Magforms SLA 3D Printer Technical Specifications

PRINTER PROPERTIES

3D Printer	Helios-P 450	Helios-P 600	Helios-P 800
3D Printer Size Crated (WxDxH)	1600 × 1600 × 2050 mm 63 × 63 × 80.7 in	1800 × 1700 × 2200 mm 70.9 × 66.9 × 86.6 in	
3D Printer Size Uncrated (WxDxH)	Without monitor and LED light: 1380 × 1440 × 1800 mm 54.3 × 56.7 × 70.9 in With monitor and LED light: 2050 × 1560 × 2120 mm 80.7 × 61.4 × 83.5 in	Without monitor and LED light: 1490 × 1580 × 1970 mm 58.7 × 62.2 × 77.6 in With monitor and LED light: 2160 × 1690 × 2300 mm 85.0 × 66.5 × 90.6 in	Without monitor and LED light: 1760 × 1730 × 2100 mm 65.7 × 68.1 × 82.7 in With monitor and LED light: 2400 × 1800 × 2420 mm 94.5 × 68.1 × 95.3 in
3D Printer Weight Crated	~1300 kg 2866 lbs	~1550 kg 3417 lbs	
3D Printer Weight Uncrated	1167 kg 2573 lbs	1428 kg 3148 lbs	1700 kg 3748 lbs
Electrical Requirements	220-240 VAC 50/60 Hz Single Phase 2.5 kW	220-240 VAC 50/60 Hz Single Phase 2.5 kW	220-240 VAC 50/60 Hz Single Phase 2.5 kW
Operating Temperature Range	22-26 °C 71.6-78.8 °F	22-26 °C 71.6-78.8 °F	22-26 °C 71.6-78.8 °F
Humidity Range	35-45 %RH Non-condensing	35-45 %RH Non-condensing	35-45 %RH Non-condensing
Laser	Solid-state frequency tripled Nd:YVO4	Solid-state frequency tripled Nd:YVO4	Solid-state frequency tripled Nd:YVO4
Recoater Rim	Marble	Marble	Marble
Accessories	UPS Drain Device Post Curing Apparatus	UPS Drain Device PCA600 Post Curing Apparatus	UPS Drain Device PCA800 Post Curing Apparatus

PRINTING SPECIFICATIONS

	Helios-P 450	Helios-P 600	Helios-P 800
3D Printer			
Max Build Volume (xyz)	Flexible build volume options with customized resin vat.	Flexible build volume options with customized resin vat.	Flexible build volume options with customized resin vat.
Full	450 × 450 × 450 mm 17.7 × 17.7 × 17.7 in 175 L 46.2 U.S. gal	600 × 600 × 500 mm 23.6 × 23.6 × 19.7 in 297 L 78.5 U.S. gal	800 × 800 × 550 mm 31.5 × 31.5 × 21.7in 510 L 136 U.S. gal
Custom	The height of the resin vat is customized (less than full height).	The height of the resin vat is customized (less than full height).	The height of the resin vat is customized (less than full height).
Resin Vat Capacity	~206 kg 454 lbs	~350 kg 772 lbs	~610 kg 1345 lbs
Accuracy	L ≤ 100 mm: ± 0.1 mm L ≤ 3.94 in: ± 0.004 in L > 100 mm: ± 0.1% × L L > 3.94 in: ± 0.1% × L *Accuracy may vary depending onparameters, part geometry and size, pre-processing or post-processing methods, materialsand environment.	L ≤ 100 mm: ± 0.1 mm L ≤ 3.94 in: ± 0.004 in L > 100 mm: ± 0.1% × L L > 3.94 in: ± 0.1% × L *Accuracy may vary depending onparameters, part geometry and size, pre-processing or post-processing methods, materialsand environment.	L ≤ 100 mm: ± 0.15 mm L ≤ 3.94 in: ± 0.006 in L > 100 mm: ± 0.15% × L L > 3.94 in: ± 0.15% × L *Accuracy may vary depending onparameters, part geometry and size, pre-processing or post-processing methods, materialsand environment.
Slicing Thickness	0.05-0.15 mm 0.002-0.006 in	0.05-0.15 mm 0.002-0.006 in	0.05-0.15 mm 0.002-0.006 in
Intelligent Scanning Strategy	Viable Laser Beam	Viable Laser Beam	Viable Laser Beam
XY Resolution	0.025 mm 0.001 in *XY resolution describes image grayscale adjust.	0.025 mm 0.001 in *XY resolution describes image grayscale adjust.	0.025 mm 0.001 in *XY resolution describes image grayscale adjust.
Fine Feature/Outer Surface Scanning	0.15-0.2 mm 0.006-0.008 in	0.15-0.2 mm 0.006-0.008 in	0.15-0.2 mm 0.006-0.008 in
Larger Feature/Internal Surface Scanning	0.5-0.6 mm 0.020-0.024 in	0.5-0.6 mm 0.020-0.024 in	0.5-0.6 mm 0.020-0.024 in

MATERIALS

Build Materials	Please refer to the TDS and MSDS for more information for the printing material.	Please refer to the TDS and MSDS for more information for the printing material.	Please refer to the TDS and MSDS for more information for the printing material.
Material Packaging	10 kg per barrel	10 kg per barrel	10 kg per barrel

SOFTWARE AND NETWORK

3D Printer Software	Magforms iBuild 2.0	Magforms iBuild 2.0	Magforms iBuild 2.0
Printer Operating System	Windows® 10	Windows® 10	Windows® 10
Input Data File Formats Supported	SLC,CLI	SLC,CLI	SLC,CLI