

DispenseJet® DJ-9500 Jet

High-speed jet dispensing

Features and Benefits

- **Jets a wide range of fluids including underfill, silicones, encapsulates, conformal coating, UV adhesives and conductive epoxies**
- **Fast – jetting eliminates z-axis motion**
- **Accurate – jetting is highly repeatable**
- **Easy to use and maintain**
- **Dot diameter as small as 200 µm (0.008 in.)**
- **Optional fluid pre-heaters for low- and high-flow rate applications**



The new DispenseJet® DJ-9500 is Nordson ASYMTEK's latest jet design that further expands the list of jettable fluids for a wider range of applications. Incorporating over 15 years of jetting experience, the DJ-9500 jet provides even more capability than its DJ-9000 predecessor.

Nordson ASYMTEK's jetting technology offers many advantages over traditional needle dispensing to deliver speed, quality, flexibility and low cost of ownership. Common needle problems are eliminated (no bent needles, no chipped die, no effects from product warpage, and more).

Speed: Patented “Jet-on-the-Fly” technology (U.S. Patent 5,711,989 & 5,505,777): In operation, the jet “flies” over the part or substrate, and shoots precise volumes of fluid in dots, lines and patterns. High flow rates up to 400 mg/second; high shot rate up to 200 dots per second; no Z-axis motion. Closed-loop fluid heating ensures constant viscosity throughout the fluid path, even at the highest flow rates.

Quality: Patented Calibrated Process Jetting (CpJ) (U.S. Patent 6,173,864) closed-loop control maintains consistent dispense volume. High wet-dispense accuracy; smaller wet-out areas; round, uniform dots; improved line quality with no “dog-bones” and improved knit line.

Flexibility: Patented “Dot-on-Dot” process technology (U.S. Patent 5,747,102): Jetting multiple shots in the same location creates large & small dot sizes with a single hardware set. Low cost of ownership: new wear component materials provide 10-times lifetime improvement. Advanced nozzle design further expands the list of compatible fluids and opens the jetting process window. Lines and complex shapes are constructed from adjacent dots. Robust jetting in the most extreme 24/7 production environments, up to 4000 UPH for flip chip underfill. Various configurations are available to meet specific application requirements..

You'll benefit from jetting capabilities beyond traditional needle dispensing:

- Jets in tight spaces as small as 175 µm.
- Small fillet sizes as small as 250 µm.
- Dot diameter as small as 200 µm.
- Shot volumes as small as 1.0 nanoliter.
- Jet stream size as small as 50 µm.
- Slim design increases dispense area.

Specifications: DJ-9500 Jet

Typical applications

Flip chip, chip scale package (CSP) & BGA Underfill
No-flow underfill
Phosphor filled silicones for bright white LEDs
Die attach materials
Conductive adhesives and epoxies
Thermal interfaces
Stacked die adhesives
UV-cure adhesives
Conformal coating
Fluids used for flat panel display assembly
Many fluids from 1 to 250,000 mPa (cps)
Contact Nordson ASYMTEK for the current list of jettable fluids.

Jet

Weight: 400 g (without syringe)
Syringe: 5, 10 or 30 cc or 6 oz cartridge
Platform compatibility: Spectrum™ S-900 series;
DispenseMate® D-5xx series; Spectrum™ S-820 series;
Axiom™ X-1000 series

Pressures

Valve: Air solenoid pressure: 6.0 Bar (85 psi) minimum
Fluid pressure: 0.3-2 Bar (5-30 psi)

Nozzle

Orifice diameter: 0.050 to 1.00 mm (0.002 to 0.039 in.)
Minimum shot size: 1 nanoliter = 1 microgram of water

Service

Offline cleaning: approximately 10 minutes.
Cleaning fluid: solvents compatible with the fluids being dispensed (as specified by the material supplier)
The DispenseJet® valve comes equipped with a protective case, cleaning kit, spare seals and nozzles, seat, needle, and fluid feed tube.

Consumable parts

Seals, nozzles, seat, needle, and fluid feed tube

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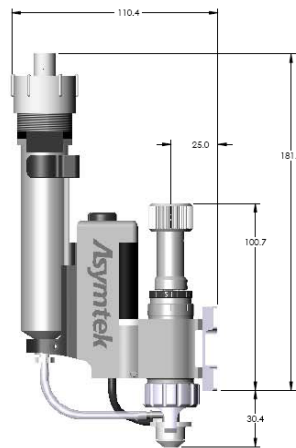
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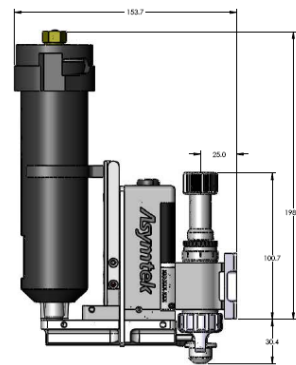
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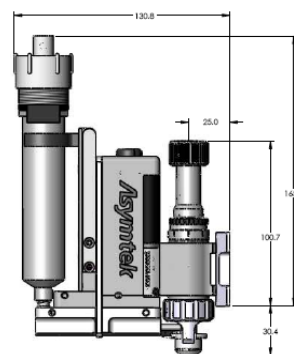
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Standard DJ-9500 with disposable feed tube



DJ-9500 with optional high flow fluid pre-heater



DJ-9500 with optional low flow fluid pre-heater

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

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