

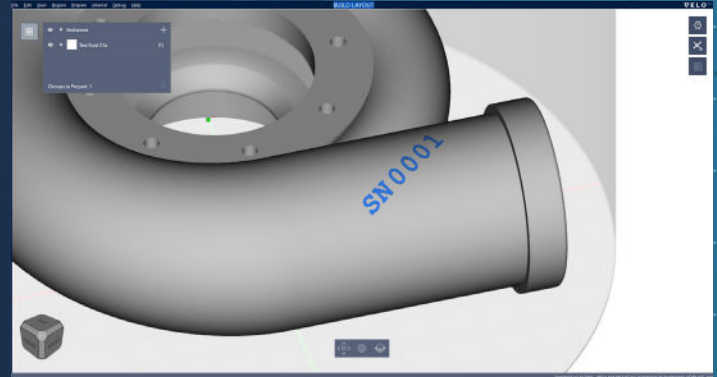
**PRODUCT BRIEF**

# Flow Software

**US Production Facilities**  
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Flow print preparation software is responsible for prescribing the manufacturing process for the Sapphire family of metal 3D printers. The software's feature-based process library eliminates the need to develop new part-specific parameters sets—saving months of development time and reducing the need for specialized technicians. With more than two dozen standardized recipes, engineers can analyze the part while Flow automatically applies the right recipe to each feature.



## Co-Developed with the Sapphire Family of Printers

Flow's seamless integration with Sapphire printers results in pre-validated build instructions. Because Flow leverages Velo3D's standardized process library, the resulting .veloprint file can be used to manufacture parts with consistent geometric accuracy, surface finish, and material properties from any Sapphire printer worldwide. Flow supports Velo3D's entire line of printers including the Sapphire, Sapphire 1MZ, Sapphire XC, and the Sapphire XC 1MZ. This allows for even greater scalable production, with up to eight laser sequences covering Sapphire XC's 600 mm diameter build plate.

## User Friendly Interface

Flow's simple and intuitive interface lets you do more in fewer steps. Intuitively interact with part geometry using CAD-derived surface segmentation and reduce laborious selection and filtering processes down to a few clicks. Flow also enables easy manipulation of the part file to support, orient, layout on the build plate, and add text to the part for labels and serial numbers.

# The Velo3D Manufacturing Process

Prescribed by Flow, Executed by Sapphire, Validated by Assure



**Flow**  
Print Preparation Software

**Sapphire**  
Metal AM Family of Printers

**Assure**  
Quality Validation

UNDERLYING INTELLIGENT FUSION MANUFACTURING PROCESS

To Learn More Visit  
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## Flow Capabilities

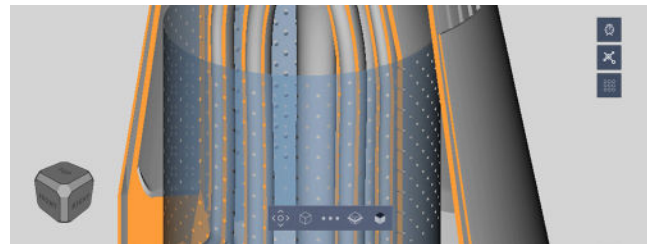
### Native CAD Support for a Simpler Workflow

With Flow, you can easily import native CAD models without converting them to labor-intensive STL mesh file formats. This creates greater process control and leads to more consistent outcomes. Flow also enables easy manipulation of the part file to support, orient, layout, and add labels and serial numbers to the part.



### Fully Optimized Library of Feature-Based Processes

Flow makes it simple to print the most advanced geometries and achieve validated material properties by pulling from a library of automatically applied, optimized, feature-based recipes. Flow comes with parameters to support low angles, small or large channels, small walls and pins, and many other part features.



### Intelligent Slicing

Flow lets you print your part immediately without the need for specialized technicians or previous additive manufacturing experience. Once a layout is complete, Flow intelligently analyzes the plan and prepares the part for print.



### Creating a Golden Print File

Flow enables unprecedented scalability and repeatability with its unique Golden Print File. The file can be used to consistently manufacture identical parts from any Sapphire in the world. Velo3D's standardized library of feature-based processes and automated calibration routines combine to produce parts with identical dimensions and material properties.



### Inspector

No matter how you slice it, Flow's Inspector gives you a deep understanding of the process before a print starts. This provides a powerful tool to review laser sequencing and recipe assignment. See exactly how Flow's recipes are being applied to your part with detailed information on parameters and laser sequencing.

