

PRODUCTS

Metal-to-Plastic Conversions

Not all materials are interchangeable, but there are many instances in which one material can be used in place of another to save money or improve performance. For example, a well-designed plastic part can often replace a metal part.

ADVANTAGES Replacing metal components with plastic ones can offer some important advantages. Unlike metals, plastic materials can be modified to better suit a particular application, offering increased design options. Parts made of plastic can offer increased physical flexibility as well as equal or greater strength. Of course plastics can be much less expensive than metals, providing significant savings, especially if used in place of aluminum or stainless steel. Weight is another major issue. Plastic parts typically weigh a fraction of the metal parts they replace. Finally, plastics are corrosion resistant. Unlike steel or aluminum, plastics will not oxidize over time. In addition, plastics with good high temperature resistance can be over-molded with rubber. For example, a metal part that includes a rubber seal can very likely be converted to plastic and rubber.

MATERIALS Depending on application requirements, we utilize a wide range of thermoplastic and thermoset resins as alternatives to steel and aluminum. No material — metal, rubber or plastic — will function well in all environments, however. There may be instances in which loading, temperature, chemical, or abrasion extremes make plastics infeasible.

LET US HELP RL Hudson has extensive experience and expertise in the design and production of metal-to-plastic conversions in a wide range of applications and industries. Our designers have the training and sophisticated tools needed to ensure that parts are designed for efficient production and optimum performance. Let us help you explore the opportunities for metal-to-plastic conversions on your next project.

Advantages of Metal-to-Plastic Conversions

- Decreased Weight
- Increased Design Options
- Combined Features
- Equal or Greater Strength
- Reduced Cost
- Corrosion Resistance
- Eliminates Machining

Good Candidates for Metal-to-Plastic Conversion

- Oil System Components (Fill Tubes, Pick-up Tubes, Oil Pans)
- Cooling System Components
- Tanks
- Covers (Access Covers, Shrouds)
- Brackets

