

## Drilling Metal Surfaces Risk Assessment

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

### THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT

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

Full Name:		
Signature:	Title:	Date:

### CLIENT OR PRINCIPAL CONTRACTOR DETAILS

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

RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			<b>Elimination</b> Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	<b>Substitution</b> Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	<b>Engineering</b> Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	<b>Administrative</b> Change	
								<b>PPE</b>	
<b>Risk Rating &amp; Required Action:</b>								<b>Notes on Hierarchy of Controls:</b>	
4A Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before task starts. Senior supervisor sign-off needed.								1. <b>Eliminate</b>	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
<b>Consequence Scale:</b>								Always document <b>why</b> a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
Consequence	People (injury/illness)		Project / Assets		Compliance / Reputation				
Catastrophic	Fatality or permanent total disability		project shutdown		Significant regulator intervention; criminal prosecution				
Major	Serious injury/illness (hospital > 5 days)		critical delay		Improvement notice; major media coverage				
Moderate	Medical-treatment injury; lost-time > 1 day		moderate delay		Minor breach; adverse client comment				
Minor	First-aid only, no lost time		negligible delay		Isolated non-conformance				
Insignificant	No injury		no schedule impact		Deviation caught and corrected on site				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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	Slips, Trips, Falling Objects, Noise Exposure, Incorrect Equipment Use	4A	<ul style="list-style-type: none"> <li>- Conduct pre-work briefing</li> <li>- Ensure work area is clear of obstacles</li> <li>- Use signage to warn of slippery surfaces</li> <li>- Secure tools and materials to prevent falls</li> <li>- Conduct noise level assessment</li> <li>- Wear appropriate PPE including ear protection</li> <li>- Verify training of personnel on equipment use</li> <li>- Inspect and maintain equipment before use</li> <li>- Use anti-slip mats in high-risk areas</li> <li>- Ensure adequate lighting in work area</li> </ul>	2M
2. Tool Selection	Selecting Incorrect Drill, Overheating, Improper Handling	3L	<ul style="list-style-type: none"> <li>- Use correct drill for material and task</li> <li>- Consult equipment manual for guidance</li> <li>- Check speed settings are appropriate</li> <li>- Train workers on tool selection</li> <li>- Inspect tools for damage or wear before use</li> <li>- Avoid using tools beyond manufacturer guidelines</li> <li>- Use thermal gloves if necessary to handle equipment</li> <li>- Provide handouts on safety protocols</li> <li>- Arrange regular refresher training</li> <li>- Label tools clearly with usage instructions</li> </ul>	1L
3. Workspace Setup	Electric Shock, Fire Hazard, Lack of Ventilation	4A	<ul style="list-style-type: none"> <li>- Ensure all electrical equipment is properly grounded</li> <li>- Conduct regular electrical safety checks</li> <li>- Remove flammable materials from work area</li> <li>- Use fire-resistant surfaces and barriers</li> <li>- Ensure ventilation systems are operational</li> <li>- Regularly assess air quality</li> <li>- Implement an emergency response plan</li> <li>- Install fire extinguishers in accessible locations</li> </ul>	2M

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			<ul style="list-style-type: none"> <li>- Train staff in fire response procedures</li> <li>- Report and rectify any electrical faults immediately</li> </ul>	
4. Securing Material	Material Slippage, Crushing Injury, Ergonomic Strain	3H	<ul style="list-style-type: none"> <li>- Use appropriate lifting techniques</li> <li>- Ensure material is properly secured before lifting</li> <li>- Use lifting equipment where possible</li> <li>- Avoid overexertion</li> <li>- Take regular breaks</li> <li>- Use proper posture</li> <li>- Ensure clear path for movement</li> <li>- Use appropriate footwear</li> <li>- Keep work area clean and free of clutter</li> <li>- Use handrails or ladders when reaching high</li> <li>- Communicate with team members</li> <li>- Use proper grip</li> <li>- Avoid twisting the body</li> <li>- Use appropriate tools</li> <li>- Ensure equipment is in good condition</li> <li>- Follow safe work practices</li> <li>- Use proper body mechanics</li> <li>- Avoid sudden movements</li> <li>- Use appropriate PPE</li> <li>- Keep feet flat on the floor</li> <li>- Avoid carrying heavy loads</li> <li>- Use proper lifting technique</li> <li>- Communicate with team members</li> <li>- Use proper posture</li> <li>- Take regular breaks</li> <li>- Avoid overexertion</li> <li>- Use lifting equipment where possible</li> <li>- Ensure material is properly secured before lifting</li> <li>- Use appropriate lifting techniques</li> </ul>	1L
5. Drilling Process	Flying Particles, Heat Generation, High Noise Level	4A	<ul style="list-style-type: none"> <li>- Use appropriate PPE (eye protection, earplugs)</li> <li>- Ensure drill is properly maintained</li> <li>- Use appropriate speed and feed rates</li> <li>- Avoid overexertion</li> <li>- Take regular breaks</li> <li>- Use proper posture</li> <li>- Ensure clear path for movement</li> <li>- Use appropriate footwear</li> <li>- Keep work area clean and free of clutter</li> <li>- Use handrails or ladders when reaching high</li> <li>- Communicate with team members</li> <li>- Use proper grip</li> <li>- Avoid twisting the body</li> <li>- Use appropriate tools</li> <li>- Ensure equipment is in good condition</li> <li>- Follow safe work practices</li> <li>- Use proper body mechanics</li> <li>- Avoid sudden movements</li> <li>- Use appropriate PPE</li> <li>- Keep feet flat on the floor</li> <li>- Avoid carrying heavy loads</li> <li>- Use proper lifting technique</li> <li>- Communicate with team members</li> <li>- Use proper posture</li> <li>- Take regular breaks</li> <li>- Avoid overexertion</li> <li>- Use lifting equipment where possible</li> <li>- Ensure material is properly secured before lifting</li> <li>- Use appropriate lifting techniques</li> </ul>	2M
6. Monitoring Drill	Bit Breakage, Vibration, Loss of Control	4A	<ul style="list-style-type: none"> <li>- Use appropriate PPE (eye protection, earplugs)</li> <li>- Ensure drill is properly maintained</li> <li>- Use appropriate speed and feed rates</li> <li>- Avoid overexertion</li> <li>- Take regular breaks</li> <li>- Use proper posture</li> <li>- Ensure clear path for movement</li> <li>- Use appropriate footwear</li> <li>- Keep work area clean and free of clutter</li> <li>- Use handrails or ladders when reaching high</li> <li>- Communicate with team members</li> <li>- Use proper grip</li> <li>- Avoid twisting the body</li> <li>- Use appropriate tools</li> <li>- Ensure equipment is in good condition</li> <li>- Follow safe work practices</li> <li>- Use proper body mechanics</li> <li>- Avoid sudden movements</li> <li>- Use appropriate PPE</li> <li>- Keep feet flat on the floor</li> <li>- Avoid carrying heavy loads</li> <li>- Use proper lifting technique</li> <li>- Communicate with team members</li> <li>- Use proper posture</li> <li>- Take regular breaks</li> <li>- Avoid overexertion</li> <li>- Use lifting equipment where possible</li> <li>- Ensure material is properly secured before lifting</li> <li>- Use appropriate lifting techniques</li> </ul>	2M

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7. Maintaining Equipment	Unexpected Start-Up, Electrical Faults, Inadequate Repairs	3H		1L
8. Cleaning Work Area	Exposure to Cleaning Chemicals, Physical Strain	3H		2M
9. Waste Disposal	Sharp Metal Waste, Environmental Hazards, Inadequate Labeling	3H		1L

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10. Emergency Response	Inadequate Response to Incidents, Evacuation Barriers, Unavailability of First Aid	4A		2M
11. Worker Training	Insufficient Training, Miscommunication, Lack of Awareness	4A		2M
12. Equipment Decommissioning	Equipment Malfunction, Unsafe Dismantling, Exposure to Hazardous Materials	3H		1L

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13. Lease Handover	Residual Material, Lease Agreement Breach, Property Damage	3H		1L
14. Reporting	Input Errors, Incomplete Data, Delayed Reporting	3H		1L
15. Review and Feedback	Lack of Feedback, Miscommunication, Incomplete Assessments	3H		1L

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SAMPLE



## 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.