High Quality Deionized Water

WDI Ion Exchange System

Up to 15 gpm
With Counter-current regeneration and a patented feed forward regeneration control system, the WDI can deliver water quality rivaling a mixed bed system. For applications demanding reliability and quality, the WDI is the solution.

Industry Applications
- Hospitals
- Laboratory
- Paint and Powder Coating
- Photographic Processing
- Electronics Assembly
- General Manufacturing
- Metal Finishing
- Printed Circuit Board
- Car Washes

Process Applications
- Potable Water Purification
- RO Water Polishing
- Parts Washing
- Replacement for Service DI
- Spot-Free Rinsing

FEATURES
- High quality deionized water
- Fully automatic operation
- Simple instrumentation, easy operating procedures
- Superior chemical efficiency
- Minimal regeneration volume
- Corrosion resistant components
- Minimal installation requirements
- Stainless steel frame

Choices
WDI systems can be configured to regenerate according to volume of water processed, outgoing conductivity, or feed-forward loading.

- Volumetric-regenerating WDI systems utilize an internal water meter with control disks geared for the actual dissolved solids in the incoming water. The least sophisticated of the systems, it is unable to account for variations in incoming water quality. Without expensive controls, it is the most economical system and is suitable for less critical applications, and can be provided with a feed pump or designed to operate off city water pressure.

- Feed-Back systems additionally include a conductivity meter on the outgoing water which monitors water quality and initiates regeneration once the water quality diminishes to an adjustable set-point. Superior water quality is achieved with this moderately priced unit, which comes standard with a feed pump and requiring an atmospheric incoming water storage tank.

- The Feed-forward regenerating WDI includes PLC controls with conductivity and flow meters for the incoming water to calculate gains loading and to initiate regeneration prior to any decrease in water quality. With a conductivity sensor on the outgoing water line and an automatic purge function, water produced is of consistently high quality with the greatest operating efficiency of the three systems.

Complete Training and Field Support
Water Innovations, Inc. supplies start-up, training and field support on every system sold. Our systems are backed by responsive, factory-authorized service technicians.

Process and Parts Warranty
Water Innovations, Inc. offers both a process and parts warranty and our full support to guarantee that you get the water quality you expect.
Various Product Sizes
Provide from two to 15 gallons (8 to 57 liters) of high quality deionized water per minute.

Automatic System Operation
Minimizes operator maintenance and hands-on adjustments.

Ergonomic Design
Places status lamps, pressure gauges, sample taps and isolation valves in a central location for easy operator interface.

Space-Saving Design
Uses skid mounted components to minimize space requirements.

Modular Design
Allows easy system expansion by adding another DI module.

Countercurrent Regeneration
Maximizes chemical efficiency and product quality while minimizing regeneration costs.

Automatic Purge
Assures only high purity water will be provided to your operation.

Chemical Monitor
Automatically shuts system down if chemical supply is not sufficient.

Multiple System Configurations
Provide product water qualities from 50,000 ohm/cm to 10,000,000 ohm/cm.

Various Automation Levels
Match product designs to your needs.

Volumetric Meter Design
Initiates a regeneration after a preset amount of water has been processed.

Feed Forward Design
Optimizes system performance.

Feed Back Design
Regeneration once product water falls below a predetermined quality.

Various Power Configurations
Accommodate international installations.

Guarantee
We guarantee, in writing, the performance of every system we sell, assuring you of our commitment to reliable water treatment.

U.S. Patent Numbers 4,427,549; 5,069,779
TYPICAL WDI SYSTEM SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>FLOW</td>
<td>2 to 15 gallons per minute</td>
</tr>
<tr>
<td>EFFLUENT QUALITY</td>
<td>less than 5 uS/cm</td>
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<tr>
<td>INFLUENT</td>
<td>450 mg/l maximum TDS</td>
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<tr>
<td>INCOMING WATER FEED</td>
<td>City Water or from atmospheric tank</td>
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<tr>
<td>REGENERATION CONTROLS</td>
<td>volumetric, feed-back, or feed-forward</td>
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<tr>
<td>RESIN TYPE</td>
<td>strong acid and base monosphere gel</td>
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<tr>
<td>INLET PRE-FILTER</td>
<td>5 micron cartridge filter</td>
</tr>
<tr>
<td>ACID PER REGENERATION/WASTE</td>
<td>3.1 Gal 30% HCl/75 gallons</td>
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<tr>
<td>CAUSTIC PER REGENERATION/WASTE</td>
<td>1.8 Gal 50% NaOH/85 gallons</td>
</tr>
<tr>
<td>CAPACITY</td>
<td>47,500 grains</td>
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<tr>
<td>SKID DIMENSIONS / WEIGHTS</td>
<td>36&quot;W X 46&quot; L x 86&quot; H/900 lbs</td>
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Accessories

- **Carbon Filtration**: removes chlorine to improve product water quality
- **Storage and Repressurization**: provide constant deionized water supply & pressure
- **Neutralization System**: for automatic neutralization of treated water
- **Chemical Fume Suppression**: for water purity greater than 3 megohm-cm