

## Speed Soldering

Like most things in life, much of what we do in stained glass can be done in a number of different ways. Each of us selects the way we like best. Sometimes the way that's easiest to learn isn't the most efficient. Often the way that's quickest to do is the most difficult to master. That applies especially to soldering. As a commercial producer, we've tried every technique that worked, and even experimented with some quite silly ways that didn't. Of all that we've tried, we found the "draw" method to be the most difficult to master because it requires near perfect coordination between the hand moving the soldering iron and the hand feeding the solder onto the iron. However, once mastered, this technique can be the fastest way to solder and will allow you to produce a quality finished bead on the first pass.

Not everyone is concerned about speed or willing to take the time to get good at this. However, if you'd like to try, it works like this:

1. You'll need a soldering iron of minimum 100 watts. Small irons usually don't produce enough power to maintain heat. Larger irons work much better.
2. The soldering tip should be a chisel type and be at least 3/8 inch wide. Wider tips work even better. The iron should be operating at the highest temperature you can work at - minimum 800 degrees F. The hotter the temperature, the easier it is to solder.
3. Hold the iron almost horizontal and solder by sliding the flat edge of the tip along the foil. This is exactly as you would do with a steam iron to iron a shirt. The object is to have the greatest possible surface area of the iron's tip sliding along the foil.
4. While moving the iron, feed the solder onto the other side (top) of the chisel tip. The molten solder will run down the tip and deposit as a domed bead on the foil. The hot iron will "pull" or "draw" the molten solder behind it. The difficult part is to coordinate the speed at which you move the iron with the speed at which you feed on the solder.
5. If the bead is too low, you've either moved the iron too fast or fed the solder too slow. If the bead is too large, you've either moved the iron too slow or fed the solder too fast.
6. When you want to solder across another soldered bead, do NOT stop. Instead, ease off on feeding the solder, turn the iron sideways, and continue right through the other bead. As you clear that bead, start feeding soldering again onto the tip.
7. Practice - lots of it.
8. Still more practice.