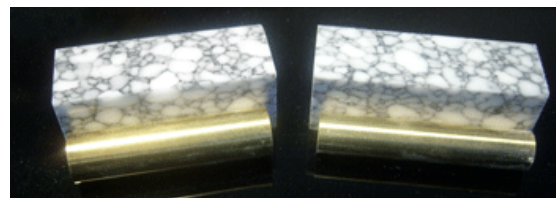
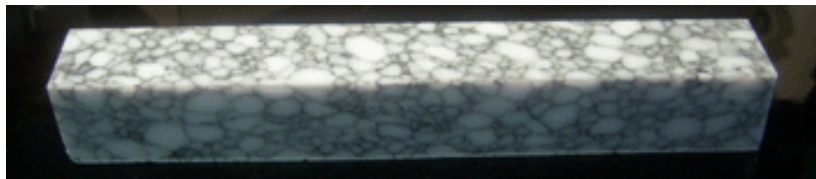


Tips on turning TRU-STONE WXTRSXX

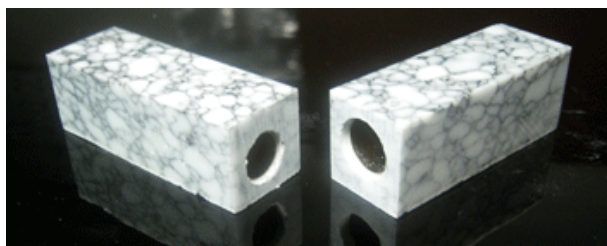
1. CUTTING THE BLANK TO SIZE

Select the blank you want to use, start by cutting the blank to the proper length(s). Use a small bandsaw and cut each section about 1/8"-1/4" longer than the tube. Then true up the end of each blank on a disc sander taking off just a small amount of material.



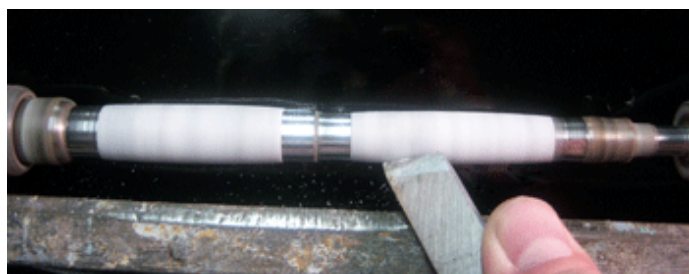
2. DRILLING THE BLANK FOR TUBES

Use standard bits for drilling. Be sure not to cut the blank too short. While drilling, the blank can heat up fast so its good to take short cuts and clear out the shavings frequently. If the blank becomes too hot while drilling let it cool off for a few minutes or add water. Typically, with a sharp drill bit you only have to do this to the hardest of blanks. Then, glue in the tubes. Use two-part epoxy but whatever you typically use for other materials should work just as well. Once the glue has dried, mill the ends and get ready for turning.



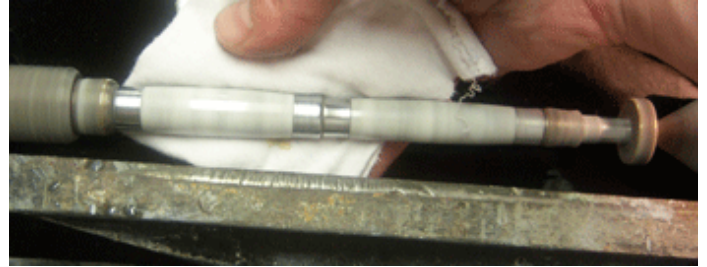
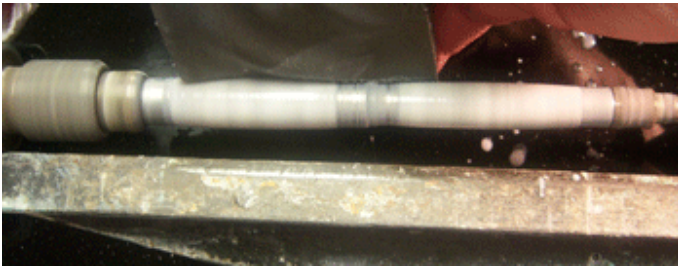
3. TURNING THE PEN

Once the pen is on the mandrel use a large gouge to turn the blank down to its final shape. Patience and sharp tools are the key. Carbide tools (if available) are preferred. It can be very helpful to either cut or sand the corners of the blank before turning. It will save time, and cause less wear on your turning tools. Once the final shape is achieved, finish off with a skew to smooth out any gouge lines and make sanding a bit faster.



4. FINISHING

With turning complete, move on to the sanding. Typically start with about a 150 grit sand paper and then go to 320 and then 400. With each grit sand with the lathe on and then along the length of the pen with the lathe turned off. Once 400 grit is complete, move to the micromeshes. For the micromesh sanding wet-sanding is the way to go. Micromesh sanding without water can cause heat to build up quickly and if overheated the micromesh can get burn marks in it and wear out very quickly. Wet-sanding nearly eliminates the heat build up and dust produced during the process. When doing the wet-sanding it is a good idea to cover up the lathe bed so that it doesn't get wet and rust. Keep either a bucket or bowl of water next to the lathe and dip the micromesh in it before sanding. Starting with 1500 and sand and cross-sand through 12000 keeping the various grades of micromesh (#PKFINKIT) wet throughout the process. Polish with a scratch remover/plastic polish (#ONESTEP). For an extra shine, polishing on a buffing wheel can produce some great results.



5. FINAL ASSEMBLY

Assembly of the finished pen is pretty typical. The only note on assembly is that the harder the blank is, the less flex it has when the parts are pressed into the tubes. Take extra care when pressing tight fitting parts into the tubes. Over expansion of the tube could cause the pen to crack. From experience, this is really only problematic on the hardest of blanks, but worth noting. To avoid this if you know you are working with an extremely hard or brittle blank is to either drill the hole for your tubes slightly oversized to allow for expansion or make sure the parts are not too tight by sanding off a small amount of the part to be pressed into the tube.



Pen:
Broadwell Nouveau Sceptre Ballpoint in
White Marble Tru-Stone