Precise, repeatable dispensing of heated materials from syringes.

Nordson® Unity dispense systems provide accurate dispensing and optimize efficiency of heated materials from 30 cc syringes and 294 ml cartridges, and are ideally suited to dispense heated PUR adhesives. Unity dispensers help extend the useful life of the syringe to maximize material use and minimize residual waste.

A variety of technologies meet the stringent requirements for precise material dispensing in exacting processes such as handheld electronics and medical device manufacturing. This helps improve production and performance of applications including bonding, sealing, gasketing, encapsulation and attachment.

With a variety of systems and accessories, Unity solutions can be configured to meet specific requirements.

Unity™ Series

Unity PS Series
- Time and pressure delivery system.
- Open needle design uses disposable, stainless-steel dispensing needles.
- Standard single head system can be expanded to four heads.
- Three-axis robot offers complete work cell with small footprint.

Unity IC Series
- Pneumatic modules deliver consistent dispensing and clean cutoff for beads.
- Vision detection system provides integrated inspection, proprietary compensation and feedback.
- Operating costs are reduced by prolonging syringe and cartridge life and minimizing bead width variation.
- Multi-axis robot eliminates manual operations.

Unity PURJet™ Series
- Consistent dispensing and clean cutoff for beads or dots.
- Patented jetting technology means Z plane doesn’t need to constantly adjust for changing surface contours.
- Applies at high speeds with precise accuracy.
- Accommodates a wide variety of hot melt materials including polyurethane (PUR).
- Easily dispenses into 0.5 mm grooves and other challenging geometries.
- Optimizes adhesive wetting of substrates for improved strength and impact resistance.
**Unity™ Series Dispensing Systems**

<table>
<thead>
<tr>
<th></th>
<th>PURJet 30</th>
<th>IC30 / IC300</th>
<th>PS30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container Size</td>
<td>30 cc syringes</td>
<td>30 cc syringes</td>
<td>294 ml cartridges</td>
</tr>
<tr>
<td>Compatible with x,y,z Robot</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Minimum Deposited Bead Width (mm)</td>
<td>*</td>
<td>&lt;0.5 mm</td>
<td>&lt;1 mm</td>
</tr>
<tr>
<td>Positive Volumetric Output</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Non-contact Dispensing</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Optimized Adhesive Wetting for Strength and Impact Resistance</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Patented Integrated Controller System</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Vision-based Compensation to Control Bead Size</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Available with or without Robot</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Utilizes Stainless-steel Dispensing Needles</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pneumatic Actuated Dispensing Module</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Removable/Interchangeable Nozzles</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Dot size approximately 1.1 mm depending on substrate; bead weight 0.22 mg minimum; can dispense in 0.5 mm grooves.

**Available Options**
- Pre-warmers
- Variety of robot specifications
- Modules/nozzles
- Stainless steel needles

**Unity Pre-warmers**
- Preheat adhesive or purge materials to minimize changeover delays.
- Easy-to-use temperature control.
- Accommodates from one to four 30 cc syringes at a time.
- Compatible with all Unity 30 cc dispensers.

**3M Plastic Bonding Adhesives** allow for very thin bond lines with high bond strength when compared with tapes for electronics assembly. Bonding surface: 0.5” x 1” Substrates used: 1” x 4” samples of each respective material Test speed: 0.1”/min Samples are bonded using a pressure bonder - holding time of 20s at 6kgf RT. Samples are allowed to dwell for 7 days after bonding. Comparative information and test method courtesy of 3M Company April 2012

**Tensile Adhesion Strength Comparison**
(Plastic Bonded To Stainless Steel)

<table>
<thead>
<tr>
<th></th>
<th>PURJet 30</th>
<th>IC30 / IC300</th>
<th>PS30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Adhesion Strength (PSI)</td>
<td>700</td>
<td>600</td>
<td>500</td>
</tr>
</tbody>
</table>

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

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**Note:** Key electrical components are CE/UL-recognized.