Bench 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:

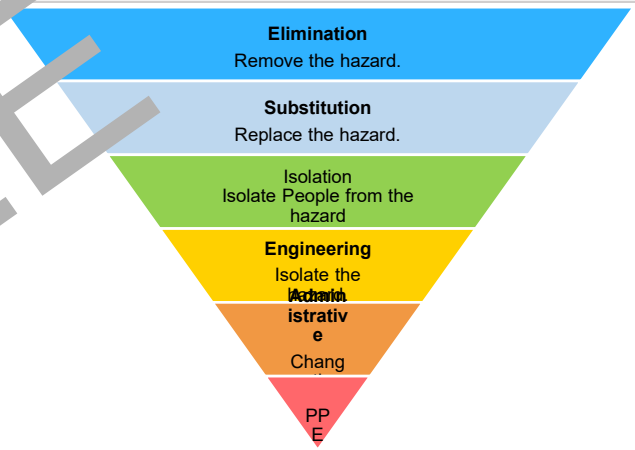
CLIENT OR PRINCIPAL CONTRACTOR DETAILS

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, Design and Specification of Pedestal Grinders	• Procurement of pedestal grinders that do not comply with AS 4024 series and relevant grinding safety standards • Inadequate specification of guarding, work rests, tongue guards and emergency stop features at time of purchase • Failure to specify appropriate wheel size, speed rating and spindle speed compatibility, creating risk of wheel burst • Purchase of second-hand or imported equipment without evidence of conformity, manuals or original safety documentation • Lack of consideration for noise, vibration, dust extraction, illumination and ergonomics when selecting equipment • Inadequate consultation with workers' health and safety representatives (HSRs) or maintenance personnel prior to purchase • No formal process for pre-purchase risk assessment in line with WHS Act 2011 and WHS Regulation • Failure to specify engineering controls for dust and spark containment when used on a variety of metals	High	• Establish a formal plant procurement procedure requiring documented WHS risk assessment before purchase of any pedestal grinder, consistent with WHS Act 2011 duty to provide safe plant • Specify compliance with relevant Australian standards for machine safety and abrasive wheels during tender and purchasing (e.g. AS 4024 series; relevant abrasive wheel requirements) and require certificates or declarations of conformity from suppliers • Require written confirmation from suppliers that wheel speed ratings exceed the grinder spindle speed, with clear marking of maximum RPM on both equipment and wheels • Mandate that pedestal grinders are supplied with fixed and adjustable guards, side covers, tool rests, tongue guards and emergency stop devices as standard, not optional extras • Include requirements for integrated dust control, spark containment and provision for local exhaust ventilation where grinding of materials generates hazardous dusts or fumes • Ensure procurement documentation requires full operating and maintenance manuals, spare parts lists, training materials and electrical schematics in English • Include ergonomic and layout considerations in specifications, such as appropriate stand height, access for two-handed operation, adequate work area lighting and stability of the pedestal base • Implement a pre-purchase review process involving WHS, maintenance and end-users/HSRs to verify the proposed model is suitable for the intended range of tasks and materials • Prohibit purchase of pedestal grinders from informal or unverified suppliers, including online marketplaces, unless they pass a documented engineering and WHS compliance review prior to commissioning • Create a plant register entry template that must be completed by the purchaser before approval, capturing specification, safeguards, electrical requirements, intended location and integration into existing WHS systems	Medium
2. Installation, Commissioning and Layout Management	• Pedestal grinder installed in areas with inadequate clearance, poor access or obstructed egress routes • Inappropriate floor mounting leading to instability, tipping risk or excessive vibration • Insufficient lighting around the grinder, increasing risk of poor visibility and misjudgement of position of work rest and wheel • Incorrect electrical connection, absence of appropriate isolation or	High	• Develop an installation and commissioning procedure for all fixed plant, including pedestal grinders, requiring a documented WHS risk assessment and layout review before installation • Require pedestal grinders to be securely bolted to suitable foundations with vibration-damping where needed, and with stability verified by a competent person before being placed into service • Include minimum clearance distances and safe access requirements in facility design standards, ensuring adequate space for operator stance, tool handling and emergency egress • Mandate an electrical installation certificate or verification by a licensed electrician for each new or relocated grinder, including provision of lockable isolation points and appropriate circuit protection • Implement a commissioning checklist that confirms correct operation of emergency stop, condition and adjustment range of tool rests and tongue guards, integrity of wheel flanges, guards and covers before first use	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
	protection devices, and potential for unauthorised access to live parts • No formal commissioning checks to verify guards, emergency stop, tool rests and tongue guards are correctly fitted and adjusted before use • Poor workshop layout leading to bystanders being exposed to sparks, flying particles, noise and eye injury risk • Failure to segregate grinding activities from flammable materials, compressed gas cylinders or walkways • Lack of signage indicating mandatory PPE and restricted access around the grinder area		• Ensure local task lighting is installed where ambient lighting is inadequate, with periodic inspection of luminosity as part of facility maintenance routines • Design workshop layout to direct sparks away fro[m] walkways and other workers, including installation of spark shields or barriers where necessary • Establish and maintain exclusion zones a[r]ound grinders [u]sing floor markings and signage to limit bystander exposure to projectiles, dust and n[o]ise • Implement housekeeping and storage rules th[at] prohibit storag[e] of flammables, gas cylinders or combustible materials in defi[n]ed zones around pe[d]estal grind[e]rs • Install clear safety signage at [e]ach grinder, includi[n]g mandatory eye and face protection, hearing protection where re[q]uired and guard adjustment requirements • Record com[m]issioning re[s]ults in th[e] plant re[g]ister and require sign-off by a competent person before the grinder is aut[h]orised for op[e]rational us[e]	
3. Governance, Policies and WHS Management Systems	• Absence of a documented plant and equipment safety management procedure that specifically addresses pedestal and bench grinders • Unclear allocation of WHS responsibilities for managing plant risks, leading to gaps in supervision and enforcement • Failure to consult [w]orkers and HSRs on grinder-related [h]azards and proposed control m[e]asures [i]n accordance with WHS Act 2011 consultation duties • Poor integration of grinder risk co[n]trols into the organisation's ov[e]rarching WHS risk management framework • Lack of documented safe systems of work and procedures for grinder operation, inspection, wheel replacement and isolation • Inadequate contractor management arrangements for external tradespersons who may install, service or operate pedestal grinders • No systematic review of grinder incidents, near misses and inspection findings, leading to repeated failures and non-conformances	High	[D]evelop and im[p]lement a plant and equipment safety policy that explicitly addresses grinding equip[m]ent aligned with the WHS Act 2011 and WHS Regulation hierarchy of control requirements Define clear WHS responsibilities in position descriptions and site rules for managers, supervisors and w[o]rkers regarding grinder safety, including oversight of inspections, maintenance and training compliance • Integrate pedestal grinder risks into the organisation's formal risk register, with regular reviews and documented risk ratings, control measures and action owners • Create documented safe work procedures and safe systems of work for pedestal grinders, covering set-up, inspection, wheel selection, wheel change, isolation and response to defects • Implement a consultation framework ensuring HSRs and workers who use grinders are involved in drafting and reviewing grinder procedures and risk assessments • Integrate grinder safety expectations into contractor induction and contractor management processes, including verification of competency and adherence to site rules • Establish a structured review process for all grinder-related incidents, near misses and hazard reports, including root cause analysis and formal tracking of corrective actions to closure • Develop and enforce a standardised PPE policy for grinding tasks, including eye, face and hearing protection and other task-specific requirements, with consistent disciplinary and coaching processes for non-compliance • Schedule periodic WHS system audits that include verification of grinder risk controls, documentation and implementation effectiveness, with audit outcomes reported to senior management • Ensure all grinder-related documents (risk assessments, procedures, instructions) are controlled under the organisation's document management system, with version control and review dates	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
	• Inconsistent enforcement of PPE, guarding requirements and housekeeping rules across shifts and workgroups			
4. Competency, Training and Supervision	• Workers operating pedestal grinders without formal competency assessment or verification of prior experience • Inadequate training on hazards associated with wheel bursts, pinch points, entanglement, flying particles, dust and noise • Supervisors lacking sufficient technical knowledge of grinder risks to provide effective oversight and enforcement • Failure to train workers in pre-use inspection requirements, correct adjustment of tool rests and tongue guards, and recognition of defective wheels • No structured induction for apprentice young or new workers, increasing risk due to inexperience a risk taking behaviour • Inadequate traini on isol lock-out/tag-out req for maintenance and wheel changes • Lack of refresher training, leadi to complacency and erosion practices over time • No recordkeeping system for tracking who is authorised and competent to use pedestal grinders	High	[redacted]	Medium
5. Inspection, Testing and Preventive Maintenance Systems	• Lack of scheduled maintenance leading to worn bearings, excessive vibration and increased likelihood of wheel failure • Failure to conduct and document routine inspections of guards, tool rests,	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
	tongue guards, flanges and emergency stop devices • Use of damaged, out-of-date or incompatible grinding wheels due to poor inventory control or inadequate inspection systems • No system to identify and remove defective grinders from service, resulting in continued use of unsafe equipment • Inadequate maintenance personnel competency in abrasive wheel and grinder safety requirements • Absence of vibration and noise monitoring where grinders are heavily used, increasing potential for long-term health impacts • Maintenance work conducted without effective isolation, lock-out/tag-out or verification of zero energy state • Poor recordkeeping of inspections, te results and repairs, limiting the ability t identify trends or recurring faults		[redacted]	
6. Safe Operating Systems and Guarding Management	• Inadequate or po enfo requirements for ma ing correct ol rest and tongue guard clearances • Removal, defeating or in arre adjustment of guards and covers to improve access or speed • Lack of a consistent system for ensuring only suitable materials and tasks are undertaken on pedestal grinders • Uncontrolled variations in operating practices between shifts or teams, leading to unsafe shortcuts • No formal process to manage changes in use (e.g. new materials, different wheel types, or multi-user access) and associated risk assessments	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
	• Absence of rules around workpiece support, securing or use of jigs and fixtures for small or awkward components • Inadequate control of access, allowing untrained persons or visitors to operate or interfere with grinders		[redacted]	
7. Personal Protective Equipment and Health Monitoring Systems	• Inconsistent use of eye, face and hearing protection due to weak enforcement or lack of availability • Inadequate selection of PPE that is not compatible with the tasks, such as poorly fitting face shields or inappropriate respiratory protection • Absence of systems to monitor cumulative exposure to n[redacted]and airborne contaminant[redacted]created by grinding activities • PPE reliance use[redacted]as a s[redacted]higher order controls [redacted]organisational risk management approach • No process for training workers in the correct use, maintenance and replacement of PPE related to grinding tasks • Failure to identify and manage workers who may be at higher risk from noise, dust or flying particles due to pre-existing health conditions	Medium	[redacted]	Low
8. Environmental, Housekeeping and	• Accumulation of metal swarf, abrasive dust and offcuts creating slip, trip and fire hazards near pedestal grinders	Medium		Low

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
Surrounding Task Management	• Poor integration of local exhaust ventilation or dust collection, causing airborne particulates to spread throughout the workspace • Inadequate control of spark direction, leading to ignition of nearby combustible materials or damage to equipment • Concurrent tasks in close proximity exposing other workers to projectiles, noise or dust generated by the grinder • Cluttered surroundings that impede emergency access to the grinder, isolation points or emergency stops		[redacted]	
9. Emergency Preparedness, Incident Response and Reporting	• Lack of specific emergency plans for grinder-related incidents[redacted]s eye injuries, wheel burst[redacted]entanglement or fire • Inadequate first a[redacted]s or personnel trained to respond to com[redacted]n grinding injuries • Under-reporting of grin[redacted]nisses and minor injuries, preventing identification of systemic issues • Poor communication and escalation procedures when serious grinder incidents occur, risking non-compliance with notifiable incident requirements under WHS Act 2011 • No structured process for learning from internal and external grinder incidents and integrating findings into WHS systems	Medium	[redacted]	Low

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
			[redacted]	
10. Review, Audit and Continuous Improvement	• Risk assessments, procedures and training for pedestal grinders becoming outdated as equipment, tasks or legislation change • Complacency developing over time, leading to gradual erosion of compliance with grinder controls • Lack of systematic WHS performance monitoring specific to pedestal grinder risks • Failure to incorporate worker feedback and HSR input into ongoing improvement of grinder controls • Ineffective internal audits that focus on documentation rather than real-world grinder practices	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