

Freemelt receives an order from a North American customer – Accelerating the commercialization of Fusion Energy

Freemelt has received an order from a North American customer for a feasibility study targeting tungsten material process and application development for Fusion Energy applications.

The customer has experience and expertise in Additive Manufacturing (AM) technology and various demanding refractory metals including tungsten, crucial for Defense and Fusion Energy applications. The customer is renowned for its pioneering work to accelerate the development of Fusion Energy as a sustainable source of energy.

The Energy industry is undergoing significant development, driven by technological advancements and a growing awareness of the need for sustainable, fossil-free energy sources. Among these, Fusion Energy has gained substantial interest as a potential solution. Fusion has until the end of 2023 attracted a total of 6.21 BUSD in private and governmental funding (1). We see a global trend towards increased government interest in fusion where the U.S., Japan, Germany, and the UK have announced programs to support the commercialization of Fusion Energy. The prediction is that the first Fusion Energy power plant will deliver electricity to the grid before 2035 (1).

Tungsten is a critical material for the Fusion Energy industry due to its unique properties, including high density, strength, and resistance to extreme temperatures and wear. Traditional manufacturing of tungsten components is challenging and costly, especially when aiming for the highest material properties. Additive Manufacturing offers a promising solution to these challenges. AM enables the production of tungsten components with complex geometries that are difficult or impossible to achieve with traditional methods. Additionally, AM can reduce material waste, shorten production times, and allow for more flexible manufacturing processes. Freemelt's E-PBF (Electron Beam Powder Bed Fusion) technology is particularly attractive as it enables efficient manufacturing of tungsten parts with less design limitations while achieving the highest material properties. This makes it an ideal choice for producing critical components for the Fusion Energy industry.

The customer has ordered a project from Freemelt, where Freemelt will deliver a tungsten feasibility study targeting material process and application development of high-demanding tungsten components for use in Fusion Energy applications.

Freemelt CEO Daniel Gidlund comments:

"I'm thankful that another North American customer has chosen Freemelt's E-PBF technology. This order further confirms Freemelt's unique experience and capabilities of printing tungsten and it expands our footprint in North America, a market experiencing substantial growth within our target industries, Energy, Defense, and MedTech. Feasibility studies like this, are important for Freemelt's commercialization as they are generated by high-demanding industrial applications suitable for E-PBF technology and will over time result in orders for the industrial machine, eMELT."

“Further, this order confirms the critical role Freemelts E-PBF technology plays for high-demanding materials such as tungsten for use in Fusion Energy powerplants. Providing components for Fusion Energy applications is particularly challenging due to the harsh conditions involved, which is why it is especially rewarding that Freemelt has earned the trust to support this customer in this project. The integration of our E-PBF technology with tungsten manufacturing has the potential to significantly advance the commercialization of Fusion Energy production”

Source:

(1) Fusion Industry Association, under [Fusion Industry Investment Passes \\$6bn - Fusion Industry Association](#)

www.fusionindustryassociation.org

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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**](http://www.freemelt.com)

Attachments

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