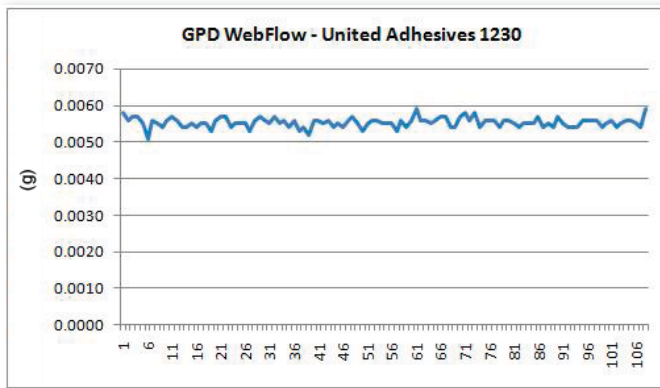
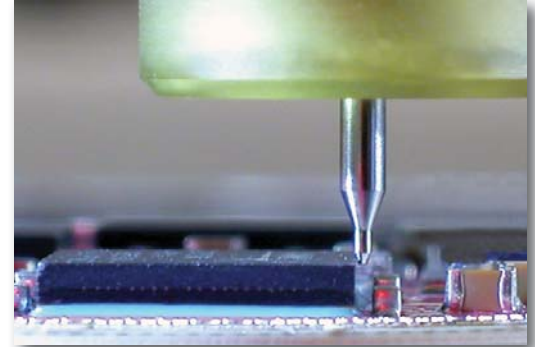


# WebFlow™

## Low Viscosity Fluid Dispense Technology

GPD Global®'s patent pending WebFlow™ sets the standard for low cost underfill dispensing. With its patent pending design and flow pattern, WebFlow™ accurately controls the flow of low viscosity materials, particularly for underfill. WebFlow™ is able to dispense from 2 mm above the substrate, rivaling jetting technology.

Valves equipped with WebFlow™ generate uniform fluid flow that allows the dispense tip to be up to 2 mm (0.080") above the substrate surface with excellent directional accuracy. In underfill dispensing this high dispense height allows the fluid flow to be closer to the component or die edge while eliminating the possibility of contact from the dispense tip. The small internal diameter of nozzles for WebFlow™, typically 0.005" to 0.008" (0.127 mm to 0.20 mm), generates a very precise flow of fluid that quickly wicks under the target component. Since we are not impacting the material with high pressure, there is no chance of satellites or material artifacts across the board.



WebFlow™ has exhibited exceptional repeatability over multiple shots of material. Repeatability of +/- 0.3 mg is easily achieved for target weights of 5 mg. When coupled with GPD Global® Process Calibration, the system will compensate for changes in material by automatically adjusting the dispense characteristics. This method ensures that the material is consistent from shift-to-shift and day-to-day.

Maintenance of the WebFlow™ system is very easy. Remove the dispense cartridge via our standard tool-less methods. Easily pull the auger from the cartridge and remove the dispense nozzle and WebFlow™. WebFlow™ units can be cleaned by placing them in a bath of solvent - typically alcohol, acetone, or other material supplier approved solvent. Once cleaned, WebFlow™ is ready to go. When used in a high volume production environment, it is recommended that WebFlow™ be replaced weekly. WebFlow™ is a single unit that can be replaced without set up or calibration. Highly trained technicians are no longer required to clean and maintain your high volume production dispense valves.

WebFlow™ is available on new GPD Global® LX Auger Valves or as an upgrade to your existing system. Please make inquires with the GPD Global® Sales department to confirm material compatibility and to receive an upgrade proposal.

