

## Bench Grinder 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>	
<b>4A</b> 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:	
<b>3H</b> Review and approve additional controls before the task starts. Senior supervisor sign-off needed.								1. <b>Eliminate</b>	
<b>2M</b> Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
<b>1L</b> 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	Sharp edges, Flying particles	3H	<ul style="list-style-type: none"> <li>- Conduct a pre-operation inspection of the bench grinder.</li> <li>- Ensure that the work area is clean and well-lit.</li> <li>- Use appropriate personal protective equipment (PPE) such as safety glasses and gloves.</li> <li>- Secure loose clothing and tie back long hair.</li> <li>- Check the grinder's guards and safety shields are in place and functional.</li> <li>- Verify that the grinder is properly mounted to avoid vibration.</li> <li>- Ensure the emergency stop buttons are functioning.</li> <li>- Inspect the power cord for damage.</li> <li>- Verify that the work rest is properly adjusted to within 3mm of the wheel.</li> <li>- Lock the power source during adjustments.</li> </ul>	1L
2. Power On	Electric shock, Noise	3H	<ul style="list-style-type: none"> <li>- Ensure all guards and covers are securely in place before starting the grinder.</li> <li>- Use a ground fault circuit interrupter (GFCI) outlet for electrical safety.</li> <li>- Stand to the side of the wheel before switching the grinder on.</li> <li>- Provide sufficient training for all users on safe operation.</li> <li>- Conduct hearing protection training and ensure accessibility of ear protection equipment.</li> <li>- Use signage to warn about noise hazards.</li> <li>- Inspect the wheel for any damage prior to use.</li> <li>- Maintain a safe distance from the wheel during startup.</li> <li>- Avoid using the grinder in wet conditions.</li> <li>- Monitor sound levels during operation.</li> </ul>	2M
3. Grinding Workpiece	Inhalation of dust, Sparks and debris	3H	<ul style="list-style-type: none"> <li>- Use appropriate respirators to prevent inhalation of dust and particles.</li> <li>- Maintain a safe working distance from others to prevent injuries from flying sparks.</li> <li>- Ensure adequate ventilation in the grinding area.</li> <li>- Position a spark deflector in the direction of spark travel.</li> <li>- Use a dust collection system where possible.</li> <li>- Apply the workpiece gradually into the wheel to prevent kickback.</li> <li>- Ensure work rest is in position and at proper distance.</li> <li>- Avoid grinding materials that produce noxious fumes.</li> </ul>	2M

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			<ul style="list-style-type: none"> <li>- Wear flame-resistant clothing when required.</li> <li>- Regularly clean work area to avoid dust accumulation.</li> </ul>	
4. Adjusting Work Rest	Pinching fingers, Improper wheel distance	3H	<ul style="list-style-type: none"> <li>- Wear flame-resistant clothing when required.</li> <li>- Regularly clean work area to avoid dust accumulation.</li> <li>- Use proper technique when adjusting work rest.</li> <li>- Ensure work rest is properly adjusted.</li> <li>- Use proper technique when adjusting wheel distance.</li> <li>- Ensure wheel distance is proper.</li> <li>- Use proper technique when adjusting work rest.</li> <li>- Ensure work rest is properly adjusted.</li> <li>- Use proper technique when adjusting wheel distance.</li> <li>- Ensure wheel distance is proper.</li> </ul>	1L
5. Wheel Replacement	Wheel breakage, Improper wheel distance	4A	<ul style="list-style-type: none"> <li>- Wear flame-resistant clothing when required.</li> <li>- Regularly clean work area to avoid dust accumulation.</li> <li>- Use proper technique when replacing wheel.</li> <li>- Ensure wheel is properly installed.</li> <li>- Use proper technique when adjusting wheel distance.</li> <li>- Ensure wheel distance is proper.</li> <li>- Use proper technique when replacing wheel.</li> <li>- Ensure wheel is properly installed.</li> <li>- Use proper technique when adjusting wheel distance.</li> <li>- Ensure wheel distance is proper.</li> </ul>	2M
6. Sharpening Tools	Tool kickback, Overheating workpiece	3H	<ul style="list-style-type: none"> <li>- Wear flame-resistant clothing when required.</li> <li>- Regularly clean work area to avoid dust accumulation.</li> <li>- Use proper technique when sharpening tools.</li> <li>- Ensure workpiece is properly secured.</li> <li>- Use proper technique when sharpening tools.</li> <li>- Ensure workpiece is properly secured.</li> </ul>	2M

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7. Cleaning	Machine reactivation, Chemical exposure	3H		1L
8. Routine Maintenance	Unexpected operation, Inadequate repairs	3H		2M

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9. Emergency Procedures	Inadequate response, Untrained personnel	4A	<div>1. Establish clear emergency procedures and ensure all personnel are trained and familiar with them.</div> <div>2. Designate specific personnel for emergency roles (e.g., first aid, fire, spill response).</div> <div>3. Conduct regular emergency drills to test the effectiveness of procedures and personnel response.</div> <div>4. Ensure first aid kits, fire extinguishers, and spill kits are readily accessible and maintained.</div> <div>5. Establish a clear communication system for emergencies (e.g., two-way radios, emergency phones).</div> <div>6. Post emergency contact information (e.g., hospital, fire department, poison control) in accessible locations.</div> <div>7. Ensure personnel know the location of exits and assembly points.</div> <div>8. Review and update emergency procedures regularly.</div> <div>9. Provide ongoing training and refreshers for emergency personnel.</div> <div>10. Consider external support for specialized emergencies (e.g., hazmat, heavy machinery).</div> <div>11. Document all emergency incidents and responses for analysis and improvement.</div>	2M
10. Storage	Incorrect storage, Material deterioration	3L	<div>1. Implement strict storage protocols for all materials, including labeling, segregation, and stacking.</div> <div>2. Regularly inspect stored materials for signs of deterioration, damage, or expiration.</div> <div>3. Use appropriate storage containers and methods for different material types (e.g., flammable, corrosive, reactive).</div> <div>4. Control environmental conditions (temperature, humidity, ventilation) to prevent material degradation.</div> <div>5. Implement a first-in, first-out (FIFO) system to ensure materials are used before they deteriorate.</div> <div>6. Establish a system for tracking material inventory and expiration dates.</div> <div>7. Provide training on proper storage procedures to all personnel.</div> <div>8. Segregate incompatible materials to prevent reactions.</div> <div>9. Use secondary containment for hazardous materials.</div> <div>10. Regularly audit storage areas for compliance with safety protocols.</div> <div>11. Dispose of expired or deteriorated materials properly.</div>	1L
11. Waste Disposal	Environmental contamination, Slip hazards	3H	<div>1. Develop and implement a comprehensive waste management plan.</div> <div>2. Segregate waste streams (e.g., hazardous, non-hazardous, liquid, solid) for proper disposal.</div> <div>3. Use appropriate containers and methods for waste collection and transport.</div> <div>4. Implement spill prevention and containment measures.</div> <div>5. Regularly clean and maintain waste disposal areas to prevent slip hazards and contamination.</div> <div>6. Provide training on proper waste disposal procedures to all personnel.</div> <div>7. Use personal protective equipment (PPE) when handling waste.</div> <div>8. Dispose of waste at authorized facilities.</div> <div>9. Monitor and control emissions from waste disposal processes.</div> <div>10. Implement a system for tracking waste disposal volumes and types.</div> <div>11. Review and update waste management procedures regularly.</div>	2M

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12. Training	Inexperienced operators, Ineffective communication	4A		1L
13. Inspection and Testing	Faulty equipment, Delayed action	3H		1L
14. Monitoring Equipment Use	Exceeding safe usage limits, Lack of accountability	4A		2M

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15. Incident Reporting	Unreported incidents, Failure to investigate	4H		1L
16. Decommissioning	Improper equipment disposal, Residual hazards	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.