

# Three Dimensional Patterns and Molds

Pattern and mold making is another area that is diverse. Most shallow patterns that are intended for foundry or plastic molding can be produced on a simple three axis machine. Patterns that are too tall for a standard three axis machine can either be machined in layers (the layers are assembled after machining), or they can be machined in one piece using a larger five axis machine. Thermwood can supply five axis machines up to ten foot by twenty foot with up to a three foot height.

If you don't already have one, a five axis CAD/CAM system is a necessity. This will require a high performance PC computer and a network to connect the CNC machine to the CAD/CAM computer.

If you already have a CAD/CAM system, you will need five axis post processor software for the machine. Thermwood can either supply the post processor or will work with your CAD/CAM supplier to generate the required post.

Thermwood machines are processing wood



and foam patterns in a large number of installations. We have also successfully machined patterns and molds from aluminum, but if you intend to machine aluminum extensively we will need to process some parts for you to be certain that the application will be satisfactory.

Again, as with wood component manufacturing, there is no normal system. Simple three axis machines with a three dimensional CAD/CAM system could cost as little as \$75,000 while our largest machines, fully equipped and supported can run several hundred thousand dollars.

For pattern making applications is important to run a sample of a typical part so that you can get a good idea of the cycle time and surface quality that you can expect from our systems.



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