



YOUR PROCESS AUTOMATION EXPERT
AND PNEUMATICS AND INDUSTRIAL
COMPONENT SUPPLIER

DESIGN | ENGINEER | MANUFACTURE

ENGINEERING DESIGN AND EXPERTISE

Supporting a wide range of manufacturing industries from automotive, aerospace and pharmaceutical, to food and drink, printing and packaging, TF Automation are specialist manufacturers of bespoke machinery, as well as suppliers of an extensive range of pneumatics and industrial components.

Special Purpose Machine Build

With clients across the UK, our team of design engineers specialise in the manufacture of individual process automation solutions to improve manufacturing efficiencies, output and support continuous improvement programs.

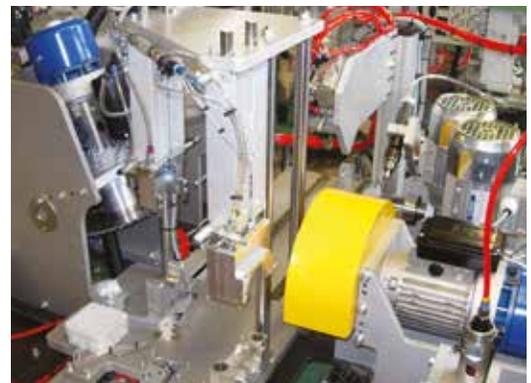
Built up over more than 40 years, our knowledge and experience is extensive and ensures we offer the latest technology across a wide range of disciplines such as robotics, assembly automation, laser marking, pick and place, in-mould labelling and leak testing.



Distribution of Pneumatic and Industrial Components

We supply a vast range of pneumatic and industrial components from all the leading brands from our site in Bradford and we are proud to be an Official FESTO Partner.

Working closely with local customers across a range of sectors, we enable production facilities to minimise down time with our excellent customer service, technical support and 24-hour delivery.



FOOD / DRINK



AUTOMOTIVE



AEROSPACE



PRINTING



PACKAGING



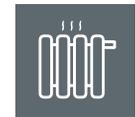
MEDICAL



TEXTILES



DEFENCE



HEATING



KEEP YOUR PRODUCTION RUNNING

TF Automation is at the forefront of modern pneumatic and automation solutions, ensuring customers are able to access a comprehensive range of products for current and future requirements.

With excellent customer service, next day delivery and full technical support, TF Automation offer unbiased technical advice on all product ranges and consider every enquiry carefully to ensure the continuation of your manufacturing processes.

Based in Bradford, we have been supplying local manufacturers for over 40 years and our dedicated sales and technical team will ensure you choose the right product solution for your requirements every time.

We partner many reputed brands in pneumatic component manufacture including Metalwork Piab, Camozzi, Pneumax and Koganei and are an official FESTO partner.

Why choose TF Automation

- Exceptional customer service from our dedicated external and internal sales team
- More than 19,000 pneumatic and industrial components from all the leading manufacturers
- Over four decades of expertise in pneumatics and process automation
- Next day delivery or collect from our trade counter
- Wide range of stock
- Accredited training available

**ALL PRODUCTS NOW
AVAILABLE FROM
OUR NEW WEBSHOP**



EXPERTS IN SPECIAL PURPOSE MACHINERY

Our designers and engineers work with manufacturers on small to medium sized automation projects focusing on supplying machines that improve quality standards and product consistency, as well as improving output and reliability.

Assembly & Testing

Component assembly and testing is a crucial part of many of our clients' manufacturing processes. Using the latest pneumatic and linear drive technology, we automate manual processes including multiple testing stations including vision, force and distance with checks in place to reject non-compliant components.

Process Automation

Our aim is to support clients in achieving their continuous improvement goals to increase manufacturing efficiency resulting in improved yield and higher output. We provide solutions to automate manual processes as well as enhancing existing processes, reducing the risk of human error in tasks that are constant, predictable and repetitive.

Robotics & Product Handling

TF has produced a number of robotic applications, from simple multi-axis pick and place systems right through to million-pound assembly systems, increasing productivity and redeploying workers to higher value operations.

Product Marking

The ability to trace components and products back through the manufacturing process is a key requirement for many manufacturers.

Partnering with specialist laser and dot marking machine manufacturers, we support customers who need to incorporate traceability as part of their overall process.

Manual Workstations

We manufacture bespoke stand-alone manual workstations according to customer's exacting specifications.

Supporting a wide range of industries, particularly automotive in this type of application, we have produced workstations for leak testing or as checking fixtures for particular processes – simply if it fits the jig it will fit the car!



COMPLETE PROJECT MANAGEMENT

We take ownership of clients' projects supporting throughout with design and technical advice, to ensure the best solution is achieved.



Services

Supporting clients with the integration of equipment into existing production facilities, our experienced design and project engineers will assess your requirements, suggest recommendations with the focus on improving efficiency, increasing output and reducing costs.

In-House Design

Taking the time to understand your particular requirements, our experienced design engineers work with you to ensure the most competitive and innovative solution for your automation project. Using 3D Solid-works software (both mechanical and electrical), we create 3D CAD drawings for every project to visualise machinery and agree the specification prior to manufacture.

In-House Manufacturing

Machines are built in-house to the highest quality only utilising components that are manufactured to the same exacting standards. We will occasionally outsource specialist expertise, if required for a particular application, however we will always oversee this input as part of the overall project. Our manufacturing team works closely with our design engineers to ensure projects run smoothly and to client requirements.

Testing & Commissioning

All our machines are thoroughly tested in-house and signed off with client approval prior to on-site commissioning.

Our engineering team also test and commission the machine at the customer's site to ensure smooth integration into your overall production.

Programming

We offer programming as part of our in-house full service, including PLC/HMI, electric drives and vision systems. We only work with programmers who are specialists in their area and offer site visits to support installation and testing, plus operator training, if required.

PROJECT REVIEWS

Robotic assembly process

After several successful projects, TF was commissioned to provide a solution to automate a time consuming parts-handling manual process for the client - a world-leading supplier of fasteners to the aerospace industry.

Our team designed a bespoke machine using a robot to carry out the 3-stage product handling task. The key was to design and engineer an automated process to improve output efficiency and maintain consistent quality which is crucial in the aerospace industry.



Leak test and trepanning

We have worked with Bolton Plastics, market leaders in the manufacture of blow-moulded automotive components, for over 10 years, supplying around 75 special purpose machines plus checking fixtures, test equipment and assembly aids.

The brief was to design and engineer a machine to be capable of producing finished parts within a specified blow-mould cycle time, for HDPE air ducts to cool batteries in electric vehicles.



Five-part assembly automation

TF engineered a fully automatic assembly and test machine incorporating five bowl feeders with multiple stations across three rotary tables, for existing client Pegler Yorkshire. The five part assembly focuses on improving quality standards and product consistency, as well as improved output and reliability.

Parts are vision inspected by a Cognex camera and Smac electric actuators which record force and distance of key parts and the completed assembly. Any failures are automatically quarantined within the machine and live results are displayed on the operator HMI screen.



PROJECT REVIEWS

Pick-and-place

The brief was to substantially improve on an existing machine in terms of production speed, product yield, improved consistency and quality. The pick-and-place design needed to allow for a tooling change, as well as being compatible on an existing mould machine and a stand-alone salt test machine.

The multi-stage machine has been designed using servo drives to move the product and assembly as required and our client has reported a four-fold production increase plus improved quality and consistency with minimal stoppages.



Product marking

The challenge for this project was to design a system to dot mark fulcrum steel pivot pins for our client for identification and tracking. The machine was required to move the steel pins, position them individually and then perform the identification marking on one end.

Our team has designed a bespoke stand-alone machine with a part-transfer system incorporating a Telesis Dot Peen Marker. This versatile system adjusts automatically according to the different pin lengths, diameters and shapes as required by the client, to ensure correct positional marking.

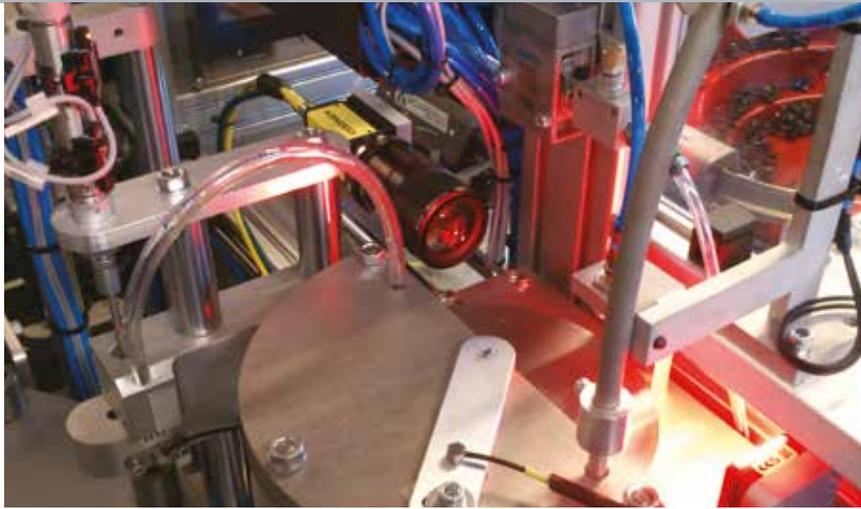


Assembly process automation

The project brief was to replace a manual benchtop fixture with an automated process to increase production capacity for a customer manufacturing components for the automotive industry. The challenge was to design a specialist machine including performing a load test to ensure the correct fit of the component.

The new machine incorporates two rotary bowl feeders, pneumatic linear transfer movement and a load test. This bespoke machine has provided the required cycle time of 500 parts per hour, whilst also enabling operatives to be reassigned to higher value tasks.





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