Powder Application Technologies
for the Appliance Industry
Turn to Nordson for Experience & Innovation in Powder Application

For nearly 40 years, manufacturers have used powder coatings to enhance the durability and aesthetic appeal of everyday appliances. Although trends in powder coating have changed over the years, one thing has remained constant – Nordson’s ability to provide experience and innovation in the latest application technologies.

Nordson consistently helps manufacturers meet ambitious goals and evolving market trends. From quick color change to lean processing, Nordson has adapted its technologies to meet our customers’ needs. Today, we offer a wide variety of technologies to meet most any powder application need in the appliance industry. These include:

- Organic & PE powder application
- Precise electrostatic control
- Infinite color change solutions
- High-efficiency powder recovery systems
- High-density, low-velocity dense phase options

No matter what your application need – whether its fast color change on a washer/dryer line or applying a porcelain enamel coating on an oven cavity – Nordson can design a solution that will bring high transfer efficiency, film thickness control and greater productivity to your operations.

iControl® Integrated Control System

The iControl 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 appliance industry. In addition, a 12” LCD full-color touch screen display with icon-based graphics allows easy set-up and operation in any language.

Cartridge Booth Technology

In any appliance application, uniform spray booth airflow is the key to powder coating performance and operating efficiency. Nordson’s powder spray booth includes an integrated system of cartridge filters, collector/color module, canopy and fan section – all designed to work together to create the optimum coating environment. This integrated system approach delivers more efficient powder recovery (up to 99.9%), enhanced collector efficiency and superior part coverage.

What’s more, Nordson’s cartridge booth technology can be used with organic powder paint and modified to use in inorganic porcelain enamel applications.
Fast Color-Change Technology
When fast color change is a priority, appliance manufacturers turn to Nordson’s ColorMax® booth system. Our fully integrated system offers speed and efficiency, with less powder-in-process, easy booth cleaning and fast powder-supply-system changes. As a result, ColorMax systems substantially reduce labour cost, downtime and material waste in multi-color powder coating HDLV dense phase applications. With its enhanced operating flexibility, ColorMax systems allow appliance manufacturers to manage smaller batches and a wide range of colors, fitting just-in-time production schedules and zero inventory requirements.

Systems for Inorganic Porcelain Enamel Applications
Powder porcelain enamel (PE) is the most durable anti-corrosion coating for higher temperature applications, such as dryer drums and oven cavities. Other PE applications also include cooking grates on barbeque grills and the internal coating of boilers. Nordson offers a complete line of guns, booths and pumps to meet these and other PE application needs with efficiency and high performance.

Our Versa-Spray® PE gun is an integral-power-supply automatic gun that provides higher output voltage, higher first-pass transfer efficiency and improved coverage. With specially engineered ceramic materials for powder contact parts inside the gun, the Versa-Spray gun provides maximum resistance to wear and impact fusion.

In addition to the Versa-Spray gun, Nordson has also designed other powder application equipment – like pumps, booths and recovery systems – to withstand the higher demands of PE materials.

HDLV Dense Phase Applications
Nordson HDLV (high-density powder, low-velocity air) technology focuses on dense-phase powder transport and application for both organic and inorganic materials, including porcelain enamel.

Moving more powder with less air creates a much softer, powder-rich spray pattern that provides higher first-pass transfer efficiency. It also coats faster and achieves required part coverage and film build on what had traditionally been difficult-to-coat geometries using conventional venturi technology. Compressed air usage and powder material consumption are also reduced.

The Prodigy® Generation II HDLV gun, pump and controller offer an integrated solution for precision dispensing, exceptional repeatability and improved overall process control. The state-of-the-art in dense phase technology, the Prodigy system provides automatic purging of guns and pumps for ultra-fast, contamination-free color change, reducing downtime and labour for substantial productivity improvement and operational cost savings.

Integrated powder coating solutions from Nordson include an HDLV high-capacity transfer pump, gun delivery pump and spray guns for PE and organic applications.
For more information on Nordson systems for powder coating in the appliance industry, talk with your Nordson representative or visit our website at www.nordson.com/powder.