



cleaning  
systems  
for liquids

# Rinsing water from paint pretreatment

Surface technology/painting

## Case Study

### Modern wastewater solution for paint shop in Kazakhstan

A manufacturer of painting and sandblasting systems with a focus on the Eastern European market, faced the challenge of treating alkaline rinse water efficiently and in an environmentally friendly manner when building a new painting plant in Kazakhstan. Instead of the originally planned CP technology, MKR recommended a more modern, compact, and sustainable solution. The manufacturer and its end customer in Kazakhstan were convinced – the on-site treatment was successfully implemented.

#### Initial situation

A new paint shop was to be installed as part of a new construction project in Kazakhstan. The end customer planned to use a classic CP system for wastewater treatment. After intensive consultation, MKR rejected this outdated technology and recommended a more efficient, low-maintenance evaporator solution instead. The manufacturer accepted the proposal and also convinced its customer in Kazakhstan of the technical and ecological superiority of the new concept.

#### Requirements

- Treatment of alkaline rinse water from paint pretreatment
- Safe discharge of the treated water into the sewer system
- Compact, low-maintenance, and reliable technology
- Adaptable to international standards (e.g., for Kazakhstan)
- Minimization of disposal costs for residues

#### MKR Solution

The rinse water from the pre-treatment of the steel is first collected in a collection tank on site. From there, it passes through an upstream filter unit – consisting of a belt filter and bag filter – into the compact ET 100 evaporator. The purified distillate is discharged directly into the sewer system. The concentrate produced is collected in a container and professionally collected by a certified waste disposal company. This solution offers high operational reliability with minimal maintenance.

#### Project at a Glance

##### Project:

Treatment of process water from paint pretreatment

##### System Technology:

- Buffer tank
- Belt and bag filter
- ET 100 evaporator
- IBC filling station (concentrate)

##### Customer:

manufacturer of painting and sandblasting systems in Europe

##### Contractor:

MKR Metzger GmbH  
Rappenfeldstraße 4  
86653 Monheim

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## Results

- Safe discharge of purified water into the sewer system
- Significant reduction in disposal costs and environmental impact
- Compact, energy-efficient, and low-maintenance overall system
- Future-proof solution instead of outdated CP technology
- Convincing end customers through technical advice and modern solution expertise

