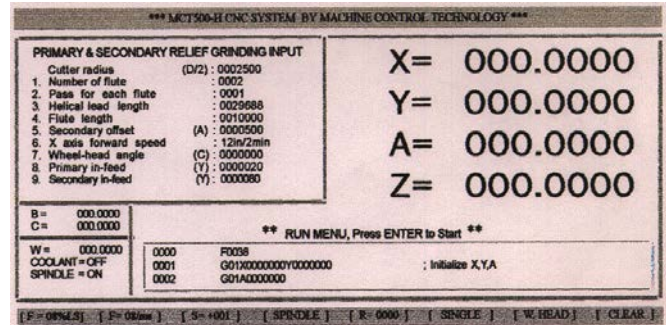


## MCT5000 5 Axis CNC Tool Cutter Grinder

Machine Control Technology's MCT5000 5 axis CNC Universal Tool & Cutter Grinders is the most flexible and cost effective CNC machine for standard and form tool manufacturing, regrinding, and parts grinding industries. The MCT5000 CNC Tool & Cutter Grinder allows you to do spiral flute, straight flute, primary & secondary relieves, end & radius, counter-sink relief and step O.D. grinding from a blank, or regrinding tool with built-in software. The machine is capable of producing or regrinding a finished tool in one continuing operations. And the G code programming is also provided for the flexibilities of your custom tool grinding.



### MCT5000 Control Display

Manufactured in the USA by  
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### MCT5000 5-axis CNC Grinder

Complete tool grinding capacity from 3/32" to 1-1/8". One inch/minute for solid carbide in one pass flute grinding. Fully automatic with 3D probing. Custom auto-loader capabilities

The MCT5000 CNC Tool & Cutter Grinder is the most affordable 5 axis advanced CNC tool & cutter grinder. The cost just a little over one year of an experienced tool grinder's salary, but will produce three to four times more than an experienced tool grinder with a manual machine!

- Easy to use, just fill in tool and wheel information and you are ready to go
- Optional 3D automatic probe
- Standard 5C air collet closer
- Built-in 30 gallons 1 /2 hp coolant system
- Built-in complete tool grinding macro-programs
- 0.0001" control resolution
- Optional MCT production auto-loader
- 5 hp variable speed grinding spindle
- G code on/off line programming form-tool grinding

### **Machine System**

The machine body of the MCT5000 Tool & Cutter Grinder is a fully enclosed grinding machine. It is built on a strong steel base with a 6" thick granite on top for dampening. All X, Y, Z axis are built with precision linear guide ways and ball-screws for providing smoother control and long lasting machine life. The machine has two rotary axes. The C axis is mounted on top of the Y axis and carries the X, U, V, and A axis. The C axis is capable of swiveling within 230 deg. around the rotary center for radius, ball nose and left/right hand rotary or flat tool grinding without sacrificing tool grinding length. The machine is also equipped with 3/4 horse power coolant pump, a 30 gallons coolant tank and a filter system.

### **Spindle Power**

The MCT5000 series 5 axis CNC Tool & Cutter grinder provides a standard variable speed 5 hp spindle motor. The spindle is belt driven for easy maintenance.

### **Air collet closer**

Standard 5C air collet closer for quick and easy tool changing by hand. This capability improves operator efficiency while running the machine.

### **Software**

The Machine Control Technology's MCT5000 series 5 axis CNC Tool & Cutter Grinders have built-in macro-programs for end mil, reamer; counter-sink step-drill, step O.D. and engraving tools with spiral or straight flute grinding, Just fill in the tool grinding information, no expensive grinding software are needed to run the machine. Custom built-in special programs are also our advantage over the other expansive CNC tool grinders, only Machine Control Technology is flexible enough to do that. Besides all these built-in software, the MCT5000 Tool & Cutter grinders are also allowing you to write your own programs with G-code in edit mode.

### **Automatic Probing**

The optional automatic probe is provided for faster, easier and more accurate checking on helical lead length, flute length and flute position for regrinding.

### **Lead Length Probing**

The automatic lead length probing capability is an optional feature which allows setting the touch probe to touch two points on the tool flute edge. The machine will automatically calculate the lead length and place the lead length value in the auto-programming menu as one of the menu input data.

### **Programmable Reload Pointer**

The programmable reload pointer is also a standard feature designed as a 3 dimensional stop for locating the reloading tool to the starting position without the automatic probe. When the machine finishes grinding the current tool moved to the packing position, then you unload and load another tool, press the "Enter" key, a reload pointer will move to the reload position to tell you where you should lineup and lock your reloaded tool. Then press "Enter" to start another cycle.

### **Autoloader Capability**

The MCT integrated optional autoloader is a patent pending advanced auto-loader that is capable of loading different size and shapes of tools or parts, for the MCT5000 Tool & Cutter Grinder. And it can also be designed for custom applications and requirement.

### **CNC Controller**

The MCT5000s CNC controller is perhaps the most compact, dedicated and yet flexible CNC controller for tool grinding machines you can find. It is specifically designed for the tool & cutter grinding machines by Machine Control Technology with lots of experience in electronic controller design. The controller is easy to use and is a reliable controller, with machine control technology's free phone technical support, you can count on it.

<b><u>Specification</u></b>	<b>X-axis</b>	<b>Y-axis</b>	<b>Z-axis</b>	<b>A-axis</b>	<b>C-axis</b>
Travel	11"	11"	11"	index/free	230°
Servo resolution	0.000025"	0.000025"	0.000025"	0.000025/rev.	0.001°
Work-head RPM:	400 RPM Maximum				
Spindle power:	5HP, 220V AC 3 phase				
Spindle RPM:	3,500, variable control up to 10,000 RPM				
Controller power:	110V AC 1,200W				
Servo motors:	DC servo motors				
Size:	72" L, 60" W, 78" H				
Weight:	approx 4000 lbs				

All specifications and prices are subject to change without notice.