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| **Department:** | **P/W Mechanic Shop** | **Area** | **Shop** |  |
| **Subject:** | **Angle Grinder SWP** | | |

**ANGLE GRINDER**

**Warning:**

The use of this tool may be hazardous. The Angle grinder is a high-speed, fast-cutting power tool so special safety precautions must be observed to reduce the risk of personal injury and fire. It is important to fully understand and observe the safety precautions and procedures below. If not familiar with the use of this equipment, obtain practical instruction from a competent operator. Do not operate without thorough training or unless under the direct supervision of an instructor. Do not operate if safety devices are not in place.

**Purpose:**

The Angle grinder is an electrical powered, high speed rotating disk capable of cutting and grinding most metals of many sizes and angles using different types of abrasive wheels. The Angle grinder is a versatile, portable tool due to its ability to cut and grind the work piece to proper sizes and angles. It can be used on most materials such as stainless and mild steel as well aluminum..

**Hazards:**

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| * Cuts | * Fire and sparks | * Burns and heat | * Flying debris | * Explosive disk |

**PPE Required:**

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| * CSA approved face shield | * Safety footwear | * Spark resistant clothing |
| * Leather gloves | * Approved hearing protection |  |

**Pre Set-Up:**

* Ensure lighting is adequate.
* Do not wear loose clothing.
* Make sure there are no flammables around saw
* Make sure the blade guard is set to deflect sparks away from you or anyone else.
* Clamp working piece to sturdy table.
* Make sure you’re wearing appropriate PPE.
* Set up welding screens to avoid sparks landing on glass or painted surfaces

**To replace the cut off wheel:**

* Unplug grinder from outlet.
* Make sure rotation has stopped, push and hold lock pin to hold disk.
* Use matching wrench to loosen and remove arbour lock nut.
* Make sure nut is faced the right way depending on the application disk.
* Screw on the nut and tighten it firmly with the matching wrench.
* Remove finger from lock pin.
* Plug back into wall

**Procedure**

* **Keep arms, arms and fingers away from Disk**.
* Avoid awkward operations and hand positions where a sudden slip could cause a hand to move into the blade.
* Make sure work area is clear of all scraps and obstructions.
* Start the saw by pressing the trigger.
* **Gently** bring the Angle grinder disk down onto the work piece to start cutting.
* Be prepared to have sparks coming from the saw and be aware of the **direction of sparks** to avoid starting a fire or spraying someone else.
* **While cutting, do not twist or turn grinder. It will cause the disk to catch work piece and explode.**
* **Do not force saw blade down hard** on work piece as could cause blade to **explode**.
* Remove finger from trigger after piece has been cut.
* With **gloves** on hands, loosen from jaw vise or clamp on table and remove piece.
* **Do not set down grinder on electrical cable**.

**Post Procedure/take Down:**

* Keep the work area clean for other people to use it.
* Put tool back in appropriate location for next person to use

**Summary:**

* **Always wear appropriate PPE**.
* Ensure saw is in good working order before you use it.
* Always make sure the saw is **unplugged** before changing the blade.
* Consult the supervisor if unsure of how to use.

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| **Created: Jan 18, 2011**  **Revised: N/A** | **Author: Kevin Lamb**  **Approved by: Bruce Labelle** |