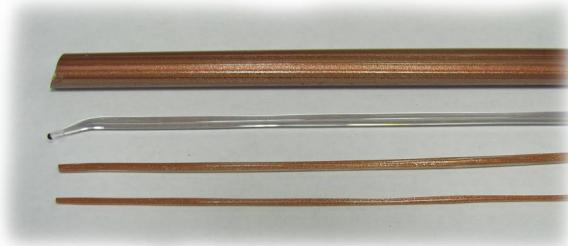


Devardi Glass And The Hothead Torch
... Tutorial Series ...

... HOW TO MAKE GOLDSTONE STRINGER...

Learn To Encase Luster and Opaque Rods and Then Pull Stringer



TUTORIAL OVERVIEW...

In this tutorial you will learn to encase an Adventurine Goldstone Luster Rod with a clear stringer and then pull Goldstone stringer from it. Once you learn this simple art you can create your own Filigrana stringer in any opaque color. Any color of rod can be encased with clear (or other transparent color) for wonderful effect and durability in the flame. The possibilities are endless! I show three items decorated with Goldstone stringer above. Feel free to make them up if they appeal to you. Any item we include in these tutorials can be reproduced for your own use or sale.

Encasing an opaque color with clear provides protection from the heat of the flame and allows it to be worked harder and longer in the flame. It allows vines and drawn-on stringer designs to stay crisp and sharp because they are encased in clear (or another transparent).

I use a Hothead Torch in this tutorial, but any torch can be used to make stringer. If you are on a surface or pre-mixed torch you will need to make adjustment for the significant difference in heat that it produces. A Hothead torch is much cooler than other types of torches.

I show the Hothead Torch in each picture so that you can gauge the location of it if you are having a problem with where to position things in and around the flame. Realize that you are looking down at the torch, so you can't see what is held below the flame and what is in the flame, except when glass is glowing. I try to state the exact torch position when it is important to the step.

I encourage you to read through the steps before you begin. Please feel free to email me at FineFolly@bellsouth.net if you need help. I always like to help if I can.



..*:. ON THE IMPORTANCE OF A ROD WARMER ..*:.

Using a Rod Warmer to preheat Devardi glass rods makes all the difference in the world in preparing them for the flame, so if you don't have one, I STRONGLY encourage you to get a Rod Warmer. They are not that expensive and they are available from Devardi or can be purchased online from Beauty Supply sites (they are called Ceramic Heater Stoves).

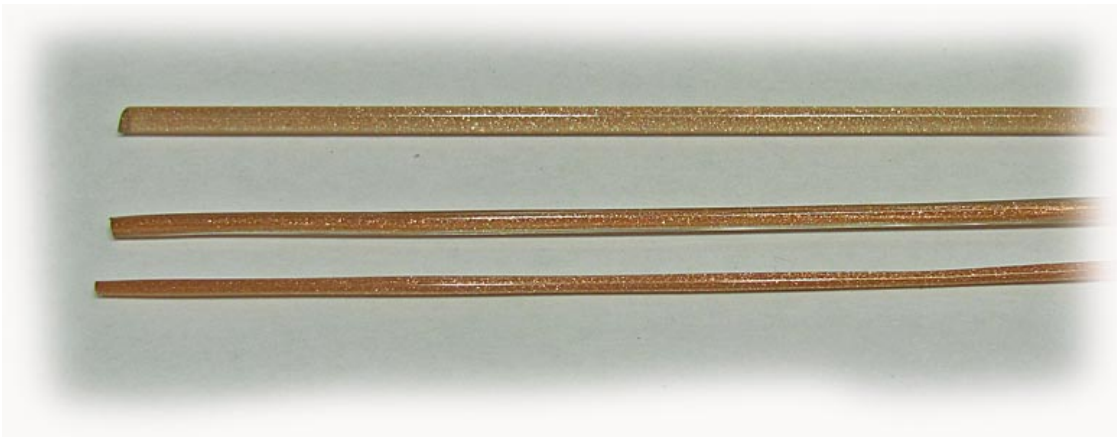
You can take the time to wave and roll your cold rod in the high, back-end of the flame to warm it, and then ever-so-slowly bring it forward, rolling and heating it until you can bring it into the actual working area of the flame, but most people don't have the time or the patience to do this successfully on each rod. And it's really not cost effective to spend your time this way either. Even after doing this some people still experience shock or shattering, despite their best efforts to adequately pre-warm rods.

A Rod Warmer reaches 800-900 degrees, so you will rarely ever experience shock or shattering if you use one. Some people use a small Teflon coated Grill or Hotplate successfully by spending the extra time to make sure the rod is heated slowly in the flame at the start, but these don't come near the temperature of a Rod Warmer.

About my set-up... As you can see in the picture above, I use a medium-sized nut can (from Walmart) turned upside down to rest the ends of the rods on. It is just the right height and width. The Rod Warmer gets very hot, so I wrap a piece of Fiber Blanket around the cord at the back to act as a heat shield between the Rod Warmer and the cord, because I have the Rod Warmer in the back corner of my worktable. Ceramic tile is behind it.

Devardi offers an inexpensive steel plate for the inside bottom of the Rod Warmer. It will protect the bottom from glass rods that get put back in the Rod Warmer to hot. They can stick to the ceramic bottom and sides if you touch them together in a molten state, so be sure to roll your rod and cool it before returning it to the Rod Warmer. The top of the Rod Warmer makes a great surface to preheat Murrini on before applying them. I have the Murrini sitting on a small piece of steel plate, also available from Devardi.

To work Devardi glass with the greatest ease and productivity, put your rods in the Rod Warmer about 2" to 3" deep. You only want to preheat the rod end, so that you can hold it normally and work it in the flame. When you first turn on your Rod Warmer plan to preheat your rod(s) for 5 to 10 minutes before you use them. Then, after each use, roll the tip of the rod on your marver to shape and cool it before you return it to the Rod Warmer. A glowing rod end will stick to the Rod Warmer or to other rods. Keep returning the rod to the Rod Warmer so that it is ready for the next use. Cool rods can be put into a hot Rod Warmer without shock, and used once they are fully warmed (about 5 minutes on average).



..:*. STORE BOUGHT versus PULLED GOLDSTONE STRINGER..:*.:

The Goldstone (Adventurine) stringer that you pull will be intense in Goldstone content and will be much more dramatic in your work than the pre-made Goldstone stringer that you can buy.

The pre-made Goldstone stringer you buy is mostly clear glass (as you can see in the top stringer in the picture above). Pulling your own Goldstone stringer will give you the solid rich color of a Luster Rod in your work, as you can see in these beads.

And you can encase any opaque glass rod or any color Luster Rod with this technique. You can also encase opaque and Luster Rods with different colors of transparent glass to deepen or change their color. Experiment and see what works.

One more point... please note that Adventurine Luster Rods will develop a metallic coating if left in the Rod Warmer too long. You can still encase them if they do develop this sheen, but you should remove the rod when you are finished using it to prevent it from forming.

HOW TO ENCASE AN ADVENTURINE LUSTER ROD ...:. And Then Pull Goldstone Stringer ...:..



WHAT YOU NEED TO BEGIN...

Rod Warmer

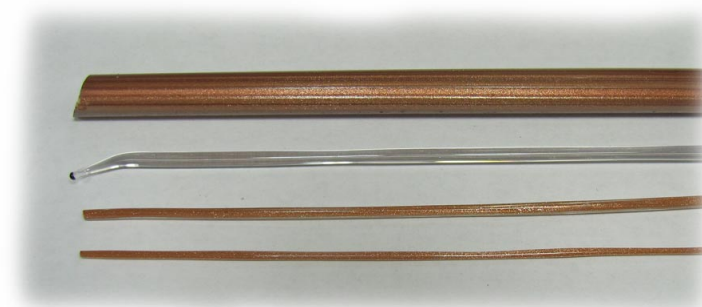
Hothead Torch

Pliers

Wire Rack To Set Hot Stringers On

Solid Adventurine Luster Rod

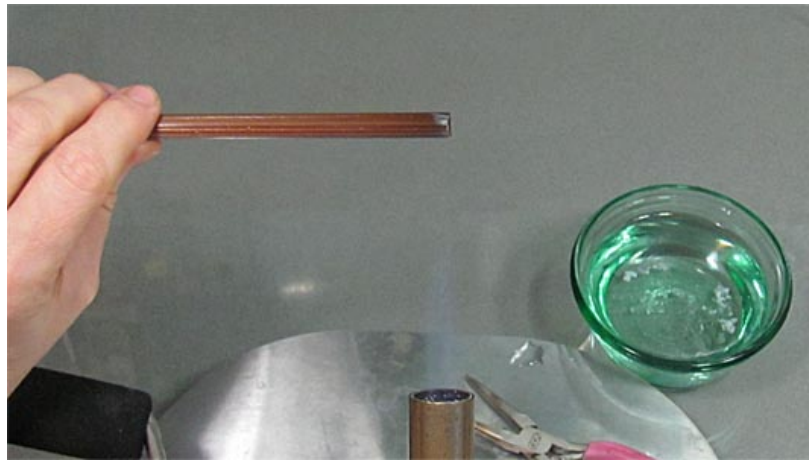
Bowl of Distilled Water (Distilled water helps keep minerals from building up on your tools)



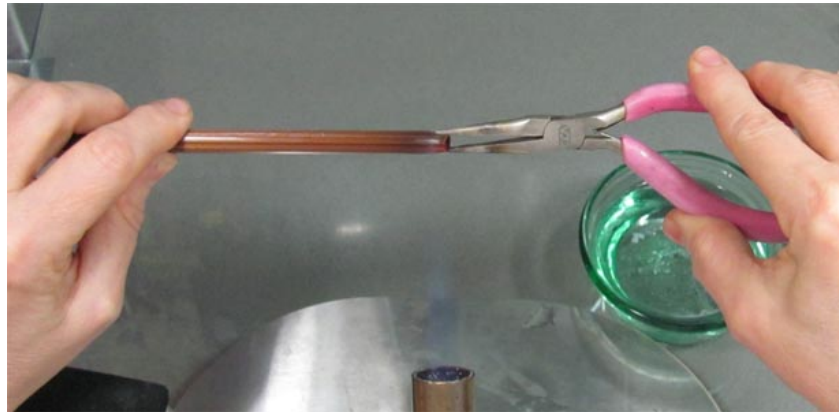
...:. TORCH LOCATION AS YOU WORK ...:..

I show the Hothead Torch in each picture so that you can judge the location of where yours should be as you work. And if you are having a problem with where to position things in and around the flame remember to refer to the torch location in the steps, and check yours against it. And note that your torch should be set as low as it will run without going out.

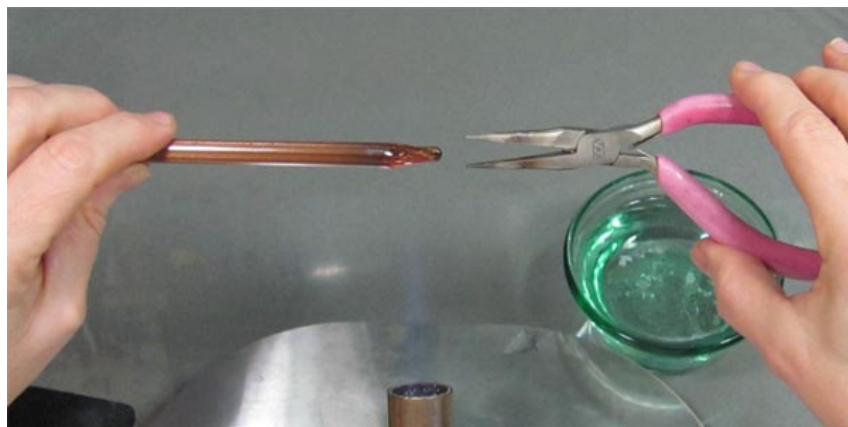
Also realize that you are looking down at the torch in these pictures, so you can't see what is held below the flame and what is in the flame, except when glass is glowing. I state the distance to the torch and the position in the flame and when it is important to the step.



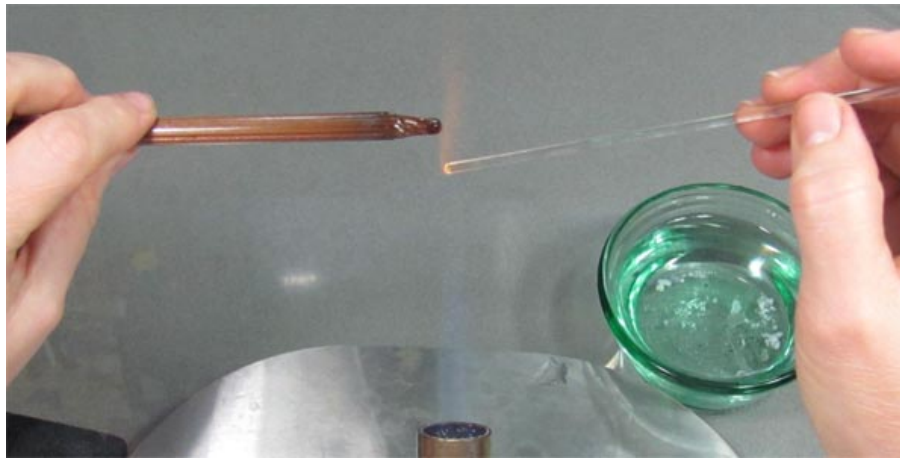
STEP 1. Remove your pre-warmed rod from the Rod Warmer and slowly roll the tip in the flame, about 4-5 inches from the torch. You want the edge to begin to softly glow.



STEP 2. Begin to pinch the end of the rod into a cone shape (you want to make a cone with a blunt end not a sharp tip). Dip your pliers in distilled water after each pinch or two to cool them. If you allow your pliers to get too hot they will stick to the glass, so cool frequently.

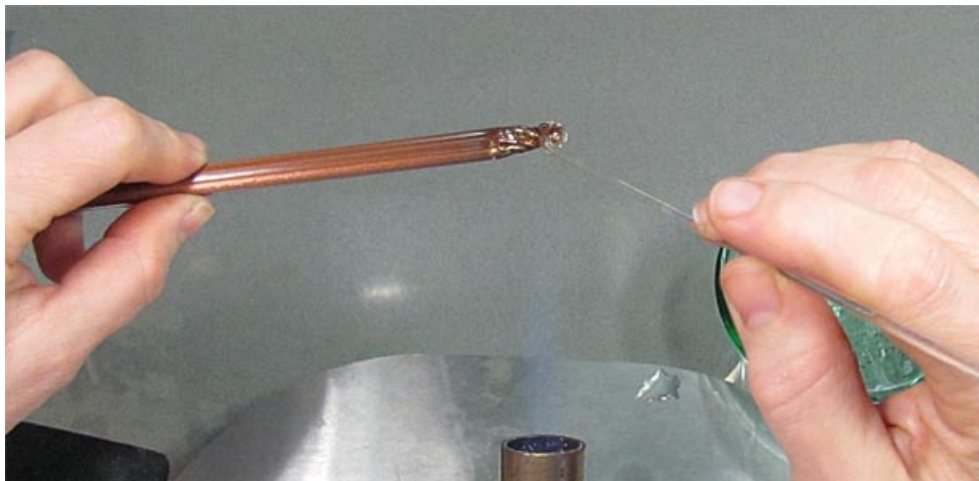


STEP 3. Once you have pinched a basic cone shape, heat the cone gently to soften out any deep ridges made with your pliers. You are heating to smooth out any deep ridges that could trap air bubbles when you wrap the rod with clear stringer, but realize it doesn't have to be perfectly smooth. As you wrap with the clear stringer, any unevenness will continue to smooth out.



STEP 4. Now gently preheat the end of your stringer in the flame and touch it to the end of the cone. Begin to slowly coil it around the tip as you turn the rod.

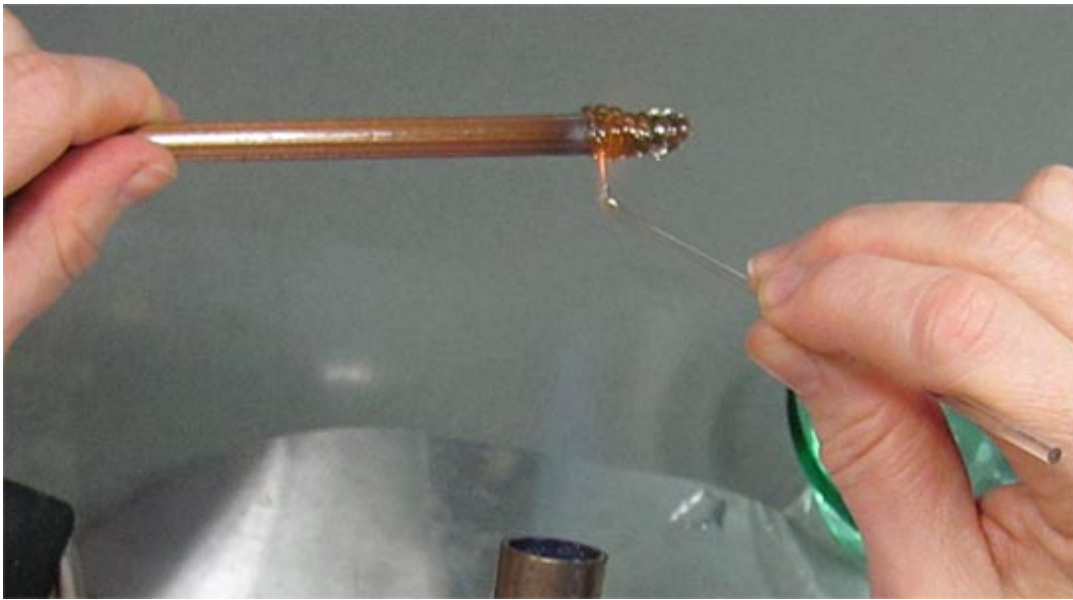
Hold the stringer on the right side of the flame and tilt it in toward the flame until you feel it start to give or soften, but stay just firm enough to “draw” with. See the angle below. Use a long enough clear stringer to keep your fingers back on the stringer out of harms way.



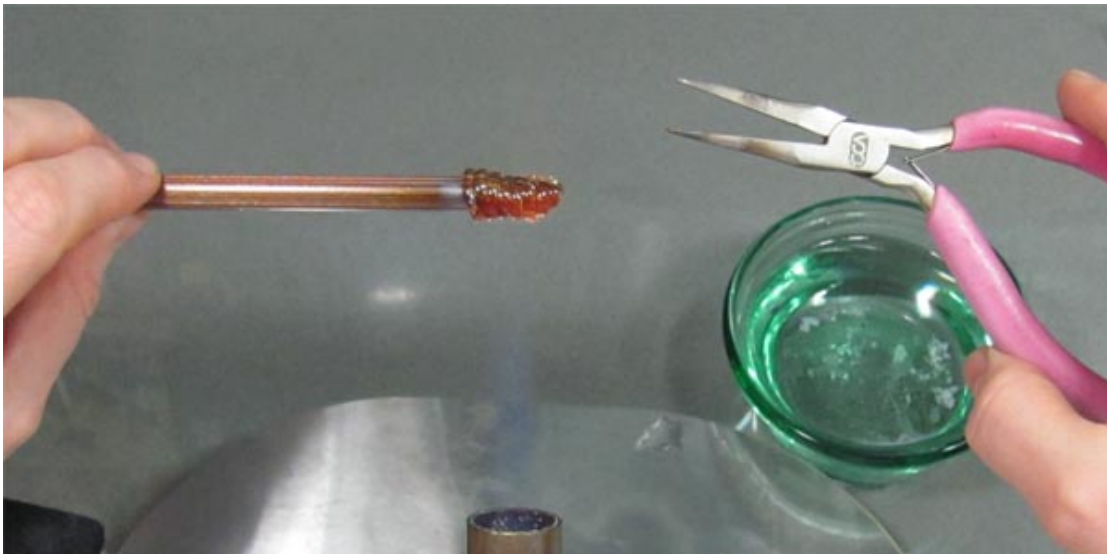
Once you find the spot in the flame where your stringer is barely softening, slowly roll the rod with the fingers of your left hand and let the stringer coil around the rod. Wrap each coil snugly against the coil you just made to prevent gaps of coverage on the rod. If you have gaps, go back and add another swipe of clear when you finish your coiling.

NOTE: The rod end should be held slightly BELOW or to the left of the flame so that it doesn't go molten and droop. The bottom inch of the stringer is in the flame about 4” from the end of the torch head. If the rod cone gets to molten and starts to droop, don't panic, just shift both hands up or below the flame and roll/turn the rod to help the cone shift/droop back into a straight position (and let both cool just a bit) and then re-position and start coiling again when your stringer starts to soften and give.

Learning where to hold each side is what it's all about. Expect to struggle a bit - and pay attention to what happens to your stringer AS you move half an inch this way or that way, to find the right working areas around your flame.

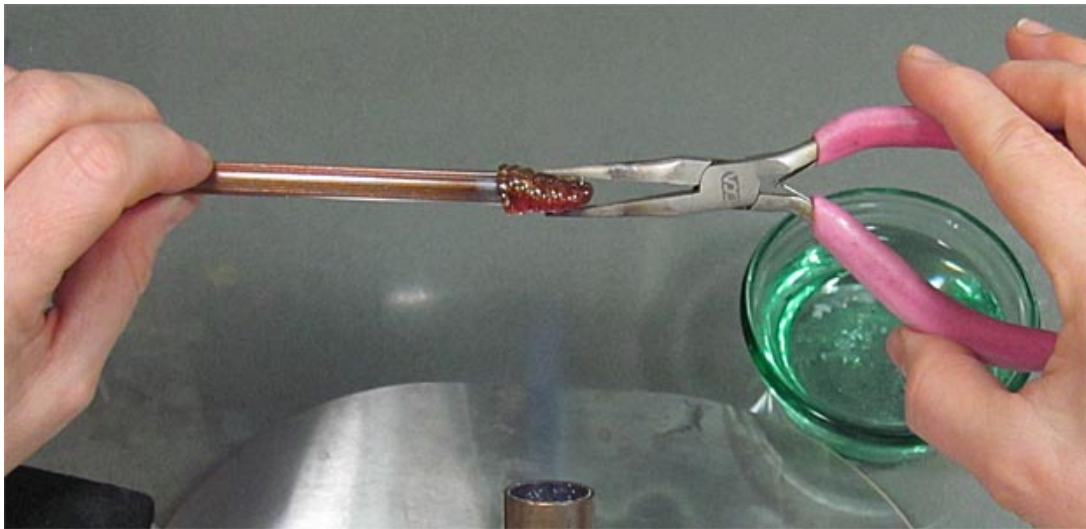


STEP 5. Wrap about $\frac{1}{2}$ inch to $\frac{3}{4}$ inch on the rod and then flame-cut the stringer. If you wrap to long a length you can have shock as you reheat the cooled coils at the tip of the cone. If that happens to the tip, just gently reheat the area and apply more stringer.

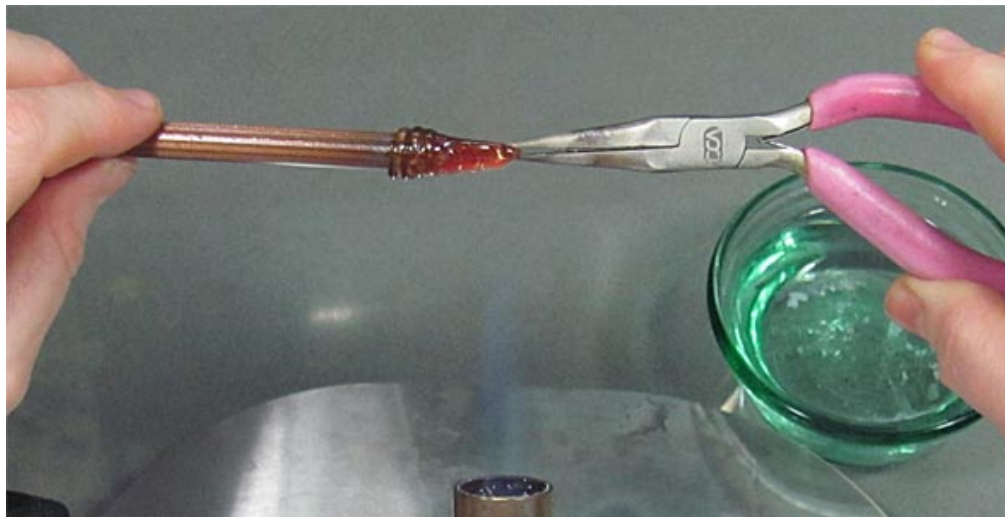


STEP 6. Now gently heat the cone to a soft glow. You want the coils to begin to merge together and you want to keep the soft cone shape, so use your pliers to gently reshape the cone if needed. Dip your pliers in water to cool them after each squeeze.

If you discover gaps between coils, add more stringer to the uncovered places - or see if pinching gently spreads the clear into the gap.



STEP 7. As you heat and shape the cone, remember that you want a blunt end on the rod, not a point. If the cone droops as you heat it, use your pliers to straighten it and let it cool just a bit. Then start again.

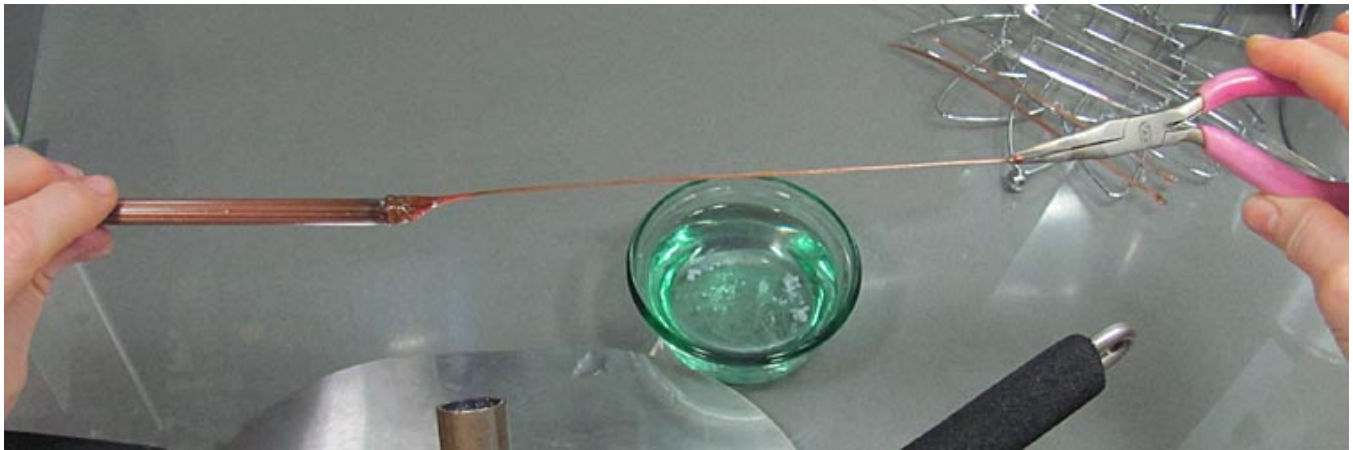


STEP 8. Once the coils on the end of the cone are fairly well melted in, use your pliers to pinch a tab. The size and thickness of the tab will affect the stringer size.

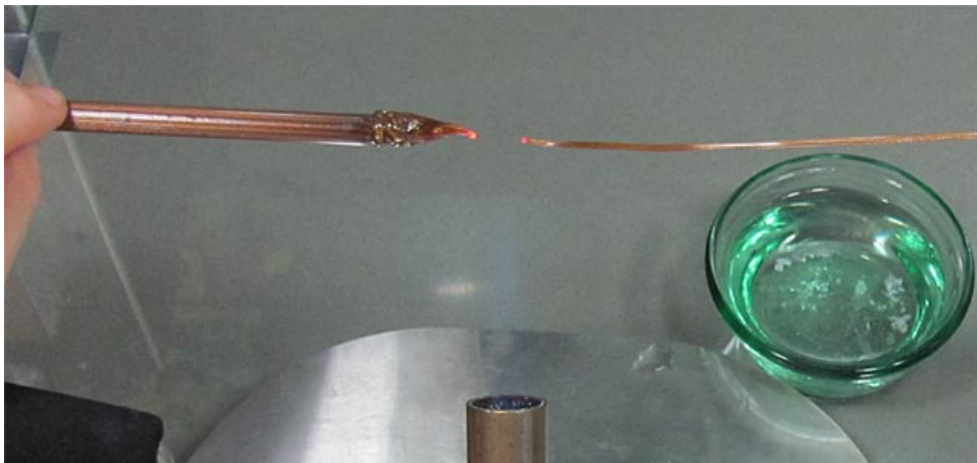
Pinch your tab and then gently begin to pull to the right with your right hand. Keep the cone in the flame and glowing as you pull. How fast or slow you pull affects how thin or thick your stringer will be. Pull slowly to get thicker stringers.

You want to pull stringer about the thickness of thin spaghetti for your first tries. Remember that encased Goldstone is stiff unless it's molten. Even in the flame, as soon as it gets cool it gets stiff and brittle, so be patient and find the place in the flame that keeps the cone/tip glowing and allows you to continue to pull.

In this picture the rod cone is being held in the flame, about 3-4 inches from the torch head.



STEP 9. Pull the stringer to the length you want it, or are comfortable handling, and then begin to lower the rod to the flame to cut it.

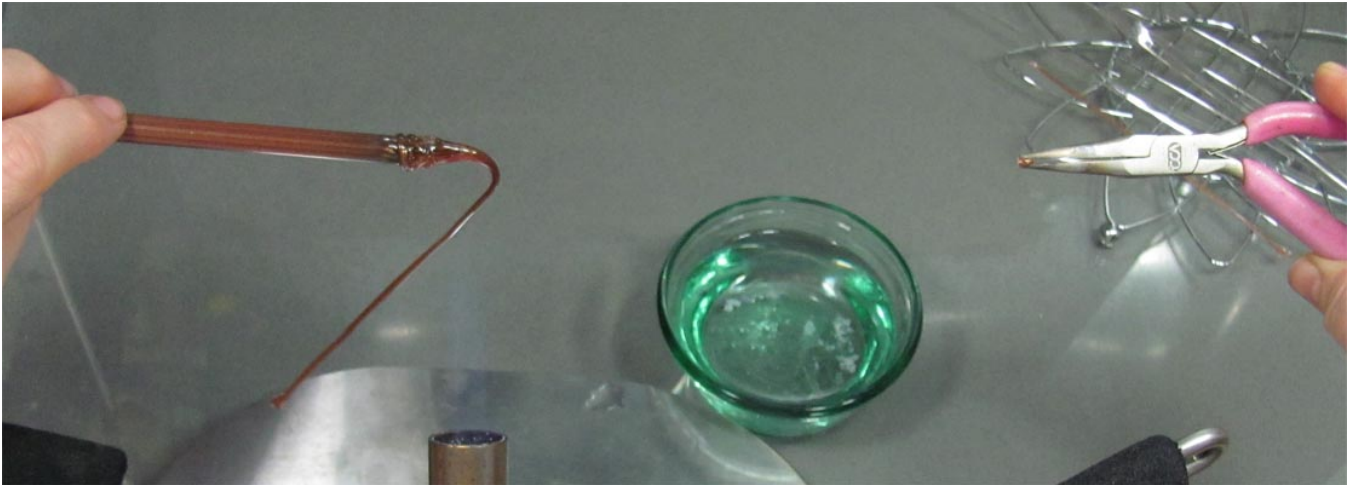


STEP 10. Just as the stringer comes to a hot glow and turns soupy, pull to the LEFT with your left hand to 'cut' it in the flame. Pulling with your left hand gives you a sharper end on your stringer. Set your hot stringer down on a rack to cool. If you set it on a cool surface it can break. Be aware that the end of the stringer that you held with your pliers can sometimes pop off due to uneven cooling. When you set your stringer down be sure to angle your stringer away from you in case this happens. That way if the pinched-end pops off it is angled away from you.

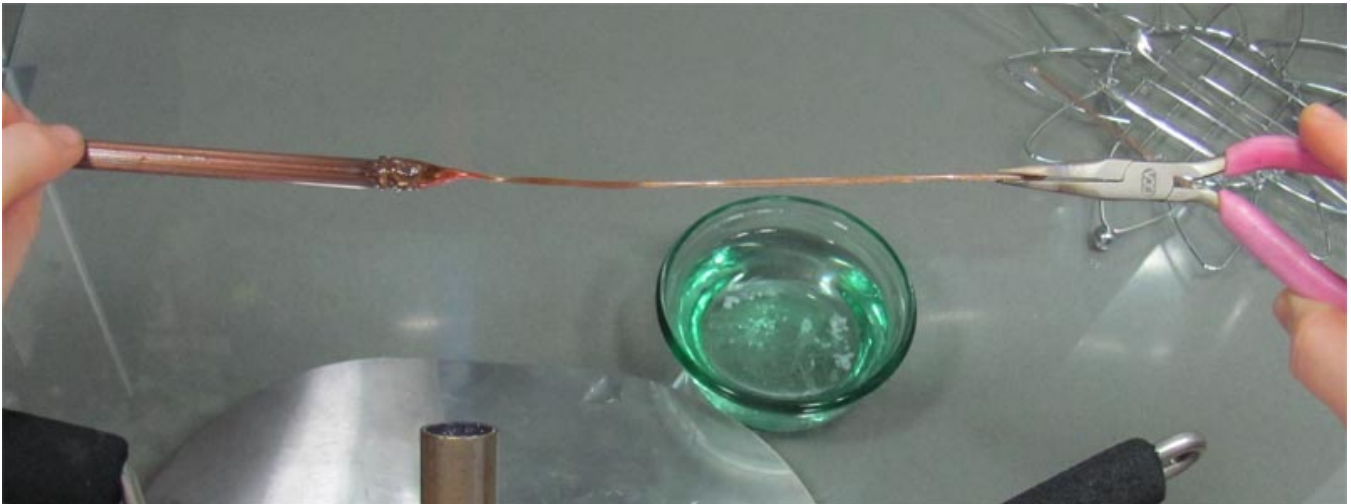
To pull more Goldstone stringer you can repeat the process, wrapping behind the coils that are left with clear stringer, then melting in the coils and pulling again. Practice making Goldstone stringer in all thicknesses. You won't believe how fast you use them up once you have them at the ready!



... And If It Breaks ...



Sometimes the Goldstone stringer will break in your pliers AS you are pulling, and then your stringer flops down right in front of you. Don't panic if this happens. Let it flop down and then...



...pick up the end of the stringer, being VERY CAREFUL as you reach under your flame to do it. Re-position the rod and stringer above the flame to warm the stringer/cone end and straighten them, and then flame-cut your stringer.

This is an unstable hold and it may break again, so don't try to keep pulling. Flame cut it and set the stringer on your rack to cool. Then pinch another tab and start pulling again.

As you get to the end of the coiled area, stop and wrap with clear stringer again and then melt in and pull more. You can never have too much Goldstone stringer pulled!

..*:. Closing Thoughts ..*:.

You can use this method to make your own **Filigrana Stringer** (solid colored stringer encased in clear or transparent). The vines you draw will stay sharp, and the designs you draw with them will stay crisp in the flame because they are encased and protected.

To draw with your stringer, preheat the area on the bead surface and then set your stringer on the bead and find the place beside or in the flame that causes your stringer to relax just enough to draw with it. When you find this special 'spot' in or near the flame, you should be able to put gentle pressure on the stringer to draw as you like while it stays stiff in your hand, yet glides onto your bead at the tip – not too hot, not too cool! Flame cut it when you are done.

Use a tool to touch the end of the flame-cut stringer down on the bead so that it doesn't shrink away when you re-heat the area to seat the stringer work. You need to go back over the 'drawn on' area and heat it in the flame to 'seat' your stringer work, or it can pop off later as it cools.



Here are just a few examples of things I have made using encased Goldstone stringer. As you can see, I have used it on thimbles, beads and vessels. The pink Bumble Bee in the top right corner even has Goldstone rings on his rear end! Feel free to make up any of these items, if they appeal to you. Any item we include in these tutorials can be reproduced for your own use or sale.

Enjoy using your stringer – the sky is the limit on what you can create!