

# Risk Assessment Guidance

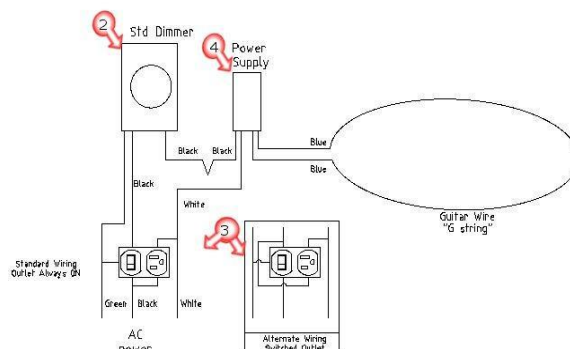
## Title Hot Wire Cutting

Hot wire cutting is a process where polystyrene is sculpted using a wire heated by electricity.

The wire tension must be maintained and for the sculpting, associated with the production, is carried out by two people.

A form can be used to help guide the wire for larger cuts. The length of the wire can be adjusted for the depth and length of the cut being made.

The polystyrene used is fire resistant and once the cut has been completed the temperature of the wire drops very quickly.



Job Sequence	Hazard Identification	Controls
Conduct pre-operational checks	Damaged parts	The hot-wire cutting equipment must be visually inspected before each use and any damage reported to the workshop manager / supervisor. Damaged equipment must not be used until a competent person has examined them.
Work Environment	General environment  Housekeeping	There should be suitable lighting to be able to carry out the works safely and sufficient 'clear' space for the operatives to move along the cut line.  Good housekeeping should be maintained including regular clearing of waste materials and avoiding trailing leads.
Fire	Due to malfunction of electrical equipment.	Areas near hot wire cutting activities are kept clear of flammable materials.  CO <sub>2</sub> fire extinguisher located in close proximity – test date less than 12 months old.  All works must be carried out in accordance with the companies 'Hot Works Permit including Has to be issued by the designated person from the company.  Fire risk assessment undertaken as required by law – see Regulatory Reform (Fire Safety) Order 2005.
Training	Untrained Person	Only trained operatives allowed to carry out these works, they must ensure hot wire cutting is carried out in appropriate areas before commencing works with sufficient space.  The Supervisor must ensure that the appointed Health and Safety personnel is notified of any significant changes to these works before they commence.
Occupational Health	Fumes during hot works	There are fumes created during the heating and cutting processes, refer to specific material safety data sheets and COSHH assessment.  There are health hazards associated with heating/burning the poly so there should be good

## Risk Assessment Guidance

	Burns from hot-wire	<p>extraction implemented and avoidance of other trades working in the area.</p> <p>While the cutting is taking place contact with the wire must be avoided as this will result in burns.</p>
Personal Protective Equipment	Unsuitable PPE	Suitable face masks should be used during these works. Disposable overalls must also be worn with long sleeves to protect lower arms and wrists.
First Aid		<p>Information for the appointed medical personnel is displayed within the workshops.</p> <p>Make sure you are aware of the first aid provisions in place.</p> <p>All accidents &amp; near misses must be reported to your Supervisor</p>

**All persons working with this equipment or within close vicinity must sign and show that they have read and understood the risk assessment guidance and that they will follow the above control measures set out whilst working.**

Additional Guidance	COSHH Assessment	Method Statement	Other (Specify)
	Material Dependent	N/A	Hot Works Permit
Name			
Signed			Date