NOTA DE PRENSA

Alstom opens new facilities for its 3D printing hub at Santa Perpètua site, in Barcelona

The new space has thirteen industrial machines, with the capacity to produce serial parts for use in railway solutions

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May, 31, 2021 – The 3D Printing Hub at Alstom's Santa Perpètua Industrial Center, in Barcelona, opens new facilities in a space dedicated to the entire Alstom 3D printing team and equipment. The new facilities, located in the heart of the factory, has a component scanner, ten FDM[1] industrial wire machines, and three SLA-DLP[2] resin devices, which allow printing tools for industrial centers and prototypes to validate designs, moulds, and serial parts.

From April 2020 to March 2021, the Hub has designed and printed more than 258 different types of parts, with a total of 13,978 pieces manufactured, resulting in significant time savings equivalent to weeks of work. "This new enlarged Hub will allow us to increase the number of components generated by 3D printing, including structural, functional, and safety elements; incorporating new materials and techniques that improve Alstom's manufacturing processes," says Jaume Altesa, head of the Hub and one of the group's leading 3D printing experts worldwide.

One of the keys to success in incorporating printed parts into the manufacturing process is based on the Barcelona team's specialization in plastics approved for use in rolling stock, highly resistant to fire and smoke. This expertise allows them to carry out the entire workflow from the center, including post-processing and reverse engineering tasks and providing support to the rest of its centers. The Hub has participated in many key projects at Group level, such as the TGV 2020 (Alstom's latest generation of very high-speed trains), in collaboration with the La Rochelle factory, for the analysis and redesign of train components.

Created in 2016, as part of Alstom's "Industry of the Future" program, the 3D printing center at the Santa Perpètua Industrial Center was the pioneer in incorporating this type of technique at Alstom, and is now a world reference within the group, both in R&D processes and in the production of components. The center is currently immersed in several innovation projects focused on metal 3D printing and joint initiatives with other company centers and in collaboration projects with the regional ecosystem of companies dedicated to 3D printing in Catalonia.

[1] FDM : Fused deposition modeling

[2] SLA: Stereolithography - DLP: digital light processing

About Alstom

Leading societies to a low carbon future, Alstom develops and markets mobility solutions that provide the sustainable foundations for the future of transportation. Alstom's product portfolio ranges from high-speed trains, metros, monorail and trams to integrated systems, customised services, infrastructure, signalling and digital mobility solutions. Alstom has 150,000 vehicles in commercial service worldwide. With Bombardier Transportation joining Alstom on January 29, 2021, the enlarged Group's combined proforma revenue amounts to €14 billion for the 12-month period ended March 31, 2021. Headquartered in France, Alstom is now present in 70 countries and employs more than 70,000 people. www.alstom.com

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