

Account spotlight

MEDICATION DELIVERY



THE INITIAL CHALLENGE

To satisfy the demand of patients with T1 Diabetes, a high-tech medical device company began development of an easy-to-use miniature insulin delivery pump that functions much like a smartphone. The innovative pump needed to deliver a slow, continuous supply of basal insulin to control blood glucose levels at a rate as low as 1 microliter/hour. Additionally the pump needed to deliver a quick bolus dose of insulin during meals or when the patient's blood glucose levels are elevated—with doses as low as 0.1 microliters.

The stringent performance qualifications of the miniature device would push the engineering and manufacturing limits of the customer as well as their entire supply chain. The molding partner selected needed to meet the following criteria:

- » Dedicated engineering staff to help troubleshoot during the initial design phase of the pre-production launch
- » Extensive quality engineering capabilities to meet their rigorous (IQ/OQ/PQ) qualification and documentation requirements
- » Experience with fluid handling and other drug delivery related devices
- » Proficiency with manufacturing micro molded components given that some product features were as small as 0.010" with less than a 0.001" tolerance in multi-cavity tooling ranging up to 32 cavities

STRATEGIC SUPPLIER PERFORMANCE

- » 100% YEAR-OVER-YEAR ON-TIME DELIVERY PERFORMANCE
- » 100% PRODUCT TRACEABILITY THROUGH CAVITY-PRESSURE MONITORING
- » TENS-OF-MILLIONS OF PLASTIC COMPONENTS SHIPPED ANNUALLY
- » LARGEST GLOBAL INJECTION MOLDING SUPPLIER

CUSTOMER RESPONSE

"EXCELLENT customer service. Exactly what I expect in a business partnership. They (Micro Mold and Plastikos) allowed us to meet some very challenging dimensions in multi-cavity tooling. I am not sure we could have accomplished this with any other supplier."

—Jim L. Vice President of Operations



MICRO MOLD, Co., Inc.

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