



Safe Operating Procedures

SOPs are designed to help employees identify hazards, limitations, PPE, & safety training for specific equipment/tasks.
Environmental Health and Safety, 414 J.M. Smith Hall

	Equipment/ Task Name	Using Hand-Operated Power Tools
	Departments Impacted	Art & Architecture Department
	Purpose	A power tool is a tool that is actuated by an additional power source and mechanism other than the solely manual labor used with hand tools . The most common types of power tools use electric motors. Internal combustion engines and compressed air are also commonly used.

General Precautions: Eye protection must always be worn.

TASK	HAZARDS	CONTROLS
1. Prepare for Use	Slips, Trips, and Falls.	<ul style="list-style-type: none"> • Clean work area before starting. • Make sure area is well lit.
	Flying Parts.	<ul style="list-style-type: none"> • Secure and tighten all parts before starting. • Use proper tool accessories.
	Bodily Injury.	<ul style="list-style-type: none"> • Check and replace any broken or damaged parts. • Wear appropriate eye protection.
2. Check condition of the blade, if applicable.	Lacerations.	<ul style="list-style-type: none"> • Avoid contact with blade teeth. • Be sure the tool is unplugged.
3. Check that the guard is in working condition and in the proper position, if applicable.	Lacerations.	<ul style="list-style-type: none"> • Avoid contact with blade teeth. • Be sure the tool is unplugged.
4. Plug in power tool.	Injuries from starting tool when in the "on" position.	Ensure tool is in the "off" position before plugging in.
	Potential electrocution from cord in poor condition.	Inspect condition of cord before plugging in. If cord is in poor condition, do not use the tool until the cord has been repaired.
5. Operating power tool.	Lacerations.	<ul style="list-style-type: none"> • Avoid contact with blade teeth.
	Fire	<ul style="list-style-type: none"> • Don't operate tools in explosive atmospheres such as areas with vapors from flammable or combustible liquids.
	Electrical Shock	<ul style="list-style-type: none"> • Check cord and ground prong for damage. • Grounded tools must be plugged into properly installed grounded outlets. • Do not force polarized plugs into an outlet.



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		<ul style="list-style-type: none"> Do not use grounding adapters improperly. Do not use power tools in rain or wet conditions. Make sure that cutting will not come into contact with any utilities. 			
	Bodily Injury	<ul style="list-style-type: none"> Disconnect the plug from power source before making any adjustments or changing accessories. Do not wear loose clothing or jewelry. Tie long hair back. Ensure that material being operated on is secured. 			
	Eye Injury	<ul style="list-style-type: none"> Wear safety glasses or goggles as appropriate. Some tasks may also require a face shield. 			
	Inhalation of Dusts or Particles	<ul style="list-style-type: none"> Wear dust mask or respirator as needed. 			
	Back or Muscle Strain	<ul style="list-style-type: none"> Do not overreach. Keep feet shoulder length apart. 			
6. Unplugging power tool.	Lacerations.	Ensure tool is in the “off” position before unplugging.			
7. Changing blade/bit/other tool parts.	Lacerations.	Ensure tool is unplugged before changing any part of the tool.			
8. Procedure for malfunctioning or broken equipment.	Bodily injury.	<ul style="list-style-type: none"> Obtain Accident Prevention Tag. Mark equipment “Do Not Use” and specify problem or hazard. Whenever possible isolate power source so equipment cannot be used. (Lockout/Tagout) Notify supervisor and/or take equipment to shop. 			
Required Training:		Required Personal Protective Equipment (PPE)			
<ol style="list-style-type: none"> Operation of the tool. Specific safety instructions may be required for various tools. 		<ol style="list-style-type: none"> Safety glasses or goggles. N95 dust mask or respirator (as needed). Hearing protection (as needed). Gloves (as needed). 			
SOP ID	A006	Related Documents	Art Shop Manual	Creation/Revision Date	9/2018

Suggestions, questions, or comments? Please contact EH&S