3D Print CASE “Oceanz focuses on further automation and continues to focus on supplying to the mechanical engineering industry”

3D printing Oceanz

FME member company Oceanz sees a sharp increase in demand for 3D printed parts in mechanical engineering, especially for applications in the food processing industry. With their extensive range of SLS printers, Oceanz produces complex components such as grippers, and the company emphasizes the importance of automation.

While Oceanz is growing, it continues to focus on automating handling, sorting, finishing and quality control, among other things. Paul Hendriks, key account manager at Oceanz, sees great potential in 3D printing for the food processing industry: “Think of grippers that can pick up cookies or fruit, often equipped with organic shapes through which vacuum lines and cables run. Complex shapes do not entail additional costs with 3D printing. It’s a combination of the volume the part needs in the printer and the amount of material needed to make the part,” says Hendriks. “Printed components are often lighter, which makes them perfect for high-turnover applications, such as machines in the food processing industry.”

A different way of designing

According to Paul, 3D printing requires a new mindset among engineers. “In the past, the question was: how are we going to make this part? That severely limited the freedom of design,” he explains. “Our production method almost completely removes that limitation, which requires a change in thinking, especially among engineers who are used to traditional methods. Innovative engineers pick that up more quickly.”

Materials

Oceanz mainly uses nylon, which is ideal for 3D printing because of its long lifespan. “We add material, instead of machining it,” Hendriks explains. “Yet there is sometimes fear of this new material, but this is unfounded. The lifespan of our printed parts is comparable to that of conventionally produced parts.”

Quick start to production

A key advantage of additive manufacturing (AM) is the speed of production. “During the COVID pandemic, we helped produce test sticks for COVID tests,” says Paul. “In mass production, AM can be more expensive than conventional methods, but speed was essential. Without labor-intensive molds, we were able to quickly contribute to mapping COVID-19 infections.”

Automation

Oceanz produces non-stop and has recently expanded its automation. “Our 3D printers run continuously, producing large numbers of prints for different customers in one batch. All these prints need to be taken apart, finished, sorted and checked,” says Hendriks. “Full automation is needed to remain productive and efficient. We recently invested in an automated 3D measuring machine to gain even more control over the quality of the 3D prints we produce."

3D printing has matured

Paul concludes with an observation about the perception of 3D printing. “It is still too often associated with hobbyists, but AM has become a professional production method. It allows you to make products with a high degree of freedom of form and a long lifespan. It offers

opportunities to improve products, make machines more efficient, and meet the demand for shorter lead times. It is a mature technology that every machine builder should embrace."

Oceanz remains at the forefront of 3D printing and additive manufacturing, helping companies in the transition to greater automation and efficiency.