

Shot Blasting Machine Risk Assessment

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

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON 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	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:								Notes on Hierarchy of Controls:	
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.						Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H		Review and approve additional controls before task starts. Senior supervisor sign-off needed.						1. Eliminate	
2M		Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.						2. Substitute	
1L		Proceed, following standard operating procedures. Monitor and keep records.						3. Isolate	
Consequence Scale:								4. Engineering	
Consequence	People (injury/illness)		Project / Assets		Compliance / Reputation		5. Administrative		
Catastrophic	Fatality or permanent total disability		project shutdown		Significant regulator intervention; criminal prosecution		6. PPE		
Major	Serious injury/illness (hospital > 5 days)		critical delay		Improvement notice; major media coverage		Always document why a lower-order control is accepted if elimination or substitution is not reasonably practicable.		
Moderate	Medical-treatment injury; lost-time > 1 day		moderate delay		Minor breach; adverse client comment		aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.		
Minor	First-aid only, no lost time		negligible delay		Isolated non-conformance				
Insignificant	No injury		no schedule impact		Deviation caught and corrected on site				

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. Preparation	slippery surfaces, manual handling injuries	3H	<ul style="list-style-type: none"> - Ensure floor is dry and clean before starting work - Use appropriate lifting techniques and mechanical aids - Conduct pre-start meetings to discuss hazards - Provide training and instructions for manual handling - Ensure proper PPE such as non-slip shoes is worn - Maintain proper housekeeping to avoid clutter - Display warning signs in critical areas - Ensure adequate lighting conditions - Conduct regular inspections of the area - Review Material Safety Data Sheets related to substances used 	2M
2. Loading Material	back strain, pinch points	3H	<ul style="list-style-type: none"> - Use mechanical lifting aids where possible - Train workers in correct manual handling techniques - Ensure team lifting for heavy items - Maintain clear communication with spotters - Keep hands clear of pinch points when positioning materials - Rotate tasks to reduce strain - Ensure workspace is well-lit - Wear appropriate gloves for handling materials - Regularly check equipment for defects - Clearly mark hazardous areas with appropriate signage 	2M
3. Setting Controls	electrical shock, incorrect settings	4A	<ul style="list-style-type: none"> - Ensure only authorised personnel operate controls - Provide comprehensive training for operators - Use lockout/tagout procedures during maintenance - Perform routine checks on electrical components - Use insulated tools when necessary - Avoid bypassing safety mechanisms - Consult operation manuals for correct settings - Post clear instructions near controls 	2M

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			<ul style="list-style-type: none"> - Implement work permits for electricians - Regularly test emergency shutdown features 	
4. Starting Machine	entrapment, noise exposure	4A	<ul style="list-style-type: none"> - Implement work permits for electricians - Regularly test emergency shutdown features - Use of personal protective equipment (PPE) such as safety glasses and earplugs - Ensure proper training and supervision of operators - Implement safety interlocks to prevent accidental startup - Use of lockout/tagout (LOTO) procedures - Regular maintenance and inspection of machine components - Clear communication and signaling between operators and maintenance personnel - Use of warning signs and labels to indicate potential hazards - Restrict access to the machine during startup and operation - Implement emergency stop buttons and procedures - Use of safety barriers and guardrails - Regular safety training and drills for operators - Implement a safe work area around the machine - Use of proper lifting techniques to move components - Regular cleaning and maintenance of the machine - Use of proper tooling and equipment - Implement a safety culture of zero tolerance for unsafe behavior - Regular communication and coordination between all personnel involved - Use of safety harnesses and fall protection when working at heights - Implement a permit-to-work system for high-risk tasks - Regular safety audits and inspections - Use of safety data sheets (SDS) for hazardous materials - Implement a safety management system (SMS) to identify and control risks - Regular safety meetings and toolbox talks - Use of safety checklists to ensure all safety measures are followed - Implement a safety incentive program to encourage safe behavior - Regular safety training for all personnel - Use of safety barriers and guardrails - Implement a safety culture of zero tolerance for unsafe behavior - Regular communication and coordination between all personnel involved - Use of safety harnesses and fall protection when working at heights - Implement a permit-to-work system for high-risk tasks - Regular safety audits and inspections - Use of safety data sheets (SDS) for hazardous materials - Implement a safety management system (SMS) to identify and control risks - Regular safety meetings and toolbox talks - Use of safety checklists to ensure all safety measures are followed - Implement a safety incentive program to encourage safe behavior - Regular safety training for all personnel 	2M
5. Operating Machine	flying debris, operator fatigue	4A	<ul style="list-style-type: none"> - Implement work permits for electricians - Regularly test emergency shutdown features - Use of personal protective equipment (PPE) such as safety glasses and earplugs - Ensure proper training and supervision of operators - Implement safety interlocks to prevent accidental startup - Use of lockout/tagout (LOTO) procedures - Regular maintenance and inspection of machine components - Clear communication and signaling between operators and maintenance personnel - Use of warning signs and labels to indicate potential hazards - Restrict access to the machine during startup and operation - Implement emergency stop buttons and procedures - Use of safety barriers and guardrails - Regular safety training and drills for operators - Implement a safe work area around the machine - Use of proper lifting techniques to move components - Regular cleaning and maintenance of the machine - Use of proper tooling and equipment - Implement a safety culture of zero tolerance for unsafe behavior - Regular communication and coordination between all personnel involved - Use of safety harnesses and fall protection when working at heights - Implement a permit-to-work system for high-risk tasks - Regular safety audits and inspections - Use of safety data sheets (SDS) for hazardous materials - Implement a safety management system (SMS) to identify and control risks - Regular safety meetings and toolbox talks - Use of safety checklists to ensure all safety measures are followed - Implement a safety incentive program to encourage safe behavior - Regular safety training for all personnel 	2M
6. Monitoring Operations	system failure, incorrect settings	3H	<ul style="list-style-type: none"> - Implement work permits for electricians - Regularly test emergency shutdown features - Use of personal protective equipment (PPE) such as safety glasses and earplugs - Ensure proper training and supervision of operators - Implement safety interlocks to prevent accidental startup - Use of lockout/tagout (LOTO) procedures - Regular maintenance and inspection of machine components - Clear communication and signaling between operators and maintenance personnel - Use of warning signs and labels to indicate potential hazards - Restrict access to the machine during startup and operation - Implement emergency stop buttons and procedures - Use of safety barriers and guardrails - Regular safety training and drills for operators - Implement a safe work area around the machine - Use of proper lifting techniques to move components - Regular cleaning and maintenance of the machine - Use of proper tooling and equipment - Implement a safety culture of zero tolerance for unsafe behavior - Regular communication and coordination between all personnel involved - Use of safety harnesses and fall protection when working at heights - Implement a permit-to-work system for high-risk tasks - Regular safety audits and inspections - Use of safety data sheets (SDS) for hazardous materials - Implement a safety management system (SMS) to identify and control risks - Regular safety meetings and toolbox talks - Use of safety checklists to ensure all safety measures are followed - Implement a safety incentive program to encourage safe behavior - Regular safety training for all personnel 	2M

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7. Clearing Machine Blockage	entrapment, sharp objects	3H		1L
8. Cleaning Machine	chemical exposure	3H		1L
9. Conduct Maintenance	mechanical failure, high temperatures	4A		2M

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10. Disposing of Waste	dust inhalation, environmental contamination	3H		1L
11. Shutting Down Machine	electrical risks, unexpected movement	3H		1L
12. Emergency Procedures	fire, medical emergencies	4A		2M

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13. Auditing Operations	non-compliance, overlooked risks	2M		1L
14. Reviewing Procedures	outdated protocols, inefficient processes	3H		1L
15. Reporting Incidents	unreported hazards, incomplete records	2M		1L

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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 IF 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 2017

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) Regulations 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>

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

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.