

# FS273M

### > SIMPLIFIED PRODUCTION

With an industrial-sized 275×275×355mm build envelope and an expanded powder feeding cylinder size, the FS273M offers streamlined metal production of larger volume parts with a wide range of industrial metal materials.

### > COST-PERFORMANCE

The FS273M is a high value proposition industrial production platform. Advanced f-theta optics system, robust control and truly open parameters enable the user unparalleled freedom of processing capability. It can achieve highly detailed, functional parts while maintaining the cost-competitive advantage. Compact machine design enables denser, flexible factory layout for maximum throughput yield per floor area at an economical additive production cost.

### > OPERATION EASE + SERVICEABILITY

The FS273M features an integrated, long-lasting filtration system allows for extended operation time for longer builds and reducing the cost of filter changes. Features such as preheated base-plate, robust recoating operations, removable overflow containers, and a powder supply sufficient for a full build ensure the ease of operation and good serviceability.



#### CONFORMAL COOLING MOLD

MATERIAL: FS 18Ni300

SYSTEM: FS273M

The conformal cooling mold is produced in a single piece by Farsoon's cost-performance FS273M with Oerlikon's metal powder material. Using traditional production methods, the injection molding inserts has a high scrap rate of up to 20%, which is hard to ensure effective and even cooling, resulting in many small bubbles in the product surface. While using Farsoon's metal laser sintering technology, it can optimize and produce the conformal cooling channels of the inserts, which reduces the cooling time, improves cooling efficiency and reduces the scrap rate and cost.

### TECHNICAL DATA

### FS273M

External Dimensions (L×W×H)	2250×1425×2000 mm
Build Cylinder Size <sup>1</sup> (L×W×H)	275×275×355 mm (not including build plate thickness)
Net Weight	Approx. 2033 kg
Layer Thickness	0.02 - 0.1mm
Scanning Speed <sup>2</sup>	Max. 10.0 m/s
Laser Type	Dual fiber lasers 2×500W, or Single fiber laser 1×500W
Scanner	High-precision digital galvo system
Laser Spot Size	Approx. 90 μm
Inert Gas Protection	Argon/Nitrogen
Average Inert Gas Consumption in Process	3-5 L / min
Operating System	64 bit Windows10
Comprehensive Software	BuildStar, MakeStar <sup>®</sup>
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
Operating Ambient Temperature	22-28°C

#### Materials<sup>3</sup>

FS 316L, FS 18Ni300, FS GH3536, FS AISi10Mg, FS Ti6Al4V, CX, FS AlMgScZr\*, FS TA15\*, FS AISi7Mg\*, FS 420\*, FS 718\*, H13\*, HX\*, Pure Copper\*, W\*, Ta\*, more materials to come

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

<sup>2</sup> For different industries and customer needs, this data may vary.

<sup>3</sup> The materials marked with \* are in the build process development.