

## Mig Welding | SAFE WORK METHOD STATEMENT (SWMS)

### TASK OR ACTIVITY: Mig Welding

Business Name:	ABN:	SWMS#
Business Address:		
Contact Person:	Phone:	Email:

### THIS SAFE WORK METHOD STATEMENT IS APPROVED BY THE PCBU OF THE PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a safe work method statement (SWMS) is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:
Details of the person(s) responsible for ensuring implementation, monitoring compliance of the SWMS as well as reviews and modifications of the SWMS.		
Full Name:	Title:	Phone:

### ALL PERSONNEL PARTICIPATING IN ANY ACTIVITY ON THIS SWMS MUST HAVE THE FOLLOWING COMMUNICATED

Safety meetings or toolbox talks will be scheduled in accordance with legislative requirements to first identify any site hazards, then to communicate those hazards and then to further take steps to either eliminate or control each hazard.

If an incident or a near miss occurs, all work must stop immediately. Depending on the severity of the incident, a meeting will be called with all workers to amend the SWMS if required. The meeting may also be an educational opportunity.

Any changes made to the SWMS after an incident or a near miss must be approved by the Person Conducting Business or Undertaking and communicated to all relevant personnel.

The SWMS must be kept and be available for inspection at least until the work is completed. Where a SWMS is revised, all versions should be kept. If a notifiable incident occurs in relation to which the SWMS relates, then the SWMS must be kept for at least two years from the occurrence of the notifiable incident.

### NAME OF ALL RELEVANT PERSONNEL WHO HAVE BEEN CONSULTED AND COMMUNICATED TO IN THE DEVELOPMENT AND APPROVAL OF THIS SWMS

### CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date SWMS supplied to Project Manager:	

### ANY HIGH-RISK CONSTRUCTION WORK BEING CARRIED OUT

- |  |  |
|--|--|
| <input type="checkbox"/> involves a risk of a person falling more than 2 meters  | <input type="checkbox"/> is carried out on or near pressurised gas mains or piping                                     |
| <input type="checkbox"/> is carried out on a telecommunication tower   | <input type="checkbox"/> is carried out on or near chemical, fuel or refrigerant lines                                 |
| <input type="checkbox"/> involves demolition of an element of a structure that is load-bearing                           | <input type="checkbox"/> is carried out on or near energised electrical installations or services                      |
| <input type="checkbox"/> involves demolition of an element related to the physical integrity of a structure              | <input type="checkbox"/> is carried out in an area that may have a contaminated or flammable atmosphere                |
| <input type="checkbox"/> involves, or is likely to involve, disturbing asbestos  | <input type="checkbox"/> involves tilt-up or precast concrete  |
| <input type="checkbox"/> involves structural alteration or repair that requires temporary support to prevent collapse    | <input type="checkbox"/> is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor |
| <input type="checkbox"/> is carried out in or near a confined space  | <input type="checkbox"/> is carried out in an area of a workplace where there is any movement of powered mobile plant  |
| <input type="checkbox"/> is carried out in/near a shaft or trench deeper than 1.5m or tunnel involving use of explosives | <input type="checkbox"/> is carried out in areas with artificial extremes of temperature.                              |
| <input type="checkbox"/> is carried out in or near water or other liquid that involves a risk of drowning.               | <input type="checkbox"/> involves diving work.   |

### ANY HIGH-RISK MACHINERY OR EQUIPMENT NEARBY

RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HEIRARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			 <p><b>Elimination</b> Remove the hazard.</p> <p><b>Substitution</b> Replace the hazard.</p> <p><b>Isolation</b> Isolate People from the hazard</p> <p><b>Engineering</b> Isolate the hazard.</p> <p><b>Administrative</b> Change the work.</p> <p><b>PPE</b></p>	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED		
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.		
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.		
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records		

**Notes on Hierarchy of Controls:** Elimination methods are the most effective and preferred when controlling a hazard. Substitution is the second most effective method of controlling a hazard. Engineering by isolation is the third most effective, while Administrative Controls by changing the work is the fourth most effective method. PPE (Personal Protective Equipment) is the least effective method.

PERSONAL PROTECTIVE EQUIPMENT (PPE)											
Select the appropriate PPE above suitable for the equipment used or the job task being performed (if applicable).											
FOOT PROTECTION	HAND PROTECTION	HEAD PROTECTION	HEARING PROTECTION	EYE PROTECTION	RESPIRATORY PROTECTION	FACE PROTECTION	HIGH-VIS CLOTHING	PROTECTIVE CLOTHING	FALL PROTECTION	SUN PROTECTION	HAIR/JEWELLERY SECURED
											
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other PPE Required:											
Permit or Licenses Requirements						Mandatory Qualifications and Training					

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Preparation	Incorrect setup, lack of PPE		<ul style="list-style-type: none"> <li>- Proper training and certification: Ensure that all welders who will be performing the MIG welding tasks have undergone training and possess necessary certifications. This helps to minimise the risk of any injuries or accidents due to incorrect setup.</li> <li>- Pre-work inspections: Conduct routine checks on all equipment, including the welding machine, cables, welding gun, and other accessories, to ensure they are in good working order before starting the work. Replace any damaged components immediately.</li> <li>- Accessible safety data sheets (SDS): Make sure that the SDS for all the materials used in the welding process is easily accessible on site, providing essential information on the safe handling and storage of the products.</li> <li>- Correct setup procedures: Follow the manufacturer's guidelines and industry best practices when setting up the welding equipment and preparing the work area, ensuring that everything is secured properly to prevent any accidents.</li> <li>- Mandatory use of Personal Protective Equipment (PPE): Require all workers involved in the MIG welding process to wear appropriate PPE, such as safety glasses, gloves, flame-resistant clothing, and hearing protection to reduce the risks associated with exposure to welding fumes and sparks.</li> <li>- Welding booth/area: Designate a specific area for MIG welding tasks, preferably a well-ventilated welding booth or bay, with appropriate signage displaying the potential hazards and entry restrictions for unauthorized personnel.</li> <li>- Fire prevention measures: Keep flammable materials away from the welding area, and have fire extinguishers readily available in case of emergencies. Perform regular maintenance of the fire extinguishers to ensure their proper functioning.</li> <li>- Use of welding screens or curtains: Use suitable welding screens or curtains around the welding area to protect bystanders from the hazards of intense light and UV radiation, as well as to minimise the risk of flying sparks causing ignition of combustible materials.</li> <li>- Grounding equipment: Ensure all electrical components of the welding system are grounded properly to reduce the risk of electrical shock. Grounding clamps should be in good condition, securely connected, and checked regularly.</li> <li>- Equipment maintenance schedule: Establish a regular maintenance schedule for all MIG welding equipment, including periodic checks by qualified technicians, ensuring that any faulty or worn components are replaced promptly.</li> <li>- Emergency procedures training: Train all workers on the emergency procedures relevant to the MIG welding process, such as first-aid, fire-fighting techniques, and how to respond in the event of an equipment malfunction or power outage. Regular drills and practice sessions can help workers stay prepared for emergencies.</li> </ul>	2M
2. Calibration	Electrical shock, exposure to gases	3H	<ul style="list-style-type: none"> <li>- Regular inspection and maintenance of welding equipment: Ensure that the MIG welding machine and its associated parts are regularly inspected and maintained by a competent person to avoid the risk of electrical shock and exposure to gases.</li> </ul>	1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			<ul style="list-style-type: none"> <li>- Use of appropriate personal protective equipment (PPE): Welders should wear proper PPE, including gloves, safety boots, safety glasses, and welding helmets with appropriate shade filters to protect against electrical shocks and exposure to harmful gases.</li> <li>- Proper grounding of equipment: Ensure that the MIG welding machine is connected to a suitable earth ground connection to reduce the risk of electrical shock.</li> <li>- Ventilation and exhaust system: Ensure good ventilation in the work area to disperse harmful fumes and gases generated during the welding process, and use exhaust systems when needed.</li> <li>- Working in a dry environment: Avoid working in wet or damp conditions, as they can increase the risk of electrical shock. Keep the work area clean and dry to minimise the risk.</li> <li>- Training and competency of workers: Ensure that all welders have received adequate training and are competent in the operation and maintenance of the MIG welding equipment.</li> <li>- Use correct gas flow rates: Ensure that the shielding gas flow rate is set correctly according to manufacturer recommendations to avoid excessive exposure to fumes and gases.</li> <li>- Verification of electrical connections: Before beginning the welding process, verify that all electrical connections are secure and undamaged to prevent the risk of electrical shock.</li> <li>- Disconnect power supply when not in use: Always disconnect the power supply to the MIG welder when it is not in use to reduce the risk of electrical shock.</li> <li>- Use of circuit breakers and residual current devices (RCDs): Using these devices can help protect against electrical shock by promptly shutting off power whenever a fault or leakage is detected.</li> <li>- Calibration by a competent person: Only allow qualified and experienced professionals to carry out calibration procedures on MIG welding equipment.</li> <li>- Safe storage and handling of gas cylinders: Always store and transport gas cylinders securely, following the manufacturer's guidelines and regulatory requirements. Keep cylinders in a well-ventilated area away from sources of heat or ignition.</li> <li>- Emergency response plan: Develop an emergency response plan, including procedures for responding to incidents involving electrical shocks or exposure to hazardous gases. Train workers on the plan and regularly review and update it as needed.</li> </ul>	
3. Aligning Materials	Manual handling injuries, eye injury	2M	<ul style="list-style-type: none"> <li>- Proper Training: Ensure all workers involved in the alignment of materials have received appropriate manual handling and equipment training to minimise the risk of injury.</li> <li>- Use of Personal Protective Equipment (PPE): Workers should wear appropriate PPE, such as safety glasses, gloves, steel-toed boots, and high visibility clothing to reduce the risk of eye injuries and other potential hazards during material alignment.</li> <li>- Team Lifting Techniques: Encourage workers to use proper team lifting techniques for heavier loads, ensuring that communication between individuals is clear and effective to prevent accidents.</li> <li>- Work Area Preparation: Keep the work area clean, organised, and free from obstructions to facilitate safe material alignment.</li> <li>- Use of Mechanical Aids: Utilise mechanical aids, such as trolleys or hoists, to help transport and align heavier materials, reducing the risk of manual handling injuries.</li> </ul>	1L

<p>ination or dust irritants</p>	<p>3H</p>	<p> <ul style="list-style-type: none"> <li>- Pre-Alignment Inspection: Conduct a thorough inspection of the work area before starting the alignment process. Check for sharp edges, debris, or other hazards that could lead to injuries.</li> <li>- Periodic Rest Breaks: Encourage workers to take regular breaks to avoid fatigue, which can lead to overexertion and repetitive strain injuries during manual alignment.</li> <li>- Maintain Clear Communication: Establish clear communication protocols. Ensure everyone is aware of potential hazards and pending activities in the work environment or procedures.</li> <li>- Ongoing Hazard Assessment &amp; Improvement: Regularly assess the work environment for new hazards and continuously strive to improve safety measures based on feedback from workers and incorporating their suggestions for improvement.</li> </ul> </p>

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
5. Tack Welds	Burns, insufficient ches	2M		1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
6. Welding Process	Molten metal splatter, UV radiation	3H		2M



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
7. Inspecting Weld	Sharp edges, high temperatures	2M		1L

[illegible]

[illegible]

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
10. Post-Weld Inspection	Slips and trips, residual heat	2M		1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
11. Cooling	Contact with hot surfaces, inadequate cooling	3H	<div>SAMPLE</div>	1L
12. Debris Removal	Hand injuries, improper disposal	2M		1L

[illegible]

## EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

## LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES IF ANY STATE THAT ARE NOT APPLICABLE

### Queensland & Australian Capital Territory

Work Health and Safety Act 2011

Work Health and Safety Regulations 2011

Legislation QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws>

Codes of Practice QLD: <https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice>

Legislation ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations>

Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

### Victoria

Occupational Health and Safety Act 2004

Occupational Health and Safety Regulations 2017

Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>

Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

### New South Wales

Work Health and Safety Act 2011

Work Health and Safety Regulations 2017

Legislation NSW: <https://www.safework.nsw.gov.au/legal-obligations/legislation>

Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-codes-of-practice>

### Western Australia

Work Health and Safety Act 2020

Work Health and Safety Regulations 2022

Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>

Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

### Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011

Work Health and Safety (National Uniform Legislation) Regulations 2011

Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws>

Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

### Safe Work Australia Links

Law and Regulation (All States): <https://www.safeworkaustralia.gov.au/law-and-regulation>

Model Codes of Practice: <https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice>

### Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

### South Australia

Work Health and Safety Act 2012 (SA)

Work Health and Safety Regulations 2012 (SA)

Legislation for SA: <https://www.safework.sa.gov.au/resources/legislation>

Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

### Tasmania

Work Health and Safety Act 2012

Work Health and Safety (Transitional and Consequential Provisions) Act 2012

Work Health and Safety Regulations 2012

Work Health and Safety (Transitional) Regulations 2012

Legislation for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations>

Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.

## SIGNATORIES OF THE SAFE WORK METHOD STATEMENT

The signed and dated personnel listed below have cooperated in the consultation and development of this Safe Work Method Statement which has been approved by the Person/s Conducting a Business or Undertaking (PCBU). In signing this Safe Work Method Statement each individual acknowledges and confirms that they have read this SWMS in full, having raised any questions for items on this Safe Work Method Statement that require clarification, and confirms that they are competent, skilled and knowledgeable for the task assigned to them. Every person acknowledges that they have received the relevant training and qualifications where required, before carrying out any work contained in this Safe Work Method Statement. By signing this Safe Work Method Statement each individual agrees to work safely, to follow any safe work instructions which are provided, and agrees to use all Personal Protective Equipment where appropriate.

Worker Name	Signature	Date

## SAFE WORK METHOD STATEMENT MONITORING AND REVIEW

**The SWMS must be reviewed regularly** to make sure it remains effective and must be reviewed (and revised if necessary) if relevant control measures are revised. The review must be carried out in consultation with workers (including contractors and sub-contractors) who may be affected by the operation of the SWMS and their health and safety representatives who represent that work group at the workplace.

When the SWMS has been revised the PCBU must ensure that all persons involved with the work are advised that a revision has been made and how they can access the revised SWMS, including all persons who will need to change a work procedure or system as a result of the review are advised of the changes in a way that will enable them to implement their duties consistently with the revised SWMS. All workers that will be involved in the work must be provided with the relevant information and instruction that will assist them to understand and implement the revised SWMS.

**The SWMS must be monitored regularly** for the effectiveness of ensuring hazard controls are effective in reducing the risk of incidents, keeping the workplace safe for all personnel. The person responsible for monitoring the effectiveness of the Safe Work Method Statement should employ a multi-faceted approach which includes but is not limited to:

1. Spot Checks.
2. Consultation with workers, contractors and sub-contractors.
3. Internal audits on a continual basis.

An approach of continuous improvement, promptly recording inconsistencies or deficiencies, followed up by immediate corrective action and consultation with all relevant personnel ensures that the PCBU is consistently developing ever-improving systems of safe work principles.

REVIEW NUMBER	1	2	3	4	5	6	7
NAME							
INITIALS							
DATE							



### SAFE WORK METHOD STATEMENT REVIEW CHECKLIST

This Safe Work Method Statement Review Checklist is to be followed and used upon initial development of the SWMS to help ensure that all steps have been adequately taken before work commences. Think of this document as an internal audit review checklist before commencing work, and may form part of a Toolbox Talk (safety meeting) and may be used as an opportunity for education and training.

ITEMS WHICH MUST BE INCLUDED IN THE SWMS	COMPLETED	COMMENTS
The company details have been entered, including the project name and address.	<input checked="" type="checkbox"/>	
All relevant personnel consulted during the development of the SWMS.	<input checked="" type="checkbox"/>	
Name, signature, position and date signed of the person approving the SWMS.	<input type="checkbox"/>	
Specific personnel and qualifications, experience is noted in the SWMS.	<input checked="" type="checkbox"/>	
Provides a step-by-step process of tasks required to carry out the activity or task.	<input checked="" type="checkbox"/>	
Adequate risk assessment of any identified hazards has been completed.	<input checked="" type="checkbox"/>	
Foreseeable hazards are identified and documented for each step.	<input checked="" type="checkbox"/>	
Any hazards listed in any site risk assessments have been added to the SWMS.	<input checked="" type="checkbox"/>	
SWMS initial risk (IR) column as well as residual risk (RR) column completed.	<input checked="" type="checkbox"/>	
Check control measures added to the SWMS are the most effective selected.	<input checked="" type="checkbox"/>	
Responsible person is assigned and listed on the SWMS for the implementation of control measures.	<input checked="" type="checkbox"/>	
Permit or licenses requirements specified, such as Hot Work, Electrical Work, Work at Heights etc.	<input checked="" type="checkbox"/>	
SWMS identifies plant and equipment to be used.	<input checked="" type="checkbox"/>	
Details of inspection checks required for any equipment listed as noted on the SWMS.	<input checked="" type="checkbox"/>	
Describes any mandatory qualifications, experience, training or skills required to perform the work.	<input checked="" type="checkbox"/>	
Applicable personal protective equipment is selected on the SWMS.	<input checked="" type="checkbox"/>	
Reflects and documents any legislative references and/or Australian Standards.	<input checked="" type="checkbox"/>	
Identifies any hazardous substances used with specific control measures in line with any SDS.	<input checked="" type="checkbox"/>	
REVIEWED BY		
SIGNATURE		
DATE REVIEWED		
DATE COMPLETED		