

**Concrete Mixer**

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.	Administrative Change	
								PPE	

  

Risk Rating & Required Action:	
<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.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

  

Consequence Scale:			
Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	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	<ul style="list-style-type: none"> <li>• Purchase of concrete mixers (portable and transit) that are not compliant with Australian WHS legislation, relevant plant standards or electrical standards</li> <li>• Lack of formal plant procurement criteria considering guarding, emergency stops, noise, vibration, ergonomics and maintenance access</li> <li>• Selection of mixers that are not suited to the intended materials, site conditions, or duty cycle, increasing likelihood of mechanical failure or misuse</li> <li>• Inadequate supplier documentation (operator manuals, maintenance schedules, conformity / compliance statements) to support safe operation and maintenance</li> <li>• Failure to consider compatibility with other site systems (power supply, lifting equipment, wash-out and waste systems, vehicle access/egress)</li> </ul>	High	<ul style="list-style-type: none"> <li>• Establish a formal plant procurement procedure that requires all new concrete mixers (portable and transit) to meet WHS Act 2011 and WHS Regulation requirements and applicable Australian Standards (e.g. AS 4024 series for machinery safety, electrical and guarding standards)</li> <li>• Include documented safety criteria in purchase specifications covering fixed and interlocked guarding of moving parts, emergency stop devices, labelling, noise output data, vibration levels, and safe access for cleaning and maintenance</li> <li>• Require suppliers to provide Safety data information, OEM manuals, risk assessments, service schedules, and evidence of compliance (e.g. CE Australian conformity, test certificates) before acceptance on site</li> <li>• Undertake a pre-purchase risk assessment involving WHS, operations and maintenance personnel to confirm suitability for task, location, power supply (e.g. 240 V, 415 V, diesel), capacity and transport requirements</li> <li>• Implement a pre-delivery inspection checklist to verify that safety features are installed and functioning, including guarding, emergency stop devices, signage, stabilising devices, chocks and lockable isolators</li> <li>• Include environmental and waste-handling requirements (e.g. integrated wash-out controls, containment trays, spillage compatibility) in procurement decisions</li> </ul>	Medium
2. Governance, WHS Management System and Legal Compliance	<ul style="list-style-type: none"> <li>• Absence of a documented WHS management system covering plant risk management for concrete mixers</li> <li>• Unclear allocation of PCBU duties, officer due diligence and worker responsibilities in relation to mixer selection, use, inspection and maintenance</li> <li>• Lack of systematic identification and management of legislative requirements under the WHS Act 2011 and WHS Regulation for plant, hazardous chemicals and construction work</li> <li>• Inconsistent application of risk management processes across different projects or depots, leading to variable safety standards</li> <li>• Failure to integrate concrete mixer risks into the organisation's broader</li> </ul>	High	<ul style="list-style-type: none"> <li>• Embed concrete mixer risks and controls within the organisation's WHS management system, ensuring alignment with WHS Act 2011, WHS Regulation and relevant Codes of Practice (e.g. Managing Risks of Plant in the Workplace, Construction Work, Managing Risks of Hazardous Chemicals)</li> <li>• Clearly define and document PCBU, officer and worker duties regarding plant, including expectations for safe planning, supervision, inspection, maintenance and incident reporting for both portable and transit mixers</li> <li>• Implement a formal risk management procedure (identify, assess, control, review) specifically referencing plant such as concrete mixers and link it to project planning, procurement, mobilisation and demobilisation processes</li> <li>• Maintain a legal register capturing applicable WHS plant and construction requirements and assign accountability for periodic review and compliance verification</li> <li>• Integrate mixer-related issues into existing consultation arrangements (HSR forums, toolbox meetings, pre-start briefings) and ensure a documented process for escalating and resolving WHS concerns</li> <li>• Schedule periodic internal audits and management reviews covering plant risk controls, training, maintenance and incident trends related to mixer use</li> </ul>	Medium

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	consultation, issue-resolution and incident-management processes			
3. Plant Registration, Documentation and Information Management	<ul style="list-style-type: none"> <li>Concrete mixers entering service without formal registration or internal asset control, resulting in poor traceability and maintenance oversight</li> <li>Incomplete or inaccessible documentation (manuals, risk assessments, service records, modification history) for mixers across different sites</li> <li>Lack of change-management records for plant alterations (e.g. added guards, custom chutes, power source changes)</li> <li>Inconsistent use of identification numbers on transit mixers and portable units, leading to confusion in inspections and defect reporting</li> </ul>	Medium	<ul style="list-style-type: none"> <li>Implement a centralised plant and equipment register for all concrete mixers (portable and transit), capturing unique ID, location, owner, key specifications, commissioning date and status (in service/out of service)</li> <li>Require all mixers to be supplied with and retain OEM manual, compliance statements, risk assessments and service/inspection logs, stored both on the plant (hard copy) and in a central electronic system</li> <li>Establish a formal change management process for any modification to mixers or their operating environment, requiring documented risk assessment, engineering sign-off and update of instructions and training materials</li> <li>Standardise plant labelling and identification practices, ensuring each mixer has a durable ID tag corresponding to the central register and used in all inspection and maintenance forms</li> <li>Periodically review plant documentation for completeness and accuracy, and integrate documentation checks into VMS audits and pre-start verification processes</li> </ul>	Low
4. Training, Competency and Supervision	<ul style="list-style-type: none"> <li>Operators, drivers and offsideers using mixers without formal competency assessment and without understanding system controls and emergency procedures</li> <li>Supervisors not competent in assessing mixer-related risks, resulting in inadequate planning and oversight</li> <li>Inadequate induction for labour hire workers, subcontractors and delivery drivers regarding site-specific controls for concrete mixers</li> <li>No verification of licences, VOC (verification of competency) or training currency for transit mixer drivers operating on or off public roads</li> <li>Limited training for workers in recognising early signs of plant defects, overloading, instability or unsafe set-up locations</li> </ul>	High	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	Medium
5. Safe Systems of Work and Procedures	<ul style="list-style-type: none"> <li>Lack of standardised safe systems of work for utilisation of portable and transit concrete mixers across projects and depots</li> </ul>	High	<p>[REDACTED]</p>	Medium

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	<ul style="list-style-type: none"> <li>Procedures focusing on task sequence only, without addressing system-level risks such as site access, emergency management, segregation of people and plant, and interactions with other trades</li> <li>Inconsistent or informal communication of expectations, leading to ad hoc practices and unsafe shortcuts</li> <li>Failure to integrate safe work procedures with project planning, permits and SWMS for higher-risk construction activities</li> </ul>		[REDACTED]	
6. Maintenance, Inspection and Repair Management	<ul style="list-style-type: none"> <li>Inadequate preventative maintenance regime for portable and transit mixers, leading to mechanical failure, uncontrolled movement or loss of containment</li> <li>Unstructured or irregular inspections, resulting in missed defects on guards, chutes, ladders, controls, tyres, brakes and stabilising systems</li> <li>Repairs carried out by unqualified personnel or using non-approved parts, compromising safety features and reliability</li> <li>Lack of clear process for identifying, tagging out and removing defective mixers from service</li> <li>Failure to factor harsh operating conditions (wet concrete, wash-out, vibration, dust) into planned maintenance intervals</li> </ul>	High	[REDACTED]	Medium
7. Site Planning, Layout and Traffic Management	<ul style="list-style-type: none"> <li>Poorly planned site access and egress for transit mixers leading to collisions with vehicles, plant or pedestrians</li> <li>Inadequate traffic management plans and lack of segregation between</li> </ul>	High	[REDACTED]	Medium

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	<p>pedestrians and moving mixers during delivery, positioning and wash-out</p> <ul style="list-style-type: none"> <li>• Insufficient assessment of ground conditions for mixer parking, stabilising and operation, increasing risk of roll-over or bogging</li> <li>• Unclear or inconsistent delivery routes, reversing requirements and marshalling arrangements across changing construction stages</li> <li>• Inadequate lighting and signage in areas where mixers operate, particularly at night or in low-visibility conditions</li> </ul>		[REDACTED]	
8. Electrical, Fuel and Power Supply Management	<ul style="list-style-type: none"> <li>• Use of portable electric mixers on unsuitable power supplies, leading to electrical shock, fire or equipment damage</li> <li>• Poorly managed extension leads, temporary power boards and connections in wet or outdoor environments around mixers</li> <li>• Inadequate systems for storage, handling and refuelling of diesel or petrol-powered mixers, increasing fire and environmental risk</li> <li>• Failure to maintain RCDs, test and tag regimes and isolation procedures for mixer power supplies</li> </ul>	High	[REDACTED]	Medium
9. Chemical, Dust and Environmental Management	<ul style="list-style-type: none"> <li>• Inadequate management of cement, concrete additives and wash-out water associated with mixer use, leading to skin/eye irritation, respiratory issues and environmental contamination</li> </ul>	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> <li>Lack of systems for the safe storage, labelling and handling of cement and admixtures used with portable mixers</li> <li>Uncontrolled dust generation during loading and clean-out of mixers, particularly in enclosed or poorly ventilated areas</li> <li>Insufficient planning for wash-out locations and slurry disposal from transit mixers, causing ground and stormwater pollution</li> </ul>		[REDACTED]	
10. Contractor, Supplier and Transport Management	<ul style="list-style-type: none"> <li>Reliance on external concrete suppliers and transport contractors without adequate verification of their WHS systems for mixer operation and delivery</li> <li>Inconsistent safety expectations and communication between principal contractor, subcontractors and concrete supply companies</li> <li>Lack of agreed protocols for traffic management, arrival times, wash-out arrangements and emergency response for transit mixers on contractor/employer worksites</li> <li>Insufficient review of contractor incident history, training programs and plant maintenance regimes for their mixers</li> </ul>	High	[REDACTED]	Medium
11. Emergency Preparedness and Incident Management	<ul style="list-style-type: none"> <li>Lack of specific emergency plans for incidents involving concrete mixers, such as entanglement, roll-over, crush injuries, spills or electrical faults</li> <li>Workers and supervisors unfamiliar with how to stop mixers quickly, raise the alarm or initiate rescue without increasing risk</li> <li>Inadequate integration of mixer-related emergencies into broader site emergency planning, including coordination with emergency services and client facilities</li> </ul>	High	[REDACTED]	Medium

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	<ul style="list-style-type: none"> <li>Poor incident reporting, investigation and corrective-action processes, leading to repeat events and missed system improvements</li> </ul>		[REDACTED]	
12. Consultation, Worker Engagement and Communication	<ul style="list-style-type: none"> <li>Lack of meaningful consultation with workers and health and safety representatives about concrete mixer risks and control effectiveness</li> <li>Inadequate channels for workers to raise concerns or suggest improvements related to mixers without fear of reprisal</li> <li>Information about changes to mixer procedures, layouts or equipment not effectively communicated to all affected parties, including subcontractors and visitors</li> <li>Language, literacy or cultural barriers that hinder understanding of mixer safety requirements</li> </ul>	Medium	[REDACTED]	Low
13. Monitoring, Audit and Continuous Improvement	<ul style="list-style-type: none"> <li>No systematic monitoring of mixer-related WHS performance, leading to unrecognised trends and persistent risks</li> <li>Audits and inspections that focus only on visible conditions, not on effectiveness of management systems and behaviours around mixer use</li> <li>Failure to review and update risk assessments, procedures and training programs for mixers following incidents, legislative changes or new technology</li> <li>Limited organisational learning across projects, resulting in repeated mixer-related issues from site to site</li> </ul>	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>

**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.