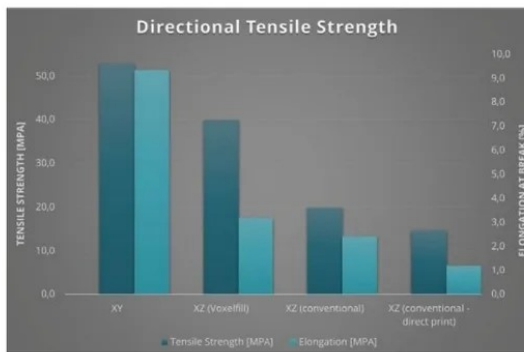


AM TECH REVIEW

AIM3D Validates Voxelfill Strategy for Overcoming Inhomogeneous Strengths in 3D Components

AIM3D says it has succeeded in demonstrating the advantages of its patented Voxelfill cross-layer filling process for overcoming inhomogeneous strength issues in 3D components. The material qualification testing indicates many benefits of creating components with AIM3D’s Voxelfill printing strategy along with the composite extrusion modeling (CEM) process, which uses standard pellets rather than the more expensive filaments required by other platforms.

The company’s strength tests have shown the process can overcome inhomogeneous strengths of 3D components in the X, Y and Z axes, and thus comes close to conventional processes such as injection molding. The Voxelfill process testing indicates an 80% to 100% tensile strength in the printing direction.



Xolo Xube² Offers 3D Volumetric Printing for Creating Intricate, Highly Detailed Structures

Xolo’s Xube² is a second-generation 3D printer using volumetric 3D printing technology to deliver speed and resolution for more precision and flexibility, with the technology designed for both academic and industrial research. Its new user interface offers even more ease of use, providing excellent printing results while giving advanced users full control over all parameters — even during print jobs.

Volumetric 3D printing enables objects to be built in a single, layer-free process, thereby offering significant speed and material efficiency advantages. Xolo’s xolography technology achieves high precision by projecting light with two wavelengths into resin inside sealed cuvettes, enabling the rapid creation of complex structures.

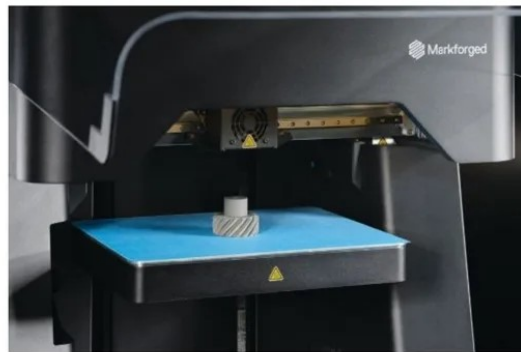
Markforged Adds Metal Printing Capability to FX10 Composite System

Markforged has added a Metal Kit print engine to its FX10 industrial 3D printer, enabling it to print both metal filaments and composites with continuous fiber reinforcement.

The FX10 was released in November 2023 as a composite-only printer and designed to be a versatile tool on the factory floor. With its modular architecture, upgrades like the Metal Kit enable FX10 customers to gain additional value from the machine after purchase.

Markforged has also added the 316L stainless steel metal filament for use with the FX10 Metal Kit. Users will also be able to print in 17-4PH with additional support for other Markforged metal filaments in the future.

The FX10 Metal Kit consists of a swappable print engine which includes a metal-specific printhead, material feed tubes, routing back and dual pre-extruders. An FX10 can be swapped between metal and composite as many times as needed, and the swap takes about 15 minutes. Similar to the fifth-generation continuous fiber reinforcement



(CFR) print system in the FX10 that prints nearly twice as fast as previous composite printers, the second-generation metal FFF engine was built on years of Markforged’s experience printing metal and prints significantly faster than previous Markforged metal systems. The FX10 combines faster print speed with a print volume twice as large compared to Markforged’s prior industrial metal printers.