



Powder Application Case Study

Landscape Forms, Kalamazoo, Michigan



Calling for an Encore

Landscape Forms continues success with third generation of Nordson powder coating technologies



Landscape Forms (Kalamazoo, Michigan) is the industry leader in high-design site furniture and advanced lighting systems. Their products are found around the world on corporate, college and healthcare campuses; and in transit centers, city centers, municipal facilities, parks and more. They include benches, tables, chairs, litter and recycling receptacles, outdoor power pedestals/charging stations, terrace furniture, sunshades, bike racks, bollards, shelters and planters.

Landscape Forms adheres to strict sustainability standards and practices in their products, processes, programs and

facilities. For nearly 20 years, Nordson powder coating systems have played a large part in the company's commitment to sustainability.

"About ninety-percent of our total product offerings incorporate aluminum or steel and are powder coated," says Rush Burpee, manufacturing engineer at Landscape Forms. "We're committed to the environmental and the sustainable benefits of powder coating. Powder also provides our products and customers with unmatched durability."

Landscape Forms' clients include familiar brand leaders such as Boeing, Cisco Systems, Disney, Sprint, American Airlines, Herman Miller and Nike. Customers are typically landscape architects who specify Landscape Forms products on their projects.

"All of our products are made to order for customers who choose their colors, so, quick color-change capability is key to our process," notes Burpee. "The Nordson products we use provide the ease-of-application to help us maintain our desired levels of productivity."

Decades of Experience in Powder Coating

When many of the products you manufacture are outdoors 24/7, 365 days a year, and have a lifespan of a decade or more, your powder coating better be tough. The system and equipment that apply your powder coatings better be just as reliable.

No strangers to powder coating, Burpee and Group Leader Adam Dintaman recall Landscape Forms using Nordson equipment as far back as 1999. "Our product offerings were expanding and we had more complex product geometries," said Dintaman. "We used Nordson Tribomatic® spray guns in a competitive booth. They gave us good penetration into Faraday cage areas and good wrap."



In 2008, Landscape Forms upgraded to a Nordson Prodigy® HDLV® (high-density, low-velocity) color-on-demand system for increased production and fast color-change capability.

In 2015, when Landscape Forms planned to move its powder coating operation from their headquarters to a new, 200,000 square foot facility at the Midlink Business Park in Kalamazoo, they, of course, contacted Nordson about the latest Lean Cell®, Encore® and Vantage powder coating technologies. “We had a long history with Nordson and were really interested in their Lean Cell system,” said Burpee.

Working with Nordson Powder System Specialist, Mike Riley and system integrator Midwest Finishing Systems, Landscape Forms decided on a complete, engineered system consisting of the following:

Primer Booth: Nordson Lean Cell booth, two gun positioners with oscillators, 12 Encore HD automatic spray guns, two Encore HD handguns and iControl 2 controller

Silver/Metallic Booth: Nordson Lean Cell booth, four Encore HD handguns

Color Booth: Nordson Lean Cell booth, paint kitchen, four Encore HD color-on-demand handguns

Batch Booth: Nordson Vantage 6000 feed center, Encore LT handgun with cup kit

The move to the new facility and installation of the new powder coating line started in July of 2015, began production testing in January 2016, and became fully operation in February 2016.



“The collaboration between Nordson and Midwest Finishing Systems on our environmental room and the entire system was great,” said Burpee. “Even with so many components, Nordson was able to put together a quote and pricing information and get it to us in a very timely manner. Nordson was there throughout the installation with any kind of support we needed.”

Aiming for Perfect Form

The increased efficiencies Landscape Forms has experienced since installing the new line have exceeded expectations.

“The new line gives us the capacity to run more products,” says Burpee. “And we’re running about 70 percent faster than before.”

Depending on the type and size of the product, Landscape Forms can place between one to five products on a skid. Today, they produce from 500 to 1,000 skids per day, compared to 150 to 300 skids per day with the previous system.



“We’re putting about 20 percent more powder on the product at faster line speeds than in the past, and achieving better transfer efficiency. As a result, we feel our overall product quality is better,” Dintaman says. “Our color change time is also down to about 60 seconds from four minutes.”

With regard to specific Nordson equipment on the powder line, operators are giving rave reviews on the Encore HD handguns. According to Burpee, operators like the gun’s light weight and that the handle position is comfortable. In addition, there’s more interfacing with the handguns and their on-gun controls.

The Lean Cell booths are at grade/floor level rather than up on platforms like old-style cartridge booths, which is safer for operators. Operators spray directly into the collector. They can spray more powder volume with less velocity, achieving better powder containment, less airborne material and less cross contamination.

Landscape Forms only reclaims powder in the primer application, since numerous color changes in the color booth makes reclaim difficult.

“Again, spraying toward the collector allows us to easily collect waste powder into the hopper for removal, as opposed to the old booths, where we needed to scoop out and clean out the hoppers that were below,” says Dintaman.

Engineered for success

Landscape Forms is pleased with the Nordson installation and the ease with which it operates.

“This engineered system has all the equipment and components operating the way we intended them to be used. We also have more equipment, grade-level booths, better reclaim, more ease-of-use, in a line that is more efficient and more foolproof,” Burpee explains.



Adds Dintaman, “When you look at the size and scope of what we just installed in our new facility, we expect to be using this equipment for the next 10 years. Given our past experience and current success with Nordson, when the time comes, I’m sure we’ll be contacting them again.”

Founded in 1969, Landscape Forms is a privately held company. With 400 employees, Landscape Forms was recently named by the Wall Street Journal as one of the top 15 Small Workplaces in the U.S. For more information on Landscape Forms, visit www.landscapeforms.com.

Nordson is a leader in the design and manufacture systems and equipment used for the precision application and curing of powder coatings. For more information on Nordson, visit www.nordson.com/powder.