The
Industrial Molding
Corporation

Thought Leadership Series

A collection of leading edge thinking for the Plastics Industry's manufacturing community.

How To Conduct A Needs Analysis

By
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Industrial Molding Corporation

Not all suppliers are created equal. Here's a simple process to help purchasing professionals tell who is for real and who cannot "walk the talk." Conducting a needs analysis before you send a project out for quote will save you time, money and aggravation.

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Estimating Your Project
Before we quote a job, we host tech reviews with members of your design staff to fully understand how our components will fit into your overall application. We utilize our considerable experience in single piece flow, automation concepts, cavitation to support you requirements, manual/automatic quality assurance systems, and plastic alternatives as the basis for constructing the quotation. We develop what we believe will be the single best way to manufacture your components/assemblies.

Design For Manufacturability (DFM) and Early Engineering Design Assistance
Many of the critical decisions that affect the long-term performance of a project often occur long before input from manufacturers can occur. These design decisions often "lock-in" aspects of the project that may be difficult or costly to work around as the project is developed. Decisions made during this critical phase of a project can determine 70% of the cost of the product. Even more importantly, decisions made in the first 5 % of product design often determine the vast majority of the product's cost, quality and manufacturability. As a result, our customers get us involved early in the design process.

"Customers often find that the earlier they get us involved in the design process, the greater the potential will be for significant cost reductions and dramatic improvement in speed to market."

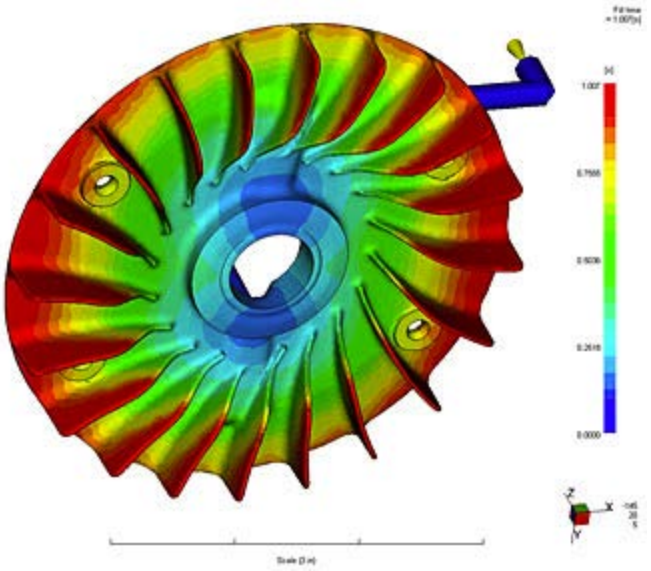
Industrial Molding Corp. utilizes a structured Design for Manufacture process to evaluate our customers' project. The objective is to minimize cost and optimize quality, reliability and performance on new, as well as existing products. Some elements of the review include:

- Is the plastic selected the most cost effective choice for the product's operating environment?
- Can the number of parts in a design be reduced?
- Can some metal components be converted to plastic components
- Does the product geometry offer the best situation for manufacturing and up-front tool cost?
- Can the assembly process be further fool-proofed?
- Can the design include modular products to facilitate assembly?
- Can value-added secondary operations occur during the molding cycle?

- Can mating parts be joined as one molding operation, eliminating assembly?
- Will our mold design address all critical dimensions?
- Can high cost packaging be eliminated or utilized further down the manufacturing process?

Modeling and Flow Analysis Services

2D and 3D modeling may be needed to clarify some aspects of the project. Industrial Molding Corp. offers professional grade modeling services for this purpose. In some cases, Mold Flow Analysis (MFA) may also be needed to predict the molded characteristics of the product before samples are available.



Prototypes

Product designers, application engineers, and entrepreneurs are often in need of initial samples for 3D visual representation of a new component, or to test new components in the application prior to finalizing designs. These early samples are commonly referred to as “prototype” samples. Many prototype options are available and your supplier should be able to offer you several alternatives.

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