Dispensing Solutions

Engineered systems for automotive assembly applications
Nordson is a world leader in engineering systems to apply structural adhesives and sealants in harsh automotive manufacturing environments. Our goal is to provide you with the right solution to meet your exacting application requirements. With more than 60 years of engineered systems experience, automotive manufacturers worldwide rely on Nordson for dispensing with precision and reliability.

We are the only major supplier to offer both pressure-based and positive displacement systems, with the ability to modify configurations to meet specific application needs.

Our broad product line includes a complete line of metering units, controls, dispense valves and bulk unloaders. Nordson systems offer the shortest mean time between failure and mean time to repair, giving you the total lowest cost of ownership.

Our approach to business is simple – deliver what we promise and more. We develop the best solution and provide superior systems and quality equipment. Our mission is to help you improve manufacturing productivity and efficiency, allowing you to achieve a fast return on investment.

Nordson systems easily dispense a variety of one- and two-component materials, including:

- RTV silicones
- Greases
- Mastics
- Plastisols
- Sealers
- Butyls
- Urethanes
- Epoxies
- Acrylcs

Up and down the line, Nordson’s robust product portfolio addresses all the assembly process needs of automotive manufacturers:

- Stamping
- Body shop
- Paint shop
- Final assembly and glass bonding
- Power train

No matter what dispensing challenge you face, Nordson has decades of application expertise to provide the right application solution. What’s more, we back all of our systems with worldwide service and support that you can trust – 24/7.
Research and Development

Nordson is committed to continuous improvement through innovation. We invest an average of 5 percent of sales revenue annually in research and development activities that lead to new technologies to improve manufacturing and production processes.

Nordson encourages employees to explore new ideas, investigate new dispensing methods and look for ways to improve processes. Nordson employees hold more than 1,800 patents and patent applications worldwide. These patents reflect the company’s technological leadership in solving customer challenges through innovation and risk taking.

Technical Expertise and Support

Nordson consistently invests in resources, people and technology. With lab and production facilities around the world, Nordson has an impressive array of capabilities, positioning us to take full advantage of rapid growth in material technology. And with local labs available in our facilities around the globe, you always have convenient access to our experts and engineered solutions.

Nordson technical centers contain complete dispensing systems, robotics and peripheral automation. Lab technicians perform engineered system and material evaluation. Our products are thoroughly tested to assure reliable performance in production environments.

We also maintain extensive and sophisticated customer test facilities in the United States, Germany and China. You can assess materials, equipment and Nordson system performance prior to the sale. From the very start, Nordson customers are welcomed as partners in evaluating the best approach to meet challenging application requirements.

Our technical support also includes:

- Equipment selection assistance
- Material assessment
- Equipment demonstrations on actual parts
- In-plant training sessions
- Off-site training
- Preventative maintenance contracts
- Factory service and installation teams
- Technical assistance hotline
- On-call and online parts ordering
- Distribution centers located around the globe – United States, Europe, China and Brazil.

There For You Every Step of the Way

Nordson has earned a reputation for its commitment to the success of its customers. Our product and system designs account for Failure Mode Effect Analysis (FMEA), Mean Time Before Failure (MTBF), Mean Time Before Repair (MTBR) and life cycle costs. We will be there from application engineering and process development through system installation and buy off. We remain on-call with operator training, follow-up service and anticipation of future needs.
Dispense Valves

**Auto-Flo™ Dispensing Valves**
- Automatic on/off valve for accurate deposition and sharp material cut-off
- Precision design for single- or manifold-mounting applications
- Available in various configurations: extrude/stream/swirl version, zero cavity, spray, anti-drool and airless spray

**CE-20 Valve**
- Ideal for high viscosity materials up to 3,000,000 cps/mPas
- Built with large passages and a flow-through design for high output in automatic applications
- Quick-change packing design allows easy maintenance

**AccuDrop™ Gun**
- Air-actuated, material-driven gun
- Fast, accurate droplet dispensing of materials to automobile panels
- Dual-acting eliminates refill time

**Ejector Gun for Droplet Dispensing**
- Pre-determined, fixed shot volumes allow for repeatability within .1 cc
- Modular design permits easy maintenance
- Shot sizes are easily adjusted within the operating range of 2.5 to 7.5 ccs per shot

**Flow-Through-Felt Primer System**
- Uniformly applies both clear and black primers to glass
- Ensures uniform film builds
- Provides optimum adhesion and enhanced quality
Dispense Valves

Overhem Applicator
- Robotically applies PVC sealer on the hem flange without opening the door panel
- Complies in tool frame ‘X’
- Large variety of hem flange nozzles available to meet customer specifications

Roof Ditch Dispenser
- Recirculation return valve allows material circulation
- Includes robot mount adapter and vision mounting provisions
- Accepts a wide selection of airless streaming tips

Smart-Gun
- Available in non-rotating and rotating 360 degree swivel versions
- Ability to dispense one or two different sealer materials with three individually selected dispense guns
- Designed for high-dispense volumes, frequent on-off cycles, and abrasive materials

Wedge Applicator
- Ideal for dispensing liquid-applied sound deadener (LASD) materials
- Carbide needle/ball and seat with abrasion resistant seals provide long life
- Air open/air close operation and back-up spring provide an instantaneous material shut-off

Multi-Stream Applicator
- Multiple orifice nozzle for dispensing bands of material
- Single, dual and triple valve designs available
- Ideal for dispensing liquid-applied sound deadener (LASD) materials
Nozzles

Extrude Nozzle
- Ideal for conventional dispensing applications
- Delivers closely controlled adhesive deposition and bead profile

Stream Nozzle
- Steaming reduces the risk of nozzle touching part and causing damage
- Material is delivered to the part under high pressures, effectively eliminating material sag in vertical applications

Swirl Nozzle
- Stand-off compensates for fluctuations in part surface, allowing for easy programming
- Nozzle never touches the part, making dispensing equipment less likely

Slot Nozzle
- Applicable for dispensing panel reinforcement and sound deadener material.
- Available in a variety or widths to meet the application requirements
- Can be electrically heated or water conditioned

Hem Flange Nozzles
- Available stream or slot tips are used with the overhem applicator tool
- High-strength, heat-treated stainless steel for durability and long life
- Engineered for customer specific applications
Metering Units

CP Regulator
- Simple design and convenient operation
- Ideal for use in dispensing applications needing closely-controlled adhesive or sealant deposition
- Ensures controlled pressure through a closely coupled precision regulator
- Provides proportional material flow at the tool tip

Pro-Meter® S Meter
- Designed for robotic application of single-part adhesives and sealants
- It combines shot meter technology with proportional control for excellent “bead on the part” appearance and bead control
- Uniform amount of material is applied as the robot accelerates and decelerates along its programmed path
- This precise flow control provides better adhesive bead profiles and faster cycle time

Pro-Meter® S2K Meter
- Two-component shot meter dispenser ensures precise control of dispense volumes
- Superior control regardless of material viscosity changes
- An electric linear encoder provides higher cold-start accuracy and fast response to speed changes
- Flexible ratio control, easily updated SPC data, allow simple programming

Pro-Meter® VDK Meter
- Combines gear metering technology and compact size
- Form-in-place gasketing, bonding and sealing operations
- Can be positioned close to the dispense point for accurate material control
- Better response time compared to pressure-fed systems
Metering Units

**Pro-Meter® G Meter**
- Gear meter technology provides robotic application of high viscosity adhesives, such as urethane and butyl
- Combines field-proven durability with ease of use
- Ensures uniform deposition of the adhesive bead as the robot accelerates and decelerates through the programmed path

**ISD – Integrated Servo Dispenser**
- Double-acting model dispenses in both directions for controlled material outlet pressure and flowrate
- Fully integrated with robot software
- Peltier or water-based temperature conditioning available

**IPS – Integrated Pneumatic Servo**
- Designed for high-viscosity, single-component materials dispensed in high volumes
- Fully integrated with FANUC robot software
- Ideal for dispensing liquid-applied sound deadener (LASD), stone chip and other single-component PVC materials

**Servo-Flo 111**
- Independent tandem servo meters for continuous dispensing
- Stainless steel metering rods for long life
- Light weight components and compact design for floor, robot or pedestal mounting
Rhino® Bulk Unloaders

- Available in 5- and 55-gallon (20- and 200-liter) sizes
- Available in ambient and warm-applied configurations
- Simple control logic ensures longevity and easy maintenance
- Modular design provides flexibility for changing application requirements
- Available ScoreGuard® wear-resistant coating provides superior toughness

VersaBlue® Melters

- Precision gear metering and variable-speed drives bring maximum accuracy
- Flexibility to meet demanding automotive applications requirements
- Intuitive graphic displays and multiple-language operator screens keep daily operation simple

VersaDrum® Heated Bulk Melters

- Precisely apply hot melt adhesives, sealants and butyls
- Modular, non-stick platens, available for 55-gallon (200-liter) drums, melt adhesive on the top surface of the drum only, reducing thermal stress and protecting bonding characteristics

Primer Stand

- Closed system protects primer from moisture and pre-mature
- Load cells monitor bulk supply container levels
- Circulates black primer material to ensure pigments remain in suspension
- Filters material before delivery to applicator tool
Controls

**Process Sentry 3 Controller**
- Highly versatile microprocessor-based controller with graphic touch screen interface
- Allows supervision and control of material pressure and dispense volumes
- 32-part ID capacity
- Provides data logging for SPC reporting
- An RTD input is provided to monitor material temperature for SPC data, if desired

**Programmable Logic Controller (PLC)**
- Controls and monitors dispensing parameters and fault handling requirements
- Provides data logging for SPC reporting
- Configurable for multiple inputs and outputs
- Can control other peripheral devices

**Flow Monitor Controller**
- Robust, cost-effective and easy-to-use
- LED display for control limits
- Purge button for manual/remote operation
- Thumbwheels for bead size
Global Presence and International Strength

Nordson provides engineering services and systems for major automotive manufacturers around the globe. With direct operations in 30 locations, we serve virtually every industrialized country in the world.

Our international operations are staffed by local people who understand their particular countries’ customs and business practices. Combined with thorough training in Nordson technologies and service, they provide problem solving expertise at the local and international level.

As the automotive industry continues to pull resources from around the globe, you can be assured that Nordson will be where you need us, when you need us, with the systems and service that help you improve manufacturing efficiency and product quality.