

Thermwood Advanced Technical Features

- ◆ **Linear Laser Compensation** – This procedure is standard on all machines during the construction phase and compensates for inherent variances in components during machine construction.
- ◆ **Volumetric 3D Laser Compensation** – This procedure is standard on all machines prior to shipment to our customers. This feature compensates for position errors within the three dimensional working envelope of the machine.
- ◆ **Fixture Placement Compensation** - Allows the user to mechanically locate three points on a fixture during initial program set up. These points are used as reference for our controller to automatically align the program to the new fixture location.
- ◆ **Constant Tip Speed Machining** – Automatically varies the machine feed speed to allow the tip of tool to maintain a constant speed. This feature synchronizes the linear and rotary movements ensuring a constant and smooth cutting motion.
- ◆ **Tip Center Rotation** - Allows for maintaining tool tip positioning when commanding a rotary axis to move in coordination with two or more linear axis.
- ◆ **Impact Resistant Head** – A positive locating joint between the axis 5 arm and the rest of the machine. Decreases the amount of force applied to the head in the event of a collision, diminishes the need for realignment, and reduces fixture and spindle damage.
- ◆ **Remote Diagnostics** - provides direct, live, visual contact from the machine control to Thermwood's Service department. Diagnose, troubleshoot and configure the control remotely with a certified Thermwood service technician.
- ◆ **Advanced Communications** – Communication features available between the operator and the Thermwood Gen2 Supercontrol allows the operator to electronic search the programming and maintenance manuals, view maintenance videos, error reporting, maintenance tracking, and dynamic exploded assembly drawings.
- ◆ **Single Source Service** – Thermwood factory service for both the CNC Control system and the CNC Machine.
- ◆ **Control Upgrades** – On going control upgrades. The evolution and latest features of our control system is available at www.thermwood.com

Prove your application BEFORE you buy

Thermwood operates a well equipped, fully staffed demonstration lab whose purpose is to demonstrate to both you and us, that we can do your job and that you will be completely satisfied. We set up, program and run your parts, with no obligation to you, to prove out the application before we receive, or accept, a commitment.

You are invited to our Southern Indiana facility to see this process in person and discuss your needs in a friendly, easy and open environment. We also have the ability to broadcast these demonstrations live over the web, although

if your job is truly custom, a personal visit is highly recommended. Most people that visit say they leave with a wealth of information beyond seeing their parts run. After all, we have been doing this longer than anyone else and are happy to share this experience with you.

With this approach, you know and we know it will work well. This is the only way to be sure you will be a completely satisfied customer. After all, you being satisfied is important to us because a large part of our business is repeat orders from satisfied customers.



Demonstration Facility



THERMWOOD
First in CNC Routers

SCAN THE CODE FOR MORE ABOUT



THERMWOOD

Use your mobile phone to get more information or schedule an appointment.

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www.thermwood.com

Multi- Purpose Series - 5 Axis

CNC Router Package for 3-Dimensional Machining Applications



Model 90



Model 70



Model 67

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Multi- Purpose Series - 5 Axis

CNC Router Package for 3-Dimensional Machining Applications

Five-axis CNC routers have become the accepted method for production trimming of thermoformed, composite and fiberglass parts and are being increasingly used to machine patterns and molds directly from CAD data. Thermwood is the industry leader in these applications with more five-axis systems in operation than any other company.

With Thermwood 5 axis CNC router packages you can:

- ◆ Trim formed parts or machine patterns or molds using full five-axis simultaneous motions.
- ◆ Execute extremely large CAD generated programs at high speed without pausing.
- ◆ Create three-dimensional programs directly from hand made models using a Hand Held Programmer



Model 90- Single 10' x 5' table
(More sizes available)



Model 67- Dual 5' x 10' table
(More sizes available)



Model 70- 10' x 15' table
(More sizes available)

Training and Support -vital to your success

To comfortably and profitably use your system, you must understand how to program, operate and maintain it. Each Thermwood CNC router system and each major software package includes formal, structured training classes including professional support material and a lot of hands-on experience. Our goal is to make you totally comfortable and confident.

Our systems come complete with detailed manuals, including an electronic version of the operator's manual on the control that you can access, even while the machine is operating.

In addition to Thermwood's professional phone support and on-site service, each CNC router also includes your first year of Virtual Service

at no additional cost. You can connect your control to Thermwood's technical service center with the push of a button, establishing an audio, video and data link. You see and talk to the service technician, right on the control screen, and he sees and talks to you, but he also sees deep into your system to provide help with everything from tooling and programming questions to machine configuration and performance. In fact, virtually everything a service technician can do in your shop can also be done via Virtual Service. Virtual Service makes getting help easy, fast and highly effective.

With your new system, you also receive the next control system software update at no additional cost. Both Virtual Service and continuing system updates are available on an ongoing basis through the Advanced Support

Next Generation CNC control - your key to success

Your CNC router is only as flexible as your CNC control. Thermwood, the only major CNC router manufacturer that designs and builds its own CNC control is a leader in implementing this next generation control technology. As a result, Thermwood has been granted more patents on CNC router technology than all other CNC router manufacturers in the world, combined. A control so advanced it is used by aerospace, defense and even NASA for some of their most demanding applications. This control is designed from its very core to operate a CNC router, which means you can do more and it's easier.

Thermwood's CNC QCore control offers important features not available from anyone else. You get better more accurate motion and easier programming and program execution. The QCore control offers full five axis simultaneous motion which allows for more efficient program motions. The system is equipped with five-axis tool length compensation and individual compensation for each axis of a moving gantry configuration machine.

The control has a huge program storage capacity and uses the hard disk as virtual memory. You can easily hold programs tens of gigabytes in size and execute them with no delays, no stopping. It also has one of the fastest, if not the fastest block processing time in the industry. You can execute complex CAD generated programs at high speed, and without stopping.

Your QCore control keeps track of machine use and alerts you when lubrication or maintenance is needed. It shows you step by step videos of how to adjust and maintain and repair your machine. Electronic manual right on the machine, with error reporting and dynamic 3-D assembly drawings with part numbers.

And, because Thermwood controls all the technology, you have single source responsibility. No longer must you tolerate the machine builder and control manufacturer blaming each other when you have a problem. Thermwood stands behind and supports the entire system. And when new technology comes out, you can easily upgrade your Thermwood control. The key to CNC router capability is the CNC control, and Thermwood clearly has the most capable CNC control.

Thermwood...First in CNC Routers

Thermwood is a forty year old, high technology and software company located in Southern Indiana. Thermwood is currently the oldest CNC router company and continues to offer products for the woodworking, plastics and aerospace industries to name a few. Thermwood customers are some of the largest, most sophisticated companies in manufacturing.



Our main facility consists of 175,000 square feet which includes both an office/showroom and an engineering and manufacturing plant. The modern manufacturing facility houses various industrial processes from steel cutting, bending, forming and welding to electronic board assembly and CNC control manufacturing.

Thermwood has developed sophisticated cabinet and furniture design software and provided it to over 25,000 woodworking and cabinet shops through the largest cabinet industry cooperative in the world, a program we founded and continue to manage. Thermwood also maintains several web stores selling thousands of router supplies, tooling and woodworking products.

Thermwood strives in technology, software, support and customer service to best fit the needs of our customers. Thermwood... first in CNC routers.



Training Facility



Virtual Service



On-site Service Technician

Program, which also includes substantial discounts on hardware updates. A single low annual payment gets you unlimited Virtual Service help and each control update as it is released.

Thermwood has an ongoing program not only to keep the control system updated but a program to keep the entire machine updated to the present technology. This allows you to stay abreast with today's production advancements. For further information contact Thermwood's retrofit division @ 1-800-533-6901 ext 251.

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