

- 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

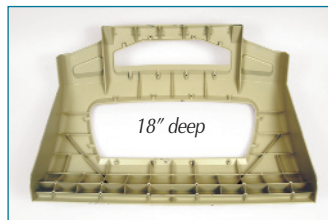
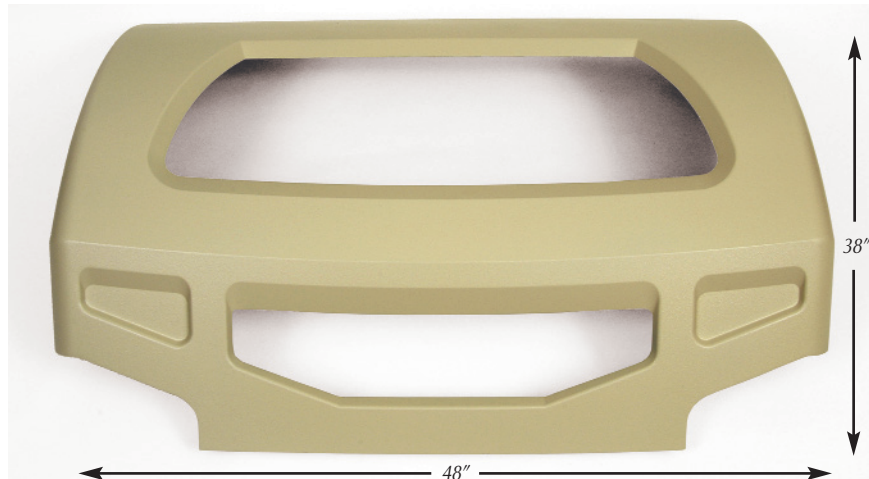
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RIM Replaces Sheet Metal and Fiberglass; Cuts Cost by 85% While Improving Quality, Productivity

Speedline Technologies has built a reputation as an industry leader in the development of product solutions for the electronics and semiconductor industries. Their cutting edge solutions to complex manufacturing challenges have helped many manufacturers bring their product to market.

Speedline has a great deal of experience designing large hoods used in the production of printed circuit boards. Until they discovered **Exothermic Molding** and the **RIM** process, the hoods (48" x 38" and 18" deep) were manufactured from either sheet metal or fiberglass, but each material had some serious drawbacks.

Sheet metal, used initially, posed many design limitations. Sheet metal cannot accommodate compound curves, is very heavy and requires a strong substructure which also adds cost and weight. The extra weight not only adds to manufacturing and shipping costs, it poses a potential safety



*The above hood produced by **Exothermic Molding**, and the **RIM** process provided numerous benefits including cost and weight savings, and improved accuracy and repeatability.*

hazard in the event the hinged hood was to close on someone. In addition, the unit cost was prohibitive - over \$1,500 per hood.

Speedline replaced the sheet metal with fiberglass, but it too proved ineffective. Since fiberglass employs an open mold, as opposed to the closed molds used in **RIM**, it has poor part to part repeatability. The inconsistency compromised the quality of the hoods and the fiberglass is difficult to prepare for painting. The cost was still a substantial \$750 per hood.

Speedline turned to **Exothermic** for its experience and knowledge of the **RIM** process. The **RIM** hood made by **Exothermic Molding** replaced the sheet metal and fiberglass at considerable cost and weight savings, while improving accuracy and repeatability. Not only does the **RIM** hood cost under \$250, the improved manufacturing accuracy allowed Speedline to reduce Quality Inspection requirements. **RIM** also allows for significantly more production.

RIM provided designers with more flexibility. The hood includes features such as compound curves, window ports and extensive reinforcing rib structure.

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