

DMP Flex/Factory 350 Series

Expanded mid-frame direct metal printing configurations for rapid serial production



High Precision, High Throughput

The DMP Flex/Factory 350 Series combines high throughput and high repeatability to generate precision quality parts from a broad range of alloys. The metal AM system integrates metal 3D printing with 3DXpert® software, thoroughly qualified materials and expert application support. With two-laser configurations, the DMP Flex 350 Dual and DMP Factory 350 Dual continue to deliver high quality parts while boosting productivity for lower operational costs.

DMP Flex 350 and DMP Factory 350

HIGH QUALITY POWDER* & PROCESS MANAGEMENT

- Integrated powder handling and automatic sieving*
- Consistent, low O₂ environment (<25 ppm)
- High powder recyclability—improved powder usability lifetime

DESIGNED FOR SCALING METAL AM PRODUCTION

- Small footprint for reduction of overall required floor space*
- Automated workflow steps
- Material-type dedicated*
- Real-time process monitoring with DMP Monitoring

HIGH THROUGHPUT METAL 3D PRINTING

- Fast bidirectional material deposition
- Short change-over time—high printer utilization
- Optimized scan strategies for maximum productivity

HIGH REPEATABILITY FOR HIGH QUALITY PARTS

- Purest atmosphere during printing, consistent, low O₂ environment (<25 ppm)
- Excellent microstructure, very high density
- Repeatable, stable mechanical properties
- Consistent accuracy—part to part—machine to machine
- Thoroughly developed and tested print settings

FLEXIBLE APPLICATION USE

- Ideal for application development, production and R&D
- Easily scalable, due to consistent machine to machine performance

DMP Flex 350 Dual and DMP Factory 350 Dual

DMP Flex 350 and DMP Factory 350 systems now come in a two-laser configuration, reducing build times by up to 50 percent. The Dual configuration boosts productivity while maintaining high quality and repeatability, yielding lower operational costs.

Our Dual configurations feature our signature vacuum chamber with industry-leading O₂ handling and an intuitive user interface with guided print cycles. Additionally, the DMP Factory 350 Dual integrates powder management into the printer.

LOW TOTAL COST OF OPERATION (TCO) FOR AFFORDABLE PER PART COSTS

- Automated processes
- High powder recyclability
- Low usage of consumables
- Small footprint



DMP Flex 350 Triple

Enjoy larger build volume and 3-laser configurations in a compact frame. The DMP Flex 350 Triple provides an efficient and adaptable solution for metal part production. This three-laser system includes the company's best-in-class vacuum chamber design, features full seamless stitching capability and extends the signature Removable Print Module (RPM) concept by supporting two distinct RPM modules with different build volumes.

Larger build capacity, same footprint: The DMP Flex 350 Triple features an alternate RPM with a 350x350x350mm build volume besides the standard RPM with 275x275x420mm build volume. This renders the DMP Flex 350 Triple the most compact system that supports a 350x350mm build area ideal for cost-effective processing of for instance impellers or cooling plates. Swap between RPMs for increased application and material flexibility.

Seamless 3-laser load-balanced print capability: The DMP Flex 350 Triple utilizes advanced multi-laser load balancing and seamless surface quality scan strategies. There is no seam visible or change in roughness perceptible in zones where multiple lasers work together. The DMP Flex 350 Triple enables a productivity and throughput increase of up to 30% over the DMP Flex 350 Dual and DMP Factory 350 Dual.

	DMP Flex 350 Series		DMP Factory 350 Series	
Laser power type	DMP Flex 350: 500W Fiber laser ¹ DMP Flex 350 Dual: 2 x 500W Fiber laser DMP Flex 350 Triple: 3 x 500W Fiber laser ¹		DMP Factory 350: 500W Fiber laser ¹ DMP Factory 350 Dual: 2 x 500W Fiber laser ¹	
Single/Dual Build volume (X x Y x Z) Height inclusive of build plate	275 x 275 x 420 mm (10.82 x 10.82 x 16.54 in)		275 x 275 x 420 mm (10.82 x 10.82 x 16.54 in)	
Triple Build volume (X x Y x Z) Height inclusive of build plate	275 x 275 x 420 mm (10.82 x 10.82 x 16.54 in) or 350 x 350 x 350 mm (13.78 x 13.78 x 13.78 in)			
Layer thickness	Adjustable, min. 5 µm, typical: 30, 60, 90 µm		Adjustable, min. 5 µm, typical: 30, 60, 90 µm	
Repeatability	Δx (3σ) = 60µm, Δy (3σ) = 60µm, Δz (3σ) = 60µm		Δx (3σ) = 60µm, Δy (3σ) = 60µm, Δz (3σ) = 60µm	
Minimum feature size	200 µm		200 µm	
Build Platform Heating	250 °C		250 °C	
Typical accuracy	± 0.1-0.2% with ± 100 µm minimum		± 0.1-0.2% with ± 100 µm minimum	
QUALITY CONTROL				
DMP Monitoring	Optional		Optional	
CONTROL SYSTEM AND SOFTWARE SUITE				
Software tool	3DXpert all-in-one software for metal AM		3DXpert all-in-one software for Metal AM	
Control Software	DMP software suite		DMP software suite	
POWDER MANAGEMENT				
Powder management	Optional external		Integrated	
METAL ALLOY OPTIONS				
DMP Flex/Factory 350 LaserForm metal alloy choices with developed print parameters:	LaserForm Ti Gr1 (A) ² LaserForm Ti Gr5 (A) ² LaserForm Ti Gr23 (A) ² LaserForm AlSi10Mg (A) ³ LaserForm AlSi7Mg0.6 (A) ³	Certified Scalmalloy ³ Certified M789 ³ Certified A6061-Ram2 (A) ³ Certified CuCr2.4 (A) ³ Certified Tungsten (A) ² Certified CuCr1Zr (A) ³ Certified HX (A) ³ Certified CuNi30 (A) ³ Certified C-103 (A) ³ *GRX-810 ³	LaserForm Ti Gr1 (A) ² LaserForm Ti Gr5 (A) ² LaserForm Ti Gr23 (A) ² LaserForm AlSi10Mg (A) ³ LaserForm AlSi7Mg0.6 (A) ³ LaserForm Ni625 (A) ³ LaserForm Ni718 (A) ³ LaserForm 316L (A) ³ Certified Scalmalloy ³	Certified M789 (A) ³ Certified A6061-Ram2 (A) ³ Certified CuCr2.4 (A) ³ Certified Tungsten (A) ² Certified CuCr1Zr (A) ³ Certified HX (A) ³ Certified CuNi30 (A) ³ Certified C-103 (A) ³ *GRX-810
Other materials available upon request	LaserForm Ni625 (A) ³ LaserForm Ni718 (A) ³ LaserForm 17-4PH (A) ³ LaserForm 316L (A) ³ LaserForm Maraging Steel (A) ³ LaserForm CoCrF75 (A) ³	LaserForm 316L (A) ³ LaserForm CoCrF75 (A) ³ LaserForm Maraging Steel (A) ³ Certified M789 (A) ³	LaserForm Ti Gr5 (A) ² LaserForm Ti Gr23 (A) ² LaserForm AlSi10Mg (A) ³ LaserForm AlSi7Mg0.6 (A) ³	LaserForm 316L (A) ³ LaserForm CoCrF75 (A) ³ Certified M789 (A) ³
DMP Flex/Factory 350 Dual metal alloy options for dual laser configurations:	LaserForm Ti Gr5 (A) ² LaserForm Ti Gr23 (A) ² LaserForm AlSi10Mg (A) ³ LaserForm AlSi7Mg0.6 (A) ³	LaserForm 316L (A) ³ LaserForm CoCrF75 (A) ³ LaserForm Maraging Steel (A) ³ Certified M789 (A) ³	LaserForm Ti Gr5 (A) ² LaserForm Ti Gr23 (A) ² LaserForm AlSi10Mg (A) ³ LaserForm AlSi7Mg0.6 (A) ³	LaserForm 316L (A) ³ LaserForm CoCrF75 (A) ³ Certified M789 (A) ³
DMP Flex 350 Triple metal alloy choices with developed print parameters:	LaserForm AlSi10Mg (A) LaserForm AlSi7Mg0.6 (A) LaserForm Ni625 (A) LaserForm Ni718 (A)	Certified HX (A) Certified A6061-Ram2 (A) LaserForm 316L (A) CP1		

¹Maximum laser power at powder layer is typical 450W for 500W lasers ²Set up A ³Set up B * Only for evaluation purposes through AIG Services in the United States