Floor 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:

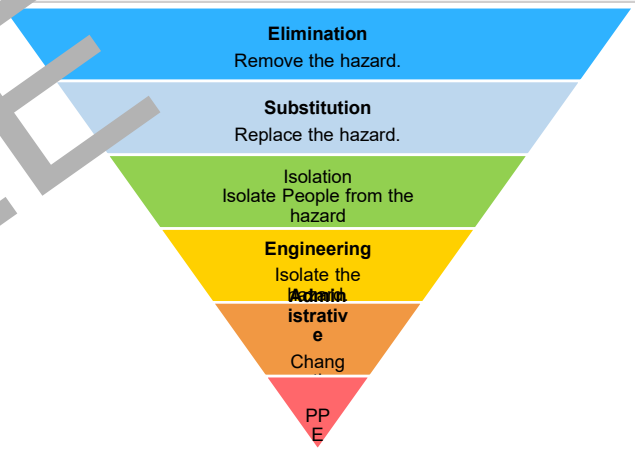
CLIENT OR PRINCIPAL CONTRACTOR DETAILS

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
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 and Design Selection	• Selection of floor grinders that are not fit-for-purpose for the tasks, floor types or environmental conditions expected on Australian construction and maintenance sites • Imported plant without evidence of compliance with relevant Australian Standards, manufacturer specifications or WHS Act 2011 duties for designers, manufacturers and suppliers • Inadequate assessment of dust control capability (e.g. no integrated dust shroud, poor compatibility with H-class vacuum) leading to uncontrolled respirable crystalline silica and other hazardous dusts • Insufficient consideration of vibration, noise output and ergonomic design, increasing risk of long-term musculoskeletal disorders, noise-induced hearing loss and hand–arm vibration syndrome • Failure to specify appropriate electrical rating, residual current device (RCD) compatibility, or IP rating for wet grinding, creating elevated electric shock and fire risk • Lack of standardised accessories and consumables (discs, plugs, hoses) increasing the likelihood of unsafe substitutions and incompatible components • No requirement for documentation and technical information (manuals, parts lists, safety data, load ratings) at the time of purchase or hire	High	• Establish and implement a documented plant procurement procedure that requires WHS review of floor grinder specifications prior to purchase or hire, referencing the WHS Act 2011 and WHS Regulation plant provisions • Specify compliance with relevant Australian Standards and industry guidance (e.g. AS/NZS 3760 testing and tagging of electrical equipment, AS 2601 3012 for construction and demolition sites, and applicable dust / noise standards) as a mandatory procurement criterion • Include in procurement forms a mandatory assessment of built-in dust control features (shrouds, local exhaust ventilation compatibility, H-class or M-class extraction requirements) to ensure suitability for silica and other hazardous dusts • Require suppliers to provide written confirmation of compliance, manufacturer instructions, safety information and a statement of intended use for the specific floor grinder models supplied • Standardise the make and model range of floor grinders across the business where reasonably practicable to simplify training, parts management, and control implementation • Include ergonomic and vibration performance criteria in selection (weight, handle design, adjustable height, anti-vibration features, wheel configuration) and document outcomes of any trials or evaluations • Mandate that all new floor grinders and associated dust extractors are compatible with RCD protection and suitable IP rating where water is used for dust suppression or cooling • Create a pre-qualification checklist for hire providers requiring evidence of maintenance history, test and tag status, and the provision of operating manuals and risk control information for all hired grinders	Medium
2. Governance, WHS Duties and Consultation	• Lack of clear allocation of WHS responsibilities for the selection, management and oversight of floor grinder use, contrary to PCBU obligations under the WHS Act 2011 • Inadequate consultation with workers and health and safety representatives	High	• Define and document specific WHS responsibilities for officers, managers, supervisors and workers in relation to floor grinders within the WHS management system and position descriptions • Ensure officers exercise due diligence by periodically reviewing plant risk assessments, audit outcomes and incident data related to floor grinding activities and following through on corrective actions	Medium

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	regarding plant risks, leading to poor risk identification and low acceptance of control measures • Insufficient integration of floor grinder risks into the organisation's WHS management system, resulting in inconsistent application of controls across sites and projects • Failure to coordinate WHS risk controls with other duty holders (e.g. principal contractors, host employers, labour hire providers and other PCBUs) on multi-employer sites • Absence of clear governance processes for approving variations, new applications or non-standard uses of floor grinders, leading to uncontrolled experimentation in the field		• Establish formal consultation mechanisms (toolbox talks, HSR meetings, safety committees) to discuss floor grinder hazards, proposed control measures and changes to work methods • Implement a documented process for coordination and cooperation with other PCBUs on shared worksites, including plant access rules, dust management protocols, exclusion zones and emergency arrangements for grinding operations • Require formal approval (e.g. engineering or WHS review) for any non-standard applications of floor grinders (such as attachments, power source modifications or unusual substrates) before work proceeds • Integrate floor grinder risks into corporate risk registers, WHS objectives and key performance indicators, ensuring systematic monitoring of performance and control effectiveness • Periodically review compliance against WHS Act 2011 plant-related duties via internal or external audits, focusing specifically on systems for floor grinder management	
3. Risk Management Framework and Documentation	• Absence of a formal, documented risk management process for floor grinders, leading to ad-hoc decisions and inconsistent controls between sites and supervisors • Risk assessments focusing solely on task steps rather than underlying system and management factors such as procurement, maintenance, training quality • Risk registers not specifically identifying floor grinder plant hazards exposures and environmental conditions, resulting in underestimation of cumulative health risks • Failure to review and update risk assessments when new equipment, attachments, processes, or substances (e.g. new coatings, adhesives) are introduced • Poor record keeping of risk assessments, decisions and rationales, hindering transparency, accountability and continuous improvement	High	• Implement a documented WHS risk management procedure consistent with the WHS Act 2011 and Code of Practice: How to Manage Work Health and Safety Risks, explicitly including plant such as floor grinders • Develop and maintain a high-level floor grinder risk assessment template that focuses on system-level controls (procurement, maintenance, training, supervision, dust management and emergency response) rather than detailed task steps • Ensure all sites include floor grinders as a specific line item in their plant risk registers, capturing key hazards such as dust exposure, vibration, noise, electrical risks, manual handling and ejection of debris • Introduce a formal management-of-change process requiring re-assessment of floor grinder risks whenever there are changes in equipment, tasks, work locations, materials or regulatory requirements • Establish version-controlled storage (e.g. central WHS document management system) for all floor grinder risk assessments, with clear review dates and document custodians • Require supervisor sign-off that relevant workers have been briefed on the applicable risk assessments and high-level control measures for floor grinder use prior to commencing work at new sites • Schedule periodic (e.g. annual or project-based) reviews of floor grinder risk assessments using input from incident data, exposure monitoring and worker feedback	Low

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4. Training, Competency and Licensing	• Operators using floor grinders without appropriate training in hazard recognition, control measures and manufacturer requirements • Inconsistent competency assessment between supervisors and sites, resulting in some workers operating floor grinders beyond their skill level • Limited understanding of long-term health risks, particularly respirable crystalline silica exposure, noise and vibration, leading to poor use of controls and PPE • Insufficient induction of labour hire staff, contractors and subcontractors, causing gaps in competence and procedural knowledge • No formal mechanism to verify competency is maintained over time, particularly where floor grinder use is infrequent or technologies change	High	[redacted]	Medium
5. Safe Systems of Work, Procedures and Permits	• Lack of documented safe operating procedures (SOPs) for floor grinding, resulting in inconsistent practices and reliance on informal guidance • Procedures not reflecting actual site conditions, leading workers to bypass or ignore mandated controls • No clear criteria for when higher-level controls (such as isolation, exclusion zones or restricted hours of use) are required • Inadequate integration of floor grinder controls into broader site systems, such as hot work permits, confined space entry or after-hours work authorisations • Procedures failing to address interaction with other trades, plant and pedestrians within confined or shared workspaces	High	[redacted]	Medium

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			[redacted]	
6. Maintenance, Inspection and Equipment Integrity	• Inadequate preventive maintenance regimes leading to mechanical failure, loss of control or increased vibration and noise levels • Failure to inspect guards, dust shrouds, hoses, wheels, discs and handles for wear or damage, increasing risk of entanglement, ejection or exposure • Out-of-date or missing test-and-tag of electrical floor grinders and associated extension leads and RCDs, creating significant electric shock risk • Use of non-genuine, incompatible or damaged grinding discs, plugs and attachments due to poor parts management or cost pressures • No reliable system to quarantine defective grinders or record maintenance actions, leading to unsafe plant being put back in service	High	[redacted]	Low
7. Dust, Silica and Airborne Contaminant Management	• Uncontrolled gener[illegible] respirab[illegible] crystalline silica and other hazardou[illegible] dusts during floor grinding, exceed[illegible]g workplace exposure stan[illegible] • Reliance on disposable masks instead of engineered controls and appropriate respiratory protection, leading to ineffective control of long-term health risks • Inadequate selection, use and maintenance of dust extraction systems and filters, resulting in poor capture efficiency and secondary exposures during filter or bag changes • Lack of air monitoring or verification of control effectiveness, causing underestimation of exposures,	High	[redacted]	Medium

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	particularly in enclosed or poorly ventilated spaces • Poor coordination with other dusty activities on site, leading to cumulative exposures beyond what was considered in isolated risk assessments		[redacted]	
8. Electrical Safety, Power Supply and Environmental Conditions	• Use of floor grinders and associated dust extractors on unsuitable power circuits, causing overload, tripping, or damage to equipment • Operation of electric floor grinders in wet or damp environments without appropriate IP rating or RCD protection, increasing risk of electric shock • Improvised use of extension leads, power boards or adaptors contrary to Australian electrical safety requiremen • Lack of systematic verification that site power arrangements including temporary supplies are suitable for the specific load and duty cycle of the grinder and associated equipment • No clear rules for operation during adverse weather or temperature extremes, leading to elevated electrical and mechanical failures	[redacted]	[redacted]	Medium
9. Site Planning, Layout and Interaction with Others	• Poor planning of work areas leading to interactions between floor grinders and pedestrians, other trades and mobile plant • Inadequate delineation of exclusion zones around grinding activities, resulting in bystanders being exposed to noise, dust, flying debris or trips on cables and hoses	High	[redacted]	Medium

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	• Congested workspaces with multiple cords, hoses and other trip hazards created by grinders and dust collectors • Work sequencing that forces operators to work in confined, poorly ventilated or awkward spaces without adequate controls • Lack of coordination of floor grinding activities in occupied buildings, resulting in uncontrolled impacts on building occupants and adjacent businesses		[redacted]	
10. Personal Protective Equipment and Health Surveillance	• Over-reliance on PPE as the primary control for dust, noise and vibration, contrary to the hierarchy of control under the WHS Act 2011 • Inconsistent selection, issue and fit of PPE (respiratory, hearing, eye, hand and foot protection) resulting in inadequate protection levels • Lack of processes for replacement, cleaning and maintenance of PPE leading to degraded p[redacted]ce and hygiene issues • Absence of healt[redacted]urveill[redacted] workers with signifi[redacted]posure to noise, silica or vibration from prolon[redacted] floor grinder use • Poor communication to w[redacted]rs about the limitations of PPE and the need to combine it with engineering and administrative controls	M[redacted]um	[redacted]	Low
11. Supervision, Monitoring and Behavioural Controls	• Inadequate frontline supervision of floor grinder use leading to gradual erosion of safe practices and non-compliance with procedures • Tolerance of short-cuts (e.g. bypassing dust controls, incorrect PPE use, unauthorised modifications) due to production pressure or cultural norms • Limited monitoring of worker fatigue, workload and rotation when using floor	High	[redacted]	Medium

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	grinders for extended periods, increasing risk of errors and cumulative health effects • Failure to use incident, near miss and inspection data to identify behavioural trends or systemic issues in floor grinder use		[redacted]	
12. Emergency Preparedness and Incident Management	• Lack of specific emergency planning for incidents arising from floor grinder use, such as electric shock, fire, entanglement, eye injuries, lacerations or acute dust exposure • Workers and supervisors unsure how to isolate power, stop equipment or respond to mechanical failures and di or component ejection • Inadequate first aid resources and training on sites where si nt floor grinding is undertak esulting in delayed or ineffect initial response • Poor incident rep investigation proces at fail to identify root causes related to plant design, systems and manageme • No mechanism to communicate incident learnings and required control improvements across different sites and projects	M um	[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