



Safe Work Procedure Oxy-acetylene Welding

Department and Program: Physical Plant Maintenance

Date First Approved: October 2018

Date Reviewed: February 2023

Version 2.0 SWP-PP-GEN-010








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

- Must be trained by experienced competent person

Required Personal Protective Equipment and Devices

- | | |
|--|---|
|  CSA Approved Safety Footwear Required |  Long or loose hair must be tied back or contained |
|  No jewelry, watches, rings, necklaces etc. |  No loose fitting clothing |
|  Eye Protection Required (welding) |  Protective Clothing Required |
|  Leather Gloves Required (welding) | |

Potential Hazards

- Noise Burns
- Sparks
- Fumes
- Flashbacks
- Radiation burns to eyes and body
- Electric shock
- Hot or molten materials

Pre-Operational Safety Checks

- Inspect required personal protective equipment and replace if required.
- Ensure no slip/trip hazards are present in workspaces and walkways.
- Make sure guards, if present, are installed and are working properly.
- Faulty equipment must not be used. Immediately report suspect machinery.

- Disconnect power supply before changing or adjusting blades
- Ensure that work area is clean and clear of grease, oil, and any flammable materials
- Make sure all guards are in place, properly adjusted, and secured.

Prohibited Activities

- Do not leave this equipment unattended while running

Safe Work Procedure

Start-Up

1. Wear appropriate personal protective equipment (PPE).
2. Check that the oxygen and acetylene regulator adjusting knobs are loose.
3. Check that both blowpipe valves are closed.
4. Slowly open the oxygen valve all the way
5. Slowly open the acetylene valve a quarter way
6. Adjust oxygen pressure to proper range for tip size / adjust acetylene pressure to proper tip size NEVER exceeding 15psi
7. Purge and check for constant oxygen gas flow
8. Purge and check for constant acetylene gas flow
9. Open the acetylene blowpipe valve slightly and light the blowpipe with a flint lighter
10. Continue to slowly open the acetylene valve until the flame no longer produces soot
11. **Slowly open the oxygen blowpipe valve until a neutral flame is produced / indicate by the cone not increasing in size when using the cutting oxygen (if cutting head attached)**

Shut-Down

1. **Close the oxygen blowpipe valve first**
2. **Close the acetylene blowpipe valve**
3. **Press cutting oxygen (if attached) to blow soot from cutting tip**
4. Close both cylinders valves
5. Open oxygen blowpipe valve to release gas
6. When oxygen gauge reads zero, unscrew regulator-adjusting knob.
7. Close oxygen blowpipe valve
8. Open acetylene blowpipe valve to release gas
9. When acetylene gauge reads zero, unscrew regulator-adjusting knob.
10. Close acetylene blowpipe valve
11. Clean up work area

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 listed below
REPORT ANY HAZARDOUS SITUATION TO YOUR INSTRUCTOR/SUPERVISOR IMMEDIATELY

Housekeeping

- Ensure equipment is off.
- Place all materials in their proper storage areas.
- Ensure the equipment is safe, clean and tidy before you leave it.

Guidance Documents/ Standards/ Applicable Legislation/ Other:

Guidance Documents:

- Operator's Manual

CSA Standards:

-

Manitoba Regulation 217/06:

- 2.1 Safe Work Procedures
- 6.1 Personal Protective Equipment
- 12.3 Hearing Protection
- 16.4, 16.14 & 16.35 Machine and Tool Safety

Date Written: 2017/08/15

Procedure Developed By: Travis Poersch, Brent Cuvelier, Ian Smith

Date Revised: 2023/2/1

Approved By: Michael McCormick Director of Physical Plant

Signature: _____



Date Approved: 2023/2/1 Version 2.0 SWP-PP-GEN-010