

## Mold Making

Our shop owns a vulcanizer and wax injector, which is used to make molds. The temperature is preset on both machines. **DO NOT CHANGE THE SETTINGS!** It takes about 30 minutes for both pieces of equipment to reach the proper temperature. Prepare your mold and allow 15 minutes per Layer of molding for processing.

### Prepare the Mold

- Obtain proper sized frame. They are in the casting room
- Place one layer of moldex in the frame. Moldex can be purchased at the shop.
- Place sprue maker (purchased at the shop) at the base of the specimen used for the mold. Arrange so the wax would travel through the void, left by the specimen when it's removed. Arrange space makers in each corner. Place specimen at the end of the rod.
- Powder generously with mold power (purchased at the shop) *This step is very important.*
- Add another layer of moldex. Sometimes more than one layer is needed if the item is thick.
- Carve along the edges of moldex to remove the excess. There is swelling as the product heats and it spills on the surface.
- Place the aluminum sheet on either side
- Place in hold mold maker and clamp down then release slightly.
- Process 15 minutes per Layer. Remove and cool. Be **CAREFUL IT IS HOT!**
- Separate the layers with a knife and remove your specimen. The powder makes it possible to separate the layers.
- Create air vents by cutting out the specimen void

You are now ready to inject wax to reproduce your specimen.

### Use of Wax Injector

You have to make sure the compressor is hooked up. Please ask for help to do this so you can see how this is done at least for the first time making molds and injecting. You will also need to turn on the wax injector to start melting all of the wax in the pot. Once the compressor is hooked up and the pot has heated for about 30 minutes its time to start using the wax injector.

FEES: Please make a donation to the club for using the wax. A few dollars depending on how many molds you make would be sufficient.

*Please do not change or twist any knobs on the injector.* It is set at the right temperature if no one bothers it. The compressor is what allows the wax to squirt out of the machine so be careful when pressing on the bullet shaped part of the machine.

1) Typically when you make a mold you will have a button area to make a void in the mold on the bottom interior of the mold. Make sure you have that first.

2) Get 2 metal plates from inside the casting room to help "sandwich" the mold together. These metal plates help you grab the mold evenly so the wax will flow through out the voids evenly. If you hold the mold by hand, you run the risk of getting the wax all over you and the table. The wax can burn your skin. You can even use wood cut offs, 2 rock slabs etc.

3) Be sure to dust the inside of the mold with a powder (sold in Doc's store for a small fee) or you can use a light dusting of baby powder. This will help with the release of your wax from the mold.

4) Once you have the plates to hold the mold, you will insert the tip of the injector into this hole and press towards the machine to inject the wax. Hold it against the machine, holding down on the plates firmly, for at least 5 seconds. With draw from the injector and let the mold cool.

5) After a few minutes, you can now start pulling gently on the edges of the mold trying to separate the mold from the wax item. Be very careful so you don't break your wax item.

6) Once you have your wax cast out of the mold you can either make another or store your mold in a safe cool dry place. Any wax molds you made that you will not use please place in the drip tray. DO NOT put the wax back in the pot. This might contaminate it.

6) As with anything in our shop, if you ever have any problems or questions please feel free to ask around and find someone who has done this before. There are many of us willing to take a few minutes to show you how to use it and get results.

**\*\*Note\*\*** The club has molds available to use at the shop. If you are interested, ask any shop supervisor to open the casting room and let you look at the molds. These must be returned to the casting room and are never to be taken from the shop.