



Laser Sintering System with Two Lasers for the Production of Large Parts and for Industrial High-Throughput Manufacturing

EOS P 770: Improved Part Quality with a Build Volume of over 150 Liters

With the largest build volume available on the market, the EOS system enables the production of parts of up to one meter in length. Thanks to its new hardware and software features, the EOS P 770 is up to 20% more productive than its predecessor.

High productivity with low cost per part and homogeneous part properties

- Thanks to optimized temperature management, improved recoating speed and high-power lasers, the build time and cost per part are reduced significantly.
- The improved digital scanners achieve a considerably higher laser accuracy compared to the previous version of the system. As a result the overlap area has no visible edges.
- The well-established EOSAME feature homogenizes the energy input, thus ensuring excellent mechanical part properties and dimensional accuracy within the overall build volume*.
- The spot pyrometer enables continuous and accurate temperature control.
- With 10 commercial polymer materials and 18 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.
- After production, the CoolDown Station provides optimal conditions to cool down the exchangeable frame. This leads to the best properties in the final part – in particular with regard to dimensional accuracy and color stability.

Technical data EOS P 770

Effective building volume	700 mm x 380 mm x 580 mm (27.6 x 15 x 22.9 in)
Laser type	CO ₂ , 2 x 70 W
Build rate	up to 32 mm/h** (1.3 in/h); up to 10.5 l/h
Layer thickness (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, surface module, high-speed scanner
Scan speed during build process	up to 2 x 10 m/s (32.8 ft/sec)
Power supply	32 A
Power consumption	typical 3.1 kW; maximum 12 kW

Dimensions (W x D x H)

System	2,250 mm x 1,550 mm x 2,100 mm (88.6 x 61 x 82.7 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

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

Materials

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

Optional accessories

CoolDown Station, IPCM P, IPCM P plus, unpacking and sieving station, blasting cabinet

* the specified build volume depends on the material; for PA 2200 it is 700 x 380 x 580 mm (27.6 x 15 x 22.9 in)

** typical build rate for PA 2200 for 120 µm (0.00472 in) layer thickness

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