



CONCR3DE
YOUR 3D POWDERHOUSE

PRODUCING THE REMARKABLE

Precision. Performance. Freedom of design. Scalability. CONCR3DE allows you to fully capitalize on the promise of additive manufacturing in industrial applications. With integral solutions based on a dedicated product range, we aim to push the boundaries of high-quality 3D printed parts and products together.

[CONCR3DE.COM](https://concr3de.com)

INDUSTRIAL & HIGH-TECH SOLUTIONS



USE HIGH-END MATERIALS

Our proprietary binder jetting technology allows you to use technical ceramic and metal materials like alumina, silicon carbide, stainless steel S316, copper and more. Bringing together their specific properties and the benefits of 3D printing enables you to create novel shapes and applications.

DON'T JUST DREAM BIG

The CONCR3DE platform is exceptionally scalable. Quickly test and optimize parts using our dedicated Reduction Insert in Armadillo Blue. Once validated, conveniently scale dimensions or output by printing up to 100 liters in a single day, from a single printer.

COMPLEXITY MADE EASY

High precision, intricate shapes are now within easy reach. Improve functionality while saving weight, thanks to the unlimited freedom in geometry. Accelerate and simplify design and production processes by eliminating lead times and allow for incremental iterations.

PRODUCTS

Our product range for industry and high-tech applications has been tailored to meet your specific needs. Once you tell us your requirements, and we'll gladly advise you on the integral solution that fits your needs.

ARMADILLO BLUE • This binder jetting 3D printer comes fully featured with all applicable add-ons for industrial and high-tech applications. It includes an integrated NOAH control station, the Reduction Insert to allow for small prints, our printhead capping system to use fast-drying binders, the infrared heater, and more.

HANDLING & POST PROCESSING • CONCR3DE offers all the dedicated tools to allow a fast, clean, and dust-free workflow and make light work of post processing printed parts to reach their final state after printing.

POWDERS & BINDERS • Armadillo Blue can print a range of MIM and CIM powders such as stainless steel S316, bronze, alumina, silicon carbide, porcelain, stoneware and more, using readily available CONCR3DE binders. Furthermore, together with our industrial partners we can deliver custom solutions such as particle filled inks for increased density, process optimization services and hardware customizations.

Powders Alumina, Stainless steel S316, Mortars, concrete, Silicon carbide, Copper, Geopolymers, Porcelain, Bronze, Refractories, Stoneware, Stainless steel 17-4 PH, Sand

Binders	MATERIAL	TYPE	COMPATIBILITY
	G3CO	Aqueous	Mortars, stone
	C-binder	Solvent	Ceramics
	M-binder	Solvent	Metals
	X-binder	Particle filled	Custom binder, on request only

APPLICATION OPTIMIZATION SERVICE • Benefit from our years of experience with our binder jetting technology. Whether you are looking for a reference print, or would like us to jointly optimize product or part properties, process parameters like print speed and materials use, or scale up your part dimensions or production volume altogether in the best way possible – we are here for you.



Interested to learn more? Detailed specifications are available in our Product Leaflets or check out www.concr3de.com for more information. Are you ready to discuss your application? Send us an email at info@concr3de.com or call +31 (0)85 0606 171.



CONCR3DE
YOUR 3D POWDERHOUSE



ARMADILLO BLUE

At CONCR3DE, we understand the right tools make light work. Our Armadillo Blue binder jetting 3D printer was specifically designed for industry and high-tech applications. All dedicated add-ons most frequently requested for printing a wide range of ceramics mixes and metals come standard in this high-performance workhorse.

[CONCR3DE.COM](https://concr3de.com)

THE STANDARD FOR INDUSTRY & HIGH-TECH



CONCR3DE

YOUR 3D POWDERHOUSE

Armadillo Blue is the cost-efficient production platform of choice to create high-quality products and parts in materials like technical ceramics and metals. This printer is compatible with any CONCR3DE powder and binder and features several additional modules that make it highly suitable for high tech materials and applications. It offers a large workspace based on our high precision jetting system and comes with our intuitive open software.

EXCEPTIONAL MATERIAL VERSATILITY

VALIDATED MATERIALS • Armadillo Blue supports a range of fully validated metals and technical ceramics. Current options include alumina, silicon carbide, stainless steel S316L, copper and more. Several exciting additions are currently in their final development phase. If you are looking to use Armadillo Blue to print a specific compound, our experienced team is at your service to advise and support.

INFRARED HEATER • Certain powders require high temperature curing or bind faster at higher temperatures. The Infrared Heater is based on a powerful infrared curing lamp and allows you to control the print bed temperature. The Infrared Heater makes it possible to increase the temperature up to 80°C. The Infrared Heater can be conveniently managed through our NOAH software.

FULL PROCESS CONTROL

INTEGRATED NOAH CONTROL • Armadillo Blue includes an integrated control station with our custom and fully open NOAH software pre-installed on optimized hardware. NOAH offers full access to all parameters of the printing process and controls the add-ons. Set layer heights, temperature, speed, binder saturation and more. The slicer enables adjusting the geometry of a every layer or importing complex geometries.

REDUCTION INSERT • When testing materials for specific application, the ability to print small parts using a limited amount of powder significantly improves efficiency. The print size Reduction Insert was designed for testing purposes, reducing time, costs, and waste. It is especially useful when using high-value materials such as precious metals, reducing the total material required to start producing to less than 1 liter, or print dimensions of 100 x 100 x 80 mm.

DEPOWDERING BOX • This metal tool has identical dimensions to the Armadillo Blue print bed. It allows for easy removal of an entire print volume for post-processing without the need to depowder in its green state. The Depowdering Box is a great fit with fragile parts that require oven curing, such as ceramics. The Depowdering Box is compatible with mechanical lifting tools, such as forklifts or hoists.

TECHNICAL SPECIFICATIONS

ARMADILLO BLUE

Print box dimensions	370 x 290 x 250 mm or 440 x 440 x 250 mm
Capacity	49 or 96 liters/day
Printhead precision	400 DPI
Layer height	40 – 500 µm
Maximum drop size	200 pL
Powder compatibility	Metals, ceramics, and more
Binder compatibility	CONCR3DE aqueous & solvent
Connectivity	Ethernet (cable included)
Power requirements	230 V
Dimensions	1.700 x 1.200 x 1.600 mm
Space requirements	2.400 x 2.000 x 2.200 mm
Weight	650 kg
Software	NOAH (included)

Learn more about Armadillo Blue on www.concr3de.com. Are you ready to discuss your application? Send us an email at info@concr3de.com or call +31 850 606 171.

CONCR3DE

Scheepsbouwweg 8 A4 • 3089 JW Rotterdam • The Netherlands • +31 (0)85 0606 171 • info@concr3de.com • www.concr3de.com



YOUR 3D POWDERHOUSE

We build powder-based 3D printers that enable the unimaginable, produce the remarkable and shape the impossible. Our accessible ecosystem allows you to create accurate, complex parts with novel material properties, unprecedented scalability, and waste upcycling options – all in a single platform.

[CONCR3DE.COM](https://concr3de.com)

3D PRINTING FOR RESEARCH, INDUSTRY & CONSTRUCTION



CONCR3DE
YOUR 3D POWDERHOUSE

HARNESSING THE POWER OF ADDITIVE MANUFACTURING

Traditional production methods like casting or injection molding have several limitations, whether in terms of manufacturing cost-effectiveness, limited part complexity and material properties, or generated waste. At CONCR3DE, we harness the power of additive manufacturing to overcome these shortcomings and create the previously unimaginable. Based on our proprietary binder jetting 3D print technology, we offer the most versatile platform and expertise to print functional products – in any size and any powder-based material.

MATERIALS THAT MEET YOUR REQUIREMENTS

The material options are extensive. We can create anything from stone to ceramics and from (bio)polymers to stainless steel. This allows us to meet material requirements such as aesthetic properties, outdoor use, biocompatibility and shock, heat, or electrical resistance. CONCR3DE enables accurately printing complex shapes with zero waste. Even better: our print technology allows true upcycling of for example stone and concrete by using worthless (or even expensive to dispose of) waste streams to create new products.

SCALABILITY IN HIGH-QUALITY HARDWARE

Our 3D printer range allows cost-effective production by selecting the print volume that fits your application – from the size of a Rubik's Cube to the size of a building facade. This makes it possible to test small and produce big without the need to switch platforms or figure out new parameters. Depending on your material and application requirements, CONCR3DE customizes the setup with in-printer add-ons or external stations to fit your needs, resulting in an integral solution. All high-quality hardware is designed for industrial use and robust performance.

COOPERATION TO ACCELERATE TOWARDS YOUR GOALS

As our curiosity does not end there, we invite researchers to adjust our open software and hardware settings and create new powder and binder compositions. With CONCR3DE, you can benefit from our years of experience through our services focused on joint development, process optimization or co-production. Whether you are looking for a unique research or prototyping platform, industrial or high-tech complex functional parts production or printing large-scale architectural designs: CONCR3DE is your 3D Powderhouse.



Our Application Leaflets detail our dedicated solutions for different sectors. Check out www.concr3de.com for more information. Are you ready to discuss your application? Send us an email at info@concr3de.com or call +31 (0)85 0606 171.

CONCR3DE

Scheepsbouwweg 8 A4 • 3089 JW Rotterdam • The Netherlands • +31 (0)85 0606 171 • info@concr3de.com • www.concr3de.com