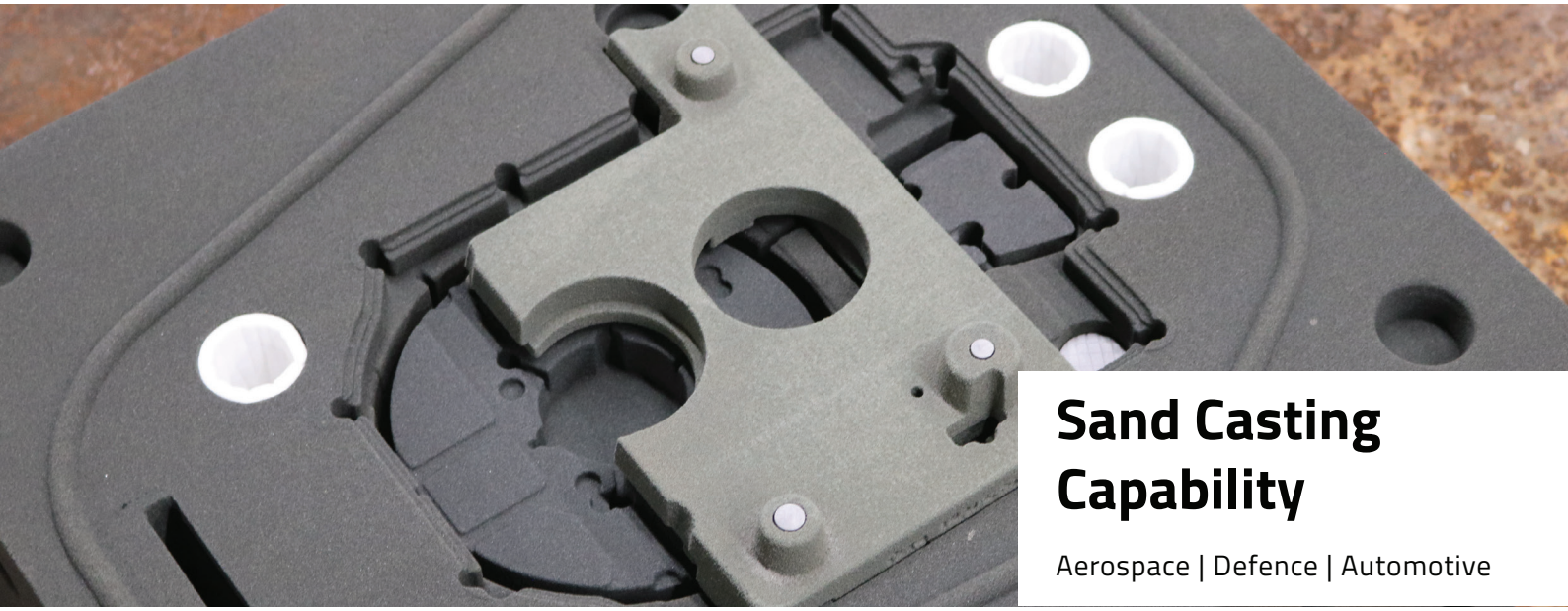
SYLATECH

DESIGN | ENGINEERING | MANUFACTURING



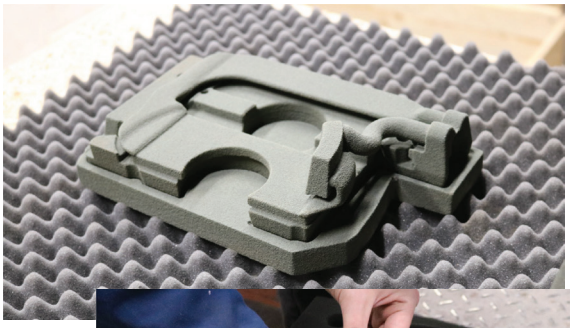
Sand Casting Capability

Aerospace | Defence | Automotive

Hybrid Additive Sand Casting

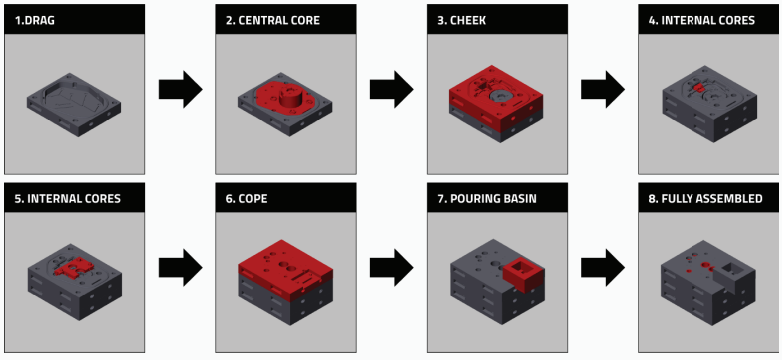
Our sand casting process is enabled through the use of 3D sand printed moulds, and the application of our solution is well suited to customers in the aerospace, defence, motorsports and marine sectors.

Through close alignment with our customers, we ensure sound component development, and every sand casting that we produce undergoes a rigorous NPI (new product introduction) process. This includes the design of precision runner systems, which are fully verified through the use of our in-house computational fluid dynamic casting simulation software.



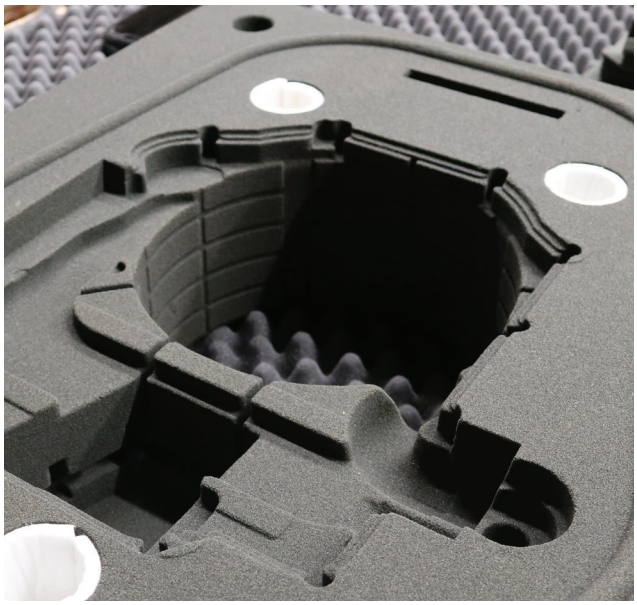
The Pattern Assembly Process

3D sand printed moulds are created in a series of layers, which are then assembled together to form a complete pattern, ready for casting.



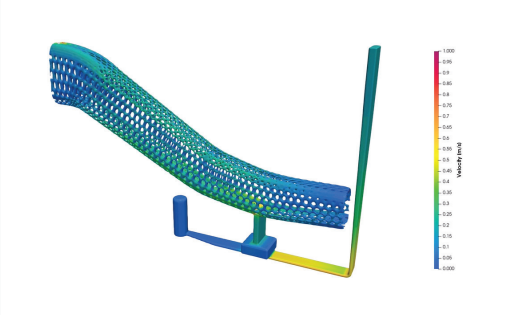
What the Sylatech sand casting process can deliver?

- Unrivalled hybrid additive manufacturing process capability
- Complex components with challenging geometries and mechanical properties
- Design flexibility with in-house pattern making and CAD modelling expertise
- Exacting dimensional accuracy with high-quality surface finish, detail and specification
- A356, A357, C355, RR350 alloys.



Simulation

We utilise a state-of-the-art casting simulation modelling system. This allows our engineers to model and optimise process parameters and enable the optimal design of casting solutions.



Why use the Sylatech sand casting process?

- Aligned with design houses to support innovative component development
- Simplified assembly operations by part count reduction
- Reduced overall costs by designing for volume manufacture
- Production ready prototypes for volume manufacture with digital tooling + simulation
- Reduced time to market. Finished metal parts can be delivered from concept in under four weeks.

Our Design Partners

voxeljet

Providing 3D printed, sand molds and cores without restriction in individualisation, and achieving demanding or complex geometries.

metamorphic

Tailored design engineering services to evolve and accelerate R&D via Additive Manufacturing, computational design, and simulation.