

STANDARD OPERATING PROCEDURE (SOP)

Division: Centre for Construction and Engineering Technologies (CCET)  
School: Apprenticeship and Skilled Trades (AST)

Last updated: April 24, 2020

**ATTENTION: DO NOT use this equipment unless your Professor OR an approved Technologist has provided**

**training on the Standard Operating Procedure (SOP) including a practical demonstration.**

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| MACHINE/EQUIPMENT: | | | | | | Dewalt 4.5 inch Angle Grinder | | | | | | | |
| ROOM/LAB: | | | | | | D110 | | | | | | | |
|  | | | | | | | **POTENTIAL HAZARDS:**   * Avoid using gloves * No loose clothing or jewellery * Long hair must be tied back * Avoid accidental starting. Be sure switch is off before plugging in. * Sparks, metal and disc material projectiles * “Kickback” or biting/binding of disc or stone * Avoid bouncing the wheel or giving it rough treatment | | | | | | |
| **PERSONAL PROTECTIVE EQUIPMENT (PPE) – CHECK ALL REQUIRED** | | | | | | | | | | | | | |
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| **Safety Footwear** | **Protective Clothing** | **Eye Protection** | | **Face Shield** | | | | **Ear protection** | **Dust Mask** | | **Gloves** | | **Welding Mask** |
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| **MANUFACTUER MANUAL:** | | Name of manual | | | | | | | | | | | |
| **ADDITIONAL RESOURCES:** | | **“Use of Portable Grinders”** [**www.ccohs.ca**](http://www.ccohs.ca)**.**  **“Abrasive Grinding Wheels” www.wsps.ca** | | | | | | | | | | | |
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| **STANDARD OPERATING PROCEDURE (STUDENTS & EMPLOYEES)** | | | | | | | | | | | | | |
| **PRE-OPERATIONAL:**   1. Always use proper guard with grinding wheel. Always use side handle. Tighten the handle securely 2. Use clamps or other practical way to secure and support the workpiece to a stable platform 3. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool’s operation. 4. Check cord for splices and exposed wires   **OPERATIONAL:**   1. Make sure both paddles are engaged and pressed down. Grinder will not start otherwise 2. Maintain a firm grip with both hands on the unit and position your body and arm to allow you to resist kickback forces 3. Allow the tool to reach full speed before touching the tool to the work surface 4. Maintain a 20˚ to 30˚ angle between the tool and work surface with minimum pressure to the work surface, allowing the tool to operate at high speed 5. Continuously move the tool in a forward and back motion to avoid creating gouges in the work surface (grinding stone) 6. Direct sparks away from operator, bystanders or flammable materials     **SHUT-DOWN:**   1. Remove the tool from work surface before turning tool off. Allow the tool to stop rotating before laying it down 2. Clean out your tool often, especially after heavy use | | | | | | | | | | | | | |
| **STANDARD OPERATING PROCEDURE (EMPLOYEES ONLY)** | | | | | | | | | | | | | |
| **PREVENTATIVE MAINTENANCE:**   1. Blowing dust and grit out of motor and switch actuator using clean, dry compressed air is a necessary regular maintenance procedure 2. Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. Use a clean, dry cloth only. 3. Regular checks on all moving parts of grinder and cables is recommended | | | | | | | | | | | | | |
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| **EMPLOYEES AUTHORIZED TO TRAIN AND OVERSEE OPERATORS ON MACHINE/EQUIPMENT SOP** | | | | | | | | | | | | | |
| **JOB TITLE** | | | **NAME** | | | | | | | **GBC PHONE OR EMAIL** | | | |
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| **APPROVAL - DEPARTMENT CHAIR OR DEAN** | | | | | **NAME** | | | | | | | **DATE** | |
|  | | | | |  | | | | | | | TBD | |
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**APPROVED STANDARD OPERATING PROCEDURE (SOP) MUST BE POSTED WITH MACHINE/EQUIPMENT**