



# PORT EXPERT

## Specialized Multiaxis Programming for Port Work

Mastercam Port Expert creates accurate porting toolpaths on surface or solid data. It minimizes unnecessary motion at the machine, resulting in a highly efficient toolpath with superior finish quality. It can also be used for any tube-type work that is similar in design to a port. Port Expert uses a tapered lollipop tool, with collision checks for the entire tool (shank, arbor, and holder).

### Cutting Options

Multiple cutting options are available with Mastercam Port Expert. You can cut only the top; cut only the bottom; or cut the entire port, and specify how much stock to leave.

### Toolpaths

Port Expert toolpaths use 3-axis machining as far into the port as possible, and then convert automatically to 5-axis motion with minimum tilt. This leaves no fishtails or inefficient reverse moves, and smoothly transitions where the toolpaths meet at the middle of the port.

### Additional Features and Benefits

- Port Expert provides both roughing and finishing toolpaths to make ports from castings or billets.
- Geometry can be made of multiple surfaces that are stitched together.
- Automatically calculates optimal tilt angles, so there is no need to split the surface or create tool axis control splines.
- Mastercam Simulation proceeds step-by-step through the toolpath, even showing the motion used in transition at the middle of the port.
- Generates 5-axis code that can run any capable CNC machine.
- Simplifies the programming of complex port shapes.
- Greatly decreases programming time.

## The Port Expert Process



Note: Mastercam Blade Expert is a Mastercam product that must be purchased separately. It runs on Mastercam Mill 3D, Mastercam Router 3D. Mastercam Multiaxis is not required for Mastercam Blade Expert.

Mastercam Port Expert comes with unparalleled support from the World's #1 CAD/CAM community.

For more information, visit [Mastercam.com/PortExpert](https://www.mastercam.com/PortExpert).

To gain the benefits of Port Expert, contact your local  
Mastercam Reseller at [Mastercam.com/Resellers](https://www.mastercam.com/Resellers).

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*“Port Expert not only cuts my programming time way down, but it also reduces the machining motion and the wear and tear on my tools. I was able to put a toolpath on my first port in about 10 minutes. I’m quite impressed to say the least.”*

Tom Hemphill, Owner, Hemphill Racing  
Clarksburg, Pennsylvania



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