

Zenith H-Series Pumps...

Precision Dispensing In Hot Melt Adhesive Applications

Adhesives provide a low-cost, effective method for joining various substrates. Applied by either a dispenser, spray nozzle, or hand held gun, an adhesive joint offers better stress distribution, superior fatigue resistance, and greater strength over traditional bonding methods.

Industry Challenge

The most common concern facing adhesive users is uneven spraying or dispensing. Reciprocating pumps, such as diaphragm or piston pumps, produce a flow that varies in both pressure and volume. To compensate, additional adhesive must be applied to sufficiently coat the target areas. Overspraying and overdispensing cause excessive material waste and increased manufacturing costs.

Other concerns when applying hot melt adhesives are high viscosity, high operating temperature, and pump accuracy. The viscosity of hot

melt adhesives is generally about 500 poise with operating temperatures ranging from 300 to 400°F. Pump accuracy is critical when dispensing precise amounts of adhesive to a specified area.

The Zenith Solution

The pump of choice for dispensing hot melt adhesives is typically a positive displacement gear pump. This high-precision pump must offer the capability of pumping high viscosity fluids and be able to operate at high temperatures. Zenith precision metering pumps provide pulseless metered flow to an applicator while generating the necessary pressure to meet system requirements.

How You Benefit

Precise, Consistent Flow—A typical hot melt adhesive machine includes a melter with the capacity for mounting one to four pumps. By installing a Zenith precision metering



Zenith HPB Pump (shown) or H-9000 Provides greater uniformity and product stability

pump to each mount, the hot melt adhesive can be accurately metered to the applicators. The result is a precise, smooth, and consistent flow which virtually eliminates costly over-spraying, over-dispensing, and wasted material.

Increased Throughput—To increase throughput while minimizing operating, manufacturing, and maintenance costs, a Zenith planetary metering pump can be mounted directly to the applicator and fed by a low cost transfer pump. Up to 32 metered streams are available from a single pump, greatly increasing throughput.

Improved Quality—Manufacturers and users of adhesive dispensing machinery can vastly improve quality and reduce waste with the use of Zenith precision metering pumps. Throughput can be maximized while minimizing the size, complexity, and maintenance of existing or new adhesive machinery.



Zenith offers a complete line of H- and Planetary-Series pumps and metering systems to handle hot melt adhesive applications.

Zenith[®]
Pumps