

Bench Drill

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			Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution 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.	Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change	
								PPE	

Risk Rating & Required Action:	
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.
3H	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in place and effective. 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 Installation of Bench/Pedestal Drills	<ul style="list-style-type: none"> • Selection of bench or pedestal drills that do not comply with Australian Standards or WHS legislative requirements (e.g. inadequate guarding, lack of emergency stop) • Purchase of second-hand equipment without documented inspection, test and verification of safety features • Inadequate consideration of drill capacity, workpiece size and intended use leading to overloading or unsafe modification in service • Improper layout and installation resulting in restricted access, poor egress, or collision with other plant, pedestrians or mobile equipment • Lack of engineering controls such as fixed and interlocked guards, chuck guards and properly designed work-holding fixtures • Inadequate electrical installation, earthing or protection, including use of non-compliant plugs and isolation devices • Poor ergonomics of workstation design leading to awkward postures, excessive reach or manual handling risks when positioning workpieces • Failure to include noise and vibration considerations in procurement, resulting in chronic exposure issues • Insufficient lighting or line-of-sight around the drill station arising from poor design and installation planning 	High	<ul style="list-style-type: none"> • Establish and implement a formal plant procurement procedure that requires all bench and pedestal drills to comply with the WHS Act 2011, WHS Regulations and relevant Australian Standards (e.g. AS/NZS 4024 series for Safety of Machinery, AS 1000 for electrical installations) • Require suppliers to provide declarations of conformity, construction manuals, commissioning information and evidence of compliance (e.g. CE/A-tick where relevant, test reports) prior to purchase approval • Include WHS and engineering review of specifications before purchase, ensuring suitable capacity, speeds, guarding, braking, emergency stop devices and compatibility with the types and sizes of workpieces to be drilled • Implement a pre-acceptance inspection checklist for new and second-hand bench/pedestal drills, completed by a competent person prior to the plant being put into service • Ensure installation is planned in consultation with workers and a competent engineer, taking into account space, access, walkways, material flow, safe clearances and segregation from other high-risk plant or vehicle routes • Mandate installation by licensed electricians for all fixed wired equipment and ensure isolation devices, emergency stops and lockable main isolators are accessible and clearly labelled • Specify and verify appropriate engineering controls, including chuck guards, fixed and adjustable guards, correctly designed jigs and work-holding fixtures, and physical barriers or bollards where required • Incorporate ergonomic assessment into layout and bench height design to minimise awkward postures, overreaching and excessive manual handling of stock and tooling • Include lighting and noise requirements in the design phase, ensuring adequate task lighting and, where necessary, acoustic treatment or separation to keep noise exposure as low as reasonably practicable • Maintain a central asset register for all bench and pedestal drills capturing plant identifiers, location, commissioning date, safety features, manuals and supplier contact details 	Medium
2. Governance, WHS Management System and Consultation	<ul style="list-style-type: none"> • Absence of a documented plant safety management procedure specific to fixed drills and similar machinery • Lack of clear allocation of duties and accountability for bench and pedestal drill safety across management, supervisors and workers 	High	<ul style="list-style-type: none"> • Develop, approve and implement a plant and equipment safety procedure that explicitly includes bench and pedestal drills, consistent with the WHS Act 2011, WHS Regulations and relevant Codes of Practice (e.g. Managing Risks of Plant in the Workplace) • Define and document roles, responsibilities and accountabilities for PCBUs, officers, managers, supervisors and workers in relation to drill selection, operation, inspection, maintenance and decommissioning 	Medium

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	<ul style="list-style-type: none"> Poor worker consultation and lack of involvement in decisions about layout, guarding changes and safe work procedures for drilling operations Failure to integrate bench/pedestal drill risks into the organisation's overall WHS risk register and planning processes Inadequate arrangements for reporting, investigating and learning from near misses, incidents and equipment faults involving drills Non-compliance with the WHS Act 2011 due to insufficient due diligence by officers regarding plant risk management Lack of documented change management processes when introducing new drills, altering layouts or changing tooling and materials 		<ul style="list-style-type: none"> Establish formal WHS consultation mechanisms (e.g. H&S committees, health and safety representatives, toolbox talks) and include bench/pedestal drill risks as standing agenda items where relevant Integrate drill-related hazards and controls into the organisation-wide WHS risk register, including risk ratings, existing controls and planned improvement actions Implement a structured incident and near-miss reporting and investigation process that captures plant-related events, with root cause analysis and documented corrective actions for bench/pedestal drills Ensure officers exercise due diligence by receiving regular reports on plant safety performance, including drill-related incidents, audit findings and compliance status Apply a formal change management procedure for any modifications to drill guards, control systems, layout, or operating conditions, including risk assessment, sign-off by a competent person and worker consultation Align bench/pedestal requirements with broader organisational policies, such as PPE, fitness for work, and the management and contractor management procedures Review plant-related WHS governance arrangements at least annually or following significant incidents or legislative changes 	
3. Competency, Training and Supervision Systems	<ul style="list-style-type: none"> Workers operating bench and pedestal drills without formal competency assessment or verification of skills Inadequate induction and task-specific training on hazards such as entanglement, ejection of workpieces, noise, vibration and Lack of training for supervisors on their responsibilities to enforce guarding and PPE use and safe work procedures Over-reliance on informal buddy systems and on-the-job learning without documented training outcomes No system to ensure only authorised and competent persons can use specific drills, jigs or specialised tooling Inadequate supervision of apprentices, new starters, labour hire workers and contractors who may be unfamiliar with site-specific controls Lack of refresher training or competency reassessment following 	High	<ul style="list-style-type: none"> Develop and implement a formal competency framework for bench and pedestal drill operators that specifies required skills, knowledge and behaviours, aligned with relevant units of competency where applicable Provide structured induction and plant-specific training covering hazards, risk controls, emergency stops, isolation procedures, housekeeping expectations and incident reporting processes for bench/pedestal drills Introduce an authorisation system (e.g. permit or licence card) for workers allowed to operate bench and pedestal drills, with clear criteria for issue and renewal Ensure supervisors receive training in plant safety, legal duties under the WHS Act 2011, and practical supervision of drilling operations including enforcement of guarding and PPE requirements Maintain training records for all personnel who use or interact with bench and pedestal drills, including dates, content, trainer details and competency outcomes Mandate close supervision and mentoring arrangements for new and young workers, apprentices and contractors when first using bench or pedestal drills Schedule periodic refresher training and toolbox talks focusing on common drill-related incidents, safe clamping of workpieces, appropriate selection of speeds and drill bits, and emergency response expectations Include bench/pedestal drill safety modules within broader WHS training programs, such as risk assessment training and hazard identification workshops Review competency requirements after significant plant modifications, incidents or changes in work processes, and update training content accordingly 	Medium

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	incidents, near misses or introduction of new equipment			
4. Safe Work Procedures, Permits and Documentation	<ul style="list-style-type: none"> Absence of documented safe work procedures for bench and pedestal drill use, set-up and shut down at a system level Inconsistent practices between shifts and supervisors leading to variations in risk controls applied around the drills Safe work procedures that exist but are not accessible, understood or followed by workers Failure to integrate drill-related controls into broader workshop rules, including isolation, lockout/tagout and hot work procedures Lack of documented criteria and approvals for non-standard drilling tasks, specialised jigs or unusual materials (e.g. exotic alloys, plastics, composites) Insufficient integration of bench/pedestal drill requirements with maintenance permits, contractor permits and other relevant isolation systems 	High	<p>[REDACTED]</p>	Medium
5. Guarding, Engineering Controls and Plant Integrity	<ul style="list-style-type: none"> Inadequate or missing chuck guards, spindle guards or fixed guards exposing rotating components and creating entanglement and contact risks Guards that are easily bypassed, removed or left inoperative due to poor design or lack of interlocking and fail-safe features Uncontrolled modification of drill guards, feed mechanisms, tables or bases that compromises compliance with design standards Failure of structural components such as tables, columns or mounting points 	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium

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	<p>due to corrosion, fatigue or poor installation</p> <ul style="list-style-type: none"> Lack of suitable work-holding devices (e.g. vices, clamps, jigs) encouraging operators to use hands to steady workpieces Inadequate dust and swarf management systems, leading to airborne contaminant exposure or accumulation on work surfaces No system for validating that replacement parts, guards and accessories meet original design specifications or equivalent standards 		[REDACTED]	
6. Inspection, Maintenance, Testing and Tagging	<ul style="list-style-type: none"> Bench and pedestal drills used with worn or damaged components such as chucks, belts, pulleys, spindles or tables leading to failures or loss of control Lack of a scheduled preventive maintenance program, resulting in unplanned breakdowns and elevated safety risks Failure to identify and rectify emerging faults such as abnormal noise/vibration, overheating or misalignment Non-compliant or out-of-date electrical testing and tagging of portable plug-in drills where applicable Inadequate recordkeeping of maintenance activities, inspections and repairs hindering traceability and due diligence Reliance on unqualified personnel performing repairs or adjustments beyond their competency Absence of a clear process for removing defective drills from service and preventing unauthorised use 	High	[REDACTED]	Low

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			[REDACTED]	
7. Workplace Environment, Layout and Housekeeping	<ul style="list-style-type: none"> • Congested workshop layout around bench and pedestal drills creating collision, trip or impact risks • Inadequate segregation of drill areas from pedestrian walkways or vehicle and forklift routes • Poor housekeeping resulting in accumulation of swarf, offcuts, tools and waste around drill bases and access paths • Insufficient lighting or poorly positioned lighting causing shadows at the drilling point and on control panels • Uncontrolled noise levels from multiple machines contributing to hearing damage and reduced communication effectiveness • Inadequate access to emergency equipment such as fire extinguishers, first aid kits and spill response materials in the vicinity of drills • Thermal discomfort due to poor ventilation leading to heat stress or build-up of airborne contaminants where drilling generates dust or fumes 	High	[REDACTED]	Medium
8. PPE, Health Monitoring and Human Factors	<ul style="list-style-type: none"> • Reliance on PPE as the primary control rather than as part of a hierarchy-based risk control strategy • Inconsistent use of mandatory PPE such as eye and hearing protection in drill areas • Use of inappropriate clothing, gloves or jewellery that increases entanglement risk near rotating parts • Failure to consider individual health factors such as pre-existing 	Medium	[REDACTED]	Low

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	<p>musculoskeletal conditions, vision issues or hand-arm vibration sensitivity</p> <ul style="list-style-type: none"> • No system for health surveillance or monitoring where exposures to noise, vibration, metalworking fluids or dust may be significant • Fatigue, time pressure or production incentives undermining safe decision-making around drill operations 		[REDACTED]	
9. Emergency Preparedness, Incident Response and First Aid	<ul style="list-style-type: none"> • Lack of planning for plausible emergency scenarios including bench and pedestal drills, such as entanglement, lacerations, eye injuries or electric shock • Workers not knowing how to stop the drill quickly, isolate power or summon assistance in an emergency • Insufficient first aid resources or trained first aiders available during all shifts where drills are operated • Failure to capture and analyse lessons from drill-related incidents and near misses, leading to repeated events • Inadequate arrangements for post-incident support including debriefing, counselling and return-to-work planning 	High	[REDACTED]	Medium

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			[REDACTED]	
10. Contractor, Visitor and Young Worker Management	<ul style="list-style-type: none"> Contractors installing, repairing or operating bench and pedestal drills without alignment to site safety systems and standards Visitors and non-routine personnel entering drill areas without appropriate induction or PPE Increased vulnerability of young or inexperienced workers to entanglement, ejection of workpieces and other drill-related hazards Inadequate communication of site-specific risks and controls for temporary staff, labour hire workers and apprentices Assumption that contractor safe work methods are adequate without verification against WHS Act requirements and site conditions 	High	[REDACTED]	Medium
11. Monitoring, Audit and Continuous Improvement	<ul style="list-style-type: none"> Static or outdated risk assessments for bench and pedestal drills that do not reflect current plant, processes or legislation Lack of systematic monitoring to verify that controls for drill hazards are implemented and effective in practice Failure to act on audit findings, inspection results or worker feedback related to drill safety Insufficient integration of bench/pedestal drill risk management 	Medium	[REDACTED]	Low

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	into broader WHS performance reporting and management review • Complacency over time leading to gradual erosion of standards, such as removal of guards, bypassed controls or relaxed supervision		[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]	

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 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>

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 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-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) Regulation 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>

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>

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

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.