

Wood burning, Background, Techniques and Other Issues

This is the second of a three-part series on wood burning. In last month's edition we cover how wood burners work and some of the concerns when purchasing a unit. In this second part we will discuss using the burner, some techniques and safety concerns. In the final segment we will talk about some of the variables to consider. This article is not intended to endorse any product or company. It is reprinted with the permission of and thanks to Steve Colaguori and the Colwood company <http://www.woodburning.com/>

Usage:

Most burning can be done at lower temperatures...there is no reason for a lot of smoke (or fire!) to come off your work! About 700 degrees will give a nice "toast" to your work. In some cases, if you burn too hot, paint adhesion can be a problem, as the pores in the wood are sealed shut. Burning at a lower cooler temperature will also tend to avoid residue and build-up on your tips.

However, there may be situations where you will need extra heat (power) to undercut or relieve a carving detail and such a cut may require as much as 1500 degrees or more. If you plan to do feather inserts, the unit has to deliver the extra power necessary to accomplish the deep slotted cuts required to accept the pre-shaped feather inserts.

To clean tips, use factory recommended methods, and stay away from coarse emery cloth or sandpaper, unless you wish to buy new tips – often!

One method used to clean and restore tips is a cleaner pad that has very fine abrasive (600/800) grit bonded to both sides of a foam core pad. This is fine enough to clean your tip without removing metal, and is still enough to redress a dulled tip.

Another method is a leather strop to sharpen and buff out an edge. The strop can be treated with a bit of Neat's foot oil or a very small amount of polishing paste or extremely fine honing compound. Use care, too little is better than too much when it comes to burning tips. Work the tip cold, and with tip on its side, use gentle draw

strokes with a finger lying over the upper side of the tip to support it.

As I burn, I keep a piece of old used denim trouser leg (faded) on a flat surface nearby and occasionally wipe my hot burning tip quickly from side to side on it, and this action keeps the pen clear and buffs as I work. Don't dawdle as you do this wiping action from side to side, or you will char the cloth, build up residue on the pen tip, and suffer the smell of burned cloth!

Technique:

For control and accuracy, you must always establish a surface anchor or "fulcrum" with either the little finger or the side of the hand while you texture. I use my little finger to the extent that I have developed callus in much the same way a guitarist or violinist develops a hardened or callused fingertip through contact with the strings of his instrument. This contact with the carving surface is imperative to exercise the control necessary to place a stroke with respect to width, length, direction, and relationship to previously placed strokes. To better understand the need for this concept, try writing a check without any part of your hand touching the surface of the check. If you feel no "pull" or friction on your stroke, chances are you are running at too high a heat setting. You will know, because the surface will be more black (charred) than the middle brown (toast) color you should achieve.

If you feel an inordinate amount of "pull" or friction on your stroke, you are probably operating at too low a temperature setting. If the resultant stroke is just a light brown mark where the stroke begins, and nothing more than a tool mark at the

end of the stroke, you may want to consider an increase in your temperature setting. Hold the pen (hand piece) at sufficient angle as you burn to keep the rising heat from going directly to the fingers – this gets uncomfortable very quickly.

Always have a scrap piece of wood (of the same kind used in the carving) at hand to check, adjust, correct, and practice your burning strokes – before you attempt any burning or texturing application to the carving!

Woodburner Use and Safety:

1. Don't use excessive pressure when texture burning – learn to adjust the heat setting to make it work for you instead of stressing the pen and tip.
2. Check the owner's manual or with the manufacturer to find out whether it is recommended that the unit be turned to full power to "condition" new tips or to burn off carbon – some recommend that you do, others recommend that you don't.
3. Use care and common sense in how you clean and/or sharpen the pen tips. If you use a stone, sandpaper, or a harsh abrasive, you will wear out the tip prematurely, and in some cases, modify or hinder its former use. Use a leather strop or bugging wheel with fine polishing rouge, and learn to work at the lowest temperature necessary to achieve the result you want.
4. Always keep the unit out of the reach and away from children. Tips are sharp and very hot, and will burn skin and flesh easier than wood.
5. Whenever you burn, assume a comfortable and relaxed position, with respect given to arm, head, body and leg position. For example, if you begin to feel stress in the back of your neck, change the angle you are holding the work, or adjust the height of your seat to relieve the strain.
6. Always work with sufficient quantity and quality of light. Use a shadow light (a strong light to the left of the work – if you are right handed) that creates a shadow with each stroke, making it easier to place and register strokes.
7. Turn the unit OFF whenever you leave it – not only will you avoid a fire hazard, but you will prolong the life of the burning tip. Most burning units will heat the tip to operational temperature in less than thirty seconds – time well spent when considering the possible alternatives that could occur by not turning the unit off.
8. If a unit begins to make noise or buzz, turn it off, allow the pen to cool, and change pens. Usually, an occurrence such as this is indicative of a shorted pen. If the noise continues with a new pen, you should contact the manufacturer to ascertain the cause of the problem and/or make arrangements to return the unit.
9. Keep wood scraps available to check heat settings and to practice strokes. To maintain uniformity, the test piece should be the same type of wood as the carving you are, or will be working on.

Group Buy by Priscilla Glasow

Seashells Group Buy Postponed. Due to low interest in this proposed group buy, we'll postpone it until later in the year when members are again thinking about holiday ornaments. Look for another query to determine interest in late Summer/early Autumn. POC: Priscilla Glasow, pglasow@mitre.org.