



Mishimoto Automotive



About Mishimoto Automotive

Established in 2003, Mishimoto Automotive is the world's leading manufacturer of aftermarket performance cooling products such as radiators, racing thermostats, and intercoolers for daily drivers, track cars, trucks, and bikes. Mishimoto makes about 150 new products a year, all meant to replace stock vehicle parts with better, higher performing products, so that their customer can move faster. Mishimoto does all its engineering and design in-house at its New Castle, DE, headquarters.

MakerBot Success Stories

Challenges

Mishimoto is always pushing to make their process faster and more efficient. "Moving faster is everything to us," says Jeremy Godin, vice president of production at Mishimoto. In 2011, when Godin joined Mishimoto, products could take as long as two years to develop and come to market. To prototype new parts, engineers worked with cardboard and sheet metal. "A lot of the times that method fell short, because you can't simulate complex geometry with basic sheet metal parts," says product engineer Steve Wiley.

Mishimoto had a Stratasys Dimension uPrint, but the disposable build plate was often too small for their needs, and materials were costly: roughly \$800 for five spools of ABS.

The Solution

Earlier this year, Mishimoto bought a MakerBot Replicator® Z18 3D Printer, with a massive build volume of 11.8" x 12" x 18" and a sturdy build plate. The MakerBot PLA Filament for the Z18 costs just pennies a gram. The ability to iterate on a cost effective 3D printer allows Mishimoto engineers to prototype quickly and more freely, almost like they are sketching.

Benefits

The MakerBot Replicator Z18 allows Mishimoto to 3D print larger parts in a single piece. Regular use saves the company time because engineers can work on other projects while the 3D printer makes a model. More time allows for quicker iteration of multiple versions, for a more refined design. A refined model can be made to scale and fit to the vehicle before going straight to manufacturing. The whole process cuts the

development time significantly and can get products to market six to eight weeks ahead of the competition.

Given that 30% of Mishimoto's product prototypes involves 3D printing, the speed-to-market advantage adds up to hundreds of thousands of dollars in additional sales each year. On that basis, the team says, the MakerBot Replicator Z18 "will pay for itself."

About MakerBot

MakerBot, a subsidiary of Stratasys Ltd. (Nasdaq: SSYS), is a global leader in the desktop 3D printing industry. Founded in 2009 to make 3D printing accessible and affordable, MakerBot now has one of the largest install bases and market shares of the desktop 3D printing industry, with more than 80,000 MakerBot 3D printers in the world and a robust MakerBot 3D Ecosystem that combines hardware, software, apps like MakerBot PrintShop and MakerBot Mobile, materials, training, support, and Thingiverse, the world's largest 3D printing community.



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