

FLIGHT® 403P-2

Dual-laser Series

Maximized Production Speed & Turn-over Rate

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FIBER

Equipped with powerful fiber lasers in place of the standard CO₂ lasers, Flight® 403P-2 Series 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® 403P-2 Series is able to achieve extreme sintering speeds that pushes the additive manufacturing productivity to a new level.

OPEN PLATFORM

Like all Farsoon systems, FLIGHT® 403P-2 Series 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.

DUAL-LASER CONFIGURATION

To further increase the manufacturing turn-over rate, the dual-laser configuration for Flight® technology takes advantage of two powerful 300-watt Fiber lasers and two dynamic optical systems, creating two ultra-fine laser spots with fast scanning speed. The new dual-laser configuration can offer significantly 50-90% higher production volume rate compared to the single laser configuration of Flight® Technology, and 3 to 4 times production yield compared to a single CO₂ laser machine.

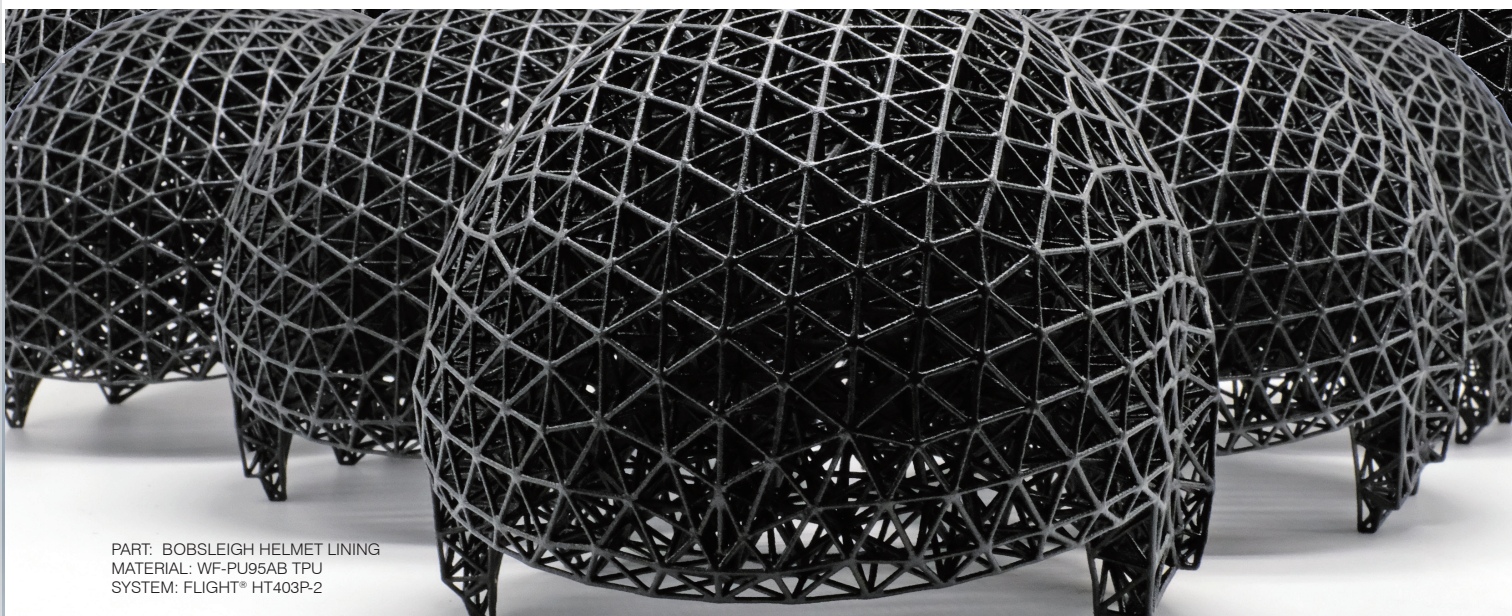
FLIGHT[®] 403P-2 Dual-laser Series

SPECIFICATIONS	FLIGHT [®] SS403P-2	FLIGHT [®] HT403P-2
External Dimensions (L×W×H)	2540×1320×2220 mm (100.0×52.0×87.4 in)	
Build Cylinder Size¹ (L×W×H)	400×400×450 mm (15.7 × 15.7 × 17.7 in) or 400×400×540 mm (15.7 × 15.7 × 21.3 in)	
Net Weight	Approx. 3100 kg (6834.3 lb)	
Laser Type	Fiber Lasers, 2×300W	
Scanner	High-precision three-axis galvo system	
Layer Thickness	0.06 - 0.3 mm (0.0024-0.0118 in)	
Volume Build Rate²	Up to 9 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	Eight-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: 400V±10%, 3~/N/PE, 50/60Hz, 32A US: transformer sold with machine	
Operating Ambient Temperature	22 - 28 °C (71.6-82.4 °F)	
Materials	FS4200PA-F, FS3300PA-F, FS3201PA-F, FS3401GB-F, FS6140GF-F, WANFAB-PU95AB, Ultrasint [®] TPU 88A black, 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: BOBSLEIGH HELMET LINING
MATERIAL: WF-PU95AB TPU
SYSTEM: FLIGHT[®] HT403P-2

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