

Forge
ENGINEERING
Innovation and Solutions

Forge
ENGINEERING
Innovation and Solutions

+44 (0) 1452 380999
info@forgeengineering.co.uk
www.forgeengineering.co.uk

CNC Engineering, Metal Fabrication, Silicone Hoses, Composite Design, 3D Printed Prototyping, Braided Hose and Fluid Transfer Lines. From 3 Headquarters, 9 International Locations. Supplying to 5 Continents, 100 Countries, 500 Distributors, 30,000 Retail Customers. Producing over 100,000 complete products, 525,000 product components. Over 30 years experience, manufactured by 56 people. All from one company, Forge Engineering.

CAPABILITIES

FORGE ENGINEERING - IN THE MAKING

Forge Engineering is a third-generation family business, delivering innovation, clever design, and manufacturing to the highest quality since 1983

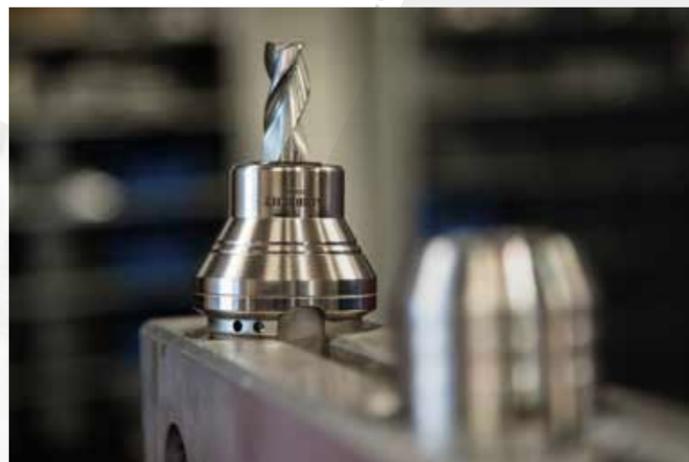
Our engineering services are comprised of many disciplines, and we serve customers across the globe from many diverse sectors including: marine, military, agriculture, medical, construction, aerospace, the audio industry, as well as all sectors of motorsport.

Our engineers and production staff have many years experience and we invest in training, upskilling, and retaining our fantastic team. This allows us to engage at a deeper level with our customer, and deliver and adapt solutions through an innovative mind set, whilst providing the best customer care and after-sales service possible.

With our ongoing investment and commitment into continuous improvement in equipment to support specific engineering tasks, we utilise the latest computer-aided manufacturing (CAM) software to generate CNC machining instructions, all controlled by processes management software.

Forge Engineering really is an innovation and solutions partner, and you can also rest assured that we take our environmental impact very seriously, aiming for the lowest carbon footprint achievable.

We work with our customers to their design, or liaise with them to produce a design, and manufacture in any material using the most efficient processes, with 100% customer satisfaction our goal.



CNC Machining

Operating since the early 1980's, with our CNC machining experience and an extensive range of 3, 4, & 5 axis advanced machine tools, we can offer a machining service that is second to none. Utilising the most innovative cutting tools available, coupled with the most advanced machining strategies, we can produce the best quality components consistently from one-off parts through to large production runs, manufactured from a variety of materials. Our machine shop consists of a collection of Mazak, Bridgeport, XYZ, Mikron, and Axile machinery, including our state of the art Axile G6 Compact simultaneous 5-axis, with 600kg capacity. We also have great relationships with a vast number of top-quality local suppliers that we can call upon for any CNC needs outside of our capabilities.

Surface Finishing

Our comprehensive, trusted, and long-established relationships with quality suppliers enables us to offer a vast range of industry leading surface finishing processes and heat treatments. These include but are not limited to: Sulphuric Anodising, Bright Zinc Plating, Electro Plating, Powder coating, Bead blasting & many more.



Fabrication

Our fabricators are some of the most skilled and practiced in the industry. Taking the art of TIG welding and applying it to steel, titanium, aluminium, and more, at a standard that is unparalleled.

We work with the customer to their design specifications or liaise with them to produce our own design that they are happy with. We offer a range of heat exchangers suitable for cooling applications; These can be Tube and Fin or Bar and Plate in any size and shape, including stepped.



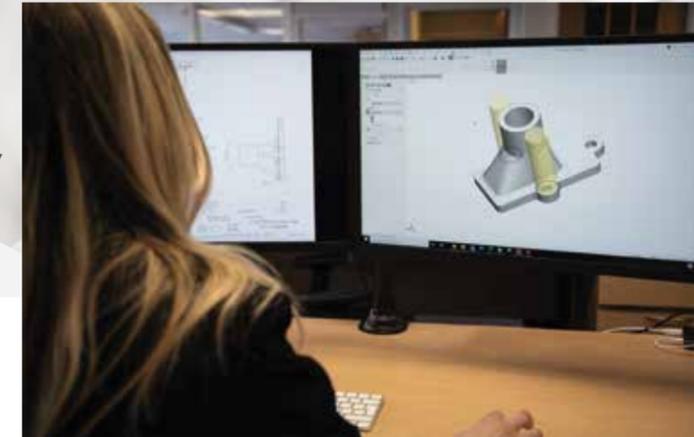


Silicone Hoses

Our European grade silicone is suitable for many different uses such as; industrial, automotive, aeronautical, aerospace, and military. They can be produced with or without a fluorosilicone inner lining to cope with coolant and other liquids that may run through the hose. Varying from 2 to 6 ply dependent upon the application. We can produce hoses with bellows for enhanced flexibility, wire reinforcement to resist negative pressure collapse, and high temperature reinforcement fabrics for extreme thermal tolerance.

CAD and Manufacturing

The engineering team have a wealth of experience and consolidate this with the very latest Solidworks design package and state of the art CAM software. Using these facilities, we can calculate flow rates, stress patterns, structural integrity, weight, manufacture times, and simulate machining operations.



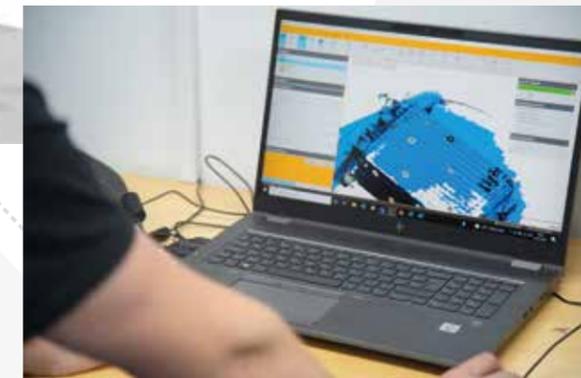
Braided Lines

We are leading manufacturers of performance fluid transfer systems, supplying the highest quality products, all approved to the most stringent industry standards FMVSS-106, ADR, LTSA, DOT & TUV approval. Additionally to this we have the inhouse facilities to test products beyond 200 bar of pressure. Braided hose assemblies comprise of a range of modern composite materials.



Prototyping

Our CMM arm and 3D scanner enables us to convert real world parts into CAD files that can be manipulated to your requirement. From here, a prototype part can then be produced in a variety of materials on our 3D printer, ready for test fitment and approval. This process has been proven to be the most cost effective and quickest way to progress to manufacture.



Composites

The composites we use range from carbon fibre, fibreglass, and Kevlar in various weave and twill types, from prepreg to wet lay or liquid infusion. Our rigorous quality control makes certain there are no imperfections in the product and that the weave is tight, solid, and strong. We use carbon fibre for items such as ducting, tubes, and complete intake systems. Other materials we use such as calcium magnesium silicate wool are commonly used for items such as turbo blankets and heat shields.



Packaging

Forge Engineering can supply you with the whole package, we believe not only should the component be of unrivalled quality but aesthetic, out of the box presentation is crucial. The packaging of an item is the first impression of your part and we like to make sure this is delivered well protected, and on time. We do this in multiple ways; be it a bespoke foam insert to secure the product in place or thicker ply cardboard.

