



Service Deionization

Premium Grade Mixed Bed Deionization Tanks

Service Deionization (SDI) is the most efficient process for removing dissolved salts and minerals; mixed bed deionizers provide higher quality, more neutral pH, and better removal of silica and CO₂ than separate bed systems. Our portable mixed bed units produce the quality of water required for any application, up to 18.2 megohm-cm resistivity at 77° F.

A significant component of the water treatment system is the exchange mixed bed ion exchange resin and activated carbon. Both of these components are processed at Mar Cor Purification. As part of the 510(k) assessment and inspection process, the resin and carbon production procedures at Mar Cor were evaluated for Good Management Practices (GMP) established in the Code of Federal Regulations (21 CFR 20) and for suitability against the quality standards of the Association for the Advancement of Medical Instrumentation (AAMI).

The mixed bed resin is a nuclear grade mixture of hydroxide form Type One strong base porous gel anion exchange resin and hydrogen form strong acid sulfonated gelular polystyrene cation exchange resin in 1:1 (H/OH) ratio. The regenerated resin is routinely monitored for bacteria, pyrogen, total dissolved solids content, and for ion exchange capacity, following a rigid daily protocol.

Tank Specifications

- ConstructionFiberglass
- HeadPVC
- InternalsPVC
- Fittings See Chart
- Media..... Mixed Bed Resins

Operating Parameters

- Max. Operating Pressure & Temperature
 0.25 - 3.6 ft³ 90 psi/100° F
- Turbidity 5 NTU
- Color 5 units
- Organics 3 ppm
- Manganese and Iron 0.3 ppm
- Free Chlorine 0.2 ppm

Typical Applications

- General Industry
- Hemodialysis and Life Sciences
- Laboratory
- Microelectronics
- Rinsing
- Pharmaceutical / Biotech

Mixed Bed Service Deionization (SDI) Specifications

Model Number	Max. Flow Rate USGPM (LPM)	Resin Volume (ft ³)	Inlet / Outlet Ports	Dimensions W x H (Inch)	Weight (Wet) Lbs. (kg)
6 x 18	2.0 (7.6)	0.25	SIDE 3/4" MGHT	7 x 20	25 (11.3)
8 x 18	2.0 (7.6)	0.50	SIDE 3/4" MGHT	9 x 20	32 (14.5)
6 x 35	2.5 (9.5)	0.50	SIDE 3/4" MGHT	7 x 37	73 (33.1)
8 x 44	4.0 (15.1)	1.25	SIDE 3/4" MGHT	9 x 46	135 (61.3)
12 x 36	7.0 (26.5)	2.20	TOP 3/4" MGHT	13 x 38	198 (89.9)
14 x 47	10.0 (37.9)	3.60	TOP 1" QD	15 x 52	305 (138.5)

Note: All weights and dimensions are approximate. Higher flow rates can be obtained with parallel configurations. Jumbo tanks are available upon request.

Accessories Available

- Service carbon & activated carbon cartridges
- Resistivity light or monitor w/ audio unit
- Remote indicator
- Ultraviolet lights
- Recirculation pumps
- Filter cartridges and housings

Media Options

- Separate bed cation / anion
- Single use

Installation Considerations

- System operates on tap pressure, within a pressure range of 25-60 psi and a maximum pressure of 90 psi.
- The system must be installed on a firm, level surface.
- A floor drain is recommended.
- Accessories may require electrical connections.

Service Policy

Mar Cor Purification offers ion exchange resin services. This service is processed at Mar Cor owned and operated facilities in Philadelphia, Atlanta and Chicago. All regeneration facilities process only resins that are used in potable water treatment applications. We do not handle or process resins used in industrial applications involving reclamation of heavy metals or exposure to hazardous organic chemicals. All tanks are considered rental and will remain the property of Mar Cor Purification unless structured otherwise. We offer 24/7 service from any of our US service centers.

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