

Miscellaneous Machine Codes

Code	Function	Example
M00	Machine cycle stop. Position, do not punch, and stop machine. Previously used for the load block, currently used for operator instructions, such as flip sheet, or remove slug.	X49.213 Y30 M00 (FLIP PART); X40 Y20 M00 (REVOVE SLUG);
M02	Machine cycle stop. Position, do not punch, stop machine, increment parts counter by one. NC Reset.	X49.213 Y39.37 M02;
M03	Position don't punch, don't stop. Used for positioning around obstacles such louver tools, and prior to repositioning.	X18 Y12 M03; REP/DX5;
M05	Unload code. Only used for machines equipped with Auto Load/Unload systems. This will be used for opening the workholders, and followed up with a "Y" axis move and an M40.	X49.213 Y38.87 M05; Y39.37 M40;
M06	Machine cycle stop after punch. Previously used as an operator instruction. The machine will punch at the stated coordinates, then stop.	X45 Y30 M06;
M08	Forming mode start.	M08;
M09	Forming mode cancel.	M09;
M12	Continuous Nibble mode start. This is only to be used for X,Y hits. It is not to be used with the geometric commands. Tool changes are not permitted within the M12 and M13 commands.	M12;
M13	Continuous nibble mode cancel.	M13;
M14	Operate Retractable dies while in the up position.	X_ Y_ T__ (Up/Down Tool);
M15	Cancels the Retractable die engagement	M14; M15;
M20	Change to punch mode. Used on machines equipped with Laser or Tapping head option.	M20;
M21	Exact stop check mode on. (Laser mode option only)	M21;
M22	Exact stop check mode cancel.	M22;
M23	Raise the Laser cutting head. Raises laser head to the full up position.	M23;
M24	Change to Laser cutting mode.	M24;
M26	Laser mode cancel.	M26;
M27	Selects Pulse Mode 1.	M27;
M28	Selects Continuous Wave (CW) mode.	M28;

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M30	Program reset, and rewinds to top of program. The M30 will also advance the parts counter by one (1), and helps cancel internal offsets introduced during repositioning.	X49.213 Y39.37 M30;
M34	Selects Pulse Mode 2.	M34;
M35	Selects Pulse Mode 3.	M35;
M40	Material take off position. Used on machines equipped with Automatic Load/Unload options.	Y39.37 M40;
M41	Lower the reposition cylinders, and open the workholders.	X18 Y12 M03; M41; DY.05; DX-5; M42;
M42	Close the workholders, and raise the reposition cylinders.	M42;
M48	Enable Work holder open option (D23.1 = 1)	M48;
M50	Selects the high-speed press drive motor. Older C3000's and all M5000'S.	M50;
M51	Selects the low-speed press drive motor. Older C3000's and all M5000'S.	M51;
M55	External deceleration code. Used only on machines equipped with a small parts unload chute. This code will be followed by a M56.	X__ Y__ M55;
M56	External deceleration cancel, and parts chute open.(Parts presence detection)	M56;
M57	External deceleration cancel, and parts chute open.(Parts absence detection)	M57;
M58	Opens parts chute on M2048LT & M2048LT-T machines	M58; X__ Y__ T309; X__ Y__; DWL/X.15;
M59	Closes the parts chute.	M59;
M62	Selects outer track of the turret. (Twin track turrets only)	M62;
M63	Selects inner track of the turret. (Twin track turrets only)	M63;
M66	Initiates tapping mode	M66;
M65	Cancels tapping mode	X__ Y__ T__ M65;
M71	Assist gas level 1 (Gas pressure – Laser only) 0.3-0.5 kg/cm2	M71;
M72	Assist gas level 2 (Gas pressure – Laser only) 1.0 kg/cm2 Thin steel plate.	M72;
M73	Assist gas level 3 (Gas pressure – Laser only) 2.0 kg/cm2 Thick steel plate.	M73;

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Code	Function	Example
M74	Assist gas level 4 (Gas high-pressure – Laser only) 3-10 kg/cm ² Aluminum	M74;
M80	Selects 100% table speed. Serves same function as F1 on older machines.	X__ Y__ M80;
M81	Selects 75% table speed. Serves same function as F2 on older machines.	X__ Y__ M81;
M82	Selects 50% table speed. Serves same function as F3 on older machines.	X__ Y__ M82;
M83	Selects 25% table speed. Serves same function as F4 on older machines.	X__ Y__ M83;
M98	Call to a sub-program. M98 is the call, "P" designates the program number being called, "L" designates the number of times the subprogram is repeated.	M98 P1234 L2;
M99	End of subprogram/return cursor to top of program.	M99;
M100	Material cut condition set mode.	M100;
M111	Material cut condition laser cutting M code (High speed)	M111;
M112	Material cut condition laser cutting M code (Middle speed)	M112;
M113	Material cut condition laser cutting M code (Low speed)	M113;
M114	Material cut condition laser cutting M code (User defined)	M114;
M115	Material cut condition laser cutting M code (Marking)	M115;
M121	Piercing mode start. (Laser option only)	M121;
M122	Piercing mode cancel.	M122;
M123	Marking mode start. This code is used when you want to mark or etch your material, instead of pierce. When this code is given the control will select argon or nitrogen as the assist gas.	M123;
M124	Marking mode cancel. This code cancels the marking mode and selects oxygen as the assist gas.	M124;
M125	Air Cut. This code will select air for the assist gas.	M125;
M128	Select non-contact type height sensor.	M128;
M129	Select contact type height sensor.	M129;
M132	Profile mode (Option)	M132;
M133	Profile mode cancel (Option)	M133;
M320	Wilson Wheel Mode Off. Returns to normal TDC operation.	M320;

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Code	Function	Example
M321	Initiates Wilson Wheel Mode. Valid with a "T" Code.	M321;
M322	TDC Return Command. Also cancels Punch Prohibit.	M322;
M323	Ramping mode in	M323;
M324	Ramping mode out.	M324;
M325	Scribing mode off	M325;
M326	Scribing mode on	M326;
M328	Punch Prohibit Off. M320 and M322 will also cancel this mode.	M328;
M329	Punch Prohibit On. Prevents punching when using Wheel type tools.	M329;
M601	Used on V5000 to set Opeation pressure. Selects 4500 PSI	M601;
M602	Used on V5000 to set Opeation pressure. Selects 3500 PSI	M602;
M603	Used on V5000 to set Opeation pressure. Selects 3000 PSI	M603;
M604	Used on V5000 to set Opeation pressure. Selects 2500 PSI	M604;
M605	Used on V5000 to set Opeation pressure. Selects 2000 PSI	M605;
M610	Ram speed cancel.	M610;
M611	Ram high speed.	M611;
M613	Ram medium speed.	M613;
M615	Ram low speed.	M615;
M620	Ram Top Dead Center (TDC) cancel.	M620;
M621	Move Ram to Top Dead Center (TDC)	M621;
M630	Nibbling at Low speed (Motorums Only) Pitch below 5mm(.197")	M630;
M631	Nibbling at High speed (Motorums Only) Pitch below 1mm(.0394")	M631; NBL/ INC/R .035 19;
M680	Cancel Lube Oil Mist System	M680;
M681	Initiate Lube Oil Mist System	M681;