
Freemelt granted additional US patent

– Innovative method employs ultraviolet light for improving resolution and stability in 3D printing

Nasdaq First North-listed Freemelt – a high-tech growth company whose groundbreaking solution creates new conditions for rapid growth in 3D printing – has been granted a patent in the United States. The patent protects a method of neutralizing electric charge in metal powder by means of ultraviolet radiation. The method can increase the resolution and robustness of electron beam 3D printing.

In Freemelt's 3D printers, metal powder is consolidated into solid metal parts using a powerful electron beam. As opposed to laser beams used in many other 3D printers, an electron beam is easily scalable up to several kilowatts of beam power. This opens up for even higher productivity in future 3D printers. The patent deals with a method to prevent accumulation of electric charge in the metal powder, a phenomenon that has previously hampered the use of very fine powders in combination with high beam power.

"This innovation opens up 3D printing technology for more application areas and gives more freedom of choice regarding powder materials. Enabling finer powders, it will be easier to print metal parts with high resolution and smooth surface finish, without jeopardizing process stability. We expect to be able to 3D print with metal powders that were previously difficult to handle", says Ulric Ljungblad, inventor and Chief Innovation Officer of Freemelt.

"This patent strengthens Freemelt's position and is important for our upcoming industrial 3D printing solutions. It is also yet another proof of the extraordinary innovation capability of our experienced team. I have been continuously impressed ever since I joined Freemelt a few months ago", says Daniel Gidlund, CEO of Freemelt.

The patent is granted in the US and extends until 5th of June 2039. European patent is pending.

Link to the patent

United States Patent and Trademark Office (USPTO):

<https://image-ppubs.uspto.gov/dirsearch-public/print/downloadPdf/11534963>

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About Us

Freemelt is a high-tech company whose ground-breaking solution creates new opportunities for rapid growth in 3D printing, also known as additive manufacturing. The company's protected technology enables cost-effective printing to a consistent and high quality. By choosing an open-source solution, the conditions are created for strong growth and expansion towards manufacturing markets.

Freemelt was founded in 2017, is listed on Nasdaq First North Growth Markets, has 34 employees, head office in Gothenburg and a manufacturing unit in Linköping. Read more at www.freemelt.com.

Attachments

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