



NANOPARTICLE JETTING

Azoth offers NanoParticle Jetting™ (NPJ) technology – a patented inkjet technology that enables us to produce incredibly small and complex parts with the highest resolution and accuracy available in the 3D market today. No powder. No lasers. The ink consists of microscopic metal particles that are suspended in liquid, which is then jetted onto the substrate, just like an inkjet printer. The extremely small size of the metal particles enables the printer to print in incredibly small layer thicknesses of 8 microns, which provides a number of advantages. The most important of these advantages are its ability to produce parts with: very small complex features, high resolution, and higher density ratings (98%+) than competing printers.

PART DESIGN

A case-by-case evaluation is required for part design

MATERIAL

316L

PART SIZE

MINIMUM:

0.2mm as a guideline

MAXIMUM:

per axis (parts are allowed to reach max dimension in 1 of 3 axis)

X – 190 mm

Y – 107 mm

Z – 20 mm

SUPPORT

Support material is printed with the part and dissolved in water after the print is complete. Some parts may require support “setters” for the sintering process. Azoth will design setters as needed.

FINISHING OPTIONS

- High polish:
approx. Ra 1 µm;
mirror-look surface
- Metallic bead blast:
approx. Ra 3µm;
smooth surface

RESOLUTION

Layer thickness – 8 microns

SURFACE ROUGHNESS

N8-N9 - 32

WALL THICKNESS

Min wall thickness 0.2 mm (limited height)

Min wall thickness 0.4 mm - following ratio 1:10 (X:Z)

Axis ratio 1:10 (X:Y)

Note: pillars follow the same criteria

HOLES AND CHANNELS

Min diameter – 0.2 mm

Max ratio – 1:10 (diameter:depth)

1099 Highland Drive Ann Arbor, Michigan

(734) 669-3797 ● info@azoth3d.com

Azoth is an ISO 9001:2015 certified company