



Process/Assembly/Enabling Technologies

Robotic Laser Cutting & Welding of TPO Fascia

OEM/Vehicle

**General Motors Co.
2017 Chevrolet Camaro ZL1**

System Supplier

Magna Exteriors, Inc.

Material Processor

Magna Exteriors, Inc. - DexSys

Material Supplier

LyondellBasell

Resin

Hifax TYC1168X TPO

Tooling/Equipment Supplier

Jenoptik AG



A hydraulic punch and sonic welding operation was replaced by robotic laser cutting and welding of a Class A exterior fascia. Unlike other welding processes, it is not necessary to thicken wallstock in weld areas to prevent read-through with robotic laser welding of brackets on the backside of the part, and that reduces weight slightly. It also eliminates the need for contoured horns and punches. Clean cuts can be made in 1 sec on the painted side of the part. The dual-function process provides greater flexibility between programs and reduces floor space and tooling costs.