

# FS621M

## Industrial Scale Metal Laser Sintering System

▶ Limited Availability



### EXTRA-LARGE BUILD VOLUME WITH 1.1 METER VERTICAL AXIS

Developed with a focus on large build size, Farsoon's FS621M features one of the largest metal laser sintering build volumes on market, with a build plate size of 620×620mm and vertical axis of 1.1 meter. This expansive build envelope opens new possibilities for large-scale metal production that couldn't be built before in industries such as aerospace, oil and gas, and many others.

### BUILD SPEED + HIGH QUALITY

The FS621M can be equipped with a powerful single 1000W laser or quad 500W lasers allowing for great rates of production. In addition the FS621M like all Farsoon systems is a truly open platform which offers the user a high degree of control to tailor build parameters for cost-competitive metal additive manufacturing. An advanced dynamic 3-axis scanning system, powerful build process controls & real-time recoating monitoring ensuring the best build quality.

### OPTIMIZED FOR OPERATIONAL EASE

The FS621M's integrated filter module features secondary circulating system and a dual-station filter design that allows for the exchanging of filters without disturbing the build process. The FS621M powder handling processes share a common powder container design which are used during loading, unloading and sieving procedures. These containers offer fully-sealed power handling, easy transportations between the stations, and safe storage of powder. This partially closed powder system allows for the capability of continuous feeding of powder to the build while retaining the ability to easily exchange and monitor powder quality.

# FARSOON FS621M

TECHNICAL DATA	FS621M	FS621M-4
<b>External Dimensions (L×W×H)</b>	5800×4300×4000 mm (228.3×169.3×157.5 in)	
<b>Build Cylinder Size<sup>1</sup> (L×W×H)</b>	620×620×1100mm ( 24.4 × 24.4 × 43.3 in ) (not including build plate thickness)	
<b>Net Weight</b>	Approx. 9000 kg ( 19841.6 lb )	
<b>Layer Thickness</b>	0.02~0.1 mm ( 0.0008-0.0039 in )	
<b>Scanning Speed</b>	Max. 15.2 m/s ( 49.9 ft/s )	
<b>Laser Type</b>	Single Laser, 1×1000W	Quad Lasers, 4×500W
<b>Scanner</b>	F theta lenses or dynamic focusing system	
<b>Inert Gas Protection</b>	Argon/Nitrogen	
<b>Average Inert Gas Consumption in Process</b>	8 - 10 L / min	
<b>Operating System</b>	64 bit Windows 10	
<b>Comprehensive Software</b>	BuildStar, MakeStar®	
<b>Key Software Features</b>	Open machine key parameters, real-time build parameter modification, three-dimensional visualization, diagnostic functions	
<b>Data File Format</b>	STL	
<b>Power Supply</b>	EUR/China: 400V±10%, 3~/N/PE, 50Hz, 40A US: transformer sold with machine	
<b>Operating Ambient Temperature</b>	22-28°C ( 71.6-82.4°F )	
<b>Materials<sup>2</sup></b>	IN718, HX, AISi10Mg, HAYNES 230*, TA15*, Ti6Al4V*, IN625*, 316L*, more materials to come	

- <sup>1</sup> The functional build volume depends on the parts / materials.  
<sup>2</sup> The materials marked with \* are in the build process development.

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COMBUSTION CHAMBER OF ROCKET ENGINE  
 SIZE: 600 (L)\*496 (W)\*558 (H) MM  
 MATERIAL: IN718  
 LAYER THICKNESS: 0.04MM  
 MACHINE: FS621M QUAD LASERS  
 PRINT TIME: 258H

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