

# Flow<sup>TM</sup> Software

As part of the Velo3D complete solution, Flow<sup>TM</sup> is responsible for prescribing the manufacturing process for the Sapphire<sup>®</sup> printer. Flow<sup>TM</sup>'s in-depth process library eliminates the need for customers to develop new parameter sets. With over two dozen standardized recipes, engineers can analyze the part and have Flow<sup>TM</sup> automatically apply the right recipe to each feature. This saves months of development and reduces the need for specialized technicians. With Velo3D's new Zero degree, SupportFree<sup>TM</sup> processing, we have expanded the range of applications that customers can slice and print on site.

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## Manufacture Any Design

Velo3D's unique ability to print low angles, thin walls, and large inner diameters without supports starts with Flow<sup>TM</sup>. By pulling from a standardized library of recipes and automatically applying the right process parameter to each feature, Flow<sup>TM</sup> enables engineers to push the boundaries and redefine what is manufacturable.

## Accelerate Print Preparation

Flow<sup>TM</sup> makes metal 3D printing more accessible by integrating intuitive tools that help users with orientation strategy, print time estimation, support generation, persurface process application, and process review.

## Print True to Design with a Native CAD Workflow

By retaining underlying CAD data, Flow<sup>TM</sup> allows for a more intuitive way of interacting with the geometry. Native CAD workflow eliminates the need for translation to labor-intensive STL mesh file formats. Flow<sup>TM</sup> also uses the design's CAD information and interprets it upon import, allowing you to effectively make cost-impactful decisions as you lay out a build.

## Deliver Precise & Predictable Print Outcomes

Flow<sup>TM</sup> offers a wide selection of print capabilities targeting specific geometries and a wide selection of materials. Flow<sup>TM</sup>'s Rough Time Estimation feature allows users to quickly estimate print time prior to slicing the part, which is critical when responding to customer requests.

## The Velo3D Manufacturing Process

Prescribed by Flow<sup>TM</sup>, Executed by Sapphire<sup>®</sup>, Validated by Assure<sup>TM</sup>.

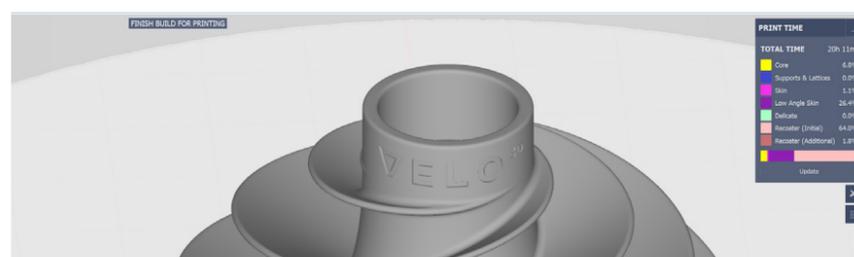


## Flow™ UI

The simple, intuitive Flow™ UI provides unprecedented ease of use. By retaining underlying CAD data, Flow™ allows for a more intuitive way of interacting with the geometry. With the inclusion of Rough Time Estimation, Time Overlay, more Process Overrides, and additional support types, Flow™ gets even more powerful and easier to use.

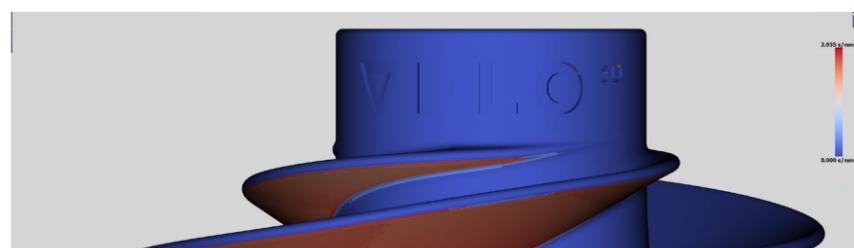
### Rough Time Estimation

The Print Time Estimation tool gives you the ability to obtain a print time estimation upon import, in a responsive and rich visualization.



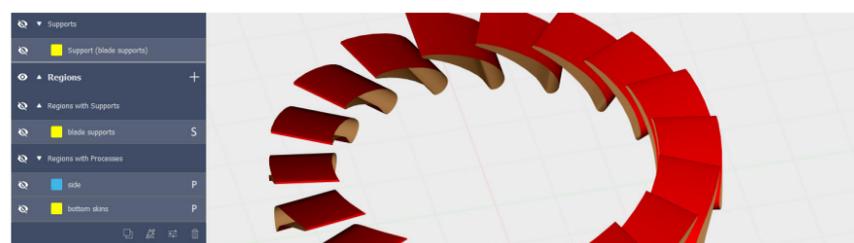
### Time Overlay “Heat Map”

Use while editing parts to quickly try different options like positioning and duplication, to immediately evaluate the effects on print time.



### Smart Selection

Smart Selection uses CAD logic to reduce laborious selection processes down to single clicks. Selection refinement through height & angle filters allows targeted selection.



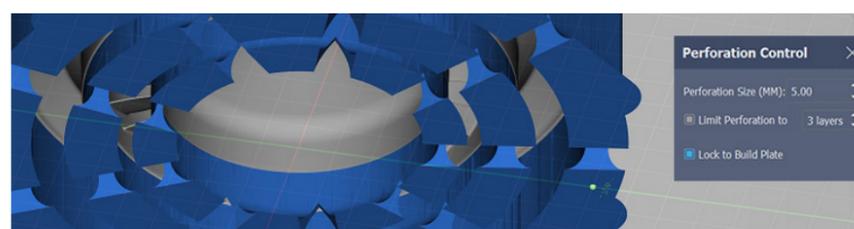
### Per-surface Process Overrides

Per-surface process overrides give engineers greater control over outcomes. Velo3D processes are optimized for speed, feature geometries, and material properties.



### Support Generation

Regions (saved selection sets) make the application of supports and processes easy and organized. Flow features beam, wall, tree, and extruded support types, with perforation options.



### Process Review

Lets you review the applied processes, laser assignment, and print order in 3D or 2D slices, prior to printing, assuring that the printer does what you specified.

