

I. Wood Lathe Safety Policy

PURPOSE

The purpose of this policy is to help employers provide a safe and healthful workplace. The guide describes the principal hazards of woodworking and the methods for controlling these hazards. The guide is not a substitute for Occupational Safety and Health Administration (OSHA) standards related to woodworking, but can help clarify the regulatory language and technical information covered in those standards. For more comprehensive information, consult the General Industry Standards, *Title 29 Code of Federal Regulations (CFR), Part 1910*. In particular, Subpart O of the General Industry Standards establishes specific machinery and machine guarding requirements for much of the equipment discussed in this guide. Specific OSHA standards for woodworking are listed in Appendix A of this guide.

Personal-Protective-Equipment (PPE)

1. Always wear safety goggles or safety glasses that include side protectors. Use a full face shield for bowl, vessel, or any turning involving chucks and faceplates. Students not wearing safety-goggles or a full-face shield are not allowed within the turning area.
2. Fine particles from a grinder and wood dust are harmful to your respiratory system. Use a dust mask, and dust collection system, to deal with this serious issue. Be especially mindful of dust from many exotic woods, spalted woods, or any wood from which you notice a skin or respiratory reaction.
3. Wear hearing protection during extended periods of turning.

OPERATION PROCEDURES

A. Personal procedures/checks:

1. Tie back long hair; do not wear full-fingered gloves; and avoid loose clothing, jewelry, or any dangling objects that may catch on rotating parts or accessories.
2. Stay alert. Watch what you are doing. Pay close attention to unusual sounds or vibrations. Stop the lathe to investigate the cause. Don't operate machines when you are tired or under the influence of drugs or alcohol.
3. Students should not use stock with cracks, splits, checks, bark pockets, knots, irregular shapes, or protuberances unless they are experienced woodturners. If

students wish to use these kinds of wood, they must have an instructor visually inspect and approve the wood before turning.

4. When using a faceplate, be certain the workpiece is solidly mounted with stout screws (#10 or #12 sheet metal screws as a minimum). Do not use dry wall or deck screws. When turning between centers, be certain the workpiece is firmly mounted between the headstock driving center and tailstock center.
5. Be aware of what turners call the “red zone” or “firing zone.” This is the area directly behind and in front of the workpiece, the areas most likely for a piece to travel as it comes off the lathe. A good safety habit is to step out of this zone when turning on the lathe, keeping your hand on the switch in case you need to turn the machine off. When observing someone else turn, stay out of this zone. Student’s not turning should not be standing outside the taped off area.
6. Some wood is unsuited for turning on the lathe; students should understand the material properties of the wood species they wish to turn; students may only use approved material on the lathe. Due to respiratory safety and studio maintenance, engineered wood products like MDF, particle board, OSB, and glued laminates are **not** allowed on the lathe.

B. Lathe procedures/checks:

1. Remove chuck keys, adjusting wrenches, and knockout bars. Form a habit of checking for these before turning on the lathe.
2. Ensure the belt guard or cover is in place.
3. Check that all locking devices on the tailstock and tool rest assembly (rest and base) are tight before operating the lathe.
4. Ensure the blank is securely fastened.
5. Rotate your workpiece by hand to make sure it clears the toolrest and bed before turning the lathe on. Be certain that the workpiece turns freely and is firmly mounted. A handwheel on the headstock simplifies this process of spinning the lathe by hand before turning on the switch.
6. Always **check the speed** of the lathe before turning it on. Use slower speeds for larger diameters or rough pieces and higher speeds for smaller diameters and pieces that are balanced. Always start a piece at a slower speed until the workpiece is balanced. If the lathe is shaking or vibrating, lower the speed. If the workpiece vibrates, always stop the machine to verify why. As a starting point, consult your operator’s manual for recommended speeds for a particular lathe. Ensure the lathe speed is compatible with the size of the blank.

7. Hold turning tools securely on the toolrest, holding the tool in a controlled but comfortable manner. Always contact the tool rest with the tool before contacting the wood.
8. Note that, when running a lathe in reverse, it is possible for a chuck or faceplate to unscrew unless it is securely tightened or locked on the lathe spindle.
9. Know your capabilities and limitations. An experienced woodturner is capable of lathe speeds, techniques, and procedures not recommended for beginning turners.
10. Always remove the tool rest before sanding, finishing, or polishing operations.
11. Don't overreach, keep proper footing, and keep your balance at all times.
12. Keep lathe in good repair. Check for damaged parts, alignment, binding of moving parts, and other conditions that may affect its operation.
13. Do not attempt any repairs, but contact an instructor immediately.
14. Keep tools sharp and clean for better and safer performance. Don't force a dull tool. Don't use a tool for a purpose that it was not designed for or intended for.
15. Consider your work environment. Don't use a lathe in damp or wet locations. Do not use in presence of inflammable liquids or gases, and always keep a fully-charged fire extinguisher close at hand. Keep your work area well lit.
16. Guard against electric shock. Inspect electrical cords for damage. Avoid the use of extension cords. **Do not use cell phones in the lathe area.**
17. Never leave the lathe running unattended. Turn power off. Don't leave lathe until it comes to a complete stop.

HOUSEKEEPING / DUST CONTROL PROCEDURES

It is the intent of Rowan-Cabarrus Community College to standardize housekeeping measures, meet OSHA requirements, and encourage safety.

Machinery and Equipment

Our housekeeping procedures for tools and movable equipment are:

- Keep tools, and all equipment associated with work procedures in an orderly fashion.
- Turn on Dust Collection unit during each use of the lathe and saws.
- Wood shaving will be removed once a month or as needed.

- Dust collection bags will be emptied twice a semester.

Aisles, Walkways, and Floor:

Our facility does the following things to keep aisles, walkways, and floors clean and open:

- Provide sufficient safe clearances and access to any and all work stations and work areas, fire aisles, fire extinguishers, fire blankets, electrical disconnects, safety showers, other emergency aids, doors, and access to stairways.
- Keep aisles and walkways free of physical obstructions that would prevent access, including path-blocking objects, liquid or solid spills, and other obstructions.
- Keep aisles at least 3 feet wide where necessary for reasons of access to doors, windows, or standpipe connections.
- Keep stairs clean, dry, and free of waste, well-lit, and provided with adequate hand rails and treads that are in good condition.
- Keep floors clean; dry (dry as possible); slip-resistant; and free of waste, unnecessary material, oil and grease, protruding nails, splinters, holes, or loose boards.
- Provide an adequate number of waste receptacles at accessible locations throughout all work areas.
- Maintain adequate lighting systems in a clean and efficient manner and replace bulbs as soon as possible after failure.
- Properly maintain walls.
- Provide any stairs or platforms adjacent to or leading into the building(s) with adequate rails, adequate treads to climb and an area clean and free of materials.
- Keep grounds neat and orderly, free of refuse and unnecessary materials.
- Store materials outdoors only in designated areas of the grounds.
- Provide designated walkways through grounds, preferably paved and kept clear of snow, ice, materials, or any other physical hazards.
- Provide a lighting system that is adequate to allow employees to navigate around the grounds as necessary at dusk and after dark.

