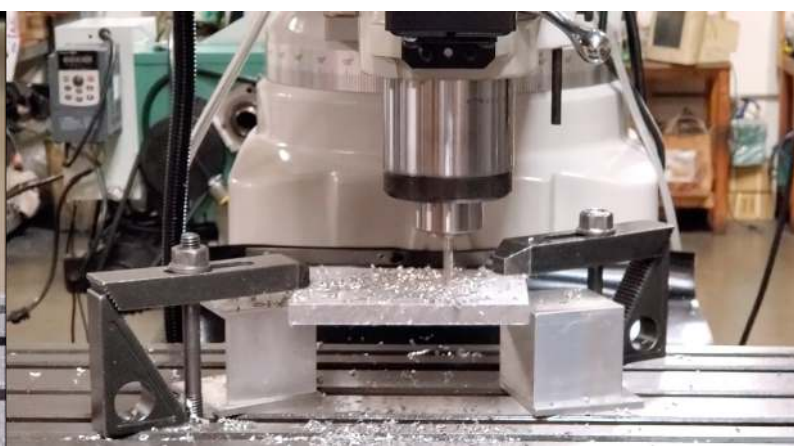
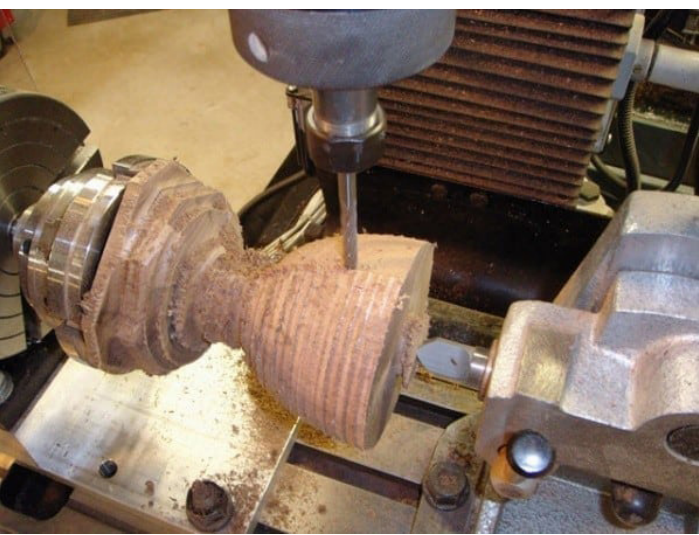
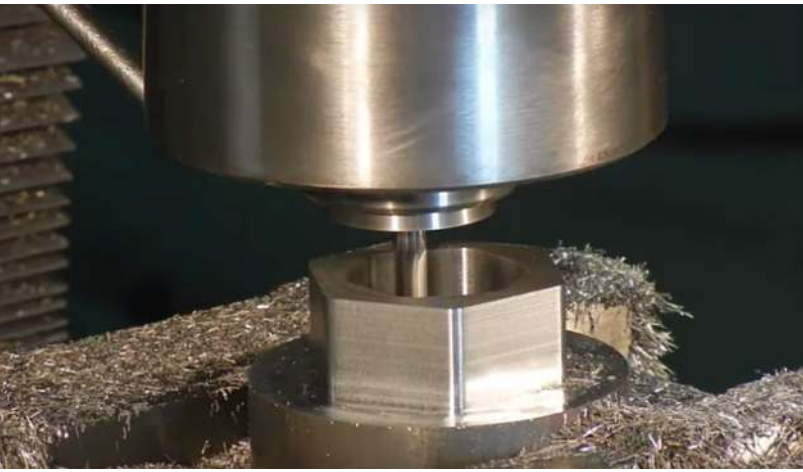




CNC MASTERS

SINCE 1990

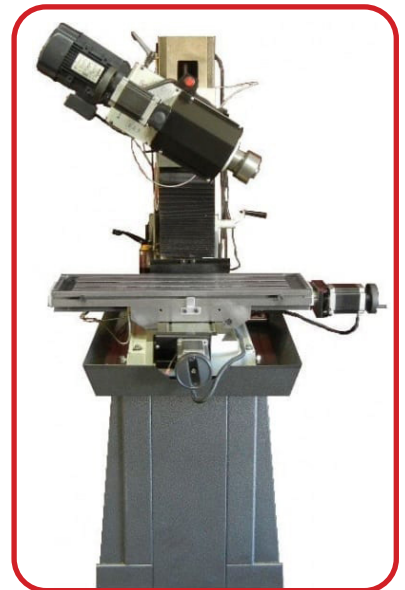
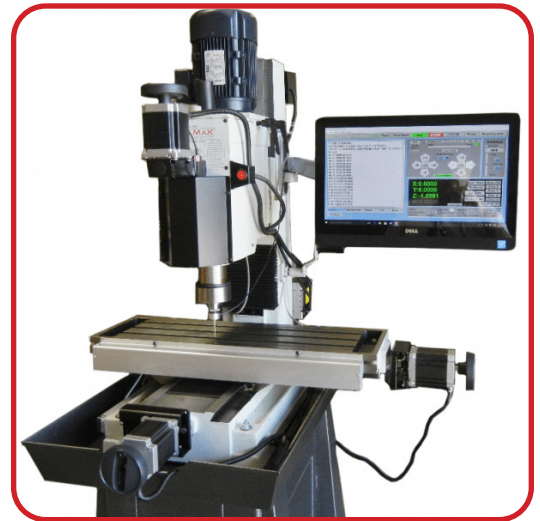
QUALITY PRODUCTION MACHINING AT LOW PRICES



MACHINES

Our CNC Masters machinery are built here in Irwindale, California, USA. We quality test all of our CNC milling machines and CNC lathes before we crate and place them on the freight truck headed toward their destination. With CNC Masters, you are not getting a machine that comes to you 100% from overseas to your doorstep, not knowing if the machine has gone through even a basic quality control process. Our CNC machines are built for production runs. Run them full time, forty hours a week! With CNC Masters, you are not just buying another machine, you are entering a relationship with a company who backs up their machines. You will always have our undivided direct attention for tech support by email or phone. We treat our customers with respect and dignity regardless if you are coming to us as someone who is just beginning to learn the machining trade or has been in the machining industry their entire professional life. We will give you direct help from the mechanics, electronics, to the software that runs our CNC Masters machinery for as long as your company owns these machines.

MAX® CNC MILL



When you need a larger working area without taking up a lot of shop space, expand your abilities with this 2HP Max Mill allowing you to machine larger applications within 21.5" x 10.5" on computer variable spindle control. The head can be cranked up to 18" high. Ball screw driven on the X, Y, and Z Quill. Run this mill with confidence full time to machine your tough metal 2D and 3D applications. Built in the USA of foreign and domestic parts, proven and tested by CNC Masters California before delivering to you.

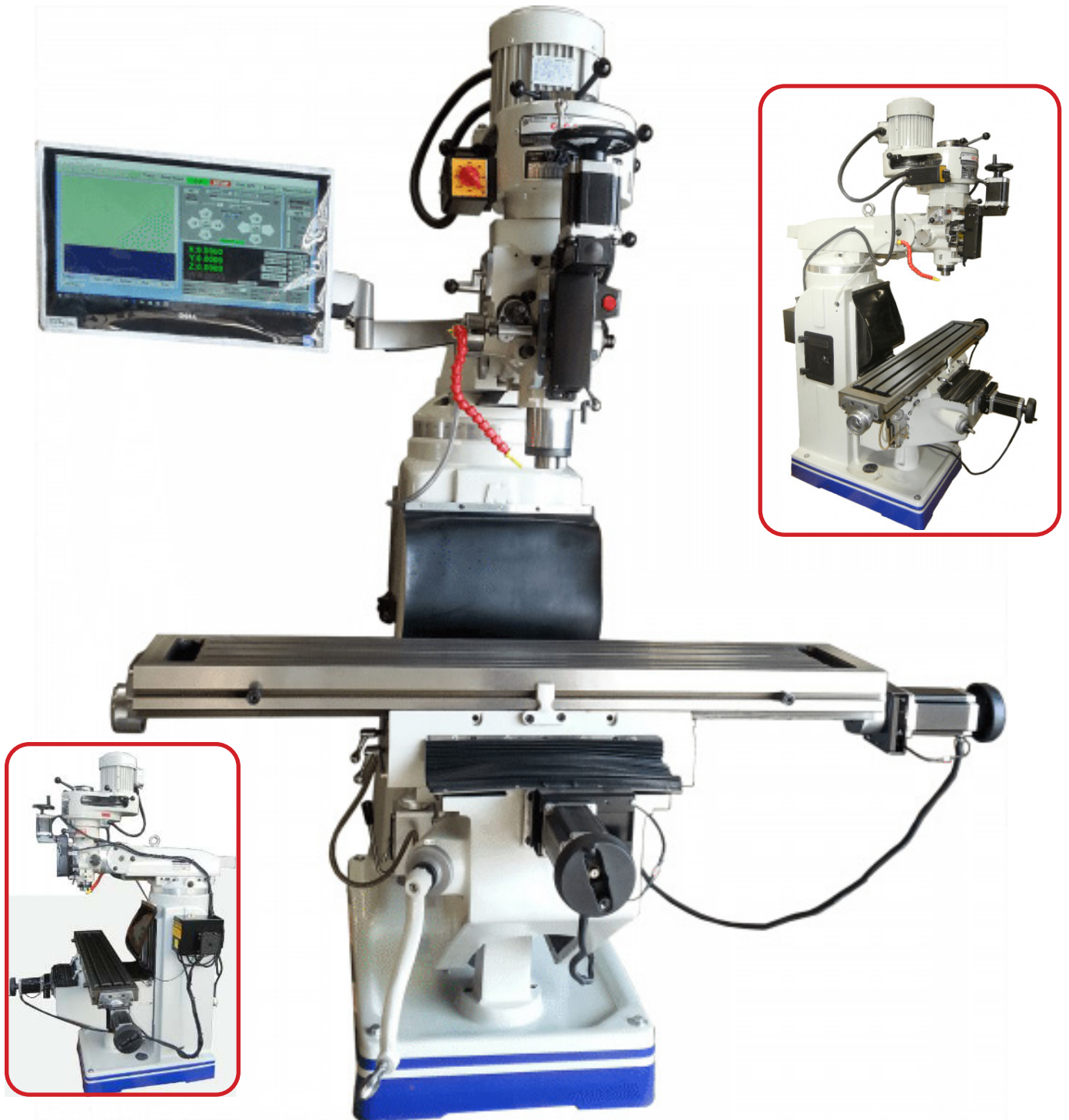
TECH SPECS



Model	MAX CNC Mill
X Axis: Left/Right Table Travel	21.5" (546 mm)
Y Axis: Front/Back Saddle Travel	10.5" (266.7 mm)
Z Axis: Spindle Up/Down Travel	4.5" (114.3 mm)
Maximum Distance from Spindle Nose to Table	18" (450 mm)
Swivel Angle of Headstock at Perpendicular Direction	+/- 90 Degrees
Drilling Capacity	.75" (19.05 mm)
Face Mill Capacity	3" (76.2 mm)
End Mill Capacity	.75" (19.05mm)
Working Area of Table - Table Specs with T-Slots	31.5" x 9.5" (800 mm x 240 mm)
Spindle Taper	R8 Collet
Spindle Motor and Power – Computer Variable Spindle Control	2 HP; 208, 220-240vac single phase
Spindle Speeds 2 Step Pulley to adjust for torque strength	60 HZ: 1680, 4500 RPMs
50 HZ: 1360, 3640 RPMs	
Limit Switches on Opposite Ends of Travel	X Y Z
Max Rapid on X Y Z	150 IPM (3810 mm/m)
One-Shot Oil Pump	Lubricates Dovetail Ways, Tapered Gibs, and Quill
Machine Body and Head	Cast Iron
Computer Connection to Control Unit	USB Port, Windows 10 PC 64 bit
X Y Z W Stepper Motors	NEMA 34, Bi-Polar, 1200 oz-in of torque
Overall Length w/out X motor (left end of table to right end)	35.375" (898.525 mm)
Overall Width w/out controllers and Y motor (front to back of machine)	30.625" (777.875 mm)
Overall Length (left end of table to right end of X motor handle)	42" (1067 mm)
Overall Width (back of machine with controllers to front end of Y motor handle)	44" (1118 mm)
Machine Height (without machine stand)	42" (1060 mm)
Machine Stand Height	27.75" (704.85 mm)
Machine Stand Chip Pan	36.625" x 23.625" x 4.25" deep (930.275 mm x 676.275 mm x 107.95 mm deep)
Machine Base 4 Bolt Pattern to Stand	13" x 25" (330.2 mm x 635 mm)
Max Movement Area	62.5" (1587.5 mm) x 44" (1117.6 mm)
Weight	900 lbs.



CNC SUPRA MILL



The CNC Supra Mill is your classic bridgeport vertical knee milling machine with X Y Z cnc on it. Large working envelope, all cast iron, 3HP motor. Easy to operate and maintain. Put this beast into production for all your machining needs. Built in the USA of foreign and domestic parts, proven and tested by CNC Masters California before delivering to you. Two sizes to choose from: CNC SUPRA MILL 9 x 49 W/ CVS CONTROL & CNC SUPRA MILL 10 x 54 W/ CVS CONTROL

TECH SPECS



Model	CNC SUPRA 9x49 Knee Mill	CNC SUPRA 10x54 Knee Mill
Table Size	9" x 49"	10" x 54"
Table T-slot size	5/8" x 3"	5/8" x 3"
Longitudinal X Travel	34"	35.5"
Forward/Back Cross Y Travel	11.5"	15.5"
Quill Z Travel	4.5"	4.5"
Vertical Mill Travel Knee Lift Up/Down	16"	18"
Ram Travel	12"	18"
Spindle Taper	R8	R8
Head Swivel RH/LH	90°/90°	90°/90°
Head Tilting F/B	45°/45°	45°/45°
Computer Connection to Control Unit	USB Port, Windows 10 PC 64 bit	USB Port, Windows 10 PC 64 bit
Ram Turret Swivel	360°	360°
Power	220-240VAC 1Ø	220-240VAC 1Ø
Spindle Motor	3 HP Variable Speed or 2 HP, 8 Speeds	3 HP Variable Speed
Spindle Speeds Type	Step Pulley	Step Pulley
Spindle Speeds (RPM)	Up to 5600 with Variable Spindle Speed Computer Control including on/off 90-2800 for 8 speeds	Up to 5600 with Variable Spindle Speed Computer Control including on/off
Max Rapid on X Y Z	100 IPM (2540 mm/m)	100 IPM (2540 mm/m)
X Y Z W Stepper Motors	NEMA 34, Bi-Polar, 1760 oz-in of torque for X and Y; 1200 oz-in of torque for Z/W	NEMA 34, Bi-Polar, 1760 oz-in of torque for X and Y; 1200 oz-in of torque for Z/W
Vertical Knee Mill Machine Height	86" (65" with head upside down)	89" (68" with head upside down)
Physical Floor Space	62.5"(1587.5mm) x 57"(1447.8mm)	67.5"(1714.5mm) x 65"(1651mm)
Vertical Mill Max Movement Area		
X + Ram Max Travel Area	97"(2463.8mm) x 68.5"(1739.9mm)	104" (2641.6mm) x 83"(2108.6mm)
Weight	2600 lbs.	3600 lbs.



CNC BARON®



When you need a full time production small 2HP cnc mill without breaking the bank and sacrificing quality, this milling machine will give you 21.5" x 7" of travel. The machine head can be cranked up to 18". The head can also tilt to 90 degrees if you have a need to do horizontal milling. Machine any material that is machine-able into 2D and 3D applications on computerized variable spindle control. Machine your parts with great accuracy and repeatability all day with this simple, easy to operate, cnc milling machine. Built in the USA of foreign and domestic parts, proven and tested by CNC Masters California before delivering to you.

TECH SPECS



Model	CNC BARON
X Axis: Left/Right Table Travel	21.5" (546 mm)
Y Axis: Front/Back Saddle Travel	7" (175 mm)
Z Axis: Spindle Up/Down Travel	5" (127 mm)
Maximum Distance from Spindle Nose to Table	18" (450 mm)
Swivel Angle of Headstock at Perpendicular Direction	+/- 90 Degrees
Drilling Capacity	.75" (19.05 mm)
Face Mill Capacity	3" (76.2 mm)
End Mill Capacity	.75" (19.05mm)
Working Area of Table - Table Specs with T-Slots	31.5" x 9.5" (800 mm x 240 mm)
Spindle Taper	R8 Collet
Spindle Motor and Power – Computer Variable Spindle Control	2 HP; 208, 220-240vac single phase
Spindle 6 Speeds Gear Head with Oil Bath for Stronger Torque	60 HZ: 196, 388, 662, 893, 1768, 3000 RPMs
50 HZ: 163, 323, 552, 744, 1473, 2500 RPMs	
Limit Switches on Opposite Ends of Travel	X Y Z
Max Rapid on X Y Z	150 IPM (3810 mm/m)
One-Shot Oil Pump	Lubricates Dovetail Ways, Tapered Gibs, and Quill
Machine Body and Head	Cast Iron
Computer Connection to Control Unit	USB Port, Windows 10 PC 64 bit
X Y Z W Stepper Motors	NEMA 34, Bi-Polar, 1200 oz-in of torque
Overall Length w/out X motor (left end of table to right end)	35.375" (898.525 mm)
Overall Width w/out controllers and Y motor (front to back of machine)	27.75" (704.85 mm)
Overall Length (left end of table to right end of X motor handle)	42" (1067 mm)
Overall Width (back of machine with controllers to front end of Y motor handle)	42" (1067 mm)
Machine Height (without machine stand)	42" (1060 mm)
Machine Stand Height	30" (760 mm)
Machine Stand Chip Pan	30.75" x 22.875" (781 mm x 581 mm)
Machine Base 4 Bolt Pattern to Stand	22.25" x 12.75" (505.15 mm x 323.85 mm)
Max Movement Area	62.5" (1587.5 mm) x 42" (1067 mm)
Weight	800 lbs.



CNC JR. MILL®



The classic mill drill with cnc on it! This CNC jr mill is a great machine for light-duty machining for your smaller applications within 19" x 7". Ball screw driven on the X and Y, and with a 2HP Motor, this machine gives you the versatility to mill out your secondary applications without disrupting your main production cnc machine. Built in the USA of foreign and domestic parts, proven and tested by CNC Masters California before delivering to you.

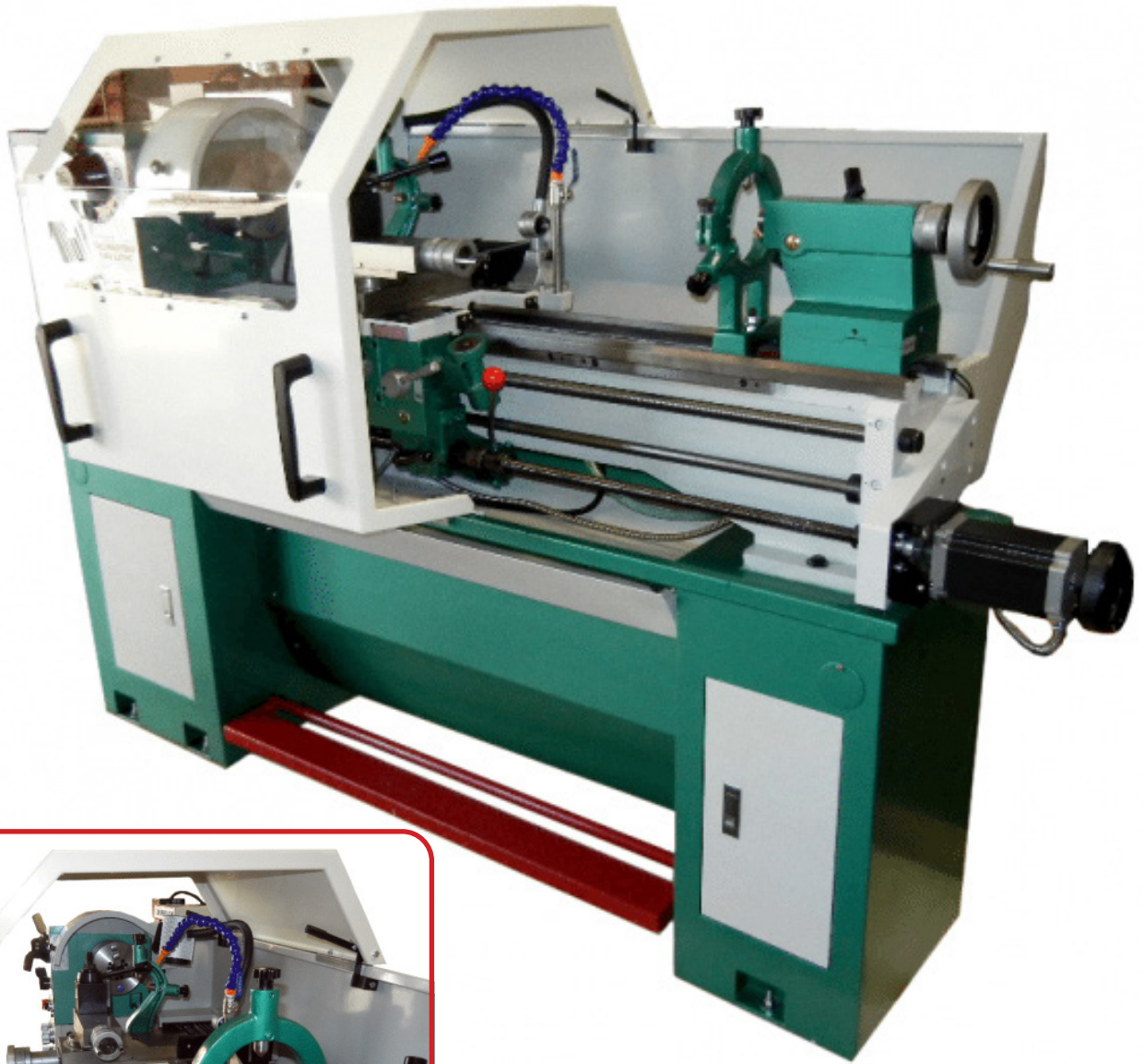
TECH SPECS



Model	CNC Jr.
X Axis: Left/Right Table Travel	19" 485mm
Y Axis: Forward/Back Table Travel	7" 175mm
Z Axis: Spindle Up/Down Travel	5" (127 mm)
Maximum Distance from Spindle Nose to Table	18" 480mm
Motor Power	2 HP
Overall Height (w/o stand)	43-1/2" 1100mm
Machine Stand Height	30" 760mm
Drilling Capacity	1-1/4" 32mm
End Mill Capacity	3/4" 20mm
Swing	15-7/8" 405mm
Spindle Taper	R-8
Diameter of Spindle Sleeve	3" 75mm
Head Swivel	360 degrees
Computer Connection to Control Unit	USB Port, Windows 10 PC 64 bit
Diameter of Column	4-1/2" 115mm
Overall Length (end of table to end of X motor handle)	38.5"
Overall Width (back of spindle motor to Y motor handle)	38"
CNC Jr. Table Top Mill Spindle Speed	12 speed (120-3000rpm)
Working Area of Table	28-3/4 x 8-1/4"
Max Movement Area	60" (1524 mm) x 38" (965.2 mm)
CNC Jr. Table Top Mill Weight	700 lbs.



CNC 1440 LATHE



The 1440 CNC Lathe has the ability to revert to manual control quickly and efficiently, eliminating the need to write a CNC program for short runs. At the same time, its advanced CNC capabilities transform complex turning applications into simple designs that can be programmed and executed accurately many times over on production runs.

TECH SPECS



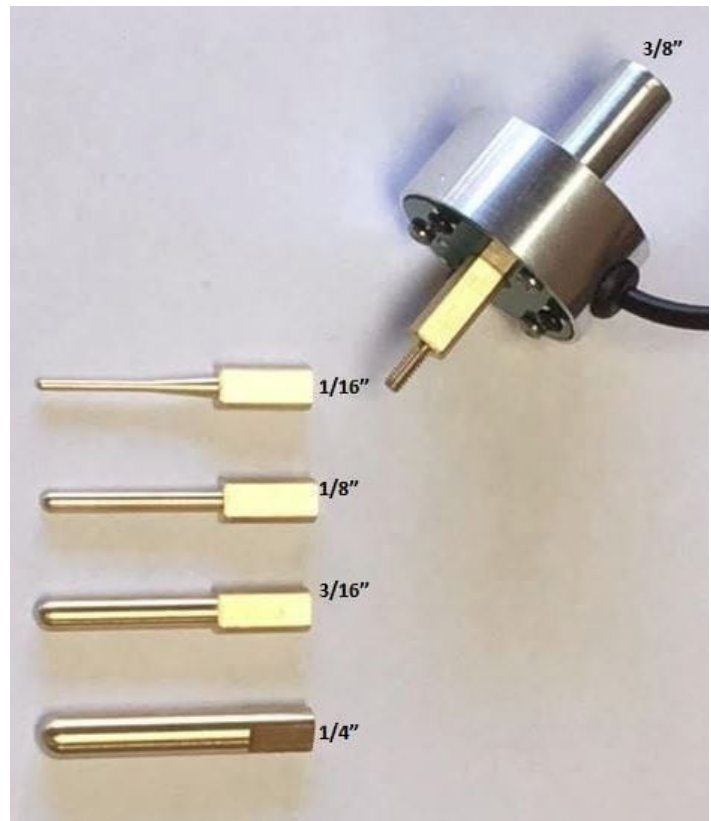
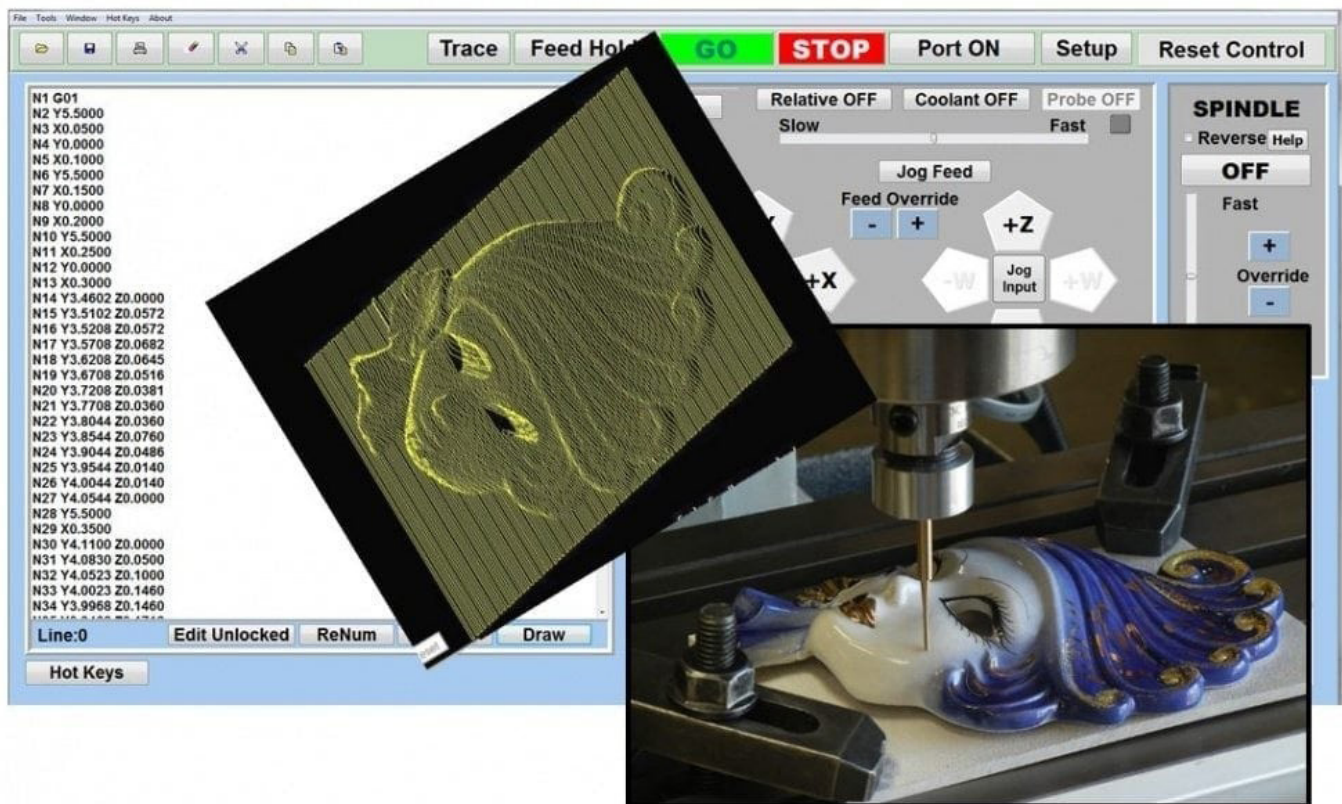
SPECIFICATIONS	Inches	Metric
Swing Over Bed	14" Max Diameter	355.6 MM Max Diameter
Swing Over Cross Slide	8"	203.2 MM
Cross Slide Travel	6"	152.4 MM
Carriage Travel	34.5"	876.3 MM
Distance between Centers	40"	1016 MM
Length of Bed	54"	1676.4 MM
Width of Bed	7-3/8"	187.3 MM
Hole thru spindle	1-1/2"	38.1 MM
Self Centering 3-Jaw	6-1/4" OD Size	158.75 MM OD Size
Tailstock Spindle Travel	4"	101.6 MM
Swing Over Gap	20"	508 MM
Width of Gap	8-1/8"	206.375 MM
Top Tool Slide Travel	3-3/4"	95.25 MM
Headstock Spindle Taper	MT-5	
Spindle Nose Mount	D1-4	
Tailstock Spindle Taper	MT-3	
Computerized Variable Spindle Control, Range of Spindle Speed with CSS (Constant Surface Speed) ability	8 SPEEDS 70-2000	
Lead Screw Diameter	7/8"	
Feed Rod Diameter	3/4"	
Thread Per Inch of Lead Screw	40	
Thread Cutting Range	4-112 TPI (Min 10 TPI on CNC Mode)	Max 2.5 mm Thread Pitch
Main Spindle Motor	3 HP	
Net Weight (approx)	2100LB	
Coolant Tank (Tailstock Stand)	10 QTS (option)	
Crate Size for shipping (approx)	88"x40"x64"	2235.2 x 1016 x 1625.6
Machine Foot Print / Floor Space	84"x 37"	2133 x 939.8





OPTIONS

MX DIGITAL PROBE





DESCRIPTION

You can use the MX Probe to Surface Scan or Pocket Scan.

To “surface” scan an object, you can program the probe along the X or Y plane. The stylus will travel over the part starting on the left side front corner of the object and work its way to the end of the part on the right side. Depending on how the stylus moves, it will record linear and interpolated movements along the X, Y, and Z planes directly on the MX Editor:

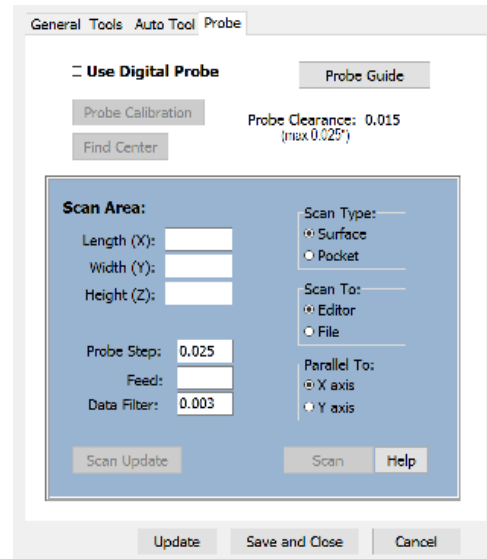


From here you can add some feeds and spindle speeds to the recording, save the file and machine the part out as many times as you would like.

To “pocket” scan an object containing a closed pocket such as circles or squares, the scan will start from the top front, work its way inside of the pocket, and scan the entire perimeter of the pocket.

Under the Setup of the MX software you will find the Probe Tab which allow you to calibrate and program your probe. Your “Probe Step”, “Feed”, and “Data Filter” can also be changed on the fly while the probe is in the middle of scanning your object.

Probe Features:



Scan Area – Length, Width and Height set the area to be scanned.

Scan to Editor – will write scanned path directly on the editor.

Scan to File – will save scanned path directly to a file.

Parallel To – will either scan object along the X axis or the Y axis.

Probe Step – is the distance between each step in any direction.

Feed – is the speed of scanning.

Data Filter – is used to filter out excessive data written during scanning. The more detailed the object, the smaller the value should be.

Probe Clearance – is the distance away the probe will clear after each contact.

Scan – will start the scanning procedure.

Update – can alter the Probe Step, Feed, or Data Filter on the fly while object is being scanned.



MX HAND HELD KEYPAD PENDANT



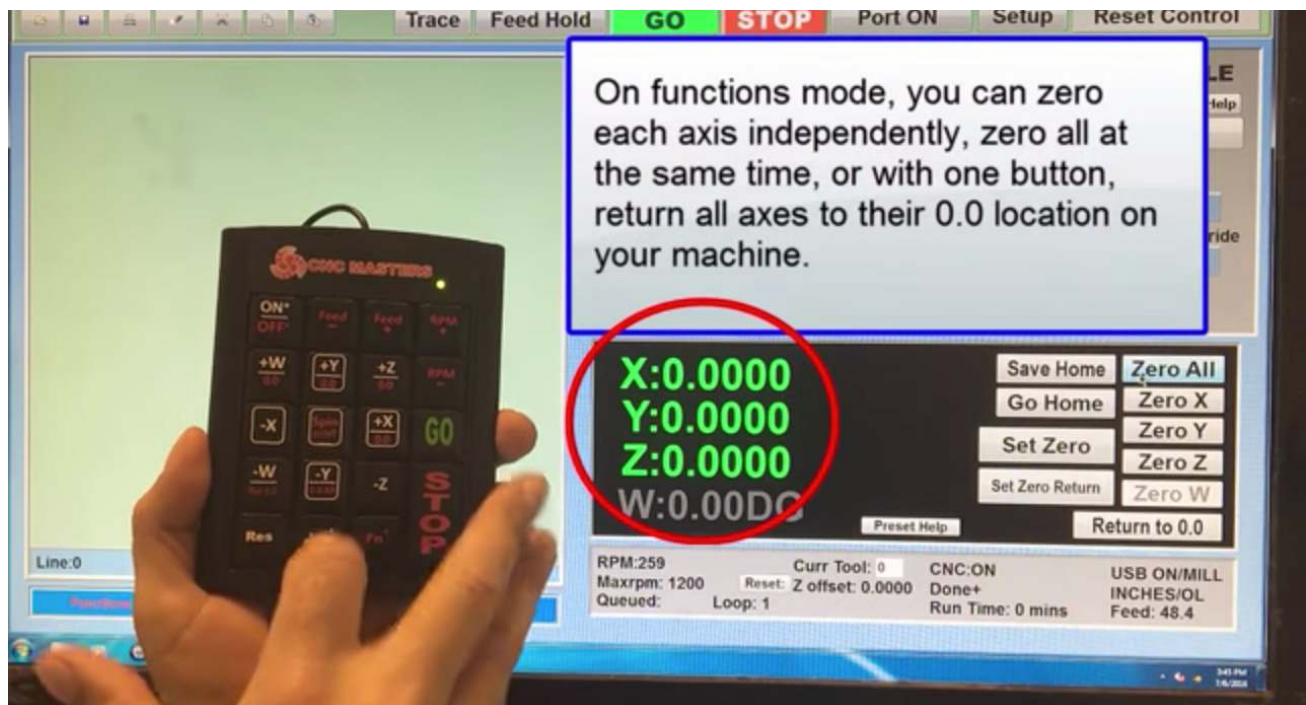


DESCRIPTION

This keypad pendant makes it easy to drive your X, Y, Z and W while keeping your eye on the cutter. The pendant communicates directly to the MX software.

While jogging an axis, the counters will display. You also have these functions which interact with the MX software:

- / – feed to rapid jog control
- / – RPM control
- Spindle On / Off
- Return to 0.00
- Zero All
- Zero X, Y, Z, W independently
- Go – to run a program
- Stop
- Reset Control



RIGID TAPPING ADD-ON

Mill Cycle Wizard

☐ Rectangular Pocket ☐ Circular Pocket ☐ Cir. Hole Pattern
☐ Thread Milling ☐ Cut Gear ☒ Rigid Tapping (Add-On) ☐ Rec. Hole Pattern

Will use Closed-loop Spindle
☐ Left-hand Tapping
Attention: Spindle encoder required.

Start Point
X: 0
Y: 0
0 RPM

Return Point (R)
0

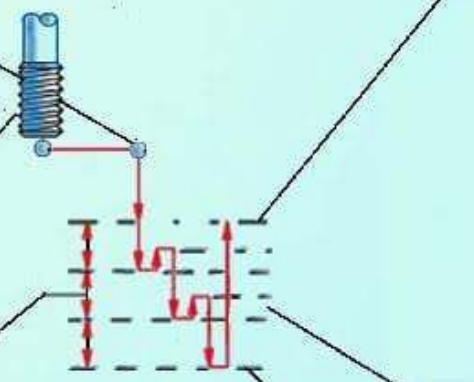
Metric Pitch
0

0 Peck Dist (Q)

0 Reverse Tap Dist (D)

0 Tap Depth (-Z)

Add to File Verify Path





DESCRIPTION

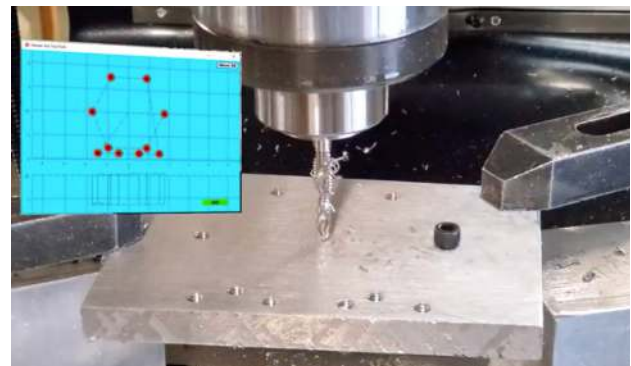
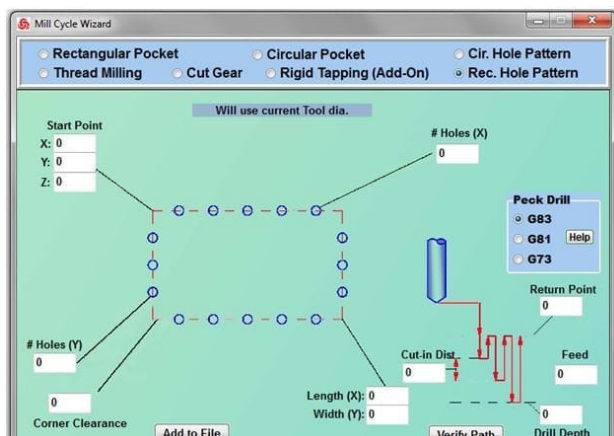
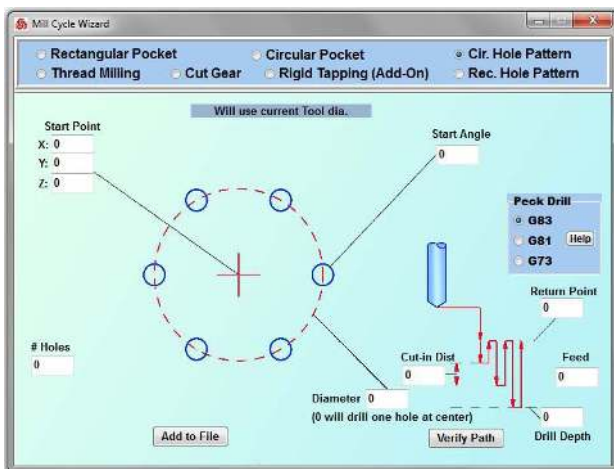
Use the Rigid Tapping Wizard through the MX software to create your tapping program. Your CNC Masters Mill will be able tap a series of holes just by securing your tap directly to the spindle by collet. Tap up to 1/2" or 12 mm diameter holes. The MX makes it easy by providing you a Circular and Rectangular Hole Pattern Wizard to create your multiple peck drill programs, manually input your series of X and Y locations, or even replace drill codes such as G81, 83, or 71 with the rigid tapping line code that the wizard creates.

Then simply replace the Peck Drill code for the Rigid Tapping code and press GO to run your tapping program.

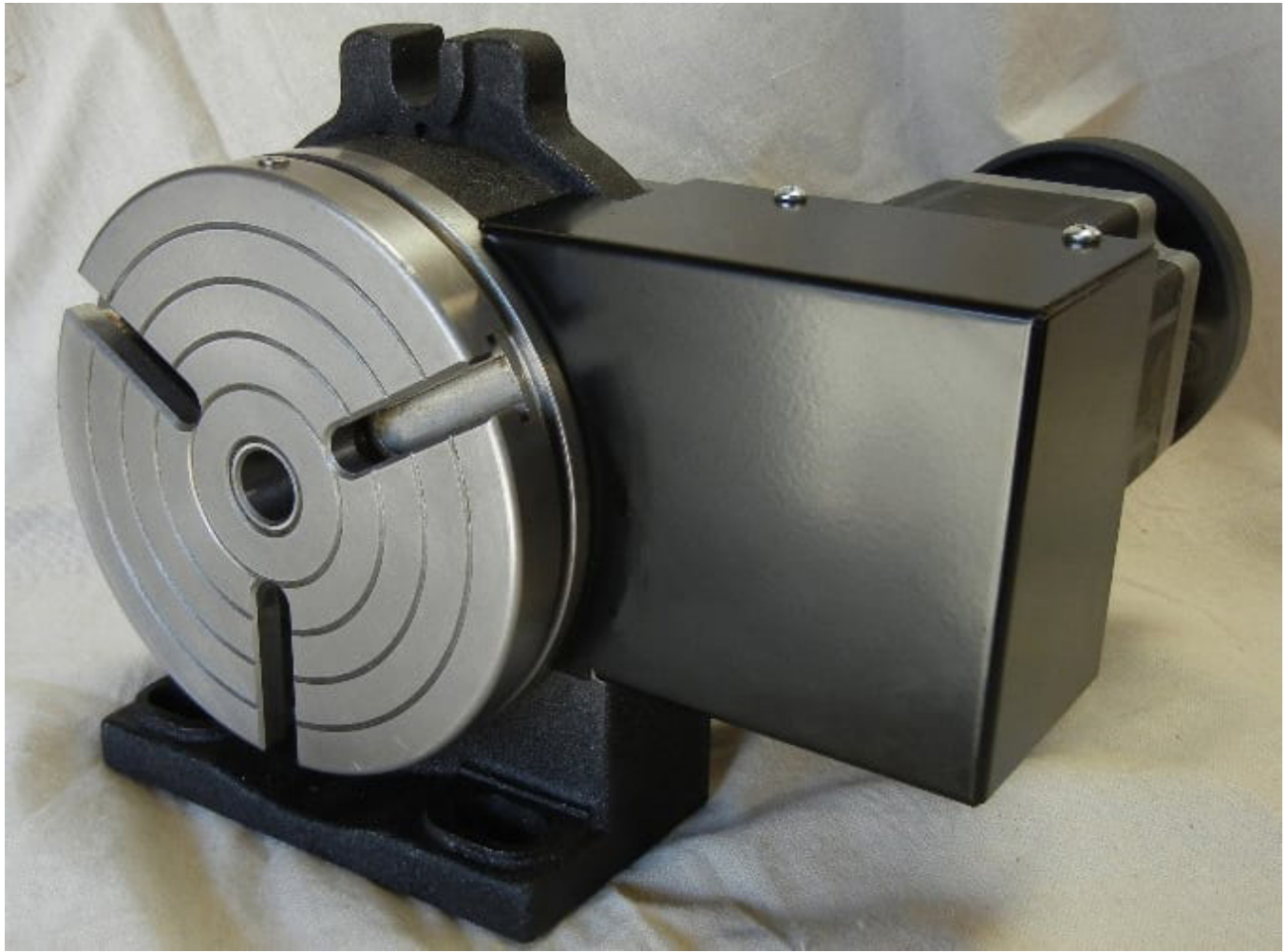
- Create a multiple tapping program in either inches or millimeters
- Built-in pecking to loosen and clear chips
- Right Hand or Left hand Tapping
- RPM is in sync to the movement of the Z axis quill to avoid stripping your newly tapped threads as it reverses the tapping tool out

Drill and Tap hole patterns all day!

With this Add-On, we will mount an encoder to the top of your machine head and build an output into the MX Control Unit for you to able to program your tapping applications through the MX software.



4TH AXIS ROTARY TABLE





DESCRIPTION

The ability of our CNC Control Unit to interpolate one or multiple axis with the 4th axis 6" rotary table, offers more options for machining difficult parts. Our 6" rotary table can be easily jogged and has a minimum motion of 1/100 degree. It can be secured on a horizontal or vertical position. The fourth axis motor is the same as the X, Y, Z motors which are size 34 with 1200 in/oz. of torque and is programmable in the same manner as the X, Y, Z axes. The motion of the fourth axis can be interpolated with the X, Y and Z. The rotary table is easily removable from our cnc mills when three axis machining is needed only.

True Fourth Axis Simultaneous Motion with the other Axes.



ALL IN ONE TOUCH SCREEN COMPUTER WITH VESA ARM



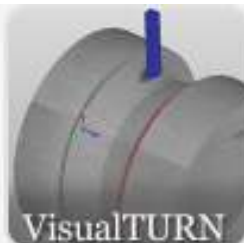
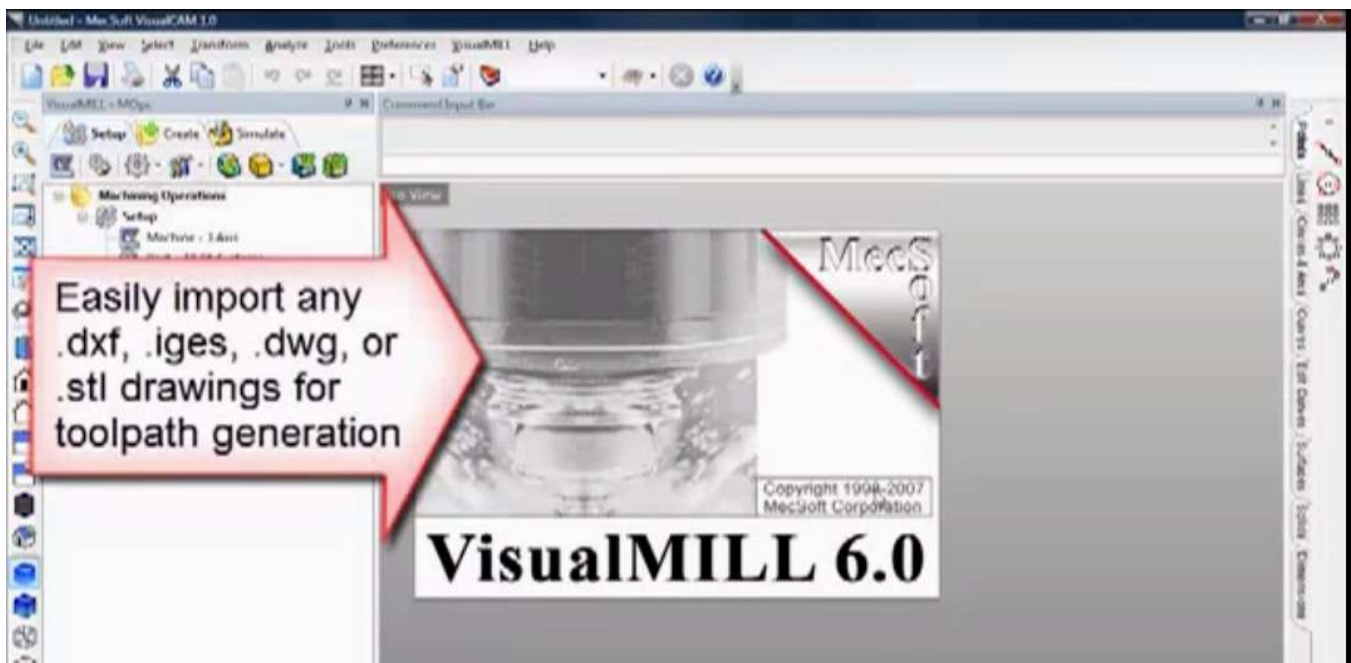
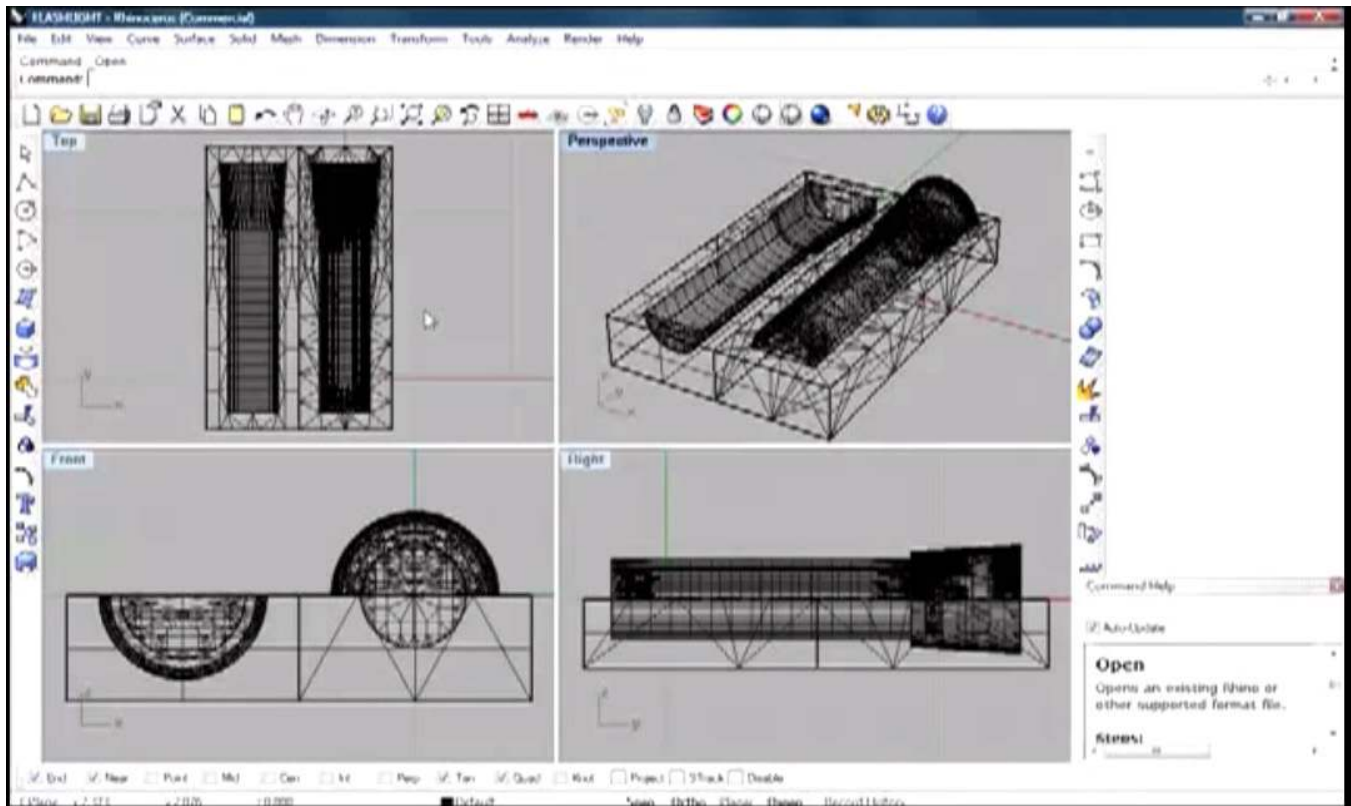
DESCRIPTION



Need a dedicated computer with touch screen to easily drive your machine? We offer the Dell Windows 10 –All In One Touch Screen 19" Computer and Monitor with Protective Dust Cover and USB connection dedicated to your CNC Masters machine. It will come installed with the MX Software. The computer vesa arm will come mounted to the side of the machine to secure your all in one computer. (COMPUTER IS WIRED FOR 110 VOLTS ONLY.)



CAD/CAM SOFTWARE

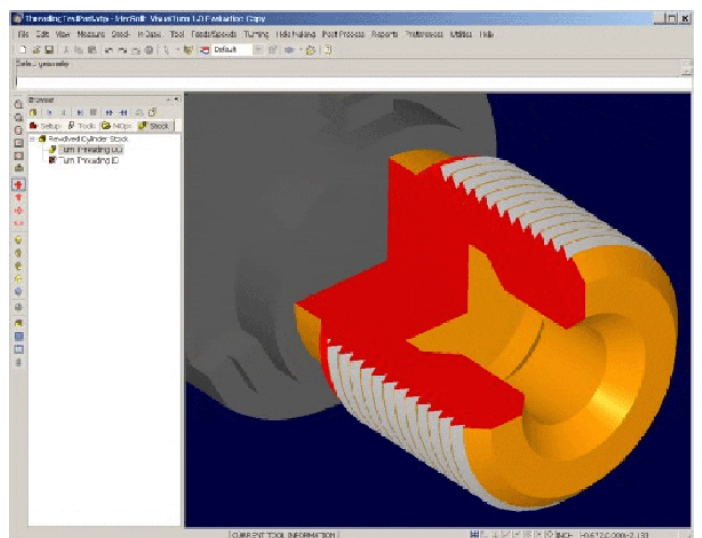
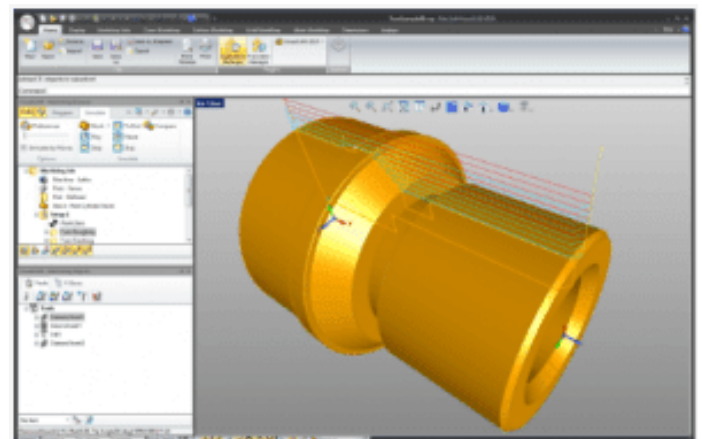
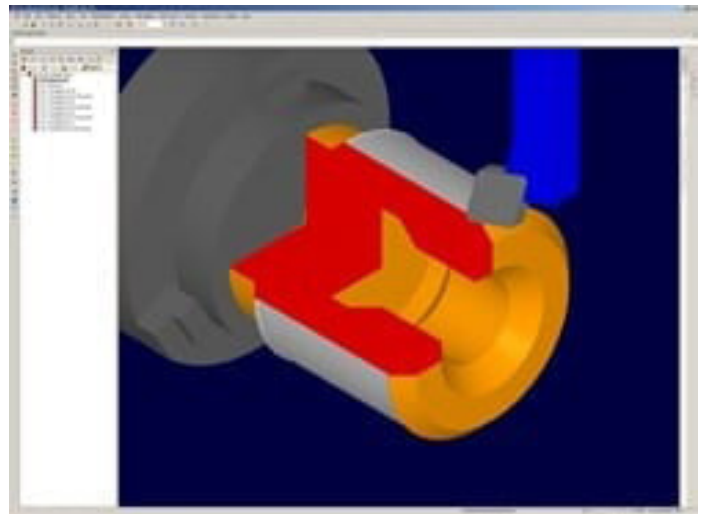




DESCRIPTION

CAD-CAM softwares are an integral part of the CNC Masters Machinery and of the CNC world of machining in general. Yes, you can use simple commands found on the Master MX operating software to program your CNC Masters machines, but if you are planning to machine a complex design then investing in a CAD-CAM software will be an invaluable tool as much as your CNC Masters machinery. 3D design and translation of your drawing into G-codes will save you extensive downtime instead of writing your g-codes files from scratch and reducing mathematical errors in design. This is really the way to go. Most companies use a CAD software to draw their application. Use CAM "Computer Aided Manufacturing" software to convert that CAD file into a tool path program. Then just simply import this tool path program into the MX software which comes with your CNC Masters machine and it will machine your application for you according to your original CAD file!

We offer VisualCAD/CAM software as an option to draw out your 2D or 3D application and convert those drawings into working tool path programs for your CNC Masters Milling machines and CNC Masters Lathes. VisualCAD/CAM includes the following modules VisualCAD, VisualMILL, VisualTURN, VisualNEST & VisualART to address specific needs of various CNC manufacturing processes.



ENGRAVING ATTACHMENT

CNC JR/BARON/MAX ENGRAVER ATTACHMENT



AIR TURBINE AIR SPINDLE ATTACHMENT

1/4" (6mm)

Model 625JS

0.45 HP

0.34 KW



CNC SUPRA ENGRAVER ATTACHMENT



DESCRIPTION



With the CNC Jr., Baron, Max, or Supra, there is no need to have a separate engraving machine. The optional engraving attachment combined with the 3-D machining ability of the CNC Jr., Baron, Max, or Supra, offers engravers creative opportunities not possible before. Furthermore, with the 4th axis rotary table, you can now engrave on curved surfaces! For example, you could scan the autograph of your favorite baseball player and engrave it on a bat, or you could have a pool cue engraved with your own unique design.

With CAD art files readily available in the market, you can machine just about any fun artistic piece.



QUICK TOOL CHANGE



1. Loading the Quick-Change Body into a standard R8 spindle.



2. Loading drill chuck holder and drill into body.



3. Removing drill chuck holder with one hand.



4. Inserting endmill holder and endmill for next operation.

DESCRIPTION



Tool change with height compensation. With the CNC Jr., Baron, Max, or the Supra CNC Mill you can machine production parts that require several tool changes. You can program up to ten different tools. The MASTER software will automatically adjust the Z axis for each tool change. The tool height compensation complements our manual quick tool change system. It only takes a few seconds to release and replace a new cutter from the master holder. This smart investment will pay off in no time. CNC Masters is proud to bring you the quick tool change system by Royal Products.

Quick Tool Change Features:

- Once installed, tools can be changed in seconds.
- Short overhang and positive drive permit many milling and drilling operations.
- As simple to install as an R8 end mill holder; no machine modification necessary.
- Female taper of body ground to .0002" TIR in relation to R8 taper.
- Male taper of individual tool holders ground to .0002" TIR in relation to tool holder diameter.
- Tools are easy to remove and install with one hand.
- Very little clearance is needed between the tool and workpiece when changing tools. This greatly reduces the amount of time spent moving the table or retracting the quill when changing the toolholders.
- The body can be left in the spindle, reducing wear on the spindle from constant tool changes.
- Tool is designed for light/medium-duty milling. We recommend using a solid end mill holder for heavy milling (5/8" and larger). Note: A collar locking screw is provided on each unit and should be engaged for the following applications:
Operation above 3,000 rpm. When milling diameters of 3/4" or larger. When performing heavy milling.
- Made in the UK.



CNC JR./BARON/MAX SPLASH GUARD SHIELD KIT



DESCRIPTION



Protect your surroundings from coolant splash and debris.

The CNC Jr./Baron/Max Splash Guard Shield Kit is an ideal accessory for the user who cannot afford to make a big mess around his/her working station. The Splash Shield Kit is designed to be used with our table top milling machines. It will “limit only” debris

and coolant splash from flying all over your shop, classroom, or research lab. Your kit comes complete with shields, hardware, and mounting instructions. (Drilling and tapping of the cnc mills will be required. Shields are intended to only help safeguard the surrounding environment from debris and splash.

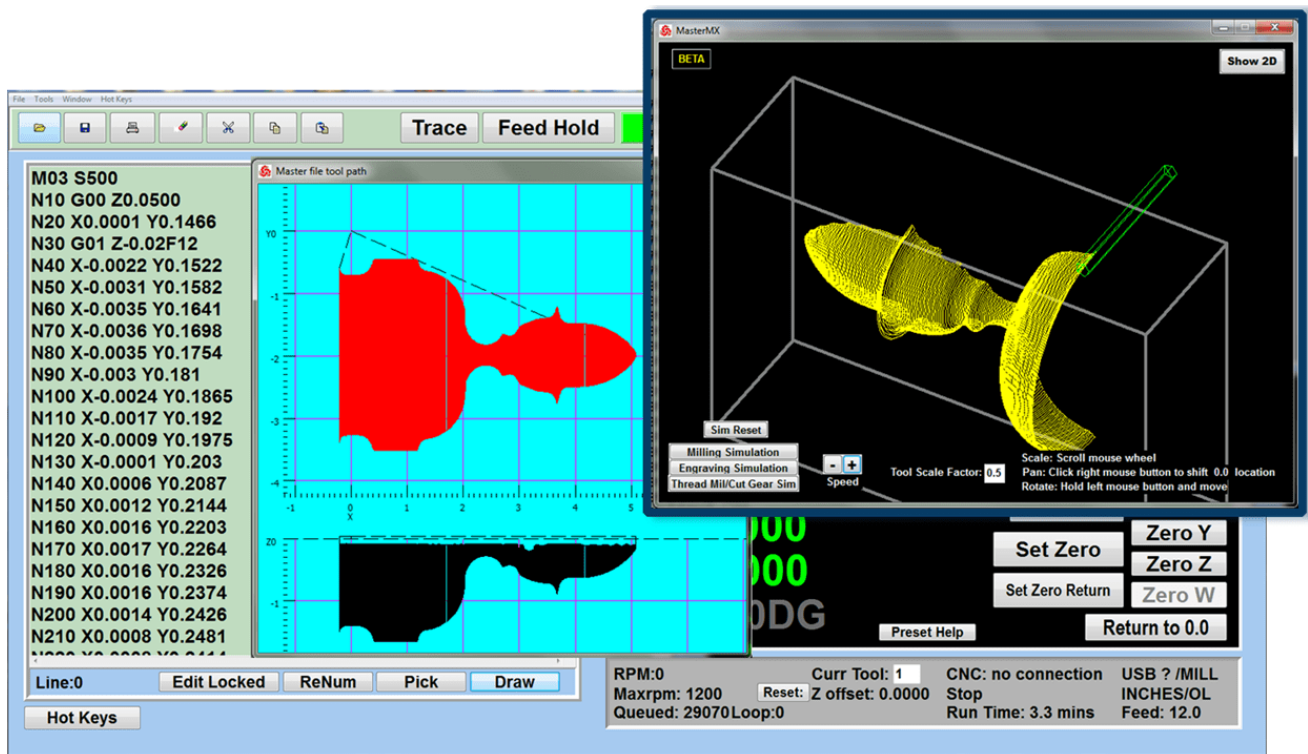




MX SOFTWARE

The heart of our CNC Masters Machinery.
This software comes automatically with
your CNC Masters machine purchase

MX SOFTWARE



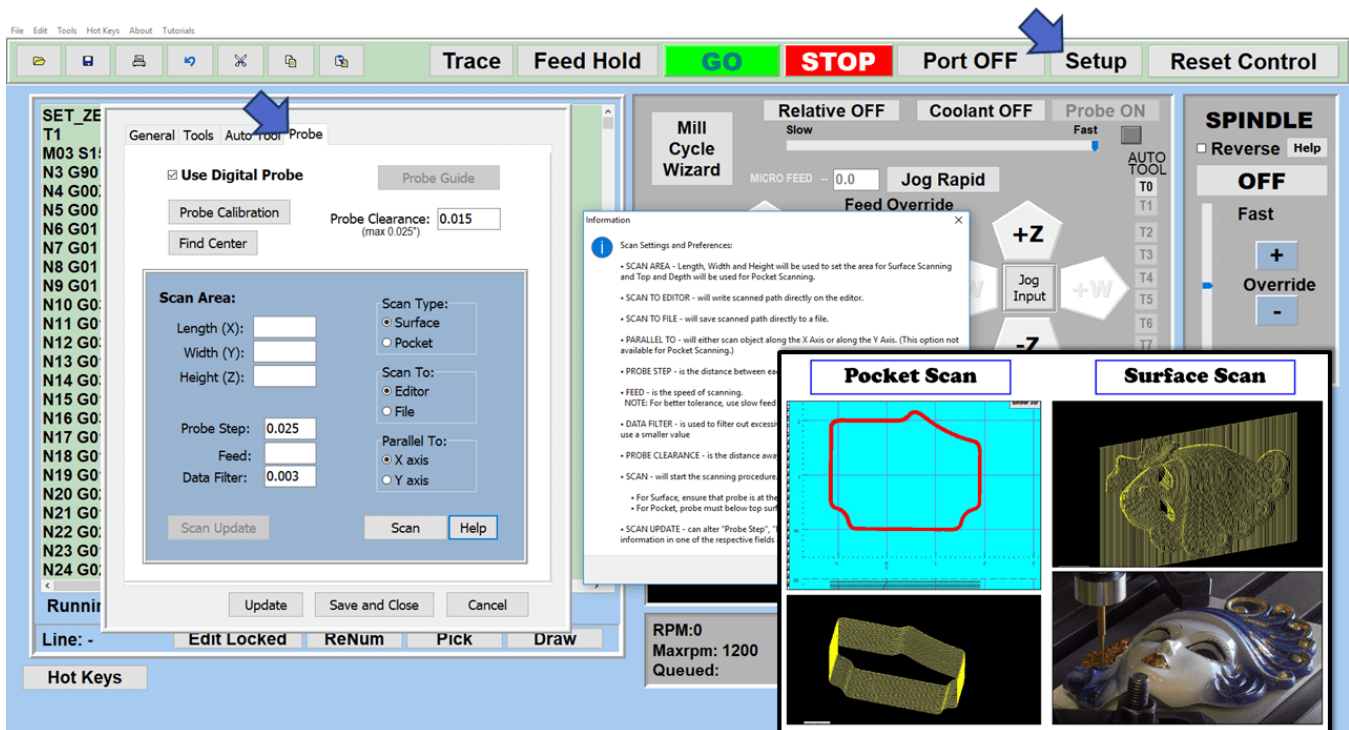
1. Easy to Use, Easy to Learn. Included with your machine purchase
2. Clutter Free Interface
3. Features Tour and Tutorials Included
4. Navigate and Edit Your Program through the MX interface with Ease
5. Feed Hold – Pause in the Middle of your Program
6. Hot Keys
7. Pick Menu – for conversational mode programming
8. Pick Menu List of Options
9. Draw the Tool Path to verify it before pressing Go
10. Run each tool path independently to study its movement
11. Counters display in Inches or Millimeters – Continuous Feed
12. Use the “Go From Line” command to start in the middle of your program
13. Exact Motion Distance without over-stepping on an axis while jogging
14. Teach Mode – Jog Input
15. Override on the fly to adjust the Jog Feed to Rapid or the Spindle Speed during the middle of a program
16. Adjust Counters using Pre-Set if you cannot begin the program from 0.00



17. Set and Save your 0.00 position for future runs
18. Create a “Home” position to clear your application and run multiple times
19. Disable the axis motors to manually hand crank each axis into place
20. Change up to 30 tools with compensation, and store your tool offsets for other programs
21. Use the optional ATC rack up to 8 tools for milling, drilling, and rigid tapping applications
22. Use the optional Rigid Tapping Wizard without the need for tapping head attachments
23. Use the optional Digital Probe to scan the profile and/or pockets of your fun/hobby type designs to write your tool path program and machine out a duplicate of your original design
24. Use work offsets G54-G59 for nesting applications
25. Create a Rectangular Pocket / Slot with our selection of Wizards to help you build a tool path program
26. Create a Circular Pocket Wizard
27. Do Thread Milling using a single point cutter Wizard
28. Cut a gear out using the Cut Gear Wizard with the optional Fourth Axis
29. Create a Peck Drilling Program in Circular or Rectangular Patterns
30. The MX interface can easily be interchanged from Mill Mode to Lathe Mode
31. Use Tool Change Compensation or the optional Auto Tool Changer Turret if your application requires more than one tool in a single program
32. Use the Lathe Wizard Threading Cycle to help you program your lathe’s internal or external threads in inches or metric
33. Use the Lathe Wizard Turning / Boring Cycle to help you program simple turning and boring cycles without having to go through a CAM or writing a long program with multiple passes
34. Use the Lathe Wizard Peck Drilling Cycle to help you program your drill applications or for face grooving
35. Facing / Grooving / Part Off Cycle Wizards – with Constant Surface Speed
36. This is our list of supported G and M codes which can be found under Tools > G Code/ M Code List in the MX
37. Our pledge to you...



MX SOFTWARE



The Master Software supports these standard Milling Machine G-Codes and M-codes:

G00 = Position (Fast speed)

G01 = Linear interpolation (Feed speed)

G02 = Circular interpolation (CW)

G03 = Circular Counter-clockwise interpolation (CCW)

Format: X__Y__I__J__ I,J are relative distance from start to center.
Incremental Z can be added for helical designs.

G40 = Cancels G41 and/or G42

G41 = Tool Radius compensation left

G42 = Tool Radius compensation right

G54 = Work Offset in Absolute Mode

G55 = Work Offset

G56 = Work Offset

G57 = Work Offset

G58 = Work Offset

G59 = Work Offset

G70 = Input in inches

G71 = Input in millimeters

G73 = High-Speed Peck Drilling Cycle

G81 = Drilling Cycle

G82 = Counter Boring Cycle

G80 = Cancel Cycle

G83 = Deep Hole Peck Drilling Cycle

G90 = Absolute move (Modal)

G91 = Relative/Incremental move (Modal)



M00 = Pause

M03 = Spindle on

M04 = Spindle on reverse

M05 = Spindle off

M08 = Coolant on

M09 = Coolant off

M30 = End program

CNC Lathe G-Codes and M-codes:

G00 = Position (Fast speed/Rapid)

G01 = Linear interpolation (Feed speed)

G02 = Circular interpolation (CW)

G03 = Counter Clockwise Circular interpolation (CCW)

Format: X__Z__I__K__ I,K are relative distance from start to center.

G04 = Dwell time

G20 = Input in inches

G21 = Input in millimeters

G71 = Turning Cycle

G72 = Facing Cycle

G74 = Peck Drilling

G76 = Threading cycle

G90 = Absolute move (Modal)

G91 = Incremental move (Modal)

M03 = Spindle on

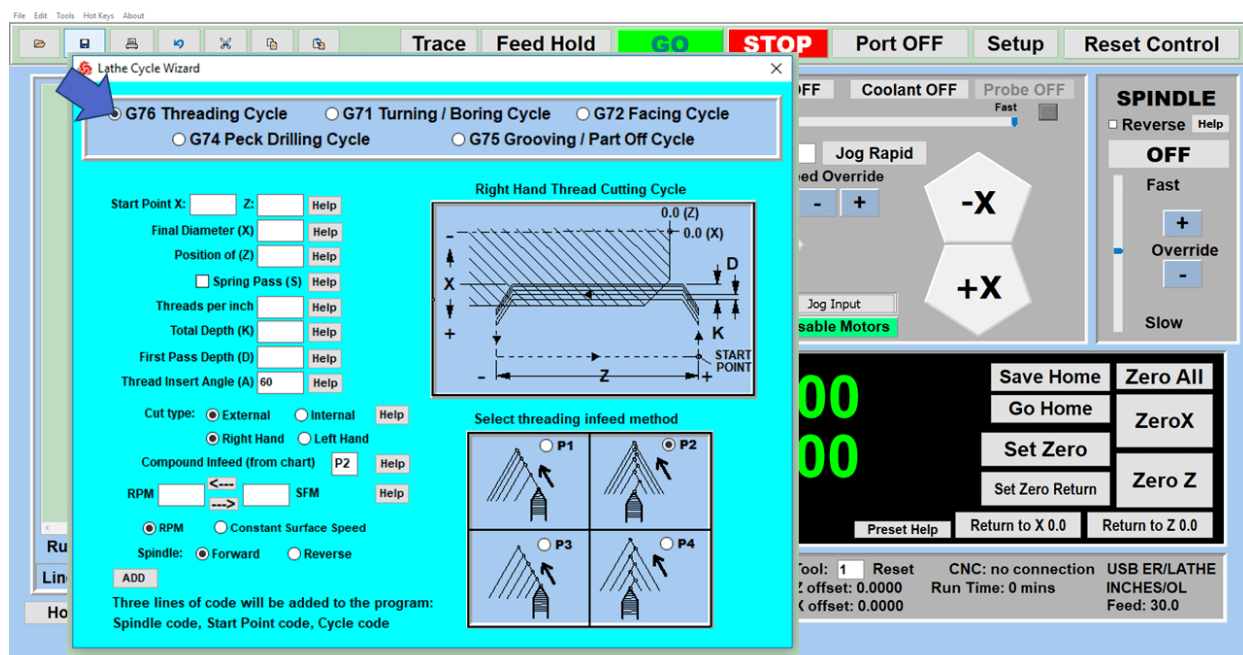
M04 = Spindle on reverse

M05 = Spindle off

M08 = Coolant on

M09 = Coolant off

M30 = End program





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At CNC Masters, we take the quality of our cnc milling machines and lathes very seriously. We provide the finest “competitively priced” CNC machines across the country. We take your business seriously and know you are looking for a machine that will work for you. You will find that our tech support is second to none whether you are next door to us or on the other side of our world, we will walk you through any repairs, maintenance, troubleshooting electrical or mechanical, and answer your software operating how-to questions.