Rick Urban Woodturner

Changing the way you think about wood... One piece at a time!

Real Time Remote Demonstration

Carving with Fire - Embellishing with Burning and Branding

Frequently Asked Questions and Tips

Q: Do you brush off carbon buildup with the tip hot or cold?
A: You can brush it off any time. If the tip is very delicate just be gentle.

Q: What kind of wire do you use for burning tips?
A: Nichrome wire is the most commonly used for woodburning tips. I use Nichrome 60 (60% nickel, 24% iron, 16% chromium) because that is what I first found, and I've had no issues to cause me to look for something better.

Q: Why not use other types of wire?
A: Different alloys of wire have different resistances, different ability to endure the heat, and other different characteristics. It's a bit like Goldilocks and the Three Bears. Some wires, like kanthal or stainless steel, have characteristics that are a little too much one way or another. Nichrome wire x is just about right. It's resistance doesn't require too much voltage to produce the current to heat the wire hot enough to burn the wood, and it doesn't burn out at that temperature. There are 2 common alloys of nichrome wire: Nichrome 80 (80% nickel, 20% chromium) and Nichrome 60 (60% nickel, 24% iron, 16% chromium). Their characteristics vary slightly with N60 having a higher resistance (0.000112 ohms/cm vs. 0.000108) and lower maximum operating temperature (1010 degrees C. vs. 1175 degrees C.)

Q: What is the resistance you are looking for at the tip?
A: There will be very little resistance to measure. The tips, being very short pieces of wire, register 0 (zero) ohms on a 20 ohm scale. That said, it is resistance that makes the wire heat up, so the nichrome wire does have more resistance than the copper wire leading to the handpiece, and smaller wire has more resistance. More resistance requires more voltage to create the current (amperage) to create the heat.

Q: What are the advantages of low or high power burners?
A: Low power burners (about 60 watts) have one advantage: The handpiece wire is more flexible and doesn't interfere with manipulation of the handpiece. However, higher power is needed to produce more heat to burn hotter and recover more quickly. Also higher power (100 watts or more) may be used with tips requiring less power.

Q: What is wrong with the low priced burners you can find online?
A: Typically very low cost burners (less than about $50) will likely be less than 60 watts. Burners with less than 60 watt power supplies will be completely disappointing for methods like mine. While you can do a great deal with a 60 watt burner, I recommend a burner with at least 100 watts of power.

Q: What is "recovery time" and why does that matter.
A: "Recovery time" is the time needed for the tip to return to high temperature after being cooled during the burning process.

Q: Why should a battery charger (to convert to a burner) be manual instead of automatic?
A: The "automatic" feature of a battery charger will interfere with temperature control of the tip by reducing the current when it "thinks" it is too high. You want to control the current yourself manually with the dimmer control.

Q: Should I draw my design with pencil first?
A: That will depend only on whether you need a guide when you begin to burn. Generally it's a good idea in the beginning when you have less experience. We humans have tendencies to do things in a way that doesn't fulfill our mental vision. Sketching the outline is always a good idea if you are not comfortable with doing it freehand. Some designs with a lot of detail may require a traced pattern.
Remember… PLAN Ahead

Q: Do you do "fish scales" manually with a skew tip or do you make a special purpose tip?

A: I cannot easily do multiple, identical fish scales manually, so it is easier to make a tip for that purpose?

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