

C G & M Codes

Mill G Codes

G00	Rapid Positioning Motion (X, Y, Z, A, B)
G01	Linear Interpolation Motion (X, Y, Z, A, B, F)
G02	Circular Interpolation Motion CW (X, Y, Z, A, I, J, K, R, F)
G03	Circular Interpolation Motion CCW (X, Y, Z, A, I, J, K, R, F)
G04	Dwell (P) (P=Seconds". Milliseconds)
G09	Exact Stop, Non-Modal
G17*	Circular Motion XY Plane Selection (G02 or G03)
G18	Circular Motion ZX Plane Selection (G02 or G03)
G19	Circular Motion YZ Plane Selection (G02 or G03)
G20	Inch Coordinate Positioning
G21	Metric Coordinate Positioning
G28	Machine Zero Return Thru Ref. Point (X, Y, Z, A, B)
G29	Move to Location Through G28 Ref. Point (X, Y, Z, A, B)
G40*	Cutter Comp Cancel G41/G42/G141 (X, Y)
G41	2D Cutter Compensation, Left (X, Y, D)
G42	2D Cutter Compensation, Right (X, Y, D)
G43	Tool Length Compensation + (H, Z)
G49*	Tool Length Compensation Cancel G43/G44/G43
G52	Work Offset Positioning Coordinate
G53	Machine Positioning Coordinate, Non-Modal (X, Y, Z, A, B)
G54*	Work Offset Positioning Coordinate #1 (Setting 56)
G55	Work Offset Positioning Coordinate #2
G56	Work Offset Positioning Coordinate #3
G57	Work Offset Positioning Coordinate #4
G58	Work Offset Positioning Coordinate #5
G59	Work Offset Positioning Coordinate #6

G73	HS Peck Drilling Canned Cycle (X, Y, A, B, Z, I, J, K, Q, P, R, L, F)
G74	Reverse Tapping Canned Cycle (X, Y, A, B, Z, J, R, L, F)
G76	Fine Boring Canned Cycle (X, Y, A, B, Z, I, J, P, Q, R, L, F)
G77	Black Bore Canned Cycle (X, Y, A, B, Z, I, J, Q, R, L, F)
G80*	Cancel Canned Cycle (Setting 56)
G81	Drill Canned Cycle (X, Y, A, B, Z, R, L, F)
G82	Spot Drill / Counterbore Canned Cycle (X, Y, A, B, Z, P, R, L, F)
G83	Peck Drill Deep Hole Canned Cycle (X, Y, A, B, Z, I, J, K, Q, P, R, L, F)
G84	Tapping Canned Cycle (X, Y, A, B, Z, J, R, L, F)
G85	Bore In ~ Bore Out Canned Cycle (X, Y, A, B, Z, R, L, F)
G86	Bore In ~ Stop ~ Rapid Out Canned Cycle (X, Y, A, B, Z, R, L, F)
G87	Bore In ~ Manual Retract Canned Cycle (X, Y, A, B, Z, R, L, F)
G88	Bore In ~ Dwell ~ Manual Retract Canned Cycle (X, Y, A, B, Z, P, R, L, F)
G89	Bore In ~ Dwell ~ Bore Out Canned Cycle (X, Y, A, B, Z, P, R, L, F)
G90*	Absolute Positioning Command
G91	Incremental Positioning Command
G92	Global Work Coordinate System
G93	Inverse Time Feed Mode ON
G94	Inverse Time Feed OFF / Feed Per Minute ON
G98	Canned Cycle Initial Point Return
G99	Canned Cycle R Plane Return

Mill M Codes

M00	Program Stop
M01	Optional Program Stop
M02	Program End
M03	Spindle ON Clockwise (S)
M04	Spindle ON Counterclockwise (S))
M05	Spindle Stop
M06	Tool Change (T)
M08	Coolant ON
M09	Coolant OFF
M30	Program End and Reset
M31	Chip Auger Forward
M33	Chip Auger Stop
M34	Coolant Spigot Position Down, Increment
M35	Coolant Spigot Position Up, Decrement
M36	Pallet Part Ready
M41	Spindle Low Gear Override
M42	Spindle High Gear Override
M50	Execute Pallet Change
M83	Auto Air Jet ON
M84	Auto Air Jet OFF
M88	Coolant Through Spindle ON
M97	Local Sub-Program Call (P, L)
M98	Sub-Program Call (P, L)
M99	Sub-Program / Routine Return of Loop (P)

Notes: