Powder Application Technologies
for the Agricultural and Construction Equipment (ACE) Industry
Agricultural and construction equipment (ACE) manufacturers are turning to powder coating in their operations for superior corrosion protection and enhanced durability. Powder coating is well known for its economic, environmental and production benefits, including automatic re-use of powder over-spray, reduced VOCs and improved performance of the finished product.

As the world’s largest supplier of powder application systems and equipment, Nordson offers both experience and innovation to ACE manufacturers worldwide. From relatively simple manual systems to sophisticated, programmable, automatic systems, Nordson technologies can help meet your application needs. Our broad range of products offers:

- Quick, contamination-free color change booth technologies
- High transfer efficiency to reduce powder reclaim
- Automatic guns and application technologies designed for superior coating performance
- Reduced film build variation, allowing you to meet minimum thickness specifications without material waste
- True, closed loop digital flow control for consistent, repeatable application
- Electrostatic control with AFC®, Automatic Feedback Control
- Manual gun options for added versatility
- Nordson® HDLV® guns available for softer spray at the gun tip

From farm tractors and irrigation equipment to earthmovers and power cranes, Nordson systems deliver superior coverage, fast color change and product durability to keep you productive and profitable.

Quick, Contamination-Free Color Change

For color change in 15 minutes or less, manufacturers of agricultural and construction equipment turn to Nordson’s ColorMax® 2 booth system. Our fully integrated system offers speed and efficiency, with less powder-in-process, easy booth cleaning and fast color changes. As a result, ColorMax 2 systems substantially reduce labor cost, downtime and material waste in multi-color powder coating applications.

The ColorMax 2 system incorporates several innovative features to maximize material use and eliminate contamination. First, the booth’s streamlined canopy is constructed with patented Apogee® composite material for higher system efficiency, structural strength and minimal powder retention/attraction to the booth. Apogee material allows for rapid powder recycling, easy cleaning and improved color-change time.

In addition, the ColorMax 2 powder feed center is designed for fully automatic recovery, sieving and recycling of powder suppliers’ boxes, for maximum powder usage and minimal loss. The feed center features an easy to disassemble sieve, solid pick-up tube lance, and in-line pump design that enhance quick and thorough cleaning.
iControl® Integrated Control System

The iControl 2 Integrated Control System builds on our extensive controls knowledge and technology to integrate all powder control functions into an easy-to-operate, single system. Ideal for use with any Nordson gun technology, this production-proven system features closed-loop digital flow modules for optimum gun performance and the consistent coating quality so critical in the ACE industry. In addition, a 12” LCD full-color touch screen display with icon-based graphics allows easy set-up and operation in any language. Finally, the iControl 2 features up to 255 presets for application, gun movement and part identification parameters. These presets can be tailored to each color and each part for up to 30% powder material savings, and consistent, repeatable film build. iControl is a recipe-based system that optimizes process control, improves repeatability, lowers reject rates and reduces material usage.

More Automatic Gun Options for Added Versatility

Nordson spray booths can be configured with a variety of automatic Nordson spray guns to provide superior coverage and meet specific application needs.

Encore® Automatic Powder Coating Gun

The Encore automatic gun delivers superior coating coverage and efficiency across all types of agricultural applications. The gun incorporates an air-purge cleanable design for fast, easy cleaning – both inside and out – without gun disassembly.

Encore® HD Automatic Powder Spray Gun

Nordson HDLV products provide dense-phase powder transport and application of powder materials. With a softer spray at the gun tip, HDLV guns combine high velocity powder and low velocity air. This moves more powder with less air for reduced material consumption and even higher transfer efficiencies.

The Encore HD gun, pump and controller offer an integrated solution for precision dispensing and sophisticated color-change control. The Encore HD system provides automatic purging of guns and pumps, reducing downtime and labor costs. In addition, this easy-to-use system ensures contamination-free, ultra-fast color change for improved productivity.

Cartridge Booth Technology

Manufacturers in the ACE industry routinely turn to Nordson for cartridge technology that delivers an enhanced application environment, long filter life with patented pulse cleaning system, and superior powder containment. Our cartridge booths are designed for complete system integration – from controls and booth design to application technology – providing uniform spray booth airflow in an optimum coating environment. As a result, these systems provide reliable and efficient operation for both long and short production runs.

Nordson cartridge booths are designed with curved efficiency extensions at the automatic gun stations to optimize containment and reduce turbulence at the spray zone. Constructed of strong, high-performance polypropylene materials, the canopy enhances coating efficiency and minimizes the amount of overspray that is attracted to the interior surfaces of the canopy. Therefore, more powder is attracted where it needs to be – to the part. This innovative design increases operating efficiency and speeds booth cleaning during color changes to further enhance productivity.
For more information on Nordson systems for powder coating in the ACE industry, talk with your Nordson representative or visit our website at www.nordson.com/powder.

**Manual Guns Offer Additional Options**

In addition to Nordson's full line of automatic spray guns, we also offer manual gun options to meet certain application needs.

**Encore HD Manual Powder Coating System**

The Encore HD Powder Spray Gun represents the latest in powder coating technology, offering powder coaters a single gun that can meet any application need. With on-gun controls, it allows easy adjustment of the powder concentration and spray velocity – from a highly dense phase spray to a more diluted (powder and air) mixture, and everywhere in between. One of the lightest guns available today, the Encore HD achieves superior process control using Nordson dense phase technology. HDLV products deliver a high concentration of powder, but using very little air. The combination of high density powder and low velocity air results in greater transfer efficiency and better cured finish quality for every conceivable part type.

**Encore™ LT Manual Powder Spray System**

The Encore LT manual powder coating system is designed for rugged, everyday use. The lightest and best-balanced gun available today, the Encore LT gun is ergonomically designed to make the painter’s job easier. Incorporating all the right features at an affordable price, the Encore LT system is durable, easy to use and service.

It offers superior transfer efficiency and overall coating performance for producing the highest quality finished products.

- Auxiliary PowerPurge* trigger cleans the powder path from the base of the handle through the nozzle, preventing internal powder build-up to ensure optimum spraying with a wide variety of powder materials.
- Optimizes reach into part cavities and improves maneuverability around and between densely racked parts.
- Proven performance helps painters achieve the most efficient, consistent part coverage and highest finish quality
- 100,000 volts to deliver maximum first-pass transfer efficiency
- Robust handle, trigger and cable design withstands the constant gun movement associated with manual painting, and assures easy serviceability when required.

**Encore™ XT Manual Powder Spray System**

For more advanced features, our Encore XT Manual Powder Coating System adds full operational control right on the gun. The Encore XT offers all the same performance features as its Encore LT gun counterpart, but incorporates On-Gun controls with large, bright LED display and helpful lighted icons that allow operators to know exactly what gun settings have been selected at all times.

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For more information, speak with your Nordson representative or contact your Nordson regional office.