

NEW: DMP Build Changeover Station


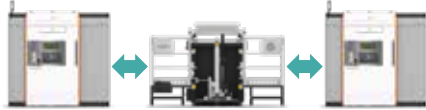

An accessory that enables cost-effective and flexible build turnarounds, purpose-built for the DMP Factory 500

Changeover multiple printers running different materials with a single piece of equipment while retaining the option to upscale to a high-throughput peripheral chain.



The DMP Build Changeover Station (BCS) from 3D Systems is a freestanding accessory for the DMP Factory 500 where a Removable Print Module (RPM) with a finished build can be changed over to be ready for a new build. The DMP BCS allows the user to remove a base plate with a printed part, manually depowder a finished build, add fresh powder, install a new base plate, and prepare the RPM to be ready for the next job. Changing materials on the DMP BCS is achieved in a matter of minutes. As a result, a single station can serve multiple printers running different materials in parallel.

The Build Changeover Station is ideally suited to start up production on the DMP Factory 500 printer when customers are expecting a higher-touch post-process with a lower cost of entry. Allows the future transition to our premium peripheral chain with automation that includes dedicated depowdering and sieving modules to meet growing throughput needs.

BUILD LARGE PARTS	MATERIAL FLEXIBILITY	PACED SCALING
 <ul style="list-style-type: none"> • Flip removable print modules with a 500×500×500 mm build volume • Start producing reliable builds of high-quality, large parts for serial production now 	 <ul style="list-style-type: none"> • Swap materials on the DMP Build Changeover Station under 10 minutes • Effectively serves multiple printers using different materials 	 <ul style="list-style-type: none"> • Minimize initial investment • Retain the flexibility to upscale to a premium peripheral chain to meet future volume demands

DMP Factory 500 BCS: The Solution

DMP Factory 500 printer

- Sieve prior to layering print

Removable Print Module

- RPM is moved between printer and BCS



DMP Build Changeover Station

- Depowder manually
- Extract build plate
- Prepare new build plate
- Top-up powder for next build
- Includes BuildPlate Lifting tool, compatible with pallet stacker or forklift

SPECIFICATION

Dimensions (W×D×H): 2700 × 1480 × 1650 mm (106" × 58" × 65")
Electric: 4 mm² grounding cable. No power supply required.

Pneumatic: 4–8 bar compressed air
PPE: FFP3 or N99 masks

DMP Factory 500



DMP Factory 500

SPECIFICATIONS

Laser Power Type	3 x 500W / Fiber laser ¹
Laser Wavelength	1070 nm
Build Volume (X x Y x Z) Height inclusive of build plate	500 x 500 x 500 mm (19.7 x 19.7 x 19.7 in)
Layer Thickness	Adjustable, min. 5 µm, max. 200 µm, typically 120 µm
Metal alloy choices with developed print parameters:	LaserForm Ti Gr23 (A) LaserForm AlSi10Mg (A) LaserForm Ni718 (A) Certified HX (A)
Material Deposition	Soft tube recoater, optional soft blade recoater
Repeatability	$\Delta x (3\sigma) = 75\mu\text{m}$, $\Delta y (3\sigma) = 75\mu\text{m}$, $\Delta z (3\sigma) = 75\mu\text{m}$
Minimum Feature Size	300 µm
Typical Accuracy	$\pm 0.1\text{-}0.2\%$ with $\pm 100 \mu\text{m}$ minimum

SPACE REQUIREMENTS

Dimensions, uncrated (WxDxH) ⁴	3010 x 2350 x 3160 mm (118.5 x 92.5 x 124.5 in)
Weight, uncrated	8232 kg (18148 lb)

FACILITY REQUIREMENTS

Electrical Requirements	400 V/20 KVA/50-60Hz/3 phase
Compressed Air Requirements	6-10 bar
Gas Requirements	Argon, 6-10 bar
Water Cooling	2 chillers supplied with printer

QUALITY CONTROL

DMP Monitoring	Included
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CONTROL SYSTEM AND SOFTWARE

Software Tools	3DXpert all-in-one software solution for metal additive manufacturing
Control Software	DMP Software suite
Operating System	Windows 10 IoT Enterprise
Input Data File Formats	Native CAD files, STEP, IGES, ACIS Parasolid, STL
Network Type and Protocol	Ethernet 1 Gbps, RJ-45 plug

ACCESSORIES

Interchangeable Build Modules	Depowdering Module / Powder Recycling Module / Parking module / Transporter module / Removable Print Module / Build Changeover Station
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POWDER MANAGEMENT

Powder Management	Powder Recycling Module, Inline sieving prior to layer deposition
Material Loading	Manual, Semiautomatic

CERTIFICATION

CE, NRTL

¹ Maximum laser power at powder layer is typical 450W for 500W lasers ² Set up A ³ Set up B ⁴ Height exclusive of signal tower

Warranty/Disclaimer: The performance characteristics of these products may vary according to product application, operating conditions, material combined with, or with end use. 3D Systems makes no warranties of any type, express or implied, including, but not limited to, the warranties of merchantability or fitness for a particular use.

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