THERMWOOD
CORPORATION

Thank You for your interest in our carvings. Below is an overall guide to using our carvings within eCabinet Systems, along with program setup information for your Thermwood machine.

Installing:
Once you have downloaded the file, simply double-click it to install the necessary files for eCabinets and your Thermwood machine. If you run the file on a pc with eCabinet Systems Software, the 3D files will be installed. If you run the file on the Thermwood controller, the carving programs will be installed.

Using the files within eCabinet Systems:
Depending on the type of carving being used, there are 3 ways to display the carvings;

Applied Carvings;   These are loaded into the Assembly Editor as Display Objects

Inset Carvings;   These are applied to panels. Highlight the part and right click for a menu. Choose 'Inset Carving Options > Add Carving' for the carving dialog box.

Trim / Molding;   These may be applied through the Molding Editor or loaded into an Assembly.

Rotary Carvings;   These are loaded into the Assembly Editor as Display Objects

Thermwood Program Setup:
Before running the program on your Thermwood machine, you will need to modify the Header of the file with your preferences. The Header contains variables which you must define for proper function. Below is a list of variables you must define;

[TOOL_1 = ?]   '(.250" endmill tool)
This defines the tool number you want to use for that particular tool description.
** For Flatwork Carvings, the Tool Daylight Values must be set to the Spoilboard, not the material.
** For Rotary Carvings, the Tool Daylight Values must be set to the center of rotation.

[ZCLEARANCE = ?]
This defines the Z-Axis retract height above the material during index moves.

[PERPASS = 4]
This defines the number of depth passes based off the material thickness. Used only for carvings which have perimeter cut-outs.

[MAN_TCHANGE$ = "YES"]
This defines whether your machine automatically changes tools, or if you have to change them by hand. If set to 'YES', the machine will index to your Machine Base Home so you may change tools.

[RAPOVRIDE$ = "YES"]
This variable allows you to use the Rapid Override Function allowing you to control rapid index moves with the Feed Rate Override Knob.

SET WASTEBOARD = ?
This variable defines the thickness of the wasteboard, better known as a handling sheet. If no wasteboard is used, you will enter zero. This is not the same as a spoilboard. A wasteboard sets on top of the spoilboard. This prevents the user from etching into the spoilboard and is much cheaper to replace.

SET ZSHIFT = ?
Defines the thickness of material you are machining.

G51 X? Y?
This defines the fixture offset position of the carving, otherwise known as the 0,0 position. For most flatwork carvings, this is the center of the carving. For moldings, this will be the corner closest to the HOME position of your machine. For rotary carvings, this position is centered on the edge of the blank towards the headstock.

[ZROUNDDIA = 4]
This defines the diameter when turning the rough stock down to round stock. This value should be larger than the finished post size.

[ROTARY_DEG_STEP = 4]
This defines the step over amount when turning the rough stock down to round stock. Value is defined in degrees.

[STOCKLENGTH = 12.5]
This defines the length of your rough stock.

[FINSTEP = .4]
This defines the step over amount during the finish passes on the round stock. Value is defined in degrees.

G09F8
This defines the tangency factor of the carving program. Typically a value of 8 is used. The tangency factor affects the smoothness of machine operation.

Program Operation:

Once the Carving Program is setup and the blank is being held securely, you may begin running the program. Options maybe asked to help you align the carving onto your machine by tracing it. The tracing option will run above the material. The tracing height is determined by the ZCLEARANCE value.

For rotary carvings, you may also be asked to turn down the stock. This basically turns square stock into round stock so there isn't as much material to remove later. It is highly recommended to perform this option before machining the final product.

Additional Comments:

- If the scaling option is used, part quality may be reduced requiring more sanding. We recommend scaling between 40% and 200% for most parts.
- Smaller parts with though cuts may require a "skin" to be left to prevent part movement. Scaling will not affect "skin" thickness.

If you have any questions or concerns, feel free to contact us at (800) 533-6901.
Thank you for your interest.