

Mastercam®

PORT EXPERT

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N142 X=-181.122 Y69.106  
N144 Z26.  
N146 G1 X=-171.222 Y70.014  
N148 G3 X=-162.729 Y81.822 R10.001  
N150 G2 X=-154.236 Y93.630 R7.741 R27.  
N152 G1 X=-145.743 Y105.437  
N154 G3 X=-137.250 Y117.245 R10.001  
N156 G3 X=-7.814 Y148.161 R10.001  
N158 G1 X2.183 Y148.387  
N160 G8 Z51.  
N162 X=-175.182 Y69.951  
N164 Z26.  
N166 G1 X=-165.282 Y71.055  
N168 G3 X=-156.789 Y82.863 R10.001  
N170 G2 X=-148.296 Y94.671 R7.741 R27.  
N172 G1 X=-139.803 Y106.478  
N174 G3 X=-131.310 Y118.286 R10.001  
N176 G2 X=-122.817 Y130.094 R7.741 R27.  
N178 G1 X=-114.324 Y141.901
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SPECIALIZED MULTIAXIS PROGRAMMING FOR PORT WORK

Mastercam Port Expert creates accurate, porting toolpaths on port surface or solid data. It minimizes unnecessary motion at the machine, which results 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, and has collision checks for the entire tool (shank, arbor, and holder).

Cutting Options

There are multiple cutting options available with Mastercam Port Expert. You can cut only the top; cut only the bottom; or the entire port, including specifying how much stock to leave.

Toolpaths

The 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.

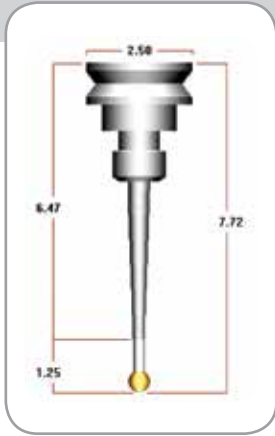
Additional Features and Benefits:

- 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's 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.

Mastercam Add-On

Mastercam Port Expert comes with unparalleled support from the World's #1 CAD/CAM software.
www.MastercamMill.com/PortExpert

THE PORT EXPERT PROCESS



Choose or define your tool shape



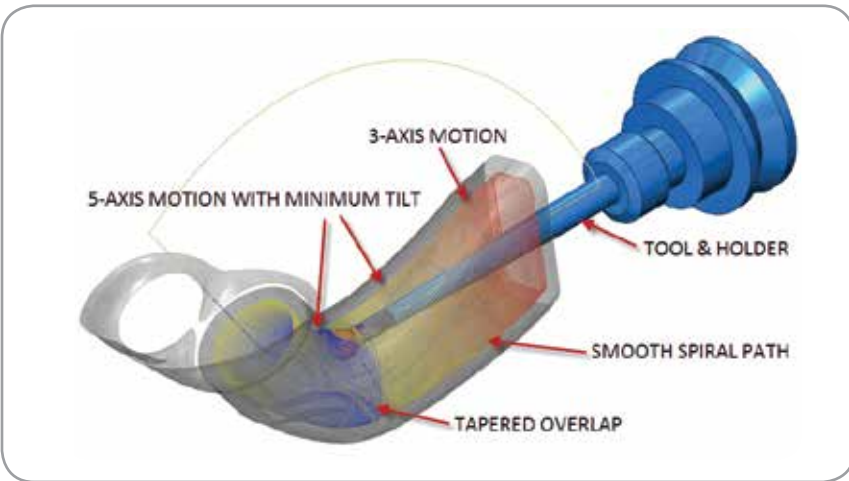
Select the port surface(s) and cut pattern



Set clearances for any part of the tool or holder

Note: Mastercam Port Expert is a Mastercam Add-On that must be purchased separately. It runs on Mastercam Mill 3D, Mastercam® for SOLIDWORKS® 3D, or Router 3D.

Mastercam Multiaxis is not required for Mastercam Port Expert.



Define your part features and let Mastercam go to work for you!

“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, PA

For more information, visit
MastercamMill.com/PortExpert

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