

Pallet Wrapping Strapping and Packaging Machinery

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. Governance, WHS Duties and Contractor Management	<ul style="list-style-type: none"> Unclear allocation of WHS duties between PCBUs, labour hire providers, and host employer leading to gaps in risk controls for wrapping and strapping machinery Inadequate WHS policy framework specific to pallet wrapping, strapping and heat-shrink operations Failure to consult, co-operate and co-ordinate activities under WHS Act 2011 with contractors, service technicians and suppliers No formal system for approving new machinery or processes before introduction to site (poor change management) Commercial and production pressure overriding safety requirements for packaging tasks 	4A	<ul style="list-style-type: none"> Establish and maintain a documented WHS management system aligned with WHS Act 2011 and applicable WHS Regulations, explicitly covering pallet wrapping, strapping and shrink-wrapping machinery Define and document WHS roles, responsibilities and accountabilities for officers, managers, supervisors, operators, maintenance staff and contractors in relation to packaging machinery Implement a contractor management procedure including pre-qualification, induction, competency verification and supervision for all parties working with wrapping, strapping and heat-shrink equipment Integrate packaging machinery risks into the organisation's WHS risk register, with regular review by the safety committee and senior management Establish a formal plant approval and management of change process for procurement, modification, relocation or decommissioning of packaging machinery and associated equipment Ensure officer due diligence obligations are met by requiring regular safety performance reporting (including leading indicators) for wrapping and strapping operations Include WHS requirements, guarding standards and maintenance obligations in contracts and supply agreements with equipment vendors and service providers 	3H
2. Plant Procurement, Design and Guarding	<ul style="list-style-type: none"> Purchase of pallet wrapping, strapping and shrink-wrapping machinery that does not comply with AS/NZS 4024 series or WHS Regulations to plant Inadequate or missing fixed and interlocked guarding around turntables, rollers, nip points, strap tensioning components and heat-sealing areas Lack of engineered guarding on shrink wrapping heat gun workstations leading to burn and fire risks Inadequate emergency stop devices, lockable isolators and clearly marked controls on automatic and semi-automatic wrapping machines Insufficient consideration of ergonomic design, access and maintenance space during procurement and installation Failure to obtain and retain manufacturer's instructions, conformity documentation and risk assessments for new plant 	4A	<ul style="list-style-type: none"> Implement a formal plant procurement standard requiring all new pallet wrappers, strapping machines, shrink wrappers, portable strapping tools and heat guns to comply with relevant Australian Standards and WHS Regulations before purchase Require suppliers to provide documented plant risk assessments, guarding compliance evidence, manuals and maintenance instructions as part of procurement contracts Ensure all machines are installed with fixed and interlocked guards to prevent access to moving parts, nip points, hot surfaces and cutting areas consistent with AS/NZS 4024 requirements Specify and verify the installation of accessible emergency stop devices, key-lockable isolation switches and clearly labelled operator controls on all wrapping and strapping machinery Include engineering review and sign-off (by competent person) prior to commissioning any new or upgraded wrapping or heat-sealing equipment Incorporate ergonomic and maintenance access requirements, such as working space, lighting and safe access platforms, into design and layout specifications Maintain a plant register for all packaging machinery, including risk assessments, guarding verification records and manufacturer information 	2M

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3. Layout, Traffic Management and Pallet Flow	<ul style="list-style-type: none"> Poor layout of pallet wrapping and strapping stations creating forklift and pedestrian interaction risks Congested work areas causing manual handling, trip and collision hazards around semi-automatic and automatic wrapping machines Inadequate segregation of heat-shrink and heat-gun areas from combustible materials and pedestrian walkways Insufficient space around machines for safe loading, unloading and maintenance tasks Uncontrolled pallet and product flow leading to queuing, double handling and unsafe stacking near machinery 	4A	<ul style="list-style-type: none"> Develop and implement a traffic management plan for packaging areas integrating forklift routes, pedestrian walkways and pallet wrapper location in consultation with workers Design work areas to provide adequate clearances around semi-automatic and automatic pallet wrappers, strapping machines and shrink wrapping stations for safe access and egress Install physical barriers, bollards and line-marking to separate forklifts from pedestrian operators working at wrapping and strapping stations Designate and clearly signpost 'no pedestrian' and 'no exclusion' zones around automated wrapping and conveying equipment Ensure heat-shrink and heat-gun operations are located away from combustible storage, with appropriate fire separation and housekeeping requirements documented in site procedures Implement flow control of pallet staging areas with defined load/unload zones to reduce congestion and unsafe stacking near machinery 	2M
4. Plant Registration, Verification and Commissioning	<ul style="list-style-type: none"> Failure to identify if wrapping or packaging machinery meets criteria for registrable plant under WHS Regulations Commissioning machinery without formal verification of safety functions, guarding and emergency stop Changes during installation or relocation (e.g. removal of components) not captured in documentation for approval Lack of baseline data (drawings, wiring diagrams, settings) for future maintenance and modification Inadequate integration of ancillary equipment (conveyors, turntables, heat sealers) leading to unexpected start-up or trapped energy hazards 	3H	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M
5. Safe Systems of Work, Procedures and Permits	<ul style="list-style-type: none"> Absence of documented safe operating procedures for pallet wrapping, banding and strapping machinery, including portable and hand tools Inconsistent work practices between shifts and sites leading to unsafe short cuts around guarding and interlocks 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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	<ul style="list-style-type: none"> No formal process for isolation, lock-out and tag-out during jam clearing, cleaning or maintenance Inadequate controls for hot work and ignition sources when using shrink wrapping heat guns and heat sealers Wrapping or strapping non-standard or unstable loads without appropriate assessment or guidance 		[REDACTED]	
6. Worker Competency, Training and Supervision	<ul style="list-style-type: none"> Insufficient training on specific hazards of pallet wrapping, banding and strapping machinery, including entanglement, crush and burn risks Inadequate competency verification operators of semi-automatic and automatic pallet wrappers and heat-shrink equipment Use of inexperienced or untrained labour hire staff on wrapping without proper induction Supervision levels not aligned with risk profile or shift patterns (e.g. night shift operations with limited oversight) Language, literacy and cognitive barriers preventing workers from understanding instructions and safety information 	4A	[REDACTED]	2M
7. Maintenance, Inspection and Pre-Use Checks	<ul style="list-style-type: none"> Lack of a structured preventive maintenance program leading to degraded guarding, faulty interlocks and unreliable emergency stops Unreported or unaddressed equipment defects such as damaged rollers, worn strapping heads or frayed electrical leads on heat guns 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> Failure to complete or review pre-start inspections of pallet wrappers and strapping machines Unauthorised modifications or makeshift repairs compromising machine safety functions Inadequate maintenance planning resulting in reactive repairs under time pressure and higher risk decision-making 		[REDACTED]	
8. Load Stability, Manual Handling and Ergonomics	<ul style="list-style-type: none"> Systemic acceptance of poor pallet quality or damaged pallets leading to instability during wrapping and transport Inadequate guidelines on acceptable load height, weight and configuration for safe wrapping and strapping Workstation design causing repetitive movements, awkward postures and overreaching during manual film application and banding Reliance on manual handling for moving or rotating pallets where mechanical aids should be provided Lack of process review for musculoskeletal disorder (MSD) risk associated with repetitive wrapping and strapping duties 	3H	[REDACTED]	2M
9. Electrical, Fire and Heat-Related Risks	<ul style="list-style-type: none"> Use of damaged or unsuitable electrical leads and outlets for shrink wrapping heat guns and heat-sealing machinery Accumulation of combustible packaging materials near heat sources and electrical equipment Inadequate controls for heat-related burns and ignition when using shrink wrapping heat guns, heat tunnels and hot sealing bars 	3H	[REDACTED]	1L

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	<ul style="list-style-type: none"> Overloading of electrical circuits due to multiple portable strapping and wrapping devices on single outlets Lack of clearly documented response procedures for equipment overheating, smoke or minor fires in packaging areas 		[REDACTED]	
10. PPE, Signage and Information for Operators	<ul style="list-style-type: none"> No systematic assessment of personal protective equipment needs for wrapping, banding and heat-shrink tasks Inconsistent use of PPE due to lack of policy, supervision or understanding of risks Absence of clear warning signage on and around pallet wrappers, strapping machines and heat-sealing equipment Operator reliance on PPE instead of engineering or administrative controls due to poor messaging from management 	2M	[REDACTED]	1L
11. Incident Reporting, Investigation and Corrective Actions	<ul style="list-style-type: none"> Under-reporting of near misses and minor incidents around wrapping and strapping machinery leading to missed early warnings Inadequate investigation of machinery-related incidents, focusing on operator behaviour rather than system and design failures Delays in implementing corrective actions for known hazards or repeat failures Failure to review and update risk assessments and procedures following incidents or changes to packaging operations 	3H	[REDACTED]	1L
12. Emergency Preparedness and Response	<ul style="list-style-type: none"> Lack of clear procedures for responding to entanglement, crush or burn incidents involving pallet wrappers, strapping machines and heat-shrink equipment 	3H	[REDACTED]	1L

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	<ul style="list-style-type: none"> Inadequate access to emergency stop devices or isolation points during an emergency Workers unfamiliar with emergency response, first aid and evacuation arrangements in packaging areas Emergency drills not reflecting realistic scenarios for packaging machinery failures or fires 		[REDACTED]	
13. Change Management and Introduction of New Products or Processes	<ul style="list-style-type: none"> Introduction of new packaging materials, pallet sizes or product types without assessing impact on machinery safety and load stability Modifications to wrapping programs, tension settings or heat-sealing parameters without formal review Relocation or addition of wrapping and strapping machinery without considering layout, traffic and emergency access Software or control system changes not risk assessed or tested prior to implementation 	3H	[REDACTED]	2M
14. Monitoring, Consultation and Continuous Improvement	<ul style="list-style-type: none"> Lack of systematic monitoring of KPIs performance in wrapping and strapping operations (e.g. no KPIs or audits) Insufficient consultation with workers about practical issues and emerging risks around packaging machinery Failure to incorporate regulatory updates, Australian Standard changes or industry learnings into local systems Complacency developing over time as packaging tasks become routine and incident-free periods increase 	2M	[REDACTED]	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 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.