

# SUCCESS STORY



**Sustainable Products & Process Development**—a Next Generation Manufacturing Success Strategy

## Reliable Plating Works Saves \$1 Million with Sustainable Processes



**Profitable Sustainability - a business strategy that pays.**

“Green isn’t a just a trend or industry buzzword. It’s a serious business strategy for any manufacturer interested in becoming more profitable, efficient and environmentally responsible,” said Judy Sullivan, a senior manufacturing specialist for the Wisconsin Manufacturing Extension Partnership (WMEP.)

“Early adopters of lean and green stand to gain the most because they will attract new customers and be viewed as industry leaders.” Sullivan points to the stellar results achieved by Milwaukee-based Reliable Plating Works, Inc. (RPW), and it’s sister company, Elite Finishing, LLC that both provide decorative nickel and chrome electroplating finishes to a wide range of products for customers in the motorcycle, furniture, point-of-purchase display, appliance, medical equipment and other industries.



*In Elite/RPW’s process,, the nickel solution (foamy liquid above) is recycled. The spray-off system is also part of Elite/RPW’s recovery system.*

### Reliable Plating Works Results:

Reliable Plating Works, Inc., was Lean and Green 25 years ago, before the concept was widely known. The company led their industry to Zero Discharge technology in the treatment of hazardous waste. As part of its sustainability initiative, RPW:

- ▶ Recycled all waste metals and eliminated any waste from going into the ground.
- ▶ Worked with DNR and EPA through AESF (American Electroplaters and Surface Finishers), an international industry group, to eliminate poorly worded laws that discouraged recycling.
- ▶ Completed a Green Belt Project to reduce the ratio of nickel purchased to nickel required. As a result, usage was reduced to 1.13:1 from 1.25:1, a **raw material savings of 14%**. As a bonus this also resulted in a **5% reduction in electricity use.**

**More results on inside.**



## Lean & Green pays off

The companies, founded in 1929, together employ approximately 70, and got started on a lean journey several years ago with the help of WMEP. Last summer, Reliable Plating Works, Inc., turned to WMEP for assistance in finding ways to increase efficiency and reduce energy, raw material costs and waste. Though the companies had a long history of being leaders in recycling and zero discharge technology, the organizations wanted to take lean and green to the next level.

### Taking Lean and Green to the next level

Over the course of two months, RPW launched a multi-pronged attack on waste and inefficiency and implemented measures to reduce raw material usage, air emissions and energy costs. As a result, the \$12 million revenue producing firm generated a total savings of more than \$1 million.



*Finished chrome-plated pipes await packaging and shipping.*

- ▶ Completed a LEAN and GREEN Value Stream Map with WMEP leading to the development of new metrics that clearly reflect operating costs. Tracking of these metrics showed a bottom line **reduction of utility usage by 30%, chemical usage by 5%, and waste treatment by 5%.**
- ▶ Operated the heat-intensive plating process three days per week, rather than five, **reducing energy usage by 30%.** In addition, because lines have fewer start up and shut downs, maintenance costs are reduced and the number of rejected parts was also reduced.
- ▶ Changed the work schedule from two eight-hour shifts 5 days per week to two twelve-hour shifts 3 days per week, resulting in one equipment start up and one shut down per week. Benefits included:
  - Plant workers only commute three days per week, therefore reducing gas usage & emission output by 40%.
  - Customers have adapted to the schedule of shipments on a three day week rather than five, consolidating shipments.
  - Reduced start-up related rejects by 80%

**These changes allowed RPW, a small company of \$12 million in sales to eliminate more than \$1 million in costs!!!**

# Works / Elite Finishing

What's more, company president Jaime Maliszewski says the improvements and savings are helping the company stay profitable during the recession at a time when many other firms are struggling.

"You really have to think outside of the box," he said. "The first thing we discovered was that we had bad metrics that were understating our costs." For example, products enter the company's electroplating machinery on a flight bar, and the labor cost metrics didn't fully take into account whether the flight bars carried product or were empty. Revised metrics tracked this difference, producing a more accurate picture of labor involved.

## Analysis, then action

After careful analysis, the company revamped its heat-intensive plating operation to run three days per week instead of five. That alone sparked a 30% reduction in energy costs, for an annual savings of more than \$150,000. Start-up related rejects were reduced by 80%. And employees now work 12-hour shifts and 3-day weeks, enjoying fewer commutes, more time with their families and lower daycare expenses.

The firm's biggest expense is nickel, which typically costs from \$3 to \$5 per pound, but shot up to more than \$20 a few years ago, sending shockwaves through the industry. A recently-trained team of green belts tackled the issue of reducing nickel waste in the plating process, generating a savings of 14% or \$200,000 a year. The company is proud to have four green belts in its ranks, Maliszewski said.

"When customers see you're doing things smarter and better they have more confidence in using you as a supplier. They know you're proactive and that you'll be around in the future."

*Jaime Maliszewski*  
*President, Reliable Plating Works*

RPW's adoption of lean and green strategies are a strong competitive advantage in the marketplace. "When customers see you're doing things smarter and better they have more confidence in using you as a supplier. They know you're proactive and that you'll be around in the future," said Maliszewski.

## Lean and green sustains business

Lean and green is here to stay, he says. "Companies who don't take this seriously are going to be pushed out. Looking back, I'm not sure we'd be in business today if we hadn't started on this path." Sullivan gives the company high marks for their commitment to their employees, customers and community. "Reliable Plating Works realized early on that business practices that protect the environment in the future can pay substantial dividends today." Sustainability measures such as reducing energy costs and waste can have an immediate and dramatic impact on the bottom line, Sullivan said. "Given the state of the economy, this should be a high priority for any manufacturer."

# Success

## About Reliable Plating Works, Inc.

Based in Milwaukee, Reliable Plating, Inc. and its sister company Elite Finishing LLC, employ approximately 70 people in two facilities. The company operates four fully-automated Nickel / Chrome plating lines that are capable of over 3000 square feet of plating per hour and part sizes up to 24" x 58" x 108". These are complimented by fully automated polishing and buffing equipment.

The companies enjoy a strong reputation within the industry and community. The companies managers have long held leadership positions in the American Electroplating and Surface Finishing trade association. And RPW has taken a leadership role in reducing waste and preserving the environment, receiving local and statewide awards for these efforts. As a supplier, RPW has received awards (based on product quality, service, and on-time delivery) from The West Bend Company, the EST Company, and the In-Sink-Erator Manufacturing Company.



*Wheel rims await further processing at  
Reliable Plating Works.*

## About WMEP

WMEP is a private, nonprofit consulting organization committed to the growth and success of Wisconsin manufacturers. WMEP is a leader in bringing Next Generation Manufacturing best practices to Wisconsin firms, to help them achieve world-class performance through innovation and transformation. During the past five years, WMEP-assisted manufacturers reported economic impact of \$977 million with 7,965 jobs created/retained. WMEP receives financial support from the Wisconsin Department of Commerce, and partners with many public and private organizations to serve Wisconsin manufacturers.