

Reaping the Benefits of a New Powder Line

Ohio manufacturer of elevation, lighting and security products—also a contract manufacturer and powder coating service for a leading agricultural equipment maker—needed to accelerate its color changes and increase efficiency and productivity. An upgrade to the latest powder coating technology fit the bill.

Edited by Sharon Spielman



When the coating process became a source of inefficiency at century-old manufacturer Will-Burt, Orrville, Ohio, the company unearthed a solution with an upgrade to its finishing line. The company transformed its finishing line from a simple, two manual-gun, spray-to-waste powder coating system into a sophisticated, world-class operation that produces Class-A finishes.

“The coating process was becoming a bottleneck for us,” explains Jamie Reynolds, paint line supervisor for Will-Burt. “We had been using a system that was in place since 1996, when we made the leap from liquid to powder, and it was at the end of its life cycle.”

According to Reynolds, several definitive factors influenced the company to make the investment earlier this year. A primary driver was the fact that Caterpillar, Inc. one of Will-Burt’s largest customers— changed the finishing specifications for its



When Will-Burt needed to drastically reduce its color changing time, the company installed a new system from Nordson Corporation that sprays 10 different colors with no reclaim, allowing them to change colors in 30 seconds.

products to a two-coat system. In addition, as the company continued to grow, so did the average number of color changes per day, eventually nearing 15.

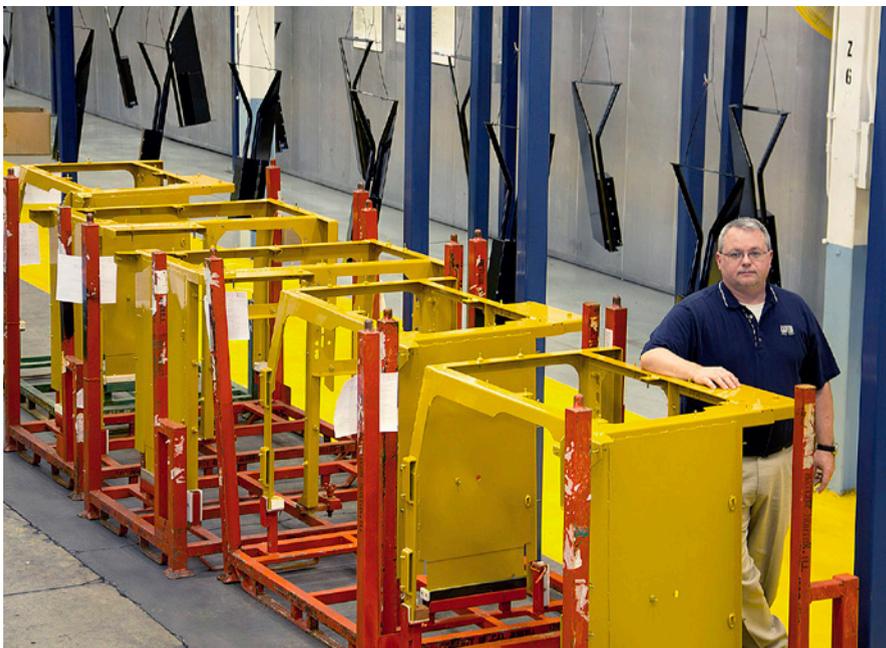
“At 20 minutes per change, it was killing us,” says Reynolds. “We needed to drastically reduce that time and

began seeking a new system with the most efficient color change possible.”

Out with the Old

After six months of research, Will-Burt turned to Nordson Corporation, Amherst, Ohio, to provide the powder coating equipment that would become the heart of their finishing operation. Unlike its previous manual batch system, Will-Burt’s new line introduced automation. A two-booth system, it incorporates an Excel® 3001 modular spray booth equipped with 14 Encore® automatic guns and two manual guns. The installation also includes two ColorMax® lean cell booths, with two manual Prodigy® guns and color-on-demand capability.

One of Will-Burt’s largest customers changed the finishing specifications for its products to a two-coat system. Finished parts are getting ready to be sent to the agricultural giant.





Left: The single-level conveyor system also allows operators to hang parts more densely and accommodate larger parts. Right: Will-Burt's upgraded system includes two manual Prodigy® guns for color-on-demand capability.

Will-Burt uses the Excel automated system to apply primer to the Caterpillar products, reclaiming all the primer. The ColorMax lean cell booth sprays 10 different colors with no reclaim, which allows them to change colors in 30 seconds—a huge improvement over the sometimes-as-long-as 45-minute color change required with the old system.

“Previously, Will-Burt was doing everything spray to waste,” says Frank Mohar, Nordson powder coating system specialist. “The new powder coating line provides the flexibility of automatic coating with 99 percent powder utilization by reclaiming their larger-run colors. For smaller runs, manual coating provides ultra-fast 30-second color change, which was a very high priority for this customer. With their new system, Will-Burt has also doubled its line speed and reduced rejects by 20 percent.”

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—J. Reynolds, Will-Burt

In addition, the company added an environmentally controlled room for conducting its powder coating operation, reducing contamination and improving product quality. A new, single-level conveyor system also improves throughput. Operators can now hang parts more densely and accommodate larger parts than the previous two-level overhead system allowed. The new installa-

tion has been in place since March 2013, and the company has begun to reap the benefits of its new system.

“Nordson provided exactly the right equipment to meet our goals, and equally important, made this huge transition easier with a high level of service and support,” says Reynolds. “This investment reinforces our commitment to providing the best quality products and manufacturing services to our customers.”

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For more information on the companies mentioned in this article, visit their web sites: Will-Burt: www.willburt.com Nordson Corporation www.nordson.com



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