

COMPREHENSIVE CATALOG

SHAWAHED

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01 3D Printer

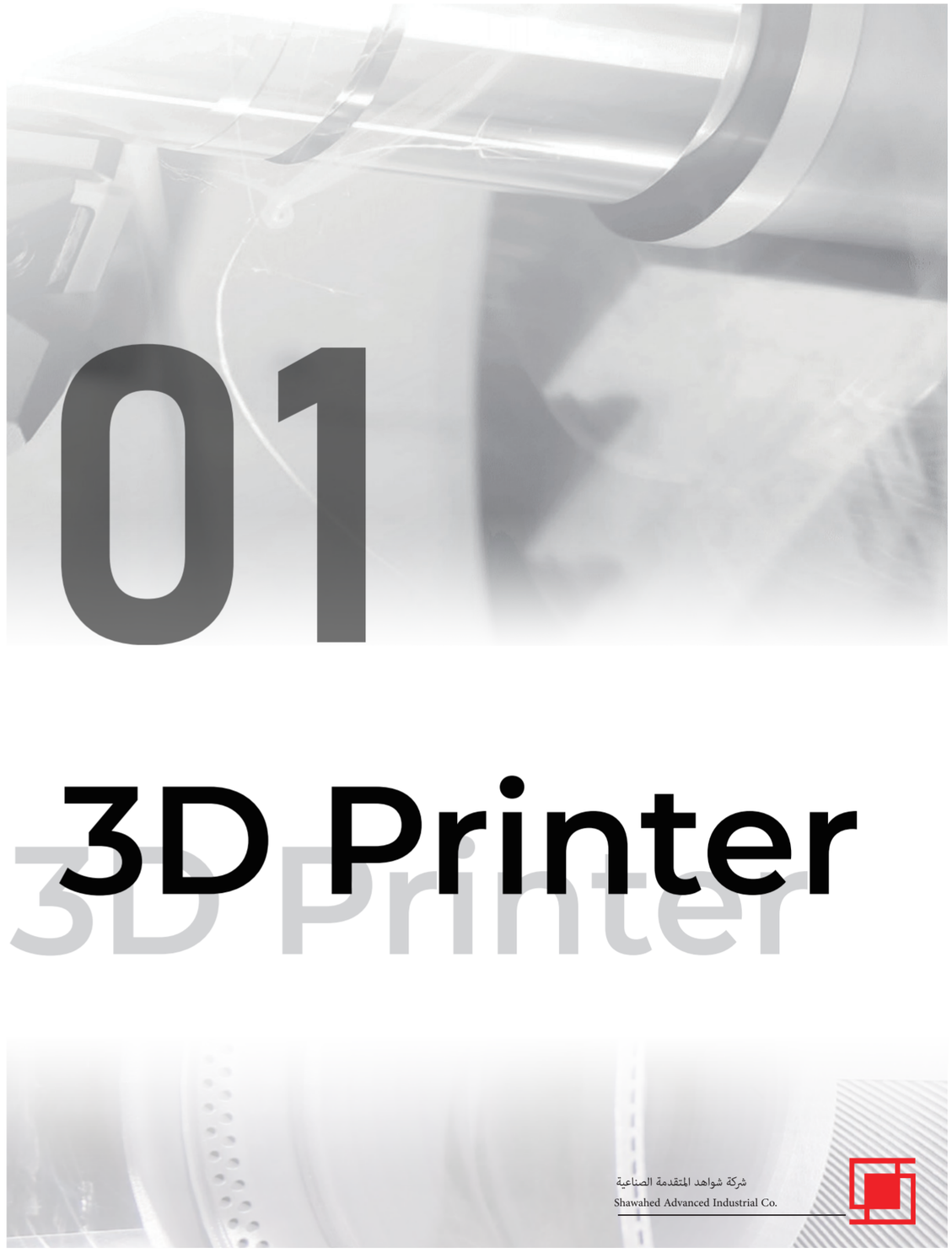
02 CNC Lathe

03 CNC Machining Center

04 5-axis Machining Center

05 Optical Grinding Machine

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01

3D Printer

3D Printer

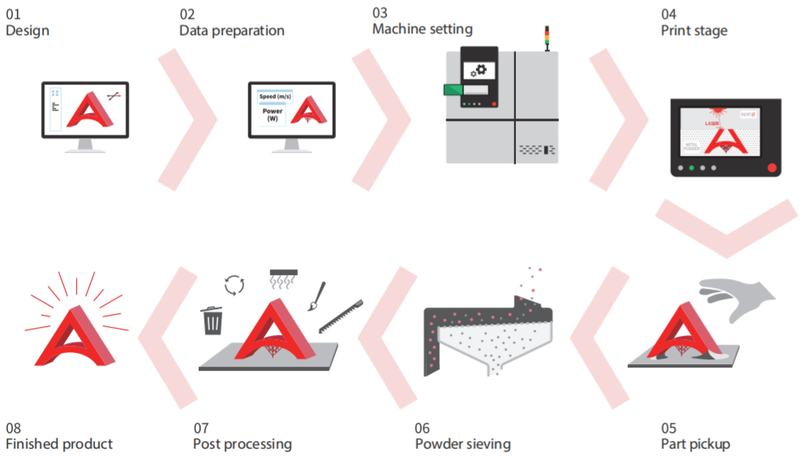
PRODUCTS & SERVICE

METAL POWDER BED FUSION MACHINES

Shawahed 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, 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-M4750	EP-M650
EP-M650H	EP-M825	EP-M1250	EP-M1550	EP-M2050



POLYMER POWDER BED FUSION MACHINES

Shawahed 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

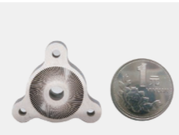
Build Volume (X x Y x Z)	Φ 150 x 140 mm (Φ 5.91 x 5.51 in) (height incl. build plate)
Optical System	Fiber Laser 200 W (single or dual-laser optional)
Spot Size	40 - 60 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 35 cm^3/h
Layer Thickness	20 - 50 µm
Material	Titanium Alloy, Nickel Alloy, Maraging 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 / 700 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, Copper Alloy, 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

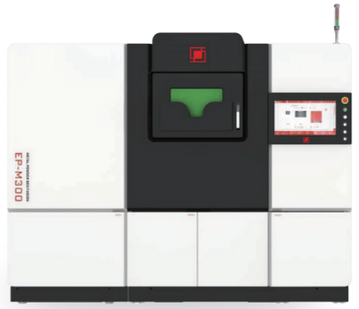
Aerospace, Automotive, Energy, Healthcare, Tooling, Machinery, Electronics







Shawahed Advanced Industrial CO.



EP-M300

Highly Productive System

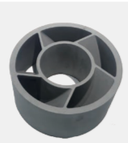
Parameter

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 / 1000 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

High Speed & Cost-effective System

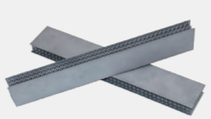
Parameter

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	5900 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

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







Shawahed Advanced Industrial CO.



EP-M400S

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	5500 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

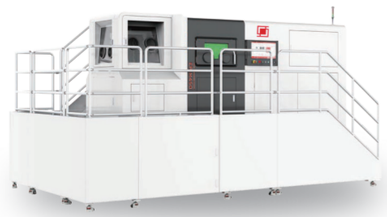
Application Area

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









EP-M450

Highly Stable & Productive System

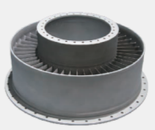
Parameter

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







Shawahed Advanced Industrial CO.



EP-M450H

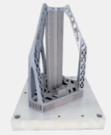
Large Format Production System

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-M4750

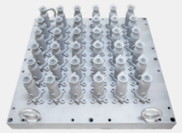
Quad Laser Metal AM System

Parameter

Build Volume (X x Y x Z)	450 x 750 x 530 mm (17.72 x 29.53 x 20.87 in) (height incl. build plate)
Optical System	Fiber Laser 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 140 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, 18.5 kW
Gas Supply	Ar / N_2
Oxygen Content	≤100 ppm
Dimension (W x D x H)	6400 x 4070 x 3585 mm
Weight	12000 kg
Software	EPControl, EPHatch
Input Data Format	STL or other Convertible File

Application Area

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







Shawahed Advanced Industrial CO.



EP-M650

Large Size Metal AM System

Parameter

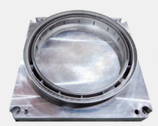
Build Volume (X x Y x Z)	650 x 650 x 800 mm (25.59 x 25.59 x 31.49 in) (height incl. build plate)
Optical System	Fiber Laser 4 / 6 / 8 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 320 cm^3/h
Layer Thickness	20 - 120 µm
Material	Titanium 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

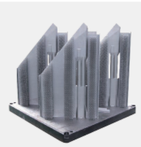
Large Size Metal AM System

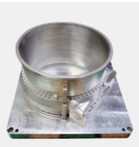
Parameter

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 320 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







Shawahed Advanced Industrial CO.



EP-M825

10-Laser Large Format Metal AM System

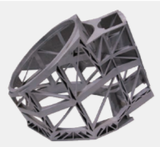
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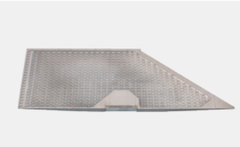
Build Volume (X x Y x Z)	825 x 825 x 1100 mm (32.48 x 32.48 x 43.31 in) (height incl. build plate)
Optical System	Fiber Laser 4 / 6 / 8 / 10 x 500 W (700 W and 1000 W are optional)
Spot Size	70 - 120 µm
Max Scan Speed	8 m/s
Theoretical Printspeed	Up to 410 cm^3/h
Layer Thickness	20 - 120 µm
Material	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

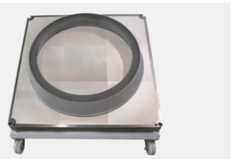
9-Laser Large Format Metal AM System

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

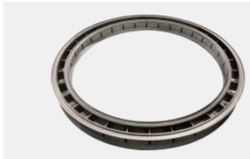
Parameter

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 / 25 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 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

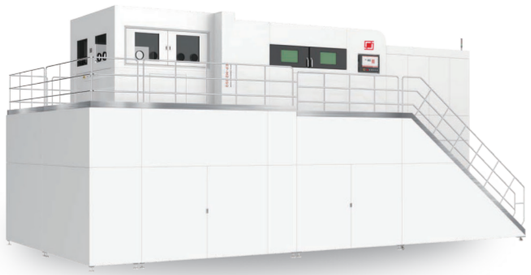
Application Area

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









EP-M2050

36-Laser Large Format Metal AM System

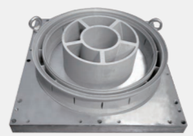
Parameter

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 and 1000 W are 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

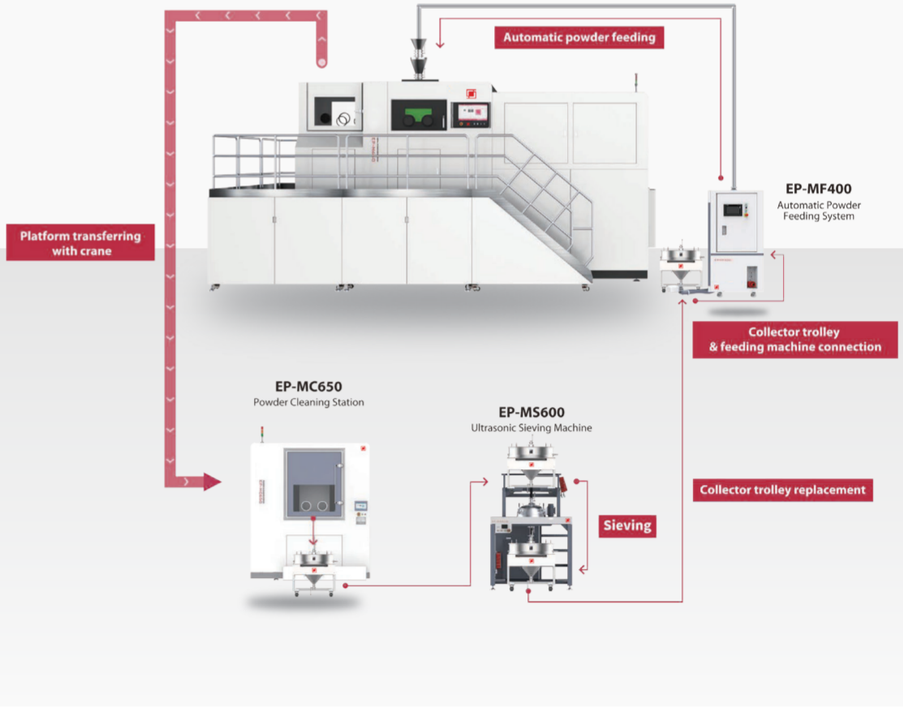




POWDER MANAGEMENT WORKFLOW FOR MPBF MACHINES

Eplus3D powder management workflow for MPBF 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-M650 Workflow



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 Conveying Machine EP-MVS320

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.



• Powder Conveying Machine EP-MVS320S

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.



• Ultrasonic 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.



• 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.