

A man with a beard, wearing a green button-down shirt and blue jeans, is holding a large, black, 3D printed mechanical part. The part is a complex, curved structure with a central cylindrical opening and a serrated edge. He is standing in a factory or industrial setting, with a large 3D printer frame visible behind him. The printer has orange panels and silver metal supports. The background shows a clean, industrial environment with a brick wall on the right and overhead lighting fixtures.

Legacy of innovation. The original large format.

The BigRep ONE is an award-winning large-format 3D printer with a 1 m³ build volume, offering reliable, full-scale production at an accessible price. Already trusted worldwide, the new ONE.5X offers many automation features for easier, faster, and better industrial 3D printing.

A Decade of Proven Performance

Built on over a decade of innovation, the BigRep ONE delivers reliable, industrial-grade 3D printing at scale. Each generation improves strength, precision, and performance.

10+

Years of innovation

Over a decade of continuous development and real-world application. Proven performance across industries and evolving production needs.



5th Generation

Refined through five generations to improve strength, precision, and reliability. Built on experience and continuous engineering progress.

~500

Printers in use

Trusted by companies worldwide, from automotive to aerospace and design. Delivering consistent results across a wide range of applications.



2,000,000+ Printing hours

Tested in real production environments with millions of print hours. Designed for long-term performance and reliable operation.

BigRep ONE.5X Key Features

As one of the first large-format FFF 3D printers on the market, every new generation of the BigRep ONE builds on a legacy of strength, precision, and reliability, setting the standard for industrial 3D printing.



Build Volume

1 m³ full-scale printing

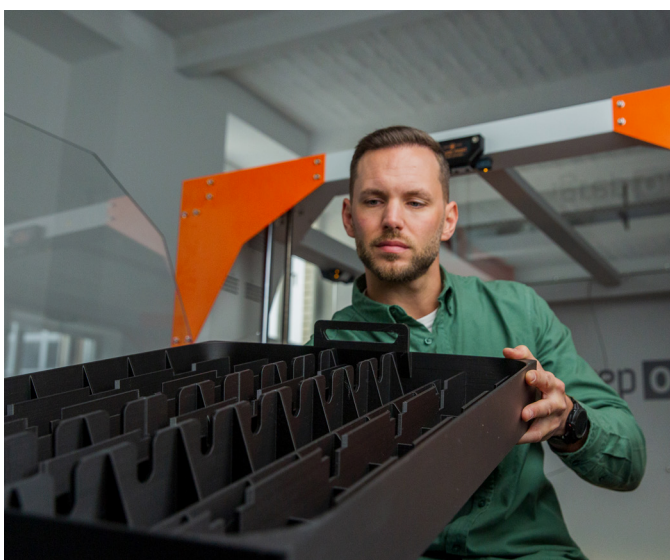
Print large, complex parts in a single run with a massive one-cubic-meter build volume. Reduce assembly, save time, and bring your designs to life at true scale.



Automation

Smarter, more efficient workflows

Automated calibration and adaptive leveling ensure accurate, repeatable results with minimal manual setup. Increase efficiency and keep production running with less downtime.



Performance

Smarter and faster results

Input shaping with advanced algorithms improve extrusion accuracy. Vibration compensation enables smoother prints at higher speeds with increased efficiency.



Reliability

Precise and consistent extrusion

Dual-drive feeding wheels ensure stable filament control for reliable, high-quality prints. Maintain consistent extrusion performance, even with flexible or demanding materials.

BigRep ONE.5X Key Features

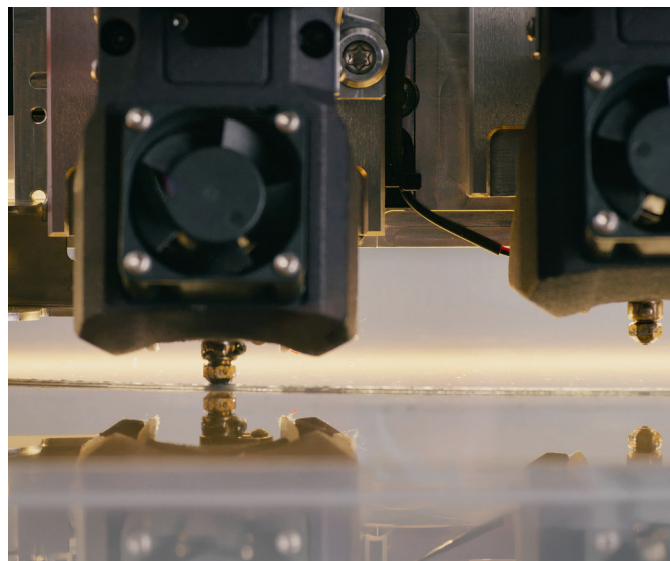
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Extrusion

High speed, high precision

The upgraded PEX2 extruders deliver higher flow rates for faster, more consistent prints. Switch between precision and high-throughput modes to match your needs.



Nozzles

Built for tough materials

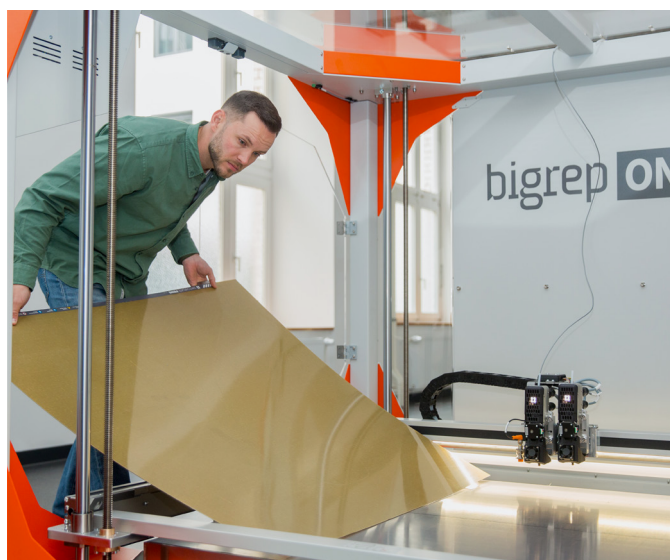
Durable diamond nozzles and an advanced hotend deliver fast heating and long-lasting performance. Print abrasive materials with minimal wear, clogging, or maintenance.



Filament

Protected and uninterrupted printing

The Keep-Dry Box protects filament from moisture and dust for optimal material handling. An integrated sensor pauses printing when needed, ensuring smooth, continuous production.



Print Bed

Flexible and reliable surface

The removable SWITCHPLATE ensures strong adhesion across different materials and easy part removal. Integrated sensors and assisted leveling provide stable, repeatable print results.

bigrep **SOFTWARE**

Software for Your Entire 3D Printing Workflow

Take full control of your 3D printing process with software built for efficiency and scale. From preparation to production, manage every step with speed, accuracy, and confidence.



bigrep **BLADE**

Prep Faster. Print Smarter.

Prepare prints faster with optimized settings and ready-to-use profiles. Reduce print time, minimize material use, and streamline production.

- ✔ Reduce print time and material waste
- ✔ Start faster with ready-to-use profiles
- ✔ Fine-tune settings with advanced control
- ✔ Plan production with automated batch tools

bigrep **CONNECT**

Your Portal to Productivity.

CONNECT is your all-access portal to the BigRep universe. From set up and training, to real-time monitoring and support, project management, and data analytics, you'll find it all in one connected platform.

- ✔ Instant access to training, knowledge, and support
- ✔ Manage all printers and organize projects
- ✔ Monitor performance and status in real time
- ✔ Optimize output with data insights



bigrep **SERVICE**

Training and Support for Peak Performance

Maximize uptime and performance with expert training and dedicated support. From setup to scaling, get the help you need to keep production running smoothly.



bigrep **CUSTOMER SERVICE**

Expert Help When You Need It Most.

Keep your operations running with fast response times and proactive maintenance. Get expert help when you need it and avoid costly interruptions.

- ✔ Access in-depth documentation anytime
- ✔ Fast support for troubleshooting issues
- ✔ Priority hotline for urgent requests
- ✔ Safeguard uptime with regular maintenance

bigrep **ACADEMY**

Expand Your Knowledge. Unleash Your Potential.

Build your expertise with structured training programs, from basics to advanced topics. Gain practical knowledge faster and apply best practices with confidence.

- ✔ Learn from beginner to advanced levels
- ✔ Speed up your learning curve
- ✔ Get certified with best practices



bigrep **FILAMENT**

Quality Filament for Every Application

Choose from a wide range of materials, from cost-efficient options to high-performance engineering filaments. Optimized for large-format 3D printing, each material is designed to deliver reliable, full-scale results.



Supported BigRep Materials

Get the most out of your printer with pre-configured material profiles. Each filament is tested and optimized to ensure consistent performance and reliable print quality.

BVOH

HI-TEMP

HI-TEMP CF

PLX

PRO HT

rPETG

rPLA

TPU 98A

Open Material System

Use the materials that fit your needs. BigRep printers support a wide range of third-party filaments, giving you full flexibility in your production setup.

- ✔ Compatible with standard filament formats
- ✔ Freedom to choose third-party materials
- ✔ Flexible for different applications



Technical Specifications

Materials

Supported Materials	BVOH, HI-TEMP, HI-TEMP CF, PLX, PRO HT, rPETG, rPLA, TPU 98A
Compatible Materials	Open material system, supports third-party filaments

Build & Dimensions

Build Volume	X 1005, Y 1005, Z 1005 mm (X 39.5, Y 39.5, Z 39.5 in.)
Dimensions	X 1848, Y 2070, Z 1668 mm (X 72.8, Y 81.5, Z 65.7 in.)
Weight	Approx. 635 kg (1,400 lbs)
Print Bed Temperature	Up to 80 °C (176 °F)
Print Bed Surface	SWITCHPLATE Prime / Classic

Extrusion

Extruders	Dual Power Extruder 2 (PEX2)
Nozzle Temperature	Up to 280 °C (536 °F)
Nozzle Sizes	0.6 / 1.0 / 2.0 mm
Layer Height	0.3 / 0.6 / 1.0 mm (Custom heights supported in BLADE)
Throughput	Up to 200 g/h
Filament Diameter	2.85 mm
Nozzle Type	Dianoz diamond nozzle

Automation

Out-Of-Filament Detection	✓
Pause and Resume Print	✓
Relay Mode (Backup Function)	✓
Adaptive Mesh Bed Leveling	✓
Automated Calibration	✓
Auto-Sequential Printing	✓
Input Shaping	✓

System

Material Storage	Optional Keep-Dry Box
Power	208–240 V, 16 A, 50/60 Hz
Certifications	CE compliant (Machinery Directive 2006/42/EC)



Find your freedom.

Reliable systems and
flexible solutions.

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