

Machined Parts

Precision in plastic machining



Precision for all your production requirements

Complex plastic components manufactured with advanced tooling technologies offering both value and performance

Machining is the fastest, most economical way to arrive at a finished plastic component, particularly for small production runs. In this field, Ensinger Machined Parts can provide a complete production service for your precision components, systems and assemblies. At both our machining facilities our highly skilled engineers produce precision components to the very narrowest of tolerances.

50 years of experience in the field of engineering and high-temperature plastics form the basis for the most stringent quality standards. No matter what the design of your plastic part and the complexity of its geometry, you will benefit from the pooled expertise of the entire Ensinger Group. With a total of over 2,400 employees at 33 locations, the family-owned enterprise is represented worldwide by manufacturing facilities or sales offices in all major industrial regions.

The advice we offer includes not only material recommendations and component configuration, but also the design of the finished part, taking into account the material used and all defined tolerances.

We mostly process semi-finished products or injection moulded parts from our own production. The experience spectrum of the machining division encompasses every key branch of the industry. Our highly motivated and qualified team of experts will guarantee service and product quality, ensuring customer satisfaction. Ensinger attaches enormous importance to training its own skilled personnel in-house as well as running our successful apprenticeship scheme.

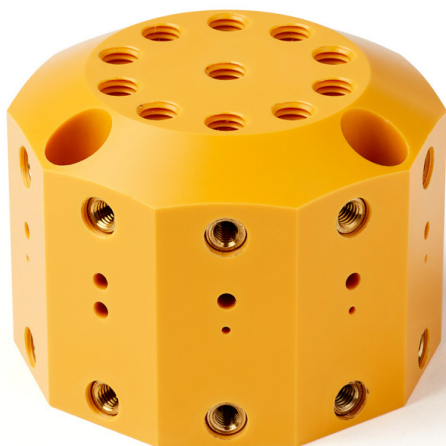
Our aim is to achieve the best possible economic outcome for our customers, coupled with first-class customer service.

Technical component development: from the prototype to volume production

Extensive industry and material expertise available to improve your product

During an initial discussion, we enquire about the functions to be performed by the component in its intended application. Advanced consultation and co-operation with our technicians and engineers produces valuable knowledge which flows into the design process. This eliminates a number of unnecessary modifications that could have been time consuming and cost intensive.

On the basis of the designs, drawings are then derived complete with dimensioning and plastic specific tolerance specifications. The manufacturing of high quality plastic components can then begin.



Facts and figures

Established in 1966

Part of the Ensinger Group for over 25 years

Highly skilled workforce

Certification:
AS9100D, ISO 13485:2016, ISO 9001:2015

Engineering expertise from a single source

Trade-specific knowledge for perfect products

Flexibility for small, medium and large
production runs

Extensive material stockholding

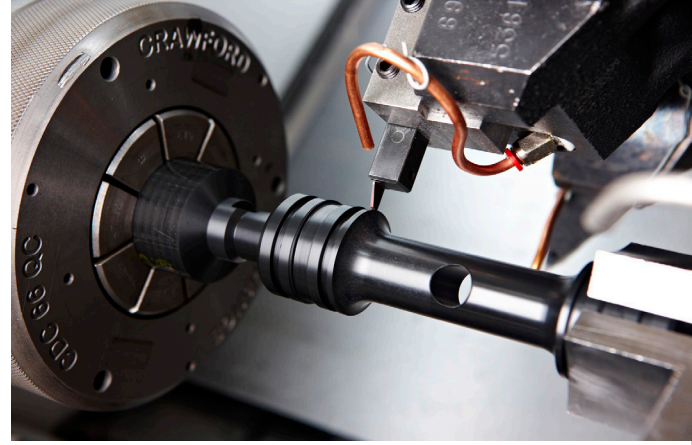
Part of the UK's largest plastics machining
group

Our machining facilities are equipped with highly flexible, ultramodern equipment. 17 milling centres and 34 turning centres take care of high performance production and supply reliability in a two shift operation.

Turning

Capacity

- CNC machining centres 2 and 4 axis capability
- Integrex 4 + 1 axis machines
- Twin spindle 9 axis machines
- Manual turning centres up to 600mm diameter



Benefits in production

- Turning centre with powered tools
- Counter spindle for reverse-side machining
- CNC controlled machines for production efficiency and repeatable, reproducible precision
- Insertion system for medium and large production runs
- Bar feed machines, short loader with 1.2 m length
- Production and machine data acquisition

Production capabilities

Milling

Capacity

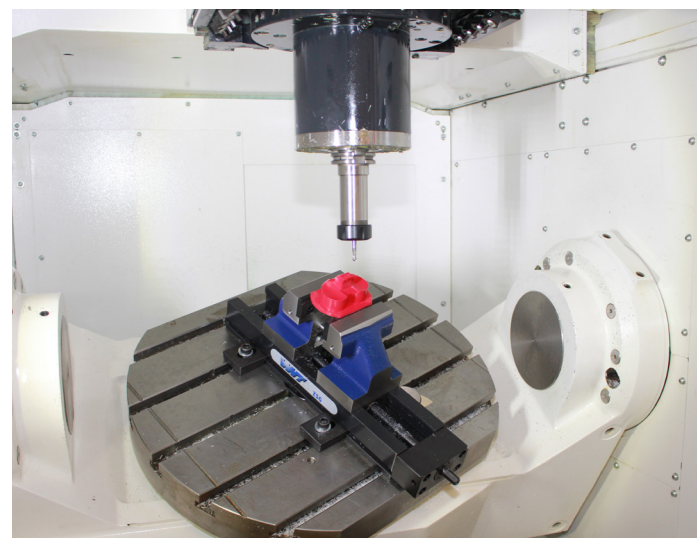
- CNC machining centres with 3, 4 and 5 axis capability
- Long bed machines
- Manual milling

Benefits in production

- Milling centres with internal cooling systems
- Solid model milling program generation
- Production and machine data acquisition
- Milling automation
- Split bed (for simultaneous machining and loading)

Five-axis milling with post-processor

- Machining of freeform surfaces
- Solid model milling program generation
- Milling with simultaneous actuation of 5 axes



Robot cell

The robot cell is our latest technology investment to support our customers increasing demands for high tech machining and world-class service.



Benefits in production

- Highly efficient system that can cope with low, medium and high volume cycles
- Robust and sustainable lights-out production 24 hours a day
- Efficient machining of high precision, tight tolerance, complex geometry components
- Delivers a bespoke service to its customers

Finishing and other services

Cost effective solutions giving value to your product

Ensinger Machined Parts are equipped to provide a number of additional services to complement our machining expertise, enabling us to offer a total supply solution.

- Manual and mechanical deburring
- Ultrasonic cleansing and degreasing
- Stress relieving and annealing
- Laser part marking and machine engraving (for batch traceability)
- Assembly – delivery of completely assembled systems and modules
- Function testing
- Specialist packaging





Quality



Is assured, production certification and material traceability as standard

We attach maximum importance to supplying our customers with the best quality at all times. To allow our work results to be assessed in compliance with current standards, our products and processes have to be continuously monitored. Equipped with everything from tactile coordinate measuring machines to optical measuring and non-contact devices, surface gauges and a large selection of other measuring instruments, we are able to meet every conceivable measurement related challenge.

Quality assurance

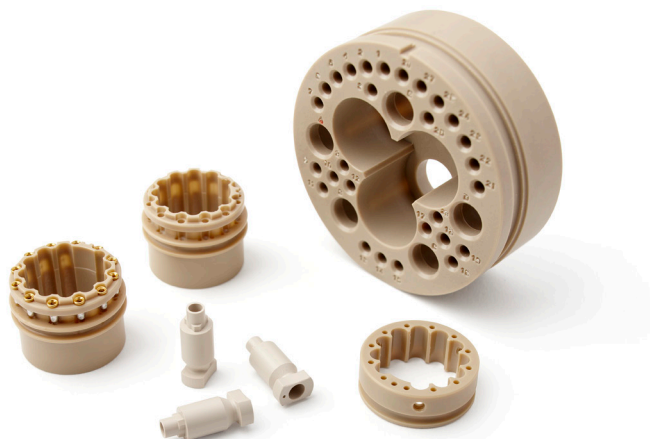
All of our procedures and systems are in accordance to ISO9001:2015. We have continued to produce the highest levels of quality demanded by the aviation, space and defence sectors, allowing us to meet the latest AS9100 Rev D standard. We also hold approval to ISO13485:2016 for our work in the medical and life science sectors. In addition to these certifications, our company is regularly audited and assessed by our customers from whom we hold many supplier approvals.

Batch traceability

Seamless batch traceability is a matter of course at Ensinger. At the customer's request Ensinger material certification can be provided back to batch production, in addition to our standard certificate of conformity.

Inspection

First article inspection reports are produced on all first production runs and can be provided upon customer request.



Modern apprenticeships

Ensinger Machined Parts consists of two of the largest and most advanced engineering workshops in the country – Ensinger Precision Engineering in Tonyrefail, South Wales and Trig Engineering in Bridgwater, Somerset.

Both machine shops operate at the highest standards, continually investing in staff to ensure that their employees are well educated to fulfil their career requirements.

Ensinger believe that to get the best engineers it is important to train them internally using the mentoring of some of the most experienced engineers in the business and external qualification programmes. This is why the modern apprenticeship scheme at Ensinger is considered as one of the most thorough, extremely beneficial and genuine engineering training programmes being offered today.

The apprentice scheme prepares and develops young engineers for work in the engineering sector. In conjunction with Newport and

District Training Association and Bridgwater and Taunton College, apprentices are able to acquire work based training, whilst securing the qualifications they need to progress in the industry.

Furthermore, Ensinger has invested in 2 manual lathes, 2 manual milling machines, a CNC milling machine, a CNC turning machine, and has employed a full-time Apprentice Trainer to ensure the apprentices get the best out of their learning.



Extensive material stockholding

Direct access to high quality engineering plastic materials

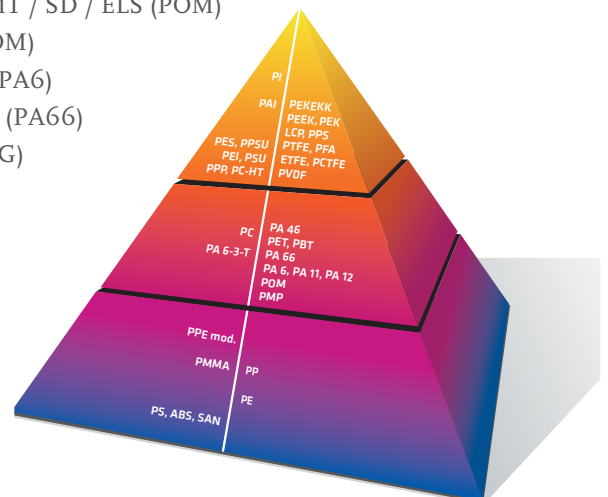
Ensinger Machined Parts is part of the Ensinger Group of companies, a market leader in the manufacture and supply of engineering plastics.

The Ensinger Group is engaged in the development, manufacture and sale of compounds, semi-finished materials, profiles and technical parts. These are made from high performance and engineering plastics through extrusion, machining and injection moulding.

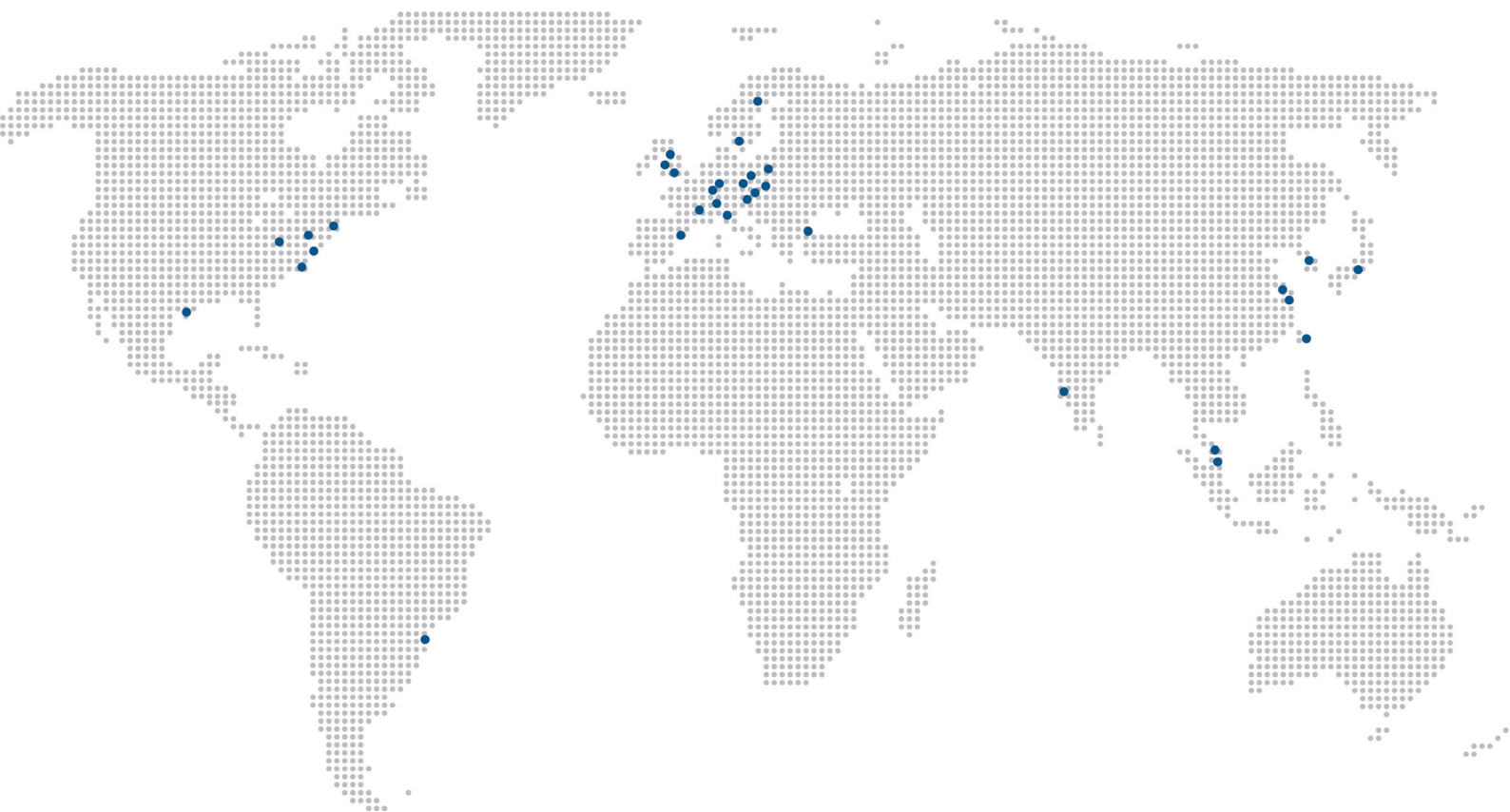
In the UK we are backed by Ensinger's expertise and possess one of the country's largest stock holding of over 100 different engineering plastic materials. Technical data sheets, along with health and safety data sheets are available for all Ensinger materials.

Materials available include:

TECASINT (PI)
TECAPEEK / GF / PVX / CF / MT (PEEK)
TECATRON PPS / GF / PVX (PPS)
TECASON S (PSU)
TECASON P / MT (PPSU)
TECAFORM AH / GF / MT / SD / ELS (POM)
TECAFORM AD / AF (POM)
TECAMID 6 / GF / MH (PA6)
TECAMID 66 / GF / MH (PA66)
TECAST T / TM / L (PA6G)
TECAPET / TF (PET)
TECANAT OC / GF (PC)
TECAPEI (PEI)
PVC
Polypropylene
Polyethylene
PTFE
PVDF



A global leader in high-performance and engineering plastics



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