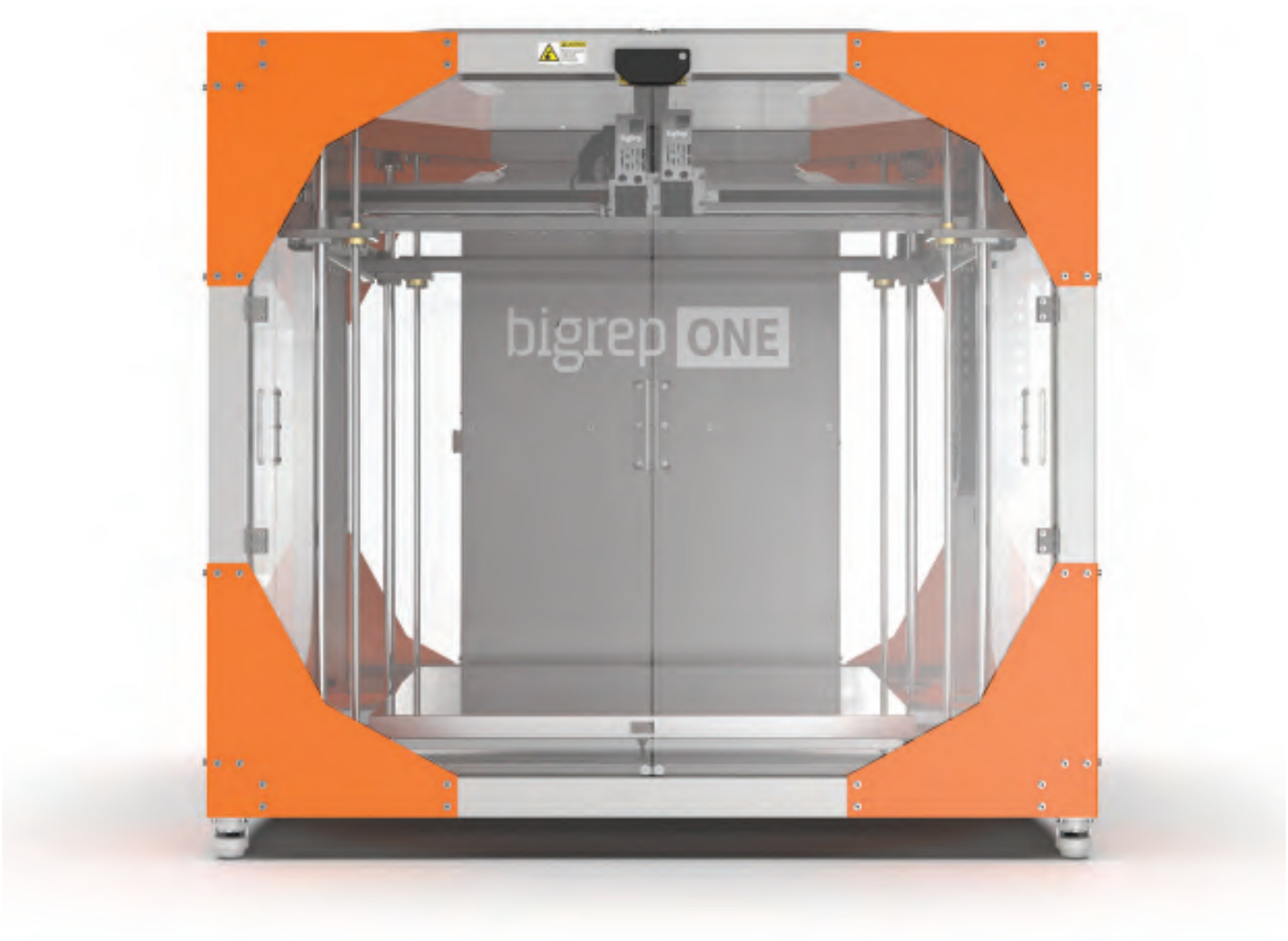
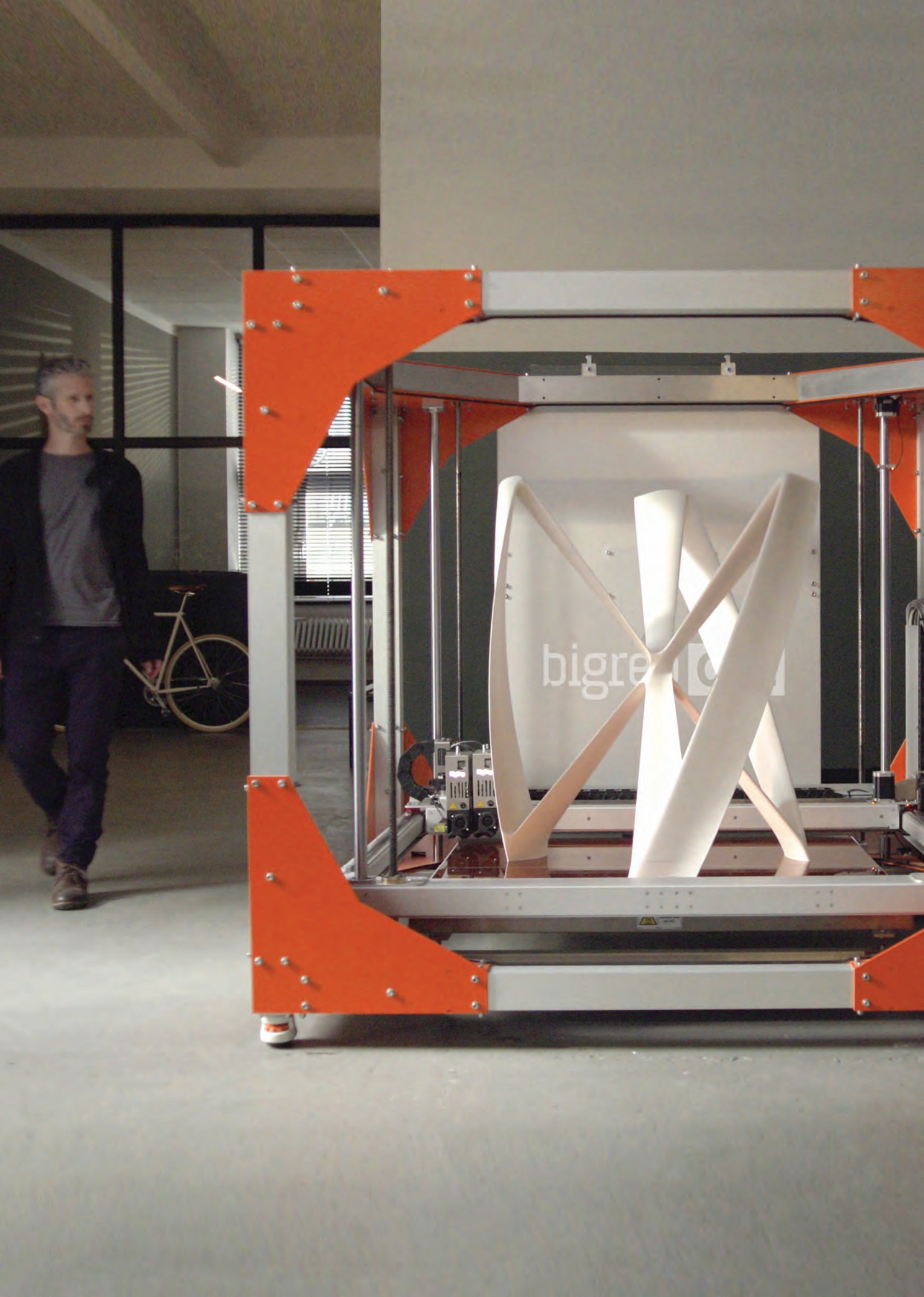
bigrep ONE

3D monotech



LARGE-SCALE **INNOVATION**.
LIMITLESS **CREATIVITY**.

1 m^3 for prototyping, production, and design applications.



bigrep ONE

AWARD-WINNING
INDUSTRIAL DESIGN FOR **BIG IDEAS**

The BigRep ONE is an award-winning, large-format 3D printer at an accessible price point. With over 500 systems installed worldwide, it's a trusted tool of designers, innovators, and manufacturers alike. Featuring a massive one-cubic-meter build volume, the fast and reliable ONE brings your designs to life in full scale.

Perfect for prototyping, production, and a wide range of applications, the ONE comes equipped with two BigRep fiber-ready Power Extruders (PEX) that feature interchangeable 0.6, 1.0 and 2.0 mm nozzles for maximum detail or high-flow additive manufacturing.

Configure your custom ONE and choose from single, dual, or twin extruder modes plus add-ons like an enclosed housing and even the printer's color to create the perfect machine just for you. As your 3D printing needs evolve, simply upgrade your ONE with additional features to grow along with you.

german brand award '18 winner

GERMAN DESIGN AWARD SPECIAL 2016

BIGREP ONE **INNOVATION LINE**

DESIGN & ARCHITECTURE

Whether it's fine art, museum displays, film props, or innovative installations, many BigRep customers agree that there is simply no other way to produce their large-scale creative projects. Applications using the BigRep ONE in architectural fields include custom interiors like functional sinks and decorative walls, as well as concrete formwork for unique architecture and restoration projects. By digitizing the fabrication process, designers open a door to a much wider spectrum of possibilities.

FORMS & MOLDS

3D printed patterns and molds can replace expensive CNC milled or hand-crafted traditional forms. By modernizing the first phases of numerous casting applications, the BigRep ONE allows you to produce in-house, iterate faster, cut material costs, and streamline logistics. BigRep customers use the ONE to print forms for making carbon-fiber parts like drones and custom auto bodies, for various kinds of concrete casting, and to produce patterns for anything from bathtubs to propellers.

PROTOTYPES

Producing prototypes quickly and cost-efficiently opens up new development and design possibilities for innovators. BigRep's large-scale 3D printing technology enables large numbers of iterations to be manufactured simply and quickly, without increasing costs. BigRep helped many customers completely transform their development processes resulting in better products, increased customization, and shorter lead times.

RESEARCH & EDUCATION

Many universities use the BigRep ONE to train their students using a pervasive technology to ensure quality, hands-on learning and research. Research teams test theories with rapid iteration and avoid third-party bottlenecks that slow down innovation. While your institution can save time and budget by eliminating external purchases, the biggest advantage for owning a BigRep machine is the chance to learn and experiment without limits.

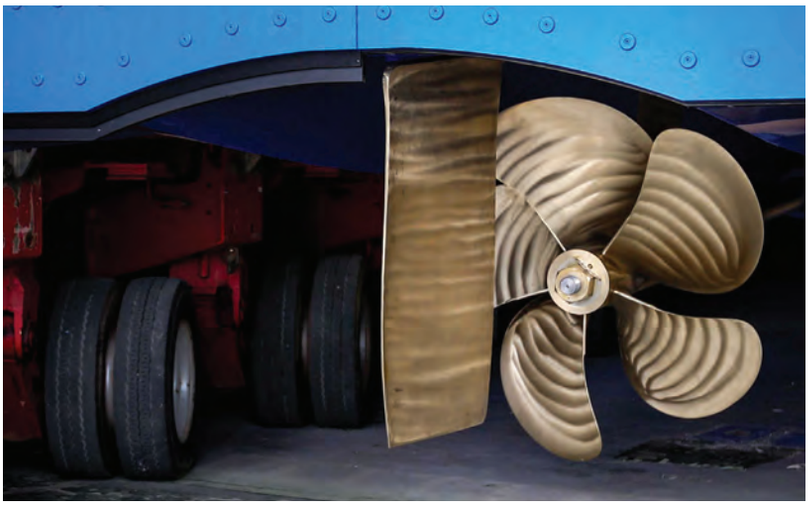
BIGREP ONE **CASE STUDIES**

CDM:Studio

3D Printed Museum Exhibitions

CDM:Studio created over 110 beautifully life-like dinosaur models in just 9 months. The massive project is part of the permanent exhibition at the Western Australian Museum. In the past, each full-scale model would have had to been hand-built with clay, but the BigRep ONE helped to keep the deadline by skipping the manual labor.

Scan to see more



CJR Propulsion

Sand Casting Custom Propellers

3D printing with the BigRep ONE helps CJR Propulsion maintain its competitive edge in customized, high-performance marine propellers by pushing innovation and reducing costs with faster, automated production. By digitizing production, you can break free of traditional process chains and avoid slow and expensive skilled manual labor.

Scan to see more

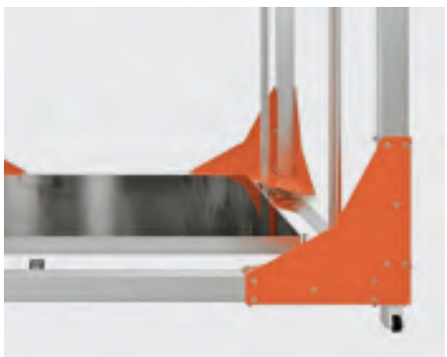
Steelcase

Revolutionizing Prototyping

Steelcase, a global leader in office furniture and space solutions, is using the BigRep ONE to print full-scale samples of new designs, to test how the final product fits in a working space. BigRep's large-scale 3D printing technology enables Steelcase to save on costs in product development, maximize design iteration, and get to market quicker.

Scan to see more

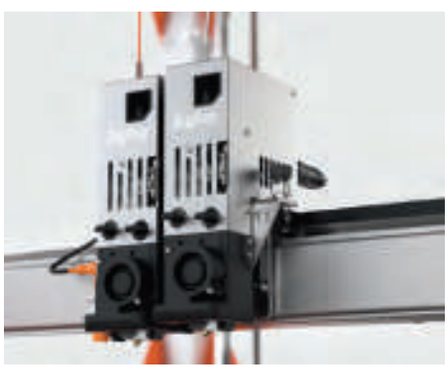
UNCOMPROMISING
GERMAN ENGINEERING
THE BIGREP ONE



Safe & Accessible

The Frame Construction

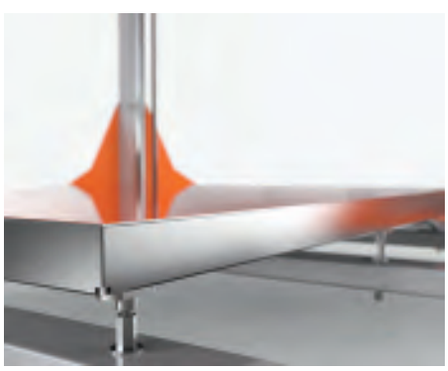
The open design ensures unobstructed print monitoring and easy access to the print bed. Check the print quality and progress at any time with access to the print bed from three sides. The optional **Enclosure Add-On** ensures a constant printing environment and provides CE-compliant operator protection.



Modular & Independent

The Fiber-Ready Power Extruder

BigRep's fiber-ready Power Extruder (PEX) is available for single or dual extrusion on the BigRep ONE. It consistently produces high-quality, full-scale parts in a range of BigRep filaments such as bio-polymers, water soluble support, and fiber-reinforced, as well as third party materials. Featuring interchangeable 0.6, 1.0 and 2.0 mm nozzles for maximum detail or high-flow additive manufacturing, the BigRep Power Extruder is a flexible solution for a variety of applications



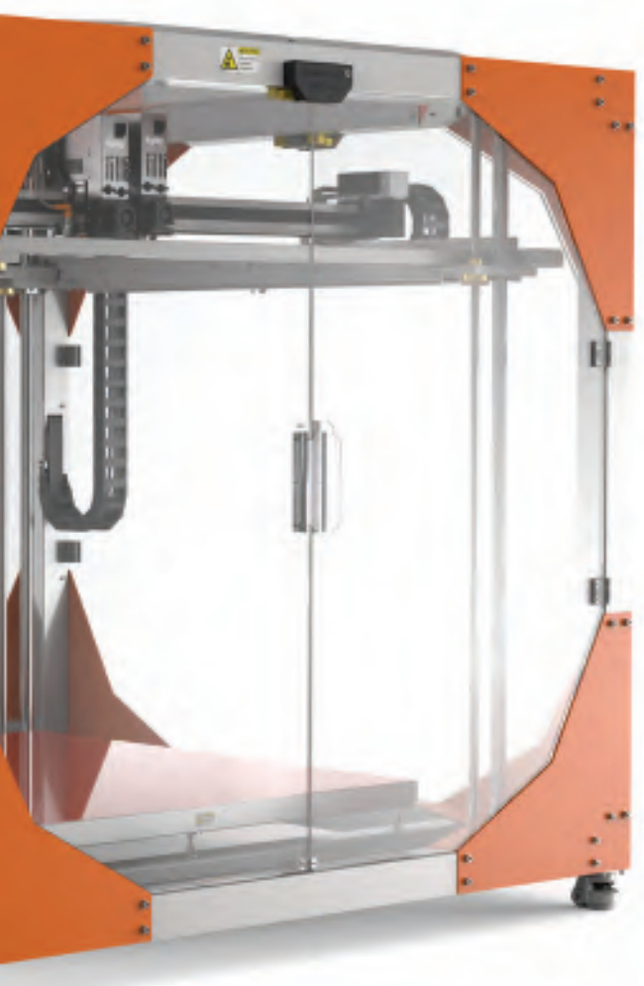
Consistent & Efficient

The Semi-Automatic Print Bed

The heated print bed is coated with a polyimide foil that provides optimal adhesion throughout the printing process. Thanks to an integrated inductive sensor, the ONE uses semi-automatic print bed leveling to streamline build platform calibration and ensure peak performance and consistent prints.

The BigRep ONE was developed to make 3D printing of large-scale objects as easy as possible. Every detail has received our full expertise and experience – for better quality, higher speed and increased safety.

BigRep large-scale 3D printers are German-engineered for high performance, around the clock. Made from the highest quality materials, and manufactured in the European Union, BigRep's workhorse machines are built to be reliable partners for innovation.



Large-Scale 3D Printing

The Massive Build Volume

With a one-cubic-meter build volume, the BigRep ONE is designed to produce massive 3D prints for demanding and geometrically complex applications. Go beyond the limited capabilities of smaller systems and use the ONE to print your parts in full scale.

Secure & Spacious

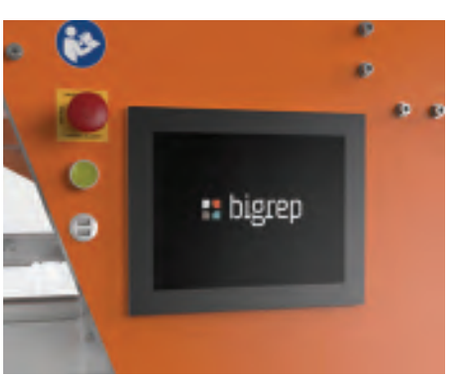
The Filament Enclosure

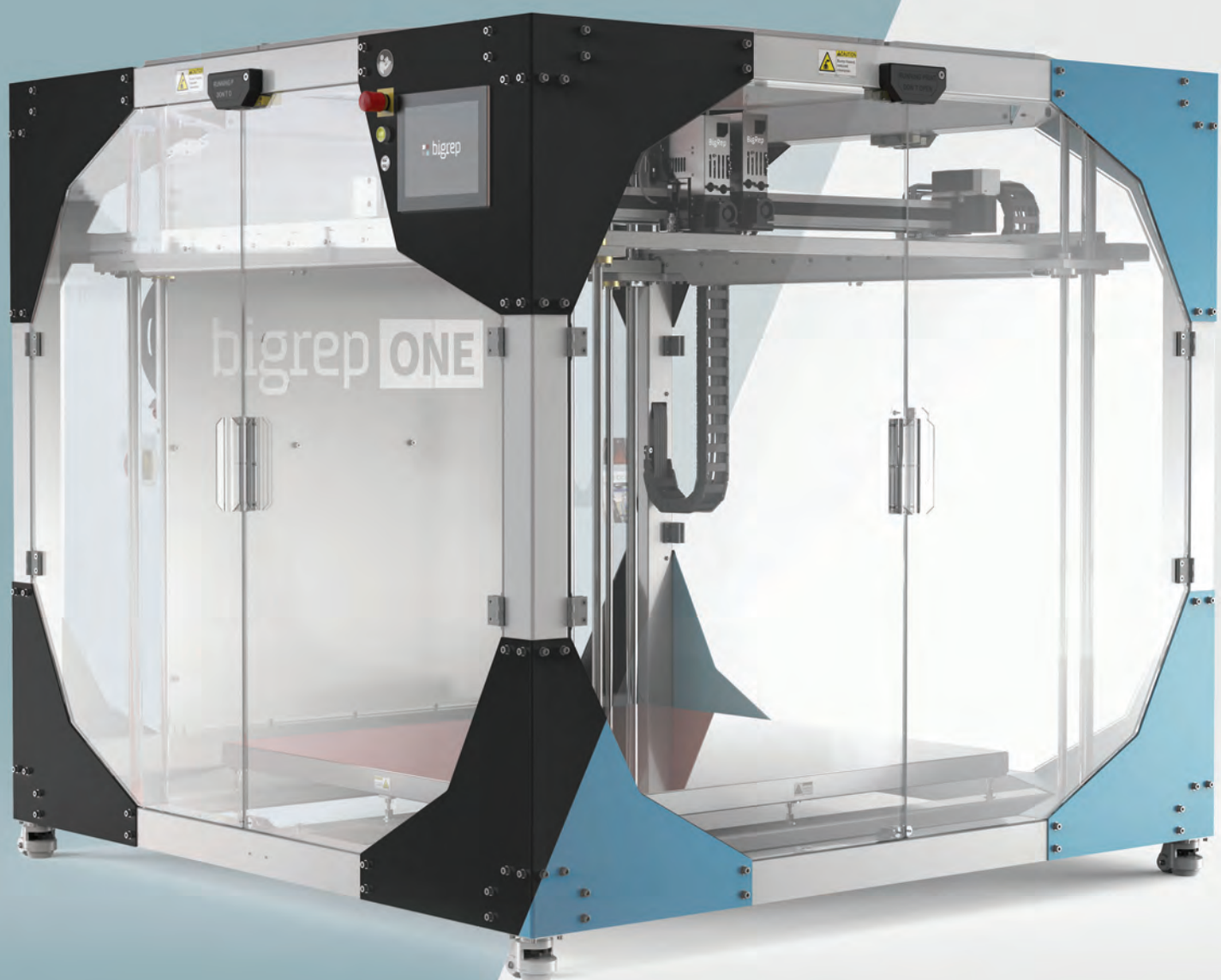
The newly designed filament enclosure ensures optimal material handling and fits all standard spool sizes, including two spools up to 8 kg. An out-of-filament sensor pauses printing so you can replace the empty spool, which is particularly useful for very large prints. The **Keep Dry Box Add-On** protects filament from moisture and dust.

Easy & Intuitive

The Graphical User Interface

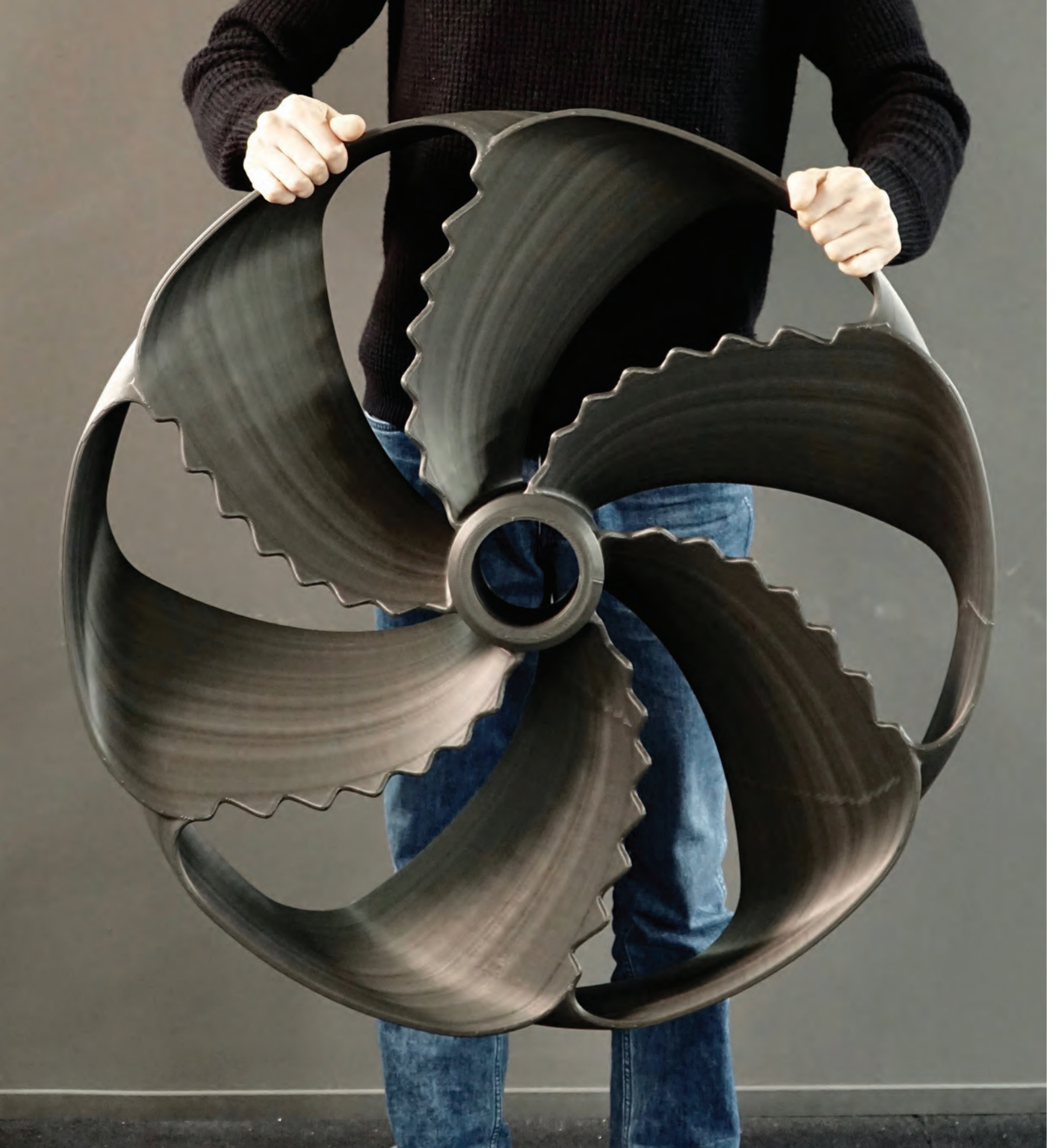
An intuitive user interface on the touch panel PC lets you access helpful features such as remote load, check print progress via webcam, change print parameters, resume print after power failure, and many more.





REDEFINING **ADDITIVE**

The BigRep ONE is suitable for a wide range of applications from rapid prototyping to end-use design products, patterns and molding. It provides you with affordable and easy-to-use technology for large prints and big ideas.



ENGINEERED IN GERMANY

Meticulously engineered in the German capital Berlin, BigRep ONE printers are serially produced in the European Union and put through the most rigorous quality tests to ensure optimal performance under pressure. This means BigRep's workhorse printers are made to last, produced using the highest quality materials and tailor-engineered open-source software. BigRep applies the same standards to its materials, producing high-performance filaments in cooperation with trusted suppliers, so you can consistently produce high-quality prints.

TECHNICAL **SPECIFICATIONS**

With a build volume of more than one cubic meter, the BigRep ONE was designed and constructed for countless printing hours, consistent quality and optimal results.

Version	**BigRep ONE.4**
Build volume	**x 1005 y 1005 z 1005 (mm)** / x 39.5 y 39.5 z 39.5 (inch)
Layer heights	**0.3mm, 0.6mm, 1.0mm** **Other layer heights supported through slicer software**
Max. speed | Max. acceleration	**500 mm/s | 400 mm/s²**
Extruder	Fiber-Ready Power Extruder (PEX) Interchangeable nozzles with fiber-ready 0.6mm / 1.0mm nozzles and high-throughput 2.0mm nozzle
Printing technology	**Fused Filament Fabrication (FFF / FDM)**
Materials	BigRep HI-TEMP, BigRep HI-TEMP CF, BigRep PETG, BigRep PLA, BigRep PLX, BigRep PRO HT, BigRep TPU 98A Open for use of 3rd party materials
Support materials	BigRep BVOH Open for use of 3rd party materials
Print bed temperature	**Max. 80 °C** (176 °F)
Printer weight	**Approx. 460 kg** (1,014 lb)
Size	**x 1850 y 2250 z 1725 (mm)** (x 72.8 y 88.6 z 67.9 inch)
Power	**208 V – 240 V, 16 A, 50 / 60 Hz**
Safety certifications	**CE approved** (with enclosure)

* Other layer heights supported through slicer software

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