



## G CODES FOR MACHINING CENTERS

G00 positioning (rapid traverse)	G54 work coordinate system 1 select
G01 linear interpolation (feed)	G55 work coordinate system 2 select
G02 circular interpolation CW	G56 work coordinate system 3 select
G03 circular interpolation CCW	G57 work coordinate system 4 select
G04 dwell	G58 work coordinate system 5 select
G07 imaginary axis designation	G59 work coordinate system 6 select
G09 exact stop check	G60 single direction positioning
G10 offset value setting	G61 exact stop check mode
G17 XY plane selection	G64 cutting mode
G18 ZX plane selection	G65 custom macro simple call
G19 YZ plane selection	G66 custom macro modal call
G20 input in inch	G67 custom macro modal call cancel
G21 input in mm	G68 coordinate system rotation ON
G22 stored stroke limit ON	G69 coordinate system rotation OFF
G23 stored stroke limit OFF	G73 peck drilling cycle
G27 reference point return check	G74 counter tapping cycle
G28 return to reference point	G76 fine boring
G29 return from reference point	G80 canned cycle cancel
G30 return to 2nd, 3rd & 4th ref. point	G81 drilling cycle, spot boring
G31 skip cutting	G82 drilling cycle, counter boring
G33 thread cutting	G83 peck drilling cycle
G40 cutter compensation cancel	G84 tapping cycle
G41 cutter compensation left	G85,G86 boring cycle
G42 cutter compensation right	G87 back boring cycle
G43 tool length compensation + direction	G88,G89 boring cycle
G44 tool length compensation - direction	G90 absolute programming
G49 tool length compensation cancel	G91 incremental programming
G45 tool offset increase	G92 programming of absolute zero point
G46 tool offset decrease	G94 per minute feed
G47 tool offset double increase	G95 per revolution feed
G48 tool offset double decrease	G96 constant surface speed control
G50 scaling OFF	G97 constant surface speed control cancel
G51 scaling ON	G98 return to initial point in canned cycle
G52 local coordinate system setting	G99 return to R point in canned cycle

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## STANDARD M-CODES

M00 program stop	M21 tool magazine right
M01 optional stop	M22 tool magazine left
M02 end of program (no rewind)	M23 tool magazine up
M03 spindle CW	M24 tool magazine down
M04 spindle CCW	M25 tool clamp
M05 spindle stop	M26 tool unclamp
M06 tool change	M27 clutch neutral ON
M07 mist coolant ON	M28 clutch neutral OFF
M08 flood coolant ON	M30 end program (rewind stop)
M09 spindle orientation ON	M98 call sub-program
M19 spindle orientation ON	M99 end sub-program