



**Engineering
your future** —

Precision Lost Wax Casting & Hybrid Additive Manufacturing
Capability Overview

Who we are

Sylatech is a precision design, engineering and manufacturing business with a heritage dating back to 1964, delivering custom engineering solutions for our customers.

Who we serve

We have a global customer base across multiple business sectors, and whilst our strategy predominantly focuses on the Aerospace, Defence and Space industries, our specialist process is suitable for parts across multiple business sectors.



Aerospace

Rotating joints and weather radar antennas.



Defence

Power combiners and slotted antennas arrays for surveillance radar.



Space

Integrated waveguide assemblies for satellite payloads.

Sylatech is an established supplier at all levels in the supply chain and holds the necessary accreditations to AS9100 and Nadcap required to operate in these markets.

Our clients



What we do

Hybrid Additive Manufacturing

Our unique hybrid approach to additive manufacturing involves both 3D printing and casting, and avoids the need for tooling. Our process affords engineers valuable design freedom with the ability to scale the production of complex geometry components where tooling would be impossible to create. This directly addresses the limitations of metal additive manufacturing, as components can be manufactured in metal and at volume.

- ▶ **Complex shapes** – intricate geometric forms once considered a manufacturing challenge are achievable. Thin-wall, lightweight and high-quality finish requirements can readily be met
- ▶ **Scalable volumes** – up to 5,000 parts per month with current equipment
- ▶ **Cost-effective** – faster design validation and with no tooling requirements
- ▶ **Design support** – DFAM and CFD modelling support is available
- ▶ **Single source** – concept design to production volume from a single supplier.



Impeller



Wax Printer



Braided Mixer



Prosthetic Finger Assembly



Auxetic Structure

What we do

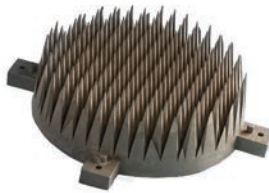
Precision Lost Wax Casting

Our specialist lost wax process affords us the ability to take a customer's concept and achieve reality in a fast and cost-effective manner. By combining our investment casting technology with best practice CNC machining, our capability can overcome many of the constraints placed on engineering design.

The Sylatech investment casting process provides a fast and cost-effective method for both small batches and high-volume quantities. Parts with complex internal and external detail, super-fine surface finishes, and thin-wall requirements, can be produced without the need for machining from solid.



Auxetic Structure



RF Component



Satellite 4 Port Horn

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.

What our customers say —

THALES

“When our existing supplier decided to exit the marketplace for waveguide assemblies, Sylatech’s flexible and responsive technical support, successfully addressed our needs.

Sylatech firmly demonstrated their commitment to help us move a large number of waveguide assemblies and components from an existing supplier, which we very successfully transitioned over an 18-month period.

Sylatech is a highly responsive supplier for both new and existing naval defence radar requirements, and also excels in providing solutions on technically challenging, legacy products, required for spares and repairs.”

Amphenol

“The level of business improvement, training, and investment that has taken place at Sylatech is very impressive. I awarded an overall quality audit score of 91% which is the best that I have ever awarded. Congratulations.”



“Agile, willing, and highly capable. We are seriously impressed by Sylatech’s technology, as a supplier who reacts to our requirements and delivers excellent results.”

DESIGN | ENGINEERING | MANUFACTURING



Ready to innovate together?

Our mission

To engineer the future of our team and customers, through the delivery of world-leading precision engineering solutions, assemblies and components.

Work with us

Sylatech is home to a committed team who hold a shared sense of purpose and are focused on working together to deliver to our customers. Maintaining the spirit of teamwork is at the heart of everything we do, and we encourage involvement to make a difference and achieve success.

As a team we would welcome the opportunity to support in the design, engineering and manufacture of your project requirements.

Let's innovate together and our engineers will bring your project to reality.

Please contact us on engineer@sylatech.com



Engineering
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 @SylatechLtd

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