



Post Processor Optimization to Reduce Cycle Time

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Translation Available



Make Tool Changes Faster

The M06 command automatically moves to the tool change position, turns off the coolant, and stops the spindle in one motion. To save seconds at each tool change, use M06 instead of the standard M05 (spindle stop), M09/M89(coolant Off) and G28 G91 Z0. (rapid to TC posit).

Edit your post processor to post only the M06 at a tool change.

Do not use M05, M09/M89, G28 G91 Z0.

Activate TSC Faster

You cannot turn on TSC while the spindle is turning. Most off-the-shelf post processors turn on the spindle before the coolant command. This causes the spindle to turn on, and then off to activate the TSC, and then turn the spindle back on, wasting time.

Edit the post processor to command M88 (TSC on) before the M03/M04 Spindle on command.

Note: You do not need to command M89 to stop coolant if you command M06 to change the tool. The coolant stops automatically.

Change Accelerations with G187

G187 lets you temporarily override the default smoothness (setting 191) and maximum corner rounding (setting 85) values in the program. Use rough mode during your roughing operations; this lets the machine accelerate faster. This reduces your cycle times, and you still have the flexibility to switch back to the medium or finish mode for the finishing operations.

Note: This may require more than a post processor edit. Work with your CAM supplier to integrate this into your CAM system.

Pre-stage Tools

To save time, Pre-stage tools on machines with a Side-Mount Tool Changer. There are two ways to pre-stage tools:

Method 1 (Automatic):

At each M06 command, the control looks ahead in the program for the next tool change and pre-stages the tool automatically.

Some commands stop the control from looking ahead in the program. These include M01, block delete (/), Work offset G-codes, and tool length offset codes (G53, G44, G49, H-codes). Remove commands that block look ahead after the M06 to let the control automatically pre-stage the next tool.

Use the manual method for sections of the program in which you cannot remove these commands:

Method 2 (Manual):

Add a Tnn command after M06 to force the tool changer to pre-stage the next tool after the tool change.