



The SEMA show is considered the biggest annual trade event in the US for after-market automotive parts manufacturers, delivering a lot of excitement, and offering opportunities for exhibitors to reveal key new products and methodologies to the market. For the

2013 event, EGR, a major global manufacturer in the automotive aftermarket accessories, revealed many new products. Aware that many of these parts had not yet been tested on the market, EGR didn't want to risk the cost of expensive tooling and production lines. Instead, they looked to 3D printed parts as a way to easily solve the problems of time and cost.

"No one at the event realized that these weren't final, production parts... but in fact, prototypes," said Malley. "Using the scan-to-design process, then sending that digital data to be printed directly, each part fit perfectly. We got to introduce new products to the market without requiring tooling, and did it in record time."

America, Europe, Asia and beyond, the EGR brand has a reputation for outstanding quality and design and is a key supplier to the leading OEMs around the world. They are a major aftermarket accessories manufacturer producing parts such as fender flares, hood shields and

> window visors, allowing standard cars and trucks to be transformed into impressive and imposing beasts of the roads. For SEMA 2013, the design team had ambitious plans to kit out four vehicles in custom parts in order to highlight EGR's design capabilities, but with limited build time to complete product applications. Additionally, these particular parts were so new they had not yet been market-tested, and

EGR Automotive is a progressive, innovative manufacturer of OEM and aftermarket accessories, who have a long history of success and development with the world's leading automotive companies for the past four decades. Throughout Australia, North would only be revealed first to buyers at the event. The company could not risk the high cost of tooling and production using traditional manufacturing methods, so they turned to 3D Systems' Quickparts Solutions for their 3D printed parts.

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"3D printing is a perfect solution for utilizing our 3D design data rapidly to create the parts we need," said Brett Malley, Product Development Manager, EGR. "The 3D printing technology allowed us to develop products that replicate production parts so effectively that buyers wanted to place orders right there at the show on many of these products."

New parts were created for four vehicles, including the award-winning Hyundai Veloster Turbo "Highlighter." These parts consisted of spoilers, bumper protectors and body kit components. A Hyundai Genesis, Chevy Silverado and Ford Explorer were also given updated appearances using the 3D printed aftermarket parts. "We only had a couple of months to develop these four vehicles," said Malley. "The effectiveness of the rapid prototyped parts combined with EGR's design and manufacturing capabilities, turned out so well that the Veloster was voted as one of the top 10 vehicles at the 2013 SEMA show by Edmunds.com." Using 3D scan data of specific parts of the vehicles, the design team converted that data into various CAD design tools for development of the new products. As soon as they had part designs that met each need, the 3D data was sent to Quickparts for 3D printing using Stereolithography (SLA®) technology.

Three weeks later all the parts were shipped back. From here, each part was sanded, painted, finished and added to the vehicles in time for the event.

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