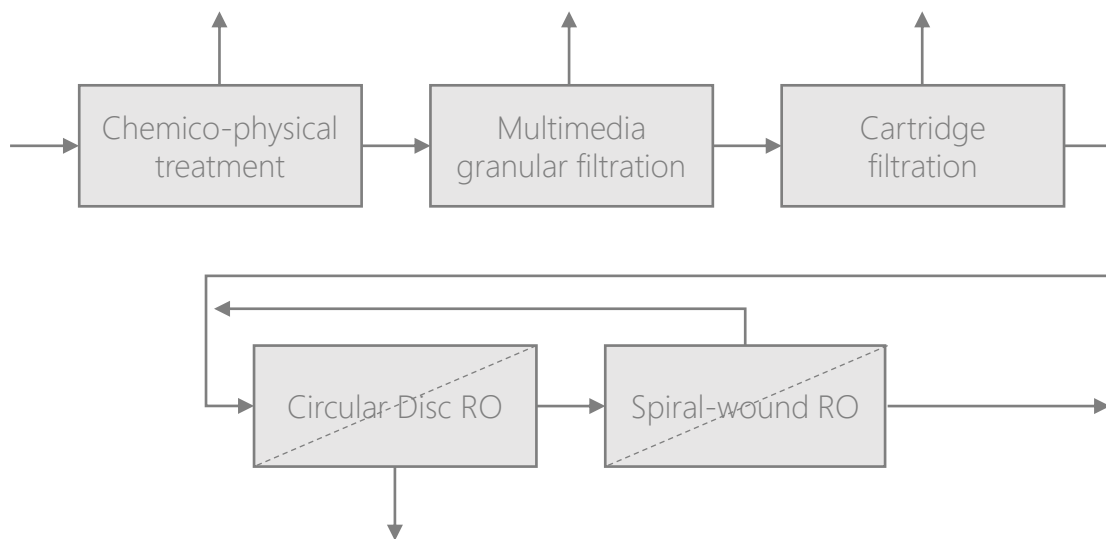


Location Belarus  
Capacity 600 m<sup>3</sup>/d  
Start-up 2017

**Problem** Brine from steel industry wastewater concentration is characterized by very high salinity and presence of heavy metals such as nickel and chromium

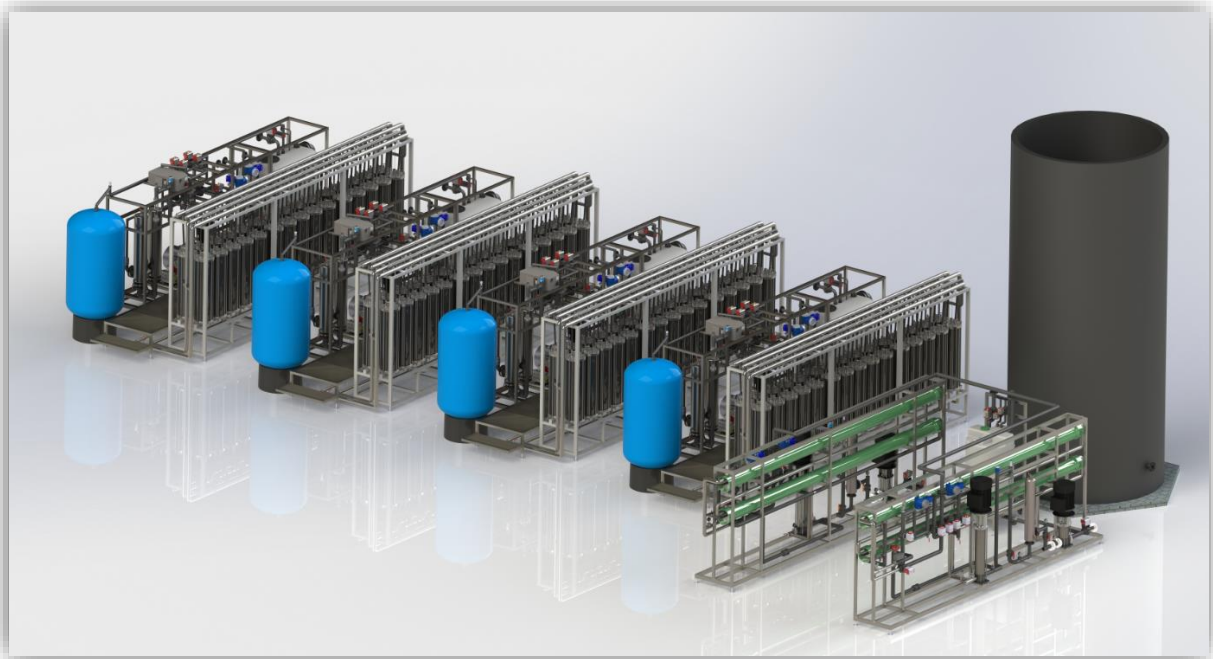
**Solution** To treat the concentrate produced by an existing wastewater treatment plant equipped with a spiral-wound RO system, the following treatment layout has been installed at the Client's site:



The resulting concentrate is sent to an existing evaporation system

**Key point** ZLD plants may be equipped with our CD-RO modules to reduce the subsequent evaporation stage's size, thus minimizing CapEx and OpEx





Thanks to the **innovative design** of our CD-RO modules (up to 72% less pumping power is required when compared to other plate-and-frame RO solutions), OpEx is minimized.

Within the following table, the main operating data of the plant are briefly summarized:

| Parameter                     | Unit              | Value        |
|-------------------------------|-------------------|--------------|
| Feed flow                     | m <sup>3</sup> /d | 600          |
| Feed conductivity             | mS/cm             | 41 to 48     |
| Flux at operating temperature | LMH               | 8 to 10      |
| Recovery rate <sup>1</sup>    | %                 | 35 to 40     |
| Total rejection rate          | %                 | 96.1 to 99.2 |
| Module pressure loss          | bar               | 1.8 to 2.4   |

<sup>1</sup> The wide range of recovery rate values is due to constraints in the existing evaporation system