

RENISHAW AM250 METAL ADDITIVE MANUFACTURING (3D PRINTING) SYSTEM

➤ Manufacture complex geometries

- Internal features, lattice and thin walls
- Functional prototypes
- A range of metal powder feedstocks to choose from



➤ AM250 benefits

- Complex component production in a range of metals - geometry is not constrained by traditional manufacturing design rules.
- Light weighting - optimum use of material only where it is needed.
- Efficient material usage - minimal waste compared to subtractive machining.
- Rapid design iterations right up to manufacture.
- Class leading inert atmosphere generation.
- Low gas consumption.
- Open parameters.

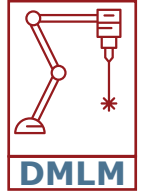
➤ Class leading inert atmosphere and minimal gas consumption

The AM250's class leading inert atmosphere generation works by first creating vacuum before back filling with high purity argon gas. This method ensures a high quality build environment as well as minimal argon usage for atmosphere generation, suitable for all qualified metals including titanium and aluminium.

Gas consumption is further minimised by the use of a fully sealed and welded chamber that also contributes to robustness

➤ Safe powder handling with minimal contact

The patented safe change filter and system powder handling, via the glove box, help to minimise user contact with materials and process emissions.



② Flexible material use and ease of changeover

The AM250 features an external powder hopper with valve interlocks to allow additional material to be added whilst the process is running.

It is possible to remove the hopper for cleaning or to exchange with a secondary hopper for materials change, using the universal silo lift. This means that multiple material types can be interchanged on the AM250 platform with relative ease.

The powder overflow containers are outside the chamber and have isolation valves so that unused materials can be sieved and reintroduced to the process via the hopper while the system is running.

② Specification

- Key specifications of Renishaw AM250 laser additive manufacturing systems:
- Reliable fibre laser in 200 W or 400 W power:
 - High precision with 70 µm focal diameter 200 W laser
 - Higher power 400 W system for faster processing of aluminium
- 250 mm × 250 mm build area, up to 365 mm deep
- Low argon consumption; as little as 10 litres/hour when running
- Vacuum atmosphere preparation typically 600 litres to fill
- Low power consumption, single phase electrical supply
- Compact external dimensions

Part create with the Renishaw AM250 by Starprototype

