

Industrial / Commercial Portable Deionization Tanks

The Aseptic System



THE ULTRA PURE, 18 MEG OHM/CM AND ASEPTIC SAFE WATER SYSTEM

The type of resin and our special regeneration process and control make this system unique. It provides the highest quality ultra pure deionized water in the industry. The system produces over 18 meg ohm/cm water with the lowest possible levels of bacteria, endotoxins, organics and silica. The tanks and connection heads are different from our other systems so they cannot be intermixed with industrial applications.

Model No.	Resin	Flow Rate	Tank Size
5844	1 Cu. Ft.	5 GPM	8" x 44"
5354	3 Cu. Ft.	10 GPM	12" x 52"
7035H	1.0 Cu. Ft.	5 GPM	10" x 35"
7354H	3.0 Cu. Ft	10 GPM	12" x 52"

ADVANCED **WATER** SOLUTIONS SINCE 1939



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UltraPure Mixed Bed Deionizer Exchange Tanks

Specifications

5844 Deionization Exchange Tank

Tank Type:	Aseptic Mixed Bed
Tank Size:	8" x 44"
Inlet/Outlet:	1"
Cation Resin:	.4 Cu.Ft. Strong Acid
Anion Resin:	.6 Cu. Ft Strong Base I
Water Quality:	1-18 meg ohm

5354 Deionization Exchange Tank

Tank Type:	Aseptic Mixed Bed
Tank Size:	12" x 54"
Inlet/Outlet:	1"
Cation Resin:	1.2 Cu.Ft. Strong Acid
Anion Resin:	1.8 Cu. Ft Strong Base I
Water Quality:	1-18 meg ohm

7035 Deionization Exchange Tank

Tank Type:	Hot Tank Aseptic Mixed Bed
Tank Size:	10" x 35"
Inlet/Outlet:	3/4"
Cation Resin:	.4 Cu.Ft. Strong Acid
Anion Resin:	.6 Cu. Ft Strong Base I
Water Quality:	10-18 meg ohm

7354H Deionization Exchange Tank

Tank Type:	Hot Tank Aseptic Mixed Bed
Tank Size:	12" x 52"
Inlet/Outlet:	1"
Cation Resin:	1.2 Cu.Ft. Strong Acid
Anion Resin:	1.8 Cu. Ft Strong Base I
Water Quality:	10-18 meg ohm

Operating Parameters:

Operating Temperature:	35°F - 100°F
Maximum Pressure:	20 psi
Ion Exchange Resin Volume:	1 Cu.Ft.
Tank Weight:	80 lbs.
Flow Rate:	.0-5.0 gpm
Maximum Removal Capacity (in grains)	12,000

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Dayton Water Systems' Ultra Pure DI tanks are identified by model and batch numbers beginning with the number 5. These tanks are readily identifiable by red tops or the red tape at the top of the tank. UltraPure Deionizer exchange tanks are registered with the FDA as a medical device. Strict guidelines and procedures are followed to ensure the quality of the UltraPure DI tanks. Our internal procedures go a step further to ensure that these tanks are literally bacteria and pyrogen free.

In order to preserve the integrity of the UltraPure tanks, the installation and distribution of them are controlled. UltraPure tanks may not be distributed by dealers or installed as polishing tanks to Dual Beds or Standard tanks. As well, these tanks should not be installed in dirty industrial areas where the possibility of contamination may occur and the aesthetics of the tank are diminished.

Mixed-bed resin is a mix of 40% strong acid cation resin in the hydrogen form and 60% strong base Type I anion resin in the hydroxyl form. This resin mixture produces very high quality deionized water. Type I anion resin is very effective at removing silica from the water.

UltraPure resin can produce high quality deionized water, up to 18 meg ohm, depending upon certain conditions. These conditions include flow rate, feed water quality, the system set up, condition of the resin, and the amount of time the system sets idle. We guarantee UltraPure resins in the 1 and 3 Cu. Ft. vessels will produce at least 16 meg ohm initially before exhaustion of the resin bed begins.

Capacity of UltraPure resin is a maximum of 12,000 grains removal per Cu. Ft. High quality cut off of 200,000 ohms and above have an affect on the capacity of the deionizer exchange tank. Generally, we reduce the capacity by approximately 20% or 10,000 grains removal per Cu. Ft. when the quality cut off is 200K and above. As resin begins to exhaust, the quality gradually declines. For this reason, there is about 20% of the resin's capacity which will produce deionized water of quality below 200,00ohms.

Recirculating systems will also have an affect on the capacity of the exchange tank. A recirculating system is set up to maintain high quality process waters. Water enters the recirculating loop from a RO system or even a raw water supply. The loop contains DI exchange tanks and a recirculating pump to continually pump water through the loop. As the water recirculates through a plumbing loop it returns to the deionizers with some contaminants which will be removed by the deionizers.

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