



Increase municipal & industrial wastewater reuse efficiently using Flow Reversal technology

10th May 2023



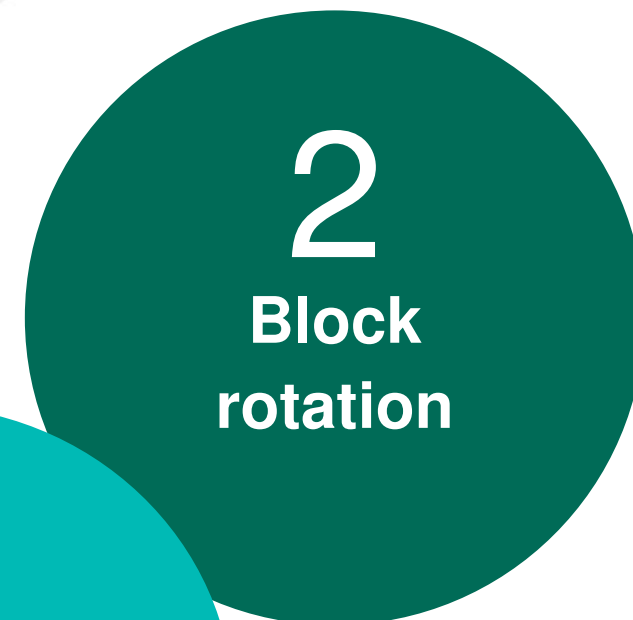
Flow Reversal
(FR-RO) is
operational,
successfully
installed in 55
sites worldwide



- Reversing the flow for higher-recovery, 1 step closer to ZLD
- Overpowering scaling limitations

Targeted for

- Energy
- Hybrid Industrial & Municipal

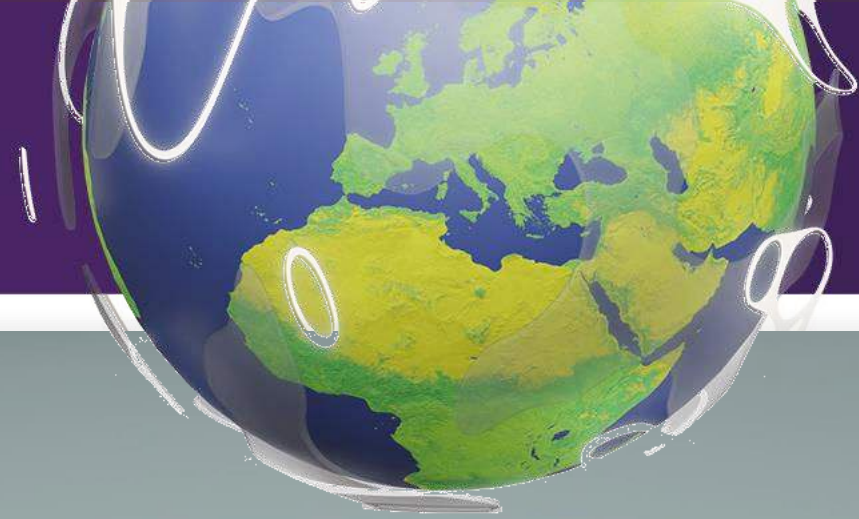




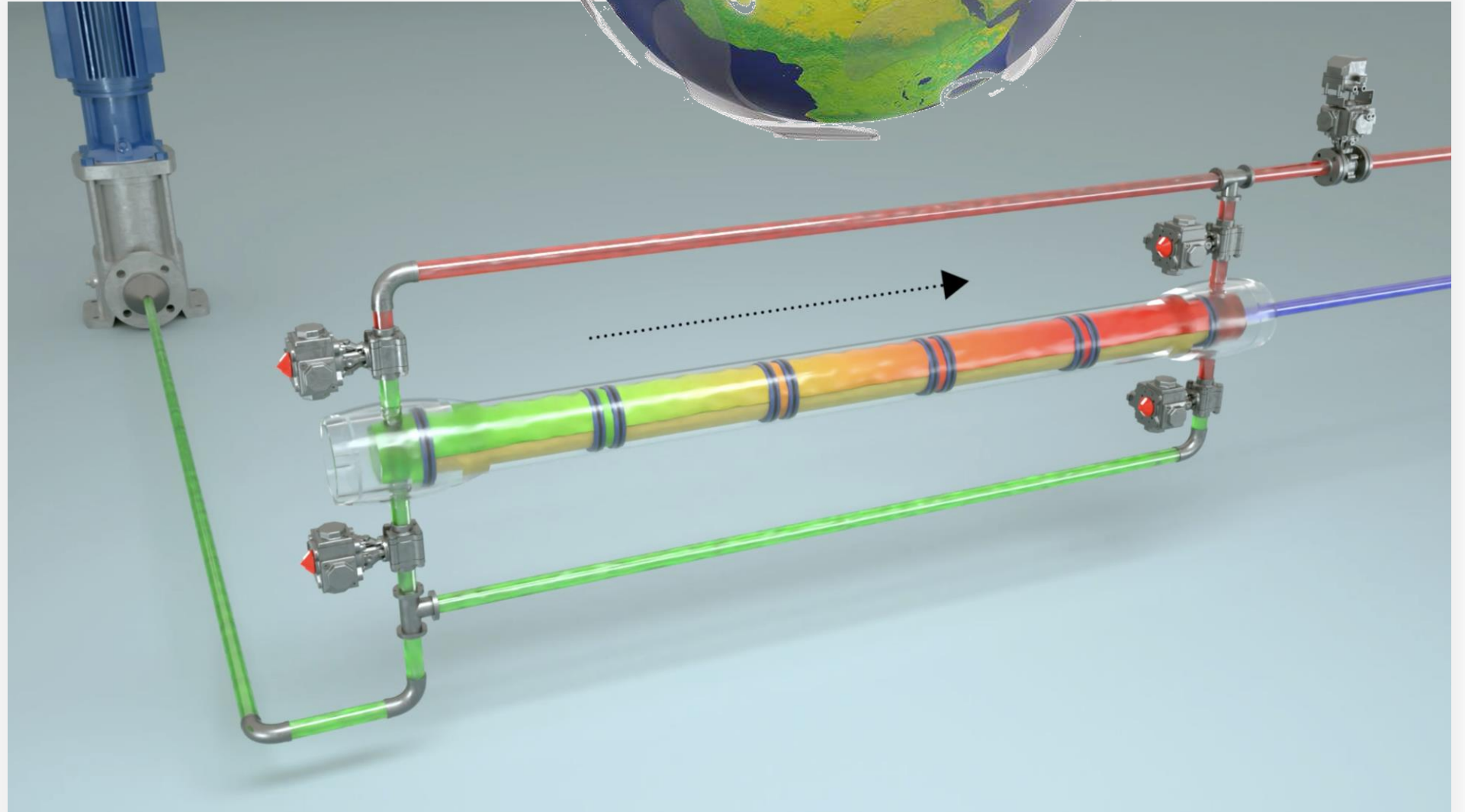
GLOBAL WATER
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WATER IS OUR CONCERN



How Does FR-RO Work?





FR-RO technology accelerates industrial water reuse

- Producing less waste reducing brine significantly
- Minimizing scaling while enhancing performance
- Feed water: ppm 6K-8K, COD ~50-150, SO4 ≤1250

Jinma Energy Industrial Plant, 7,920 m³/day, Henan, China, Operational

- Achieving a RR of 90% with stable performance
- A pilot in harsh feedwater conditions led to a full-scale project
- ROTEC's **FR-RO** technology along with its' **Brine Concentrator**, minimized industrial waste





FR-RO technology accelerates industrial water reuse

- Increasing high-quality permeate by 20%
- Reducing waste brine volume by 60%

PUB, Hybrid Industrial & Municipal Plant Retrofit, 10,680 m³/day, Kranji, Singapore, Operational

- Increased recovery rate from 75% to 90%
- Lowered CIP frequencies, shortened plant shutdown events
- Reduced chemicals for minimized eco impact





FR-RO technology accelerates municipal water reuse

- Utilizing less feed water maximizing production
- Dramatically reducing energy and brine volumes
- A smart block rotation design

The City of Santa Monica, 41,336 m³/day, USA, in process

- Retrofit of Arcadia BWRO desalination plant
- Cost-efficient high-recovery rate - 90-91%
- Minimizing chemical use and CIP events
- Increasing the city's capacity for self-sufficiency



Thank You!

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