FS811M

Up to ×12 Lasers | Built for True Industrial Series Production

▶ Limited Availability

EXTRA-LARGE BUILD VOLUME

With a build platform size of 840×840×960mm and build volume of 677 Liters, the FS811M features one of the largest build volumes on metal laser powder bed fusion market. The extended X and Y axis as well as Z height opens many new manufacturing possibilities in large-scale industrial applications such as aerospace & aviation, oil & gas, and more. Equipped with up to 12 robust fiber lasers, the high-speed galvo system boosts high production yield up to 300cm^3/h. The advanced multi-laser scanning strategy enables high efficiency distribution, and calibration accuracy in overlapping area for uniformed mechanical properties of a single over-sized part, or volume-production parts throughout the large build platform.

QUALITY + RELIABILITY

The FS811M platform features many innovative designs bringing your manufacturing dreams into quality parts. The all-new multi-layer gas flow with advanced wind-wall design ensures real-time particle removal throughout the whole oversized chamber. The excellent air tightness design of FS811M build chamber enables extreme oxygen content, and low inert gas consumption during the build process, ensuring the part quality consistency while reducing operational costs. The powerful permanent filtration system allows uninterrupted, reliable process for extreme build times.

OPERATION EASE

The FS811M build chamber is equipped with both front and rear doors for ease of operation and maintenance. Once the build is completed, the part cylinder can be transferred to powder breakout station and part extract station via an integrated conveyor system. The breakout station is fully enclosed and can be accessed through glove boxes on all 4 sides, allowing multiple operators for powder removal and detail cleaning under safe inert atmosphere. The FS811M powder handling system shares a common modular powder container design for loading, recycling and sieving under inert gas protection offering continuous powder supply to the build job and the ability to easily monitor powder quality.

FARSOON TECHNOLOGIES

FARSOON FS811M

TECHNICAL DATA	FS811M
External Dimensions (L×W×H)	8500×4500×4970 mm (334.7×177.2×195.7 in)
Build Cylinder Size[1] (L×W×H)	840×840×960mm (33.1×33.1×37.8 in) (Height incl. build plate)
Net Weight	Approx. 25000 KG (55115.6 lb)
Layer Thickness	0.02~0.1 mm (0.0008-0.0039 in)
Scanning Speed	Max. 10 m/s (32.8 ft/s)
Laser Type	Fiber Laser, 6×500W or 8×500W or 10×500W or 12×500W
Scanner	F theta lenses
Inert Gas Protection	Argon/Nitrogen
Average Inert Gas Consumption in Process	12 - 15 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, 50A US: transformer sold with machine
Operating Ambient Temperature	22-28°C (71.6-82.4°F)
Materials[2]	TA15, GH4099, Ti6Al4V*, IN718*, 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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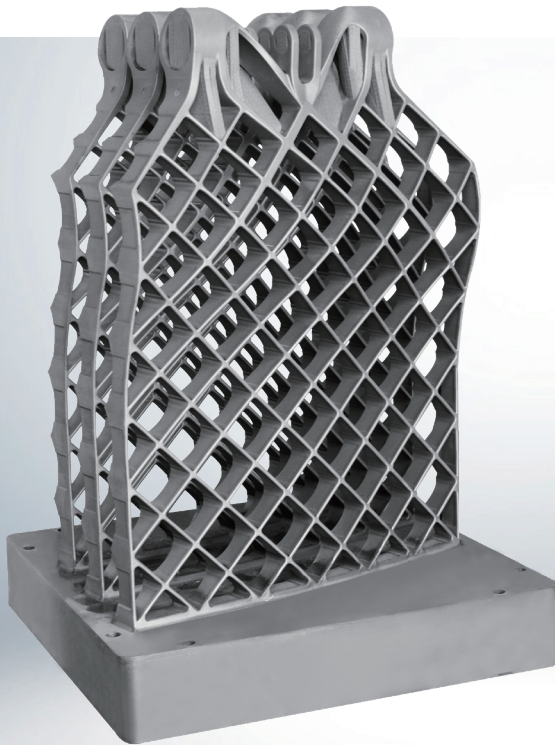
STABILIZER FIN OF ROCKET
SIZE: 750×195×1035 EACH
MATERIAL: TA15
SYSTEM: FS811M-U-6 (6 × 500W)
LAYER THICKNESS: 100μm
PRINT TIME: 219H (3PCS IN ONE BUILD)

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