

USRO™ · UNLOCK MAXIMUM RO PERFORMANCE AND OPEX SAVINGS

Active fouling and scaling control, *built into every element.*

Self-cleaning RO elements that reduce concentration polarization and actively mitigate fouling and scaling at the membrane surface. A low-profile ultrasonic transducer integrated inside each spiral-wound element delivers targeted acoustic defense from within.

50–90%

Reduction of all fouling and scaling types

2–4×

Fewer CIPs, extended run time, less downtime

↓ psi

Reduced feed pressure rise, lower energy

4" & 8"

Available in SW & BW classes in HR, LE, & XLE variants.

A drop-in upgrade — not a retrofit project.

Outer element diameter and length fit standard 4- and 8-inch pressure vessel housings. An external acoustic driver powers the transducer array, enabling plug-and-play USRO™ integration into existing RO systems without redesign or equipment overhaul.

USRO™ targets organic fouling and inorganic scaling simultaneously, preemptively, and continuously — addressing a persistent and costly challenge for RO operations.

What it can enable for your operation.

PERFORMANCE

- + Sustain flux and permeate production
- + Slow feed pressure rise
- + Optimize recovery rates
- + Stable salt rejection

COST & THROUGHPUT

- Lower CIP Chemical Use
- Cut CIP Downtime
- Reduce Waste
- Save Energy

Note: Specific benefits depend on feedwater quality, system design, and site operating conditions.

Proven in the field.

FIELD DEMONSTRATION

76% peak fouling-rate advantage,
51% weighted-average, over
conventional elements as determined
by **normalized flux performance**
under constant feed pressure.

— U.S. BUREAU OF RECLAMATION

PURCHASED BY

- **Fortune 100** semiconductor manufacturer
- **Fortune 500** food processor
- **40 MGD** desalination plant
- **U.S. Federal** government facility

Case studies available on request

BUILT FOR DEMANDING APPLICATIONS

Semiconductors & Microelectronics · Food & Beverage · Manufacturing · Oil & Gas

Wastewater Reuse · Seawater Desalination · Government & Utilities · Surface & Groundwater Purification

Let's model your savings.

Meet with our team to review your system challenges, operating goals, and economic drivers — then map a practical path to improved performance, reliability, and lower OPEX.

Schedule a Consultation →

REACH US DIRECTLY

sales@purebluetech.com

1.206.802.2711 ×4
purebluetech.com