How We Can Help You

Nordson has application development and testing labs all over the world: Asia, Europe and the Americas. The broad range of lab capabilities enables us to help you see how applicators, nozzles and controllers, among other hot melt system components, may work in your specific application. And, our highly-skilled and experienced lab technicians understand disposable hygiene product manufacturing.

Test out the Nordson Duet and Trio variable dispense applicators. See how your production can benefit from the capability to apply different add-on weights and patterns from a single applicator in a single production pass.

Or, see how an OptiBond variation management solution can help you improve product quality and production efficiency. A wide range of melter integrated or standalone flow monitoring and control solutions means there is an effective, affordable OptiBond system to meet your needs.
Nordson Nonwovens Lab Specifications

<table>
<thead>
<tr>
<th>Country</th>
<th>Top Speed</th>
<th>Features</th>
</tr>
</thead>
</table>
| BRAZIL    | 300 m/min | 2 unwinds  
1 rewind  
1 elastic unwind for 4 strands  
3” core ID  
16” max roll OD  
12” max web width |
| CHINA     | 600 m/min | 2 unwinds  
1 rewind  
1 elastic unwind for 4 strands  
500 mm max width  
600 mm max width  |
| GERMANY   | 660 m/min | 2 unwinds  
1 rewind  
1 elastic unwind for 4 strands  
3” or 6” core ID  
1300 mm max roll OD  
400 mm max web width |
| JAPAN     | 600 m/min | 2 unwinds  
1 rewind  
1 elastic unwind  
3” core ID  
27.6” max roll OD  
20” max web width |
| MEXICO    | 50 m/min  | 2 unwinds  
1 rewind  
1 elastic unwind for 4 strands  
3” core ID  
15” max roll OD  
15” max web width |
| UNITED STATES | 650 m/min | 2 unwinds  
1 rewind  
1 elastic unwind for 4 strands  
3” or 6” core ID  
31.5” max roll OD  
15” max web width |

NORDSON CAPABILITIES

In support of the recent OptiBond variation management portfolio additions, the Nordson Nonwovens Engineering Luneburg lab team has created a test stand for customer demonstrations. This test stand includes a TruFlow optical divider, TruFlow meter and Concert flow controller as well as an OptiStroke detection setup. The test stand provides the opportunity for you to see our OptiBond products in action and review various scenarios to see how these products can help achieve specific production goals.

MARKETING TOOLS

New Videos

Variable Dispense for Improved Products

Two new animations are available on Nordson Nonwovens YouTube channel to demonstrate Nordson’s variable dispense capability. Variable dispense means you can apply different add-on weights and patterns from a single applicator in a single production pass to optimize adhesive use, improving your product quality and production efficiency.

- See how Trio variable dispense applicators can apply varying patterns, materials and/or add-on weights to substrates using a single applicator in a single pass. This animation shows how combining different shims and modules enables this capability. The Trio applicator design supports variable dispense application for varying add-on rates, multi-material dispensing and pattern-on-pattern dispensing.

- Learn how Duet variable dispense applicators can apply a different add-on weight at the ends of elastic strands than in the center. This produces strong bonds at elastic strand ends but enhances retractive force in the center for a better performing product with less adhesive use.

New & Updated Marketing Documents

Several new marketing collaterals have been made available the past few months in support of new or updated products. Please take a look at:

- Duet applicator product data sheet
- Control Coat QE applicator product data sheet
- Quick-exchange slot nozzle adapter plate and nozzle literature
- TruFlow single module applicator product data sheet
- Concert flow control product data sheet
- Concert temperature control product data sheet
- TruFlow applicator product data sheet
- TruFlow divider product data sheet
NORDSON PRODUCTS

Product Updates

Duet Applicators
Nordson has introduced Duet dual-dispense applicators for improved elastic coating in disposable hygiene product manufacturing. The applicator has two separate hoses supplying two independent Speed-Coat modules that feed a single nozzle. The modules cycle independently delivering heavier adhesive add-on at both ends of the elastic strand for a strong bond and with lighter add-on in the center as a stabilizing bond. Reducing add-on in the center section can deliver significant adhesive savings, up to 30%, as well as enhance elastic retraction. Duet applicator’s use Nordson’s patented Universal nozzle clamping mechanism for easy installation and changing of Allegro or SureWrap nozzles to optimize coating of elastic strands.

Quick Exchange Slot Nozzle Adapters & Nozzles
You can install a quick-exchange (Q.E.) nozzle adapter on your Nordson Speed-Coat slot or Trio adhesive applicator to help maximize your production up-time. The adapter easily mounts to the slot applicator manifold and you only need to handle three (3) captive screws to change nozzles up to 500 mm in length. No rework is needed on your existing installed Speed-Coat slot or Trio applicators as the bores/threads in the manifold are the same for mounting conventional standard nozzles as for the Q.E. nozzle adapter plate.

Control Coat QE Applicators
The upgraded Control Coat QE applicators were released last year. Control Coat QE applicators offer “slot-like” pattern uniformity and edge control from a non-contact spray applicator; this supports demanding high-speed production. In addition to offering superior product performance, Control Coat QE applicators have quick-exchange components – including nozzles and modules – to simplify and speed-up maintenance and product changeovers.

Expanded Concert Flow & Temperature Controllers
Expanded versions of the Concert flow and temperature controllers were released last year. The expanded temperature controller offers five (5) channel capacity versus the basic controller’s three (3) channels. The expanded flow controller builds on the expanded temperature controller, increasing the capacity to support up to four (4) channels of flow monitoring or control compared to the two (2) supported by the basic flow controller. Three (3) of the five (5) temperature channels available on the expanded flow and temperature controllers are configured for high power (4,000W per channel) handling.

As with the basic flow controller, the expanded flow controller enables monitoring and control of material delivery for the installed base of delivery systems. Both the basic and expanded Concert temperature and flow controllers supplement existing melters, thereby expanding functionality and capacity to increase equipment utilization.

TruFlow Applicators & Dividers Optical Sensing
TruFlow applicators and dividers now use optical sensors to enhance performance in low flow conditions, less than 5 grams per minute per stream. The applicators and dividers now complement the TruFlow meter that already used the optical sensing technology.

VersaBlue XN Melter TruFlow Integration
A software upgrade and signal converter box for VersaBlue XN and other VersaBlue melters with Allen-Bradley® ControlLogix® PLC controls provides compatibility with TruFlow applicators, dividers and meters. To integrate TruFlow components, VersaBlue XN melters need to be updated to Millennium II software and an additional cable must be ordered; for TruFlow applicators and dividers a signal converter box must also be installed.

Allen-Bradley and ControlLogix are registered trademarks of Rockwell Automation Inc.
Nordson will host a 40.5 m² booth at the 2015 ANEX/SINCE show in Shanghai, China 13-15 May. ANEX, Asia Nonwovens Exhibition, is held every three years and this year will be held in conjunction with the biennial SINCE, Shanghai International Nonwovens Conference & Exhibition. Based on statistics from ANEX 2012 and SINCE 2013, the combined show is looking to draw approximately 15,000 visitors from more than 60 countries.

An active demonstration on a new high-speed web coater will feature an AltaBlue Touch melter with a TruFlow meter feeding both a Speed-Coat applicator and a Duet applicator with an Allegro nozzle for elastic attachment. The AltaBlue Touch melter and TruFlow meter demonstrate our OptiBond variation management solutions that help disposable hygiene product manufacturers measure and control adhesive flow. This gives manufacturers the capability to produce higher-quality products faster, more efficiently and at lower cost.

A static display will show an alternative OptiBond variation management system, a VersaBlue Plus melter and a Universal Slice applicator. A wide range of OptiBond solutions means there is an affordable system for any production need and customer requirement.

**CIDPEX**

The CIDPEX, China International Disposable Paper Expo, will be held at the Shanghai Convention & Exhibition Center 25-27 May. The largest tissue paper and disposable hygiene products exposition in the world, CIDPEX is anticipating this year’s show to be 20-30% larger than last year.

Nordson will showcase the broad range of cost-effective adhesive dispensing solutions that we offer to meet the varying needs of disposable hygiene product manufacturers. Our latest technology and continuous innovation means we offer affordable dispensing systems to meet specific cost and quality requirements.

The Nordson exhibit will feature several products supporting our OptiBond variation management process of **Measure, Understand, Improve**. VersaBlue Plus and AltaBlue Touch melters will be on display along with the TruFlow applicator and TruFlow meter.

The Universal applicator will also be shown with our wide variety of spray nozzles. And, a display board will demonstrate the dispense patterns that Nordson nozzles produce for diaper and pull-up product construction.

Finally, the new Duet applicator with Allegro nozzles will be featured to highlight our variable dispense capability for elastic attachment applications.

**Nordson offers a wide range of spray nozzles to produce a variety of adhesive patterns**
Andreas Bornkessel has now invested more than 25 years with Nordson, and all but the first year has been as an integral part of the nonwovens team. Following a four-year stint as a soldier, Andreas joined Nordson and worked his way up the sales organization with responsibility for Germany, then Europe and finally global key account sales. In his current role as market development manager Nonwovens European division, Andreas monitors the market and product trends of Europe, Middle East and Africa (EMEA) and develops appropriate strategies and plans for Nordson to serve those nonwovens customers. His widely varied responsibilities include: exhibit and event organization/participation; sales policies and promotions; liaison with material suppliers, OEMs and key accounts; and, global Nonwovens Steering Committee membership.

It is in this market development manager role that Andreas finds particular satisfaction with his opportunity to travel and interact globally, adapting to local and regional needs to support and promote Nordson and nonwovens customers. This quarter century, and counting, of unique and varied experience coming despite 25 years ago having a colleague inform the then newly-hired Andreas, “Nonwovens is dead and we cannot expect any growth.”

Andreas notes that this couldn’t have been a more inaccurate statement, “We have and will continue to see challenges to cover the changing market conditions and are constantly working on new development to meet these. And, with global populations and economies growing, the nonwovens market enjoys widespread growth opportunities in previously-untapped, often remote regions of the world.”

With three active kids, Andreas doesn’t have a lot of “free time,” but when possible he enjoys riding his motorcycle or bicycle, or maybe a little running for exercise. However, his greatest interest is actually supported by his Nordson responsibilities – traveling to other countries to interact with local people and experience new technologies.

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**Advances Your Technology for Cost Savings**

As with everything in our fast-paced society, hot melt dispensing technology is always evolving and changing. Upgrading your melters can actually save you money by reducing your total cost of ownership and can even save you enough money to pay for themselves. Newer Nordson melters offer features and benefits that weren’t even though of 10 or 15 years ago including:

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>BENEFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure Build</td>
<td>Consistent material delivery by optimizing adhesive system pressure across entire machine speed range</td>
</tr>
<tr>
<td>Graphic touch-screen user interface</td>
<td>• Provides “at a glance” overview of entire dispense system • Simplifies set-up, operation and product changeover</td>
</tr>
<tr>
<td>Closed-loop flow measurement &amp; control</td>
<td>Improve product quality and produce saleable product faster by automatically minimizing variations in actual flow rate</td>
</tr>
</tbody>
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Contact your Nordson representative to learn how Nordson AltaBlue Touch and VersaBlue Plus melters can improve your product quality and production efficiency.

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Nordson trademarks in this issue of *Trends* include:

- Allegro
- Control Coat
- OptiBond
- SureWrap
- VersaBlue
- AltaBlue
- Duet
- OptiStroke
- Trio
- Concert
- Nordson
- Speed-Coat
- Universal

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