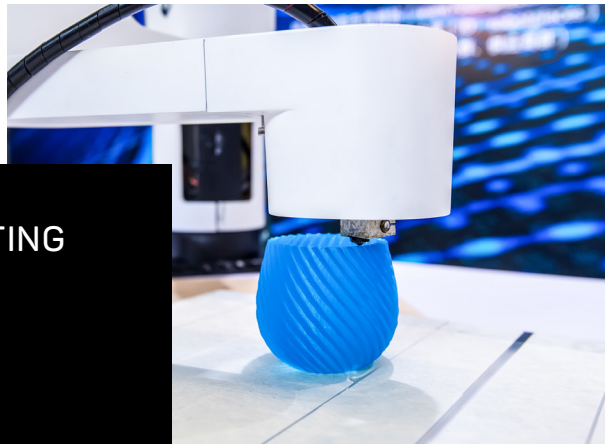


INNOVATIVE 3D PRINTING SOLUTIONS

3D PRINTING



Products made by 3D printers are not only the latest trend, but also significantly increase profitability. Thanks to all manner of different additive manufacturing technologies, 3D printing offers a wide variety of materials for a whole host of applications. Additive manufacturing allows for the shortest possible production times and a high degree of design freedom in shaping. Unlike in traditional manufacturing, complex, filigree geometries do not increase costs, but instead often lead to considerable savings as well as high component strength. For small and medium quantities, 3D printing is a cost-effective and pioneering alternative.

Digitalised process

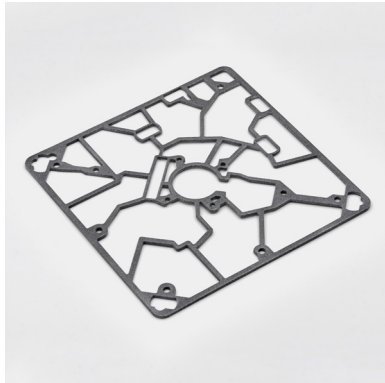
Our state-of-the-art online platform offers you eight different additive manufacturing processes and over 30 different materials. The enquiry and ordering process is very simple and self-explanatory. Upload your 3D CAD data to our platform. Your data is then checked by the software, simple geometry errors are corrected and the relevant manufacturing processes are automatically displayed to you. You choose the printing technology you want and are immediately shown the

price and delivery times in real time. With the most commonly used SLS process, popular reworking options, such as the colouring or varnishing of the parts, can be calculated at the same time.

Technology

In additive manufacturing, a wide range of materials such as polymers or metals are applied layer by layer, helping to ensure that individual parts or entire assemblies are produced according to individual customer requirements. The

large variety of manufacturing technologies and materials makes it possible to produce thin wall thicknesses as well as complex geometric shapes and fine to transparent surfaces. Rapid prototyping also allows for prototypes to be produced quickly, speeding up the manufacturing time of various assemblies. The use of 3D printing technologies is suitable for a wide variety of industries, from the machine industry to model making and medical technology. Our experienced staff will be happy to tell you which technology is right for your needs.



THE KEY TECHNOLOGIES:

Selective Laser Sintering **SLS – selective laser sintering**

This process, which is the most frequently used in the professional sector, allows various plastics to be processed, including glass-fibre reinforced and flexible rubber-like plastics. In the SLS process, the powdery raw material is cured layer by layer with a laser beam. No supporting structures are required and the process is very cost-effective.

Mult Jet Fusion **MJF – multi-jet fusion**

Only PA 12 (polyamide) in powder form is used in this process. A binding agent is cured with infrared. Just like with the SLS process, very solid parts and good surfaces can be achieved with the MJF process.

Fused Deposition Modeling

FDM – fused deposition modelling

In this traditional process, the plastic filament is applied with an extrusion nozzle. ABS, ASA and also high-performance plastics such as PPSU can currently be processed.

Multi Jet Modeling **MJM – multi-jet modelling**

With multi-jet modelling, liquid plastics are applied and cured by UV light. This process allows very fine surfaces and transparent models to be produced.

Selective Laser Melting **SLM – selective laser melting**

This process is similar to SLS, but is for metals. In selective laser melting, metal powder is melted layer by layer with a laser. This process is a cost-effective and quick-to-implement alternative for traditional metal castings. Aluminium and steel alloys can be processed.