

How to Make a Clute Cooker

Tools

1. Tape measure (54" minimum length)
2. Utility knife
3. Modified sheet metal folding tool (20" minimum length. The tool comes with a deep side and a shallow side. The shallow side has an approximate 1/2" fold depth; this is too deep to provide a strong clasp. Modifying the deep side is easier than modifying the shallow side. Drill two small 1/32" diameter holes in the deep side approximately 16" apart and 3/8" from the edge. Insert a small 1/32" dia. brass nail in each hole, cut off the pointed end of the nail leaving 1/16" protruding and hammer down the cut-off end to keep the nail in place.)ⁱ
4. Hammer (2 to 3 pound)
5. Center punch marking tool or a nail and hammer.
6. Hollow punch (3/8" diameter)
7. 2 spring clamps
8. 2" x 4" board (10 to 20 inches long)
9. Cotton gloves
10. Hearing protection



1. Tape measure

3. Modified sheet metal folding tool



2. Utility Knife



4. Hammer (3 lb.)



5. Center punch marking tool



6. Hollow punch (3/8" diameter)

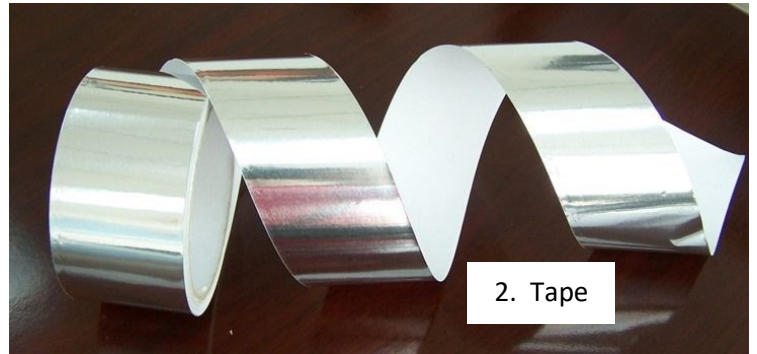


7. Spring clamp



Materials

1. Flashing (20" wide valley roll, 51" minimum length, galvanized)
2. Tape (High Temp Heat-Resistant Foiled Tape, 100" minimum length)
3. Behrens utility pans (3 gal. Capacity; two per cooker)



Step 1 – Measure and Cut the Flashing

1. Measure and mark 49 7/8" length on each edge of the flashing. **Note that this length is correct for the old-style Behrens pans. The pans available today have a different profile so the length will need to be changed if you are using the new style pans. I haven't made any with the new style pans but will edit this info when I do to provide the length that I use for the new pans.**
2. Use the folding tool for a straight edge. Place the folding tool edge at the 49 7/8" marks.
3. Score the flashing by guiding the utility knife down the side of the folding tool.
4. Bend the flashing back and forth at the scored line until it snaps.

Step 2 – Apply Tape to the Sides of the Flashing

1. Cut tape the length of the flashing.
2. Cut tape lengthwise into two equal width pieces.
3. Fold each piece down the middle lengthwise.
4. Using the spring clamps, secure the flashing flat on a table with one edge hanging off the table about an inch.
5. Unfold the tape and flatten back out.
6. Begin removing the tape backing at one end and align the tape so the crease mates with the edge of the flashing.
7. Pinch the end of the tape so that it sticks to each side of the flashing.
8. Continue to remove the backing and mate the crease to the edge of the flashing, but don't fold the tape over and stick it to the sides just yet.
9. After the length of tape is aligned with the edge, put on the cotton gloves and begin pinching it at the edge near the midpoint of the flashing; run your pinched gloved fingers from the middle to one end and then from the middle to the other end. Repeat this until the tape is flattened and struck to each side of the flashing.
10. Repeat 1-9 for the other edge of the flashing.

Step 3 – Bend the Ends of the Flashing

1. Place the flashing on a flat surface and insert one end into the modified side of the folding tool.
2. Hold the flashing securely so that it does not slide and force the folding tool against the end of the flashing.
3. While keeping pressure on the folding tool so that the brass nails remain in contact with the end of the flashing, rotate the folding tool up and over 180 degrees to fold the end of the flashing.
4. Place the 2" x 4" board over the bend and strike it with the hammer to flatten the bend.
5. Insert the bended end into the modified side of the bending tool and fold it over again to make a second bend.
6. Place the 2" x 4" board over the second bend and slightly press down to close the bend a little.
7. Flip the flashing over end to end and repeat steps 1-6 to make the double bend on the other end.
8. After the bends are made, lock them together and insert the pans in each end to verify that the cylinder is the desired circumference.

(NOTE: Each pan should fit in the cylinder with about 1/4 depth of the pan exposed. This will allow the sloped sides of the pan to force outward on the cylinder to keep the cylinder's bends securely clasped.

Also, the friction between the pans and the cylinder allows the pans to remain fixed in place after being leveled.)

Step 4 – Punch Holes in the Flashing and One Pan

1. Mark the desired location of each hole with a center punch marking tool. Alternatively use a hammer and nail or punch.
2. Place the flashing or utility pan on a flat piece of oak, other hardwood, or hard rubber on top of a sturdy unyielding surface.
3. Use hearing protection.
4. Hold the hollow punch at the desired location with the cutting edge against the flashing or pan. Make sure the punch is perpendicular to the flashing or pan.
5. Strike the punch squarely with the hammer and repeat as necessary until the hole is made.
6. Repeat until all desired holes have been punched.

Sources

1. Tape – [SupplyHouse.com – Venture Tape High Temperature Foil Tape \(3" x 150'\). \(-40° to 425°F\).](#)
2. Flashing – [Home Depot – 20" x 50' Valley Roll.](#)
3. Utility Pans – [Blain's Farm & Fleet – Galvanized Sheet Seamless Stock Pan](#)
4. Hollow Punch - [Home Depot - Hollow Steel Punch](#)
5. Folding Tool - [Home Depot - 24 in. Folding Tool](#)

ⁱ A folding tool makes short work out of bending the flashing, but there are other methods that work well; they just take more time. Another way to make the bends is to clamp a piece of straight rigid metal (e.g. a carpenter's square) across the flashing at the location where the bend is desired. Slip a 3" or 4" wide pallet knife under the end of the flashing and rotate the pallet knife handle to slightly bend the flashing up. Continue moving the pallet knife along the end of the flashing until the flashing is bent up a little more than 90 degrees. Remove the straight edge and use a piece of 2" x 4" board to force the flashing on over.