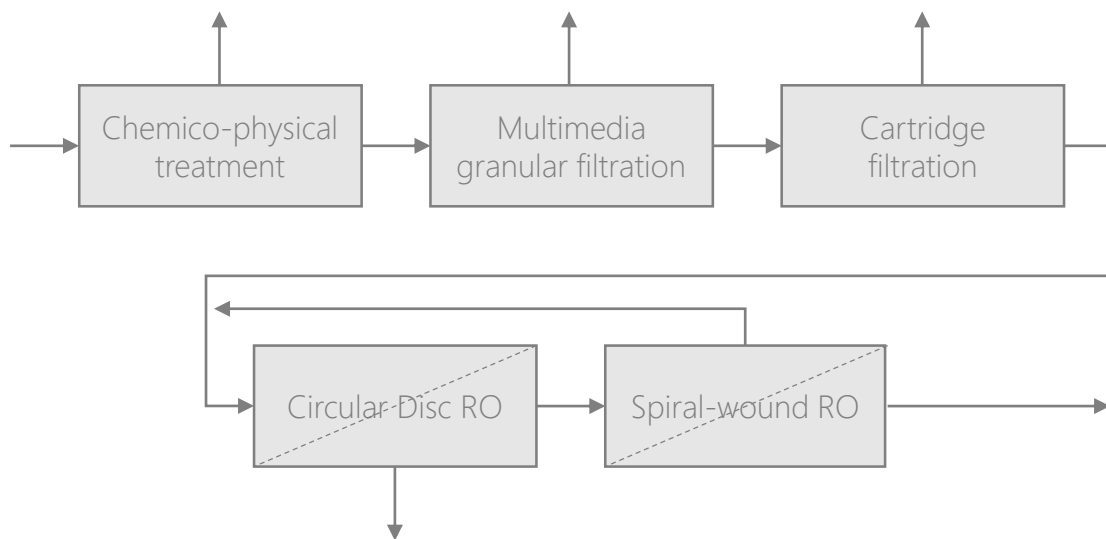


Location Belarus
Capacity 600 m³/d
Start-up 2017

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

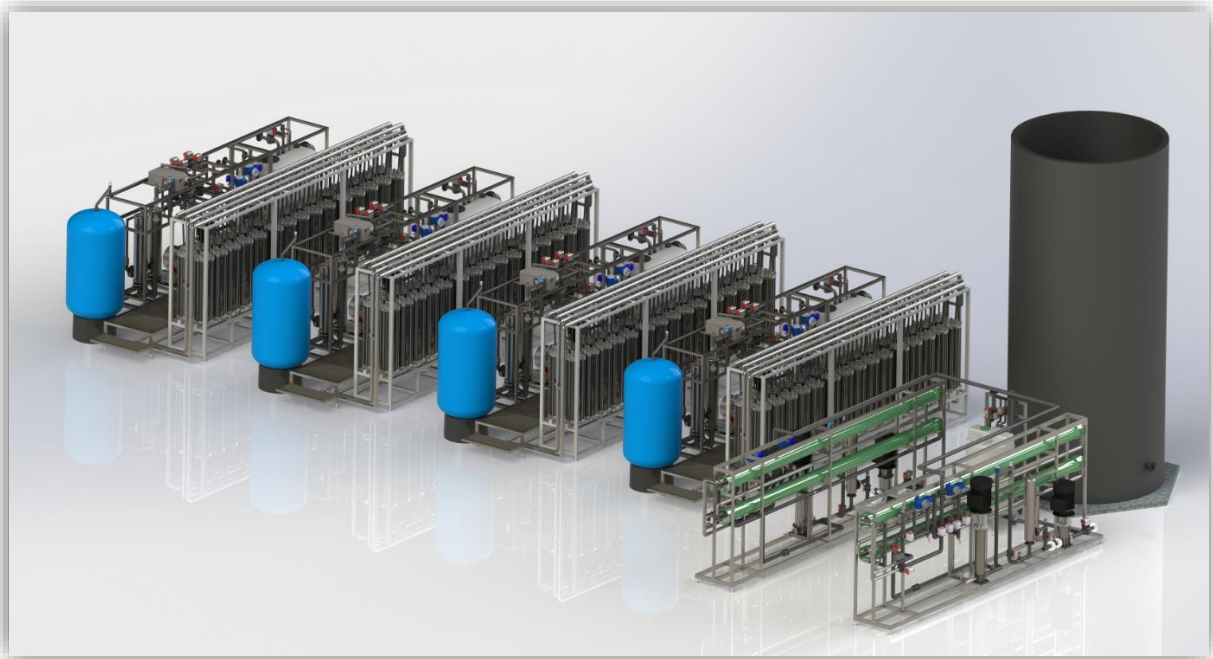
Solution To treat the concentrate produced by an existing wastewater treatment plant equipped with a spiral-wound RO system, the following treatment layout has been installed at the Client's site:



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 (ca. 30% 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 ³ /d | 600 |
| Feed conductivity | mS/cm | 41 to 48 |
| Flux at operating temperature | LMH | 8 to 10 |
| Recovery rate ¹ | % | 35 to 40 |
| Total rejection rate | % | 96.1 to 99.2 |
| Module pressure loss | bar | 1.8 to 2.4 |

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