

*Your Regeneration  
Experts*



*Let us help you find better ways  
to improve your bottom-line and  
reach your own new standard of  
excellence.*



## *The Clear Choice*

- State-of-the Art Facilities
- Fully Licensed with Local, State and Federal Governments
- 46 Years EDM Regeneration Experience
- National Dealer Network for Local Service



NATIONWIDE DI WATER SOLUTIONS

715 Industrial Drive SE / Elgin, MN 55932  
Toll-Free 877.808.1916 / Phone 507.876.2499  
Fax 507.876.2699 / E-mail: sales@nationwidedi.com

[www.nationwidedi.com](http://www.nationwidedi.com)

## *The Clear Choice*



NATIONWIDE DI WATER SOLUTIONS



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*save time, money and mother earth*

**VERY HIGH RESIN QUALITY / BATCHES TESTED BEFORE LEAVING FACILITY / QUICK TURNAROUND / LATEST AND BEST TECHNIQUES / STOCKED WAREHOUSE WITH DI CELLS, HEADS & ACCESSORIES**

## THE NEW STANDARD OF EXCELLENCE

When a company can offer a better and more effective way to save time and money, it pays to listen. Our focus began with one very important objective: to provide our customers with products and services that create greater opportunities to be more efficient with their water solution needs.

**We are Nationwide DI Water Solutions.**  
*We offer the Clear Choice.*

## ABOUT US

Nationwide DI Water Solutions, LLC, is a company targeting businesses with needs for water deionization and resin regeneration. *We offer over 46 years of combined experience among our employees.*

**Recycled Resin:**  
*saving you about 50% of purchasing new deionized resin each time!*

**We are a recycling company.**

## OUR FACILITY

Our 9,000 square foot facility is located in Elgin, Minnesota. We have two separate 60 cubic foot regeneration plants within our building. One plant is used strictly for machine grade (#2) resin, and the second plant is used for potable (#1) resin regeneration.

The machine grade resin plant is used to regenerate machine grade resin and encompasses the majority of our business. Machine grade resin is used in closed loop systems and is cycled repeatedly before it becomes exhausted and needs to be regenerated. Businesses who might need machine grade resin include:

- EDM (Electrical Discharge Machines)
- Lasers
- Water Jet
- Makeup Water
- Hole Poppers
- Coolant Mix

The potable resin plant is strictly for regenerating resin for businesses and industries that are able to use potable resin water with their equipment, but still require regeneration of the resin once it is exhausted. The potable system has a single pass rinse cycle, which is different from the closed loop system. This means the water in the tank can pass only once through the equipment before it is exhausted and must be regenerated. Businesses that may need potable grade resin would include:

- Medical Clinics
- Professional Window Washing Companies
- Medical Labs
- Salt Water Aquariums
- Dental Labs
- Companies who use "polishing" processes
- Power Plants
- Makeup Water
- Professional Car Washing/Detail Companies
- Companies using a Dual-bed (anion and cation) system
- Automatic Car Washing Companies

## THE TECHNOLOGY

Nationwide DI Water Solutions uses a method known in the industry as batch processing to regenerate its resins. Exhausted resin is emptied into a batch tank separation vessel. The resin is put through a computer-controlled regeneration process where flows and chemicals are measured and monitored. It is then determined that, when properly operated, the batch method is the most cost effective method for service DI regenerations.

Hydrochloric (HCL) or Sulfuric Acid is used to regenerate cation resin. At Nationwide DI Water Solutions, we use HCL in order to offer our customers the best product in the industry. Hydrochloric acid has the advantage of providing higher capacities than sulfuric acid, but it is more expensive. Sulfuric acid also has the potential to cause calcium sulfate fouling of the cation resin.

Sodium Hydroxide (Caustic Soda) is the chemical of choice for most anion regenerations. While potassium hydroxide can also work very well, it usually costs more than the equally effective sodium hydroxide. Nationwide DI uses caustic soda in their regeneration processes.

The exact concentration of the chemical and flow rates are very important to guarantee the quality of resin regeneration. Maintaining proper concentration is important because:

- *If the strength is too high, there will be either insufficient contact time or bed cleaning.*
- *If the strength is too low, there will not be sufficient driving force to do a complete regeneration.*

