



EXOTHERMIC
REACTION INJECTION MOLDING

- Large, sculpted parts can be molded economically.
- Variable thickness walls allow for greater design freedom.
- Closed molds produce accurately molded and structurally strong parts.
- Lower tooling cost and shorter tooling lead time.
- A wide variety of material properties including UL94VO.
- Electronic components can be encapsulated.
- Metal parts can be encapsulated.

RIM parts are lower cost than the same parts made from metal or fiberglass.

Composites - RIM parts can be reinforced with many materials.

Exothermic capabilities:

- CAD Engineering Review
- Mold Design
- Mold Manufacture
- Mold Repair/ Modification
- RIM Molding
- Precision Painting
- Silk Screening
- Assembly

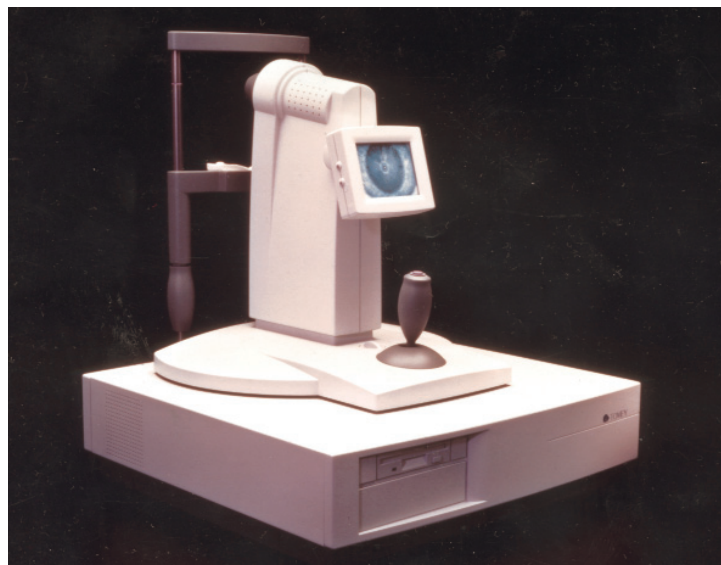
ISO 9002 Compliant

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RIM Replaces Sheet Metal for Medical Device; Reduces Cost by More Than Half

Replacing an aluminum sheet metal housing with solid polyurethane RIM netted manufacturer Computed Anatomy some impressive numbers: 60 percent reduction in parts, 60 percent reduction in assembly time and 50 percent reduction in price. Ion Design of Edgewater, NJ designed the third generation corneal topographic modeling system and earned a bronze award in the medical instruments category of the Industrial Design Excellence Awards.

Computed Anatomy chose the polyurethane RIM process provided by **Exothermic Molding Inc.** for cost savings as well as properties such as chemical and flame resistance and the ability to withstand high impact. **Exothermic's** manufacturing goals also included improving the aesthetic appeal of the unit for both patients and doctors.



Exothermic designed and manufactured 3 aluminum molds to produce 7 different parts saving thousands of dollars in tooling. Exothermic Molding Inc. also paints, shields, screens and assembles components for their customers.

The TMS-2 is used for measuring and evaluating the corneal surface of the eye. It is typically used by ophthalmologists to gather accurate corneal topographic data for use in vision corrective surgery. The RIM components for the TMS-2 include the base housing, X-Y platform, the tower component that holds the imaging head, housing for the monitor, and a small bump under the joystick.

The reduced wall thickness, made possible by the RIM process at **Exothermic Molding**, helped in reducing cost as well as in fitting all of the equipment's components into a smaller space. RIM also provided the designers the ability to incorporate compound curves, softening the look of the equipment.

"The redesign of this third generation instrument was for manufacturing reasons," said Roy Maus, Vice President of Computed Anatomy. "We want to eliminate as many parts as possible and make the TMS-2 less expensive to produce. The switch from sheet metal to solid polyurethane RIM made it possible."

Exothermic molding delivers large, lightweight RIM parts quickly ... at competitive prices.