

## Company History

Neundorfer, Inc. began helping North American utilities improve electrostatic precipitator performance in 1975. Since then, we've expanded our [products](#) and [services](#) through internal development and acquisitions. We've grown stronger in a volatile market by learning from our mistakes and embracing uncertainty. We've innovated and made a lot of mistakes over the years, but have learned and improved with each challenge.



**Mike on site at a plant**

In the early 1970s, with the passage of the Clean Air Act, electric utilities and companies in other heavy industries (like steel and cement production) called upon original equipment manufacturers (OEMs) to improve their precipitators and install new ones. Established and new OEMs competed against each other, went for big projects, and didn't focus much on service or upgrades.

Neundorfer, Inc. was one of a few non-OEM precipitator companies focused on upgrading rapping systems and designing mechanical improvements. Throughout the 1970s, Neundorfer built credibility with customers. We created [digital controls](#) and improved equipment designs. Customers soon became convinced that Neundorfer, a company that did not build precipitators, could do a better job improving equipment performance than the OEMs. Our sales and profits grew because of our reputation for excellent service

and competitive prices.

Neundorfer sales continued to grow during the 1980s, but our market became more volatile. With a declining market for new precipitators, OEMs looked to the improvement market to survive. OEMs also reduced staff, and many of those people started their own precipitator consulting and improvement companies. Lack of experience among many startups reduced project quality and created volatile pricing.

We believed that diversifying into areas beyond precipitators was our best way to avoid low quality and erratically-priced competition. Based on this assumption we funded, developed, and patented two non-precipitator products. One was a smart, elegant feedwater heater control and the other was an automatic proportional coal sampler for feeder pipes. Both products were a technical success but a financial failure. We were also naïve about defending our patents. We thought the legal system would provide quick and objective resolutions. However, after 13 years in courts defending one of our patents, we realized the delays and costs could be oppressive even as we ultimately won the case.

During the 1970s and 1980s, our main customers were coal-fired utilities; they made up about 85% of our total sales. However, in the late 1980s, faced with the prospect of deregulation, many utilities reduced staff and delayed maintenance and



**Installing precipitator wires (discharge electrodes)**

capital projects. By the mid-1980s, our sales to coal-fired utilities dropped to a low of 45% of our total. Our utility sales rebounded somewhat toward the end of the decade but overall sales remained flat.



Welding rapper sockets

Our attempts to diversify, combined with the legal defense process and volatile competition, added to our costs as the market continued to become more unpredictable. In the summer of 1993, we realized that we had to make structural changes to stay in business. We paid off corporate debt, redirected research and development to our core precipitator business, eliminated non-essential administrative duties, reduced staff, and re-defined the business more narrowly as a service and equipment company focused on improving precipitator performance. Our narrowed focus soon resulted in exciting new [rapper](#) and control technologies, as well as improved project execution and technical field services.

Since then, Neundorfer has grown steadily in sales and profits. We remain debt-free and just completed our 18th consecutive profitable year (2011). We've adopted an approach of consciously seeking out and partnering with customers who value personal, comprehensive service and are willing to pay a reasonable price for innovative, honest, quality work. This approach seems to be working. In 2003, we were able to acquire Wilhelm Environmental Technologies, expanding our capabilities to include a full range of flue gas conditioning products and services. In 2007, we added [flow modeling](#), [resistivity testing](#) and [baghouse consulting expertise](#) with the acquisition of APCO Services.

Around 2004, we began exploring ways to better connect with customers. We created multi-disciplinary teams including mechanical, electrical, and chemical engineers and administrative and service staff--and dedicated their efforts to helping customers in three North American regions.

We didn't have enough office and shop space to set up these teams effectively so we purchased the building adjacent to ours. We hired a "green" architect, and [designed a new space joining the buildings](#). In this new space, we created the teams and organized workflow accordingly. This effort worked in ways we didn't anticipate, but failed in other ways.

By 2006, we thought we knew how to sustain our successful customer support and selling process. We defined our process and documented it, hired and trained sales support staff, bought new customer relationship management software, and hired a few sales consultants to support our efforts.

After three years, it was clear our sales organization was as good as it could be. However, the process was acting as a filter in our efforts to understand and support customer goals. So, in 2009 we disbanded the sales organization and began working to eliminate the "push" from our relationship with customers. Instead of selling, we put our energy into asking questions, listening, and partnering with customers on improvement projects.



Making electrostatic precipitator weighted wire discharge electrodes

The move from push to partnership has been rewarding. Our service people have become consultants who do more than just fix problems. Our technical and project people also act as consultants, exploring customer needs and goals in ways that lead to much more personally



rewarding work. We stopped using PowerPoint presentations in meetings and workshops; instead, we ask questions and listen. We stopped handing out literature; instead, our website serves as a library of technical information that's sometimes helpful. We eliminated the marketing function from our organization; instead, we hired a Manager of Stories, who has a background in journalism. Her job is to record and share internal and customer stories, celebrating successes and helping us learn from our failures.



**Learning Center workshop**

Our [Learning Center](#) is an essential part of our customer support. Each year, we plan and facilitate equipment and system optimization workshops around the country. These workshops, facilitated by Neundorfer people from various disciplines, are essentially group troubleshooting sessions. Participants come with problems they need help solving, and leave with action plans. They gain knowledge and solve problems, and we learn how we can continue helping them in the future. We apply the same learning technology in-house that we apply in our customer workshops. We have created a powerful meeting protocol that is founded in listening and asking powerful questions. We use this protocol for both customer and internal meetings.

Neundorfer's facility in Willoughby, Ohio--covering roughly 56,000 square feet in two buildings--now includes a flow optimization lab, office space and meeting rooms, a manufacturing and fabrication shop, an

electronics lab, a flow modeling shop and optimization lab, a fly ash resistivity lab, and our Learning Center for hands-on workshops designed using cutting-edge learning theory. We also have satellite offices in Alabama, Wyoming, Missouri and Arizona.

Neundorfer's continued success is especially gratifying because the market we're in remains as tumultuous as ever. We are able to share our profits and gains with employees when times are good, and maintain staff through slower times. New challenges will no doubt continue to confront all of us at Neundorfer over the coming years. But, with a commitment to learning and adapting for the benefit of our customers, we remain confident.