

Boom Supersonic Selects VELO^{3D} to Manufacture Flight Hardware for XB-1, its Supersonic Demonstrator Aircraft

VELO^{3D} Intelligent Fusion technology to print the first 3D metal parts on the supersonic jet

CAMPBELL, Calif., June 24, 2019 (GLOBE NEWSWIRE) -- [VELO^{3D}](#), the leader in 3D metal printing, today announced that it has partnered with [Boom Supersonic](#), the Colorado company building history's fastest supersonic airliner, to manufacture the flight hardware necessary to build [XB-1](#), Boom's Mach-2.2 supersonic demonstrator aircraft. Boom is leveraging VELO^{3D}'s [Intelligent Fusion](#) technology, which enables significant process control that helps make impossible designs a reality.

XB-1 is the first independently-developed supersonic jet that will prove the key technologies in-flight for safe, efficient travel at Mach 2.2 (1,687mph). XB-1 combines over 3,700 parts and some of the most advanced technologies including advanced carbon fiber composites, a refined delta wing planform, and an efficient variable-geometry propulsion system.

XB-1 has unique and demanding functional, performance, and precision requirements, so Boom turned to VELO^{3D} to leverage its deep market expertise and customer support partnership. Current additive manufacturing solutions are design restrictive, resulting in poor quality and inconsistent idea-to-build success. VELO^{3D}'s [Intelligent Fusion](#) technology provides a level of control, design freedom, and quality assurance that is critical in challenging design environments such as supersonic aircraft performance. With VELO^{3D}, Boom hopes to use metal additive manufacturing to accelerate aircraft development and improve system performance.

"High-speed air travel relies on technology that is proven to be safe, reliable, and efficient, and by partnering with VELO^{3D} we're aligning ourselves with a leader in additive manufacturing that will print the flight hardware for XB-1," said Mike Jagemann, Head of XB-1 Production, Boom Supersonic. "VELO^{3D} helped us understand the capabilities and limitations of metal additive manufacturing and the positive impact it would potentially have on our supersonic aircraft. We look forward to sharing details about the aircraft development and improved system performance once XB-1 takes flight."

Boom and VELO^{3D} have already conducted validation trials, which performed accurately and to desired results. Now, VELO^{3D} is developing two titanium flight hardware parts for XB-1, which will be installed on the prototype aircraft in early 2020. These 3D-printed parts are installed as part of the ECS system and ensure the aircraft can achieve safe flight at all conditions.

"Boom is reimagining the entire commercial aircraft experience, from the design, build, and

materials used,” said Benny Buller, CEO of VELO^{3D}. “Our technology is designed to help innovators like Boom rethink what’s possible, empower advanced designs with little or no post-processing, and enable an entirely new approach to production. Boom needed more than just prototypes and we’re thrilled to help them create the first 3D-printed metal parts for an aircraft that will move faster than the speed of sound.”

Aerospace manufacturing is one of the largest target markets for VELO^{3D}. Since commercializing in September 2018, there is already one original equipment manufacturer (OEM) in production, producing additively manufactured parts for rockets, and another major aerospace OEM will have as many as five Sapphire machines before the end of the year.

For more information, please visit: <https://www.velo3d.com/>

About VELO^{3D}

VELO^{3D} empowers companies to manufacture anything. By bringing together innovations in software, hardware, and process control, VELO^{3D} created the industry’s first SupportFree solution for 3D metal printing, enabling unlimited design innovation by reducing the need for support structures in metal additive manufacturing. The company’s Sapphire System is built with a semiconductor mindset on quality assurance, ensuring repeatability and dependability throughout serial manufacturing. Headquartered in Silicon Valley, VELO^{3D} helps companies deliver immediate business impact by making the impossible, possible. To learn more, please visit www.velo3D.com.

About Boom

Boom Supersonic is redefining what it means to fly by building Overture, history’s fastest commercial airliner. Boom’s vision is to bring families, businesses, and cultures closer together through supersonic travel and make the world dramatically more accessible. The company is backed by world-class investors and has 30 aircraft on pre-order from Japan Airlines and Virgin Group. Founded in 2014, Boom has assembled a world-class team of over 130 full-time employees who have made contributions to over 130 air and spacecraft companies. For more information, please visit boomsupersonic.com.

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