



DESIGN • MANUFACTURE • TEST

hr-smith.com

# WHO **WE** ARE

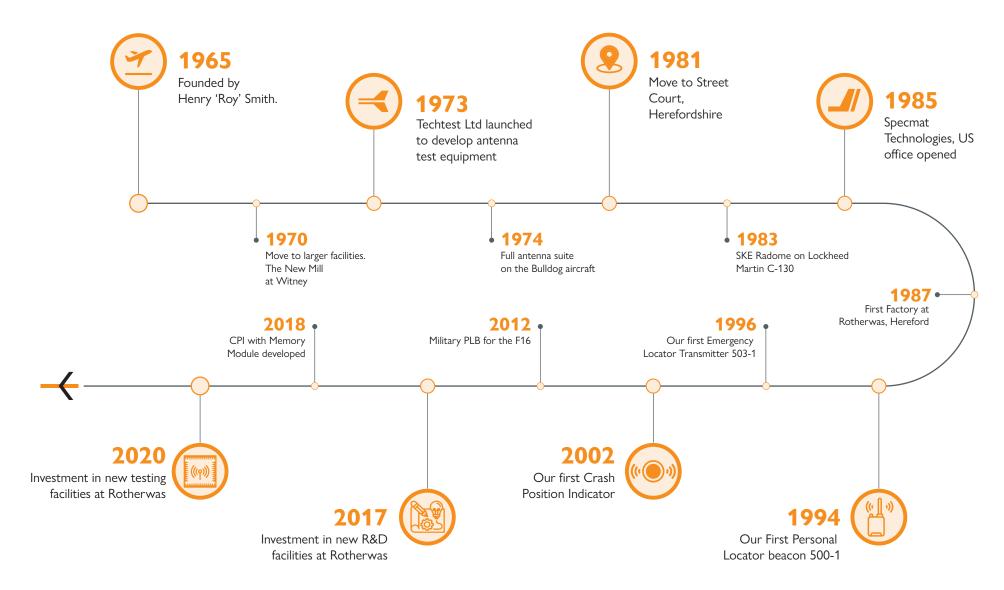
Founded in 1965 by Henry 'Roy' Smith, we are still a British family run company specialising in aerospace engineering and manufacturing.



## A British Family Owned Independent

With over 55 years of experience in the aerospace industry, we are a family-run company that excels in the design, manufacture and testing of aerospace products, including antennas, search & rescue products and test equipment. As a fully vertically integrated organisation, certified to ISO 9001 and EN9100, we continuously invest in expanding our capabilities. Our cutting-edge facilities and skilled workforce, across multiple engineering disciplines, enable us to consistently deliver on projects, from concept to qualification.

## Our History





## The Group



With a core philosophy of continuous investment into capabilities, HR Smith is an established vertically integrated company. Our state-of-the-art facilities and a highly skilled workforce can take your idea from concept to qualification in an efficient time frame. With a team of over 300 employees, we have in-house design, testing and manufacturing capabilities on a single site. What sets us apart is our commitment to innovation, with a high percentage of our revenue consistently reinvested in research and development.



Founded on our RF expertise, we have continued to evolve the world of aerospace antennas, addressing the demands of both the civil and military sectors with a diverse range of products designed to enhance safety and performance. From communication to navigation, to jamming, our antennas are produced to give optimum performance that is maintained throughout the life of the antenna and to withstand the harshest environments.



We understand that when lives are on the line, precision and reliability are paramount, we've committed ourselves to designing search and rescue products, utilising the international Cospas-Sarsat system. From our range of market leading Emergency Locator Transmitters to our Direction Finding systems, we take pride in the development of innovative solutions.



Originally founded to research and develop advanced composite materials for RF designs and aircraft structures. With its headquarters in Rockford, Tennessee, the company now also coordinates all business of the HR Smith Group within the USA and Canada.



## Our Approvals & Certifications

- ISO 9001 Accredited
- AS EN 9100 Accredited
- FAA Approved
- UK-CAA Part 21G Approved
- UK-CAA Part 145 Approved
- EASA Part 145 Approved
- UK-CAA ADOA Approved
- **UK MoD DAOS Approved**
- Cyber Essentials Plus Accredited
- **JOSCAR** Accredited
- Cospas Sarsat (Type approved products)
- UK TSO, ETSO & TSO (Product approvals)















## What We Do

With over 55 years of experience, cutting-edge facilities, and unparalleled expertise, we have the capabilities to take projects from concept to reality.

#### **Our Process**

Our vertically integrated facilities and streamlined processes enable seamless collaboration across the engineering, manufacturing and testing teams. Our in-house testing expedites communication and problem-solving, empowering us to deliver exceptional products more efficiently.



This is where projects are first conceived and the specifications are drawn up. This is a critical step, as it will determine the final product's functionality, aesthetics and cost.

This is where the product, mould or tooling is physically made. This can be manufactured by hand or by machine, and it involves a number of automated and manual steps.

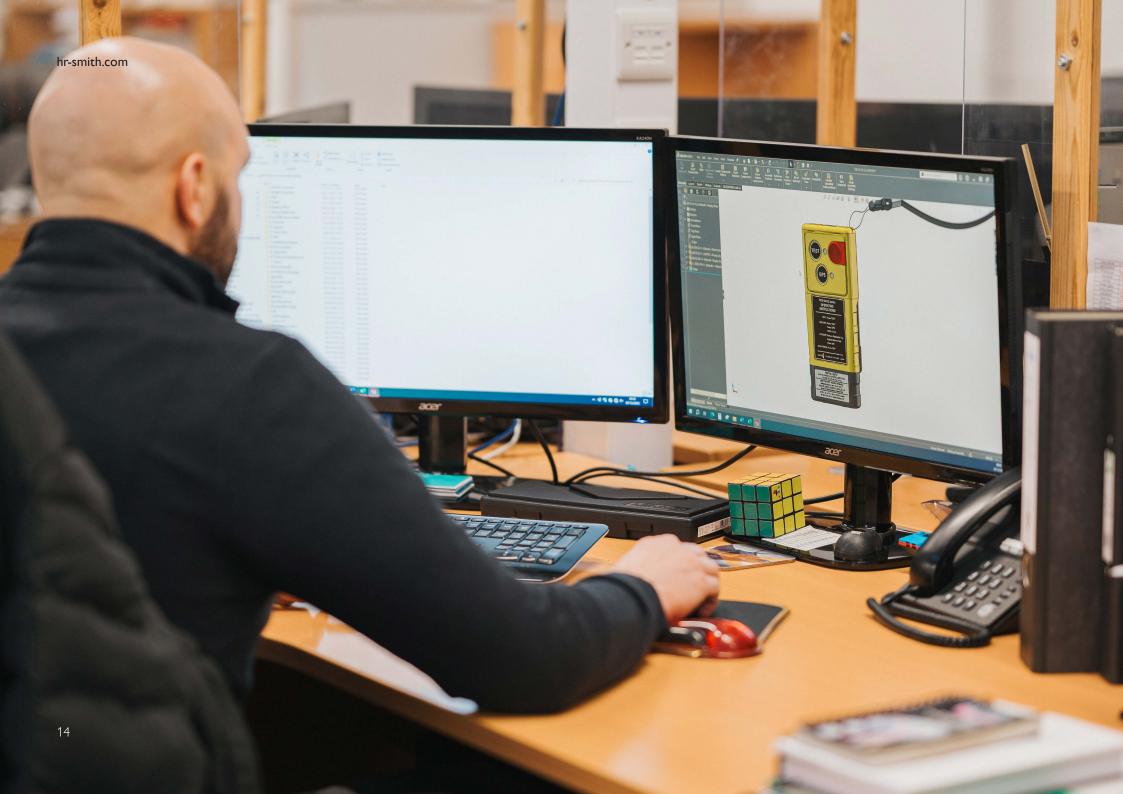
This is where the product is tested to ensure that they meet the required specifications. This can be achieved by a variety of methods, such as functional testing, environmental testing and mechanical testing.



# **DESIGN**

Our commitment to reinvesting into R&D underscores our dedication to innovation, continuously enhancing your aerospace projects.







## Our Multi-Disciplinary Engineering Teams

Our family of qualified design engineers are ready to aid you with your most complex aerospace problems and projects.



### Mechanical Design

- Aerodynamics and Stress Engineering
- Material Sciences
- CAD Design



#### Electronic Design

- Radio Frequency Design
- PCB and Circuit Design
- Digital Design
- Software Design



#### Modelling & Simulation

Our team brings your ideas to life through advanced concept development software. Collaboratively, we not only visualise your ideas but also subject them to rigorous simulations for testing and refinement.

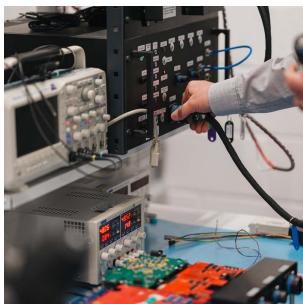
#### Rapid Prototyping Department

We can quickly transform ideas into tangible prototypes, significantly reducing the time it takes to bring new products to market. By rapidly iterating and refining prototypes in-house, we minimise costly delays and external prototyping expenses, ultimately saving resources and optimising development budgets.

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Our R&D Department









# **MANUFACTURE**

As a proud British manufacturer, we meticulously oversee the entire production process from raw materials and components to end product, utilising both manual and automated processes.









## Raw Materials and Components to End Product

We understand the importance of attention to detail, which is why we only purchase a select few components. The majority of our products are crafted in-house, starting from raw materials. This encompasses profiles, connectors, PCBs and we even create the tooling for the moulds.



# Machine, Moulding & Tool Shop

Fully equipped capabilities including:

- Multi-axis CNC machines
- Injection moulding
- Compression moulding
- Lathes
- Custom tool & jig production
- Metal forming



#### **Production Line**

Our state-of-the-art production includes:

- Production test department
- Hand assembly stations
- Pick and place SMT machines
- Automated Optical Inspection machines
- Paint shops
- Quality control test areas
- Dedicated logistic team



## Our Manufacturing



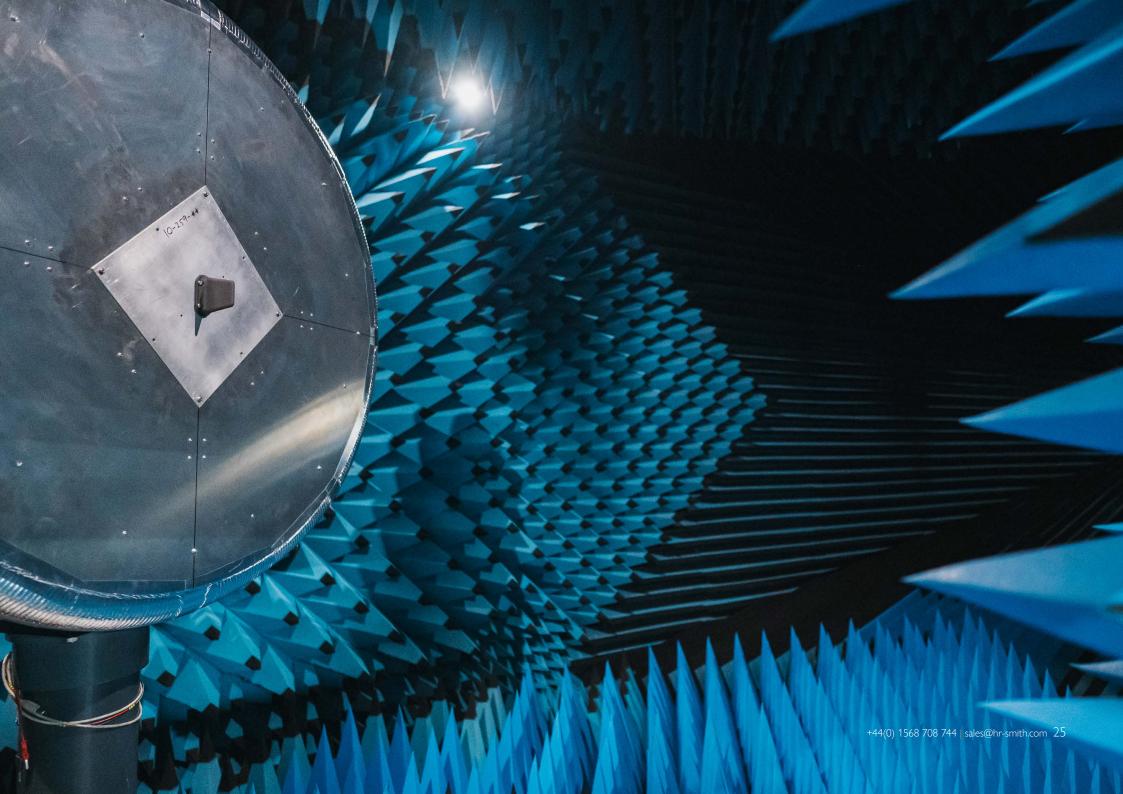






# **TEST**

With our own in-house mechanical and environmental testing facilities, we maintain complete control over the testing process for your project, eliminating the need for external resources.







## Our Fully Equipped In-House Testing Facilities

Our investment in in-house testing ensures that we are fully equipped to perform comprehensive environmental and mechanical testing. We have full control over the testing environment, allowing us to replicate real-world conditions and scenarios with precision. Our in-house testing reduces turnaround times, enabling quicker product assessments and faster iterations. It also eliminates the need for outsourcing, reducing third-party testing and transportation costs. Testing protocols can be adapted on-the-fly to respond swiftly to emerging issues or changing project requirements.



Temperature Chambers



Vibration Tables



Drop, Impact and Penetration Jigs



Salt and Fog Chambers



EMC & Anechoic Chambers



Outdoor Antenna Test Range



Centrifuges



Solar Radiation



Tensile Testing

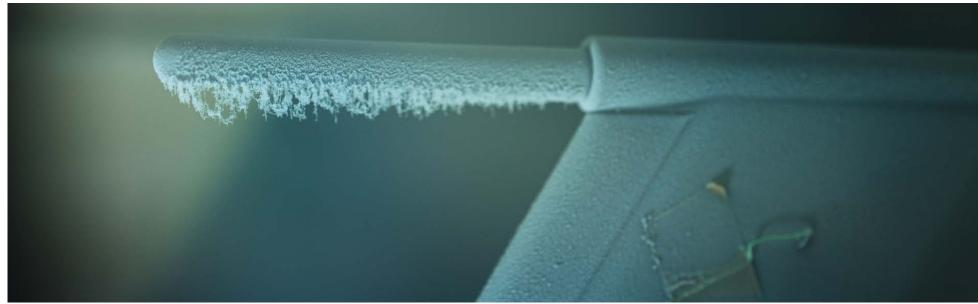


**Battery Testing** 





Our Testing





# Discover How We Can Help

Ready to take your aerospace project to new heights? Interested in learning more about our innovative solutions? Our expert team is here to assist you.

## What Sets Us Apart

- **Experienced:** Over 55 years of experience in the industry, including working with major OEMs.
- Control: We have full control over the design, manufacturing and testing. Resulting in quality results for your final product.
- **Speed:** Our capabilities reduces turnaround times, enabling quicker assessments of product performance and faster iterations.
- Cost Savings: It eliminates the need for outsourcing, reducing expenses associated with third-party facilities and transportation.
- Confidentiality: Sensitive data and proprietary information remain secure within the organisation's confines.
- **Flexibility:** You can adapt your project on-the-fly, responding swiftly to emerging issues or adjusting to changing requirements.
- Enhanced Collaboration: In-house capabilities encourages close collaboration between design, engineering, production and testing teams, leading to more effective communication and problem-solving.
- Excellent Obsolescence Management: Control systems in place, looking ahead for future production.



#### Contact Us

**Tel:** +44(0) 1568 708 744

Email: sales@hr-smith.com







+44(0) 1568 708 744 | sales@hr-smith.com | hr-smith.com