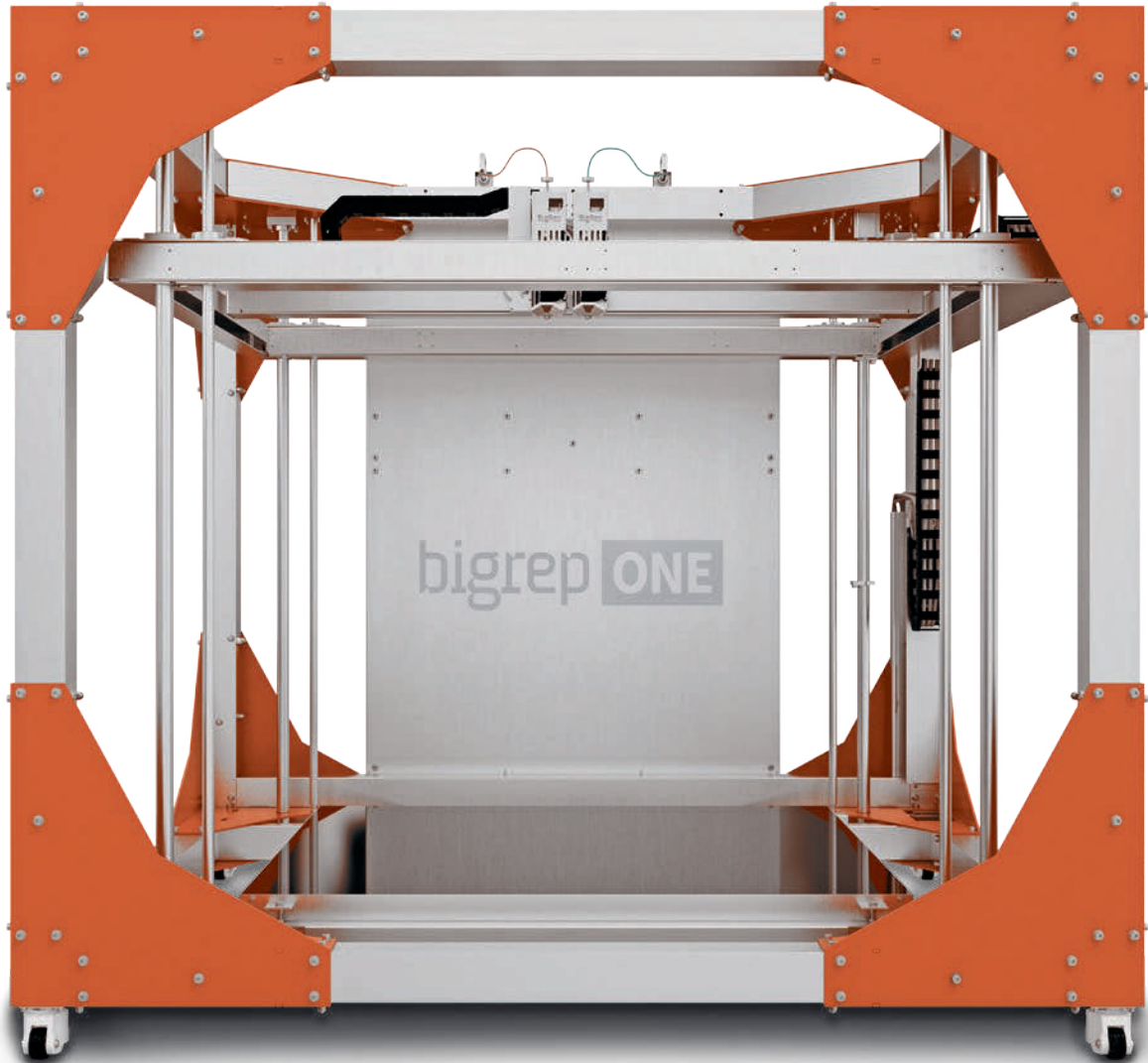


bigrep ONE



THE MOST ADVANCED **LARGE-SCALE**
3D PRINTING EXPERIENCE.

The large-scale FFF 3D printer for
professional and industrial use.

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

The driving force behind the BigRep ONE v3 remains unchanged: to make large-scale 3D printing affordable and available to more users.

To achieve the best possible conditions for printing large objects, a lot of new features have been introduced. Despite its open format, all the moving parts are safely enclosed. For an even higher safety an optional plexi glass door is available on request.

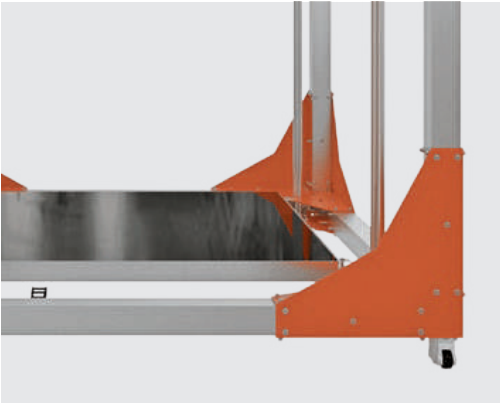
The large print bed has been further improved allowing for an even better calibration of the print bed. For large-scale prints, our new Power Extruder for 0.6 mm, 1 mm and 2 mm nozzles allows for printing with highest speed without compromising on print quality.

With the new BigRep ONE v3 we have made affordable, large-scale 3D printing even better – as acknowledged by the German Design Award 2016 we recently received.



UNCOMPROMISING GERMAN ENGINEERING — THE NEW **BIGREP ONE**

The BigRep ONE v3 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.



Open and Safe

The Frame Construction

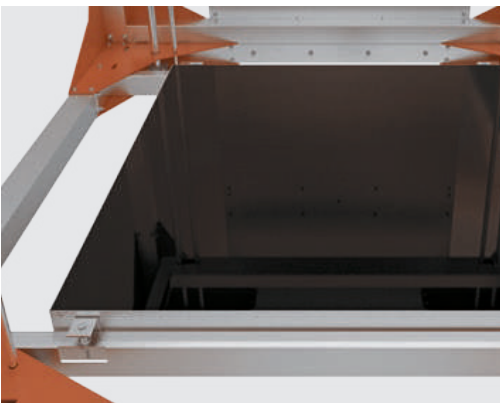
The open format ensures that the user has the best possible view for monitoring the quality and progress of the object at all times. Moving parts have been enclosed for user safety, aided by integrated sensors that ensure precision and user friendliness.



Modular and Independent

The Extruders

The modular print heads operate independently, allowing for unbeatable flexibility when printing in two colors or with a different support material (break-away or soluble). They can be easily adjusted and replaced without the need for tools. During the printing process, the inactive print head moves upwards slightly to avoid making contact with the object. The print heads were developed by BigRep's in-house team and optimized for large-scale printing projects.



Semi-automatic print bed levelling

The Print Bed

The heated print bed mounted with PI provides optimal adhesion in the printing process right from the onset. Thanks to the integrated automatic inductive sensor, the print bed can be leveled quickly and effortlessly, reducing prep time considerably.



Big, Bigger, the Biggest

The Build Volume

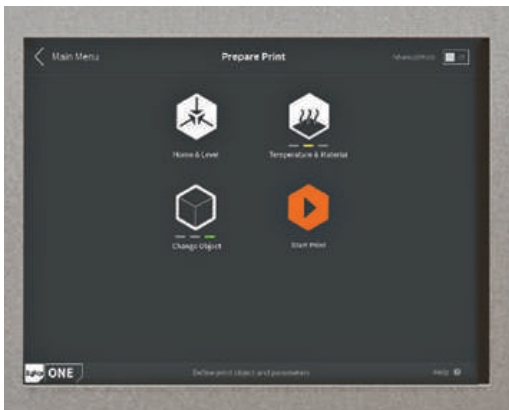
The new BigRep ONE v3 features a build volume of X 1005 mm x Y 1005 mm x Z 1005 mm. With a capacity of over one cubic meter, the new BigRep ONE v3 provides the largest serially produced FFF 3D printer currently available on the international market.



Spacious and Flexible

The Spool Holder

The spool holder was designed to fit all standard spool sizes. It can hold several spools up to 8 kg. A run-out detection system notifies the user when the spool is about to end. Optionally a filament enclosure box is available to protect filament from dust and moisture.



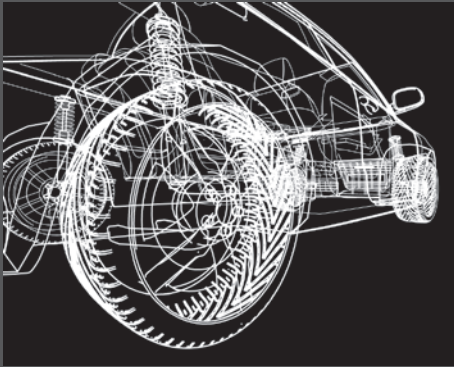
Easy and Intuitive

The Graphical User Interface

New intuitive user interface on touch panel PC, enabling lots of new features as remote load and check print progress via webcam, resume print after power failure and many more.

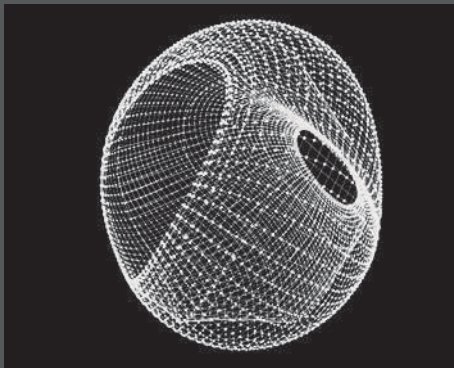
COST-EFFICIENT TECHNOLOGY FOR A BROAD RANGE OF **APPLICATIONS**

The BigRep ONE v3 sets new standards and offers a broad range of applications for large-scale 3D printing projects. It is easy to use and can be employed virtually anywhere, allowing for quick and cost-efficient manufacturing of prototypes, molds, and, in particular, final products.



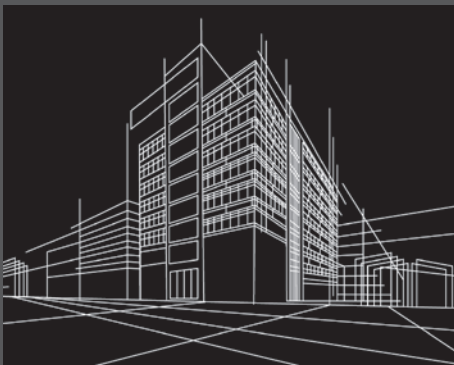
ENGINEERING AND RAPID PROTOTYPING

Being able to produce prototypes quickly and cost-efficiently opens up new development and design possibilities for industrial users. With the BigRep ONE v3 large numbers of iterations can be simply manufactured easily without incurring high costs. This means better products and shorter development times.



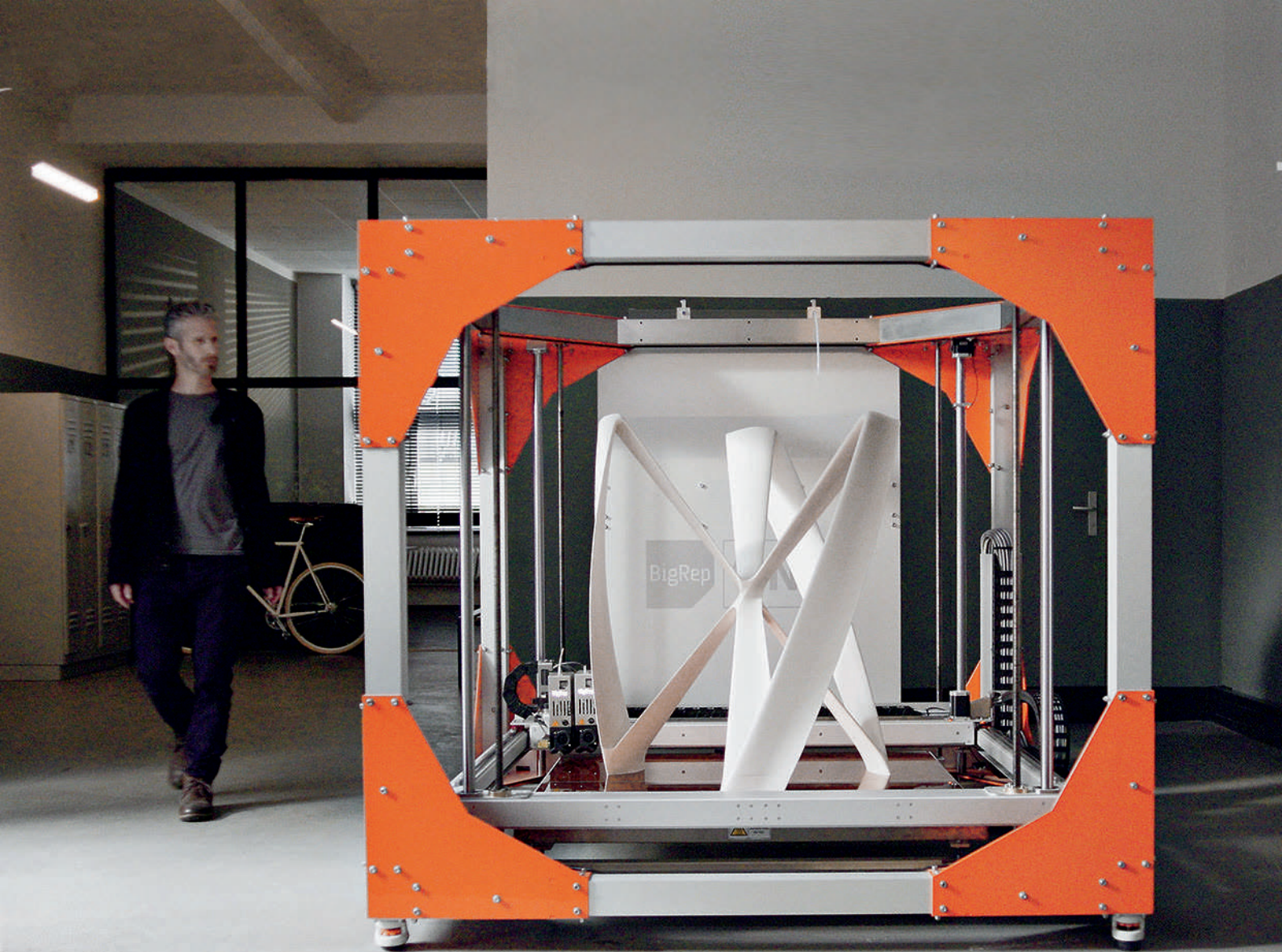
RESEARCH AND DEVELOPMENT

With the BigRep ONE v3 we provide a tool that offers new possibilities for teaching and research to students, teachers and scientists alike. The machine is easy to use, and its open format enables numerous users to observe and experiment with additive manufacturing processes while gaining experience in the production of large-scale objects.



ART, DESIGN, AND ARCHITECTURE

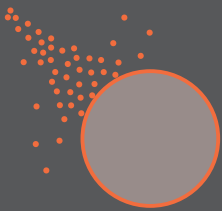
The BigRep ONE v3 is a tool that opens up previously inconceivable opportunities to designers, artists and architects. The BigRep ONE v3 can be installed virtually anywhere and put into operation after brief familiarization. Creative professionals can now



The new BigRep ONE v3 was created for a range of applications: from industrial rapid prototyping to ready-to-go design products – anything is possible. It provides you with affordable and easy-to-use technology for large objects and ideas. **Smart solutions for big prints.**

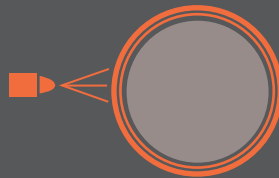
REFINE BIG PRINTS WITH **POST-PROCESSING**

Sometimes a 3D print serves as a blank. Objects printed with FFF can be treated and refined in various ways, for example by improving or modifying their surfaces or by using objects as positive or negative forms for molding and casting processes.



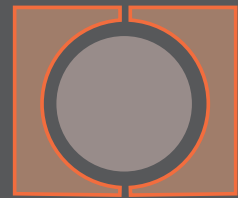
SMOOTHING AND FINISHING

Grinding, sandblasting, shot blasting and vapor steaming are the most common methods of finishing FFF 3D-printed objects. This enables the creation of prototypes which adequately convey the final product's look and feel.



COATING

Various coating methods help create true-to-form design prototypes out of 3D-printed objects. Coatings can also improve functional characteristics such as strength, temperature resistance and adhesiveness.



MOLDING AND CASTING

3D printing, and especially large-scale 3D printing, is an ideal tool for manufacturing positives for molds and casts. Injection molding, silicone molding and composite molding are the most commonly used techniques.

Effective and successful finishes require high-quality 3D prints. The BigRep ONE v3 modular print heads were developed from scratch by our in-house team and can be controlled independently. You can also vary the print speed and amount of material extruded by each print head during the printing process. Ensuring with this a clean dual-extrusion or multi-material print.



TECHNICAL SPECIFICATIONS

With a build volume of more than one cubic meter, the BigRep ONE v3 was designed and constructed for countless printing hours, consistent quality, and optimal results.

Build volume	x 1005 y 1005 z 1005 (mm)
Layer resolution	400 – 900 microns
Acceleration	Up to 400 mm/s²
Extruder	Two modular extrusion heads Standard Extruder for 1 mm nozzle High Power Extruder with 0.6 mm, 1 mm and 2 mm nozzles (option)
Printing technology	FFF – Fused-Filament-Fabrication (FDM)
Certified materials	BigRep PLA, BigRep Pro HT, BigRep PETG, Pro HS other filaments on request.
Support materials	BigRep PVA
Print bed temperature	Max. 80 °C
Printer weight	Approx. 460 kg
Size	x 1850 y 2250 z 1725 (mm)
Power	208 V – 240 V, 16 A, 50/60 Hz
Safety certifications	CE approved



FILAMENT

BigRep offers filaments designed especially for large-scale printing with the BigRep ONE. These filaments are manufactured under carefully controlled conditions to ensure a consistent diameter and thus consistent and precise construction of objects.

BigRep offers filaments that have been specially designed for large-scale printing and are made according to open-source designs, meaning there is no vendor lock-in for customers.



BIG PRINTS.

From experiments to complete furniture, from individual parts to objects composed of multiple materials, from the initial idea to the final product – anything is possible.



SMART SOLUTIONS FOR **BIG IDEAS**

