RAPLAS
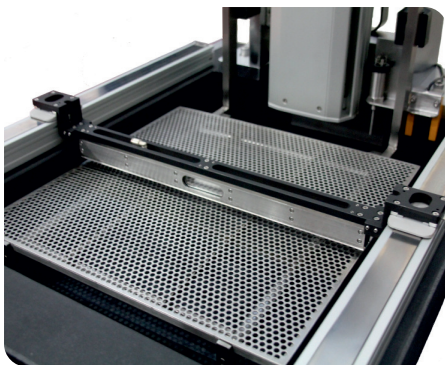## Production Additive Manufacturing

Production Resin System
generation. 2

hd+ Resolution as Standard

RAPLAS Production Resin Systems

Rigid Granite Frame Construction production focussed design, large easy access doors, integrated touch screen operation, 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 2/1W Dynamic Air-cooled Laser for high productivity and low running costs.

Interchangeable Vat Systems available with various vat size options.

Resin Development Kit option to develop materials and test from small through to production volumes of materials with full support.

RAPLAS Integra + Control

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

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

Remote access, monitoring and integrated email direct to your Raplas Support Engineer with full status and configuration reports of your machine.
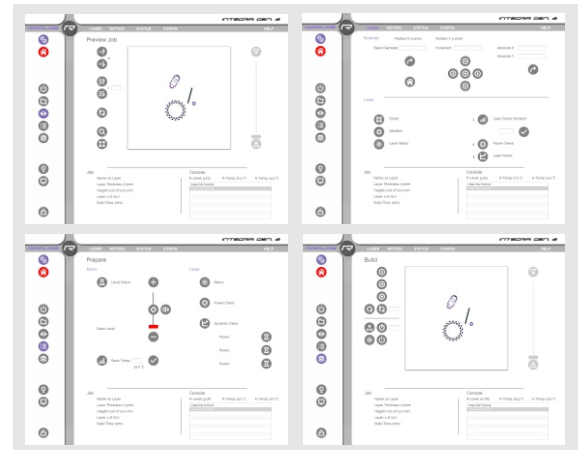
RAPLAS Powered by Materialise

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 Open 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

RAPLAS
Production Additive Manufacturing

Laser		
Wavelength	354.7	nm
Type	Solid State	ND: YV04
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	0.10 -0.25+	mm
Standard	0.15	mm
Optical & Scanning		
Beam Diameter at Vat (Approx.)	0.05 - 1.2	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.)	30 - 150 *Based on Tank Z Depth*	L
Max Build Envelope	450 x 450 x 400	mm
Interchangeable Vat	50 mm, Half, Full (Z=350), Custom	Optional
Software		
Control	RAPLAS Integra	
Input Data File Format	RAPLAS Build Processor	Magics
Network Type & 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		
L x W x H (Installed)	1.420 x 1.030 x 1.890	m
Weight (Approx.)	800	kg
Warranty	12 months from installation	

PR 700

RAPLAS
Production Additive Manufacturing

Laser		
Wavelength	354.7	nm
Type	Solid State	ND: YV04
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	0.10 -0.25+	mm
Standard	0.15	mm
Optical & Scanning		
Beam Diameter at Vat (Approx.)	0.07 - 1.2	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.)	75 - 550 *Based on Tank Z Depth*	L
Max Build Envelope	700 x 700 x 550	mm
Interchangeable Vat	50 mm, Half, Full (Z=400), Custom	Optional
Software		
Control	RAPLAS Integra	
Input Data File Format	RAPLAS Build Processor	Magics
Network Type & 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		
L x W x H (Installed)	1.710 x 1.320 x 1.985	m
Weight (Approx.)	1300	kg
Warranty	12 months from installation	

PR 800

RAPLAS
Production Additive Manufacturing

Laser		
Wavelength	354.7	nm
Type	Solid State	ND: YV04
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	0.10 -0.25+	mm
Standard	0.15	mm
Optical & Scanning		
Beam Diameter at Vat (Approx.)	0.07 - 1.2	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.)	75 - 550 *Based on Tank Z Depth and build size option*	L
Max Build Envelope	**800 x 700 x 550** or option of **800 x 800 x 600**	mm
Interchangeable Vat	50 mm, Half, Full (Z=400), Custom	Optional
Software		
Control	RAPLAS Integra	
Input Data File Format	RAPLAS Build Processor	Magics
Network Type & 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	*Based on Tank Z Depth and build size option*	
L x W x H (Installed)	1.71 x 1.32 x1.95 or 1.85 x 1.45 x 2.10	m
Weight (Approx.)	1400 to 1800	kg
Warranty	12 months from installation	

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