CAMWorks 3 Axis Milling for 3D Toolpaths, Roughing, and Finishing

- Multi Surface Features are easily defined using interactive feature recognition and the interface allows you to create complex multi-surface features, as well as contain and avoid areas, quickly and easily.

- Feature based machining reduces programming time by as much as 90% compared to traditional 3 axis CAM software because strategies for multi-surface features can be stored and reused automatically for multiple rough and finishing operations.

- Knowledge-based machining allows you to capture and reuse your programmers’ and machinists’ best programming practices using the Technology Database, reducing programming time by as much as 80%.

- Full Model to toolpath associativity automatically updates the CAM data with design changes to the model geometry.

- Seamlessly integration inside of SolidWorks means that the design model and CAM model are one in the same and a similar interface with the same intuitive menus, toolbars and view manipulation, allows users to quickly master the software.

- Optional module CAMWorks® Volumill™ creates an ultra-high performance toolpaths by using the latest advanced technology to rough mill multi-surface parts faster than any other software available today. Reduce machining time by as much as 85% and increase tool life by as much as 500% even in the hardest materials.

- Flat Area Machining significantly reduces machining and programming planar faces and improves surface finish. A Flat Area operation uses a roughing pattern to remove material on flat faces. Planar faces are automatically located and machined with the appropriate flat tool.

- 3 Axis finishing operations include parallel slice cut, constant stepover, Z-level, curve project, and many more.

- Constant Stepover creates passes at a constant distance from one another by offsetting inwards along a surface.

- Z Level operation generates Z-level passes from a set of surface contours. Optimal for semi-finishing and finishing of steep walls. Options are available for combination Z Level/Constant Step strategy and helical milling.

- Assembly mode machining Accurately model your fixtures and clamps to avoid costly crashes with tools, using SolidWorks assembly mode.

- Simulation and verification allows you to easily and accurately step through and simulate toolpaths with geometry compare to accurately validate toolpaths to the design model. Step through toolpath options include continuous play and speed control. Toolpath simulation gives you a realistic metallic texture.

- High speed 3 Axis Roughing cycles can reduce machining time up to 40% over conventional roughing with less tool wear.

- Optimized, out-of-the box, strategies for Mold core and cavity programming reduces programming time.
CAMWorks 3 Axis Milling

- **Pattern Project** operations have the following pattern options: parallel slice, radial, spiral and flowline cuts.
- **Pencil Mill** operations create toolpaths along internal corners and fillets with small radii. Ideally suited to cleaning up after other finishing strategies.
- **Curve Project** operations remove material by projecting 2.5 Axis Engrave or Curve features on the 3 Axis feature.
- **Rest Machining** automatically generates toolpaths in areas that weren’t cut with larger tools. Available for both roughing and finishing strategies.

- **Assembly mode machining** Accurately model your fixtures and clamps to avoid costly crashes with tools, using SolidWorks assembly mode.
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About Geometric

Geometric is a specialist in the domain of engineering solutions, services and technologies. Its Geometry Technology Solutions (GTS) business unit develops cutting-edge point productivity solutions that enhance design and improve manufacturing operations. The end-user products from Geometric include CAMWorks®, eDrawings® Publisher, DFMPro, GeomCaliper®, 3DPaintBrush™, CAMWorksXpress® and Glovius®. The key technologies from Geometric are NestLib®, Feature Recognition (FR), GeomDiff and 3DSearchIT®. Geometric licenses these technologies to OEM partners and also designs and implements customized process solutions using these technologies for industrial customers.

For further details about Geometric’s GTS business unit, please visit www.geometricglobal.com/products or call +1.480.367.0132

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