



# 3D SOLUTIONS FOR ADVANCED MANUFACTURING

Seamless workflow From early product concept to final production.

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### **About us**

Become the leading provider in 3D printer industry of unique 3D Printing and additive manufacturing solutions for innovation and technology in Israel. We offer hardware, software, materials and workflow management solutions for scaling from R&D into production across different applications and market verticals. We focus on excellency in everything we do, advancing with our customers to enable their success.

We place great importance on properly matching needs to the optimal technology and Additive Manufacturing Solutions for streamlining clients' production lines. We assist customers in creating processes that leverage 3D printing with a wide variety of materials. And we integrate these with management solutions, hardware, software, and industrial printing machines.

Ballistic Bit. Facilitating our customers, from characterization to equipment supply and installation, and supported by full service over the years. Our service orientation as a business with a global perspective is built on professionalism and thoroughness in the 3D printer industry.



### **Efficiency**

Among common complications experienced by manufacturers while navigating processes are timeline restrictions and costly prototypes.



#### **Professionals**

At Ballistic Bit, we're curious and passionate. We're curious about new technologies and innovation.



#### **Eco Systems**

We are tailors of industrial Additive Manufacturing suites.

## **Contact us**





ballistic-bit.com



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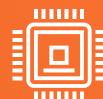




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## **3D Printing Equipment**





## **Hardware**

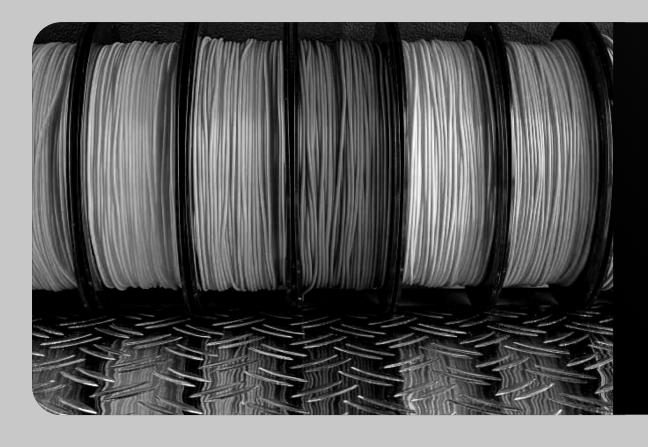
Cutting-edge, high performance industrial grade equipment.





## **Software**

Leverage production, reduce costs and increase reliability with industry-leading solutions.





## **Materials**

To ensure ultimate performance and production quality, we provide a range of engineering-grade materials.



## **Industrial 3D Hardware Solutions**

Cutting-edge, high performance industrial grade equipment.

Ballistic-bit offers a wide selection of industrial grade 3D printers to answer any engineering challenge, made to fill any business needs and budget. Our Industrial 3D printers selection offers additive manufacturing solutions by integrating wide verity of materials from the Metal to composite materials to polymers.



Industrial 3D Printing -A New Level of Design Freedom



### **Post Process**

Most 3D manufactured parts coming off the printer still require further processing before reaching the end user.





## **Industrial 3D Printers**

A New Level of Design Freedom

















### **3NTR 3D Printers**

Ultimately everything is here

- 3NTR Spectral 30
- 3NTR A4v4 \ 3NTR A2v4
- 3NTR A4sp 3D Printer
- Strom
- F1
- VENTO





## anisoprint

## **Anisoprint 3D printers**

Anisoprinting continuous 3D fiber printing solution

- Anisoprint Composer A3/A4
- Anisoprint PROM IS 500



### **EPLUS 3D**

### **Additive Manufacturing 3D Printing Solutions**

EP-M150

- EP-M650
- EP-M260
- EP-P420
- EP-M300
- EP-A350/450/650
- EP-M450H, EP-M450EP-A800





## **BUILDER**

## **Large Scale FDM Printer**

3D printer Builder one of the biggest industrial FDM 3D printers available today on the market and comes in 3 different sizes.

- Builder Extreme 1000 Pro
- Builder Extreme 1500 Pro
- Builder Extreme 2000 Pro
- Builder Extreme 3000 Pro



### **ATMAT 3D Printer**

3D printers, Industrial machines, robotised stations & processing lines production.

- Jupiter 3D Printer
- Saturn 3D Printer
- ATMAT Galaxy 3D Printer







### **UnionTech SLA 3D Printers**

A leader in the field of Stereo Lithography technology.

- Lite 450
- RSPRO 1400
- Lite 600
- RS PRO 2100
- Lite 800
- Cute 300
- Pilot 250
- Cute 380
- Pilot 450
- Evo Dent E140
- RSPRO 600
- UnionTech π200
- RSPRO 800
- UnionTech EvoDent S300



## **Bigrep 3D Printers**

LARGE-SCALE INNOVATION. LIMITLESS CREATIVITY.

- BigRep ONE
- BigRep PRO
- BigRep STUDIO

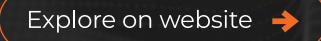






## **3NTR 3D Printers**

Ultimately everything is here



## **3NTR Spectral 30**

### For Extreme & complex 3D printing challenges







### **Specifications**

- Printing 4 nozzles x 1.75 mm filament Fully automated nozzle/plate
- levelling Drying 4 Vento drying units (5 kg spools max)
- Features Magnetic/vacuum tray holder High power liquid cooling
- 10" touch screen Jam detection **Endspool detection**
- Usable polymers Ultem AM9085F™: PEEK, PEKK, PAEK, PPSU, ABS, ABS ESD+, ABS HD, ABS FAST, ASA, CARBON+, IGLIDUR, NYLON+, nPOWER, GLASS+, PC ABS, PETG, ZWAX
- Temperatures Nozzles: 4 x 500° C (no soft polymer capabilities yet)
- **Plate:** 300° C
- Chamber: 250° C
- **Dryers:** 115° C
- Mechanicals Printing envelope: 300 x 300 x 300 mm
- Positioning precision (XYZ): 0.005 mm
- Brushless AC motors on XYZ axes
- Electrical Power supply: 380 V (EU) or 240 V
- Energy consumption: 3.6 A (average), 20 A (line input)
- Energy dissipation: TBA Measures size 1158(W)









## **3NTR A4v4 \ 3NTR A2v4**

### **Powerful & Compact 3D Printers**

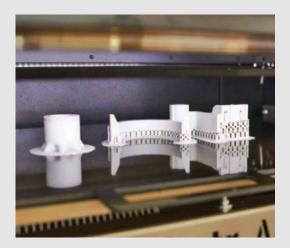


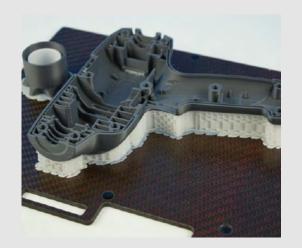




### **Specifications**

- Printing volume (max): 295x295x200 mm / 600x325x500 mm
- Nozzles: 3
- Nozzle temp. (max): 450'c
- Chamber temp. (max): 90'c
- Removable trays: Yes (carbon tray diamond)
- Mechanical precision (XY): 0.011 mm
- Usable polymers: ABS, ABS ESD+, ABS HD, ABS FAST, PC ABS, PETG, ASA, ELASTO 85 / ELASTO 95, ZWAX, IGLIDUR, NYLON+, **GLASS+, CARBON+, nPOWER**
- Elastomer print: Yes (opt.)
- Layer thickness (min/max): 0.1 / 0.6 mm
- Software and operating system: SSI on Windows 32/64
- Network connection: Optional
- Certifications: CE
- Peak current: 5 A/230V
- Measures size and weight: 528(L) x 515(P) x 615(H) mm Peso: 43Kgv







## **3NTR A4sp 3D Printer**





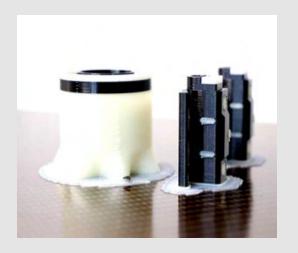




### **Specifications**

- Printing volume (max): 295x295x200 mm / 600x325x500 mm
- **Build size:** 300x171x200mm
- Extruder #1 of 2.85
- Extruder #2 and #3 from 1.75:
  - +Kit ABS (ABS 2.85 + SSU00 1.75)
  - +Kit AM200 ( AM200 + SP001, 1.75)
- Print Technology: FDM/FFF
- Material Compatibility: ABS, ABS FAST, ASA, ELASTO 85 / **ELASTO 95, NYLON+, GLASS+, CARBON+, PEAK AM200**
- Print Bed: Heated Carbon plate
- Printer Dimensions: 528x515x615mm
- Connections: remote capable









### **STORM**

### **Modular Drying Unit**







### **Specifications**

• **Weight:** 135 Kg

Voltage: 230 Vac

■ Max temperature: 115 ° C

Peak power (at 115 ° C): 2250 W \*

Average power(at 115 ° C): 1250 W \*

**UPS:** 1 unit 3000VA

Drying: Up to 3 VENTO units

• Air filter: 1 unit F1

Print server: 1

### F1

### **HEPA / VOC filter for 3D printers**



No matter what 3D polymer you are printing with, even the safest and most bio-based ones will emit micro- and nano-particles.

The F1 filter unit for 3ntr 3D printers is equipped with an industrial HEPA filter and an activated carbon filter and is designed to minimize the emission of both nano particles (over 0.5 microns), and volatile organic compounds, for a healthier work environment.



### Italian 3D printer filter

We have accepted no compromises: the **F1 unit's filter** cartridges are produced in Italy, for truly reliable performance. The quality is verified according to the BIA HI / 487 guidelines.

We want to reassure you further: The emissions of 3ntr 3D printers, even without a filter unit, are 20 times lower than those of a common office laser printer / copier. With the F1 unit you will further reduce these emissions.

### **Universal 3D printer filter**

F1 is the filter compatible with all 3ntr, A2 and A4 3D printers.

Its **installation** is also very **simple**: adding an F1 filter unit to any 3ntr printer does not require special skills (you just need to know how to use a screwdriver). The F1 filter unit can also be housed in a **STORM** modular unit.





## **VENTO**

## **Dryer Unit for 3D Printers**





### **Specifications**

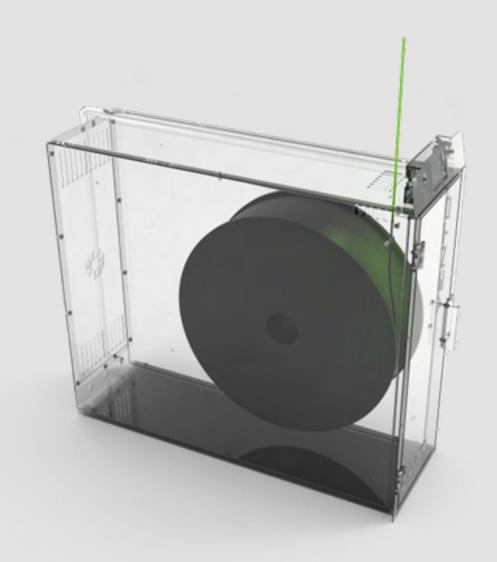
Weight: 25 Kg

Voltage: 230 Vac

Maximum temperature: 115° C

Peak power: 920 W

Average Power: 85 W







## **Anisoprint 3D Printers**

Anisoprint is offering a unique 3D printing solutions for composite 3D printing. With over of 10 years of experience in composite printing, Anisoprint makes a continuous 3D fiber printing a reality. Anisoprint's composite solution can print parts that are 30 times stronger than plastic, yet 7 times lighter then steel. This is possible because of the fully customizable lattice and fiber layout



Scroll down to view all printers



## **Anisoprint Composer A3/A4**

### **Desktop 3D Printer Composers**











### **Specifications**

- Printing technology: Composite Fiber Co-extrusion (CFC)
- Layer t hickness, min: 60µm

### **Print head**

- Dual nozzle: FFF ext ruder; CFC extruder with reinforcing filament cutting
- Nozzle diameter, FFF: 0.4 mm
- Print speed, FFF: 10 mm/sec 80 mm/sec
- Print speed, CFC: 1 mm/sec 10 mm/sec
- Plastic filament diameter: 1.75mm

## **Anisoprint PROM IS 500**

### Carbon fiber 3d printer







### **Specifications**

- Printing technology: Composite Fiber Co-extrusion (CFC) Fused Filament Fabrication (FFF)
- Layer thickness, min: 60µm
- Number of print heads: Up to 4
- Print head cooling system: Liquid
- Nuzzle diameter, FFF: 0.4mm... 1.5 mm
- Nuzzle diameter, FFF: 0.4mm... 1.5 mm

### Compatible plastics: Any plastic with processing

- PLA, ABS, PETG, PA (NYLON+), TPU Filament, PC, ASA SBS (Also any CF\GF filled plastics using hardend steel nozzle);
- High temperature plastics(up to 400C): PEEK, PEI

### **Reinforcing fiber:**

- Anisoprint CCF 1.5k (Composite Carbon Fiber).
- Anisoprint CBF (Composite Basalt Fiber).
- Anisoprint CCF 3k (Composite Carbon Fiber).





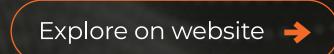






## **EPLUS 3D Printers**

Founded in 2014, EPlus3D has been in the forefront of AM technology providing industrial manufacturing solutions for 25 years. Specializing in MPBF™ (Metal Powder Bed Fusion), PPBF™ (Polymer Powder Bed Fusion) and Stereo lithography 3D printing technology, Eplus3D provides professional, provides professional application solutions for the fields of Aerospace, Automotive, Tooling, Health, Dental, Consumer Goods, Precision Manufacturing.





Scroll down to view all printers



## **High Compact & High Precision Metal Additive Manufacturing Equipment**







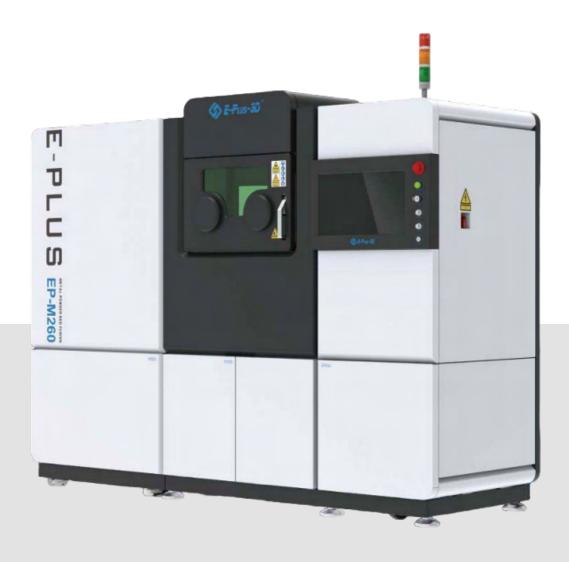


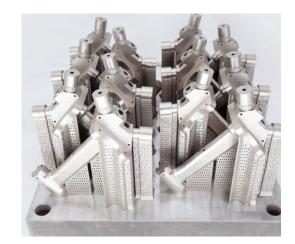


Machine Model	EP-M150	EP-M150 Dental	EP-M150 PRO
Build Chamber (XxYxZ)	Φ150mmx120mm <sup>3</sup>	Φ 153mmx80mm <sup>3</sup>	Ф153mmx240mm <sup>3</sup>
Optical System	Fiber Laser, 200W/500W (single or dual-laser optional)	Fiber Laser, 200W (single or dual-laser optional)	Fiber Laser, 500W (single or dual-laser optional)
Spot Size	40-70µm	70µm	70µm
Max Scan	8m/s	8m/s	8m/s
Building Speed	Single laser: 5~7.5cm³/h Dual laser: 8.5~12.75cm³/h	Single laser: 5~20cm³/h Dual laser: 8~35cm³/h	Single laser : 5~7.5cm³/h Dual laser : 8.5~12.75cm³/h
Layer Thickness	200W laser: 20µm -50µm 500W laser: 20µm-100µm	200W laser: 20µm -50µm	20μm -100μm
Material	Titanium Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy	Titanium Alloy, Cobalt Chrome	Titanium Alloy, Aluminium Alloy, Nickel Alloy, Maraging Steel, Stainless Steel,Cobalt Chrome, Copper Alloy
Power Supply	220V, 50~60Hz, 3KW, 16A	220V, 50~60Hz, 4.2KW, 14A (Dual laser: 5.8KW, 19A)	380V, 3P/N/PE, 50~60Hz, 12KW, 32A

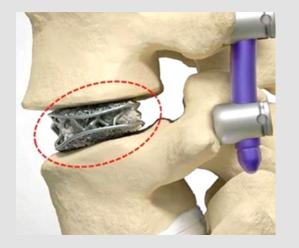


### An ideal additive manufacturing solution for medium size 3d printed parts and small batch production









### **Technical specifications**

Build Chamber (XxYxZ): 266x266x390mm³

Optical System: Fiber Laser, 500W/1000W

Spot Size: 80~120µm

Max Scan Speed: 8m/s

Building Speed: Single laser: 15~35cm³/h Dual laser: 25~55cm³/h

Layer Thickness: 20-120µm

• Materia: Titanium Alloy, Aluminium Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy

Power Supply: 380V, 50/60Hz, 10KW, 24A (Dual laser: 12KW, 30A)

Gas Supply: Ar/N2

Oxygen Content: ≤100 ppm

Dimension (WxDxH): 2800x1300x2410mm<sup>3</sup>

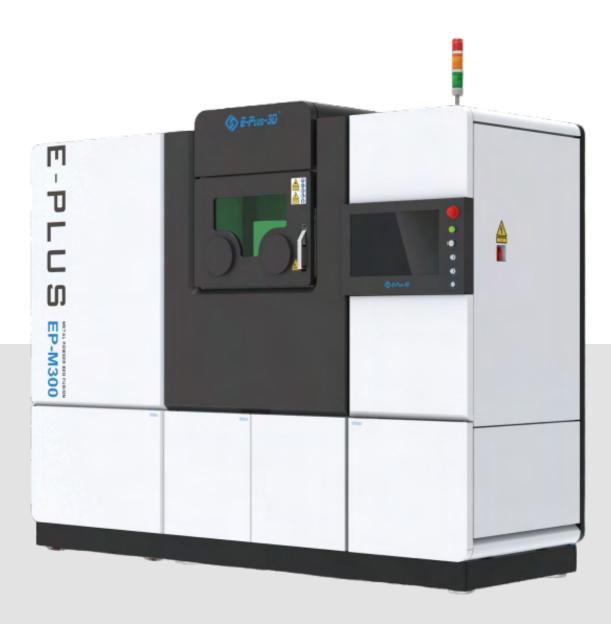
Weight: 2300kg

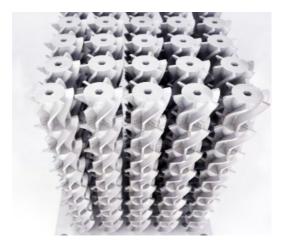
Software: EP Control, EPHatch

Input Data Format: STL or other Convertible File

### **High Productivity Metal AM Machine Metal Powder Bed Fusion**











- Build Chamber (XxYxZ): 305x305x450mm
- Optical System: Fiber Laser, 500W/1000W (single or dual-laser optional)
- Spot Size: 90-130µm
- Max Scan Speed: 8m/s
- Building Speed: Single laser: Single laser: 15~35cm/h Dual laser: 25~63cm/h
- Layer Thickness: 20-120µm
- Materia: Titanium Alloy, Aluminium Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy
- Power Supply: 380V, 3P/N/PE, 50 / 60Hz, 25kW, 65A
- Gas Supply: Ar/N2
- Forming chamber oxygen content: <100ppm</p>
- Dimension (WxDxH): 2990\*1320\*2590mm
- Weight: 2900kg
- Software: EP-Hatch, EP Contro
- Input Data Format: STL file or other convertible format

## EP-M450H, EP-M450



## Large Size & High Speed & Reliable Production Metal Additive Manufacturing System



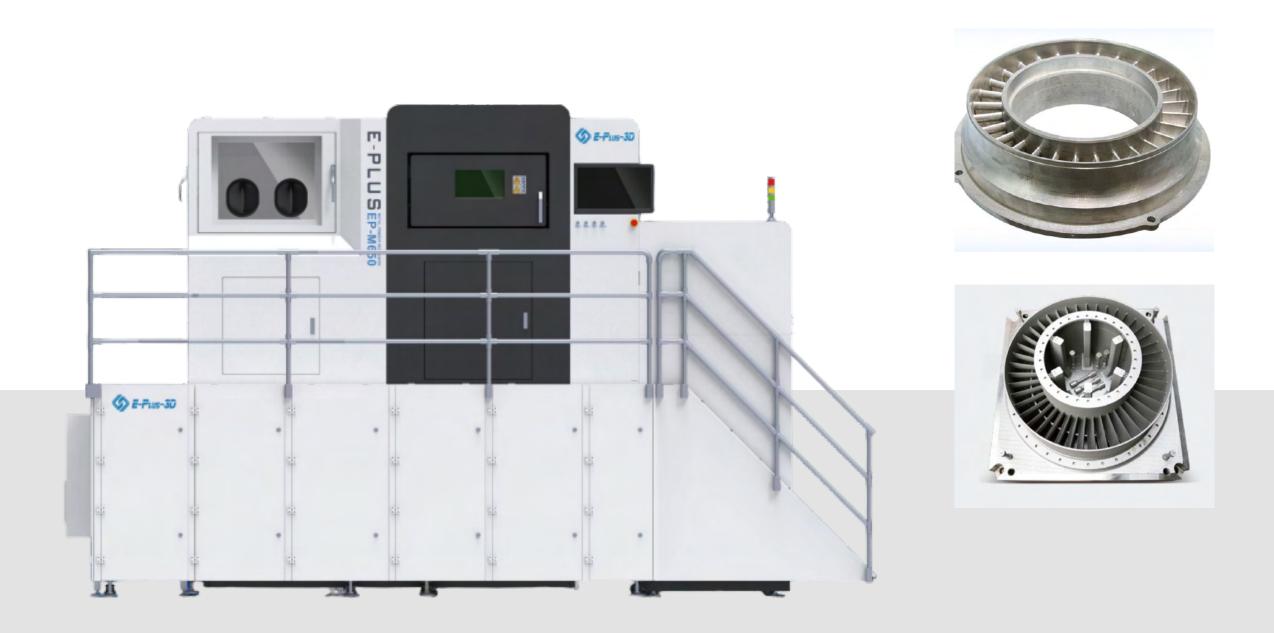




Machine Model	EP-M450H	EP-M450	
Build Chamber (XxYxZ)	455*455*1100 mm <sup>3</sup>	455*455*500 mm <sup>3</sup>	
Optical System	Machine Model Fiber Laser 500W/1000W (single or dual-laser optional)	Machine Model Fiber Laser 500W/1000W (single or dual-laser optional)	
Spot Size	90-130µm	90-130µm	
Layer Thickness	20-120µm	20-120µm	
Max Scan Speed	8m/s	8m/s	
Building Speed	Single Laser: 15~35cm³/h Dual Laser: 35~65cm³/h	Single Laser: 15~35cm³/h Dual Laser: 35~65cm³/h	
Material	Titanium Alloy, Aluminium Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt	380V, 50 / 60Hz, 21kW, 56A( Dual Laser: 23kW, 61A)	
Power Supply	380V, 50 / 60Hz, 25kW, 60A (Dual Laser: 27kW, 65A	Titanium Alloy, Cobalt Chrome	
Gas Supply	Ar/N2	Ar/N2	
Forming chamber oxygen content	< 100ppm	< 100ppm	
Dimension (WxDxH)	8250*3850*4750mm <sup>3</sup>	5700*3220*3090mm <sup>3</sup>	
Weight	15000kg	10000kg	
Software	EPLUS 3D, EPHatch	EPLUS 3D, EPHatch	
Input Data Format	STL file or other convertible format	STL file or other convertible format	

### **Quad Laser Large Size Metal Additive Manufacturing System**





- Build Volume (XxYxZ): 655x655x800mm³
- Optical System: Fiber Laser4\*500W
- Spot Size: 90-130um
- Max Scan Speed: 8m/s
- Building Speed: 120cm /h
- Layer Thickness: 20-120µm
- Materia: Titanium Alloy, Aluminium Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy
- Substrate heating: Substrate heating temperature 200c
- Power Supply: 380V, 3P/N/PE, 50 / 60Hz, 25kW, 65A
- Gas Supply: Ar/N2
- Forming chamber oxygen content: <100</p>
- Dimension (WxDxH): 5880\*3840\*3630mm
- Weight: 15000kg
- Software: EP-Hatch ,EP Control
- Input Data Format: STL file or other convertible format

#### **SELECTIVE LASER SINTERING 3D PRINTER**











- Build Volume (XxYxZ): 420×420×465mm³(L×W×H)
- **Dimension:** 1680\*1400\*2470mm³(X\*Y\*Z
- Gas Supply: N2
- Machine Weight: Approx. 2000kg
- Scanning Speed: Max. 13m/s, sky-writing
- Max. Chamber Temperature: 260C
- Power Supply: 380V, 50Hz 3-phase
- Layer Thickness: 0.06mm-0.30mm
- Laser Power: CO2 laser, 120W
- Scanning System: Dynamic scanning focus + High-precision galvo system
- Thermal Field Contro: Independent four-zone temperature control system
- Temperature Regulation: Continuous real-time building surface temperature monitoring
- Control Software: Eplus3D Printing Software
- Output Data Forma: STL .OBJ .STEP or other convertible file
- Material: PA11,PA12,PA6 and it's composites



## EP-A350/450/650

### **3D PRINTER STEREO LITHOGRAPHY**





Machine Model	EP-M150	EP-M150 Dental	EP-M150 PRO	
<b>Build Volume</b>	350 x 350 x 300 mm	450 x 450 x 350 mm	650 x 600 x 400 mm	
Layer thickness	mm~0.25 0.05 mm to choose	mm~0.25 0.05 mm to choose	mm~0.25 0.05 mm to choose	
Spot Size	mm~0.2 mm (standard) 0.08 mm~0.8 mm (optional Variobeam) 0.08			
<b>Build Accuracy</b>	08mm; .08%xL.	1mm; 1%xL.	1mm; 1%xL.	
Laser	Diode-pumped solid-state laser Nd:YVO4 wavelength:355 nm			
Scanning	15m/s (max)6-10 (typical)	15m/s (max)6-10 (typical)	15m/s (max)6-10 (typical)	
Dimensions	1100*950*1640 mm	1350*1200 *2050 mm	1500 *1300*2200 mm	
Net Weight	kg 440	kg 900	kg 900	
Resin	kg 70	kg 120	kg 250	



### **EP-A800**

### **LARGE SIZE PARTS & MASS PRODUCTION SOLUTION RESIN 3D PRINTER**













- Build Volume (X\*Y\*Z): 800mm\*800mm\*450mm The height can be customized up to 550mm)
- Build Accuracy\*: 015mm .15%xL
- Layer Thickness: 0.05mm~0.25mm
- Scan speed: Typical speed: 6-12m/s
- Max weight of one-time produced part: 120Kg
- Laser Optical scanning system: Galvanometer Scanners system
- laser: DPSSL (Diode-pumped solid-state laser), 3W
- Optical focusing system: F-theta lens
- Spot size: Invariant spot: 0.08-0.2mm Variant spot: 0.08~0.8mm (VarioBeam Module required
- Motion platform: Marble platform (00 level)



## **UnionTech SLA 3D Printers**

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Scroll down to view all printers



### **Lite 450**

### **Industrial Resin SLA 3d Printer**

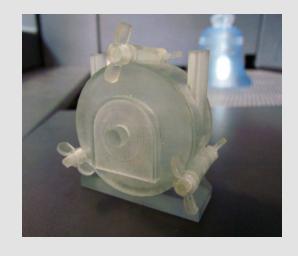




- Technology Type: Stereolithography (SLA)
- **Build Envelope Capacity:** 450 × 450 × 350
- Accuracy:
  - L < 100 mm: ±0.1 mm
  - L < 100 mm: ±0.1 mm
- Layer Thickness: 0.05 0.25 mm
- Recoater Frame: Granite
- Laser: 355 nm, solid-state frequency tripled Nd: YVO<sub>4</sub>
- laser: DPSSL (Diode-pumped solid-state laser), 3W
- **Beam Size:** 0.12 0.8 mm
- Scanning Speed: 8 15 m/s







## **Lite 600**

### **Industrial SLA 3D Printer**

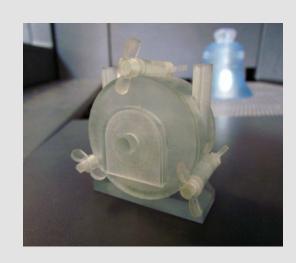




- Technology Type: Stereolithography (SLA)
- Build Envelope Capacity: 600 × 600 × 400
- Accuracy:
  - L < 100 mm: ±0.1 mm
  - L ≥ 100 mm: ±0.1% x L
- Layer Thickness: 0.05 0.25 mm
- Recoater Frame: Granite
- Laser: 355 nm, solid-state frequency tripled Nd: YVO<sub>4</sub>
- laser: DPSSL (Diode-pumped solid-state laser), 3W
- **Beam Size:** 0.12 0.8 mm
- Scanning Speed: 8 15 m/s







## **Lite 800**

### **Industrial SLA 3D Printer**





- Technology Type: Stereolithography (SLA)
- **Build Envelope Capacity:** 800 × 800 × 550
- Accuracy:
  - L < 100 mm: ±0.15 mm
  - L ≥ 100 mm: ±0.15% x L
- Layer Thickness: 0.07 0.25 mm
- Recoater Frame: Marble
- Laser: 355 nm, solid-state frequency tripled Nd: YVO<sub>4</sub>
- laser: DPSSL (Diode-pumped solid-state laser), 3W
- **Beam Size:** 0.12 0.9 mm
- Scanning Speed: 8 15 m/s (Typical) , 18 m/s (Maximum)







### Pilot 250

### **Industrial SLA 3D Printer**





- Technology Type: Stereolithography (SLA)
- **Build Envelope Capacity:** 250 × 250 × 250
- Accuracy:
  - L < 25.4 mm: ±0.025 mm
  - L ≥ 25.4 mm: ±0.1% x L
- Layer Thickness: 0.05 0.25 mm
- Recoater Frame: Granite
- laser: 355 nm, solid-state frequency tripled Nd: YVO<sub>4</sub>
- **Beam Size:** 0.06 0.8 mm
- Scanning Speed: 6 10 m/s







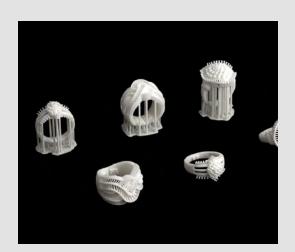
### **Industrial SLA 3D Printer**







- Technology Type: Stereolithography (SLA)
- Build Envelope Capacity: 450 × 450 × 400mm
- Accuracy:
  - L < 100 mm: ±0.1 mm
  - L ≥ 100 mm: ±0.1% x L
- Layer Thickness: 0.05 0.25 mm
- Recoater Frame: Granite
- Laser: 355 nm, solid-state frequency tripled Nd: YVO<sub>4</sub>
- **Beam Size:** 0.06 0.8 mm
- Scanning Speed: 6 10 m/s













- Technology Type: Stereolithography (SLA)
- Build Envelope Capacity: 600 × 600 × 500mm
- Accuracy:
  - L < 100 mm: ±0.1 mm
  - L ≥ 100 mm: ±0.1% x L
- Layer Thickness: 0.05 0.25 mm
- Recoater Frame: Granite
- Laser: 355 nm, solid-state frequency tripled Nd: YVO4
- **Beam Size:** 0.12 0.2 mm
- Scanning Speed: 6 10 m/s









### **Industrial SLA 3D Printer**







- Technology Type: Stereolithography (SLA)
- **Build Envelope Capacity:** 800 × 800 × 550 mm
- Accuracy:
  - L < 100 mm: ±0.15 mm
  - L ≥ 100 mm: ±0.15% x L
- Layer Thickness: 0.07 0.25 mm
- Recoater Frame: Granite
- Laser: 355 nm, solid-state frequency tripled Nd: YVO<sub>4</sub>
- **Beam Size:** 0.12 0.2 mm
- Scanning Speed: 6 10 m/s







#### **Mid Size SLA 3D Printer**





- Technology Type: Stereolithography (SLA)
- Build Envelope Capacity: 1400 × 700 × 500 mm
- Accuracy:
  - L < 100 mm: ±0.2 mm
  - L ≥ 100 mm: ±0.2% x L
- Layer Thickness: 0.1 0.25 mm
- Recoater Frame: Granite
- Laser: 355 nm, solid-state frequency tripled Nd: YVO4
- **Beam Size:** 0.12 0.2 mm
- Scanning Speed: 6 10 m/s







### **Large SLA 3D Printer**





- Technology Type: Stereolithography (SLA)
- Build Envelope Capacity: 2100 × 700 × 800 mm
- Accuracy:
  - L < 100 mm: ±0.2 mm L ≥ 100 mm: ±0.2% x L
- Layer Thickness: 0.1 0.25 mm
- Recoater Frame: Granite
- Laser: 355 nm, solid-state frequency tripled Nd: YVO<sub>4</sub>
- **Beam Size:** 0.1 0.85 mm
- Scanning Speed: 8 15 m/s







### **Cute 300**

#### **Industrial DLP 3D Printer**







# **Technical specifications**

Technology Type: Digital Light Processing (DLP)

Build Envelope Capacity: 250 × 140 × 240 mm

• Accuracy: ±0.05 mm

Printing Speed: 40 mm/h • **Resolution:** 3840 x 2160 HD

Light Source: UV LED

Projection Method: Bottom-up projection

**Layer Thickness:** 0.05 - 0.1 mm

■ Pixel Size: 65 µm

Wavelength: 405 nm







## **Large Industrial DLP 3D Printer**







### **Technical specifications**

Technology Type: Digital Light Processing (DLP)

■ Build Envelope Capacity: 384 × 216 × 300 mm

• Accuracy: ±0.06 mm

Printing Speed: 40 mm/h

• **Resolution:** 3840 x 2160 HD

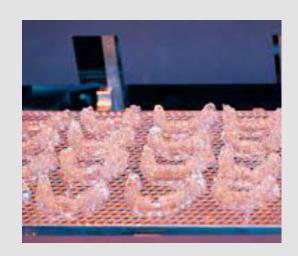
Light Source: UV LED

Projection Method: Top-down projection

Layer Thickness: 0.1 mm

₽ixel Size: 65 µm





## **UnionTech EvoDent S300**



### A Precision, Quality and Reliability 3D printer for Dentistry.







### **Technical specifications**

Technology Type: Digital Light Processing (DLP)

■ Build Envelope Capacity: 249.6 x 140.4 x 240 mm

• Accuracy: ±0.05 mm

Printing Speed: 40 mm/h • **Resolution:** 3840 x 2160 HD

Light Source: UV LED

Projection Method: Buttom-up projection

**Layer Thickness:** 0.05 - 0.1 mm

■ Pixel Size: 65 µm





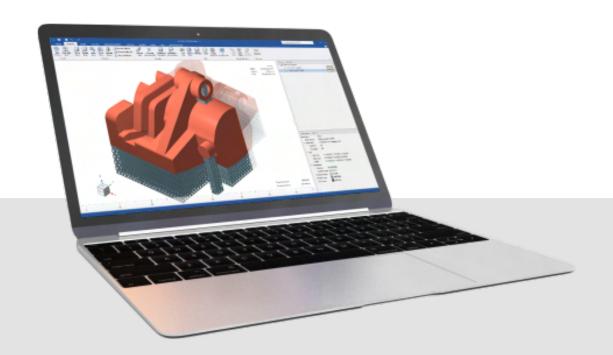


### **EvoDent E140**

#### **Chairside 3D Printer**







### **Technical specifications**

Technology Type: Digital Light Processing (DLP)

**Build Envelope Capacity:** 144 x 81 x 80 mm

• Accuracy: ±0.05 mm

Printing Speed: 40 mm/h • **Resolution:** 1920 x 1080 HD

Light Source: UV LED

Projection Method: Buttom-up projection

**Layer Thickness:** 0.05 - 0.1 mm

■ Pixel Size: 75 µm





# UnionTech π200

### **Ulter-precision DLP 3D Printer**





### **Technical specifications**

Technology Type: Digital Light Processing (DLP)

Build Envelope Capacity: 192 × 108 × 200 mm

• Accuracy: ±0.05 mm

Printing Speed: 40 mm/h • **Resolution:** 3840 x 2160 HD

Light Source: UV LED

Projection Method: Buttom-up projection

**Layer Thickness:** 0.05 - 0.1 mm

Pixel Size: 50 µm







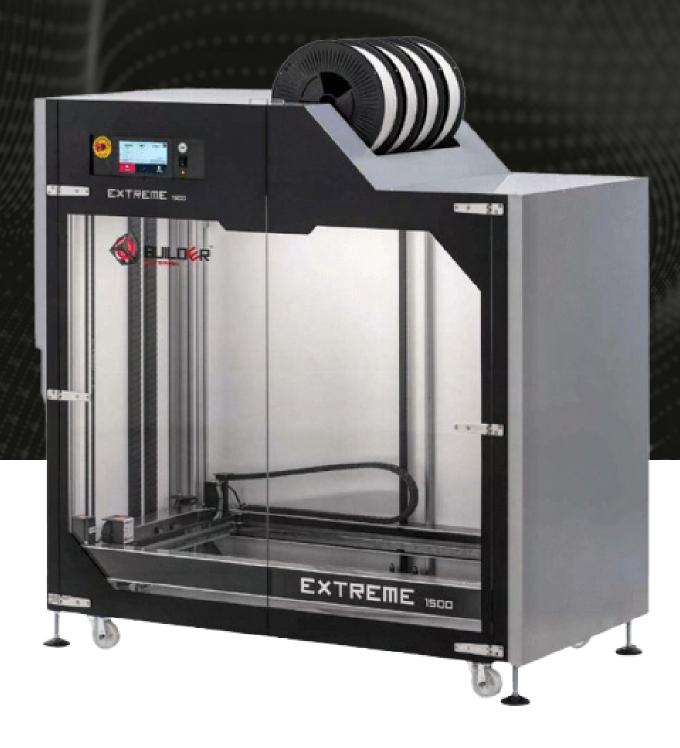
# BUILDER

# **Large Scale FDM Printers**

3D printer Builder one of the biggest industrial FDM 3D printers available today on the market and comes in 3 different sizes.

All the models come with Builder's self-developed Dual-Feed extruder, a 7-inch touch display, a heated bed (up to 60°C) and an on-board camera, Wi-Fi connection and an integrated UPS system which enables you to finish a print after an unexpected power cut.

Explore on website 👈



Scroll down to view all printers



# **Builder Extreme 1000 Pro**



An optimal solution between small desktop FDM printers and large, industrial machines.





### **Technical specifications**

Build size: 700x700x820 mm (LxWxH)

Extruder: Dual-Feed system developed in-house

Print speed: 300 mm/s

Travel speed: 500 mm/s

Layer height resolution: 0,1-0,9 mm

(depending on the nozzle)



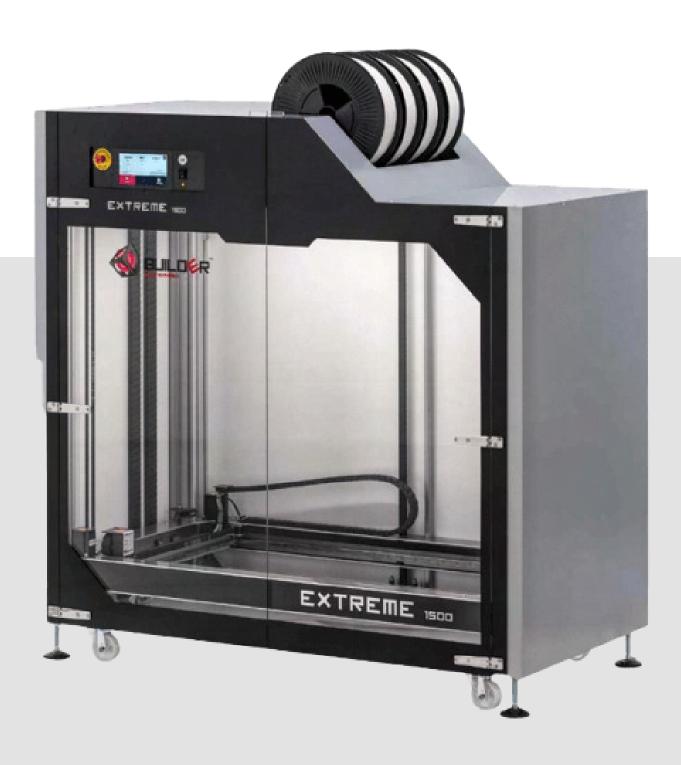




### **Builder Extreme 1500 Pro**



Large format 3D printer unique size, which make it the perfect machine for every office environment.





# **Technical specifications**

**Build size:** 1100x500x820 mm (LxWxH)

**Extruder:** Dual-Feed system developed in-house

Print speed: up to 300 mm/s

Travel speed: up to 500 mm/s







### **Builder Extreme 2000 Pro**



One of the biggest large format 3D printers available on the market.





### **Technical specifications**

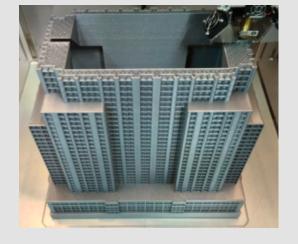
Technology: FDM/FFF (Fused Deposition Modeling)

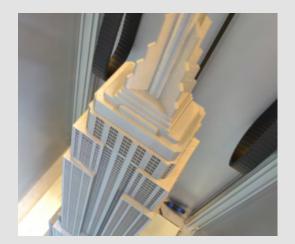
Print head: Mono- or Dual-Feed extruder

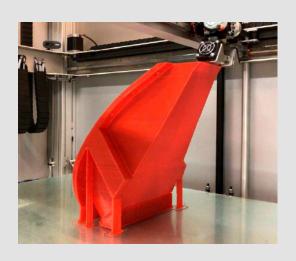
Print speed: 300 mm/s

Build size: 700x700x1700 mm (XYZ)

• Filament diameter: 1,75 mm



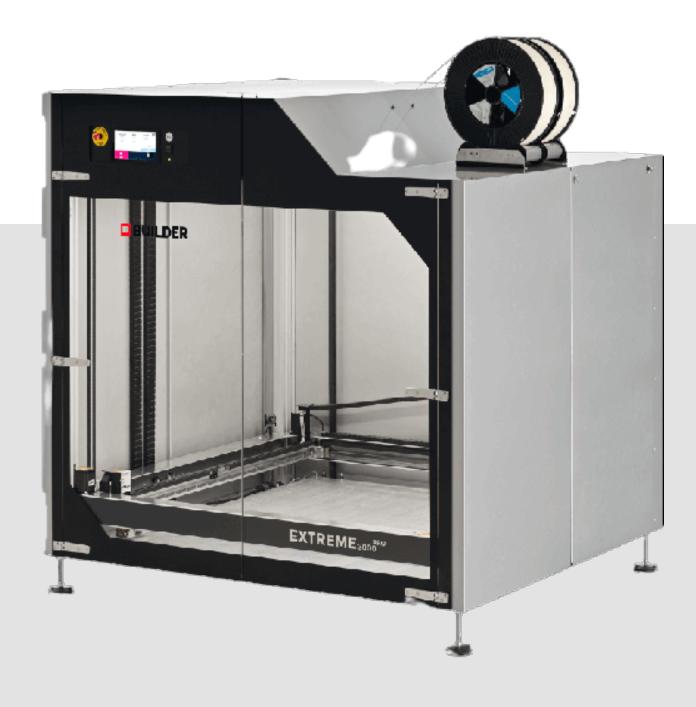




# **Builder Extreme 3000 Pro**

### **Extremely large build volume**

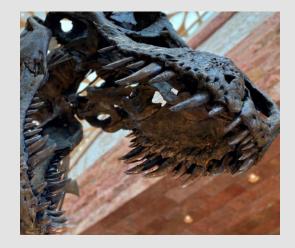






- Technology: FDM/FFF (Fused Filament Fabrication)
- Extruder: Direct drive 1.75mm
- Printer Dimensions: 1500x1380x1550mm
- Print Bed: Heated Aluminum plate









Scroll down to view all printers



# **Jupiter 3D Printer**













### **Technical specifications**

Printing thechnology: FFF (FDM)

Working area: X:2000 Y:1000 Z:1000 mm

### **Housing:**

- Stable, aluminium sheet construction.
- Light column and safety switch on the
- Separate cabinet for the materials.
- Printing environment: Closed working chamber with temperature control.





### Saturn 3D Printer

### **3D Printer Large Objects**









### **Technical specifications**

- Printing thechnology: FFF (FDM)
- Working area: X:1200 Y:1000 Z:1000 mm

### **Housing:**

- Stable, aluminium sheet construction. Light column and safety switch on the outside of the housing. Separate cabinet for the materials.
- Printing environment: Closed working chamber with temperature control
- Max. chamber temperature: 45°C



office@ballistic-bit.com

# **ATMAT Galaxy 3D Printer**

### Reliable precision of creation











### **Technical specifications**

- Printing thechnology: FFF (FDM)
- Working area: X:400 Y:400 Z:500 mm X:500 Y:500 Z:600 mm

### Housing:

- Stable, aluminium, closed construction. Separated cases for filaments and consumables.
- Printing environment: Closed working chamber with temperature control
- Max. chamber temperature: 45°C







# **##** bigrep

# **Bigrep 3D Printers**

Founded in 2014, BigRep set sail to transform the 3D printing and manufacturing business. With its 1m3 volume, the BigRep ONE opens the gateway to a new dimension of 3D printing and 3D manufacturing, while the BigRep STUDIO allows fast and precise large-scale 3D printing.

From furniture to vehicles to robotics, we think everything is possible. We want you to envision everything from human scale robot parts, sculptural artworks in all their full-dimensional glory, and dream the impossible world-changing designs of tomorrow while enabling you to print them today using one of our 3D printers.



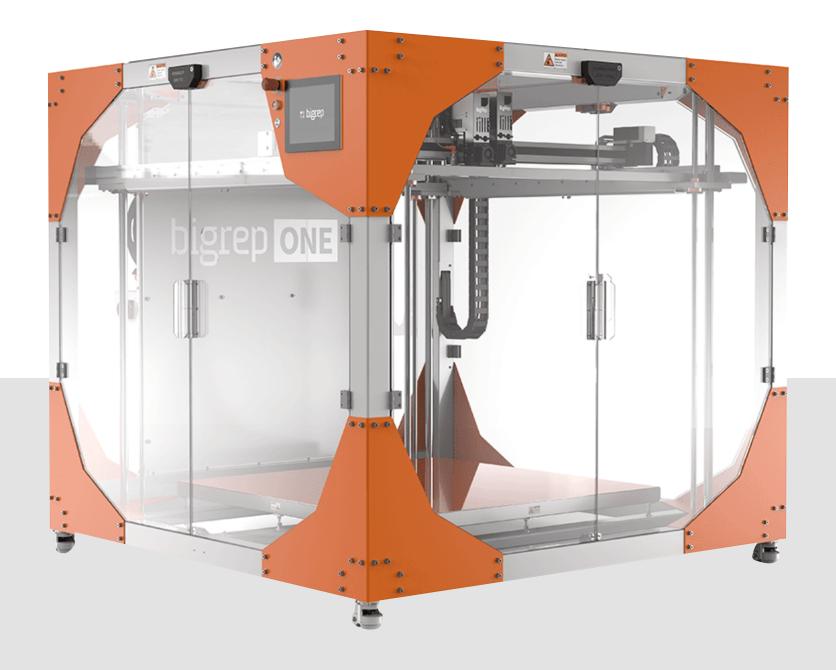
Scroll down to view all printers



# **Bigrep ONE**

### **LARGE-FORMAT 3D PRINTER AT** AN ACCESSIBLE PRICE











- Version: ONE.4
- Build Volume: x 1005 y 1005 z 1005 (mm) (x 39.5 y 39.5 z 39.5 inch)
- Layer Heights: 0.3 mm, 0.6 mm, 1.0 mm Other layer heights supported through slicer
- Speed | Acceleration (XY): 500 mm/s | 400 mm/s²
- Extruders: Fiber-Ready Power Extruder (PEX) nterchangeable nozzles with fiber-ready 0.6 mm / 1 mm nozzles and a high-flow 2 mm nozzle
- Certified BigRep Materials HI-TEMP, HI-TEMP CF, PETG, PLA, PLA Antibacterial, PLA Ultralight, PLX, Pro HT, TPU, Other filaments upon request
- Support Materials: BVOH, Other filaments upon request
- Print bed Temperature: Max. 80 °C (176 °F)
- Machine Size: x 1850 y 2250 z 1725 (mm) (x 72.8 y 88.6 z 67.9 inch)
- Machine Weight: Approx. 460 kg (1,014 lb)
- **Power:** 208 V 240 V, 16 A, 50 / 60 Hz
- Safety Certifications: CE approved (Enclosure Add-On required)

# **Bigrep PRO**

#### **NEXT LEVEL INDUSTRIAL 3D PRINTER**











- Version: BigRep PRO.2
- Build Volume: Up to x 1020, y 970, z 985 mm (x 40, y 38, z 38.5 in)
- Materials: PLA, HI-TEMP CF, PRO HT, PETG, ASA, PA6/66, PA12-CF Water Soluble BVOH Other filaments upon request
- Slicing Software: BigRep BLADE
- Extruders: Fiber-Ready PRO ACE Extruder
- Layer Heights: 0.3 mm, 0.6 mm (Other layer heights supported through slicer software)
- Nozzle Diameters: 0.6 mm, 1.0 mm
- Speed | Acceleration (XY): Max. 600 mm/s | Max. 5000 mm/s²
- Achievable Part Accuracy: ±0.2mm or ±0.002mm/mm (whichever is greater)\*
- Material Storage: 2x sealed keep dry filament chambers supporting up to 8 kg spools each
- Machine Size: x 1950 y 2500 z 2105 mm / x 77 y 98 z 83 inches (with tower)
- Machine Weight: Approx. 1550 kg (3417 lb)
- Power: 3 Phase 400V AC, PE, 16 A, 50 / 60 Hz
- Safety Certifications: UL, CE, EC Machinery Directive 2006/42/EC Compliant

# **Bigrep STUDIO**

#### PREMIUM EFFICIENCY FOR INDUSTRIAL 3D PRINTING











- Build Volume: x 1000 y 500 z 500 mm
- Compatible BigRep Materials: ASA, ABS, BVOH, HI-TEMP, PA6/66, PETG, PLA, PLX, PRO HT, PVA, TPU
- Extruder Type: Dual Fiber Extruder
- Nozzle Type: Tool Steel Nozzle
- Layer Height: 0.1 0.4 mm
- Filament diameter: 2.85 mm
- Nozzle Temperature: 280 °C max.
- Build Volume Temperature: 40 °C max.
- Print Speed: 100 mm/s max.
- Position Repeatability: ± 0.1 mm

- Bed Surface: Polyimide
- Bed Temperature: 100 °C max.
- Bed Heating Time: 80 °C in 15 min
- Materials Storage: Heated Filament Chamber (max. 60 °C)
- Monitoring: Out of Filament Sensor, Door Sensor, Webcam
- Machine Dimensions: x 1715 y 1170 z 1765 mm
- Approx. Weight: 550 kg
- Power: 208-240V, 16A, 50/60 Hz
- Connectivity: USB, LAN
- Optional Fume Extraction Airflow: 150 m<sup>3</sup>/h min.
- Safety Certification: CE





### **Post Process**

Most 3D manufactured parts coming off the printer still require further processing before reaching the end user. Traditional post processing methods are expensive and time consuming, cannot meet large volume demands, and are prone to breakage.







# **PostProcess Technologies**

3D printing post processing solutions

- Post Process RADOR™
- Post Process BASETM
- Post Process DECI Duo™
- Post Process NITOR™
- Post Process DEMI 4000<sup>TM</sup> Series
- Post Process DECI™
- Post Process DEMI 800<sup>™</sup> Series
- Post Process DEMI 400<sup>TM</sup> Series







# Solukon Industrial powder removal systems

Specialize in de-powdering tought to handle materials.

- SFM-AT200
- SFM-AT350
- SFM-AT800 / -S
- SFM-AT1000-S





# **PostProcess Technologies**

Most 3D manufactured parts coming off the printer still require further processing before reaching the end user. Traditional post processing methods are expensive and time consuming, cannot meet large volume demands, and are prone to breakage. Automating the cleanup process of the freshly 3d printed parts can reduce substantially man work hours and achieve a higher reliability of the printed parts along with producing consistent results, no matter what technology was used to create it.





Scroll down to view all post process



### Post Process RADOR™



Surface Finish post processor with variable surface roughness (Ra).



#### **Software Features**

- Intelligent cycle times
- Variable detergent dosing

#### **Hardware Features**

- Urethane coated envelope
- Textured powder coated enclosure
- Optimized noise suppression enclosure
- Multi-position, self-supporting hinged lid
- Ease-of-use single button operation
- Casters for easy installation

#### Size and Weight

- Envelope: 21.4" L x 8.4" W x 13" H (54 cm x 22 cm x 33 cm)
- Volume of parts should not exceed 1/3rd of envelope
- Machine closed door footprint: 54.3" L x 28.3" W x 39.4" H (137 cm x 72 cm x 100 cm)
- Approx. Weight: 500 lbs. empty; 550 lbs. full





### Post Process BASETM



Support removal post processor featuring VVD Technology for complete part removal coverage.











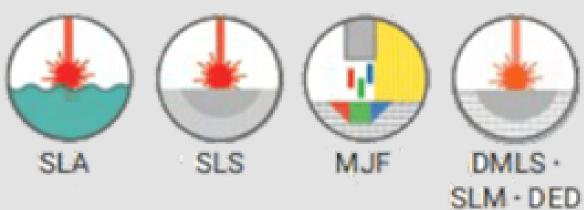
- Volume Velocity Dispersion (VVD) technology
- Customizable settings
- Set and save programs for future runs
- Stainless steel envelope
- Textured powder coated enclosure
- Counter-weighted vertical sliding door
- In-line strainer
- Multiple fixtures available
- Drain
- Casters for easy installation

### Post Process DECI Duo™



A hybrid post processor combining surface finish and support removal all in one small footprint for optimized production floor space.





- Digital interface: Set and save programs for future runs and Customizable settings
- Stainless steel envelope
- Textured powder-coated enclosure
- Counter-weighted vertical door
- Fully insulated exterior
- Casters for easy installation

### **Post Process NITOR™**



High volume surface finish post processor featuring SRF patented technology controlled by the AUTOMATED3D software.



- Real-time decision making
- Intelligent cycle times
- Integrated diagnostics
- Variable detergent dosing
- Precise control of all variables
- Recipe programming

## Post Process DEMI 4000™

#### **Resin Removal**











DLP

CLIP

#### **Software Features**

- Programmable cycle time
- Storable user recipes
- Proprietary Agitation Algorithms
- CONNECT3D® Factory Automation

- Digital interface
- Automatic build tray life
- Chemically compatible pump
- Configurable lift fixture
- Leveling casters for easy installation & setup



### **Post Process DECI™**



Support removal post processor featuring VVD Technology for complete part removal coverage.











- Volume Velocity Dispersion (VVD) technology
- Customizable settings
- Set and save programs for future runs
- Stainless steel envelope
- Textured powder coated enclosure
- Counter-weighted vertical sliding door
- In-line strainer
- Multiple fixtures available
- Drain
- Casters for easy installation

## **Post Process DEMI 800™ Series**

### **Support & Resin Removal**





- Volume Velocity Dispersion (VVD) technology
- Customizable settings
- Set and save programs for future runs
- Stainless steel envelope
- Textured powder coated enclosure
- Counter-weighted vertical sliding door
- In-line strainer
- Multiple fixtures available
- Drain
- Casters for easy installation





# Solukon Industrial powder removal systems

Specialize in de-powdering tought to handle materials.

Specializing in metal and polymer de-powdering systems, Solukon Maschinenbau GmbH offers high quality solutions in the additive manufacturing industry. Solukon products are designed to the highest safety and operational standards, they specialize in powder removal of tough-to-handle material, e.g. copper.

Explore on website 🔷



Scroll down to view all post process

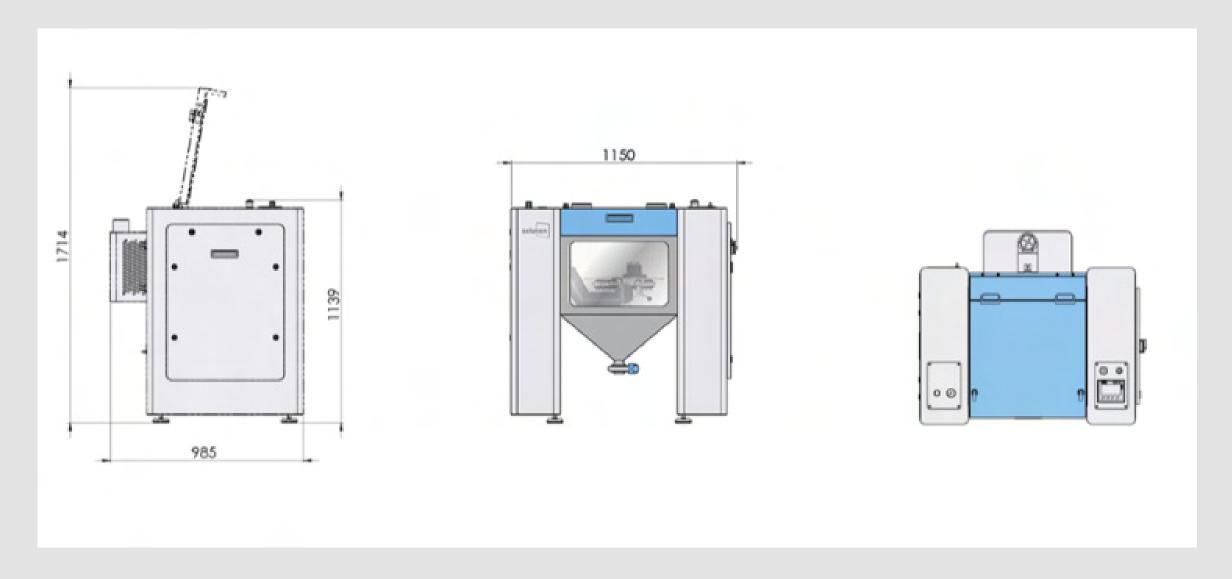


## SFM-AT200

### Compact depowdering unit for powder removal of metal laser-melted parts

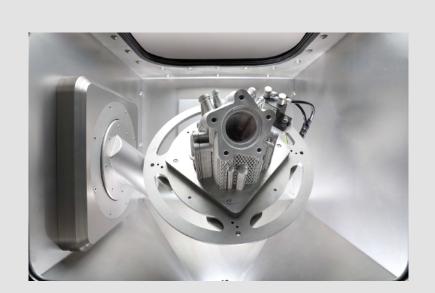






### **Specifications:**

- Installation space (W x D x H): 2,200 x 2,400 x 2,200
- Weight: 150kg
- Mains voltage / frequency: 400 / 50 60V / Hz
- Power consumption: 0.4kW
- Power supply: 16A

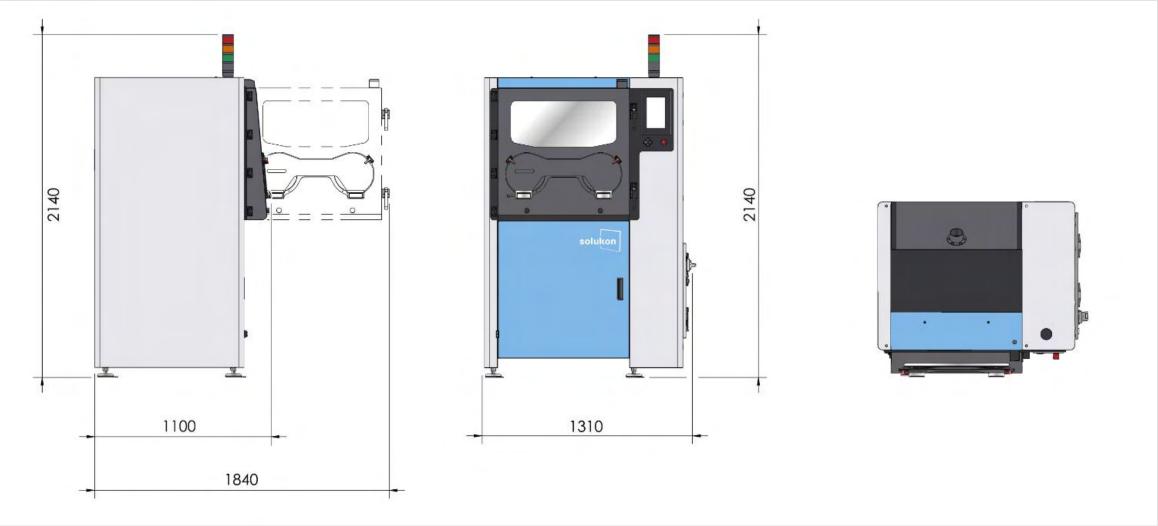


### **SFM-AT350**

### Compact depowdering unit for powder removal of metal laser-melted parts







### **Specifications:**

■ Installation space (W x D x H): 2,300 x 2,300 x 2,300

Weight: 420kg

Mains voltage / frequency: 400 / 50 - 60V / Hz

Power consumption: 1.0kW

■ Power supply: 16A



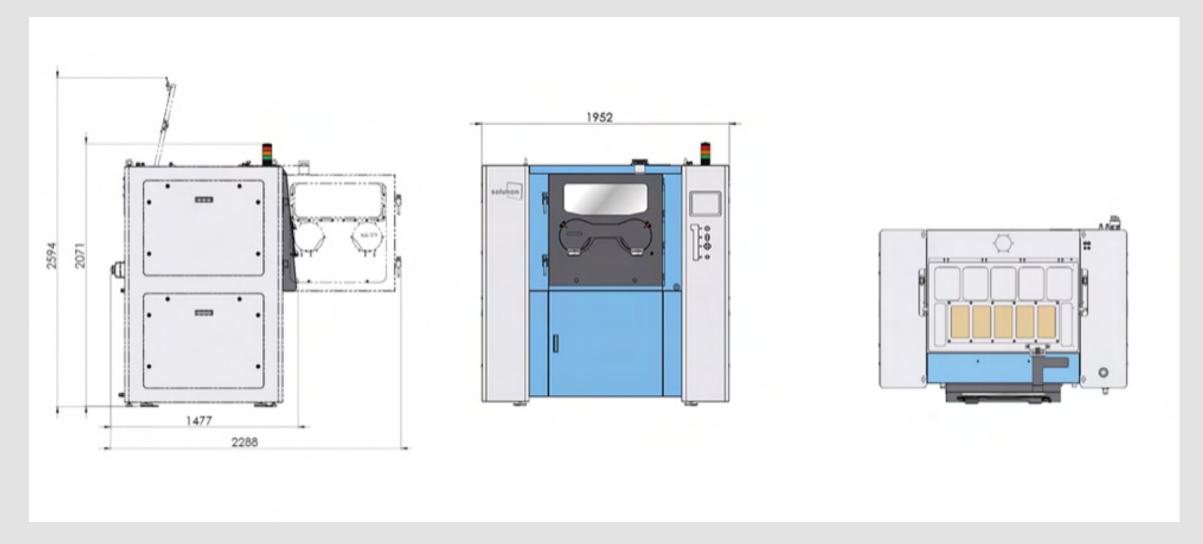


# SFM-AT800 / -S

### Depowdering system for automated powder removal of metal laser-melted parts







### **Specifications:**

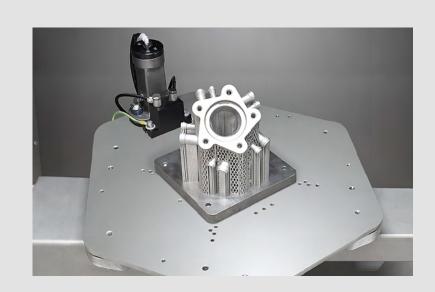
■ Installation space (W x D x H): 3,500 x 2,500 x 3,000

Weight: 900kg

Mains voltage / frequency: 400 / 50 - 60V / Hz

Power consumption: 0.4/1.5\*kW

■ Power supply: 16A



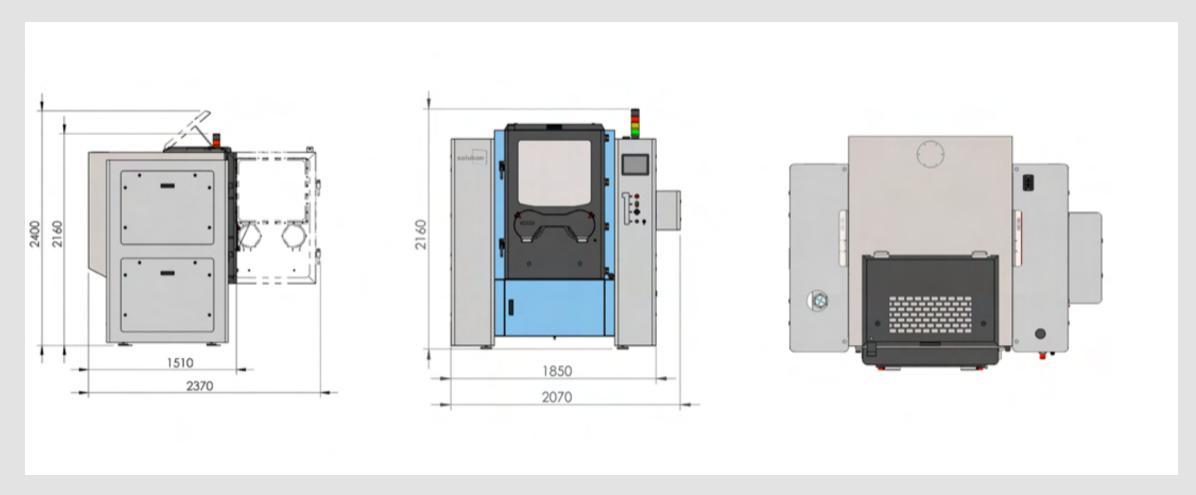


## **SFM-AT1000-S**



The SFM-AT1000-S is an upscale of the wellestablished SFM-AT800-S and optimized for automatic depowdering





### **Specifications:**

■ Installation space (W x D x H): 3,500 x 2,500 x 3,000

Weight: 1900kg

Mains voltage / frequency: 400 / 50 - 60V / Hz

Power consumption: 1.5\*kW

■ Power supply: 16A





# Additive manufacturing workflow

Software for 3D printing leverage production, reduce costs & increase reliability with leading solutions

The growing popularity of 3D additive manufacturing in many diversified industries and its rapid infiltration as a reliable and cost effective production option, created a need to gain control over the additive manufacturing workflow process. Just as 3D printers' hardware is constantly improving, so did Additive Manufacturing Workflow software solutions.

These 3D printer software solutions improve machine performance and offer control over the production process, right from the part preparation for print, to final approval. Ultimately, it's the solution in streamlining the 3D production process by integrating order management and monitoring the manufacturing process from start to finish.

### **3D Software**

Leverage production, reduce costs and increase reliability with industry-leading solutions.



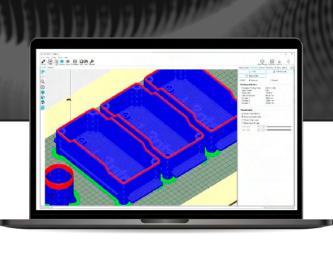


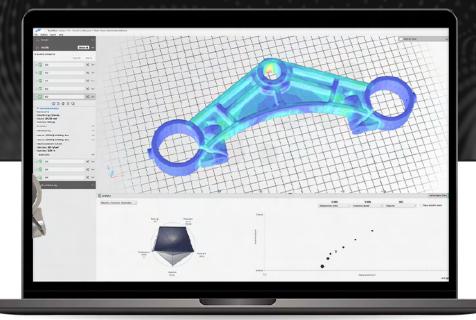


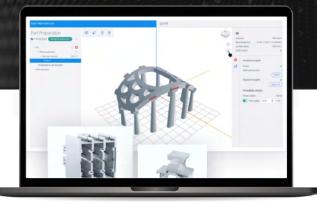
**€3D Control Systems** 









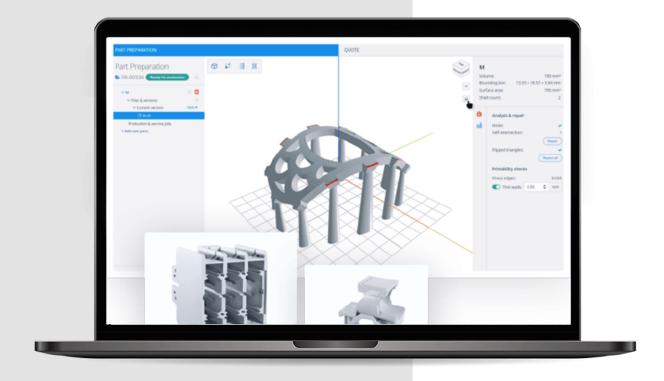


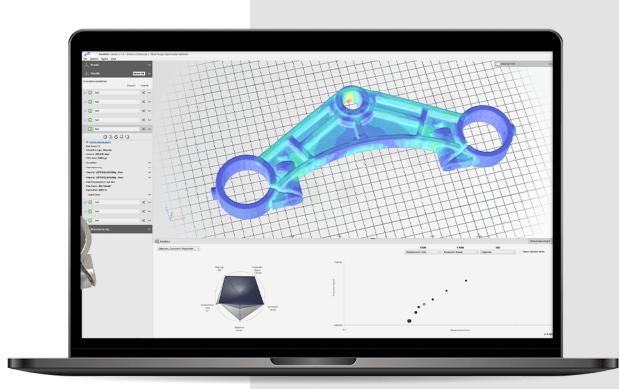


### **AMFG 3D Softwares**

The Leading Additive Manufacturing Execution System

End-to-end workflow software to connect and scale your AM operations







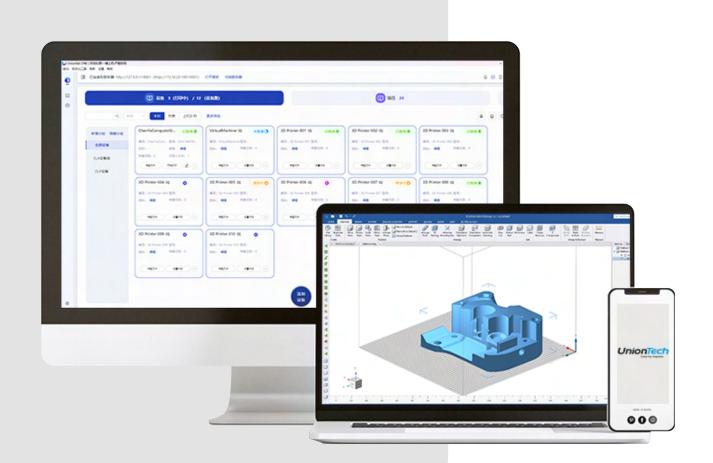
### **Additive flow 3D Softwares**

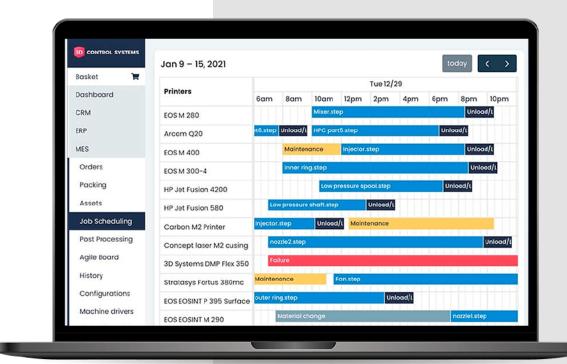
Additive Flow provides
pathways to apply
Additive Manufacturing a
viable process solution



### **UnionTech 3D Softwares**

- Polydevs
   Professional 3D printing
   pre-press software
- Unionfab
   An advanced cloud 3D additive manufacturing SAAS platform





# **© 3D Control Systems**

# **3D Control Systems**

 Additive Manufacturing Workflow Software

MES + PLM + ERP + QA + CRM Powered by AI

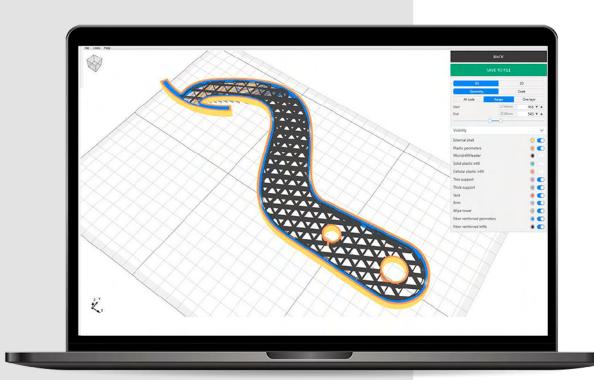
ZAP

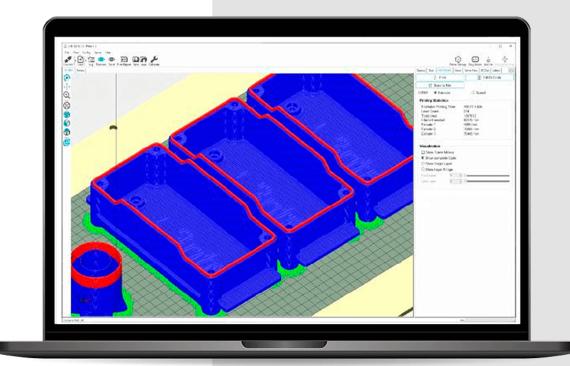
Zero Latency Autonomous Platform for Advanced Manufacturing



# **Anisoprint Softwares**

Aura Composite 3D Printing
 Slicing Software for composite printing







### **3NTR 3D Software**

An intuitive interface & full Eco-system support

SSI Software
 Software for 3D printing



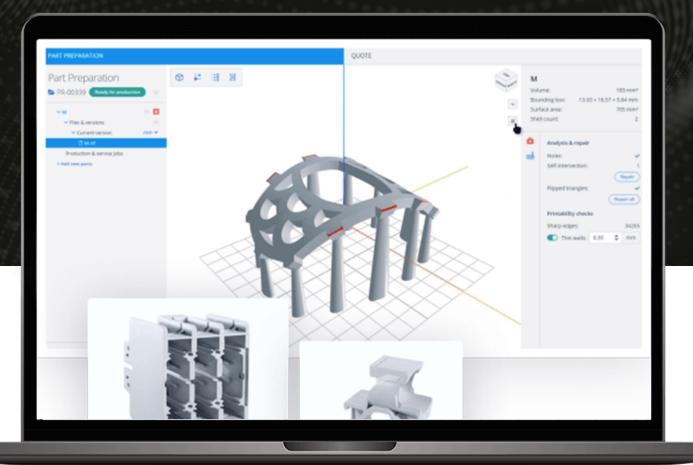


# **AMFG 3D Softwares**

We know that the AM landscape is complex, and every company is different. That's why we give you the flexibility to customise our modular software platform to fit the needs of your organisation.

Whether you're using 3D printing for tooling, serial production or prototyping, our team will support you in identifying any bottlenecks in your current process and help you find the right solutions for your needs.

Explore on website 🔷



Scroll down for more details



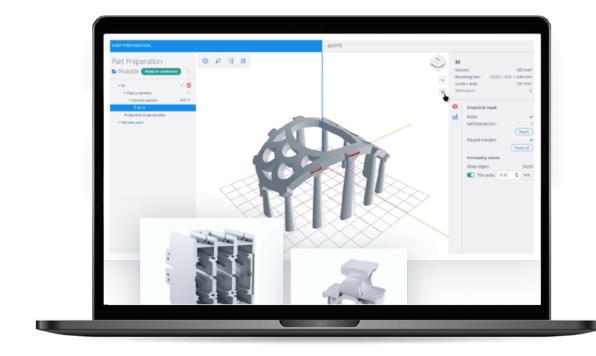
### **AMFG 3D Softwares**

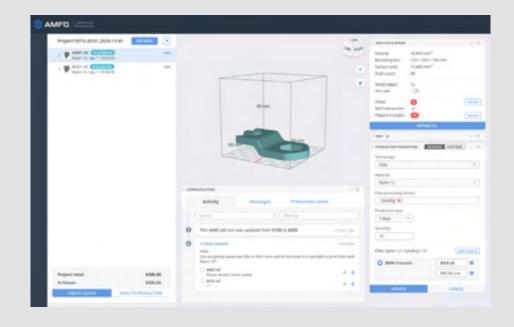
### The Leading Additive Manufacturing Execution System



### **Connect your entire AM workflow**

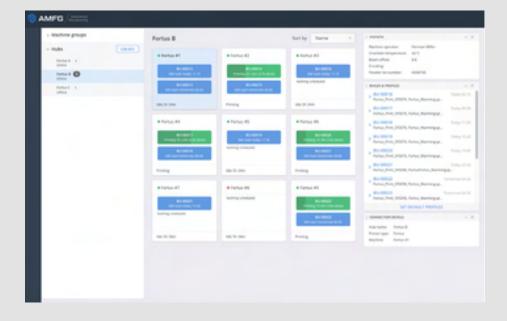
- Intelligent cycle times
- Requests & Communication
- Machine Connection
- Additive with CNC & Injection Moulding
- Workflow Automation
- Supply Chain Management
- Digital Warehouse Scheduling Automation





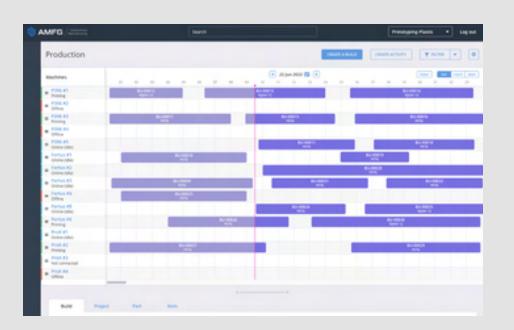
### **Ordering Portal**

Streamline and standardize your order management processes with our centralized order management system and integrated communication tools.



### **Machine Analysis**

Use actionable, data-driven insights to achieve maximum ROI and KPI performance with AMFG's integrated machine analytics and reporting tools.



### **Production Scheduling**

AMFG provides a full production suite, incl auto-scheduling for end-parts, so you can achieve full visibility across production sites, optimize machine usage and much more



### 100+ Integrations

AMFG offers a seamless integration to your existing systems including ERP, PLM, BI, CRM, Build Prep, Logistics, for full process automation.







## **Additive flow 3D Softwares**

Additive Flow reduces workflows to minutes rather than days or weeks. It can even provide solutions previously impossible to achieve. Our best-in-class interface takes your existing CAD data and engineering requirements and transfers all build and optimisation data to tools like Autodesk's Netfabb in 'one-click'. Allowing seamless generation of tool-paths that work without the risk of poor conversions or data loss.

Effortlessly update objectives, materials properties, process requirements, or cost profile, and re-run everything repeatably in real time with saved workflows.

Explore on website 🔷





### **Additive flow 3D Softwares**



Additive Flow provides pathways to apply Additive Manufacturing a viable process solution

### A validated way to achieve your cost, quality, and sustainability goals

Additive Flow has distinct advantages which is why companies such as EOS, Airbus, ZEISS, Danfoss and others are working with us on validating designs and existing parts for AM.



### Increasing manufacturing productivity

AM productivity is the largest constraint to cost-parity with other methods. Our software increases print speeds by 2x consistently (with identical geometries) – drastically increasing viable AM opportunities.

### **Cost and sustainability**

AM is a pathway to sustainable manufacturing, but the pursuit of sustainability can increase cost. The key to coupling cost-saving and sustainability is understanding the compound savings and impact of AM versus traditional tooling as process innovations and approaches across the workflow can reduce complexity and scrap rates from 44% to 0%, energy savings up to 333% as proven by Additive Flow.

### Quality

Ensuring repeatable quality is the biggest headache to transfer from traditional tooling. Additive Flow have proven workflows to reduce QA costs by 75% and accurately predict quality performance.

## Accelerated decision making from pen to production with Additive Flow

We empower teams to have full visibil□ity and control of changes and influ□ence the AM workflow. This means you can enforce your design and process philosophy within the software and see the impact on cost and quality. The software supports your decision-making, so each idea, constraint and objective is considered through the validation of a part for AM.

### Additive Flow's 3-step success formula: A change and validation process.

#### Step #1

### **Demonstrate part** -to-part equivalence.

Aid decision making by proving you can transfer your process to AM and validate the change in cost, quality, and sustainability.

#### Step #2

### Leverage the learns of equivalence.

Extend and explore while managing your design intent and align feature and process across cases, and improve quality and costs further

#### Step #3

### **Decision gate between** product development and manufacturing is more accessible.

Make accurate decisions on quality, cost, CO2, material use. Explore different design and process outcomes in a single step.





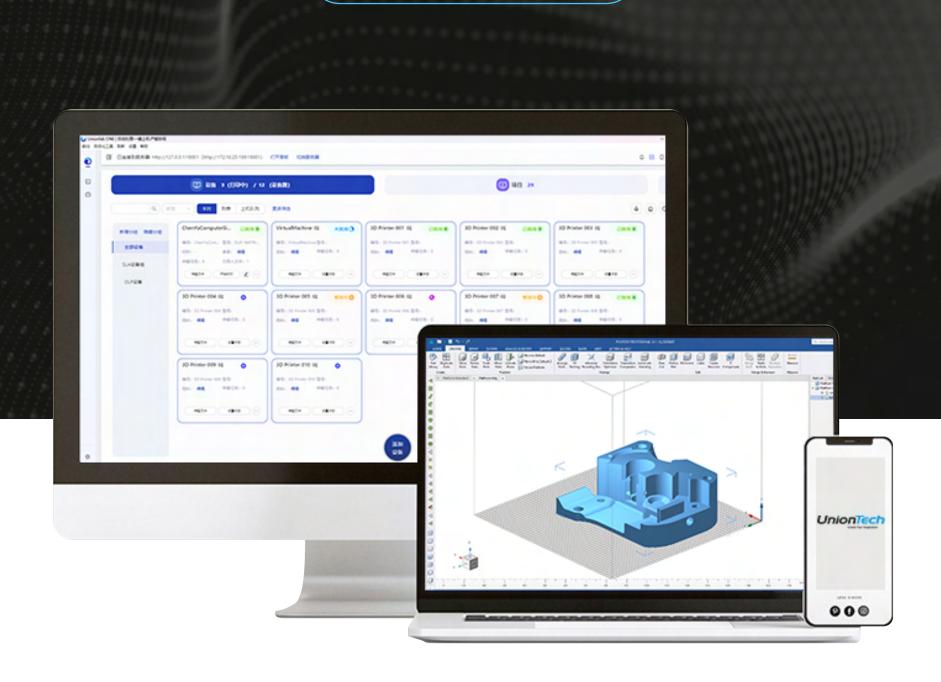


### **UnionTech 3D Softwares**

UnionTech™ —With nearly 20 years of proven leadership in globally sourced stereolithography 3D printing systems, the UnionTech™ brand brings a fresh dimension of SL equipment supply to international markets.

UnionTech's leadership as an Additive Manufacturing (AM) equipment and solutions supplier is also strengthened by actively focusing on the evolution of new photopolymer AM technologies as well as enhancements of SL technology. Nearly 50% of our large and growing professional team is dedicated to research and product development.

Explore on website 👈



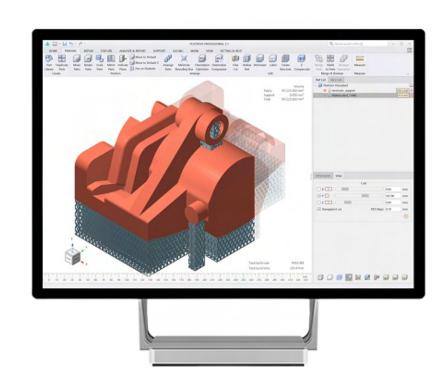


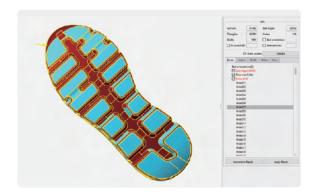
# **Polydevs**

### **Professional 3D printing** pre-press software



Polydevs takes data preparation software for Additive Manufacturing to a new level of performance based cost effectiveness. Prepare your 3D CAD model with an intuitive user interface, user-friendly workflow, and easy operation. Polydevs powerful functionality speeds up your model preparation for printing with superior quality, efficiency and reliability.

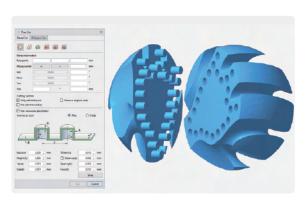




File Repair



Orientation



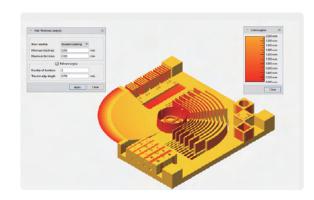
Free Cut



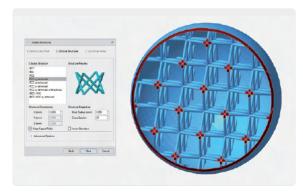
3D Packing



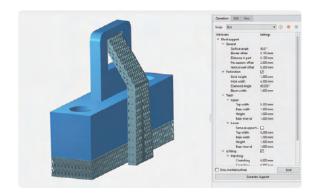
Texture



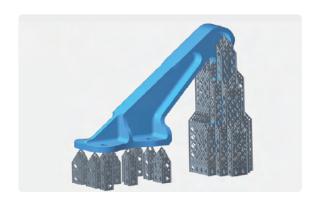
Wall Thickness Analysis



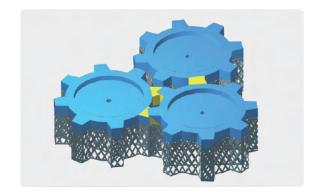
Lattice Structure



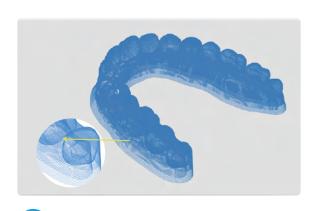
**Support Generation** 



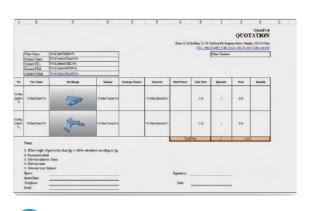
**Smart Support** 



Collision Detection



Slice



Quotation

### **Unionfab**

# An advanced cloud 3D additive manufacturing SAAS platform



Unionfab is an intelligent cloud 3d based manufacturing SAAS platform, allowing 3d fabrication facilities to achieve quick, efficient and affordable upgrade path while adding new functions such as order management system for customer service personnel, intelligent automated quotation system, data-aided system, intelligent production scheduling, remote production management and digital management of equipment, all aimed to take 3d additive manufacturing to the next level.

Unionfab offers improved customer service, stable and production efficiency as well as effective managerial and administrative toolset.



- Support auto bp and auto print
- Support SLA/DLP Printers
- Support remote print with USP/CLI files
- Support batch print with several target printers
- Support remote print with USP/CLI files
- Support batch print with several target printers
- Each printer has its two print queues:
  Wait print tasks & Print historyt asks

- Connected printers can be viewed in card mode or list mode
- You can configure its name, material or device mode
- Printer detail page contains critical information about the printer
- You can calibrate the power, set it to ready, or control the print process
- Operation rate
- Material Consuption





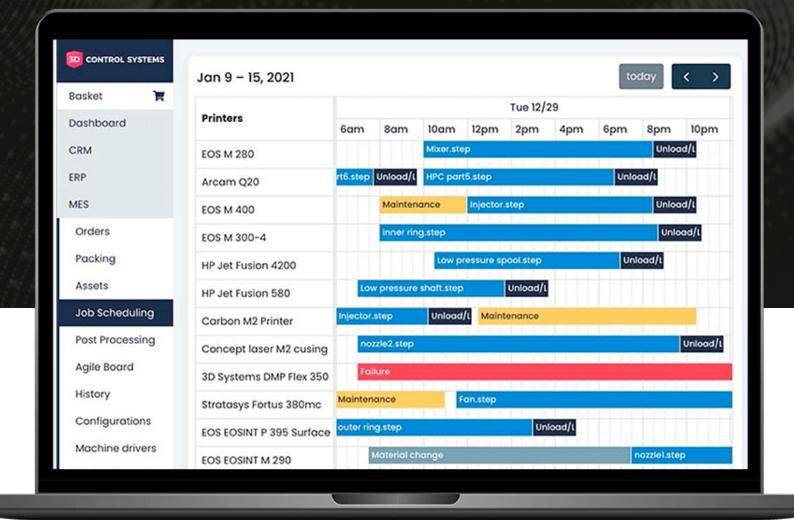


### **€3D Control Systems**

# **3D Control Systems**

3D Control Systems is the parent company of 3DPrinterOS, which revolutionized the desktop 3D Printing industry with their Operating System platform introducing "one click" manufacturing. 3D Control Systems has now launched ZAP, an automated, workflow platform purpose-built for advanced manufacturing, helping customers drive efficiencies and simplification.

Explore on website 🔷





# **Additive Manufacturing**

© 3D Control Systems

Workflow Software - powered by AI & ML

Any product manager in charge of a mixed technology production facility is well aware of the numerous challenges he/she must face every day. It begins with the proper IT configuration of all available machines and ends with a final product, in the hand of a happy client.



### CRM

The first module is the CRM module where the process begins in the submission of a product to be manufactured. Within this module, job quotes are generated as well as Management and tracking of the orders, Customer Success, Tracking Expenses, Order Tracking, and Customer ROI Calculation. From the moment a designer logs into the 3D Control Systems' cloud platform, submitting a model, depending on the production method chosen, a relevant workflow will determine proceeding expenses and steps necessary to continue downstream.

### **ERP**

Next is the Ordering Portal, submission and management of orders centralized within one ordering platform. Supply Chain Management connects the entire supply chain for automated and distributed manufacturing. It integrates within it the following functions: Digital Part Inventory, Manufacturing Process, Manufacturing Templates (AI) Beta, Use Case Screening, Inventory Analysis, Centralized Data Storage, Printability Analysis, Orientation Optimization, Project Collaboration, Version Control, CAD Integrations, and Part Tagging.

### **PLM**

3D Control Systems offers Digital Inventory to create and manage a digital inventory for your additive manufacturing applications, Custom Part Requirements, Automatic Order Management, Material, and Technology Comparison, Accurate Part Pricing, Custom Part Pricing, Digital Communication Streams, Distributed Manufacturing, Networks, 3D Printer Management, CNC Mill Management, Material Management, Technology Management, HR Management, and User

### MES

This module is responsible for Machine Connectivity for complete traceability. There are more than 1500+ machines supported by different levels of integration. Here we can optimize to improve production output based on real-time enabling the control of multiple elements of the production process (e.g. inputs, personnel, machines, and support services). It offers Custom additive manufacturing Workflows, Smart Part Prioritization, Smart AM Farm Management, Post Processing Scheduling, Digital Production Planning, Part Sequence Tracking, Production Sheet Generation, Part Passport Generation, Quality Assurance, Machine Connectivity, and Data

# **⊘** QA

Post-Processing & Quality Management helps to manage post-processing steps and ensure quality control. The module contains: QA Scheduling, QA Process Management, QA Equipment Management, CT Scan to CAD Comparison (AI), QA Machine Connectivity. The entire process is automatic, reducing overhead costs, allowing the printer access to many users to many printers efficiently, reliably, and safely and with minimal latency.

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# Zero Latency Autonomous Platform for Advanced Manufacturing

### **Order Management**

- Quoting & Costing of designs
- Manage orders through delivery
- Customer Database
- Part Passport (history)
- Operations Dashboards

### **Scheduling**

- Easy scheduling of manufacturing, Post processing & QA
- Tracking of maintenance
- Part track & Trace

### **Integrations**

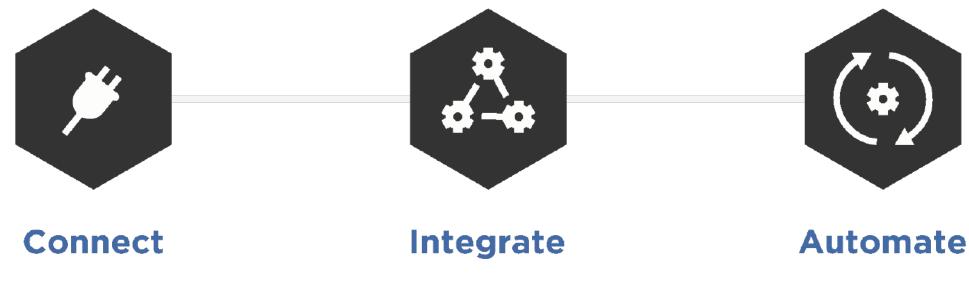
- Integrate into 3D Printers, robotics, CNC
- Design & Simulation Software
- Build prep & Slicing packages

### **Digital Inventory**

- Design Revisions
- Integration to design software
- Material Management
- Comparison of like-technology

### Manufacturing

- Automated production
- Capture telemetry data
- Job status
- Part Passport (history)
- Recording part process for part passport for Traceability





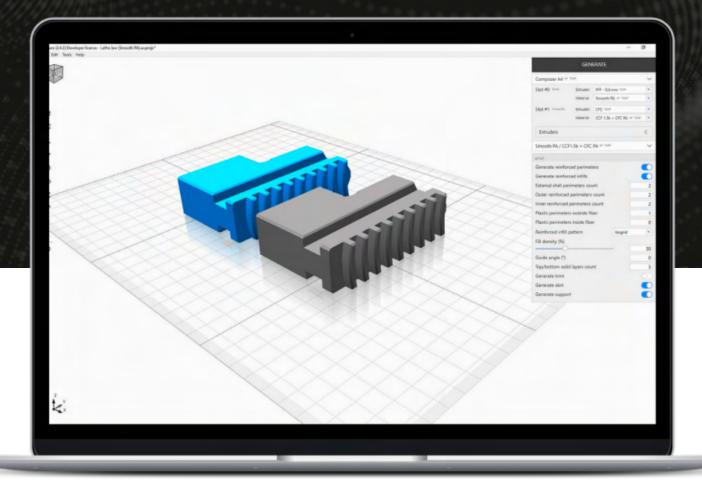


# **Anisoprint Aura**

UnionTech™ —With nearly 20 years of proven leadership in globally sourced stereolithography 3D printing systems, the UnionTech™ brand brings a fresh dimension of SL equipment supply to international markets.

UnionTech's leadership as an Additive Manufacturing (AM) equipment and solutions supplier is also strengthened by actively focusing on the evolution of new photopolymer AM technologies as well as enhancements of SL technology. Nearly 50% of our large and growing professional team is dedicated to research and product development.

Explore on website 🔷





# **Anisoprint Aura**



### SLICING SOFTWARE FOR COMPOSITE PRINTING

### **Anisoprint Aura Composite Printing**

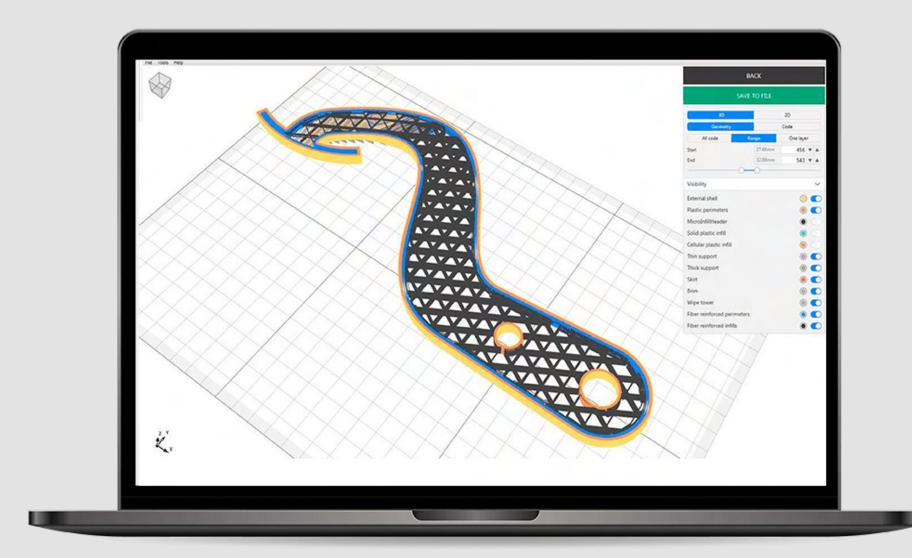
Aura prepares a 3D model, generates reinforcing fiber trajectories in each layer and allows to adjust reinforcement scheme to obtain strong and lightweight parts. It enables to combine micro and macro layers, making it possible to print an infill with thick layers and an external shell with thin layers. This feature results in faster printing without loss of quality.

- Flexible settings system
- Printing with multiple extruders
- Layup structure

- Reinforced infills
- Reinforced perimeters
- Macrolayer technology
- Reprap G-code format
- Supports: STL, STEP, 3DS, OBJ

### How to print composite part?

In case you need to print individual non-reinforced elements, Aura allows you to print small elements with FFF-nozzle without fiber. Aura is easy to use, with a stylish interface and a wide range of practical and versatile features. Aura can generate reliable supports for printing complex objects and shows the model to be printed layer by layer. Model processing is fully automated and executed using a local computer ensuring confidentiality and safety of user's data.



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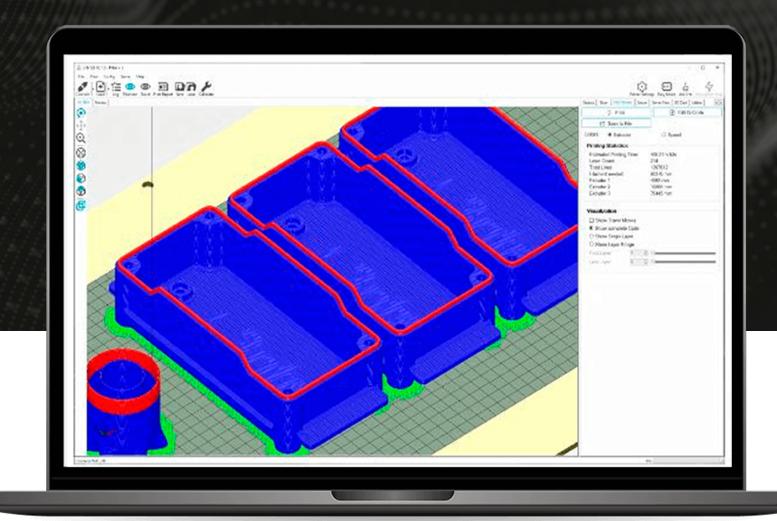
### **3NTR 3D Software**

Assign to each part of your 3D printing the polymer you prefer: with SSI you can print in multi-material with ease and obtain functional components with the expected characteristics already at the first attempt, with exciting results.

Reliability and peace of mind: all parameters managed by SSI have been tested for months and receive daily updates.

SSI, in combination with 3ntr 3D printers, is second to none: with the combination of reliable machinery and constantly updated software you will get excellent ROI values.

Explore on website 🔷





### **SSI Software**

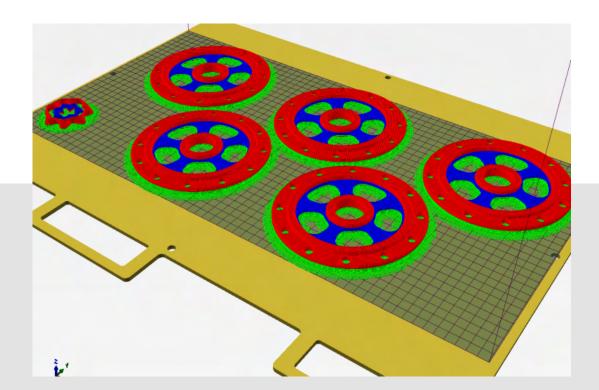
### Software for 3D printing

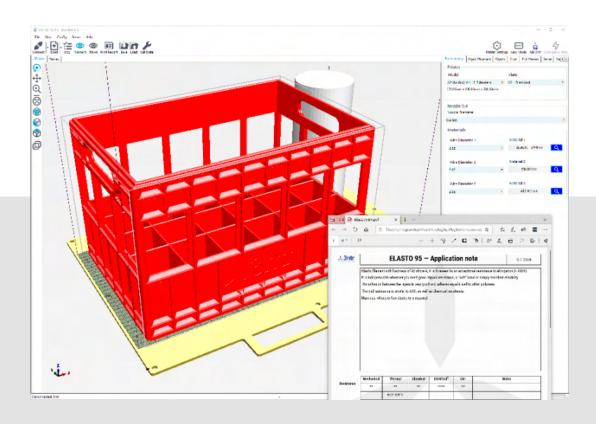


SSI - Smart Slicer Interface is the innovative professional software for 3D printingentirely developed by 3ntrin combination with our printers.

Designed to give easy access to the sophisticated features of 3ntr systems, SSI can handle complexprintjobswithjust a few clicksand inabsolute security. The software and printing parameters receivedaily updates: SSI users always work at their best.

Unlike single-extruder machines, all3ntr 3D printerscan handlemultiple polymersatthesame time. The SSI system prevents the operator from using incompatible polymers or setting incorrect parameters, guaranteeingsignificant savingsin time and material. Thanks to the SSI software you will then haveimmediateaccess to the application notes.





Assignthe polymerof your choice to each part of your 3D printing:

With SSI it is possible toprint in multimaterial with easeand obtain functional components with the expected characteristics already at the first attempt, with exciting results.

Reliability and peace of mind:

All parameters managed by SSI have been tested for months and receive daily updates.

SSI software, in combination with 3ntr 3D printers, is second to none:

With the combination of reliable machinery and constantly updated softwareyou will achieve excellent ROI values.

**Print report** 

SSI creates print reports suitable both in the service environment, for issuing estimates, and in theindustrial environment to document the production activity.

Remote 3D printer management

SSI is acomplete printing softwarethat also incorporates the ability to manage your 3D printers whether they are a few meters away or in another time zone.

Divide the workload however you want, onany available machineand via webcam constantly monitor the printing activity: all perfectly integrated into SSI.

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# **Materials for 3D Printing**

To ensure ultimate performance and production quality, we provide a range of engineering-grade 3D printing

In order to achieve their design goals, engineers can choose from a wide array of optimized materials to meet challenges, while achieving striking visual impact. 3D printing allows designers to fully express their vision in the look and feel of the finished products. 3D Print materials can be as soft as rubber or rigid as metal, withstand high temperature and offer outstanding strength using by composite material, yielding outstanding power to weight ratio.

Ballistic Bit is proud to offer engineering grade 3D Print material, complying with toughest industry requirement, assuring high performance and reliable production quality. Ballistic-Bit is even able to tailor specific material formulation, per customer unique demands.

# **3D print materials**

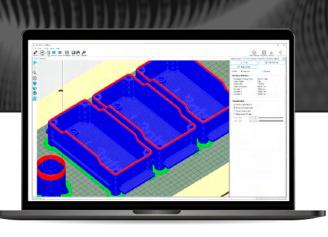
Leverage production, reduce costs and increase reliability with industry-leading solutions.

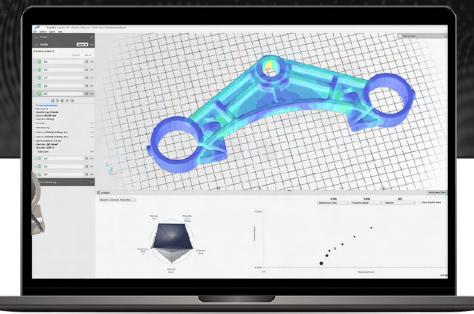


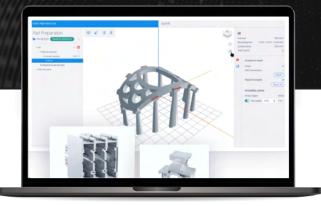














# **3D Flexible Filaments & Polymers**

Throughout the years, Plastics App™ developed proficiency in the field of 3D printing.

- Perform A12
- Perform CBS
- Perform U70

- Perform A6
- Perform FP
- Perform U95ECO

- Perform ACF
- Perform P



# **3NTR 3D Polymers**

- ABS
- ASA Polymer
- ABS ESD+

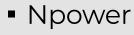
ABS FAST

PETG Polymer

- PETG Polymer
- ABS HD

PC ABS

- ASA Polymer
- F
- 285
- ELASTO 85
- ELASTO 95
- ZWAX



- CARBON +
- IGLIDUR
- NYLON +
- GLASS +



# **Composite Materials**

- CCF Materials Ballistic Carbon
- CBF Materials Composite Basalt Fiber
- SMOOTH PA





人3ntr





### **3D Printer Filament**

Builder Extreme is fully closed to ensure the best print quality possible.

- PLA 3D Printing Filament
- PET 3D Printing Filament
- PRO1 PLA Filament
- PVA-M 3D Printer Filament





# **3D Flexible Filaments & Polymers**

Plastic app utilizes its advanced equipment, top notch lab capabilities and second to none knowhow to develop and produce industrial filaments with enhanced properties, starting from PP and PA12 through flexible filaments (3D flexible - Shore 70A-95A) and composite materials, and up to high performance 3D Filament materials such as ULTEM, PEAK, PPSU and more.

Explore on website 🔷



Scroll down for all materials



# **Plastic App**

### **3D Flexible Filaments & Polymers**





Perform - A12

Carbon fiber 3D Filament

■ Color: Black (default), Natural

• **Diameter:** 1.75 (default) / 2.85

Material: PA12 (Nylon 12)

• **Weight:** 600 gr



#### Perform - A6

Nylon 63D Filament

■ Color: Black

• **Diameter:** 1.75 (default) / 2.85

Material: PA6 (Nylon6)

• **Weight:** 600 gr



#### Perform - ACF

ACF - PA-CF 3D Filament

Color: Black

• **Diameter:** 1.75 (default) / 2.85

Material: PA-CF (Nylon-Carbon Fiber)

• **Weight:** 600 gr



#### **Perform - CBS**

High Impact Engineering Filament

■ Color: Natural (default) / Black • **Diameter:** 1.75 (default) / 2.85

Material: PC-ABS

• **Weight:** 600 gr



#### Perform - FP

PP 3D Filament

Color: Black

■ **Diameter:** 1.75 (default) / 2.85

Material: Polypropylene

• **Weight:** 600 gr



#### Perform - P

PP 3D Filament

■ Color: Black

■ **Diameter:** 1.75 (default) / 2.85

Material: Polypropylene

• **Weight:** 600 gr



#### Perform - U70

TPU 3D Printing 70A

■ Color: Natural / Black (default)

■ **Diameter:** 1.75 (default) / 2.85

■ **Material:** TPU Filament (Thermoplastic Polyurethane)

■ **Shore:** 70A Weight: 500 gr



#### Perform - U95ECO

TPU 95A 3D TPU Filament

■ Color: Black (default), Natural

• **Diameter:** 1.75 (default) / 2.85

■ **Material:** TPU Filament (Thermoplastic Polyurethane)

• **Weight:** 500 gr Shore: 95A





# **3ntr 3D Polymers**

Imagine the convenience of 3D printing, in full autonomy, a box with a rigid polymer with a soft seal, or a gear with a real bushing integrated polymer!

Excellence Tech is positioning in the market with unique 3ntr printers that allows you to use more than one polymer at the same time without compromise.

Think about the possibility to print by yourself a hard polymer box with a soft gasket or a gear with an integrated bushing!

Explore on website ->



Scroll down for all materials



# **3ntr 3D Polymers**



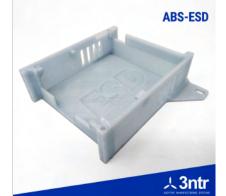
unique 3ntr printers that allows you to use more than one polymer at the same time without compromise.



#### **ABS**

ABS Polymer gets you covered.

Good surface quality, can be post processed (sanded/painted/glued) or printed along with many polymers to get functional parts.



#### **ABS ESD+**

Will dissipate any harmful static charge.

Specific for printing of production tools of sensitive electronic devices.



### **ABS HD**

Biocompatible: ISO 10993 1 USP Class VI

Food contact approved material acc. EU No 10/2011 and 21 CFR FDA



#### **ABS FAST**

Print fast with excellent surface

Special compound with high melt flow rate, to let you print very fast yet with excellent surface finish. Coupled with 0.6 or 0.8 nozzles you can decrease printing times up to 50%!



#### **PC ABS**

Chemical resistance too, is better.

PC ABS polymer works in hot water, can be plated, has better impact strength than ABS.



### **PETG Polymer**

Average surface quality.

Cost effective solution for food contact and good tensile strength.



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### **ASA Polymer**

The polymer with the best UV resistance.

If you don't like the glossiness of ABS, or you need best UV resistance, this is your polymer.



人3ntr

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### ELASTO 85 / ELASTO 95

Available in firm (SH 95A) and soft (SH 85A) versions.

Vibration dampening, mild gasketing requirements, tool grips, scratchproof jigs: all those jobs are perfect for the ELASTO family.



#### **ZWAX**

The perfect polymer for obtaining moldings.

Parts printed with this polymer are perfect for lost wax (aka microcasting). To get metal parts at prices and density often better than the one from expensive sintering machines.



#### **IGLIDUR**

Perfect application with 3ntr multimaterial capabilities.

The tribologic (aka: low friction) properties of this polymer find perfect application with 3ntr multimaterial capabilities.



#### **NYLON+**

Good thermal and mechanical resistance.

Nylon + polymer is perfect for jigs, poka-yoke and other tools.



### GLASS +

Popular into automotive production.

When you ask for more performance from nylon, adding hollow microspheres gets you lighter builds, with better heat resistance and electrical insulation capabilities.



**CARBON +** 

Heat resistance is impressive as well.

The ultimate nylon is compounded with carbon microfibers to reach very high tensile and flexural strengths.



### **Npower**

Almost no chemical compound can degrade this polymer.

Npower has also self extinguishing (UL94 VO).



# anisoprint

## anisoprint Composite Materials

Composite reinforcing fibers in the form of a tow comprised of thousands of ultrathin carbon or basalt monofilaments. Impregnated with a special polymer composition ensuring high-quality adhesion between the polymers and the fiber. Composite fiber is used to reinforce the plastic during fabrication of the part.

### **CCF Materials & CBF Materials:**

Additive manufacturing solutions of composite parts reinforced with continuous fibers, is based on dual-matrix composite co-extrusion technology (CFC - Composite Fiber Co-extrusion) and allows manufacturing strong, lightweight parts of complex shapes to tailored material properties.

Learn more about composite 3D printing.

Explore on website 🔷



Scroll down for all materials



# anisoprint Composite Materials



Composite reinforcing fibers in the form of a tow comprised of thousands of ultrathin carbon or basalt monofilaments.

### **CCF Materials - Ballistic Carbon Fiber**

30 times stiffer & stronger than normal plastic.

- Strength-to-weight ratio is more than 5 times higher than for 2024-T351 Aluminum.
- Stiffness-to-weight ratio is more than 5 times higher than for 2024-T351 Aluminum.
- 7 times lighter than steel and strong as stainless steel.





### **CBF Materials - Composite Basalt Fiber**

15 times stiffer & stronger than normal plastic.

- Strength-to-weight ratio is more than 2 times higher than for 2024-T351 Aluminum.
- 5 times lighter than steel and strong as stainless steel.
- A 750m spool will be enough to fabricate a fully composite 55x55x55mm cube or a fully composite A4-sized plate with a thickness of 2.5mm.
- A 750m spool will be enough to fabricate a fully composite 55x55x55mm cube or a fully composite A4-sized plate with a thickness of 2.5mm.

#### **SMOOTH PA**

Can be printed without a dryer.

Plastic specially formulated by Polymaker for the perfect surface quality and ease of use. SMOOTH PA gives parts a smooth finish and matte look, it is used for the external shell of the part.

It is a perfect choice for making a surface stiff and hard, featuring better mechanical properties than pure plastics. It is a carbon fiber-filled polyamide developed by Polymaker specifically for the perfect surface quality and ease of use.





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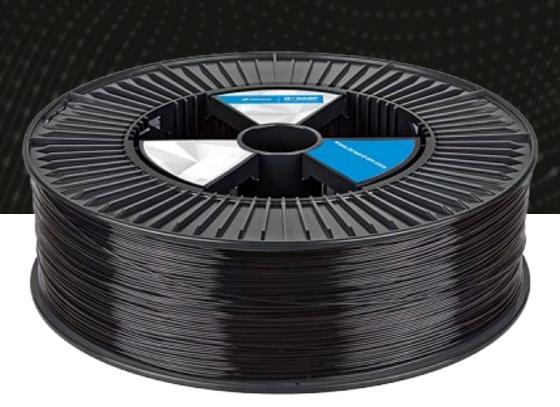
# **DBUILDER**

## **BUILDER 3D Printer Filament**

All the models come with Builder's self-developed Dual-Feed extruder, a 7-inch touch display, a heated bed (up to 60°C) and an on-board camera, Wi-Fi connection and an integrated UPS system which enables you to finish a print after an unexpected power cut.

Builder Extreme is fully closed to ensure the best print quality possible. With Builder Extreme, large scale 3D printing has become affordable and accessible.

Explore on website ->



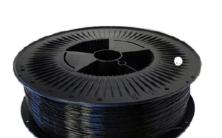
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# **BUILDER 3D Printer Filament**



Builder Extreme is fully closed to ensure the best print quality possible.



### **PLA 3D Printing Filament**

PLA 1.75MM FILAMENT (Polylactic Acid)

Material: PLA

• **Weight (Kg):** 4,5kg

■ Colors: Blue-White-Red Orange-Yellow Grey-Black

• Diameter (mm): 1,75mm

■ **Nozzle (°C):** 210-220 °C

■ **Bed (°C):** 45-60 °C

• Use For: Moulds, tooling, 3D prototyping and props.



### **PET 3D Printing Filament**

Polyethylene terephthalate (PET)

Material: PET

**Weight (Kg):** 4,5kg

Colors:

Transparent-Gold-Red Yellow-Orange-Green Blue-Black

• Diameter (mm): 1,75mm

■ **Nozzle (°C):** 210-220 °C

■ **Bed (°C):** 45-60 °C

Use For: Food packaging, packaging, 3D prototyping.



#### **PRO1 PLA Filament**

BASF Ultrafuse PRO1 PLA Filament



Material: PRO1

• **Weight (Kg):** 4,5kg

■ Colors: Black

Grey White • Diameter (mm): 1,75mm

■ **Nozzle (°C):** 210-220 °C

■ **Bed (°C):** 45-60 °C

Use For: 3D prototyping, moulds, and end products.



### **PVA-M 3D Printer Filament**

**PVA Filament** 

Material: PVA-M

• Weight (Kg): 1,0kg

• Colors: White

• Diameter (mm): 1,75mm

■ **Nozzle (°C):** 210-220 °C

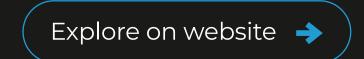
■ **Bed (°C):** 35-60 °C

• **Use For:** Dual prints for support



# Seamless workflow From early product concept to final production.

Stay up to date with 3D News & Articles



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- office@ballistic-bit.com
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