Today’s Powder Coating Technologies Rack-Up Significant Savings

Upgrading to the latest powder coating and recovery systems from Nordson saves this retail display manufacturer $135,000 annually in material costs.

When AGI In-Store wanted to dramatically improve the powder reclaim and color-change capabilities on its finishing line, this manufacturer of retail shelving and fixtures knew exactly where to turn. After vetting a large number of suppliers and products, AGI In-Store came back to Nordson.

“We’ve had a relationship with Nordson for nearly 20 years,” explains Ken Warren, Director of Manufacturing. “We knew they had the most advanced equipment out there in terms of powder recovery and spray technology – and that was what we were after.”

AGI In-Store (Forest City, NC) is a division of American Greetings Corporation, responsible for manufacturing the retailer’s card displays as well as fixtures and shelving for several external customers. During its busiest times, AGI In-Store will run two shifts a day, coating part sizes and profiles that vary tremendously. In addition, color changes are required up to seven times per day.

According to Warren, AGI In-Store’s search for a new, more efficient powder coating system was driven primarily by the desire to improve their reclaim capabilities. Not only were they interested in achieving powder material savings – some colors couldn’t be reclaimed at all – but the company also wanted to be more environmentally responsible as well.

“Green initiatives are extremely important both internally and to our customers,” notes Warren. “Many of our customers ask us about our sustainability program, and improved powder recycling and reclaim plays a key role in that.”

To help achieve their goals, AGI In-Store installed a Nordson ColorMax® engineered powder coating system with Prodigy® HDLV® (high-density powder, low-velocity air) spray guns earlier this year. Nordson’s top-of-the-line technologies, a ColorMax booth combined with Prodigy guns provides the best in dense-phase powder coating performance, using proprietary Nordson pumping technology.

“We checked out some competitive alternatives, but nothing compared to the Nordson system. Everyone we talked to that had it, just raved about it,” notes Warren. “People will usually tell you if they’ve had issues, but we heard nothing but good things. So, we felt it was a solid lock for our needs.”

Prodigy spray guns with HDLV technology move more powder with less air than traditional venturi style systems. This results in a softer spray pattern, less overspray, more powder on the part, and lower overall material consumption. What’s more, HDLV technology is designed to continuously return powder back to feed center for peak recovery efficiency. When combined with the open face canopy design of a ColorMax booth, powder containment is further amplified to ensure the highest reclaim capability. The ColorMax system’s modular design also handles a variety of work heights to accommodate changing production requirements, which is a great feature for AGI In-Store considering the varying part profiles coated in a day.
“We’ve been painting all our metal parts through the new system,” says Alan Metcalf, Maintenance Manager. “Since then, we’re reclaiming about 95 percent of all our powder, which is truly amazing. We’re saving about $13,000 per month in powder material costs – which adds up to nearly $135,000 annually.”

Quick Color Change…More Than Just an Added Bonus

In addition to the major recycling and reclamation benefits, AGI In-Store has experienced an added bonus in increased productivity with the Nordson system. Typically, color changes ran them about 30 to 35 minutes per change (with an average color change of six times per day). Now, with the new system, changing colors takes only six to 10 minutes – that’s a savings of nearly three hours of run time per day.

Constructed of proprietary Nordson Apogee® canopy material, which has the least amount of powder attraction of any material on the market today, the ColorMax booth resists powder attraction to expedite color-change operations. It also facilitates rapid powder recycling, eliminates cross contamination and provides easy cleaning between colors.

“We chose this system because we felt it was the best out there,” says Metcalf. “It’s just exceeded all our expectations. In addition to cost savings and better quality, we’re also more productive. Plus, we’ve had no major issues in over eight months. What else could you ask for, really?”