

About Us: Pattern Services is a team of skilled individuals who have been involved in the pattern industry for an average of 28 years and a combined experience of 172 years. Founded July 1, 2006, Pattern Services is a self-directed, full service pattern shop located at 1780 Cornell Road, Green Bay, Wisconsin. Our 7,440 square foot manufacturing facility has areas for CNC machining, hand built construction, and offices for engineering, and administration.

Pattern Services was formed to provide full-service, pattern design, close-tolerance machining and fabrication of patterns and tooling components. It also can provide project management of patterns, castings, and machining.

Creo Parametric (ProEngineer) is Pattern Services modeling software of choice. We have key players on our team, who have been modeling for over 20 years. They have married their skill, ability, and imagination as pattern makers with the unique capabilities of modeling technologies.

Our highly experienced CNC programmer has over 19 years' experience using Surf-CAM. He has a good understanding as to the needs of the pattern maker plus the ability to create compliance to the molding process.

Calling on over 35 years' experience, our sales staffs' ability to intelligently communicate with their customers, provides value to both the customer and Pattern Services.

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Software & Equipment

Pattern Services has a full array of traditional Pattern Making equipment, but our forte is CNC cut tooling. The following is a list of our Computer based equipment.



One 5' x 10' 5 axis CNC Router

One 5' x 10' 3 axis CNC Router

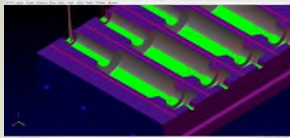


One 40" x 20" 3 axis Mag-Fadal VMC

Three seats
Creo Parametric 5.0
(ProEngineer)



Two seats
SurfCAM 2018



When we work with you we like to kick off your project with a web meeting to discuss design ideas and understand your specific needs, making sure we are all on the same page. At the end of the design phase and before we start cutting any chips we like to have another web meeting, looking at the tooling models, to get your final design approval ensuring you receive tooling built to your needs and ready to put in production when it arrives.

Services

Pattern Services is capable of constructing many different types of tooling from different materials and will work closely with you, tailoring tooling to meet your specific needs. We also make patterns in a wide variety of sizes, from small match plates up to very large patterns only limited by shipping constraints. Pattern Services takes pride in providing quality tooling, orienting wood grain in correct direction whenever possible and adding stronger materials to thin areas or wear surfaces. Please browse through the following galleries to view examples of our work.

Styrofoam

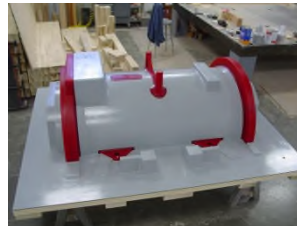


Pattern Services would like to help you keep you on budget with your one or two off and proto type parts by providing an alternative, low cost, material such as styrofoam. The tooling can be constructed the same as conventional wood tooling except

there is no need for draft which also saves time on the design side. Thin, fragile areas or delicate loose pieces can be substituted with a stronger material. Depending upon a few variables like complexity, handling, and sand systems there are some occasions where you may get more than a one-time use.

Wood

Depending upon your production needs Pattern Services can construct wood patterns from Pine, Poplar, Mahogany, maple, and ash. We typically pay specific attention to grain orientation wherever possible, and adding stronger materials in thin areas and wear surfaces if necessary.



Brown Board



capable of meeting your low to mid quantity production needs

Brown board is a perfect alternative material when there is plenty of complexity to your part, such that it would be difficult to orient wood grain for strength. Brown Board is also more stable than wood and is

Production



pieces are all options based on your specific needs. We can also provide a set of fabricated steel flasks if this is a need.

For your higher production needs, Pattern Services can Machine your tooling from Red Board or if you prefer we also are capable of doing poured urethane, both of which have a high abrasion resistance. Steel Stripping of core boxes and boards or steel faced boards, aluminum loose

V-Process

The V-Process was invented in Japan in 1971 as an improvement on conventional sand casting. In this process, a thin preheated sheet of plastic film material is placed over a pattern and a vacuum is applied to draw the sheet to the pattern contours. The flask containing the mold is then filled with dry unbonded silica sand which is compacted by vibration. One big advantage to the V-Process is, pattern life is longer because there is no contact between the sand and the pattern.



Match Plate / Inserts



Pattern Services is capable of producing match plate patterns in wood for smaller production needs and aluminum and red board for higher production. If the customer supplies us with gating information we can machine the gating right on the board.

Architectural / Promotional

Pattern Services has the ability to cut styrofoam shapes for display or use at trade shows. In most cases the customer will coat the styrofoam with a hard shell and paint it for a realistic look. We also can cut decorative panels for furniture, architectural trim and moldings.



Molds for Fiberglass



Pattern Services is capable of supplying you with wood masters or molds for making fiberglass components. We can also scribe lines on the molds that will show up on the fiberglass parts and aid in trimming them to final size. For very large molds we can make them in smaller pieces all indexed or pinned together for later assembly at the customer's site.