



Signature spray nozzles produce dense and uniformly random patterns.

More speed, less cost

Bonding and coating specialist Nordson has a range of technologies which can be tailored to suit each individual manufacturing operation

Nordson Nonwovens Systems specialises in contact and non-contact dispensing technologies, control and detection systems, melting technology and central adhesive distribution systems.

“Nordson provides manufacturers with more choices in diverse spraying and coating solutions to meet demanding application requirements, supported by global engineering, sales and service support,” claims nonwovens global marketing manager Michael Fornes.

Melters

The company’s VersaBlue Series melters deliver precision dispensing flexibility with a range of tank capacities and control options aimed at simplifying daily operations and maximising uptime. VersaBlue XN Series adhesive melters dispense up to two different hot melt adhesives and offer holding capacities of 50, 100 and 200 liters. Coupled with a wide range of pump sizes and PLC system control choices, these melters provide manufacturing flexibility in high-volume, high-speed nonwovens applications.

Signature nozzles

Contact and non-contact dispensing technologies provide pattern stability for consistent coverage, high bond strengths and low add-on rates.

Signature spray nozzles produce dense and uniformly random patterns with enhanced appearance and hand in continuous coating applications. SureWrap nozzles for elastic attachment optimise adhesive placement to improve creep resistance using less adhesive.

“The patent-pending Signature nozzles feature larger adhesive orifices

in much greater numbers and spray farther from webs to produce superior clog resistance that maximises production uptime for higher product output," Mr Fornes explained. "If a single nozzle orifice becomes contaminated, the loss of flow has a negligible effect on the pattern and end product quality."

Random

In addition to consistent bonding, continuous random patterns tolerate process parameter changes and help improve product quality. Dispensing farther from webs improves web routing and serviceability and decreases exposure to airborne contaminants that can compromise performance. Low air consumption reduces compressed air process costs and overspray.

Each nozzle features multiple orifices to produce random patterns that blend well without heavy or light areas. Durable all-steel nozzles are available in quarter, half, three-quarter and full-width versions that work in multiple orientations, including horizontal. Production speed capability of over 600 metres per minute supports advanced high-speed operations.

The fully configurable TrueCoat slot applicator for applying continuous coatings, with a wide range of adhesive add-on, also delivers exceptional thermal performance and accuracy, with fast format changes and easy web routing.

Control and detection

Nordson control and detection systems deliver comprehensive production protection. The LogiComm system integrates pattern control and verification for on-line quality assurance. By verifying valve actuation and fatigue, the OptiStroke detection system reduces product waste and confirms hot melt adhesive dispensing performance.

Products that enhance production capabilities include the GP200 remote metering station for adding application points or reducing add-on variation, the Universal Slice applicator for simultaneously producing several applications from a single applicator with precise metering accuracy, and the

Contour Coat applicator for applying individually shaped adhesive patterns.

EasyFil

Among new products showcased at the recent IDEA07 in Miami by the company was the EasyFil system designed to aid streamline plant operations by automating the adhesive filling of multiple melters.

"Centralised distribution in a closed system minimises the routine material handling and adhesive contamination inherent with manual filling methods, explained the company's global marketing manager for nonwovens Michael Fornes.

The system, he added, provides high-volume manufacturers with more choices in adhesive distribution, while reducing operating costs and service.

It interfaces with 1.0 to 1.2 metric-ton bulk delivery tanks that have a capacity more than five times greater than standard adhesive drums, to reduce changeover frequency and minimise material handling. Container replacement can be carried out in under ten minutes.

The Nordson system provides the hydraulic and electrical components to link bulk delivery tanks to multiple melters. These include a docking station, pumping station, temperature and level control, adhesive supply hoses, and melter lid-fill kits.

The closed system reduces adhesive contamination that can cause nozzle clogging, downtime and associated



Nordson's nonwovens global marketing manager Michael Fornes

maintenance. Automated melter filling limits operator involvement and the potential for injury caused by lifting or moving adhesive boxes, molten adhesive splash-back, and adhesive floor spills. This closed design also minimises exposure to fumes and particulates caused by open adhesive boxes and melter lids.

An integrated level control helps prevent product rejects and waste from melters running out of adhesive. The control of up to 22 adhesive temperature zones expands distribution options and improves adhesive stability.

Diverse

Nordson's technology offer encompasses every level of industry participation, from those starting up new manufacturing to the huge and highly automated operations of the key players.

"We have a very diverse set of customers and have to try and meet all their needs," said Mr Fornes. "We are represented now in 70 countries and have strived to offer comprehensive choices in equipment selection with application tailoring unique to individual needs for enhanced capabilities. All of our technologies are designed to increase line speeds and reduce the cost of operations."

"We have been manufacturing in China for ten years, for example, and are now introducing more economical melters manufactured there. However, because of the global nature of the business, the OEMs we sell to in China can ship our systems anywhere in the world and for the middle tier markets they have to be universally simple to operate, with pictorial functions."

Nordson provides cost-saving after-sale support that helps customers maximise their equipment investment.

The commonality of parts among melters, applicators and modules minimises inventory requirements, and rebuildable components extend service life, with kits for on-site rebuilding.

The economical ESP equipment services programme provides factory-quality rebuilding, providing customers with fast turnaround. Nordson replacement parts ensure continued product performance by meeting rigorous standards worldwide.