

REBUILDING INSTRUCTIONS  
WATER COOLED BURNERS

To repair an Ensign Water Cooled Burner, this procedure should be followed.

1. Remove return bend from end of burner. This is soldered into place. With the return bend off the burner, A 7/16 rod may be passed through the water passages, to help clear mineral deposits. (Turning the rod with a drill motor helps).
2. Loosen/Remove flange from return bend end of the burner.
3. Loosen hex head bolts on the side of the burner, two per section.
4. Drive up ribbon assembly on open end of burner until 2" or 3" of ribbon is above casting. Put a piece of flat cold rolled steel 6" or 8" long x 3/4" or so wide (1/8" thick) under ribbon assembly (at right angle), and drive or push it along the top of the burner, forcing the ribbon up as you move along. Pry ribbon out at end of burner. Opening the casting slightly with a tapered wedge aids in removal of the ribbon assembly. Also remove the 1-1/4" SS Flats from the ribbon space.
5. Reaching through this open end, using a long reach socket extension, remove the (4) 5/16 bolts which hold the sections together.
6. Remove the first cast section, being extremely careful about flexing it, as the sleeves inside the water passage are very tight, and flexing the burner will crack the casting above them. Repeat 4 & 5 as necessary.
7. Assembly is accomplished by smearing a small amount of sealant in the splicing hole and on the outside of the splicing sleeves. Clean both surfaces thoroughly before assembly. Insert the sleeves, and slide the next burner casting onto the sleeves. MAKE SURE YOU PUT TOGETHER THE NON-TAPPED END. Use a rubber mallet to drive home the casting. While assembling, wipe away any sealant that gets between the burner flanges. After new section is snugged up to the old section, Reinstall bolts inside and procede to the next section. Sealant requires 24 to 48 hrs to completely cure.
8. Reinstall the water feed adapters, and the return bend. Clean and solder the return bend into place.
9. Test the water passage by applying water pressure to one inlet while plugging the outlet.
10. Reinstall the ribbon following the replacement instructions for reribboning.