

Reverse Osmosis Systems

Designed for Compliance. Built for Performance.



JMark Reverse Osmosis (RO) Systems are available in a range of configurations to meet flow requirements from 15 to 200 GPM and feed water salinity levels up to 3,000 ppm TDS. Our modular design provides high-quality construction, faster lead times, and competitive pricing.

Low-pressure membrane technology removes up to 99% of dissolved contaminants, producing high-purity water for applications such as:

- Boiler feed water
- Food & beverage ingredient water
- Process water
- Industrial water treatment applications

All systems are assembled and factory-tested at JMark's facility in Grand Rapids, Michigan, and shipped skid-mounted for simplified installation and startup.

Total Flexibility

The JMark RO platform offers virtually unlimited pre-engineered configurations, allowing each system to be tailored to specific application requirements while maintaining proven reliability and performance.

Value & Benefits



Custom Engineered Solutions

Tailored systems optimized for performance and cost.



Reduced Operating Costs

Energy-efficient membranes reduce power consumption and equipment size.



Expert Technical Support

Installation, startup, and commissioning assistance from experienced JMark personnel.



Built in the USA

Engineered, manufactured, and supported domestically with JMark quality and service.





Designed to Meet the Needs of the Most Demanding Industrial and Municipal Applications

Standard Features

Structural Frame

- Powder-coated structural steel tube frame for durability and long service life

High-Pressure Pump

- Multi-stage high-pressure pump with 316 stainless steel construction, dry-run protection, and a high-efficiency IE3 motor

Membrane Package

- Ultra-low-pressure, high-rejection 8" RO membranes
- Alternate membrane selections available as custom options

Pre-Filtration

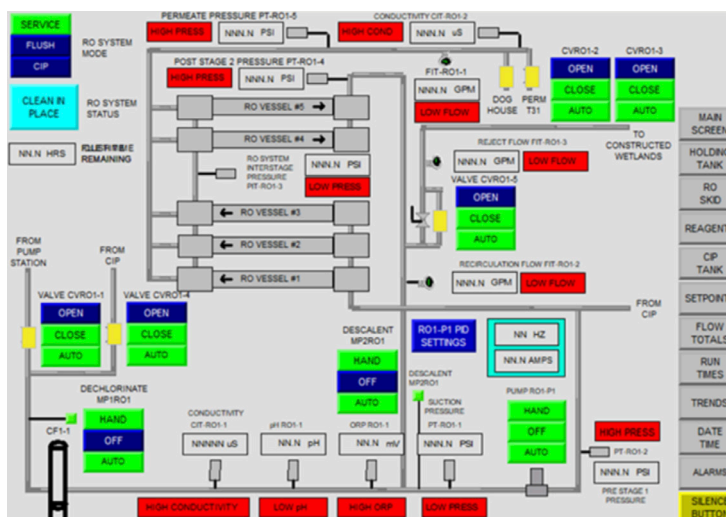
- Maintenance-friendly 5-micron cartridge filtration housing

Controls & Automation

- JMark control panel automates RO system operation
- Integration with associated skid-mounted equipment
- Advanced operational and monitoring functionality



High-efficiency pumping and control.



Human-Machine Interface screen on control panel.

Advanced Instrumentation

Monitor every aspect of system performance with comprehensive instrumentation.

Instrumentation

- Permeate conductivity
- Pressure
- Temperature
- Flow indication

Optional Instrumentation

- Inlet ORP (REDOX)
- Inlet pH
- Product water pH

Integrated Permeate Flushing

Post operational flush to extend the life of the membranes.

Clean In Place (CIP) skid optional.

Integrated Chemical Dosing Station

Protect RO membranes and maximize performance with up to three integrated dosing stations.

Applications

- Anti-scalant dosing to prevent membrane scaling
- Sodium bisulfite dosing for chlorine removal
- Biocide dosing for membrane protection

Features

- Automatic start/stop operation
- Chemical tank level monitoring
- Integrated controls

Power & Control Options

Standard Power Requirements

- 460V, 3-Phase, 60 Hz

Optional Power Configurations

- 380–415V, 50 Hz
- 575V, 60 Hz

Available Control Options

- Micro PLC
- Color touchscreen HMI
- Ethernet communications
- Audible and visual alarms
- Advanced programming and monitoring package
- UL and ULC safety compliance options

Base System Specifications

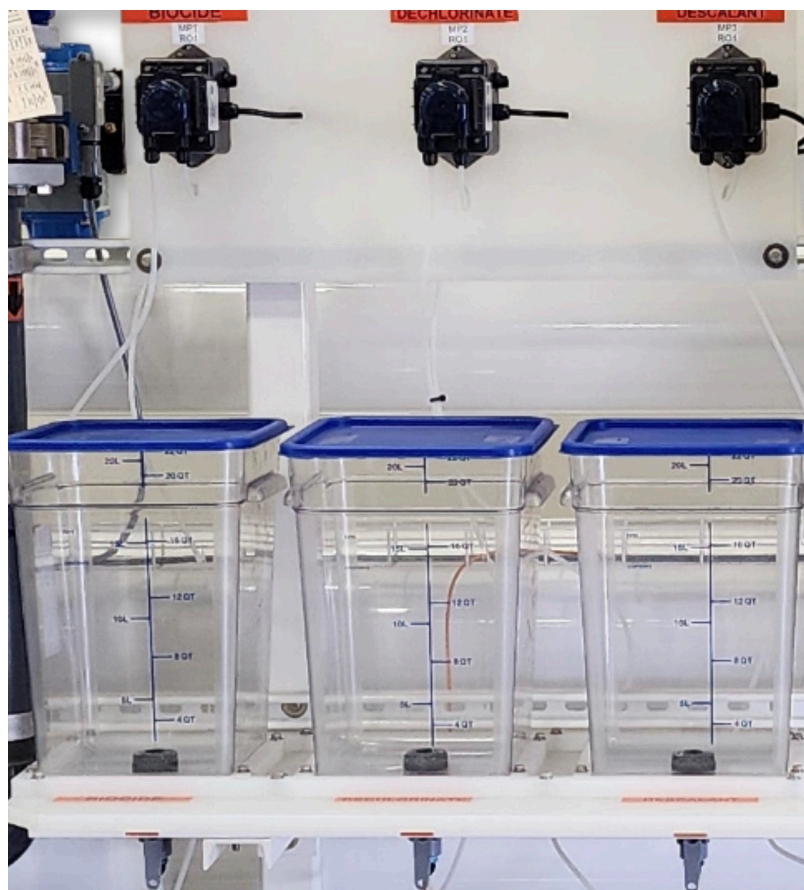
Reverse Osmosis System

Performance

Flow rates are based on:

- 3-year-old RO membranes
- 75% recovery rate
- Properly pretreated feed water
- 1,500 ppm TDS (as NaCl)
- 55–77°F (13–25°C) feed water temperature
- Silt Density Index (SDI) below 3
- Atmospheric discharge conditions

Actual performance may vary based on feed water quality, temperature, and operating conditions.



Water chemistry feed pumps & holding container.

Materials Of Construction



Frame

Powder coated structural tube steel



Low Pressure Pipe

Schedule 80 PVC



Membrane Elements

High rejection 8" membranes



High Pressure Pipe

Stainless Steel 316



Membrane Housing

FRP Constructed, ASME built

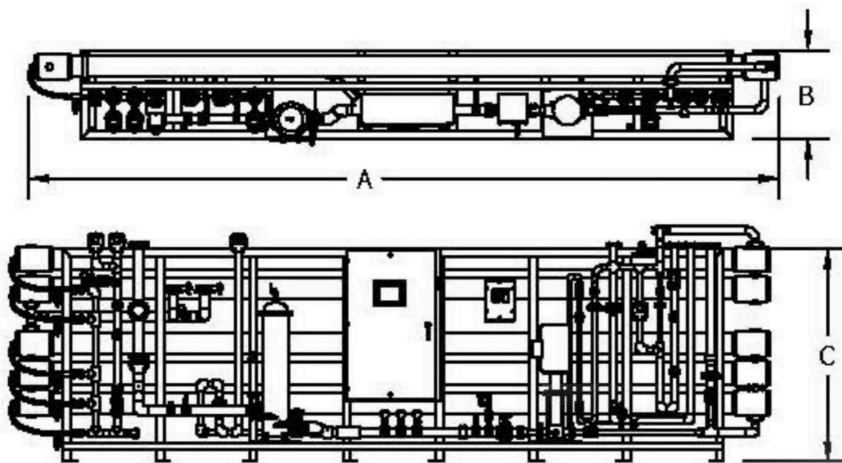


Pre-Filter Housing

Stainless Steel 304/PP

Reverse Osmosis System

MODEL	JMS - 15	JMS - 20	JMS - 30	JMS - 50	JMS - 75	JMS - 100	JMS - 125	JMS - 150	JMS - 200
Peak Permeate Flow* (GPM)	22	30	50	70	100	140	155	193	228
Standard Design Permeate Flow Well Water*	19.5	26	44	59	88	117	146	175	220
Conservative Permeate Flow Surface Water*	15	20	39	51	77	102	128	154	200
Membrane Quantity	3	6	9	12	18	24	30	36	60
Vessels x Membranes per stage	1:1:1 1M	1:1:1 2M	1:1:1 3M	2:1:1 3M	3:2:1 3M	3:2:1 4M	3:2:1 5M	3:2:1 6M	6:3:1 6M
Pump Size (HP)	5	7.5	15	15	15	20	30	40	40
Connections Feed Permeate Reject	1.5" 1.5" 1"	2" 1.5" 1"	2" 1.5" 2"	2" 2" 2"	2" 2" 2"	2" 3" 2"	3" 3" 2"	3" 3" 2"	3" 3" 2"
Dimensions (in.) A x B x C	92 x 30 x 82	92 x 30 x 82	151 x 42 x 84	151 x 48 x 84	151 x 42 x 84	180 x 42 x 84	228 x 48 x 88	269 x 48 x 88	269 x 62 x 87
Operating Weight (lbs) approximate	2,200	2,400	3,400	4,600	5,100	5,600	6,700	8,400	9,000



Dimensions do not include off-skid chemical storage tanks.



Visual flow meter.





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WTRBox Modular Water Treatment Solutions

WTRBox is a self-contained, modular water treatment system that delivers reliable performance in a compact, outdoor-ready enclosure. Designed to reduce construction costs and installation time, it provides a flexible alternative to traditional treatment facilities.

- Projects with high upfront infrastructure costs
- Outdoor and remote locations
- Facilities with limited indoor space

WTRBox combines treatment equipment and controls into a deployable, scalable solution that minimizes footprint while maximizing efficiency.





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3696 NORTHRIDGE DR NW | SUITE 10
GRAND RAPIDS, MI 49544 | 616-784-6005

JMarkSystems.com