

Magforms SLA 3D Printer Technical Specifications



PRINTER PROPERTIES

	Helios-P 450	Helios-P 600	Helios-P 800
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

3D Printer

Helios-P 450

Helios-P 600

Helios-P 800

Max Build Volume (xyz)

Flexible build volume options with customized resin vat.

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Full

450 × 450 × 400 mm
17.7 × 17.7 × 15.75 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 × 21.7 in
510 L
136 U.S. gal

Custom

The height of the resin vat is customized (less than full height).

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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 on parameters, part geometry and size, pre-processing or post-processing methods, materials and 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 on parameters, part geometry and size, pre-processing or post-processing methods, materials and 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 on parameters, part geometry and size, pre-processing or post-processing methods, materials and environment.

Slicing Thickness

0.05-0.15 mm
0.002-0.006 in

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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.

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Fine Feature/Outer Surface Scanning

0.15-0.2 mm
0.006-0.008 in

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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.

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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