Powder and Liquid Application Technologies

for Wheel Manufacturing
Turn to Nordson for Experience & Innovation in Wheel Coating Applications

The challenge for improvement is a constant when manufacturing wheels for the commercial and consumer transportation industry. And with it comes the need to deliver high-performance products that consistently meet the industry’s specifications, while maintaining your own profitability.

As one of the world’s largest suppliers of powder coating and liquid paint application systems, Nordson offers both experience and innovation to wheel manufacturers worldwide. From relatively simple manual systems to sophisticated, programmable, automatic systems, Nordson technologies can help meet your application needs. With Nordson, you’ll achieve:

- **Material savings** – innovative design features elevate electrostatic technology to the next level for higher transfer efficiencies.

- **Higher levels of productivity** – systems that provide repeatability, minimal maintenance and reliable performance.

- **Better process control** – optimized material utilization to improve your manufacturing efficiency and product quality.

- **Engineered system solutions** – an experienced project management team of application and controls engineers along with service technicians, all dedicated to providing you with a complete and reliable solution.

- **Superior finish quality** – corrosion- and UV-resistant finishes and colors that maintain their original luster and sparkle.

No matter what your application – powder or liquid; waterborne, solvent-based, advanced PVD or UV; primer, color or clear coat; chain-on-edge or overhead lines – Nordson has the production-proven technology and decades of experience to deliver consistent, high-performance results.
For color change in seven 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 costs, 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.

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

Encore HD Automatic Powder Spray Gun
Nordson HDLV (high-density powder, low-velocity air) technology focuses on dense-phase powder transport and application of powder materials. Providing a softer spray at the gun tip, HDLV technology 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 state-of-the-art in HDLV technology, the Encore HD system provides automatic purging of guns and pumps, reducing downtime and labor costs. In addition, this easy-to-use system provides contamination-free, ultra-fast color change for improved productivity.
**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 wheel 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. The iControl System is recipe-based, optimizing process control, improving repeatability, lowering reject rates and reducing material usage.

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**Cartridge Booth Technology**

Manufacturers in the wheel industry routinely turn to Nordson for cartridge technology that delivers an enhanced application environment, long filter life with 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.
Manual Powder Guns Offer Additional Options

In addition to Nordson’s full line of automatic spray guns, we also offer manual powder 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 gun achieves superior process control using Nordson HDLV – or “High Density Low Velocity” technology. This delivers a high concentration of powder, but using very little air, resulting in greater transfer efficiency and better cured finish quality for every conceivable part type.

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 gun 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.

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 provide 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 withstand the constant gun movement associated with manual painting, and allow easy serviceability when required.
Nordson provides a wide range of liquid painting equipment to meet most any need – from simple manual systems to automated configurations that are more sophisticated. With electrostatic, non-electrostatic and rotary atomization systems available, our experts can design a solution to provide the highest level of performance.

**RA-20 Rotary Atomizer**
- **Close-in painting** for superior recess penetration and film build control
- **Good flow and leveling of a variety of coatings** for minimal touch-up
- **Excellent spray-pattern control**
- **Air-bearing turbine** provides reliability
- **FM-listed** for safe operation
- **Easy retrofit to existing painting systems**

**Iso-Flo® Voltage Blocking Systems**
- **An easier, safer and far more cost-effective way to spray electrostatically charged waterborne coatings**
- **Paint reservoirs sized for productivity and paint savings** – large enough to provide continuous paint supply, but small enough to minimize waste
- **Simple, low-maintenance design** – high capacity pumps are field-repairable
- **Fast, efficient color changes** – with simple configurations
- **Highly durable** – incorporates an easy-access steel enclosure
- **Factory Mutual and CE approved**

**Trilogy® Electrostatic Spray Systems**
- **Better transfer efficiency, reduced material costs and improved part finish** – incorporating the highest kV in the industry – 93 kV
- **Minimize maintenance costs and downtime** – with tough and durable gun bodies
- **Enhanced operator comfort for better productivity** – incorporating well-balanced, handle-forward gun design
- **Ideal for a variety of substrates, coatings and part profiles** – featuring two atomization technologies – air spray and high volume, low pressure (HVLP)
- **Available in manual and automatic configurations**
Trilogy Non-Electrostatic Spray Systems

- Excellent finish quality – using fine atomization technology
- Minimal overspray – from a soft, controllable spray pattern
- Highly durable – to withstand harsh manufacturing environments
- Easy to handle and maintain
- Available in more than 14 gun configurations – manual and automatic; air assist airless, air spray and low-volume/low pressure; gravity or pressure feed

Diaphragm Pumps

- Eliminate leaking and speed installation with side fluid ports
- Corrosion resistant center body withstands chemical exposure
- Stall-free, ice-free air motor design
- Highly versatile – available in ¼", ⅜", ½" and 1" configurations

Nordson Piston Pumps

- ScoreGuard® wear-resistant coating process used on plungers and housings provides superior performance and toughness for superior durability and performance.
- Quick-disconnect design of air motor and hydraulic section minimizes maintenance.
- Self-adjusting packings give control to user to minimize downtime and provide longer life.
- Air motor provides rapid shifts at the end of each stroke without ice build-up to minimize stalling for continuous operation.
- Air motor and well-guided pressure and siphon ball checks produce substantially less pressure pulsation (pump wink) than conventional reciprocating pumps to provide uniform film build on the finished product.
- All stainless steel wetted parts construction accommodates a wide range of coating applications.
OptiMix™ Plural Component Metering Systems

- Available in 2K or 3K versions
- Recipe management for up to 10 components
- Five-inch touch screen for user interface
- USB port for data collection
- Allows rapid color change of up to 10 components
- Processes both solvent and waterborne coatings
- Alarm for off-ratio verification
- Both low- and high-pressure spraying

Standing Behind You...Every Step of the Way

Nordson has earned a reputation for its commitment to the success of our customers. From start to finish, Nordson customers are considered partners in evaluating the best approach to meet challenging application requirements. We will be there from systems engineering and development through installation and start-up. After, our worldwide service and support team will remain with you – 24/7.

Call Nordson today at 800.433.9319 to get started on your finishing line improvements.

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