

RAPLAS

Production Additive Manufacturing



PR

HD+ RESOLUTION AS STANDARD

RAPLAS PR Production Resin System

Rigid Frame Construction with aesthetic design, large easy access doors, integrated touchscreen operation.

Granite Build System with enclosed axis modules for excellent repeatability, accuracy and thermal stability.

Industry Leading Dynamic 3 Axis Scanning System for accuracy, speed, stability and optimum productivity.

HD+ Resolution across the whole build area (0.0008mm) produce accurate small parts anywhere on the platform.

Stainless Steel Build Area & Covers lift-off for easy access and cleaning.

RAPLAS RPL 1W 100kHz Dynamic Air-cooled Laser integrated for high productivity and low running costs.

Interchangeable Vat System option available with various vat size options.



RAPLAS Integra+ Control

RAPLAS Integra+ server based control system fully integrated to Materialise Magics Build Processor for optimum part build style protocols.

Clean and efficient interface and workflow for ease of operation, with standby hibernation reducing power consumption whilst still ensuring printer availability.

Remote access, monitoring and integrated email direct to your Raplas Support Engineer with full status and configuration reports of your machine. Option also available where standalone Dark Site operation required.



RAPLAS Powered by Materialise

RAPLAS 'Powered by Materialise' Magics Free Customer License provides our system customers with the Magics tools for efficient workflow and productivity.

Dedicated machine integration ensures part data integrity and accuracy is maintained with the latest industry standard fix, slice, hatch, build algorithms and protocols.



RAPLAS Production Systems Flexibility of user specification with many custom and third-party options available without lengthy customer lock-in policies. This creates a flexible SLA system with low on-going operation and maintenance costs with regional support from our professionals with many years experience in applications and service in the RP/AM Industry.

PR-450 HD+ Parameters

Laser		
Wavelength	354.7	nm
Type	Solid State	ND: YVO4
Frequency	100 (60-200)	KHz Dynamic
Cooling Method	Air	
Max Power (approx)	1w @ 100kHz, 2w @ 60kHz	Watts
Dynamic Power Adjustment	Yes	
Recommended Layer Thickness		
Precision	0.05	mm
Rapid	0.1 to 0.15+	mm
Standard	0.1	mm
Optical & Scanning		
Beam Diameter at Vat (approx)	0.08-1 (0.05-0.8 Micro Option)	mm Dynamic
Focus Method	Dynamic	
HD+ Resolution (approx)	0.0008	mm
Max Scanning Speed (approx)	25000	mm/s
Elevator		
Vertical resolution	0.0002	mm
Positional Repeatability (+/-)	0.01	mm
Removable Platform	Yes	Standard
No of Build Platforms supplied	2	Standard
Vat Capacity		
Volume (approx)	120	L
Max Build envelope	450x450x350	mm
Interchangeable Vat	50mm, Half, Full, Custom	Optional
Software		
Control	RAPLAS Integra	
Input Data File Format	RAPLAS Build Processor	Magics
Network Type and protocol	Ethernet, IEEE 802.3	
Power		
Voltage	220-240v 50/60Hz	Single-phase
Power (approx)	15	Amps
Working Environment		
Ambient Temp Range	20-26	Deg C
Humidity Range	Less than 50%	Non-condensing
Size & Weight		
LxWxH (installed)	1.420x1.030x1.890	m
Weight (approx)	800	kg
Warranty		
	12 months from installation	

Specification subject to change. The above information for guidance purposes only.

PR-700 HD+ Parameters

Laser		
Wavelength	354.7	nm
Type	Solid State	ND: YVO4
Frequency	100 (60-200)	KHz Dynamic
Cooling Method	Air	
Max Power (approx)	1w @ 100kHz, 2w @ 60kHz	Watts
Dynamic Power Adjustment	Yes	
Recommended Layer Thickness		
Precision	0.05	mm
Rapid	0.1 to 0.15+	mm
Standard	0.1	mm
Optical & Scanning		
Beam Diameter at Vat (approx)	0.08-1 (0.05-0.8 Micro Option)	mm Dynamic
Focus Method	Dynamic	
HD+ Resolution (approx)	0.0008	mm
Max Scanning Speed (approx)	25000	mm/s
Elevator		
Vertical resolution	0.0002	mm
Positional Repeatability (+/-)	0.01	mm
Removable Platform	Yes	Standard
No of Build Platforms supplied	2	Standard
Vat Capacity		
Volume (approx)	310	L
Max Build envelope	700x700x500 (Fixed Vat)	mm
Interchangeable Vat	50mm, Half, Full (Z=400), Custom	Optional
Software		
Control	RAPLAS Integra	
Input Data File Format	RAPLAS Build Processor	Magics
Network Type and protocol	Ethernet, IEEE 802.3	
Power		
Voltage	220-240v 50/60Hz	Single-phase
Power (approx)	15	Amps
Working Environment		
Ambient Temp Range	20-26	Deg C
Humidity Range	Less than 50%	Non-condensing
Size & Weight		
LxWxH (installed)	1.710x1.320x1.985	m
Weight (approx)	1300	kg
Warranty		
	12 months from installation	

Specification subject to change. The above information for guidance purposes only.

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