



A Cut Above

Knew Concepts Titanium Soldering Clamp Strips

V1.0

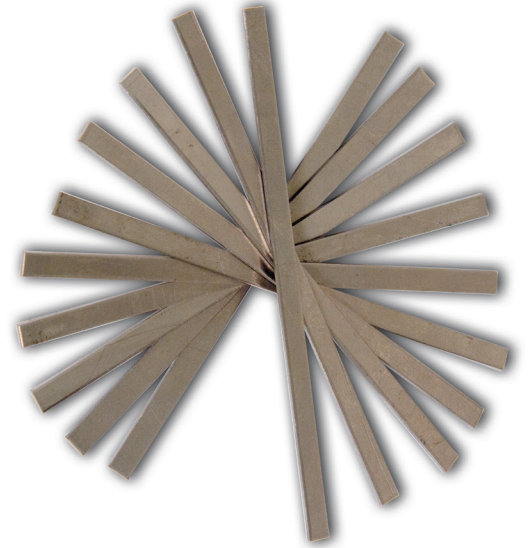
Knew Concepts Titanium Soldering Clamps.

Inspired by British Master Goldsmith James Miller, these titanium strips can be easily bent into a wide range of specialized custom clamps for jeweler's hard soldering operations.

Titanium has several advantages over traditional iron clamps when it comes to soldering. Solder doesn't stick to it. Enamel doesn't stick either. It stays strong when red hot. It doesn't erode and flake away at heat, so your clamp tips can be smaller. Most importantly, titanium doesn't transfer heat nearly as quickly as steel clamps, so it interferes with nearby joints less than steel clamps do.

These clamps are sold in a pack of 10 "blanks" as straight 4" strips, to allow you to bend your own ideal clamp designs. Each soldering situation is different, and while there are a few basic designs that we illustrate below, every jeweler is different, and each solders in their own unique way, and will need clamps customized for their own personal style, and unique needs. The titanium strips are fully annealed, and can be bent and filed to suit in minutes.

To date, we've used them for: holding ear wires during soldering, holding bails and jump rings, clamping down sweat soldered panels that had warped during the first soldering, clamping several items together during soldering, soldering hemispheres into a full sphere, holding spheres onto ring shanks..... The list will go on.



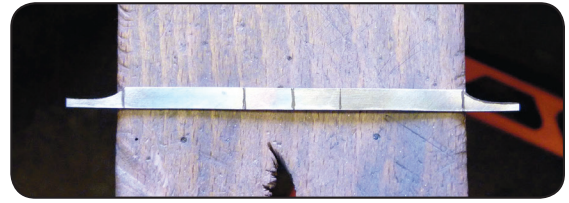
A selection of various clamp shapes made by James Miller from the blank strips

Photos courtesy of James Miller.

Making Your Own Clamps

1. Mark Bends and Ends. Lay out and cut whatever sorts of ends you think you'll need. Thin ends will pull less heat, thicker ends will be stronger..

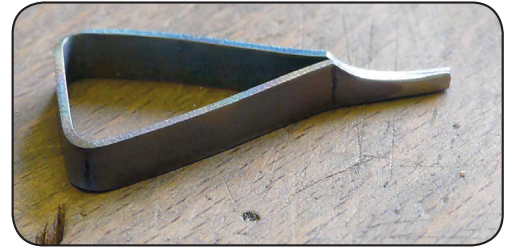
2. Bend with Pliers. Note the ends are bent out, so that they end up coming together in step 3.



2a: First bends



2b: Second bends



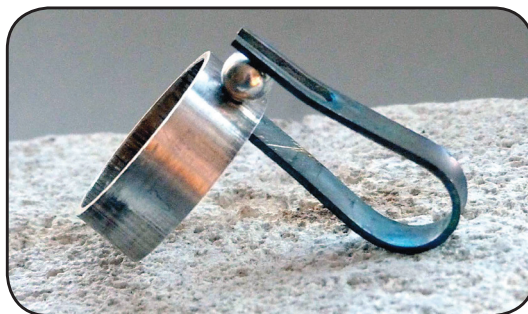
3: Finished clamp

3. Finish Bends, and File Tips Smooth.

Photos courtesy of James Miller.

More Ideas

Each soldering situation is different, and may require a new solution. Below are photos of a variety of different clamp types that have proven useful. Most are very intuitive. The only one with a 'trick' is the forked one for holding spheres. The tines of the fork must be parallel. Otherwise the sphere squirts out. If you come up with a new design that you find useful, please let us know. We'll be happy to share it with the rest of the community. Remember that the greater strength of titanium allows smaller tips, which pull less heat away from your joints. That's why so many of these are tapered.



Photos courtesy of James Miller.