



D3012-D3016

Wood Clamp Hardware Kits

WARNING

Be sure to read the entire instruction sheet before beginning the construction of the wood clamps. Follow every step and use the recommended tools and supplies. Also, read the instruction manuals for any tools you are using to complete this project. Be certain that the tools used for this installation are intended for the task which will be performed. Failure to do this could result in serious personal injury.



WARNING

Wear safety glasses during the entire assembly process. Failure to comply may result in serious personal injury.

The Shop Fox® Wood Clamp Hardware Kit provides all the necessary hardware to make your own wood clamp. Wood clamps are very handy during many woodworking applications. Non-marring jaws eliminate the need for pads, and two wood clamps can work together for a quick and easy bench vise. The jaws of the clamp should be made from a hard wood such as maple.

Tools Needed:

Drill Press
Drill Bit Set
Straightedge
Table Saw or Jig Saw
Ball Peen Hammer
Sandpaper

Kit Includes:

(2) Wooden Handles
(2) Threaded Clamp Rods
(2) Handle Pins
(4) Captured Nuts

Drill Bit Size Chart

Clamp Size	Threaded Rod Hole	Captured Nut Hole
4"	$\frac{5}{16}$ "	$\frac{7}{16}$ "
6"	$\frac{3}{8}$ "	$\frac{1}{2}$ "
8"	$\frac{1}{2}$ "	$\frac{5}{8}$ "
10"	$\frac{1}{2}$ "	$\frac{5}{8}$ "
12"	$\frac{9}{16}$ "	$\frac{11}{16}$ "

Assembly:

1. Determine what kind of wood you want to use for the clamp jaws. Using wood that is kiln dried will produce the best results and will maintain the most consistent clamping performance.
2. The size of the clamp kit you purchased reflects the length each jaw should be. The width of each jaw should be approximately 20% or one-fifth of the length of the jaw. The thickness of each jaw must be equal to the length of one of the captured nuts.

For example: The 8" clamp kit should use jaws that are 8" long, approximately $1\frac{3}{4}$ " wide and $1\frac{1}{2}$ " thick (captured nut is $1\frac{1}{2}$ " long).

The shape of the jaw mouth can be customized to fit your specific clamping needs. However, the thickness of the jaws should always remain the same as the length of a captured nut. The slots for the threaded rods should not deviate too much from the detailed drawing, or you may reduce the flexibility of your clamp.

3. Lay out the pattern for each jaw on the wood you have selected. The detailed drawing provides the most common shape for the clamp jaw. Feel free to customize the mouth of the jaws to suite your needs.
4. Using a table saw or jig saw, carefully cut out each clamp jaw.
5. Sand the edges smooth by hand or with a belt sander. Make sure the clamping faces of the jaws are flat and flush to one another.
6. Chamfer all the sharp edges with a file or a router and chamfer bit. This will reduce the chance of injury or damage to the workpiece.
7. Use the locations indicated in the detailed drawing for captured nut placement. Use the drill bit chart to determine the drill bit size to use for the captured nut holes. Drill completely through the jaws when drilling the holes.
8. The aid of a drill press is recommended for drilling the threaded rod slots. The desired angled slots can be achieved by tilting the table to the various angles as shown in **Figure 1**. See the detailed drawing for the exact shape of the slots.

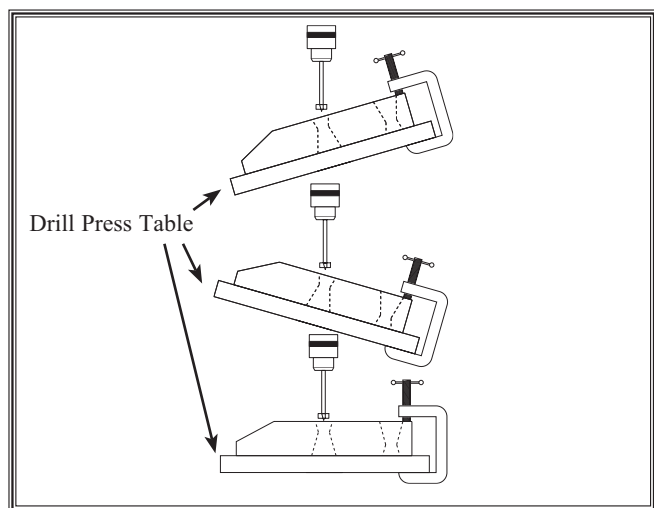


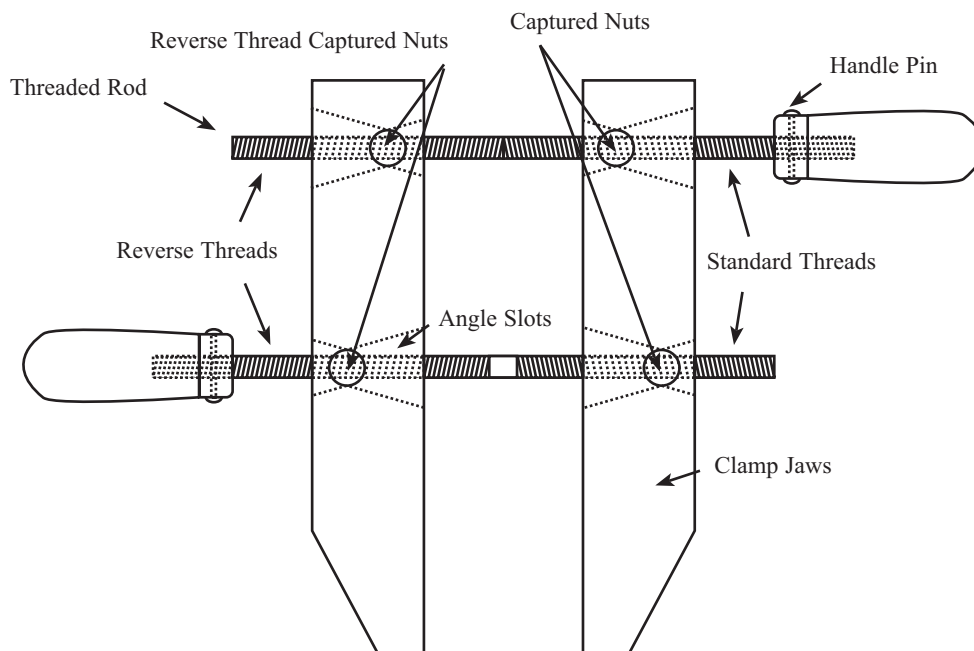
Figure 1. Using the drill press to make angled slots.

9. Lay out the threaded rods so the reverse threads are on the left and the standard threads are on the right. Find the two reverse thread captured nuts and insert them into the left clamp jaw. Find the two standard thread captured nuts and insert them into the right clamp jaw.
10. Carefully thread the rod with the unthreaded center a few turns into the captured nuts of both left and right clamp jaws. Do the same with the fully threaded rod. Make sure both rods thread into the captured nuts on both clamp jaws.

11. Continue to thread the rods until there is enough rod end exposed on the outside of the clamp for the handle to slide on. Make sure the rods are free to pivot through the full range of the slots. If they do not, remove the captured nuts and enlarge the slots.
12. Using a drill press, drill a $\frac{1}{8}$ " hole completely through the handle and rod. Slide a handle pin through the hole and make sure it exits the other side. Using a ball peen hammer, round over the end of the handle pin. Do the same with the other handle. Your new wood clamp is now ready to use.

IF YOU NEED ASSISTANCE

We hope you will find that your Shop Fox® Hand Screw Wood Clamp Kit is easily assembled and put to use. Should you have any questions about this product, please contact the dealer where you purchased it, or you can contact the Woodstock International Technical Department at 1-360-734-3482, Monday through Friday, between the hours of 7:00 am to 5:00 pm PST or e-mail us at: tech-support@shopfox.biz.



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