

## **AMNEST 4.0 Wheel Type Tool Support (05/01/09)**

### **SOFTWARE LIMITATIONS:**

1. You must have M code in the input part program and its used tool list.  
You must have proper wheel tool M code in the input part G-code program as well as in the used tool list by the setup header or GMT file.  
You need to select “No” for the “Overwrite M-code in input G-code” option in the Nesting Configuration.  
If your input part does not have proper M code in its setup header or GMT file and the wheel tool has been registered in AI station, the AI angles of the wheel tool are included in the AI Sort Priority listing although no sorting will be done to wheel tool. Adding proper M code in your standard nesting turret can remove the wheel tool from the AI Sort Priority listing.
2. Register M code in AMNEST.  
The user needs to register wheel tool M codes in AMNEST through “Utility” menu → “M-Code Registration”.
3. No AI station to Non-AI station.  
The user should not reassign a wheel tool of an AI station to a non-AI station during the nesting process.
4. Internal “RIB” process only.  
Wheel tool process is limited for the inside of part only. Wheel tool assigned on the perimeter of part (such as SHARE wheel tool) is not supported.
5. No error check  
No G-code program format check is done on the wheel tool codes at any portion of the nesting process or G-code viewer (including G-code Simulation, Last Hit Assign, and Unloading Layout). User must prepare error free and proper wheel tool code in the input part programs. Please note that when simulating a program with wheel tool code, incorrect error messages may be displayed on a non-related error.
6. No part longer than machine travel x.  
No part longer than machine travel x distance should be input to the nesting if the part contains wheel tool code.
7. No clamp dead zone check.  
No clamp dead zone check is performed on wheel tool process.
8. No time study.  
Wheel tool process is excluded from the time study calculation.
9. Part rotation is limited to 90-degree increment.

Rotation of input part is limited to 90-degree increment even if all of the used tools are free to rotate (such as RO tool and AI station tool).

10. “KI” type tool in AP100G style header.

When AMNEST finds “KI” type tool in the AP100G style setup header, the tool is automatically converted to “RE” type with size of 1.0” x 1.0” and stored in the used tool list. G-code simulation will not use the converted type and size. G-code simulation uses simple line and arc to describe wheel tool process.

11. Display of wheel tool process and closed geometry by wheel tool.

Wheel tool process is displayed by lines and arcs of a fixed width regardless of the size of tool and the processed shape.

When wheel tool creates a closed geometry, the geometry is handled as a hole (a window inside part) and the area could be incorrectly used for window nesting.

12. User should make sure the nesting output code is proper and workable on the machine.

13. A system data file “WheelToolMcodeNotCancel.dat” must be installed in the AMNEST\AMP1E\FMS\DATA folder. By the default the AMNEST folder is located under C:\Program Files.