



# The Digital Forge



An Industrial Additive Manufacturing Solution



The Digital Forge is the intuitive additive manufacturing platform powering modern manufacturers — purpose-built to get you from design to functional part more efficiently. It's composed of hardware, software, and materials working seamlessly together.



## Built for Today — Designed for Tomorrow

#### **Deliver Value Today**

The Digital Forge saves you money on day one by enabling you to get parts in hand faster, cheaper, and with less labor. It achieves ROI quickly and continues producing value for their owners.

#### **Drive Competitive Advantage Tomorrow**

The Digital Forge gives you an advantage over your competitors. Develop and manufacture products faster, increase flexibility and improve efficiency in your manufacturing process, and mitigate unplanned downtime.



## **Software**

Markforged software seamlessly integrates 3D printing into your workflow, providing control and visibility.



### Hardware

Precision-engineered hardware provides reliable, repeatable results.



### **Materials**

Industrial grade materials enable you to print a wide variety of robust parts.









## The Digital Forge Platform — Powered by Software

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

#### Safety and Security

The Digital Forge Platform is secure, scalable, and easily managed, featuring:

- → ISO 27001 Certification
- → Robust authentication processes
- → Enterprise grade user management

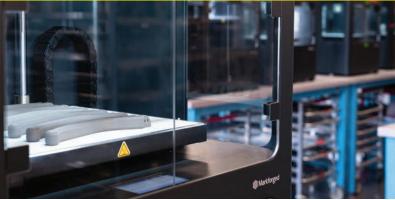
#### **Process and Systems Integration**

Markforged is building the first fully integrated Additive Manufacturing stack that will fit into how you manufacture parts today. Software innovations will enable integrations including:

- → MES integrations via a Telemetry API
- → Import/export integrations from CAD and FEA
- → On-app dashboards and API to track fleet performance
- → Adaptive manufacturing software to boost print accuracy









## Comprehensive Printer Portfolio

Markforged is the only partner you can build a comprehensive additive program with. Markforged offers a single user experience across the entire portfolio — from plastics to continuous fiber composites to metals. one software user interface – one global service and support model – one hand to shake.

### Composite 3D Printers

Markforged has been manufacturing and distributing best-in-class industrial composite printers since 2014 — with more than 10,000 in the field today.

#### **Unparalleled Strength**

Only Markforged delivers continuous fiber reinforced parts that are as strong as and capable of replacing machined aluminum today.

#### Part Quality, Accuracy, and Repeatability

Only Markforged offers micron-level laser scanning for closed-loop calibration, reliably yielding parts with 50-micron repeatability and industry leading surface finish.

#### Materials

Markforged pioneered and perfected a suite of industrialgrade plastics and continuous fiber reinforcements. Our composite printers print plastic matrix parts reinforced with continuous fibers.

Plastic Matrix Materials: Onyx, Onyx FR (UL94 V0 Rated)

Continuous Fiber Reinforcements: Carbon Fiber, Fiberglass, Kevlar, HSHT Fiberglass

### Metal X System

The Metal X system is a robust, agile 3D printing solution for delivering metal parts — launched in 2017 with hundreds in the field today.

#### Safe and Accessible

All in, a Markforged Metal X system costs 5-10 times less than other metal 3D printing systems. It requires no dedicated operator or powder management system and minimal PPE.

#### **Designed for Great Part Quality**

Markforged combines best-in-class software, materials research, and a 5th-generation motion system to deliver industrial-grade parts repeatably.

#### Wide Material Variety

From stainless steels to Copper, the Metal X enables you to fabricate functional metal parts for a wide variety of industrial applications and material requirements.

Metal Materials: 17-4PH Stainless Steel, Inconel 625, Pure Copper, H13 Tool Steel, A2 Tool Steel, and D2 Tool Steel







## **Materials**

#### **Industrial Grade Properties**

All Markforged materials are designed to be used in manufacturing environments – and many are engineered to satisfy specific part requirements like flame resistance and hardness.

#### **Continuous Material Development**

Markforged continually develops, tests, and launches new materials to enable you to solve more and harder manufacturing problems with the Digital Forge platform.



## Optimizing Your Investment

#### **Markforged University**

Markforged courses are designed to build and strengthen critical additive skills beyond printer operation. Courses are available both onsite and online and students can emerge as Markforged Certified Additive Experts (MCAE).

#### **Solution Support**

Markforged operates a worldwide network of channel and ecosystem partners. They, working with the Markforged customer success team, provide both remote and "boots on the ground" support for proof of concepts, installations, and technical support.





## The Digital Forge Is Designed for

#### **Innovators and Educators**

- → Experiment with new materials and technologies.
- Get on the bleeding edge of manufacturing technology.

#### **Engineers**

- → Add a powerful tool to your manufacturing toolkit.
- → Get functional parts in hand for less.

#### Manufacturers

- → Build more efficient manufacturing processes.
- → Reduce the inertia in your manufacturing operation.

#### Leaders

- → Drive competitive advantage and become an industry leader.
- → Embrace a connected manufacturing ecosystem.

"It's allowed us to scale our business without scaling our resource base."

Eric Mertz
President and CEO, Caldwell

"Being able to get finished products to market more quickly will keep us on the forefront of the industry."

Zach Sweitzer Product Development Manager, Shukla Medical