

The world's most energy efficient reverse osmosis has arrived

at least
50%
reduction
in energy
compared to competitor
systems

80%
less
wastewater
compared to conventional
reverse osmosis

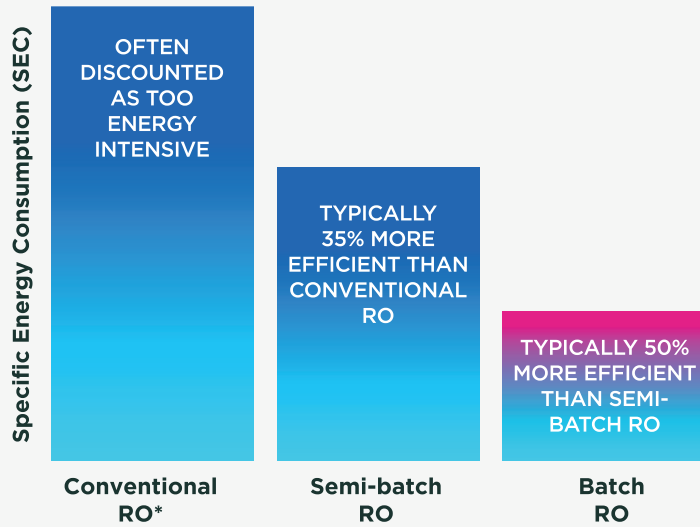
up to
98%
of feedwater
is recovered

Salinity Solution's SAM50 Batch Reverse Osmosis (Batch RO) system delivers significant advantages compared to competing reverse osmosis technologies. The SAM50 system is specifically designed to meet the demanding requirements of water treatment in industrial and municipal applications.

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Conventional RO vs Semi-batch RO vs Batch RO



Source: <https://www.sciencedirect.com/science/article/pii/S0011916420313035>
*Single stage

Technical information

Parameter	Unit	SAM50-25	SAM50-150
Throughput	m ³ /day	25	150
Dry weight	kg	850	1500
Energy consumption	kWh/m ³	<0.5	
Feed TDS	ppm	0-6000	
Rejection	%	95-99.5	
System housing	m	Standard 20ft container 6.1(L) x 2.44 (W) x 2.89 (H)	
Number of housings		1	2
RO elements per housing		1	3
Total number of elements		1	6

Industries include

- Water & wastewater treatment
- Food & beverage
- Pharmaceutical
- Healthcare
- Agriculture
- Data centres

Applications

- Water reuse
- Effluent treatment
- Nutrient removal
- Ultrapure Water
- Mineral extraction
- Minimal liquid discharge

Benefits

- High energy efficiency
- Modular and scalable
- Small footprint
- Up to 50x brine concentration
- Up to 98% water recovery
- 'Plug & play' installation
- Patent protected
- Engineered in the UK
- Uses any standard 8" RO membrane



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