

Service Exchange Deionization

MPW's service exchange deionization is a flexible and cost-effective method to gain a consistent supply of purified water. With service exchange, you receive portable vessels containing resin or filtration media that are assembled on-site to purify your source water. Systems are designed to produce water with a resistivity up to 18 megohms-cm at 25°C equivalent to a conductivity of less than 0.08 mmhos/cm.

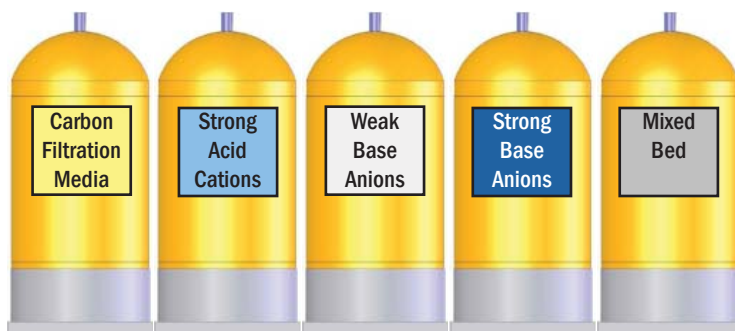
Service exchange deionization can be used in lieu of a fixed water system in low gallon per minute applications and is frequently used for condensate and system polishing. With MPW, customers delegate chemical and system maintenance including discharge challenges associated with regenerant waste and neutralization. Service exchange vessels prevent lost water production in the event of a system failure.

MPW's durable fiberglass vessels of filtration media, or cation, anion or mixed bed resin are easily installed on-site. Your water needs are immediately addressed as the initial design and installation requires minimal lead time. These systems conserve space and energy since no external pump is typically required.

MPW utilizes arrangements of 30 and 15 cubic foot vessels based on the desired flow rate and quality output. Frequently used configurations include deionization and mixed bed trains of vessels arranged to flow in parallel or in series. With trains that consist of lead (worker) and lag (polisher) vessels, when the capacity of the worker vessel is exhausted, the polisher vessel is moved to the worker position. This process allows replacement vessels to be ordered when needed, 24 hours a day. MPW's unique regeneration system ensures optimal resin performance by minimizing the stress of the process, allowing the life of the resin to be tracked and by preventing cross contamination.

Benefits of Service Exchange Deionization

- Constant, dependable deionized water supply
- Cost-effective with no capital investment required
- Easy installation on-site and maintenance free
- No chemical waste disposal or handling on-site, which improves safety
- Custom configured, minimal space requirements
- Improves environmental compliance by minimizing waste water discharge and conserving water
- Flexible service duration customized for your needs



30 Cubic Foot Exchange Vessels Technical Specifications

Vessel Type	Carbon filtration media, strong acid cations, weak base anions, strong base anions, mixed beds
Grains Removal	na; 960,000; 900,000; 510,000; 300,000
Dimensions	38" w x 38" l x 84" h
Weight	2,450 - 2,750 pounds (lb.)
Material	Fiber reinforced plastic (FRP)
Media Volume	30 cubic foot
Flow Rate	10 to 100 gallons per minute (GPM)
Operating Pressure	1 to 100 pounds per square inch (PSI)
Inlet Connections	2" male camlock 316ss
Outlet Connections	2" male camlock 316ss

15 Cubic Foot Exchange Vessels Technical Specifications

Vessel Type	Carbon filtration media, strong acid cations, weak base anions, strong base anions, mixed beds
Grains Removal	na; 480,000; 450,000; 255,000; 180,000
Dimensions	26" w x 26" l x 84" h
Weight	1,700 - 1,900 pounds (lb.)
Material	Fiber reinforced plastic (FRP)
Media Volume	15 cubic foot
Flow Rate	5 to 75 gallons per minute (GPM)
Operating Pressure	1 to 100 pounds per square inch (PSI)
Inlet Connections	2" male camlock 316ss
Outlet Connections	2" male camlock 316ss

Note: The actual amount of water delivered will vary with the actual TDS, the amount of carbon dioxide, and high silica and/or alkalinity in the raw water. Throughput delivered will also depend on the desired final water quality.

Contact your local MPW Representative today for more information on MPW's Service Exchange Deionization capabilities, 24-hours a day at (800) 842-4355.