

HIRAC Report

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1. Hazard Management Details – General

This form relates to OHS Procedure – [Hazard Identification, Risk Assessment and Control \(HIRAC\)](#)

School / Work Location:	Ballarat Tech School (Fed College)
Name of Person(s):	Liam Mudge
Date Conducted:	24/04/2024
Last Reviewed:	08/11/2022
Next Review Due:	May 2025

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<p>Description of Use:</p> <p>The Ballarat Tech School (BTS) delivers a range of STEM curriculum projects, some of these activities may be hazardous to user's health if safety procedures and lab etiquette are not followed.</p> <p>This document assesses the risk involved with Vacuum Forming, device which uses a heating plate to make plastic sheets malleable allowing them to be conformed over an object through the actions of an attached household vacuum cleaner. Process referred to as Thermoforming.</p>	<p>Summary of Key Risks: (Refer to appropriate subsections)</p>
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Risk Assessment Matrix

Assessing OHS Risks

Risk assessments in matters of Occupational Health and Safety* are based on 2 key factors:

- The severity of any injury/illness resulting from the hazard(s), and
- The likelihood that the injury/illness will actually occur.

**Assessment of risk level based on likely severity and probability of harm*

		LIKELIHOOD			
		Very Unlikely Could happen, but probably never will	Unlikely Could happen, but very rarely	Likely Could happen sometime	Very likely Could happen any time
SEVERITY	Death or permanent disability	MEDIUM	HIGH	EXTREME	EXTREME
	Long-term illness or serious injury	LOW	MEDIUM	HIGH	EXTREME
	Medical attention and short-term incapacity	VERY LOW	LOW	MEDIUM	HIGH
	First aid needed	VERY LOW	VERY LOW	LOW	MEDIUM

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2. Documentation		
Relevant Legislation/Standards	Y / N	Comments
Key reference material:		<ul style="list-style-type: none"> AS/NZS 3760:2022 In service safety inspection and testing of electrical equipment AS 4024.1100:2019 Safety of machinery AS 4024.3403:2018 Safety of machinery, Safety of packaging machines – Form, fill and seal machines Machinery and Equipment Safety- an Introduction. A Handbook for workplaces. WorkSafe Victoria.

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3. Hazards				
Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
ENTANGLEMENT Can anyone's hair, clothing, gloves, cleaning brushes, tools, rags or other materials become entangled with moving parts of the tools or materials?	Medium	•	• •	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
<p>IMPACT & CUTTING INJURIES Can anyone be crushed/cut/struck etc. due to:</p> <ul style="list-style-type: none"> Lack of capacity to slow, stop or immobilize tools? Inappropriate parts and accessories being used? Inappropriate parts and accessories being used? 	Medium	<ul style="list-style-type: none"> Material clamp requires mechanical effort to disengage, if not properly operated it may come into contact with persons. Hands can be crushed by material tray as it is being released from locks. Inappropriate materials may foul the mechanism resulting in unexpected contact with operator etc. 	<ul style="list-style-type: none"> Only one operator of equipment at a time. Proper training and induction of the equipment. Ensure operator's hands and body parts are kept clear of moving parts during use and maintenance. Ensure workspace is kept clear of materials. Only use items which can be properly placed on the vacuum plate. 	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
ELECTRICITY Can anyone be injured or burnt due to: <ul style="list-style-type: none"> • Access to electricity? • Damaged or poorly maintained electrical leads, cables or switches? 	Medium	<ul style="list-style-type: none"> • Vacuum form box and vacuum require mains 240V power to operate. • Damaged or frayed electrical power cables pose an electrical hazard. 	<ul style="list-style-type: none"> • Inspect electrical equipment for damage prior to use, isolate and do not use damaged equipment. • Ensure electrical equipment is routinely inspected and maintained. • Limit unnecessary access to electrical outlets. • Operator to check for damaged electrical cables prior to use. • Ensure equipment is regularly serviced, tested and tagged and appropriate isolation procedures (e.g. lock out tags) are in place. 	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
SLIPS / TRIPS / FALLS Can anyone using the tool, or in the vicinity of the plant, slip, trip or fall due to: <ul style="list-style-type: none"> Poor housekeeping, e.g. spillage in the vicinity? Obstacles being placed in the vicinity of the tool? 	Medium	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
ERGONOMICS Can anyone be injured due to: Poorly designed workstation?	Medium	•	• • • •	Low
Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
FIRE & EXPLOSION Can anyone be injured by fire?	Medium	• •	• • •	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
TEMPERATURE / MOISTURE Can anyone come into contact with objects at high or low temperatures?	Medium	<ul style="list-style-type: none"> Heating element can become and maintain heat for period after operation. Contact with operator/other individual. 	<ul style="list-style-type: none"> FormBox made aware when equipment is hot. 	Low

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Hazards Inspected	Initial Risk	Description of Risk	Control Measures	Residual Risk
OTHER Can anyone be injured or suffer ill-health from exposure to: <ul style="list-style-type: none"> Chemicals Toxic gases or vapours Fumes/Dusts 	Medium	<ul style="list-style-type: none"> The material used as the active medium can be toxic and/or carcinogenic. Dust and vapours generated from the work process may be hazardous to health. Dust and vapours generated from the work process may be hazardous to health. 	<ul style="list-style-type: none"> Only use materials as specified by the manufacturer. Avoid materials which may release hazardous chemical when heated. Avoid materials which may release hazardous chemical when heated. Ensure operation takes place in well-ventilated workspace. 	Low

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4. Risk Assessment Signoff

Authorised By: Damon Minotti	Signature: 	Date: 27/10/2026
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