## CO Hot Pot Assembly Instructions

- All screws and fastenings used in the assembly of the CO Hot Pot are to be zinc plated.
- Securely assemble the seam joint of the 24 gauge galvanized housing. The housing should be 8 inches in diameter and 12 inches tall
- Handle attachment.
  - Handle to be fastened to housing with four flat head machine screws, lock washers, and nuts.
  - The bases of the handle are to be centered vertically on the seam joint of the galvanized housing.



- Each of the two handle bases must have a "V" filed into the part of the base that is at 90° to the galvanized housing (two "Vs" must be filed into each handle, one in each of the two bases). The two bases must then be bent to form angle of approximately 15°. This insures that the handle bases will not take the galvanized housing out of round when the handle is fastened to the housing.
- Attach the handle by drilling four 7/32 inch holes in the housing. The bottom of the bottom base of the handle should be positioned 3 1/2 inches from the bottom edge of the housing. The handle bases should be centered over the seam joint of the housing. The "V" filed in each of the two handle bases should align with the seam joint of the housing. Use four 10/24 x 3/8 inch, flat head machine screws with lock washers and nuts to fasten the handle to the galvanized housing. Tighten the nuts with a socket wrench and screw driver.
- Stainless steel bowl attachment.
  - The stainless steel bowl shall be 24 gauge, 7/8 quart, 6 5/8 inches in diameter by 2 1/2 inches high, model number 12A ("Heavy Weight Mixing Bowls"), manufactured by Polar Ware Company, 2806 N. 15th Street, Sheboygan, WI 53082, 800-237-3655, fax 414-458-2205 or go to the Polar Ware web site (www.polarware.com).
  - The bottom of the bowl shall be in line with the bottom edge of the galvanized housing.
  - Drill three 7/32 inch holes in the galvanized housing, 2 1/8 inches from the bottom of the galvanized housing. The holes should be about 8 1/2 inches apart, measured on the circumference of the housing. One of the holes must be diametrically across from the seam joint of the galvanized housing.
  - Drill three appropriate 7/32 inch holes in the stainless steel bowl in the vertically flat section just below the top lip.
  - o Fasten the bowl within the bottom of the housing so that it is concentrically located, with the bowl's flat bottom surface flush with the bottom edge of the housing. Fasten the bowl concentrically within the housing with three 10/24 x 1 ½ inch round head machine screws, lock washers and nuts. The arrangement of housing, lock washers, nuts, and bowl for each machine screw should be as follows, starting from the head of the screw: Head of screw, galvanized housing, lock washer, nut (nut tightened in direction of screw head); nut, bowl, lock washer, nut (both nuts tightened in direction of bowl). Thus, each of the three machine screws requires three nuts and two lock washers.

- Position the bowl concentrically within the housing so that the space between the housing and the outer edge of the bowl is consistent around the circumference.
   Tighten all nuts with socket wrench or pliers and screwdriver.
- Tri-brace assembly. Fabricate the three galvanized bars for the tri-brace, to be fastened to the inside of the housing ¼ inch below the top edge of the housing.
  - Each of the three braces shall be ½ inch wide by at least 22-gauge thick by 5 inches in length. (One fabricator of a CO Hot Pot used "drive cleats" to make the tri-brace. Drive cleats are used to fasten metal ductwork joints together.)
  - At ¾ of an inch from end of each brace, the brace shall be bent at 90°. The other end of each brace shall be rounded to a ¼ inch radius on the flat ½ inch side.
  - The three braces that make up the tri-brace shall be fastened to the housing by drilling three 7/32 inch holes in the galvanized housing, each hole being in vertical alignment with the holes drilled in the housing for the purpose of fastening of the bowl to the housing. These three holes shall be drilled in the housing ½ inch from the top edge of the housing. 7/32 inch holes shall be drilled in the center of the 3/4 inch 90° bend of each brace. Each of the three braces is to be fastened to the housing at these drilled holes with 10/24 x 3/8 inch round head machine screw, lock washer, and nut. The nuts shall be tightened with a socket wrench and screw driver.
  - The three braces that make up the tri-brace will meet and overlap at the center of the housing. These three braces should be aligned in such a way as to make the top circumference of the housing perfectly round. The three braces must be clamped in place at the center of the housing. A ¼ inch hole must be drilled through the three overlapping braces. A 14/20 x 2.5 inch turned eye bolt with two nuts and a lock washer is inserted into this drilled hole, the eye downward.
  - o Two 5/16 inch holes must be drilled in the housing 1 ½ inches from the top edge of the housing. One hole must be directly opposite the other (180 degrees around the housing). These holes are for the insertion of the carbon monoxide monitor probe(s) during range-top burner testing. When these two holes are drilled and the eye bolt is in place, you should be able to insert the probe in one hole, through the center of the eye bolt, and then out the hole on the opposite side of the housing. Normally you will only use one hole in the housing, inserting the probe into a housing hole and into the eye bolt, with the end of the probe just through the eye bolt at the center of the housing. In some cases, you might need to use two probes (instruments) simultaneously; the two housing holes give you this option.
  - o With the assembled CO Hot Pot sitting on a perfectly horizontal surface, 1) the bottom of the stainless steel bowl must be flush with the bottom edge of the galvanized housing and 2) a probe of a carbon monoxide meter (a ¼ inch hollow tube) inserted into the 5/16 inch hole in the housing and then through the eye of the turned eye bolt (the meter probe in contact with the 12 o'clock surface of the inside of the eye), must be perfectly horizontal (if it is not, adjust the nuts on the top end of the turned eye bolt until the probe is perfectly horizontal). The open side of the eye at the bottom of the turned eye bolt must be parallel to the face of the galvanized housing at the point of the 5/16 inch drilled hole.
- Install any identifying labels on the outside of the housing. You may obtain labels from R.J. Karg Associates that state "CO Hot Pot, Model 1, For Standardized Testing of Carbon Monoxide Emissions from Gas Range Burners." This label is black on silver, 6" x 1 ½ inches. The cost is \$2.00 per label. Before installing any labels, thoroughly wipe the outside of the galvanized housing with a dry, clean, soft cloth.
- Check the fully assembled CO Hot Pot for defects of materials or assembly. All nuts are
  to be securely fastened and all labels must be parallel to the top edge of the housing and
  securely pressed onto the housing surface. Make sure the galvanized housing has a
  perfectly round shape; if it does not, make adjustments to the bowl and/or the tri-brace
  fastenings. File any sharp edges and remove any burrs.

- R.J. Karg Associates/WxWare Diagnostics, 220 Meadow Road, Topsham, Maine 04086 207-725-6723 rjkarg@karg.com
- You can purchase a sturdy gray copolymer case in which to carry the CO Hot Pot.
  Contact Flambeau Commercial Markets Group, 15981 Valplast Road, Middlefield, OH
  44062, 800-334-5716, or go to the Flambeau web site (<a href="www.flambeau.com">www.flambeau.com</a>), open the
  "Packaging Solutions Catalog," and then find the Flambeau tool utility box, model 1800.
  If you wish, you may also attach the label mentioned above to the front of this copolymer utility box.