

# **Intelligent Maximum Performance Reverse Osmosis**

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IMPRO™ reverse osmosis (RO) systems are designed to maximize water recovery, consume less energy, and minimize membrane fouling and scaling. These reliable units reduce waste streams by 50 to 80% while easily handling challenging feedwaters.

Featuring patented closed-circuit reverse osmosis (CCRO) technology, IMPRO systems are ideal for extracting purified water from a wide range of applications using standard RO membrane elements and components. The smart configuration gives operators direct control of recovery rate and permeate flow while offering unmatched flexibility and ease of use.

#### **Benefits**

- **Higher recovery:** Packaged filtration system recovers up to 95% of wastewater—significantly more than conventional RO.
- **Minimum waste disposal:** Highest guaranteed recovery reduces disposal costs compared to traditional membrane technologies.
- **Intelligent operation:** Automatically adapts to variations in feedwater composition, temperature, and flow.
- **Reduced energy consumption:** Operates near thermodynamic minimum.



#### **Typical applications**

- Industrial boiler feed or cooling tower make-up
- Brine minimization
- Brackish water treatment
- Municipal wastewater reuse

STANDARD FEATURES
Automatic response to feed variations
Programmable logic controller with remote monitoring and control functionality
Chemical dosing systems
NSF-certified components

OPERATING PARAMETERS				
Adjustable recovery	75 to 98%			
Rejection	95.0 to 99.5%			
Adjustable flux	6 to 25 gfd (10 to 42 lmh)			
Feed	TDS 0 to 10,000 mg/L			
Temperature	36° to 113°F (2° to 45°C)			
Maximum pressure	450 psi (31 bar)			
Inlet pressure	10 to 60 psi (0.8 to 4.0 bar)			

OPTIONAL FEATURES
Membrane pretreatment
Clean-in-place and flushing systems
Mixed-bed permeate polishing
Transfer pumps, storage tanks

### IMPRO is available in a variety of standard skid-mounted configurations

MODEL	AVERAGE PERMEATE FLOW (GPM [M³/HR])	MAXIMUM PERMEATE FLOW (GPM [M³/HR])	NUMBER OF ELEMENTS
IMPRO 50	50 [11]	75 [17]	12
IMPRO 100	100 [23]	140 [32]	20
IMPRO 150	150 [34]	190 [43]	32
IMPRO 200	200 [45]	280 [64]	40
IMPRO 300	300 [68]	350 [79]	60
IMPRO 450	450 [102]	560 [127]	96
IMPRO 600	600 [136]	700 [159]	120
IMPRO 900	900 [204]	1,120 [255]	192



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AriaFiltraInfo@ TrojanTechnologies.com AriaFiltra.com Aria Filtra, a division of Trojan Technologies, is the filtration partner of choice for municipal and industrial customers that need reliable access to consistent, high-quality water. With more than two billion gallons of installed capacity spanning six continents, Aria Filtra has the process expertise, proven technology, and intelligent systems that customers trust to reliably tackle their most complex water treatment challenges. Featuring industry-leading durability, reliability, and ease of operations, our broad portfolio of solutions ensures mission-critical functions continue to work as needed, day in, day out, for years to come. Learn more at AriaFiltra.com.

Because of technological developments related to the products, systems, and/or services described herein, the data and procedures are subject to change without notice. Please consult your local representative to verify that this information remains valid.

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