

## Press Announcement

### Precision Welding with New Robot Technology

EDAG Production Solutions automates welding technology for TROX X-FANS

**Fulda, 7/27/2022** – *EDAG Production Solutions GmbH & Co. KG, subsidiary of the EDAG Group, one of the world's largest technology developers of both mobility concepts and industrial solutions, has joined forces with fan manufacturer TROX X-FANS and automated the welding technology at the production site in Bad Hersfeld, adapting the company to the increasing demands of dynamic markets.*

The EDAG Group and TROX X-FANS have developed a comprehensive automation solution for the precision welding of a wide variety of fan components. The idea behind this is to relieve employees of heavy and complex jobs, while preparing production for new tasks.

#### **Welding and soldering in the robot cell**

The EDAG Group has developed a robot cell custom-made to meet the specific requirements of TROX X-FANS. This enables robots for handling and welding to work together and perform the welding and soldering of fan impellers, housings, covers and shafts with high precision and repeatability. Handling is on a just-in-time basis, and it is put to freely scalable use in a wide range of batch sizes down to single-unit production.

#### **Efficiency boost: 45 % reduction in production time**

With the new robot cell, a large number of individual parts that used to have to be manually welded can now be produced far more economically: On average, production time is reduced by 45 percent. Cycle and machine setup times have been significantly reduced, and the equipment is also able to handle demanding soldering and inert gas welding processes. The entire system is user-friendly and low-maintenance. This relieves the workload of TROX X-FANS operators. What is more, productivity and process reliability increase in series production while at the same time ensuring a high degree of variability. Ideal material flow means that component pick-up is ergonomically optimized.

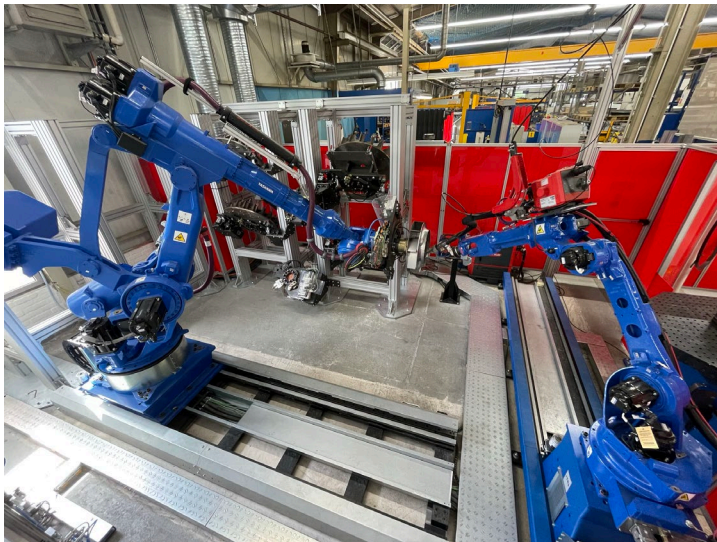
#### **Simple integration of new products**

Working in close interaction, a special clamping concept has been developed for the force-fit clamping of 60 impeller and housing variants with only two grippers. This permits the easy integration of new products and creates more production space. Significantly reduced processing times and lower personnel requirements go hand in hand with sustainable quality improvement, since errors are excluded in automated production. As a result, production is able to respond to expansions of the portfolio more rapidly - while at the same time the reject rate drops. The EDAG Group provided support and backing throughout the entire  
Felix Schuster, Head of Marketing & Communications at EDAG Engineering GmbH, Page 1 of 3  
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development process of the equipment, from the requirements analysis to the turnkey plant, through its many years of experience and wide-ranging expertise in the automotive and industrial sectors.

"Smart industrial solutions like this make a significant contribution to increasing flexibility and a company's ability to respond more quickly to fluctuating production figures," explains Christian Neidhart, the EDAG Group's project manager for the development of the robot cell. "We carried out a detailed appraisal of TROX X-Fans' extremely heterogeneous product portfolio and analyzed the previously manual process for manufacturing the fan components. From this, we were able to create a virtual image of the future system that reflects an ideal material flow. This creates prospects for the site that reach far into the future."

"Bearing in mind future challenges regarding product requirements and the progressive changes occurring in the labor market, we need new technologies and processes to maintain and increase our capacity to compete," said Uwe Vaupel, resource and production planning manager at TROX X-Fans. "In cooperation with the EDAG Group, we were able to validate and realize the plant concept step by step, from the initial ideas through experiments, tests and test setups. An important investment in our future."



Caption: The EDAG Group constructs a new robot cell for TROX X-Fans in Bad Hersfeld (Photo: TROX X-Fans)



## **About EDAG**

EDAG is the world's largest independent engineering service provider to the global mobility industry. We regard mobility as a fully integrated ecosystem, and offer our customers technological solutions for more sustainable, emission-free and intelligently networked mobility. With a global network of some 60 branches, EDAG provides engineering services in the Vehicle Engineering, Electrics/Electronics and Production Solutions segments.

With our interdisciplinary expertise in the fields of software and digitalization, we possess the key skills to help actively shape the dynamic transformation process the mobility industry is currently undergoing. Digital features, autonomous driving, artificial intelligence, alternative powertrains, new mobility concepts and the vision of a networked smart city have become an integral part of our portfolio. Embedded in EDAG's own 360° degree approach to the development of complete vehicles and production facilities, we are a competent partner for sustainable mobility projects. It is in the DNA of the company to actively shape the future of mobility and transfer new technologies and concepts into series production. Today, EDAG is one of the TOP 20 IT service providers in the German mobility sector.

Our customers include leading international OEMs, tier 1 suppliers and startup companies from the automotive and non-automotive industries, all of whom we serve globally with our workforce of approximately 8,000 experts in 360-degree engineering.

In 2021, the company generated sales of € 687 million. On December 31, 2021, EDAG employed a global workforce of 7,880 (including apprentices).

**Do you have any questions, or need further information?  
I look forward to hearing from you:**

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