

# Calibur3<sup>®</sup>

## TECHNICAL SPECIFICATIONS



Neutral Beam Technology<sup>®</sup>

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 tungston 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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