



ColorMax³ Powder Coating Booth

Flexible coating without compromise

 **Nordson**

ColorMax³ powder coating booth – economical and flexible

Down with costs, up with quality!

From countless variants, selecting just one: That's what consumers today prize most when purchasing many of the articles of everyday life. For powder coating equipment operations, this trend places high demands on flexibility and productivity if they want to manufacture products profitably even in "Batch size 1".



Maximum effectiveness

To maximize the effectiveness of a coating line, all components must be optimized to the highest degree.

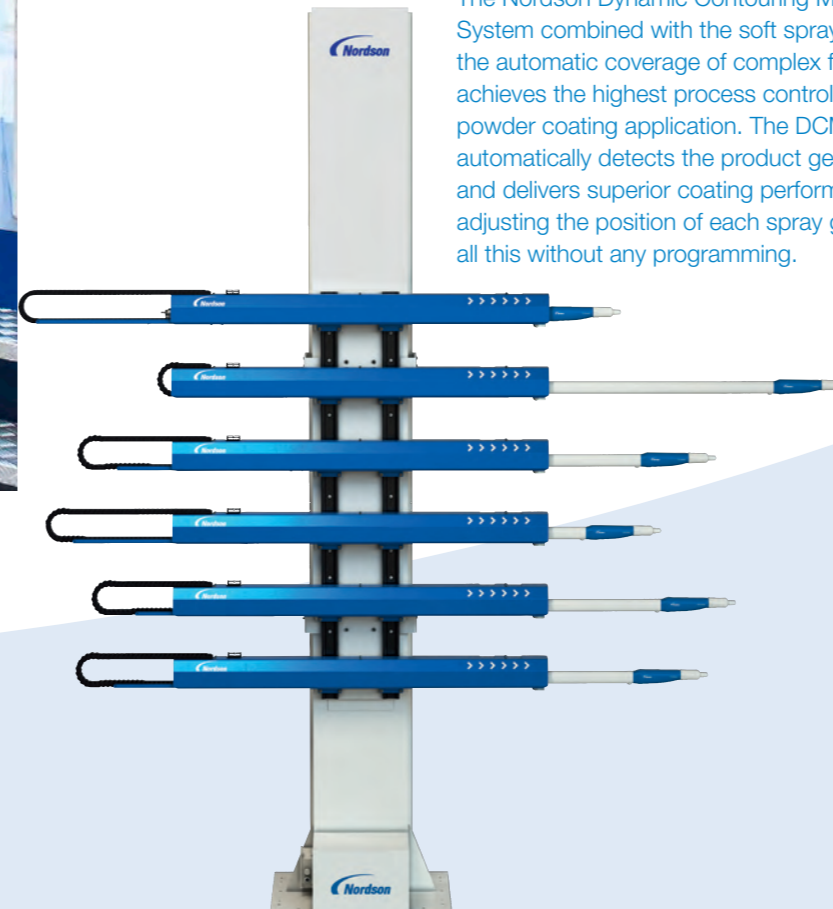
Our ColorMax³ powder coating booth was consistently designed for the fastest possible color changes while ensuring the greatest possible cleanliness at the same time. The smooth walls reflect light evenly, providing perfect illumination of all coating areas inside the booth and making visual quality inspections considerably simpler and more reliable. Made of Nordson's patented Apogee material, the booth floor is also especially strong, durable, scratch-resistant and anti-static.

In combination with the unit's intelligent air flow management system, its smooth surfaces prevent powder adhesion and accumulation as well as color contamination during coating.

That means the booth can be cleaned easily and completely with compressed air. With the AirWash system, that cleaning is performed by powerful air pulses, which convey the fallen powder to the central channel extraction at short intervals.

Dynamic Contouring Movers System

The Nordson Dynamic Contouring Mover (DCM) System combined with the soft spray increases the automatic coverage of complex forms and achieves the highest process control in your powder coating application. The DCM System automatically detects the product geometry and delivers superior coating performance by adjusting the position of each spray gun – and all this without any programming.



ColorMax³ (cubed)

The space-saving design of the booth delivers maximum productivity on the smallest footprint

Reciprocator Gun Mover

Horizontal or vertical: The column design enables the flexible installation of lightweight Encore HD guns for a perfect spray pattern. Adjustable compensating weights help balance the gun movements.



Cleanliness inside and out – for contamination-free color changes in just minutes

Frequent color changes? No problem!

The intelligent equipment design with its easily accessible, service-friendly components facilitates very easy color changes in a matter of minutes, including complete, fully automated cleaning – without the need for the operator to enter the booth and shut off the unit! This prevents color contamination and ensures the highest coating quality.



Low powder losses, clean air

Nordson's unique twin cyclone technology excellent powder recovery efficiency: Depending on the powder used, up to 95% of it makes its way back to the powder feed center hopper before being resupplied to the coating process! Waste particles are collected in a final filter and automatically disposed of in a waste container.

Clean air is provided by an ATEX-certified afterfilter, which separates out contamination so reliably that the cleaned air can be returned to the production environment!

Proven technology

ColorMax³, Nordson's highly automated quick color change booth, has proven itself with outstanding performance so far in several hundred installations worldwide. Highly adaptable to individual needs, it is the ideal powder coating booth for practically every application.



Afterfilter

Perfectly matched to the respective application case, it captures the tiniest powder particles and disposes them automatically in a waste container.



Fully automated gun cleaning

The cleaning of the automatic guns inside and out is fully automated and completed in a matter of seconds – without manual intervention and without shutting down the system! This enables operators to make extremely fast color changes.



Powder recovery by twin cyclone

Unusable powder particles are reliably filtered out by means of air turbulence and then the remaining powder – once it has been carefully sieved in the powder center – is fed back into the production process.

Nordson powder coating systems – as flexible as your customers' requests

Top quality, productivity and economy

Efficient coatings, short set-up and cleaning times, and fast, contamination-free color changes help our customers achieve up to 65% greater productivity along with tremendous savings in energy and powder (up to 45%). In addition, durable components such as the HDLV pumps designed for 4,000 maintenance-free hours of operation and the excellent accessibility of our systems minimize downtime and maintenance costs.

1 ColorMax³ powder coating booth

Made of special plastics, it minimizes powder adhesion and facilitates fast, easy cleaning with compressed air.

2 Reciprocator Gun Mover

Able to move horizontally and vertically, it creates optimum conditions for coating an extremely wide range of workpieces.

3 Apogee material and AirWash system

Nordson's patented Apogee® composite material is extraordinarily strong and prevents powder adhesion. The AirWash system reliably removes powder accumulations from the floor of the booth and returns them to the powder circuit. During maintenance, the booth can be safely entered whenever necessary.

4 Spectrum HD powder center

Uses HDLV pumps to supply the guns with powder and conditions recycled material for reuse.

5 Powder sieve

An ultrasonic sieve conditions the fresh powder as well as the recovered powder for reuse. The sieve is clearly visible and directly accessible at all times, which simplifies and accelerates color changes.

6 HDLV gun pumps

Conveys the powder from the powder center hopper to the powder guns.

7 HDLV transfer pumps

Conveys the powder from the fresh powder box or big bags to the powder hopper as well as the recycled powder from the cyclone back into the powder hopper.

8 PowderPilot HD control system

The equipment control system enables precise digital control of the powder coating system – for easy access to all parameters of the system that controls powder application and the booth.

9 Twin cyclone

You can't clean it unless you can see it! With Nordson's unique twin cyclone, all components are easily accessible, enabling fast inspections and contamination-free color changes.

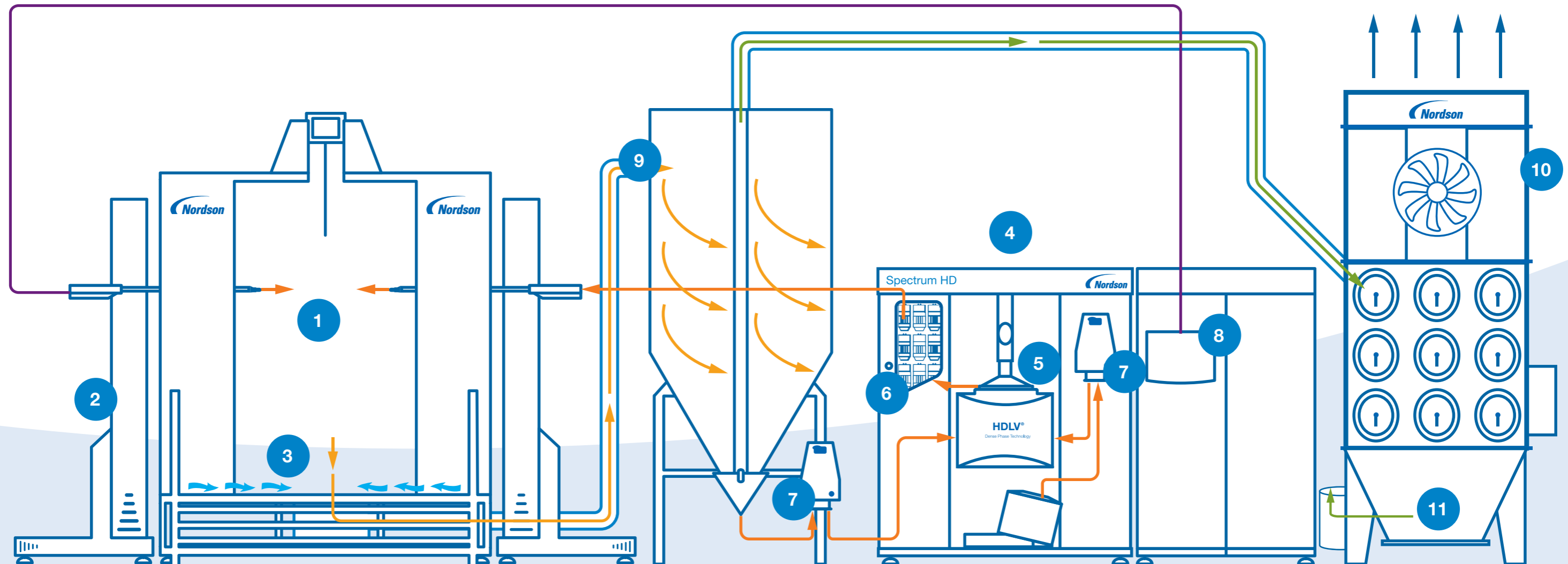
10 ATEX-certified afterfilter

Ensures the flow of clean air throughout the booth. It is equipped with a digital pressure drop control system as well as a pneumatic filter cartridge dedusting system. In addition, it has safety filters, which make it possible to return the purified air back into the hall environment.

11 Filtered-out powder particles from the afterfilter

These are sent directly to the waste disposal system.

Powder path →



Nordson HDLV Dense-Phase Technology

Nordson patented HDLV® (High Density Low Velocity) pumps deliver powder to the spray system with minimum of air offering the independent control of the powder and air volumes.

This allows to achieve very soft spray for maximum powder application efficiency. The HDLV pumps have no wear parts affecting the powder output. Delivering maintenance-free performance with high output stability over a long period of time.

For maximum savings

The soft powder cloud delivers unmatched deposition rate and recess coverage even at high output.

Long-lasting internal spray system and pump components minimize maintenance downtime and operating costs.

More than 10 years of field-proven experience at thousands of installations worldwide.

- Highest application efficiency with soft spray
- Unmatched productivity with stable powder output of up to 450 g/min*
- Superior coverage of recessed areas through optimised spray velocities
- Over a long period of maintenance-free pump operation for minimum operating cost and maintenance downtime
- Automatic purge and high-quality color change in seconds

Why choose Nordson

With over 50 years' experience designing and building innovative powder coating solutions, Nordson delivers outstanding products, expertise, and customer service to manufacturers worldwide. Our customers trust us to develop and deliver the best solutions to their most demanding powder coating needs. Nordson helps customers reach new levels of production while working more accurately, efficiently and competitively than ever.

Manufacturers who demand quality, rely on Nordson.

Proven to perform in over 1,000 installations

The best testimony to the performance of our dense-phase systems come from customers with the highest production standards.



Our Nordson Encore HD system operates for 10 hours per day, 5 days per week. Since installation we have only had to maintain one pinch valve in one of the HD pumps. That's over 4,000 hours of maintenance free pump operation.

Andrew Emmerson, Salop Powder Coating Ltd.



Compared to our previous system with venturi pump technology, with the Nordson dense-phase technology we have powder material savings of around 30%. Throughout our 3-shift operation we coat consistently a film thickness of $80\mu \pm 10\mu$, which is important for the functionality of our lifting columns.

Kim Paulsen, Powder Coating System Operator, Linak Profiles A/S



We took a look at several systems, conducted tests, and decided on dense phase technology from Nordson. It impressed us with its high performance and its coating quality.


Markus Pape, General Manager, Oberflächentechnik Lönigen GmbH & Co.KG

Nordson Industrial Coating Systems

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