

IMPROVED GRIPPERS, REDUCED WEIGHT, OPTIMIZED GEOMETRIES E-MANUFACTURING IN USE FOR ROBOT HANDS

Krailling, October 22nd, 2007: Laser-sintering opens up new opportunities for the production of robot hands. Since the beginning of the year, ASS Maschinenbau uses an EOSINT P 390 for plastic laser-sintering. The company, a daughter of Indus Holding AG, thus produces compact, complex and ultra light-weight robot hands. At the same time, ASS integrates functions in the gripping technology and as a consequence enlarges the application spectrum of its products.

Already since the beginning of this year, the specialist for automation produces components using the EOS technology. "With laser-sintering we manufacture ultra light-weight and compact gripping elements individually, fast and cost-effectively. The components complement our range of products for various applications in the plastics industry", states Marc Schwope, managing director of ASS Maschinenbau.

Three times a week an application specialist from ASS starts up the e-Manufacturing process. Up to 100 different parts are built in one single production cycle – and they are used for various purposes. Those can be laser-sintered robot hands, but also combinations with aluminium and steel shaft. The robot hand kits on the other side provide individual gripper solutions for ASS customers since more than 25 years. In the past, the components of the kits were produced with turning or milling. At least for some parts, the laser-sintering technology now replaces those traditional methods.

An important aspect for ASS is the freedom of design that laser-sintering as layer-manufacturing technology offers. "With the technology, we can combine a lot of functions within very limited space, in particular for removal tasks. For example, hoses within the hand have become oblivious. Laser-sintering enables us to directly integrate cross section optimized air ducts and vacuum channels. We thus save time and costs," explains Schwope. A special designated department with three employees at ASS ensure that the product design is optimized and that the geometrical freedom of the laser-sintering technology is fully exploited. The company thus manufactures robot hands which have been unable to produce so far due to the size of the standard components or due to their complex designs.

About EOS

EOS was founded in 1989 and is today the world leading manufacturer of laser-sintering systems. Laser-sintering is the key technology for e-Manufacturing, the fast, flexible and cost-effective production of products, patterns or tools. The technology manufactures parts for every phase of the product life cycle, directly from electronic data. Laser-sintering accelerates product development and optimizes production processes. EOS completed its business year 2006 with revenues of 52.3 million Euro and thus continues its ongoing growth.

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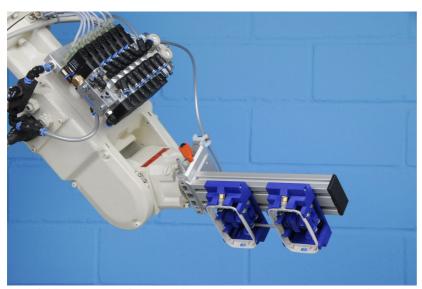
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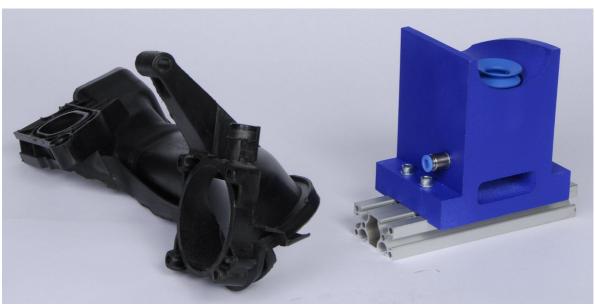
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Two-fold robot hand for a mobile phone frame. The blue, laser-sintered components enable compact, complex and ultra light-weight robot hands. Photo: EOS / ASS Maschinenbau.



Contour part of an intake duct with integrated vacuum suction and air duct. Through the direct integration of laser-sintered, cross section optimized air ducts and vacuum channels ASS saves time and costs. Photo: EOS / ASS Maschinenbau.