



Reverse Osmosis Systems

Product Brochure

Product overview

High-performance membrane systems for desalination, purification, and removal of dissolved salts from brackish water, seawater, and industrial process streams.

Reverse osmosis (RO) forces water under pressure through a semi-permeable membrane that rejects PFAS, dissolved salts, minerals, and a wide range of dissolved organics and micro-pollutants, producing high-purity permeate. Etaniv builds RO systems complete with pre-treatment, high-pressure pumping, membrane arrays, instrumentation, and clean-in-place — as fixed installations or containerized mobile plants.

Each system is engineered around the feed-water analysis and target permeate quality, with membrane type, array configuration, and recovery rate selected to optimize energy use, water recovery, and membrane life while meeting the required standard.

Key features

Key technical and commercial advantages:

- High rejection of PFAS, dissolved salts, minerals, organics, and micro-pollutants
- Fixed or containerized mobile plants for rapid deployment
- Complete package — pre-treatment, high-pressure pumping, membranes, and CIP
- Energy-optimized design with recovery matched to feed-water chemistry
- Automated operation with continuous quality monitoring
- Scalable multi-train configurations for any capacity

Typical applications

Typical application types include:

- Brackish-water desalination for municipal and agricultural supply
- Seawater desalination for coastal and island communities
- Ultra-pure process water for industry
- Reuse and polishing of treated effluent

Technical specifications

Flow rate (m³/hr)	Tailored to project at any capacity
Membrane type	Brackish-water or seawater RO elements selected per feed chemistry
Salt rejection	High rejection to meet target permeate quality
Recovery rate	Optimized per feed-water analysis and discharge constraints
Pre-treatment	Multimedia / cartridge filtration and antiscalant dosing as required
Configuration	Fixed skid or containerized mobile plant; single or multi-train
Materials of construction	FRP pressure vessels; 316 / duplex stainless high-pressure piping
Operating pressure (bar)	Brackish typically 10–25 bar; seawater 55–80 bar
Temperature range (°C)	Design compensated for feed-water temperature

Product photo



Why Etaniv

Etaniv B.Y. Ltd is an Israeli manufacturer and integrator of environmental technologies for water, wastewater, and odor control. We design, supply, install, and maintain our systems in-house — backed by 20+ years of field experience and international technology partnerships.

- Full lifecycle service — design, installation, and maintenance by one team
- Own manufacture — quality controlled from design to delivery
- Compliant with Israeli Drinking Water Standard
- Backed by international technology partnerships
- 50+ active clients across Israel

Contact us

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