CASE STUDY

Innovative Engineering & Additive Solutions to Accelerate Tooling Development



INDUSTRY: Aerospace, Defense, Space, & Industrial

COMPANY

SFC STRETCH FORMING CORPORATION

Manufacturing Solutions

> "Saratech is extremely agile and innovative. They provided a lot of engineering support and resources to us as well as advising us on how to accomplish additive manufacturing and integrate it into our facility."
>
> - Michael Russell
> VP of Operations, SFC

CHALLENGE

Stretch Forming Corporation is an aerospace company dedicated to forming and fabricating a range of aluminum, steel and exotic components for aerospace, defense, space, and industrial sectors. SFC produces tooling solutions to meet the unique and specific needs of its customers. SFC faced challenges in the time-consuming and costly production of tools and molds for stretch forming. Depending on the part, the tool may be created out of Aluminum or Medium-Density Fiberboard (MDF). It takes time to setup the CNC machine to cut the part. This process ties up the machines by producing tooling instead of customer parts.

SOLUTIONS

Saratech partnered with SFC on engineering and 3D printing solutions. Our solution was to quickly create 3D CAD models from old drawings so that we could 3D print form tooling so that the form tools could be used in SFC's forming machines to produce first time quality parts for inspection and delivery to their customers. We printed the tools using HP and BigRep print technology instead of machining them. Of course, our HP printer has a size limitation, but SFC had several parts that fit within the volume. We utilized BigRep for parts too large to fit the HP printer. We made the first tool for SFC, a small form block, and they were blown away by the results. Not only did the tool hold up to the strength needed to form metal, but it also met the dimensional accuracy needed, and most importantly was done in just 3 business days! We delivered a total of 22 forming tools in a span of about 2 months, which would have taken SFC at least 6 months using their traditional process. This success marked the beginning of a fruitful collaboration.









RESULTS

Recognizing the potential for a more extensive collaboration, Saratech and SFC are actively working to streamline processes, demonstrating a shared commitment to mutual success. The partnership enables us to utilize the best of both worlds: our technology, initiatives, and certifications, combined with SFC's ability to machine and manufacture parts. We all agreed this is a really good relationship moving forward not only for 3d print, but for build to print, and part automation.

The collaboration's impact goes beyond revenue and efficiency gains. The partnership has successfully reduced the lead time of part creation from weeks to days, setting a new standard for the industry. This accelerated process empowers SFC to take on more work and positions them as a more agile and competitive player in the aerospace manufacturing sector.

REDUCTION OF CYCLE TIME



REDUCTION OF PRODUCTION LEAD TIME



REDUCTION OF COSTS



ABOUT SARATECH

Saratech provides engineering solutions to help companies realize better products. We supply engineering expertise, services, software, and manufacturing solutions to improve product development experiences. Our dedicated engineering team uses the software and tools that we sell and support while employing industry best practices and methodologies. We serve customers in all major industries, including energy & utilities, aerospace, space, marine, defense, automotive, manufacturing, industrial machinery, medical, electronics, consumer products, and more.

Partner with us to solve challenges and accelerate your development cycle, contact us today to request your free consultation: 949.481.3267 | info@saratech.com

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