 <b>THOMPSON RIVERS UNIVERSITY</b> Occupational Health & Safety	<b>Number:</b> OH&S 18.39.1
	<b>Revision Date:</b> 06/24/2014
	<b>Safe Operating Procedures for a Drill Press</b>

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**1. PURPOSE**






1.1. The purpose of this safe work procedure is to provide safety guidelines while performing work with a drill press on the Thompson Rivers University Campus.

**2. SCOPE**

2.1. These procedures apply to all Facilities workers, Trades Instructors, and Students when on TRU property.

**3. PRECAUTIONS**





***POTENTIAL HEALTH & SAFETY HAZARDS***

<b>HAZARD</b>		<b>TO PROTECT YOURSELF</b>
<b>PINCH POINTS</b> There are gears and exposed moving parts on machinery.		Use LOCK-OUT procedures when performing maintenance or conducting any work within 12" of an exposed pinch point. NEVER put your hands or feet near an exposed pinch point or gears!
<b>ELECTRICAL HAZARD</b>		Ensure all switches, wires and plugs are in good working condition
<b>HIGH SOUND LEVELS</b> Sound levels exceed 85 dB		<b>HEARING PROTECTION</b> is required when working in designated areas.
<b>FOOT INJURY</b>		Approved protective footwear is needed when there is the risk of foot injury due to slipping, uneven terrain, abrasion, crushing potential, temperature extremes, corrosive substances, puncture hazards, electrical shock and any other recognizable hazard
<b>Rings and Dangling jewelry</b>		Rings and any loose or dangling jewelry must not be worn while operating any equipment or machines

**Students Note:**

**DO NOT** use this machine unless your instructor has instructed you in the safe use and operation and has given you permission

#### 4. PERSONAL PROTECTIVE EQUIPMENT

	Safety glasses must be worn at all times in work area!
	Long and Loose hair must be contained by a hat or hairnet to prevent contact with moving parts on equipment and machines
	Respirator with HEPA filters must be worn when working on materials that may create a large amount of respirable dust.
	Work Boots must be worn at all times when working in an area where there is risk of serious foot injury due materials falling onto the foot.

#### 5. PROCEDURES

The drill press comes in a floor or bench mounted model. It has a motor driven head that has chuck that accepts bits and cutters. It also has an adjustable table on which the work is mounted. The drill press is operated by pulling a rotary lever which lowers the drill bit/cutter into the work material.



### 5.1. Pre-Operational Safety Checks

- 1) Check workspace and walkways to ensure a two foot perimeter around the drill press is clear of people, debris and sawdust that may impair traction or footing to avoid slipping and falls.
- 2) Check that the drill chuck guard is in position.
- 3) Ensure the chuck key has been removed from the drill chuck.
- 4) Ensure that all adjustments are made on the drill with the power off and locked out
- 5) Ensure that you are familiar with the operation of the controls and the location of the E-stop button (emergency stop)
- 6) Follow correct clamping procedures to ensure work is secure.
- 7) Faulty equipment must not be used. Immediately report suspected equipment.
- 8) Remove all loose fitting clothing, jewelry and tie back long hair to prevent getting caught in the rotating chuck.
- 9) Wear proper protective equipment:
  - Safety glasses with side shields
  - Face shield
  - Hearing protection
  - Safety footwear
  - Respirator is large amounts of dust is created.
- 10) Do not wear gloves or anything that would allow the hand or fingers to be wrapped around the revolving bit.

### 5.2 Operational Safety Checks

- 1) Keep all guards and covers on the machine when it is on and running.
- 2) Make sure the size of the bit is equal to or less than the capacity of the drill press.
- 3) Insert bit into drill chuck and tighten with the chuck key. Remove chuck key from the drill chuck before starting the drill press.
- 4) Keep hands and fingers at least 3” from rotating drill bits.

- 5) Never start the machine without the table clear of everything except the stock you are drilling.
- 6) When drilling deep holes, frequently raise the drill bit from the hole to remove cuttings and cool the bit.
- 7) Use a clamp or vise to secure fasten the stock to the drill press table. Never attempt to hand hold stock while drilling.



- 8) When you begin to break through the underneath side of the stock, ease up on the feed as to not tear the wood from the underneath side.
- 9) Never reach around or under a rotating drill bit or grab the chuck to stop the drill press. This can result in hand puncture or other serious injury.
- 10) Keep drill bits clean and sharp. Dull drill bits are a common cause of breakage.
- 11) If a drill bit binds, turn off the drill press, lock out and then carefully turn drill chuck backwards by hand to free the drill bit.

### 5.3 Housekeeping

- 1) Turn off the drill press and wait for it to stop before walking away from the machine.
- 2) Don't touch the drill bit and shavings since they are hot immediately after drilling.
- 3) Always clean the drill press table and work area upon completion of the drilling task. Do not use hands or blow the drill shavings, use a bench brush.

### 5.4 Potential Hazards

- 1) Hair or clothing entanglement – rotating spindle/drill
- 2) Eye injuries from flying debris
- 3) Flying turnings, filings and shavings
- 4) Sharp edges & burrs on metal works

6. **RECORDS/VERIFICATION OF UNDERSTANDING**

6.1. Records of training instruction of students

6.2. Verification of Understanding

7. A training master log will be maintained by the Chairperson and Instructors, and Supervisor with the Facilities group.

8. **SUMMARY OF CHANGES**

Revision #	Date	Change (include section #)	Issued By
1	06/24/2014	NEW	OHS Officer