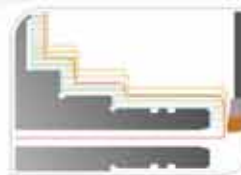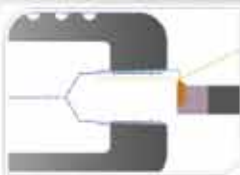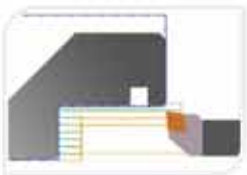# Mastercam X⁵
Lathe

World Class Machining

Powerful Part Modeling

Mastercam's streamlined CAD engine makes design work easier than ever before. Each piece of geometry you create is "live," letting you quickly modify it until it's exactly what you want.

Tools to Make Programming Easier

Efficient turning means more than just programming a toolpath. Mastercam Lathe gives you a set of tools that impact your entire process.

- Fully associative toolpaths are linked with your geometry. Modify any element of the job and immediately get updated toolpaths without starting over.

- Mastercam's CAD File Change Recognition tracks files from Mastercam or any other CAD system and will show you what's been changed for easy toolpath updating.

- Comprehensive insert libraries including ISCAR®, Sandvik®, Kennametal®, and Valentine®.

- See your part as it will come off the machine with solid-model toolpath verification.

CNC Software, Inc. is committed to bringing environmentally friendly and socially responsible practices to our industry.

The brochure you are reading has been condensed to decrease paper consumption. These are some of Mastercam's most important highlights, but there's much more information online.

"The three greatest advantages Mastercam has brought to our turning are first time success, mistake proofing the process, and significantly reducing the time required to make that first piece. These can be further boiled down to two company-wide improvements—greater productivity and reduced lead times."
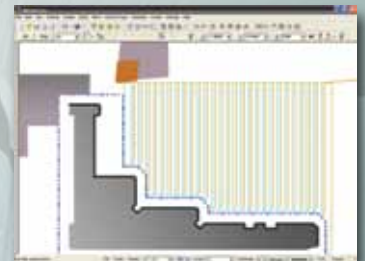
*George Yuhas
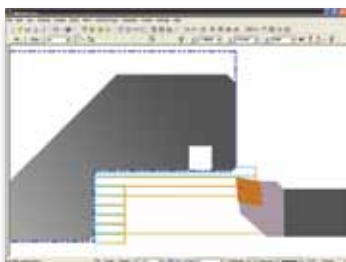Programmer/Operator
Alinabal, Milford, CT*
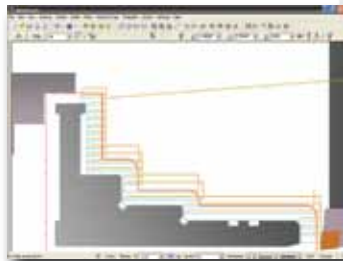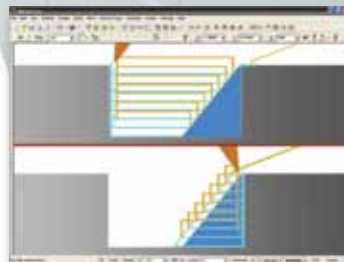

Roughing to an outer boundary.
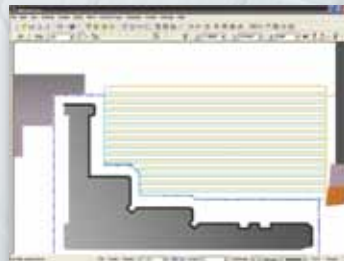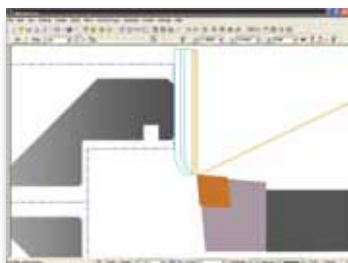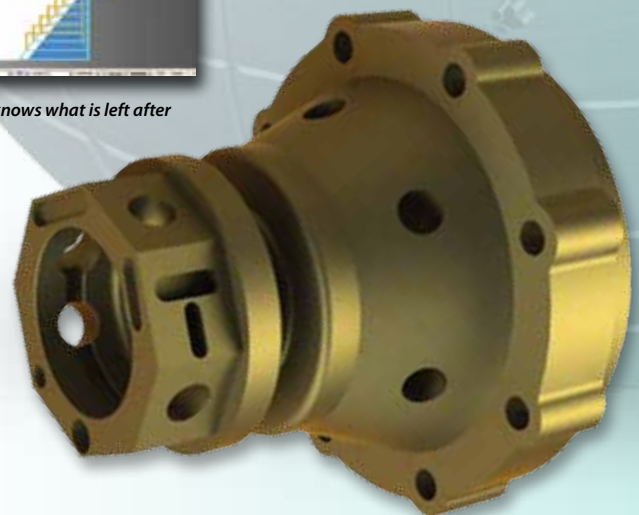

"No plunge" roughing.

Face roughing.

Smart ID roughing.

**Stock recognition knows what is left after each operation.**

**Automated facing from the center line out.**

Fast, Easy, and Precise Turning

Mastercam Lathe delivers a streamlined set of programming tools, including:

- Mastercam's "Quick Toolpaths" let you program parts with just a few clicks.
- Click and drag a machining start point anywhere on your model.
- Intelligent ID and OD roughing, including roughing to a boundary for castings.
- Optimized facing including roughing and finishing.
- Finish contouring (profiling).
- Automatically create a finish pass after a rough operation using the same tool.
- Set feed rates for desired finish quality.
- Grooving with multiple depth cuts and pecking.
- Easily assign groove depth, width, wall angles, corner radius, chamfer, and corner dwell.
- Automatically skip over a groove or cavity when roughing or finishing.
- Complete threading with multiple starts, diameter calculation, and thread tables.
- New plunge turn toolpath designed specifically for ISCAR® cut grip inserts.
- Automatic gouge checking watches the front and back of the tool.
- Chuck, part, steady rest, and tailstock detection.
- Open and directly machine a solid model.
- Mastercam's grooving Tool Inspection option lets you automatically stop machining, allowing you to check the insert.
- Quick turned profile generation for uniform and non-uniform parts.
- Full milling and turning support available for machines with B-axis tooling arms.
- C-axis toolpaths support machines with live tooling.
- Greatly expanded C-axis machining when combined with Mastercam Mill.
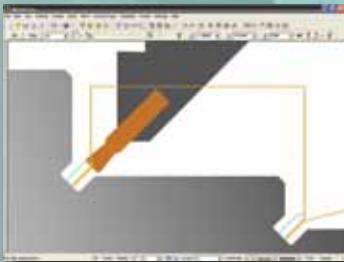- Go to www.MastercamLathe.com for more.
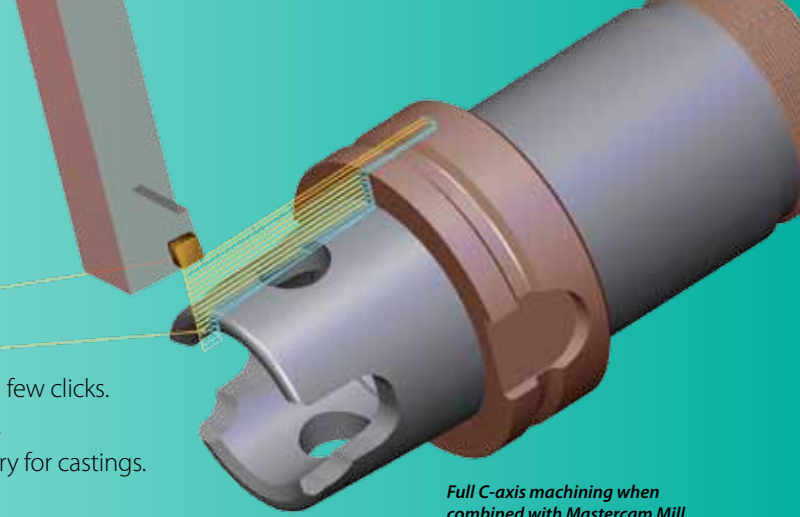
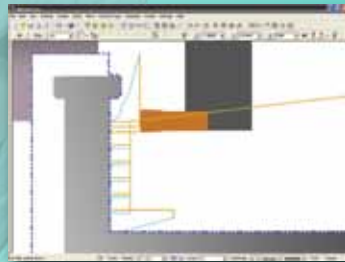*Full C-axis machining when combined with Mastercam Mill.*
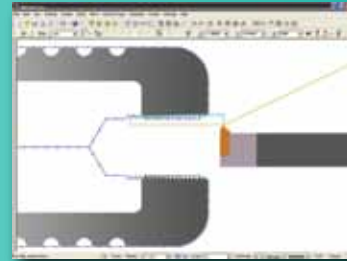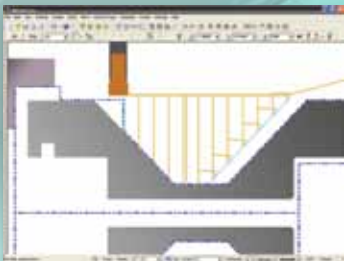
Fast thread machining.

Multiple contouring for complete finishing.

Multiple grooving styles, including angular.

Face grooving.

Step and stepless grooving.

Specialized Options

Very often that extra CAD or CAM tool makes a specific job easier, faster, and more profitable. Mastercam's "open" architecture allows specialists around the world to create a wide variety of specialized add-in options for these occasions. See a full list at www.Mastercam.com/Products/Addins or ask your Mastercam Reseller for details.

Other powerful CAD/CAM packages available from Mastercam:

Mastercam Mill
Industry leading milling package

Mastercam Wire
2-axis and 4-axis wire EDM programming

Mastercam Router
Quick and easy CNC routing

Mastercam® for SolidWorks®
NC programming within SolidWorks

Mastercam Art
Turn flat line art into artistic 3D work

Mastercam Solids
Powerful Parasolid®-based part modeling

Mastercam University™
Online Mastercam Training

	Lathe	When combined with Mastercam Mill Level 1	When combined with Mastercam Mill Level 3
CAD			
Complete customizability	x	x	x
Quickly create and dimension live wireframe geometry	x	x	x
Read/write IGES, DXF, SAT, Parasolid, EPS	x	x	x
Read native AutoCAD, SolidWorks, Solid Edge	x	x	x
Read CATIA, Pro/E, Unigraphics (UG NX)	optional	optional	optional
Live surface modeling	x	x	x
CAD File Change Recognition	x	x	x
Solid modeling	optional	optional	optional
CAM			
Streamlined "Quick Toolpath" programming	x	x	x
Intelligent ID and OD roughing	x	x	x
Easy finishing	x	x	x
Optimized facing	x	x	x
Grooving	x	x	x
Threading	x	x	x
Canned cycle support	x	x	x
Automatic gouge checking	x	x	x
Boring, drilling, and point-to-point machining	x	x	x
Machine directly on a solid	x	x	x
Chuck, part, steady rest, and tailstock collision check	x	x	x
Fully associative toolpaths	x	x	x
Machine and control definition	x	x	x
Face and cross contour	x	x	x
Face and cross drilling	x	x	x
3D C-axis contour machining	x	x	x
Specialized plunge turn toolpaths	x	x	x
2D High Speed Toolpaths		x	x
Engraving		x	x
All pocketing routines		x	x
All contour routines		x	x
All drilling routines		x	x
Full multisurface and solid roughing			x
Full multisurface and solid finishing			x
Full multisurface and solid "cleanup" machining			x
3D High Speed Toolpaths			x
Multiaxis machining			optional

System Requirements
- **Processor:** 2.5 GHz (minimum) 32-bit or 64-bit Intel®-compatible processor.
- **Operating System:** Windows® XP, Windows Vista® (Business or Ultimate), or Windows 7 (Ultimate or Professional) including the latest service packs and recommended updates.
- **Memory:** 2 GB (minimum), 3 GB available hard disk space (minimum).
- **Graphics:** 256 MB OpenGL-compatible graphics card, 1280x1024 pixel screen resolution (minimum).
- **Mouse:** Windows-compatible 2-button or 3-button mouse (or with middle mouse wheel).