

Meltio Product Datasheet

Meltio M600

Industrial Metal 3D Printer

Expand your manufacturing capabilities with Blue lasers, a large build volume, and a fully inert chamber for the best material properties. Printing is easier than ever thanks to the improved process control, advanced sensors, and live monitoring allowing you to produce parts consistently 24/7.

The Meltio M600, with its built-in 3-axis probing system and work-holding solutions, is the ideal companion for your manufacturing operations.



Value Proposition

As simple as press Print.

Standardized printing strategies for a faster, safer, and more productive experience. The improved process control will take care of the rest.

Easy-to-use

Advanced sensor solutions, simplified UI, Dedicated Slicer, zero point clamping system etc. all designed to minimize operator interaction.

Reduced maintenance

The newly developed deposition head removes the need for laser alignment and concentrates all optical components in a single sealed assembly.

Production Ready

Bigger parts, higher deposition rate, Larger material range, inert print chamber, less maintenance, and built-in workholding solutions.

Reliable

Redeveloped from scratch, boasting an improved wire feeding system, fiber-free deposition head, improved process control systems, and many more making for an extremely reliable machine.



Technical Specifications

Dimensions:	1050 x 1150 x 1950 mm	Power Input:	380-415V Three Phase + N + PE 200-240V Three Phase + PE
Build Envelope:	300 x 400 x 600 mm	Power Consumption:	4-6kW typical consumption, peak consumption 12kW
System Weight:	800-1000 kg (depending on options)	Process Control:	Closed Loop, Laser and wire Modulation
Movement System:	Servo Motor Linear axis with Absolute encoder on all axis	Touch Probe:	Automated XYZ Touch Probe integrated
Filtration system:	3 Stage Particulate and Chemical Filtration included	Enclosure:	Laser-safe, Controlled inert atmosphere
Environment Control:	Control O2 and Humidity level	Interface:	USB, Ethernet
Laser Type:	9x Direct Diode Lasers	Cooling:	Active Water cooled Chiller Included
Laser Wavelength:	450nm (Blue)	Wire Feedstock Diameter:	0.8-1.2mm
Total Laser Power:	1000 W	Wire Feedstock Spool:	BS300 or External Wire Drum

Wire Materials

Stainless Steels: Excellent strength and of		
Mild Steels:	Cheap and ductile, with unparalleled machinability and weldability	
Carbon Steels:	High impact strength, retain hardness at high temperatures	
Titanium Alloys:	Highest strength to weight ratio and corrosion resistance	
Nickel Alloys:	High versatility, outstanding heat and corrosion resistance	
Copper & Aluminum:	Conductivity and corrosion resistance & lightweight strength	

Upgrades and Accessories

Hot Wire:	Programmable power supply that preheats the material to increase the deposition rate	
Dual-Wire	This option allows for sequential 3D Printing of up to 2 materials with very fast automatic wire switches	
Quad-Wire	This option allows for sequential 3D Printing of up to 4 materials with very fast automatic wire switches	
External Wire Drum Connection	Connect external wire drums to the M600, allowing the use of 100 kg and 200 kg material packs	
Zero Point Clamping System	Accurately and quickly couple fixture plates to the print bed of the M600 for production	