**Standard Operating Procedure for Grinding/Buffing in [Department/Unit/Shop/Maker Space]**

***Instructions****: Update this template with details specific to grinding/buffing use in your department/unit/shop/maker space.*

|  |  |
| --- | --- |
| **TOPIC** | **PROCEDURES** |
| **1. Process** | Grinding, sanding or buffing metal parts or tools. |
| **2. Equipment** | Pedestal grinders, sanders and buffing machines. |
| **3. Personal Protective Equipment (PPE)** | Safety glasses, a face shield plus any other PPE that may be required based on the [**Shop PPE Hazard Assessment**](https://www.ehs.washington.edu/resource/shop-personal-protective-equipment-ppe-hazard-assessment-guide-1334)**.** |
| **4. Environmental /**  **Ventilation controls** | Equipment is securely mounted or bolted to floor or a bench if a bench mounted tool. |
| **5. Required training or approval** | * Review and observe [general safety practices](https://www.ehs.washington.edu/system/files/resources/staying-safe-shops-poster.pdf) outlined in the Machine Shop Safety Equipment Guidelines. * Refer to the manufacturer’s operating manual for all operating procedures. |
| **6. Inspection requirements before use** | * Ensure all safety shields and guards are in place prior to turning the machine on and they are tight, clean and cover the tool rest(s). * Ensure all body parts, clothing, hair, jewelry and other objects are clear of the work area and other moving parts before starting the machine and engaging its moving parts. * Check the area to be sure people are alert and wearing PPE. * Ensure all work rests, tongue guards and guards that cover rotating wheels are installed properly and tight. * Ensure the tool rest has a maximum 1/8th inch gap between it and the stone sander or wheels. The tongue guard should be no more than ¼” gap. * Select the proper grinding, sanding or buffing wheel/drum for your material. |
| **7. Safe operating procedures or precautions** | * Do not stop the rotation of the wheel or any rotating or moving machinery parts by hand. Never reach into the working area prior to the spindle coming to a complete stop. * All wheels must be guarded. If any parts are missing the machine must be taken out of service, a tag applied and parts replaced. * Stop the machine immediately if odd noise or excessive vibration occurs. * Do not wear gloves when operating grinders, sanders or buffers. * When replacing a grinding wheel, closely inspect it for cracks or defects, ensure the rpm of the wheel is at or above the top speed of the grinder. Perform a Ring test of the new wheel prior to installation. When in doubt don’t install the wheel. * Do not make adjustments when the wheel is in motion. * Disconnect the equipment from the power source and follow lock out/tag out procedures and manufacturer’s instructions if making repairs or servicing. * Do not leave a grinding wheel in motion, ensure it is off and stopped after use. |
| **8. Waste cleanup** | Make sure that a system is set for segregating ferrous (steel) and non-ferrous (aluminum, brass, other soft metals) materials to prevent fires. Aluminum and steel should not be ground on the same wheel. Aluminum embedded in a steel wheel can create excess heat and the wheel can explode when a steel tool is ground on the same wheel. |
| **9. Emergency response and accident reporting** | In case of fire, dial 9-1-1.  Report any accidents, injuries, or near miss events using [UW’s Online Accident Reporting System (OARS) at](https://oars.ehs.washington.edu/)oars.ehs.washington.edu. |

**Name**:       **Title**:

**Signature**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date**: