

Exchange Tank Deionization

for Serv-A-Pure Co. DI Reprocessing



QUALITY AND EXPERIENCE MAKING THE DIFFERENCE

- Over 35 years of direct experience
- Among the highest capacity in the industry
- Ultra high water purity
- Extremely low TOC levels
- Most Industry Standard Sizes Available
- Different Batch Types to Meet Specific Needs
- Individually sanitized DI Tanks to minimize bacteria
- Every batch quality and capacity checked and logged



DEIONIZATION THAT WORKS THE WAY YOU DO

Multiple Grades of DI Tanks are available to meet your specific needs.

Electronics Grade (EG) Series

- Resistivity up to 18.2 Meg Ω •cm
- Bacteria <1 cfu/mL
- TOC <5 ppb

High Grade (HG) Series

- Resistivity up to 17+ Meg Ω •cm
- Bacteria <5 cfu/mL
- TOC <20 ppb

General Purpose (GP) Series

- Resistivity up to 10+ Meg Ω •cm
- Bacteria <50 cfu/mL
- TOC <1.0 ppm

Closed Loop (CL) Series

- Resistivity up to 5+ Meg Ω •cm
- Bacteria <100 cfu/mL



ELECTRONICS GRADE (EG) SERIES

- High-End Semiconductor Manufacturing
- High-Efficient Solar Cell Manufacturing
- Sensitive Electronics
- Trace Elemental Analysis

HIGH GRADE (HG) SERIES

- Semiconductor Manufacturing
- Solar Cell Manufacturing
- Electronics Manufacturing
- Pharmaceuticals
- Cosmetics
- Laboratory Use

GENERAL PURPOSE (GP) SERIES

- Automotive Hybrid Component Cooling Systems
- Humidification Units
- Window Cleaning
- Spot-Free Car Wash
- Irrigation
- Laboratory Glassware Washing

CLOSED LOOP (CL) SERIES

- Power Pack Cooling
- Heat Exchangers
- Electronics Cooling

PROPERTIES OF ELECTRONICS GRADE SERIES

The Electronics Grade Series of DI Resin are kept to high standards. These high standards can only be met by high quality manufacturers. As a result Serv-A-Pure only uses Dowex brand DI resins. SAP-EG-6040 is a 3:2 chemical equivalent of DOWEX 1 (H⁺) and DOWEX HGR-W2 (OH⁻). SAP-EQ-6040 is specifically processed to provide low TOC leachables. The resins are checked with Serv-A-Pure Aggressive "B" kinetic test to produce 18+ MegΩ•cm resistivity. Every batch is also capacity checked to ensure maximum capacity every time.

Physical Properties

Product	Ionic Form	Matrix	Functional Group
SAP-EG-6040	Hydrogen / Hydroxide Mix	Styrene-DVB, gel	Sulfonic Acid Quaternary Amine

Chemical Properties

TOC Levels	Metals (feed water dependent)	Conversion, Cation	Conversion, Anion
≤ 5 ppb Maximum	Low ppt Levels	99% minimum (H ⁺ form)	94% minimum (OH ⁻ form)

Operating Conditions

Operating pH Range	Service Flow Rate	Kinetics (Serv-A-Pure Aggressive "B" Kinetics Test)	Capacity Minimum
1 to 14	1 to 4 gpm / ft ³	18 MegOhm Minimum	10.6 kgr / ft ³ as CaCO ₃

Resin Bead Properties

Effective Bead Size (Approx.)	Bead Strength	Whole Beads	Shipping Weight
0.40 - 0.60 mm	90% Minimum > 200 g/bead	95% Minimum	44 lbs. / ft ³

Exchange Tank Properties and Operating Conditions

Inner Shell Material	Maximum Operating Pressure	Maximum Operating Temperature	Head & Fittings Material
Polyethylene	125 psi	120 °F	#1447 - Noryl All Others - Nyglass

Standard DI Tank Sizes and Capacities - Mixed Bed

Tank ID	Tank ID Dia. (in.)	Tank Height (in.)	Cross Sect. Area (in ²)	Full Capacity (ft ³)	Min. DI Capacity (gr)
618	5.43	18	23.16	0.25	2,650
635	5.65	35	25.07	0.60	6,360
835	7.45	35	43.59	1.00	10,600
844	7.63	44	45.72	1.25	13,250
1447	13.12	47	135.15	3.75	39,750



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Tech Sheet SAP-EG-6040
 Rev. C.