



## EOS M 290 Simply Production of Metal Parts

- Reliable and repeatable quality
- Largest installed base worldwide
- Most metal systems in production
- Over 24 materials to choose from

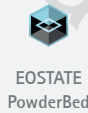
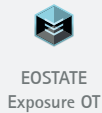
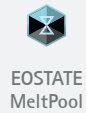
# EOS M 290

## The Benchmark in Metal AM with Proven DMLS® Quality

The EOS M 290, has been used in the serial production of a wide range of applications since 2014. Its robust and reliable performance has been built on the legacy of its three predecessors, ensuring homogeneous part properties from part-to-part, job-to-job, and machine-to-machine. The wide range of materials, a comprehensive monitoring suite, and the easy integration into your production make it the clear choice for flexible series production of metal parts.

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### Monitoring



#### EOSTATE Monitoring Suite

The automated and intelligent multi-monitoring suite for quality control and process development. EOSTATE enables insights in all production and quality relevant data - in real time.

### Software



#### EOSYSTEM

Intuitive industry proven machine software optimized for production.



#### EOSPRINT

Intuitive and easy job preparation and process development.



#### EOSCONNECT

Easy software integration into a production facility.

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### Powder Handling



**IPCM M extra**  
Manual and flexible powder handling.



**IPCM M pro**  
Semi-automated powder handling.



**Comfort Powder Module**  
Safe handling of powder inside process chamber.

## Material & Process

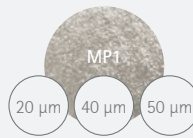
### EOS Aluminium



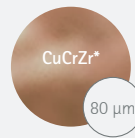
### EOS Case HardeningSteel



### EOS CobaltChromium



### EOS CopperAlloy



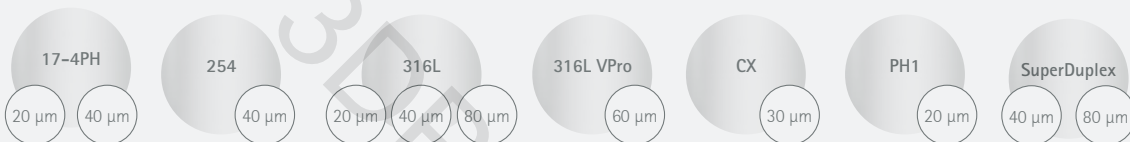
### EOS Copper



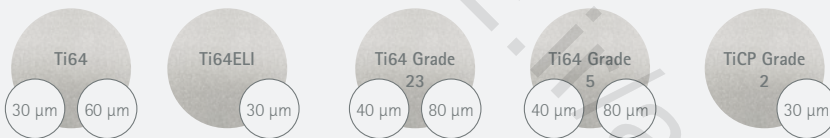
### EOS NickelAlloy



### EOS StainlessSteel



### EOS Titanium



### EOS MaragingSteel



### EOS ToolSteel



EOS Materials are designed specifically for DMLS and are quality controlled.  
EOS Processes are validated ensuring consistent and repeatable part quality.

\* for AMCM M 290 1kW

## Exposure Module

Number of Lasers



Laser Power



Optics



Up to two precise lasers expose in a 250 x 250 mm square with different optics to choose from and Pulse Modulation enabled.

## Recoater Options

### Hard Recoaters

Offer repeatably quality



### Soft Recoaters

Offer flexibility



● mandatory configuration \*customized by AMCM GmbH \*\* Development tool

# EOS M 290

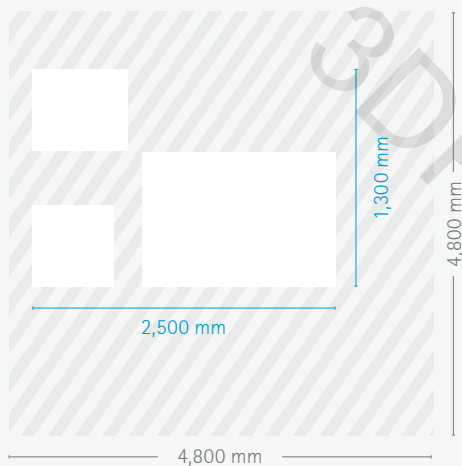
## Technical Data

Building volume	250 x 250 x 325 mm (9.85 x 9.85 x 12.8 in) (height incl. build plate)
Laser type	Yb fiber laser; 400 W
Precision optics	F-theta lens; high-speed scanner
Scanning speed	up to 7.0 m/s (23 ft/s)
Focus diameter	100 µm (0.004 in)
Power supply	32 A / 400 V
Power consumption	max. 8,5 kW / average 2,4 kW / with platform heating up to 3,2 kW
Compressed air supply	7,000 hPa; 20 m <sup>3</sup> /h (102 psi; 706 ft <sup>3</sup> /h)

## Dimensions & Weight

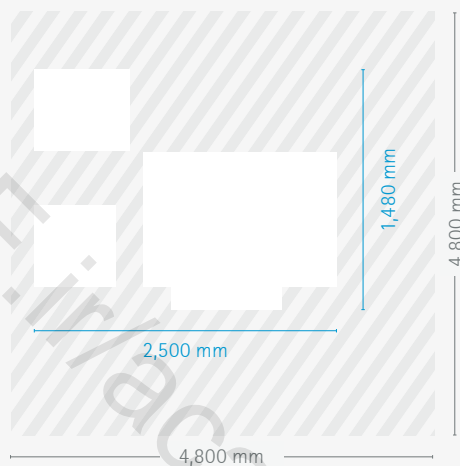
### EOS M 290

Height: 2,190 mm / Weight: ca. 1,250 kg



### EOS M 290 with Comfort Powder Module

Height: 2,190 mm / Weight: ca. 1,250 kg



System

Workspace

## Headquarters

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Electro Optical Systems  
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Phone +49 89 893 36-0  
info@eos.info

www.eos.info

**in** EOS

**tw** EOSGmbH

**yt** EOSGmbH

#responsiblemanufacturing

#futureisadditive

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EOS Nordic & Baltic  
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EOS of North America  
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EOS Singapore  
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EOS UK  
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## EOS M 300 Series Digital Additive Manufacturing for the Industrial Production of High-Quality Metal Parts

- Reliable and repeatable quality
- Up to 10x higher productivity
- Easily integrated in production



# EOS M 300 Series

## Enables DMLS Quality with up to 10x Higher Productivity

Designed for industrial applications, the EOS M 300 Series offers multiple configuration options combined with safety and security features enabling digital Additive Manufacturing. The platform offers the flexibility to choose the degree of automation that best suits your needs for an optimized workflow as well as the option to easily ramp-up as demand increases.



### Exposure Module

Number of Lasers



Laser Power



Laser Focus

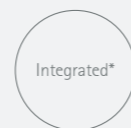


Up to four precise lasers expose in a 300 x 300 mm square with each laser covering the entire area.

### Dispenser Modules

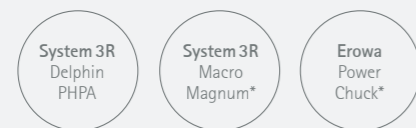


**Flexible Dispenser**  
Offers fast and easy material change.



**Integrated Dispenser**  
Automated feeding enabling closed loop powder supply.

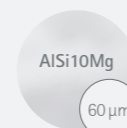
### Clamping Modules



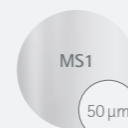
Select from 3 different models for easy integration to the post-processing equipment in your production facility.

### Material & Process

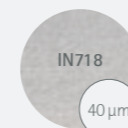
EOS Aluminium



EOS MaragingSteel



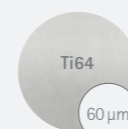
EOS NickelAlloy



EOS StainlessSteel



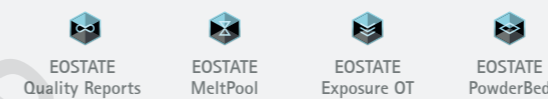
EOS Titanium



**EOS Materials** are designed specifically for DMLS and are quality controlled.

**EOS Processes** are validated ensuring consistent and repeatable part quality.

### EOSTATE Monitoring Suite



The automated and intelligent multi-monitoring suite for quality control and process development. EOSTATE enables insights in all production and quality relevant data - in real time.

### Part Handling



EOS Transfer Station M

IPM M Setup Station M

**EOS Transfer Station M**  
Fast switch-over of the exchangeable frame.

**IPM M Setup Station M**  
Comfortable gas-tight unpacking from two sides and under inert gas.

**Unpack Module\***  
Automated unpacking and easy integration in the IPM M Setup Station M.

### Powder Handling



**IPCM M extra**  
Manual and flexible powder handling.

**IPCM M pro**  
Semi-automated powder handling.

**IPM M Powder Station L**  
Automatic closed loop powder handling.

### Software



**EOSYSTEM**  
Intuitive industry proven machine software optimized for production.



**EOSPRINT**  
Intuitive and easy job preparation and process development.



**EOSCONNECT**  
Easy software integration into a production facility.

● mandatory configuration \*under development

# EOS M 300-4

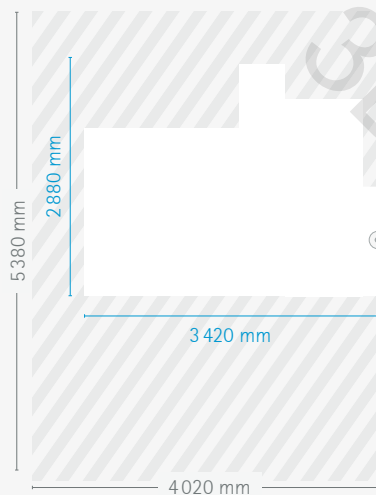
## Technical Data

Building volume	300 x 300 x 400 mm (11.8 x 11.8 x 15.8 in)
Laser type	Yb-fiber laser; 4 x 400 W
Precision optics	4 F-theta-lenses; 4 high-speed scanners
Scanning speed	up to 7.0 m/s (23 ft/s)
Focus diameter	approx. 100 µm (0.004 in)
Power supply	3 x 63 A
Power consumption	max. 19.6 kW / typical 16 kW
Inert gas supply	7 000 hPa; 15 m <sup>3</sup> /h (102 psi; 530 ft <sup>3</sup> /h)

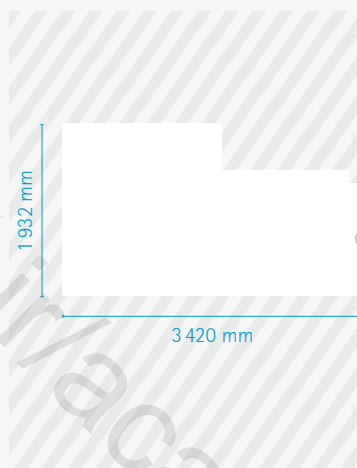
## Dimensions & Weight

### EOS M 300-4 with Flex Dispenser

Height: 2340 mm / Weight: ca. 6600 kg

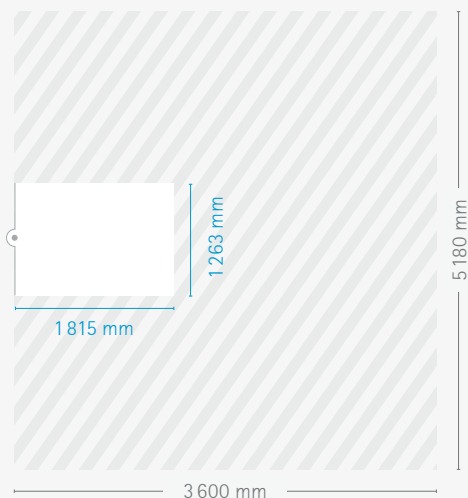


### EOS M 300-4 with Integrated Dispenser\*



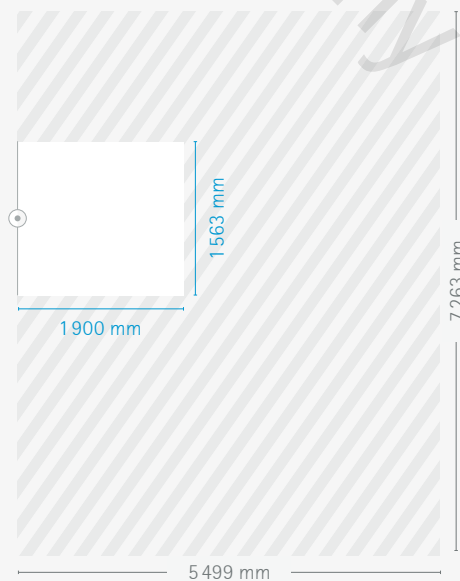
### EOS Transfer Station M

Height: 1300 mm / Weight: ca. 1000 kg



### IPM M Setup Station M\*

Height: 2000 mm / Weight: ca. 1400 kg



System

Workspace

Interface

\*in development

## Headquarters

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in EOS

EOS3DPrinting

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## EOS M 400 Series Production Platform for Additive Manufacturing of High-Quality Metal Parts

- Reliable and repeatable part quality
- NEW: More precise results in the overlap area
- NEW: Lifelong filters



# EOS M 400 Series

## DMLS Quality plus Highest Productivity

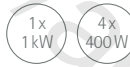
With a 400 x 400 x 400 mm build volume, and your choice of one 1000 W or four 400 W lasers, the EOS M 400 Series combines the highest productivity with reliable and repeatable DMLS part quality. Powered by an extensive portfolio of materials and processes, the EOS M 400 Series enables the development and production of a wide variety of applications. The EOS M 400 Series is easily integrated in your production – both from a part and data flow perspective. In addition, with the EOS Shared Modules you can easily expand your machine park as demand grows – from one to many systems in one or many facilities worldwide.

→ Repeatability of part quality needs a precise calibration of the lasers. This is ensured thanks to EOSYSTEM SmartCal, the only tool for automatic multi-laser calibration.

→ Filter change is a thing of the past with the new recirculating filter system RFS 2.0. The filters have an extremely long lifetime and do not need to be changed even when the material is changed. This reduces operating expenses significantly.

### Exposure Module

Laser power



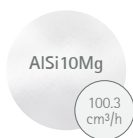
The precise Yb fiber lasers with their fixed focus expose a square 400 x 400 mm area.

### Materials & Processes

EOS materials are designed specifically for DMLS and are subject to extensive quality control. EOS processes are validated in order to ensure consistent and repeatable part quality.

#### EOS M 400

EOS Aluminium



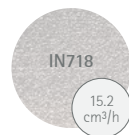
EOS CopperAlloy



EOS MaragingSteel



EOS NickelAlloy

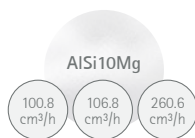


EOS Titanium



#### EOS M 400-4

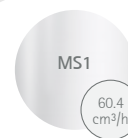
EOS Aluminium



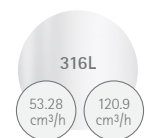
EOS CaseHardeningSteel



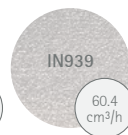
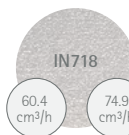
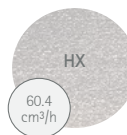
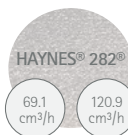
EOS MaragingSteel



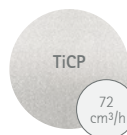
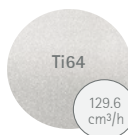
EOS StainlessSteel



EOS NickelAlloy



EOS Titanium





### EOSTATE Monitoring Suite

-   
 EOSTATE  
Quality Reports
-   
 EOSTATE  
MeltPool
-   
 EOSTATE  
Exposure OT
-   
 EOSTATE  
PowderBed

The automated and intelligent multi-monitoring suite for quality control and process development. EOSTATE offers insights into all of your production and quality relevant data in real time.

### Software



#### EOSYSTEM

Intuitive industry proven machine software optimized for production.

#### EOSPRINT

Intuitive and easy job preparation and process development.

#### EOSCONNECT

Easy software integration into a production facility.

### Powder Handling



**IPCM M extra**  
Manual and flexible powder handling.



**IPCM M pro**  
Semi-automated powder handling.



**IPM M Powder Station L**  
Automatic closed loop powder handling.

# EOS M 400 Series

## Technical Data

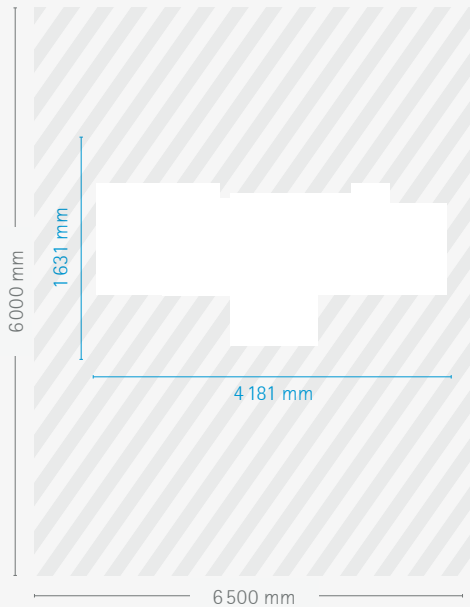
	EOS M 400	EOS M 400-4
Building Volume	400 x 400 x 400* mm (15.8 x 15.8 x 15.8 in*)	400 x 400 x 400* mm (15.8 x 15.8 x 15.8 in*)
Laser type	Yb fiber laser, 1000 W	Yb fiber laser, 4 x 400 W
F-theta lens	1	4
High-speed scanners	1	4
Scanning speed	up to 7.0 m/s (23 ft/s)	up to 7.0 m/s (23 ft/s)
Focus diameter	approx. 90 µm (0.0035 in)	approx. 100 µm (0.004 in)
Power supply	50 A	3 x 50 A
Power consumption	max. 50.2 kW / typical 16.22 kW	max. 45 kW / typical 22 kW
Inert gas supply	7 000 hPa; 15 m³/h (102 psi; 706 ft³/h)	7 000 hPa; 15 m³/h (102 psi; 706 ft³/h)

\* height includes build plate

## Dimensions & Weight

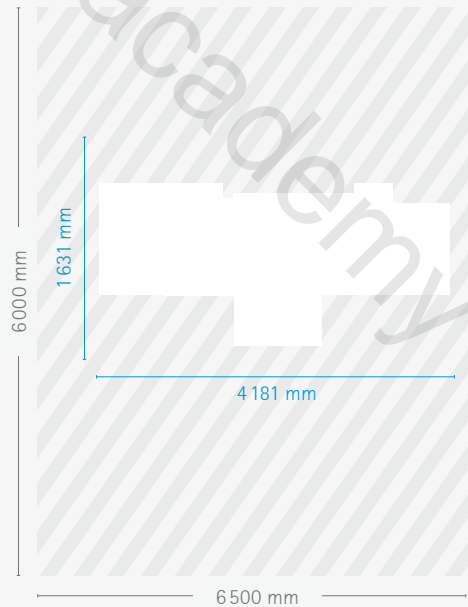
### EOS M 400 with IPM M Setup Station L

Height: 2 340 mm / Weight: approx. 4 635 kg



### EOS M 400-4 with IPM M Setup Station L

Height: 2 355 mm / Weight: approx. 4 835 kg



System

Workspace

### Headquarters

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EOS

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#responsiblemanufacturing

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## EOS M 400 Series Production Platform for Additive Manufacturing of High-Quality Metal Parts

- Reliable and repeatable part quality
- NEW: More precise results in the overlap area
- NEW: Lifelong filters



# EOS M 400 Series DMLS Quality plus Highest Productivity

With a 400 x 400 x 400 mm build volume, and your choice of one 1 000 W or four 400 W lasers, the EOS M 400 Series combines the highest productivity with reliable and repeatable DMLS part quality. Powered by an extensive portfolio of materials and processes, the EOS M 400 Series enables the development and production of a wide variety of applications. The EOS M 400 Series is easily integrated in your production – both from a part and data flow perspective. In addition, with the EOS Shared Modules you can easily expand your machine park as demand grows – from one to many systems in one or many facilities worldwide.

→ Repeatable part quality needs a precise calibration of the lasers. This is ensured thanks to EOSYSTEM SmartCal, the only tool for automatic multi-laser calibration.

→ Filter change is a thing of the past with the new recirculating filter system RFS 2.0. The filters have an extremely long lifetime and do not need to be changed even when the material is changed. This reduces operating expenses significantly.



## Exposure Module

Laser power 1 x 1 kW 4 x 400 W

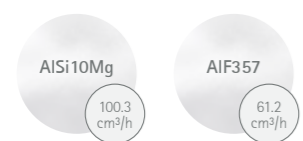
The precise Yb fiber lasers with their fixed focus expose a square 400 x 400 mm area.

## Materials & Processes

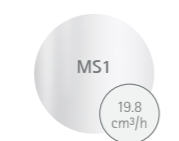
EOS materials are designed specifically for DMLS and are subject to extensive quality control. EOS processes are validated in order to ensure consistent and repeatable part quality.

### EOS M 400

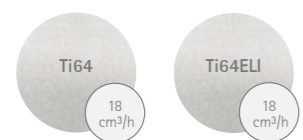
#### EOS Aluminium



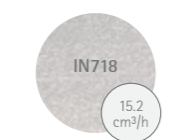
#### EOS MaragingSteel



#### EOS Titanium



#### EOS NickelAlloy

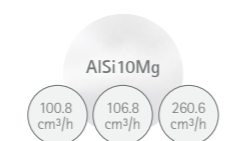


#### EOS CopperAlloy

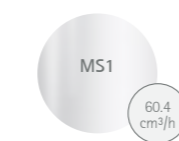


### EOS M 400-4

#### EOS Aluminium



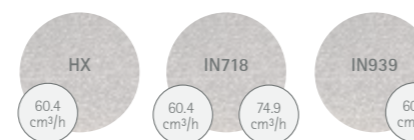
#### EOS MaragingSteel



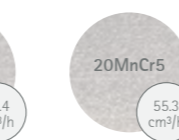
#### EOS StainlessSteel



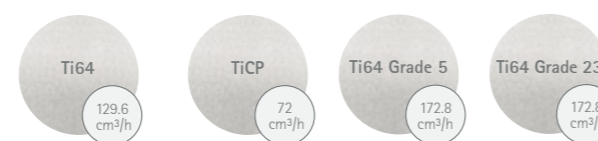
#### EOS NickelAlloy



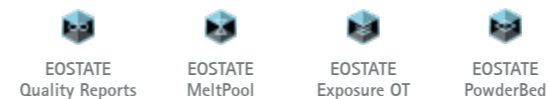
#### EOS CaseHardeningSteel



#### EOS Titanium



## EOSTATE Monitoring Suite



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Intuitive industry proven machine software optimized for production.

**EOSPRINT**  
Intuitive and easy job preparation and process development.

**EOSCONNECT**  
Easy software integration into a production facility.

## Powder Handling



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Manual and flexible powder handling.

**IPCM M pro**  
Semi-automated powder handling.

**IPM M Powder Station L**  
Automatic closed loop powder handling.

# EOS M 400 Series

## Technical Data

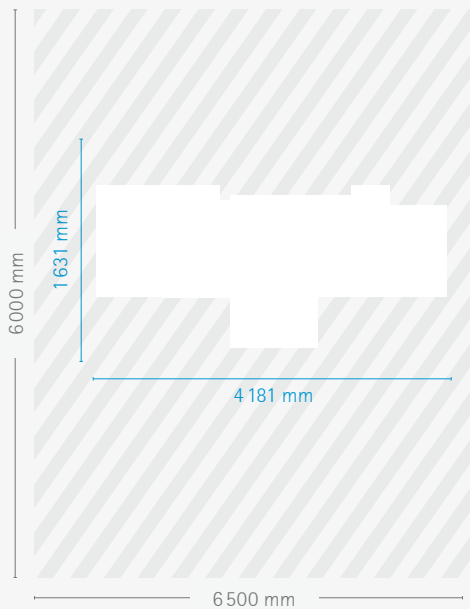
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Laser type	Yb fiber laser, 1000 W	Yb fiber laser, 4 x 400 W
F-theta lens	1	4
High-speed scanners	1	4
Scanning speed	up to 7.0 m/s (23 ft/s)	up to 7.0 m/s (23 ft/s)
Focus diameter	approx. 90 µm (0.0035 in)	approx. 100 µm (0.004 in)
Power supply	50 A	3 x 50 A
Power consumption	max. 50.2 kW / typical 16.22 kW	max. 45 kW / typical 22 kW
Inert gas supply	7 000 hPa; 15 m³/h (102 psi; 706 ft³/h)	7 000 hPa; 15 m³/h (102 psi; 706 ft³/h)

\* height includes build plate

## Dimensions & Weight

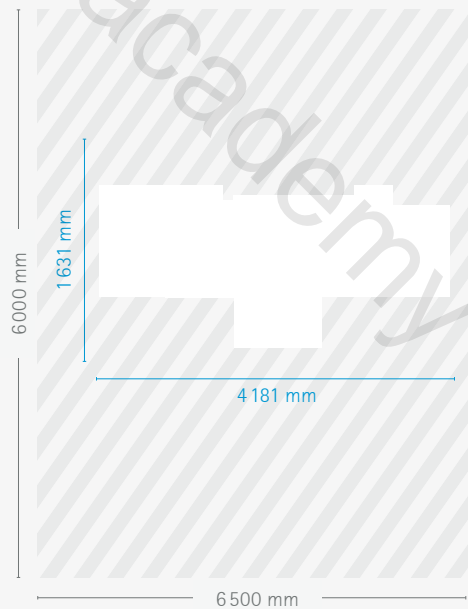
### EOS M 400 with IPM M Setup Station L

Height: 2340 mm / Weight: approx. 4635 kg



### EOS M 400-4 with IPM M Setup Station L

Height: 2355 mm / Weight: approx. 4835 kg



System

Workspace

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