



Press Release

Paris Air Show: TRUMPF lasers and 3D printers make aerospace more sustainable

Laser technology and 3D printing are key technologies for manufacturing sustainably operable aircraft // TRUMPF supports the aviation industry with its manufacturing know-how for electric drives and battery technology

Ditzingen/Paris, 15 June 2023 – The high-tech company TRUMPF is helping the aviation industry to reduce greenhouse gases. With 3D printers and lasers from TRUMPF, aviation companies can save a lot of weight in aircraft manufacturing and produce more efficient engines. "Laser technology and 3D printing are key technologies for manufacturing sustainable aircraft. With technology and know-how from TRUMPF, the aviation industry will be able to put electric-powered airplanes and air cabs in the air in the near future. We can support the aviation industry with our years of battery and e-mobility expertise in automotive manufacturing," says Richard Bannmüller, CEO of TRUMPF Laser- und Systemtechnik GmbH. The high-tech company will present its manufacturing technology for the aerospace industry at the leading trade show, the Paris Air Show.

Laser technology enables emission-free flying

Almost all aircraft manufacturers and suppliers are working on climate-friendly aircraft. Many are already pursuing concrete concepts for the electrification of aircraft engines. For aviation, manufacturers need to develop particularly lightweight, safe and reliable batteries and electric motors. "Our experience in manufacturing electric drives and batteries in the automotive industry can be transferred to many areas of aviation. With our manufacturing technology, we can make an important contribution to the decarbonization of aviation," says Bannmüller.

TRUMPF manufacturing technology ensures greater efficiency

TRUMPF works with many OEMs and suppliers in the aerospace industry. To manufacture particularly efficient rockets and thrusters, the companies use lasers from the high-tech company to cut and weld metal alloys. To make engines lighter and more efficient, the aerospace industry uses 3D printers from TRUMPF. As a result, manufacturers are producing lightweight thrusters that are also particularly optimized for efficiency. "TRUMPF stands by the aerospace industry as a reliable partner with its manufacturing know-how. The product life cycles in the aerospace industry are very long. Here, we support our customers for many years with service and spare parts for our machines," says Bannmüller.

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Repairing instead of buying new: Repair with laser buildup welding

The aviation industry also benefits from TRUMPF technology when it comes to maintenance. For example, instead of purchasing new engine blades, aviation companies repair them using laser cladding (LMD). In this process, the laser creates a molten pool on the surface of the engine blade and precisely melts the simultaneously fed metal powder according to the desired shape. By repairing cost-intensive components, the aerospace industry can save up to 80 percent in costs compared to purchasing new ones.

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Thruster made by a 3D printer

With 3D printers from TRUMPF, the aerospace industry manufactures important components such as thrusters. 3D printing of thrusters reduces leadtime.



High precision in manufacturing

LMD enables the aerospace industry to manufacture thrusters, for example.



Manufacturing lightweight components

With 3D printers and lasers from TRUMPF, aerospace companies can save a lot of weight in aircraft manufacturing and produce more efficient engines





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About TRUMPF

TRUMPF is a high-tech company offering manufacturing solutions in the fields of machine tools and laser technology. The Company drives digital connectivity in the manufacturing through consulting, platform products and software. TRUMPF is a technology and market leader in highly versatile machine tools for sheet metal processing and in the field of industrial lasers.

In 2021/22, the company employed some 16,500 people and generated sales of about 4.2 billion euros. With over 80 subsidiaries, the TRUMPF Group is represented in nearly every European country as well as in North America, South America and Asia. The company has production facilities in Germany, France, the United Kingdom, Italy, Austria, Switzerland, Poland, the Czech Republic, the United States, Mexico and China.

Find out more about TRUMPF at www.trumpf.com

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