

Case Study

Replacement of a competitive evaporator at a waste disposal company in Austria

A waste disposal company in a neighbouring country operated two ageing evaporator plants for treating industrial wastewater. The technology was outdated, prone to failure and no longer fit for purpose. MKR was able to convince the customer with a modern, application-oriented concept – supported by reference visits and direct exchanges with experienced plant operators. The first plant was installed, followed by the second plant a few years later.

Initial Situation

The customer's existing evaporator technology was outdated and did not offer sufficient performance or process reliability. In the course of a plant renewal, MKR was able to win the company over to its own technology. Reference visits and direct exchanges with plant operators who had already switched to MKR technology were particularly decisive factors. The decision was ultimately made in favour of the first ET 1000 plant – this was later replaced by a technically revised ET 1000 plant in order to comply with legal requirements.

Requirements

- Treatment of alkaline water and waste emulsions from metal processing
- Legally compliant discharge of the distillate into the sewer system
- Integration into existing plant components (storage tanks, pH section, LPA)
- Adaptation to the specific operating modes of waste disposal companies
- Reliable continuous operation with high flexibility
- Future-proof solution with potential for expansion

MKR Solution

MKR implemented a customised evaporator solution tailored to the existing infrastructure. Feed tanks, pH adjustment and light phase separators were retained from the existing system. A filter module, an tramp oil separator and an ET-1500 evaporator for safe distillation were newly installed. The plant was specially designed for operation in a waste disposal company: using a defined 'disposal procedure', it is first started up with municipal water to flush the reactor with steam to remove oxygen. Only then is the productive medium fed in. This method protects the plant from traces of solvents and prevents critical conditions – without an explosive atmosphere, but with maximum safety. After several successful years of operation, the plant was replaced by a technically revised ET 1000 in order to efficiently handle the changing wastewater volume..

Project at a Glance

Project:

Replacement of all competing systems – with reliable technology, modular expansion and practical operation

System Technology

- Storage tanks
- pH adjustment
- Pump station
- Filter station 2000
- Tramp oil separator TB 1000
- Bag filter with pump
- Evaporator ET 1000
- Oil separator

Customer:

Waste disposal companies
Austria

Contractor

MKR Metzger GmbH
Rappenfeldstraße 4
86653 Monheim

Results

- Smooth replacement of an outdated competitor's plant
- Plant operation according to proven waste disposal methods
- Use of existing plant components saves investment costs
- Easy retrofitting for increased capacity
- Reliable compliance with official requirements
- High user satisfaction thanks to stable, safe processes

