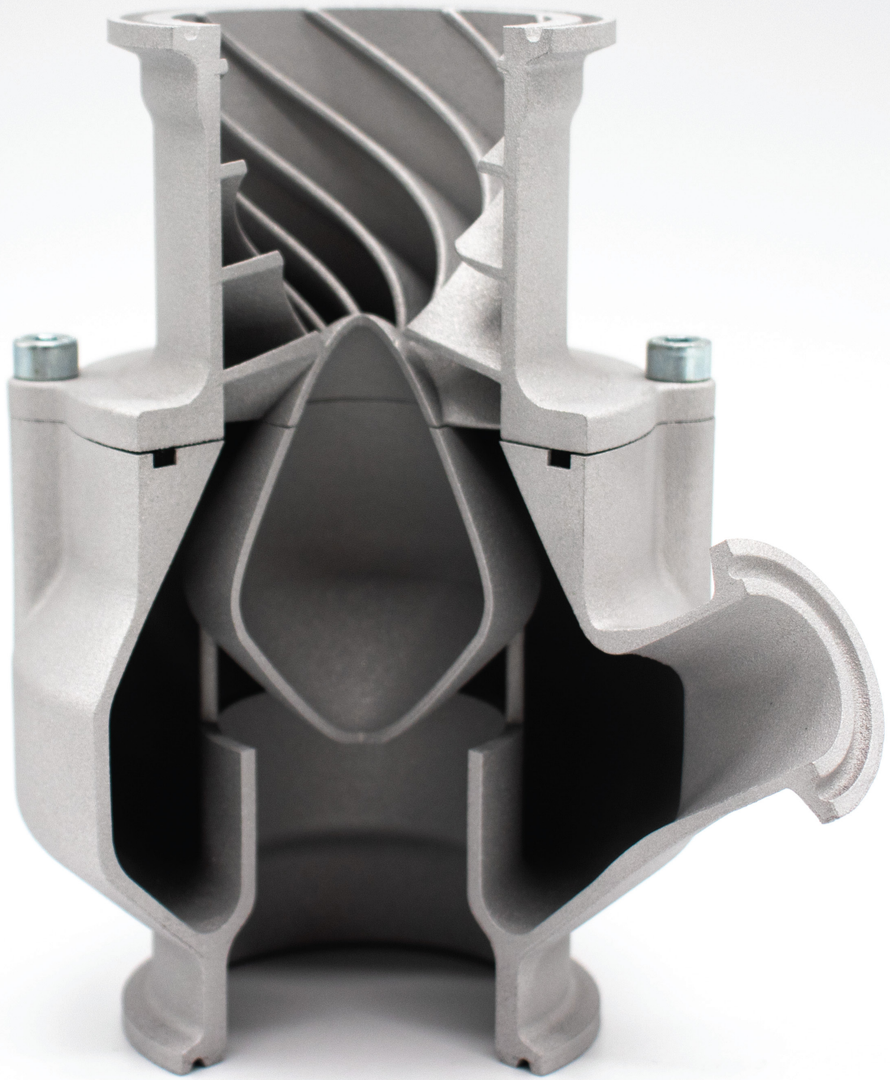
ONE CLICK METAL

made with mind

TRI-TECH 3D

STANFORD MARSH GROUP



At **One Click Metal**, we make metal 3D printing affordable - without compromising on part quality. With our co-thinking philosophy, we design easy-to-use machines that make the technology understandable and accessible for every user. Our safe and convenient powder handling ensures seamless integration into production environments and prioritizes operator protection.

Our systems are manufactured at the **INDEX production facility**, one of the world's leading manufacturers of CNC turning machines. Backed by years of technical expertise from **TRUMPF** in mechanical engineering and laser technology, we combine industrial precision with innovative simplicity.

Affordable metal 3D printing, designed to **empower great minds** without compromising on parts quality.

Easy-to-use machines and streamlined processes that **improve accessibility** and **reduce costs**.

Safe, convenient powder handling for seamless shop-floor integration and **improved operator protection**.

THE HOLISTIC PROCESS

DATA PREPARATION

Autodesk

Materialise

JOB UPLOAD & MONITORING

MONE

PRINTING

MPRINTpro

MPRINT

UPACKING & SIEVING

MPUREpro

MPURE

MPUREElite

FINAL PART

PROline

The **PRO**line is designed for fast and efficient manufacturing of serial and high-volume metal parts. The **M**PRINTpro delivers high laser power and a self-cleaning filter for efficient production while the **M**PUREpro enables fast unpacking of large powder volumes via vacuum conveying.

Together, they ensure a streamlined workflow that reduces running costs and drives productivity.

MPRINTpro

The **M**PRINTpro is designed for series production. It combines a 500W laser with a self-cleaning filter, enabling low unit costs by running up to 500h without interaction. Customers still enjoy the familiar ease of use, an attractive entry price, and reliable powder handling of One Click Metal products.

HIGHLIGHTS

- **Higher Productivity** with powerful 500W Laser
- **Scalable serial production** with interchangable modules
- **Lower run-time costs** for optimized cost per part through self-cleaning filter

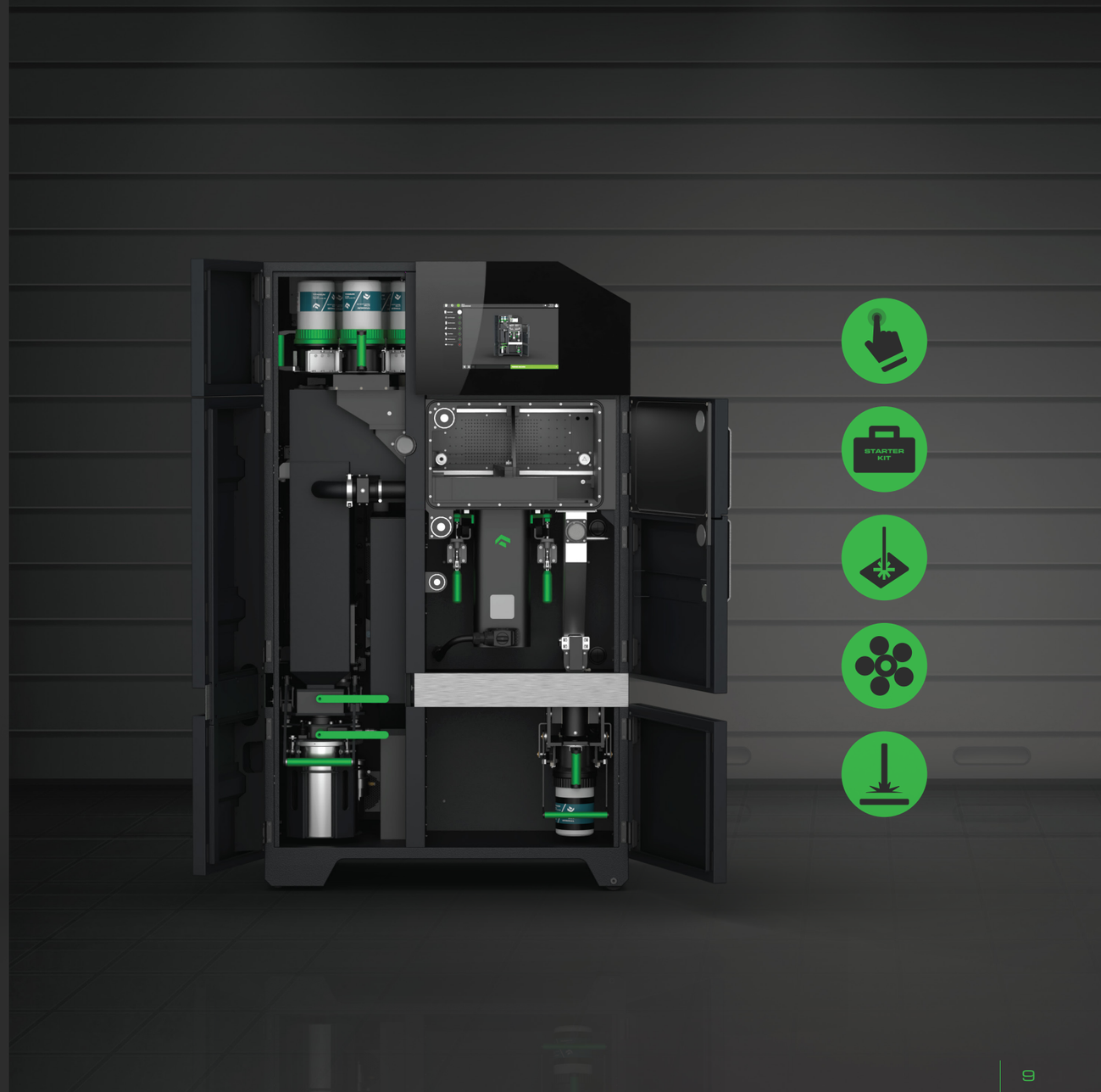
RECOMMENDED WITH :

MPUREpro

Standard Module

Extended Module

Heating Module



MPUREpro

The MPUREpro focuses on fast unpacking and sieving of parts, enabled by vacuum conveying the powder to the automatic sieving station. It's process is ideally suited for large powder volumes and always ensures the safety of the operator.

HIGHLIGHTS

- **High productivity and safety** through automatic sieving, with clean powder handling in cartridges
- **Safe and ergonomic powder removal** with generously designed glove box and customizable tool holder
- **Fast unpacking of large powder volumes** via vacuum conveying for seamless transfer to the sieving station.

RECOMMENDED WITH :

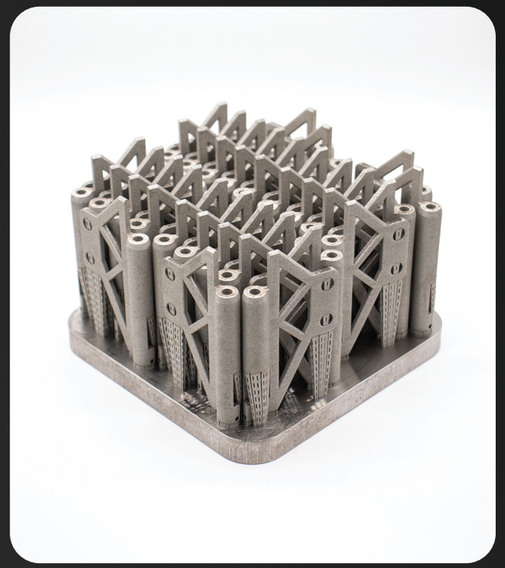
MPRINTpro

MPRINT

POSSIBLE INDUSTRIES AND APPLICATIONS

PROline

INDUSTRY



Serial parts for CNC machines

more about the industry

MEDICAL

Individual implant

more about the industry

DEFENSE

Silencer

more about the industry

TOOLING

Tool insert cooling channel

more about the industry

POWDER MANAGEMENT - PROline

1 Printing Process

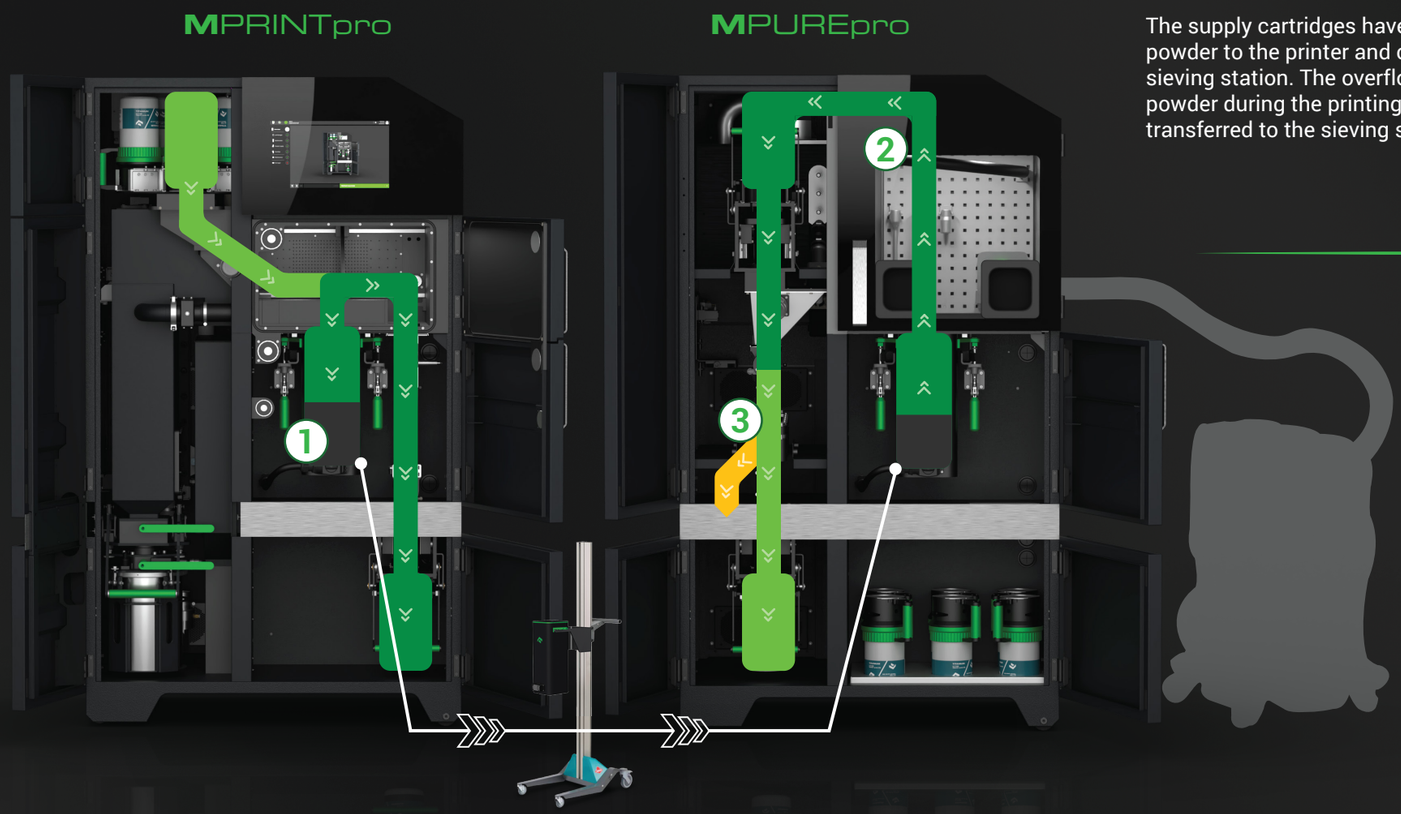
As the printing job progresses, any excess powder is carefully collected in the designated overflow cartridge. Once the printing is complete, the build module has to be transported to the unpacking chamber of the MPUREpro for unpacking.

2 Unpacking Process

During the unpacking process of the printed part, the unmelted powder is seamlessly transferred to the sieving station via vacuum conveying.

3 Sieving Process

The sieving station can sieve both, the automatically transferred powder from the unpacking process and the powder of the overflow cartridge, collected during the printing process in the MPRINTpro. The sieved powder is then carefully collected in a fresh supply cartridge.



SUSTAINABLE PRODUCTION IN JUST A FEW STEPS

The One Click Metal machines use a smart cartridge system that ensures safe and easy powder handling for the operator.

The supply cartridges have a dual function: they deliver fresh powder to the printer and can also collect sieved powder in the sieving station. The overflow cartridges collects excess powder during the printing process and can then be transferred to the sieving station for efficient recycling.

BASEline

With the **BASE**line, metal additive manufacturing becomes accessible and affordable. The **M**PRINT provides powerful printing performance for smaller parts and rapid prototyping, while the **M**PURE ensures a safe and precise workflow for unpacking and powder recycling.

Together, they deliver a streamlined process that reduces complexity, saves time, and makes it easy to get started with low investment requirements.

MPRINT

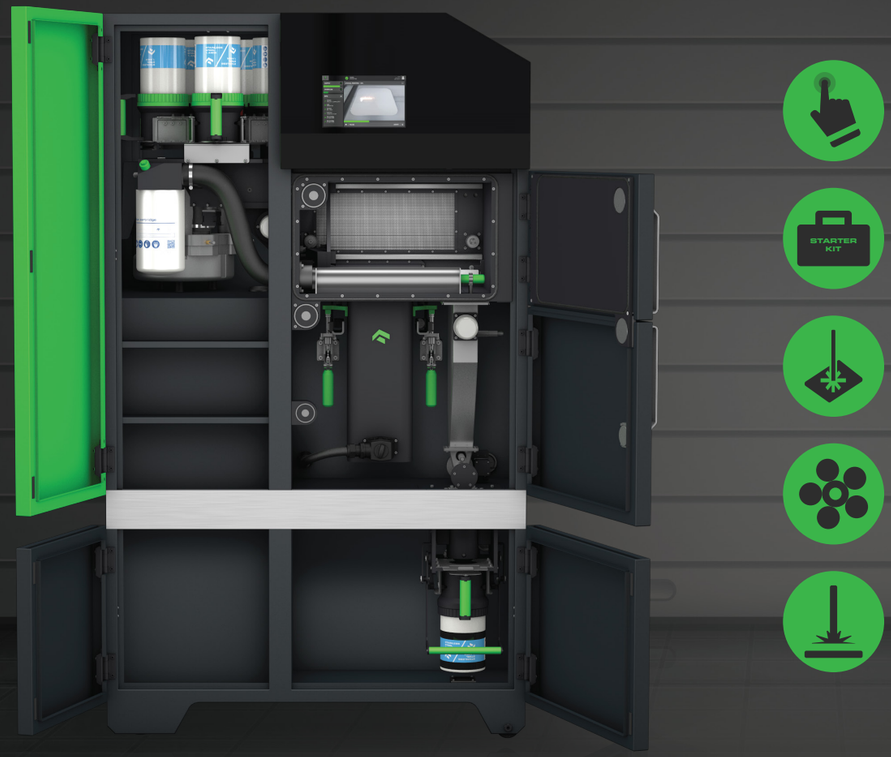
The MPRINT, the most affordable printer in the One Click Metal portfolio, combines simplicity with powerful printing capabilities. It is ideally suited for applications with lower powder volume requirements, such as rapid prototyping, small series production, or the manufacturing of small components.

HIGHLIGHTS

- **Rapid Prototyping** supported by robust easy-to-use design
- **Small batch and small part production** with in-parallel unpacking and sieving
- **Low-risk entry into metal 3D printing** through affordable technology

RECOMMENDED WITH :

MPUREpro **M**PURE **M**PUREElite Standard module Lab Module Heating Module



MPURE

The MPURE ensures safe, precise unpacking and sieving of parts. Unmelted powder is seamlessly collected in cartridges, allowing easy and secure transfer to the automatic sieving station.

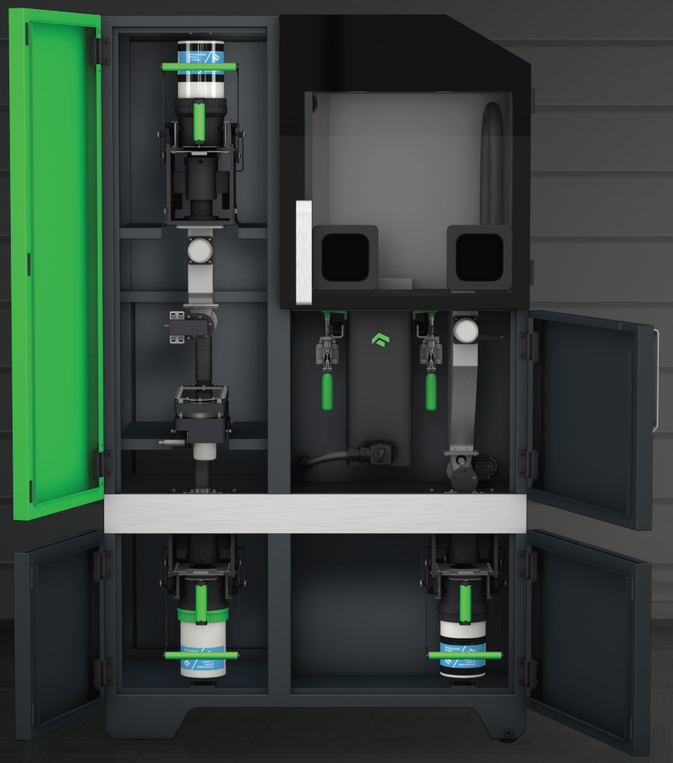
HIGHLIGHTS

- **High productivity and safety** through automatic sieving, with clean powder handling in cartridges
- **Safe and ergonomic powder removal** with generously designed glove box
- **Precise unpacking and effortless powder collection** for seamless transfer to the sieving station via cartridges

RECOMMENDED WITH :

MPRINTpro

MPRINT



POSSIBLE INDUSTRIES AND APPLICATIONS

BASEline

INDUSTRY

Clamping jaws

more about the industry

MEDICAL

Finger joints

more about the industry

DENTAL

Removable partial denture

more about the industry

ACADEMY

Cooler

more about the industry

POWDER MANAGEMENT - BASE LINE

1 **Printing Process**

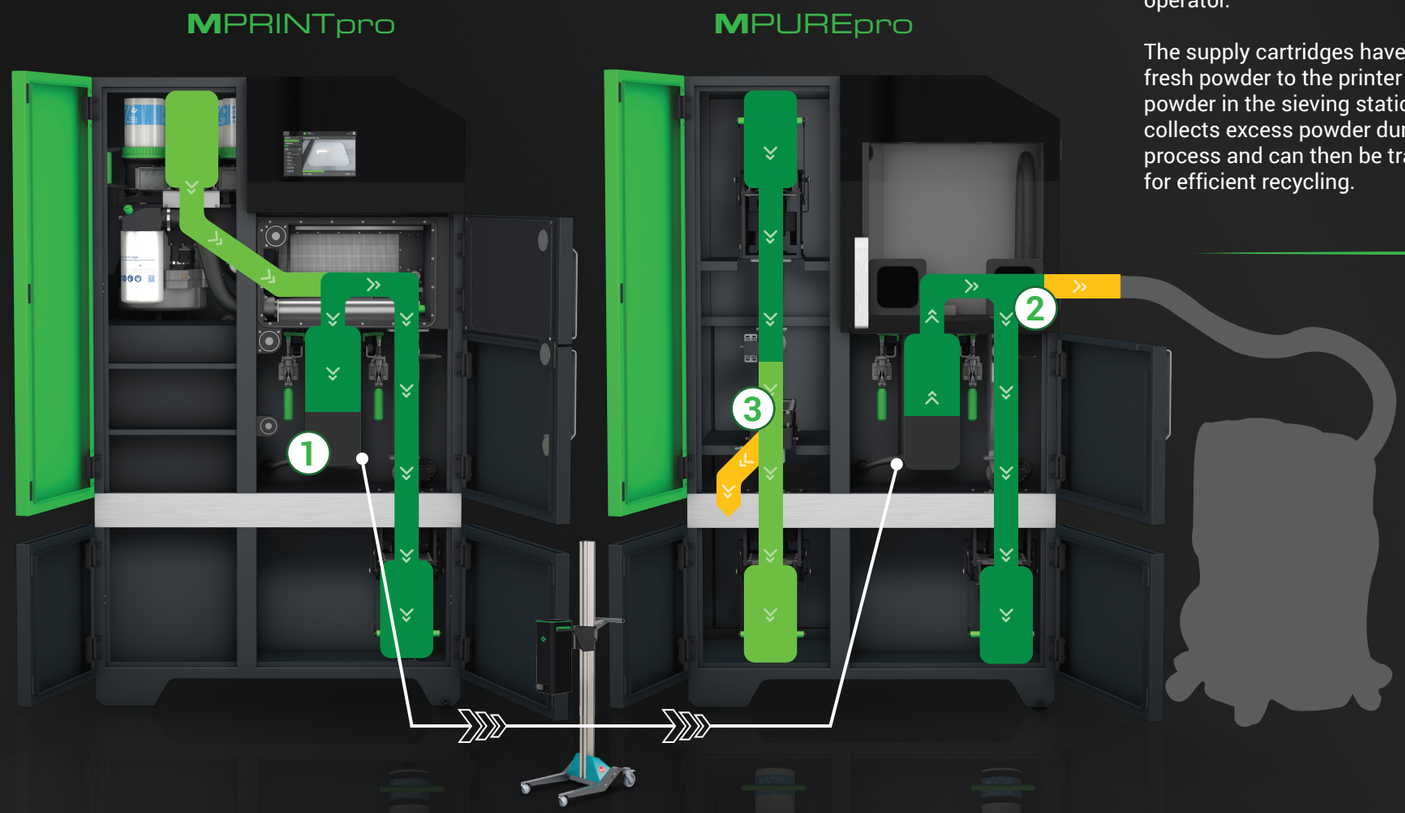
As the printing job progresses, any excess powder is carefully collected in the designated overflow cartridge. Once the printing is complete, the build module has to be transported to the unpacking chamber of the MPURE for further processing.

2 **Unpacking Process**

During the unpacking process of the printed part, the unmelted powder is precisely collected in a overflow cartrdige via the oveflow slot.

3 **Sieving Process**

The overflow cartridges used during the print and the unpacking process can be inserted into the automatic sieving station. The sieved powder is then carefully collected in a fresh supply cartridge.



SUSTAINABLE PRODUCTION IN JUST A FEW STEPS

The One Click Metal machines use a smart cartridge system that ensures safe and easy powder handling for the operator.

The supply cartridges have a dual function: they deliver fresh powder to the printer and can also collect sieved powder in the sieving station. The overflow cartridges collects excess powder during the printing and unpacking process and can then be transferred to the sieving station for efficient recycling.

VIDEO

MPUREelite

The **M**PUREelite provides automatic powder sieving in an exceptionally compact footprint, ideal for users who do not require the integrated powder-removal glove box offered by the **M**PUREpro or **M**PURE.

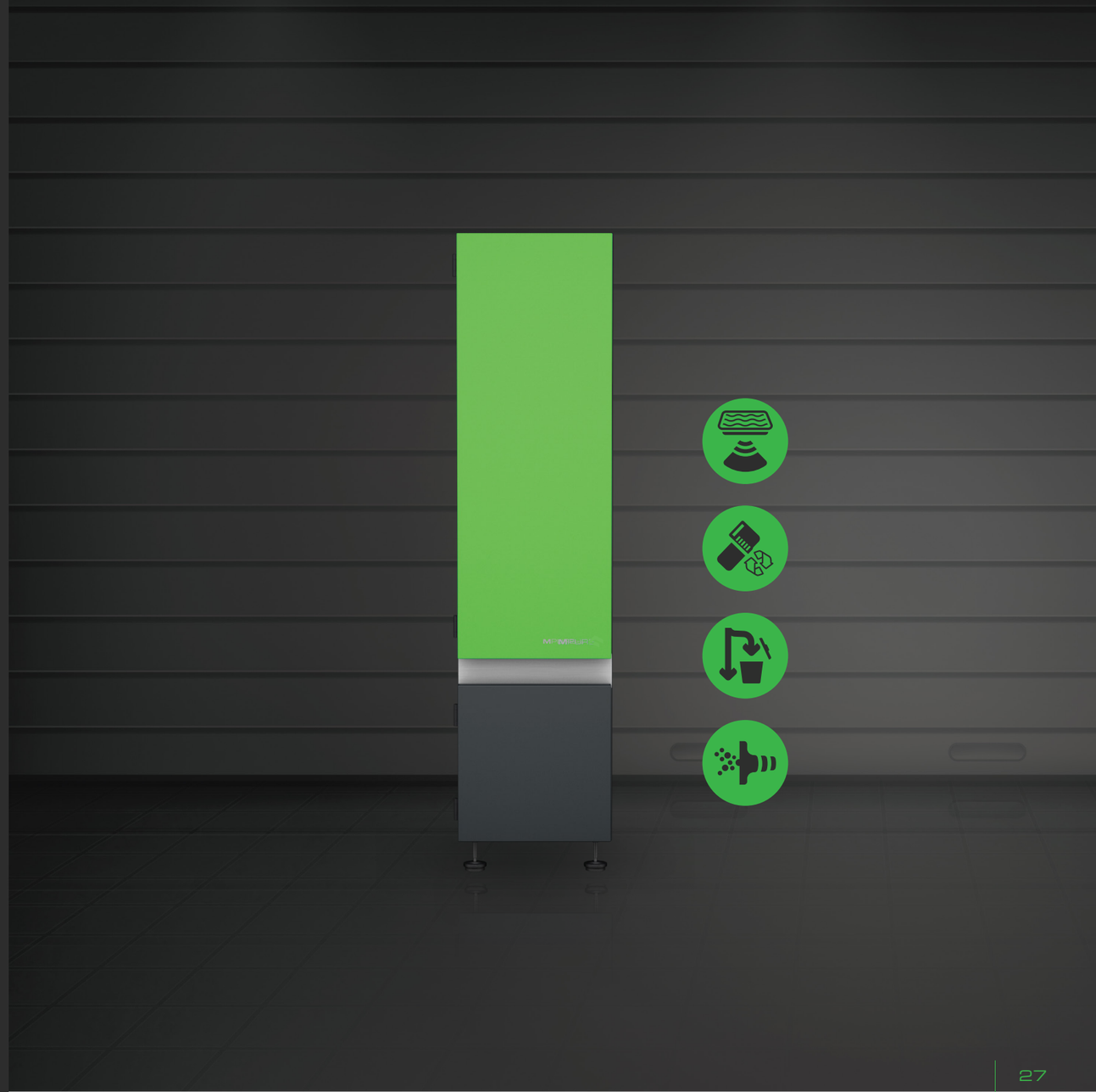
HIGHLIGHTS

- **High productivity and safety** through automatic sieving, with clean powder handling in cartridges
- **Ultrasonic** inert sieving

RECOMMENDED WITH :

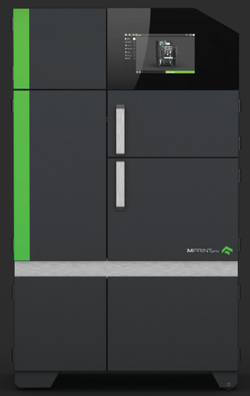
MPRINTpro

MPRINT



PRODUCT OVERVIEW

METAL 3D PRINTERS



MPRINTpro

500W laser
150 x 150 x 150mm
optional 150 x 150 x 250mm
Permanent filter

MPRINT

200W laser
150 x 150 x 150mm
optional 150 x 150 x 250mm
(235mm with thickest substrate plate and module cap)
optional reduction to: 78 x 53 x 90mm
Replaceable filter

All of our products can be combined individually depending on your needs.

UNPACKING/ SIEVING STATIONS

MPUREpro

Unpacking chamber
Sieving station
Vacuum conveying

MPURE

Unpacking chamber
Sieving station
Overflow slot

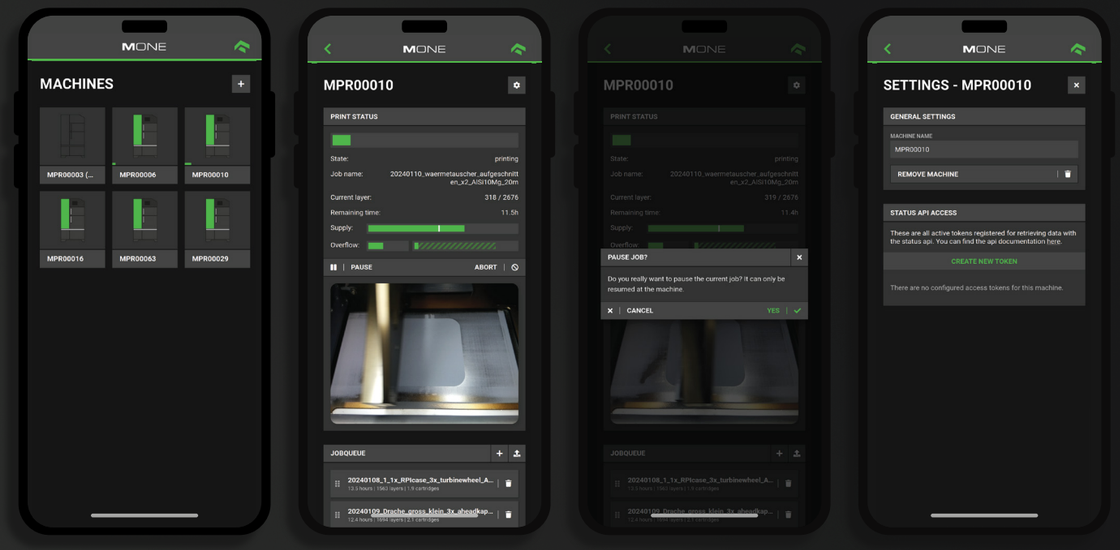
MPURElite

Sieving station
Ultrasonic sieve

MONE

MONE is our digital platform for location-independent monitoring and control of your printer.

- **Remote monitoring** and **control** of your current build jobs from anywhere
- Overview of your printer
- Live viewing of **printing progress** through the built-in camera and monitoring of remaining time for ongoing build jobs
- Exportable reports with detailed print history
- Tracking **powder supply status** incl. forecasts for cartridge replacement
- **Uploading** and **planning** of **build jobs**



MONE

INTERCHANGEABLE BUILD MODULES

STANDARD MODULE

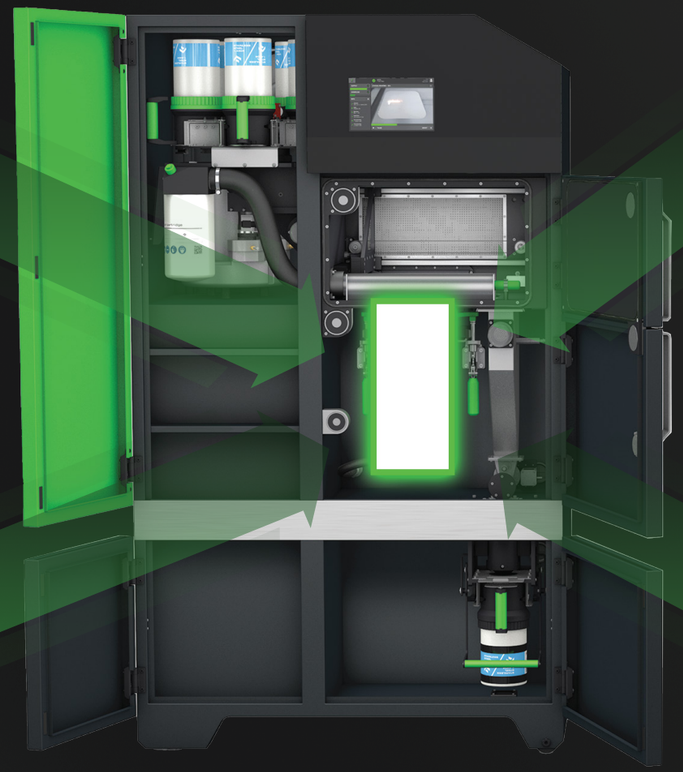
- Setup and powder removal can be performed parallel to production for high productivity demands

Build Plate (WxH): 150mm x 150mm
Build Height: 150mm

HEATING MODULE

- Improving part quality for big and voluminous components

Build Plate (WxH): 150mm x 150mm
Build Height: 150mm
Heating Temperature (maximum): 200°C
Preheating Time: < 60min



LAB MODULE

- Easy use of different materials
- Usage of small powder amounts for material research and precious metals

Build Plate (LxB): 78mm x 53mm
Build Height: 90mm at 1,5 times dosing
Heating Temperature (maximum): 200°C
Removable Overflow Funnel
Integrated Powder Supply

EXTENDED MODULE

- Setup and powder removal can be performed parallel to production for high productivity demands

Build Plate (WxH): 150mm x 150mm
Build Height: 250mm (235mm with thickest substrate plate and module cap)

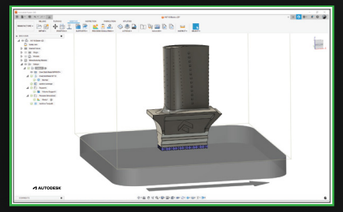
DATA PREPARATON

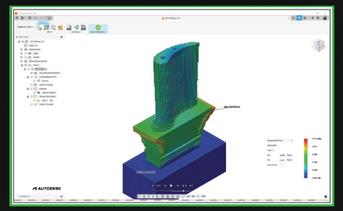
AUTODESK

FUSION

Low cost entry CAD + AM solution from Autodesk

- Integrated CAD & Additive Workflow – simple transition from design to 3D printing with dedicated One Click Metal plugin
- User-friendly interface
- Topology Optimization & Latticing – generative design and lattice tools for lightweight structures available

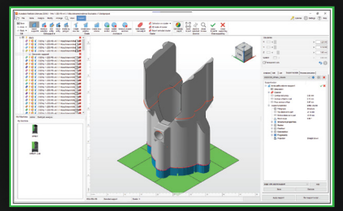


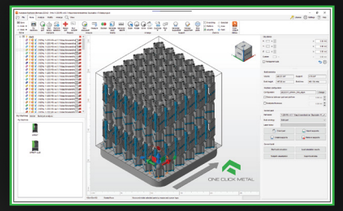


NETFABB

Industry Standard solution for AM from Autodesk

- Comprehensive AM Toolset – repair, analysis, support generation
- Higher control in terms of build preparation (compared to Fusion)
- Advanced Simulation & Optimization toolsavailable
- Customizable workflows



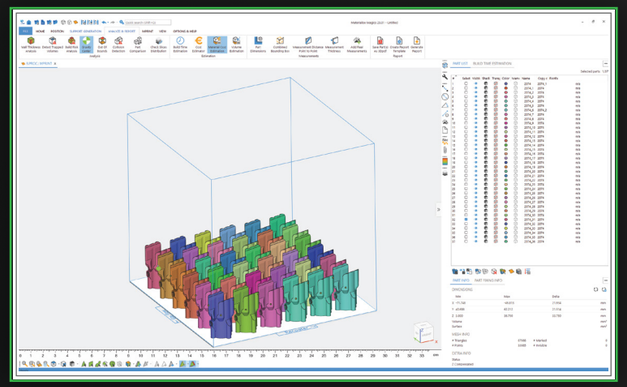


MATERIALISE

MAGICS

Industry Standard solution for AM from Materialise

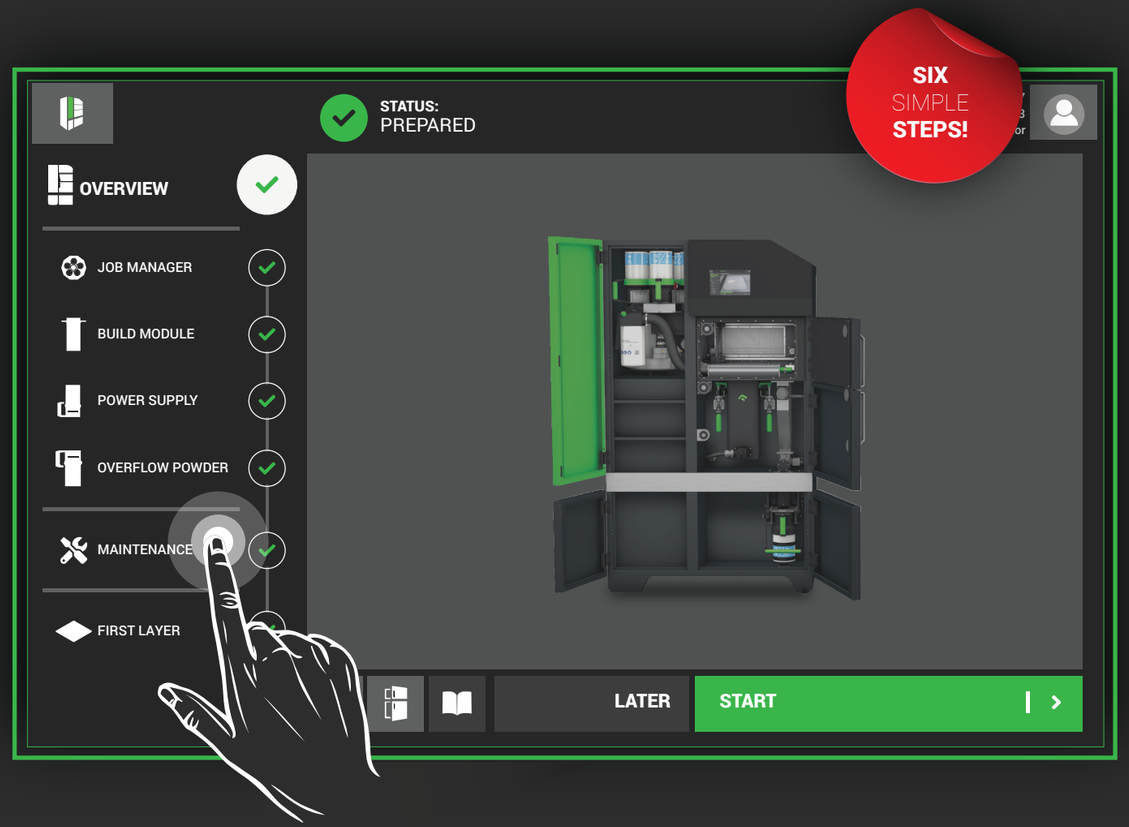
- Comprehensive AM Toolset – repair, editing, analysis, support generation, build preparation
- Advanced Simulation & Optimization tools available
- Customizable workflows
- One Click Metal package solution available



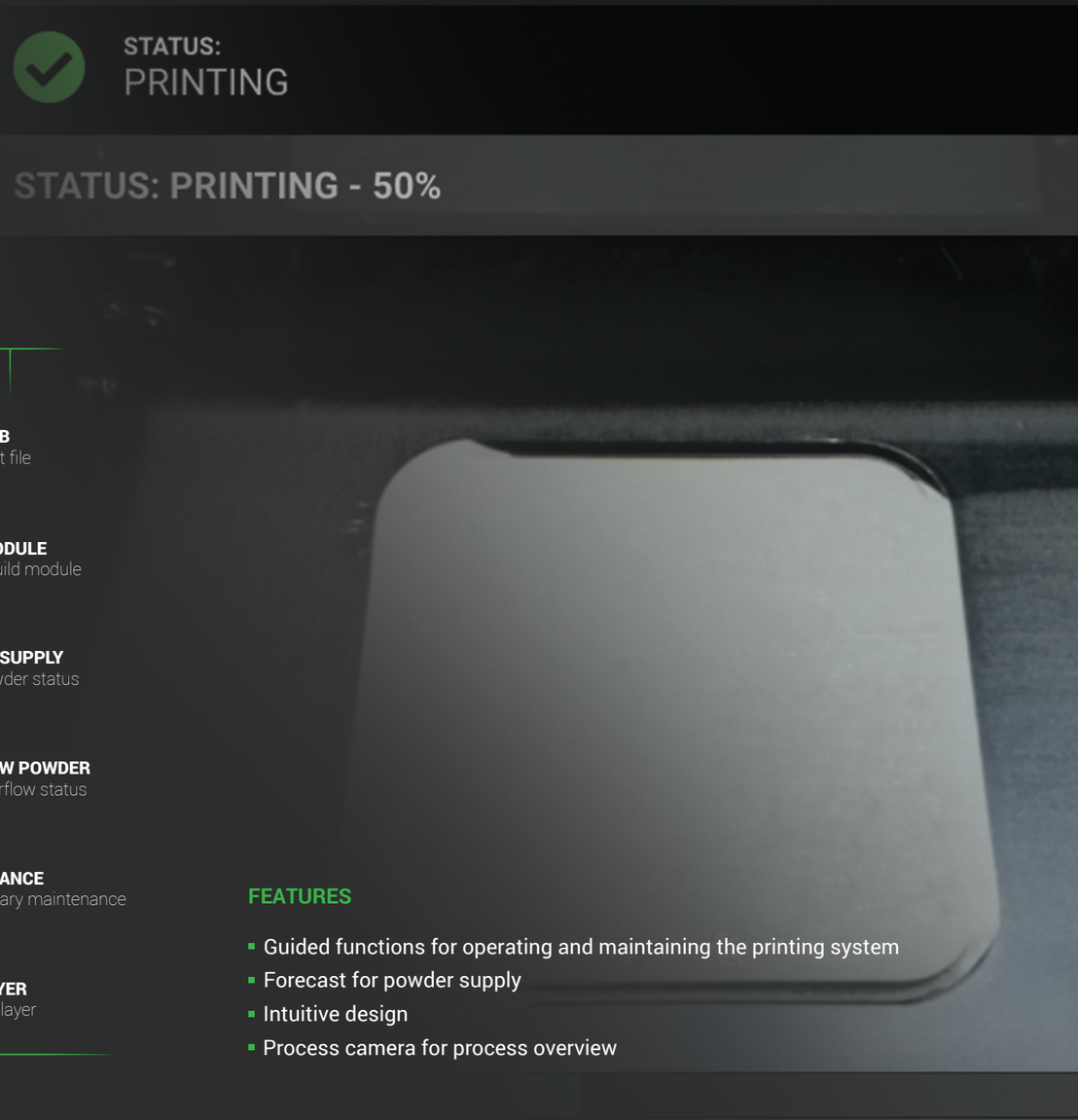
MACHINE OPERATION

JUST A FEW STEPS TOWARDS A SUCCESSFUL START

The control software enables absolutely intuitive operation of our printers. The handling is self-explanatory and allows a quick start in dealing with the machine. Take advantage of the saved time for your workflow and start with just a few clicks.



1. **BUILD JOB** select print file
2. **BUILD MODULE** prepare build module
3. **POWDER SUPPLY** check powder status
4. **OVERFLOW POWDER** check overflow status
5. **MAINTENANCE** do necessary maintenance
6. **FIRST LAYER** apply first layer



FEATURES

- Guided functions for operating and maintaining the printing system
- Forecast for powder supply
- Intuitive design
- Process camera for process overview

STARTERKIT

PERFECTLY EQUIPPED - GET STARTED RIGHT AWAY!

Professional start! Thanks to the comprehensive starter kit, your 3D- print production is ready for immediate use in just a few steps. It contains all the necessary components and offers the option of using both machines separately.

This includes an additional add-on module and two additional empty supply cartridges which enable the series to operate non-stop! While the first job in the unpacking station is unpacked and cleaned, a new job with a second build module can be started directly in the printer.

STARTERKIT

- Tried and tested parameters designed for your manufacturing
- The MONE Abonnement (1 year)

- Personal protective equipment as well as required tools
- Set of 5 supply interfaces
- Set of 2 overflow interfaces
- Set of 2 overflow containers
- 10-pack of coater medium
- 3-pack substrate plate
- Bayonet lock
- Electric lifting device incl. construction module fork

POWDER

PERFECTLY MATCHED TO THE SYSTEM

In addition to software and hardware, the powder in particular is of great importance for production success. The MSUPPLY powder is a certified and quality-tested powder for the printer and its parameters to set up dental applications.

Supplied ready to start in the proven form – the powder container also serves as a supply container in the machine – the material can be fed directly into the process, without cumbersome filling of cylinders or building chambers of the machines. The powder has excellent process and flow properties.

Highly complex frameworks can be built with the MSUPPLY. Thus, the MSUPPLY forms the perfect basis for a variety of veneering ceramics and composite build-ups, such as model casting.

CONSUMABLES & ACCESSORIES

Standard Module
150 x 150 x 150 mm

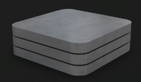
Heating Module
150 x 150 x 150 mm

Lab Module
Mounting surface:
78 x 53 x 90mm

Extended Module
150 x 150 x 250* mm
*235mm with thickest substrate plate and module cap

Substrate Plate | 3-pack

- Dimensions: 152 x 15 x 152 mm (W x H x D).
- Provides the perfect base for welding the component
- Avoidance of distortion as well as optimal heat dissipation



Replacement cartridges for supply & overflow

- Ergonomic handling with max. 8 kg filling quantity
- Integrated NFC tag (prohibition of unwanted batch mixing, quality assurance of the powder, fill level query)

Main filter | 6-pack (BASEline only)

- Dimensions: 135 x 235 x 135 mm
- Optimal filtering of the welding fumes for reuse of the gas

Electric lift incl. construction module fork

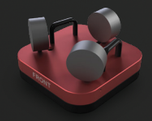
- Uncomplicated transport of the building module with a lifting speed of 100 mm/s (with load) with a load capacity of 80 kg

PSA package for one person

- Personal protective equipment: 1 x powder gown | 1 x safety goggles | 5 x disposable respirator mask | 1 x pack of rubber gloves (L)

Levelling aid building panel

- The leveling aid is used to align the building panel



Digital platform for location-independent monitoring and control

- Upload of build jobs and job planning
- Status monitoring of machines, job parameters, print progress and powder supply

MSUPPLY powder package

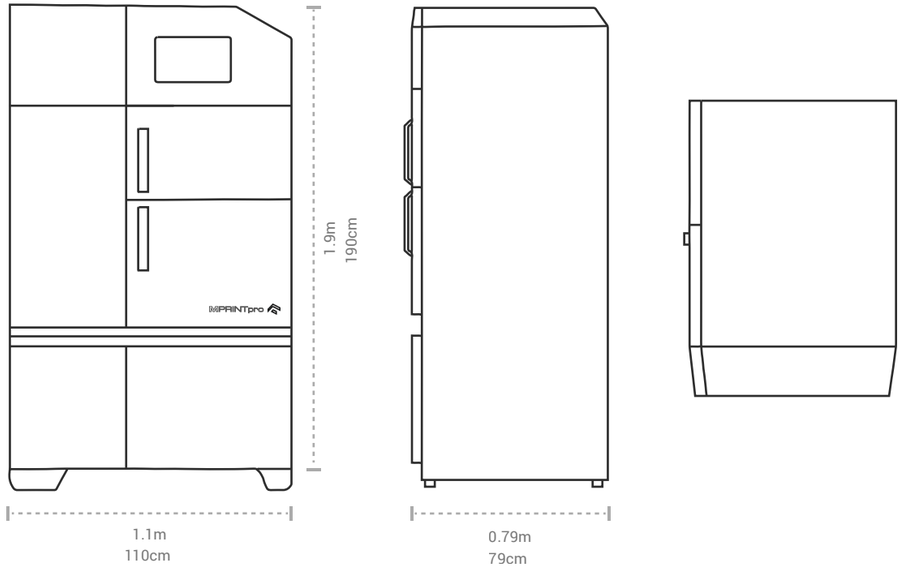
- Powder packages in different sizes for required machine utilization
- Lower annual machine utilization: 6 Supply containers
- Medium annual machine utilization: 9 Supply containers
- High annual machine utilization: 12 Supply containers

Further accessory equipment

For further accessory equipment please contact your reseller.

DIMENSIONS

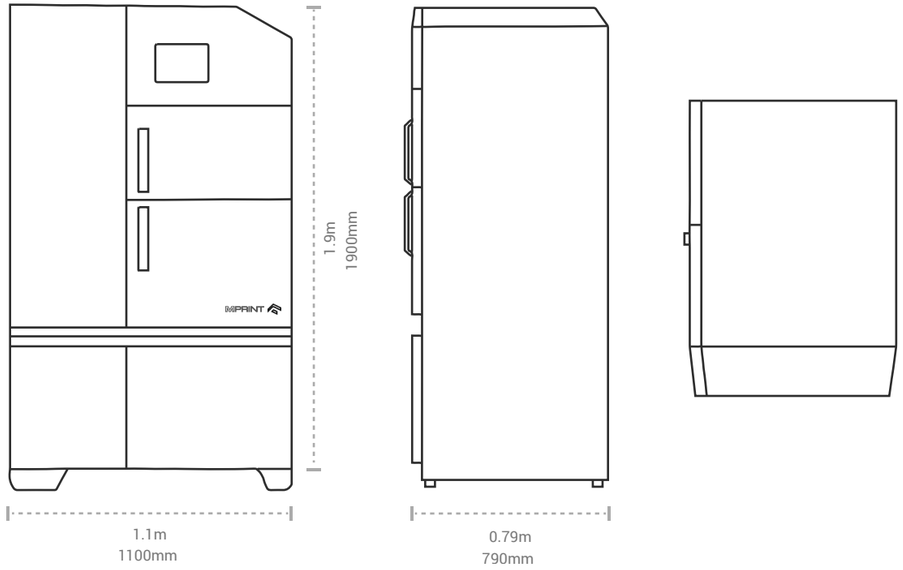
MPRINTpro



Process Chamber	
Focus diameter	80 µm
Laser power	500 Watt (Fiber)
Build Module	
Build size	150 x 150 x 150 mm Optional reduction to: 78 x 53 x 90mm Optional 150 x 150 x 250mm* *235mm with thickest substrate plate and module cap
Layer height	20 – 120 µm
Powder Supply	
Magazine	5x cartridges
Connection and Consumption	
Power supply	220 - 240V / 50 - 60Hz
Power backup	1 x 13.5A
Protective gas	Nitrogen / Argon
Filter type	Self-cleaning permanent gas filter
Protective gas consumption	500 ppm = 5 - 10 l/min
Pre-heating	Optional: 200°C
Dimensions and Weight	
Width x depth x height	1.1 x 1.9 x 0.79m
Weight	490 kg
Compatible with	
Products	**M**PURElite, **M**PURE, **M**PUREpro, Standard Module, Heating Module, Extended Module, (Lab Module)

DIMENSIONS

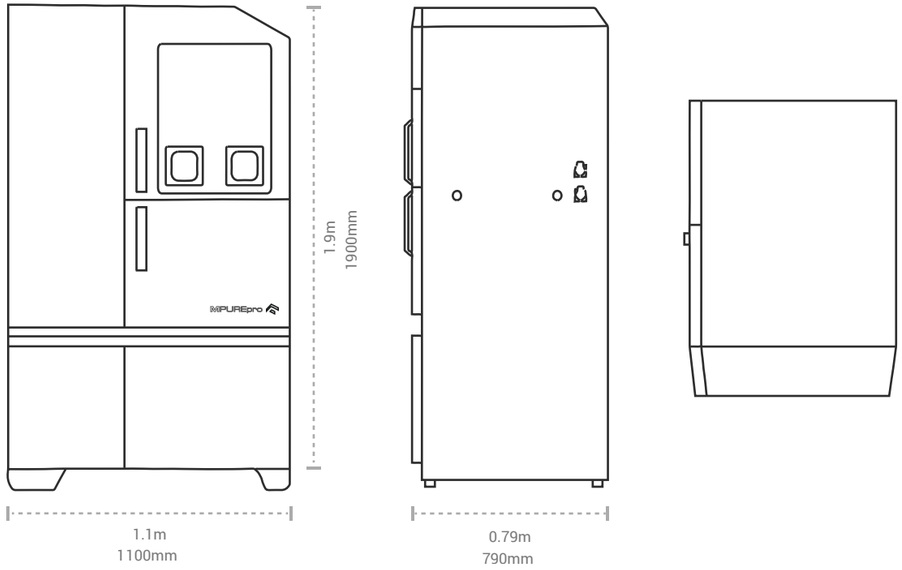
MPRINT



Process Chamber	
Focus diameter	70 µm
Laser power	200 Watt (Fiber)
Build Module	
Build size	150 x 150 x 150 mm Optional: Reduction to 78 x 53 x 90mm Optional: 150 x 150 x 250mm (depending on material)
Layer height	20 – 80 µm
Powder Supply	
Magazine	5x cartridges
Connection and Consumption	
Power supply	220 - 240V / 50 - 60Hz
Power backup	1 x 9.5A
Protective gas	Nitrogen / Argon
Filter type	Easy-replaceable gas filter
Protective gas consumption	3000 ppm = 2 - 4 l/min
Pre-heating	Optional: 200°C
Dimensions and Weight	
Width x depth x height	1.1 x 0.79 x 1.9m / 1100 x 790 x 1900mm
Weight	440 kg
Compatible with	
Products	**M**PURElite, **M**PURE, **M**PUREpro, Standard Module, Lab Module, Heating Module, (Extended Module)

DIMENSIONS

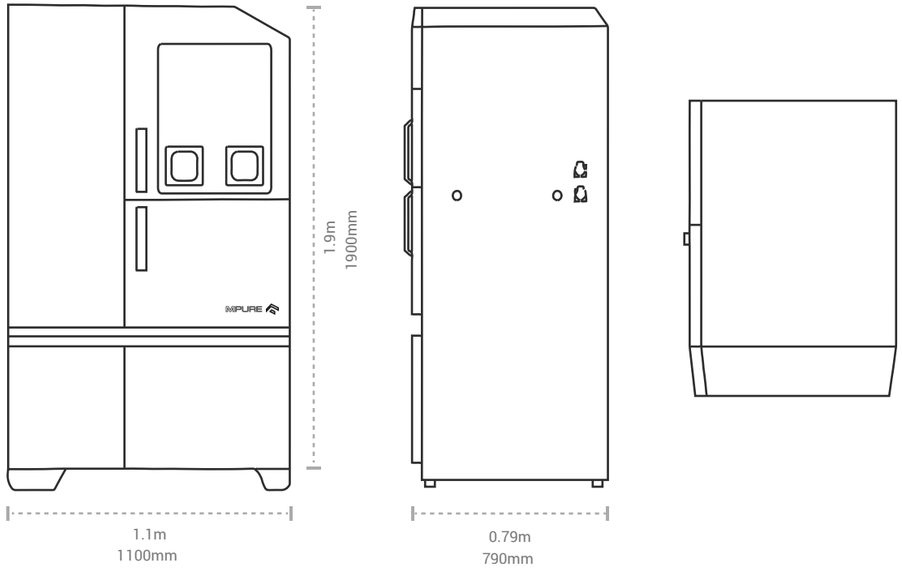
MPUREpro



Workflow	
Working Process	De-powdering + Sieving = Recycling (2in1 unpacking and sieving station)
Unpacking Chamber	
Chamber structure	Glove intervention for unpacking via vacuum conveying
Sieving Unit for Powder Recycling	
Sieving process	Ultrasonic inert sieving
Powder preparation	Reuse through sieved powder in supply cartridge
Residual disposal	Separate for disposal of the oversize powder
Connection and Consumption	
Power supply	110 - 240V / 50 - 60Hz
Power backup	2.0 A
Dimensions and Weight	
Width x depth x height	1.1 x 0.79 x 1.9m / 1100 x 790 x 1900mm
Weight	350 kg
Compatible with	
Products	**M**PRINT, **M**PRINTpro, Standard Module, Lab Module, Heating Module, Extended Module

DIMENSIONS

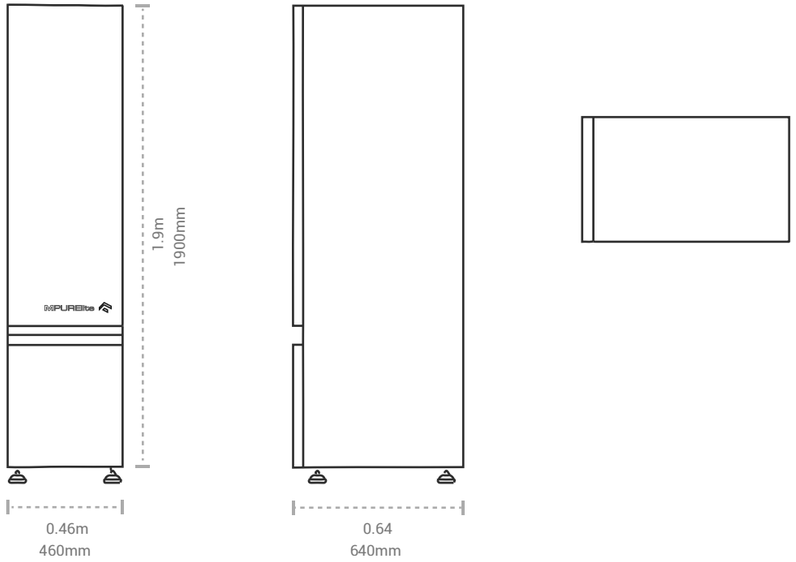
MPURE



Workflow	
Working Process	De-powdering + Sieving = Recycling (2in1 unpacking and sieving station)
Unpacking Chamber	
Chamber structure	Glove intervention for unpacking without direct powder contact
Suction system	Integrated connection for external suction system
Sieving Unit for Powder Recycling	
Sieving process	Ultrasonic inert sieving
Powder preparation	Reuse through sieved powder in supply cartridge
Residual disposal	Separate for disposal of the oversize powder
Connection and Consumption	
Power supply	110 - 240V / 50 - 60Hz
Power backup	9.5A
Dimensions and Weight	
Width x depth x height	1.1 x 0.79 x 1.9m / 1100 x 790 x 1900mm
Weight	310 kg
Compatible with	
Products	**M**PRINT, **M**PRINTpro, Standard Module, Lab Module, Heating Module, Extended Module

DIMENSIONS

MPURElite



Workflow	
Working processes	Sieving + Recycling (Sieving unit for powder recycling)
Sieving Unit for Powder Recycling	
Sieving process Ultrasonic	Ultrasonic sieve
Powder preparation	Reuse through sieved powder in supply cartridge
Residual disposal	Separate for disposal of the oversize powder
Dimensions and Weight	
Width x depth x height	0.46 x 0.64 x 1.9m / 460 x 640 x 1900 mm
Weight	130 kg
Connection and Consumption	
Power supply	via MPRINT/MPRINTpro
Power backup	via MPRINT/MPRINTpro
Compatible with	
Products	MPRINT, MPRINTpro

TRI-TECH 3D
STANFORD MARSH GROUP

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