

Customer Success - Electromoules SE Inc.

Electromoules SE Inc., founded in 1975 and based in Montreal, Canada, designs and manufactures molds for the plastic injection for a variety of industries in the area. The molds the company designs are broad in scope. The Electromoulds product line for medical labware consists of a wide range of products from beakers, Petri dishes, funnels and deep well plates to cryogenic vials and medical cassettes.

The medical products industry poses unique challenges for Electromoulds. Their customers are bound by stringent FDA compliance regulations - leaving no room for error. Products must reach the marketplace as quickly as possible to maximize profits before copycats arrive. In addition, customers are eager to demo new products at medical industry tradeshow throughout the year and often need product prototypes under a tight deadline.

Rapid response to new product development is critical to Electromoulds. As relationships are built with customers, it is common to receive requests for next generation products from earlier designs. Electromoulds found KeyCreator as an ideal solution to manage the extreme precision and efficiency required throughout the mold design and manufacturing process.

"KeyCreator is incredibly versatile, precision-oriented and easy to use," explains Tony Creti, president of Electromoulds. "It gives me all of the functionality of higher-end systems at a fraction of the cost, which is really important since we're a small company."

Tribute to the Fine Art of Mold Design

One of the most challenging projects for Electromoulds involved designing biopsy processing cassettes. One of his longstanding customers, is a Canadian manufacturer of plastic products for the medical field (Laboratories & Hospitals).

They approached Creti for the design and construction of a new mold for a disposable plastic cassette to hold biopsy specimens to be studied or stored in medical laboratories. Historically, these cassettes used steel mesh or sponge to hold the sample inside; however, samples often fell through. In addition, this added a costly 2nd step to the assembly process.

Electromoulds' job was to design and manufacture a more efficient and cost effective cassette mold. The first of its kind in North America, it was comprised of over 1,000 holes, each of which was only 1/100th of an inch (a human hair is 1/300th).

Design and development of these cassettes involved a complex, multi-part mold and multi-machine process. Separate molds were created to make up the base and cover of the cassette. For the most complex model, Electromoulds had to design and machine an eight-cavity mold for both the base and cover - a project that required 82 separate pieces to make up the eight cavities alone.

The base and cover of the cassettes would be put together on an automatic assembly line, so Electromoulds could not afford even the most miniscule flaw. Any deviation could cause distortion of the mold during assembly.

This new concept took two years to move from R&D to production, with multiple revisions and modifications between Electromoulds, Simport and its medical laboratory clients. The geometry-based tools and technology in KeyCreator made this design collaboration effortless.

Electromoulds continues to use KeyCreator to develop breakthrough ideas for the medical products industry. The company can be found at www.electromoulds.com.