## SOP (HDPE BUTT FUSION)

SS-WHS-SAF-000

Authorised By: Rev 1 19/03/2024



TASK	HDPE Butt Fusion					
	Flying debris		Heat / cold	$\boxtimes$	Electricity	$\boxtimes$
HAZARDS	Cuts / laceration		Dust		Rollover	
	Pinch / crush		Noise / vibration		Plant interaction	
	High pressure	$\boxtimes$	Chemical	$\boxtimes$	Fire	$\boxtimes$
PPE REQUIRED						

## PRE-START CHECKS

- 1. Ensure all personnel are trained and authorized to perform HDPE butt fusion.
- 2. Inspect the fusion machine for any visible damage, leaks, or signs of wear.
- 3. Check that the heating plate and facer are clean and free of any debris.
- 4. Verify that the fusion machine is properly calibrated and functioning correctly.
- 5. Confirm that fire extinguishing equipment is readily available in case of emergency.

## SAFE OPERATING PROCEDURE

- 1. Wear appropriate personal protective equipment (PPE) including safety glasses, gloves, and heat-resistant clothing.
- 2. Position the HDPE pipes in the fusion machine, ensuring proper alignment and support.
- 3. Start the fusion machine and allow it to warm up to the appropriate temperature.
- 4. Use the facer to remove any oxidized material from the pipe ends.
- 5. Heat the pipe ends evenly using the heating plate until they reach the specified fusion temperature.
- 6. Align the pipe ends and apply pressure to fuse them together, maintaining pressure until the joint cools and solidifies.
- 7. Monitor the fusion process closely, ensuring that all parameters are within the specified range.
- 8. If any issues or errors occur during fusion, stop the process immediately and troubleshoot the problem before resuming.

## **POST-OPERATION PROCEDURE**

- 1. Allow the fused joint to cool completely before handling or testing.
- 2. Inspect the fused joint for any defects or signs of incomplete fusion.
- 3. Clean the fusion machine and surrounding area to remove any debris or spilled materials.
- 4. Record fusion parameters and any relevant data for quality control purposes.
- 5. Store fusion machine and accessories in a designated area, ensuring they are protected from damage and unauthorized use.