



Safe Work Procedure

Bench Grinder

Department and Program: Physical Plant Maintenance

Date First Approved: October 2018

Date Updated: February 2023

Version 2.0 SWP-PP-GEN-015

This Safe Work Procedure must be reviewed any time the task, equipment, or materials change and at a minimum every three years.

DO NOT perform this procedure until you have been appropriately trained and authorized to do so.

Required Training - Read and understand SWP

Required Personal Protective Equipment and Devices



Face-Shield Required



Long or loose hair must be tied back or contained



CSA Approved Safety Footwear Required



No jewelry, watches, rings, necklaces etc



Hearing Protection Required



No loose fitting clothing



Tight fitting leather gloves



Eye Protection Required

Potential Hazards

- Cuts, and lacerations
- Sparks / Debris

- Noise

Pre-Operational Safety Checks

- Inspect required personal protective equipment and replace if required
- Check workspace to ensure no slip/trip hazards are present.
- **Ensure all guards and safety shields are in position before starting the grinder**
- Ensure that the wheels do not touch the work rest and that the gap between wheel and rest is no greater than 1.5mm (1/16 inch).
- Check that wheels are running true and are not glazed or loaded. If more than 2.5cm (1 inch) for diameter has been lost on wheel, replace wheel.
- Dress grinding wheel with appropriate tool as needed.
- Disconnect the power supply before changing grinding wheel, making adjustments or inspecting the wheel.
- Remove any adjusting keys and wrenches from grinder before turning on.
- Be sure switch is off when plugging in any tool.
- Faulty equipment must not be used. Immediately report any suspect machinery to the supervisor.

Prohibited Activities

- Do not remove, modify, or disable safety equipment or features.
- Workpiece must never be held with cloth.
- Do not grind non-ferrous metals on aluminum oxide wheels.
- Do not grind ferrous metals on silicone, carbide or diamond wheels
- Do not leave equipment running unattended.
- Do not put fingers past guard
- Do not grind flammable materials
- Do not use excessive force while grinding

- Do not strike grinding wheel
- Do not start wheel with workpiece against it.
- **Do not stand in front of wheel when starting the equipment.**

Safe Work Procedure

1. Put on all required personal protective equipment. Wear gloves only when hands will maintain a distance of 6 inches or more from the grinding wheel.
2. Inspect work area for safety hazards including flammable materials
3. Clean area if required.
4. Perform pre-operational safety checks listed in previous section to ensure grinder is in safe working condition.
5. Rotate the grinding wheel by hand to inspect for damage. Ensure power supply is removed first.

CAUTION: Do not use a damaged wheel.

6. Stand to the side and turn on the machine staying on the side until the wheel is up to speed.
7. Grind only on the face of the wheel, never the sides.
8. Place workpiece on rest and gently advance the workpiece onto the grinding wheel.

CAUTION: workpiece may become hot.

9. If workpiece is becoming hot, stop activity and quench it by dipping it into coolant (water).
10. Hold work piece flat against the rest **keeping fingers a minimum of 5 cm (2 inches) away from grinding wheel face.** Hold small pieces of material in a jig or holding device to prevent injuries to the fingers or hands.
11. Move the work back and forth across the wheel face until desired shape is achieved.
12. When grinding is complete, shut machine off and wait until the wheel stops.
13. Complete Housekeeping activities listed below.

If an emergency situation occurs while conducting this task, or there is an equipment malfunction, shut the equipment off immediately and follow the lock out procedure.

REPORT ANY HAZARDOUS SITUATION TO YOUR SUPERVISOR IMMEDIATELY

Housekeeping

- Ensure the equipment is off
- Ensure the equipment/work space is safe, clean and tidy before you leave it.

Guidance Documents/ Standards/ Applicable Legislation/ Other:

Guidance Documents:

- Operator's Manual

Manitoba Regulation 217/06:

- 2.1 Safe Work Procedures
- 6.1 Personal Protective Equipment
- 12.3 Hearing Protection
- Part 16 Machine, Tool and Robots

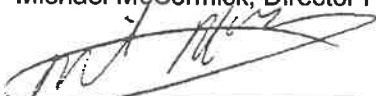
Date Written: 2015/03/27

Procedure Developed By: H&S Officer

Date Revised:

Approved By: Michael McCormick, Director Physical Plant

Signature: _____



Date Approved: 2023/2/1

Version 2.0 SWP-PP-GEN-015