

# Laminar Flow Fume Cupboard

Combining laminar flow air and chemical fume extraction for dual-purpose applications.



**TION's Laminar Flow Fume Cupboards protect both the sample and the user. We combine laminar airflow technology with chemical fume extraction for specialist dual-purpose applications.**

A laminar flow fume cupboard is a specialist fume extraction device similar to a class II B2 biosafety cabinet. Its primary function is to prevent cross-contamination inside the workspace between the sample, user and the environment. It achieves this by producing an uninterrupted stream of laminar flow air over the workbench using HEPA filtration technology, making the product ideal for trace metal analysis. However, unlike a class II B2 biosafety cabinet, it features no filtration on the extract, preventing use with biological materials.

## Key Benefits

- Polypropylene Construction
- Safe & Compliant
- ISO 5 Cleanliness
- Customisable Dimensions



### Eco-Friendly LED Lighting

Sealed LED lighting offers eco-friendly, cost-effective 800 LUX illumination.



### Intuitive 9" Control Panel

Control and fine-tune your working environment with built-in airflow controls and alarm systems.



### Sample & User Protection

The cabinet's internal fan creates a smooth stream of downflow air to create an ISO 5 cleanroom environment.



### 100% Polypropylene Carcass

Medical-grade welded polypropylene eliminates carcass corrosion with V0 flame retardant properties.



### Bespoke Work Surface Materials

Select your work surface material from a variety of options, including polypropylene, stainless steel and ceramic.



### Red-Light Alarm System

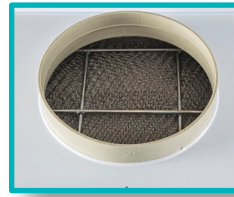
Our programmable red-light alarm system monitors your cabinet's internal airflow, alerting your staff to a potential fault.

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For further product details and to see more from our range, visit **www.tion.co.uk**

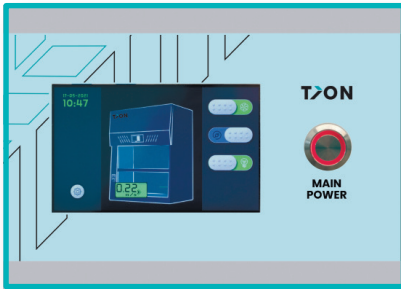
TION's laminar flow fume cupboards are customisable systems prioritising technology and ergonomics. If your cabinet requires specific materials or functionality that is not listed below, contact our solution design team on 01223 790028.

## Duct Connection



- Fishtail outlet
- 250mm or 315mm size

## Touch-Screen Control Panel



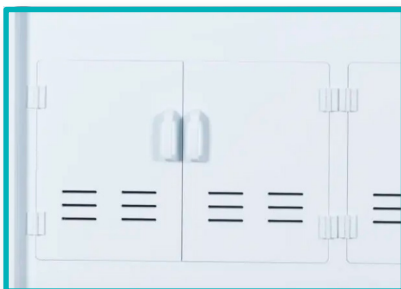
- Available in 7 (Standard/Essential model) or 9 (Pro model) inches
- Airflow velocity display
- Low airflow alarm display
- Fan control on/off
- Calibration settings
- Energy-efficient "Eco Mode"

## Variable Air Volume & Auto Sash



- Only available on the 9" Pro panel
- Air volume is controlled based on the cabinet's face velocity
- Comms with electronic dampers
- Configurable PID-controlled auto-closing sash
- BMS connection enabled

## Base Cabinets



- \*Polypropylene hinges
- Vented storage cabinets
- 90-minute cabinets
- Drawer units
- Height adjustable stand
- Custom / hybrid options \*

## Louvred Rear Baffle



- Improved performance through smoothing of inflow air



## Red Light Alarm System

- Real-time airflow monitoring
- Visual and audible alarm
- Programmable



## Weighted Sash

- Toughened glass
- \*Sash handle designed for optimum airflow
- Reinforced Polyester belt



## Custom Accessories

- Taps
- Sinks
- \*Power outlets
- Centrifugal fans



## Worksufaces

- Polypropylene
- Stainless steel
- Ceramic



## Polypropylene Carcass

- 100% corrosion resistant
- Sustainable
- Lightweight & durable

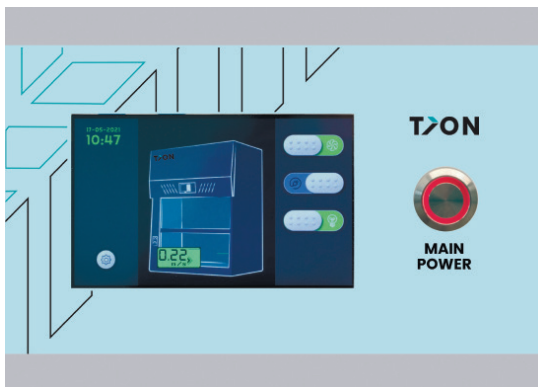




The TION control system and software are manufactured in-house, working as one centralised unit. This removes the breakdown potential between third-party systems and provides greater design flexibility.

Thanks to its touch-screen functionality and form factor, no buttons or manual switches are required.

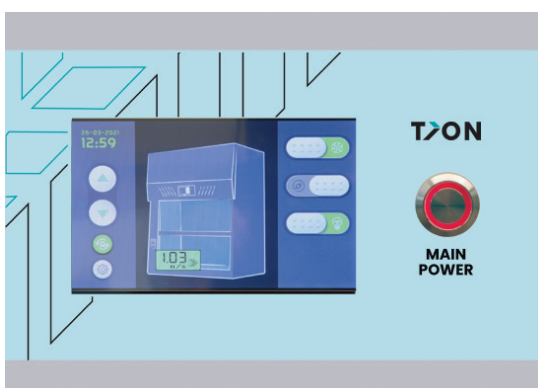
The control system is available in two types:



## Standard/Essential 7" Touch Screen Panel

The TION Standard and Essential ranges include a full colour, 7" touch-screen control panel that includes:

- Airflow velocity display
- Hour counter for filter
- Filter replacement & low airflow alarm
- Calibration settings



## Pro 9" Touch Screen Panel For VAV

The pro version comes with a 9" panel which provides all of the features of the 7" panel and also enables:

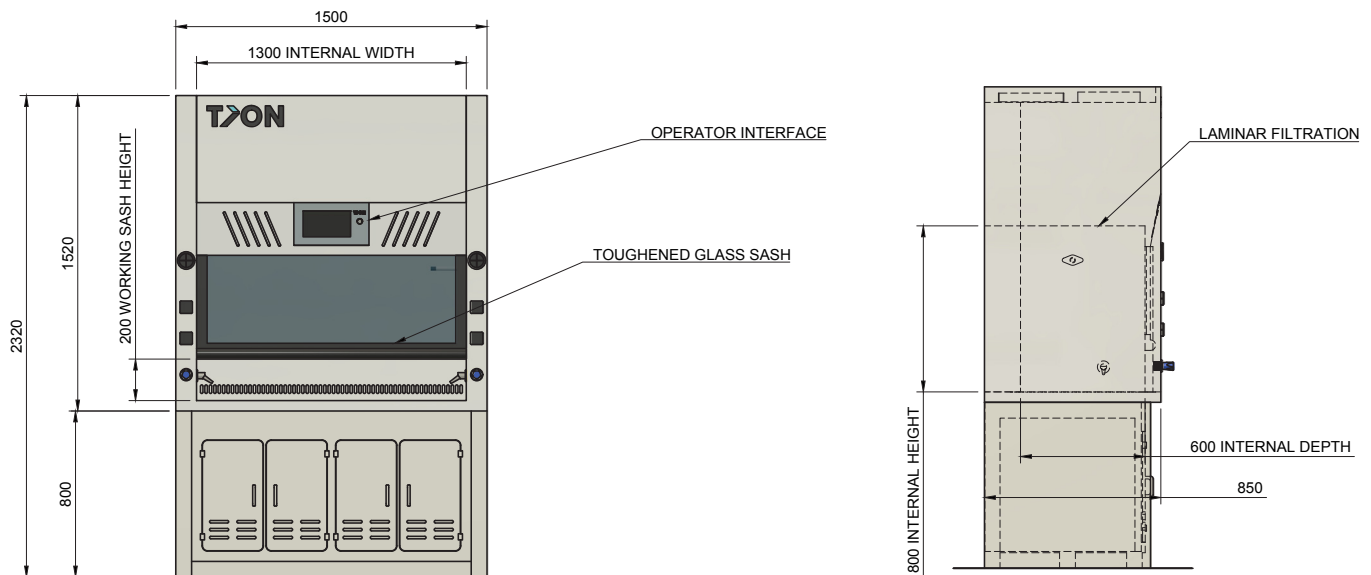
- VAV control
- Chemical sensor
- Temperature & humidity sensor

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## Laminar Flow Fume Cupboard Technical Data



### Design Data

Cabinet Material	Medical-Grade Welded Polypropylene
Work Surface Material	Medical-Grade Welded Polypropylene
Internal Lining Material	Medical-Grade Welded Polypropylene
Design Life	20 Years
Technology	Optional constant air velocity/variable air velocity

### Electrical Data

Master Supply	1Ph/13A/240V/50Hz
Slave Supply	As required
Power Outlets	4 x 1Ph/3A/240V/50Hz

### Safety Equipment

Fire Suppression	Optional Co2/powder
Emergency Stop	Optional external interlock

### Operational Data

Max Sash Height	600 mm (unless otherwise specified)
Sash Work Height	500 mm (unless otherwise specified)

**Disclaimer:** Technical Specifications may be subjected to further changes without notice.



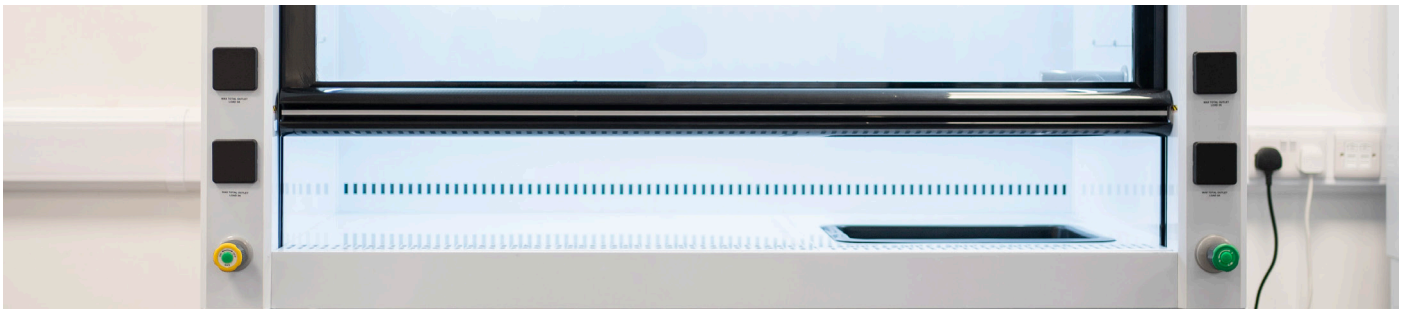
## Ducted Laminar Flow Fume Cupboards

Our ducted laminar flow fume cupboards connect to a roof mounted ventilation stack to exhaust fumes into the atmosphere.

Spec/Model	LAFFC1200-D	LAFFC1500-D	LAFFC1800-D	LAFFC2000-D	LAFFC2500-D
<b>Laminar Flow Fume Cupboard: Ducted</b>					
External Size WxDxH (mm)	1200 x 850 x 2320 mm 47.3 x 33.4 x 91.3"	1500 x 850 x 2320 mm 59.0 x 33.4 x 91.3"	1800 x 850 x 2320 mm 70.9 x 33.4 x 91.3"	2000 x 850 x 2320 mm 78.7 x 33.4 x 91.3"	2500 x 850 x 2320 mm 98.4 x 33.4 x 91.3"
Workspace: Rear Baffle To Aerofoil WxDxH (mm)	1000 x 600 x 800 mm 39.4 x 23.6 x 31.5"	1300 x 600 x 800 mm 51.2 x 23.6 x 31.5"	1600 x 600 x 800 mm 63 x 23.6 x 31.5"	1800 x 600 x 800 mm 70.8 x 23.6 x 31.5"	2300 x 600 x 800 mm 90.5 x 23.6 x 31.5"
Stand Dimensions WxDxH (mm)	1200 x 820 x 800 mm	1500 x 820 x 800 mm	1800 x 820 x 800 mm	2000 x 820 x 800 mm	2500 x 820 x 800 mm
Front Sash Max Opening (mm)	600 mm / 23.6"				
Front Sash Working Height (mm)	200 mm / 7.9"				
Certification	Class 100/ISO 5 - EN - 14175/ASHRAE 110-1995				
Air Velocity	0.5±0.1 m/s, 100±20 FPM				
Cabinet Material	Polypropylene				
Work Table Material	Ceramic/Polypropylene/Stainless Steel				
Control System	7" full-colour touch screen with air flow velocity, low airflow alarms, fan controls and calibration settings				
Optional Control System (Pro Model)	9" full-colour touch screen with VAV controls				
Power Supply Options	110/220V, 50/60 Hz, includes a single phase power supply. A three-phase power supply can be ordered				
Illumination	800 LUX eco-friendly LED lighting				
Customisation Options	Taps: (water, gas nitrogen, vacuum, others), sinks, sumps, shelves, multi-sash, partitions, glove apertures, dimensions, storage and height adjustable stands				

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## Ductless Laminar Flow Fume Cupboards

Our ductless laminar flow fume cupboards offer the same cleanbench functionality as a ducted model but feature integrated HEPA and carbon filters instead of connecting to an external extraction system.

Spec/Model	LAFFC1200-R	LAFFC1500-R	LAFFC1800-R	LAFFC2000-R	LAFFC2500-R
<b>Laminar Flow Fume Cupboard: Ductless</b>					
External Size WxDxH (mm)	1200 x 950 x 2420 mm 47.3 x 37.4 x 95.2"	1500 x 950 x 2420 mm 59.0 x 37.4 x 95.2"	1800 x 950 x 2420 mm 70.9 x 37.4 x 95.2"	2000 x 950 x 2420 mm 78.7 x 37.4 x 95.2"	2500 x 950 x 2420 mm 98.4 x 37.4 x 95.2"
Workspace: Rear Baffle To Aerofoil WxDxH (mm)	1000 x 600 x 700 mm 39.4 x 23.6 x 27.5"	1300 x 600 x 700 mm 51.2 x 23.6 x 27.5"	1600 x 600 x 700 mm 63 x 23.6 x 27.5"	1800 x 600 x 700 mm 70.8 x 23.6 x 27.5"	2300 x 600 x 700 mm 90.5 x 23.6 x 27.5"
Stand Dimensions WxDxH (mm)	1200 x 920 x 800 mm	1500 x 920 x 800 mm	1800 x 920 x 800 mm	2000 x 920 x 800 mm	2500 x 920 x 800 mm
Front Sash Max Opening (mm)	600 mm / 23.6"				
Front Sash Working Height (mm)	200 mm / 7.9"				
Certification	Class 100/ISO 5 - EN - 14175/ASHRAE 110-1995				
Air Velocity	0.5±0.1 m/s, 100±20 fpm				
Cabinet Material	Polypropylene				
Work Table Material	Polypropylene / Stainless steel				
Filter Types	HEPA pre filter with a carbon exhaust filter				
Control System	7" full-colour touch screen with air flow velocity, low airflow alarms, fan controls and calibration settings				
Optional Control System (Pro Model)	9" full-colour touch screen with VAV controls				
Power Supply Options	110/220V, 50/60 Hz, includes a single phase power supply. A three-phase power supply can be ordered				
Illumination	800 LUX eco-friendly LED lighting				
Customisation Options	Taps: (water, gas nitrogen, vacuum, others), sinks, sumps, shelves, multi-sash, partitions, glove apertures, dimensions, storage and height adjustable stands				

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## Discover

This includes an extensive breakdown of key project budgets, such as building specifications, processes, workflows, and the laboratory itself. We understand the importance of capturing project details early on to reduce the chance of price complications and extended timelines.



## Develop

During the development stage, you will collaborate and engage with core TION personnel and project stakeholders to develop a solution that's fit for purpose within your chosen space. Our aim is to alleviate any concerns or potential roadblocks and arrive at a final specification.



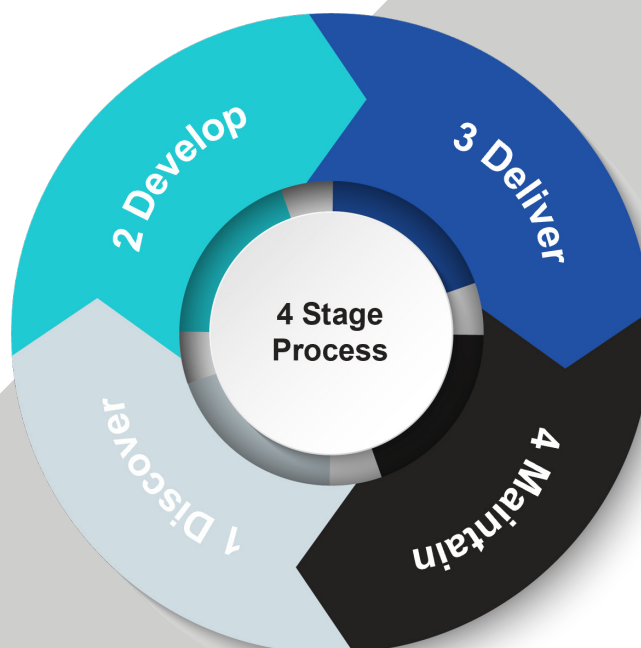
## Deliver

Deliver is where the rubber meets the road, and we transform your build space into a cutting-edge laboratory. Our delivery personnel will coordinate with your team to ensure that every step of the program is clear and delivered on time by working closely with on-site contractors.



## Maintain

Completing a project is really the first step. Ensuring reliability and consistency of communication following a project is paramount. Everything from asset registration, job logging, PPM (Planned preventative maintenance) is covered by our methodology.







Contact us today for more information  
Call us on +44 (0) 1223 790028  
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