

# Introducing **OPTIMAX 4** The World's First CFD-Optimised Fume Cupboard

## **OPTIMAX 4**

The **OPTIMAX 4** fume cupboard is a fusion of modern technology, eco-conscious design, laboratory safety, and enhanced user experience.

Clean Air never compromises on safety. Not only is the **OPTIMAX 4** jam-packed with all the user-friendly features you expect from our fume cupboards, in addition, one stand-out feature of this model truly sets it apart from its contemporaries. The **OPTIMAX 4** is the first fume cupboard to be optimised for containment using advanced 3D Computational Fluid Dynamics.

This fume cupboard builds on the positive feedback from lab teams for Clean Air's popular APEX series of fume cupboards. The **OPTIMAX 4** benefits from glass to three sides of the internal chamber. Substituting glass for traditional twin-skinned walls allows more light in and adds space to the chamber, so the operator enjoys a larger, lighter, brighter working area experience.

When it comes to laboratory apparatus, size matters! The compact dimensions of the **OPTIMAX 4** mean the benefits of the APEX series can now be delivered in smaller labs.



## Computational Fluid Dynamics (CFD) for containment

Using advanced 3D CFD techniques we have optimised and tested aspects of the **OPTIMAX 4** design. Scientific data results prove it takes less than 90s to remove 99.9% of contaminants from the entire fume cupboard chamber and we can use our evidenced modelling to show you the most effective way to use your fume cupboard.

With our unparalleled data-driven insights into fume cupboard performance we can offer you the best containment protection.

### Breakout Rate Table

| Distance inside OPTIMAX 4 | Result      |
|---------------------------|-------------|
| 0mm                       | 79.58 ppm/s |
| 100mm                     | 3.86 ppb/s  |
| 150mm                     | 3.33 ppb/s  |
| 200mm                     | 1.62 ppb/s  |

Place your equipment carefully!

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## Customise to your application



There are so many options with a Clean Air fume cupboard. Our talented design engineers can add virtually any features you request. We even offer LED lighting colours to indicate when a cupboard is or isn't in use.

- Variable Air Volume or Constant Air Volume
- Automatic sash closure with PIR presence sensor
- Broen, Vacuubrand and Spectrolab services
- Wide range of dripcups and sinks
- Standard single socket outlets, 3ph socket outlets, data sockets and emergency stop button
- Framed sash with horizontal sliding glass panels
- Ceramic; Trespa®; stainless steel; or polypropylene worktop
- Automatic fire suppression system (Dry powder or CO2)
- Standard steel storage cupboards; polypropylene acid; fire-rated solvent; and vac pump storage cupboards available
- Pass through ports in side panels

## All this as standard

- Interior liners & baffles from Trespa® solid grade laminate, complete with toughened glass side panels
- Cast epoxy worktop with raised edges all round
- Electrics pre-wired to an 8-way distribution board complete with built-in RCBOs & MCBs
- LED flat panel lighting
- 316-grade stainless steel hinged lower aerofoil for cable entry
- Removeable upper service panel for periodic maintenance and inspection
- State-of-the-art appearance and a choice of colours
- 316-grade stainless steel tissue guards to prevent debris being drawn into the extract ductwork
- Carcass constructed from polyester-coated zintec steel

## Controls

- Advanced programmable control panel
- Visible & audible alarms for air velocity, sash high and fan operation
- Alarm levels reported on the display
- BACnet MS/TP & Modbus RTU available

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