FS621M-U-4

Industrial Scale Metal Platform with 1.7 Meter in Z Height

www.farsoon.com

EXTRA-LARGE BUILD VOLUME WITH 1.7 METER Z-AXIS

With a build platform size of 620×620mm and vertical axis of 1.7 meter, the FS621M-U-4 features one of the largest build volumes on metal laser sintering market. The outstanding Z height opens many new manufacturing possibilities in large-scale industrial applications that favors the vertical axis; such as aerospace & aviation, oil & gas, and more.

HIGH PRODUCTION SPEED + QUALITY

Equipped with powerful quad 500W fiber lasers, the FS621M-U-4 allows for maximum production rates per laser. The advanced multi-laser scanning strategy enables high calibration accuracy in the overlapped area; ensuring the uniform mechanical properties of the built parts throughout the build platform. The powerful build process controls, real-time recording & monitoring ensure the best build quality.

OPERATION EASE

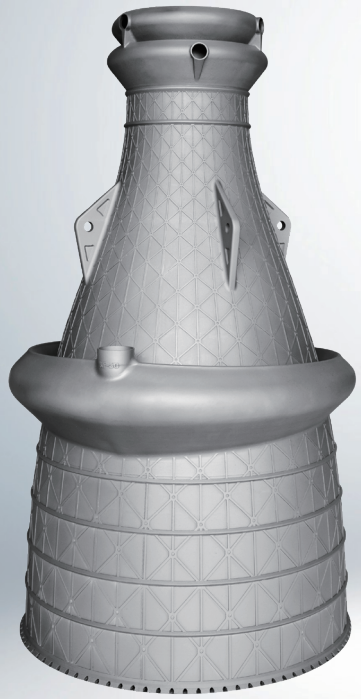
The FS621M-U-4's integrated filter module features secondary circulating system and a dual-station filter design that allows for the exchanging of filters without disturbing the build process. The powder handling processes share a common powder container design which are used during loading, unloading and sieving procedures. These containers offer fully-sealed powder 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 TECHNOLOGIES

FARSOON FS621M-U-4

TECHNICAL DATA	FS621M-U-4
External Dimensions (L×W×H)	6200×5225×5510 mm (244.1×205.7×216.9 in)
Build Cylinder Size (L×W×H)	620×620×1700mm (24.4×24.4×66.9 in) (Height incl. build plate)
Effective Build Size[1] (L×W×H)	612×612×1700mm (24.1×24.1×66.9 in) (Height incl. build plate)
Net Weight	Approx. 15000 KG (33069.3 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, 4×500W
Scanner	F theta lenses or dynamic focusing system
Inert Gas Protection	Argon/Nitrogen
Average Inert Gas Consumption in Process	8 - 10 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, 60A US: transformer sold with machine
Operating Ambient Temperature	22-28°C (71.6-82.4°F)
Materials[2]	HX, IN718, HAYNES 230, GH4099, TA15, AlSi10Mg, Ti6Al4V, 316L, 304L, CuCrZr, IN625*, 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.



THRUST CHAMBER & NOZZLE EXTENSION OF ROCKET ENGINE
MATERIAL: 316L
SYSTEM: FS621M-U-4
SIZE: 532×550×944 MM (20.9×21.7×37.2 IN)

www.farsoon.com

AMEA Farsoon Technologies Co., Ltd. | +86.731.8397.6198 | globalinfo@farsoon.com | No. 2710 Yuelu West Boulevard, Yuelu District, Changsha, Hunan, China
AMERICAS Farsoon Americas CORP. | +1 512-551-9901 | contact@farsoonam.com | 3161 Eagles Nest Street, Suite 350, Round Rock, TX 78665
EUROPE Farsoon Europe GmbH | +49 711 13796 0 | wehelpyou@farsoon-eu.com | Liebknechtstrasse 33, 70565 Stuttgart, Germany

FS621M Pro

Up to×6 Lasers | Built for High Volume Metal Production

www.farsoon.com

EXTRA-LARGE BUILD VOLUME

With a build platform size of 620×808mm and vertical axis of 1.2 meter, the FS621M Pro features one of the largest build volumes on metal laser sintering market. The extended Y axis and Z height opens many new manufacturing possibilities in large-scale industrial applications that favors the vertical axis; such as aerospace & aviation, oil & gas, and more.

PRODUCTIVITY + QUALITY

Equipped with powerful quad or hexa 500W fiber lasers, the FS621M Pro allows for maximum production rates per laser. The advanced multi-laser scanning strategy enables high calibration accuracy in the overlapped area; ensuring the uniform mechanical properties of the built parts throughout the build platform. The powerful build process controls, real-time recording & monitoring ensure the best build quality.

OPERATION EASE

The FS621M Pro' 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 powder handling processes share a common powder container design which are used during loading, unloading and sieving procedures. These containers offer fully-sealed powder 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 TECHNOLOGIES

621M PRO

FARSOON FS621M Pro

TECHNICAL DATA	FS621M Pro-4	FS621M Pro-6
External Dimensions (L×W×H)	6300×4050×4330 mm (248.0×159.9×170.5 in)	
Build Cylinder Size (L×W×H)	620×808×1200mm (24.4×31.8×47.2 in) (Height incl. build plate)	
Effective Build Size[1] (L×W×H)	612×800×1200mm (24.1×31.5×47.2 in) (Height incl. build plate)	
Net Weight	Approx. 13000 KG (28660.1 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, 4×500W	Fiber Laser, 6×500W
Scanner	F theta lenses or dynamic focusing system	
Inert Gas Protection	Argon/Nitrogen	
Average Inert Gas Consumption in Process	8 - 10 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, 60A US: transformer sold with machine	
Operating Ambient Temperature	22-28°C (71.6-82.4°F)	
Materials[2]	HX, IN718, HAYNES 230, GH4099, TA15, AlSi10Mg, Ti6Al4V, 316L, 304L, CuCrZr, IN625*, 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.

COMBUSTION CHAMBER OF ROCKET ENGINE
MATERIAL: IN718
SYSTEM: FS621M Pro
SIZE: 550×550×780 MM (21.7×21.7×30.7 IN)
PARTNER: DEEP BLUE AEROSPACE

www.farsoon.com

AMEA Farsoon Technologies Co., Ltd. | +86.731.8397.6198 | globalinfo@farsoon.com | No. 2710 Yuelu West Boulevard, Yuelu District, Changsha, Hunan, China
AMERICAS Farsoon Americas CORP. | +1 512-551-9901 | contact@farsoonam.com | 3161 Eagles Nest Street, Suite 350, Round Rock, TX 78665
EUROPE Farsoon Europe GmbH | +49 711 13796 0 | wehelpyou@farsoon-eu.com | Liebknechtstrasse 33, 70565 Stuttgart, Germany

FS621M

Industrial Scale Metal Laser Sintering System

www.farsoon.com

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

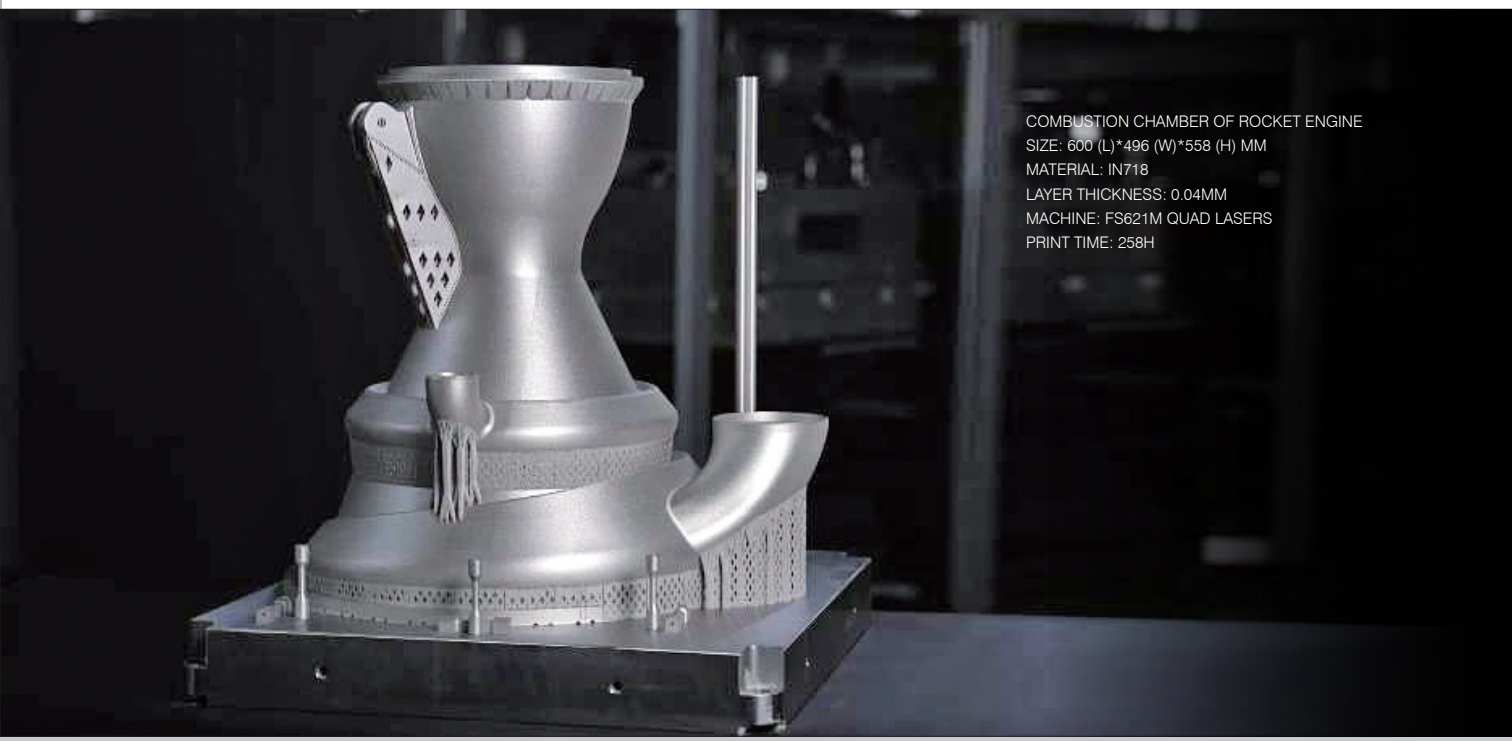
The FS621M's integrated filter module features secondary circulating system and a dual-station filter design that allows for the exchanging of filters without disturbing the build process. The FS621M powder handling processes share a common powder container design which are used during loading, unloading 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 TECHNOLOGIES

FARSOON FS621M

TECHNICAL DATA	FS621M	FS621M-4
External Dimensions (L×W×H)	5890×4350×3940mm (231.9×171.3×155.1 in)	
Build Cylinder Size (L×W×H)	620×620×1100mm (24.4 × 24.4 × 43.3 in) (Height incl. build plate)	
Effective Build Size[1] (L×W×H)	612×612×1100 mm (24.1×24.1×43.3 in) (Height incl. build plate)	
Net Weight	Approx. 8000 kg (17637.0 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	Single Laser, 1×1000W	Quad Lasers, 4×500W
Scanner	F theta lenses	
Inert Gas Protection	Argon/Nitrogen	
Average Inert Gas Consumption in Process	8 - 10 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, 60A US: transformer sold with machine	
Operating Ambient Temperature	22-28°C (71.6-82.4°F)	
Materials[2]	HX, IN718, HAYNES 230, GH4099, TA15, AlSi10Mg, Ti6Al4V, 316L, 304L, CuCrZr, IN625*, 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.



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

www.farsoon.com

AMEA Farsoon Technologies Co., Ltd. | +86.731.8397.6198 | globalinfo@farsoon.com | No. 2710 Yuelu West Boulevard, Yuelu District, Changsha, Hunan, China
AMERICAS Farsoon Americas CORP. | +1 512-551-9901 | contact@farsoonam.com | 3161 Eagles Nest Street, Suite 350, Round Rock, TX 78665
EUROPE Farsoon Europe GmbH | +49 711 13796 0 | wehelpyou@farsoon-eu.com | Liebknechtstrasse 33, 70565 Stuttgart, Germany