

# Universal™ SureWrap® Nozzles

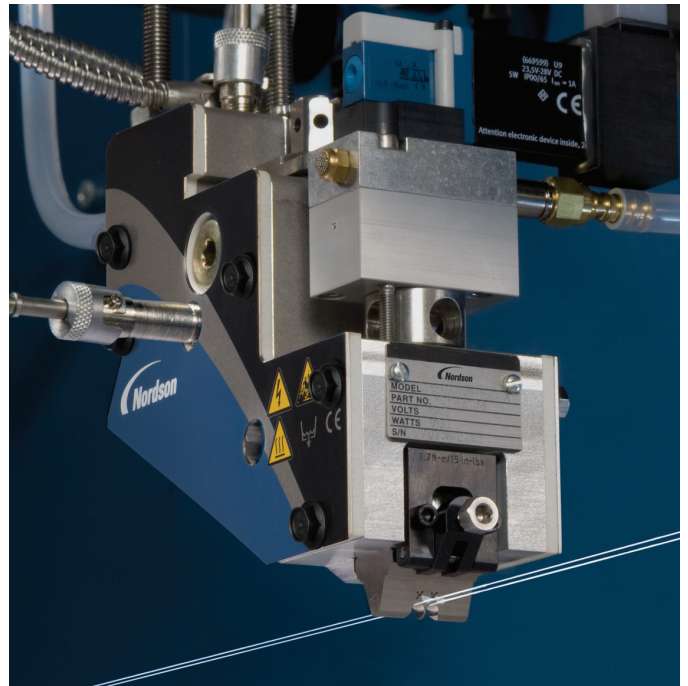
Advanced nozzle technology delivers precise adhesive fiber deposition for elastic attachment.

Universal SureWrap nozzles:

- Use proven Controlled Fiberization™ spray technology
- Stabilize elastic strand position with integral guides
- Optimize adhesive placement
- Improve creep resistance
- Reduce adhesive consumption
- Extend service life with hard-wear inserts

SureWrap nozzles accurately apply hot melt adhesive filaments to form discrete adhesive masses (discrete bond points) on the elastic strands used for elasticized legs, leg cuffs, and waistbands on baby diapers, training pants, and adult incontinence products.

The patented SureWrap nozzle uses an integral-strand guide to stabilize the elastic strand and an angular spray trajectory to maintain performance at high production speeds. Four air openings associated with each adhesive opening dispense four radially-tangential air streams, causing the adhesive filament to move in a spiral pattern. The spiraling adhesive filament wraps around each strand, forming discrete adhesive masses with no useful adhesive on the strand between adjacent discrete adhesive masses. These discrete adhesive masses optimize adhesive bonding, minimizing adhesive usage, and result in uniform elastic retractive forces.



Universal SureWrap nozzles with strand guides stabilize elastic during adhesive application.

For a more detailed explanation of the recommended use of SureWrap nozzles, refer to *Manual Part Number 1103674*.

SureWrap nozzles may be made to order for specific elastic configuration requirements. Nozzles are available in standard nickel-plated brass construction with steel inserts to resist wear or all-steel versions.

Nozzles are compatible with UM22 and UM25 modules for basic intermittent adhesive applications; Speed-Coat® modules for high-speed intermittent lines; UM50 modules for continuous operations; high-speed, electric E-400U modules and UM3 modules for metering applications. Common Universal parts minimize inventory and simplify service.

A serviceable, surface-mounted elastomeric o-ring prevents leaks. The module screw applies uniform nozzle clamping for a positive hydraulic seal and thorough heating. Nozzles are easily cleaned and withstand repeated handling.

\* Patent Nos. 7,578,882; and 7,647,885

# Universal™ SureWrap® Nozzles

## Specifications<sup>1</sup>

Module Compatibility	All Universal modules
Materials of Construction	Brass with hard-release coating and steel inserts, available in all-steel construction
Nozzle Orifice Sizes	0.51 mm (0.020 in.)
Nozzle to Substrate Distance	Contact
Adhesive Flow	2.5 to 25 grams per minute per orifice
Maximum Add-on Weight	25 to 100 milligrams/strand/meter
Production Speed Capability	100 to 600 m/min (330 to 1968 ft/min)
Adhesive Viscosity	8,000 to 15,000 centipoise (10,000 centipoise recommended)
Operating Temperature	70° to 205° C (160° to 400° F)
Air Consumption	0.07 to 0.21 scfm per strand
Air Pressure <sup>2</sup>	0.3 to 1.5 bar (5 to 21.8 psi)
Working Hydraulic Pressure	13.8 to 55.2 bar (200 to 800 psi)
Maximum Hydraulic Pressure	89.6 bar (1300 psi)

<sup>1</sup> Results are typical and may vary based on specific adhesive and application.

<sup>2</sup> Dependent upon desired spray pattern (regulation supplied by customer).

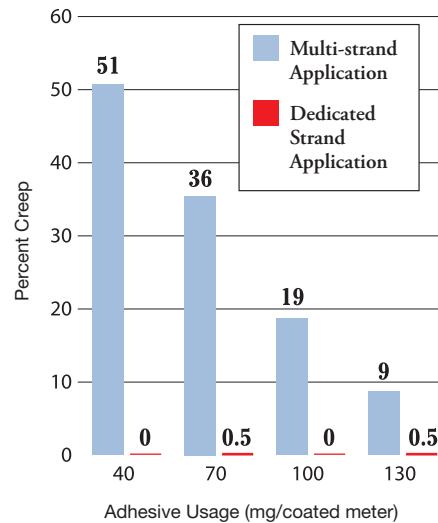


Patented integral strand guides featuring hard wear inserts.



Nozzles detach easily without removing modules.

## Comparison of Creep Performance



In leg elastic attachment, adhesive applied on individual elastic strands significantly improves creep resistance compared to multi-strand spray coverage.

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

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