



**DUSTRACTION**  
*Limited*

# Downflow Booth

*Engineering Solutions for Dust Control Since 1955*

# Company Profile

Operating for over 50 years, Dustraction has become one of the UK's leading independent companies in air quality control for dust extraction, dust control systems and wood waste heaters.

We provide innovative engineered dust extraction solutions for a diverse range of industries, manufacturing facilities and educational establishments.

Our central location means that we are conveniently situated to provide a prompt service to all areas of the UK.

We have a manufacturing area of approximately 11,000 ft<sup>2</sup> which is equipped with modern sheet metal working machinery, including CNC plasma profiling and CNC press brakes.

An ongoing programme of investment enables us to keep our competitive edge in today's market.

Our sales and design teams are here to help and advise our clients, with one goal in mind: producing a well engineered system.

The design experience we built up over the years enables our team to engineer systems completely, from the initial concept through to the final commissioning.

Dust extraction and dust control And as the technology changes, so do we. A programme of continuous training enables the Dustraction team to be at the forefront of product design and development.

We use experienced LEV Engineers to design, install, commission and test your systems to meet the legal obligations under the Control of Substances Hazardous to Health Regulations 2002 and the Health and Safety at Work Act 1974.

Dustraction's wealth of knowledge extends to industries such as foundries, furniture and joinery manufacturing, educational establishments, pharmaceuticals, food, packaging and printing.

## Downflow Booth in a Bakery Environment

The Federation of Bakers issued guidance on controlling dust within bakeries in 2008 and in March 2017 updated that information in consultation with Park Health and Safety. The premise behind the document was to raise awareness of the hazards of dust, primarily flour and ingredient dust, as they constitute a significant and potentially serious hazard within the bakery industry.

All bakers should be aware of the risks to themselves and those around them, when working in a dust filled environment and the document provides guidance on how to reduce that risk. It is also aimed at helping employers be alert to their duties and responsibilities with regards meeting their duty of care to their staff and ensuring that they comply with health and safety regulations.

***"THE MOST IMPORTANT MESSAGE FOR EMPLOYERS AND PEOPLE WORKING IN A PLACE WHERE THEY MIGHT BE EXPOSED TO FLOUR AND INGREDIENT DUSTS IS THAT DUST IN BAKERIES CAN HARM HEALTH. TO REDUCE THE RISK OF RESPIRATORY ILL HEALTH, MEASURES NEED TO BE TAKEN TO REDUCE THE AMOUNT OF DUST PEOPLE BREATHE IN."***  
(Federation of Bakers, 2017)

Call **(0116) 271 32 12** today for your free consultation



# Why choose a Downflow Booth

Dust is more than a side effect of a process that you should just accept as an inconvenience. The potential for serious harm to workers who have been subjected to an occupational dusty environment is real; from an annoying cough through to a life debilitating condition such as Chronic Obstructive Pulmonary Disease (COPD), or even Lung Cancer. Even more extreme is the potential for an explosion that could have devastating consequences.

Within the food industry the products made are innocuous, however, dust created in their production can be explosive and given the right circumstances can result in an explosion or fireball. All that is required is that a combustible substance is mixed or suspended in the air at a sufficient concentration and that it is contained in a vessel or building when ignition occurs.

Downflow Booths have been designed to offer control of dust over large areas of emission where conventional hoods etc. are not adequate or effective. For example, during scooping from tubs or bags into a weigh point, or where the area of dust emission is very large. The Downflow Booth offers suppression and extraction of dust over the whole area.

**What types of dust could cause harm? Virtually ALL dusts in the atmosphere, including, but not limited to:**

- |                  |                 |             |
|------------------|-----------------|-------------|
| • Flour          | • Dried milk    | • Sugar     |
| • Custard powder | • Potato powder | • Aluminium |
| • Instant coffee | • Soup powder   | • Magnesium |



Image: 4m Wide Downflow Booth

# How it works

A modular designed booth, from 2 & 3 metres up to 8 metres in width as standard, offering a constant downward supply of clean air, preventing dust and particulates from entering the operator's breathing zone, extracting through grilled filter panels.

When scooping from tubs or bags into a weigh point, the area of dust emission can be substantial. The effectiveness of our downflow booths in controlling dust over the whole area is shown in the Health & Safety Executive's (HSE) image shown below; the hierarchy of effectiveness of dust extraction options can be found in the HSE guidance document, HSG258.



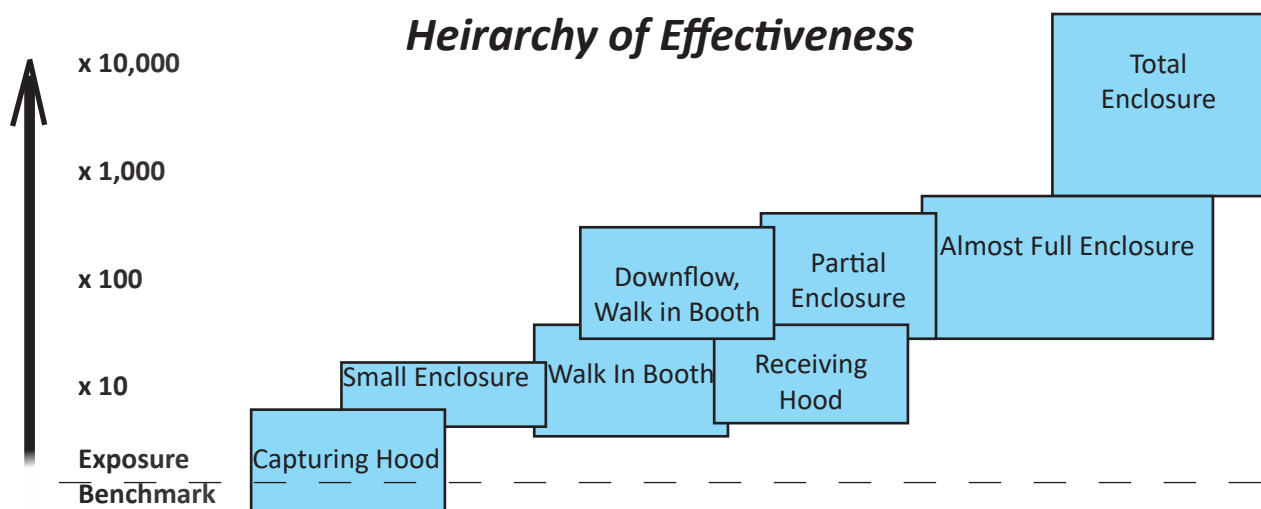
Image: 4m Wide Downflow Booth

The downflow booth operates on a re-circulatory airflow principle. A clean downflow of air is supplied from the ceiling via HEPA (High Efficiency Particle Arrestor) filters, suppressing dust away from the operator's breathing zone.

Grilles in the lower rear wall capture airborne contaminants and filter the air via three stage filtration.

This filtration process comprises of primary roughing filters, secondary bag filters and finally HEPA filters discharging clean air over the operator's head, providing a nominal evenly distributed downflow of 0.5m/sec.

Included within the booth are pressure indicating devices to monitor the performance of the extraction together with automatic control of the variable speed fans to maintain optimum operating conditions.



Source: Health & Safety Executive's Guidance Document HSG258



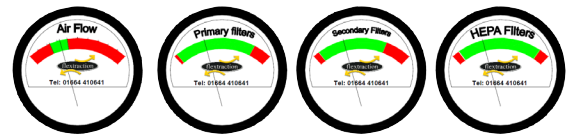
# Booth Operation

The day to day use of the booth is simple, demanding no technical knowledge for its use.

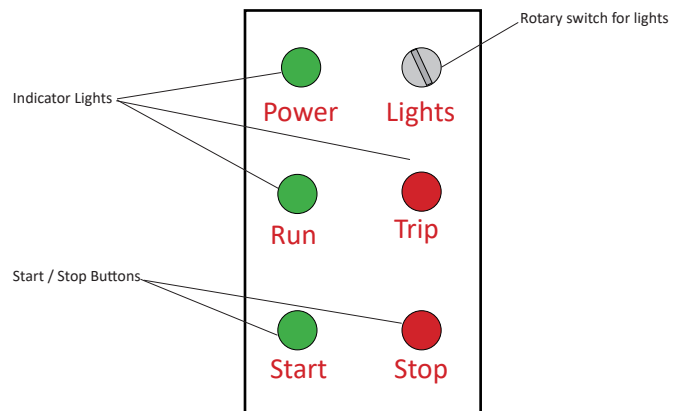
The control panel is designed with integral pressure indicating devices to monitor the performance of the extraction, together with automatic control of the variable speed fans to maintain optimum operating conditions.

The start / stop buttons are supported with indicator lights that show that the booth is running correctly.

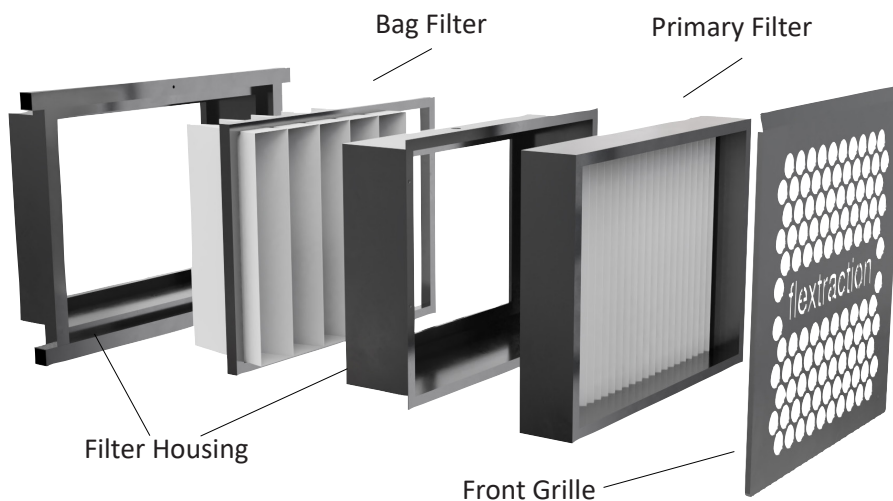
As standard the booth comes with one twin IP66 socket.



Airflow & filter condition indicators mounted on the front of the booth



## Filter Breakdown:



The primary and secondary filters are located within their filter housing and they are located behind the grille at the back of the booth.

Routine housekeeping will maintain the life of the filters and ensure the booth is working with maximum efficiency

## Optional Extras

- Internal / External 415v / 230v & 110v power supplies
- Audible Filter Alarm
- Bag Disposal and Compactor
- Integral Vacuum Unit - ATEX Certified



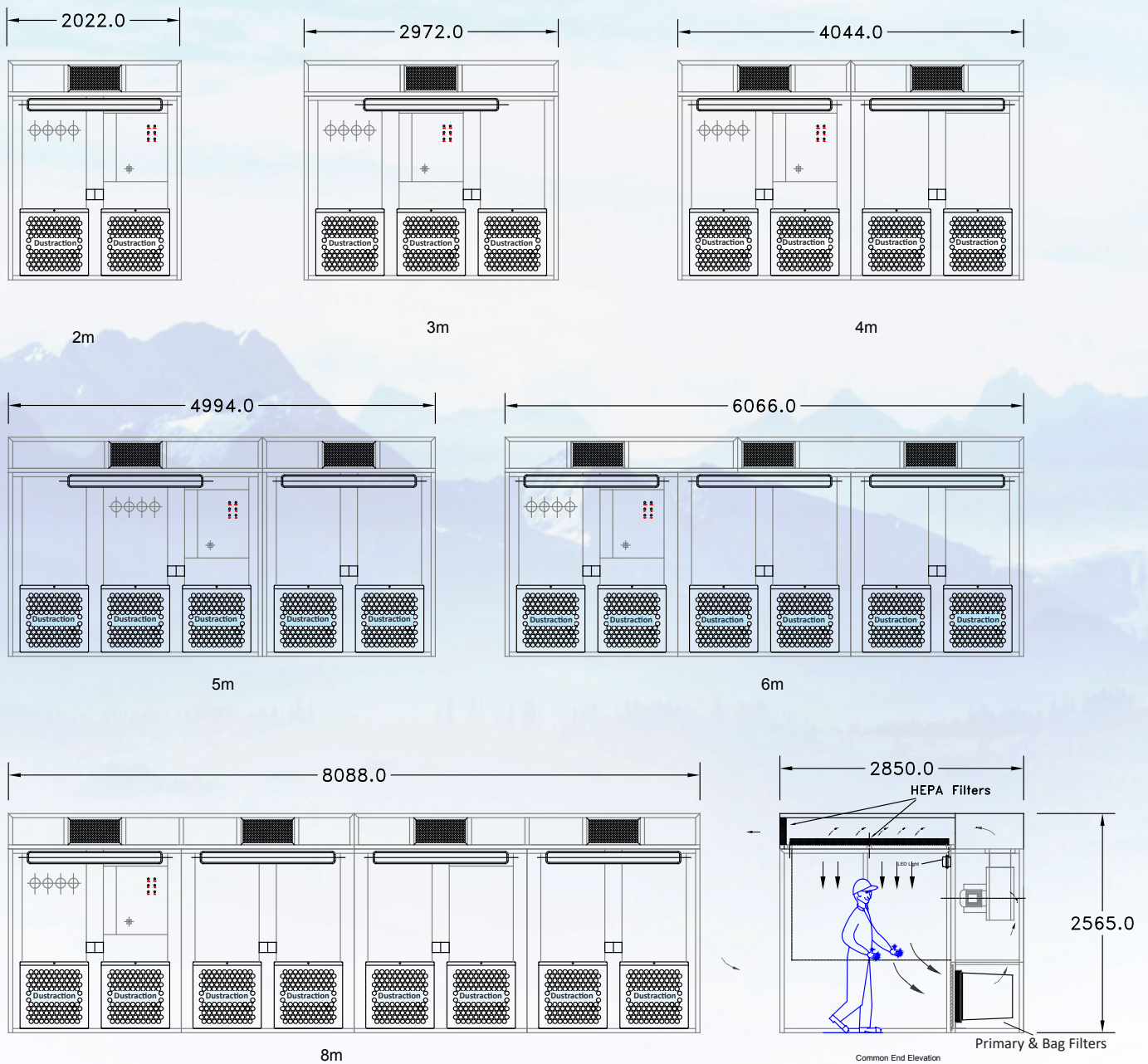
Image: ATEX Vacuums



# Standard Booth Sizes

The booths have been designed and engineered to be of modular construction and they are manufactured in Stainless Steel.

As standard, the booths are available in 2 and 3m widths up to 8m. Customised widths can be manufactured to meet your specific requirements, however, this would have an effect on the lead time from point of ordering through to delivery on site.



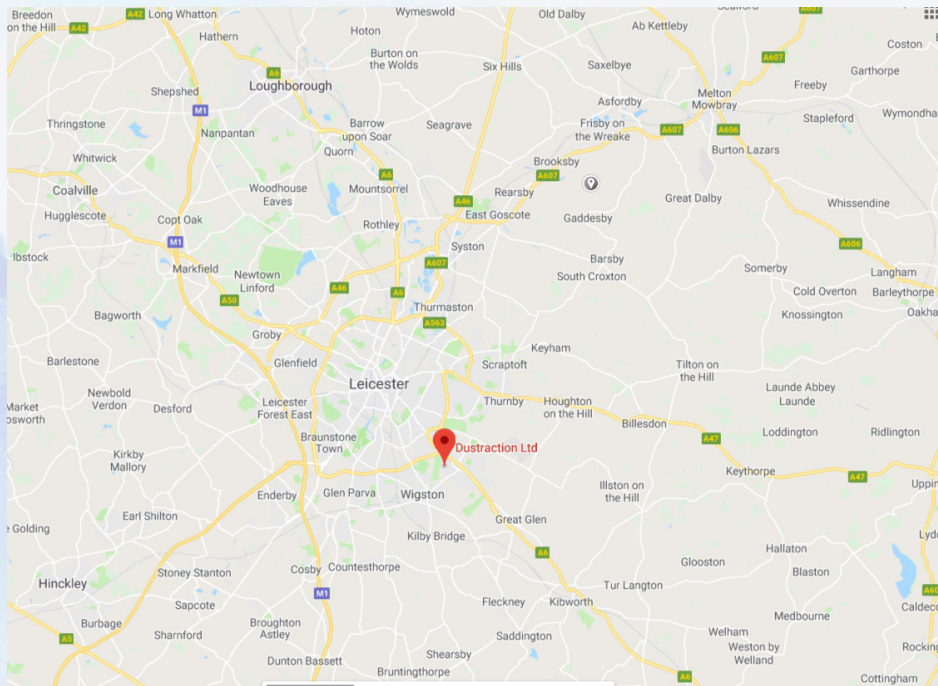
# Dustraction: Find out more

We can be contacted at:

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Leicester, LE2 5NE

0116 271 3212

Dustraction is a limited company and registered in England and Wales. Our registration number is 03905418 and our registered address is shown above.



*We appreciate the booth is a capital expenditure item and in order to satisfy yourself of its functionality, high performance and benefits, we have a demonstration booth available and you are welcome to arrange a visit and try out the booth.*

**DUSTRACTION**  
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**Dustraction Limited** is a leading UK manufacturer of quality Dust Extraction and Dust Control equipment.

We can provide bespoke solutions for all your dust containment requirements.

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*Engineering Solutions for Dust Control Since 1955*



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