

# FLIGHT<sup>®</sup> 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 CO<sub>2</sub> lasers, Flight<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> Technology, and 3 to 4 times production yield compared to a single CO<sub>2</sub> laser machine.

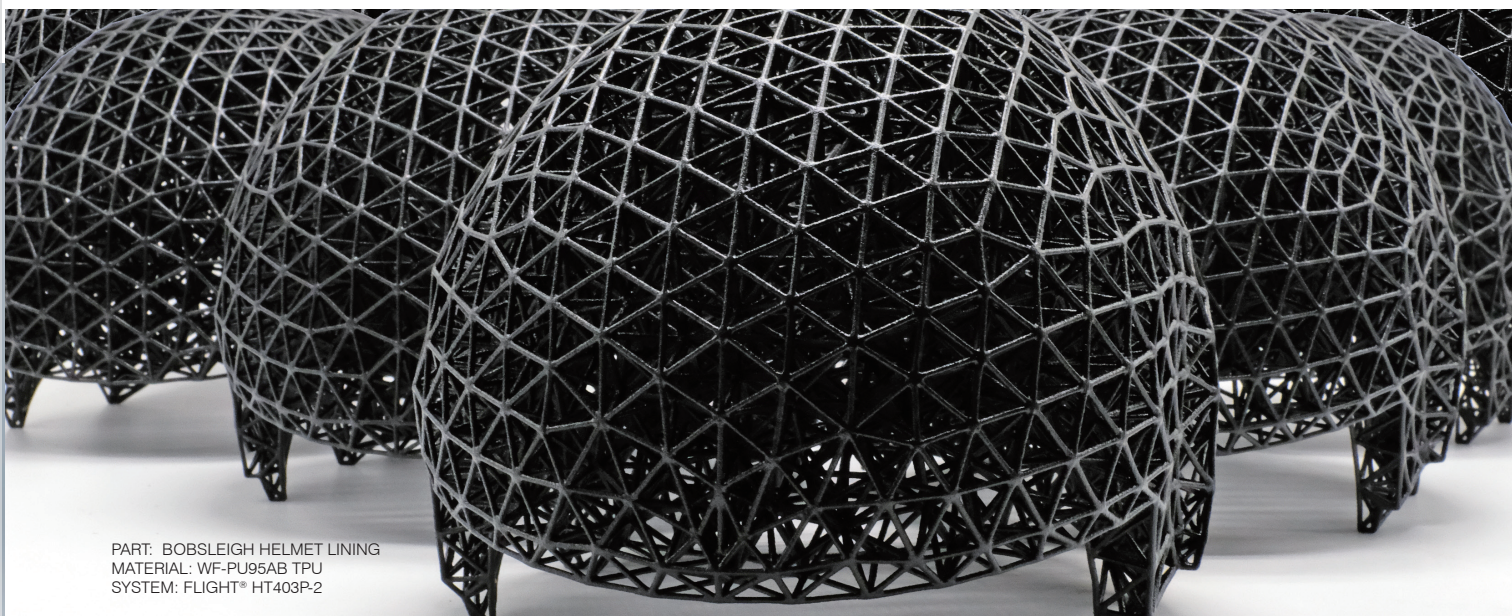
# FLIGHT® 403P-2 Dual-laser Series

| SPECIFICATIONS                                 | FLIGHT® SS403P-2   | FLIGHT® HT403P-2 |
|--|--|------------------|
| <b>External Dimensions (L×W×H)</b>             | 2470×1500×2185 mm (97.2×59.1×86.0 in)  |                  |
| <b>Build Cylinder Size<sup>1</sup> (L×W×H)</b> | 400×400×450 mm (15.7 × 15.7 × 17.7 in) or 400×400×540 mm (15.7 × 15.7 × 21.3 in)   |                  |
| <b>Net Weight</b>                              | Approx. 3060 kg (6746.1 lb)  |                  |
| <b>Laser Type</b>                              | Fiber Lasers, 2×300W   |                  |
| <b>Scanner</b>                                 | High-precision three-axis galvo system   |                  |
| <b>Layer Thickness</b>                         | 0.06 - 0.3 mm (0.0024-0.0118 in)   |                  |
| <b>Volume Build Rate<sup>2</sup></b>           | Up to 9 L/h  |                  |
| <b>Scanning Speed</b>                          | Max. 20 m/s (65.6 ft/s)  |                  |
| <b>Max. Chamber Temperature</b>                | 190°C (374 °F)   | 220°C (428 °F)   |
| <b>Thermal Field Control</b>                   | Eight-zone heater & intelligent temperature control systems  |                  |
| <b>Temperature Regulation</b>                  | Continuous real-time build surface temperature monitoring & optimization   |                  |
| <b>Operating System</b>                        | 64 bit Windows 10  |                  |
| <b>Comprehensive Software</b>                  | BuildStar, MakeStar®   |                  |
| <b>Data File Format</b>                        | STL  |                  |
| <b>Key Software Features</b>                   | Open machine key parameters, real-time build parameter modification, three-dimensional visualization, diagnostic functions |                  |
| <b>Inert Gas Protection</b>                    | Nitrogen   |                  |
| <b>Power Supply</b>                            | EUR/China: 400V±10%, 3~/N/PE, 50/60Hz, 32A<br>US: transformer sold with machine  |                  |
| <b>Operating Ambient Temperature</b>           | 22 - 28 °C (71.6-82.4 °F)  |                  |
| <b>Materials</b>                               | 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: BOBSLEIGH HELMET LINING  
MATERIAL: WF-PU95AB TPU  
SYSTEM: FLIGHT® HT403P-2

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