CRANE

CRANE ENVIRONMENTAL

PURE Water MADE SIMPLE



CRANE ENVIRONMENTAL





Field Service

- System Start Up
- System Evaluation
- Service Contracts
- Operator Training
- Extended Warranty
- Emergency 24/7 Tech Support





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We turn the water you have into the Water You Need™





Standard Reverse Osmosis Machines

The Crane Water Train

The shortest, easiest, simplest path to meeting your water specification

Crane Train™

RO Systems start with an approved feedwater source specified in the design phase.

Start -

Carbon **Filtration**

Chlorine Removal Organic Particulate Removal Chloramine Reduction

Pesticide

Removal

Chemical Dosing

to prevent Chemical Scale Riocide Dosing to prevent Bio-Fouling

Acid Dosing

Packaged Water Machines

Many commercial and industrial applications require water of a higher purity than municipally treated water, well water, or surface water. The heart of Crane Environmental's ability to deliver value is the Crane Water Train[™]: Standard RO-centric water treatment systems individually configured, incorporating one or all of the technologies (see diagram below), to treat water to the level of purity and volume required by a given application.

Standard or Custom?

While our standard systems will satisfy 80% of commercial and industrial application requirements, our talented engineers and technicians bring years of hands-on experience to finding practical solutions to demanding applications requiring custom products. In addition, many of yesterday's custom applications have become today's standards as we continuously incorporate technological advances into our products.

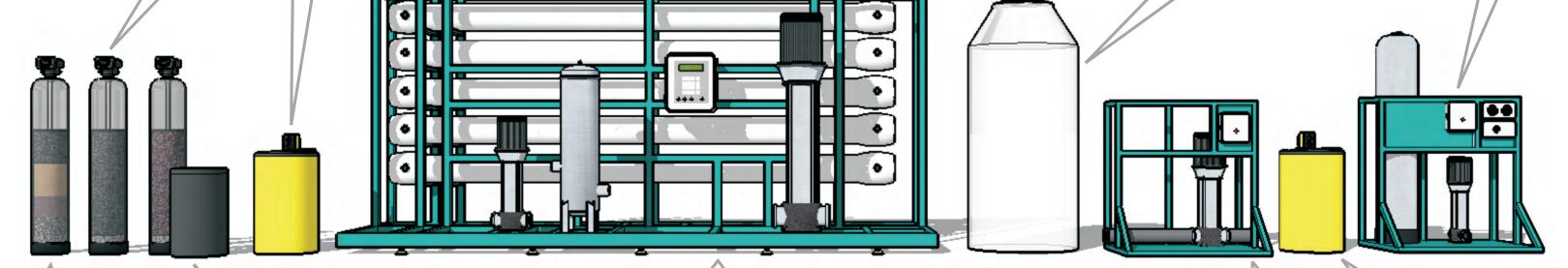
Atmospheric Storage of RO Product Water (Permeate)

Storage is pressurized

Ozonation of Ultraviolet Sterilization

Sterilization

insures that the RO Product Water remains free of Biological Contaminants



Multi Media Filtration

Solids Removal

Turbidity reduction *Oxidized Iron capture Also called Roughing

Filters

*Specific media and/or other systems available for iron reduction

Softening

Reduce Hardness Reduce Barium Reduce Copper & Lead Reduction of

Chloramines

Reverse Osmosis (RO) operates on the same principal as the semi-permeable membranes present in every living cell. RO Membranes are permeable only to water molecules, and under pressure, split a feedwater stream into two parts; purified water, called permeate, and the rejected contaminants, called concentrate.

Reverse Osmosis (Hyperfiltration)

"The Heart of a Crane Environmental Water Treatment System'

Reduce Total Dissolved Solids (TDS)

Minimum 98% rejection of dissolved solids and other

Why focus on water?

Many people in the water business want you to know how much they know about water, while all you want is to take water you have and turn it into the water you want. A key part of the simplicity of Crane Environmental water systems is our industry-leading expertise in getting the water ready for our RO's as well as conditioning the product water after the fact. As one of the oldest Reverse Osmosis system builders in the world, we know how to design systems that will perform and let you focus on your business.

Repress or Distribution

Pressurize RO Product Water for transportation Down-Stream for further treatment or

pH Adjusting

RO lowers pH, which can make water aggressive, or Acidic A pH Adjuster raises the pH to neutral or

RO Systems end with product water based on feedwater specified at design and approved

operating

conditions.

Crane Train™

other desired

- End

Faster, Better, Easier ™

With all of our products and services, Crane Environmental employs Lean Manufacturing Principles to achieve a culture of continuous improvement. As a result, we are able to deliver higher quality products faster from quote to your dock. Our continuous improvement in productivity and cost reduction means that we are able to deliver more value. It also means that we are able to deliver equipment in the time it takes some competitors to deliver a quote.



Design Advantages:

- ☑ Single Power Point for RO machines
- ☑ Skid Envelope protects major components
- ☑ Simple-to-operate controls for all system functions
- ☑ Easy Startup, Commissioning and Maintenance
- ☑ Configured by our Application Engineers to meet your specific requirements (You don't buy what you don't need)
- ☑ Components integrated into a simple to install and operate unit
- ☑ Solid Hydraulic Design protects your investment
- ☑ All RO units are tested prior to shipment

"We turn the water you have into the water you need"™





Tapwater of Seawater? We have standard machines for economically treating your existing water source

EPRO Industrial Reverse Osmosis for 0.1 to 500 gallons per minute from tapwater



Standard Features*

- Electronic control package
- FRP pressure vessels (8")
- Sample Ports
- Cleaning Ports
- Filmtec Membranes
- Prefilter 316 stainless steel*
- Grundfos 460/230 V 60Hz 304 stainless steel pump



- (Standard Features continued) Less than 1.000 TDS feedwater
- Low Pressure Cut-off at 20 PSI
- Standard Intake 40 PSI
- Designed for 70% recovery
- Standard packaging for shipping

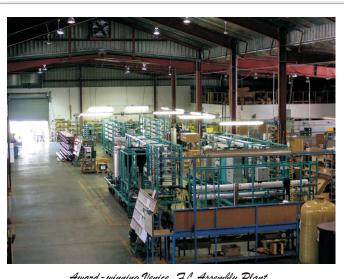
*for machines over 7.5 GPM



Options*

- 316 stainless steel pump
- Up to 3 Dosing Systems off skid (each may be either PVC, PVC w/mixer, or PVDF w/mixer)
- C.I.P. (Tank off skid, pump and 18x16 electrical box on skid)
- Second pH or ORP
- High TDS divert with alarm and 3-way ball valve
- Filmtec coldwater membranes
- Full crating
- No-wood packaging

High performance products. High performance team!



Award-winning Venice, FL Assembly Plant.

EPROÉSW Industrial Reverse Osmosis for 0.1 to 300 gallons per minute from seawater



Standard Features*

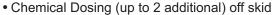
- Dupont epoxy primer with urethane-coated stainless steel frame
- 2205 duplex SS high pressure piping
- Danfoss positive displacement pump (9x840 and smaller)
- Fedco pump with energy recovery turbine (12x840 and larger)
- PVC schedule 80 low pressure plumbing
- Automatic permeate flush
- · Electronic control package



(Standard Features continued)

- TDS monitor on permeate
- Antiscalant dosing (off skid) on feed
- 316 SS Dykar-coated prefilter
- Permeate pH meter
- Fiberglass pressure vessels
- Partial crate or international packaging

Options*



- Static Mixer
- Feed pH meter
- Fiberglass Prefilter
- Allen Bradley PLC with (8.5" touchscreen, not Allen Bradley)
- ERI PX System & PD Pump (includes VFD) [CALL FOR QUOTE]



All machines shown with options. Features and options subject to change without notice.

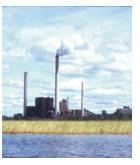


*for machines over 8.3 GPM

Applications and Configurations



Oil & Gas / Chemical



Power



Marine

Packaged marine fresh water systems

· Electrodeionization (EDI) and polishing



Resort



Offshore Platform



Manufacturing

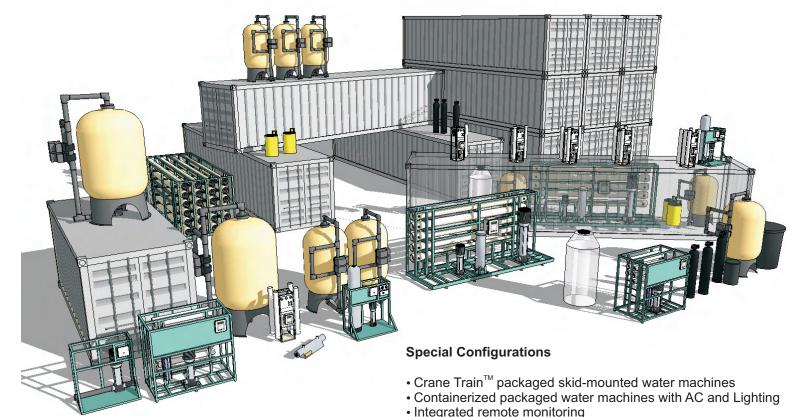
Got a challenging application? We've seen it all, built it all.

CRANE



Containerized ERPOiSW











Custom Compact EPROiSW™



Compact Vertical



Crane Train™ on a single skid



Skid-mounted Triplex Pretreatment



Pilot System - Research and Analysis



Features and options subject to change without notice.

All machines shown with options.

Reverse Osmosis - Electrodionization (EDI) - Chemical Dosing

