

M Code List - Ringtech RTL-4000

M code	Operation	Description
M00	Machine Stop	When programmed machine stops and requires a cycle start to continue
M01	Optional Stop	When M01 is active the machine will stop after each operation
M02	Program end (No rewind)	Not used
M03	Spindle Forward	Main spindle rotates counter-clockwise when facing spindle
M04	Spindle Reverse	Main spindle rotates clockwise when facing spindle
M05	Spindle Stop	Main spindle stops rotation
M07	Drill Coolant On	Drill Coolant (Optional)
M08	Coolant On	Flood Coolant on
M09	Coolant Off	Flood Coolant off
M10	Collet Open	Main spindle collet open
M11	Collet Close	Main spindle collet close
M19	Spindle Index	Spindle index (not C axis mode)
M20	Live Spindle Collet Open	Live spindle tool clamp open (Unclamped)
M21	Live spindle collet Close	Live spindle tool clamp closed (Clamped)
M22	Carousel Door Open	Tool changer door open (For maintenance only)
M23	Carousel Door Close	Tool changer door closed (For maintenance only)
M24	Carousel Advance	Tool changer tools out (Opens door automatically)
M25	Carousel Retract	Tool changer tools retract (Closes door automatically)
M28	Turret unclamp	Not used for operator control (Maintenance only)
M29	Turret Clamp	Not used for operator control (Maintenance only)
M30	Program end	Ends program and resets cnc for next cycle
M35	Turret Air Blast (Timed)	This M code can have a timer set so that it blows for a specific amount of time.
M36	Air Blast 1 On	Turns on air blast from live tool nozzles on spindle and for Probe cleaning
M37	Air Blast 1 Off	Turns off air blast from live tool nozzles on spindle and for Probe cleaning
M38	Air Blast 2 On	Turns on the second air blast
M39	Air Blast 2 Off	Turns off the second air blast
M40	Air Blast 3 On	Turns on the third air blast
M41	Air Blast 3 Off	Turns off the third air blast
M50	Bar Feed Piston Advance	Advances piston to feed material out to a stop
M51	Bar Feed Piston Retract	Retracts piston to rear position (Automatic on manual collet open)

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M code	Operation	Description
M60	Additional M function 1 ON	Activate Electronic M function 1
M61	Additional M function 1 OFF	De-activate Electronic M function 1
M62	Additional M function 2 ON	Activate Electronic M function 2
M63	Additional M function 2 OFF	De-activate Electronic M function 2
M64	Additional M function 3 ON	Activate Electronic M function 3
M64	Additional M function 3 OFF	De-activate Electronic M function 3
M70	Probe Tube Position	Activates macro to find tube end position and set zero point (optional for probe)
M71	Probe Inside Blank Position	Activates macro to find blank end position and set zero point for internal ops. (optional for probe)
M72	Probe Location Setting	Activates macro for setting probe to a known zero point (optional for probe)
M73	Probe Outside Blank Position	Activates macro for blank measurement (optional for probe)
M75	Home Turret	Activates Turret Homing Macro
M88	Ring Catcher out	Advances piston into ring to catch falling ring
M89	Ring Catcher In	Retracts piston out of ring to drop into chute
M90	Conveyor On	Conveyor time is controlled by PLC parameter 20