GKN ADDITIVE
FORECAST 3D

General Motors

Partner Success Story

Harnessing AM for Automotive

GKN Additive has been manufacturing parts for General Motors (GM) as either a tier 1 or tier 2 supplier since 2018. During that time, GKN Additive has supplied more than 90,000 parts, using technologies such as HP's Multi Jet Fusion (MJF). The number of parts GM has purchased — and the amount of corresponding revenue — have increased significantly, year over year. Additive manufacturing will continue to play a key role in GM's future production plans and ongoing partnership with GKN Additive.

Spoiler closeout seal

Notable Projects

Spoiler Closeout Seal

In September 2021, GM made a last-minute design change and decided to add a part to its full-size 2022 passenger SUVs to improve dynamics and increase fuel efficiency. If the automaker couldn't quickly obtain the part (a spoiler closeout seal), it risked delaying the delivery of 30,000 vehicles to dealerships by deadline. Thanks to GKN Additive's robust manufacturing capabilities, as well as close partnerships with other suppliers, our production teams were able to provide GM with 60,000 parts in just five weeks — half the time that conventional manufacturing would have required. The project won the 2022 SPE Automotive Division Innovation Award for additive manufacturing.

Cadillac CELESTIQ

In late 2023, GM plans to roll out a customizable electric vehicle: the Cadillac CELESTIQ (pronounced ceh-LESS-tick).

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HONORING THE BEST IN AUTOMOTIVE PLASTICS
2022 AWARD WINNER

GM has stated that this all-electric luxury sedan will include 115 3D printed components. GKN Additive will provide a significant number of parts for this hand-built sedan, which GM is producing at its Global Tech Center in Warren, Michigan (United States).

Parts Shipped to GM (Jan. 2020–Dec. 2022)

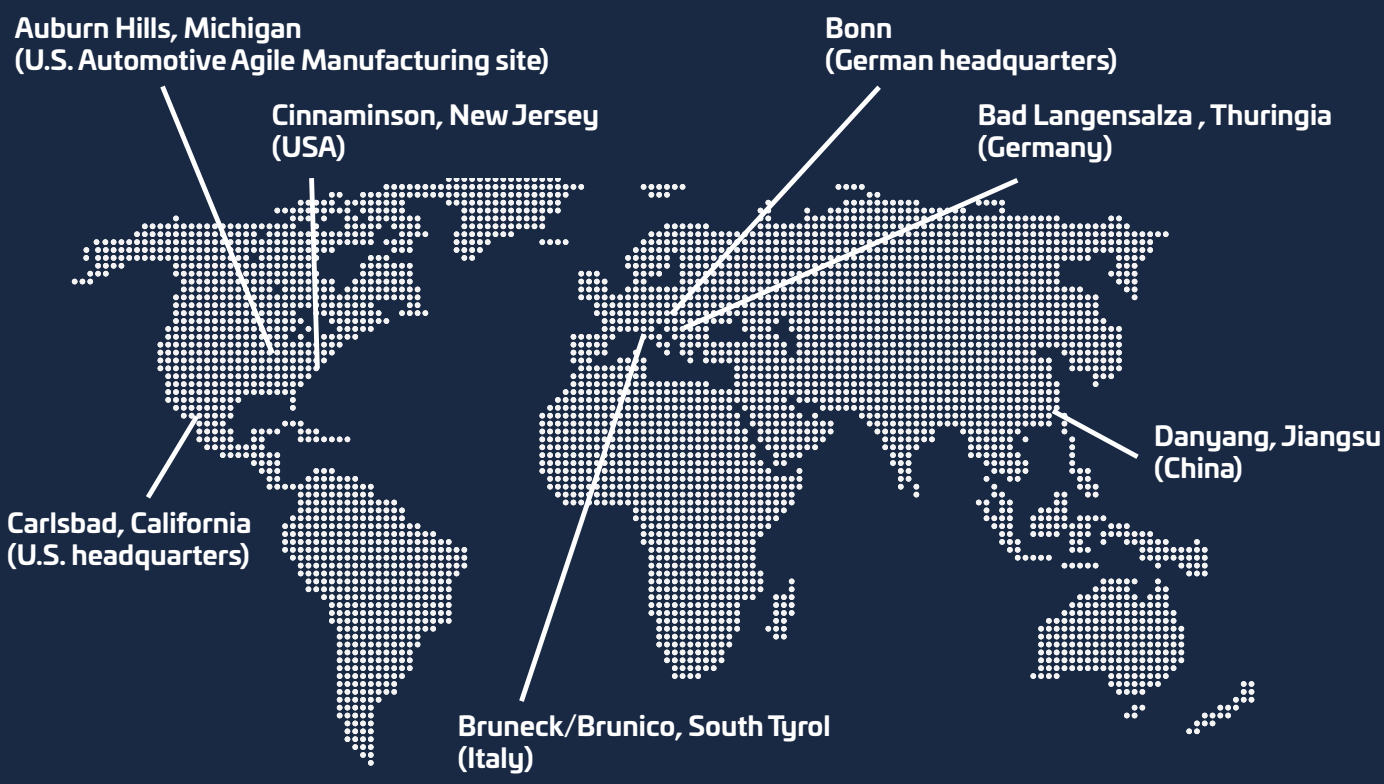
>90,000

Parts from prototyping to production

>1,600

Unique part geometries

GKN Additive Automotive Manufacturing Locations



65+ Industrial additive manufacturing machines globally, supporting metal and polymer applications

7 Locations worldwide that print automotive parts

Why GKN Additive?

Expertise. The engineering and technical expertise of the GKN Additive team can meet the expectations of a demanding and forward-thinking manufacturer such as GM.

Capabilities. GKN Additive offers a range of technologies, providing both metal and polymer parts using IATF 16949 automotive-certified processes.

Speed. Additive manufacturing allows GM to speed its time to market and is tool-free, so the shift from prototypes to serial production is easier.

Technologies.

- HP Multi Jet Fusion (MJF)
- Laser Powder Bed Fusion (also known as Direct Metal Laser Sintering, or DMLS)
- Metal Binder Jetting
- Fused Deposition Modeling (FDM)
- Stereolithography (SLA)

GKN Additive (Forecast 3D) is a digital manufacturer of advanced plastic and metal AM parts, backed by GKN Powder Metallurgy's 260+ years of engineering and production expertise.

Front Cover
2024 Cadillac CELESTIQ

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general motors

GKN Additive (Forecast 3D)

forecast3d.com
+1 (877) 835-6170
2221 Rutherford Road
Carlsbad, CA 92008 USA

gknpm.com/additive
+49 (228) 93350
Pennefeldsweg 11-15
53177 Bonn, Germany