CAMWorks® VoluMill™ is an ultra-high performance toolpath generator for rough milling operations that outperforms every other toolpath technology available. Using VoluMill, the cycle times for rough milling operations are dramatically reduced by creating more efficient toolpaths and tool life can be extended by as much as 10 times!

- **Consistent Material Removal Rate** using smooth, flowing motions maintains the ideal cutting conditions for any part geometry. Forces on the spindle and cutting tool are dramatically reduced enabling the machine tool's hardware to be utilized at full capacity. Uniform chip load and efficient heat dissipation result in significantly reduced cycle times—up to 85%—and greatly extended tool life.
- **Powerful, efficient toolpaths for open shapes.** Open edges are fully leveraged for efficient machining and to minimize plunging into material.
- **Intelligent slot milling and side milling options.** Slot milling or side milling is intelligently determined to maximize material removal rate.
- **Fast machining of small pockets.** Efficient, specialized tool motion for tight spaces is computed automatically and applying special milling logic as needed.

Rough milling for any type of geometry is created quickly and easily. The toolpaths are created for constant motion, thus reducing cycle time and extending cutting-tool life by reducing stress on machine tools.

- **High-performance, smart toolpath engine.** Rough milling for any type of geometry is created quickly and easily. The toolpaths are created for constant motion, thus reducing cycle time and extending cutting-tool life by reducing stress on machine tools.

- **Up to 100% stepover with no uncut material.** Ensures complete floor cleanup at all times.
- **High-feed repositioning with floor clearance.** Fully leverages the machine's capabilities. Tool moves safely and as quickly as possible when not engaged in material.
- **Automatic feedrate adjustment.** Maintains a more consistent load on the cutting tool.
- **Smoothing Radius.** Maximizes tool utilization, minimizes cycle time, and expands the programs flexibility.
- **Repositioning clearance.** Minimizes tool wear, avoids collisions, and maintains part quality.
- **Contour Ramping.** Maximizes material removal and provides safe access into tight area to avoid gouging.
- **Parallel Processing.** Fully leverages the multi-core processing capabilities of your computer, enabling faster computation of toolpaths and reducing programming time.
Camworks VoluMill™ is an ultra-high performance toolpath generator for rough milling operations that outperforms every other toolpath technology available. Using VoluMill, the cycle times for rough milling operations are dramatically reduced by creating more efficient toolpaths and tool life can be extended by as much as 10 times!

- **Consistent Material Removal Rate** using smooth, following motions maintains the ideal cutting conditions for any part geometry. Forces on the spindle and cutting tool are dramatically reduced enabling the machine tool's hardware to be utilized at full capacity. Uniform chip load and efficient heat dissipation result in significantly reduced cycle times—up to 85%—and greatly extended tool life.

- **High-performance, smart toolpath engine.** Rough milling for any type of geometry is created quickly and easily. The toolpaths are created for constant motion, thus reducing cycle time and extending cutting-tool life by reducing stress on machine tools.

- **Powerful, efficient toolpaths for open shapes.** Open edges are fully leveraged for efficient machining and to minimize plunging into material.

- **Intelligent slot milling and side milling options.** Slot milling or side milling is intelligently determined to maximize material removal rate.

- **Fast machining of small pockets.** Efficient, specialized tool motion for tight spaces is computed automatically and applying special milling logic as needed.

- **Up to 100% stepover with no uncut material.** Ensures complete floor cleanup at all times.

- **High-feed repositioning with floor clearance.** Fully leverages the machine's capabilities. Tool moves safely and as quickly as possible when not engaged in material.

- **Automatic feedrate adjustment.** Maintains a more consistent load on the cutting tool.

- **Smoothing Radius Maximizes tool utilization, minimizes cycle time, and expands the programs flexibility.**

- **Repositioning clearance Minimizes tool wear, avoids collisions, and maintains part quality.**

- **Contour Ramping Maximizes material removal and provides safe access into tight area to avoid gouging.**

- **Parallel Processing** fully leverages the multi-core processing capabilities of your computer, enabling faster computation of toolpaths and reducing programming time.

- **Non-concentric Milling Technology** reduces cutting-tool load and evacuates chips more easily, dissipating heat more effectively. The increase in toolpath engagement occurs more gradually and both these actions extend tool life.

- **The CamWorks® VoluMill™ Roughing Strategy** VoluMill creates an ultra-high efficient toolpath by exploiting the capabilities of modern machining hardware to control the material removal rate.

VoluMill's unique approach to high speed material removal assists the programmer to determine the optimum material removal rate for any combination of part geometry, material, machine, and cutting tool. Material is removed in the most effective way possible. Consequently, machines run smoothly and tools run cooler.

---

**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, DFMPpro, 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

The copyrights/trademarks of all products referenced herein, are held by their respective companies.