

PRESS RELEASE

Portfolio for additive manufacturing expanded: "Fusion Factory" launched at Fraunhofer IFAM Dresden

The Fraunhofer Institute for Manufacturing Technology and Advanced Materials IFAM in Dresden has commissioned a new facility to strengthen its competence as a partner for additive manufacturing. The Fusion Factory of XERION BERLIN LABORATORIES is a compact production line for additive manufacturing of metallic and ceramic components. It was developed by XERION with scientific support from Fraunhofer IFAM Dresden and brought to market maturity.

For the institute, which already has a wide range of generative manufacturing processes, the plant supplements particularly the range of binder-based manufacturing. In this case, fused filament fabrication (FFF) is used for metal parts without loose powder, which in principle can also be used for other powder materials. Metallic FFF is a particularly resource-efficient manufacturing process, since the metal powder from the filament is found 100% in the finished component.

The Fusion Factory has three modules that combine the process steps of printing, debinding and densification, i.e. the final heat treatment to produce a purely metallic and dense component, in one plant. With additional printing modules, the system can be expanded for industrial series production.

The parts produced with the Fusion Factory allow a particularly high degree of design freedom, as both open and closed porosity of the parts can be achieved in the printing process. This process, therefore, opens up new bionic perspectives.

Through the technological expansion with the Fusion Factory, the institute not only plans to implement new filament materials, but also to further develop the system technology itself and the process chain for optimized industrial production in the future. In addition to component studies for the industry and economic feasibility studies, the system can be used to support project partners in their entry into additive production and to assist in the integration of the process chain into existing production processes.

Editor

**FRAUNHOFER INSTITUTE FOR MANUFACTURING TECHNOLOGY AND ADVANCED MATERIALS IFAM,
BRANCH LAB DRESDEN**

The Fusion Factory is also available for training and information events for both beginners and experienced users. For example, the industrial workshop "Additive metallic filament printing for practical use" will take place at Fraunhofer IFAM in Dresden on January 21, 2021. If you are interested, you can get to know the new system on site. [Here you can find out more about the event and register directly.](#)

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The new plant is part of the Innovation Center Additive Manufacturing (ICAM) at Fraunhofer IFAM Dresden. Here, the institute has concentrated its additive manufacturing technologies at one location and can, thus, offer tailor-made solutions for a wide range of problems from a single source. Customers can choose from the processes selective electron beam melting, three-dimensional screen printing, fused filament fabrication as well as three-dimensional stencil printing and dispense printing at the site.

With the new possibilities, questions concerning metallic filament printing can now be dealt with comprehensively and individual solutions regarding materials, system technology and its extensions can be offered.

[Further information on the activities in additive manufacturing at Fraunhofer IFAM Dresden.](#)

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Editor

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*The newly installed "Fusion Factory" at
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