




Safe Work Practice (SWP)

Name of Task: Welders	
Department/Unit: Trades	
Personal Protective Equipment or other required equipment or other safety considerations: <ul style="list-style-type: none">• Eye Protection Required• Long or loose hair must be tied back or contained• No loose-fitting clothing. Hoodies should not be worn when welding in the overhead position• No jewelry, watches, rings, necklaces etc.• Hearing Protective Required• CSA Approved Safety Footwear required• Protective Clothing Required• Welding Gloves Required• Face Shield Required• Fume Hood Required• Protective Apron Required• Appropriate Respirator Required	
Hazards: <ul style="list-style-type: none">• Dust/debris irritation• Noise• Burns• Sparks• Fumes• Flashbacks• Radiation burns to eyes and body• Electric shock• Hot or molten materials	
Required Training	<ul style="list-style-type: none">• Successful completion of NBCC Safety Course (Work Safely or Workplace Safety Practices)• Shop safety orientation• Read and understand SWP• For students, practical demonstration and Instructor supervision required
Pre-Operational Safety Checks	<ul style="list-style-type: none">• Inspect required personal protective equipment and replace if required.• Ensure no slip/trip hazards are present in workspaces.• Faulty equipment must not be used. Immediately report suspect machinery.• Locate and ensure you are familiar with the operation of the ON/OFF switch.• Ensure the work area is clean and clear of grease, oil, and any flammable materials.• Keep the welding equipment and work area dry to avoid electric shocks.• Ensure the gloves are dry and free from holes to avoid electric shocks.• Ensure electrode holder and work leads are in good condition.• Ensure fume extraction unit is on before beginning welding operation.• Ensure other people are protected from flashes by closing curtain to welding bay or by erecting screens.
Prohibited Activities	<ul style="list-style-type: none">• Do not leave this equipment unattended while running• Never dip the electrode in water for cooling.

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	<ul style="list-style-type: none"> • Never allow the electrode, electrode holder or any other electrically “hot” parts to touch a cylinder. • Do not use bare hands and never wrap electrode leads around yourself. • Never arc weld or watch arc welding without using a protective shield. • Do not weld around flammable materials. • Do not weld containers until you can determine whether they contained flammable liquids at one time. • Do not weld wearing trousers with cuffs.
Steps to be taken to complete task safely:	
1	Wear appropriate personal protective equipment (PPE).
2	Make all adjustments with POWER OFF.
3	Make sure all guards are in place, properly adjusted, and secured.
4	Open fume hood and turn on fume extractor.
5	Ensure that work area is clean and clear of grease, oil, and any flammable materials.
6	Position metal and clamp if necessary.
7	Securely attach the return lead to work. Ensure the return lead makes firm contact and does not create a tripping hazard.
8	Set the Polarity Switch to DC- for welding steel or stainless steel; or to AC for welding aluminum.
9	Turn on the cylinder gas valve and adjust the flow regulator to obtain desired flow.
10	Turn the power switch to “ON”.
11	Set the Current Control on the control panel to the maximum desired amps
12	Lower face shield then depress the foot switch to energize the torch and establish an arc with the work piece.
13	Complete weld using correct welding speed and electrode motion for joint.
14	Release foot switch to de-energize torch and stop welding.
15	Clean up work area.
	<p>If an emergency occurs while conducting this task, or there is an equipment malfunction, shut the equipment off immediately and follow the lock out procedure.</p> <p>REPORT ANY HAZARDOUS SITUATION TO YOUR INSTRUCTOR/SUPERVISOR IMMEDIATELY</p> <p>Housekeeping</p> <ul style="list-style-type: none"> • Ensure equipment is off. • Place all materials in their proper storage areas. • Switch off the machine and fume extraction. • Close gas cylinder valve. • Hang up welding gun and leads. • Ensure the equipment is safe, clean and tidy before you leave it.
Responsibilities, Completion and Review	
<p><i>Management and workers to ensure all duties performed in accordance to training, established health and safety regulations/guidelines, policies and procedures (e.g. utilizing personal, protective equipment as per SAFE Work Procedures). Notify Manager or designates (i.e. supervisors) of all occurrences, injuries illnesses or safety and health concerns which are likely to harm themselves, co-workers, or any others who enter the premises.</i></p>	
Completed by and Date: Ashley Ritchie, 1/28/2021	Approved by: 

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Last Reviewed / Revised by and Date: Revised- 02/18/2025	Note: This task will be monitored periodically to ensure compliance and effectiveness.
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