & safety and environmental protection when we plan our projects – which also means deploying the latest technology. FILTRATEC is leading the way when it comes to building and operating mobile gas-tight decanters and supports its clients across the whole of Europe with its specialist knowledge and expertise.

The highest safety standards to protect human health and the environment



## Special features

- \_ Constructed in acc. with ATEX 114 (2014/34/EU Directive)
- \_ Operated in acc. with ATEX 137 (1999/92/EG Directive)
- \_ Units inspected and approved by TÜV Nord
- \_ CE label

<b>CE</b>	<b>FILTRATEC®</b>
	FILTRATEC Mobile Schlammwässerung GmbH Weseler Str. 100 // D-46562 Voerde T +49 281 403-0 // filtratec.com
	Typ Öl 16 Container unten
	FILTRATEC-Nr.: 910 016
	Baujahr: 2024
	 II 3G IIB T3

## Your advantages

- \_ Effective protection against explosions
- \_ High degree of separation
  - dry solid matter
  - oil and water of very high quality
- \_ Lower waste disposal costs
- \_ High product yield
- \_ Compact design in two high-cube containers (40'), stacked
- \_ Possible to set the unit up close to point of production (Zone 2)



The "Ex" label on the identification plate



WORKING FOR THE FUTURE

FILTRATEC is a member of the REMONDIS Group, one of the world's leading recycling, service and water companies. The Group has branches and associated businesses in more than 30 countries in Europe, Asia and Australia. It employs more than 45,000 people who work for millions of citizens and many thousands of companies. The highest levels of quality. Working for the future.

FILTRATEC Mobile Schlammentwässerung GmbH  
Weseler Str. 100 // 46562 Voerde // Germany  
T +49 281 403-0 // F +49 281 403-172  
info.filtratec@filtratec.com // [filtratec.com](https://www.filtratec.com)

A company of the REMONDIS Group

