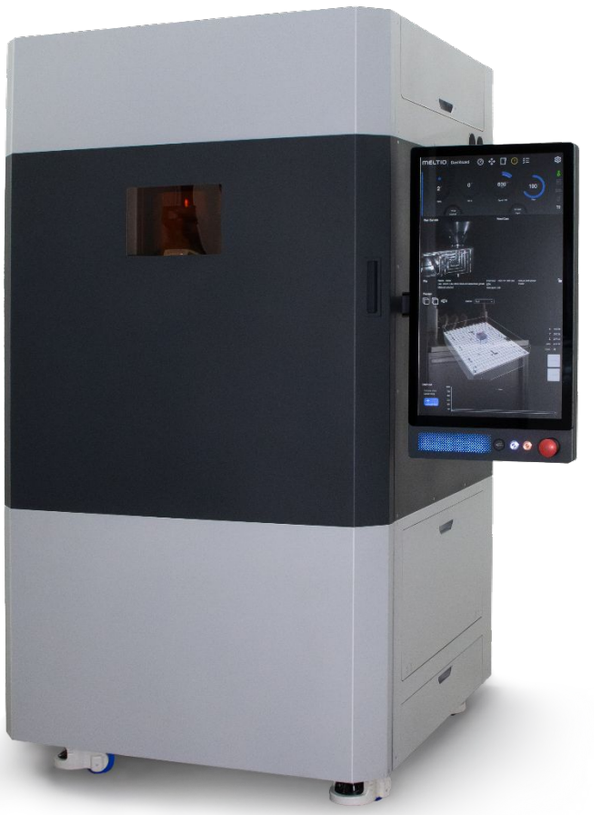
Meltio Product Datasheet

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.

Production Ready

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

Easy-to-use

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

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.

Reduced maintenance

The newly developed deposition head removes the need for laser alignment, while the motion system has been improved and over-sized to ensure maximum life-times.

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Technical Specifications

Dimensions:	1050 x 1150 x 1950 mm	**Power Input:**	208/230 V three phase and 400V three phase are compatible.
Build Envelope:	300 x 400 x 600 mm	**Power Consumption:**	4-6 kW Peak Depending on selected options
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, WiFi
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 corrosion resistance
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