



The Perfect Complement

WESTERN TOOL & MOLD PAIRS EXISTING RESOURCES WITH 3D PRINTING

“Stratasys technology saves time, giving us the power to provide a quick answer to our customers’ problems. Now with Stratasys® 3D Printing, we can provide fast reactions to immediate needs.”

– Collin Wilkerson, Western Tool & Mold

CASE STUDY



Western Tool & Mold used its Fortus® 3D Production System to wow customers with prototypes in ULTEM™ 9085 resin, a resilient thermoplastic that provides end-product plastic attributes.

Hong Kong-based Western Tool & Mold specializes in engineering-grade tooling fabrication and injection molding, producing a wide range of products, including medical devices, drug containers and critical-use metal replacements. The company serves diverse industries, including aerospace, medicine, electronics and industrial services.

The need to provide its customers with new ways to meet urgent deadlines and make use of limited resources drove Western Tool & Mold to investigate 3D printing technology. Its customers often faced challenges in the manufacturing process. For example, an aerospace client urgently needed parts for an aircraft already on the assembly line. Quick delivery was the only solution to avoid the consequences associated with a delay.

Fast Reactions to Immediate Needs

Western Tool & Mold added advanced 3D printing capabilities with a Fortus 3D Production System, meaning its aerospace customer could manufacture the parts it needed on time. "Stratasys® technology saves time, giving us the power to provide a quick answer to our customers' problems," said Collin Wilkerson, Managing Director of Western Tool & Mold. "We can provide fast reactions to immediate needs."

Using the Fortus, Western Tool & Mold prints advanced functional prototypes in ULTEM 9085 resin, a Fused Deposition Modeling (FDM®) thermoplastic that's strong, lightweight, flame retardant, heat resistant up to 320°F (160°C), and that offers full flame, smoke and toxicity (FST) compliance with government regulations.

The system also allows Western Tool & Mold to test new products. "We can validate designs before they become a problem in the manufacturing process, making us more integrated with the client's work flow and giving us the opportunity to value-add to our services."

The new 3D production system also evens out workload on big projects, eliminating the need to suddenly hire staff. "In traditional manufacturing, you have to deal with quick spikes in the need for resources, but Stratasys 3D Printing smoothes the spikes out," says Wilkerson. "Our clients can re-engineer resources, resulting in a leaner manufacturing process."

Fortus Hurdles Concerns

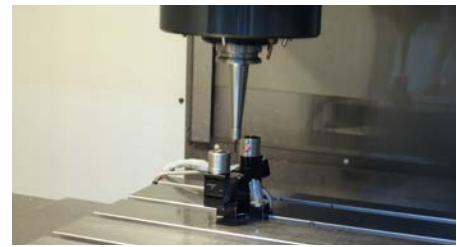
Western Tool & Mold had two concerns with 3D printing technology, both of which the Fortus 3D Production System overcame. First, the company wanted to make sure its customers would use the machine again and again instead of only for one-off jobs. "We are in the repeat manufacturing industry, so we wanted to make sure that 3D printing could fit into a sustainable business model," Wilkerson said. "We were looking for a manufacturing process that could be integrated into the scope of service for our customers."

The 3D printer proved popular with Western Tool & Mold's clients, with 100 percent of the customers returning to the company to manufacture parts using the using the Fortus 3D Production System. "Our customers found that 3D printing saved them money," said Wilkerson.

The Fortus 3D Production System's performance also trumped Western Tool & Mold's other concern: that FDM Technology™ might cut into its injection molding revenue. Instead, the Fortus 3D provides a new revenue stream. "FDM is not cutting income from our tooling and injection molding business," said Wilkerson. "In fact, it frees up money for our customers to spend on tooling in the future. This enables us to become a better supplier. Stratasys 3D printing extends and complements our manufacturing process, allowing us to offer value-added service to our customers."



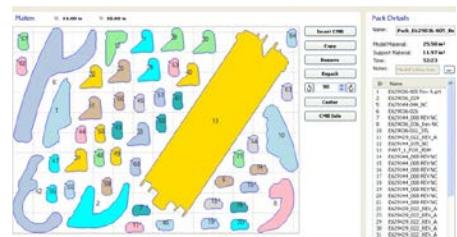
Western Tool & Mold's Fortus 3D Production System boosts the output of its existing injection molding operation.



In-house prototyping enables Western Tool & Mold to provide fast reactions to immediate needs.



3D printed parts, such as these aerospace components, help streamline Western Tool & Mold's manufacturing process.



The Fortus 3D Production System's build tray size allows Western Tool & Mold to print different parts in different sizes in one go.

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E info@stratasys.com / STRATASYS.COM

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HEADQUARTERS

7665 Commerce Way, Eden Prairie, MN 55344

+1 888 480 3548 (US Toll Free)

+1 952 937 3000 (Intl)

+1 952 937 0070 (Fax)

2 Holtzman St., Science Park, PO Box 2496

Rehovot 76124, Israel

+972 74 745-4000

+972 74 745-5000 (Fax)