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VELO3D Announces Sapphire® XC, Large Format 3D Metal Printer with up to 5X Productivity Improvement and 75% Cost Reduction

13 advance orders for new additive manufacturing system already received

CAMPBELL, Calif.--(BUSINESS WIRE)-- [VELO^{3D}](https://www.VELO3D.com), an innovator in digital manufacturing, announced the expansion of its systems portfolio to include Sapphire XC, an “Extra Capacity” large-format printer that will increase production throughput by 5X and reduce cost-per-part by up to 75%, when compared to the existing Sapphire system.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20201020005113/en/>

Sapphire XC, the new “Extra Capacity” large-format printer from VELO3D, will increase production throughput by 5X and reduce cost-per-part by up to 75%

The company also announced plans to roll-out Sapphire Gen 2, which will be a

software and hardware upgrade to the current system. Users can expect an improvement of anywhere between 10-50% in productivity and part-cost metrics when compared to the current Sapphire system. The Sapphire Gen 2 upgrade will be available to retrofit on all installed systems starting in Q2 2021.

The Sapphire product family now includes Sapphire Gen 2, the 1-meter tall Sapphire 1MZ and Sapphire XC—all using the laser powder-bed fusion (LPBF) process with patented capabilities to print without consideration of support structures. Sapphire systems specifically address the aerospace, power generation, and energy markets' unmet needs for quality-assured manufacturing of uncompromised geometries.

"Printing larger parts without the additive manufacturing constraints of support structures is highly attractive to many industrial end-users," said Benny Buller, founder, and CEO of VELO^{3D}. "For the first time, customers will be able to 3D-print uncompromised geometries, with the highest confidence in part quality, in a large format system. Quality assurance with large scale components is critical because the economic impact of failed builds is very significant. We have demonstrated that our integrated solution is capable of producing a greater yield of high-quality parts, and that foundational technology will transfer to our new Sapphire XC."

Sapphire XC Features

- **Larger build volume:** Build volume 600mm x 550 mm (compared to 315mm x 400 mm in Sapphire)

- **Higher productivity for production:** 8 lasers x 1,000W each (compared to 2 lasers x 1,000W in Sapphire)
- **Integrated manufacturing process:** Fully integrated with Flow™ pre-print software and Assure™ quality control software
- **Consistent architecture:** Utilizes the same optical-train design, recoater technology, gas-flow technology, and metrology as the current Sapphire. Users can also expect similar material properties as Sapphire
- **Qualified material alloys:** Compatible alloys include Aluminum F357, Titanium 6Al-4V, INCONEL® 718 and HASTELLOY® X

Sapphire XC Pre-Order

Delivery of Sapphire XC will begin in Q4 2021. Early pre-order of Sapphire XC secures a price and an early manufacturing slot for the system. Existing orders of Sapphire XC will consume all available manufacturing slots for Q4 '21 and most of Q1 '22.

Webinar Invitation

To learn more about the value of the Sapphire XC large format system and how it addresses unmet customer needs, [register](#) for an informative online fireside chat on Oct 22nd at 10 a.m. Eastern Standard Time. Scott Dunham, Vice President of Research at Smartech Analysis will moderate a discussion with Benny Buller, founder and CEO of VELO^{3D}. Live Q&A from the audience will be included in the webinar.

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Media Contact for VELO^{3D}: Joyce Yeung press@velo3d.com

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