

ASYMTEK Viscosity Control System

Precision Temperature Control for Consistent Coating Performance

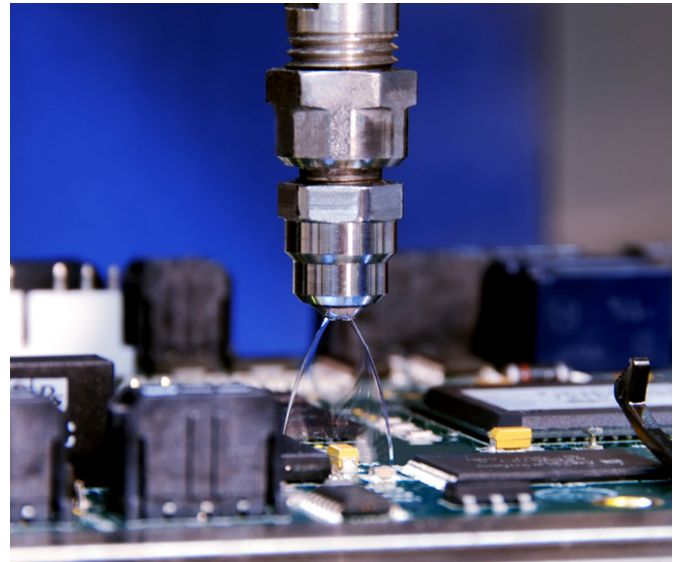
Features and Benefits

- Closed-loop heated recirculation — Ensures stable, repeatable viscosity
- Precise temperature control ($\pm 1\text{ }^{\circ}\text{C}$ / $\pm 1.8\text{ }^{\circ}\text{F}$) — Delivers uniform coating results
- Continuous fluid recirculation — Reduces viscosity variation from temperature or material changes
- Real-time temperature monitoring — Automatically maintains optimal conditions
- Volatile-material-rated design — Meets rigorous safety and compliance standards

Maintain consistent viscosity in your conformal coating processes with the ASYMTEK Viscosity Control System. The system uses a closed-loop, heated, recirculating fluid circuit to precisely monitor and control temperature, minimizing viscosity variation. This controlled approach can also help reduce Volatile Organic Compound (VOC) emissions, depending on the coating material.

Viscosity fluctuations often result from ambient temperature changes and variations between material lots. Left unchecked, these changes can compromise coating quality, performance, and process consistency on printed circuit board assemblies.

The ASYMTEK Viscosity Control System addresses these challenges by stabilizing the temperature of the coating fluid throughout the delivery circuit. Fluid is continuously heated and recirculated while process conditions are closely monitored to maintain predefined setpoints. Precise closed-loop control and an integrated over-temperature alarm ensure the coating material reaches the valve at a tightly regulated temperature of $\pm 1\text{ }^{\circ}\text{C}$ ($\pm 1.8\text{ }^{\circ}\text{F}$).



Operators define acceptable process limits within ASYMTEK EasyCoat[®] 6 software. If temperature drifts outside these limits, the system automatically generates an alarm—helping prevent defects and protect product quality before issues occur.

When combined with ASYMTEK Laser Fan Width Control, the system enables automated verification and adjustment of coating parameters with no operator intervention.

Safety is built into the system design, with components engineered to meet stringent standards for use with volatile materials. This ensures reliable, secure performance in demanding manufacturing environments.

ASYMTEK Viscosity Control System

Specifications

Standard conditions	Operating flow	0.38 to 0.76 l/min (1.0 to 0.2 gal/min)
	Operating temperature	40 to 50°C (104 to 122 °F)
	Operating pressure	138 to 276 kPa (20 to 40 PSI)
Pump	Max air supply pressure	689 kPa (100 PSI)
	Operating pressure range	138 to 689 kPa (20 - 100 PSI)
	Max viscosity	300 cPs
Fluid heater	Voltage	200-240 VAC
	Power	500 Watts
Temperature control	Closed-loop, process temperature feedback	± 1 °C (±1.8 °F)
	Over-temperature alarm	
	RTD temperature sensors	
Certifications	CE	
	BASEEFA approved heater	

Note: System operating conditions are material dependent.

Valves

- ASYMTEK SC-280 Select Coat® Film Coater

For more information, visit our website to find your local regional office or representative.

We have several global locations to serve you.

North America
Asia Pacific
EMEA

www.nordson.com/electronics
info-electronics@nordson.com