

Universal™ Summit® Nozzles

Improve bond strength and product quality in hot melt adhesive laminating applications.



Universal applicator with UM25 modules and Universal Summit nozzles

Universal Summit nozzles:

- Produce high bond strength at low add-on rates in continuous and intermittent operations
- Control adhesive fiber size, density and pattern width for better bond performance
- Reduce heat distortion on thinner materials
- Provide leak-free operation with serviceable, surface-mounted elastomeric seal

Universal Summit nozzles deliver superior control of hot melt adhesive fiber size, density and pattern width for numerous nonwovens and product assembly laminating applications. Controlled adhesive fiber deposition provides greater uniformity in the cross-web direction, improving product quality.

Non-contact nozzles use four radially tangential air jets to oscillate single adhesive fibers, producing a crossing web pattern that enhances bonding performance. Fiber sizes ranging from 50 to 100 microns add flexibility in producing low-density, large-fiber patterns for maximum bond strength; open patterns for absorbency; or highly dense fine-fiber patterns for heat-sensitive substrates.

Add-on rates as low as 1 gram per square meter at 300 meters per minute (1,000 fpm) reduce adhesive usage and improve appearance. Tight edge control of ± 2 millimeters (± 0.08 in.) without overspray further minimizes adhesive waste.

Nozzles are compatible with Universal series modules. These include UM22 and UM25 modules for less demanding intermittent operations, Speed-Coat® module for high-speed intermittent lines, UM50 module for continuous operations, high-speed electrically actuated E400U module, and UM3 module for metering applications. Full or partial-width nozzles tailor coverage to specific bonding requirements. Non-handed partial-width nozzles orient for left or right coverage.

Common Universal parts minimize inventory costs and simplify service. Universal modules accept other spray technologies that help reduce capital expenditures.

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Specifications

Module Compatibility	All Universal modules
Materials of Construction	Brass with hard-release coating, available in steel
Edge Control	±2 mm (±0.08 in.)
Nozzle Orifice Sizes	25 mm nozzles: 0.46 mm (0.018 in.) 22 mm nozzles: 0.51 mm (0.020 in.)
Nozzle to Substrate Distance	10 to 30 mm (0.38 to 1.2 in.) 20 mm (recommended)
Maximum Hydraulic Flow	100 grams per minute per nozzle at 10,000 centipoise
Maximum Add-on Weight	14 GSM @ 300 m/min, 10 GSM @ 400 m/min
Production Speed Capability	10 to 400 m/min (33 to 1312 ft/min)
Adhesive Fiber Size	50 to 100 microns
Adhesive Viscosity (Recommended)	1,500 to 10,000 centipoise
Operating Temperature	70° to 205° C (160° to 400° F)
Adhesive Flow	2.5 to 25 grams per minute per orifice
Air Consumption	0.50 to 1.0 scfm per nozzle
Air Pressure (Typical)	0.2 to 1 bar (3 to 15 psi)
Working Hydraulic Pressure	13.8 to 55.2 bar (200 to 800 psi)
Maximum Hydraulic Pressure	89.6 bar (1300 psi)



Universal Summit nozzles control adhesive fiber size, density and pattern width for better bond performance.



Universal UM50 modules and Summit nozzles meet the demands of continuous wide-web laminating applications.

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

United States

Duluth, Georgia
(800) 683-2314 **Phone**
(866) 667-3329 **Fax**

Europe

Lüneburg, Germany
(49) 4131-894-0 **Phone**
(49) 4131-894-149 **Fax**

Japan

Tokyo, Japan
(81) 3-5762-2700 **Phone**
(81) 3-5762-2701 **Fax**

Asia/Australia/ Latin America

Amherst, Ohio
(440) 985-4496 **Phone**
(440) 985-1096 **Fax**