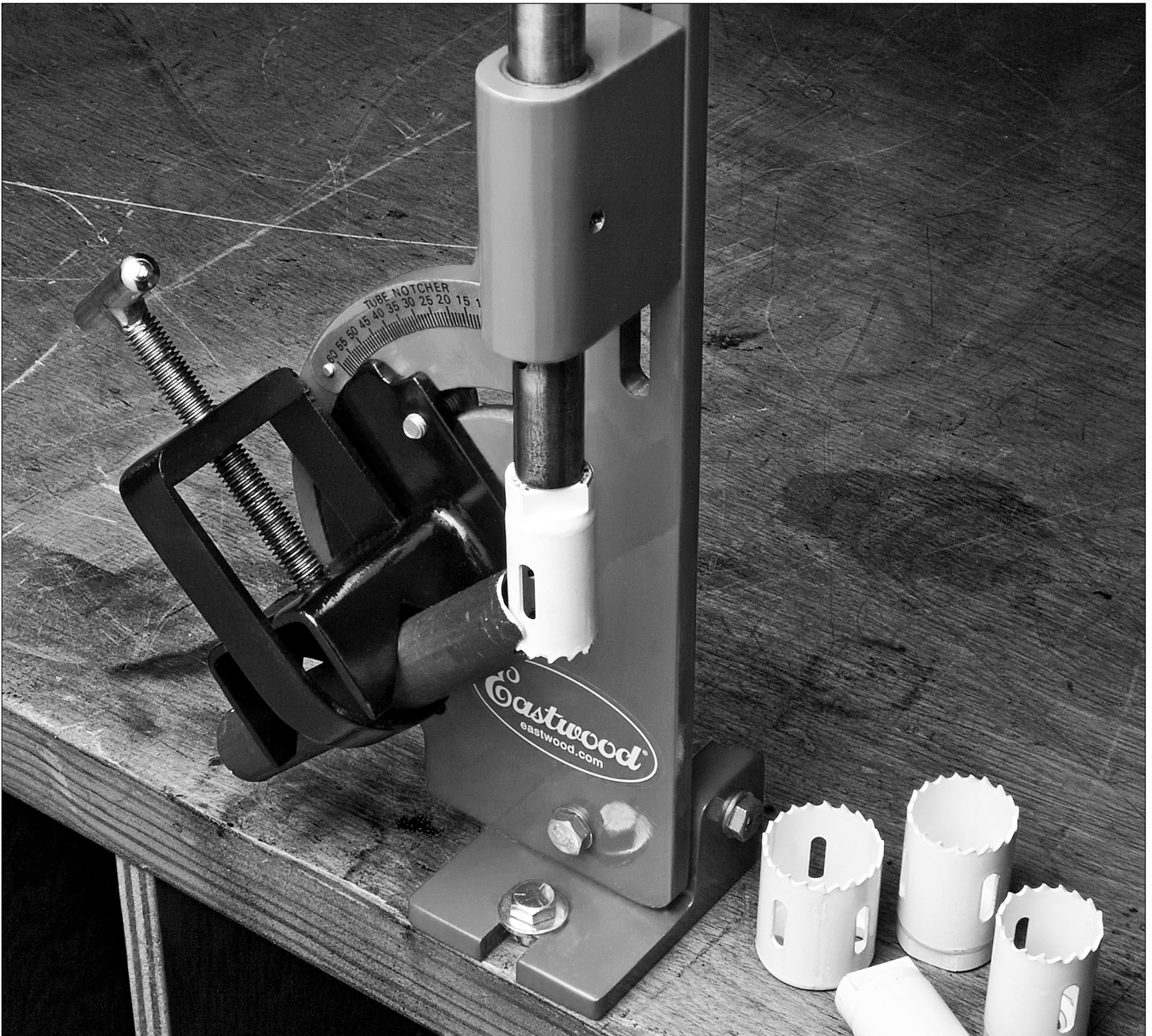


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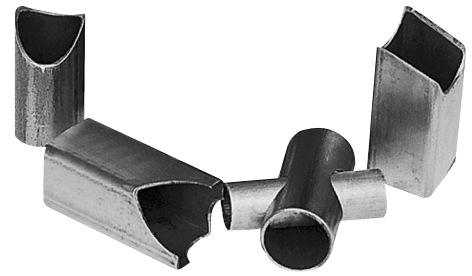
Eastwood Economy Tubing Notcher Instructions

Part #21749



Carefully read this operation manual prior to using your tubing notcher.
Please keep this manual for your future reference!

Your **EASTWOOD TUBING NOTCHER** is designed to create precision “fishmouth” notches within a wide range from angles from 90° to 150° in tubing up to 2” diameter using a drill press or hand drill with a 1/2” or larger chuck.



SAFETY

This tool uses metal cutting hole saws with sharp teeth which produce extremely sharp edges on cut tubing and dangerous metal chips. Wear heavy gloves and eye protection to prevent severe cuts and avoid eye injury. Keep loose clothing jewelry and hair away from moving parts.

SET UP

1. It is important to read all instructions before attempting to use this tool as there is vital information describing what not to do to avoid serious injury and damage as well as what to do.
2. The Eastwood Tubing Notcher is supplied with the Arbor Shaft installed in a reversed position for shipping purposes. It will need to be removed and re-installed in the correct position (Fig. A). Pull out the retaining pin, slide the Arbor Shaft out of the bore and reposition it with the threaded arbor toward the mounting base and the Arbor Shaft end with the tri-flat outward.
3. Also, for shipping purposes, the mounting foot is attached in a reversed position. Remove the vertical through bolt and mounting foot and reattach it as shown in Fig A. The mounting foot is designed to facilitate a vertical drill press mount or a horizontal bench top and hand drill mount. It is advisable to use a square to be sure the mounting foot is square to the main body in the desired position then tighten both bolts securely.
4. Note that the threaded end of the Arbor Shaft has 1/2” threads and a 5/8” threaded adapter loosely attached (Fig. B). This is to accommodate smaller sized hole saws with 1/2” Dia. mounting holes or larger (up to 2”) hole saws with 5/8” Dia. mounting holes. For smaller hole saw use, the adapter must be removed from the Arbor Shaft however if the 5/8” adapter is to be used, be sure that it is securely tightened. Use the retaining pin to keep the arbor shaft stationary while tightening.

▲ WARNING Only specifically designed threaded metal saws are to be used with this unit, severe personal injury can occur with improper saw use!



FOR DRILL PRESS MOUNTING

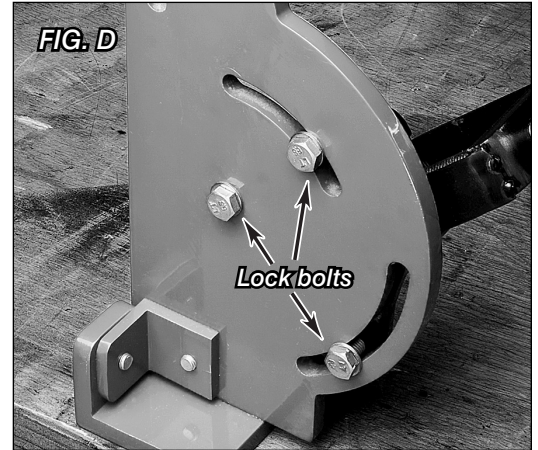
1. If mounting the unit in a drill press, be sure that the base is square to the main body, the foot is securely attached to the drill press table and the shaft is centered under the chuck (Fig. C). Place the tri-flat section of the shaft in the chuck making sure the chuck points are in contact with the shaft flats.
2. Without turning on the drill press, check the down and up travel of the drill press spindle checking for binding or friction in the Tubing Notcher as this can cause severe damage and personal injury. If binding is observed, re-adjust as necessary.

FOR BENCHTOP AND HAND DRILL USE

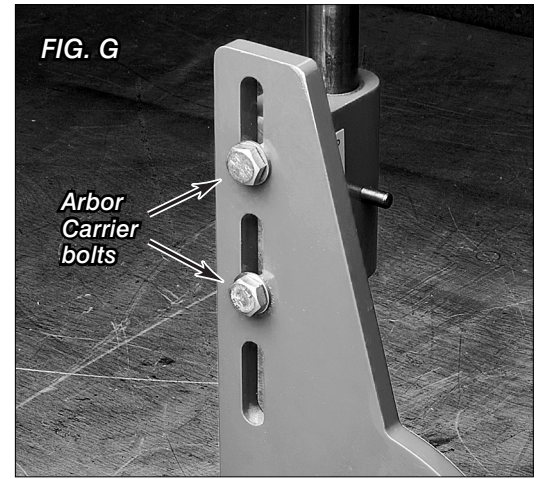
1. If using a hand drill, be sure the base of the Eastwood Tubing Notcher is securely mounted to a stable work surface or clamped tightly in a solidly mounted vice of substantial size.

CUTTING/NOTCHING TUBING

1. Determine the angle of the notch or “fishmouth” to be cut in the tubing, loosen the three lock bolts slightly and adjust the Tubing Clamp to the desired angle using the gauge and tighten the three lock bolts securely (Fig. D).
2. Place the tubing into the “V” notch with the curved portion of the Clamping Hoop and tighten down with the “T” handle. (Fig E). Note: Always make your “fishmouth” at the end of a pre-cut section of tubing, never in the middle of a longer piece keeping the cut line from going beyond the centerline of the hole saw (Fig. F).
3. The Arbor Carrier is mounted in the Main Body with 2 bolts and 3 slots (Fig. G). This is to provide adjustment for the location of the hole saw based on the angle of the Tubing Clamp. It is important to keep the hole saw cutting edge as close to the work as possible: For extreme angles and larger tubing, the Arbor Carrier will need to be adjusted outward, conversely, for cuts closer to and including 90° as well as for smaller diameter tubing, adjust the Arbor Carrier inward. This is done to increase accuracy and decrease vibration.



4. Before cutting, be sure the Locking Pin is removed (Fig. H) and the hole saw is securely tightened on the Arbor.
5. If using a drill press, set the speed for 250 to 500 RPM. For hand drilling, a variable speed drill is best keeping the speed lower. For less heat buildup, longer saw life and minimal vibration, slower is better however some high strength steels cut better at slightly higher speeds.
Be sure to use plenty of cutting oil on the metal saw teeth and feed the saw slowly.
6. You are now ready to begin cutting precision “fishmouths” however it is strongly recommended that you make several practice cuts on scrap tubing to become familiar with the tool.



HELPFUL TIPS

- This tool is designed to accurately form an angled “fishmouth” notch in a piece of metal tubing. Softer metals such as aluminum and copper tubing can be cut with minimal effort while carbon and stainless steel will require greater effort to achieve results. Thicker walled tubing will also require more effort than thinner walled material.
- Keep the saw teeth lubricated with cutting oil and keep the feed speed slow. Make sure the Arbor Shaft is kept clean of metal chips and dirt and is always well lubricated.
- Be aware that finished “fishmouth” cuts have extremely sharp edges, handle them carefully. The rough sawn edges will need to be ground or filed with the final desired shape and proper weld prep before welding.
- When finished, clean the tool of metal chips and excess oil while handling the chips with extreme care. Replace the Lock Pin to keep the Arbor Shaft in place and remove hole saw for safety.

SUGGESTED PRODUCTS

- 28003 Hole Saw Kit.
- Eastwood also offers a complete line of welders and welding equipment and accessories.

If you have any questions about the use of this product, please contact
 The Eastwood Technical Assistance Service Department:
 1-866-759-2131 email: techelp@eastwood.com

The Eastwood Company

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