ACS Custom Revolutionizes In-ear Device Production with 3D Systems’ Figure 4 Direct Digital Solution

- Digital workflow combines Figure 4® technology & Figure 4 PRO-BLK 10 material – evolving from concept to final product in 4 days or less

ROCK HILL, South Carolina, September 15, 2020 – The manufacturing industry is undergoing a significant transformation; fueled by the power of additive manufacturing solutions. 3D Systems’ (NYSE:DDD) customer, ACS Custom, a UK-based digital production house for custom hearing protection, in-ear monitors, and other communication devices has revolutionized their workflow with 3D Systems’ Figure 4 direct digital solution. ACS Custom’s bespoke solution – comprised of Figure® 4 PRO-BLK 10, Figure 4 Standalone, 3D Sprint® software, and application engineering services – is accelerating its product development cycle for enhanced time to market and competitive advantage. As a result of this direct digital production workflow, ACS has realized a 4X increase in capacity and 2X increase in efficiency while reducing material consumption by 50% and labor cost by as much as 80% on one part.

“Figure 4 technology has been an integral part of our workflow for the past two years,” said Andy Shiach, managing director, ACS Custom. “Through collaboration with 3D Systems’ team, we’ve been able to maximize the technology’s role in our business and have elevated our company to a whole new level. The unique solution was designed specifically for our application and has helped us dramatically increase production capacity and efficiency as well as unparalleled surface finish to deliver high-quality products to our customers.”
ACS built its business around a 100% digital workflow that provides customers with quick access to one-of-a-kind articles. 3D Systems’ team worked closely with the team at ACS Custom to understand their specific application needs which resulted in a direct digital production solution.

At the core of this solution is 3D Systems’ Figure 4 PRO-BLK 10 material – the company’s first photopolymer for additive manufacturing that exhibits thermoplastic behaviors, providing a combination of speed, accuracy, strength, and durability previously only associated with injection molding output. This material has unique and compelling properties that represent significant improvements in first-time print yield, heat deflection, UV stability, durability, flexibility, and impact strength, while also enabling new biocompatible and direct digital production workflows such as the one designed for ACS. Figure 4 PRO-BLK 10’s material properties – which include being biocompatible capable per ISO10993-5 and ISO10993-10 - results in a long-wear device that enables enhanced sound transmission and quality.

ACS Custom is using 3D Systems’ Figure 4 Standalone 3D printer to take products from concept to prototype and final product. The Figure 4 platform is well-suited to these types of custom production applications that require rapid turnaround. The combination of Figure 4 PRO-BLK 10 and Figure Standalone enables fast print speed up to 62 mm/hr at 50 micron layer thickness to deliver new levels of productivity to ACS.

Figure 4 Standalone also includes 3D Sprint software. An all-in-one additive manufacturing software, 3D Sprint enables file optimization, preparation, and printing with a suite of advanced features for design, file correction, analysis, and more.

“3D Sprint is very intuitive in terms of layout, and the support features are really good,” explained Dan Bennett, technical director, ACS Custom. “When the outside surface quality is important, we can reduce the touchpoint size and position of supports with precision. This allows us to produce a final product that is comfortable for the customer.”

In addition to direct production applications, ACS Custom uses its 3D printers for eggshell casting. This technique takes advantage of the ability to print ultra-thin walls with Figure 4 to create molds for injecting silicone with Figure 4® EGGSHELL-AMB 10 material. Once injected, the 3D printed mold can be broken and peeled away like an eggshell to reveal a silicone part that ACS Custom post-processes, marks, and finishes.
“3D Systems’ customer-centric solutions approach to innovation underlies everything we do – from understanding the customer workflow and application through to complete solution development,” said Scott Anderson, VP & segment leader for manufacturing & prototyping, 3D Systems. “This highly market-driven approach allows our team the opportunity to engage unique applications for each customer and deliver solutions that propel their innovation and customer value to the next level. Our collaboration with ACS Custom showcases how the Figure 4 solution (hardware, software, and materials) enables direct and indirect digital production to increase efficiency, capacity, and flexibility, while concurrently offering superior end-part quality. This reinforces how additive manufacturing solutions can truly drive competitive advantage.”

Forward-Looking Statements
Certain statements made in this release that are not statements of historical or current facts are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the company to be materially different from historical results or from any future results or projections expressed or implied by such forward-looking statements. In many cases, forward looking statements can be identified by terms such as "believes," "belief," "expects," "may," "will," "estimates," "intends," "anticipates" or "plans" or the negative of these terms or other comparable terminology. Forward-looking statements are based upon management’s beliefs, assumptions and current expectations and may include comments as to the company’s beliefs and expectations as to future events and trends affecting its business and are necessarily subject to uncertainties, many of which are outside the control of the company. The factors described under the headings "Forward-Looking Statements" and "Risk Factors" in the company’s periodic filings with the Securities and Exchange Commission, as well as other factors, could cause actual results to differ materially from those reflected or predicted in forward-looking statements. Although management believes that the expectations reflected in the forward-looking statements are reasonable, forward-looking statements are not, and should not be relied upon as a guarantee of future performance or results, nor will they necessarily prove to be accurate indications of the times at which such performance or results will be achieved. The forward-looking statements included are made only as the date of the statement. 3D Systems undertakes no obligation to update or review any forward-looking statements made by management or on its behalf, whether as a result of future developments, subsequent events or circumstances or otherwise.
About 3D Systems
More than 30 years ago, 3D Systems brought the innovation of 3D printing to the manufacturing industry. Today, as the leading Additive Manufacturing solutions partner, we bring innovation, performance, and reliability to every interaction - empowering our customers to create products and business models never before possible. Thanks to our unique offering of hardware, software, materials and services, each application-specific solution is powered by the expertise of our application engineers who collaborate with customers to transform how they deliver their products and services. 3D Systems’ solutions address a variety of advanced applications in Healthcare and Industrial markets such as Medical and Dental, Aerospace & Defense, Automotive and Durable Goods. More information on the company is available at www.3dsystems.com.

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