



M CODE LIST

Mコード一覧表

CNC精密自動旋盤

CNC Precision Automatic Lathe

BW128E- II

CUSTOMER: NIVAROX-FAR S.A.

MACHINE SERIAL No.17001A

PRECISION TSUGAMI

M Codes

| M code | Function | Path | | | S/N:17001A |
|--------|---|------|---|---|------------|
| | | 1 | 2 | 3 | |
| M00 | Program stop | ○ | ○ | ○ | |
| M01 | Optional stop | ○ | ○ | ○ | ○ |
| M02 | End of program | ○ | ○ | ○ | ○ |
| M03 | Main spindle rotation CW | ○ | | ○ | ○ |
| M04 | Main spindle rotation CCW | ○ | | ○ | ○ |
| M05 | Main spindle stop | ○ | | ○ | ○ |
| M08 | Coolant ON | ○ | ○ | ○ | ○ |
| M09 | Coolant OFF | ○ | ○ | ○ | ○ |
| M10 | Main spindle chuck clamp | ○ | | ○ | ○ |
| M11 | Main spindle chuck unclamp | ○ | | ○ | ○ |
| M12 | Main spindle speed arrival check | ○ | | ○ | ○ |
| M13 | Main spindle rotation CW and coolant ON | ○ | | ○ | ○ |
| M14 | Main spindle rotation CCW and coolant ON | ○ | | ○ | ○ |
| M17 | Work catcher advance [OP] | ○ | ○ | ○ | ○ |
| M18 | Work catcher retraction [OP] | ○ | ○ | ○ | ○ |
| M20 | Back spindle chuck clamp | ○ | ○ | ○ | ○ |
| M21 | Back spindle chuck unclamp | ○ | ○ | ○ | ○ |
| M23 | Cross drill rotation CW (independent command code) | ○ | | | ○ |
| M24 | Cross drill rotation CCW (independent command code) | ○ | | | ○ |
| M25 | Cross drill stop | ○ | | | ○ |
| M26 | Z2 axis air blow ON [OP] | ○ | ○ | ○ | |
| M27 | Z2 axis air blow OFF [OP] | ○ | ○ | ○ | |
| M28 | Z2 axis air blow (Timer) [OP] | ○ | ○ | ○ | |
| M29 | Rigid tapping | ○ | ○ | ○ | ○ |
| M30 | End of tape | ○ | ○ | ○ | ○ |
| M32 | Error detection ON | ○ | ○ | ○ | ○ |
| M33 | Error detection OFF | ○ | ○ | ○ | ○ |
| M34 | Chamfering ON | ○ | ○ | ○ | ○ |
| M35 | Chamfering OFF | ○ | ○ | ○ | ○ |
| M36 | Cutting-off detection (electric switch & touch switch) [OP] | ○ | | ○ | |
| M42 | Cutting-off detection (differential speed detection type) | ○ | | ○ | ○ |
| M48 | Override invalid | ○ | ○ | ○ | ○ |
| M49 | Override valid | ○ | ○ | ○ | ○ |
| M50 | Main spindle C-axis mode ON | ○ | | ○ | ○ |
| M51 | Main spindle C-axis mode OFF | ○ | | ○ | ○ |
| M52 | Back spindle speed arrival confirmation | ○ | ○ | ○ | ○ |
| M53 | Main/back spindle speed arrival confirmation | ○ | ○ | ○ | ○ |

| M code | Function | Path | | | S/N:17001A |
|--------|---|------|---|---|------------|
| | | 1 | 2 | 3 | |
| M54 | Main/back -spindle phase synchronization control ON | ○ | | ○ | ○ |
| M55 | Main/back-spindle phase sync. control OFF | ○ | | ○ | ○ |
| M56 | Main/back -spindle rotation synchronization control ON | ○ | | ○ | ○ |
| M57 | Main/back -spindle rotation synchronization control OFF | ○ | | ○ | ○ |
| M58 | Main/back –spindle torque down | ○ | | ○ | ○ |
| M59 | Main/back –spindle torque normal | ○ | | ○ | ○ |
| M60 | Bar feeder torque OFF [OP] | ○ | | ○ | ○ |
| M61 | Bar feeder torque ON [OP] | ○ | | ○ | ○ |
| M62 | Bar feeder stock replacing start [OP] | ○ | | ○ | ○ |
| M64 | Bar feeder stock feeding start (on Piece Feeder) [OP] | ○ | | ○ | |
| M65 | Bar feeder tracing crutch OFF [OP] | ○ | | ○ | |
| M72 | Back spindle air blow ON [OP] | ○ | ○ | ○ | ○ |
| M73 | Back spindle air blow OFF [OP] | ○ | ○ | ○ | ○ |
| M74 | Air blow 1 ON [OP] | ○ | ○ | ○ | |
| M75 | Air blow 1 OFF [OP] | ○ | ○ | ○ | |
| M76 | Air blow 2 ON [OP] | ○ | ○ | ○ | |
| M77 | Air blow 2 OFF [OP] | ○ | ○ | ○ | |
| M78 | Work forward discharge advance [OP] | ○ | ○ | ○ | ○ |
| M79 | Work forward discharge retraction [OP] | ○ | ○ | ○ | ○ |
| M82 | Main spindle brake ON | ○ | | ○ | ○ |
| M83 | Main spindle brake OFF | ○ | | ○ | ○ |
| M88 | Coolant through back spindle ON [OP] | | ○ | | ○ |
| M89 | Coolant through back spindle OFF [OP] | | ○ | | ○ |
| M91 | Bar stock feeding program call O9001 | ○ | ○ | ○ | ○ |
| M92 | Bar stock feeding program call O9002 | ○ | ○ | ○ | ○ |
| M93 | Bar stock feeding program call O9003 | ○ | ○ | ○ | ○ |
| M95 | Bar feeder program start for stock length check [OP] | ○ | ○ | ○ | ○ |
| M96 | Bar feeder program end for stock length check [OP] | ○ | ○ | ○ | ○ |
| M97 | Work counter count & Tool life management counter ON | ○ | | | ○ |
| M98 | Subprogram call | ○ | ○ | ○ | ○ |
| M99 | Subprogram end | ○ | ○ | ○ | ○ |
| M103 | Back spindle rotation, CW | ○ | ○ | ○ | ○ |
| M104 | Back spindle rotation, CCW | ○ | ○ | ○ | ○ |
| M105 | Back spindle stop | ○ | ○ | ○ | ○ |
| M108 | High pressure pump start [OP] | ○ | ○ | ○ | ○ |
| M109 | High pressure pump stop [OP] | ○ | ○ | ○ | ○ |
| M123 | Back drill rotaion CW | | ○ | | ○ |
| M124 | Back drill rotaion CCW | | ○ | | ○ |
| M125 | Back drill stop | | ○ | | ○ |
| M129 | Cross & back drill rigid tapping [OP] | ○ | ○ | | |
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| M code | Function | Path | | | S/N:17001A |
|-----------------------|---|------|---|---|------------|
| | | 1 | 2 | 3 | |
| M150 | Back spindle Cs-axis mode ON | | ○ | ○ | ○ |
| M151 | Back spindle Cs-axis mode OFF | | ○ | ○ | ○ |
| M160 | Oil blow(X1) ON [OP] | ○ | ○ | ○ | ○ |
| M161 | Oil blow(X1) OFF [OP] | ○ | ○ | ○ | ○ |
| M162 | Oil blow(X3) ON [OP] | ○ | ○ | ○ | ○ |
| M163 | Oil blow(X3) OFF [OP] | ○ | ○ | ○ | ○ |
| M164 | Oil blow(Z2) ON [OP] | ○ | ○ | ○ | |
| M165 | Oil blow(Z2) OFF [OP] | ○ | ○ | ○ | |
| M182 | Back spindle brake ON [OP] | | ○ | ○ | ○ |
| M183 | Back spindle brake OFF [OP] | | ○ | ○ | ○ |
| M188 | ID coolant ON [OP] | ○ | ○ | ○ | |
| M189 | ID coolant OFF [OP] | ○ | ○ | ○ | |
| M223 | Cross drill rotation (rear tool post), CW | | ○ | ○ | ○ |
| M223 | Cross drill rotation (rear tool post), CCW | | ○ | ○ | ○ |
| M225 | Cross drill rotation (rear tool post), stop | | ○ | ○ | ○ |
| M312 | Cross drill speed arrival confirmation | ○ | | | ○ |
| M314 | Back drill speed arrival confirmation | | ○ | | ○ |
| M333 | Whirling unit rotation, CW [OP] | | | ○ | |
| M334 | Whirling unit rotation, CCW [OP] | | | ○ | |
| M500 to 699 | Waiting M code | ○ | ○ | ○ | ○ |
| M500 to 699 P_L_IP | Designation position of waiting M code | ○ | ○ | ○ | ○ |
| M704 | Z axes synchronization cancel | ○ | ○ | ○ | ○ |
| M705 | Z axes synchronization start | ○ | ○ | ○ | ○ |
| M740 | Z1/Z3-axis superposition control cancel | ○ | | ○ | ○ |
| M741 | Z1/Z3-axis superposition control start | ○ | | ○ | ○ |
| M764 | Z1/Z3-axis composite control (Z3 → Z1) | ○ | | ○ | ○ |
| M765 | Z1/Z3-axis composite control (Z1 → Z3) | ○ | | ○ | ○ |
| M774 | Z2/Z3-axis composite control (Z3 → Z2) | | ○ | ○ | ○ |
| M775 | Z2/Z3-axis composite control (Z2 → Z3) | | ○ | ○ | ○ |
| M2**** | Program search and start for path NC2 | ○ | | | ○ |
| M3**** | Program search and start for path NC3 | ○ | | | ○ |

Special M Codes

| M code | Function | Path | | | S/N:17001A |
|--------|--|------|---|---|------------|
| | | 1 | 2 | 3 | |
| M166 | Guide bush refueling ON | ○ | ○ | ○ | ○ |
| M167 | Guide bush refueling OFF | ○ | ○ | ○ | ○ |
| M170 | Oil blow Rear Tool ON | ○ | ○ | ○ | ○ |
| M171 | Oil blow Rear Tool OFF | ○ | ○ | ○ | ○ |
| M260 | M code output 1 ON | ○ | ○ | ○ | ○ |
| M261 | M code output 1 OFF | ○ | ○ | ○ | ○ |
| M262 | M code output 2 ON | ○ | ○ | ○ | ○ |
| M263 | M code output 2 OFF | ○ | ○ | ○ | ○ |
| M264 | M code output 3 ON | ○ | ○ | ○ | ○ |
| M265 | M code output 3 OFF | ○ | ○ | ○ | ○ |
| M266 | M code output 4 ON | ○ | ○ | ○ | ○ |
| M267 | M code output 4 OFF | ○ | ○ | ○ | ○ |
| M268 | M code output 5 ON | ○ | ○ | ○ | ○ |
| M269 | M code output 5 OFF | ○ | ○ | ○ | ○ |
| M413 | Brushless motor (cross1) CW rotation | ○ | ○ | ○ | ○ |
| M414 | Brushless motor (cross1) CCW rotation | ○ | ○ | ○ | ○ |
| M415 | Brushless motor (cross1) STOP rotation | ○ | ○ | ○ | ○ |
| M423 | Brushless motor (cross2) CW rotation | ○ | ○ | ○ | ○ |
| M424 | Brushless motor (cross2) CCW rotation | ○ | ○ | ○ | ○ |
| M425 | Brushless motor (cross2) STOP rotation | ○ | ○ | ○ | ○ |
| M433 | Brushless motor (front1) CW rotation | ○ | ○ | ○ | ○ |
| M434 | Brushless motor (front1) CCW rotation | ○ | ○ | ○ | ○ |
| M435 | Brushless motor (front1) STOP rotation | ○ | ○ | ○ | ○ |
| M443 | Brushless motor (front2) CW rotation | ○ | ○ | ○ | ○ |
| M444 | Brushless motor (front2) CCW rotation | ○ | ○ | ○ | ○ |
| M445 | Brushless motor (front2) STOP rotation | ○ | ○ | ○ | ○ |
| M453 | Brushless motor (rear) CW rotation | ○ | ○ | ○ | ○ |
| M454 | Brushless motor (rear) CCW rotation | ○ | ○ | ○ | ○ |
| M455 | Brushless motor (rear) STOP rotation | ○ | ○ | ○ | ○ |
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