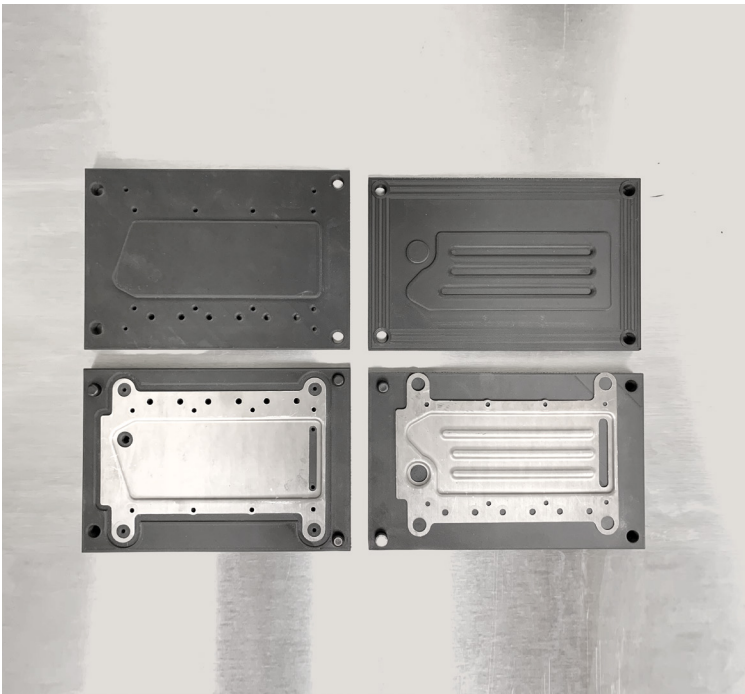




Dana

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|-------------|-------------------------------|
| LOCATION | Ontario, Canada |
| INDUSTRY | Automotive |
| APPLICATION | Die Set |
| PRINTER | X7 |
| MATERIALS | Onyx, Continuous Carbon Fiber |



Dana Incorporated is a Fortune-500 company with a rich 115-year history as a supplier of drivetrain and e-Propulsion systems for the automotive industry. With 36,000 employees in 33 countries and manufacturing facilities all around the world, Dana has invested in additive manufacturing by deploying numerous Markforged metal and carbon fiber 3D printers across their facilities. The Power Technologies business, which is heavily focused on vehicle electrification, designs and manufactures heat exchanges and sealing products for the mobility industry.

Most of the company’s products are made by stamping and forming sheet metal, which are then assembled with heat transfer surfaces before being brazed together. The Power Technologies team found this process to be extremely costly when it came to low-volume fabrication — both in terms of time and money. Each new prototype design requires a custom set of dies, adding excessive costs and long lead times to the design process. When a customer approached the team for a proof-of-concept power electronics cooler, the team utilized their Markforged X7 3D printer to slash costs and deliver the product in record time. Within a week, the team had printed a functional die set using both Markforged Onyx and Continuous Carbon Fiber, and formed the proof-of-concept sample out of stamped sheet metal. This allowed the team to rapidly test products and prepare for customer analysis in a more efficient, scalable way.

