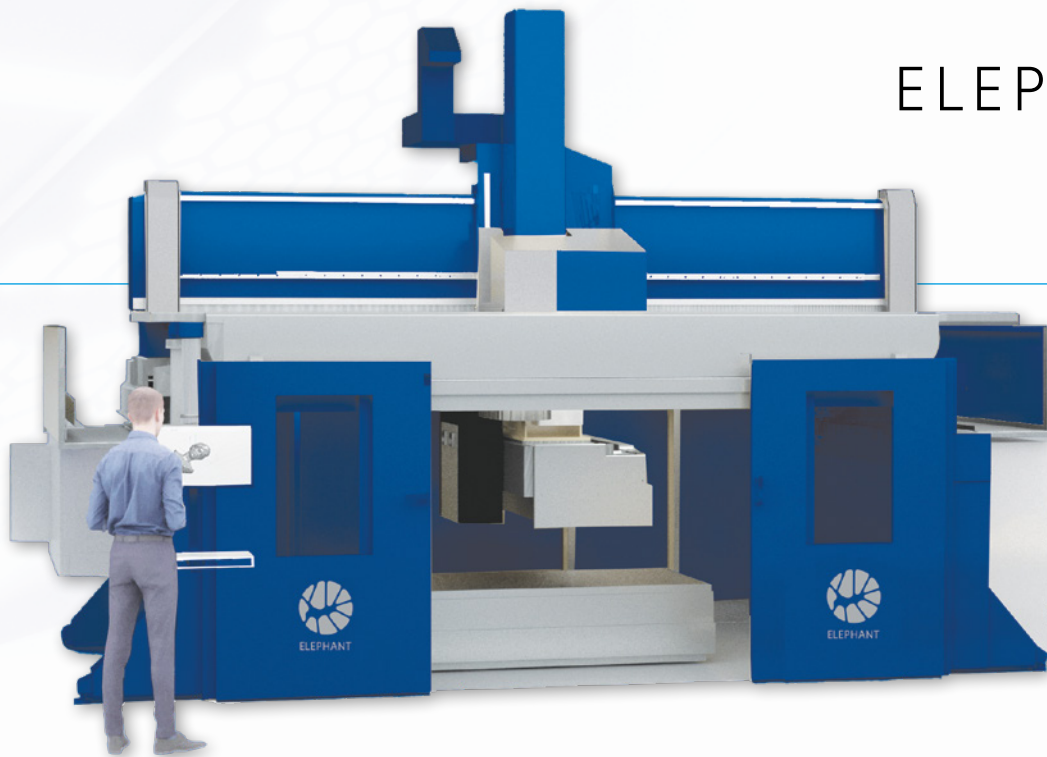




CONCR3DE
YOUR 3D POWDERHOUSE

ELEPHANT BLUE



The usability and applicability of any 3D printing technology is often determined by its maximum print dimensions. Upscaling brings massive cost advantages as well as a range of novel use cases. With an emphasis on 'large' and based on our years of experience, CONCR3DE created an integrated production solution to create large-scale objects in ceramics. Introducing: Elephant Blue.

INDUSTRIAL PRODUCTION PRINTING



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The benefits and usability of 3D printing technology exponentially increase with scale, especially for highly specific technical materials that are traditionally expensive and hard to create or shape. With Elephant Blue, CONCR3DE introduces an industrial production solution for 3D printing complex Silicon Carbide parts at scale.

Industrial production • Our Elephant Blue large-scale printer was designed to 3D print ceramics at scale. It delivers the many benefits of additive manufacturing, including speed, freedom of design, flexibility, and sustainability in an integrated solution for industrial production. This production system features an automated powder feeder and Job Boxes that can be easily swapped, enabling continuous operation.

Full process customization • Depending on the specific combination of powder and binder used, 3D printed parts will require specific post-processing steps. CONCR3DE understand the necessary steps, and fully supports you in designing the most efficient production process. Our team considers current production workflows, the existing infrastructure, working shifts, your facility layout and any other variables in creating your custom production process. We offer several large-scale post-processing tools and station to fit Elephant Blue.

Sustainability comes standard • Traditional production methods to create Silicon Carbide (SiSiC) parts and items include high-pressure mold-shaping. Due to the exceptional hardness of this ceramic, any tools used to machine and finish the objects are subject to significant wear. The CONCR3DE process enables creating complex shapes with ease. The Elephant Printing Bar deposits a thin powder layer covering the entire Job Box. It then jets the binder in the shape of the object layer, accurately solidifying the powder. All unused powder can be 100% recycled, and without the necessity for support structures, the print process itself produces zero waste. Elephant Blue offers the precision to create intricate details and unprecedented surface quality.

Optimized for Silicon Carbide (SiSiC) • Elephant Blue was specifically optimized to 3D print Silicon Carbide at production scale. CONCR3DE offers a Plug-and-Play Silicon Carbide A material which includes an engineered powder with Polyvinyl Alcohol (PVA) and is based on our aqueous binder BC1001. The final material properties can be fine-tuned to fit specific applications by optionally adding carbon and infiltrating the printed parts with additional silicon. Other material options include Silicon Carbide S that is created using solvent binder BM1001, as well as a Silicon Carbide P that is printed using a traditional phenolic binder BF1002. Both alternatives call for a different production process, in which CONCR3DE is happy to assist you every step of the way.

Technical specifications

	Elephant Blue
Print box dimensions (X, Y, Z)	1.000 x 2.000 x 1.000 mm
Print head precision	400 DPI
Standard layer height	150-300 µm
Capacity	2.000 liters/day
Powder compatibility	Optimized for PC1001 SiC Powder
Binder compatibility	BC, BM & BF range binders
Connectivity	Ethernet (cable included)
Power requirements	2 x 400 V
Dimensions	2.800 x 6.500 x 4.500 mm
Software	NOAH Production (included)



Would you like to see more examples of what Elephant Blue can do for you? Visit www.concr3de.com for more information. Are you ready to discuss your production application? Send us an email at info@concr3de.com or call +31 (0)85 0606 171.

CONCR3DE

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