BOHS The Chartered Society for Worker Health Protection

Breathe Freely Campaign – Improving Worker Health Protection in Construction & Manufacturing

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BOHS President 2018-19

SPIRIT ENERGY

What is Occupational hygiene?

Well it's nothing to do with...

What is Occupational hygiene?

Occupational Hygiene is concerned with the …

*…**anticipation, recognition, evaluation, elimination or control***

of biological, chemical, ergonomic or physical factors
that may present a hazard to health in the workplace'
OR
Worker HEALTH Protection!

ALL INDUSTRIES

Every year

13,000

Estimated total deaths from work related illness

12,000

Estimated deaths caused by occupational respiratory disease

8,000

Estimated deaths caused by asbestos related diseases or Chronic Obstructive Pulmonary Disease (COPD) such as bronchitis and emphysema

BREATHE FREELY

Controlling Exposures to Prevent occupational lung disease in the construction industry

>500 workers die from exposure to silica dust

3,500 cancer deaths

5,500 cancer registrations each year

www.breathefreely.org.uk

About 13000 died from work related disease

148 workers died in accidents at work

Campaign Objectives

BREATHE FREELY

Controlling Exposures to
Prevent occupational lung disease
in the construction industry

BOHS
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Worker Health Protection

Raise awareness of risks with employers

Highlight solutions

Provide tools and resources

HOW

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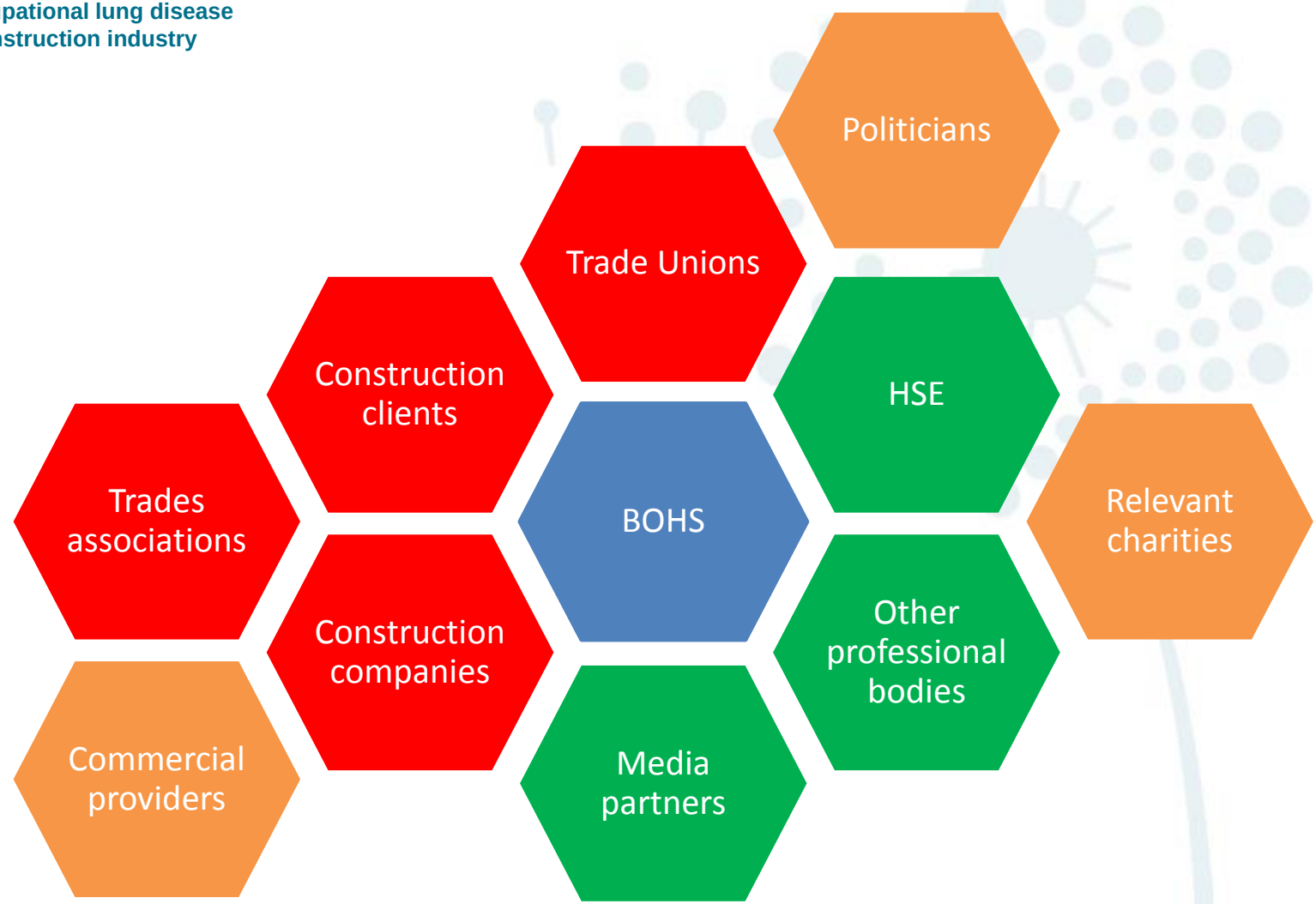
Controlling Exposures to Prevent occupational lung disease in the construction industry



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www.breathefreely.org.uk


28 April 2015, Worker’s Memorial Day

Web based information hub

www.breathefreely.org.uk

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Controlling Exposures to Prevent occupational lung disease in the construction industry

The Health in Industry Management Standard

HI Standard Self-Assessment Tool

www.breathefreely.org.uk


General Site Operative


Specialist Plant Op


Removal Worker


Bricklayer


Carpenter/Joiner


Concrete Sprayer


Demolition Operat

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Roadshows

Speedy

arco
Experts in Safety

RVTGROUP
Protecting long-term health on site

www.breathefreely.org.uk

Faculty of
Occupational
Hygiene

BOHS

CCHR|C

Certificate in Controlling Health Risks Construction

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Controlling exposures to prevent occupational lung disease in

MANUFACTURING

Do you breathe freely?

www.breathefreely.org.uk

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MANUFACTURING INDUSTRY

Every year

4,000 Estimated number of people suffering from breathing and lung problems caused or made worse by their work

2,200
Estimated number of deaths from cancer caused by past work in manufacturing industries*

Number of people currently suffering with work related breathing or lung problems

141,000
who have ever worked

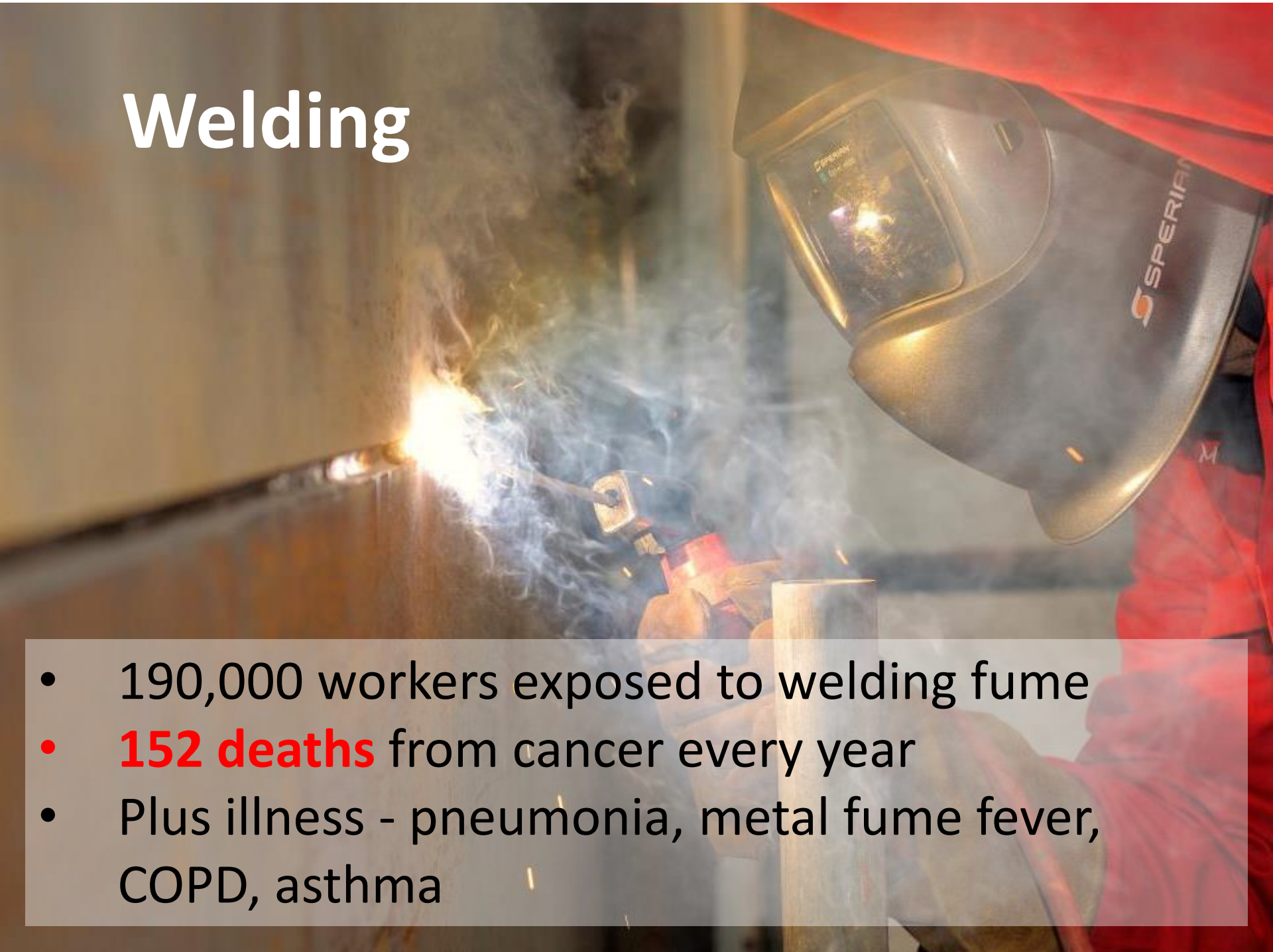
36,000
who have worked in the last 12 months

Rates of occupational asthma*

Manufacturing Industry

All industry average

Welding



- 190,000 workers exposed to welding fume
- **152 deaths** from cancer every year
- Plus illness - pneumonia, metal fume fever, COPD, asthma

25 May 2017
EEF HQ London

Breathe Freely in Manufacturing

Controlling Exposures to Prevent occupational lung disease in the construction industry

in partnership with

www.breathefreely.org.uk

Breathe Freely in Manufacturing

Controlling exposures to prevent occupational lung disease in manufacturing

Manufacturing workers are at high risk from fumes given off by welding and hot cutting processes which give off very fine particles that cause cancer, COPD and an increased susceptibility to pneumonia.

Roadshows 2018..

FREE BREAKFAST ROADSHOWS TO BE ANNOUNCED

Including South Wales Early 2018 Date & Venue TBC.

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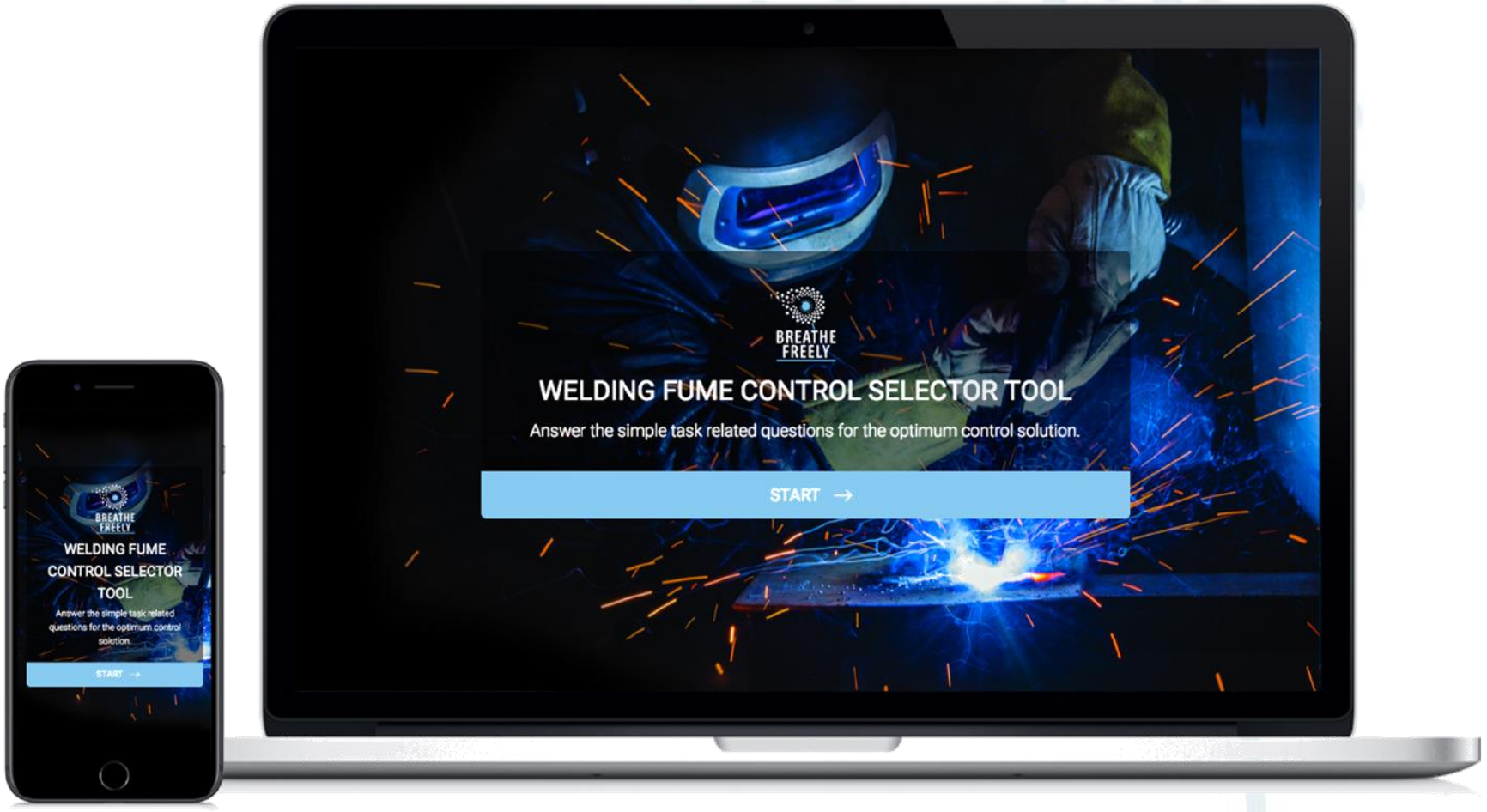

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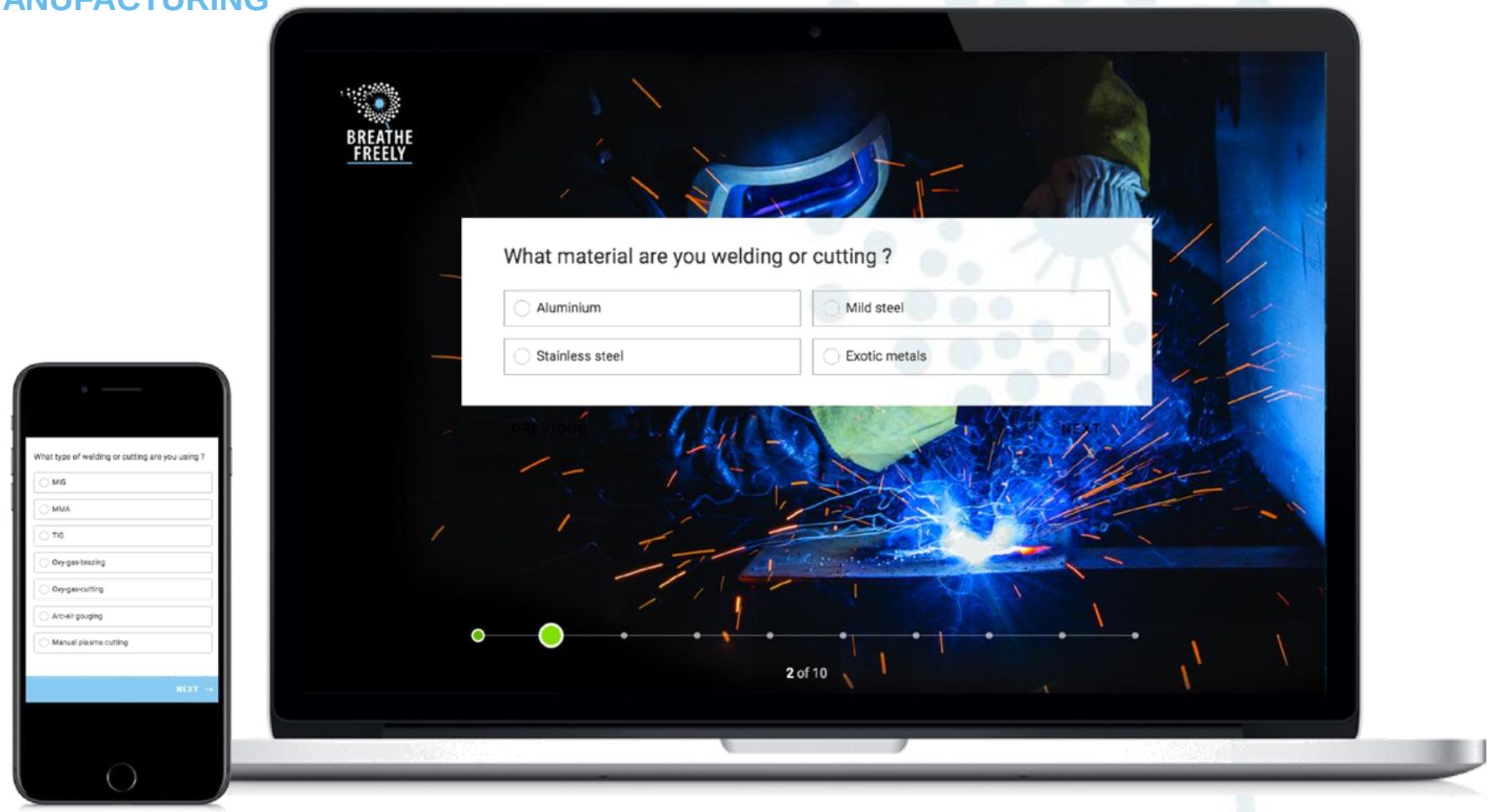

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Welding Selector Tool

Fume Extraction: Local Exhaust Ventilation (LEV)

Extracted Bench
(or downdraught bench)

Extracted Bench at a glance

Optimum Fume Control Solution for

✓ MMA	✓ MIG
✓ TIG	✓ Oxy-gas-cutting
✓ Oxy-gas-brazing	✓ Manual plasma cutting
✓ Arc-air gouging	

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	£4000 ex VAT per bench
Running costs	£550 per system for thorough examination and testing
Filters	£200 - £300 per year

Effectiveness rating

★★★★☆

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Extracted or downdraught bench

Working on an extracted work bench will often be the most effective way of controlling the fume created when welding small and medium sized flat components.

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

The fume is drawn away from the welder, typically through holes or a series of slots in the bench top and in some cases at the back of the booth.

Further enclosing the extraction system by putting sides, back and a partial roof on the table will increase performance.

The velocity at the point of release on the contaminant should be between 0.5 and 1 m/s.

Ideally the extracted air should be vented externally.

Some extraction benches can also be set up to control dust created during grinding operations. Benches used for this purpose will need a higher velocity at the release point to ensure it is captured by the extraction system.

The specification on a bench used for grinding may be different to one solely used for welding. Typically it will contain extraction at the rear wall of the bench. It is important that the workpiece can be positioned to direct the sparks into the ventilation.

Top tips
How to use the LEV effectively

Welding must be undertaken on the bench, or within the partial enclosure if fitted, to maximise efficiency.

Pre-use checks should be undertaken by the welder. Airflow indicators are a good method to give the welder confidence the system is continuing to perform.

The bench area should be kept free of clutter.

Limitations and other considerations

The positioning and shape of the workpiece is critical to ensure effective removal of contaminants.

The system needs to be used correctly and maintained and tested on a regular basis.

The work area must also have good general ventilation. Supplementary RPE may be required depending on the toxicity of the fume and duration of exposure.

Air monitoring and health surveillance might be needed to confirm effectiveness and as part of a programme to monitor ongoing performance.

Welders should be trained on the correct use of the equipment.

Acceptable alternative control solutions

With MIG Welding, on-torch extraction is an acceptable alternative. For stainless steel or "exotic" metals respiratory protection will also be required to supplement the on-torch extraction.

During specific tasks it may be acceptable to solely use respiratory protection; for example, non-routine maintenance tasks. However all alternative options should be explored and there is still ensure general ventilation is adequate for the task and risks present.

Date of publication: April 2018

Action

Controlling exposures to prevent occupational lung disease in MANUFACTURING

- Scottish Parliament - what action can you take to reduce occupational ill health in Scotland?
- Scottish employers – action on respiratory disease?
- All - share & support BF initiative

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Join us and be part of the solution

www.breathefreely.org.uk