

# SOP (MIG WELDER)

SS-WHS-SAF-000

Authorised By:  
Rev 1 19/03/2024



TASK	Mig Welder					
HAZARDS	Flying debris	<input type="checkbox"/>	Heat / cold	<input checked="" type="checkbox"/>	Electricity	<input checked="" type="checkbox"/>
	Cuts / laceration	<input type="checkbox"/>	Dust	<input type="checkbox"/>	Rollover	<input type="checkbox"/>
	Pinch / crush	<input checked="" type="checkbox"/>	Noise / vibration	<input type="checkbox"/>	Plant interaction	<input type="checkbox"/>
	High pressure	<input type="checkbox"/>	Arc Radiation	<input checked="" type="checkbox"/>	Fume / Gas	<input checked="" type="checkbox"/>
PPE REQUIRED						

## PRE-START CHECKS

1. Ensure all personnel are trained and authorized to operate equipment.
2. Inspect the welding machine for any visible damage, loose connections, or wear.
3. Check that the gas cylinder is securely fastened and contains the appropriate shielding gas for the welding process.
4. Verify that the welding wire is the correct type and diameter for the material used.
5. Confirm that fire extinguishing equipment (e.g., fire extinguisher, fire blanket) is readily available in case of emergency.

## SAFE OPERATING PROCEDURE

1. Wear appropriate personal protective equipment (welding helmet with proper shade lens, safety glasses, welding gloves, and flame-resistant clothing).
2. Turn on the welding machine and adjust the settings for the desired welding process, voltage, and wire feed speed.
3. Position the workpiece in a secure and stable position, ensuring proper grounding of the workpiece and welding machine.
4. Hold the MIG gun at the appropriate angle and distance from the workpiece, maintaining a consistent travel speed.
5. Begin welding by pulling the trigger on the MIG gun to start the arc, and move steadily along the joint in a straight line or weaving motion as needed.
6. Ensure proper gas coverage and penetration by adjusting the angle and distance of the MIG gun from the workpiece.
7. Be aware of any signs of improper welding such as excessive spatter, incomplete fusion, or porosity, and adjust settings or techniques accordingly.
8. After completing the weld, release the trigger on the MIG gun to stop the arc, and allow the weld to cool before handling or inspecting.

## POST-OPERATION PROCEDURE

1. Turn off the machine and allow it to cool before doing maintenance or adjustments.
2. Inspect the weld for any defects such as cracks, undercut, or incomplete fusion, and make note of any issues for repair or rework.
3. Clean the work area to remove any spatter, debris, or flux residue from the weld.
4. Properly store welding equipment and accessories in a designated area, ensuring they are protected from damage and unauthorized use.
5. Securely fasten the gas cylinder valve and return unused welding wire to its storage spool.