

# Using metal tools in different ways:

tips provided by Janet Robinson

**Brass:** draws heat from the glass quite quickly. Great for color reactions and fine-detail shaping. The brass will get very hot so make sure your tool has a heatproof handle and lay it on a fireproof surface. Brass will stay hot longer than stainless steel, so be aware of that! You may want 2 identical tools if you use them frequently -- one to use, one to cool!

**Stainless Steel:** When heated can be attached to a ball of hot glass. When cold, you can push glass around and it most likely won't stick until the hot glass heats it up enough to do so. Doesn't draw nearly as much heat as brass, which is great for color mixing, frit designs, shard application...or any process that requires a bit more time. Cools off more rapidly than Brass so can be used again more quickly. If you allow the flame to touch this metal it will eventually break down and will need to be grinded down to a smooth surface or replaced. This applies to blowpipes especially...I have to grind mine down every 7 days or so.

**Surgical Steel:** This is basically stainless steel that meets the requirement for surgical/medical use. This means it has a perfectly smooth surface that should not allow fluids or tissue to reside in any cracks or divits in the instrument. It will work like stainless steel with only a slightly slicker surface.

**Graphite:** I know - not necessarily a metal! Graphite will not melt or stick to glass, no matter how hot. It is used in oil wells for this purpose should they have a blow out. It draws limited amounts of heat from the glass, but cools quickly. It is great for shaping due to its slick surface and can be sanded, drilled, or cut with a saw into any shape. Once you cut your graphite and sand (minimally) into shape, wash off the residue, rub an old knee high or pair of pantyhose over the surface and you are ready to use it!

## Metals to avoid:

**Aluminum:** Will melt and become intensely hot in your hand!

**Copper:** will react with the glass you are using and will melt like aluminum, just a bit more slowly.

**Iron:** will turn most glass muddy gray or black...very heavy to use and gets HOT!

**Non-stainless Steel:** Will work somewhat like stainless except it will leave larger chill marks, even pits due to its uneven surface. It may flake off into your projects as well. There are so many levels of quality with this metal you never know what you may end up with in a tool or rod.