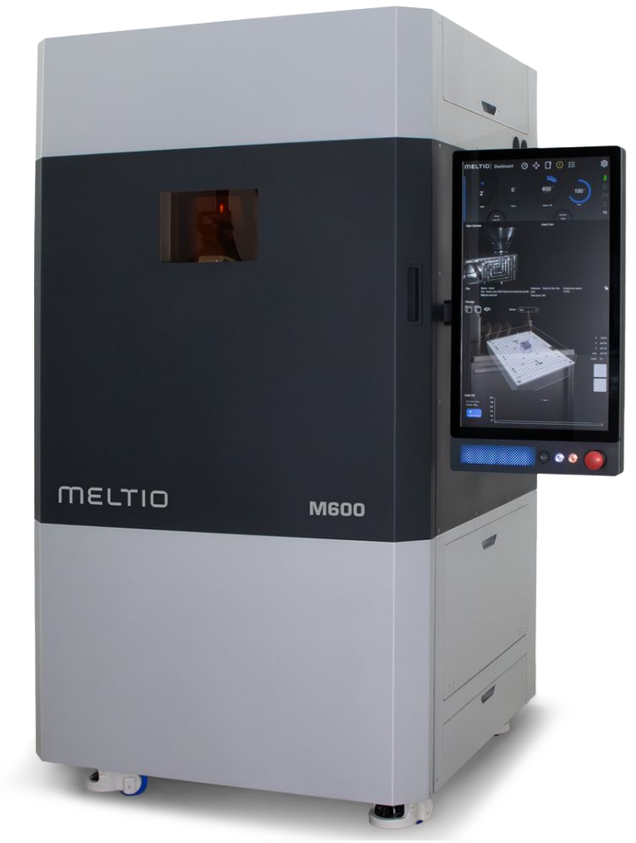
Meltio Product Datasheet

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

Production Ready

Big parts, higher deposition rate, larger material range, inert print chamber, less maintenance, and built-in workholding solutions as the zero point clamping and probing make for a production ready system.

Ease of use

Featuring advanced sensor solutions, a simplified UI, a dedicated slicer, a zero point clamping and probing system, this setup minimizes operator interaction for a more seamless experience.

Reduced Maintenance

The newly developed deposition head eliminates the need for laser alignment and integrates all optical components into a single sealed assembly. Additionally, the motion system has been enhanced and oversized to ensure maximum life-time and reliability.

Stability, repeatability and reliability

With an enhanced wire feeding system, fiber-free deposition head, and advanced process control systems, this machine is designed for exceptional reliability and performance.

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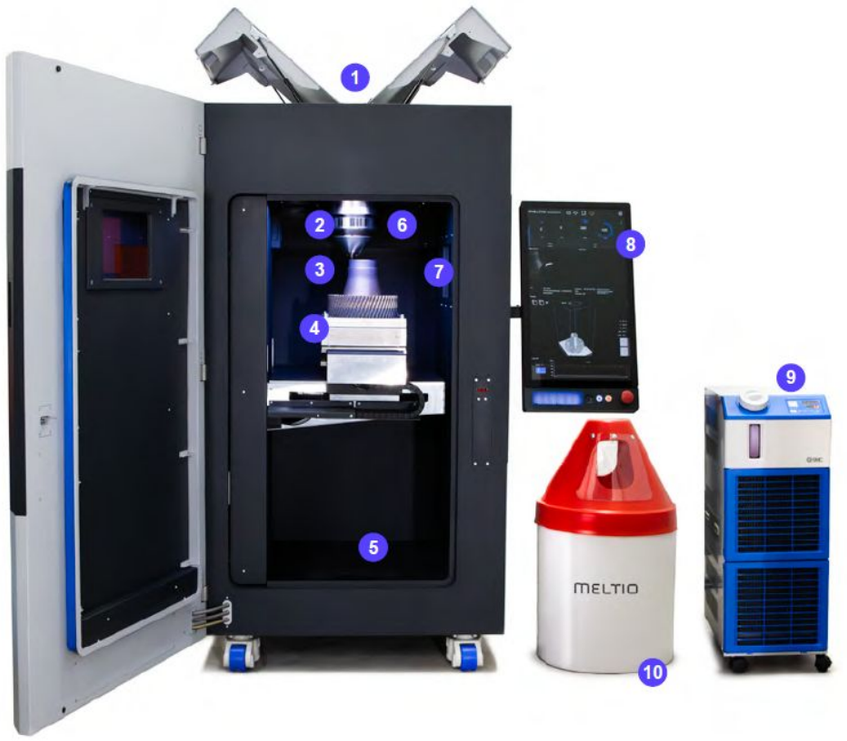

1. Quad Wire

2. Blue Laser Printhead

3. Full Inert Chamber

4. 3 Axis - Touch and wire cutter

5. Dehumidifier and Filter

6. Hot Wire

7. Build Envelope - 300 x 400 x 600 mm

8. Touch HDMI

9. Chiller

10. External Wire Drum - 100 kg

Technical Specifications

Dimensions:	1050 x 1150 x 1950 mm
Build Envelope (WxDxH):	300 x 400 x 600 mm
System Weight:	800-1000 kg (depending on options)
Movement System:	Servo Motor Linear axis with absolute encoder on all axis
Filtration system:	3 Stage Particulate and Chemical Filtration included
Environment Control:	Control O2 and Humidity level
Laser Type:	9x Direct Diode Lasers
Laser Wavelength:	450nm (Blue)
Total Laser Power:	1000 W

Power Input:	380-415 V Three-phase + N + PE 200-240 V Three-phase +PE
Power Consumption:	4-6 kW avg. consumption,12 kW peak
Process Control:	Closed Loop, Laser and wire Modulation
Touch Probe:	Automated XYZ Touch Probe integrated
Enclosure:	Laser-safe, Controlled inert atmosphere
Interface:	USB, Ethernet
Cooling:	Active Water cooled Chiller Included
Wire Feedstock:	Diameter: 0.8-1.2 mm / Spool Type: BS300 External wire drum ready

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 / Quad Wire	This option allows for sequential 3D Printing of up to 2 / 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