Feedrate & Ramping Troubleshooting

Start/Stop Feedrate: We changed this setting to 25 ipm to allow the motor to gradually build up speed from its resting position. The initial take off can be rather hard on a motor if the imported federate is set to 70 ipm or higher, much like driving from zero to 70 mph in one second. The acceleration from rest to 70 ipm in the distance traveled by the very first step (usually on the order of .0001 - .0002 inches). By setting this value to half the imported federate or less, the motors will still reach the imported feedrate, but the signal to the motors will be more gradual, thus allowing for a much smoother operation.

Maximum Feedrate: The maximum federate is the speed at which the motors will run when moving between two cut points (Rapid rate). Depending on the size and load of the machine these motors can be run to speeds of 350ipm. Over time, the load of the machine can put unnecessary strain on the motors if they are run at too high a speed over a consistent period, and in some cases overstepping may occur. To see if too high of a feedrate is your problem, try lowering the Maximum Feedrates by 50% on all axes that are loosing steps. If this helps, then you solved your problem and you can then try to find the best feedrate settings for each axis. We have set our Maximum Feedrate to 250ipm (Torchmate 3, 5'x10'), and have not experienced any problems with overstepping.

Ramping Rate: 4000 ipm. Do not change this setting.
Direction Change Delay (sec): 0.00. Do not change this setting.

Continuous Contouring: This setting is used to allow the motors to slow when making a direction change or curved cut. If the value of the Continuous Contouring and the Imported Feedrate are equal, no slowing will occur, however if this value is lowered as much as half the imported feedrate, then the motors will attempt to slow when entering any direction change, thus allowing for a smoother and more precise cut.

For more information on Positioning Issues see the weblink below.
http://www.torchmate.com/help/sup_guide_pos[1].htm