UNC CHARLOTTE
Department of Engineering Technology

LABORATORY SAFETY ANALYSIS

OPERATING A DISC SANDER

Location: Smith 128A/B

Required Training: Disc sanders are designed and intended for use by properly trained and experienced operators. If you are not familiar with the proper and safe operation of a disc sander, do not use until proper training and knowledge have been obtained.

Required Personal Protective Equipment (PPE): Safety glasses, dusk mask in dusty work conditions, nonslip shoes (recommended)

Reference Materials: Manufacturer's safety rules and operating instructions

PHOTOS	TASK	HAZARDS	CONTROLS
	Remove all jewelry. Wrap long hair in net. Ensure clothing is sturdy and snug. Loose clothing, gloves, neckties, rings, bracelets, or other jewelry may get caught in moving parts.	Caught in sander	• Do not wear any jewelry that may get caught in the sander. • Do not wear gloves when operating a disc sander. • Loose clothing may get caught in moving parts.
	Wear clear safety glasses with side shields and if necessary use a dust mask.	Flying debris and dust particles	• Students are required to provide their own safety glasses. • See laboratory instructor or laboratory manager if you do not have safety glasses before proceeding to use equipment.
	Inspect safety glasses for cracks, scratches or other damage. Ensure the ANSI standard Z87.1 is stamped into the side of glasses. If necessary inspect dust mask or face mask.	Flying debris and dust particles	• If defects are found report this to your lab instructor before using.
	Put on all necessary PPE	Flying debris and dust particles	• Always wear safety glasses. Use a dusk mask in dusty work conditions.
	Inspect work area, walk around sander looking for debris and ensure proper lighting.	Slips, trips & falls	• Keep the work area around the sander free from scraps, dust, oil and grease.

	Inspecting sander, ensure the sander is stable (not rocking) on the floor.	Tip over, sliding, walking	• Report any defect to your laboratory instructor or laboratory manager and ensure corrective action before operating. • Replace any warning labels that have become obscured or removed.
	Visually inspect the electrical power cord.	Electrical shock	• If the electrical cord is damaged or worn the electrical cord should be unplugged and tagged "Out of Service-Do Not Use". • This should be reported to your laboratory manager immediately. • Electrical cord replacement should only be conducted by a factory authorized technician.
	Ensure the electrical cord is connected to the outlet.	Electrical Shock	• Caution: Always remember to disconnect the electrical power cord before adjusting the machine.
	Visually inspect all adjustable parts.	Cut, injury	• Check for damaged parts on machine. Before using the machine check to see that all parts are in working order. Damaged parts should be repaired or replaced before using the machine. • Disconnect the power before servicing or changing accessories. • Follow instructions for lubricating and changing accessories.
		Struck by, fire, injury	• Locate and ensure you are familiar with the operation of the ON/OFF switch. • Make sure the work piece does not have any protruding nails, staples, screws, etc. This can damage the sanding belts or discs or sparks may start a fire. • Always be aware of where your fingers are in relation to the sander disc. • Do not use the sander if the belt or disc is cut or torn.
	Turn the sander on by switching the button to the "ON" position.	Cut	• Make certain that the sander is free of any work pieces. Guards should be in place and used at all times.
	Operating sander	Struck by flying debris, laceration, injury	• Devote your individual attention to the work being performed. • Don't overreach. Keep proper footing and balance at all times. • Make sure the work piece does not have

			any protruding nails, staples, screws, etc. This can damage the sanding belts or discs or sparks may start a fire. • Always be aware of where your fingers are in relation to the sander disc. • Never stand on the machine. Serious injury could occur if you fall off the sander. • If the machine is not working properly, shut off the power at once and notify your laboratory instructor or laboratory manager. • Never leave the machine running unattended. Do not leave the machine until it has come to a complete stop. • Do not use the left hand side of table on the disc sander. The material can fly up and hit you. • Do not remove jammed wood while sander is on. Turn off power, and wait until machine has stopped. • Hold material firmly against the table before applying pressure on abrasive. • Always keep hands/fingers clear of abrasive disc while sanding. • Do not adjust tables while machine is turned on. • Use the miter gauge designed for machine. • Do not put excessive pressure on the sanding belt or disc causing the motor to slow down or stall. • Turn off machine if you need to step away for a moment.
	Turn off the sander by switching the button to the "OFF" position	Cut	• Always turn the power off and wait until the sander stops.
	Clean work area and return all PPE to a clean storage area.	Injury	• Ensure adequate housekeeping measures to prevent accidents.

For more information about this LSA, contact the *Department of Engineering Technology* at UNC Charlotte (704) 687-2305
Please visit our website at: http://www.et.uncc.edu\

The development of Laboratory Safety Analyses is a very effective means of helping reduce incidents, accidents, and injuries in the workplace. It is an excellent tool to use for training purposes and can also be used to investigate "near misses" and accidents.