

# Brown & Holmes

Use Case – Bespoke fixtures for laser drilling machine

## Customer Profile

Brown & Holmes is a UK-based specialist in work-holding solutions, machining and related products, supplying major companies worldwide with bespoke parts and fixtures. The company's design team works in conjunction with its customers to enact initial concepts and ideas and turn them into reality. At one of the company's sites in Tamworth, such concepts are realized using its Stratasys Fortus 450mc and F170 3D Printers.

## Challenge

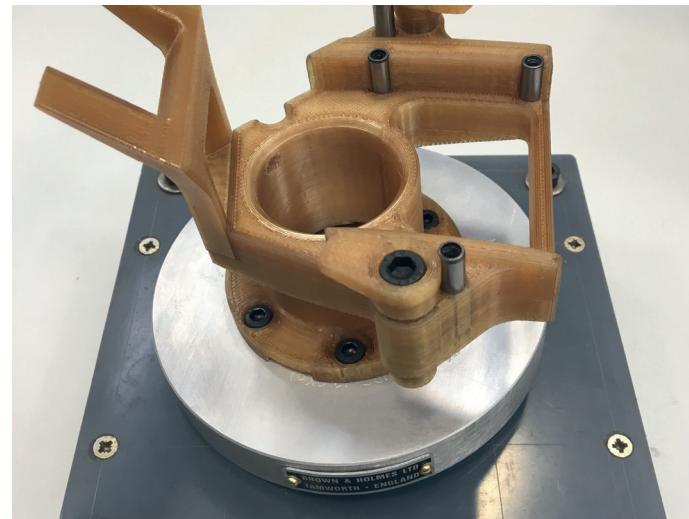
A new laser drilling machine purchased by one of Brown & Holmes' major power generation customers needed a bespoke fixture made of a durable, stable material in very short time. While conventional manufacturing methods, such as welding or milling, have been used in the past by Brown & Holmes to create such fixtures, these processes are associated with lengthy lead times and often expensive outsourcing for specialized parts from subcontractors.

## Solution

Brown & Holmes has fully embedded additive manufacturing into its design and production operations. For the laser drilling machine fixture, the part was 3D printed using Stratasys ULTEM™ 1010 resin, as well as Nylon 12CF – two high-strength thermoplastic materials that can meet the rigorous requirements of production.

## Impact

Additive Manufacturing with the Fortus 450mc and F170 3D printers enabled Brown & Holmes to produce the laser drilling machine fixture in 4-5 weeks. Traditional manufacturing would have taken up to 12 weeks. Additionally, Brown & Holmes was able cut production cost by half compared to its conventional manufacturing methods.



Fixture holding component for laser ablation, designed and 3D printed by Brown & Holmes for a power generation company out of ULTEM™ 1010 resin



The Stratasys F170 is used to print elastomers, while the Fortus 450mc produces high performance materials that can withstand very high temperatures

### Cost Savings



50%

### Lead Time Savings



66% - from 12 weeks down to 4-5 weeks