

Improve Hardmilling & High Speed Machining with Mastercam HSM Performance Pack

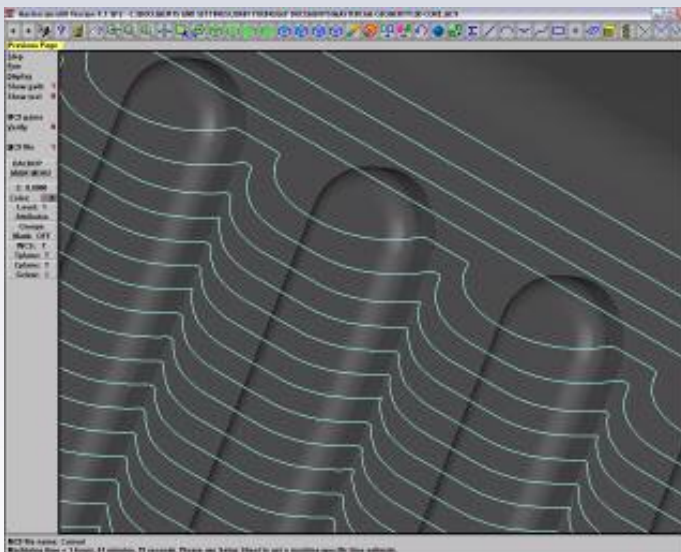
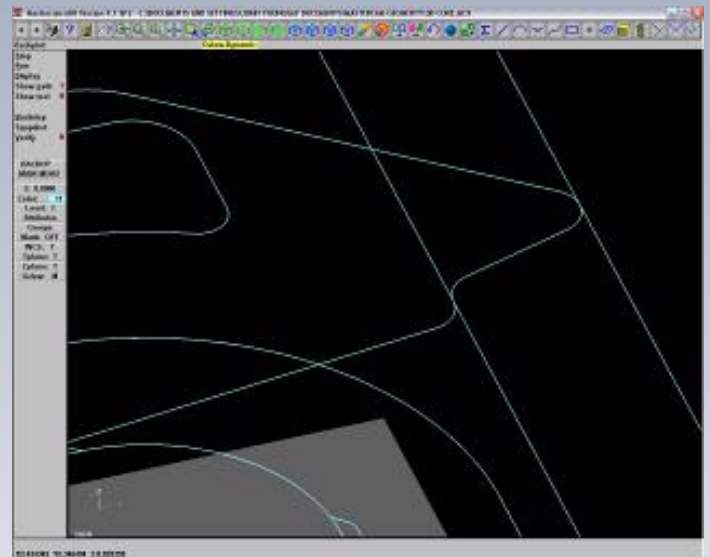
Mastercam HSM Performance Pack will enable you to take your existing Mastercam package to an even more effective High Speed Machining (HSM) level. Our performance pack excels at Hardmilling applications with faster calculation speed and robust toolpath quality.

Because you can still use all the excellent functions of Mastercam (CAD converters and modeling, standard 2D & 3D milling, post processors, etc.), we believe that the combination of Mastercam and the HSM Performance Pack is a unique solution in the CAD/CAM market!

Smooth moves and large arcs whenever possible

With Mastercam HSM Performance Pack, the moves are smoothed as much as possible. This allows the tool to maintain a constant feedrate.

Moves from one cut to another are smoothed tangentially to the machining pass and the toolpath within corners is rounded using arcs, fitted to a specified deviation allowance. The radius will adapt itself to the geometry so it can always be kept as large as possible. This feature will allow the machine to maintain faster feedrates.



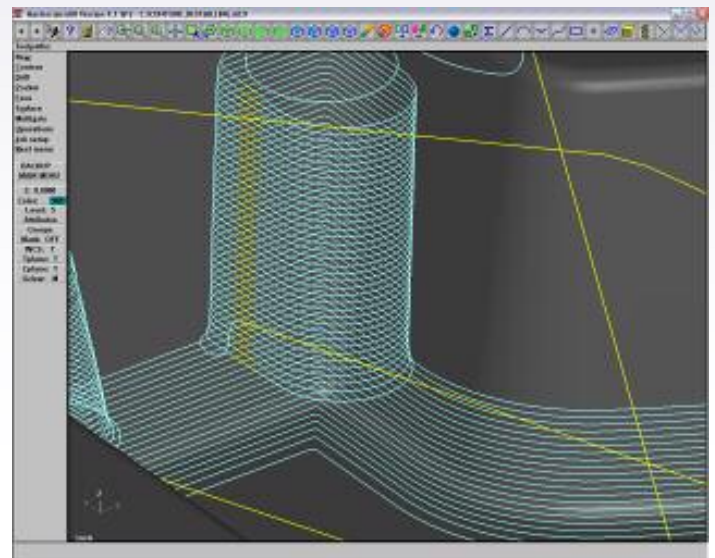
Minimized and smoothed retracts

With Mastercam HSM Performance Pack retracts to high Z levels are kept to a minimum. Angled where possible, smoothed by arcs, retracts do not go any higher than necessary.

Even the transitions from horizontal machining to retraction and from entry to horizontal machining are smoothed by arcs, avoiding jerks from sudden directional changes.

Rapid feed inside part

Efficient leftover toolpaths remove the material where the larger roughing tool did not fit, both in the corners and deep inside the part. The toolpaths are smooth, without any sharp corners, and the tool will move at rapid feed even deep down in the part, if it is clear of material.

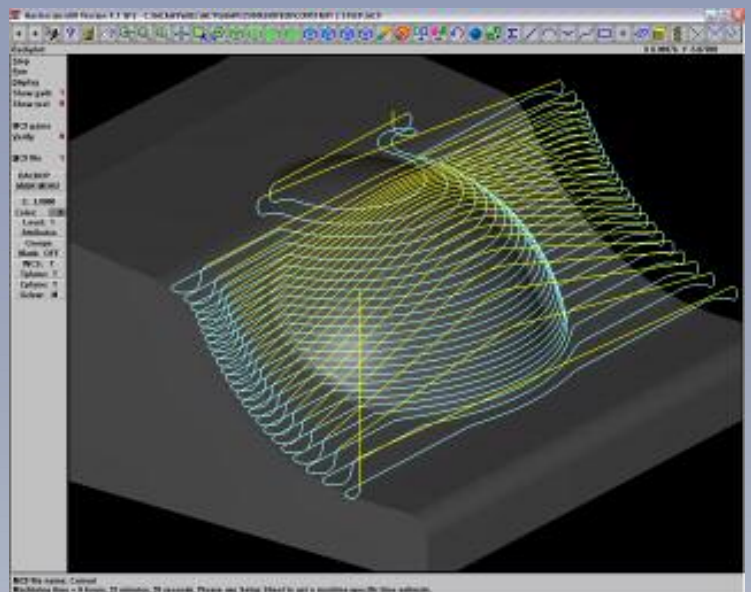
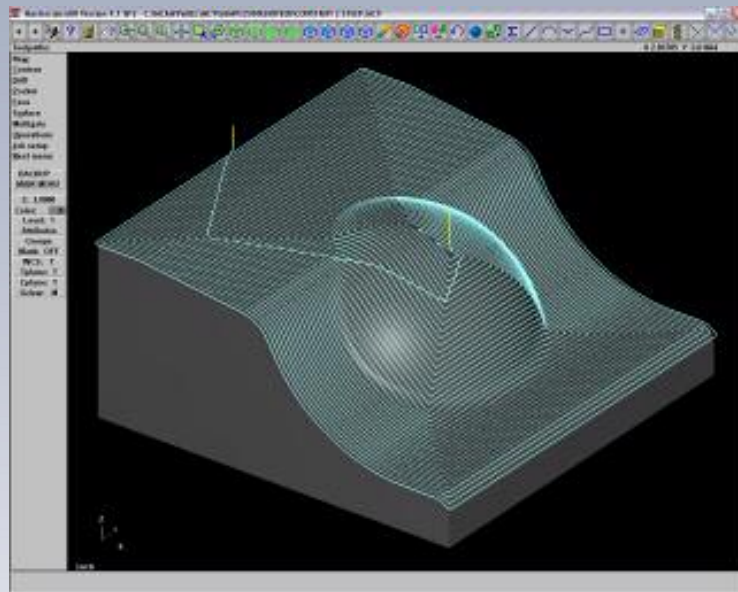


Multiple Finishing Toolpaths

- Horizontal - Machines perfectly flat areas of the part.

Limit the following toolpaths by a slope angle.

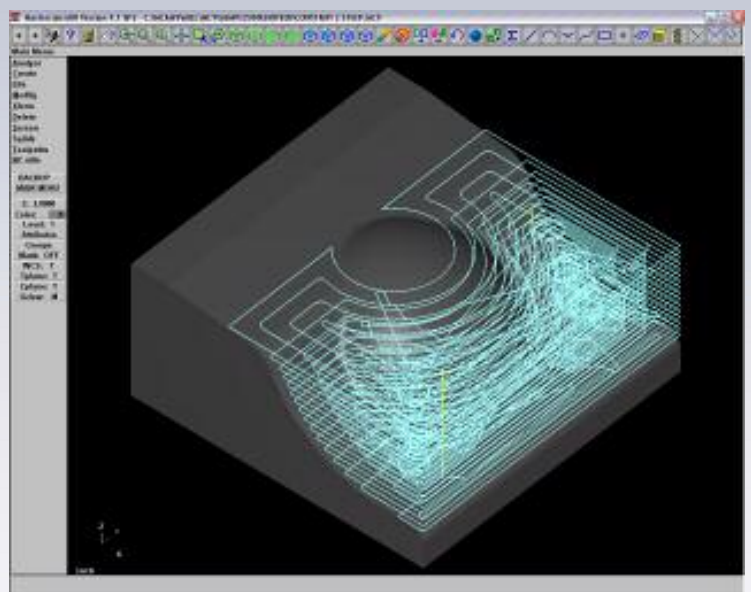
- Parallel - User defined cutting angle with zigzag or oneway motion in steep or shallow areas.
- Scallop - Constant Stepover Toolpath cuts the entire part, rest material areas only or shallow areas of the part.
- Contour - Constant Z Toolpath cuts the entire part or rest material areas only.
- Pencil - Traces internal corners and radii with single, multiple or collapsed passes.



User Defined Retraction policy

- Full Retraction - To a clearance plane.
- Minimum Retraction - clears the part at the lowest possible height.
- Shortest Path - Shortest possible path which includes in all three axes. Rapid moves inside the part.

- Easy to use! Works within Mastercam.
- Uses Mastercam's interface.
- Adds High-end, High speed, Hardmilling capabilities.
- Reduced number and distance of retract moves.
- Extremely smooth toolpaths and retract moves.
- Provides a more continuous machine tool motion, with less sudden changes of directions and vibrations
- Supports toolplanes and WCS
- Rest machining of Roughing Operations
- Rest machining of Finishing Operations
- Flat surface machining
- Smooth entry moves prevent tool breakage and prolong tool life.
- Tool holder collision protection.
- Support for flat, sphere, bull-end, and tapered tools.
- Steep/shallow machining option for all toolpaths.
- Significantly reduced calculation time for large files.



Efficient Roughing

- Pocket - Used to clear large quantities of material. All paths are smoothed with no unnecessary corners, and the linking moves make helixes and ramps between levels.
- Restmill - Select a previous tool, operation or external source file. Machining is only done where a previous tool did not go.

Reseller

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