

Shrinker/Stretcher Instructions

Part #28053/28070

Form Compound Curves in Metal

Eastwood Shrinker/Stretcher tools can form curves down to a 3" radius in a variety of metals: mild steel (up to 18 gauge), stainless steel (up to 20 gauge), and aluminum (up to 16 gauge). The Shrinker forms outside radius curves and the Stretcher forms inside radius curves. They are perfect for forming complicated patch pieces for such areas as rear wheel arches, dog legs, window edges, and trunk edges.



Installation and Operating Instructions:

1. Secure the tool to a workbench. The more rigidly the tool is secured, the easier it is to use. Two holes, pre-drilled and tapped into the base, accept 3/8"-16 bolts. For portability, the tool may also be clamped into the jaws of a vise. The Shrinker/Stretcher Base Mount (#28051) is designed for vise-mounted applications of the Shrinker/Stretcher Set (#28053).
2. Before fabricating on the Shrinker/Stretcher, bend the metal to be formed 90° on a Sheet Metal Brake (#28025), creating a maximum flange depth that is no greater than 2".
3. Make a template out of cardboard or a short piece of wire. Tracing the outline of the section you want to form is critical to achieving a good fit with minimal filler use.
4. Work the leading edge first. This "breaks down" the maximum resistance and permits easy and accurate working thereafter. For best results and maximum forming power, insert metal only halfway into the jaws. The "bunching" or "pocketing" that typically occurs when shrinking can be quickly hammered out, or smooth by inserting the metal deeper into the jaws.
5. Control lies in the pressure exerted on the handle and number of strokes used while forming the metal. Move the metal back and forth until the desired radius is obtained.
6. The jaws of the tools are "toothed" to better grip the metal. These teeth leave slight markings, depending on the hardness of the metal, which can be removed with an abrasive cloth or wheel.

Cautionary Tips

- **Avoid cuts and ease handling.** Wear leather gloves during all forming operations.
- **Avoid pressing the jaws together accidentally.** Remove handle when not in use.
- **Avoid dulling the teeth.** NEVER press without a separator between the jaws. ALWAYS insert a piece of metal or other material divider between the jaws when not in use. (When you received your Shrinker/Stretcher Set, a cardboard insert was between the teeth.)

General Maintenance

Clean the jaws after every job! Blowing out with an air hose doesn't do a thorough job. Vacuuming helps to get the filings out. The best way to maintain the metal former is to disassemble the jaws and clean as follows:

1. Loosen the four (4) retaining screws to remove the jaw assembly.
2. Remove jaws and V-block as a single unit. Be careful, don't lose the spring between the jaws.
3. Remove the suspension spring.
4. Notice how the jaws are inserted. There is a small jaw opposite a large jaw, top and bottom.
5. Clean the two jaws with cleaning fluid and a brush. DO NOT use a wire brush or a wire wheel
6. Always brush in the same direction as the teeth, *with* the grooves.
7. Clean the V-block.
8. Lubricate the surface between the jaws and V-block. Reassemble.
9. Lift out the bottom jaws as a single unit with V-block. Clean these.
10. Replace jaws. Be sure you place the large jaw opposite the small jaw. When replacing the V-block, the radius corners face front.
11. When not in use for extended periods of time, lightly oil the jaws to prevent corrosion.
12. REMEMBER: Clean the jaws after EVERY job.

Basic Panel Fabrication Using the Shrinker/Stretcher Set

For rodders and restorers, fabricating body parts in the home shop is often the only way to go. With the Shrinker/Stretcher Set it isn't difficult to make new panels. With good planning, you can reproduce shapes to match original contours, or design shapes limited only by the imagination.

As an example, we made a replacement headlight assembly mounting flange. Most older cars catch and hold moisture here, thus rusting out. Usually, so much metal is gone that there is very little left to rescue. A new, fabricated part is the only way to go.

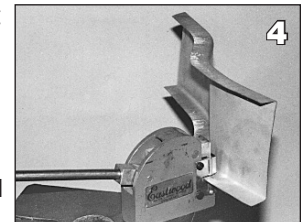
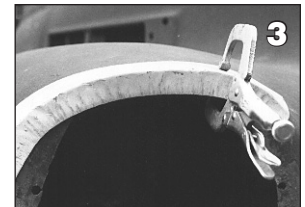
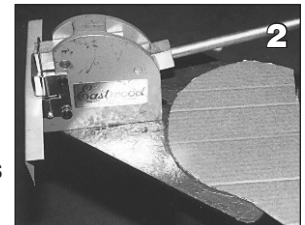
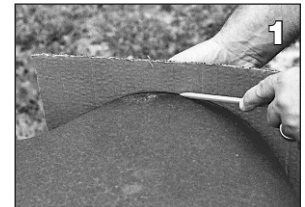
First, we made a cardboard template (photo 1), tracing around the headlight opening. We cut a piece of steel 2½" wide by 11" long, using our Throatless Shears (#21743). This tool really saves the blisters you'd get from using hand shears, especially if you've got a lot of metal to cut. We then bent the metal in a Sheet Metal Brake (#28025) to make a 90° flange, 3/4" wide.

The flanged section went into the shrinker/stretcher shrinking jaws (photo 2). By pumping the handle firmly and moving the metal back and forth, the jaw's teeth kept drawing the metal closer and closer, creating a smooth curve. We kept checking the new piece with the cardboard template, and within minutes we had a piece very close to size.

We made some final adjustments on the car, and it fit just fine. It took a total of 15 minutes to create this mounting flange (photo 3).

Compound curves can be made by working the piece on alternating sides, with both Shrinker and Stretcher, taking care to match work on both sides. We took an 18" x 11" piece of 20 gauge metal and put two 1" flanges on its edges (photo 4). This technique is especially useful when reproducing splash aprons and other large curved areas.

To order parts and supplies, call 1-800-345-1178 or visit www.eastwood.com



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