



IntelliJet Jetting System

Jet at the Speed of Innovation

In the race to meet the demands of advanced semiconductor packaging, speed and precision are not optional—they're essential. The ASYMTEK IntelliJet® Jetting System with ReadiSet® Jet Cartridge delivers ultra-high-frequency, high-accuracy dispensing performance engineered specifically for wafer-level underfill, fine-pitch components, and high-density assemblies. With jetting speeds up to 1.8 million dots per hour, self-calibrating intelligence, and up to six times the actuator life of conventional systems, IntelliJet enables manufacturers to achieve higher throughput, longer production runs, and unmatched reliability—across every shift, every line, every time.

Jet Faster. Jet Smarter.

The IntelliJet Jetting System:

- Dual-simultaneous jetting on the ASYMTEK Vantage®, Forte®, and Spectrum® II Series dispensing platforms
- Readiset Jet Cartridge for quick, easy cleaning and replacement – saves time and money
- Market-leading piezo stack longevity and warranty
- Integrated self-calibration adjusts for consumable wear and setup-to-setup variations for consistent performance
- An advanced valve design built on decades of jetting experience across a wide range of applications

*IntelliJet valves and Readiset Jet Cartridges are covered by US Patents 9,346,075; 9,808,826 and 10,646,893 and other patents granted or pending in the US, Asia and Europe.

Setup to Jetting in Under 10 Minutes

With the patented Readiset Jet Cartridge, maintenance and cartridge changeover is quick and easy. The Readiset cartridge is removed from and re-installed into the jet body in seconds, minimizing dispenser downtime.

Each IntelliJet jetting system includes two Readiset Jet Cartridges, so one can be used in production while the other is cleaned. The system is so simple to use that you can learn and be ready, set, and jetting in less than 10 minutes.

Wafer-Level Underfill – Faster, Smaller, More Reliable

Jetting up to 5,000 dots over a 10-second interval and up to a maximum frequency of 1000 Hz enables higher flow rates and line speeds than ever before. Wafer-level package underfill can be completed in a quarter of the time while achieving consistent and reliable small dots.

6X the Lifespan of Conventional Jets

As dot sizes shrink, higher frequencies are required to maintain desired flow rates. This leads to rapid wear of jet actuators and consumable parts. Running at maximum frequency and duty cycle, conventional jets can expend their entire one-billion-cycle life in only seven weeks, but the IntelliJet system has been tested to last up to six times as long.

Built-In Precision for Consistency at Scale

Self-calibration features integrated into the jet and dispensing platform further account for setup variation and wear of consumables over long production runs.

Coupled with ASYMTEK's patented closed-loop process controls, target dispense weight is automatically maintained. As part of the Vantage, Forte, and Spectrum II dispensing platforms, the IntelliJet system produces consistent and reliable high yield across multiple production lines and long production runs.



Decades of Experience. Trusted Worldwide.

With decades of jetting experience and thousands of jets currently in production, Nordson is committed to providing innovative solutions for all dispensing needs. Our global support network, including state-of-the-art application development labs, provides world leading know-how and application expertise.

Diverse Applications

- Wafer-level packaging
- Panel-level packaging
- Underfill on high-density boards
- Camera module assembly

Actuator and Cartridge Details

Size	33W x 120H x 89D mm
Reservoir sizes	3 cc, 5 cc, 10 cc, 30 cc, 2.5 oz, and 6 oz
Maximum duty cycle	5000 dots/10 second interval
Maximum cycle frequency	1000 Hz
Valve cooling pressure	138 kPa (20 psi)
Maximum heater set point	100° Celsius
Cartridge changeover time	~30 seconds
ReadiSet Jet Cartridge types and sizes	<ul style="list-style-type: none"> • Standard cartridge • Stinger tip cartridge <i>Available in a range of sizes for target dot weights</i>
Consumable parts	ReadiSet Jet Cartridge and fluid feed tube
Platform compatibility	<ul style="list-style-type: none"> • Vantage Series • Forte Series • Spectrum II platforms

Dual-Simultaneous Jetting

Run two IntelliJet Jetting Systems on the Vantage or Forte Series dispensing platforms. With dual-simultaneous dispensing, two identical valves dispense repeated patterns of the same fluid simultaneously.

Dual-simultaneous jetting is ideally suited for applications with multi-up, panelized, or patterned parts with consistent spacing.

Dispense time is at least twice as fast with dual-simultaneous dispensing compared to single-jet dispensing, resulting in higher units per hour without the need for an additional dispensing system.

Maximum Uptime with Minimal Effort

The IntelliJet Jetting System features the patented 2-piece Readiset Jet Cartridge for quick, easy cleaning and maintenance. The Readiset cartridge enables you to fine-tune the jetting process and reduce your cost of ownership through minimal maintenance downtime and reduced consumable costs. The Readiset Jet Cartridge separates easily into two parts for cleaning in an ultrasonic bath with solvent or IPA. A wide range of cartridge sizes is available, spanning from 0.5 nL to 300 nL dot sizes.



Standard Readiset Jet Cartridge

Form fits function with the 2-piece Readiset Jet Cartridge that features a fully visible fluid path, is ultrasonic compatible, and offers easy access for efficient day-to-day cleaning.

Replace entire cartridges, entire sub-assemblies, or piece parts as needed.



Readiset Jet Cartridge with Stinger Tip

The Readiset Jet Cartridge with stinger tip includes all the benefits of the standard cartridge and improves access to substrates in the z axis, reduces satellites, and is compatible with tilt and rotate.

Save on maintenance cost with the efficient nozzle design that let's you replace just the nozzle tip — separate from the lower assembly.

Ready to take your dispensing performance to the next level? The world's top electronics manufacturers trust Nordson's industry-leading jetting technology and unmatched global support network to deliver precision, reliability, and results—at scale.

Whether you're optimizing high-volume production or solving a complex packaging challenge, our experts are here to help.

Share your specifications, and let's build a solution that drives your success.

For more information, visit our website to find your local regional office or representative. We have several global locations to serve you.

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The logo features the word "Nordson" in a bold, blue, sans-serif font, with a blue swoosh above the letters "o" and "d". To the right of "Nordson" is the phrase "Electronics Solutions" in a smaller, blue, sans-serif font. A thin blue horizontal line is positioned below the text "Electronics Solutions".