

# Fact Sheet

## Mercury waste treatment centre - removal, recovery and stabilisation of mercury



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Imagine – **Zero** industrial waste ... !

# Mercury waste treatment centre

Catalysts, filter cakes, activated carbon, drill cuttings, contaminated soil

**econ industries is the only company worldwide, offering a complete mercury waste recovery and treatment centre for processing all types of mercury waste on an industrial scale. The econ industries Hg centre provides the safest and most environmentally friendly method of mercury waste recovery and treatment.**

The econ industries Hg centres consist of the following three main units:

**econ VacuDry® - Vacuum Distillation Unit:** The VacuDry® process is a specially designed vacuum distillation. Whilst continuously mixing, the material is heated under controlled vacuum to safely evaporate water, hydrocarbons and mercury. This unit can be utilized for all waste streams containing metallic mercury and mercury compounds with a boiling point of up to 450 °C. Typical waste streams treated are NORM waste, drill cuttings, filter cakes and mercury contaminated soils and sludges.

**econ High Temperature Treatment Unit (HTTU):** Where catalysts from the oil and gas industry, activated carbon, and all wastes containing mercury sulfide (HgS) and Mercury (I/II) Chloride (HgCl<sub>2</sub>) are to be treated, the econ HTTU will be used as second treatment step. In the high temperature or oxidizing (roasting) process the material is heated up to 900 °C whilst continuously mixing at an oxidizing atmosphere. During this step Mercury from HgS and HgCl<sub>2</sub> and hydrocarbons above C 36 are evaporated with the resulting output material containing >99 % pure mineral solids.

**econ mercury stabilisation unit:** The mercury from the VacuDry® and the HTTU is recovered by condensation in high quality > 99 %. Depending on legal requirements this mercury can either be recycled and returned to the industrial material cycle or stabilized. Where stabilizing is required, a specially designed process is utilized to transform mercury into cinnabar (HgS), a very stable and non-toxic mineral.

## Key facts

- Typical throughput capacity: 0.2—10 t/h
- Input material: All waste streams containing mercury or mercury compounds
- Unit design: Fixed installation or mobile (Rent a VacuDry®)
- Scope of supply: turn-key machinery, organisational set up and complete project cycle supervision



Mercury contaminated soil



VacuDry® plant



Mercury

## Greatest benefits

- High flexibility—Every mercury waste stream can be treated
- Safest technology – Due to closed vacuum system
- Technologies of the world market leaders of mercury recycling
- Turn-key solution—including setup of material handling and safety regulations