



Making A Universal Press Dave Van Ess

After getting a copy a Carole Rothman's new book, "**Wooden Bowls from the Scroll Saw**", I immediately ran out to the store to get the hardware to build a bowl press from her plans. Carole's book is like that. You start reading and you immediately want to go build something. I highly recommend it. After building Carole's version I found it too optimized for her particular style and size of bowls and I decided to build a more universal version. For a cost less than four 12" clamps you can make a press capable of pressing flowers all the way up to 18" projects and taller. It easy disassembles for convenient storage. They say that woodworkers make gifts for others and tools or fixtures for themselves. Why not make something nice for yourself.

Mark the Plywood

The top and bottom pieces of the press are made of 12" by 12", $\frac{3}{4}$ " plywood. If you prefer, many wood stores and hobby shops sell $\frac{1}{2}$ " Baltic birch plywood in a precut 12" by 12" size. On the bottom of the lower piece, mark a bevel, $3\frac{1}{2}$ " away from each corner. This produces an octangle (stop sign shape). For each of the eight corners mark a line from a corner to the corresponding corner on the other side. Measure a $\frac{1}{2}$ " from each corner and mark the locations to be drilled. Nail the two pieces together with two nails in each corner and one in the middle. Mark one edge with a down arrow. It will become an up arrow then the press is assembled and it is used to align the two pieces. This size works for clamping projects up 11" in diameter and $10\frac{1}{2}$ " square.



Drill Eight Post Holes

Use a 3/8" bit to drill all eight holes. Cut the eight corners and remove the center nail to separate the two pieces. Redrill the top eight holes with a 7/16" bit. Finish these two pieces with paste wax. I use either Johnson's paste wax or some high quality furniture wax. (Caution, do not use a car wax as they contain silicone for water repulsion. Unfortunately the silicone also repulses most finishes and it can rub off on any project placed in the press and ruin it.



Press in the Carriage Bolts

In each of the eight holes place a 2" 3/8"-16 carriage bolt. (For 1/2" plywood use 1 1/2" long bolts.) Put a 3/8" washer and 3/8"-16 by 1 3/4" coupling nut. Tighten the nut until the bolt is completely pressed into the plywood. Then remove the nut and washer. At this point you have a press capable of pressing pieces up to 3/8" thick. Place the coupling nuts back on the bolts.



Use 3/8"-16 threaded rod to make posts. Threaded rod comes in length of one, three, or six feet. A three foot piece can be cut to make eight 4 1/2" pieces. This is tall enough to clamp six pieces of 3/4" lumber as is sufficient for most applications. I require being able to clamp thicknesses up to the 6" and also 12". So I used eight pieces of foot long rod for the 12" pieces and cut four rods, cut in half, to make the 6" pieces.

Make Spacer Blocks

Although not necessary, spacer blocks make it easier to tighten the wing nuts. I made mine 1" by 2" by 3". Each has three 7/16" holes drilled in them. I made 16 of them to allow up to 6" of spacer for each post.



Assemble and Use

Screw the rods into the coupling nuts. Place your project in the press and then the top plywood piece. If required add spacer blocks. Then place the washer and wing nut on each threaded post and uniformly tighten. This is the 6" press being used to clamp a 4 1/2" project.



The photo to the left shows the 12" press being used to clamp an 11" tall project.



The photo to the right shows that with the addition of eight more coupling nuts the press can now handling pieces up to 18" tall. Here the press is used to clamp a 15" tall project.



Put it Away

All the pieces of this press fit into a 12" by 12" by 5" box. It is now ready for convenient storage.

Materials

- 2 12" square pieces of 3/4" plywood
- 8 (or 16) 3/8"-16 by 1 3/4" coupling nuts
- 8 3/8" washers
- 8 3/8" winger nuts.
- 3/8"-16 threaded rod, length determine by user's application.
- 17 1" finish nails
- Paste wax

