## DESIGN GUIDELINES LASER POWDER BED FUSION & BINDER JETTING

	Laser AM	Binder AM
IT CLASS	IT class 11-13	IT class 14
WALLTHICKNESS	→   Wall thickness >0,5 mm	→ Wall thickness 1.5 - 30 mm
SURFACE QUALITY	Surface: Rz<50 μm	Surface: Rz 45 μm
PART SIZE	Compact & complex design	Recommended maximum green part size ~ 100 x 100 max. 80 mm
	<ul> <li>&gt; Self-supporting angle &gt;45°</li> <li>&gt; Sharp edges to prefer against radius</li> <li>&gt; Min. holes diameter &gt; 0,5 mm</li> <li>&gt; Holes diameter &gt; 10 mm in horizontal orientation require supports</li> <li>&gt; Fragile details possible (≥0,4 mm depending on dimensions and materials)</li> <li>&gt; Aspect ratio: height of the wall / wall thickness ≤ 40:1 if t&gt;1 mm</li> <li>Large scaled parts have larger distortion</li> </ul>	<ul> <li>No support structure for overhangs at printing</li> <li>Radii at corners/chamfers preferred 0,5 mm</li> <li>Hole aspect ratio 10:1 / Min. hole diameter 1 mm</li> <li>Pin aspect ratio 5:1 / Min. pin diameter 1,5 mm</li> <li>Embossed / engraved structures &gt; 0,5 mm</li> <li>Min. thickness for supported/unsupported walls 0,5/1,0 mm</li> <li>Inner cavities possible with intake and exhaust hole</li> <li>Sinter: flat surface for sinter placing preferred / Setter can be offered as printed in / life / ceramic</li> <li>Distortion depended of size and geometry</li> </ul>

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