FS422M

Continuous Additive Manufacturing System

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DESIGNED FOR PRODUCTION

The FS422M is the second generation metal laser powder bed fusion system designed under the CAMS concept offering continuous production capability. With its expanded build envelope size 425 x 425 x 550 mm, the FS422M is capable of producing large metal parts for aerospace, automotive and manufacturing industries. Equipped with high-precision digital scanning system and optional quad 500-watt lasers configuration, the FS422M offers optimal volume build rate up to 150cm^3/h for significantly improved throughput for industrial scale series production.

HIGH QUALITY, REPEATABLE PARTS

Equipped with advanced multi-laser scanning strategy and calibration algorithms, the FS422M offers optimal build efficiency, and uniformed part performance in overlapping areas. Continuous close-loop top-feed powder delivery system, optimized in-chamber gas flow, and inert gas protection allow for uniform melting process of metal powder. Powerful build process control and real-time re-coating monitoring ensure the optimal industrial build quality.

COST PERFORMANCE

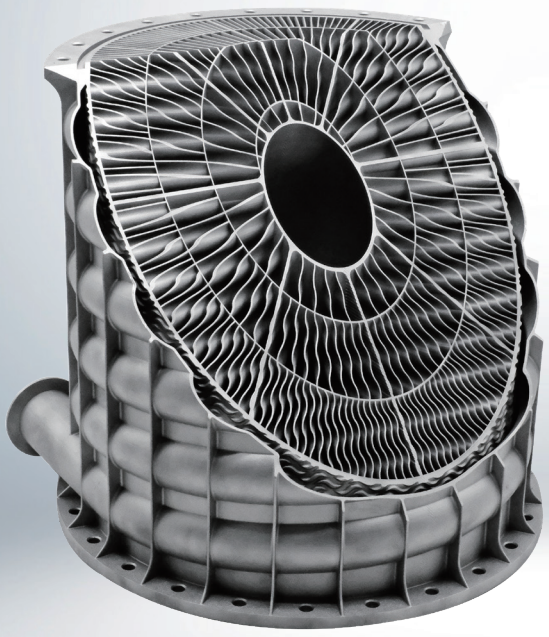
The integrated permanent filter system allows for the processing of active materials with lifespan more than 10 years. In addition, like all Farsoon machines the FS422M is a truly open platform which offers the user a high degree of control to tailor processing parameters for industrial application requirements and cost-competitive metal additive manufacturing.

FARSOON TECHNOLOGIES

FARSOON FS422M

TECHNICAL DATA	FS422M-H-4
External Dimensions (L×W×H)	5000mm×2900mm×2700mm (196.9×114.2×106.3 in)
Build Cylinder Size (L×W×H) (Height incl. build plate)	425mm×425mm×550mm (16.7×16.7×21.7 in)
Effective Build Size[1] (L×W×H) (Height incl. build plate)	419mm×419mm×550mm (16.5×16.5×21.7 in)
Net Weight	Approx. 3700 KG (8157.1 lb)
Layer Thickness	0.02~0.1 mm (0.0008-0.0039 in)
Scanning Speed	Quad Lasers, 4×1000W
Laser Type	Max. 10 m/s (32.8 ft/s)
Scanner	F theta lenses
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, 30A US: transformer sold with machine
Operating Ambient Temperature	22-28°C (71.6-82.4°F)
Materials[2]	316L, HX, HAYNES 230*, IN718*, IN625*, AlSi10Mg, AlMgSc*, Ti6Al4V, TA15*, CuCrZr, CuSn10*, Pure Copper, 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.



PART : IN-LINE TUBE & SHELL HEAT EXCHANGER
SIZE: 412×412×380 MM (16.2×16.2×15.0 IN)
MATERIAL: AlSi10Mg
SYSTEM: FS422M-H-4

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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