



## Breaking the Ice: Torch Firing Video and Cliff Notes

Torch firing is a great way to get started with working with Fine Silver Metal Clay. It opens the door to making small pieces, earrings, charms, sculptural elements to be added to traditional metalsmithing, and so much more. For successful torch firing of Fine Silver Metal Clay, you need a well-sintered piece for strength and durability.

### Breaking the Ice: Torch Firing Video

<https://youtu.be/AyBa5yTxp2s>

In the video you will see the whole process for learning the essential skills of torch firing:

- Understand the importance of shrinkage and how to calculate it.
- Knowing what to look for in a fully sintered piece.
- How to use a torch.
- Knowing the hot and cool spots of your flame.
- How to know when your piece is done.
- How to avoid accidentally melting your piece.

### Breaking the Ice: Torch Firing Cliff Notes

#### Safety First

- Hair back
- Your set up should be 12" away from anything.
- Good ventilation
- Safety Glasses

#### Pieces that Qualify for Torch Firing

- The Piece must be completely dry
- Size - No more than 25 g (about a 1 1/4 diameter or 6 cards thick)
- CZ's must be under 5 mm (no quenching)

#### Torch Set Up

- Heat Proof Surface - large tile or metal surface
- Fire Brick
- Torch ( Any jewelry torch)
- Bowl of water and tweezers

#### Torch Process

- Measure your Greenware before you start, so you can compare it with the size of the fired piece
- Dim lights to be able to see the peachy glow you are trying to achieve



- Hold torch approx. 2 inches from piece circling outside perimeter of the piece
- When you see it get dark, smoke, then a small flame, the binder is burning off
- Then you can torch directly on the piece
- The hottest part of the torch is just in front of the dark blue cone, this is where you want the piece to be
- Look for a peachy glow, then
- Start timing 5 - 7 mins
- Peachy glow must be maintained during the whole time
- The piece then gets white in appearance
- May start to curl due to shrinkage  
(It can be flatten later with a rubber mallet between leather on a hard surface once cool)
- If you see what looks like Mercury during the process, back away to the cooler part of the flame which is the far tip of the flame, as this indicates it is starting to melt.
- You know it is sintering when it shrinks from its original size according to manufacturers packaging
- Using tweezers Quench in water
- Air cool pieces with stones to avoid thermal shock resulting in cracking
- Measure your piece for a second time and compare the measurement with your Greenware measurement. The percentage of shrinkage should be within the manufacturer's suggested shrinkage rate. The higher the shrinkage rate the better.
- You can now move to brass brushing your piece with soap and water and polishing.

## More References for Working with Metal Clay

You might want to read about Kiln Firing, Sintering and Silver Metal Clay <https://www.hollygage.com/post/firingsilvermetalclay>

I'm adding Jewelry Design and Technique classes regularly with small, live, interactive, online group classes. Simply great connectivity with other artists during this pandemic, and tons of learning.  
<https://www.hollygage.com/classes>

Holly's technical blog about working with Metal Clay  
<https://www.hollygage.com/blog>

Holly's Metal Clay Tips, Techniques  
<https://www.hollygage.com/tips-and-techniques>

Holly's Free Tutorials  
<https://www.hollygage.com/tutorials>

Holly's Video Channel  
<https://www.youtube.com/channel/UCXPHe8CeN2txwFfKVmx286w>

*Holly Gage of Gage Designs is a 2015 Saul Bell Design winner recognized for distinction in jewelry design. She creates contemporary jewelry and teaches her unique techniques with a gentle blend of design instruction and technical proficiency. Holly brings her innovation, creativity, and gift of helping others find their artistic voice through classes, mentoring programs, and master workshops. Classes are available live Online, throughout the US, and abroad. She is a full-time jewelry artist, Certified Metal Clay Instructor, author, and conference speaker. In addition, Holly holds a BS in Fine Art and Education. Her jewelry and articles on techniques and design can be found in over 75 regional and national publications including the Best of America Jewelry Artists; Named 3rd in Handmade Business: Top 12 Makers, Movers, and Shakers; Metal Clay Today; Art Jewelry and Lapidary Journal Jewelry Artist; Making Jewellery; among others. You can find more information about Holly's jewelry, classes, and awards, along with numerous Metal Clay tips, tutorials, and blog on her web site at <http://www.HollyGage.com>*

