## SOLDERING TECHNIQUE

By following a few simple rules of caution in making soldering joints, sound and leak-proof joints can be attained with a minimum amount of effort.



(1) The copper tubing should be cut square and the burrs, if any, should be removed with a file or scraper.



(2) The end of the tubing to be inserted into the valve cup should be cleaned to a bright finish, with steel wool, cleaning brush, or emery cloth.



(3) The solder cup of the valve should be cleaned to a bright finish with steel wool, cleaning brush, or emery cloth.



(4) Apply flux to the inside of cup of valve and outside of tubing. All surfaces should be covered with sufficient flux so that adhesion is assured. Do not use fluxes with contain ammonia or ammonia bearing compounds.





## SOLDERING TECHNIQUE CONT.



(5) Insert the tubing into the cup of the valve and apply heat uniformly by means of a torch to the tubing and outside of the valve cup. Do not direct the flame at the juncture of the tubing and valve as carbon residue may form and prevent the free flow of the solder. Do not overheat. Apply solder at the juncture and when the joint is sufficiently heated the solder will flow into the joint by capillary attraction. When a solder ring forms around the circumference of the juncture, the joint has been completed.



- (6) Remove all excess solder with a brush or cloth.
- (7) Support joint during cooling process.

## **IMPORTANT**

Precaution must be taken when soldering valves having composition discs or elastomer seats to prevent distortion or destruction to the disc. Make sure all valves are in the open position when applying heat to the solder ends.



