The ultimate 3D printers for Engineering



Revolutionise your engineering workflows with rapid, dependable 3D printing. Unlock additional revenue streams by optimising the potential of your existing machinery.

For every stage of production

Time is money. **With 3D printing, you can save both.**

Manufacturing is constantly evolving, with the demands of customers providing new challenges and obstacles to overcome.

Suppliers face material shortages, geopolitical turmoil affects trade and the movement of resources, prices fluctuate, and parts of the supply chain can break without warning. Skilled UK manufacturing and engineering needs to be on the cutting edge of innovation to meet all of these challenges without breaking pace.

Discover the power of additive manufacturing

Additive manufacturing provides a host of advanced materials that can be utilised to answer needs for tooling, jigs and fixtures, prototyping, end-use parts and much more. A digital age of agile manufacturing is possible with in-house production; reducing storage costs, crushing lead times and slashing costs in the process.

Thermoplastics aren't just equal to many traditional metals and injection moulded plastics, they often outperform them. Carbon fibre materials can withstand millions of cycles on the shopfloor. PEKK-based plastics remove the weight of steel whilst bearing superior chemical resistance. The possibilities of 3D printed materials have reached industrial-grade strength.

Offering a fast return on investment – with 3D printers turning weeks and months of lead time into hours, and drastically cutting costs of outsourced labour – 3D printing presents an opportunity for engineers and manufacturers to possess their own means of production that isn't contingent on raw materials and contractor availability.

The benefits of Stratasys 3D printing for engineering

Streamline your workflow

Traditional cross-departmental manufacturing processes are labour intensive. 3D printing removes the need to source raw material, raise internal orders and trawl through the complicated chain of approval. Professional 3D printing is robust and reliable, allowing you to print unmanned 24/7.

Jigs, fixtures & workholdings

Jigs and fixtures can be 3D printed more quickly and cost effectively than with traditional methods. On-demand tooling boosts productivity and brings flexibility to production, raising the bar for modern manufacturers.

Prototyping

Share concepts in a tangible form that can be held and inspected. 3D printed prototypes let you communicate with stakeholders far more effectively than trying to translate technical drawings. This allows for more detailed prototypes without the cost and lead times of outsourcing. Iterate faster and test function and form sooner.

Virtual stock room

Digitalising critical inventory items like fixtures, workholdings and custom tooling not only saves time and money, but logistically means you're never far away from a replacement part. This 'available on demand' approach eliminates the need to retain legacy jigs and thus frees up valuable warehouse space, making workflows smarter than ever before.

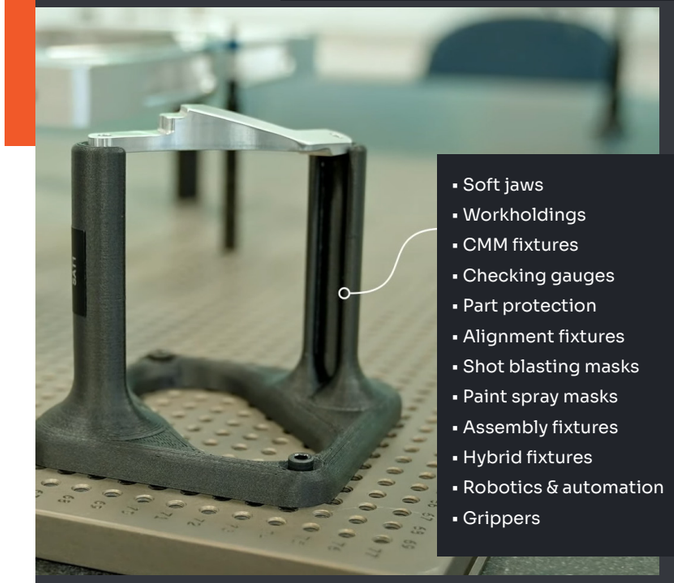
Increased revenue

Eliminate traditional machined fixtures with 3D printing, freeing up machine tools for core production and reducing overall costs. This translates into increased opportunity for revenue by freeing up existing machining hours.

Increased productivity & efficiency

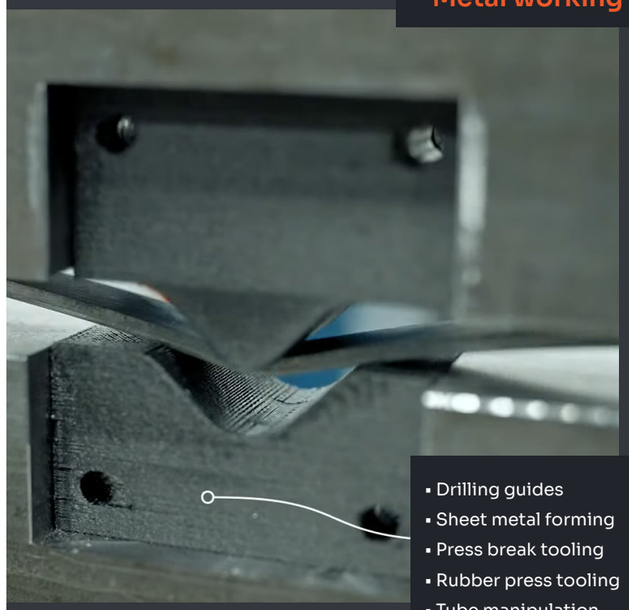
3D printing provides efficiency in design, development, production and even in post-production. The need to store tooling upon project completion is now a thing of the past, with pressure mounting on UK manufacturers to offer a diverse, high-quality and value-for-money service, 3D printing can offer a productive solution.

Fixtures & shopfloor aids



- Soft jaws
- Workholdings
- CMM fixtures
- Checking gauges
- Part protection
- Alignment fixtures
- Shot blasting masks
- Paint spray masks
- Assembly fixtures
- Hybrid fixtures
- Robotics & automation
- Grippers

Metal working



- Drilling guides
- Sheet metal forming
- Press break tooling
- Rubber press tooling
- Tube manipulation
- Welding fixtures
- Laser marking fixtures

3D printed soft jaws workflow

1



3D CAD file

2



Click & print

3



Final part

4



Part in use

5



Machined component

Fortus 450mc

Industrial 3D printing, built for streamlined manufacturing.

With 14 thermoplastics including soluble support material, create high-performance parts that meet industry standards and exceed functional demands.

Prototypes, end-use parts, jigs and fixtures, tooling in a production environment – the Fortus 450mc can handle any stage of your production cycle and cut costs as it does so. Create functional prototypes that mirror the end product exactly. Make jigs and fixtures to support your work with exact specifications, and tools that precisely suit your workflow.

Unlock your printer's full potential with open 3D printing.

Stratasys OpenAM

- Push the boundaries of existing material properties.
- Accelerate innovation and create new materials.
- Direct influence over machine parameters.
- Work with third-party vendors to develop validated materials.

Fortus 450mc from £598 per week*

*Indicative price for base machine only, subject to credit approval

Specification:

Machine Size:	750 x 1240 x 1960mm
Build Envelope:	406 x 355 x 406mm
Layer Thickness:	from 127 microns



Stratasys Preferred Materials:

ABS-ESD7	ASA
ABS-M30	FDM NYLON 12
ABS-M30i	FDM NYLON 12CF
ANTERO 800NA	PC
ANTERO 840CN03	PC-ABS
PC-ISO	ULTEM 1010
ULTEM 9085	ST-130

Stratasys Validated Materials:

FDM HIPS	Covestro Adigy PA6/66 GF20
Kimya PC-FR	Victrex AM™ 200 PAEK
Kimya Kepstan®	

including soluble support material

F370CR

Print stronger parts with composite-ready 3D printing.

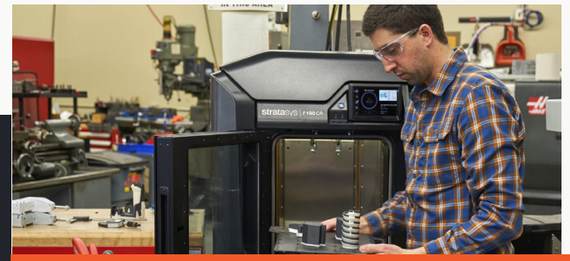
Industry 4.0 Ready

Agile and versatile production made simple for the shopfloor environment.

Print with strong, low-cost ABS plastics for prototypes, jigs and fixtures and production parts with a great blend of mechanical and aesthetic properties. Draft designs using quick and economical PLA with a range of colour options. Go even further by discovering the F-Series range, including the longest fully-heated build chamber on the FDM market to create large-scale parts without breaks.







F370CR from £229 per week*

*Indicative price for base machine only, subject to credit approval

Specification:

Machine Size:	up to 1750 x 1240 x 1960mm
Build Envelope:	up to 1000 x 610 x 610mm
Layer Thickness:	from 127 microns

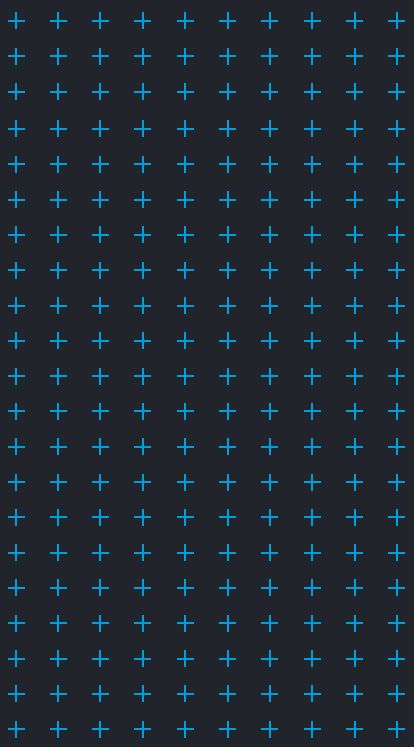
"The F370CR opened up new opportunities for us to be able to deliver higher performance parts with reduced lead times. Hugely increasing the performance of the parts that we can produce."

Tom Fripp, Director, Addition Design

F-Series material range:

F770	ABS, ASA
F170	PLA, ABS-M30, ABS-CF10, ASA, TPU 92A
F370	PLA, ABS-ESD7, ABS-M30, ABS-CF10, ASA, Diran 410MF07, TPU 92A, PC-ABS
F190CR / F370CR	ABS-M30, ASA, TPU 92A, ABS-CF10, PC-ABS*, Diran 410MF07*, ABS-ESD7*, FDM Nylon-CF10

*not available on the F190CR





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