MARKFORGED X7
INDUSTRIAL 3D PRINTER

Built from the ground up for reliable performance the X7 delivers breakthrough quality and precision in 3D printing. The top-of-the-line industrial grade platform features a strengthened dual nozzle print system that supports Continuous Carbon Fiber and Kevlar reinforcement. Laser inspection scans parts mid-print to ensure dimensional accuracy for the most critical tolerances. Accelerate part production with Turbo Print, our faster print mode-- only availabe on the X7.

Exceptionally strong, supremely stiff, ultra lightweight, and incredibly versatile- X7 3D printed parts deliver unparalleled performance without compromise.

Outperform Aluminum

Continuous carbon fiber parts stand up to the toughest applications. Stronger than 6061 Aluminum and 40% lighter, these parts are perfect for manufacturing equipment, jaws, tooling, and end-use parts

50x Faster, 20x Cheaper

Directly replace machined aluminum with parts straight off the X7 industrial 3D printer, Parts printed with Onyx and reinforced with carbon fiber filament, fiberglass, or Kevlar' are work-capable.

MARKFORGED X3

The refined Industrial FFF 3D printer for micro carbon fiber filled nylon parts.
The X3 merges industrial quality and build volume into a benchtop form factor, bringing FFF composite 3D printing to your manufacturing floor.

Industrial Reliability and Accuracy

Precision-machined hardware, advanced sensors, & unique software drive leading edge accuracy & reliability. Markforged industrial carbon fiber 3D printers offer micron-level laser scanning for closed-loop calibration, reliably yielding parts with high repeatability and near-perfect surface finish.

Outperform Aluminum

Print in a wide variety of print modes all optimized to yield quality parts — including 50 µm resolution, which delivers ultra-high-quality parts without visible layer lines.

Manufacturing-Grade FFF Printing

The X3 brings three versatile, advanced, micro carbon fiber filled nylon materials to a precision-built FFF 3D printing platform, delivering functional part after functional part.

	X7 (Gen 2)	X3 (Gen 2)
Printer Properties		
Process	Fused Filament Fabrication, Continuous Filament Fabrication	Fused filament fabrication
Build Volume	330 x 270 x 200 mm (13 x 10.6 x 7.9 in)	330 x 270 x 200 mm (13 x 10.6 x 7.9 in)
Weight	48 kg (106 lbs)	46 kg (102 lbs)
Machine Footprint	584 x 483 x 914 mm (23 x 19 x 36 in)	584 x 483 x 914 mm (23 x 19 x 36 in)
Print Bed	Kinematic coupling — flat to within 80 μm	Kinematic coupling — flat to within 80 μm
Laser	In-process inspection, active print calibration, bed leveling	Bed leveling, active print calibration
Extrusion System	Second-generation extruder, out-of-plastic and out-of-fiber detection	Second-generation extruder, out-of-plastic detection
Power	100–240 VAC, 150 W (2 A peak)	100–240 VAC, 150 W (2 A peak)
RF Module	Operating Band 2.4 GHz Wi-Fi Standards 802.11 b/g/n	Operating Band 2.4 GHz Wi-Fi Standards 802.11 b/g/n
Materials		
Plastics Available	Onyx, Onyx FR, Onyx ESD, Nylon White	Onyx, Onyx FR, Onyx ESD, Nylon White
Fibers Available	Carbon fiber, fiberglass, Kevlar®, HSHT fiberglass	None
Tensile Strength	800 MPa (25.8x ABS, 2.6x 6061 -T6 Aluminum) *	52 MPa (1.7x ABS) *
Tensile Modulus	60 GPa (26.9x ABS, 0.87x 6061 -T6 Aluminum) *	4.2 GPa (1.9x ABS) *
Part Properties		
Layer Height	100 μm default, 50 μm minimum, 250 μm maximum	100 μm default, 50 μm minimum, 200 μm maximum
Infill	Closed cell infill: multiple geometries available	Closed cell infill: multiple geometries available
Software		
Eiger Cloud	Slicer, part / build management (other options available at cost)	Eiger Cloud (Other options available at cost)
Security	Two-factor authentication, org admin access, single sign-on	Two-factor authentication, org admin access, single sign-on
Blacksmith	Adaptive manufacturing platform (additional purchase required)	-

FRONT VIEW — 23"

SIDE VIEW — 36", 19"
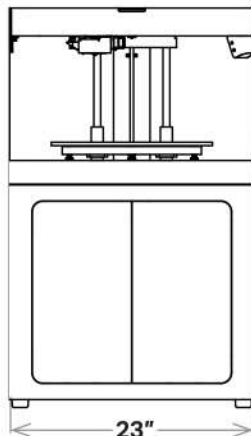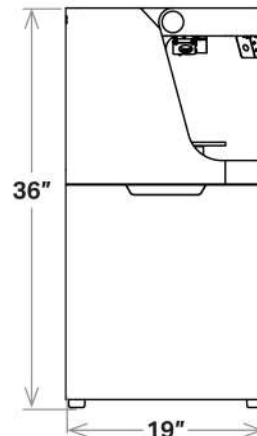
* Continuous carbon fiber data. **Note:** All specifications are approximate and subject to change without notice.