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

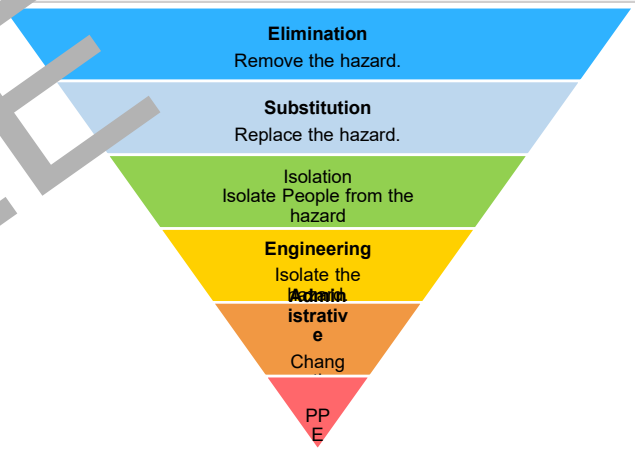
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS	SCOPE OF WORKS
Client:	
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
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
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	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures Monitor and keep records.

Consequence Scale:

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

Notes on Hierarchy of Controls:
Remember to apply controls in the preferred order shown by the coloured pyramid:

1. **Eliminate**
2. Substitute
3. Isolate
4. Engineering
5. Administrative
6. PPE

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

aligned with Safe Work Australia's Managing the risk of fatigue at work *(2023) and ISO 45001:2018 clauses 6–8.*

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. Procurement, Design and Selection of Grinders and Accessories	• Purchase of bench grinders, surface grinders, cylindrical grinders, centreless grinders, cut-off saws, tool and cutter grinders and disc grinders that are not designed or certified to relevant Australian Standards (e.g. AS/NZS 4024 series, AS 1788 where applicable) • Selection of abrasive wheels, cutting discs, metal grinding discs, metal grinding wheels and rotary wire brushes that are not compatible with grinder speed, spindle size or material being worked • Procurement of grinders and accessories without appropriate guarding, work rests, tongue guards, eye shields, spark deflectors or emergency stop devices • Use of non-genuine or poor-quality abrasive products that are prone to bursting, shattering or rapid wear • Failure to specify dust extraction or containment for grinding of metal and other materials producing respirable dusts, fumes or fibres • Lack of consideration of noise and vibration ratings at the time of purchase, leading to systematic over-exposure of workers • Acquisition of grinders that do not allow for safe control of feed movements or secure clamping/fixturing of work pieces • Inadequate supplier documentation (instructions, manuals, conformity statements) for safe use of abrasive wheel machinery and grinders and cutters	High	• Establish and implement a documented plant procurement procedure that requires verification of compliance with the WHS Act 2011, WHS Regulation and relevant Australian Standards for all grinders and abrasive wheel machinery • Specify mandatory engineering features in purchase specifications, including fixed and adjustable guards, interlocked emergency stop devices, correctly rated motors, compatible flanges, and provisions for dust extraction and noise control • Require written confirmation from suppliers that all abrasive wheels, cutting discs, metal grinding wheels, rotary wire brushes and wire wheel brushes are speed-rated above the grinder's maximum RPM and suitable for the intended material and application • Include a requirement that all supplied plant comes with current operating and maintenance manuals, risk assessments, test reports and recommended control measures for safe use of grinding tools Implement a pre-purchase WHS review process involving a competent person to assess risks associated with bench grinders, surface grinders, cylindrical grinders, centreless grinders and cut-off wheels before approval • Standardise brands and models where possible to simplify training, maintenance, spare parts and consistent guarding and safety features • Include lifecycle cost and risk in procurement decisions, considering dust, noise, vibration, ergonomics and safety systems rather than purchase price alone • Maintain a central register of approved grinders, discs, wheels and attachments, and prohibit procurement or use of non-approved grinding accessories	Medium
2. Governance, WHS Management System and Legal Compliance	• Absence of a formal WHS management system addressing grinder and abrasive wheel machinery risks in line with the WHS Act 2011 and WHS Regulation	High	• Embed grinder and abrasive wheel machinery risks in the organisation's WHS management system, with explicit references to WHS Act 2011 duties for PCBUs, officers, workers and other persons	Medium

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
	• Lack of clear organisational policy for safe use of grinding tools and abrasive wheel plant across all work areas • Inadequate consultative arrangements with workers and Health and Safety Representatives (HSRs) regarding grinder risks, kickback potential and emergency response • No systematic process for identifying, assessing and controlling hazards associated with working with cutting and grinding tools, including use of disc grinders without guards • Poor integration of grinder-related risks into broader plant safety, hazardous chemicals, noise, PPE and emergency management procedures • Failure to define and communicate roles, responsibilities and accountabilities for managers, supervisors and workers in relation to grinder safety • Inadequate monitoring and review of the effectiveness of grinder-related control measures, including incident trend analysis		• Develop and endorse a corporate policy on safe use of grinding tools, abrasives and wire brushes, clearly prohibiting unsafe practices such as use of disc grinders without guards and unauthorised modifications • Implement a formal risk management procedure that requires documented grinder risk assessments to be conducted, reviewed and approved by competent persons at defined intervals or following changes • Ensure worker consultation mechanisms (HSR meetings, toolbox talks, safety committees) regularly address grinder-related issues, including kickback, emergency stop use and abrasive wheel selection • Incorporate grinder risks into plant safety, noise, hazardous substances and PPE procedures, ensuring alignment with Australian Standards and Codes of Practice • Define and communicate responsibilities for officers (due diligence), managers (resourcing and oversight), supervisors (day-to-day implementation) and workers (following procedures and reporting issues) in relation to grinder safety • Establish performance indicators for grinder safety (e.g. number of inspections completed, non-conformances closed, incidents and near misses reported) and review them at management meetings • Conduct periodic compliance audits against WHS legislation, internal procedures and relevant standards for all grinding and abrasive wheel operations	
3. Training, Competency and Supervision	• Workers operating bench grinders, disc grinders, surface and cylindrical grinders or centreless grinders without verified competency • Lack of specific training in hazards associated with abrasive wheels, including bursting, kickback, entanglement and projectiles • Inadequate instruction on safe mounting, balancing and dressing of abrasive wheels, metal grinding discs, cut-off wheels and wire wheel brushes • No formal training in how to tackle kickback from the grinder, control grinder feed movements, or perform an emergency stop of grinder systems	High	• Develop a documented competency-based training program for all types of grinders (bench, surface, cylindrical, centreless, cut-off, disc, tool and cutter) and associated accessories • Require workers to complete formal training in safe use of abrasive wheel machinery, including theory and practical assessment, before independent operation • Include in training modules specific content on kickback mechanisms, safe feed control, secure work holding, correct body positioning, and emergency stop procedures • Provide detailed instruction and supervised practice in mounting, balancing, dressing and storing abrasive wheels, metal grinding discs, cut-off wheels, wire wheel brushes and rotary wire brushes • Ensure training covers system-level controls such as pre-use inspection protocols, defect reporting processes, and adherence to safe work procedures and permits • Maintain up-to-date training records, competency assessments and authorisations for each worker, linked to specific grinder types and tasks they are permitted to perform • Implement periodic refresher training and targeted toolbox talks in response to incident trends, equipment changes or introduction of new grinding technologies	Medium

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
	• Supervisors unaware of their obligation to enforce the safe use of grinding tools and to challenge unsafe practices (such as removal or bypassing of guards) • Insufficient information for workers on selection, inspection and limitations of cutting and grinding tools, including rotary wire brushes and metal grinding wheels • No refresher or ongoing competency assessment program leading to skills drift and normalisation of unsafe behaviours		• Require supervisors to receive additional training in hazard recognition, behavioural safety, enforcement of PPE and guarding requirements, and conducting field verification of competency	
4. Procedures, Work Instructions and Safe Systems of Work	• Absence of formal documented procedures for working with cutting and grinding tools and abrasive wheel machinery • Procedures that focus only on basic operation and do not adequately address system-level risks such as selection of wheels, management of kickback, guarding, or emergency response • Inconsistent practices between shifts or sites regarding the safe use of bench grinders, cut-off wheels and disc grinders • Lack of clear rules prohibiting unsafe practices, such as using disc grinders without guards or bypassing interlocks • No standardised process for controlling grinder feed movements, particularly on surface, cylindrical and centreless grinders and tool and cutter grinders • Inadequate procedural guidance for wire wheel brush operations and use of rotary wire brushes, including managing entanglement and projectile hazards	High	[redacted]	Medium
5. Plant Registration, Commissioning and Modification Control	• Grinders and abrasive wheel machinery being installed and used without formal commissioning checks or verification against design and safety requirements	High	[redacted]	Medium

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
	• Uncontrolled modifications to guards, interlocks, emergency stops or control systems, compromising original safety design • Relocation of bench grinders, surface grinders or cut-off saws without reassessment of risks related to access, egress, ventilation, power supply and emergency stop reach • Failure to identify when certain grinding plant may require registration or notification under WHS Regulation • Commissioning conducted without competent oversight or documentation, leading to undetected hazards in feed controls, stopping times or guarding		[redacted]	
6. Guarding, Interlocks and Physical Safety Systems	• Systematic use of disc grinders without guards, increasing exposure to wheel burst, kickback and projectiles • Inadequate or incorrectly adjusted wo rests, tongue guards and eye shields o bench and surface gri ers • Guarding that do not fully contain fragments from bu ing abr els or metal grinding di • Defeated or bypassed interlocks o safety devices on surface cylind al or centreless grinders • Lack of consistency in guarding standards across different grinders and locations, leading to confusion and unsafe expectations • Guard adjustment and maintenance being left to untrained workers without procedural guidance or supervisory oversight	High	[redacted]	Low
7. Inspection, Maintenance and Asset Management	• Failure to identify wear, damage or defects in grinders, spindles, flanges, guards and emergency stop devices due to inadequate inspection systems	High	[redacted]	Medium

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
	• Use of worn, damaged or out-of-date abrasive wheels, metal grinding discs, cut-off wheels and wire brushes • Lack of preventive maintenance schedules leading to increased risk of mechanical failure, vibration, uncontrolled feed movements or wheel burst • Insufficient documentation and traceability of maintenance activities, preventing trend analysis and timely replacement of high-risk components • Inadequate verification of braking performance, stopping times and accuracy of feed movement controls on surface and cylindrical grinders		[redacted]	
8. Operational Controls, Set-Up and Feed Management Systems	• Lack of system controls to ensure grinder set-up, workpiece clamping and feed movements are undertaken safely particularly on surface, cylindrical and centreless grinders • Uncontrolled or excessive feed rates leading to kickback, wheel overload, loss of control • Inconsistent policies on acceptable use of grinders for different materials and tasks (e.g. grind surfaces vs cut-off operations) resulting in misuse • No formal methods to prevent inadvertent start-up of grinders during set-up or adjustment phases • Systemic failure to manage risks when using grinders and cutters in confined, elevated or awkward locations	High	[redacted]	Medium
9. Abrasive Products, Wire Brushes and	• Use of abrasive wheels, metal grinding discs, cut-off wheels and wire wheel	High	[redacted]	Medium

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
Consumables Management	brushes that are incompatible with the grinder's speed or application • Inadequate storage conditions for abrasive products leading to degradation, cracking or imbalance • Uncontrolled access to abrasive and cutting discs allowing non-competent workers to select or fit incorrect products • Lack of traceability for faulty batches of abrasive products, hindering recall and removal from service • No system to manage inspection and timely replacement of rotary wire brushes, wire wheel brushes and other consumables		[redacted]	
10. Work Environment, Housekeeping and Exposure Controls	• Accumulation of metal swarf, sparks and combustible materials in grinding areas increasing fire and slip hazards • Inadequate lighting, ventilation and dust control around bench grinders, surface grinders and cut-off • Excessive noise and vibration exposures from sustained grinding activities without systematic cont • Poor housekeeping around grinding stations leading to trip hazards and restricted emergency access to emergency stop devices • Uncontrolled emissions from grind surfaces operations affecting neighbouring workers and processes	High	[redacted]	Medium
11. Personal Protective Equipment (PPE) and Fit-for-Work Systems	• Inadequate or inconsistent use of eye, face, hearing, respiratory, hand and body protection when working with grinding and cutting tools	High	[redacted]	Medium

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
	• PPE policies that are not tailored to specific grinder tasks such as metal grinding, cut-off operations or wire wheel brush operations • Failure to consider fit-for-work factors (fatigue, impairment, musculoskeletal limitations) that increase risk when operating grinders • No systematic checking of PPE condition, suitability and correct fit for workers		[redacted]	
12. Emergency Preparedness, Response and Incident Management	• Workers unable to perform emergency stop of grinder quickly and effectively due to poor system design or lack of training • Delayed or ineffective response to incidents such as kickback, wheel bur[redacted] eye injuries, entanglement or fires involving grinding tools • Lack of clear escalat[redacted] and reporting processes for grind[redacted] related near misses, injuries ar[redacted] plant dama[redacted] • Inadequate first aid[redacted] rces or training specific to common grinder injuries (lacerations, foreign bodies[redacted] eye, burns)	High	[redacted]	Medium
13. Contractor, Visitor and Third-Party Management	• Contractors bringing their own grinders, cut-off tools or abrasive wheel machinery on site that do not meet organisational or Australian safety standards • Inadequate induction of contractors and visitors regarding site rules for safe use of grinding tools and restricted areas • Lack of clarity over responsibilities between PCBUs when contractors perform grinding or cutting work on site	High	[redacted]	Medium

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
	• Third-party activities introducing incompatible grinding methods or consumables into the workplace		[redacted]	
14. Monitoring, Review and Continuous Improvement	• Static grinder risk assessments and procedures that are not reviewed in light of incidents, near misses or technology changes • Lack of performance monitoring for grinder-related risks, leading to undetected deterioration of controls • Inadequate worker feedback mechanisms for reporting emerging issues with grinding and cutting tools	Medium	[redacted]	Low

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 FOR 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

New South Wales
Work Health and Safety Act 2011
Work Health and Safety Regulations 2025
Legislation NSW: https://www.safework.nsw.gov.au/legal-obligations/legislation
Codes of Practice NSW: https://www.safework.nsw.gov.au/resource-library/list-of-codes-of-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/forms-and-resources/codes-of-practice

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.

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

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

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