

Viridis3D™

Robotic Additive Manufacturing

RAM260™ 3D Printing System

Patents Pending

Represented in North
and South America by:

Palmer Manufacturing & Supply, Inc.

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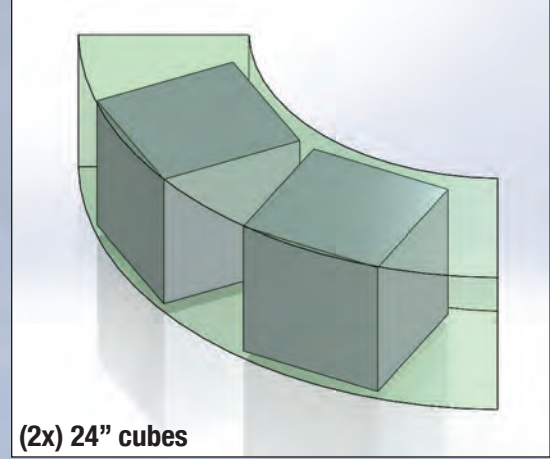
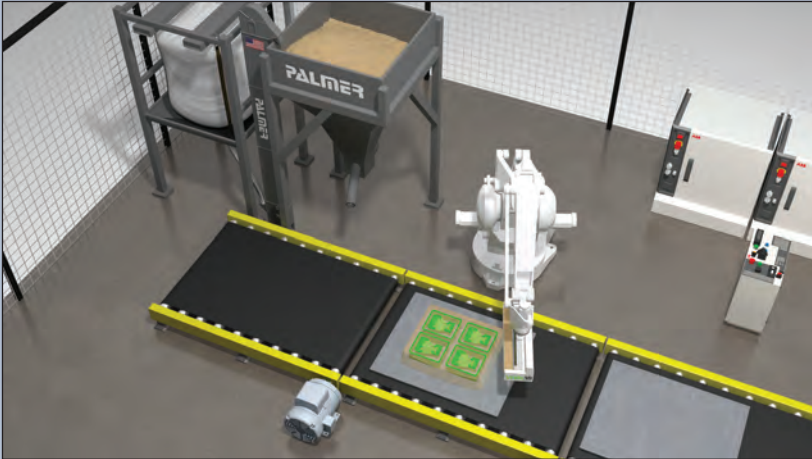
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Made in USA



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ADVANTAGES:

- Simple To Use Software
- Continuous Production
- Robust ABB Robotics
- Heavy-duty Palmer Auxiliaries
- Standard Foundry Sand and Resin Systems
- Reduce Set-up Time
- Optimize Consumption of Media Per Build
- Reduce Operating Cost
- Build Only What You Need – One Part or 100 Parts

Build Time Statistics for RAM260™				Build Height	650mm
	Build volume	937,000	468,500	234,250	cu-cm
	Build area used	14,415	7,208	3,604	sq-cm
	Percentage of build area	100%	50%	25%	
Layer Thickness 0.2mm / 0.008"	Full-height build time	22.6	10.0	4.8	hours
	Build rate, vertical	2.88	6.48	13.68	cm/hour
	Build rate, volumetric	41,516	46,706	49,301	cc/hour
		42	47	49	liters/hour
		2,533	2,850	3,009	cu-in/hour
Layer Thickness 0.5mm / 0.020"	Full height build time	9.0	4.0	1.9	hours
	Build rate, vertical	7.2	16.2	34.2	cm/hour
	Build rate, volumetric	103,791	116,765	123,252	cc/hour
		104	117	123	liters/hour
		6,334	7,125	7,521	cu-in/hour

MACHINE OVERVIEW

The RAM260 3D Printing System

System

Robot Controller Cabinet

Sand Dispensing System

Guarding and Dust Filter Hood

Operator Interface Console

Printing Decks

Robot Arm

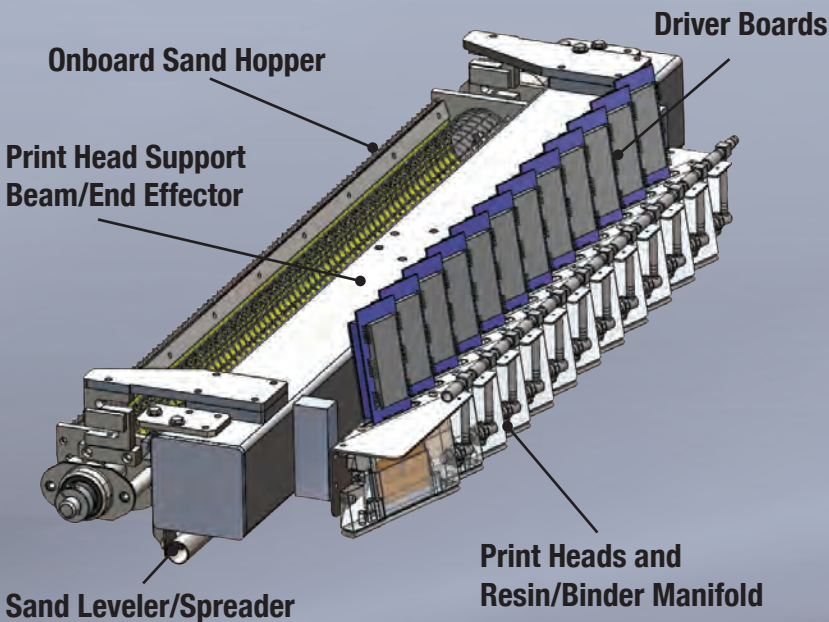
Fluids Panel and Drive Electronics Cabinet

Printing Head Service Station

Cleaning Vacuum (optional)

Printhead and Sand Spreader

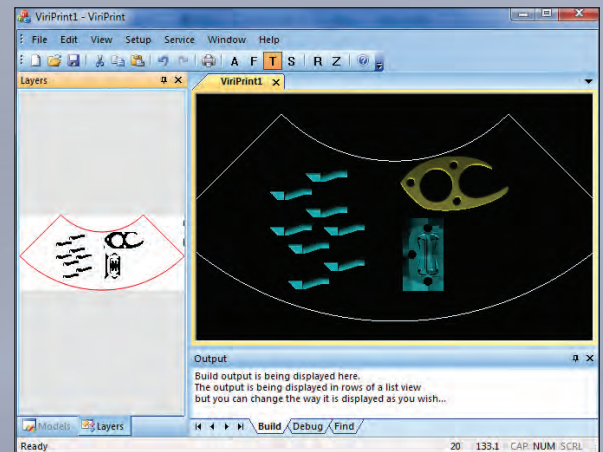
Printing Assembly



Software

Proprietary Viridis3D Printer Software

- Import and print parts in minutes
- Revolutionary – simple to use



System Performance Specifications*

The following are specifications for the Beta system.

Item	Description
Robot Controller Cabinet	NEMA12 cabinet with disconnect safety circuitry and ABB robot controller.
Sand Dispensing System	Heavy-duty industrial sand handling system for automatic refilling of spreader.
Guarding	Aluminum extrusion and Lexan panel machine guarding system. Includes safety interlocks.
Dust Filter Hood	Self-contained dust filter hood located on top of machine guarding.
Operator Interface Console	PC and system software for system control and monitoring.
Printer Deck	Movable passive platform, clearance for pallet jack, two are included. Optional designs available.
Robot and Support Platform	ABB 4 axis robot and support platform.
Fluid and Drive Controls Cabinet	Cabinet with fluids panel and writing head drive electronics.
Printing Head Service Station	Static module for periodic automatic cleaning and parking of inkjet heads.
Point Source Dust Extraction	Commercial extraction system for extracting excess dust from interior of booth.
Printhead and Sand Spreader	Writing head with up to 12 print heads including sand spreader.
Palmer Jumbo Sack Holder	Includes fork lift attachment. Standard 3000 – 4000 lb.
Palmer M-Series Mixer	High speed continuous sand mixer. 200 lb per minute.
Palmer P-Series Powder Feeder	Feeder provides precise additions of material up to 140 cu. ft. per hour.
Palmer BE-Series Bucket Elevator	Heavy-duty elevators up to 35 MTPH.
Cleaning Vacuum (optional)	Commercial industrial vacuum for removing residual sand.
Cleaning Booth (optional)	Commercial booth for cleaning, includes air filtering system backdraft style.

Size	
Minimum Feature Size	0.5 mm
Printing Resolution	<ul style="list-style-type: none"> • 100 dpi • Layer thickness: 200 μm – 1000 μm

System	
Supply Voltage (All Common 3 Phase Voltages Available)	208, 3 Phase, 120v 1 Phase
Install Footprint	4x4 Meters
Noise Level (Printer System)	75 Decibels or less

*Specifications may change without notice

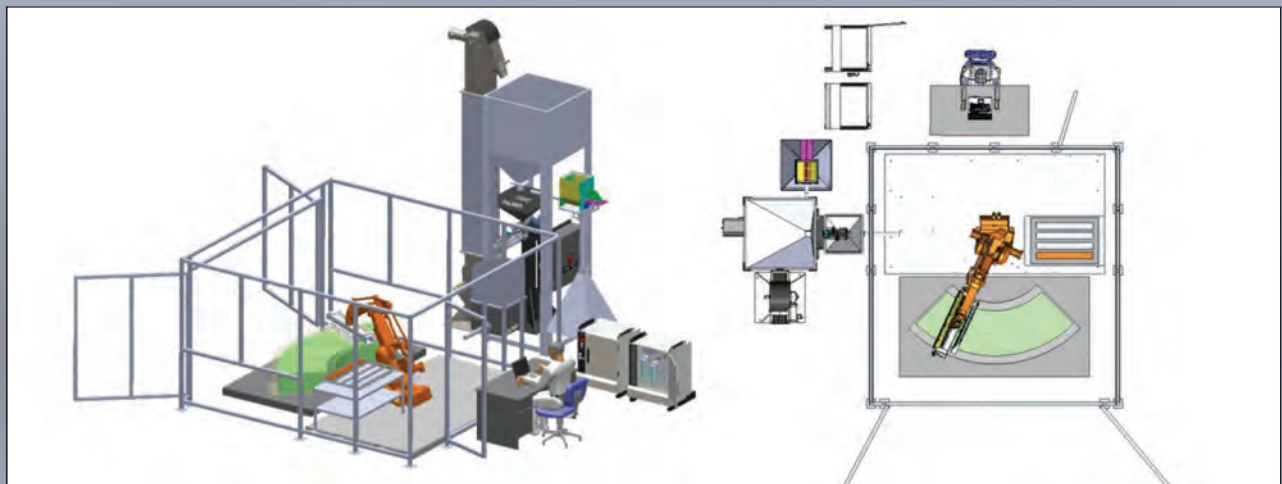
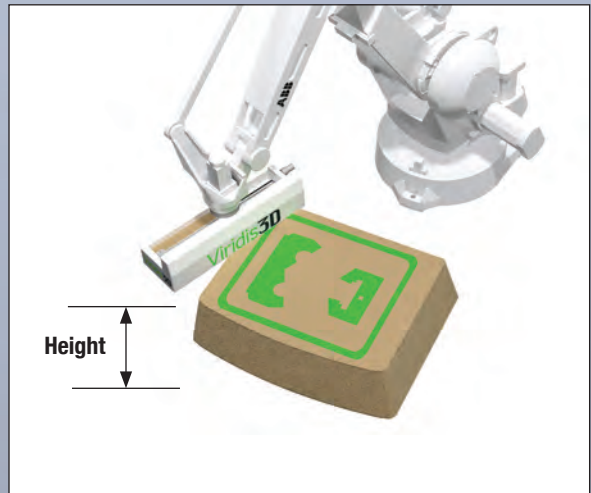
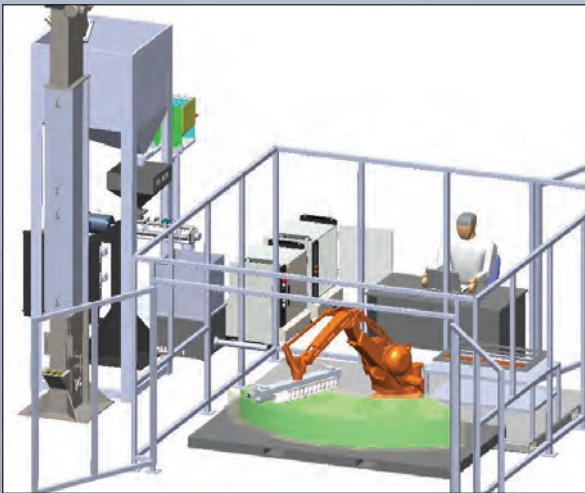
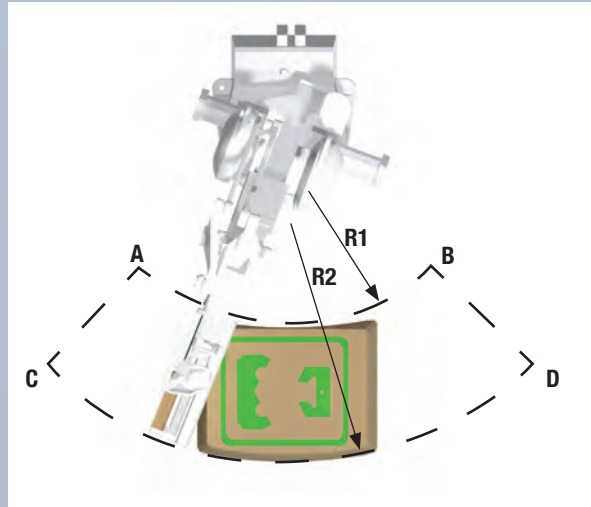
Dimensions:

R1 = 1023 mm AC = 685 mm (print stripe width)

R2 = 1708 mm AB = 1415 mm

CD = 2385 mm

Build Height 650 mm



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