Press Release

Choosing the right Stratasys 3D printer

What are the different types of 3D printers from Stratasys?

Since the late-'80s, Stratasys's groundbreaking 3D printers have set the pace for the Additive Manufacturing sector. But what are the different types of 3D printer and what is the best 3D printer for you? Here's an introduction from the experts at Tri-Tech 3D.

Back in 1989, the US inventor and Stratasys co-founder S. Scott Crump led his company to the summit of the nascent AM sector with his own pioneering Fused Deposition Modeling (FDM) technology. Fast-forward four decades and Stratasys's modern range of 3D printers takes in everything from Stereolithography to PolyJet – meaning that if you're taking your first steps in AM, the choice can be head-spinning.

It's always best to speak to our team when investing in a Stratasys 3D printer, with our experts on-hand to direct you to the right hardware for your needs. But in this blog, we introduce the main types of 3D printer to help you draw up your shortlist.

What are the different types of 3D printer from Stratasys?

AM technologies differ quite drastically and it's worth knowing a little more about each discipline before you choose the associated hardware. At Tri-Tech 3D, we don't believe there's such a thing as the 'best' technology – achieving great results is all about selecting the optimal process and Stratasys 3D printer for the job at hand.

Press Release

Stratasys Fused Deposition Modeling 3D printers

The most widespread AM process is Fused Deposition Modeling (FDM), in which components are built from the bottom up, one layer at a time, via a process of heating and extruding thermoplastic filament. At Tri-Tech 3D, we not only offer Stratasys FDM printers like the Fortus 900mc, Fortus 450mc and F3300, but can also provide a wide choice of FDM-compatible thermoplastics, helping you dial in properties including strength, translucence, electrostatic dissipation, biocompatibility, UV resistance, high heat deflection and more. Achieve the right blend and you'll find FDM is ideal for applications spanning from raw proof-of-concept models to functional prototypes that perform under real-world conditions.

FDM benefits at a glance

Durable, consistent, economical, flexible materials, easy to remove supports, simple and practical operation

Discover our Stratasys FDM 3D printers

Fortus 900mc, Fortus 450mc, F3300

Stratasys PolyJet 3D printers

PolyJet works quite differently to FDM, with a print head jetting liquid photopolymers onto a build tray where each drop is cured by exposure to UV light. This technology is known for producing outstanding print precision and surface finish, while the huge choice of photopolymers can be combined for unique formulations, creating full-colour simulations of anything from human tissue to rubber. You'll see Stratasys PolyJet printers like the J850 Prime, J55 Prime and J35 Pro used for high-quality prototypes with end-product realism, while this technology's versatility means it is trusted for applications spanning from surgical planning models to injection molding.

PolyJet benefits at a glance

Accurate, versatile, fast turnaround, wide range of materials

Discover our Stratasys PolyJet 3D printers

J850 Prime, J55 Prime, J35 Pro

Stratasys Stereolithography 3D printers

As the original 3D printing technology, Stereolithography (SLA) still has a place in the modern AM portfolio. While it follows the same principle of building parts one layer at a time, this process sees a UV laser cure liquid photopolymer resin (similar to technologies like Digital Light Processing and Liquid Crystal Display). You'll find Stratasys SLA 3D printers like the Neo 800, Neo 450s and Neo 450e used to make high-detail prototypes and master patterns for urethane casting, as well as the investment casting patterns used to create metal components for the automotive, aerospace, medical and power generation industries. Meanwhile, the spectrum of

Press Release

SLA-compatible materials means you can fine-tune parts to adjust parameters from transparency to heat and moisture resistance.

SLA benefits at a glance

Fast, cost-effective, accurate, easy to scale up production

Discover our Stratasys Stereolithography 3D printers

Neo 800, Neo 450s, Neo 450e

Stratasys Selective Absorption Fusion 3D printers

As an evolution of the powder bed fusion process, SAF is the technology that drives Stratasys 3D printers like the H350. Watch this powerful unit at work and you'll see piezo-electric printheads jet high absorption fluid (HAF) onto a powder bed, before the fluid fuses the powdered polymer particles in layers to produce components. SAF not only goes beyond traditional production methods like injection moulding, but also lets users avoid issues like high tool-up costs, supply chain delays and build capacity limits. It's an ideal AM technology for fast, high-quality, repeatable results when prototyping or upscaling production.

SAF benefits at a glance

Flexible, consistent, repeatable, reduced waste, easy to scale up production

Discover our Stratasys Selective Absorption Fusion 3D printers

H350

Stratasys P3 3D printers

Running with the concept of Digital Light Processing (DLP), P3 is the proprietary software within Stratasys Origin One 3D printers. The process sees a light-sensitive photopolymer cured one layer at a time when exposed to light from the powerful projector below the build platform. P3's incredible precision, scope for real-time adjustments of parameters and open-ended choice of thermoplastics have made this technology a go-to across the gamut of global industry. Today, you'll see the Stratasys Origin One employed for applications including futuristic footwear, personal protective equipment (PPE) and patient-specific dentures.

P3 benefits at a glance

Accurate, efficient, open-ended materials, unmatched control

Discover our Stratasys P3 3D printers

Origin One, Origin One Dental

Ask Tri-Tech 3D about Stratasys 3D printers and more

Press Release

Renowned as the UK's leading authority on 3D printing and all related technologies, Tri-Tech 3D can help your business harness the full potential of AM. Our expert team is always ready to guide you through our range of Stratasys 3D printers, while our one-stop solution also includes materials, software and 3D printer training.

For successful 3D printing solutions, simply contact the Tri-Tech 3D team. We're ready to assist you on 01782 814551 or[*info@tritech3d.co.uk*](mailto:info@tritech3d.co.uk)

~ENDS~

For further information contact:

Hayley Giles, Marketing Executive,

Tri-Tech 3D Ltd, 3-4 Innovation Way,

North Staffs Business Park, Stoke on Trent, ST6 4BF

Telephone: 01782 814551
e-mail: Hayley.Giles@stanfordmarsh.co.uk

www: www.tritech3d.co.uk

About Tri-Tech 3D:

Tri-Tech 3D is a premier provider of 3D printing and additive manufacturing solutions in the UK.

Known for its engineering excellence and commitment to customer success, Tri-Tech 3D offers a comprehensive range of products and services designed to meet the needs of a variety of different industries, including Automotive, Aerospace, Defence, Manufacturing, and much more.

Tri-Tech 3D provides a comprehensive service from advice on initial specification and supply of 3D printing hardware to on-site installation, staff training, and on-going product support. Founded in 2007, Tri-Tech 3D was acquired by the Stanford Marsh Group in January 2017. This resulted in doubling our 3D business with SMG3D and become part of a broader group offering CAD software solutions, CAD training, and wide-format printing.