# A vision-guided, automated solution for precise hot melt dispensing



The Unity 4axis robots offer a specialized rotation table, which provides a more stable and accurate dispensing in precise hot melt applications than traditional 4axis robots.

The Specialized UNITYMotion<sup>TM</sup> software and integrated vision capabilities make the Unity 4axis systems easy to set up and program. Simultaneous X and Y movement during U rotation provides a precise point of programming for dispensing at any angle along the 360° rotation plane.

#### **Features**

- UNITYMotion icon-based software simplifies setup and programming with advanced vision features
- On-screen preview of the dispensing path, which facilitates programming
- A specified and reinforced U axis with 360° rotation for accurate dispensing
- Simultaneous X and Y movement during U (rotation) for truepoint programming
- A specified bracket can fix the applicator to an angle at -5° to 45°

#### **Benefits**

- Market-leading dimensional positioning accuracy and deposit placement repeatability
- Faster cycle and batch times
- Easier to set up and program quickly
- Seamless integration into any manufacturing operation
- Reduced production, material, and ownership costs



## Unity 4axis robot Automated Dispensing Systems

### **Specifications**

Model	Unity 4X-HV-U	Unity 4XP PLUS-U
Number of Axes	4 axes	
Maximum Working Area (X/Y/Z/U)	350/400/100 mm ±1080° (13.8/15.7/3.9 in. ±1080°)	
Workpiece Payload (Y/U)	7/2 kg (15.4/4.4 lb)	22/2 kg (48.5/4.4 lb)
Tool Payload	8 kg (17.6 lb)	
Maximum Speed (XY/Z)	800/320 mm/sec (31.4/12.6 in./sec)	500/250 mm/sec (19.7/9.8 in./sec)
Maximum Speed (U)	1080°/sec	
Unit Weight	61 kg (134.5 lb)	70 kg (154.3 lb)
Dimensions (WxDxH)	820x672x867.5 mm (32.2x26.5x34.2 in.)	
Drive System	3-Phase Micro Stepping Motor	Closed Loop Stepping Motor and Driver Package with Absolute Sensor
Drive System (U)	5-Phase Micro Stepping Motor	5-Phase Micro Stepping Motor
Memory Capacity	PC Storage	
Data Storage	PC Storage	
General Purpose I/O	8 inputs/8 outputs (16/16 optional)	
Drive Method	PTP and CP	
Power Supply	Auto-switching, AC100–240 VAC, 380 W	
Interpolation	4 axes (3D space)	
Repeatability	±0.02 mm (0.0008 in.)	±0.01 mm (0.0004 in)
Working Temperature	10–40° C (50–104° F)	
Closed-loop Motor System	Not available	Included
Tip Detection System	Optional	Included
High-precision Vision	Included	
Laser Height Detection	Not available	Optional

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

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#### Note

- The travel speed will be changed for different dispensing path and loading.
- The robot loading will be changed according to dispensing path and travel speed.

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