



SMARTTECH3D in the aerospace industry

The aviation industry certainly belongs to one of the most complex and demanding ones. The creation of aircraft is directly related to the responsibility for the lives of people who will use them in the future. Therefore, it is very important to take care of even the smallest detail and carry out many complex research and tests, which would guarantee that the aircraft will be, safe for travelers.

Nowadays, modern companies are increasingly turning to the latest scientific achievements to control the quality of their products. This trend is also strongly penetrating the aviation industry, which should not surprise anyone. After all, using planes is fully dependent on the skills and knowledge of cabin crew, but mainly on the efficient, safe and well-tested aircraft.



Aircraft engine under the watchful eye of a 3D scanner

An example of using the latest technologies in the aviation industry is the world-famous German engine manufacturer, MTU Aero Engines. The company is involved in projects, development, production, promotion, and support of commercial and military aircraft engines and stationary gas turbines.



Manufacturers decided to cooperate with SMARTTECH3D company in the field of 3D scanning to collect all the details of very complex engine geometry. The collected scans were used to create a professional CAD model. In addition, the use of a 3D scanner certified by an independent measuring laboratory guarantees reference results, which is very important for a manufacturer of such technologically advanced parts. MTU has confirmed that the introduction of SMARTTECH 3D scanners to create CAD models of parts produced by them turned out to be a bulls-eye hit. The MTU company is constantly using 3D scanning services from SMARTTECH.



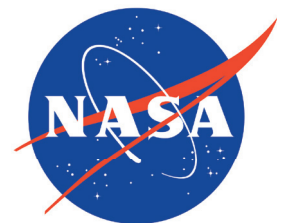
Wing plating testing in Boeing laboratories

Also, well known and valued around the world Boeing company decided to introduce 3D scanning technology to its laboratories - Boeing Aviation Service Research Center (ASRC). In this case, however, the manufacturers focused on testing the wing plating of their aircraft.

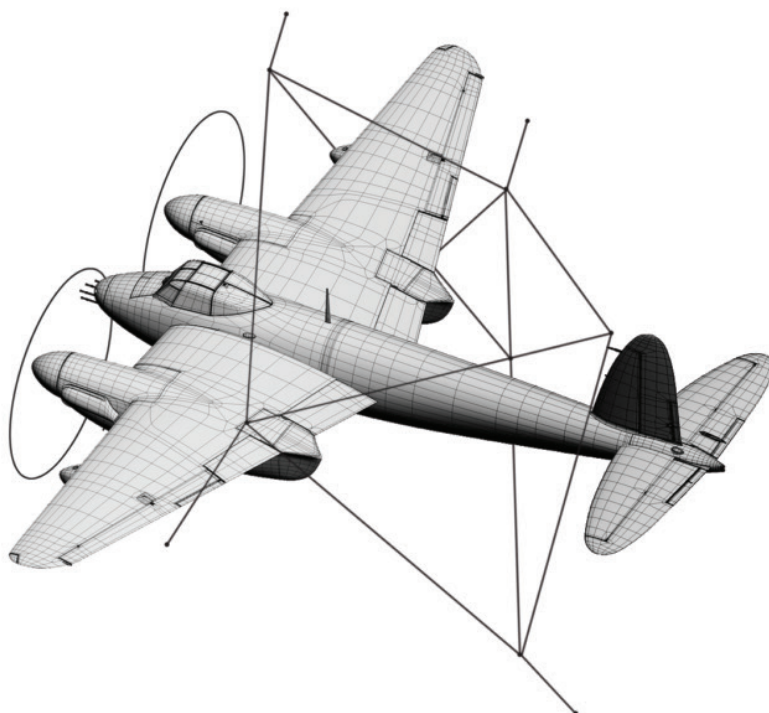
As is well known, each aircraft after the next flight goes through a mandatory and arduous inspection, which allows or does not allow the admission of the plane to the next voyage. The use of SMARTTECH 3D technology during wing plating scanning allows to eliminate human error and perform full precision of the wing inspection of the plane, catching even the smallest damage caused by e.g. lightning strikes or small objects. This significantly improves the safety of the next flights.

Polish 3D scanning technology at NASA research center

It is also worth mentioning the use of SMARTTECH 3D scanners in the space industry. One of the optical measuring devices was purchased by the research center of the National Aeronautics and Space Administration - NASA. The 3D scanner is used to digitize the first models of spacecraft.



The aviation industry requires much specialized equipment, devices and complex research. The constant development of new technologies has resulted in the spread of methods previously reserved only for a very narrow audience. Professional Optical Measuring Machines for Reverse Engineering in combination with the advantages of CAD systems create new possibilities previously unattainable by other techniques. Thanks to this, it is possible to create, among others, the CAD model of the engine, examine the plane wings of an aircraft or create a CAD model of the entire aircraft. However, the possibilities of 3D scanners are huge, so we are always looking forward to the next interesting projects related to the aviation and space industry.



SMARTTECH Ltd.

SMARTTECH3D is a recognized Polish manufacturer of 3D scanners in the world. The company was founded in 2000. The company's offer includes a full range of professional non-contact measuring devices for various applications, quality control, and reverse engineering software. SMARTTECH provides design-implementation services for advanced machine vision systems and 3D measurement services around the world. Satisfied customers include NASA, Boeing, Lufthansa, Orlen, Military Police, KRONES, Central Office of Measures as well as many educational units.

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