ceocfointerviews.com

Issue: September 19, 2016
The Most Powerful Name in Corporate News

Bringing Innovation to the Post Processing of 3D Printed Parts and the Additive Manufacturing Industry providing Desktop to Industrial Scale Machines for Support Removal and Surface Finishing

Jeff Mize
CEO
PostProcess Technologies

CEOCFO: ***Mr. Mize, according to your site, PostProcess is the innovative leader of the new 3D printing post processing industry. Would you tell us more?***
Mr. Mize: In 3D printing or additive manufacturing, there are three steps; design, print and post-printing. The vast majority of investment in the industry over the past thirty years has been in that second step of "printing". There are dozens of printer companies with a variety of different technologies. There has also been investment in that first step of "design". However, little investment has been made in the third step of post-printing. To date, the vast majority of customers use manual labor to complete the post-printing of a 3D printed part. My belief prior to joining the industry was that once a part comes off the 3D printer, it was ready for use – the same as a standard inkjet printer. But, in almost all cases, that is not the situation and two operations need to be performed. The first is support removal and next is surface finishing. In over 90% of cases, the 3D part has some type of supports that are required to achieve the desired geometry and in about 60% of the cases the part needs surface finishing.

CEOCFO: ***Why is that becoming increasingly important?***
Mr. Mize: More and more customers are moving from rapid prototyping into volume production. In many cases there is a need to finish the prototype part. With volume production parts, there is almost always a need to have some type of finishing operation. And as mentioned, in either case supports need to be removed.

CEOCFO: ***Why have people not realized the opportunity?***
Mr. Mize: Mainly because of volumes. Up until the last two - three years, the majority of applications have been in rapid prototyping. When you are producing two, three or five of one type of part, the post-printing operations via manual labor are doable. However, as those volumes grow, three things happen. First, with manual labor it is difficult ensuring consistency from part to part. PostProcess Technologies delivers unparalleled consistency with our automated and intelligent solutions. Our machines do not get tired, whereas today, a common way to remove supports is with a high-pressure water jet held by a technician. It is monotonous and tiring work so by the 30th or 40th part, removing all of the support material and delivering identical parts is challenging. The second area is throughput. In many cases today, digital dentistry is an example, the bottleneck is that third step of the 3D printing process, post-printing. When you are producing a few parts, the throughput is not a concern. When you start producing hundreds or thousands of parts per day, the throughput becomes critical. With our automated solution, we can dramatically increase the throughput. The third area is productivity. It takes a certain amount of time per part when using manual labor. Back to digital dentistry as an example, it was taking about 300 minutes of technician time to clean 300 parts. With our solution, it takes the operator three minutes to load the machine. They come back a few hours later to unload the machine, which also takes about three minutes and we are able to increase productivity and reduce labor time from 300 minutes down to 6 minutes. The math on that is a 5000% increase in productivity or a 98% reduction in labor time. Unparalleled consistency, increased throughput and increased productivity are the three major benefits we deliver to our customers.

CEOCFO: ***Are companies looking at this step before implementing 3D printing?***
Mr. Mize: No. The steps have been looked at in relative isolation. The engineer designs the part, producing an STL (STereoLithography) file, which is then printed. The third step of post-printing is typically an afterthought. One of the unique things that our founder has done and that we train all PostProcess employees on, is understanding the end-to-end process, from design to print to post-printing. We look at the entire process in an integrated and interconnected way. Oftentimes we will discuss with our customers ways to change their designs; it does not alter the form, fit or function of

their part but makes that third step of post-processing much easier. Another thing we are finding is that when we sit down with customers, they give us an estimate of how much time they are spending on that third step. When they dig in and really analyze how much time and money they are actually spending, it is dramatically more than what they thought. By implementing our automated solution, customers get an average return on investment in about a three to six-month timeframe.

CEOCFO: ***It would seem hard to resist. When you get an opportunity to fully explain to people, are they still hesitant?***
Mr. Mize: Folks that are performing post-processing manually quickly recognize the benefits of moving to our automated solution.

CEOCFO: ***How are people finding PostProcess?***
Mr. Mize: Most of our leads have come from presenting at industry tradeshows. Our founder Daniel Hutchinson started the company three years ago. He did the vast majority of the initial design, development and building of the equipment along with the sales and marketing and the other functions associated with running a small business. He would attend two or three tradeshows per year and give a short presentation and demonstration on how we were automating this third step of 3D printing. From that, we have well over a thousand leads from companies around the world that have inquired about how we can help them remove their growing post-printing bottleneck. To date, we have not done any outbound marketing but we are quickly expanding the team and once we have the necessary infrastructure in place, we will begin outbound marketing activities.

"With our solution, it takes the operator three minutes to load the machine. They come back a few hours later to unload the machine, which also takes about three minutes and we are able to increase productivity and reduce labor time from 300 minutes down to 6 minutes. The math on that is a 5000% increase in productivity or a 98% reduction in labor time. Unparalleled consistency, increased throughput and increased productivity are the three major benefits we deliver to our customers." - Jeff Mize

CEOCFO: ***What types of equipment and what other items do you offer?***
Mr. Mize: Support Removal and Surface Finishing machines represent the majority of our current revenue. We also provide consumables (detergent and media) along with service contracts to our customers. A bit of background - the journey for our founder, Daniel, started with writing software, including proprietary agitation algorithms, focused solely on 3D printed parts. Daniel then went out and searched for hardware that could run his software. He could not find what he was looking for so he designed the hardware and used many off-the-shelf components but brought them together in a way no one else has had. The third step was to find consumables, both detergents and media, that would be compatible with our machines and with 3D printed parts. Nothing existed on the market, so Daniel also developed a proprietary line of detergents and media. At PostProcess Technologies we have brought together software, hardware and consumables into a package that is specifically designed for 3D printed parts. One of the things that we talk about is all print technologies, all materials. We work with both plastics and metals. We also work with all the different types of printing technology whether it is FDM, PolyJet, SLS or CBAM. There is now over a thousand different print materials that you can 3D print and so far we have not found a material that we cannot work with.

CEOCFO: ***With so much interest, how do you decide who warrants follow up?***
Mr. Mize: The first criteria on the decision-making flow chart is geography. Currently, we are focused on North America. We have had inquiries from well over fifteen countries but at this point we are staying focused on North America, which represents about 40% of the overall additive manufacturing market. Our plan is to continue to grow at a triple digit rate and expand into Europe sometime in mid to late 2017 and then into Asia in 2018. If a customer is located in North America, we go to the second criteria which is size of the opportunity. One of the important things is to be able to maintain our leadership position and to do that we are working with a number of Fortune 100 companies in a variety of markets including automotive, aviation, defense, medical and performance athletics. One thing that attracted me to the company when I first met Daniel in the fall of 2015 was the fact that he had not raised any outside capital but he already had his machines in several blue chip customers. Being at the stage where he had achieved product validation without raising any outside funding was pretty amazing. When I looked at the list of customers he was working with, the vast majority were household names. He was able to get PostProcess Technologies solutions into some of the biggest automotive players, some of the biggest defense contractors, some of the biggest players in the medical market. We are in a fortunate position that blue chip companies, who are continuing to increase their volumes with additive manufacturing, are in strong need of the automated and intelligent solution we bring to that third step of 3D printing.

CEOCFO: ***Were you surprised about what had been done with PostProcess, before you came into the picture?***
Mr. Mize: Yes, especially considering how much Daniel accomplished on his own. He also recognized that by expanding the team with experienced folks, there was an opportunity to grow the company into the global world leader for post-printing and also disrupt the $12.6 trillion dollar traditional manufacturing market. We are at the beginning of an exciting journey that should allow us to grow PostProcess into a $100 million company by 2020.

Interview conducted by: Lynn Fosse, Senior Editor, CEOCFO Magazine

---

PostProcess Technologies
For more information visit:
www.postprocess.com

Contact:
Diana Robbins
Director of Marketing
716.480.5028
drobbins@postprocess.com