

# Press release

Metal 3D printing in industrial manufacturing

20th April 2023

## TÜV SÜD certifies Rosswag as a manufacturer for additive manufactured pressure equipment

**Munich / Pfinztal. Pressure equipment must meet the requirements of the European Pressure Equipment Directive 2014/68/EU. Rosswag Engineering, a leading supplier of special metal powders, high-quality components, and qualification services in metal 3D printing, has been certified by TÜV SÜD for the additive manufacturing of components made of 1.4404 (316L) according to the PED.**



3D printing technologies offer manufacturers of pressure equipment the opportunity to overcome the limitations in classic manufacturing processes and to implement complex geometric shapes or to produce devices economically in small quantities. Manufacturers face the challenge of proving the compliance of their additive manufactured products with

the applicable legal requirements. To this end, TÜV SÜD has developed a certification program that considers the general safety requirements of the European Pressure Equipment Directive 2014/68/EU.

Rosswag Engineering was one of the first manufacturers in the world to be certified by TÜV SÜD in accordance with the PED for the manufacture of AM components made of 1.4404 (316L). For this, the company completed the extensive testing and certification program in accordance with DIN 17026:2020. Essentially, the quality of the entire process is certified – from the consistency of the manufacturing processes to the internal processes for quality assurance and quality controls to the reproducibility of

the mechanical-technological properties, considering the PED requirements. In order to meet the high quality demands of additively manufactured pressure equipment, more than 100 specimens were produced on the SLM®280 2.0 LPBF machine and subsequently tested.

"We want to offer solutions to transfer more functional optimized and additive manufactured components into industrial applications. But to be able to apply innovative heat exchangers, for example, there was no alternative to certification according to the Pressure Equipment Directive," Gregor Graf, Head of Engineering at Rosswag GmbH.

"With our certification according to the Pressure Equipment Directive, we can also confirm the high quality, reliability and safety of Rosswag GmbH's additive manufactured products for the end user," says Gunther Kuhn, Head of Product Management at TÜV SÜD Industrie Service GmbH.

**Note for editorial staff:** The press release and high-resolution photo are available on the Internet at [www.tuvsud.com/pressreleases](http://www.tuvsud.com/pressreleases) (photo credit: Rosswag Engineering).

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Founded in 1866 as a steam boiler inspection association, TÜV SÜD is now a globally active company. More than 25,000 employees at over 1,000 locations in around 50 countries ensure the optimisation of technology, systems and know-how. They make a significant contribution to making technical innovations such as Industry 4.0, autonomous driving or renewable energies safe and reliable. [www.tuvsud.com](http://www.tuvsud.com)

The family-run Rosswag GmbH was founded in 1911 and is a leading supplier of forged components with 200 employees under the name Edelstahl Rosswag. The Rosswag Engineering division, founded in 2014, offers a holistic and fully integrated process chain for metal 3D printing services with its own metal powder production. This enables the efficient and economical production of functionally optimized metal components from over 40 different materials in the LPBF process. The service portfolio ranges from the production of prototypes, tools and series products to the individual qualification of new materials and process parameters in the company's own materials laboratory. Rosswag has now produced over 60,000 components and has received numerous awards in recent years for its research-intensive innovation strategy.