

Flight 403P SERIES

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.

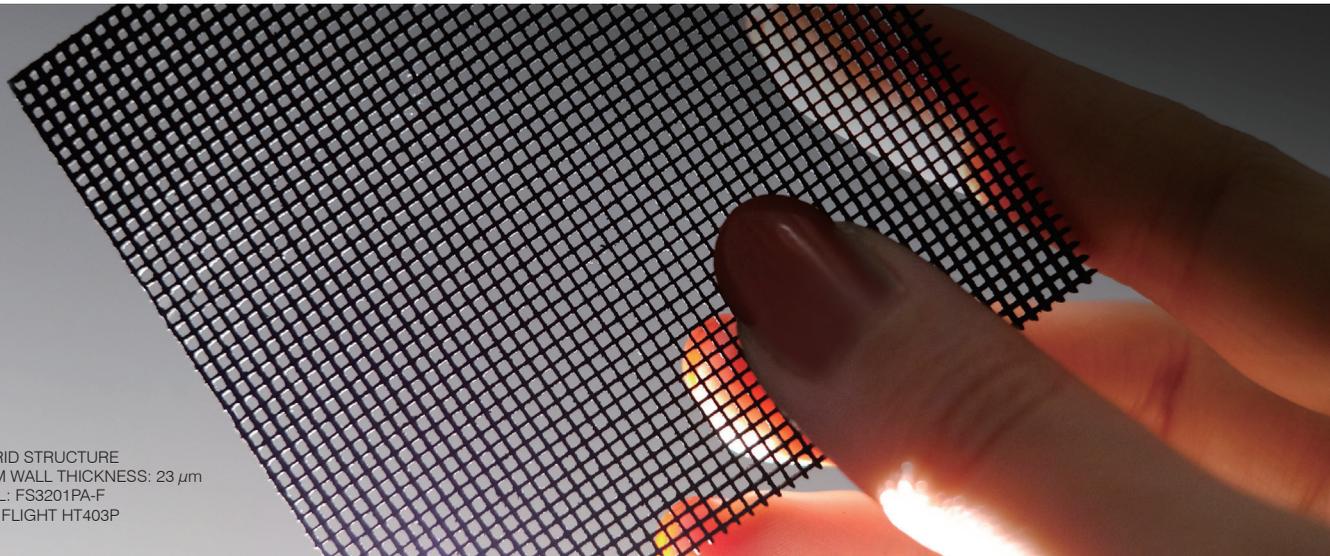
FARSOON FLIGHT 403P Series

| SPECIFICATIONS | FLIGHT SS403P | FLIGHT HT403P |
|--|--|----------------|
| External Dimensions (L×W×H) | 2470×1500×2145 mm (97.2×59.1×84.4 in) | |
| Build Cylinder Size¹ (L×W×H) | 400×400×450 mm (15.7×15.7×17.7 in) high-cylinder option 400×400×540 mm (15.7×15.7×21.3 in) | |
| Net Weight | Approx. 3000 KG (6613.9 lb) | |
| 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 (0.0024-0.0118 in) | |
| Volume Build Rate² | Up to 6 L/h | |
| Scanning Speed | Max. 20 m/s (65.6 ft/s) | |
| Max. Chamber Temperature | 190°C (374 °F) | 220°C (428 °F) |
| 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 | BuildStar, 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 (71.6-82.4 °F) | |
| Materials | FS3300PA-F, FS3401GB-F, FS3201PA-F, LUVOSINT® TPU X92A-1064 WT, 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: FS3201PA-F
SYSTEM: FLIGHT HT403P

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AMEA Farsoon Technologies | +86.731.8397.6198 | globalinfo@farsoon.com | No. 181 Linyu Road, Changsha National High-Tech Industrial Zone, Hunan, China

AMERICAS Farsoon Technologies - Americas | +1 (512)-686-2866 | info@farsoonam.com | 3141 Eagles Nest Blvd, Suite 230, Round Rock, Texas, 78665

EUROPE Farsoon Europe GmbH | +49.711.67400306 | wehelpyou@farsoon-eu.com | Curiestr. 2, 70563 Stuttgart, Germany