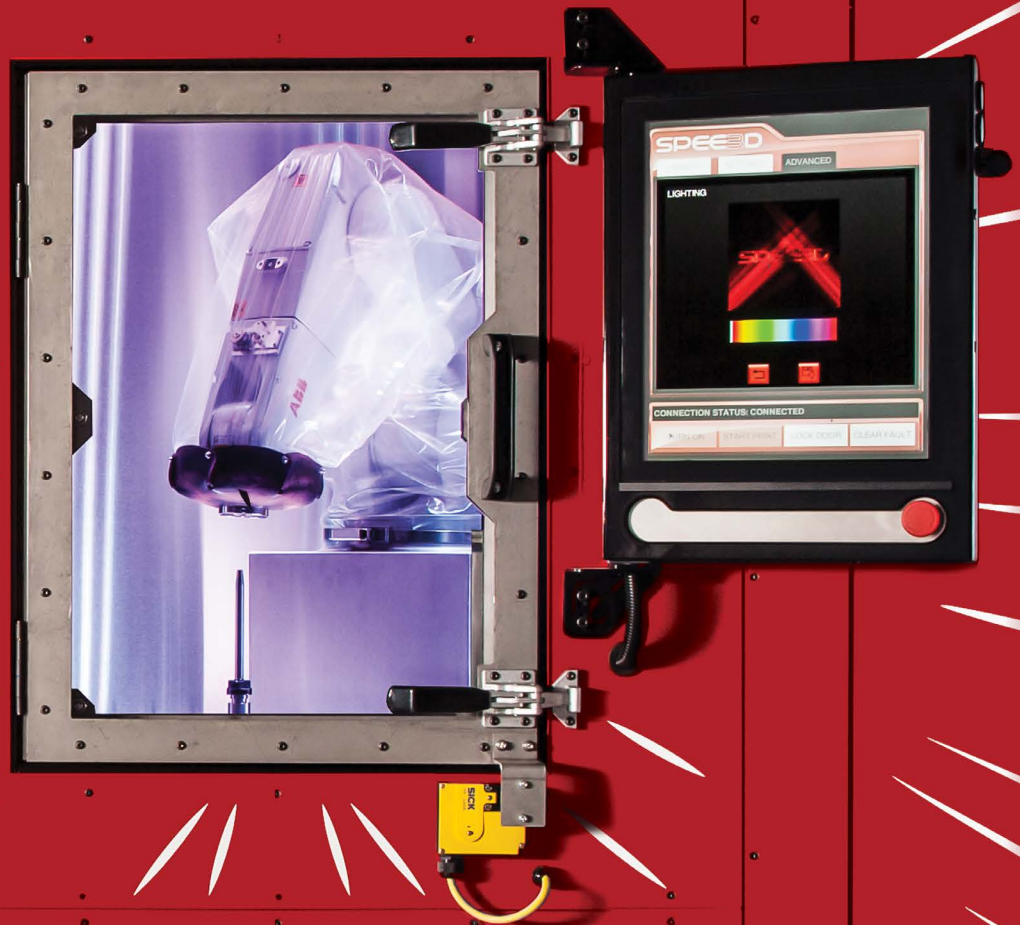


SPEED3D™

WORLD'S FASTEST METAL PRINTERS



SPEE3D

The world's fastest metal additive manufacturing technology.

SPEE3D printers can rapidly and inexpensively manufacture metal parts, suitable for real-world commercial and industrial applications.

This technology is ideally suited for either producing parts currently manufactured by sand or die casting or rapidly printing parts on demand. It does this faster and more efficiently with all the added flexibility offered by 3D printing.

BENEFITS



ULTRA HIGH SPEED

1000 times faster than traditional 3D printing



BIG & STRONG PARTS

Unlike other additive manufacturing processes, with SPEE3D you can make large parts (up to 40kg), that are full-density, robust and strong



FLEXIBLE

On-demand part production of 1 to 10,000



LOW COST

Similar cost to casting using common materials



EASY

No fancy redesign of parts and support material required, just load your file and print



MOBILE

SPEE3D equipment is easily transported and rugged enough to be moved and operated anywhere



SAFETY & ECO-FRIENDLY

Safe & healthy environment for your workers

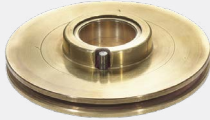


CAMLOCK

PRINT TIME **24.4 MINUTES**

MATERIAL ALUMINUM 6061

WEIGHT 660G



STARTER FLYWHEEL

PRINT TIME **25 MINUTES**

MATERIAL ALUMINUM BRONZE

WEIGHT 2.5KG



GUNNER'S RATCHET

PRINT TIME **60 MINUTES**

MATERIAL ALUMINUM BRONZE

WEIGHT 2KG



BILGE PUMP HOUSING

PRINT TIME **83 MINUTES**

MATERIAL ALUMINUM BRONZE

HOUSING WEIGHT 8.3KG



316 STAINLESS VALVE HANDLE

PRINT TIME **60 MINUTES**

MATERIAL 316 STAINLESS STEEL

WEIGHT 1.2 KG



WATER-COOLING BLOCK

PRINT TIME **40 MINUTES**

MATERIAL ALUMINUM 6061

WEIGHT 580G



COPPER ROCKET NOZZLE LINER

PRINT TIME **199 MINUTES**

MATERIAL COPPER

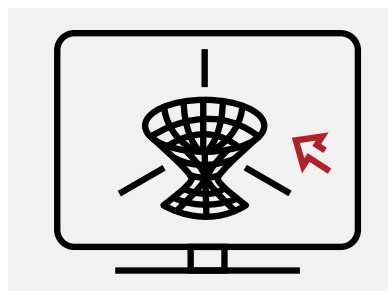
WEIGHT 17.9KG

HOW IT WORKS

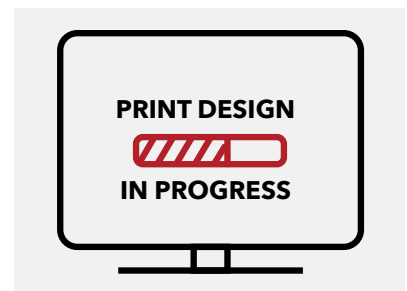
Imagine making 3D metal parts within minutes, without lasers or melting the metal. With SPEE3D's technology, that's possible.

SPEE3D's patented 'supersonic deposition' process works by accelerating metal powder particles up to three times faster than sound with a rocket engine, firing them at a substrate maneuvered with precision by a 6-axis robot arm. The sheer kinetic energy that results causes the particles to bind together to form a strong, full-density metal part.

THE PROCESS



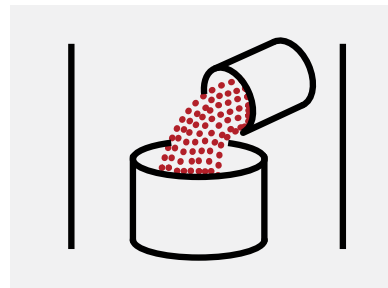
Design in CAD



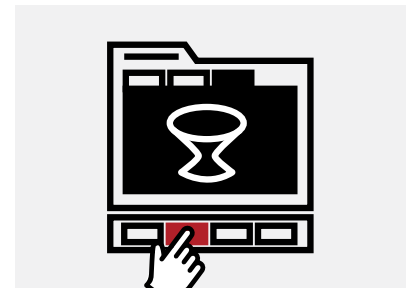
Import into TwinSPEE3D



Check simulation



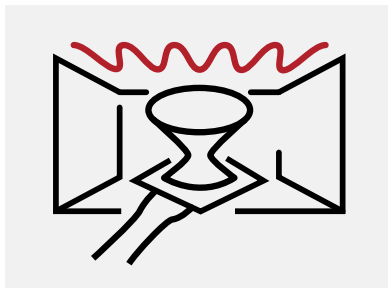
Load feedstock



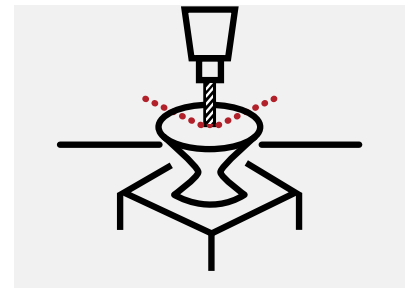
Press print



Remove part



Heat treat



Post process

FEATURES



USEFUL METALS

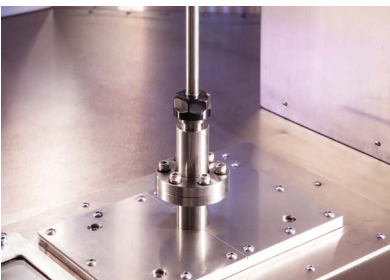
The feedstock for our process is readily available metal powders

- › Aluminum (6061 & pure)
- › Copper (pure)
- › Aluminum bronze
- › 316 Stainless steel
- › More materials in development



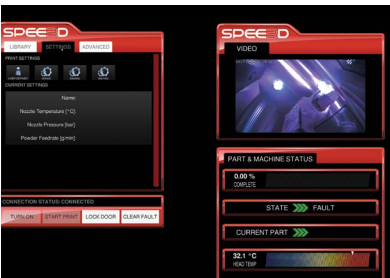
PRECISION ROBOTICS

- › Substrate attached to the robotic arm
- › Moves above the powder spray nozzle
- › Shape forms as powder particles fuse on substrate



ROCKET POWERED

- › Rocket nozzle used to propel metal powder particles at supersonic speed onto substrate
- › Fixed to the base of the machine



USER FRIENDLY

- › The HMI (Human Machine Interface) is designed to be intuitive
- › Users can be trained to operate the equipment in under an hour



COMPRESSED AND HEATED AIR

- › No use of expensive inert gases
- › Process operates using normal compressed air



FINISHING

- › Part removed from machine can be handled immediately
- › Finished or machined with less waste than casting

LIGHTSPEED3D

MANUFACTURE PARTS UP TO Ø350mm x 300mm



LIGHTSPEED3D

- Fully integrated design including enclosed build chamber, powder feeder, electronics and print head
- Touch screen HMI
- High speed robotics
- Very high build rates – up to 100grams/minute.

Technical Specifications*

PART BUILD INFORMATION

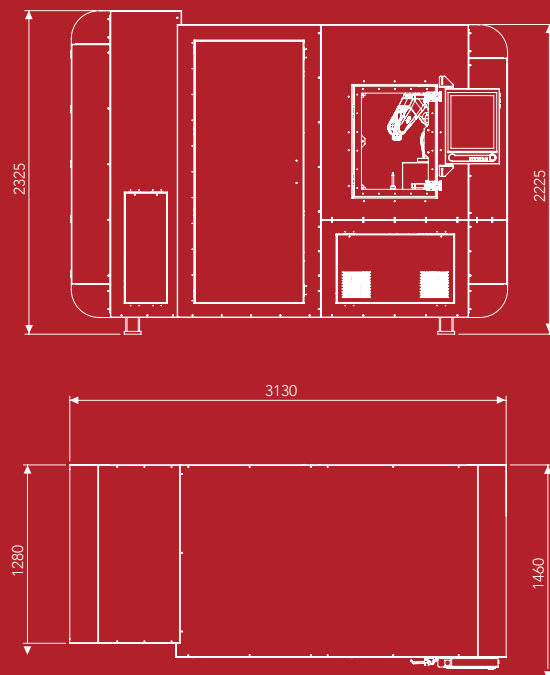
Maximum part size \varnothing 350mm x 300mm (approx)
Maximum part weight 4kg
Deposition rate 100g/minute (maximum)
Materials Copper, Aluminum
Deposition spot size 6mm

PERFORMANCE SPECIFICATIONS

Electrical Power Supply 415V (3 phase), 32A socket
Compressed Air Supply minimum 35Bar, 1.0m³/min
Noise < 85dBA @1m
Machine footprint (mm) 3130 x 1460 x 2325mm (approx)
Machine weight 2500kg (approx)

TWINSPEED SOFTWARE

CAD input STL format
Works with PC running Windows 8 and above



WARPSPEE3D

MANUFACTURE PARTS UP TO Ø1000mm x 700mm



WARPSPEE3D

- Fully integrated design including enclosed build chamber, powder feeder, electronics and print head
- High speed robotics
- Touch screen HMI
- Very high build rates – up to 100grams/minute.

Technical Specifications*

PART BUILD INFORMATION

Maximum part size \varnothing 1000mm x 700mm (approx)
Maximum part weight 40kg
Deposition rate 100g/minute (maximum)
Materials Copper, Aluminum
Deposition spot size 6mm

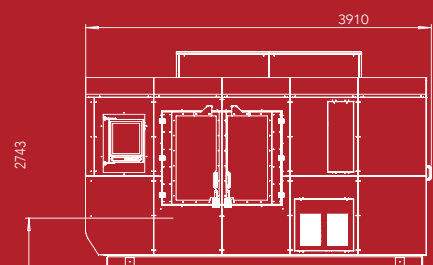
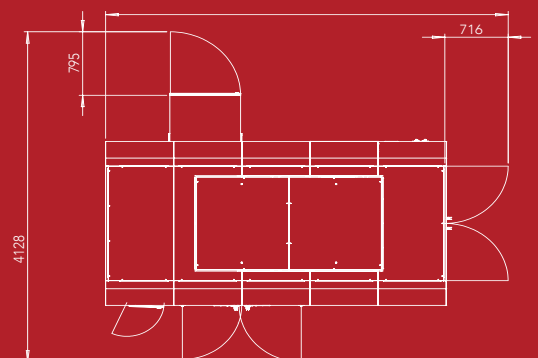
PERFORMANCE SPECIFICATIONS

Electrical Power Supply 415V (3 phase), 32A socket
Compressed Air Supply minimum 35Bar, 1.0m³/min
Noise < 85dBA @1m
Machine footprint (mm) 4128 x 4553 x 2743 DxWxH
Machine weight 4000kg

TWINSPEED SOFTWARE

CAD input STL format
Works with PC running Windows 8 and above

* Technical Specifications subject to change without notice.
This datasheet is current as of April 2022.



SPEE3D™

MILAM 2022

Award for Expeditionary & Tactical
3D Printing Excellence


Land Forces
AUSTRALIA INDO ASIA PACIFIC

SME INNOVATION
AWARD
WINNER


DEFENCE
CONNECT
AUSTRALIAN
DEFENCE INDUSTRY
AWARDS

FINALIST
SME OF THE YEAR
2021

59TH AUSTRALIAN
Export & Investment Awards

National Finalist 2021
ADVANCED TECHNOLOGIES


InnovationAus
2021 AWARDS FOR
EXCELLENCE
ADVANCED MANUFACTURING


tct
AWARDS

TCT AWARDS 2018
HARDWARE
NON-POLYMER SYSTEM
WINNER

TECH23.2016
CELEBRATING AUSTRALIAN INNOVATION



BOSCH

Venture Forum
Awards 2015


Export
Awards
2018
FINALIST
Emerging Exporter Award

Supported by the

NSW
GOVERNMENT

ecn
Export Council
of Australia



**GERMAN
DESIGN
AWARD
NOMINEE
2018**


MANUFACTURERS' MONTHLY
**Endeavour
Awards**


PREMIER'S
DESIGN
AWARDS


tct
AWARDS

**RISING STAR
HIGHLY
COMMENDED**

SPEE3D

WWW.SPEE3D.COM