

# **SAFE WORK PRACTICES**

## **ELECTRIC WELDING – SETUP & EQUIPMENT USE CHECKLISTS *Page 1 of 2***

*\*This information does not take precedence over OH&S. All employees should be familiar with the Saskatchewan Employment Act and the OH&S Regulations.*

### **Setup Checklist:**

1. Locate welding leads away from main power leads to prevent accidental contact with high voltage.
2. Cover the lug terminals to prevent shorting out by a metal object.
3. Locate equipment so that it will not be tampered with by unauthorized personnel.
4. Minimize welding machine exposure to corrosive fumes, welding sparks or excessive dirt.
5. Locate power switches where they can be quickly disconnected in an emergency.
6. Clear combustible materials from work area. Cover combustible objects with a fire resistant blanket if you cannot move them.
7. Use only a proper earthing/grounding clamp or bolted terminal.
8. Have a fire extinguisher nearby.
9. Make sure welding machine is grounded.

### **DON'T:**

- Block walkways. Welding leads should run above head level or be covered so that they are not a tripping hazard. Locate leads and cables so they do not obstruct passageways, ladders and stairways.
- Locate welding equipment near overhead cranes or work aisles.
- Ground welding equipment to chains, hoists or elevator cables.
- Locate equipment with machine base in water. Thoroughly dry and test machine before using.
- Overload machine or force cables to carry currents beyond their rated capacity.
- Ground to pipelines carrying gas or flammable liquids, or to conduits carrying electric wires.
- Coil or loop cables around your body.
- Allow leaks and condensation to run back in the machine. Use cooling water line drip loops.

# **SAFE WORK PRACTICES**

## **ELECTRIC WELDING – SETUP & EQUIPMENT USE CHECKLISTS *Page 2 of 2***

### **Equipment Use Checklist:**

1. Make sure you have solid footing and support yourself against stable objects. Your sense of balance may be affected with your welding shield covering your face.
2. Hold the weight of the welding lead in one hand while welding with the other hand.
3. Store electrode holders where they cannot contact workers, fuels or compressed gas leaks.
4. Remove all electrodes from holders and disconnect the machine from power source when welding is stopped for any period of time. Retract or cut off wire electrodes in semi automatic holders to prevent contact.
5. Burn electrodes to no less than 38 to 50 mm (1 ½ to 2 in) in length. Burning them shorter damages the electrode holder insulators, and may result in accidental shorting out.
6. Keep electrode holders and electrodes dry. If exposed to water or steam, dry thoroughly before further use.
7. Place electrode stubs in a container to prevent others from slipping or falling on them.
8. Position yourself where welding fumes do not rise directly into your face.
9. Shield other workers from you welding arc.
10. Wear protective clothing, including eye and foot protections. (See "Welding – Protective Clothing" and "Welding – Eye & Face Protection".)
11. Use chalk to mark completed work "HOT".
12. Chip slag so that the pieces fly away from you. Remove combustible materials from slag path before chipping.

### **DON'T:**

- Change electrodes with bare hands, wet gloves or when standing on wet floors or grounded surfaces.
- Weld near degreasing operations. This causes the formation of hazardous gases.
- Cut or weld on containers, tanks or drums until they have been thoroughly cleaned and properly ventilated. Always follow practices outlined in safety regulations and standards.
- Cool electrode holders by dipping in water.
- Switch the polarity switch with an electric welder in operation. Turn off the equipment to change polarity.