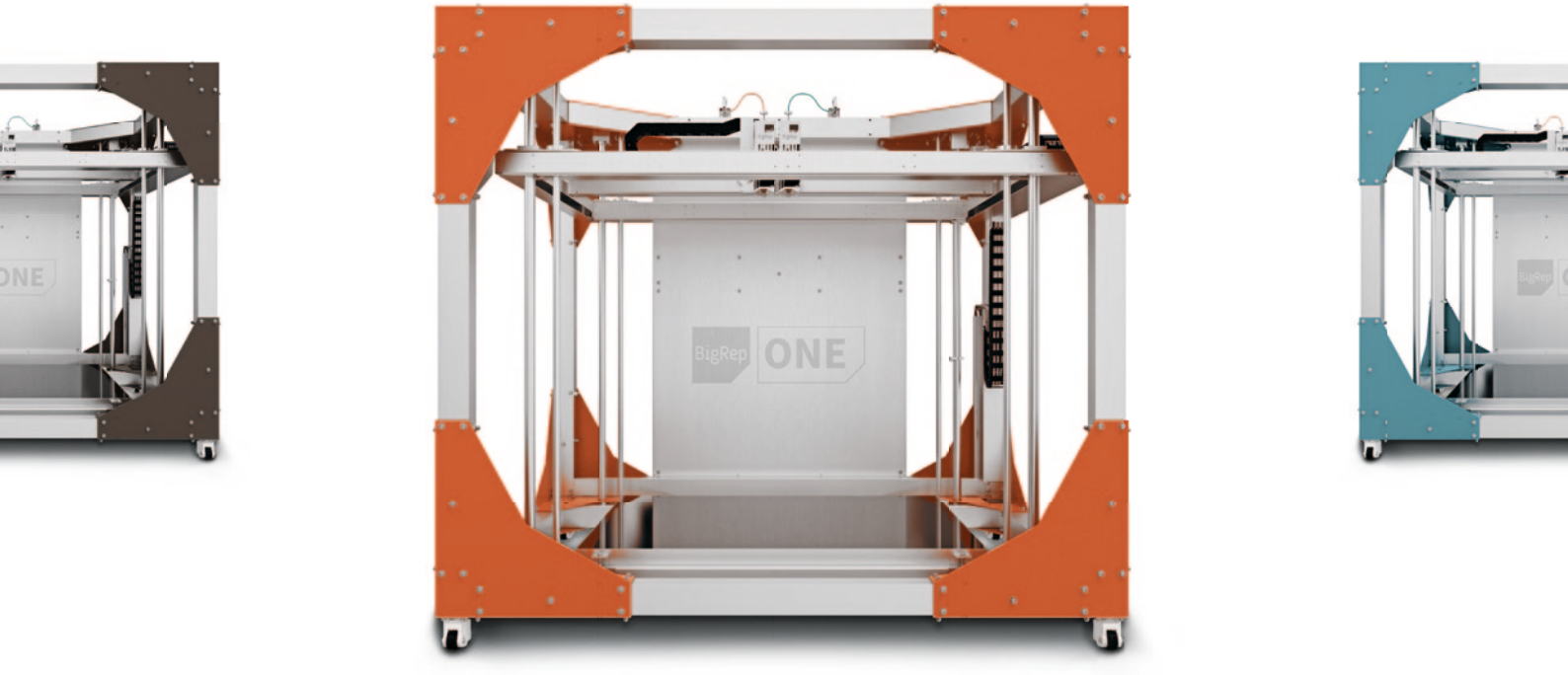
THE NEW ONE



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

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

BigRep ONE

Version 3

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. The modular print head has been completely redesigned, providing an ideal setting for manufacturing large-scale objects in combination with a larger flexible spool holder. The printing speed can now be increased to 400% with the optional Performance Kit, making the BigRep ONE v3 the fastest large-scale 3D printer in the world.

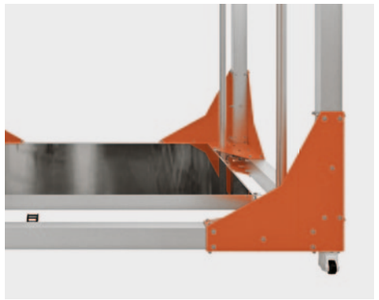
With the new BigRep ONE v3 we have made affordable, large-scale 3D printing even better – as acknowledged by the German Design Award 2016 we recently received.

GERMAN DESIGN AWARD 2016

M³ VOLUME

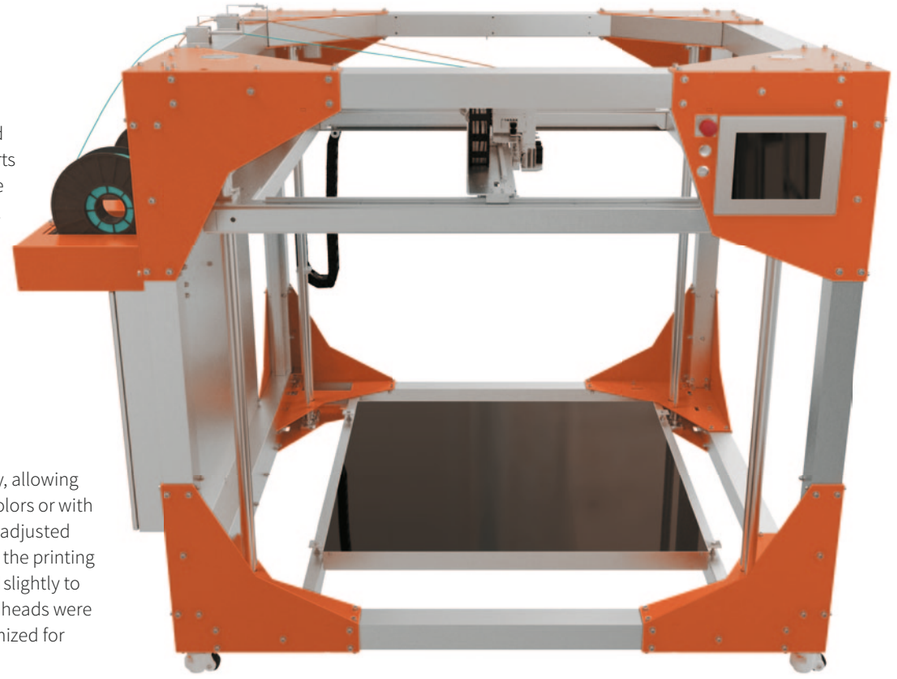
UNCOMPROMISING GERMAN ENGINEERING — THE NEW **BIGREP ONE**

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

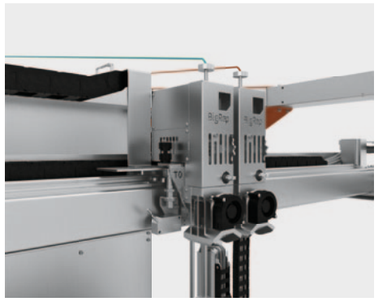
The open format ensures that the user has the best possible view for monitoring the quality and progress of the object at all times. All moving parts have been enclosed for user safety and to reduce contamination. Integrated sensors ensure safety, precision, and user friendliness.



The BigRep ONE v3 – the largest serially produced FFF 3D printer.

Big, Bigger, the Biggest
The Build Volume

The new BigRep ONE v3 features a build volume of X 1100 mm x Y 1050 mm x Z 1000 mm. With a capacity of over one cubic meter, the new BigRep ONE v3 provides the largest FFF build volume currently available on the international market.

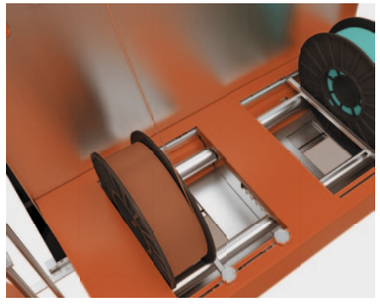


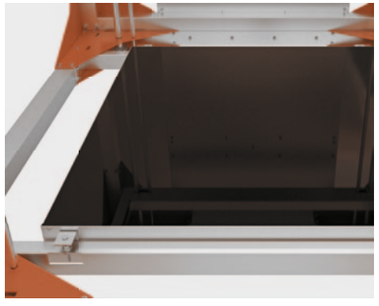
Modular and Independent
The Print Heads

The modular print heads operate independently, allowing for unbeatable flexibility when printing in two colors or with support material (PVA, HIPS). They can be easily adjusted and replaced without the need for tools. During the printing process, the active print head moves downward 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.

Spacious and Flexible
The Spool Holder

The spool holder was designed to fit all standard spool sizes. It can hold several spools up to 10 kg. The enclosed case* protects the filament. A run-out detection system notifies the user when the spool is about to end. (*Only available as part of the Advanced Kit)





Automatic Leveling
The Print Bed

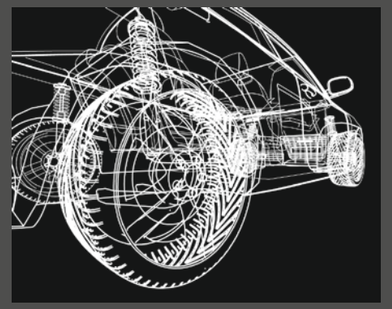
The heated print bed provides optimal adhesion in the printing process right from the onset. Thanks to the integrated automatic leveling laser, the print bed can be leveled quickly and effortlessly before a new project, reducing prep time considerably.

Easy and Intuitive
The Graphical User Interface

The BigRep ONE v3 is equipped with an integrated control unit and touch panel. The in-house designed graphical user interface allows you to conduct all necessary work steps and operations easily and intuitively. Additionally, a VPN tunnel enables BigRep's service team to perform service and maintenance.

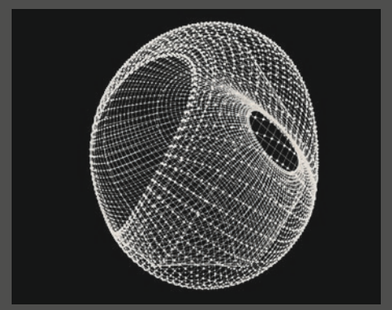
A **COST-EFFICIENT** TECHNOLOGY FOR A BROAD RANGE OF **APPLICATIONS**

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 quick and cost-efficient manufacturing of prototypes, molds, and, in particular, final products.



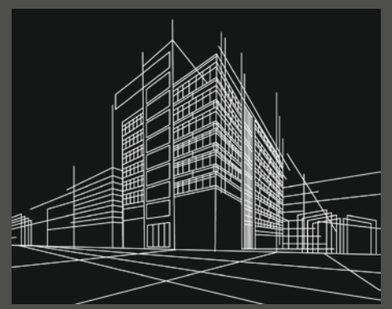
ENGINEERING AND RAPID PROTOTYPING

Being able to produce prototypes quickly and cost-efficiently opens new development and design possibilities for industrial users. With the BigRep ONE v3 large numbers of iterations can be simply manufactured 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, plus its open format enables numerous users to observe, and to experiment with additive manufacturing processes while gaining experience in the production of large-scale objects.



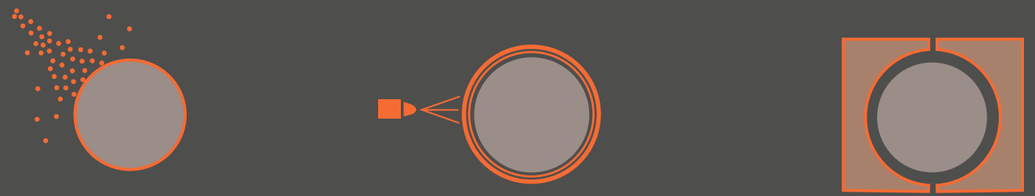
ART, DESIGN, AND ARCHITECTURE

The BigRep ONE v3 is a tool which 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 produce large objects in their own studios and workshops. Thanks to the cost-efficient technology, trying out various designs quickly and effortlessly is no problem. Even final products of up to one cubic meter in size can be manufactured with the BigRep ONE.

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. **Big Ideas. 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, and shot blasting as well as vapor steaming are the most common methods for finishing FFF 3D-printed objects. This allows the creation of prototypes which adequately convey the final product's look and feel.

Smartly combining design or construction and finishing results in usable and aesthetically sophisticated products.

COATING

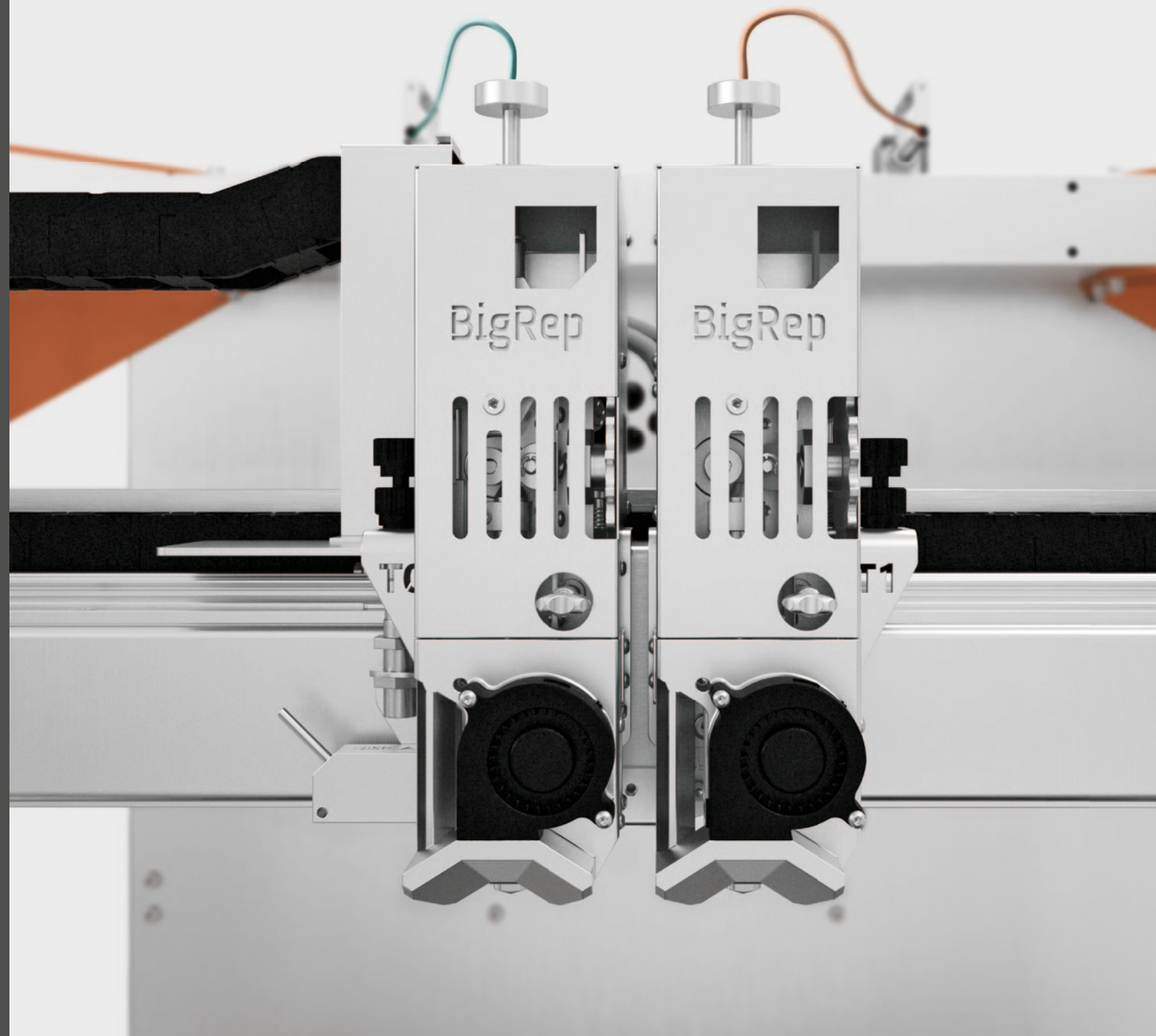
Various coating methods help create true-to-the design prototypes out of 3D-printed objects. Coatings can also improve functional characteristics such as strength, temperature resistance, and adhesiveness.

MOLDING AND CASTING

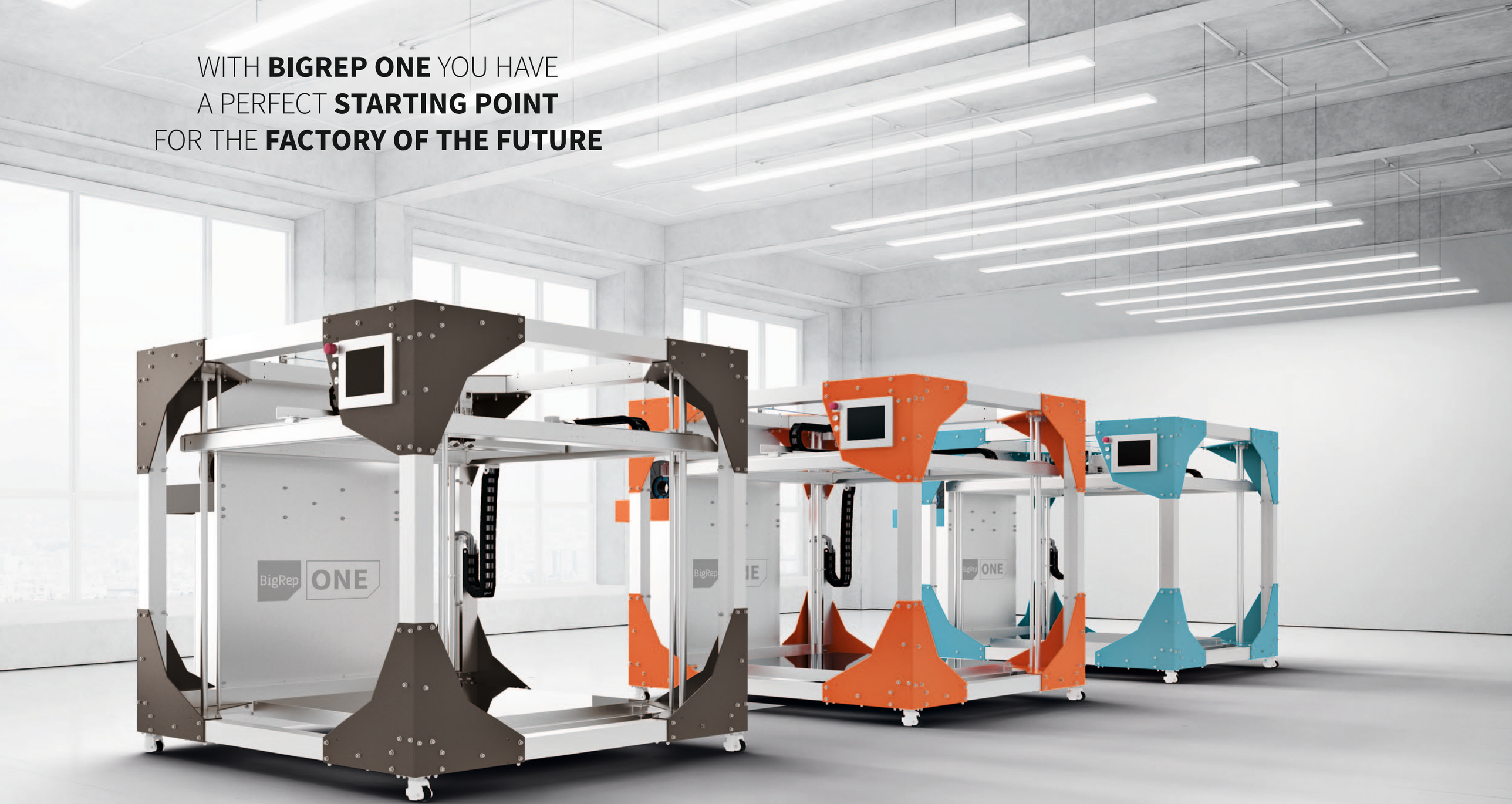
3D printing, and especially large-scale 3D printing, is an ideal tool for manufacturing positives for molds and casts. Injection molding, silicone molding, and composite molding are the most commonly used techniques.

The BigRep ONE v3 provides cost-efficient technology for the production of molds for large-scale prototyping and production processes.

Effective and successful finishes require good 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.



WITH **BIGREP ONE** YOU HAVE
A PERFECT **STARTING POINT**
FOR THE **FACTORY OF THE FUTURE**



For simultaneous use, several BigRep ONE v3 3D printers can be operated concurrently in what is referred to as a printer farm. Splitting print jobs among several machines increases efficiency, variability, and speed. You can also connect the BigRep ONE v3 to a 3D print processing software the same way.

In cooperation with Autodesk/Spark, we are researching and developing innovative and effective ideas for additive manufacturing and the factory of the future.

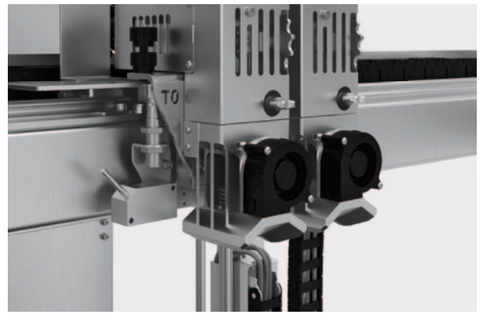
UPGRADE YOUR BIGREP ONE AND **EXPAND THE POSSIBILITIES**

In its basic configuration, the BigRep ONE v3 provides optimal printing results in many fields. For even better quality and safer as well as faster prints, two upgrade packages are available for the BigRep ONE.

ADVANCED KIT

For better quality, the Advanced Kit provides protection for the printing material by shielding it from exterior factors such as dust and humidity until in use. This is especially important when working with PVA (a support material), but also improves print quality for many types of PLA. Two cleaning stations for the nozzles, attached directly to the mobile XY frame, are easily accessible throughout the printing process. The package additionally includes filament rolls from BigRep.

The Advanced Kit also offers the possibility of monitoring and controlling the printing process remotely. A webcam is installed directly on the printer by BigRep and can be accessed via an app, which can also be used for performing simple operations.



PERFORMANCE KIT

The Performance Kit contains extended modular print heads with nozzle diameters of 2 mm. These larger diameters make it possible to produce large-scale prints up to 400 times more quickly than when using basic print heads.

The Performance Kit makes BigRep ONE v3 the fastest large-scale 3D printer on the international market. (Coming later 2016)

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.

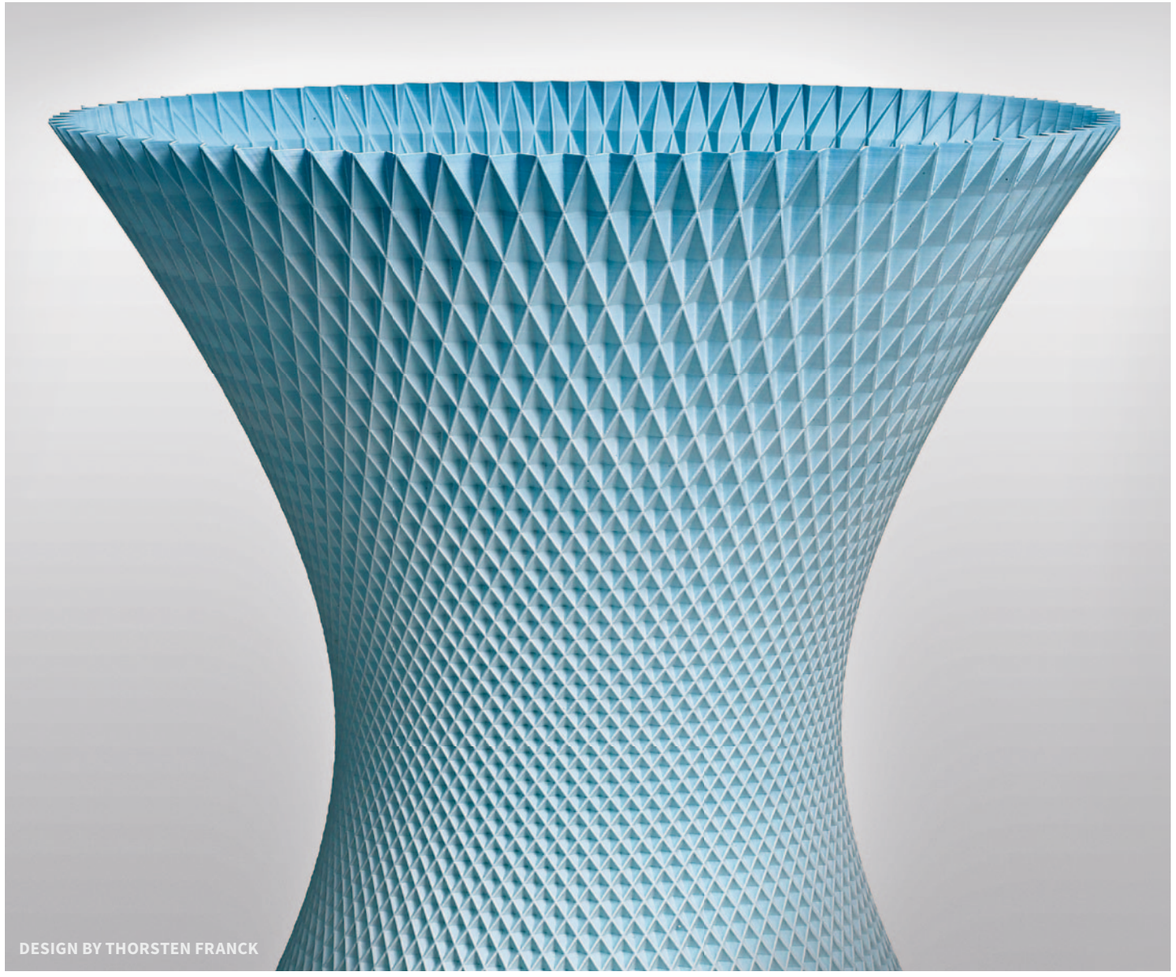
Alongside black and white, BigRep offers filament in various colors, all inspired by the city in which we were founded: Berlin. Please visit bigrep.com/shop to discover all options currently available.

TECHNICAL **SPECIFICATIONS**

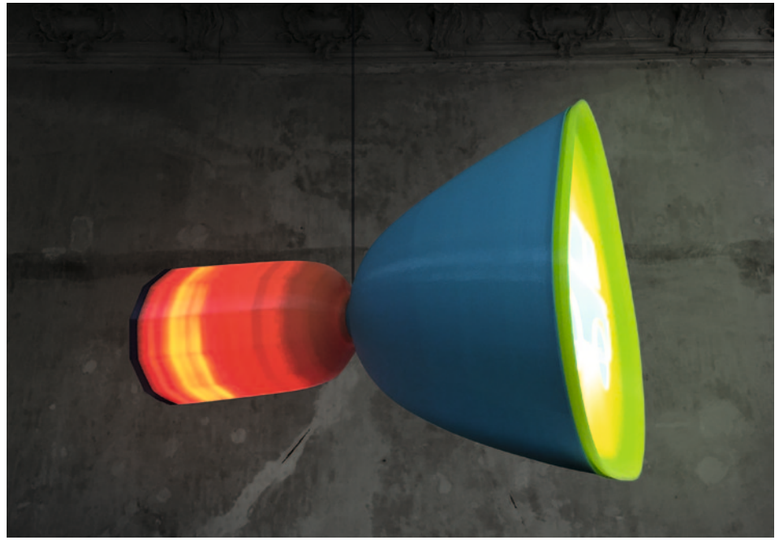
With a build volume of more than one cubic meter, the BigRep ONE v3 was designed and constructed for countless printing hours, consistent quality, and optimal results.

Build volume (mm)	**x 1005 y 1050 z 1000**
Layer resolution	**100 – 1000 microns**
Positioning accuracy	**100 microns**
Extruder	**Two modular extrusion heads**
Resolution of bed-leveling	**< 100 microns**
Fabrication methods	**FFF – Fused-Filament-Fabrication (FDM*)**
Printable materials	**PLA, PLA colored, PETG, PLA effects** (e.g., woodfill, bronzefill, ceramicfill, biofill, carbonfill)
Support materials	**PVA, HIPS**
Heating strategy	**Heated printing bed (80 °C)**
Printer weight	**Approx. 500 kg**
Size (mm)	**x 1850 y 2250 z 1725**
Power	**208 V – 240 V, 16 A, 50/60 Hz**
Safety certifications	**CE approved**
GUI	**Onboard with a top performance PC** **Remote app** for Linux, Mac OS X, Windows, iOS, Android

*registered trademark (Stratasys)



DESIGN BY THORSTEN FRANCK



BIG PRINTS.

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

BIG IDEAS.
BIG PRINTS.

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