

End-Use SLS Production at Automotive Supplier Brose



Company

Brose is one of the five largest family-owned automotive suppliers in the world. Every third new car is equipped with at least one Brose product. The mechatronics specialist develops and manufactures systems for vehicle doors, liftgates and seats. At Brose North America, the company uses FDM, SLA, SLS, and SLM 3D printing for a wide range of production activities, from prototyping and manufacturing aids to assembly line tools, and end-use parts for vehicles such as the BMW X7.

Overall Additive Capabilities in NA HQ

1. 3x Fuse Series SLS 3D printers
2. 2x Form Series Desktop SLA
3. 2x Form Series Benchtop SLA
4. 3x Desktop FDM

Example SLS Production Schedule

- 240,000 End-Use BMW Clips
 - 1x Fuse Sift (powder recycling)
- 800 End-Use Automotive Gear Covers
 - Timeline: 3 Months

The Challenge

Brose delivers high volume end-use parts for Vehicle doors, liftgates and seat systems to around 80 automotive customers, over 40 suppliers and 50 e-bike manufacturers in the world. Fast change requests and design changes that require new components are more and more frequent in the automotive industry — but tooling for these components does not always match the timelines required by OEM's.

The Solution

SLS 3D Printed Parts Decrease Lead Time and Reduce Costs

A fleet of Fuse Series SLS 3D printers provides an affordable stop-gap solution for end-use production, even for high volumes of up to 250,000 components. Along with production parts, they print on-demand manufacturing aids that reduce costs on the factory floor and provide custom solutions to common problems across the assembly process.



BMW Seat Clips

PROJECT VOLUME:	240,000 part order
PARTS PER BUILD	
CHAMBER:	1,440
PARTS PER MONTH:	16,000



End of Line (EOL) Cord Protector

Damage on the original connector causes downtime in production, and a potential quality claim with the customer.

“Brose decided to bring SLS with Formlabs in-house because the SLS technology allows us a fast and rapid printing technology... we can print higher volume quantities, which is necessary for us to support stop-gap printing or any other OEM-related end-customer parts. ”