



Powertrain

Air Intake Manifold with Integrated Water-Cooled Charge Air Cooler

OEM/Vehicle

Fiat Chrysler Automobiles
2018 2.0L Turbocharged Engine

System Supplier

Magneti Marelli

Material Processor

Magneti Marelli

Material Supplier

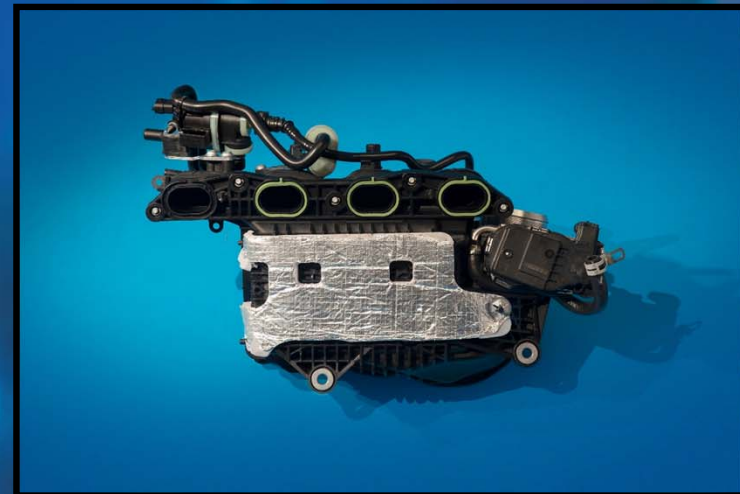
BASF

Resin

Ultramid ENDURE D3G7 PA

Tooling/Equipment Supplier

Magneti Marelli



This air intake manifold, with fully integrated charge air cooler, is a unique packaging solution that enables a common CAC/manifold across multiple applications. The water cooler adds performance over an air-to-air cooler. Operating in a challenging harsh environment and tight packaging, the design has been optimized for light weight and low cost. The manifold was enabled by a high heat resin and innovative use of foam to protect the part from external heat sources.