

Rick Urban Woodturner

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

Piercing for Mere Mortals (abbreviated)

Tools, guidelines, and techniques to get started with piercing.

Demonstration Companion Guide

Primary Audience: Beginner to Advanced

Time: About 1 hour

Prerequisites: None.



Objective.

The objective of this demo is to explore piercing techniques for thin walled forms to add another aesthetic dimension.

Preparation.

The form to be used should be finished and ready for piercing.

Introduction.

My process for piercing generally involves relatively small forms with a wall thickness of no more than 1/8 inch. I will illustrate one approach for doing so and discuss alternatives when applicable.

Tools.

Carvers. There are many rotary carvers to choose from. I have several.

- Drill, (1500 rpm).
- Flex shaft (Master Carver, 30,000 rpm / 1/4" and 1/8" bits).
- Rotozip tool.
- Motor in hand piece (Dremel) 30,000 rpm / 1/8" and 3/32" bits).
- Micromotor (Master Carver Micro Pro, Marathon, 35,000+ rpm / 1/8" and 3/32" bits).
- Pneumatic (NSK Presto 350,000+ rpm / 1/16" bits)
- The micromotor is my "go to" carver for piercing.

Bits. There are lots of bits, but most are not useful for piercing, and I typically use only a few.

- **Materials.**

- Carbon Steel (avoid).
- High Speed Steel (ok).
- Carbide in various alloy choices (recommended).

- **Styles.**

- Single cut (more aggressive)
- Double cut (less aggressive)
- Diamond - very fine (for "sanding").
- Safe end (without cutting flutes on the end)

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➤ Shapes for piercing and enlarging.

- Drill bits.
- Tapered.
- Dentist drills.
- Cylinder.

Miscellaneous.

- Brass brush
- Fan (blowing alway from the work)
- Something to cradle the work.
- Safety glasses.

Process.

- Piercing begins on the lathe.
 - Wall thickness needs to be no more than 1/8" for micromotor piercing.
- The carver is a „router.“
 - Work against the direction of rotation.
 - Avoid touching the bit in two places at once.
 - Two light controlled passes are better than one big uncontrolled pass.
- Start with a good form. **No amount of carving or piercing will make up for bad form!**
- Draw the major design.
 - Decide spacing, size, and general shape.
 - Consider precision required for what you have in mind.
 - Consider the appropriate randomness.
- Make the first plunge cuts.
- Enlarge the holes.
- Patterns. Many are similar to texture patterns achieved with carvers or burners.
 - Most patterns look better if made random which has to be learned. We tend to line things up, and when we don't do it perfectly it shows.
 - If you want to do a pattern like bricks and mortar you must be very precise. Any irregularities will stand out!

For more information visit my website

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