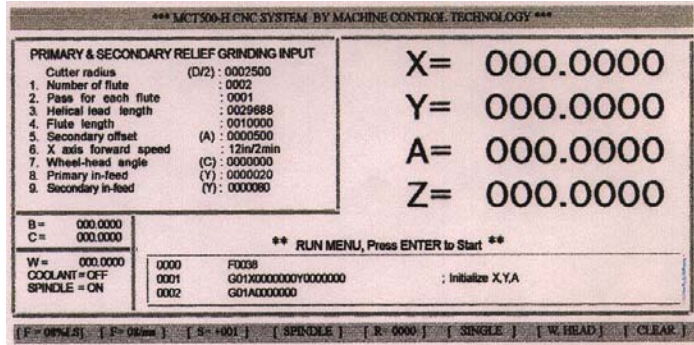


MCT500 3-, 4-, 5-Axis CNC Tool & Cutter Grinder



MCT500 Control Display
 Manufactured in the USA by
MACHINE CONTROL TECHNOLOGY

**MCT500 on M40 Grinder
 with 3-, 4- or 5-axis
 configuration**

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Machine Control Technology's MCT500 series of 3 to 5 axis CNC Universal Tool & Cutter Grinders are the most flexible and cost effective CNC machine for the tool manufacturing, regrounding industry and machine shop's in house tool sharpening.

The MCT CNC Tool & Cutter Grinder allows you to do spiral-, straight- and tapered flutes, primary and secondary relieves, straight- and radius end, counter-sink relief and step O.D. grinding from a blank, or regrounding tool with built-in software, The machine is capable of producing or regrounding a finished tool in one continuing operations. G code programming is also provided for the flexibilities of your custom tool grinding.

Sharpening a 2 flute 1/2 " End Mill completely in 4 minutes
 One inch/minute for solid carbide one pass flute grinding
 Fully automatic 3D probing optional

MCT500/40-3	3-axis	US\$ 47,500
MCT500/40-4	4-axis	US\$ 53,800
MCT500/40-5	5-axis	US\$ 61,800

3-D Probe	US\$ 4,500
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The MCT CNC Grinder costs less than a manual machine operator's one year salary, but produces three to four times more than the manual machine!

Features

- Easy to use, just fill in tool information including grinding wheel data and you are ready to go
- Semi-automatic probe for lead length calculation
- Programmable reload pointer for repeated batch grinding
- Enclosed splash guards and coolant system
- Built-in flute, primary & secondary, end & radius and step OD grinding macro-programs
- 0.0001" control resolution, repeating within 0.0002"
- Custom auto-loader capabilities
- Improved 3 horse power spindle for faster grinding
- G-code on/off line programming for custom tool grinding
- Optional 3D automatic probe & 5C air collet closer

Software

The Machine Control Technology's MCT500 and MCT5000 series CNC Tool & Cutter grinders have built-in macro programs for end mill, reamer, counter-sink, step-drill, step OD and engraving tools with spiral or straight flute grinding on cylindrical and tapered tools. 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 other expansive CNC tool grinders, only Machine Control Technology is flexible enough to do that. Besides all the built-in software MCT500 & MCT5000 Tool & Cutter grinders also allow you to write your own programs with G-code in edit mode.

Improved Spindle Power

The MCT500 series CNC Tool & Cutter grinders have an improved 3 hp spindle motor. Compared to a 1-1/2 hp spindle motor on the original manual Tool & Cutter grinder, it can flute 1/2" solid carbide with a speed of 1" per minute in one pass.

Splash guard

The splash guard is made of stainless steel sheet metal. It enables grinding with flood coolant and provides safety protection during grinding.

Air collet closer

The optional 5C air collet closer is available for quick and easy manual tool changing. This capability improves operator efficiency while running the machine.

Automatic Probing

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

Semi-Automatic Probing

The semi-automatic probing capability is a built-in standard feature. It is designed for helical lead length calculation by using an indicator to touch at the tip of the end mill and set the X and A axis to zero. Then move the indicator in X- direction and rotate the A axis to touch the flute edge again until the indicator reaches the same reading. Then press the key "LEAD L", the helical lead length of the end mill is being calculated and automatically entered into the automatic programming menu.

Tool Capacity

Grinding tools with shanks up to 1-1/8" and cutter dia. up to 10" without raising the workhead

Programmable Reload Pointer

The programmable reload pointer is also a standard feature designed as a 3 dimensional stop for locating the reloaded tool to the starting position without the automatic probe. When the machine finishes grinding the current tool, it moves to the packing position, then you unload and reload another tool, press the “Enter “ key and a reload pointer will move to the reload position to tell you where you should line up and lock your reloaded tool. Press “Enter” to start another cycle.

Machine Body

The machine body of the MCT500 Tool & Cutter Grinder is converted from the most popular Cincinnati and Makino look alike manual Universal Tool & Cutter Grinder. The manual controls and movements of the original Grinder are replaced by precision ball screws, DC servo motors, 3 hp spindle motor and the MCT 500 control.

The machine is enclosed in the front part of the machine to prevent the splash of flood coolant and provides as a safety guard during the grinding process. The machine also comes with software controlled coolant system.

Autoloader Capability

The optional autoloader capability is designed for each customer’s applications and requirements and will be quoted individually.

CNC -Controller

The MCT500’s 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 simple and hardly needs any maintenance. With Machine Control Technology’s free technical phone support, you can count on it.

<u>Specification</u>	X-axis	Y-axis	Z-axis	A-axis	C-axis
Travel	11”	8”	8”	Index/free	230°
Servo resolution	0.000025”	0.00001”	0.000025”	0.000025/rev.	0.00025°
Workhead	300 rpm max.				
Spindle power	3Hp, 220V AC 3ph				
Spindle RPM	3450rpm, optional variable speed control				
Control power	110V AC 1200W				
Servo motor	DC servo				
Holding capacity	Up to 1.125” shank / larger size available upon request				

All prices and technical specification are subject to change without notice