NITIUM METAL 3D PRINTER

Your next idea.
Built in metal.

Dual-extruder FDM pairs bound-metal feedstock with a dedicated ceramic-release material, bringing a new dimension to metal-part design.



DUAL EXTRUSION

Metal + ceramic release

BOUND FEEDSTOCK

Motor-driven rod delivery

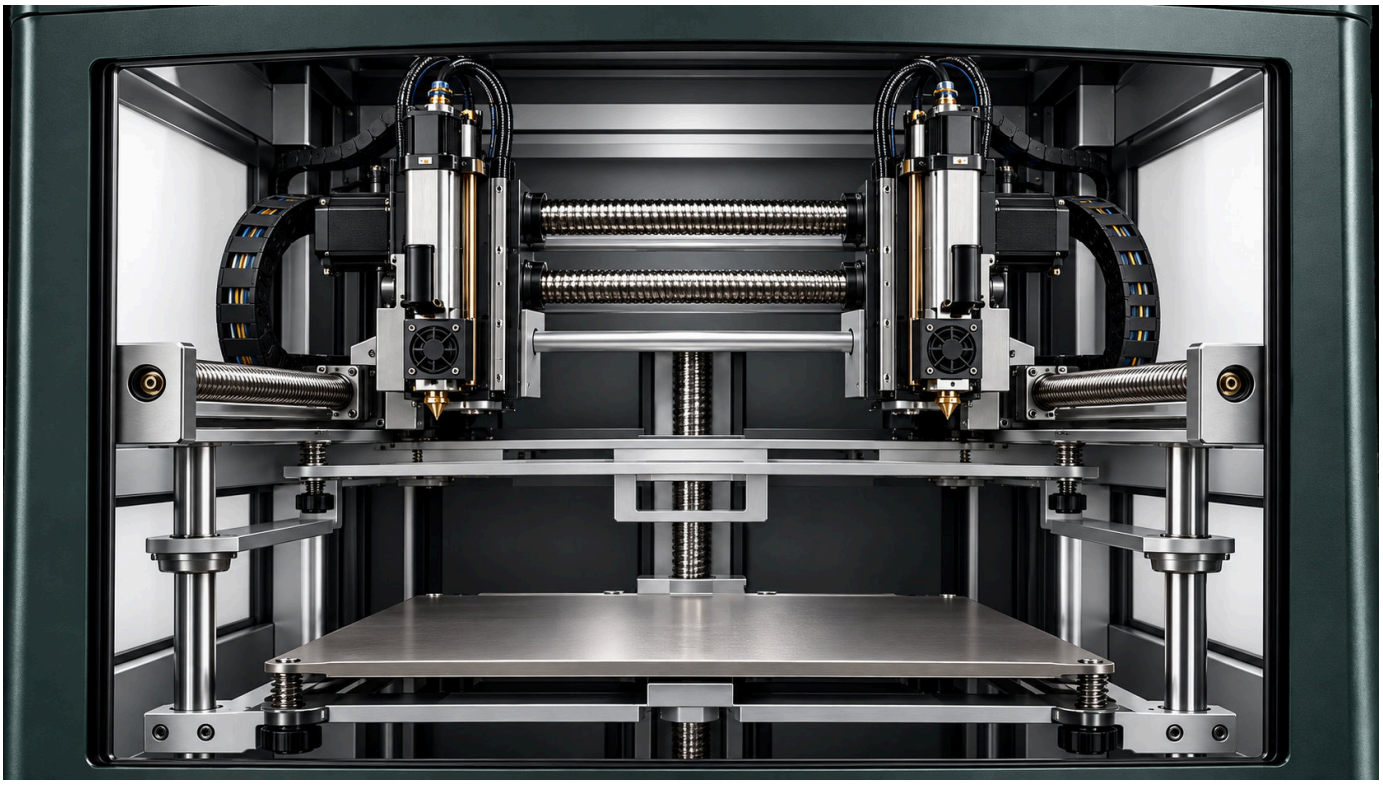
NITINOL FOCUS

Developed for NiTi

TWO TOOLS. ONE BUILD AREA.

Metal deposition. Ceramic release.

Build the metal geometry and place its release interfaces in the same machine. Dedicated extruders give each material its own feed path and positioning stage.



Twin axial-pusher extruders in the finished enclosure.

01 Bound-metal delivery

Motor-driven pushers deliver metal-binder feedstock to the heated nozzle.

02 Dedicated release material

A separate extruder deposits ceramic interfaces between the metal part and its supports.

03 Separate tool stages

Individual X stages position the two heads over a shared build area.

04 A clear view of the build

Front and side windows reveal the process. A front touchscreen keeps the interface within reach.

FROM DIGITAL DESIGN TO FINISHED PART

A clear path from CAD to metal.

Print the shape. Remove the binder. Sinter the metal.
The printer is one stage of a complete metal-part workflow.

01 **Prepare**

Set model orientation, supports and shrinkage compensation for the selected feedstock.

02 **Print**

Deposit metal-binder feedstock and ceramic release layers where needed.

03 **Debind & sinter**

Remove the binder, then densify the part in a compatible controlled-atmosphere furnace.

04 **Finish & inspect**

Separate supports, finish surfaces and inspect the part for its intended application.

MATERIAL FOCUS

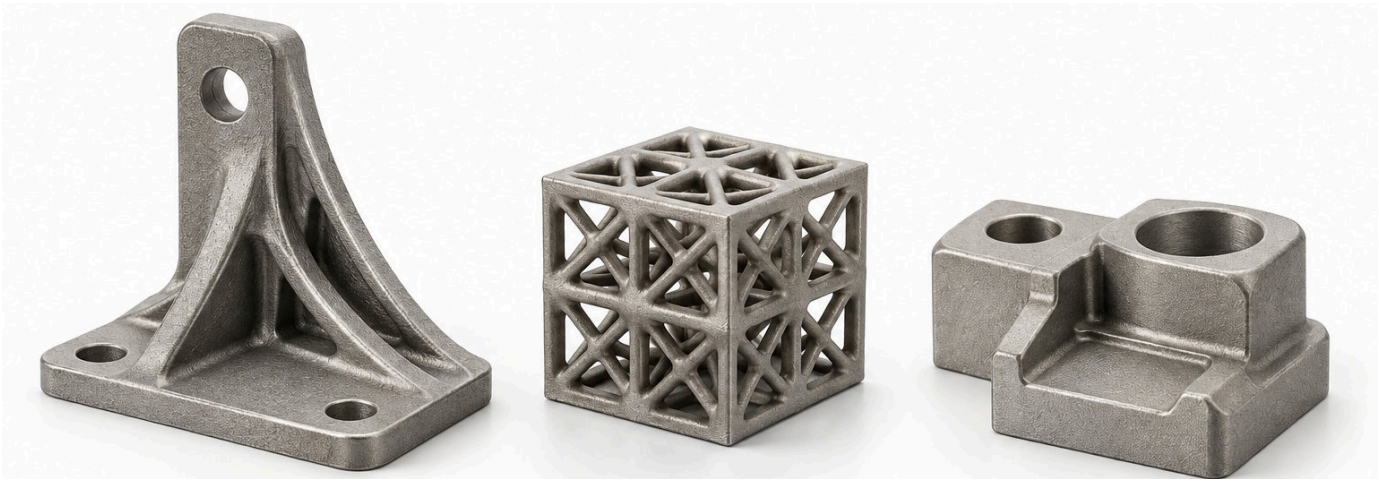
Nitinol / NiTi

An additive platform developed around nickel-titanium feedstock.

Nitium combines metal-binder feedstock development with dedicated ceramic-release extrusion.

Thermal profiles are selected for the material and application.

EXPLORE NEW PART GEOMETRIES



Engineering prototypes **Lattice structures** **Custom tooling**

Illustrative application geometries. Final dimensions and material properties depend on feedstock, thermal processing and finishing.

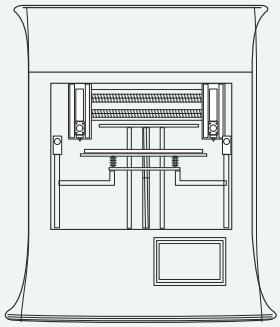
THE PLATFORM AT A GLANCE

Engineered for metal deposition.

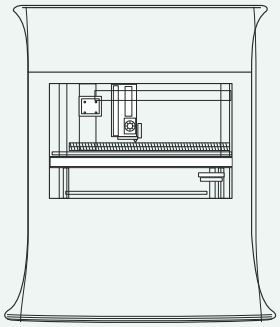
A dual-extruder architecture with dedicated feed paths, a square metal build plate and an enclosed viewing area.

Printing process	Metal fused deposition modelling (FDM)
Extruders	2: metal feedstock + ceramic release
Feed system	Motor-driven axial pushers
Nozzle diameter	0.4 mm
Build plate	300 x 300 mm
Motion layout	Separate X stages; shared Y gantry; Z-moving bed
Viewing & interface	Front and side windows; front touchscreen
After printing	Debinding, sintering and application-specific finishing

FRONT VIEW



RIGHT SIDE VIEW



ENCLOSURE REFERENCE

650 x 650 mm footprint

720 mm body height

Dimensions refer to the current casing drawing; build-plate size is not the printable build volume.

DESIGNED & DEVELOPED BY NITIUM IN MALAYSIA

Bring your next metal part to life.

Discuss your geometry, feedstock and process needs with Nitium.

www.nitiumtech.com