

# ASYMTEK 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  $\mu\text{m}$  (0.008 in.)
- Optional fluid pre-heaters for low- and high-flow rate applications

ASYMTEK's DispenseJet® DJ-9500 jet expands the list of jettable fluids for a wider range of applications. Incorporating over 20 years of jetting experience, the DJ-9500 jet provides even more capability than its DJ-9000 predecessor.

**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 and 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 will benefit from jetting capabilities beyond traditional needle dispensing:

- Jets in tight spaces as small as 175  $\mu\text{m}$
- Small fillet sizes as small as 250  $\mu\text{m}$
- Dot diameter as small as 200  $\mu\text{m}$
- Jet nozzle size as small as 50  $\mu\text{m}$
- Slim design increases dispense area

# Specifications: ASYMTEK DispenseJet DJ-9500 Jet

## Typical applications

- Flip chip, CSP, and BGA Underfill
- No-flow underfill
- Phosphor filled silicones
- Die attach materials
- Conductive adhesives and epoxies
- Thermal interfaces
- Stacked die adhesives
- UV-cure adhesives
- Conformal coating
- Many fluids from 1 to 250,000 mPa (cps)

## Jet

Weight: 400 g (without syringe)

Syringe: 5, 10, or 30 cc or 6 oz cartridge

Platform compatibility (base model): All Nordson ASYMTEK dispense platforms

## Pressures

Air solenoid pressure (valve): 6.0 Bar (85 psi) min.

Fluid pressure: 0.3-2 Bar (5-30 psi)

## Nozzle

Orifice diameter: 0.050-1.00 mm (0.002-0.039 in.)

## Service

Offline cleaning:

Approximately 10 minutes

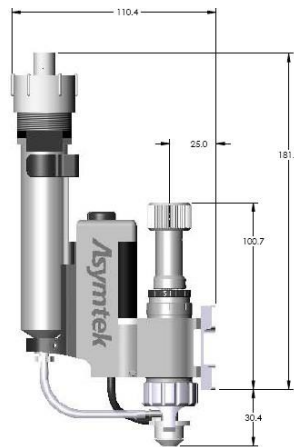
Cleaning fluid:

Use only solvents compatible with the fluids being dispensed, as specified by the material supplier

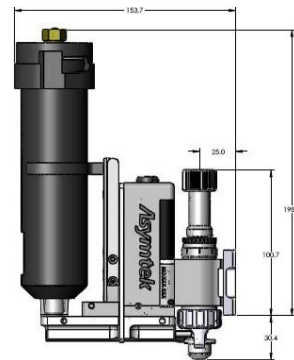
Valve comes equipped with a protective case, cleaning kit, spare seals and nozzles, seat, needle, and fluid feed tube

## Consumable parts

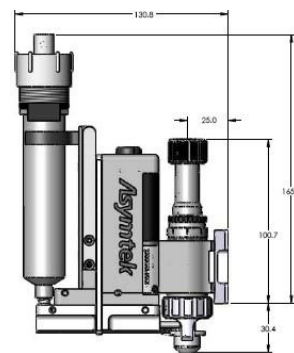
Includes: seals, nozzles, seat, needle, and fluid feed tube



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

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