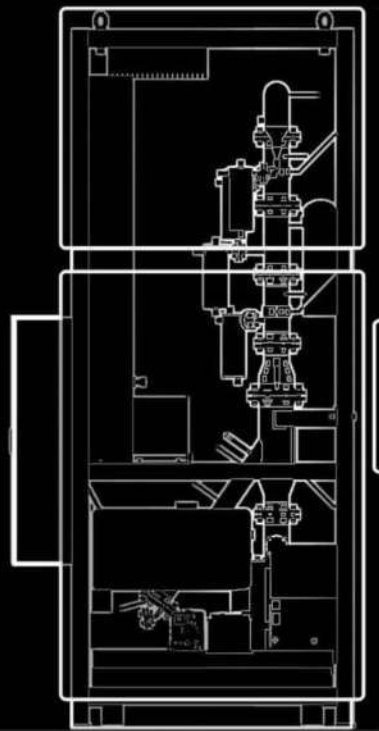
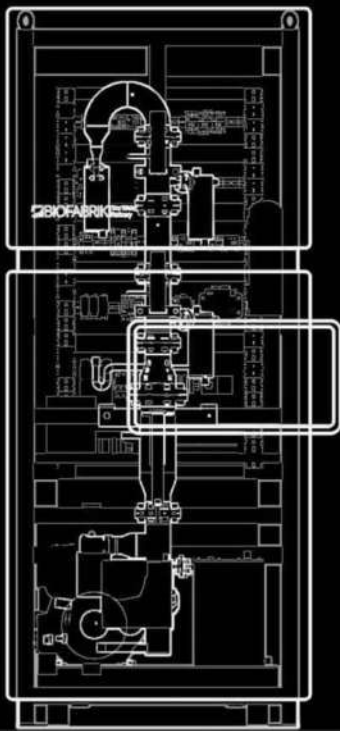


WASTX OIL

PLANT DESCRIPTION



SUMMARY

The tasks in oil recycling are as varied as the nature of the different raw materials. WASTXOIL is the first container-based, decentralized plant for the recycling of waste oils into raw materials or fuels, that can be utilized for industrial use or energy production.

The advantages of the process compared to conventional disposal are minimal logistics costs and a high local added value.

The compact and fully automated WASTXOIL plant converts up to 2,000 litres of oily waste per day into usable raw material, or fuel, with the product name Detrol (oil from distillation) in a robust and cost-effective way.

The substrate to be processed is evaporated in a special heat input system. The oil vapours are then condensed in a column (distillation) and residues (sludge) are discharged.

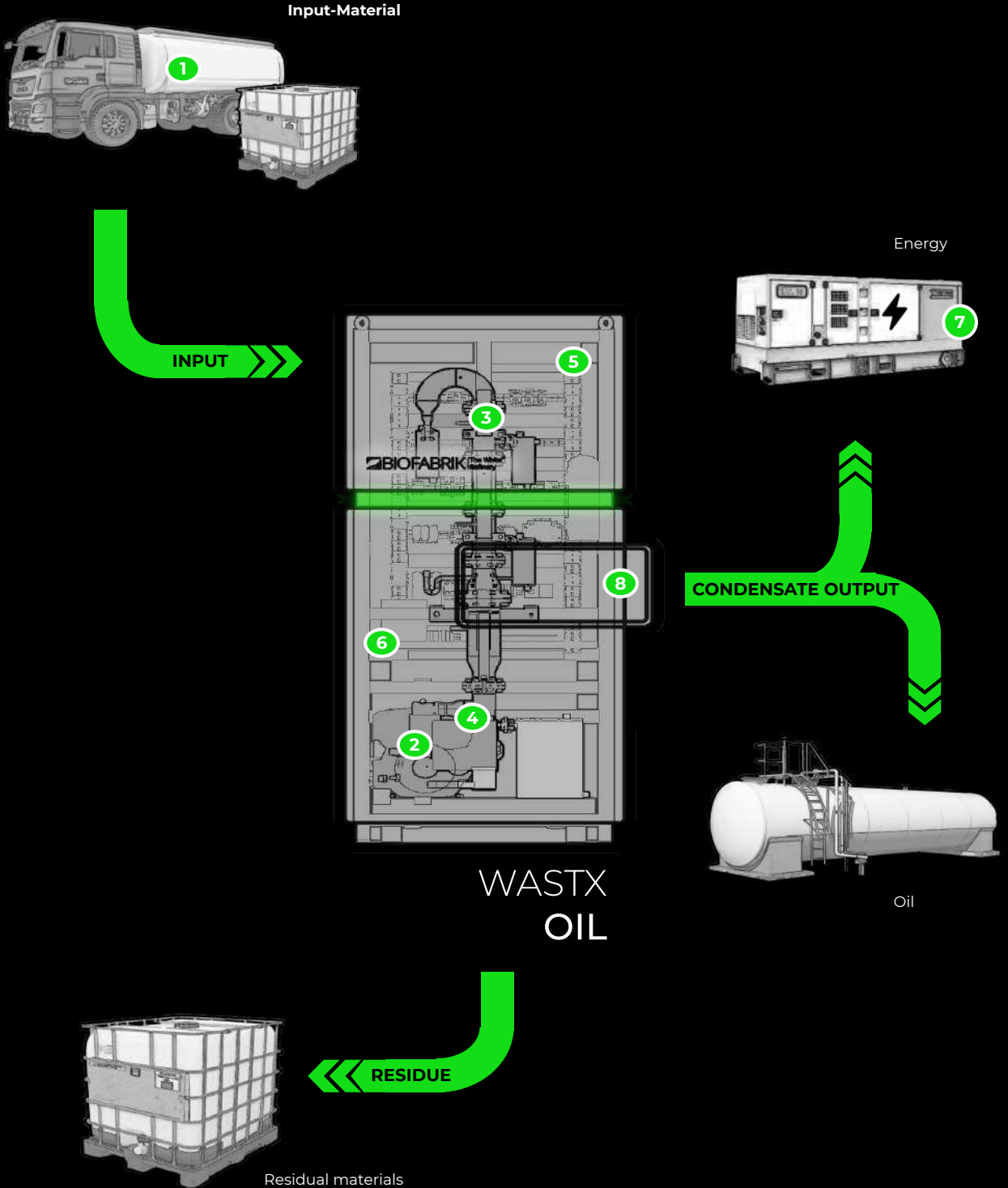
The product condensates can be extracted fractionally according to boiling behaviour, used in suitable combustion engines to generate energy or used for industrial production pathways.

The systems are consistently installed in containers and are suitable for fast, space-saving and uncomplicated assembly.



PROCESS STEPS WASTX Oil

🕒 detailed explanations on the following page.



PROCESS STEPS

WASTX Oil

🔗 detailed explanations to the previous page

- 1** **Storage container / contaminated substrates**
A gear pump conveys the contaminated fuel oil/diesel as well as waste oil* from tanks or IBCs into the inlet pipe of the four parallel reactors, where it is brought to process temperature.
- 2** **Evaporation reactors**
The inserted substrate is indirectly heated via a heat transfer medium, heated to a temperature of approx. 300° C, and for the most part transferred into the gas phase.
- 3** **Condensation column**
In the subsequent column, the gas phase is purified and condensed back into the liquid phase.
- 4** **Separator**
In the separator, all residual materials which are not transferred to the gas phase at boiling temperature are collected and discharged. They are properly stored and disposed of.
- 5** **Cooling system**
The condensation heat is extracted via condensers and coolers and released into the ambient air. This reliably returns all vapours to their liquid state. There are no gaseous end products.
- 6** **Vacuum system**
With an optional vacuum system, the process temperature can be lowered, thus enabling a gentle treatment of the oils.
- 7** **Generator**
Optionally, the final product can be partially or completely used for process energy generation (or beyond) when converted to electricity directly at the site.
- 8** **Monitoring & Control**
The entire system is highly automated and controlled. The system can be monitored and, if necessary, managed by the operator on site or remotely via specified interfaces.

DETAILED STRUCTURE WASTX Oil

Ⓞ if not listed otherwise; design in steel, partly surface-treated

INPUT SYSTEM

- Ⓞ One gear pump per reactor input (approx. 300 W)

EVAPORATION REACTORS

- Ⓞ Stainless steel version (\varnothing =100 mm, length=750 mm)
- Ⓞ With 5 heating zones each (1,500 W)
- Ⓞ High-temperature insulation
- Ⓞ Incl. feed nozzle for substrate entry and heat transfer medium refilling

SEPARATOR AND RESIDUE DISCHARGE

- Ⓞ Gravity separation of oil vapours from residues (\varnothing =300 mm, length=500 mm)
- Ⓞ Heated and insulated with drain cock

CONDENSATION COLUMN

- Ⓞ 3 condensation shots (\varnothing =300 mm, length=550 mm)
- Ⓞ Overhead steam pipe

COOLING SYSTEM

- Ⓞ 4 condenser coolers (\varnothing =150 mm, length=350 mm)
- Ⓞ Recirculating cooler against ambient air

FILTER AND OUTPUT SYSTEM

- Ⓞ 3 product tanks (\varnothing =150 mm, length =350 mm)
- Ⓞ Discharge pumps (300 W)
- Ⓞ Cartridge filter (5 μ m)
- Ⓞ Cut-off valve

OPTIONAL VACUUM SYSTEM

- Ⓞ vacuum pump (approx.. 550 W)
- Ⓞ Lock system for input and output streams by means of 8 containers (\varnothing =100 mm, length=300 mm)

CONTROL: CONTROL CABINET AND WIRING

- Ⓞ Control unit with software code based on Siemens SPS
- Ⓞ Sensor and actuator modules
- Ⓞ Power electronics
- Ⓞ Heaters equipped with load management
- Ⓞ Touch panel
- Ⓞ Emergency stop control
- Ⓞ Wiring
- Ⓞ Total connected load approx. 45 kW_{el}
@ 400 VDC, medium demand: approx. 40 kW_{el}

FRAME

- Ⓞ Welding frame with drip tray (L/B/H approx.. 1.400 mm / 1.400 mm / 2.600 mm)
- Ⓞ Optional: 20" High Cube Open Side Container installation: (L/W/H 6,058 mm / 2,438 mm / 2,896 mm)
Doors on three sides
- Ⓞ With light and power supply
- Ⓞ Suction device, gas sensors

CONTÁCTANOS

Para más información o cualquier pregunta,
no dude en contactar con nosotros

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