CAMWorks 2½ Axis Milling

For Pocketing, Contouring, and Drilling

- **Automatic Feature Recognition (AFR)** automatically recognizes over 20 types of prismatic features on native SolidWorks part models or on solid models imported via IGES, SAT, etc. Feature based machining reduces programming time by as much as 90% compared to traditional CAM software.

- **Interactive Feature Recognition (IFR)** provides an intuitive and easy to use wizard interface for inserting user defined features.

- **Knowledge-based machining** allows you to capture and reuse your programmers’ and machinists’ best practices using the patented TechDB (Technology Database). The TechDB reduces programming time by as much as 80% and provides a company owned database to store employee knowledge and skill.

- **Countersink and Center Drill operations** include automatic calculation of machining depth based on tool size/shape, countersink diameter.

- **Roughing** operations remove material by following the machinable feature shape in standard patterns strategies. Patterns included are: zigzag, zig, pocket in/out, spiral in/out, plunge rough, and offset roughing. High-speed toolpaths can be generated with no sharp corners.

- Optional module **CAMWorks® Volumill™** creates an ultra-high performance toolpaths using the latest technology to rough mill parts faster and more efficiently than any product available on the market today.

- **Full Model to toolpath associativity** automatically updates the toolpaths and CAM data to design changes made to the model.

- **Seamless 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.

- **2½ Axis Milling** includes automatic roughing, contouring (finishing), thread milling and hole drilling, boring, reaming, and tapping cycles. Machining algorithms use the latest toolpath and gouge protection methods to provide fast, error-free toolpaths.

- **Drilling Cycles** Canned cycle support for all major hole types and cycles including drill, pecking, high speed pecking, variable pecking, bore, bore w/dwell, back boring, fine boring, counter boring, ream, ream w/dwell, tapping, reverse tapping.
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- **CAMWorks Configuration Support** for multiple families of parts. Toolpath data can be saved for each SolidWorks configuration allowing all of the CAM data for all of the SolidWorks configurations, to be stored in a single file.

- **Face Mill** generates toolpaths on a Face feature to square or face off the top of a part. Number of passes can be calculated automatically or user defined. An option is available to specify one pass down the middle of the part.

- **Contour Milling** removes material by following the profile shape of pockets, slots, bosses, etc. New rest machining options and lead in/out gouge protection improve performance and quality of finish toolpath.

- **Thread milling** supports bi-directional thread milling for both single point and multi point tools. Thread mill either ID or OD threads, using either climb or conventional milling with either top-down or bottom-up cycles.

- **Assembly mode machining** allows you to accurately model your fixtures and clamps using SolidWorks assembly mode to avoid costly crashes with tools. Also includes full fixture offset and sub-programming support for automatic programming of multiple part setups.

- **Simulation and verification** allows you to easily and accurately step through or continuously simulate toolpaths with speed control and optional stop capabilities. A model compare feature is also included, to accurately compare the machined model to the design model to validate program accuracy, so you can be sure you’ll cut it right the first time!