

Title:

Rapid Prototyping Revolution

Word Count:

307

Summary:

In the past, any new consumer or industrial product part brought to market had to first have a prototype built to ensure that the design could be properly applied and used by the manufacturer. Years ago, these were often wooden miniatures and clay models. More recently, laser-sintering technology has allowed plastic samples to be built from CAD/CAM electronic drawings and powdered resin.

Keywords:

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Article Body:

In the past, any new consumer or industrial product part brought to market had to first have a prototype built to ensure that the design could be properly applied and used by the manufacturer. Years ago, these were often wooden miniatures and clay models. More recently, laser-sintering technology has allowed plastic samples to be built from CAD/CAM electronic drawings and powdered resin.

The newest trend is called rapid prototyping. Advancements in machining speed and flexibility combined with sophisticated electronic computer interfaces allow for cost-effective, exact metal sample parts or molds for plastic injection parts.

Technical and application engineers at Makino, a global provider of advanced machining technology, say that such advanced machining technology permits companies to cut manufacturing steps. These eliminated steps are primarily created because steel can now be milled as quickly and cost-effectively as aluminum or other lighter materials.

Such progress allows mold builders and other manufacturers to actually develop applications which can be utilized immediately to make more products. This allows their customers to get new products to market faster.

Many other kinds of prototypes don't carry the real properties that the customer

is trying to simulate. Most rapid prototypes are made from the raw material intended for the final product, which makes it identical to what is actually going to be put in production.

Customers can get a hardened steel or prehardened steel part or mold in five or six weeks versus 10 or 12 weeks from previous processes. This is a timesavings they appreciate in an effort to get their product to market faster and less expensively.

Technological advancements like CAD and other sophisticated computer interfaces can positively combine with state-of-the-art machine tools that are accurate, rigid and stable in order to achieve maximum results. Customers can save up to two-thirds of the total time originally required by more traditional mold building processes.