











3D TOOLPATH TROUBLESHOOTING

| PROBLEM/ISSUE | TROUBLESHOOTING STEPS |
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| 3D OptiRough cuts outside of the surfaces it is supposed to be in. | <p> Is containment boundary selected properly?</p> <ul style="list-style-type: none"> • Add or correct the containment Boundary Chain in the Toolpath Control tab within Toolpath Parameters. <p> Are there any Drive Surfaces selected beyond the surfaces that are to be cut?</p> <ul style="list-style-type: none"> • Check selected entities/surfaces selected and deselect any that are outside of the desired area to be machined. • Add any critical avoidance surfaces to the Avoidance Surfaces selections in the Model Geometry tab within the Toolpath Parameters. |
| High Speed 3D Toolpaths leave too much material in Verify. | <p> Adjust parameters for Wall Stock and Floor Stock in the Machining Geometry column of the Model Geometry tab of the Toolpath Parameters.</p> <p> This may also need to be fixed, but controls more in the avoidance geometry, adjust parameters for Wall Stock and Floor Stock in the Avoidance Geometry column of the Model Geometry tab of the Toolpath Parameters.</p> |
| High Speed 3D Toolpaths do not machine far enough to the containment boundary chains that were selected, or machine past the boundary. | <p> Check Strategy (From Outside/Stay Inside) settings and Compensate to (Inside/Center/Outside) settings entered in the Toolpath Control tab of the Toolpath Parameters.</p> <ul style="list-style-type: none"> • Adjust as necessary for desired outcome of toolpath. |
| 3D OptiRough toolpath creates excessively long program and calculated runtime is not efficient. | <p> Are your feeds and speeds optimized for your material based on your tool?</p> <ul style="list-style-type: none"> • Check with tooling manufacturer for appropriate SFM/Chipload of tooling for your material. <p> In Cut Parameters, are your Passes optimized in Stepover, Stepdown, and Stepup?</p> <ul style="list-style-type: none"> • Check with tooling manufacturer's recommended cut parameters such as with the "Machining Advisor Pro" app from Harvey Performance for Helical and Harvey Tool brand tools. <p> Are your Arc Filter/Tolerance settings set up for more arc filtering so as to create less program code?</p> <ul style="list-style-type: none"> • Modify by checking the Line/Arc Filtering Settings box and drag the left slide above away from the Cut Tolerance slider to 5%. This will decrease the number of small G01 lines created to form an arc and will opt for using more G02/G03 arcs. |
| 3D High Speed Equal Scallop toolpath is jagged or noisy, not smooth. | <p> Enable Projected Boundary Smoothing Tolerance in the Containment Boundary section under Toolpath Control of the toolpath parameters. Add a larger number to the box to apply a smoothing tolerance.</p> |
| Surface finish is too rough/course in Verify. | <p> Within Toolpath Parameters, modify the Stepover/Stepdown/Stepup/Scallop Height to a smaller increment to provide a better quality finish.</p> |