

AN **INDUSTRIAL** MACHINE FOR **BIG PRINTS**.



bigrep **PRO**

NEXT-LEVEL **INDUSTRIAL 3D PRINTING**.

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AN INDUSTRIAL MACHINE FOR **PROFESSIONAL** PRINTS

BigRep is pleased to introduce the latest addition to its range of additive manufacturing solutions – the BigRep PRO. German-engineered for speed and precision, the PRO is a machine for industrial solutions.

BigRep has designed and manufactured a machine that prints with engineering-grade materials to ensure users can manufacture the applications they need, in large scale. The PRO is an industrial 3D printer that responds to market demands.

Whether it's functional prototypes, composite tooling or end-use products, the PRO delivers, with a range of new features, including a state-of-the-art Bosch Rexroth CNC system, new Metering Extruder Technology (MXT), an enclosed build chamber and temperature-controlled filament chambers.

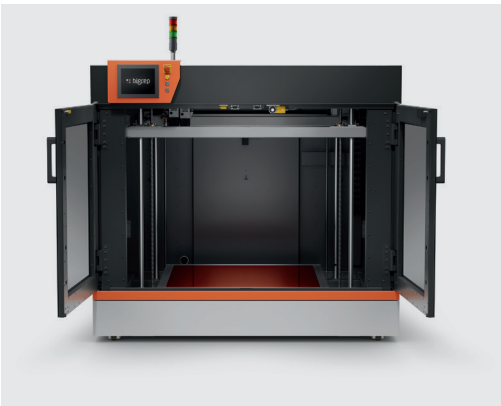
The PRO has been inspired by the ONE and STUDIO 3D printers, winners of multiple awards including the German Brand Award 2018, the German Innovation Award 2018 and the German Design Award 2016.

WATCH THE STUDIO'S PRODUCT VIDEO

LARGE-SCALE & GERMAN ENGINEERED

THE BIGREP PRO

The BigRep PRO has been expertly engineered to equip companies with advanced technology to print large objects with industrial-grade materials.



Large-Scale Prints

The Build Platform

True to its name, BigRep makes machines for big prints, and the PRO is no exception. With a build envelope of one cubic meter, the machine is made for 3D printing of large-scale industrial objects, enabling countless application possibilities.



Shielded Printing

The Enclosed Frame

An insulated enclosed metal frame ensures optimum even temperature control and the glass doors offer an optimal view on the print. Further improving safety is the PRO's compatibility with standard ventilation systems, for fume and emissions control, making it a best practice example for 3D printing in industrial environments.



Industrial Material Compatibility

The Insulated Filament Cabinet

The PRO provides an optimal environment for printing with industrial-grade materials, due to a humidity controlled spool chamber. Air circulation fans within ensure air flow for uniform temperature throughout the filament cabinet, and the cabinet stores up to four filament spools.



Speed & Precision

The MXT

BigRep is introducing a metering extruder technology (MXT) with exceptional speed and precision, which is one of the defining features of the PRO. This state-of-the-art extruder allows for ultimate control on the materials deposition, allowing users to achieve the highest quality for every application.



Semi-Automatic Leveling

The Print Bed

The heated print bed mounted with polyimide foil provides optimal adhesion in the printing process. An integrated inductive sensor allows for semi-automatic leveling of the print bed.



Bosch Rexroth Technology

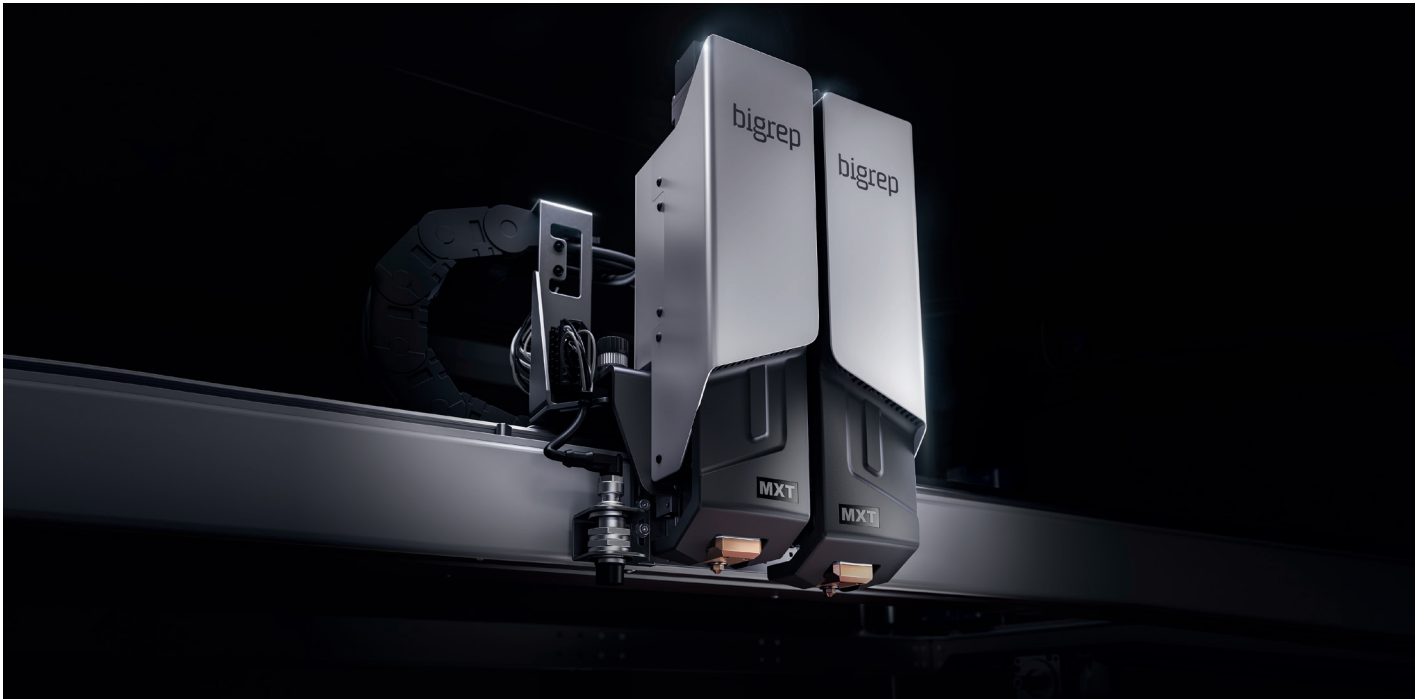
The CNC System

A new state-of-the-art Bosch Rexroth CNC motion-control system makes the PRO the ideal machine for controlling the entire printing process, from start to finish. Widely used in the automotive industry, the Bosch system ensures maximum responsiveness, accuracy and closed-loop control in BigRep's industrial-grade machine, as well as superior connectivity.

DISCOVER HOW INDUSTRIAL MANUFACTURERS USE THE PRINTERS

OUR NEW **METERING EXTRUDER TECHNOLOGY (MXT)**

BigRep has developed a metering extruder with exceptional speed and precision, which is one of the defining features of the PRO. The state-of-the-art extruder allows for ultimate control on large-scale industrial prints, allowing users to achieve the highest quality for every application.



With unmatched dynamic response for start, stop and corners, BigRep's Metering Extruder ensures precision and high print quality every time. Built for speed, the lightweight extruder is agile and reliable under pressure to deliver fast, detailed results.

BigRep's device accelerates print times with high material throughput. The extruder maximizes output, as an agile component German-engineered to print in high volume around the clock.

First Generation MXT Extruder

Nozzle size

0.6 mm

More nozzle sizes in development

Layer height range for 0.6 mm nozzle

0.1 mm - 0.4 mm

Max. throughput with 0.6 mm nozzle

16 mm/s

TECHNICAL SPECIFICATIONS

The BigRep PRO has been German-engineered for large-scale printing with industrial-grade materials, making it the ideal machine for manufacturing environments.

Build volume	x 1005 y 1005 z 1005 (mm)
Layer height resolution	0.1 mm - 0.8 mm*
Acceleration	Up to 10 m/s²
Extruder	Two MXT extruders MXT with 0.6 mm and 1 mm nozzle
Printing technology	FFF – Fused-Filament-Fabrication (Material Extrusion)
Certified BigRep materials	ASA, PA66 More engineering materials in development
Support materials	Soluble Plastics
Print bed temperature	Max. 99 °C
Printer weight	Approx. 1550 kg
Size	x 1950 y 2430 z 1790 (mm) – (Without tower light)
Power	3 X AC 400 V, 50/60 Hz, 5100 W
Safety certifications	CE approved

* Depending on selected extruder/ nozzle

The BigRep PRO has been specially designed to print with engineering-grade materials, to bring serious designs to life in all production environments. BigRep has developed its own filaments in these categories that have been optimized for high-level performance on the PRO. BigRep undertakes a rigorous testing and certification process, which underpins its material research and development – quality machines deserve the highest quality materials.

REDEFINING **ADDITIVE**

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