FX10™

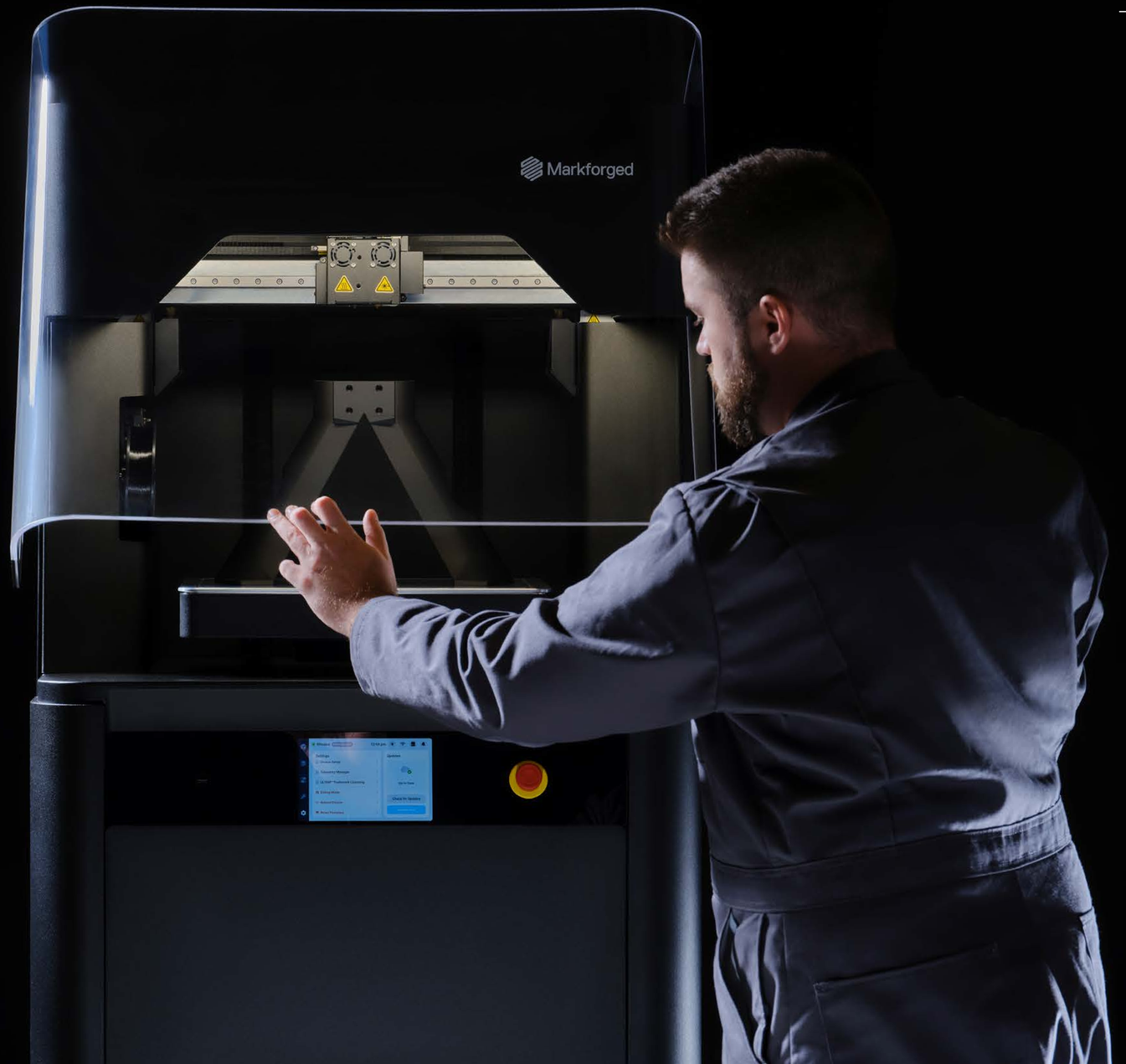
The first industrial metal and composite printer.

Markforged®

The world's first metal and composite printer.

FX10 is the first industrial metal and composite 3D printer — the product of years of engineering innovation and technological advancement. Built on the success of the Markforged X7 and Metal X, FX10 quickly delivers strong, accurate tools and fixtures to your factory floor.

FX10 features a modular print system that enables users to swap between metal and composite print engines quickly and efficiently. All FX10s have composite capability, with metal capability as a purchasable add-on. Printhead-mounted optical sensors can verify the dimensional accuracy of parts and assess device health and performance. FX10 utilizes automatic calibration and material changeover, yielding a simple, low-touch user experience that mitigates the need for dedicated operators.



Unlock strong parts on demand

FX10 prints both metal and continuous carbon fiber reinforced parts for a wide range of factory floor applications — helping manufacturers bring products to market faster, slash fabrication and inventory costs, and de-risk line down events.

Print the right part every time

We designed every aspect of FX10 — from its motion system to the software that powers it — around delivering accurate, strong parts reliably. Backed by Simulation and Inspection software, FX10 can produce verified parts that meet stringent factory floor requirements.

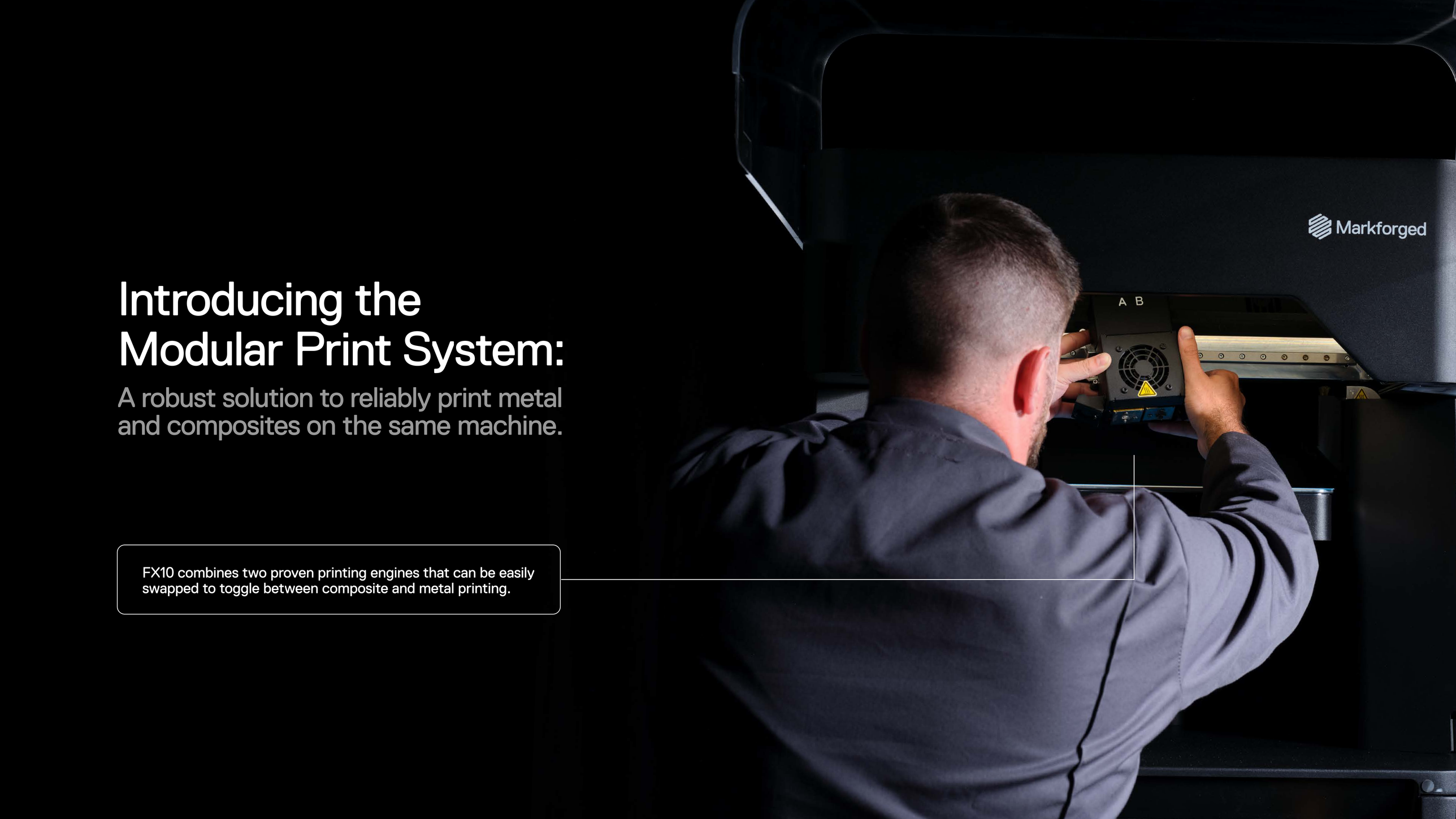
Drive ROI fast, then scale

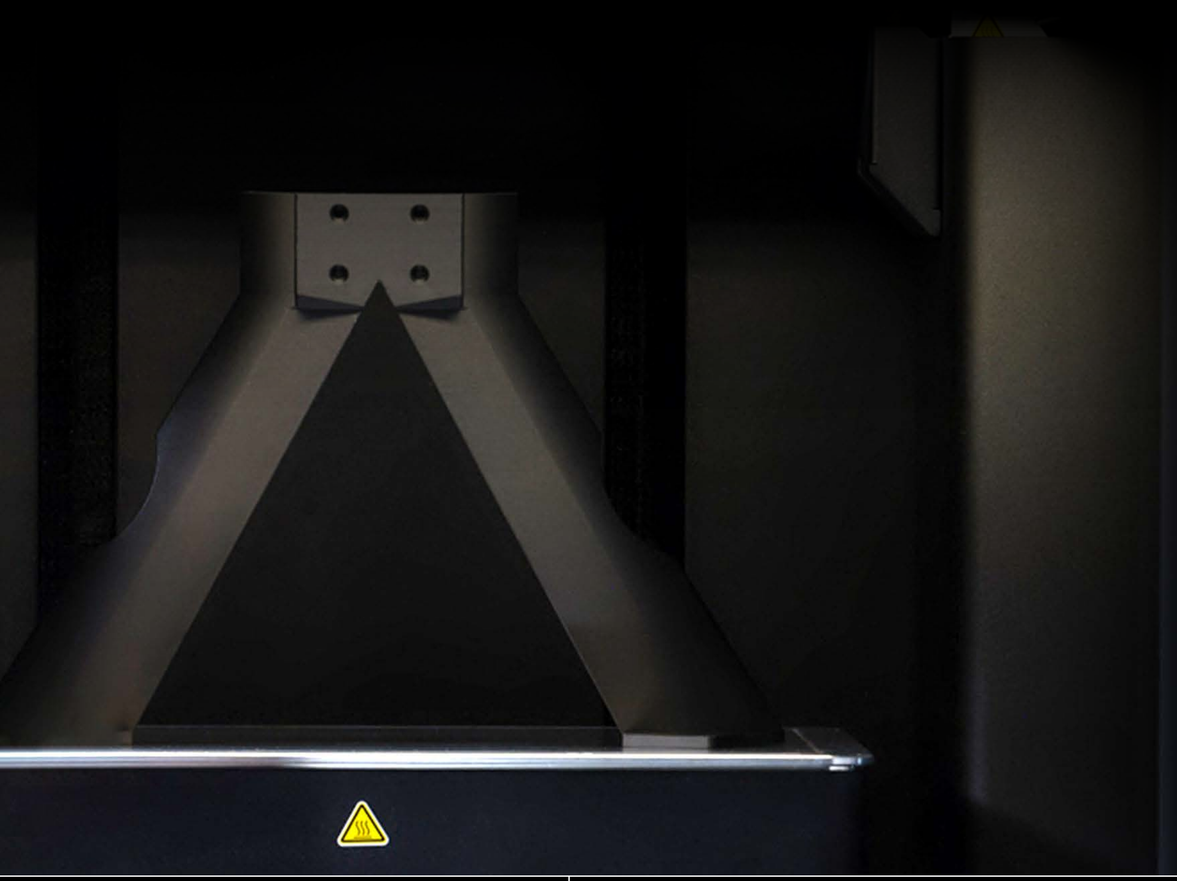
FX10 operates on the Digital Forge: Markforged's additive platform that features intuitive device and desktop software, training, and built-in cost calculation. You can start generating ROI on day one and effortlessly scale to more teams, machines, and facilities.

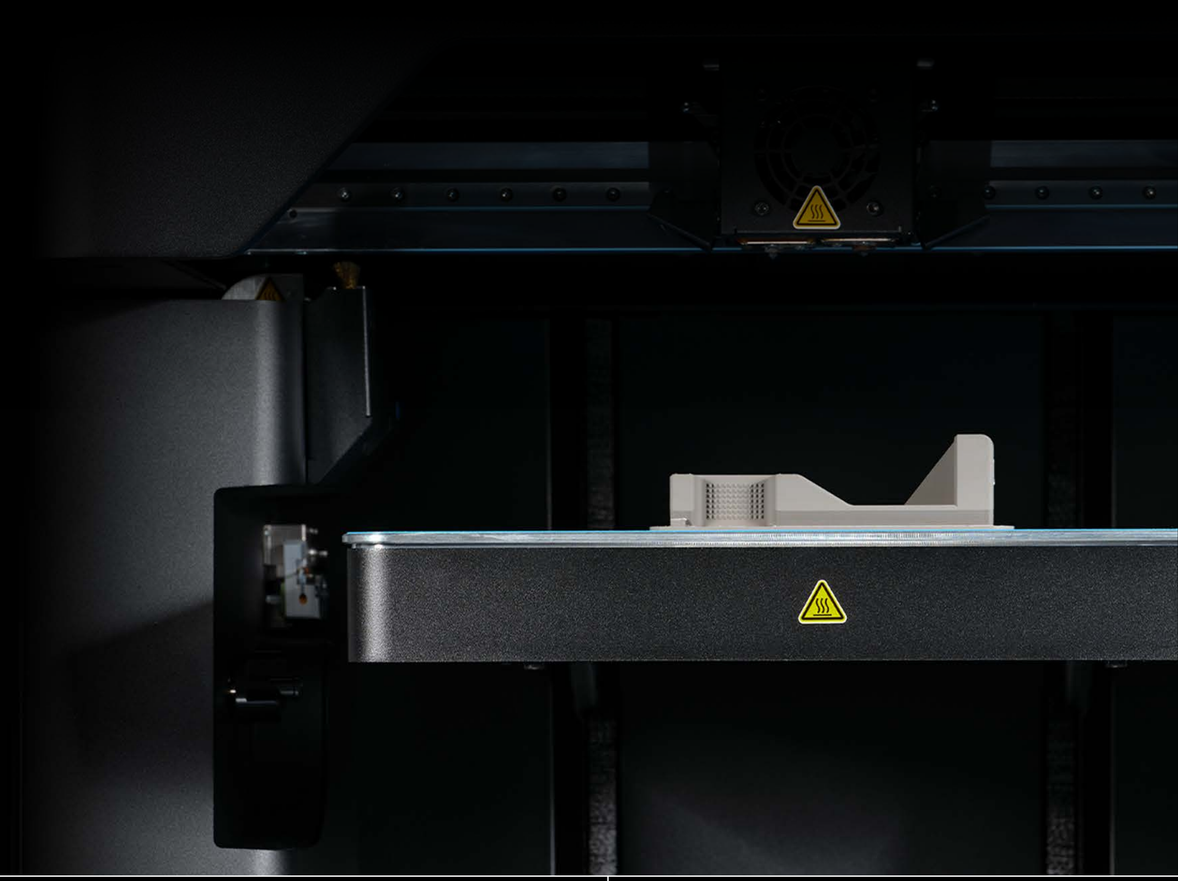
Introducing the Modular Print System:

A robust solution to reliably print metal and composites on the same machine.

FX10 combines two proven printing engines that can be easily swapped to toggle between composite and metal printing.





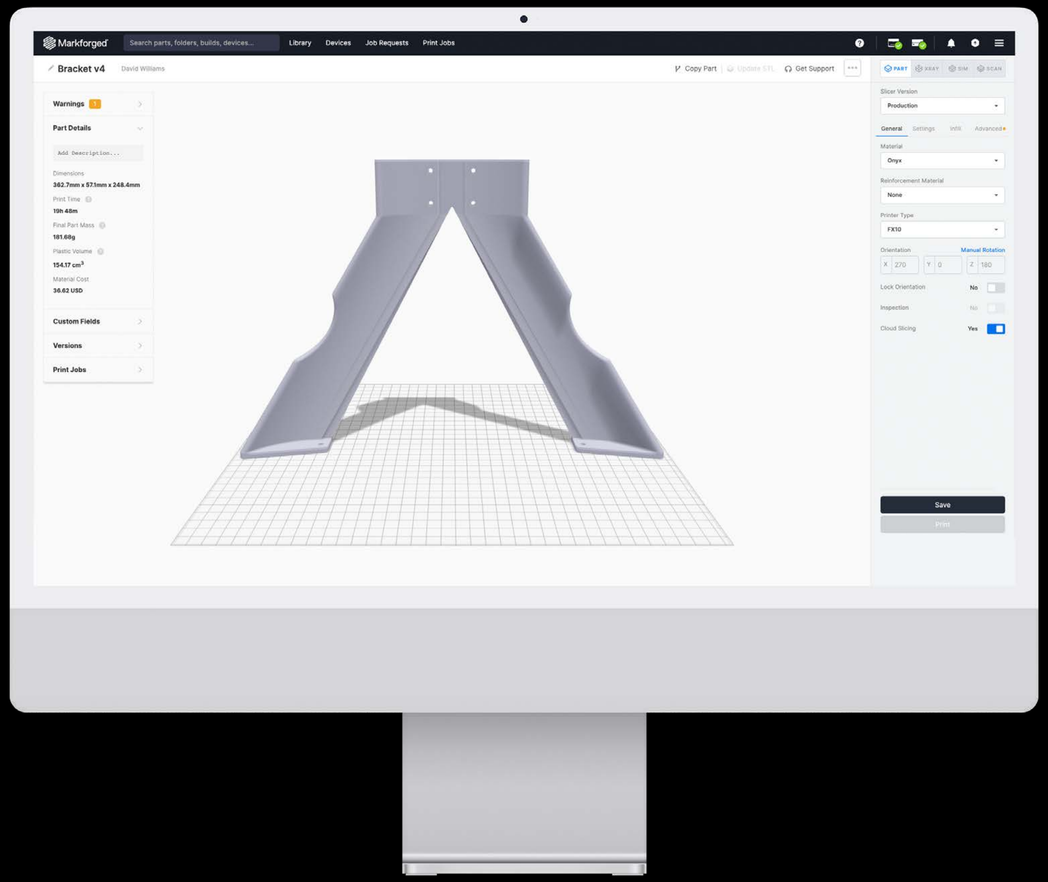


Composite

A 5th Generation CFR+FFF print engine builds on the success of previous Markforged machines to already offer best-in-class composite print performance.

Metal

A 2nd Generation Metal FFF print engine leverages Markforged’s house-made metal filaments to print green parts, which can be washed and sintered into production-ready metal parts.



The Digital Forge: Powered by Software

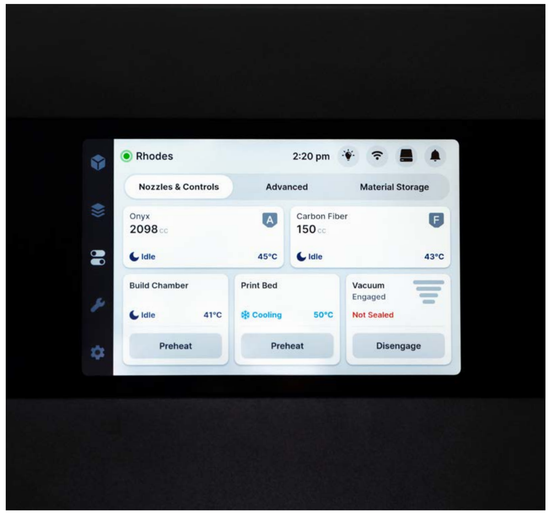
Markforged offers a simple, smart, scalable additive manufacturing platform designed to seamlessly fit into your manufacturing operation. Our software Eiger™ was built for scale delivering a single user-experience, digital part repository and fleet management across the entire Markforged portfolio, including the FX10.

Vision Module and Laser Micrometer

FX10 features two printhead mounted optical sensors. The laser micrometer powers Inspection — in-print dimensional validation — and machine calibration while the new Vision Module will capture detailed images of calibration parts to determine and optimize printer performance.

Heated Build Chamber and Vacuum Bed

The FX10 has a large chamber that heats to 60 °C, useful for printing high-quality parts at high speed. The aluminum vacuum bed is also heated and utilizes precision-machine grooves that are scanned by the laser micrometer for calibration.



Large Touchscreen with Intuitive Interface

FX10 features a 7” touchscreen. Users can start builds, monitor machine status, manually control the machine, and start automated calibration routines all in one place.

Advanced Material Cabinet

An inboard material cabinet stores four spools in individually sealed compartments that support auto material changeover and fast spool loading for metal and composite, reducing user intervention.

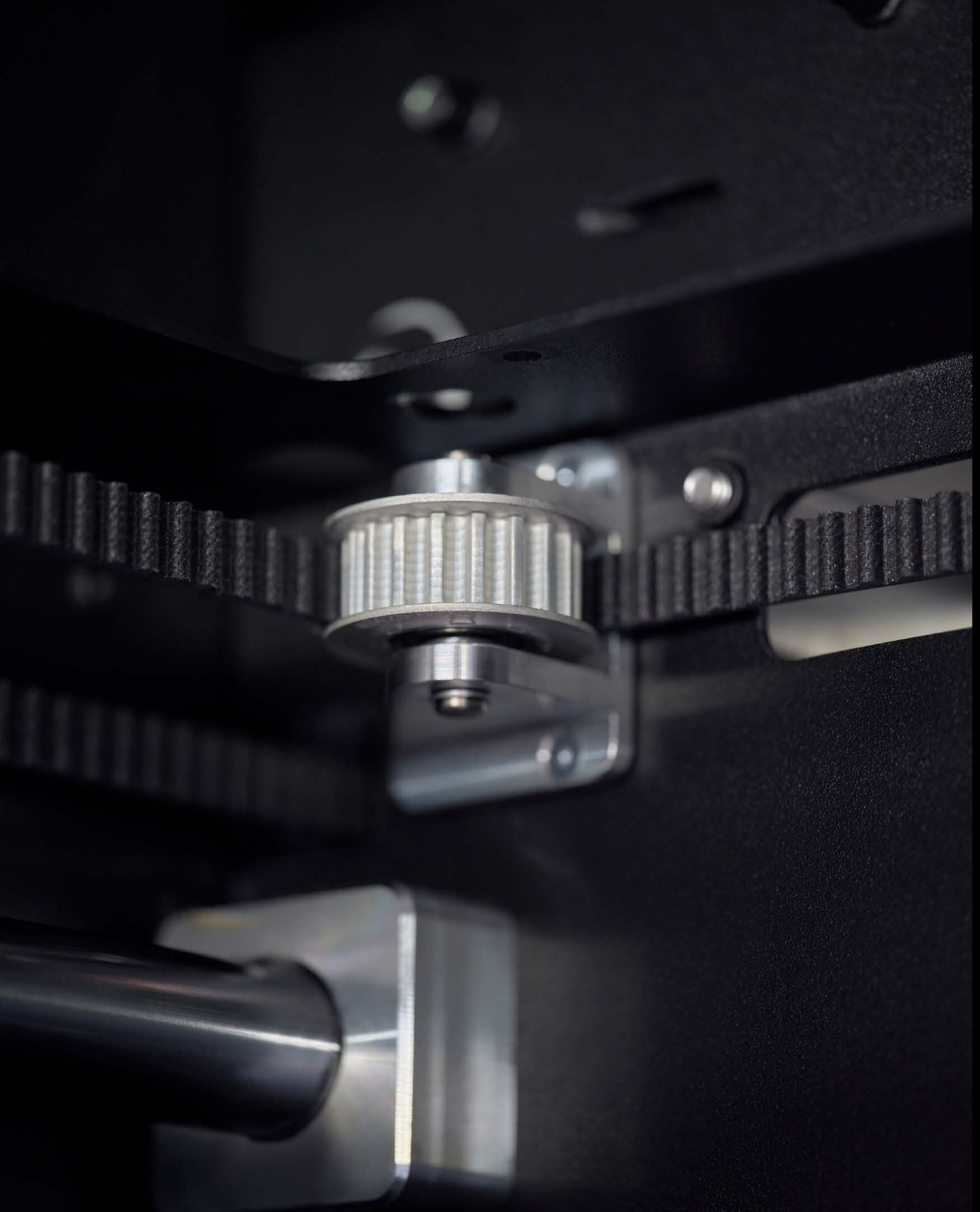
FX10 supercharges your manufacturing profitability and productivity by...

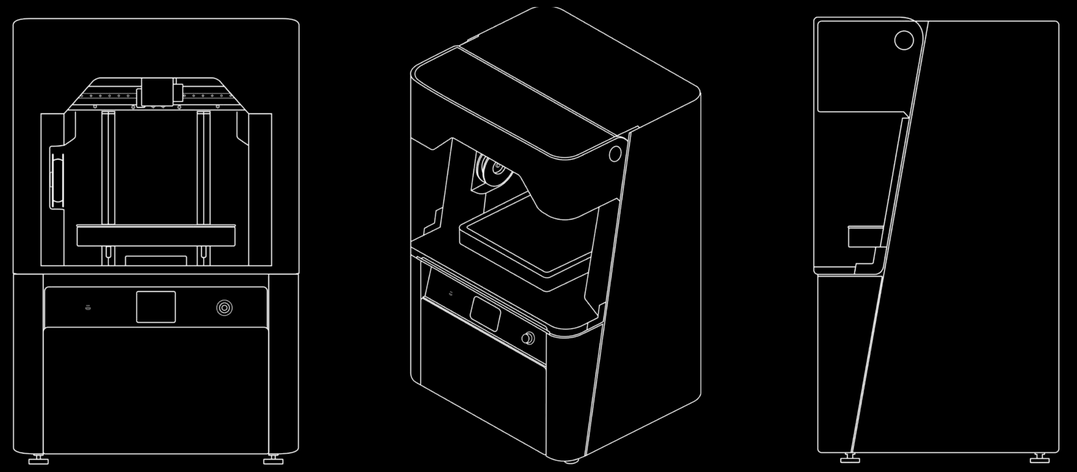
... slashing your part costs by up to 90% and lead times from months to days.

... enabling you to replace physical inventory with digital inventory.

... boosting your production yields while decreasing operating costs.

... keeping your production lines running with on-demand spare parts.





Hardware

Build Volume	375mm x 300mm x 300mm (14.8 x 11.8 x 11.8 in)
Z Resolution Range	125 - 250 µm
Build Chamber	Heated up to 60 °C
Materials	Plastic: Onyx, Onyx FR-A, Onyx ESD
	Fiber: Carbon Fiber, Carbon Fiber FR-A
	Metal: 17-4PH v2, 316L (Coming Soon)
Power	100–120 / 200-240 VAC (12A / 6A), IEC 60320 type C20
Weight	122 kg (270 lbs)
Footprint	760mm x 640mm x 1200mm (30in x 25in x 46in)

Support for other Markforged plastic, fiber and metal materials will be added over time, although not every combination.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