

# Demi water treatment and process water treatment

*Cold-rolling mill, Belarus*

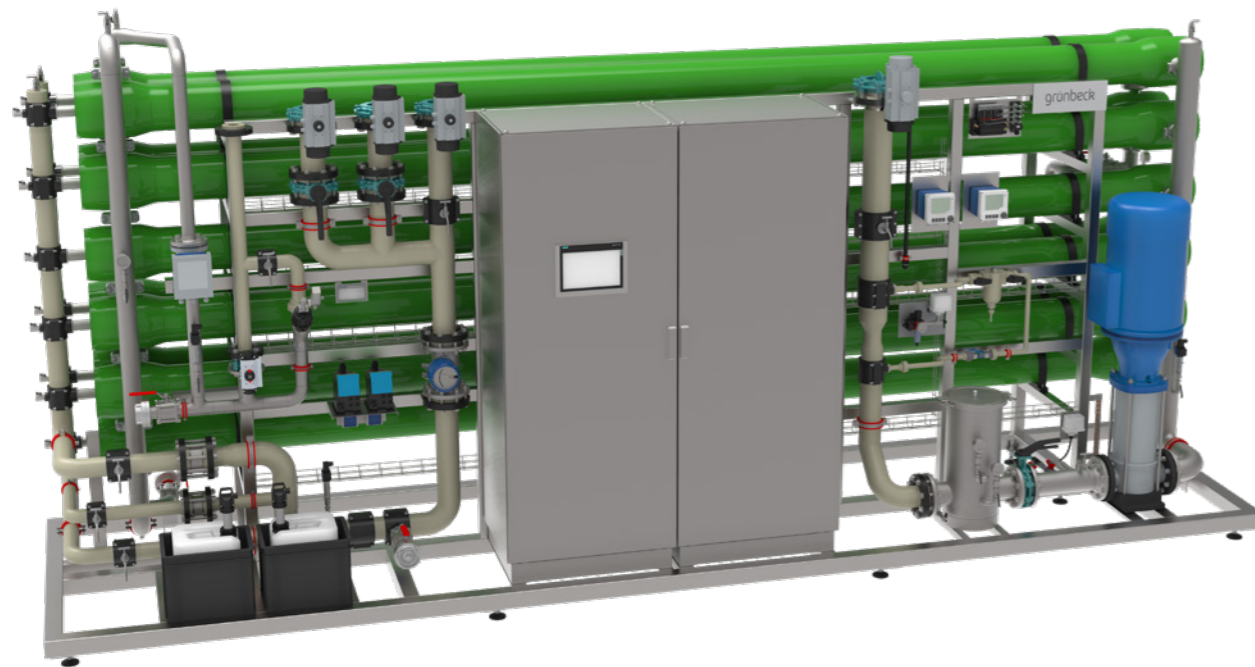
**Customer** PSE Engineering GmbH

**System** Demi water treatment and process water treatment to reduce waste water (zero liquid discharge concept)

## Process technology

Decarbonation, degassing, reverse osmosis system and electrodeionisation installed downstream for the generation of demi water.

Ultrafiltration and three-stage reverse osmosis system (with concentrate stage) for the treatment of process water and the reduction of waste water upstream of an evaporation system.



## Scope of supply

- 1 Raw water pressure booster
- 1 Antiscalant dosing station and 1 sodium hydroxide dosing station to condition the feed water
- 1 Reverse osmosis system with a permeate capacity of 50 m<sup>3</sup>/h
- 1 Electrodeionisation system with a diluate capacity of 47.5 m<sup>3</sup>/h
- 1 Simatic S7 controller with 12" touchscreen, with transfer of the operating data to the central control station via Profinet
- 3 Reverse osmosis systems (as three-stage system with concentrate stage) with permeate capacities of 29 m<sup>3</sup>/h, 15 m<sup>3</sup>/h and 3.5 m<sup>3</sup>/h
- 1 Mobile CIP system for chemical cleaning of the reverse osmosis systems
- Documentation in German and Russian, incl. FAC certificates

## Grünbeck's services

Process design, mechanical and electrical engineering, programming and manufacturing