

# Industrial SLM Metal 3D Printer — MUEES430 PRO

Batch Production, Smart Manufacturing Upgraded



4 Lasers



Efficiency



Smarter

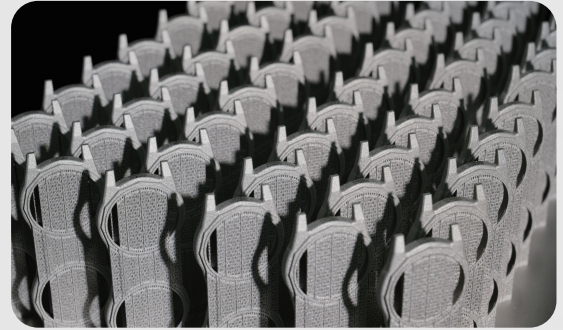


Stability



# Application Case

Sample Name Watch Case Batch Parts  
 Printer MUEES430 PRO  
 Printing Time 35.4 h  
 Size 42 × 7 × 53 mm × 116 pcs  
 Material Stainless Steel 316L



## MUEES430 PRO Specifications

Materials	Stainless Steel, Aluminum Alloy, High-Strength Aluminum, Titanium Alloy	Recoating System	Dual-Blade Bidirectional Recoating
Build Volume	430 x 340 x 330 mm	Min. Oxygen Level	100 ppm
Laser Type	Yb-fiber laser; 4 × 500 W	Compressed Air Supply	Ar/N <sub>2</sub>
Wavelength	1060~1080 nm	Preheating Temperature	Max 200 °C
Beam Quality	M <sup>2</sup> ≤ 1.2	Systems Control	22 -26 °C
Optical System	F-theta Lens	Relative Humidity	≤ 50%
Scan Speed	up to 6 m/s	Part Preparation Software	Polydevs Pro, BPC
Scan Mode	Galvo Scanning	Controller	MSCON
Layer Thickness	0.02-0.1 mm	Electrical Requirements	380 VAC, 50 Hz/60 Hz, 16 kVA
Z-axis Accuracy	±3 μm	Machine Weight	2710 kg
Accuracy	L ≤ 100 mm: ±0.1 mm L > 100 mm: ±0.1% × L	Machine Dimensions	3120 X 1470 X 2260 mm (including circulation unit )

\* Specifications are subject to change. Consult with your sales representative for confirmation of current offering.



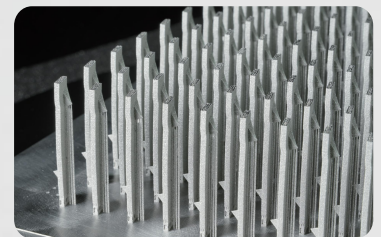
**4 lasers with high-speed galvo scanners and bidirectional powder recoating**

Efficiency up dramatically



**Real-time intelligent monitoring system for the build chamber**

Enabling traceable print quality



Tire Mold Sipe Mass Production



**Layer thickness accuracy ≤±3 μm**

Delivering high-precision printing



**Newly designed gas flow field**

Maintaining stable printing conditions



**Self-developed atmosphere recirculation system**

Extending service life (>40,000 h) and reducing maintenance costs

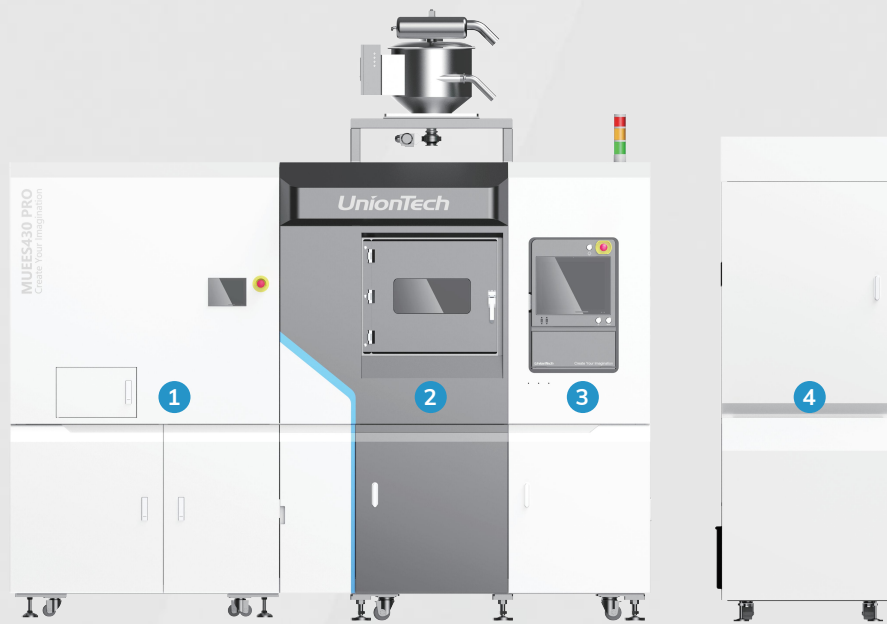


**ISO13849-compliant design and UPS power backup**

Ensuring comprehensive equipment safety and stable operation



Rear Nozzle



**1 In-house atmosphere recirculation system:**

Sintering-plate design increases filter area, extends service life (>40,000h), and reduces maintenance costs

**2 Sealing system upgrade:**

Dual fixed sealing technology achieves zero leakage protection, extending rail maintenance cycle by 3x

**3 Short gas purging time:**

Reaches 4000 PPM in 10 mins, reducing equipment preparation time and improving efficiency

**4 Integrated powder recovery, sieving, and delivery unit:**

Simultaneously feeds two machines; Boosts powder utilization, and increases equipment uptime

## Batch Production, Smart Manufacturing Upgraded



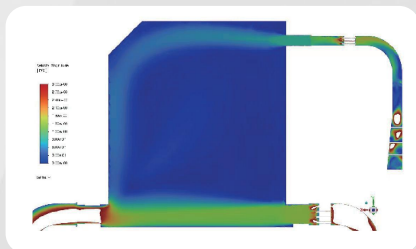
**Multi-laser high-efficiency printing:**

4 lasers with high-speed galvo scanners , scanning up to 6 m/s and jump speed up to 18 m/s for high-efficiency printing



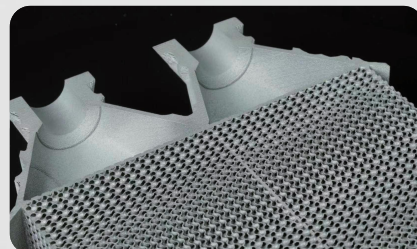
**Fast recoating technology:**

Bidirectional powder spreading reduces non-productive time and boosts recoating efficiency by 20% compared to unidirectional systems



**New-generation airflow design:**

CFD-optimized wind-path structure ensures smooth, uniform airflow throughout the build chamber



**High-precision printing:**

High-accuracy optical encoders deliver Z-axis accuracy within  $\pm 3 \mu\text{m}$ , enabling thinner and more uniform powder layers

# UnionTech

[www.uniontech3d.com](http://www.uniontech3d.com)

Email: [mkt@uniontech3d.com](mailto:mkt@uniontech3d.com)

## UnionTech Headquarters

Room 102, Unit 40, 258 Xinzhuan Rd,  
Shanghai 201612, China

## Global offices

· Germany  
· USA

## LinkedIn:

UnionTech 3D

## YouTube:

UnionTech 3D

