

Calibur3[®]

TECHNICAL SPECIFICATIONS



Neutral Beam Technology[®]

VERSION 1.1 – MAR 2021



INTRODUCING NEUBEAM®

The next generation of electron beam metal additive manufacturing for large stress-free components.

NeuBeam® technology manufactures parts up to 450 x 450 x 450 mm in size without residual stresses. NeuBeam® prints parts faster, requires fewer finishing steps, all within a more stable platform than competing technologies.



Large build volume for high rate production or large part sizes up to 450 x 450 x 450 mm



Hot part process, producing large parts that are stress free



Optimum metallurgy through adaptable cooling control, using the speed of NeuBeam



Reduced time and energy with far fewer post processing steps required



Industrial reliability built in, providing a stable platform for production environments



Sophisticated in-process monitoring accelerating application development

TECHNICAL DATA – WAYLAND NEUBEAM® TECHNOLOGY

Build Volume

Interchangeable build volume with available sizes:

- 100 x 100 x 150 mm (optional material dev kit)
- 300 x 300 x 450 mm
- 450 x 450 x 450 mm (available from September 2022)

Sizes stated are max part size

Bed / Part Temperature	Up to 1000°C, dependant on build volume, material, etc.
Layer Thickness	Typically 50-90 µm
Z-stage	Position accurate to +/- 5µm over full range
Spot Size	Φ150 µm tungsten on axis (100µm target LaB6)
Energy Source	Electron beam, 5kW @ 60kV
Electron Source	LaB6 crystal or tungsten filament (user option) – LaB6 available Dec 21
Deflection Speed	Up to 1000 m/s
Machine Dimensions	Width 3050 mm x Depth 1300 mm x Height 3000 mm
Access Area Required	See Installation Guide
File Type	CLI. Netfabb file prep interface available. Others on demand.
Argon Consumption	610 litres / build
Air Supply	Minimum 4 bar
Machine Weight (unloaded)	3.5 tonnes



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