

JABIL

Fluidics

Enabling Product Innovation with Macro- and Microfluidic Expertise

When an automatic machine pours coffee with cream, the quality of the drink depends on a number of fluidic effects—including turbulence and convection.

In Microfluidics, the dominant physical effects differ slightly. Two very-small (μl – pl) volumes of liquid mix through diffusion rather than turbulence. The understanding of these effects is crucial and enables designs e.g. of fuel-cells or labs-on-chip. Leveraging these behaviors for product innovation can be extraordinarily complex.

Diverse Applications

Jabil expertise with macro- and microfluidic technologies, combined with our complementary experience with advanced assembly, precision mechanics, materials technology, and microelectronics, enables diverse products that handle liquids:

- Pharmaceutical delivery systems
- Fuel cells
- Coolers for PCB assembly and data centers
- Foodstuff dispensers
- Printheads for additive manufacturing
- Hemodialysis systems
- Diagnostic elements such as lab-on-chip

Fluids in these devices range from water and soda to blood, fuel, and pharmaceuticals, all with various levels of volume, viscosities, colloid content, and acidities. And the devices themselves are built with diverse materials, including silicon, glass, and plastics, each with their own particular characteristics when interacting with fluids.

In addition to fluidics architecture, design, and implementation, Jabil is highly proficient in test and measurement and regulatory compliance.



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Learn about all Jabil design, engineering, manufacturing, packaging, and supply chain capabilities at www.Jabil.com.