



Press Release

LASER trade show: TRUMPF dual optics make the manufacturing of e-motors more productive

New dual optics from TRUMPF welds and measures in parallel // Cycle times are reduced by nearly one-third // Solution has already proven itself in practice in electromobility

Ditzingen/Munich, June 26, 2023 – The high-tech company TRUMPF has developed a dual optics (Dual PFO) that reduces cycle times in automated welding by up to 30 percent, for example for the hairpins of electric motors. "The solution ideally complements our laser system technology and is suitable for many applications, for example in electromobility," said Matthias Beranek, Automotive Industry Manager at TRUMPF. The high-tech company is presenting the Dual PFO at the leading trade show LASER - World of Photonics in Munich.

Dual optics reduce cycle time in production

Welding the hairpins of electric motors must always be of consistently high quality. Otherwise, the electric motors will be defective. Since the hairpins are very fine, this welding process is considered very demanding. To achieve high quality, a PFO always measures the position of the component first, before the welding process begins. Unlike a normal PFO, the Dual PFO measures and welds in parallel. "Users save a lot of time and money in their production unit as a result. The dual optics can also be combined with our new image processing, which is based on artificial intelligence. This increases the productivity of the Dual PFO even further," says Beranek.

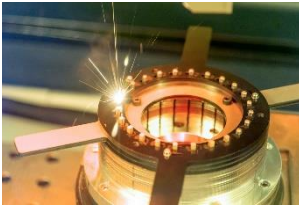
Dual PFO welds particularly large components faster

The Dual PFO has twice the working field of a normal PFO. The solution is therefore particularly suitable for processing large components such as electric motors. Users can weld these with the Dual PFO without moving the workpiece or the focusing optics themselves. "The system is versatile and is also suitable for other large components, such as batteries for e-cars," says Beranek.



Press Release

Digital photographs in print-ready resolution are available to illustrate this press release. They may only be used for editorial purposes. Use is free of charge when credit is given as "Photo: TRUMPF". Graphic editing – except for cropping the main subject – is prohibited. Additional photos can be accessed at the [TRUMPF Media Pool](#).



Welding of hairpin stators

The Dual PFO from TRUMPF is particularly suitable for processing large components such as welding hairpin stators on electric motors.



Laser system technology

The Dual PFO expands TRUMPF's laser system technology.



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

Press contact:

Gabriel Pankow
Spokesperson Laser Technology
+49 7156 303-31559
Gabriel.Pankow@trumpf.com

TRUMPF SE + Co. KG, Johann-Maus-Str. 2, 71254 Ditzingen, Germany