



**The Integro™ – A Game Changer for RO & Desalination Efficiency**

Validated by Cranfield University, UK

Shortlisted in the XPRIZE Water Scarcity Challenge

## WHAT IS THE INTEGRO™

The Integro™ is a chemical-free water conditioning technology that prevents hard limescale accumulation by altering ionic activity in the water. By disrupting ionic bonding, it reduces the ability of scale to form, as well as improving water's permeability.

For reverse osmosis (RO) and desalination systems, the Integro™ delivers measurable improvements in efficiency, operating cost, and sustainability.

Unlike conventional chemical dosing, the Integro™:

- ⌚ Requires no consumables, sacrificial media, or bulk precipitation.
- ⌚ Operates inline, continuously, with minimal maintenance.
- ⌚ Creates a cleaner feed stream that helps downstream processes work at peak efficiency.



## HOW THE INTEGRO™ IMPROVES RO & DESALINATION

Scaling and fouling are among the greatest challenges in reverse osmosis and seawater desalination, driving up energy use, shortening membrane life, and increasing chemical consumption.

The Integro™ addresses these challenges by:

### Maintaining Higher Permeability

Membranes can operate at lower pressure for the same output.

### Enhancing Ion Rejection

Lowering chloride and sulphate passage, resulting in cleaner permeate with reduced conductivity.

### Reducing Flux Decline

Fouling builds more slowly, extending cleaning intervals.

### Supporting Sustainability

Reducing reliance on antiscalants and cutting waste from chemicals and membranes.

# VALIDATED PERFORMANCE – CRANFIELD UNIVERSITY (2025)

Independent testing at Cranfield University confirmed the impact of the Integro™ across freshwater, brackish, and seawater RO systems:



**12 %**

Increase in Permeability (brackish water).

**41%**

Reduction in Flux Decline (brackish water)

**30 %**

Decrease in Membrane Fouling (seawater)

Dramatic Reduction in Chloride & Sulphate Passage

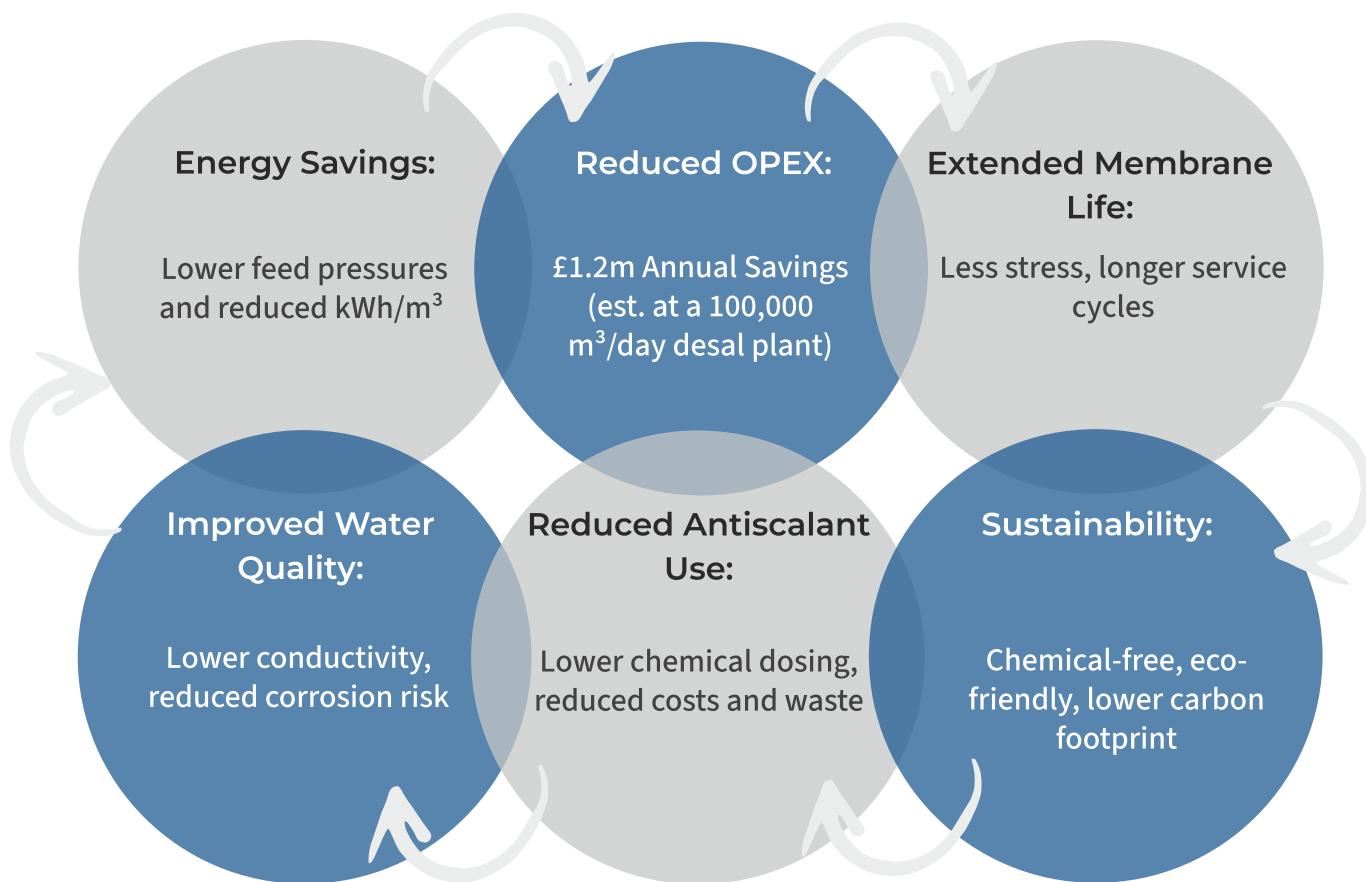
## A RECOGNISED INNOVATION – XPRIZE WATER SCARCITY CHALLENGE

Sidon Water has been selected as a Qualified Team in the \$119m XPRIZE Water Scarcity Challenge, recognising breakthrough solutions to secure sustainable global water supplies. This milestone underlines the potential of the Integro™ to reshape desalination efficiency at scale.



**XPRIZE**  
WATER  
SCARCITY

## HEADLINE BENEFITS FOR OPERATORS



**DISCOVER HOW THE INTEGRO™ CAN TRANSFORM YOUR  
REVERSE OSMOSIS OR DESALINATION SYSTEM.**



Download the full Cranfield  
University White Paper.

Contact: [enquiries@sidonwater.com](mailto:enquiries@sidonwater.com) | [www.sidonwater.com](http://www.sidonwater.com)

**SIDON** *Integro*™

UK  
CA **CE**



complies with  
UL 61010-1  
CSA - C22.2  
No. 61010-1

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