

Model 43 | CNC Machining Centers

3 Axis



THERMWOOD

F i r s t i n C N C R o u t e r s

MADE IN USA 

www.thermwood.com

3 Axis

Model 43

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The Multi-Purpose Three Axis Series are highly flexible, making them ideal for a variety of manufacturing applications.

This system includes quality features seldom, if ever, found at this price point including full stress relieved weldments, high-end Siemens drives throughout, THK rails and three-dimensional volumetric position compensation, not available from anyone else in this market.

Thermwood CNC Machining Centers



Model 43
5' x 10' Table

Standard Features

- 12 HP (3,000-24,000 RPM) HSD Spindle
- 11 Position Bar Style Automatic Tool Changer
- Maximum Speed 3,000IPM
- QCore SuperControl
- Fixed Steel High Flow Table with Moving Gantry
- Siemens Intelligent Servo Drives Throughout
- 3-D Laser Compensated Axis Alignment
- Control Networking
- Control Nesting
- Machine Training and Installation

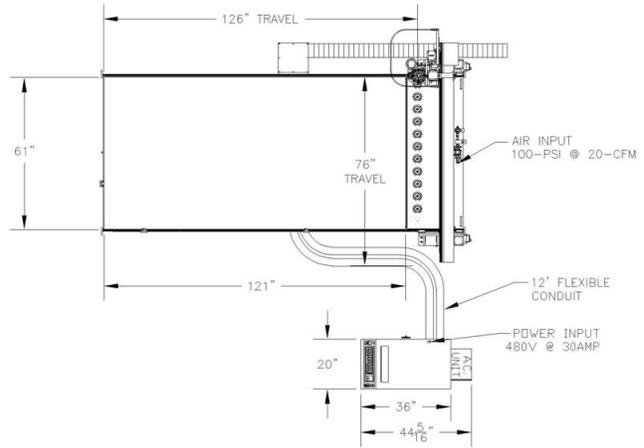
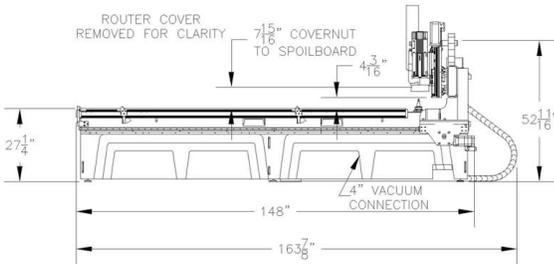
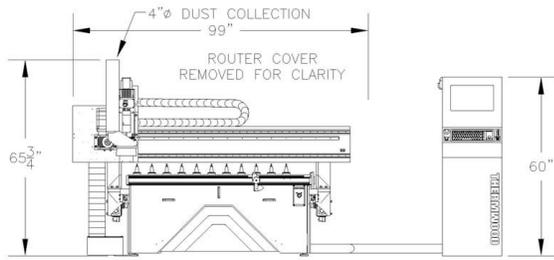
Table Sizes Available

- 4' x 8' Fixed Table
- 5' x 10' Fixed Table
- 5' x 12' Fixed Table



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Dimensions



Model 43 Overall Dimensions (5' x 10' Table Shown)
 4' x 8' Table: Height: 66" Width: 97" Length: 140"
 5' x 10' Table: Height: 66" Width: 99" Length: 165"
 5' x 12' Table: Height: 66" Width: 99" Length: 188"
 (Dimensions are approximate)

Machine Standard Features

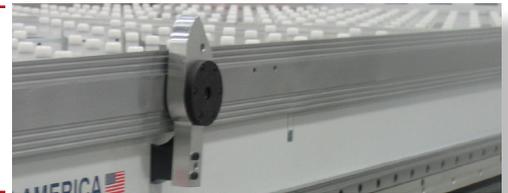


12 HP Spindle

A direct driven spindle with a speed range up to 24,000 RPM. The High Frequency Spindle is cooled with an electric fan for quieter running and contains ceramic bearings for longer life and for less maintenance. The 12 HP spindle provides the user with a heavy duty, precision spindle which provides high performance and reliability. **Standard**

Pop-Up Pins

Guides mounted to the table perimeter for locating sheets of material. They are flipped to the up position to locate the material and then retracted to clear during the machining cycle. **Standard**



Bar Style Automatic Tool Changer

Mounts behind the rear of the table and hold the tapered tool holders. When the program calls for a tool change, the head moves back and places the tool into an empty space, it then moves over and picks up the appropriate tool, and then continues the program. (provides 8 to 11 tool positions) **Standard**

Automatic Tool Length Sensor

Provides an automatic method of measuring tool length and entering tool length offset numbers into the control. This automatically compensates for the new tool length eliminating the need to precisely locate the cutter bit. It provides a highly accurate method of adjusting tool length for pocketing or profile edges. **Standard**



Machine Options



Automatic Lubrication / Greaser Systems

Provides positive pressure, air/oil lubrication to the linear trackway bearings and the ball screws. This has two major benefits. First, it eliminates the lubrication points which must be serviced each shift. Second, it provides positive pressure to the bearing preventing contamination from entering the bearing. This allows the machine to function in difficult, dusty or hostile environments.

Unload Rack System

The Rack System is mounted directly to the side of the spindle. After the trimming process is complete the machine head will move to the back of the machine and the rack is lowered. The rack pushes the finished product off the front of the machine to a sorting table.

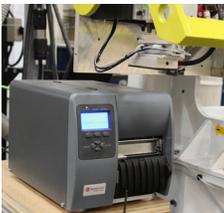


Personal Pause Button

Thermwood has developed a remote wireless "Pause Button" which can be clipped to a belt or pocket. Pressing this button stops the machine in place.

Pause Mat

Placed around the front perimeter of the machine. Once the mat is stepped on the machine will stop operation.



Automatic Labeler

The Automatic Labeler prints black and white labels for the nested program and automatically labels the material prior to machining. The printer is located next the machine and the labeler is mounted to the machining head.

Vacuum Pump

Universal Vacuum System is a unique method for holding panels to the table top for machining. A sheet of particleboard or low density MDF is used as a work surface on the top of the table. The high flow pump vacuums through the work surface holding the part to the table. Pumps are available in 15 HP or 18 HP. (Conventional also available)



Customized Color

The Model 43 is available with any of five accent colors on the transparent tooling shield and control side panel. A sheet metal control side panel (in painted machine color) is also available in place of the accent colored control side panel.



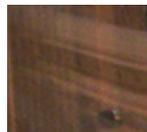
Green Glass



Cobalt Blue



Ruby Red



Copper Gray



Tech Orange



QCore SuperControl

Thermwood, the only major CNC router manufacturer that designs and builds its own CNC control, is a leader in implementing advanced control technology. The QCore SuperControl incorporates more advanced control features than any other CNC control in the industry. And, because Thermwood provides all the technology, you have single source responsibility. Thermwood stands behind and supports the entire system and when new technology is available it can easily be upgraded.



Thermwood's QCore SuperControl

- **Full Multi-tasking Control-** Uses Microsoft® Windows® 7 Professional operating system, offering the ability to operate the machine and do other tasks on the control
- **Huge File storage-** 1 TB hard drive for storage and greater file execution with no delays.
- **Direct Link-** Accepts raw design files or CNC programs, compatible with virtually all design softwares.
- **Virtual Service-** Direct, live, visual contact to Thermwood's Service Department. (Optional)
- **Tool Management-** Keeps track of tool usage and automatically replaces it when needed
- **Maintenance Alerts-** Alerts you when lubrication or maintenance is needed.
- **Videos and Manuals-** Step by step how-to-videos to adjust, maintain and repair your machine. Electronic manual, with error reporting and dynamic 3-D assembly drawings with part numbers.

QCore Options



Bar Code Input

This option includes a bar code which attaches to the side of the control cabinet. The bar code functions just like a key sequence from the keyboard. For example, the entire key sequence needed to load a program can be scanned as a bar code much faster that it can be typed, with little possibility of error. The bar code input system allows any commonly used key sequence to be printed or scanned.

Hand Held Programmer

Powerful tool for creating, modifying, editing and refining CNC programs at the machine. Programs can be debugged or created right at the machine. The machine moves right with the programming so you can see the exact position. Modifications can be made quickly, errors are minimized saving time.



Uninterruptable Power Supply

provides power to the control in the case of a power outage. Power is provided for up to 5 minutes after the main power goes out, allowing time for the operator to save files and power down in a controlled manner. Also, provides a measure of lightning and surge protection to the control. ANSI/IEEE C 62.41 A.

Software

Thermwood has a sales and support group that focuses on software products that work with and enhance the operation of Thermwood CNC routers. Their goal is to offer to Thermwood customers the most effective software products for their specific application, smoothly integrated with the control. You can be certain that software obtained from Thermwood will work properly with your Thermwood CNC router. (Thermwood machines can link with all major CAD/CAM softwares.)

CabinetShop 43

CNC Router Package for the Professional Cabinet Shops

- Packages combine all the elements needed to design and machine custom cabinets, closets, and furniture products.
- Thermwood CNC Routers are also compatible with most major CAD/CAM and design software.
- Offers important features not available from anyone else that are important to your success.



Machine Features

- 12 HP (3,000-24,000 RPM) HSD Spindle
- 11 Position Bar Style Automatic Tool Changer
- QCore SuperControl
- Fixed Steel High Flow Table with Moving Gantry
- Automatic Labeling System (optional)
- Unload Rake (optional)

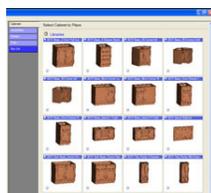
CabinetShop 43
5' x 10' Table

Package Features

• **Control Nesting** - A user friendly nesting package integrated into the Thermwood control to nest various parts into sheet stock, thus creating a better yield. Also, accepts layered DXF files.



• **QuickCut** - Full library of cabinets within the control that can be resized, nested and cut, all right at the machine control.



• **eCabinet Systems** - Sophisticated design software for cabinets, closets and furniture, that generates a CNC output file to be machined.



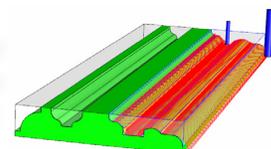
• **Color Coded Labels** - Prints a color bar on each label with a different color for each cabinet. This offers a significant productivity improvement.

Part:	Top 1	
Cabinet:	Std Corner Framed-M OD1	
Material:	3/4 Generic	
Job:	assembly	
EBand:	None	
Sheet #: 1	Part #: 1	Cabinet #: 1

• **Assembly Marks** - Machined assembly marks into each joint which define how parts mate. These marks are hidden once the parts are assembled.



• **Profile Modeler** - Creates modeling type tool path to produce profile edges with standard modeling tools.



SignRouter 43

CNC Router Package for the Professional Sign Shops

Machine Features

- 12 HP (3,000-24,000 RPM) HSD Spindle
- 11 Position Bar Style Automatic Tool Changer
- QCore SuperControl
- Fixed Steel High Flow Table with Moving Gantry
- i-Cut System
- Full 3D Capability

SignRouter 43
5' x 10' Table



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- **User Friendly** - An intuitive user interface multi language support for eleven languages, unit measurement in English or metric, simple installation Setup Wizard.
- **Register Mark Insertion** - Insert marks directly in the design application, or use the ai-cut Adobe Illustrator toolbar.
- **Edge Recognition** - Register cut paths to the edges of the material when register marks are not used.
- **Distortion Correction** - Allows users to select one of five different of registration correct methods dictating how i-cut will correct the cut paths based on the information it collects from reading the register marks.
- **Layer Control** - i-cut separates data into layers and recognizes layer names in the import files.
- **Curve Control** - Curve editing includes functions such as invert direction, remove, mirror, rotate and move curves.
- **Routing Control**: i-cut excels in routing functions.
- **Tool Path Preview** - For determining how the router bit will cut inside or outside corners.
- **Camera** - A high quality CCD camera, reads accurately regardless of the ambient lighting, print quality or number of register marks to be read.

Thermwood Technical Service

Thermwood's Technical Service offers a wide range of services for our customers to be comfortable and profitable with their CNC Router System. Each Thermwood CNC router system includes formal, structured training classes including professional support material and hands-on experience.

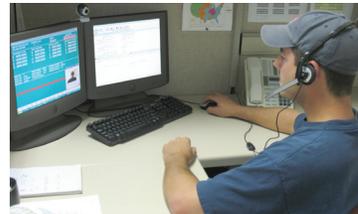
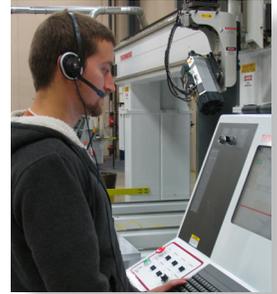
In addition to Thermwood's professional phone support and on-site service, we offer Virtual Service, which is an audio, video and data link from the machine controller and Thermwood's Service team. When the "Virtual Service" link is established, the customer can see and talk to the Thermwood service technician and the service technician can see, not only the customer, but also all of the critical parameters of the control. Through this link, the control can be diagnosed in real-time while programs are being executed and corrections can be made.

We also offer an On-line Supply Store, extensive Part Inventory, Custom Programming, an Advanced Support Program and a Retrofit and Upgrade Department.

Thermwood's training, "Virtual Service", continuing control updates, and free lifetime phone support offer you support like no one else and assures continuing profits from your Thermwood investment, years into the future.

Thermwood's Service

- Free Lifetime Phone Support
- Virtual Service
- On-site Technical Service
- Custom Programming
- Hands on Training Classes
- Professional Set-up
- On-line Supply Store
- Extensive Parts Inventory
- Retrofits and Upgrades
- Advanced Support



Thermwood...First in CNC Routers

Thermwood is the first company that developed and manufactured CNC router technology in the US. Starting in the late 60's, Thermwood continues to offer products and software technology for the wood, plastics and aerospace industries, involving numerous areas of machining applications.

The main facility consists of 175,000 square feet which includes both an office/showroom and an engineering and manufacturing plant. Manufacturing utilizes modern fabricating, machining, assembling and testing processes from the machine fabrication to the CNC control production.

Thermwood is an International company that strives in technology, software, support and service to best fit the needs of our customers. Thermwood...the first in CNC routers.

THERMWOOD

First in CNC Routers



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