



Realize Highest Quality Metal Parts using the Benchmark in Additive Manufacturing – now with the most comprehensive Monitoring Suite



EOS M 290: The DMLS System for a Proven Production of Serial Components with homogenous properties in every part, in every job with every system

With a building volume of 250 x 250 x 325 mm and 400 W laser, the EOS M 290 allows a fast, flexible and costeffective production of metal parts directly from CAD data.

Reproducible part quality, high cost efficiency, comprehensive quality assurance

- The robust system design and the powerful 400-watt fiber laser enable a reliably high performance day in, day out.
- The exceptional high beam quality of the laser spot and its excellent detail resolution is ideal for manufacturing highly complex DMLS components ensuring homogeneous part properties from part-to-part, job-to-job and machine-to-machine.
- The widest range of validated materials and processes available in the market covering all customer requirements.
- The intuitive, open and productive CAM tool EOSPRINT allows optimization of CAD data ensuring a quick and easy job and workflow management. The EOS ParameterEditor module offers developers a large and open tool set ensuring a great freedom for application-specific optimization.
- An comprehensive monitoring suite enables to conduct a real-time quality assurance of all production and quality relevant data. EOSTATE is composed of five different monitoring systems – System, Laser, PowderBed, MeltPool, and Exposure OT (optical tomography).

Technical data EOS M 290

Building volume	250 mm x 250 mm x 325 mm (9.85 x 9.85 x 12.8 in)
Laser type	Yb fibre laser; 400 W
Precision optics	F-theta lens; high-speed scanner
Scanning speed	up to 7.0 m/s (23 ft./sec)
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
Inert gas supply	7,000 hPa; 20 m³/h (102 psi; 706 ft³/h)

Dimensions (W x D x H)

System	2,500 mm x 1,300 mm x 2,190 mm (98.4 x 51.2 x 86.2 in)
Recommended installation space	min. 4,800 mm x 3,600 mm x 2,900 mm (189 x 142 x 114 in)
Weight	approx. 1,250 kg (2,756 lb)

Software

EOSTATE Everywhere, EOSPRINT incl. EOS ParameterEditor

Materials*

EOS Aluminium AlSi10Mg, EOS CobaltChrome MP1, EOS MaragingSteel MS1, EOS NickelAlloy HX, EOS NickelAlloy IN625, EOS NickelAlloy IN718, EOS StainlessSteel CX, EOS StainlessSteel PH1, EOS StainlessSteel 17-4PH, EOS StainlessSteel 316L, EOS Titanium Ti64, EOS Titanium Ti64ELI, EOS Titanium TiCP Grade 2

Optional accessories

EOSTATE Monitoring Suite (EOSTATE Laser, EOSTATE PowderBed, EOSTATE MeltPool, EOSTATE Exposure OT), Comfort Powder Module, IPCM-M extra, IPCM-M pro**, wet separator, blasting cabinet

* Further materials on request
** Currently under development

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