Achieve production confidence with Nordson Dense-Phase Technology
Lasting performance boosts productivity and uptime

To achieve the lowest per product cost an efficient system operates close to its capacity. As the productivity rates increase, so does the downtime cost. The Dense Phase technology from Nordson allows cost-conscious powder coaters to significantly reduce color change and maintenance downtime boosting profitability.

In 2015 Salop Powder Coating Ltd. in the United Kingdom considered how to diversify from the automotive industry they had served for 60 years. They decided to invest in a powder coating line to acquire new customers in new markets and re-shape how the company does business. Important to them to be competitive in the market was to invest in technology that provided process control, the maximum production uptime and the highest application efficiency.

“The technical aspects of the Nordson ColorMax3 spray booth and the Spectrum HD® Powder Feed Centre are, for us, exactly what we need to be more efficient. The powder hopper cleaning process is automated, requires no extra hoppers, and all internal surfaces are clearly visible after the colour change, giving us a high degree of confidence in the quality. In terms of the operation, having all the controls on one simple touch-screen interface is a really clever touch, and it means the
operator’s learning curve is shorter – there’s less room to make a mistake” Christopher Greenough, a Director of Salop, explained. “The core element of the installation is the Nordson HDLV® pump that provides consistent powder output over time, is self-cleaning, and is almost maintenance free in its operation”

Andrew Emmerson from Salop explains further “the Nordson HDLV® gun pumps operate at our powder line 10 hours per day, 5 days per week, and since 2015 we have only had to maintain 2017 one pinch valve in one of the HDLV® pumps. That’s significantly more than 4,000 hours without pump maintenance!”

“All customers that come to us for powder coating stay with us. A lot of our order book is repeat business, which reflects on our lean operation and quality. We know working with Nordson makes us more efficient. We also know that efficiency and quality will win us further work.”

From manual powder coating to an automated coating system

Secal Ltd. in Telford, United Kingdom, offer a precision sheet metal service that includes: CAD/CAM, CNC laser cutting, CNC punching and folding, full welding facilities, powder coating; final assembly, warehousing, packaging and logistics. The company employs over 120 people and operate from a 36,000 sq ft facility.

“Our paint system, comprising of a Nordson ColorMax3 fast colour change booth, Spectrum® HD Powder Management System and Encore® HD dense phase automatic spray guns was installed in 2015. The system makes it a joy to walk in the door in the morning, it makes the whole process a lot more efficient, it is easier for the lads to operate and the finish is of a higher quality and more uniform” states Andrew Simpox, Supervisor of the paint plant at Secal Ltd.

Furthermore Andrew added “we’ve gone from manual powder coating to an automated coating system that is accurate to ten microns across each coated product. We are using less powder material, have increased production and are providing our customers with a superior product at the end of it. Of course, one of the reasons we are able to get more done is because the robots don’t suffer from fatigue! They can do a 12 hour shift and just keep going!”
Maintenance Free Operations

Karolina Szwugier, Quality Engineer from Secal Ltd. declared “in 23 months since our installation the system has never missed a beat, with no maintenance time required and no replacement pump parts such as pinch valves necessary. Altogether, the Nordson HDLV® equipment saves us money, makes us more productive and gives us complete production confidence”.

Lean Prozesse

Lean processes continue to be a focus for many manufacturers. In a powder coating environment, colour change time, finished product quality, plant reliability and maintenance costs are essential factors in order to run a lean and profitable operation.

With over 1,000 global installations, Nordson Dense-Phase Technology has proven benefits

Tightly controlled powder output over time yields high finish quality and minimum applied coating cost.

Self-cleaning pump design delivers high color change quality in just minutes for increased production capacity.

Up to 4,000 hours of operation without replacement parts, significantly reduces maintenance and operating costs.

Nordson installation at Secal Ltd. with Andrew Simpox.