

Laser Sintering System for the Production of Serial Parts and Functional Prototypes from Polymer Materials



EOS P 396: Cost-Effective Industrial Manufacture of Components – Highly Efficient, Reproducible and Reliable

With an effective build volume of 340 x 340 x 600 mm, EOS has managed to set standards in the medium frame Laser Sintering segment. This highly productive system delivers tool-free manufacture of serial components, spare parts, functional prototypes and models directly from CAD data.

High productivity with low cost per part and homogeneous part properties

- Thanks to state-of-the-art software and hardware components, the build progress is on average 15% higher compared to its predecessor* and the build time and cost per part are reduced significantly.
- The spot pyrometer accurately and continuously measures the temperature of the material layer to be exposed and allows an overall reduction of non-productive time down to 60%.
- With the low-wear, high-speed recoater, the material is applied faster with the same consistent precision, thus improving the build speed.

- The powerful 70 W laser helps to boost the build rate.
- With 12 commercial polymer materials and 22 combinations of materials/layer thicknesses currently available, EOS is a benchmark in terms of material variety. In addition, the EOS ParameterEditor allows customized exposure parameters to be defined based on proven starting values.
- The powder handling solutions IPCM P and IPCM P
 plus integrate the EOS P 396 system in a closed and
 traceable powder cycle and thus ensures dust-free
 and ergonomic working conditions.

Technical data EOS P 396 Building volume 340 mm x 340 mm x 600 mm (13.4 x 13.4 x 23,6 in) Laser type CO₃, 70 W Build rate up to 32 mm/h** (1.3 in/h); up to 3.7 l/h Layer thickness (availability depending on material) 0.06 mm (0.00236 in), 0.10 mm (0.00394 in), 0.12 mm (0.00472 in), 0.15 mm (0.00591 in), 0.18 mm (0.00709 in) Precision optics F-theta-lens Scan speed during build process up to 6 m/s (19.7 ft/s) 32 A Power supply nominal 10 kW, typical 2.4 kW Power consumption Dimensions (W x D x H) 1,840 mm x 1,175 mm x 2,100 mm (72.4 x 46.3 x 82.7 in) System min. 4.3 m x 3.9 m x 3.0 m (169.3 x 153.5 x 118.1 in) Recommended installation space

approx. 1,060 kg (2,337 lb)

Weight Software

PSW 3.8, EOSAME, EOS ParameterEditor, EOS RP Tools, EOSTATE Everywhere

Materials

PA 2200, PA 2201, PA 1101, PA 3200 GF, Alumide®, PA 2202 black, PA 1102 black, CarbonMide®, PrimeCast® 101, PrimePart® ST, PrimePart® FR (PA 2241 FR), PrimePart® PLUS (PA 2221)

Optional accessories

IPCM P, IPCM P plus, Modular Unpacking- and Sieving Station, Industrial Vacuum Cleaner, Blasting System, Lift trolley, Sieving Machine, Unpacking Stand, Big Bag Emptying Station.

* EOSINT P 395

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^{**} typical build rate for PA 2200 for 120 μ m (0.00472 in) layer thickness