

# Intermittent Signature® Spray Nozzles

Accommodate demanding applications with clog-resistant spray nozzles for hot melt adhesive intermittent coating applications.

Signature spray nozzles:

- Support demanding high-speed intermittent applications
- Produce dense, random patterns
- Resist clogging for higher product yield
- Dispense in multiple orientations
- Reduce process costs and overspray

Patented Signature spray nozzles produce random hot melt adhesive patterns with dense, uniform coverage for demanding nonwovens, web coating and product assembly intermittent coating applications. Random patterns yield consistent bonding, tolerate process parameter changes, and help improve product quality. For personal hygiene products, random patterns enhance appearance and hand.

Each nozzle extrudes adhesive through multiple orifices where process air jets randomly oscillate filaments in machine and cross-web directions to produce random 22- or 25-millimeter patterns without heavy or light areas. The unbroken adhesive filaments provide a cleaner operation that reduces maintenance. Spraying farther from webs produces superior clog resistance that maximizes production uptime for higher product output.



The durable all-steel nozzles are available in 1/4, 1/2, 3/4 and full-width versions to meet specific pattern requirements. Non-handed partial-width nozzles orient for left or right coverage, reducing inventory requirements. Nozzles operate in multiple orientations, including horizontal, and dispense farther from webs, improving web routing and serviceability.

Tight edge control of  $\pm 2$  millimeters ( $\pm 0.08$  in.) provides close edge coverage to help improve product quality, avoid contamination of machine rollers and guides, and minimize adhesive waste. Efficient use of process air reduces overspray.

Signature spray nozzles are compatible with all Universal series modules to extend existing equipment investments. Maximum intermittent performance is best achieved with Universal Speed-Coat® modules. Less demanding applications can be accommodated with cost-effective UM22 and UM25 modules. UM3 modules may be used for metering applications.



# Intermittent Signature® Spray Nozzles

## Specifications

|                                     |   |
|-------------------------------------|---|
| Module Compatibility                | All Universal modules   |
| Materials of Construction           | Stainless steel base, clamp and shims; steel fasteners and elastomeric seal |
| Edge Control                        | ±2 mm (±0.08 in.)   |
| Nozzle Orifice Sizes (22 and 25 mm) | 0.3 x 0.4 mm (0.012 x 0.016 in.)  |
| Nozzle to Substrate Distance        | 20 to 40 mm (0.8 to 1.6 in.)  |
| Adhesive Flow                       | 10 to 100 grams per minute per nozzle @ 5000 cps                            |
| Adhesive Fiber Size                 | 50 to 100 microns   |
| Maximum Add-on Weight               | 14 GSM @ 300 m/min, 7 GSM @ 600 m/min                                       |
| Production Speed Capability         | 10 to 650 m/min (33 to 2,132 ft/min)  |
| Adhesive Viscosity (Recommended)    | 1,000 to 6,000 centipoise   |
| Operating Temperature               | 70° to 205° C (160° to 400° F)  |
| Air Consumption                     | 0.5 to 2 scfm per nozzle  |
| Air Pressure (Typical)              | 0.5 to 2 bar (7.5 to 30 psi)  |
| Working Hydraulic Pressure          | 5 to 20 bar (74 to 294 psi) at nozzle                                       |

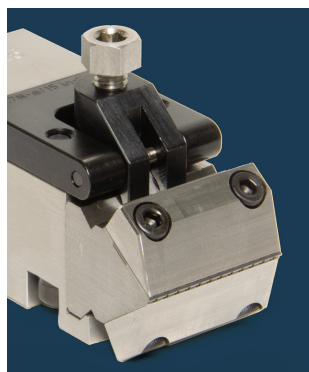


*A greater nozzle-to-substrate distance decreases exposure to airborne contaminants that can compromise performance.*

| Number of Adhesive Orifices |               |               |
|-----------------------------|---------------|---------------|
| Coverage                    | 22 mm Nozzles | 25 mm Nozzles |
| 1/4                         | 3             | 3             |
| 1/2                         | 5             | 6             |
| 3/4                         | 8             | 9             |
| Full                        | 10            | 12            |



*Patented porting of process air, (both parallel and angled) to the adhesive output produces random, continuous filaments with excellent cutoff.*



*Intermittent Signature nozzles are compatible with Universal™ modules.*

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

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