

FS301M

Productivity + Quality in One Package

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DESIGN FOR HIGH-QUALITY AM PRODUCTION

Featuring an expanded build cylinder of 305×305×410mm, FS301M is well suited for larger-sized application within a single build. Dual-laser scanning strategy and calibration algorithms enhance the build efficiency by precisely controlling dual-laser's operation with full coverage of the build area, achieving intelligent distribution of each laser while building a single large part or multiple smaller parts. Paired with truly open parameters, FS301M offers ultimate control for metal AM production. Advanced 3-axis digital galvo system, powerful build process control & real-time monitoring, excellent air tightness design of FS301M ensure the best quality of the printed part.

ENHANCED USER OPERATION

With an integrated powder-loading dock, FS301M achieves a fully sealed material handling operation under an inert atmosphere for streamlined workflow and improved environmental safety. A shared material container is used during loading, unloading and sieving process, offering convenient powder handling and transportation between the stations. Advanced features such as pre-heated base plate, electric leveling, and vision system ensure more robust process and quality control.

COMPACT MACHINE FOOTPRINT

FS301M features a machine footprint as small as 3.61 sqm with an integrated, long-lasting filtration system of operation time up to 1500 hours. With designated operation access from only the front and the rear, FS301M achieves one of the most compact installation space among similar sized PBF systems on the market. In an additive factory setting, FS301M enables high density layout with minimal side distance to achieve maximum throughput per floor area at economical additive production cost.

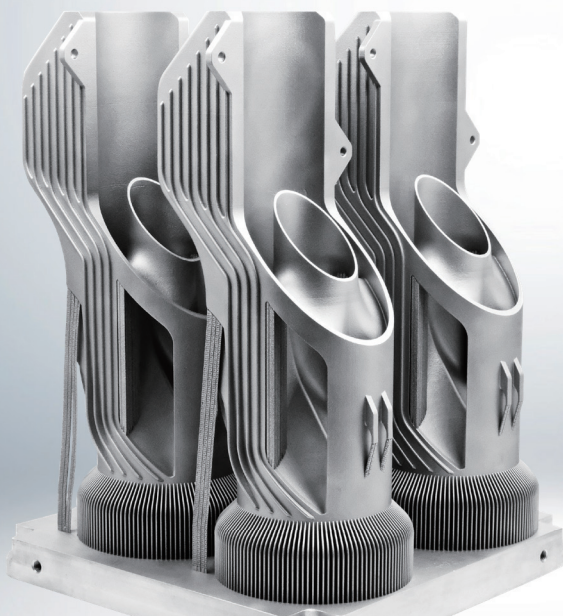
FARSOON FS301M

TECHNICAL DATA	FS301M	FS301M-2
External Dimensions (L×W×H)	2360×1530×2150 mm (92.9×60.2×84.6 in)	
Installation Footprint (L×W×H)	3500×3000×2800 mm (137.8×118.1×110.2 in)	
Build Cylinder Size¹ (L×W×H)	305mm×305mm×410 mm (12.0×12.0×16.1 in) (Height incl. build plate)	
Net Weight	2800 kg (6172.9 lb)	
Layer Thickness	0.02 - 0.1mm (0.0008-0.0039 in)	
Scanning Speed	Max. 15.2 m/s (49.9 ft/s)	
Laser Option	Single Laser, 1×500W	Dual Lasers, 2×500W (dual-laser with full coverage of build area by each laser)
Scanner	Dynamic focusing system	
Inert Gas Protection	Argon/Nitrogen	
Average Inert Gas Consumption in Process	3 - 5 L/min	
Operating System	64 bit Windows 10	
Comprehensive Software	BuildStar, MakeStar®	
Key Software Features	Open machine key parameters, real-time build parameter modification, three-dimensional visualization, diagnostic functions	
Data File Format	STL	
Power Supply	EUR/China: 400V±10%, 3~/N/PE, 50Hz, 15A US: transformer sold with machine	
Operating Ambient Temperature	22-28°C (71.6-82.4°F)	
Materials²	316L, 17-4PH, 420, Maraging Steel Grade 300, HX, HAYNES 230, IN718, IN625, AISi10Mg, TA15, Ti6Al4V, more materials to come	

1 The functional build volume depends on the parts/materials.

2 The materials marked with * are in the build process development.

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PART: AUV CHILLER
SYSTEM: FS301M-2
MATERIAL: AISi10Mg

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