## WORLD LEADING HIGH SPEE3D METAL PRINTERS



## 2 CORE MACHINES

## LIGHTSPEEBD



PARTS UP TO Ø350mm x 300mm

WADDSDEEBD

SPEE3D is a world-leading additive manufacturing technology supplier dedicated to the research, development, and delivery of metal 3D printers and integrated systems utilizing its patented cold-spray technology. SPEE3D products enable significantly faster, lower-cost, and more scalable production than traditional metal printing techniques for a wide range of metals, including copper, stainless steel, titanium, high-strength aluminum, and nickel-based carbides. SPEE3D's metal 3D printers are the world's fastest metal 3D printing technology, able to print metal parts in just minutes, at speeds 1000 times faster than laser based 3D Printing. Rather than using heat to melt metal powders, SPEE3D developed 'Supersonic 3D Deposition'. This is the name given to the patented process in which a rocket nozzle accelerates air up to three times the speed of sound, into which metal powder is injected then deposited onto a substrate maneuvered by a six-axis robotic arm. In this process the sheer kinetic energy of the particles hitting each other causes the powders to bind together to form a high density part with metallurgical properties superior to casting. Because SPEE3D's printers harness the power of kinetic energy rather than relying on high-power lasers and expensive gasses, it allows printing at affordable production costs.





This multi material copper-aluminium cooling block was metal 3D printed in just 14 minutes on a SPEE3D printer using SPEE3D's patented Supersonic Deposition technology, demonstrating the technology's ability to print multiple materials for one application. Cooling blocks produced using the SPEE3D process, offer optimum heat dissipation, and a design that prevents less material waste compared to using more traditional manufacturing methods. Other applications SPEE3D's technology is useful for includes repairing and replacing parts, such as parts at risk of obsolescence, and coatings. These copper cones, printed on a SPEE3D printer, are also an example of how the process can produce high-density metal parts in copper, a material that is excellent for electrical applications that require thermal conductivity. SPEE3D's printers offer two types of copper, pure Copper and ACTIVAT3D Copper. ACTIVATE3D Copper is antimicrobial copper that can be rapidly deployed using SPEE3D technology. New algorithms allow SPEE3D printers to coat existing metal parts with copper. This is more efficient than printing solid copper parts from scratch. Australian NATA accredited clinical trial specialty laboratory, 360Biolabs, tested the effect of ACTIVAT3D copper on live SARS-CoV-2 in their Physical Containment 3 (PC3) laboratory. The results showed that 96% of the virus is killed in two hours and 99.2% of the virus killed in 5 hours, while stainless steel showed no reduction in the same time frame. Stainless steel is currently the material typically used in hygiene environments. ACTIVAT3D copper can be used to coat surfaces that are commonly touched such as door handles, push plates and railings. It can also be used to print solid copper parts the fastest way possible. Since then, it has been commercialised and installed in Universities and Government facilities in Australia and worldwide.

Please visit our website to get more information about our materials: <u>WWW.SPEE3D.COM</u> Or contact us directly at: <u>contact@spee3d.com</u>