PRESS RELEASE

Laser technology to manufacture singular components

- *Tekniker will be presenting a number of items at BIEMH from its range of laser devices applied to machine tools and which originate from the organisation's "Laser Manufacturing Lab"*
- *The organisation will showcase parts for which additive manufacturing techniques have been used as well as stainless steel sheet metal produced by means of ultra-short pulses*

[Eibar, May 25, 2022] - Laser technologies nowadays offer a complementary manufacturing technology to be taken into account to produce singular parts in sectors such as aeronautics, aerospace or energy. When not only applied to machine tools but also to other sectors, they can supplement already existing manufacturing processes and offer a new way of manufacturing parts.

Additive manufacturing processes for components such as 3D wire or powder Laser Metal Deposition (LMD) techniques are but one of the most promising future techniques used to produce large components that provide an efficient alternative in terms of repairs, overlaying and coating of components.

During the upcoming edition of the International Machine Tool Biennial, the **Tekniker** technology centre, a member of the Basque Research and Technology Alliance (BRTA), will showcase two components made by the "Laser Manufacturing Lab" with LMD for industrial customers from the organisation's situated in hall 1, aisle C14.

Although it is a relatively new technology, the industrial sector has shown a lot of interest as the process offers a high degree of efficiency for singular components and high-value materials. It also improves structural quality and resilience, offers more freedom of movement systems and lower costs in terms of raw materials.

More specifically, the technology centre will present a compressor cylinder made in austenitic stainless steel (AISI 316L) and a device used to open and shut an intake and exhaust valve fitted on an engine used in the energy sector made of austenitic stainless steel (AISI 316L).

Beyond additive manufacturing

During the international trade fair, Tekniker will also showcase several sheets of austenitic stainless steel (AISI 316L) manufactured by means of ultra-short laser pulses and a polygonal scanner.

This is another manufacturing technique that uses laser and can be applied to different industrial processes such as the precision cutting of any kind of material (including polymeric and glass materials), surface modification processes to generate specific properties for materials (anti-icing, hydrophobic, bactericidal, etc.), aesthetic colouring of metals and drilling processes.

Technologies of this king could mainly be geared towards manufacturers of consumer goods, mechanical components and the healthcare sector.

Likewise, and in order to adequately respond to a growing demand for electric components in the automotive business where coper consumption has also grown significantly, Tekniker will also showcase laser welding demonstrators at BIEMH that use copper and aluminium for battery cells.

This project has an impact on SDGP 9 - Industry, innovation and infrastructures and contributes towards the economic pillar of sustainable development and society as a whole.

Concerning Tekniker

Tekniker is a technology centre specialised in Advanced Manufacturing, Surface Engineering, Product Engineering and ICTs for production. Its mission is to provide growth and wellbeing for society at large via R&D&I and further the competitiveness of the industrial fabric in a sustainable manner. Tekniker is a member of the Basque Research and Technology Alliance (BRTA).

Further information:

GUK ► Unai Macias
unai@guk.es | Tel. 690 212 067