



#### DESIGNED FOR PRODUCTION

The FS421M additive metal melting system is a true manufacturing systems capable continuous production. With its 425x425x420mm build cylinder the FS421M is capable of producing large metal parts from a wide range of metal powder materials. The large build volume combined with a multi-laser and fully digital optics system enable enhanced production speed while the internal rail system enables the fast exchange of cylinders between builds.

## EFFICIENCY + SAFETY

The FS421M comes equipped with an all new closed looped powder handling system. Powder supply, transport, feeding, and recycling are all integrated into one inert system. The FS421M's powerful and highly efficient air filtration systems allows for the processing of reactive materials while it's high capacity and auto-cleaning capability allows for extended use between filter changes.

## **OPEN SYSTEM**

The FS421M like all Farsoon systems allows for complete freedom of operation by its users. This means that all machine parameters are unlocked for the user as well as an open material policy allowing for previously-impossible levels of freedom and flexibility when it comes to additive metal melting production. In addition, the in house Farsoon software allows for ease of use with both an advanced user interface as well as a touch screen based production interface for everyday use.



# FARSOON FS421M

TECHNICAL DATA	FS421M
External Dimensions (L×W×H)	2700×1290×2290 mm
Build Cylinder Size <sup>1</sup> (L×W×H)	$425 \times 425 \times 420 \text{ mm}$ (not including build plate thickness)
Net Weight	Approx. 3450kg (Single-laser) / 3500kg (Dual-laser)
Layer Thickness	0.02~0.1 mm
Scanning Speed	Max. 15.2 m/s
Laser Type	Dual fiber laser, 2 $\times$ 500W or Single fiber laser, 1 $\times$ 500W
Scanner	High-precision three-axis digital galvo system
Laser Spot Size	Approx. 70µm contour, 70-200µm fill
Inert Gas Protection	Argon/Nitrogen
Average Inert Gas Consumption in Process	<3 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: 380-400V, 50/60Hz, three-phase US: transformer sold with machine
<b>Operating Ambient Temperature</b>	22-28°C
Materials	FS AlSi10Mg, FS Ti6Al4V , FS 316L ,FS IN718 , FS GH3536 , FS TA15

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

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PART: TURBINE COOLING TESTBED SIZE: 365×365×320(H)MM MATERIAL: FS Ti6AL4V SYSTEM: FS421M (DUAL-LASER) PRINT TIME: 126H

#### www.farsoon.com

AMEA Farsoon Technologies | +86.731.8397.6198 | globalinfo@farsoon.com | No. 181 Linyu Road, Changsha National High-Tech Industrial Zone, Hunan, China AMERICAS Farsoon Technologies - Americas |+1 512-686-2866 | info@farsoonam.com | 3141 Eagles Nest Blvd., Suite 230, Round Rock, Texas 78665 EUROPE Farsoon Europe GmbH | +49.711.67400306 | wehelpyou@farsoon-eu.com | Curiestr. 2, 70563 Stuttgart, Germany