

FLIGHT HT403P

The Next Generation of High-speed Plastic Laser Sintering

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FIBER

Equipped with powerful fiber lasers in place of the standard CO₂ lasers, Flight™ HT403P is capable of delivering greatly increased power to the powder bed. Due to the more robust and stable nature of a fiber laser system, Flight™ Technology also provides improved laser longevity which is key when considering ROI for manufacturing applications.

FAST

With robust laser power, improved energy distribution to the material, and smaller laser spot size, Flight™ Technology is able to achieve the full sintering of powder in a significant short amount of time. With scanning speed of over 20m/s (66 ft/s) as well as the large build volume, Flight™ HT403P is able to achieve extreme sintering speeds that pushes the additive manufacturing productivity to a new level.

FINE

Developed with a new set of unique scanning algorithms and a powerful dynamic optical system, Flight™ Technology is able to achieve a more homogenous energy distribution over the processing surface. This results in improved feature detail compared to other plastic powder-based technologies with feature details as small as 0.3mm (0.012 inch) while still achieving the part property benefits of standard laser sintering.

OPEN PLATFORM

Like all Farsoon systems, FLIGHT HT403P is offered with fully open machine parameters and unlocked material choices. In addition with its increased power and energy absorption characteristics Flight™ Technology will be capable of accessing a much different range of process-able materials and operational flexibility as compared to standard laser sintering systems, which allows for increased freedom for future AM material and application development.

FARSOON FLIGHT HT403P

SPECIFICATIONS

FLIGHT HT403P

External Dimensions (L×W×H)	2470×1500×2145 mm
Build Cylinder Size¹ (L×W×H)	400×400×450 mm high-cylinder option 400×400×540 mm
Net Weight	Approx. 3000 KG
Laser Type	Fiber Laser, 1×500W
Laser Spot Size	Approx. 70 μm contour, Approx. 500 μm fill
Scanner	High-precision three-axis digital galvo system
Layer Thickness	0.06 - 0.3 mm
Volume Build Rate²	Up to 6 L/h
Scanning Speed	Max. 20 m/s
Max. Chamber Temperature	220°C
Thermal Field Control	Multi-zone heater & intelligent temperature control systems
Temperature Regulation	Continuous real-time build surface temperature monitoring & optimization
Operating System	64 bit Windows 10
Comprehensive Software	Farsoon MakeStar®, MakeStar®
Data File Format	STL
Key Software Features	Open machine key parameters, real-time build parameter modification, three-dimensional visualization, diagnostic functions
Inert Gas Protection	Nitrogen
Power Supply	EUR/China: 380-400V, 50/60Hz, three-phase US: transformer sold with machine
Operating Ambient Temperature	22 - 28 °C
Materials	FS 3200PA-F, more materials to come

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

2 Volume build rate depends on the parts/materials.

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PART: GRID STRUCTURE
MINIMUM WALL THICKNESS: 23 μm
MATERIAL: FS 3200PA-F
SYSTEM: FLIGHT HT403P

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