

Rapid prototyping

Sylatech uses 3D printing to prototype sample parts for its customers, allowing them to test their designs without having to invest in tooling ahead of casting. This yields significant time and cost savings, resulting in fewer future tooling modifications being necessary.



Who we are

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

What we do

We are specialists in the design, engineering and manufacture of lost wax castings and passive RF/Microwave waveguide antennas, subsystems, assemblies and components.

Our unique, in-house, investment casting foundry, excels in the manufacture of small precision components. Our extensive engineering capability also equips us to offer complete engineering solutions for installation to a range of RF/Microwave engineering applications. Together with our design services, we also offer a full build-to-print service to our customer's own product designs.

Our vision

To inspire and create engineering solutions, for this generation and the next.

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.”

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 your future

Aerospace | Defence | Space

- @SylatechLtd
- [linkedin.com/company/sylatech](https://www.linkedin.com/company/sylatech)
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Engineering your future

Precision Lost Wax Casting

Rapid Prototyping | Casting | Assemblies | Components

Who we serve

Operating from the UK, Sylatech has a global customer base across multiple business sectors, with our strategy predominantly focused on the Aerospace, Defence and Space sectors.

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 capability is in demand by customers globally and annually we manufacture over 700 different parts which extend over a diverse array of product applications.



Aerospace

Rotating joints and weather radar antennas.



Defence

Power combiners and slotted antennas arrays for surveillance radar.



Space

Integrated waveguide assemblies for satellite payloads.

Our clients



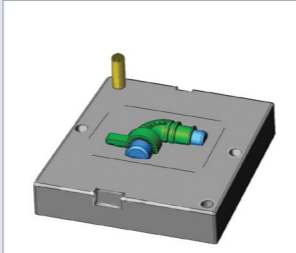
Design

The Sylatech Process

A block moulding version of the Lost Wax Method.

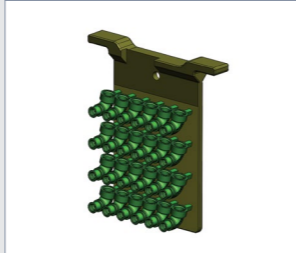
A fine plaster investment is applied under vacuum. The plaster penetrates all external features and fills internal voids to ensure that, as the mould is formed, every detail of the wax pattern is faithfully reproduced.

1 Wax Injection



Wax pattern formed via injection to tool.

2 Wax Tree



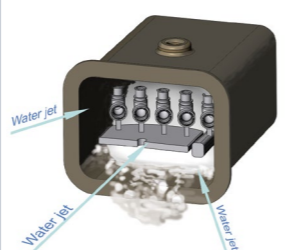
Wax patterns fixed to runner system to form a tree.

5 Pouring



Molten metal poured into the mould with vacuum assist.

6 Wash



Mould material removed and metal tree washed.



Design Capability

Our engineering team are core to our design capability and work closely with customers to optimise the design of their components to suit the casting process. Our collaborative approach to design involves translating detailed technical requirements into a controlled, verified and validated product design.

This can involve testing proof of concept designs, manufactured through rapid prototyping. Our design tools include Solidworks, with our NPI design process based upon the five elements of APQP and PPAP.

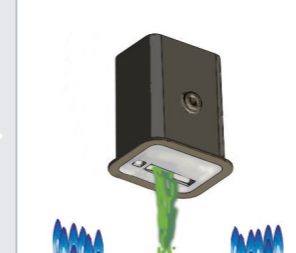
Engineering

3 Investing



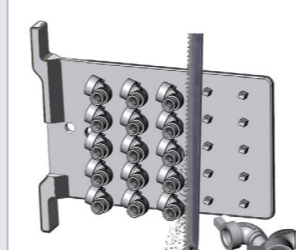
Foundry box filled with plaster in a vacuum chamber.

4 Firing of Mould



Wax melted out and the mould fired.

7 Saw



Cast parts sawn off tree.

8 Machining

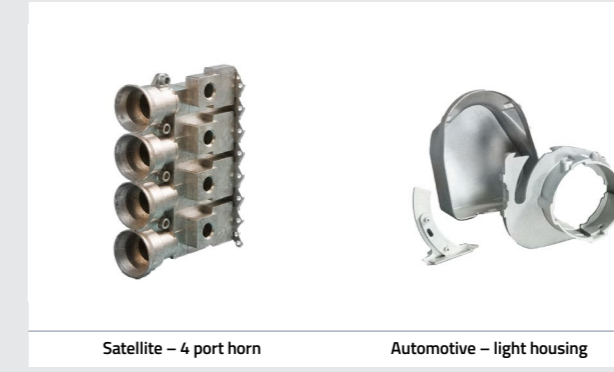


Post casting machining

What Sylatech's AS9100 casting process can deliver

- ▶ Thin-wall castings with a wall thickness as fine as 0.2mm
- ▶ Lightweight parts, as little as 1g
- ▶ Super-fine surface finish of 0.8 micrometres
- ▶ Complex detail on internal and external features
- ▶ Castings with subsequent CNC machining operations
- ▶ In-house tooling capability.

Manufacturing



Satellite – 4 port horn



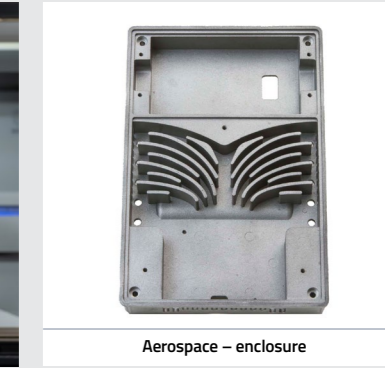
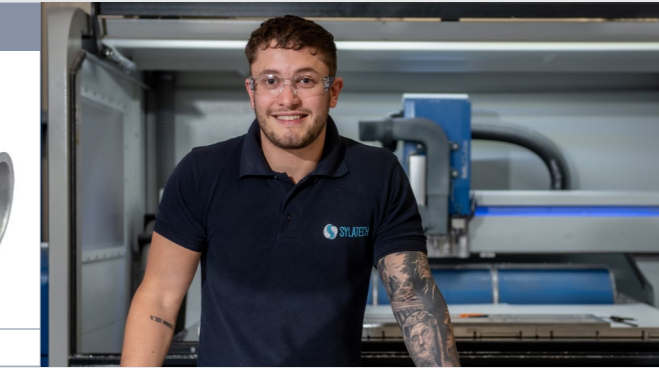
Automotive – light housing



Aerospace – rotating joint



Aerospace – conduit bend



Aerospace – enclosure

Engineering and Manufacturing Capability

A structured methodology is central to our engineering discipline. Our engineers are focused on developing production processes aligned to the products that we manufacture, and work closely with our production team in the delivery of the customer's requirements. Through the implementation of process control and strict adherence to our AS9100 quality management system, we manufacture using our in-house production processes which include casting, CNC machining, chemical processing, painting and final assembly.

DESIGN | ENGINEERING | MANUFACTURING

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