ACCESSIBLE METAL POWDER-BED FUSION 3D PRINTING

XM200C

XACT METAL

THE XM200C IS A METAL POWDER-BED FUSION PRINTER AT AN ACCESSIBLE PRICE

By taking the essential additive manufacturing specs for metal powder-bed fusion (commonly known as Selective Laser Melting or Direct Metal Laser Sintering) and combining them with breakthrough technology, the XM200C is able to offer uncompromising quality for users.

The XM200C makes quality metal powder-bed fusion 3D printing available to universities, labs and small-to-medium businesses that need prototyping and tooling capabilities or are looking for alternatives to low-volume castings.

Metal powder-bed fusion provides high-quality and complex parts. It reduces total cycle time by about 50% and removes the need for wash/debinder and sintering/oven equipment used in bound metal deposition, atomic deposition additive manufacturing or other FDM-like metal 3D printers.

XM200C SPECIFICATIONS

- Large cubic build volume allows you to print multiple parts more efficiently and quickly.
- The Xact Core™ high-speed scanner fuses at speeds up to 650 mm/sec. The beam is constantly orthogonal across the entire powder bed surface, which produces consistent fusing properties throughout the complete build area.
- 100W Yb fiber laser provides optimal power density and prints 20-50 µm layers with a spot size greater than 20 microns, providing precision to your build.
- Patented recoater uses a unique “bulb” shape recoating element that spreads powder like a blade yet provides compaction similar to a rolling element. The recoater’s compliant design allows it to negotiate out-of-plane growth.
- Build chamber is easy to set up, quick to purge and simple to clean and maintain.
- Small printer footprint makes it easier to include additive manufacturing in your factory, lab or facility.
- Modern software architecture offers a streamlined, intuitive and functional platform that supports visual workflows and remote monitoring.
- Open platform provides qualified users the ability to develop their own printing parameters and use their own powder.

TECHNICAL DATA

Build Volume	125 in³ (5 x 5 x 5 in) 2,048 cc (127 x 127 x 127 mm)
Exterior Dimensions	Approx. 24 x 24 x 51 in³ - W x D x H (610 x 610 x 1,295 mm³)
Laser Type*	• 100W Yb fiber laser • 200W available with optional kit
Precision Optics	Spot size greater than 20 microns
Scanner	• Fusing speed up to 650 mm/sec • Orthogonal high-speed scanner
Electrical	• Power Supply 100-120/200-240 VAC Single Phase, 50/60 Hz • 1.5 kW, 2.0 kW Peak
User Interface	7” intuitive user-friendly touch screen
Weight	Approximately 450 lbs (205 kgs)
Powder Options**	• Stainless Steel: 316L, 17-4 PH, 15-5, 400 Series • Super Alloys: 718, 625, Cobalt Chrome F75 • Tooling Steels: Maraging M300

Contact us at +1 (814) 205-1505 or info@xactmetal.com to learn more.

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*Class 1 Laser Product, **Availability of parameters available on request

XM200G SERIES

PERFORMANCE METAL 3D PRINTING AT AN AFFORDABLE PRICE

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A HIGHLY CONFIGURABLE COMBINATION OF INDUSTRIAL SPEED & PERFORMANCE AT AN AFFORDABLE PRICE

Xact Metal 3D printers combine the critical additive manufacturing specifications of metal powder-bed fusion (SLM/DMLS) with cutting-edge technology to offer uncompromised as-printed part quality at an affordable price.

The XM200G printer series meets the specification demands of high-performance use cases in manufacturing, research & development and other applications where print speed, part quality, and affordable price is essential.

XM200G FEATURES

- Single or Dual laser
- Overlapping dual-laser work-areas
- High-speed galvanometer with water-cooled performance option
- Premium F-theta lens for optimized micron consistency across scan field
- Large build volume
- Small footprint
- Modern software architecture
- Open material platform
- Integrated powder handling

TECHNICAL SPECS

Build Volume	150 x 150 x 150 mm or 125 x 125 x125 mm
Laser Type[1]	• **XM200G** - Single 100W, 200W, or 400W Yb fiber laser • **XM200G2** - Dual 100W, 200W, or 400W Yb fiber lasers
Build Speed	• **XM200G** - ~6 to 9 cc/hr • **XM200G2** - ~12 to 16 cc/hr
Jogging Speed	Up to 20.7 m/sec (Standard galvo), 34.6 m/sec (Performance galvo)
Precision Optics Spot Size	Approximately 50 or 100 µm
Layer Thickness	20 up to 100 µm
Glovebox	Available
User Interface	19.5" intuitive user-friendly touch screen
Electrical[2]	Power Supply 100-120/200-240 VAC Single Phase, 50/60 Hz 1.5 kW, 2.0 kW Peak
Exterior Dimensions	650 x 780 x 1,930 mm^3 - W x D x H (25.6 x 30.7 x 76 in^3)
Weight	• **XM200G** - ~380 kgs (~840 lbs) • **XM200G2** - ~425 kgs (~940 lbs)
Powder Options[3]	• Aluminum Si10Mg • Bronze, Copper (C18150) • Stainless Steel: 316L, 17-4 PH, 15-5, 400 Series • Super Alloys: 718, 625, Cobalt Chrome F75, Hastelloy® X, • Titanium Ti64 • Tooling Steels: Maraging M300

XACT METAL

1. Class 1 Laser Product, 2. Not all configurations available on 120 volts,
3. Availability of parameters available on request

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XM300G SERIES

MID-SIZE METAL 3D PRINTING AT AN AFFORDABLE PRICE

XACT METAL

INDUSTRIAL SPEED & PERFORMANCE AT AN AFFORDABLE PRICE

The XM300G family is a highly flexible single-, dual-, or quad-laser system that introduces industrial speed and performance at an affordable price, allowing small-to-medium companies to benefit from metal laser powder-bed fusion technology. To increase print speeds, the XM300G provides 100% overlapping print zones over the entirety of the work area with the option of one, two or four independent lasers.

A large 300 x 300 x 350 mm build volume, upgradable to 300 x 300 x 450 mm, a selection of 400W or 700W fiber lasers, and an interchangeable build platform to reduce printing cycle time, makes the XM300G well-positioned to support a wide variety of additive manufacturing applications.

XM300G FEATURES

- Large build volume
- Single, dual or quad independent lasers with 100% overlapping print zones
- High performance galvanometer with dynamic spot size
- Easily removable and interchangeable build platform
- Modern software architecture
- Open material platform

TECHNICAL SPECS

Build Volume	300 x 300 x 350 mm
Laser Type[1]	Yb Fiber Laser, 400W or 700W **XM300G** - Single laser **XM300G2** - Dual laser **XM300G4** - Quad laser 100% overlapping print zones
Build Speed	11.5 cc/hr (400W, Single laser)
Jogging Speed	21.3 m/sec
Live Adjustable Spot Size	100 µm with dynamic spot size (70-140 µm)
Layer Thickness	20 up to 100 µm
Build Platform	• Removable build platform • Option for depowdering station
User Interface	24" intuitive user-friendly touch screen
Electrical	Three phase power
Exterior Dimensions	2,019 x 845 x 2,390 mm - W x D x H
Weight	• **XM300G** - 726 kgs • **XM300G2** - 816 kgs • **XM300G4** - 907 kgs *Approximate Weights
Powder Options[2]	• Aluminum Si10Mg • Bronze, Copper (C18150) • Stainless Steel: 316L, 17-4 PH, 15-5, 400 Series • Super Alloys: 718, 625, Cobalt Chrome F75, Hastelloy® X, • Titanium Ti64 • Tooling Steels: Maraging M300

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1. Class 1 Laser Product, 2. Availability of parameters available on request