

Feed rate modes - G00 & G01

The feed rate mode is set with either G00 or G01. G00 is rapid travel rate, G01 is feed rate. These commands are modal, once the feed rate mode has been set all move commands will be done at the established rate until it is changed.

G00 - rapid travel: After a G00 command the slide will travel at the fastest available speed. All moves after this command will be done at rapid until the feed rate mode is changed to G01. The rapid travel feed rate can be over ridden while proving out a program by using the "F" keys. Please see the section on feed rate over rides, in chapter 5.

Note: The default rapid travel speed can be changed in the PRM.SER file. Please refer to chapter 7 - DOS notes on how to get into this file and where to make changes. 300 is the maximum speed that can be entered.

Example: **G00X.5** This will change the feed mode to rapid and move X to .5

G01 - feed rates: Once a feed rate has been established it can be activated by using a G01. This feed rate stays in effect until it is changed or a G00 command is executed. The feed rate can be either G94 or G95 type. After a rapid command the G01 command resets the feed rate to the previously set feed rate.

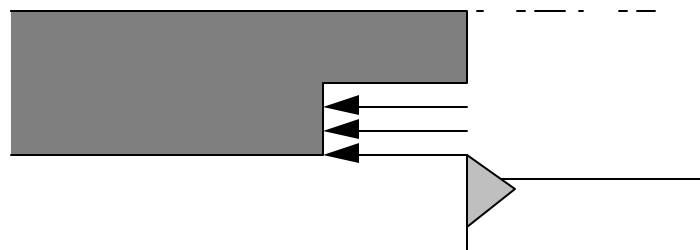
Example **G01X0** Change to the previously set feedrate, & move x to 0

Note: If no feed rate has been set in the program the control will use the last feed rate used in the jog mode during homing and setup.

Feed rate changes can be made on all move commands

----- EXAMPLE FOR FEED RATE CHANGES -----

For the example below we will use the G00 and G01 to rapid and feed the tool for a roughing cycle



G90G00	RAPID MODE
T1(LEFT HAND TURNING TOOL)	
X.5Z1	
Z.05	
G95F.003	
G01Z-.4	FEED MODE
X.55	
G00Z.05	RAPID MODE
X.45	
G01Z-.4	FEED MODE
X.5	

Feed rate modes - G00 & G01

G00 Z.05	RAPID MODE
X.4	
G01 Z-.4	FEED MODE
X.45	
G00 Z1	RAPID MODE
M30	

Note: There is another way to set the feed to rapid, using G94 vs. G00. There are times this might be advantageous:

Setting the feedrate in the Inches per minute mode (G94) with a value of F300 (check your system to see what the fastest IPM rate is, systems shipped before 7/93 are usually 200IPM. This will move the slide at its fastest rate. When the rapid moves are completed the feedrate is reset to the desired feed rate. An example format is:

G94F300	Set the feed to IPM @ 300"/minute
Xn	The move in X
G95F.003	Set the feed to IPR @ .003"/rev

Note: The advantage of using this way to rapid vs. the G00 command is that you can adjust the speed of the rapid travel by changing the Fnnn number. With G00 you are fixed to 300 ipm. When you are running a program for the first time and proving it out you could make all of your rapid moves F100. Then when the program is known to work you could change all the F100 to F300 by using the editor with "find and replace". See the notes in chapter 5, F3 on using this feature.