Freemelt receives an order for Freemelt ONE from the University of Birmingham

The University of Birmingham will use the Freemelt ONE machine for material process development of various refractory metals, superalloys, and copper for applications in the fusion energy, space, and aerospace sectors.

The University of Birmingham is a leading institution in engineering and physical sciences, with a strong focus on metal additive manufacturing (AM). The University presently hosts 11 metal PBF (Powder Bed Fusion) and DED (Directed Energy Deposition) systems, making it the largest capability in any UK university. The university's extensive expertise in working with refractory metals positions it as a key partner in addressing the demands of high-temperature and wear-resistant components for critical applications within aerospace, space, and fusion energy sectors.

To accelerate the development of additive manufacturing and strengthen their position within E-PBF (Electron Beam Powder Bed Fusion) technology, the University of Birmingham has ordered a machine from Freemelt´s application center.

Over the past 20 years, Professor Moataz Attallah at the University of Birmingham has focused his research on development of new AM applications using novel materials, working closely with top research institutes and industrial leaders in the aerospace, space, and fusion energy sectors. Professor Moataz Attallah will use the Freemelt ONE machine for projects in advanced research focusing on tungsten for fusion energy, niobium alloys for space, and copper for various applications.

Freemelt's CEO Daniel Gidlund comments,
"I am thrilled about the fact that we continue to expand our presence at prestige universities in the UK and this time at the University of Birmingham with extensive industry experience, focusing on materials highly suitable for our E-PBF machines. Together with the active installed base at IHI and the University of Sheffield, and the recent orders from UKAEA (United Kingdom Atomic Energy Authority), and NAMRC (Nuclear Advanced Manufacturing Research Centre), we advance our position within the UK's leading AM community, underscoring the critical contribution of our E-PBF technology and competence to produce refractory metals and super alloys, for high-temperature and wear-resistant components and copper within aerospace, defense, healthcare, and fusion energy."

University of Birmingham, Professor Moataz Attallah comments:
"I am electrified about the installation of the Freemelt ONE machine in the Advanced Materials & Processing Laboratory (AMPLab). This machine significantly enhances our AM capabilities, offering exciting new opportunities in AM process development, alloy development, and even the simulation of electron beam welding processes. Its open-source nature allows us to fine-tune process parameters freely, unlike the other black-box systems where most parameters are masked making it difficult to progress the science of E-PBF. Designed with R&D in mind, the Freemelt ONE machine will be invaluable for our work in nuclear fusion. Combined with our advanced nuclear irradiation facilities, state-of-the-art microscopy, and hot isostatic pressing technologies, it positions us to lead successful future programs. I'm excited to see how this addition will push our research frontiers even further"

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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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