

VELO 3D

WITHOUT COMPROMISE.

Advanced End-to-End
Metal AM Solution



Helping Innovators Create the Future, Today

At Velo3D, we enable innovators to create the future by providing an end-to-end metal 3D printing solution for mission-critical parts. Our advanced solution helps innovators build the complex parts they need without compromising design or quality, empowering the visionaries of today to build the technologies of tomorrow.

Design Freedom

Design the part you need, without compromise.

Agility

Rapid response to changing demand, product, and go-to-market development requirements.

Quality Assurance by Design

The gold standard in quality for advanced AM technology, verifiable layer-by-layer.

Efficiency

Empowering engineers to optimize parts, save time, lower costs, and reduce risk.

Commitment to Customer Success

Our expert team of application engineers is always there to ensure your success and guide you through the AM process.

Serving Industries that Innovate

The Velo3D end-to-end solution helps innovators in some of the most challenging industries solve complex manufacturing problems. These include:

- SPACE
- AVIATION
- ENERGY
- OIL & GAS
- DEFENSE



Committed to Customer Success

When you work with Velo3D, we go the extra mile to ensure your success and gain your confidence and trust. Our dedicated applications engineers are there for you through every step of the AM process, shepherding the design, development, and manufacturing phases to ensure the best project outcomes. In many ways, we become an extension of your existing team.

The World's Most Innovative and Inspiring Companies Trust Velo3D

Some of the most innovative companies in the world use Velo3D to solve their parts design and manufacturing challenges for delivery, performance, and cost.



CONSULTATION PROCESS:

Concept Review

- Designate Team
- Define Schedule
- Technical Review
- Short list initial parts
- Define success metrics
- Impact Document

Checkpoint (30 days)

Evaluation

- Print modeling
- Success metrics review
- Select part candidates
- Print POC parts
- Validation of parts
- In situ testing

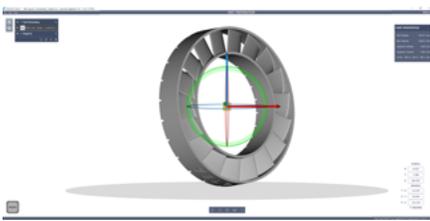
Checkpoint (60 days)

Capacity plan

- Plan production briefing
- Intro to CM network
- Down select CMs
- Volume agreement
- Ready for production
- Begin volume production

Checkpoint (30 days)

The Velo3D End-to-End Solution



Flow™
Print Preparation Software



Sapphire®
Metal AM Family of printers



Assure™
Quality Validation

UNDERLYING INTELLIGENT FUSION MANUFACTURING PROCESS

At Velo3D, we've simplified complications that make conventional AM systems inefficient and nonrepeatable, creating conditions for a more agile, less costly, supply chain that can revolutionize the parts production process without compromise.

Our solution unlocks the freedom of design for new innovative parts in mission-critical applications. With **Flow™** intelligent print preparation software, **Sapphire®** family of metal 3D printers, and **Assure™** real-time quality validation and control software, all driven by our **Intelligent Fusion™** underlying manufacturing process, engineers now have the means to print the design they need for higher-performing parts at the quality they expect with lower costs.



Achieving Optimal Design with Flow™ Print Preparation Software

Flow™ intelligent print preparation software enables engineers to drastically reduce the time from initial concept to one build file for use on any Velo3D printer anywhere.

Flow™ intelligently identifies and automatically applies a library of standardized recipes ensuring the highest level of efficiency, quality, and repeatability.

Consistent Reliability on Sapphire® Printers

The Velo3D **Sapphire®** family of printers (Sapphire, 1Mz, and XC) all running the same process, ensures repeatable consistency. Designed for use with a broad range of alloys to meet your design, performance, and quality requirements, our printers are continually measured, monitored, and controlled layer by layer for predictable and efficient production.

A proprietary non-contact recoater reduces the risk of part collisions, enabling our **SupportFree™** printing process to build previously impossible parts without compromise.

Meet The Highest Quality Standards with Assure™

Assure™ software provides instant visibility into every layer of the build through real-time sensors, physics-based excursion detection algorithms, and optical measurements. These in-situ monitoring systems and reports give engineers confidence that the printer is operating at optimal performance and that the part is built with no defects, layer by layer.

Raise Your Part Expectations

Here are a few innovations our technology enabled across a wide variety of metal alloys including: Inconel® 718, Inconel® 625, Titanium 6Al-4V, Aluminum F357, Hastelloy® - X Hastelloy® - C22, Scalmalloy®



MICROTURBINES

- 40X Durability Improvement
- 50% Lighter



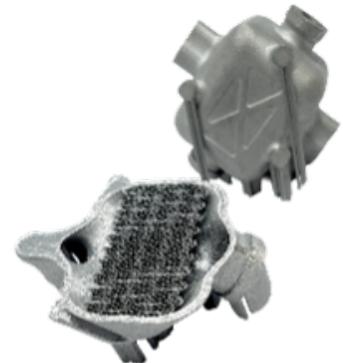
TURBOPUMPS

- Reduced Pressure Drop
- Lower Print Angles
- No Redesign for Replacement parts



HEAT EXCHANGERS

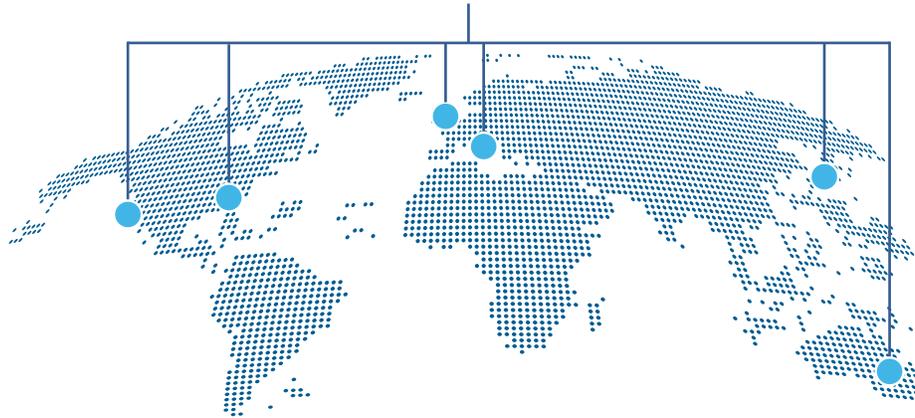
- 33% Less Back Pressure
- 320um Leak-Tight Walls
- 220um Turbulators



Rapid Scalability with Velo3D's Trusted Partner Network

Velo3D's revolutionary single print file approach enables a part to be printed on any Velo3D printer anywhere in the world.

One Velo3D golden print file to any Velo3D printer produces exactly the same part



That means the geometry and material characteristics are the same for every part, regardless of whether it's printed in Oklahoma or Osaka, Seville or Stuttgart. Through this, we've built a worldwide network of contract manufacturers who are ready and waiting to lower the transition risk

from development to production to rapidly scale your part. Customers own one Print File for each project that can be printed on any Velo3D printer across the global contract manufacturing network or their own global facilities.





Ready to Learn More About Velo3D?

Let us help you with your most challenging and innovative projects.

Contact us today to schedule
a consultation or to learn more
about our end-to-end solution.

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