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POWER TO ADDITIVE INDUSTRY

We provide Additive Manufacturing Machines, Materials, Software Solutions and Consultation.

E-PLUS-3D

CONTENT

OVERVIEW

Our Additive Manufacturing systems are installed all over the world. This includes more than 40 countries and regions such as Europe, the Americas, Middle East, East Asia and Southeast Asia.

Eplus3D has four facilities in Beijing, Hangzhou, Stuttgart and Houston, with an annual scientific research investment of more than 20% of the revenue with comprehensive invention patents, utility model patents, software copyrights as well as appearance patents. It has made remarkable achievements in the design, process, software, materials and post-processing development for additive manufacturing.

Since founding the first SLS machine in China in 1993, Eplus3D has more than 30 years of AM technology experience and is engaged in research and development of industrial-grade Additive Manufacturing systems and application technologies with MPBF™ (Metal Powder Bed Fusion) and PPBF™ (Polymer Powder Bed Fusion) 3D printing technology.

Eplus3D provides professional application solutions for the fields of aerospace & aviation, energy, oil & gas, automotive, tooling, healthcare, consumer goods and precision manufacturing.

Eplus3D strives to bring you long-term success, from a professional start in industrial 3D Printing solutions to qualified system maintenance and globally available support. With power to additive industry, we aim to innovate the additive manufacturing from prototyping to direct production.

02 | EPLUS3D STRENGTHS

STRONG R&D BACKGROUND

Eplus3D has applied for over 120 patents and has successfully passed the Quality Management System Certification of ISO 9001:2015, Environmental Management System Certification of ISO 14001:2015 and the Occupational Health and Safety Management System Certification of ISO 45001:2018.

Eplus3D Intellectual Properties

43 Invention Patents

42 Utility Patents

15 Local Trademarks

14 Patents Pending

37 Software Copyrights

25 Design Patents

20 International Trademarks

* until May 17, 2024

Certificate

CORE TECHNOLOGY

With 30+ years of experience accumulation in additive manufacturing, Eplus3D's core technical team has been engaged in manufacturing and process research and development of AM systems. Eplus3D's professional AM solutions have been widely applied in aerospace & aviation, energy, oil & gas, automotive, tooling, healthcare, consumer goods and precision manufacturing.

The combination you need:

Multiple Core Technologies of Metal 3D Printing

Eplus3D has developed multiple core technologies of metal 3D printing, covering laser scanning path planning, protective gas control, its rapid purification with two-stage filtration system, gas saving, efficient powder spreading, precise positioning of substrates, precise temperature control, diagnosis and processing of manufacturing process, etc.

Manufacturing Technology of High-performance Metal Part

With consistency of multi-laser beam path and power, special design of wind field, mechanical performance fluctuation control and parameter matching, Eplus3D metal AM machines can realize splicing accuracy and high-quality performance.

Defect Prediction and Control of Large-scale Complex Components

Eplus3D establishes a multi-scale prediction model of internal residual stress of components based on thermal-mechanical coupling and develops control methods for deformation and cracking of components with research on temperature field, velocity field, molten pool and analysis of internal microstructure and metallurgical defect formation mechanism and control methods.

Process Integration and Optimization of Material-Design-Performance

Combining AM technology, generative design, simulation analysis and empirical mechanical performance, Eplus3D realizes high-quality manufacturing of high-performance complex metal parts, engineering plastic parts and shock-absorbing elastic products.

Automation and Intellectualization of AM Machines

Based on quality control requirements and industry application scenarios, Eplus3D develops software and hardware supported by sensors, controllers and intelligent algorithms to achieve smooth interaction, efficient processing, safety and reliability.

Material Development and Delivery Standardization

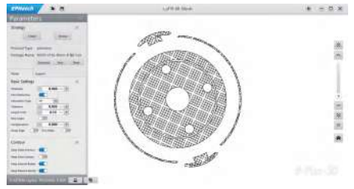
Eplus3D develops appropriate material databases, technological parameters and technical development path based on additive manufacturing technology and machine performance to provide users with mature material parameter packages to quickly form reliable production capacity and achieve unified delivery standards.

INDEPENDENT SOFTWARE

From data preparation and printing control to monitoring, Eplus3D printing software covers every process step and quality assurance for additive manufacturing. Eplus3D printing software solution ensures productivity and efficiency when using additive manufacturing.

01 Data Preparation - EPHatch

With Eplus3D printing software solution data preparation, you can make your first steps in additive manufacturing as efficient as possible. The software enables you to assign and optimize process parameters for industrial 3D printing on Eplus3D additive manufacturing machines effectively. Alternatively, the path planning modules of other software providers such as our partners below can be used.



Additive CADS Print better.

OQTON

materialise

VOXEL DANCE

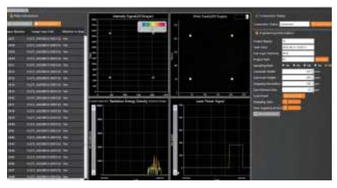
02 Printing Control Software - EPControl

Every AM machine manufactured by Eplus3D will be equipped with Eplus3D Control Software independently developed. New UI design with a touchable screen makes intelligent operations.

03 Process Monitoring & Quality Assurance & IOT Modules

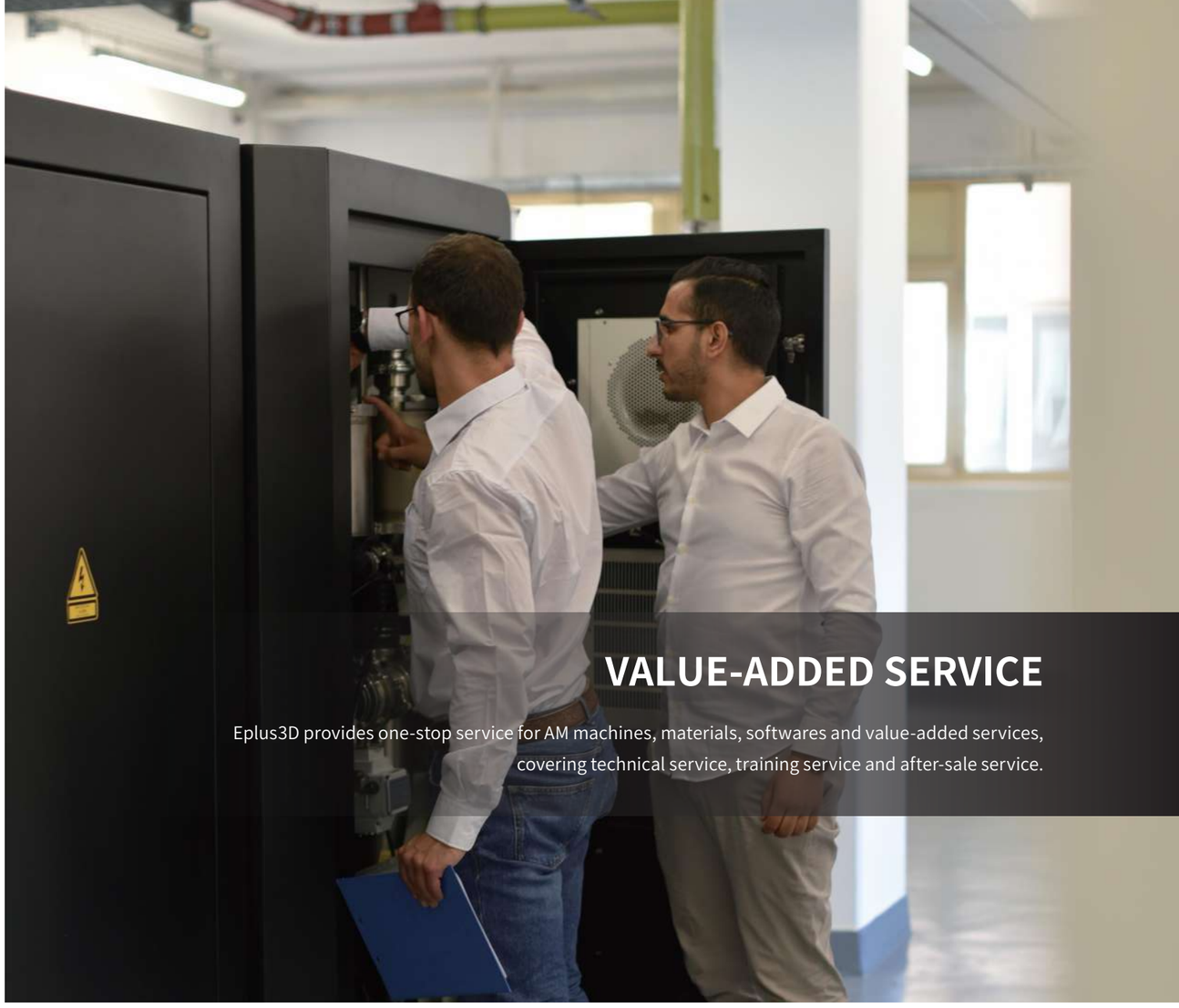
For real-time monitoring of the laser-based metal powder bed fusion process, Eplus3D provides users with quality control solutions driven by the analysis of the process.

Powderbed Monitoring System



Meltpool Intensity Monitoring System

IOT Management System



VALUE-ADDED SERVICE

Eplus3D provides one-stop service for AM machines, materials, softwares and value-added services, covering technical service, training service and after-sale service.

Technical Service

Eplus3D engineers provides commissioning system service, covering on-site installation, machine calibration, printing process monitoring and printed parts testing service.

Training Service

Eplus3D provides on-site and remote training service to transfer know-how to our customers, covering system operation training, quality control service, basic & advanced level training, software training and application training. After each training, you will be entitled to fully operate our AM machines with a training certificate from Eplus3D.

After-sale Service

Eplus3D provides a complete after-sale service for the customers to ensure stability and maintenance, covering troubleshooting & maintenance, remote service, online support, local spare parts supply, AM technology consulting and application consulting.

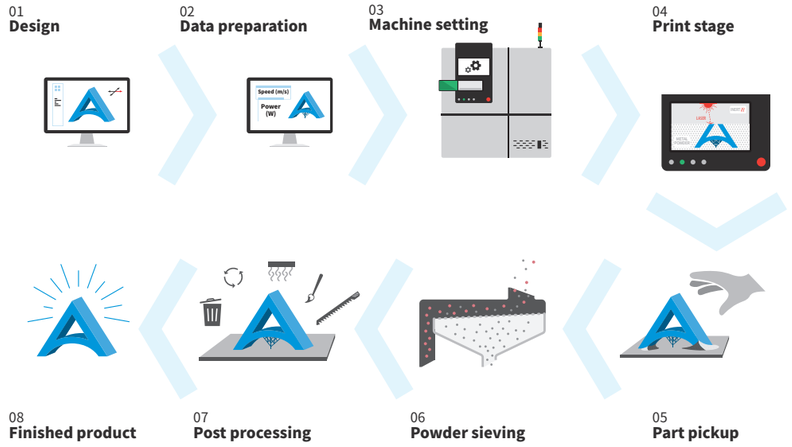
03 | PRODUCTS & SERVICE

METAL POWDER BED FUSION MACHINES

Eplus3D provides advanced metal additive manufacturing solutions to bring higher productivity, product quality and working efficiency for enterprises as well as small businesses, including aerospace, automotive, tooling, healthcare, dental, consumer products, education, and others.

Metal Powder Bed Fusion（MPBF™）

EP-M150	EP-M150Pro	EP-M260	EP-M300	EP-M400
EP-M400S	EP-M450	EP-M450H	EP-M650	EP-M650H
EP-M825	EP-M1250	EP-M1550	EP-M2050	



POLYMER POWDER BED FUSION MACHINES

Eplus3D adopts polymer powder bed fusion (PPBF™) technology to ensure you the capability for customized products and production. These machines can be applied in aerospace, automotive, consuming goods, machinery and healthcare industries, etc.

Polymer Powder Bed Fusion（PPBF™）

EP-P280	EP-P420

EP-M150

Compact & Entry System

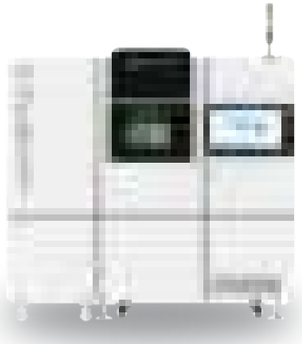
Parameter

Build Volume (X x Y x Z)	Φ 150 x 140 mm (Φ 5.91 x 5.51 in) (height incl. build plate)
Optical System	Fiber Laser 200 W (single or dual-laser optional)
Spot Size	40 - 60 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 35 cm^3/h
Layer Thickness	20 - 50 µm
Material	Titanium Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, etc.
Power Supply	220 V, 50 / 60 Hz, 3 / 4 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	1750 x 799 x 1828 mm
Weight	900 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Industrial, Healthcare, Education, Scientific Research





EP-M150Pro

Industrial Production System

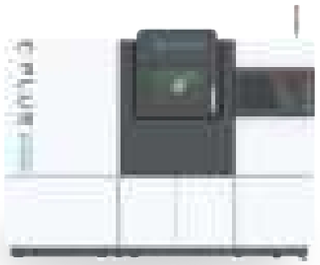
Parameter

Build Volume (X x Y x Z)	Φ 150 x 240 mm (Φ 5.91 x 9.45 in) (height incl. build plate)
Optical System	Fiber Laser 500 W (single or dual-laser optional)
Spot Size	70 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 55 cm^3/h
Layer Thickness	20 - 100 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, etc.
Power Supply	380 V, 50 / 60 Hz, 12 / 13.5 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	2120 x 980 x 2250 mm
Weight	1500 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Industrial, Healthcare, Education, Scientific Research





EP-M260

Flexible Production System

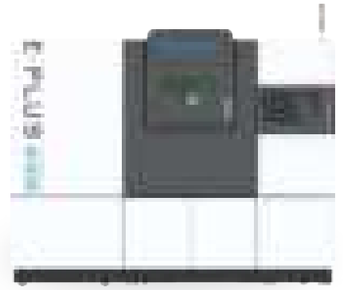
Parameter

Build Volume (X x Y x Z)	260 x 260 x 390 mm (10.24 x 10.24 x 15.35 in) (height incl. build plate)
Optical System	Fiber Laser 500 W / 700 W (single or dual-laser optional)
Spot Size	70 - 100 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 55 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Power Supply	380 V, 50 / 60 Hz, 5 / 6 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	2800 x 1300 x 2410 mm
Weight	2300 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics





EP-M300

Highly Productive System

Parameter

Build Volume (X x Y x Z)	300 x 300 x 450 mm (11.81 x 11.81 x 17.72 in) (height incl. build plate)
Optical System	Fiber Laser 500 W / 700 W (single or dual-laser optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 95 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Power Supply	380 V, 50 / 60 Hz, 5 / 8 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	2990 x 1320 x 2590 mm
Weight	2900 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics



EP-M400

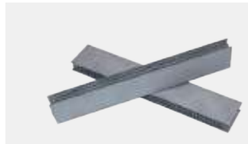
Large Size & High Speed & Cost-effective System

Parameter

Build Volume (X x Y x Z)	400 x 400 x 450 mm (15.75 x 15.75 x 17.72 in) (height incl. build plate)
Optical System	Fiber Laser 1 / 2 / 3 / 4 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 190 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Power Supply	380 V, 50 / 60 Hz, 12.5 ~ 18 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	3925 x 1690 x 2780 mm
Weight	5000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics



EP-M400S

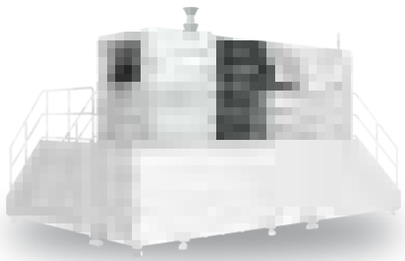
Large Size & High Speed & Cost-effective System

Parameter

Build Volume (X x Y x Z)	400 x 400 x 450 mm (15.75 x 15.75 x 17.72 in) (height incl. build plate)
Optical System	Fiber Laser 1 / 2 / 3 / 4 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 190 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Power Supply	380 V, 50 / 60 Hz, 12.5 ~ 18 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	3530 x 1700 x 2800 mm
Weight	5000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics



EP-M450

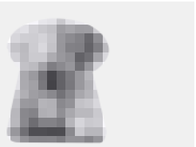
Highly Stable & Productive System

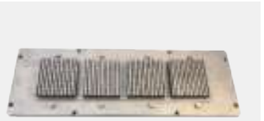
Parameter

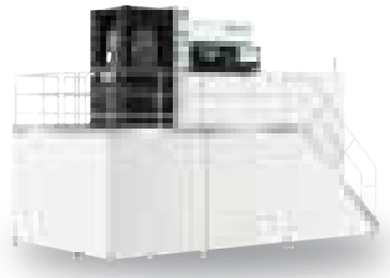
Build Volume (X x Y x Z)	450 x 450 x 550 mm (17.72 x 17.72 x 21.65 in) (height incl. build plate)
Optical System	Fiber Laser 1 / 2 / 4 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 190 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Power Supply	380 V, 50 / 60 Hz, 14 ~ 22 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	5670 x 3700 x 3325 mm
Weight	10000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics







EP-M450H

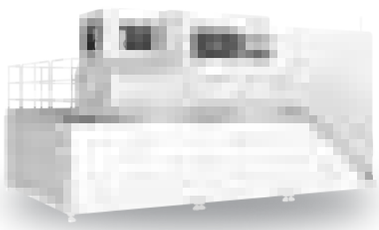
Large Format Production System

Parameter

Build Volume (X x Y x Z)	450 x 450 x 1080 mm (17.72 x 17.72 x 42.52 in) (height incl. build plate)
Optical System	Fiber Laser 1 / 2 / 4 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 190 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Power Supply	380 V, 50 / 60 Hz, 14 ~ 22 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	6410 x 3670 x 4850 mm
Weight	15000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics



EP-M650

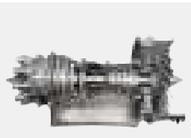
Quad Laser Metal AM System

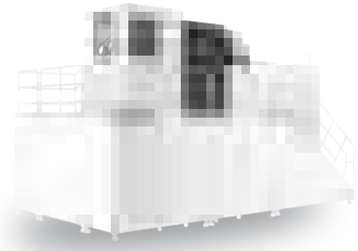
Parameter

Build Volume (X x Y x Z)	650 x 650 x 800 mm (25.59 x 25.59 x 31.49 in) (height incl. build plate)
Optical System	Fiber Laser 4 / 6 / 8 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 190 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Power Supply	380 V, 50 / 60 Hz, 18 ~ 23 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	6800 x 3945 x 3785 mm
Weight	15000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics





EP-M650H

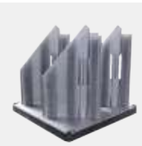
Quad Laser Large Size Metal AM System

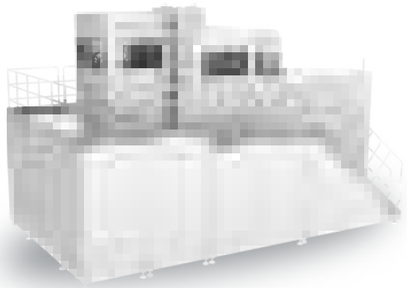
Parameter

Build Volume (X x Y x Z)	650 x 650 x 1080 mm (25.59 x 25.59 x 42.52 in) (height incl. build plate)
Optical System	Fiber Laser 4 / 6 / 8 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 190 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc.
Power Supply	380 V, 50 / 60 Hz, 18 ~ 23 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	7200 x 3950 x 4900 mm
Weight	20000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics





EP-M825

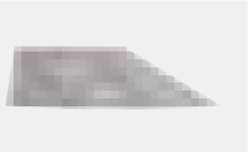
Ten Laser Large Format Metal AM System

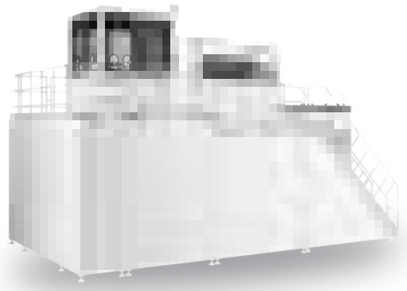
Parameter

Build Volume (X x Y x Z)	825 x 825 x 1100 mm (32.5 x 32.5 x 43.3 in) (height incl. build plate)
Optical System	Fiber Laser 4 / 6 / 8 / 10 x 500 W (700 W is optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 410 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc
Power Supply	380 V, 50 / 60 Hz, 29.5 ~ 40 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	8290 x 4690 x 5470 mm
Weight	35000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics





EP-M1250

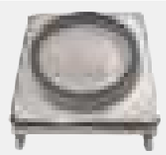
Nine Laser & Largest Metal AM System

Parameter

Build Volume (X x Y x Z)	1250 x 1250 x 1350 mm (49.21 x 49.21 x 53.15 in) (height incl. build plate)
Optical System	Fiber Laser 9 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 370 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc
Power Supply	380 V, 50 / 60 Hz, 38.5 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	9000 x 4800 x 6300 mm
Weight	50000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics



EP-M1550

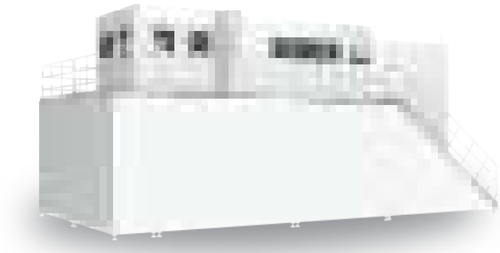
16-Laser Large Format Metal AM System

Parameter

Build Volume (X x Y x Z)	1550 x 1550 x 1100 mm (61.02 x 61.02 x 43.31 in) (height incl. build plate)
Optical System	Fiber Laser 16 x 500 W (25 lasers optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 650 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc
Power Supply	380 V, 50 / 60 Hz, 77 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	10180 x 5690 x 5650 mm
Weight	70000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics



EP-M2050

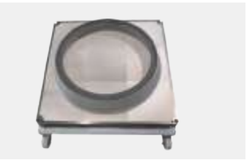
36-Laser Large Format Metal AM System

Parameter

Build Volume (X x Y x Z)	2050 x 2050 x 1100 mm (80.71 x 80.71 x 43.31 in) (height incl. build plate)
Optical System	Fiber Laser 36 / 49 / 64 x 500 W (700 W is optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 1080 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium Alloy, Aluminum Alloy, Nickel Alloy, Maraging Steel, Stainless Steel, Cobalt Chrome, Copper Alloy, etc
Power Supply	380 V, 50 / 60 Hz, 117 kW
Gas Supply	Ar / N_2
Oxygen Content	⩽100 ppm
Dimension (W x D x H)	12685 x 7185 x 6530 mm
Weight	145000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics



MPBF ACCESSORIES

• Powder Dry Oven

The powder may gain moisture when the storage condition is of high humidity, this may affect the powder flowability then lead to the degradation of printing quality. The powder dry oven is used to dry the metal powder in a small vacuum.

• Nitrogen Generator

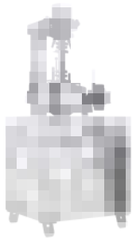
The nitrogen generator is for producing nitrogen gas in order to inert the atmosphere in the metal printer.

• Vacuum Cleaner

The vacuum cleaner is used for cleaning the build chamber as well as any dust and waste powder. The vacuum cleaner works as a wet separator and is ATEX approved.

• Powder Conveyor

The powder-collecting machine is used to collect the metal powder from the printing platform as well as from the powder collecting tank of the metal printer.

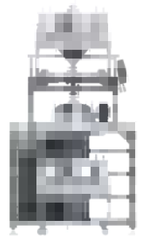


• Sieving Machine EP-MS400

The sieving machine is used for powder sieving. After sieving, the metal powder can be reused in the next printing job.

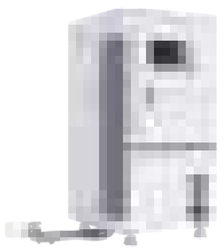
• Sieving Machine EP-MS500

The sieving machine is used for powder sieving. After sieving, the metal powder can be reused in the next printing job. This sieving system offers the automatic extraction of large particles into a separate bin. Therefore, continuous sieving without interruption is guaranteed. The machine uses oscillating movement of the sieve as well as ultrasonic for the best sieving speed.



• Ultrasonic Sieving Machine EP-MS600

This product is mainly used for sieving all metal powder, the sieving process will filter out the big particles like weld splatters and fumes generated in the printing process, the powder can be reused after sieving.



• Automatic Powder Feeding System EP-MF400

It is mainly used for automatic powder feeding for large-size metal 3d printer.

• Closed Loop Sieving Tower EP-MC500

It is used to collect, sieve and feed the powder to realize the closed loop.

• Powder Cleaning Station EP-MC650

The parts that are still fixed on the build plate after removing them from the machine can be cleaned in this equipment. It is usually used for parts from large-size machinery.

METAL MATERIALS

Eplus3D metal printers are available from entry-level models to muti-laser machines for additive production at industrial grades. We also provide advanced processes industrial metal 3D printing with the most various metal material compatible, including aluminum alloys, titanium alloys, cobalt chrome, nickel-based alloys, stainless steel, tool steel, copper alloys, and other micro-grade metal powders.

Select from our quality-controlled 3D materials from our material expertise. We are happy to support you in finding the right material that helps you achieve your design, development and industrial production targets.

·Nickel Alloys

HX/2.4665			
Typical Parts Properties as Built			
Density	8.3 g/cm³	Elongation @ Break	XY: 33 ± 5 %; Z: 37 ± 5 %
Tensile Strength	XY: 900 ± 50 MPa; Z: 800 ± 50 MPa	Yield strength:	XY: 700 ± 50 MPa; Z: 650 ± 50 MPa

IN625/2.4856			
Typical Parts Properties as Built			
Density	8.4 g/cm³	Elongation @ Break	XY: 30 ± 5 %; Z: 35 ± 5 %
Tensile Strength	XY: 1000 ± 50 MPa; Z: 900 ± 50 MPa	Hardness	70 ± 3 HRB
Yield strength	XY: 760 ± 50 MPa; Z: 630 ± 50 MPa		

IN718/2.4668			
Typical Parts Properties as Built			
Density	8.2 g/cm³	Elongation @ Break	XY: 27 ± 5 %; Z: 31 ± 5 %
Tensile Strength	XY: 1060 ± 50 MPa; Z: 930 ± 50 MPa	Hardness	74 ± 4 HRB
Yield strength	XY: 780 ± 50 MPa; Z: 634 ± 50 MPa		

·Aluminum

AlSi10Mg/3.2382			
Typical Parts Properties as Built			
Density	2.7 g/cm³	Elongation @ Break	XY: 9 ± 2 %; Z: 6 ± 2 %
Tensile Strength	XY: 460 ± 30 MPa; Z: 460 ± 30 MPa	Hardness	70 ± 3 HRB
Yield strength	XY: 270 ± 30 MPa; Z: 230 ± 30 MPa		

AlSi7Mg			
Typical Parts Properties as Built			
Density	2.68 g/cm³	Elongation @ Break	12.5 ± 0.5 %
Tensile Strength	XY: 423 ± 5 MPa; Z: 499 MPa	Thermal conductivity	150 - 170 W/(mK)
Yield strength	XY: 270 ± 5 MPa; Z: 287 MPa		

·Stainless Steel

316L/1.4404			
Typical Parts Properties as Built			
Density	7.9 g/cm³	Elongation @ Break	XY: 50 ± 10 %; Z: 70 ± 20 %
Tensile Strength	XY: 670 ± 50 MPa; Z: 540 ± 50 MPa	Hardness	34 ± 3 HRC
Yield strength	XY: 530 ± 60 MPa; Z: 470 ± 90 MPa		

17-4PH/1.4542			
Typical Parts Properties as Built			
Density	7.8 g/cm³	Elongation @ Break	21 ± 3 %
Tensile Strength	XY: 960 ± 30 MPa; Z: 860 ± 30 MPa	Hardness	35 ± 3 HRC
Yield strength	XY: 910 ± 30 MPa; Z: 830 ± 30 MPa		

·Titanium

Ti6Al4V/3.7165			
Typical Parts Properties as Built			
Density	4.4 g/cm³	Elongation @ Break	10 ± 2 %
Tensile Strength	XY: 1200 ± 50 MPa; Z: 1180 ± 50 MPa	Hardness	36 ± 4 HRC
Yield strength	XY: 1100 ± 50 MPa; Z: 1080 ± 50 MPa		

·Copper

CuSn			
Typical Parts Properties as Built			
Density	8.5 g/cm³	Elongation @ Break	17 ± 4 %
Tensile Strength	XY: 490 ± 30 MPa; Z: 380 ± 20 MPa	Hardness	74 ± 4 HRB
Yield strength	XY: 400 ± 40 MPa; Z: 340 ± 30 MPa		

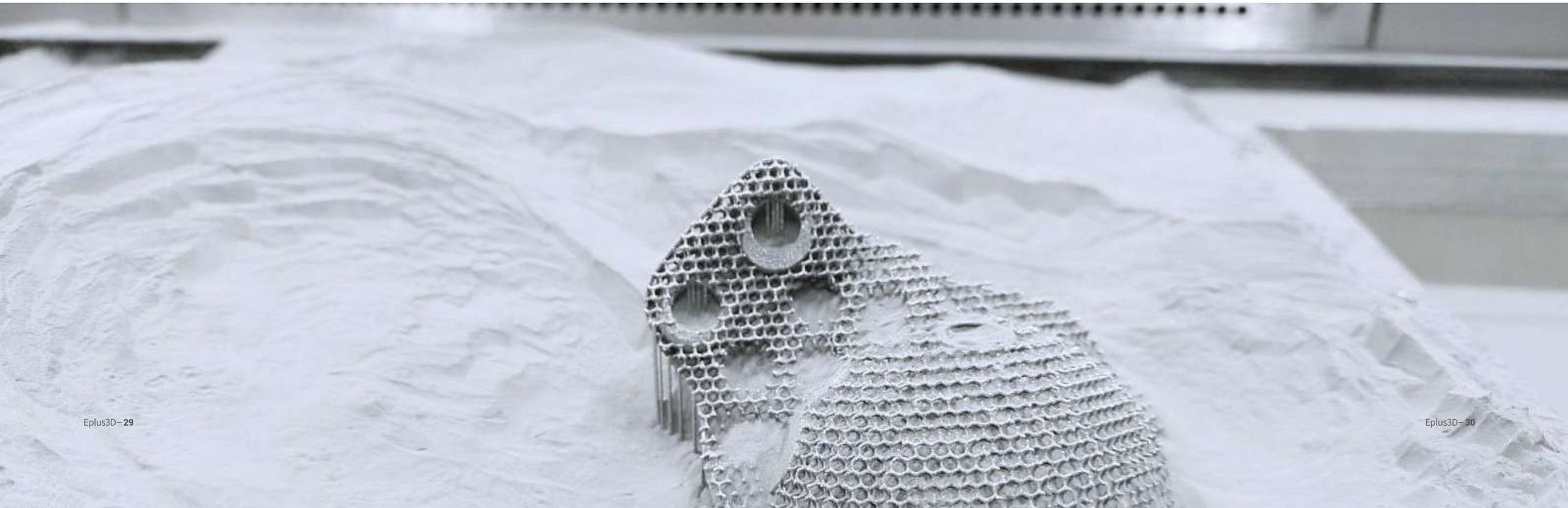
·Cobalt Chrome

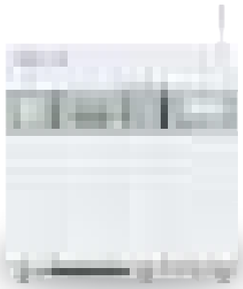
F75 / 2.4979			
Typical Parts Properties as Built			
Density	8.3 g/cm³	Elongation @ Break	6 ± 2 %
Tensile Strength	XY: 1310 ± 20 MPa; Z: 1010 ± 30 MPa	Hardness	38 ± 5 HRC
Yield strength	XY: 1030 ± 20 MPa; Z: 790 ± 30 MPa		

·Maraging Steel

13Ni400			
Typical Parts Properties as Built			
Density	8.9 g/cm³	Elongation @ Break	XY: 12~15.5 %; Z: 10~12.5 %
Tensile Strength	XY: 1370 ~ 1424 Mpa; Z: 1210 ~ 1289 Mpa	Hardness	44 ~ 44.5 HRC
Yield strength	XY: 1370 ~ 1424 Mpa; Z: 1210 ~ 1289 Mpa		

18Ni300/ 1.2709			
Typical Parts Properties as Built			
Density	8.1 g/cm³	Elongation @ Break	XY: 18 ± 3 %; Z: 15 ± 3 %
Tensile Strength	XY: 1150 ± 50 MPa; Z: 1050 ± 50 MPa	Hardness	36 ± 4 HRC
Yield strength	XY: 1100 ± 50 MPa; Z: 950 ± 50 MPa		





EP-P280

Parameter

Machine Model	EP-P280
Building Chamber Size	280 x 280 x 350 mm
Effective Build Size	250 x 250 x 330 mm
Dimension	1830 x 1280 x 2120 mm
Material	PP, TPU, PA 12, PA 11, PA 6 and its composite
Machine Weight	1600 kg
Scanning Speed	Max. 15 m/s
Max. Chamber Temperature	230 °C
Power Supply	AC 380 V, 63 A, 11.5 kW, 50 / 60 Hz
Layer Thickness	0.06 - 0.3 mm
Laser Power	CO_2 Laser，55 W
Building Speed	1500 cm^3/h
Gas Supply	N_2
Thermal Field Control	Independent four-zone temperature control system
Temperature Regulation	Continuous real-time building surface temperature monitoring
Control Software	EPControl, EPHatch
Output Data Format	STL .OBJ .STEP or other convertible file

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics

EP-P420

Parameter

Machine Model	EP-P420
Building Chamber Size	420 x 420 x 465 mm
Effective Build Size	380 x 380 x 425 mm
Dimension	2378 x 1394 x 2505 mm
Material	PA11, PA12, PA6 and its composites
Machine Weight	3000 kg
Scanning Speed	Max. 15 m/s
Max. Chamber Temperature	230 °C
Power Supply	AC 380 V, 50 / 60 Hz, 15 kW
Layer Thickness	0.06 - 0.2 mm
Laser Power	CO_2 Laser，120 W
Building Speed	2500 cm^3/h
Gas Supply	N_2
Thermal Field Control	Independent four-zone temperature control system
Temperature Regulation	Continuous real-time building surface temperature monitoring
Control Software	EPControl, EPHatch
Output Data Format	STL .OBJ .STEP or other convertible file

Application Area

Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics

POWDER MANAGEMENT WORKFLOW FOR PPBF MACHINES

Eplus3D powder management workflow for PPBF machines efficiently integrates various powder handling procedures, encompassing powder recycling, storage, sieving, and refreshed powder supply. The entire workflow is executed in a fully enclosed atmosphere to ensure optimal performance and material integrity.

EP-P420 Workflow

PPBF ACCESSORIES

- **Powder Cleaning Platform** (For EP-P420)

- **Powder Cleaning Platform** (For EP-P280)

- **Sand Blaster**

- **Industrial Vacuum Cleaner**

POLYMER MATERIALS

Eplus3D has exceptional materials expertise and a comprehensive portfolio of highly developed polymer materials for laser sintering in additive manufacturing. Our 3D printing materials, systems and process parameters fit together perfectly. With the right Eplus3D materials, customers can realize the target property profiles in the best possible way for products.

·TPU

LUVOSINT® X92A-2			
Typical Part Properties			
Tensile Strength	XY: 20 MPa; Z: 15 MP	Elongation @ Break	XY: 520 %; Z: 500 %
Flexural Modulus	27 MPa		

Ultrasint® TPU 88A			
Typical Part Properties			
Tensile Strength	XY: 8 MPa; Z: 7 MP	Elongation @ Break	XY: 270 %; Z: 130 %
Flexural Modulus	70 MPa		

·PA

EP-PA12			
Typical Part Properties			
Tensile Strength	46 Mpa	Elongation @ Break	25 %
Tensile Modulus	1000 MPa		

EP-PA12GF			
Typical Part Properties			
Tensile Strength	46 MPa	Elongation @ Break	8 %
Tensile Modulus	3000 MPa		

Ultrasint® PA11 Black		
Typical Part Properties		
Tensile Strength	Dry: XY: 52 Mpa; Z: 52 Mpa	Wet: XY: 45 Mpa; Z: 45 Mpa
Tensile Modulus	Dry: XY: 1750 Mpa; Z: 1700 Mpa	Wet: XY: 1150 Mpa; Z: 1200 Mpa
Elongation @ Break	Dry: XY: 26 %; Z: 24 %	Wet: XY: 42 %; Z: 31 %

Ultrasint® PA11 black CF		
Typical Part Properties		
Tensile Strength	Dry: XY: 82 Mpa; Z: 55 Mpa	Wet: XY: 71 Mpa; Z: 48 Mpa
Tensile Modulus	Dry: XY: 5900 Mpa; Z: 2500 Mpa	Wet: XY: 4550 Mpa; Z: 2000 Mpa
Elongation @ Break	Dry: XY: 7 %; Z: 11 %	Wet: XY: 11 %; Z: 17 %

Ultrasint® PA11		
Typical Part Properties		
Tensile Strength	Dry: XY: 52 Mpa; Z: 54 Mpa	Wet: XY: 45 Mpa; Z: 46 Mpa
Tensile Modulus	Dry: XY: 1750 Mpa; Z: 1800 Mpa	Wet: XY: 1100 Mpa; Z: 1250 Mpa
Elongation @ Break	Dry: XY: 28 %; Z: 24 %	Wet: XY: 45 %; Z: 31 %

Ultrasint® PA11 ESD		
Typical Part Properties		
Tensile Strength	Dry: XY: 65 Mpa; Z: 55 Mpa	Wet: XY: 55 Mpa; Z: 47 Mpa
Tensile Modulus	Dry: XY: 3150 Mpa; Z: 2150 Mpa	Wet: XY: 2300 Mpa; Z: 1550 Mpa
Elongation @ Break	Dry: XY: 20 %; Z: 23 %	Wet: XY: 22 %; Z: 31 %

INFINAM® PA 6001 P			
Typical Part Properties			
Tensile Strength	XY: 50 Mpa; Y: 50 Mpa; Z: 50 Mpa	Elongation @ Break	X: 16 %; YZ: 8 %
Tensile Modulus	1700 MPa		

·PP

Ultrasint® PP nat 01			
Typical Part Properties			
Tensile Strength	XY: 28 MPa; Z: 28 MPa	Elongation @ Break	XY: 30 %; Z: 10 %
Tensile Modulus	XY: 1400 MPa; Z: 1400 MPa		

04 | CORPORATION BACKGROUND

Development History

1993
·Developed first SLS Machine in China.

2014
·Eplus3D Tech Co., Ltd. is established.

2015
·Successfully developed metal AM machine EP-M250 and Polymer AM machines EP-P3650, EP-P3850.

2016
·Awarded the Certificate of "National High-tech Enterprise".
·Took the lead in undertaking the national key research and development project of "Large-size powder bed laser selective melting additive manufacturing process and equipment research and development".
·Beijing production base is completed and put into operation.

2017
·Awarded the Second Prize of "Beijing Municipal Science and Technology Awards".

2014-2018
Technology Breakthroughs Period

2019
·Successfully developed metal AM machines EP-M150, EP-M250Pro and EP-M650.

2020
·Successfully developed metal AM machines EP-M300 & EP-M450, Polymer AM machine EP-P420.
·Awarded the title of Beijing "Specialized, Excellent, Featured and Innovative" Enterprise.

2021
·Successfully developed metal AM machines EP-M1250 & EP-M260.
·Awarded the title of "Zhongguancun High-tech Enterprise".
·Awarded ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 Quality Management System Certificates.
·Established a new subsidiary in Stuttgart, Germany.

2019-2021
Business Development Period

2022
·Eplus3D moved into new headquarters to accommodate business growth on metal 3D printing.

2023
·Eplus3D established a new subsidiary in Houston, USA.

2022-2025
Industrialization Development Period

BUSINESS SCOPE

Eplus3D is a professional additive manufacturing equipment manufacturer and application solution provider, especially in the field of metal 3D printers. We have a comprehensive leading industrial 3D printing technology and the advantage of cost effectiveness.

Eplus3D provides one-stop service solution to our partners. We focus on Additive Manufacturing Machines, Materials, Software and Service.

ONE-STOP SOLUTION

- AM Machines
- AM Materials
- Software Solution
- 3D Consultation Service

GLOBAL BRANCHES

Stuttgart, Germany (EMEA)

- Located in Stuttgart
- Over 600 m² in the city center
- Sales & Technical service center in Europe

Houston, USA (AMERICAS)

- Showroom with small and mid-size systems
- Application development
- Warehouse with all consumables and spare parts

Hangzhou, China (HQ & APAC)

- Located in Hangzhou
- Workshop & Office Space
- Over 23000 m²
- No. 118 Yanshankong Road, Xiaoshan District, Hangzhou

Beijing, China (R&D Center)

- Located in Beijing City Center
- Sales & Technical Service Center

FOOTPRINT

Eplus3D services have been chosen and recognized by 3000+ global clients and its AM machines have been exported to more than 40 territories, covering Europe, America, Middle East, East Asia and Southeast Asia, etc.

3000+ Clients

40+ territories

800+ Machines

50+ Agents

GET FREE TECHNICAL CONSULTATION NOW!

1. Tell our expert engineer your thought of application.

2. Choose the additive manufacturing system and material.

3. We will analyze your 3d models, and you'll get application case study or white paper to meet your needs.

4. Keep paying attention to Eplus3D and never miss a chance to get a benchmark.