

G10 Work shift

Work shift is used to offset a program from the original starting point. Typical applications are:

- Machining multiple parts off a single shootout of a bar.
- Shifting a program away from the spindle the first time it is run

G10XnZn

G10 will shift the reference of the slide incrementally. If G10 is put into a loop the program will shift each time the command is used. The shift will take place on the next tool call. If you put the shift after a tool call the effect will take place the next time through the loop.

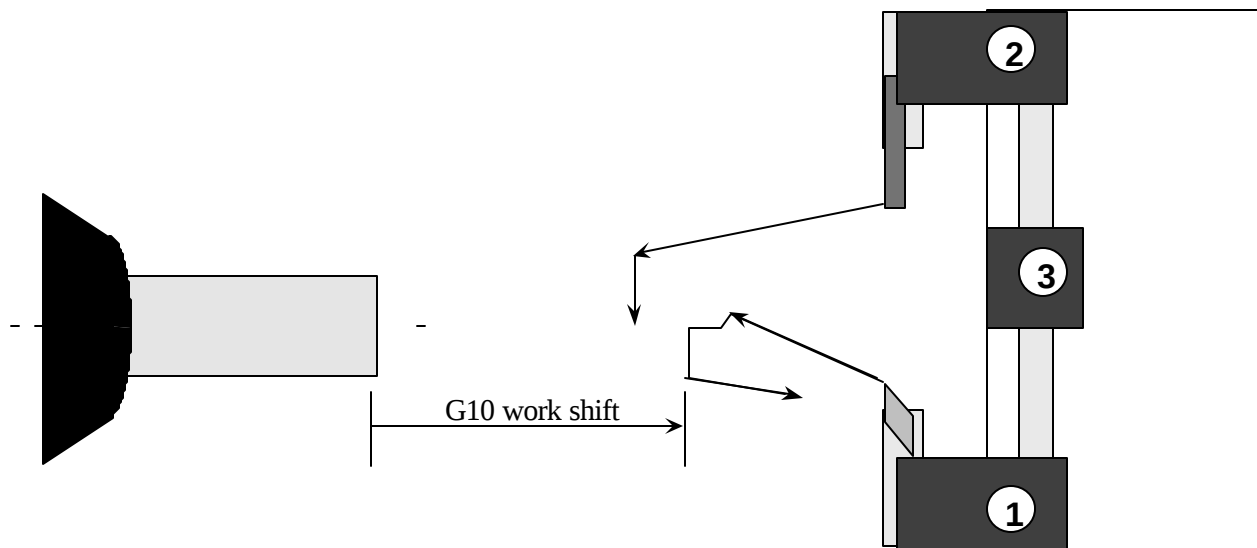
Note: The shift is executed on tool calls! Use the G10 command before tool calls otherwise there will be no effect.

The shift will be canceled with these commands: T0 - M30 - M02

The command must have a value for both X and Z.

Example of shifting a program for test running

In the following example we show using the G10 work shift for running a program the first time way from the work to make sure that the program looks like it will run OK. In this example you would set the tools to make the part. After the program is run a few inches away with the work shift the G10 command would be removed from the program. Then the program would be run to make a part.



```
G90G72G94F300
M03S2000
G04F2
G10X0Z3
T1(LH TURN TOOL)
X0Z.2
Z0G95F.01
X.1Z-.05F.002
Z-.15
X.2
G94F300Z1
T2(PART OFF TOOL)
```

Shifts program 3" to the right

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X0Z1
X-.4
Z-.35
G96S150
G76S500
G95F.001X.005
G94F300Z1
G97
M30

Example of shifting a program for bar work

With the G10 work shift you can take a program and loop it with the shift so that you get multiple parts done on a single feedout. In the next example three parts will be made with one barfeed sequence:

G90G72G94F300
M03S2000
T3(WORK STOP)
X0Z1
Z-1
M13
Z.025F50
M12
Z1G94F300
LS3
T1(LH TURN TOOL)
X0Z.2
S2000
Z0G95F.01
X.1Z-.05F.002
Z-.15
X.2
G94F300Z1
T2(PART OFF TOOL)
X0Z1
X-.4
Z-.35
G96S150
G76S500
G95F.001X.005
G94F300Z1
G97
G10X0Z-.35
LF
M30

The loop starts here and will repeat 3 times. Notice it is before a tool call.

Here is the work shift, shifting the next loop
End of loop

G10 Work shift

