

## The Ultra FoamMix<sup>®</sup> System

*Produce dispensable foam materials from typical adhesives and sealants.*



# The new Ultra FoamMix system delivers cost savings and productivity to gasketing, sealing and bonding applications.

Today's high-performance sealants and adhesives have changed the way many products are sealed, fastened and assembled. These materials, in combination with automated manufacturing techniques, have improved product quality and greatly enhanced manufacturing productivity. Form-in-place gasketing, robotic seam sealing and automated adhesive application have presented challenges to develop dispensing systems for ever-changing and demanding application requirements.

## Introducing The Ultra FoamMix System

The new Nordson® Ultra FoamMix system uses low-pressure gassing to expand the capabilities of ambient or heated sealants and adhesives. The patented process combines flowable materials with inert gas or air to produce a homogeneous mixture. As the material is dispensed, the gas/air expands, creating a closed-cell foam.

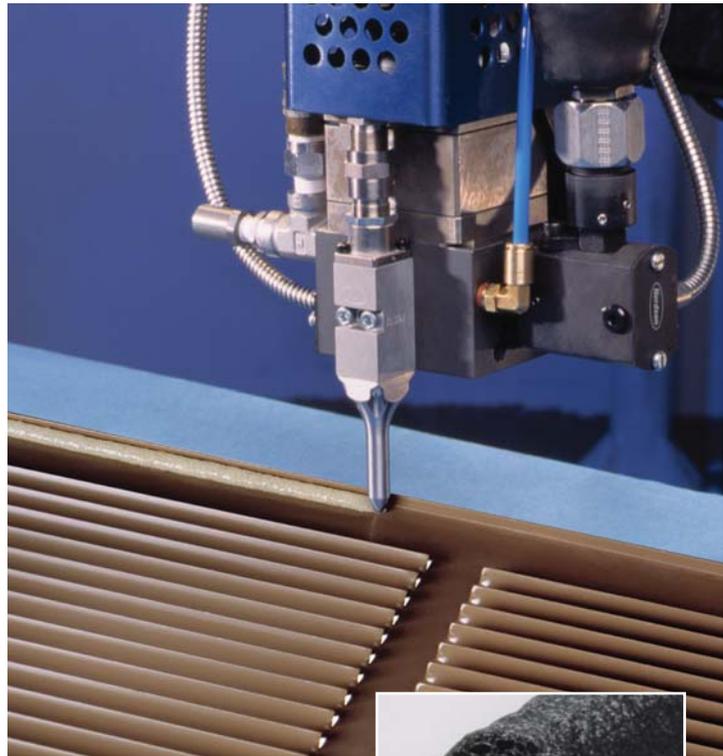
Foam materials have physical properties that often make them superior to solid materials. Foamed gaskets are usually softer, more flexible and resilient. In bonding applications, foam adhesives cost less to use by allowing a thinner bond line.

And, use of Ultra FoamMix systems supports this era of heightened environmental consciousness. With up to 50 percent reduction of material, there is the obvious decreased use of raw materials and the energy used to produce them. Additionally, Ultra FoamMix systems' use of inert gas or air in a mechanical foaming process is a more sustainable solution than traditional chemical foaming processes.

## Foam Technology: Getting More From Less

The gas/air content of Ultra FoamMix materials is up to 50 percent by volume, and is easily adjusted with user-friendly controls. Gas/air content reduces the material density, which provides several important advantages:

- **Reduction in cure time of moisture-cure materials by as much as 30 to 50 percent.** The foaming process increases vapor permeation of moisture-cure materials, accelerating the cure rate.



- **Increased material flexibility and resiliency.** Foam materials are softer and more flexible than solid materials.
- **Reduced material consumption.** Material is displaced by expanded gas/air, which reduces the amount of material by volume.
- **Increased expansion to fill gaps and joints.** Expanding gas/air causes a volumetric increase upon application.
- **Lower weight.** The reduced density of foam materials decreases the material weight per unit volume.
- **Reduced sagging or running.** The lightweight nature of foamed materials reduces the tendency of material to run or sag.



### High-performance Materials

Now you can create foam materials from many pumpable high-performance adhesives and sealants, such as silicones, polyurethanes, plastisols and thermoplastics. Choose the material that delivers the best combination of performance and value for your application. Nordson offers a variety of material

supply sources, including unloaders or tank and bulk melters, to accommodate your specific adhesive or sealant.

### Ultra FoamMix Technology For Your Requirements

The superior physical properties and production efficiencies of dispensable foam materials offer a virtually endless number of sealing, bonding and manufacturing applications.

For example, automobile manufacturers are increasing the use of structural adhesives and sealants for many assembly operations. Foamed materials improve application consistency and process control for sealing and bonding. Plus, less material

is required, which results in significant material savings and contributes to the critical issue of vehicle weight reduction.

Building material manufacturers use the Ultra FoamMix system to apply foam backbedding to windows and doors. The materials provide a seal against moisture and dirt, in addition to offering enhanced thermal protection.

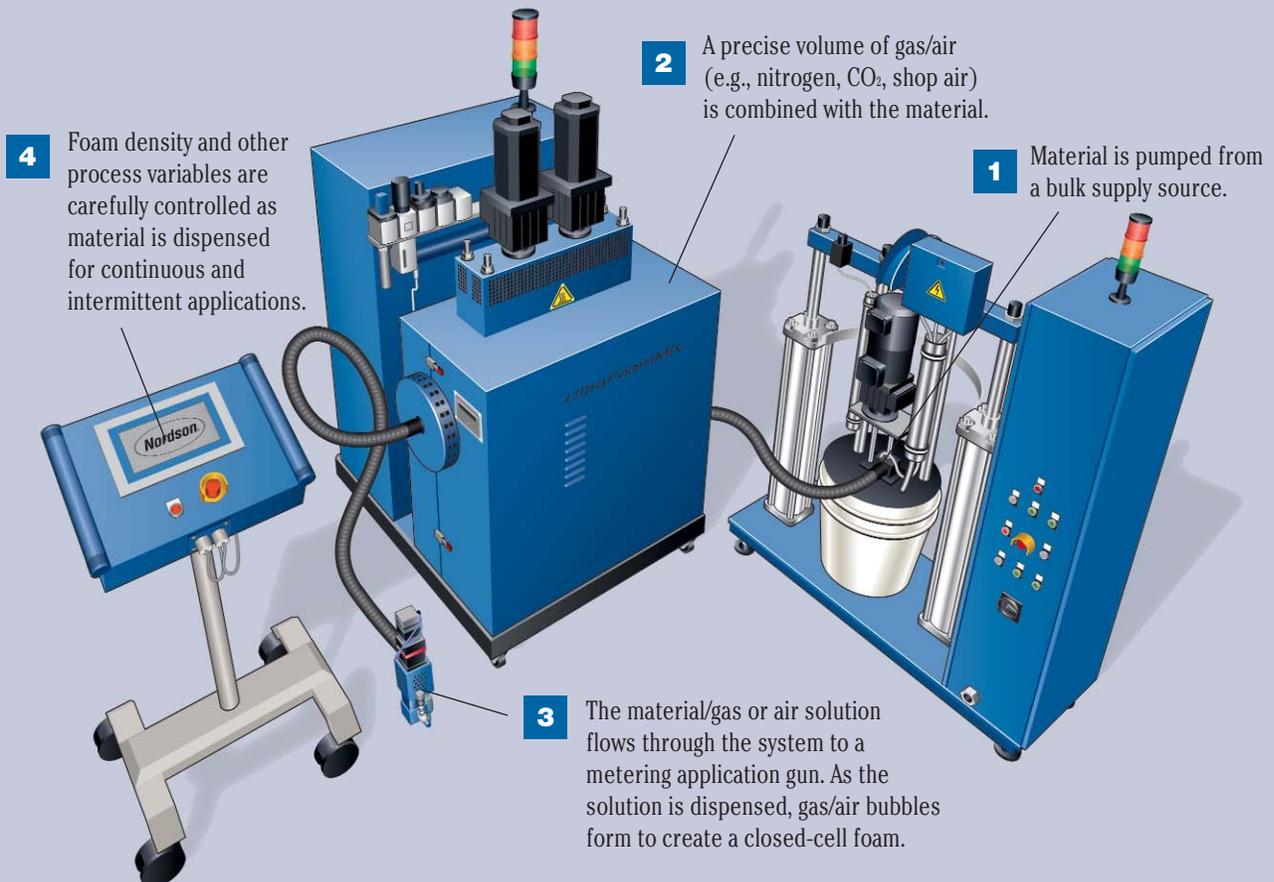
Foam materials are also used to manufacture air filters, bond furniture and seal packaging. Whether you use a robotic, manual or fixed-gun dispensing system, the Ultra FoamMix process can enhance your application performance.

### Automate Your Gasketing Operation

The Ultra FoamMix system represents the next generation of form-in-place gasketing to robotically apply sealant materials to parts. Closed-cell foam gaskets are precisely applied with repeatable, controllable results, greatly increasing productivity and reducing labor costs. Additionally, Ultra FoamMix gasketing helps eliminate inventory of bulky die-cut gaskets and foam tapes and reduce the waste of unusable die-cut gaskets.

Uses for Nordson foam-in-place gasketing include electrical enclosures, ventilation systems and appliances. Automotive applications include gaskets for air and oil filters, light assemblies and glass bonding operations.

## How the Ultra FoamMix System Works



### Ultra FoamMix Cube Specifications

<b>Foam Station Pump Sizes</b>	up to 40 liters/hour up to 80 liters/hour up to 160 liters/hour
<b>Electrical Requirement</b>	3 x 400 VAC + N + PE
<b>Inert Gas/Air Pressure</b>	1.5 to 6 bar (20 to 88 psi)
<b>Hose Connector Diameter</b>	for 8 mm, 13 mm or 16 mm hoses
<b>Weight</b>	747 kg (1647 lbs)
<b>Power Consumption</b>	27 KW max., 40 A/phase
<b>Recommended Fusing &amp; Wire Size</b>	50 A/phase, 5 x 10 mm <sup>2</sup>

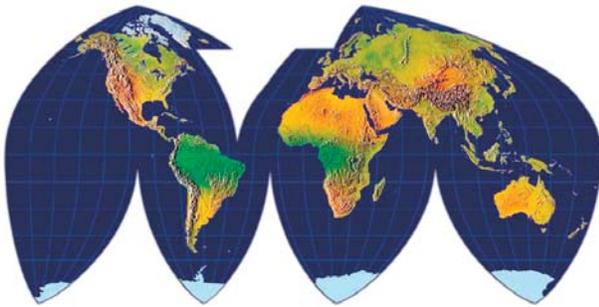


### Ultra FoamMix Family

The Nordson Ultra FoamMix series accommodates a wide range of adhesive types and/or forms to meet your specific needs and requirements. While each can be used across a broad spectrum of materials, typical adhesives for each might be:

- Ultra FoamMix cube for reactive adhesives such as polyurethane (PUR) or silicones
- Ultra FoamMix tank for pressure sensitive adhesives (PSA) or ethylene vinyl acetate (EVA)
- Ultra FoamMix extruder for polyamides or polyesters

Please consult with your Nordson representative to determine which Ultra FoamMix product best suits your application.



### Worldwide Service and Support

A locally-available, global team of highly-trained, knowledgeable engineers, service technicians and 24/7 support staff help you develop, install and maintain dispensing solutions for your foamed adhesive and sealant application systems. Our people are supported by an infrastructure that includes research facilities, test laboratories and parts distribution warehouses in locations throughout Europe, Asia and the Americas.

*For more information, talk with your Nordson representative or contact your Nordson regional office.*

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