

# Liquid Finishing Technologies

**To Meet Today's Coating Challenges**



# The Nordson Advantage



## ScoreGuard™ Coating

Twice as hard as conventional hard chrome plating, ScoreGuard coating has excellent corrosion resistance and is warranted\*\* to provide maximum pump life for superior durability and operating performance.



## Plunger Coating Comparison

Test results show the ScoreGuard coated plunger polished to mirror-like finish after 24x the cycles of conventional hard-chrome-plating.



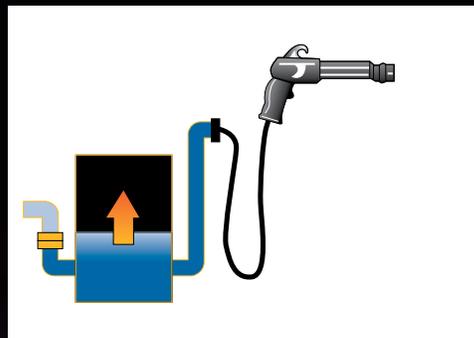
## Chrome Plating vs. ScoreGuard Coating

In the process to achieve high hardness values with conventional hard chrome plating, several inherent traits like microcracking, high internal stresses and surface imperfections, limit its service life. This can lead to plunger material that more easily scores and eventually results in upper packing leakage and shorter wear life. Nordson's patented ScoreGuard hard-coating process used on plungers and housings eliminates these concerns and significantly improves wear life. The high hardness, low coefficient of friction and low residual stress levels of the coating combine to resist abrasive wear and galling. This results in superior performance and toughness over other coatings used in wear applications.

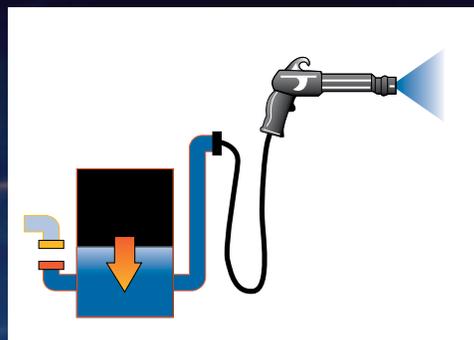
*\*\* Two-year warranty*

## Iso-Flo® HD Voltage Block System

An Iso-Flo HD manual or automatic voltage block is installed near the spray booth, and is connected between the grounded paint-supply system and the spray devices. Coating is pumped from the paint-supply system to paint reservoirs inside the voltage blocks. Electrostatic isolation is maintained with a series of shuttle valves that alternately connect the reservoirs to the grounded paint supply and the spray devices. **Standard Iso-Flo HD configurations are available for single-gun manual painting systems and single- and multiple-gun automatic painting systems.**



**1. Gun Triggered Off – Fill Cycle**



**2. Gun Triggered On – Spray Cycle**

## Automatic Feedback Current (AFC) Control

Automatic Feedback Current control allows users to set the gun current at a level that will provide optimal material charge and field strength for each application. AFC control automatically maintains the current at no higher than the preset level, regardless of the gun-to-part distance, resulting in maximum transfer efficiency, high finish quality and enhanced Faraday-cage penetration.



# Painting Systems To Meet Your Application Requirements

**The finishing industry is continuously evolving. There are new technologies. New demands. New challenges. Yet one constant remains – the need to do more with less.**



And reduce costs. Enhance efficiency. Increase productivity. Decrease VOCs. Improve the speed of color changes. All while maintaining the highest finish quality.

## **Do more with less.**

For more than 50 years, Nordson has pioneered liquid finishing technologies to meet exacting coating challenges and ever-changing application requirements.

Nordson is a worldwide leader in electrostatic and non-electrostatic spray systems to apply liquid paints and coatings to plastic, metal and wood products. Nordson liquid spray application equipment is found throughout diversified industries manufacturing a broad range of consumer and industrial products. Our total system solutions include a complete line of advanced technology, extensive industry expertise, and unmatched service and support.

## **The Right Technology for Any Production Requirement**

From simple, manual spray units to sophisticated automatic engineered systems, experienced Nordson systems engineers help customers design application system solutions to meet their individual requirements and provide the highest level of performance and efficiency.



*Nordson electrostatic spray systems and technology provide reliable, accurate performance in all extrusion applications for attractive, durable, quality finishes needed for window and door manufacturing.*

## **Electrostatic Technology**

Nordson electrostatic spray systems deliver superior application performance and painting efficiency with a variety of substrates, coatings and part profiles.

**Kinetix®** - Air spray, airless spray, air-assisted airless and KVLP technologies for automatic and manual applications, including waterborne. Kinetix technology optimizes the key mechanics of spraying – including electrostatic power, air energy, fluid pressure, and dynamic motion. And Kinetix delivers – superior transfer efficiency; increased capacity with less scrap and rework costs; and improved operator comfort in manual applications for reduced material waste and improved finish quality.

*Nordson coating technology and systems apply corrosion- and UV-resistant finishes and colors and metallics that maintain their original luster and sparkle for consistently superior finish quality that meets stringent requirements for automotive wheel production.*



**Rotary Atomizers -**

Patented Nordson RA-20 and RA-20R rotary atomizers provide fine atomization for high transfer efficiency with a variety of coatings. Higher transfer efficiency saves costs through less waste while delivering a better, faster finish, with greater throughput. With its close-in painting capability, the RA-20 is an effective tool for quality finishes on parts with deep recesses and contoured, hard-to-coat edges.

**Electrostatic Waterborne Technology**

Today's waterborne coatings closely match the high-performance characteristics of solvent coatings while offering low VOC levels and easier clean up. But electrostatic application of waterborne coatings creates unique challenges. Nordson technology offers an easier, safer and cost effective way to spray electrostatically charged waterborne coatings.



**Iso-Flo® HD** - Patented Iso-Flo® HD voltage blocks provide enhanced reliability and performance for electrostatically charged waterborne coating applications. Heavy-duty pumps, rugged steel cabinets and air-gap isolation of coating materials provide superior productivity and safety for automated and manual painting systems.

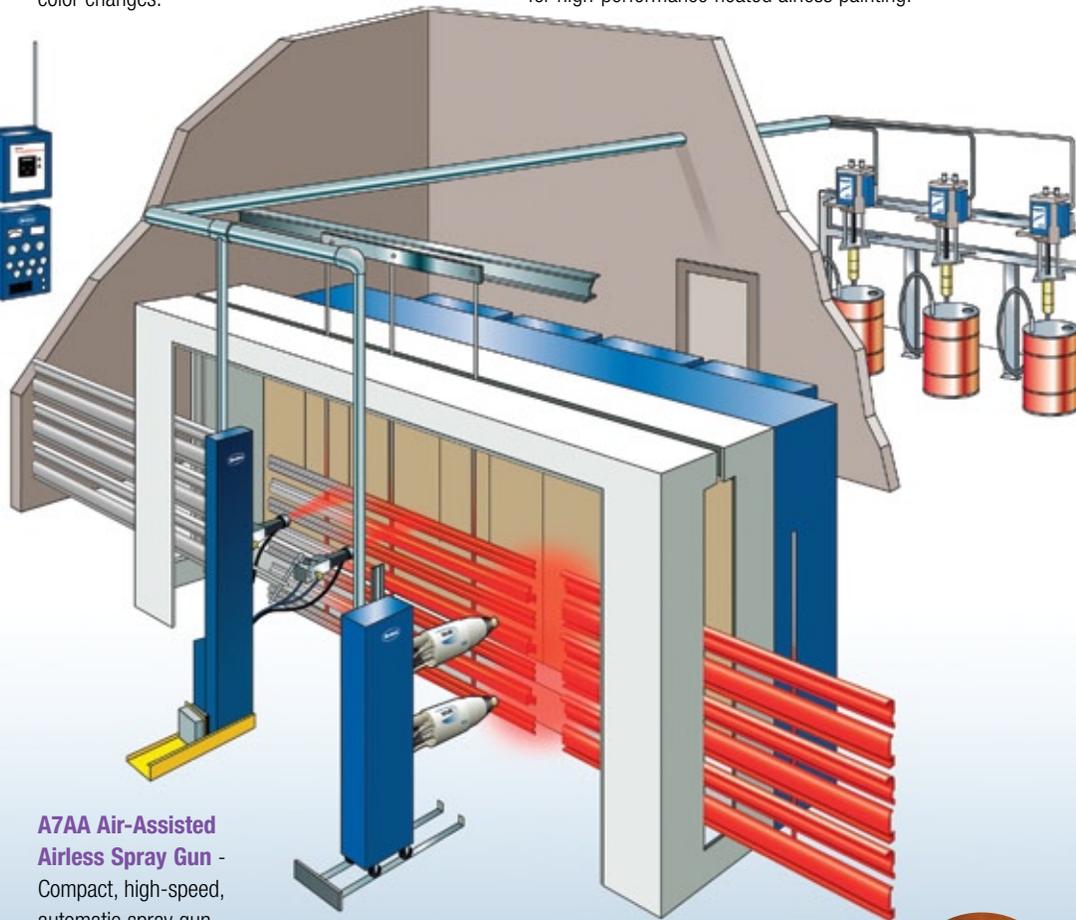
**Non-Electrostatic Airless Spray Technology**

Nordson airless and air-assisted spray systems meet high production speeds with excellent transfer efficiency, precise paint distribution and fast color-change performance.

**A7A Automatic Airless Spray Guns** - Compact, high-cycle, pneumatically triggered gun delivers fast response time with fine atomization and a soft, controllable spray with a variety of coatings for excellent finish quality with minimal overspray. The dual-chamber A7A gun allows for quick, clean color changes.

**A4B Airless**

**Manual Spray Gun** – Lightweight, rugged and dependable gun for ease of operation and long service life in manual airless painting operations. It is available in a non-circulating version for cold airless painting, and a circulating version for high-performance heated airless painting.



**A7AA Air-Assisted Airless Spray Gun** -

Compact, high-speed, automatic spray gun sprays viscous and hard-to-atomize coatings in high-production applications. It is available in non-circulating or circulating versions for heated systems, or when continuous circulation of fluids is desired.

*Apply and cure ultraviolet (UV) curable coatings onto three-dimensional substrates including metal, wood, plastic, glass and composites with Nordson technology. Many applications use zero-VOC liquid sprayable coatings that offer the environmental advantages and durability of a powder coating with the added flexibility of liquid finishing.*





### Fluid Delivery Technology

**Heavy-Duty Pumps** – with patented ScoreGuard™ coating deliver superior performance with maximum pump life.

**Stainless Steel, High-Pressure Fluid Filters** – prevent nozzle clogging by continuously filtering paint through dual or step filters for production reliability.

**A7A Color-Change Valves** – deliver fast, reliable color-change performance for improved productivity and maximum operating efficiency in circulating and non-circulating systems. They are available in high- and low-pressure configurations.

**Circulation Valves** – maintain material flow rate in distribution systems for improved operating efficiency.

**Proprietary Cross-Cut Nozzles** - provide improved atomization with a wide range of materials, including highly viscous and difficult-to-atomize coatings. Excellent atomization is achieved at reduced fluid pressure, for a softer, low-velocity spray.

**Fluid Heaters** – provide precise temperature control to reduce coating material viscosity and increase operating efficiency without adding solvent.

### Complete Systems Technology

Whatever the liquid painting requirements, Nordson's full line of technologies and equipment can be integrated to provide you with the highest level of performance and efficiency to meet your particular application needs.

- ◆ **Controls** – Provide automatic control of spray device trigger points for improved paint savings and cleaner operation using an accurate, simple to use PLC.
- ◆ **Reciprocators and Oscillators** – Built specifically to fulfill your systems requirements as part of a total finishing system. Among the features included are vertical triggering capability, in-out positioning, PLC interface, and Variable Frequency Drives.
- ◆ **Lab Testing Facilities** – Nordson maintains a 16,200-square-foot, state-of-the-art liquid customer test laboratory and demonstration facility to test system performance prior to the sale. Here, products are coated, duplicating as close as possible your parts, coating material, operating speeds and other production parameters to assure success and satisfaction.



## Unmatched Service and Support

As the Best in Class supplier of high-quality products with unmatched standards of service excellence, Nordson is dedicated to providing customer satisfaction through design and engineering of state-of-the-art material application equipment. As highly skilled professionals, we have the technical expertise, resources and commitment to support the requirements of your project every step of the way.

- ◆ *Innovative application technology* designed for reliable performance and maximum uptime.
- ◆ *An experienced project management team* dedicated to solving your specific application questions or equipment problems.
- ◆ *Expert installation specialists* for timely, effective system integration.
- ◆ *Expertise in application development and system design* to meet your specific production requirements.
- ◆ *Equipment demonstrations on customer specific parts* to test system performance prior to the sale to assure success and satisfaction.
- ◆ *Formal and hands-on training* at Nordson or at your facility.
- ◆ *Factory direct service* – 24/7/365 to respond quickly to your requests.
- ◆ *Preventive maintenance packages* for ongoing support.
- ◆ *ISO certification of Nordson facilities and operations* attests to excellence in our systems and enhances our ability to provide superior quality products and services to our customers.
- ◆ *Technical assistance hotline* for immediate response.
- ◆ *In-house technical representatives* provide easy access to the most up-to-date information available on spray application equipment and systems.
- ◆ *Replacement parts in stock* to meet normal or emergency situations.
- ◆ *A team of dedicated professionals* in our Customer Support Center provide instant spare parts pricing and availability, easy order entry and inquiry, and warranty returns assistance.



For more information on Trilog<sup>™</sup> electrostatic spray systems, talk with your Nordson representative or visit our website at [www.nordson.com/liquid](http://www.nordson.com/liquid).

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

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