



The closed powder circuit ensures more safety at work because the operator doesn't come into contact with the powder during the entire printing process. Specially developed for the precision mechanics, medical technology, dental and jewellery industries as well as research and development laboratories, our 3D printer offers optimum detail accuracy, precision and maximum safety in handling the laser and the metal powder.

### FUSION CARTRIDGE

Intelligent cartridge system for safe and economical powder handling

- Material supply made easy
- Fast process preparation
- Plug & Play - transfer of material information to the printer
- Unmatched material utilization
- Ideal for high-priced materials and precious metals



### FUSION CABIN

The Unpacking Station

- High operational safety for the user by a closed process chamber
- Clean separation of the sintered component from the residual powder
- Collection of residual material for possible reuse
- Ergonomic workplace



FUSION CABIN

## EASY TO USE

User-Friendly And Process-Safe

Select a cartridge with the desired material

Insert into the printer & select print file



Start the printing process



FUSION S METAL 3D PRINTER

### FUSION S METAL 3D PRINTER

Ideal for the Production of Finest and Complex Geometries

- Very fine laser spot for finest and complex geometries
- Powerful laser
- High powder yield
- Exact print process with the intelligent software AL3D-OS
- Footprint of just 600 × 600 mm
- Closed gas-circuit for a reduced gas consumption
- Little energy consumption



#### LASER & OPTIC

Laser type/wave length  
Welding spot Ø  
Scan Speed  
Process parameters

#### SOFTWARE

Operation  
Connectivity  
Software

#### External software

File format CAD import  
Print preparation

#### MATERIALS

Alloys

#### Achievable component density

Construction volume  
Layer thickness

#### EXTERNAL CONNECTIONS

Electrical connection  
Permissible humidity  
Permissible ambient temperature  
Protective gas/argon

#### Gas consumption during operation

#### CABIN

Connection for ext. vacuum cleaner

#### EXTERNAL DIMENSIONS

Weight  
W × D × H

#### EXTERNAL DIMENSIONS CABIN

Weight  
W × D × H

Fiber laser 200 W CW, 1070 nm  
50 µm  
max. 5 m/s

Open access to machine and process parameters

15.6" Touchscreen, keyboard and mouse possible  
Ethernet; 2 × USB

FUSION BUILDER, offline version for project creation,  
TeamViewer remote access

Autodesk Netfabb

Materialise Magics

CIM Systems Pyramis

Open software interface for external post processing

STL

Easy support; integrated slicer in software

Metal powder, grain size fraction between 10-45 µm

Iron alloys

Nickel-based alloys

Cobalt-chrome alloys

Precious metals

Reactive metals/more on demand

> 99 %

Ø 100 mm; Z 185 mm

10-50 µm

230 V, 50 Hz / 60 Hz, max. 16 A

max. 70 %

15-30° C

4.5-6 bar input pressure, Ø 6 mm hose fitting

<5 L/min

Purge function 20 L/min

NW32 connection

180 kg

600 × 617 × 1770 mm

100 kg

600 × 617 × 1770 mm

\*Specifications are subject to change without notice.  
Contact Sales Team for more information: sales@additec3d.com

# Laser Powder Bed Fusion

## Safety In 3D-Printing Powder Handling Rethought



Intelligent cartridge system for safe and economical powder handling.

Easy To Use User-Friendly And Process-Safe.



Perfectly suited for producing intricate geometries, high-value materials, and precious metals with exceptional precision.



Offers a verified database of parameters for stainless steel, cobalt chrome, titanium, and precious metals.



### Technology Partners:



### Academic Affiliations:



### Government Partners:



### Memberships & Affiliations:



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## Additive Manufacturing Without Direct Powder Contact



Metal 3D Printer

Unpacking Station



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