DEVELOPING PRECISION METAL PARTS FOR MEDTECH COMPANIES

Phillips-Medisize provides the in-house facilities to design, test and manufacture the most difficult and often most costly components of medical devices. Two specialty methods of metal part production offer device developers a lower cost alternative than traditional techniques without sacrificing structural capabilities or geometric complexity.

Magnesium Thixomolding (MAG) and Metal Injection Molding (MIM) are ideal metal-forming methods for tight-tolerance medical applications.

Our experts can guide leading medical device companies through design for manufacturing (DFM) best practices, mold tooling development, and quality assurance (QA) on final-production metal parts.

Each year, we produce millions of commercially successful products for MedTech companies of all sizes.

MAGNESIUM THIXOMOLDING (MAG) CAPABILITIES

Thinner, lighter and stronger parts vs. engineered plastics and die casting

Magnesium thixomolding ("thick-so-mold-ing") is a type of injection molding that uses a specialized alloy of magnesium as the raw material. This alloy has unique properties like light weight, high strength, rapid heat dissipation and inherent EMI/RFI shielding capabilities. These properties make magnesium tixomolding well-suited for medical components, providing many advantages:

- Cost efficiency
- Durability
- Tight tolerances
- Premium quality output
- Complex shapes
- Superior finish

We cover all the steps—from concept to component production to certified product.

METAL INJECTION MOLDING (MIM) CAPABILITIES

Producing metal parts with all the advantages of injection molding

Metal injection molding gives product designers an expansive palette of metal types and alloy options for parts that require special properties, such as temperature or corrosion resistance, or added conductivity or strength.

This technique can create complex, precision parts for 50% less cost than that of 5-axis CNC machining and achieves faster, higher-resolution surface finishes than investment casting.

- Excellent surface finish
- Superior corrosion resistance
- Complex metal geometries
- High-strength end products

We give you a head start and reduce the risks in your medical device project.

INNOVATIVING CAPABILITIES

Let us collaborate on design, development and manufacturing of your life-changing innovation

We find a path to commercialization for great design ideas. Custom part production is a common hurdle for new healthcare devices. Techniques like MAG and MIM have clear advantages, although the complexity of these processes requires specialized expertise and equipment. With 25 years of injection molding experience and comprehensive in-house laboratories, our experts can guide the way through unfamiliar terrain.

We develop advanced tech for cardiovascular, health, urology robotic surgery and wearables.

DESIGN FOR MANUFACTURING

Our engineering teams work with customers during the concept stage to optimize the design.

By designing components with MAG or MIM tooling in mind, part count and assembly time are reduced, resulting in overall cost savings.

AUTOMATED LABORATORY TESTING

For parts to maintain repeatability and structure, precision measurement and monitoring of output is paramount. We offer an in-house metallurgy lab providing the complete range of material characterization services.

Full geometric inspection with Statistical Process Control (SPC) is available for all components. These capabilities allow us to maintain tight control of all aspects of the injection-molding process.

MEDTECH DESIGN AWARDS

- Best Overall Connected Healthcare Solution, Breakthrough Award 2019
- Best Innovation in Drug Delivery, Pharmapack Award 2019
- Diagnostic Products and Systems, Medical Design Excellence Gold Award

You have ideas for empowering patients and improving lives. We can help.

Phillips-Medisize, a Molex company, has extensive experience collaborating with companies to develop drug delivery, diagnostic or MedTech devices end to end, from design to a final manufactured product— quickly and efficiently.

READY TO GET STARTED?

Contact us to learn how we may be able to support you

Phillips Medisize
a molex company