

## Pipe Bender Risk Assessment

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.	<b>Administrative</b> Change	
								<b>PPE</b>	
<b>Risk Rating &amp; Required Action:</b>								<b>Notes on Hierarchy of Controls:</b>	
<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.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
<b>3H</b> Review and approve additional controls before task starts. Senior supervisor sign-off needed.								1. <b>Eliminate</b>	
<b>2M</b> Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
<b>1L</b> Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
<b>Consequence Scale:</b>								Always document <b>why</b> a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
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				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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	slips and trips, manual handling injuries	3H	<ul style="list-style-type: none"> <li>- Ensure the work area is clean and free from obstructions</li> <li>- Use appropriate signage to warn of slippery surfaces</li> <li>- Conduct a manual handling risk assessment</li> <li>- Provide training on manual handling techniques</li> <li>- Wear slip-resistant footwear</li> <li>- Use mechanical aids for heavy lifting</li> <li>- Arrange tools and materials within easy reach</li> <li>- Implement a housekeeping schedule for regular cleaning</li> <li>- Ensure adequate lighting is available</li> <li>- Position the pipe bender on stable ground</li> </ul>	2M
2. Inspect Equipment	equipment malfunction, tools with sharp edges	3H	<ul style="list-style-type: none"> <li>- Conduct a thorough inspection of the pipe bender before use</li> <li>- Wear gloves when handling inspect sharp tools</li> <li>- Tag and remove defective tools from service</li> <li>- Maintain a logbook for equipment inspections</li> <li>- Ensure guarding is intact and secure</li> <li>- Regularly service equipment as per manufacturer guidelines</li> <li>- Ensure all safety switches and emergency stops are operational</li> <li>- Train workers to identify equipment faults</li> <li>- Prevent untrained operators from using the equipment</li> <li>- Keep inspection tools in good condition</li> </ul>	2M
3. Set Up Pipe Bender	pinching during setup, incorrect machine setup	3H	<ul style="list-style-type: none"> <li>- Follow manufacturer's guidelines for setup</li> <li>- Use personal protective equipment such as gloves</li> <li>- Allow only trained staff to set up the pipe bender</li> <li>- Double-check all settings before starting the machine</li> <li>- Use lock-out and tag-out procedures during set up</li> <li>- Regularly verify the calibration of the pipe bender</li> <li>- Ensure hands are clear of moving parts during setup</li> <li>- Use signage to alert others of setup procedures</li> </ul>	1L

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			<ul style="list-style-type: none"> <li>- Keep others clear of the area during setup</li> <li>- Employ a buddy system for additional safety checks</li> </ul>	
4. Select Appropriate Die	wrong die causing malfunctions, manual handling injuries	3H	<ul style="list-style-type: none"> <li>- Verify die selection against drawing and material requirements</li> <li>- Inspect die for damage and proper alignment</li> <li>- Use proper lifting techniques and equipment</li> <li>- Ensure work area is clear of obstructions</li> <li>- Wear appropriate PPE (gloves, safety glasses)</li> <li>- Communicate with team members during setup</li> <li>- Perform trial runs before full production</li> <li>- Lock out/tag out equipment during adjustments</li> <li>- Keep hands and feet clear of moving parts</li> <li>- Use die guards where applicable</li> <li>- Follow established safety protocols</li> <li>- Seek assistance for heavy lifting</li> <li>- Maintain clear communication throughout the process</li> <li>- Stop work immediately if an unsafe condition is observed</li> <li>- Report any issues to the supervisor</li> <li>- Ensure all safety features are functioning properly</li> <li>- Use proper body mechanics to avoid strain</li> <li>- Keep the work area organized and free of clutter</li> <li>- Follow the manufacturer's instructions for the die and equipment</li> <li>- Perform regular maintenance on the equipment</li> <li>- Use the correct die for the material and part</li> <li>- Double-check die selection before starting</li> <li>- Ensure the die is properly seated in the machine</li> <li>- Use the correct pressure and speed for the material</li> <li>- Monitor the process closely for any abnormalities</li> <li>- Stop the machine if there is a jam or misfeed</li> <li>- Use the correct tool to remove the part</li> <li>- Inspect the part for defects after production</li> <li>- Store the die properly after use</li> <li>- Clean the work area after completion</li> <li>- Report any damage to the die or equipment</li> <li>- Follow the company's safety policy</li> <li>- Participate in safety training and drills</li> <li>- Stay alert and focused at all times</li> <li>- Do not drink or use alcohol/drugs while working</li> <li>- Take breaks to avoid fatigue</li> <li>- Use the correct sequence of operations</li> <li>- Follow the standard operating procedure (SOP)</li> <li>- Keep the machine in good working order</li> <li>- Use the correct die for the material and part</li> <li>- Double-check die selection before starting</li> <li>- Ensure the die is properly seated in the machine</li> <li>- Use the correct pressure and speed for the material</li> <li>- Monitor the process closely for any abnormalities</li> <li>- Stop the machine if there is a jam or misfeed</li> <li>- Use the correct tool to remove the part</li> <li>- Inspect the part for defects after production</li> <li>- Store the die properly after use</li> <li>- Clean the work area after completion</li> <li>- Report any damage to the die or equipment</li> <li>- Follow the company's safety policy</li> <li>- Participate in safety training and drills</li> <li>- Stay alert and focused at all times</li> <li>- Do not drink or use alcohol/drugs while working</li> <li>- Take breaks to avoid fatigue</li> <li>- Use the correct sequence of operations</li> <li>- Follow the standard operating procedure (SOP)</li> <li>- Keep the machine in good working order</li> </ul>	2M
5. Secure Workpiece	workpiece slipping crushing injuries	3H	<ul style="list-style-type: none"> <li>- Use proper clamping technique</li> <li>- Ensure workpiece is centered and aligned</li> <li>- Use appropriate clamping force</li> <li>- Check for secure fit before starting</li> <li>- Use proper body mechanics to avoid strain</li> <li>- Keep hands and feet clear of moving parts</li> <li>- Use die guards where applicable</li> <li>- Follow established safety protocols</li> <li>- Seek assistance for heavy lifting</li> <li>- Maintain clear communication throughout the process</li> <li>- Stop work immediately if an unsafe condition is observed</li> <li>- Report any issues to the supervisor</li> <li>- Ensure all safety features are functioning properly</li> <li>- Use proper body mechanics to avoid strain</li> <li>- Keep the work area organized and free of clutter</li> <li>- Follow the manufacturer's instructions for the die and equipment</li> <li>- Perform regular maintenance on the equipment</li> <li>- Use the correct die for the material and part</li> <li>- Double-check die selection before starting</li> <li>- Ensure the die is properly seated in the machine</li> <li>- Use the correct pressure and speed for the material</li> <li>- Monitor the process closely for any abnormalities</li> <li>- Stop the machine if there is a jam or misfeed</li> <li>- Use the correct tool to remove the part</li> <li>- Inspect the part for defects after production</li> <li>- Store the die properly after use</li> <li>- Clean the work area after completion</li> <li>- Report any damage to the die or equipment</li> <li>- Follow the company's safety policy</li> <li>- Participate in safety training and drills</li> <li>- Stay alert and focused at all times</li> <li>- Do not drink or use alcohol/drugs while working</li> <li>- Take breaks to avoid fatigue</li> <li>- Use the correct sequence of operations</li> <li>- Follow the standard operating procedure (SOP)</li> <li>- Keep the machine in good working order</li> <li>- Use the correct die for the material and part</li> <li>- Double-check die selection before starting</li> <li>- Ensure the die is properly seated in the machine</li> <li>- Use the correct pressure and speed for the material</li> <li>- Monitor the process closely for any abnormalities</li> <li>- Stop the machine if there is a jam or misfeed</li> <li>- Use the correct tool to remove the part</li> <li>- Inspect the part for defects after production</li> <li>- Store the die properly after use</li> <li>- Clean the work area after completion</li> <li>- Report any damage to the die or equipment</li> <li>- Follow the company's safety policy</li> <li>- Participate in safety training and drills</li> <li>- Stay alert and focused at all times</li> <li>- Do not drink or use alcohol/drugs while working</li> <li>- Take breaks to avoid fatigue</li> <li>- Use the correct sequence of operations</li> <li>- Follow the standard operating procedure (SOP)</li> <li>- Keep the machine in good working order</li> </ul>	2M
6. Perform Bending Operation	entanglement in moving parts, noise-induced hearing loss	4A	<ul style="list-style-type: none"> <li>- Wear appropriate PPE (gloves, safety glasses, earplugs)</li> <li>- Ensure work area is clear of obstructions</li> <li>- Use proper lifting techniques and equipment</li> <li>- Communicate with team members during setup</li> <li>- Perform trial runs before full production</li> <li>- Lock out/tag out equipment during adjustments</li> <li>- Keep hands and feet clear of moving parts</li> <li>- Use die guards where applicable</li> <li>- Follow established safety protocols</li> <li>- Seek assistance for heavy lifting</li> <li>- Maintain clear communication throughout the process</li> <li>- Stop work immediately if an unsafe condition is observed</li> <li>- Report any issues to the supervisor</li> <li>- Ensure all safety features are functioning properly</li> <li>- Use proper body mechanics to avoid strain</li> <li>- Keep the work area organized and free of clutter</li> <li>- Follow the manufacturer's instructions for the die and equipment</li> <li>- Perform regular maintenance on the equipment</li> <li>- Use the correct die for the material and part</li> <li>- Double-check die selection before starting</li> <li>- Ensure the die is properly seated in the machine</li> <li>- Use the correct pressure and speed for the material</li> <li>- Monitor the process closely for any abnormalities</li> <li>- Stop the machine if there is a jam or misfeed</li> <li>- Use the correct tool to remove the part</li> <li>- Inspect the part for defects after production</li> <li>- Store the die properly after use</li> <li>- Clean the work area after completion</li> <li>- Report any damage to the die or equipment</li> <li>- Follow the company's safety policy</li> <li>- Participate in safety training and drills</li> <li>- Stay alert and focused at all times</li> <li>- Do not drink or use alcohol/drugs while working</li> <li>- Take breaks to avoid fatigue</li> <li>- Use the correct sequence of operations</li> <li>- Follow the standard operating procedure (SOP)</li> <li>- Keep the machine in good working order</li> </ul>	2M

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7. Check Bending Results	sharp edges, inaccurate bends	3H		1L
8. Shut Down Pipe Bender	electrical hazards, and rest	3H		1L
9. Clean Work Area	chemical exposure, injury from cleaning machinery	3H		2M

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10. Perform Maintenance	mechanical injury, exposure to lubricants	4A		2M
11. Document Work Process	failure to update procedures, incomplete record keeping	2M		1L
12. Train on Emergency Procedures	inadequate emergency response, confusion during emergencies	4A		2M

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13. Monitor Work Environment	ergonomic injuries, poor air quality	3H		2M
14. Provide Personal Protective Equipment (PPE)	failure to wear PPE, poor quality PPE	3H		1L
15. Evaluate and Review	failure to identify new risks, complacency with existing controls	2M		1L

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			<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	

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.