

Mastercam 2023 HIGHLIGHTS



2023 TOP TEN FEATURES

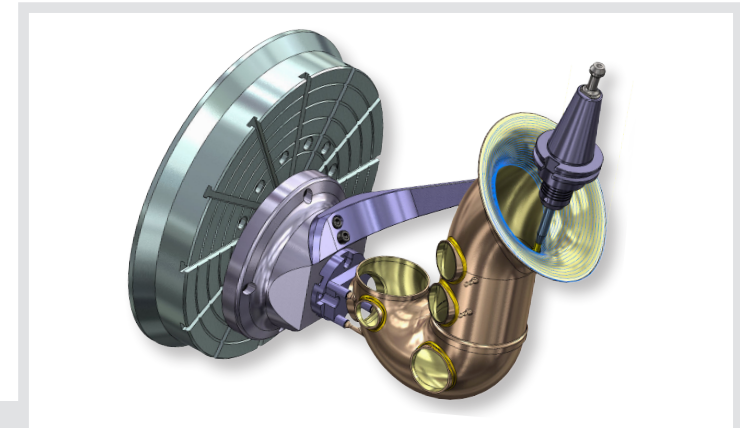
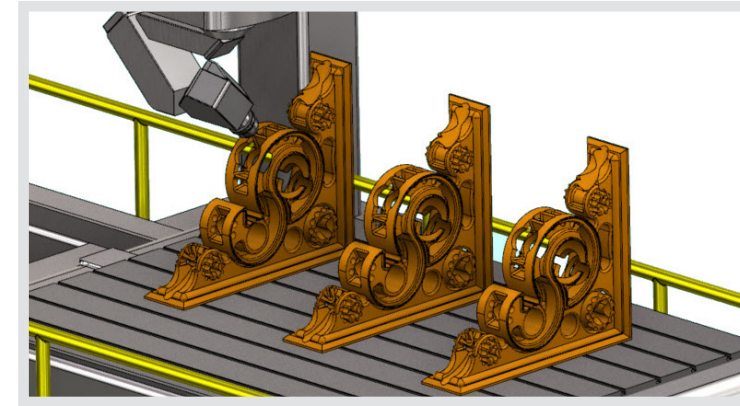
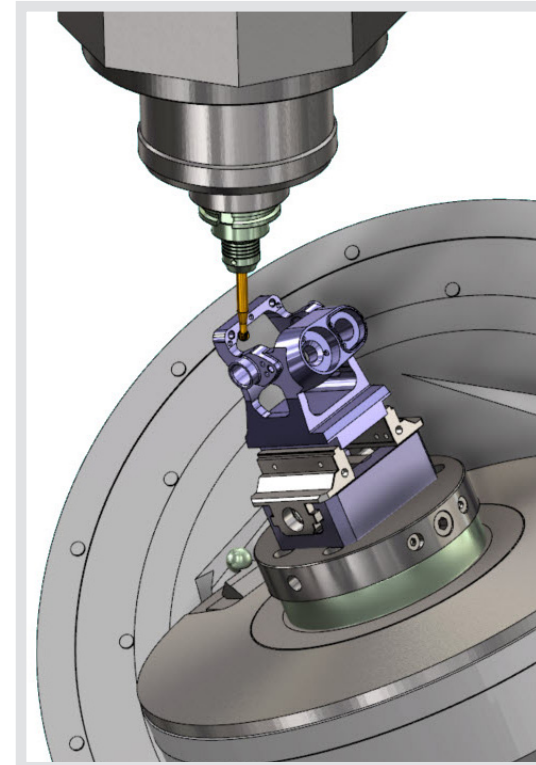
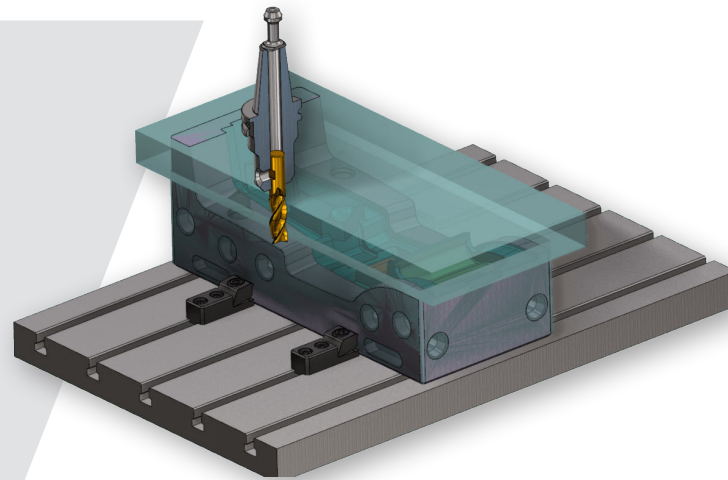
Explore the Mastercam features you've been waiting for — more powerful Multiaxis toolpaths, faster organized set ups, flexible tool motion, and our most intuitive interface yet. Are you ready to elevate your machining experience? **Meet Mastercam 2023.**

1

OptiRough Detecting Undercut Stock When Machining

CNC Programming

In Mastercam 2023, achieving optimized motion is a matter of turning on a switch. The Dynamic OptiRough and Area Roughing toolpaths can now be aware of undercut stock conditions when rest machining. This results in improvements to the toolpath motion including less air cutting.

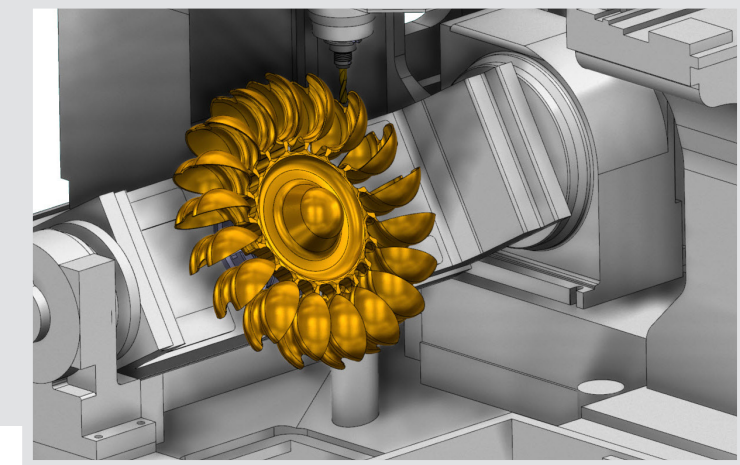
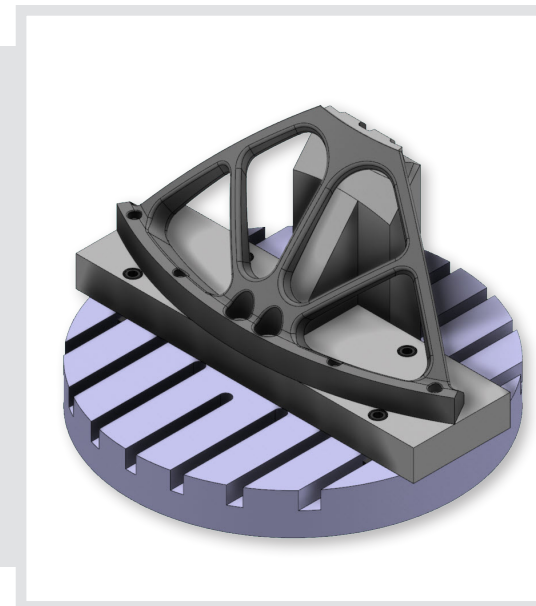
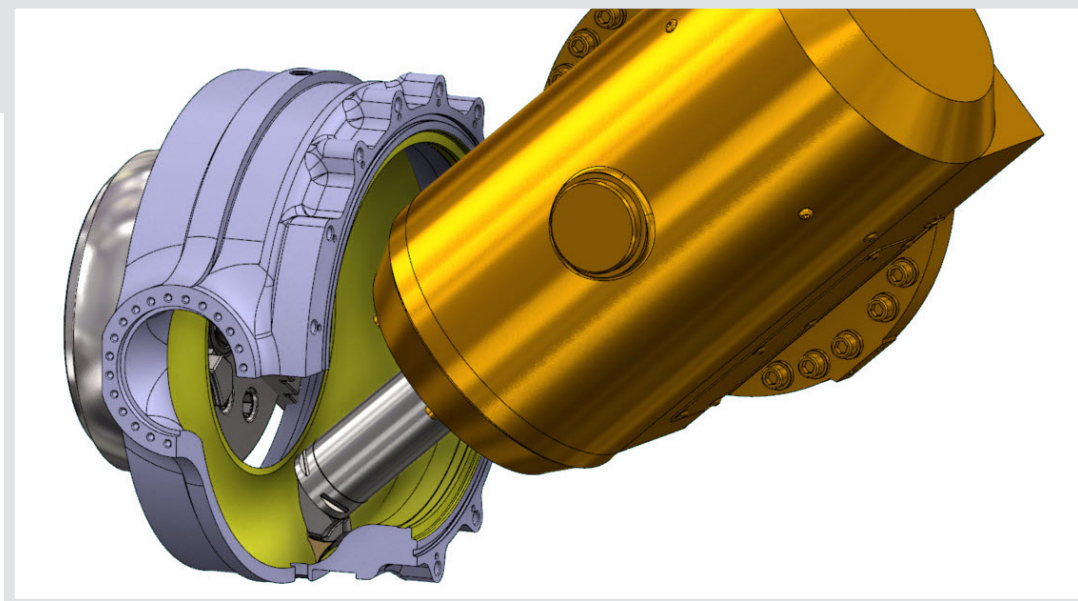


2

B-Axis Contour Turning Toolpath

CNC Programming

B-Axis Contour Turning is a new toolpath introduced in Mastercam 2023 that allows for rotation of the B-Axis while the turning tool is cutting. This means fewer tool changes and less cycle time. Users can now machine difficult-to-reach areas and access undercut with one tool.



Unified Multiaxis Toolpath

CNC Programming

3

Morph, Parallel, Along Curve, and Project Curve are no longer individual toolpaths in Mastercam 2023. Users can now find the same functionality inside the Multiaxis Unified toolpath. Unified allows for far more flexibility in cut pattern when programming Multiaxis all within a new advanced feature set and consolidated, easy-to-use interface.

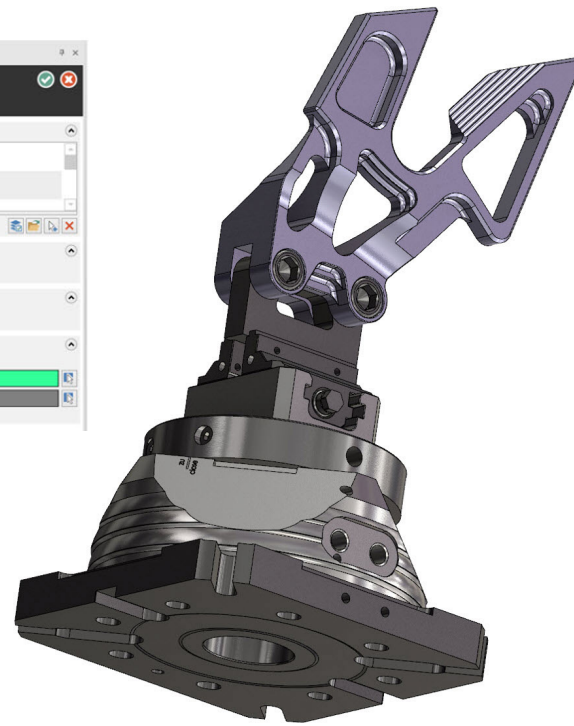
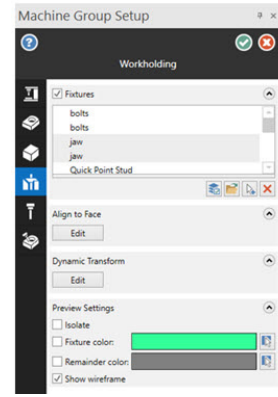
Unified Multiaxis can give your old toolpaths new life. A previous Mastercam file programmed with any of the above four toolpaths will open as a Multiaxis Unified toolpath, making other options also available for that selected geometry.

4

Machine Group Setup

Preparation/Setup

With Machine Group Setup (MGS), accessing all the critical components of setting up a job in a CAM system from stock to simulation has never been easier or more organized. MGS introduces the concept of Master Model to Mastercam, an intuitive interface which allows the system to be more aware of what the finished part is for programming and simulation. Components can now be imported and positioned correctly right inside the MGS interface.



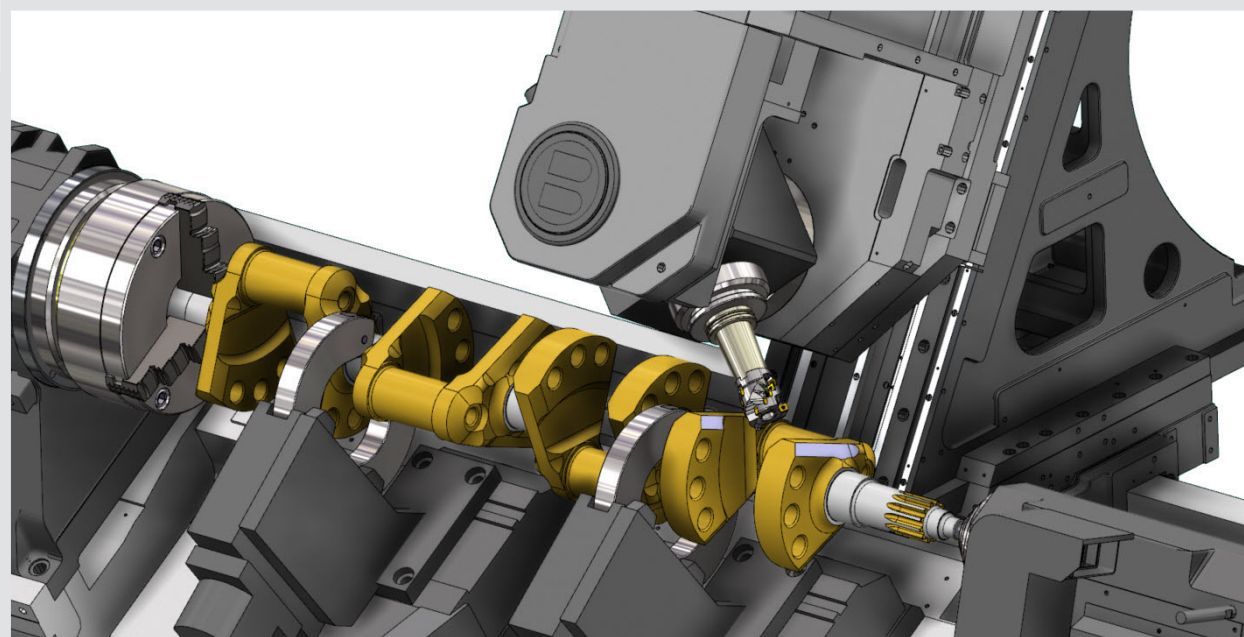
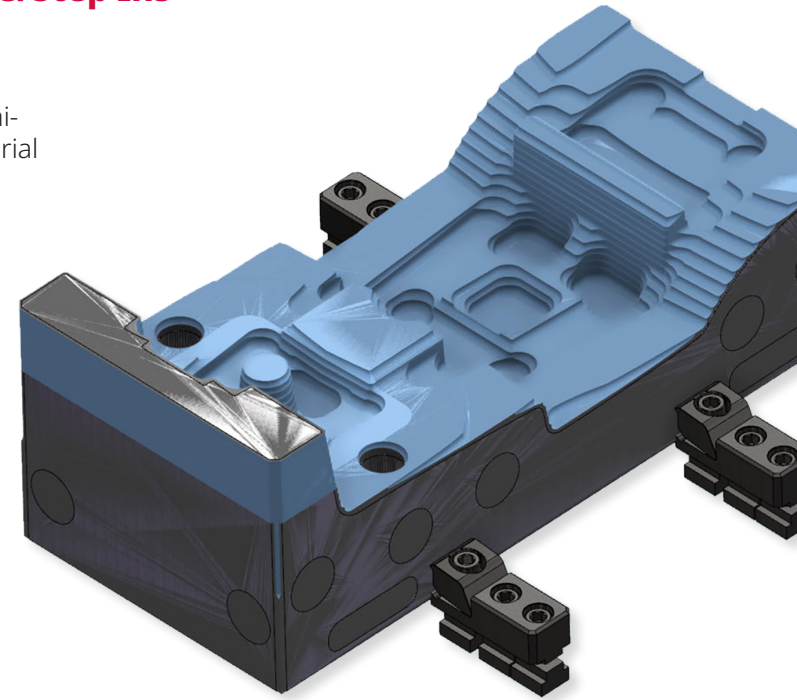
6

Equal Scallop Stock Awareness/Step Ins

CNC Programming

Equal Scallop is now fully stock aware, semi-finishing toolpath that now identifies material left in corners and will machine with a single pass or with multiple passes to ease into the material. With this new functionality, simply specify a previous roughing tool and a max engagement and Equal Scallop automatically creates iterative and safe step in passes to prep for finish.

This functionality essentially turns Equal Scallop into a stock aware, semi-finishing and finishing toolpath.



5

Supporting Multiple Steady Rests

CNC Programming

Confidently control the work holding in your Mill-Turn machine with multiple steady rests. Mastercam's modular machine definition architecture means that you can organize your steady rests in several different configurations.



7

Mesh Enhancements

Preparation/Setup

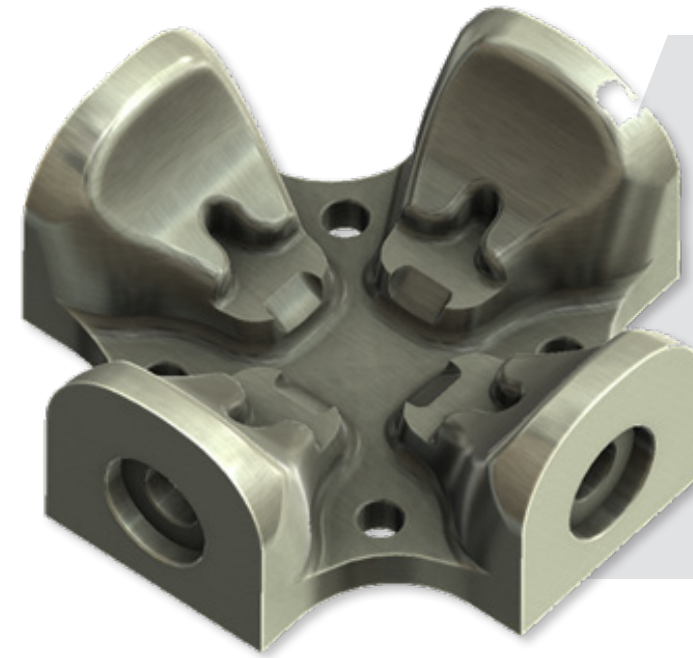
Check Mesh includes a new option in Mastercam 2023 to delete problem facets. Meshes have always been a challenge to machine but due to advancements in reverse engineering they are becoming more prevalent. Check Mesh can analyze and fix problem areas to prepare models for programming. Combine this functionality with the other powerful mesh enhancements, and Mastercam is perfectly suited to complement and enhance new additive and reverse engineering technology.

8

Grouping Viewsheets

Job Management & Documentation

Mastercam 2023 gives you the ability to create viewsheet groups. Use viewsheet groups for better organization, more efficient workflow, and reduced on-screen clutter. To support even the most complex assemblies, users can now categorize views by color and grouping.

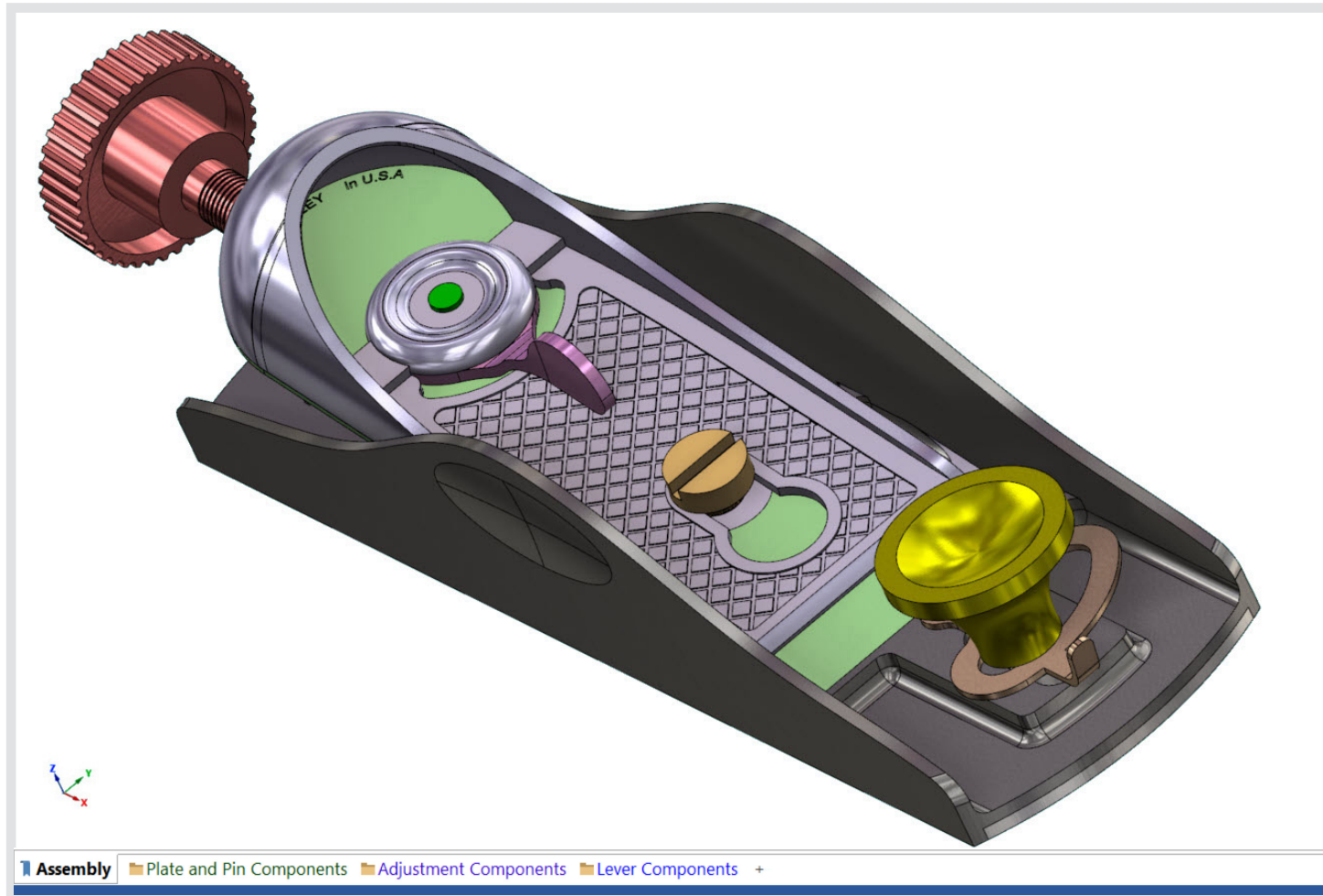


More Powerful and Flexible 3D Roughing Linking

CNC Programming

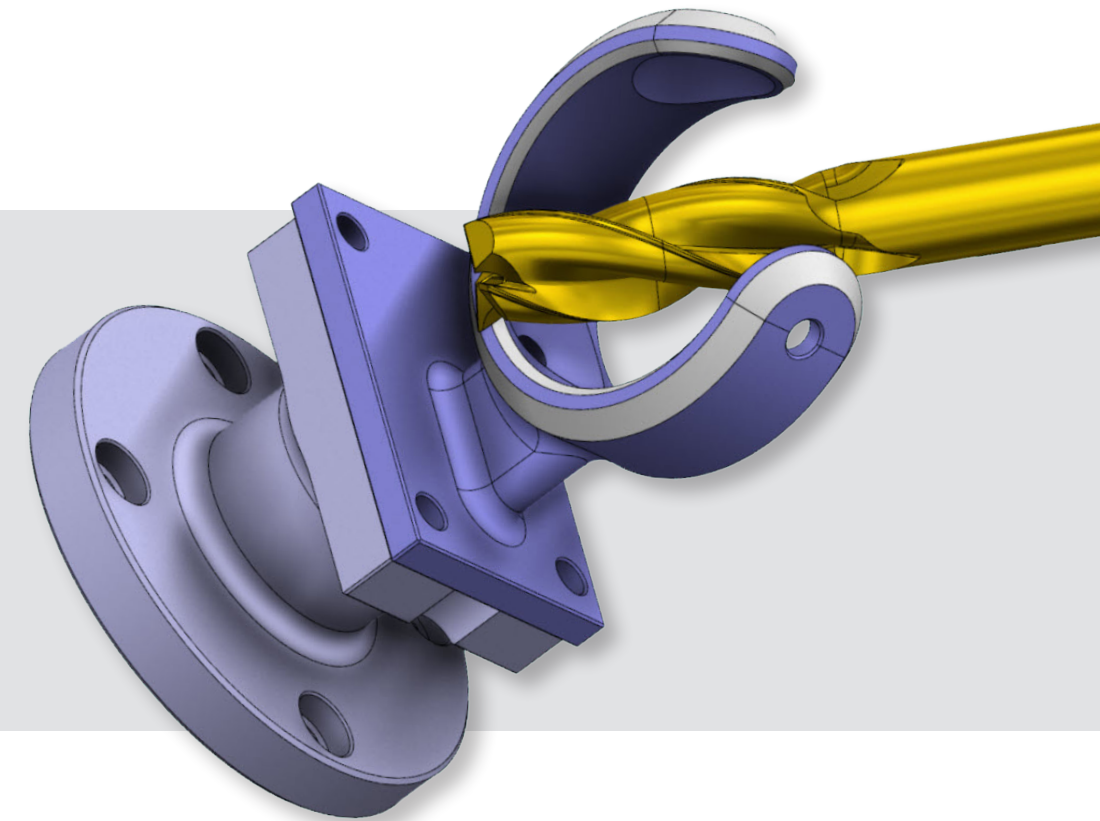
Control and optimize your air cuts with the new linking parameters in OptiRough toolpaths, which allow for greater efficiency in roughing toolpaths when transitioning between passes or when in air. No matter how efficient the roughing program, air cuts make up a significant portion of cycle time and the ability to control and optimize this motion is just as critical as getting feeds and speeds set correctly.

9



Assembly Plate and Pin Components Adjustment Components Lever Components +

Assembly Plate and Pin Components Adjustment Components Lever Components **Knuckle Joint Lever Cap** Lever Cap Screw Cam Lever +



10

Controlling the Tool Contact Point

CNC Programming

A win from every angle: Deburr now supports more than just ball endmills. The Deburr toolpath includes a new Fixed tool contact point on cone/cylinder option, which controls the tool's contact point during machining. This new tool axis feature creates Swarf-like functionality with the selection of just a solid edge. No more custom lollipop tools; you'll now find less cost, less cycle time, and easier programming all in Mastercam 2023.



THE CHOICE IS YOURS

When you choose Mastercam, you get more than a license to run CAD/CAM software. You secure flexible options to empower your business and manufacturing operations — with the added value of shop-tested technology, responsive support, and a voice to guide future CAD/CAM developments.

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For more information, visit

<https://www.mastercam.com/mastercam-2023/>

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