

## Case Study

### In-house wastewater treatment instead of expensive disposal with MKR technology

A German supplier in the metal industry had set itself the goal of ending the costly external disposal of its aqueous waste. Instead, it wanted to take responsibility for wastewater treatment itself – in a sustainable, economical, and compliant manner. MKR provided the right solution for this step toward taking responsibility: a compact, efficient, and approvable treatment plant.

#### Initial situation

During production, large quantities of old emulsions and aqueous cleaners were regularly generated, which until now had been collected and treated by external disposal companies at great expense. The aim was to handle disposal internally and then discharge the treated wastewater into the sewer system in accordance with the specifications of the city.

#### Requirements

- Treatment of various types of wastewater (old emulsions, cleaners)
- Ensuring compliance with municipal discharge limits
- Reduction of ongoing disposal costs
- Compact, low-maintenance solution for hall operation
- Robust and automatable system

#### Solution by MKR

After a detailed laboratory analysis, MKR determined the optimal process for treating the wastewater. The rinse and cleaning water is first collected in a central collection pit. There, foreign oils are separated using skimmers. If necessary, pH neutralization is then carried out to convert acidic water to the alkaline range.

The pretreated water passes through a bag filter into the compact ET 50 evaporator, where the actual cleaning process takes place. The purified distillate is then pumped into the sewage system via a TB 250 tramp oil separator and an activated carbon filter station. The concentrates produced during evaporation are collected in an IBC container and disposed of externally at longer intervals – significantly more cost-effectively than before.

#### Project at a Glance

**Project:**

From external disposal to in-house wastewater treatment

**System Technology:**

- Skimmer
- pH neutralization
- Bag filter
- ET 50 evaporator
- Tramp Oil Separator TB 250
- Activated carbon filter
- IBC filling station

**Customer:**

German supplier in the metal industry

**Contractor:**

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## Results

- End of costly external disposal
- Reliable compliance with the discharge limits into the sewer system
- Independent, legally compliant wastewater treatment
- Low operating costs due to reduced disposal intervals
- Compact, low-maintenance complete system for indoor operation
- Sustainable contribution to environmental protection and resource conservation

