



First high-temperature polymer laser sintering solution enabling serial production of demanding composite components for aerospace, electronics and mobility industry

EOS P 810 & HT-23: The perfect solution for demanding high-performance applications

With a building volume of 700 x 380 x 380 mm, EOS P 810 enables a fast and cost efficient production of plastic parts directly from CAD data. Parts made out of HT-23 material offer high strength at low weight and withstand high temperatures.

Economic production and high performance parts with reproducible quality

- A robust system optimized to process HT-23. Ideally suited to manufacture large structural parts, metal replacements and serial applications.
- Thanks to improved recoating speed, fast digital scanners and high-power lasers the building time is significantly reduced and thus productivity increased.
- HT-23 a Polyetherketoneketone (PEKK) material with encapsulated carbon fiber reinforcement is inherently flame retardant, UV resistant and meets regulations of the aerospace (FAR 25.853) and mobility industry (EN 45545).
- With a low refresh rate (60% recyclable, little excess powder) HT-23 is contributing to substantially reduce cost-per-part.
- The intuitive, open and productive CAM tool EOSPRINT 2 allows quick and easy job- and process management.
- Ensure excellent mechanical part properties within the overall build volume thanks to EOSAME. This feature homogenizes the energy input per volume element.
- The feature SmartScaling in EOSPRINT 2 offers best dimensional accuracy through software-based pre-compensation of part shrinkage.
- The proven spot pyrometer enables continuous and accurate temperature control.

Technical data EOS P 810

Building volume	700 x 380 x 380 mm (27.6 x 15 x 15 in)
Laser type	CO ₂ ; 2 x 70 W
Building rate	up to 10 mm/h (0.4 in/h); up to 2.7 l/h
Layer thickness (ALM HT-23)	120 µm*
Precision optics	F-theta lenses, high-speed scanners
Scan speed during building process	up to 2 x 6 m/s (23 ft./sec)
Power supply	32 A / 400 V
Power consumption	typical 3.9 kW, maximum 10 kW

Dimensions (W x D x H)

System	2,500 x 1,300 x 2,190 mm (98.4 x 51.2 x 86.2 in)
Recommended installation space	min. 4.8 m x 4.8 m x 3.0 m (189 x 189 x 118 in)
Weight	approx. 2,300 kg (5,071 lb)

Software

PSW 3.8 with EOSAME feature, EOSTATE System with Online Laser Power Control, EOSPRINT 2 with SmartScaling feature, EOSCONNECT

Material

HT-23 from Advanced Laser Materials (ALM)

Optional accessories

IPCM P plus, CoolDown Station, Unpacking and Sieving Station, Blasting Cabinet

* Other thicknesses technically possible

Think the impossible. You can get it.

Status 04/2018. Technical data subject to change without notice. EOS is certified according to ISO 9001. EOS®, Additive Minds® Alumide®, AMQ®, CarbonMide®, DirectMetal®, DMLS®, EOSAME®, EOSINT®, EOSIZE®, EOSPACE®, EOSPRINT®, EOSTATE®, EOSTYLE®, FORMIGA®, PA 2200®, PrimeCast® and PrimePart® are registered trademarks of EOS GmbH in some countries. For more information visit www.eos.info/trademarks.

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