



Mounting Instructions for Diamond Core Bit Segments - Freehand Method -



Brazing Material

- 1 & 2) Use a flux designed for silver solder, such as Harris "Stay Silv" flux with small brush for applying and don't dip into big jar, use small jar with just enough flux for the job.
- 3) Use a good contact cleaner to degrease the bit tube.
- 4) K2 marks the cutting side of the segment, and pre-cleans the mounting side that will be brazed to the tube.
- 5) Use silver solder that starts to flow at 1170°F, free flowing at 1270°. K2 supplies either 1" shims or 1/16" wire x .010 thick.
- 6) Use a good metal file or sandpaper for de-burring the tube surface and sparker for the oxy-acetylene torch.



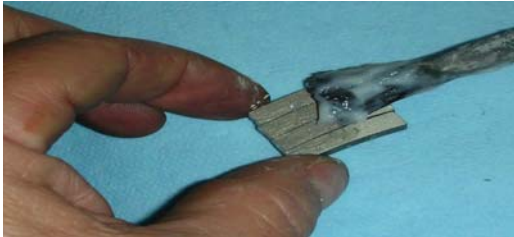
Degrease & file tube surface

- 1) Make certain tubing end is clean and grease free with no burrs.



Marking tube for even spacing

- 1) Normal spacing is 1/2" between segments on sizes 7" and larger.
- 2) On 2" thru 6" diameter tubing spacing should be no less than 1/8" (consult segment manufacturer for special application spacing).



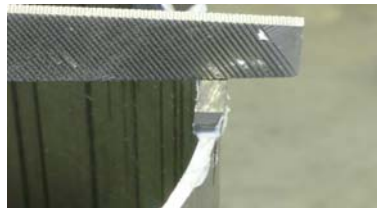
Apply flux to the unmarked side of segment.

- 1) The segment un-marked side must be clean & free from rust or oil. Polish on "wet or dry" emery paper to clean if needed.



Apply flux & solder on the tube

- 1) Flux liberally with flux, designed for silver solder, in areas where segments will be mounted.
- 2) Place solder strip, then segment on center of tube, according to marks.



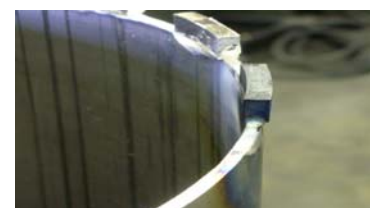
Free Hand Setting

- 1) When free hand setting segments always make sure you use some type of tool, like a file or a weight to hold the segment in position at the center of the tube.



Applying Heat

- 1) Use acetylene torch, apply heat to tubing and segment, continually moving torch to spread heat evenly. 2) Heat segment and tubing until both show cherry red at brazing line. 3) If using wire solder feed at one end of segment until solder flows across to other end. 4) Allow to cool for a few seconds before removing tool to avoid moving segment while solder is molten. 5) Inspect solder lines, reheat as necessary. (Solder Note: 5/8" long wire = 1" shim)



Completed brazed segment