ADDITIVE MANUFACTURING



3D printer

MARKFORGED X7

Specifications

Print technology	Fused Filament Fabrication (FFF) with Continuous Fiber Fabrication (CFF)
Build volume	320 mm X 250 mm X 200 mm
Used materials	Base material: Nylon, Onyx, Onyx FR Reinforcement fiber: Carbon, Kevlar, Glass, High Strength/ High Temp glass
Layer resolution	50 -100 - 125 - 200 µm
Extrusion - nozzles	Double, quick-change
Software	"Eiger", cloud-based, offline

Markforged X7 3D printing is a kind of additive manufacturing that can be used to rapidly fabricate components of composite material with highly customizable geometries, using a laye by-layer fabrication process.

The base material used to print the components is called Onyx: a polyamide loaded with short carbon fibers. The base material can be reinforced by adding continuous reinforcing fibers: carbon, Kevlar, Glass, High Strength/ High Temp glass.

These composite materials can match the strength of many metals, but at much lighter weight. In particular, the addition of carbon fibres to polymeric materials is becoming a widely used strategy to enhance the mechanical properties of 3D printed parts.

The double extrusion, Continuous Fibre Fabrication (CFF) and Fused Filament Fabrication (FFF), allows to create composite parts incredibly strong and versatile.



