










Additive Design Guidelines //

	 Wall Thickness	 Hole Diameter	 Clearance For 3D Printed Assemblies	 Escape Holes	 Minimum Detail	 Pin Diameter	 Z Accuracy	 XY Accuracy	 Standard Layer Thickness ¹
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FDM	1 mm	1.6 mm	0.5 mm	–	0.5 mm for 0.127 mm Slices	2 mm	XY Accuracy Plus Additional Tolerance of -0.000/+ Slice Height	+/- 0.127 mm (0.005 in) or +/- 0.002 mm/mm (0.002 in/in) (whichever is greater)	0.25 mm (.010) ⁵
SLS	0.7 mm ⁴	1 mm	0.5 mm	5 mm ³	0.7 mm ⁴	1 mm	+/- 0.3 mm (0.012) or 0.3% (whichever is greater) ²	+/- 0.3 mm (.012) or -0.3% (whichever is greater) ²	0.12 mm (.005)
MJF	0.7 mm ⁴	1 mm	0.5 mm	5 mm ³	0.4 mm ⁴	1 mm	+/- 0.5 mm or 0.5% (whichever is greater) ²	+/- 0.3 mm (.012) on XY or +/- 0.3% (whichever is greater) ²	0.08 mm (.003)
SLA	1 mm	0.5 mm	0.5 mm	5 mm	0.5 mm	1 mm	+/- 0.2 mm (0.008) or 0.2% (whichever is greater)	+/- 0.2 mm (0.008) or 0.2% (whichever is greater)	0.1 mm (.004)
PolyJet	1 mm	0.5 mm	0.4 mm	–	0.4 mm	1 mm	+/- 0.2 mm (0.008) or 0.002 mm/mm (whichever is greater)	+/- 0.2 mm (0.008) or 0.002 mm/mm (whichever is greater)	0.03 mm (.001)

* All values are dependent on overall geometry, part function and build orientation.

¹ Fathom's standard layer thickness per technology.

² Values can increase for solid parts with a wall thickness of less than 5 mm.

³ Escape holes for SLS and MJF: At the 5 mm size, powder removal is best effort; larger diameters are needed for total removal.

⁴ Wall thickness and minimum detail for SLS and MJF: Features under 1 mm are best effort and are considered customer at risk.

⁵ FDM layer thickness is 0.010 in. for small frame machines and 0.013 in. for large frame machines.