Manufacturing Efficiencies Ensure Recovery Speed

Mass production of parts usually involves injection molding along with significant time to market. But the time and development involved with injection molding proves prohibitive when only low-volume orders are placed, which is the case for medical pre-production and production of a device. What's a medical products company to do?

This was the question Mako Surgical faced when developing its second-generation Tactile Guidance System, an advanced robotic-arm solution for minimally invasive orthopedic knee procedures. Because of the different parts the Mako robot required and because of the small quantities needed during this pre-production stage (100 over the course of a year), injection molding was not an option due to the cost of tooling.

ThermoFab helped Mako with the manufacturing of the second-generation robot by enhancing the design to make it a sleeker and more service-friendly model. ThermoFab reviewed Mako's original designs and their expert engineers provided suggestions. Mako's manager of robotic design, Brian Schmitz, says, "ThermoFab was very responsive and very open to view our designs without a commitment to the shop."

ThermoFab manufactured all of the coverings based on Mako's design and ensured that the fits and materials would work well in production. ThermoFab's manufacturing process—which creates a product that can hold tighter tolerances, yet without the long lead times associated with the injection molding process—worked well with Mako's vision for its product. Further, Mako needed 16 different parts that ThermoFab was able to turn around in about 12 weeks. Finally, ThermoFab has an on-site paint shop, allowing it to finish the product to specific color and silk-screening requirements. This saved the client significant time.

Information: www.thermofab.com *[1].*

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