

ILLUSIONS AUSTRALIA

SAFE WORK PROCEDURE

SWP 054 – METAL BENDING MACHINE

1. PURPOSE AND SCOPE

Minimum requirements for safe operation of metal bending/folding machines at Illusions Australia.

Applies to approved manual or powered bending/folding of sheet or section metal; machine-specific guarding and manufacturer instructions apply.

2. AUTHORISATION AND COMPETENCY

Only trained, competent and authorised workers may operate powered bending machinery.

Operators must understand pinch/crush zones, clamping beam movement, material spring-back, capacity limits and isolation.

3. REQUIRED PPE

The following PPE must be worn as appropriate:

- Safety footwear.
- Eye protection where material movement/fragments may create risk.
- Cut-resistant gloves for handling sheet edges, provided hands remain outside machine pinch zones.
- Close-fitting clothing.

4. PRE-START CHECKS

Before commencing work, confirm that:

- Machine, guards, interlocks and controls are serviceable.
- Rated material thickness/width/capacity will not be exceeded.
- Tooling/dies are correctly installed and secure.
- Sheet/section is supported and free from unintended obstructions.
- Hands can remain clear of clamp/bend zones.
- Large sheets have adequate supports/assistance.
- Emergency stop is accessible.

5. SAFE OPERATING PROCEDURE

1. Confirm material and machine capacity.
2. Set tooling/stops with machine stopped and isolated where access requires it.
3. Support and align the workpiece.
4. Keep hands clear of clamping and bending lines.
5. Use handles, back gauges or supports rather than hands in pinch zones.
6. Operate controls using the designed method and maintain full attention.
7. Allow for material movement and spring-back during the bend.

8. Use assistance/supports for long or heavy stock.
9. Stop machine before measuring, repositioning within hazardous zones or clearing jams.
10. Isolate before maintenance/tooling changes requiring hazardous access.

6. PROHIBITED PRACTICES

Workers must not:

- Place fingers between workpiece and tooling/clamping beam.
- Exceed rated machine capacity.
- Use makeshift tooling.
- Bypass guards, interlocks or two-hand controls where fitted.
- Attempt to restrain springing material with body position in the hazard zone.
- Adjust or clear jams while hazardous movement can occur.
- Allow unsupported long stock to swing into people.

7. PINCH AND CRUSH POINTS

Bending machines can generate very high forces.

- Keep hands outside the line of action.
- Use engineered controls and supports.
- Never reach into the tooling area during a cycle.

8. SHEET EDGES AND MATERIAL MOVEMENT

Sheet metal edges may be sharp and large sheets can sweep through a wide arc.

- Use suitable gloves for handling.
- Establish clearance around moving material.
- Use supports/team assistance.

9. FAULTS, DAMAGE AND ABNORMAL CONDITIONS

Stop for guard/interlock fault, abnormal movement/noise, hydraulic leak, tooling movement, jam or control failure.

Isolate and tag out until rectified.

10. SHUTDOWN AND HOUSEKEEPING

- Stop and isolate as required.
- Remove finished work/offcuts safely.
- Return tooling and supports.
- Clean metal debris.
- Report defects.

11. EMERGENCY AND INCIDENT RESPONSE

1. Stop the equipment or activity immediately.
2. Isolate the hazard or energy source where safe to do so.
3. Provide or obtain first aid as required.

4. Notify the Foreman, Leading Hand or other authorised Illusions Australia representative.
5. Call emergency services where required.
6. Do not recommence until the incident, defect or unsafe condition has been addressed.

12. STOP WORK REQUIREMENT

Work must stop where:

- Machine capacity is uncertain/exceeded.
- Guard/interlock/control is defective.
- Workpiece cannot be supported.
- Hands cannot be kept clear of pinch zones.
- Tooling is damaged or insecure.

No production requirement or deadline takes priority over safe work.

DOCUMENT CONTROL

Document	SWP 054 – Metal Bending Machine
Document Type	Safe Work Procedure
Prepared By	Aidan McDonnell
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