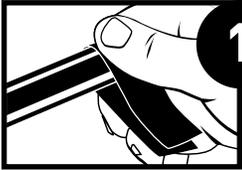


# Soldering Lead-Free Fittings & Fixtures

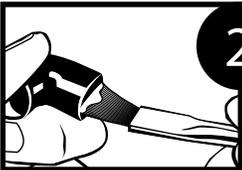
## Recommended Technique

**1**

### AGGRESSIVE MECHANICAL CLEANING

Requires an abrasive 120 grit or coarser

As a result of tenacious surface oxide, aggressive mechanical cleaning is required, including the use of sandpaper or other abrasive cloth.

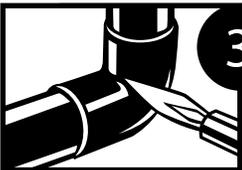
**2**

### STANDARD FLUX APPLICATION

For best results, use a water soluble flux with chloride compounds

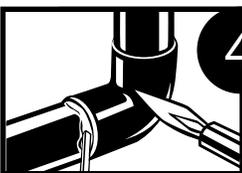
Apply flux immediately after cleaning. To protect newly exposed metal and minimize reformation of oxide layer.

Bernzomatic® brand Water Soluble Flux complies with the Reduction of Lead in Drinking Water Act — suitable for use with lead-free brass. Chlorides in the flux effectively aid in removal of oxides, providing superior adhesion of alloy to pipe.

**3**

### THOROUGH HEATING & TORCH MOVEMENT

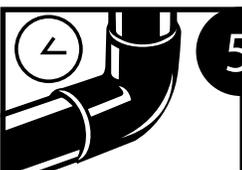
As a result of reduced thermal conductivity in lead-free brass, uniform heating throughout the fitting is critical. Adjust movement around the joint and heat gradually to achieve even temperature for soldering.

**4**

### SOLDER CHOICE AND APPLICATION

Use a lead-free compliant solder, ensure NSF/ANSI Std. 61 compliance

After joint is thoroughly heated, apply solder.

**5**

### PROVIDE ADEQUATE TIME FOR COOLING

Because Lead-Free brass retains heat longer, the process requires more time for solder to solidify, cool and regain its strength.

For making capillary joints, Bernzomatic® recommends following the techniques found under ASTM standard B828.

### FRUSTRATED WHEN SOLDERING NEW LEAD-FREE FITTINGS?

Solder doesn't flow as well. Surface oxide is stubborn. Fittings don't heat up as easily. It's not your imagination!

Recent government regulations reduced the amount of lead in systems that carry water for human consumption.

New lead-free fittings require some TLC to get a leak-free solder joint.