DMP Factory 350

Robust, high quality Metal Additive Manufacturing with integrated powder management

For companies scaling their metal AM production and requiring limited operator exposure to powder. High throughput, highly repeatable metal AM system that generates precision quality parts from a broad range of alloys with high quality material management for maximum powder usage. Integrated metal 3D printing solution with DMP production metal printer, 3DXpert® software, thoroughly qualified LaserForm® materials and expert application support.

HIGH QUALITY POWDER & PROCESS MANAGEMENT

- Integrated powder handling, including sieving
- Significantly limited operator exposure to powder
- Consistent, low O_2 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 REPEATABILITY FOR HIGH QUALITY PARTS

- Purest atmosphere during printing, consistent, low O_2 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

HIGH THROUGHPUT METAL 3D PRINTING

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

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

Robust, flexible Metal Additive Manufacturing for 24/7 part production

Flexible, high throughput, highly repeatable metal AM system that generates high quality precision parts from a broad range of alloys with a build volume of 275 x 275 x 420 mm. Integrated metal 3D printing solution with DMP production metal printer, 3DXpert software, thoroughly qualified LaserForm materials and expert application support.

Built on the proven architecture of ProX DMP 320 since 2008 with:

- High repeatability for high quality parts
- Low TCO for affordable per part costs
- High throughput metal 3D printing

Flexible application use

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

	DMP Flex 350	DMP Factory 350
Specifications		
Laser power type	500 W/Fiber laser[1]	500 W/Fiber laser[1]
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)
Layer thickness	Adjustable, min. 5 µm, typical: 30, 60, 90 µm	Adjustable, min. 5 µm, typical: 30, 60, 90 µm
Repeatability	x=20 µm, y=20 µm, z=20 µm	x=20 µm, y=20 µm, z=20 µm
Minimum feature size	100 µm	100 µm
Typical accuracy	± 0.1-0.2% with ± 50 µm minimum	± 0.1-0.2% with ± 50 µm minimum
Quality Control		
DMP Monitoring	Optional	Included
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
LaserForm metal alloy choices with developed print parameters: Other materials available upon request	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 17-4PH (A)[3] LaserForm 316L (A)[3] LaserForm Maraging Steel (A)[3] LaserForm CoCrF75 (A)[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] Further materials under development

[1]Maximum laser power at powder layer is typical 450W for 500W lasers [2]Set up A [3]Set up B

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