

ET124 – ET137

GENERAL LABORATORY SAFETY

1. Safety glasses or approved eye protection MUST BE worn. (Industrial quality with side shields.)
2. Watches, rings or long ties are not to be worn in the lab.
3. Long sleeves must be rolled above the elbow.
4. Open toed shoes are not permitted.
5. Eating or drinking is not permitted in the machine area.
6. Guards should not be removed or rendered inactive.
7. Do not wipe any revolving work piece, cutting tool or machine component with your hands or a shop towel.
8. Student instruction is prohibited, do not disturb another student while they are operating a machine.
9. Report any injury immediately.
10. A chip brush should be used for clearing chips only after the machine has come to a complete stop. Do not use an air hose.
11. Never start a job until you thoroughly understand what you are to do.
12. Tools should not be carried in the pockets of your clothing or apron.
13. Always remove burrs and sharp edges unless otherwise stated.
14. Be aware of pinch points - eliminate if possible or position your hands so they will be out of danger.
15. Do not attempt to start or run any machine until you have received proper safety and operating instructions.
16. Practice good housekeeping. Wipe up spills, dispose of dirty shop towels properly, return tools to their proper location and clean your work area.
17. Do not lean on any machine - always keep both feet on the floor to prevent loss of balance.
18. Panic cords are for emergency use only. Red Stop Buttons may be used for emergency as well.
19. In the event of a power outage left up your hands and do not touch anything until you hear from your instructor.

LATHE SAFETY

1. Chuck wrenches should be removed from the chuck before starting the lathe.
2. Do not clean or oil the lathe while the spindle is revolving.
3. Make sure to keep your work area tidy. Too many tools in the chip tray may cause damage to tools or cause difficulty in operating the machine.
4. Do not attempt to stop or slow the lathe chuck with your hand.
5. Do not wipe any revolving work piece, cutting tool or machine component with your hands or a shop towel.
6. Do not leave a lathe unattended while the spindle is moving.
7. When making adjustments with a wrench, pull not push. If this is not possible, position your hands so that if slipping does occur, your hands will not come in contact with sharp objects, tools, etc.
8. When working with your hands on or near a chuck, arbor, or other work holding device, position yourself so that you cannot accidentally start the machine.
9. Make sure the work piece is held securely before starting the machine.
10. A brush, hook, or pliers (NOT FINGERS) should be used to remove chips and shavings.
11. If a project makes it necessary to extend the chuck jaws past the periphery of the chuck, rotate the chuck manually when checking for adequate clearance.
12. Do not allow stock to extend beyond the left end of the headstock unsupported. Unsupported stock will have a tendency to whip and bend.

Mill Safety

1. Use the recommended feed and speeds.
2. If the cutter should slip out of your hands, let it fall. Do not try to catch it.
3. Always double check to be certain that the work piece and the cutting tool are securely fastened.
4. When seating the work piece on parallels, use a dead blow hammer, never use a steel or copper hammer.
5. The work piece should be positioned high enough in the vise so the cutter will not contact the harden jaws, yet low enough to eliminate vibration.
6. Keep your hands, tools, and fingers away from a moving cutter.
7. Never clean the machine while it is in motion. Always use a brush, do not use your hands or a shop towel.

8. Position tool and handles so as not to fall off of the machine table in the event any vibration occurs during cutting.
9. Do not leave the mill unattended while the spindle is moving.
10. Always remove all burrs or sharp edges after each operation.
11. Wipe up any spilled oil or coolant immediately to prevent slipping.
12. Always pull on a wrench to prevent loss of balance if the wrench slips.
13. Cutting tools should be inserted in the chuck or tool holder only after all adjustments have been completed.
14. Use thin paper for touching the cutter to the work piece.
15. DO NOT CLIMB MILL unless you are instructed to do so.

BAND SAW SAFETY

1. Never operate the machine unless all guards and covers are in place and closed.
2. The guide arms should be adjusted only when the blade is not moving.
3. Never insert hands or tools into the cutting area during saw operation.
4. The saw is designed to stop automatically at the end of each cut. Do not attempt to load the machine while the blade is moving.
5. Always support long or heavy pieces of material on each side of the saw to prevent them from falling and causing injury.
6. Never lean on the saw during operation.
7. When using the vertical band saw always use a vise to hold your work piece.

PEDESTAL GRINDER SAFETY

1. Before using any pedestal grinder, check the clearance between the steady rest and the wheel. The gap should not exceed 1/16".
2. If you adjust the steady rest, rotate the wheel by hand to assure ample clearance between the wheel and the steady rest.
3. Clean glass protector shields before starting the grinder.
4. Do not use a shop towel to hold parts you are grinding.
5. Grind only on the periphery of the grinding wheel. Not on the side.
6. Thin material should not be ground on a pedestal grinder.
7. **Do not grind brass or aluminum.** These materials require a special wheel.