

SOP (PLASMA CUTTER)

SS-WHS-SAF-000

Authorised By:
Rev 1 19/03/2024



TASK	Plasma Cutter					
HAZARDS	Flying debris	<input type="checkbox"/>	Heat / cold	<input type="checkbox"/>	Electricity	<input checked="" type="checkbox"/>
	Cuts / laceration	<input type="checkbox"/>	Inhalation	<input checked="" type="checkbox"/>	Rollover	<input type="checkbox"/>
	Pinch / crush	<input type="checkbox"/>	Noise / vibration	<input checked="" type="checkbox"/>	Plant interaction	<input type="checkbox"/>
	High pressure	<input type="checkbox"/>	Fire / explosion	<input checked="" type="checkbox"/>	Arc Flash	<input checked="" type="checkbox"/>
PPE REQUIRED						

PRE-START CHECKS

1. Ensure all personnel are trained and authorized to operate the plasma cutter.
2. Inspect the plasma cutter for any visible damage or signs of wear.
3. Check the cutting torch, consumables, and grounding clamp are properly installed and in good condition.
4. Verify that the work area is clear of flammable materials and properly ventilated.
5. Ensure the machine is connected to a suitable power source with secure connections.
6. Confirm that fire extinguishing equipment is readily available in case of emergency.

SAFE OPERATING PROCEDURE

1. Wear appropriate personal protective equipment (including safety glasses with side shields, a welding helmet with shaded lens, flame-resistant clothing, and gloves).
2. Secure the workpiece is placed using clamps or fixtures to prevent movement.
3. Adjust the plasma cutter settings according to the material thickness and type.
4. Hold the cutting torch at the correct angle and distance from the workpiece to achieve clean and precise cuts.
5. Activate the cutter and initiate cutting by contacting the torch to a workpiece.
6. Move the torch along the cutting path smoothly and steadily, maintaining a consistent speed to prevent overheating or distortion of the material.
7. Be aware of sparks, slag, and hot metal debris generated during cutting and ensure they do not pose a hazard to nearby personnel or equipment.
8. Monitor the cutting progress and adjust the torch position or settings as necessary to achieve the desired results.
9. After cutting is complete, turn off the plasma cutter and allow it to cool down before performing any maintenance or adjustments.

POST-OPERATION PROCEDURE

1. Inspect the cut edges for smoothness and quality, making any necessary adjustments to the cutting parameters for future reference.
2. Clean up the work area, removing any debris or waste material generated.
3. Dispose of scrap material and consumables properly according to company policy.
4. Store the plasma cutter and accessories in a designated area, ensuring they are protected from damage and unauthorized use.
5. Perform routine maintenance tasks such as cleaning the torch, replacing consumables, and inspecting electrical connections to ensure safe operation.