

## Mini Sous Vide Cooker Construction Details



Start with a 28 quart Coleman ice chest. Remove handle and add a drain valve ( $\frac{1}{2}$  inch MIP with 2 inch threaded fitting @ Lowes). Secure valve tightly to the inner wall with a nut on each side of inner wall. This requires cutting a small slit in the outer wall at the edges of the hole for the valve so that the nut for the inner wall can be inserted. This approach for securing the valve avoids the possibility of collapsing thick compressible wall of the chest. Drill four  $\frac{1}{4}$  inch holes around a  $2\frac{1}{2}$  diameter circle centered over the valve hole. Use the holes to pump GE Silicon II into the space between the outer and inner walls; flood everything with the silicon even the threads protruding into the inside of the chest. Use a large metal washer at the outside of the valve hole; use a smaller neoprene washer and a metal washer on the inside.

Cut a hole in the lid to provide clearance for Temperature Controller that is clamped to the end of the chest opposite the valve. Drill holes in the chest walls for supporting 5 BBQ skewers. The skewers form rails across the top of the chest opening. They are used for hanging vacuum bags on. The two silver skewers run the full length of the chest (12 inches) and require 4 holes (2 at each end). One of the black skewers runs the full width of the chest, and is orthogonal to the silver skewers; it requires 2 holes (1 on each side). The remaining two black skewers that run parallel to the silver skewers require 2 holes (2 inches apart) at the end with the valve; they terminate on the crosswise black skewer with pins to hold their free ends in place.



This shows all five skewers in place. The three black skewers are positioned  $\frac{1}{2}$  inch higher than the two silver skewers. The two small silver dots you see at the ends of the two lengthwise black skewers are the heads of two #20 nails used to pin the two black skewers to the cross-wise black skewer.

You hang the long bags first. This shows two red clips securing a long bag draped over the silver on the right.



baggy skewer



You hang the short bags last. This shows two orange baggy clips securing a short bag draped over the black skewer on the right. All bags are folded over their rails so that they hang down ½ inch or more above the bottom of the chest. When 4 bags are used (2 long and 2 short) you can easily cook two racks of ribs.

The long bag with the red clips was made with a 12 inch cut from an 11 inch roll. The short bag with the orange clips was made with an 11 inch cut from an 8 inch roll. Smaller bags could be used but having bag excess in the depth direction makes them easier to fill.



**Enjoy !**