PRODUCT DATASHEET

Batch RO Test Skid with Pressurised Work Exchanger

Batch RO energy and recovery studies





DETAIL – PRESSURISED WORK EXCHANGER

OVERVIEW

The Tech Inc. Batch RO Test Skid with Pressurised Work Exchanger runs true batch reverse osmosis. A pressurised work exchanger, with a free piston or bladder, holds the concentrate and lets the applied pressure follow the rising osmotic pressure through each cycle instead of staying at the highest value. Researchers use it to measure specific energy, recovery and cycle timing against conventional and closed-circuit RO.

MODELS AND CONFIGURATIONS

- **Free-piston work exchanger** – clean separation of feed and concentrate.
- **Bladder work exchanger** – simple, low-friction option.
- **Seawater rating** – up to 82 bar.

TYPICAL DESIGN DATA

Element	2.5- or 4-inch × 40-inch
Work exchanger	20 to 100 L
Pressure	Up to 69 bar; 82 bar option
Data	Pump power, pressures, flows and conductivity

APPLICATIONS

Desalination energy research, high-recovery brackish and seawater studies, brine concentration and teaching laboratories.

KEY ADVANTAGES

- **Energy data** – measured pump power per cycle
- **Flexible sequencing** – pressurisation, purge and refill phases set from the HMI
- **Comparable** – can also run in closed-circuit mode

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**

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