# Hammer Flares & Pressure Relieving Hammer Flares (HF & PRHF models) Operating Instructions

### **Necessary Tools & Equipment**

- 1. Reed tubing cutter (Reed T20 with "O" wheel)
- 2. Proper size hammer flaring tool
- 3. Soft-faced BRASS hammer (Reed HAM3)
- 4. Two pipe wrenches
- 5. Rat tail, flat files and deburring tool (Reed DEB0)
- 6. Safety goggles and gloves

# Warning: Before flaring, all instructions must be read, understood and followed. Safety goggles must be worn during all work to prevent serious eye injury.

Reed Hammer Flare (HF) and Pressure Relieving Hammer Flare (PRHF) tools must be struck only with a soft-faced **BRASS** hammer to prevent flying chips.

The Reed HF and PRHF flaring tools are intended for use with type "K" copper tubing only. The HF and PRHF tools are to be used only for flaring operations. Use proper size re-rounding tool (Reed RR Series) for re-rounding situations.

#### Instructions

- 1. Wear safety goggles per OSHA regulations.
- 2. Using a tubing cutter, cut copper tubing to desired length. Be sure cut is square.
- 3. Using a reamer or a rat file, remove all burrs from the inside of the pipe. Tubing with burrs could cause leakage.
- 4. Using a flat file, remove all burrs form the outside of the tubing. Tubing with burrs could cause leakage.
- 5. Place coupling nut on tubing.
- 6. Inspect flaring tool and hammer per the maintenance notes and make necessary repairs before using.
- Place some potable grease on the shank and shoulder of flaring tool to lubricate during the flaring procedure.
  Insert flaring tool in end of tubing.

9. Using a soft-faced **BRASS** hammer (DO NOT USE A HARDENED STEEL HAMMER), strike the flaring tool with several blows, rotating the tool a small amount after each blow until the edge of the flare reaches the edge of the seat in the nut.

10. Remove the flaring tool and inspect the joint surfaces of the tubing to be sure the joint surfaces are clean and no scratches or blemishes are present that could cause a leak. If scratches or blemishes are present, redo steps 1 - 10.

11. Place flared tubing end against the joint surface of the fitting and slip coupling nut into fitting threads. Tighten nut onto fittings.

12. Inspect flaring tool and hammer per the following maintenance notes and repair or replace if necessary.

## Proper Care and Maintenance of the HF and PRHF Flaring Tools

Reed HF and PRHF flare tools have been hardened and tempered to resist wear and deformation. Even so, numerous blows or off-center blows may cause "mushrooming" of the striking surface. IF THE STRIKING SURFACE BEGINS TO MUSHROOM, THE TOOL SHOULD BE REMOVED FROM SERVICE AND REPAIRED OR REPLACED. Reed HF and PRHF flaring tools should be inspected after each use and not used until repaired. Repair would consist of grinding or filing the striking surface to its approximate original shape, maintaining a slight crown on the end. The soft-faced brass hammer should be inspected after each use. If the striking face surface is mushroomed, the deformed material should be removed.

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