Freemelt makes breakthrough in serial production of orthopedic implants by an order from global orthopedic implant OEM

Freemelt has received an order from a global orthopedic implant OEM (Original Equipment Manufacturer) for a proof-of-concept of serial production capabilities by Freemelt's industrial machine eMELT.

The customer is a leading innovator in the orthopedic implant industry, with a strong focus on advancing patient outcomes through advanced technology and material science. By consistently pushing the boundaries of development, they are pioneering new materials and adopting advanced manufacturing techniques such as additive manufacturing (AM) to enhance quality, functionality, and customization of orthopedic implants.

One of their key areas is the development of advanced porous metal structures that mimic the natural structure of bone, resulting in implants with better integration and stability within the body. Additive manufacturing is increasingly used for the manufacturing of porous metal structures due to its precise control of the manufacturing process. These features enable the production of implants that integrate more efficiently with the body's bone tissue, improving both functionality for the patient and the implant's lifespan in the body. Within additive manufacturing E-PBF (Electron Beam Powder Bed Fusion) is extra suitable as it is the fastest additive manufacturing process, enabling the most cost-efficient and productive solution for manufacturing of implants with porous structures.

The global market for orthopedic implants produced using additive manufacturing was valued at 1.71 BUSD in 2023 and is projected to expand to 6.6 BUSD by 2032, driven by a compound annual growth rate (CAGR) of 16.2% (1). With the aging global population and the rising prevalence of conditions like osteoarthritis, the demand for joint replacements is expected to increase significantly, further boosting the market potential for AM in the orthopedic sector.

To further strengthen its position within additive manufacturing the customer has ordered a proof-of-concept for orthopedic implants produced in Freemelt's industrial machine, eMELT.

Freemelt's CEO Daniel Gidlund comments:
"This order is a major milestone for Freemelt and I am proud that we can add the first orthopedic implant OEM to our customer list. During the past years, we have been in close discussions and collaboration with this OEM, and the fact that they now choose to invest in evaluating Freemelt's E-PBF technology and industrial machines to strengthen their position as a frontrunner in innovative manufacturing of orthopedic implants is a true steppingstone for us. The orthopedic implant industry has the highest adoption of AM for serial production, and we will do our utmost for a long and fruitful relationship with this OEM."

Source:
1. Business Research Insights, under 3D Printed Orthopedic Implants Market Size [2032] (businessresearchinsights.com)

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About Us

Freemelt is a deep-tech, green-tech company whose groundbreaking solution creates new opportunities for rapid growth in 3D printing, also known as additive manufacturing (AM). AM is a technology under substantial growth, revolutionizing the traditional manufacturing industry by offering a sustainable production process with optimized product design, shorter lead times, minimal material waste, and reduced environmental impact. Freemelt's protected technology enables more cost-effective 3D printing with consistent and high quality. A open-source approach will provide conditions for significant growth and expansion into new manufacturing markets. Freemelt was founded in 2017, is listed on Nasdaq First North Growth Market, headquarters in Mölndal, has a manufacturing unit in Linköping, and sales offices in the Netherlands and the USA. Read more at www.freemelt.com

Attachments

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