

# ILLUSIONS AUSTRALIA

## SAFE WORK PROCEDURE

### SWP 030 – FOAM CUTTER - HOT WIRE

#### 1. PURPOSE AND SCOPE

Minimum requirements for safe use of hot-wire foam cutters at Illusions Australia.

Applies only to approved foam materials known to be suitable for hot-wire cutting.

#### 2. AUTHORISATION AND COMPETENCY

Only instructed and authorised workers may use the hot-wire cutter.

Operators must understand hot-wire burn hazards, fumes, material restrictions, ventilation and electrical isolation.

#### 3. REQUIRED PPE

The following PPE must be worn as appropriate:

- Eye protection where required.
- Safety footwear.
- Suitable respiratory protection only where required by the assessed material/exposure; ventilation/extraction remains the primary control.
- Close-fitting clothing.

#### 4. PRE-START CHECKS

Before commencing work, confirm that:

- Foam type is known and approved for hot-wire cutting.
- Material SDS/manufacturer information has been considered where required.
- Extraction/ventilation is operating.
- Wire, frame, electrical lead and controls are undamaged.
- Work surface is stable and clear of combustibles.
- Other persons are kept clear of the hot wire.
- Fire extinguisher/access is available as required.

#### 5. SAFE OPERATING PROCEDURE

1. Confirm material suitability before heating the wire.
2. Start extraction/ventilation.
3. Set temperature only as high as necessary for a clean cut.
4. Keep hands and body clear of the wire.
5. Feed foam smoothly without forcing.
6. Avoid prolonged heating in one location.
7. Monitor fumes, smoke and material behaviour continuously.
8. Switch off if abnormal smoke, odour or burning occurs.

9. Allow wire to cool before cleaning, adjustment or storage.

## 6. PROHIBITED PRACTICES

Workers must not:

- Cut unknown foam or plastic.
- Use on PVC or other materials that may release hazardous decomposition products unless specifically assessed and approved.
- Touch or reach across an energised hot wire.
- Leave the cutter energised unattended.
- Operate without required ventilation/extraction.
- Place hot wire near combustible materials.
- Modify electrical/heating controls.

## 7. FUMES AND MATERIAL SELECTION

Heating polymers can release irritating or hazardous fumes depending on material composition.

- Use only identified approved materials.
- Maintain effective extraction.
- Stop immediately if unexpected fumes/smoke occur.

## 8. BURNS AND FIRE

The wire may remain hot after power is switched off.

- Treat the wire as hot until cooled.
- Keep combustibles clear.
- Do not clean or adjust until safe.

## 9. FAULTS, DAMAGE AND ABNORMAL CONDITIONS

Stop for wire breakage, electrical fault, abnormal smoke/fumes, overheating, extraction failure or unstable temperature control.

Isolate and tag defective equipment.

## 10. SHUTDOWN AND HOUSEKEEPING

- Switch off and isolate.
- Allow wire to cool fully.
- Clean foam residue using safe methods.
- Leave extraction area clean.
- 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:

- Material identity is uncertain.
- Extraction/ventilation is unavailable.
- Electrical/wire condition is defective.
- Unexpected fumes or burning occurs.
- Operator cannot keep others clear of the hot wire.

**No production requirement or deadline takes priority over safe work.**

## DOCUMENT CONTROL

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|----------------------|----------------------------------|
| <b>Document</b>      | SWP 030 – Foam Cutter - Hot Wire |
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