HELI-FLOW® PUMP

SERVO-CONTROLLED AUGER PUMP

The DV-8000 Heli-Flow® pump features interchangeable cartridges for use in high flow rate encapsulation and lid seal applications, allowing each pump to work with several different fluid types. The DV-8000 has a fixed-head design for use with high-viscosity fluids and high flow rate for fast dam writing.

Typical applications for the DV-8000 include thermal grease, silver epoxy, and lid seal and dam materials. In a typical dam writing application, the DV-8000 pump improved flow rates by 40% when compared to a DV-6000 pump using a comparable test setup.

The feedscrew and cartridge are made of carbide for long-life operation and are interchangeable with DV-7000 cartridges (note that only the DV-7000 can use footed cartridges).

The quick-release cartridge design of the DV-8000 makes cleaning easy. Simply press the quick release lever to remove the needle and cartridge. No tools are required. To use a different fluid type, simply change the cartridge, needle, and disposable fluid line.

Asymtek's other auger pump – the DV-7000 with its floating-head design – is ideal for footed needle applications, like dots of solder and silver paste. Both pumps cover a wide range of dispensing applications to provide flexible process solutions.



FEATURES & BENEFITS:

- Ideal for high-speed dams and lines of Encapsulants, silver epoxy, lid seal, and thermal grease
- Tool-free disassembly of wetted parts for quick and easy cleaning
- Fast cartridge changeover
- Cartridges are interchangeable with DV-7000 pumps
- Closed-loop motor control with encoder feedback ensures high repeatability and precision dispense control
- Long-life carbide cartridges
- Powerful 11-watt motor and two gear box options (19:1 standard and 4:1 for highflow applications) are designed for use with thick fluids



DV-8000 PUMP SPECIFICATIONS:

Dimensions Length: 190-192 mm (7.48-7.56 in.)

Width: 33 mm (1.3 in.)

Depth: 72.6 mm (2.86 in.)

Air pressure 34-552 kPa (5-80 psi, 0.7 -5.5 bar)

required Depending on fluid, higher viscosities require higher pressures

Motor Closed-loop control with encoder feedback on the dispensing platform

Encoder resolution: 0.0095 degrees of rotation per encoder, providing

excellent small-shot resolution

Two gear-box options: 19:1 standard, 4.4:1 for high-flow (200 mg/s)

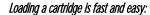
for high-viscosity materials

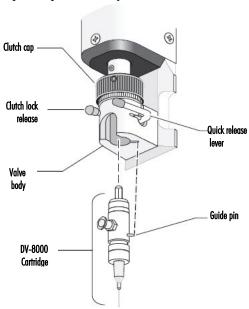
Flow-rate Flow rate depends on fluid, needle, valve speed, and syringe pressure

range Minimum volume displacement allows pump to dispense dots smaller

than 0.5 mm in diameter

Maximum flow rate capability for damming material is well over 100 mg/s (viscosity 1 M centipoises, specific gravity 1.76)





DV-8000 PUMP CONFIGURATIONS:

Model	Description	Application
DV-8222 16-pitch carbide	2.5-mm diameter feedscrew	Small dots on DV-8000 pumps; low flow rate
DV-8322 16-pitch carbide	3.5-mm diameter feedscrew	Encapsulants
DV-8321 8-pitch carbide	3.5-mm diameter feedscrew	General purpose encapsulation
DV-8331 8-pitch carbide	3.5-mm diameter feedscrew	High flow rates
DV-8442 16-pitch carbide	4.5-mm diameter feedscrew	Highest flow rate, for high flow-rate dams and lid seal



