

Introducing the World's First Office-friendly **3D Metal Printing** Solution



Desktop Metal printers are available in the Caribbean through Rich Port 3D Solutions.

Cost comparison

Fabricating the extrusion die with the Studio System reduces cost-per-part by about 92% compared to Direct Metal Laser Sintering (DMLS) and by about 87% compared to CNC machining.

STUDIO SYSTEM

\$134

CNC

\$1K

DMLS

\$1.7K

High resolution printing. In-house & built to scale.

Introducing the Studio System+. Bringing new capabilities to the world's first office-friendly metal 3D printing solution.

Studio System™



Safe for the office

The Studio System eliminates lasers and loose powders often associated with metal 3D printing, making it safe to use in any facility. Unlike other systems, there is no third party equipment or special facilities required—just power and an internet connection.

Easy to use

From simplified model prep to supports that are easily removed by hand, the Studio System makes it easy to print metal parts in-house. Integrated software automates the process to take the guesswork out of achieving parts with good metallurgy.

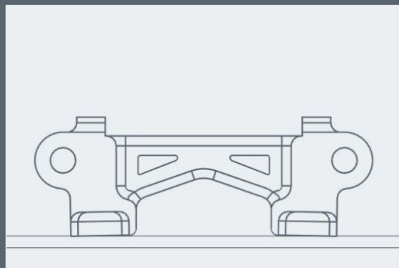
Built to scale

The system is designed to adapt to diverse business needs. The software auto-generates custom build plans optimized for multi-part jobs, while increased debind and sinter capacity enables scalable throughput for low volume production.

How it works

01

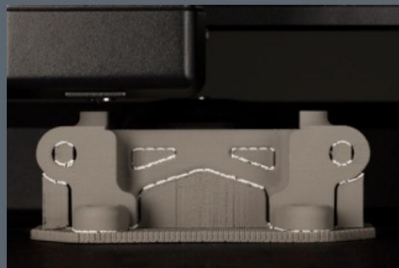
Prep



Secure, web-based software constructs build plans from STL or CAD files, automatically generating supports and control parameters based on part geometry and material.

02

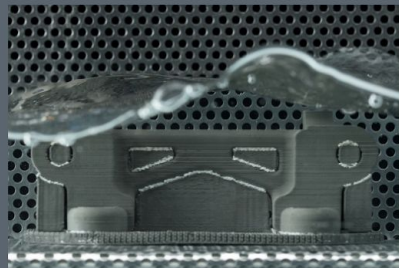
Print



Layer by layer, a green part is shaped by extruding bound metal rods—metal powder held together by wax and polymer binders—in a process called Bound Metal Deposition™.

03

Debind



The green part is immersed in proprietary debind fluid, dissolving primary binder and creating an open-pore channel structure throughout the part in preparation for sintering.

04

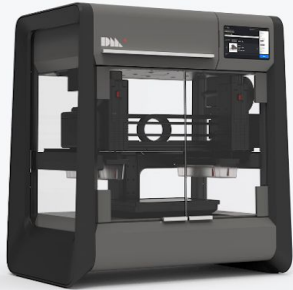
Sinter



As the part is heated to temperatures near melting, remaining binder is removed and metal particles fuse together causing the part to densify up to 96-99.8%.

An end-to-end solution

The Studio System is a three-part solution that automates metal 3D printing. Tightly integrated through Desktop Metal's cloud-based software, it delivers a seamless workflow for printing complex metal parts in-house—from digital file to sintered part.



Printer

Unlike laser-based systems that selectively melt metal powder, the printer extrudes bound metal rods—similar to how an FDM printer works. This eliminates the safety requirements often associated with metal 3D printing while enabling new features like the use of closed-cell infill for lightweight strength.



Debinder

The debinder prepares green parts for sintering by dissolving primary binder. With a low emission design, it requires no external ventilation and is safe for an office environment. Automatic fluid distillation and recycling means there is no need to refill between each cycle.



Furnace

Fully-automated and sized to fit through an office door, the furnace delivers industrial-strength sintering in an office-friendly package. Built-in temperature profiles tuned to every build and material ensure uniform heating and cooling without the residual stresses introduced in laser-based systems.

New features with Studio System+

The new system features the same office-friendly metal 3D printing as the original Studio System with new print capabilities and a scalable design for increased throughput.



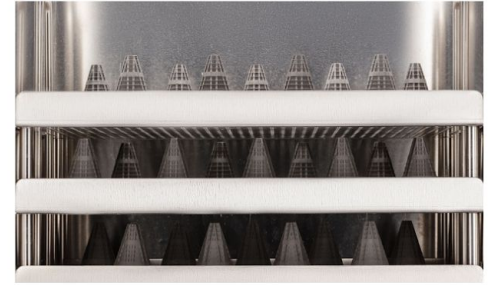
Print at higher resolution.

A new swappable 250µm printhead with supporting software profiles enables new geometries and applications—achieving smaller parts and fine features with an improved surface finish.



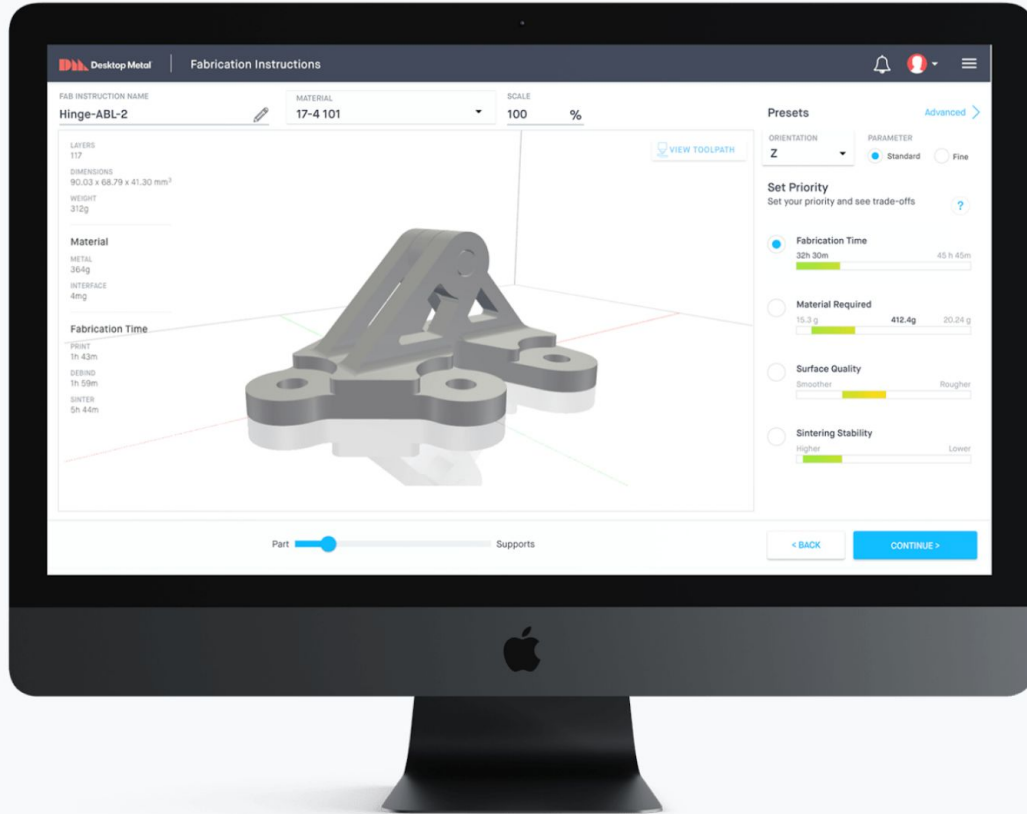
Watch a live stream of the build.

An in-chamber build plate camera captures video of the part as it prints — viewable in a web browser. This gives the user greater insight into their print and the ability to monitor print success.



Debind and sinter in bulk.

New stackable shelving increases part capacity of the debinder and furnace for greater throughput. Increased workload volume addresses bottlenecks typical at the debind and sinter stages.



A software-controlled workflow

Fabricate™ software automates even the most challenging aspects of the fabrication process. It auto-generates supports for easy removal and creates custom build plans that are tuned to the geometry and material for every part in the job —making it easy to produce high-quality metal parts without custom tooling or a dedicated operator.

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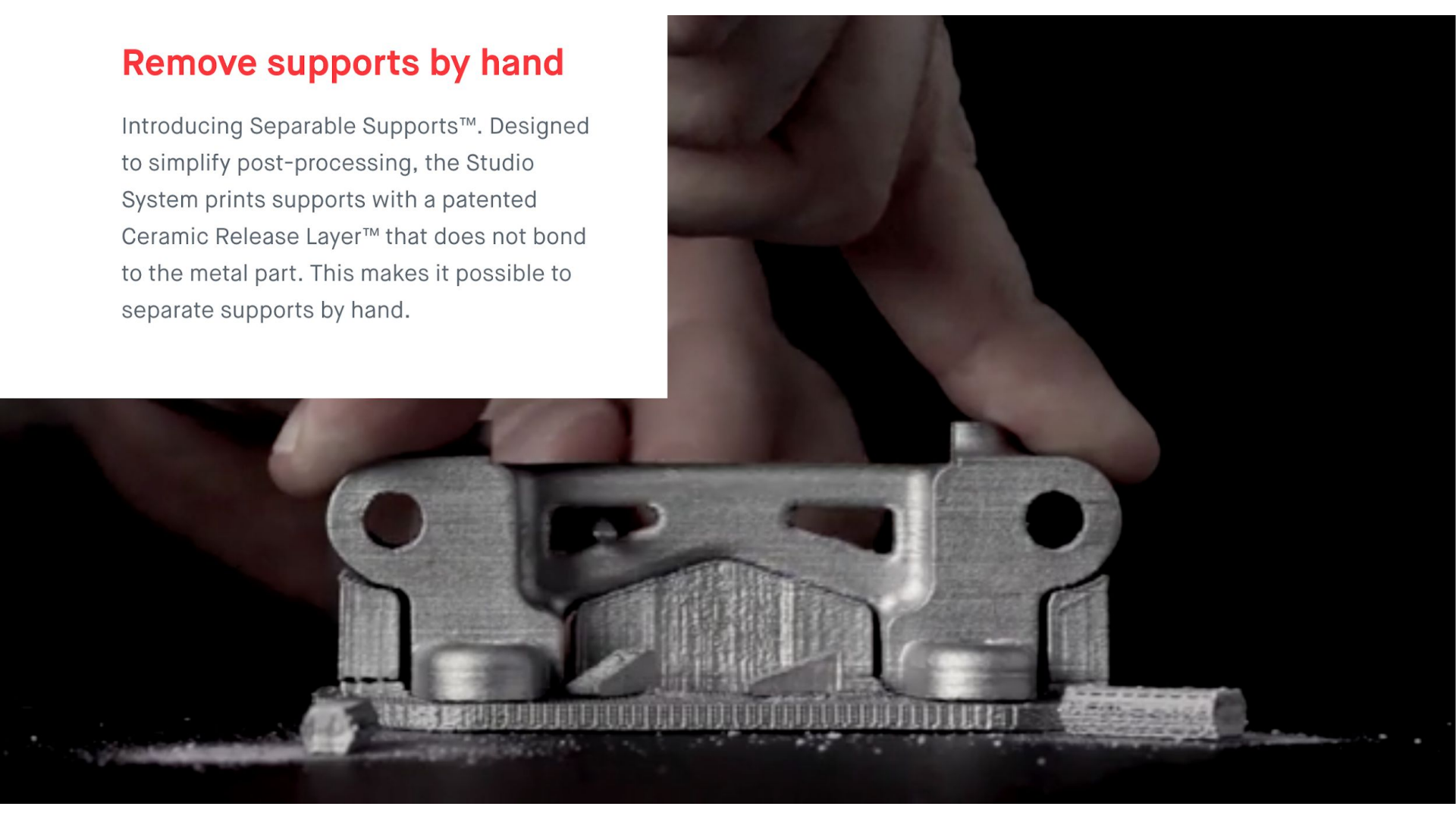
Remove supports by hand

Introducing Separable Supports™. Designed to simplify post-processing, the Studio System prints supports with a patented Ceramic Release Layer™ that does not bond to the metal part. This makes it possible to separate supports by hand.



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Expert metallurgy built-in

The Studio System brings a wide range of critical alloys to 3D printing—including stainless steels, copper, and tool steels. Each alloy undergoes rigorous qualification by world-leading materials scientists, and our core materials consistently meet or exceed industry standards.

17-4 PH

stainless steel for strength and corrosion resistance

H13

tool steel for hardness and abrasion resistance at elevated temperatures

Copper

for thermal and electrical conductivity

AISI 4140

low alloy, mid-carbon steel for high strength and toughness

316 L

stainless steel for corrosion resistance at high temps

Inconel 625

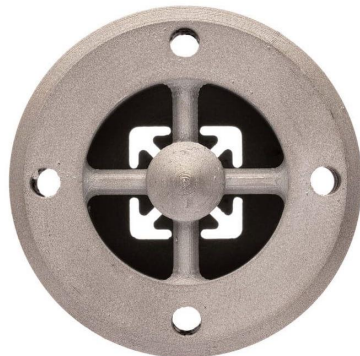
superalloy for strength and corrosion resistance at high temperatures



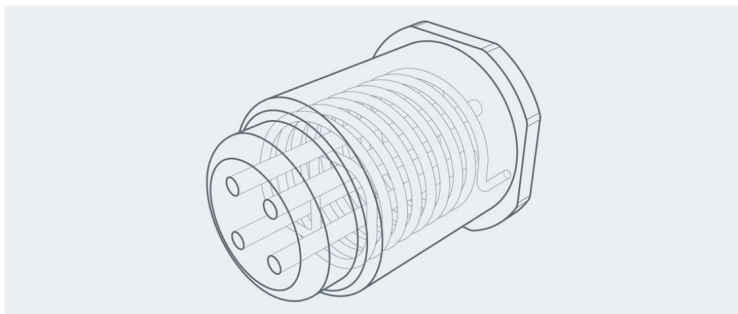
Low volume production with **Studio Fleet™**

For the first time, on-demand metal 3D printing will deliver accessible and scalable manufacturing that adapts to diverse business needs, part requirements, production volumes, and cost constraints.

LEARN MORE



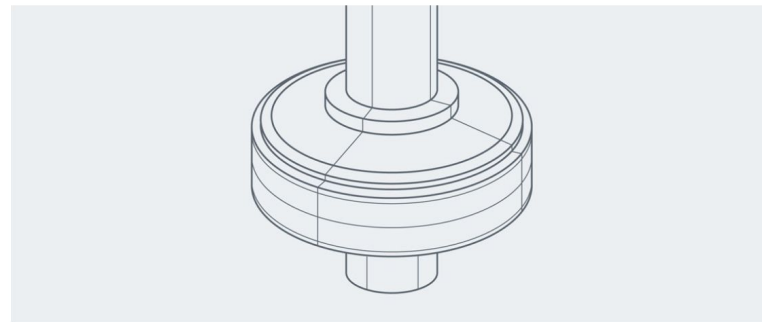
Key applications for in-house metal 3D printing



Tooling

Tool-making can be tedious due to complex geometries and part requirements, resulting in processes that are expensive and time consuming. The Studio System can print in materials that are difficult to machine and allows manufacturers to produce parts for tooling faster, cheaper, and on-demand.

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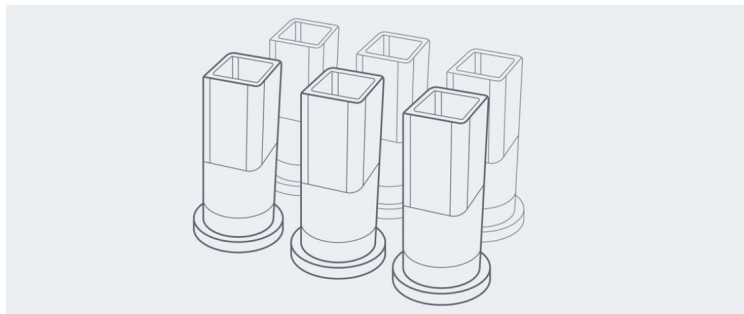


Functional prototyping

Functional prototypes have specific requirements—including high stiffness, high strength, and heat resistance—demanding metal as opposed to plastic parts. The Studio System enables rapid design iteration without the need for a dedicated operator or third-party equipment, and the complexity of the design has no impact on production cost or time.

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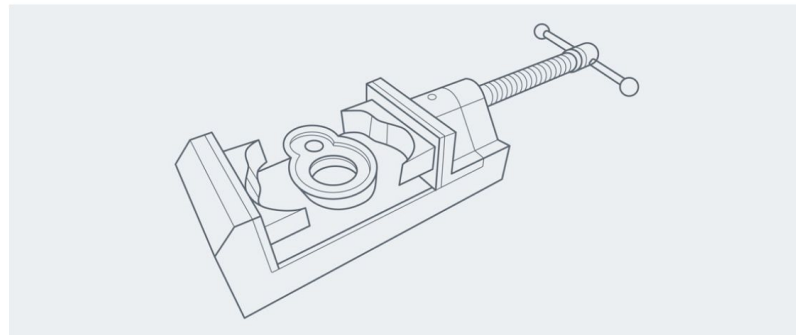
Key applications for in-house metal 3D printing



Low volume production

Traditional manufacturing methods—such as casting—are prohibitive to low volume production due to high costs of initial tooling. Studio Fleet™ leverages the latest Studio System features, including batch processing. It delivers a custom-configurable solution that adapts to business needs to bring low volume production to the shop floor.

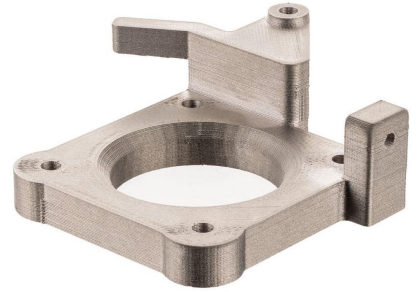
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Jigs & fixtures

Jigs and fixtures are essential to lean manufacturing, but they're usually deprioritized when compared to other production needs. In-house metal 3D printing allows engineers to produce jigs and fixtures quickly using a design optimized for the specific need. And the ability to produce replacement parts on-demand is critical to operational efficiency.

[LEARN MORE](#)



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