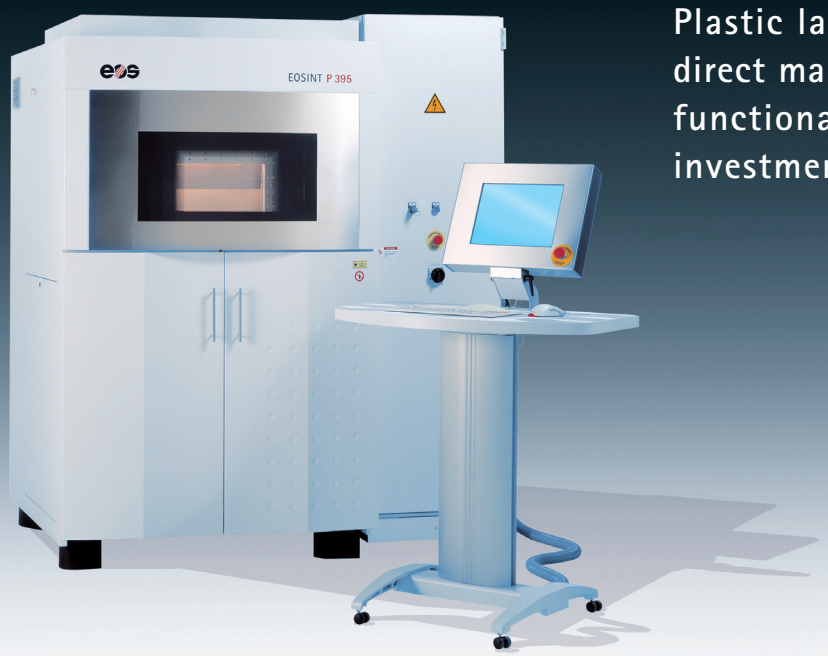
EOSINT P 395



Plastic laser-sintering system for the direct manufacture of series, spare parts, functional prototypes and patterns for investment or vacuum casting

The technology:

Laser-sintering – the key to e-Manufacturing

Laser-sintering is well known as the technology of choice for ensuring the quickest route from product idea to market launch. Innovative companies from a broad range of industries are using this technology for e-Manufacturing – the fast, flexible and cost-effective production directly from electronic data for every phase of the product life cycle.

The system:

e-Manufacturing for the industrial environment

The EOSINT P 395 is a highly productive thermoplastics laser-sintering system. With this system fully functional plastic parts can be manufactured which are used for product development, in serial production or for spare part production. The system can create parts without the need for support structures. The maximum building height of 620 mm enables the construction of larger plastic components without the need for subsequent joining processes. The modular nature of the EOSINT P 395 offers great flexibility with regard to functionality and budget.

The completely re-engineered laser optics module (SurfaceModule) improves the quality of vertical surfaces into regions which until now had been exclusive to the FORMIGA. The recoating unit in the EOSINT P 395 has also been further improved. The introduction of Part Property Profiles (PPPs) has led to the integration into the EOSINT P 395 of EOS's highly successful blade cartridge concept, which was introduced in 2007 and makes it simple to carry out adjustments and also to change the layer thickness.

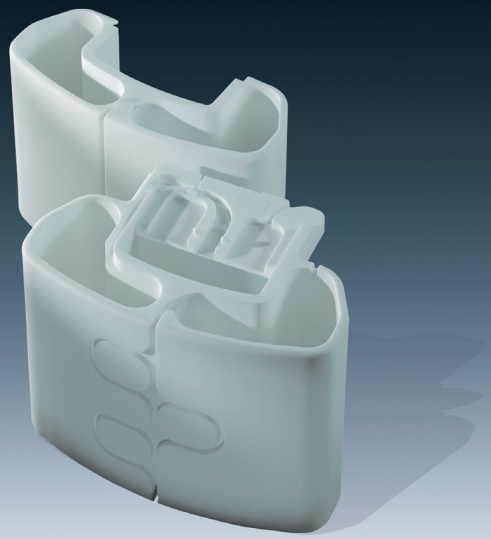
Special parameter sets can be applied according to material, layer thickness and usage type in order to achieve standardized PPPs. By doing this it is possible to achieve for example either great cost benefits, or the reproduction of the finest of details. If the special parameter sets are not required, then the initial necessary investment decreases accordingly. Parameter sets and other modules can be added at any time. In order to optimize process flows, the technology also provides Integrated Process Chain Management (IPCM). This includes automatic powder conveying, an unpacking station and a powder recycling facility, all of which maintain dust-free as well as ergonomic working conditions. In addition to the exchangeable frame docking system, these features guarantee maximum use of the machine's capacity.

The distinctive features of the EOSINT P 395 system are the quality of the parts it produces, its productivity, high degree of automation, professional materials management, and the ergonomically designed peripherals. These features are what make the system the ideal production tool for the economical batch-size optimized manufacture of parts at all stages of the product life cycle. The system is therefore perfectly suited to an industrial environment.

e-Manufacturing Solutions

EOSINT P 395

Centrifuge Box
Built in PA material using EOSINT P Systems.
(Project: Hettich Zentrifugen)



The software:
Achieve maximum productivity automatically
EOS offers various software packages for processing CAD data and tracking production flows. EOSTATE was developed to provide users with an overview of all production-related data at any desired point in time. The software processes production data for freely definable timeframes and displays it clearly. The user's requirements are accommodated within the integrated Basic, Quality Assurance, Controlling and Machine Park Management (MPM) modules. They ensure that production flows are easy to track and to manage.

Technical Data	
Effective building volume	340 mm x 340 mm x 620 mm
Building speed (material-dependent)	up to 31 mm/h
Layer thickness (material-dependent)	0.06 – 0.10 – 0.12 – 0.15 – 0.18 mm
Support structure	not necessary
Laser type	CO_2, 50 W
Precision optics	F-theta-lens
Scan speed	up to 8 m/s
Power supply	32 A
Power consumption	maximum 10 kW / typical 2,4 kW
Nitrogen generator	integrated (optional)
Compressed air supply	minimum 5,000 hPa; 6 m³/h
Dimensions (B x D x H)	
System incl. switchgear cabinet	1,840 mm x 1,175 mm x 2,100 mm
Control terminal	950 mm x 700 mm x 1,550 mm
Powder conveying system	1,480 mm x 1,170 mm x 1,470 mm
Unpacking station	1,190 mm x 620 mm x 1,500 mm
Recommended installation space	4.3 m x 3.9 m x 3.0 m
Weight	approx. 1,060 kg
Data preparation	
PC	current Windows operating system
Software	EOS RP Tools; EOSTATE 1.2; Magics RP (Materialise)
CAD interface	STL. Optional: converter to all common formats
Network	Ethernet
Certification	CE

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