

Unlimited 3D printing by seamless process integration



Metallic 3D printing

**HAMUEL
REICHENBACHER**
Members of the SCHERDELGroup

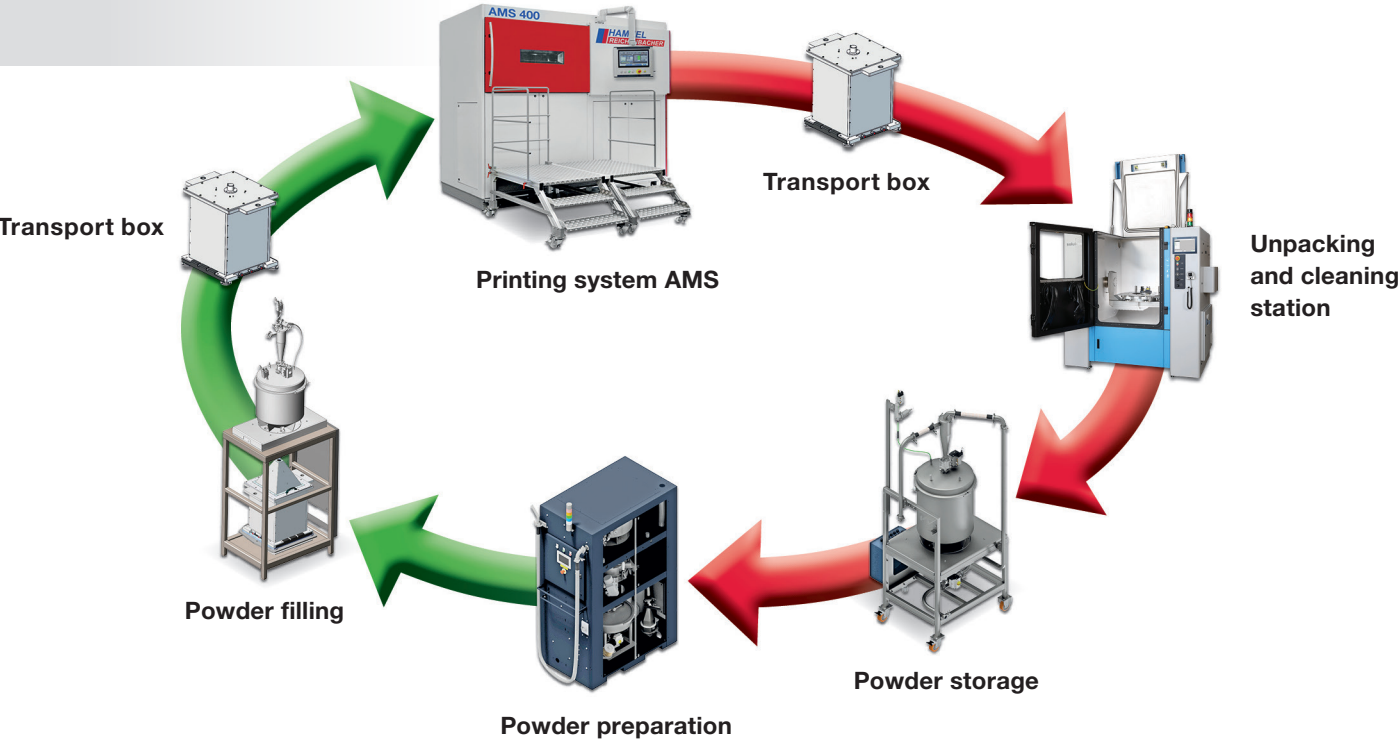
Modular machine structure

Reichenbacher Hamuel does not only offer the large-format and open 3D printers of the AMS series, but also scalable, function-oriented solutions for an entire additive manufacturing chain. Starting at 400 x 400 x 500 mm, the building volume of the AMS series can be further adapted to customer requirements. Thanks to its building area, the AMS 400 permits convenient access to metallic 3D printing and the production of small-series parts by additive manufacturing.

The entire additive manufacturing production chain forms a modular structure around the AMS printing system. The modules include:

- **AMS printing system**
Designed for 3D printing around-the-clock with minimum set-up times.
- **Transport box**
Safe and non-contact transport between printing system, unpacking, cleaning and filling station.
- **Unpacking and cleaning station**
For 3D print parts, combined in one system.
- **Powder storage station**
Intermediate storage as well as mixing of the powder in an inert environment for further use in the workflow.
- **Powder preparation station**
Efficient powder preparation for new print jobs.
- **Powder filling station**
Filling of the transport box with the powder prepared for the next print job.

Compact end-to-end solution



Open 3D Printing System

The purpose-built modules, such as powder storage, powder preparation and powder filling station, allow for the end-to-end tailoring of the AMS printing system's manufacturing concept to the customer's specific production requirements. In addition, these modules permit production scaling with different degrees of automation.

Application-specific customer requirements can be taken into account when designing the AMS series. This means that the number and power of the lasers, the laser focus, the heaters, as well as the camera and sensor technology can specifically be adapted. These adjustments render it possible to meet both, the customers' expected manufacturing productivity and the requirements of the materials to be printed.

Moreover, the AMS series offers a complete integrated software solution compatible with established CAD/CAM solutions, such as Siemens NX AM or Materialise Magics.

CAD/CAM software combination options



Your benefits

- Open system for full flexibility
- Scalable and modular design of the 3D printer according to your requirements
- Independence from individual material suppliers
- No activation costs for new materials
- Customisation of the system architecture
- High flexibility in your production configuration
- Simplified process flows
- Unproblematic scaling of your production
- Development of your own additive manufacturing knowhow

Technical data

	AMS 400	AMS 800	AMS X
Building area	400 x 400 x 500 mm	800 x 800 x 500 mm	customer-specific
Layer thickness	30 - 150 µm	30 - 150 µm	customer-specific
Laser system	1 x Fibre laser with 1 kW	4 x Fibre lasers with 1 kW, each	customer-specific
Max. scanning speed	20 m/s	20 m/s	customer-specific
Focus diameter	90 - 500 µm	90 - 500 µm	customer-specific
Print temperature	Building and powder plate: max. temp. = 200 °C Building and powder chamber (segmented): max. temp. = 200 °C	Building and powder plate: max. temp. = 200 °C	customer-specific
Inert gas	Nitrogen / argon	Nitrogen / argon	Nitrogen / argon
Software compatibility	Siemens NX AM / Materialise Magics	Materialise Magics	Siemens NX AM / Materialise Magics
Dimensions (W x L x H)	3,350 x 3,070 x 3,050 mm	2,840 x 6,100 x 3,410 mm	customer-specific

We are here for you

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