



## ADDITIVE MANUFACTURING

3D printing or Additive manufacturing is a process of making a three-dimensional solid object from a digital model. The solid model is sliced into layers in software and 3D printing is achieved using an additive process, where layers of material are added, one on top of another to build a complete part. 3D printing is also considered distinct from traditional machining techniques, which mostly rely on the removal of material by methods such as cutting or drilling (subtractive processes). Additive manufacturing is ideally suited for tooling, fixturing, prototyping and short run production.



# CINCINNATI

CI is a U.S.-based, build-to-order machine tool manufacturer and has shipped more than 50,000 machines in 120 years of operation. The campus has a 500,000-square-foot plant and technical center on an 200+ acre site near Cincinnati, Ohio. CI engineers and builds machines to the standard of ruggedness required in the North American market. Current products include: Laser Cutting Systems, Automation, Press Brakes, Shears, Powdered Metal Compacting Presses, Software, BAAM (Big Area Additive Manufacturing), MAAM (Medium Area Additive Manufacturing) and SAAM (Small Area Additive Manufacturing).



LASERS



AUTOMATION



PLASMA



PRESS BRAKES



SHEARS



PM PRESSES



ADDITIVE

### CONTACT US

7420 Kilby Rd., Harrison, OH 45030

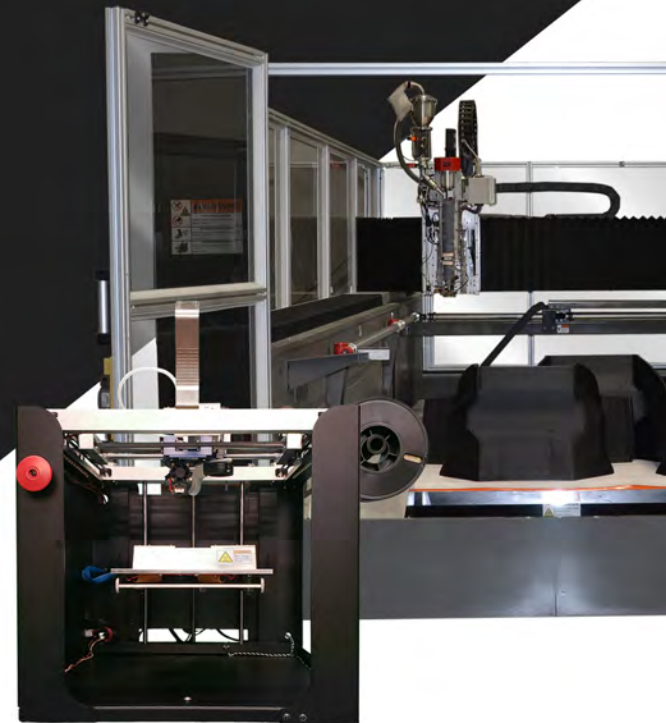
(513) 367-7100

[info@e-ci.com](mailto:info@e-ci.com)

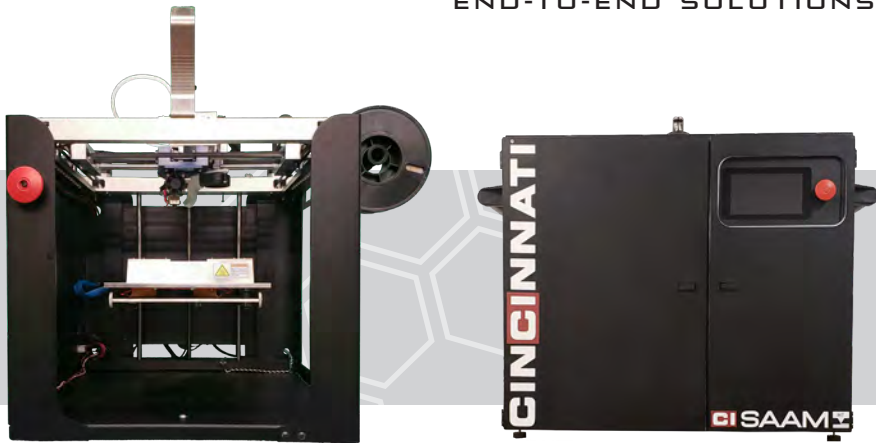
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# ADDITIVE SOLUTIONS

3D Print Your Way Everyday.



END-TO-END SOLUTIONS



**SAAM**

**SAAM HT**  
HIGH TEMPERATURE

SPECIFICATIONS	SAAM	SAAM HT
Build Size	7.9" x 7.4" x 9.4" (200mm x 190mm x 240mm)	
Printer Dimensions	21" x 17.5" x 23"	30" x 22" x 23"
Z-Resolution	0.0004" (11 microns)	
Part Accuracy <sup>1</sup>	0.005" (125 microns)	
Power Requirements	100-240V, 50-60Hz, 2.5-3.5A	120 VAC, 2kW, Single Phase
Nozzle Temperature	572°F (300°C)	932°F (500°C)
Bed Temperature	212°F (100°C)	482°F (250°C)
Chamber Controller Temperature	n/a	320°F (160°C)
Printer Management	Octoprint CI Edition	
Supported Slicers	Slic3r, Cura 4, Simplify3D	
Environmental Sensors	Ambient Conditions: Pressure, Humidity, Temperature	
Construction	6061 Aluminum and Steel Frame	All Metal Insulated Enclosure
Enclosed Chamber	Available	Included
CI Automate	Available	Available
Movement	Direct Drive, Motion System rated for 5-year lifetime	
Print Plate	Patented Kinematically coupled Aluminum print plate	
Manufactured Location	United States: Boston, MA and Harrison, OH	

<sup>1</sup>Part accuracy is within 95% confidence interval is a geometry dependent



**Continuous Operation**

3D print unattended 24/7 with our patented Automated Ejection System



**FFF 3D Printing**

Build parts layer-by-layer to form virtually any shape imaginable



**Performance Materials**

Use your own materials to get the results you need

3D PRINT YOUR WAY EVERYDAY.

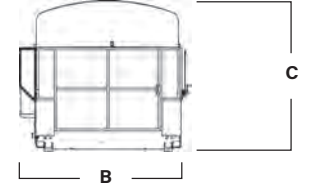
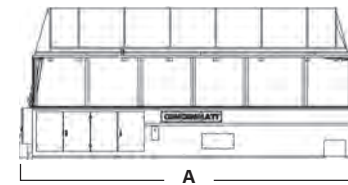
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PRINT LARGE | PRINT FAST



**BAAM**

**MAAM**



SPECIFICATIONS	BAAM			MAAM
	606	608	806	603
<b>MACHINE DIMENSIONS</b>				
Length (A)	308"	308"	427"	308"
Width (B)	144"	144"	153"	144"
Height (C)	171"	198"	172"	128"
Weight	32,000 lbs	32,000 lbs	40,000 lbs	32,000 lbs
Power	460V/ 3 Phase/ 60 Hz			
<b>WORKPIECE DIMENSIONS</b>				
X-Axis	140"	140"	240"	140"
Y-Axis	65"	65"	90"	65"
Z+W Axis	72"	98"	72"	36"

All Dimensions are preliminary and are subject to change.

**Construction**

- Stress relieved Steel plate fabricated frame
- Aluminum honeycomb gantry
- Linear motor drive system
- Absolute positioning accuracy: +/- 0.005"

**Extruder**

- Feedrate: 80 lbs/hour
- Dynamic Flow Control
- Unique Automatic Tamping
- Proprietary Extruder for 3D Printing
- Extrusion Die (Nozzle) Diameters: 0.200", 0.300" and 0.400"

**Materials**

CINCINNATI and our partners have used dozens of materials including: ABS, PPS, PC, PLA, and PEI. By adding carbon fiber, glass fiber, or organic fiber strength and thermal stability is improved.

Users are welcome to develop their own proprietary materials and parameters.