


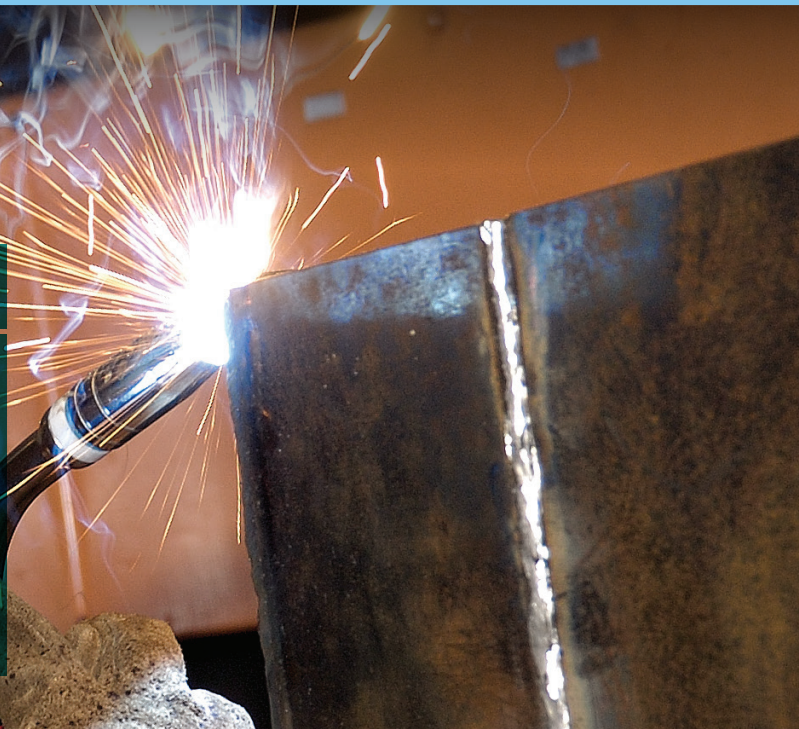


Controlling exposures to prevent occupational lung disease in **MANUFACTURING**

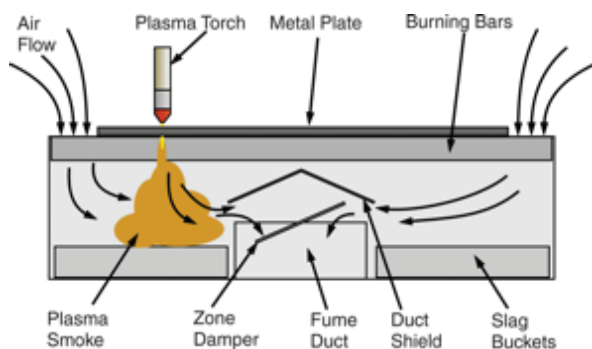
Welding Selector Tool  Control Sheet

**Fume Extraction:**  
**Local Exhaust Ventilation (LEV)**

**Extracted Table**  
(or extracted downdraught table)



## Extracted Table at a glance



## Effectiveness rating



## Appropriate workpiece size

- ✓ Small (up to 1.0m x 0.5m)
- ✓ Medium (up to 2.0m x 1.0m)
- ✓ Large (up to 2.0m x 4.0m)
- ✗ Extra large (> 2.0m x 4.0m)

## Purchase price and other costs

Supply and installation	£5000 ex VAT per table
Other costs	Thorough examination and test every 14 months – cost will depend on number of systems to be tested
Filters	£200 - £300 per year

## Extracted downdraught table

An extracted table is usually the most effective way of controlling the fume generated during plasma cutting.

For a number of cutting techniques, particularly plasma cutting, large amounts of fume are generated from the underside of the item being cut. The extracted table removes and contains any fume that is directed into it.

If used correctly, the fume is drawn downwards, away from the operator.

With these systems, the extraction does not need to be moved.

To achieve an effective capture, it is recommended that the air flow across the bench surface is at least 0.75 m/s.

Some extracted benches can be large. In order to minimise capital and operational costs, the benches are typically compartmentalised, as this reduces the air volume needed to provide effective extraction. Dampers, manually or automatically operated, are then configured to extract in the area being cut.

Ideally, the air extracted by the system should be vented externally. The air coming into the building will then need to be balanced to match that being extracted.

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## Top tips

### How to use the LEV effectively

To ensure the system is effective, the welding or cutting must be undertaken on the bench.

Effective capture occurs when the cut is close to the table and directed downwards.


The bench area should be kept free of clutter.

## Limitations


These extracted tables are mainly used for manual plasma cutting. The fume from other welding techniques may not be adequately controlled due to the hot fume rising upwards and away from the down flow table.


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## Other considerations

The table must be used correctly and the extraction needs to be maintained and tested on a regular basis. [See LEV Installation, Commissioning, Maintenance and Testing management sheet](#) 

The work area must also have good general ventilation to ensure that any fume not captured is diluted.

If the fume is particularly hazardous, fume exposure measurements might be needed to confirm the effectiveness of bench extraction. [See Air Monitoring management sheet](#) 

Health surveillance may also be needed for workers who regularly carry out welding, and who are at risk of lung disease. [See Health Surveillance management sheet](#) 

Welders should be trained on the correct use of the extracted bench.

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## Alternative control solutions

For some smaller-scale cutting processes a flexible arm hood, used in combination with respiratory protective equipment, may be adequate to control the fume.

Consider automation and submerged plasma cutting, which will reduce fume exposure.