

# Laminar Flow Cabinets

TION manufacture horizontal & vertical laminar flow cabinets in metal & polypropylene.



**Laminar Flow Cabinets create a secure and sterile working environment to protect sensitive laboratory processes using smooth, laminar flow air.**

Laminar flow cabinets (also referred to as cell culture hoods, tissue culture hoods, or laminar flow hoods) are self-contained laboratory enclosures equipped with HEPA or ULPA filters. Frequently used to work with semiconductor wafers, media preparation and particle-sensitive materials, these cabinets produce a stream of laminar flow air to shield workspace samples from contamination. In principle, laminar flow cabinets function similarly to Class II biosafety cabinets but do not provide operator protection.

## Key Benefits:

- Colour Touch-Screen
- ISO5 Standards
- Maximum Sample Protection
- Filter Replacement Alarm



### Energy-Efficient LED Lighting

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



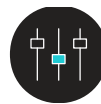
### Stainless Steel Worksurface

Easy-clean 304 stainless steel work surface comes equipped as standard with upgrade options to stainless steel 316.



### Germicidal UV Sterilisation

Our waterproof UV sterilisation light will cleanse your workspace in between tests, ensuring a clean, sterile environment.



### Height Adjustable Stand

Both benchtop and height adjustable stand-mounted cabinets are available with lockable casters for mobility.



### 10.1" Touch Screen Panel

Regulate your airflow controls and monitor cabinet safety with our cutting-edge 7" touch screen technology.



### Built-In HEPA Filtration

Built-in HEPA filtration removes 99.97% of all airborne particles >0.3 µm in size, creating ISO 5 cleanroom conditions.

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

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

## Particle Filtration



- HEPA filters
- Carbon filters
- ULPA filters

## Touch Screen Control Panel



- Available in 7 (Essential model) or 10.1 (Pro model) inches
- Airflow velocity display
- Low airflow alarm display
- Fan control on/off
- Calibration settings
- Energy-efficient "Eco Mode"
- Integrated Particle Monitoring

## UV Sterilisation Light



- EN 12469 certified
- Waterproof
- Programmable by time and date
- Safety Interlock mechanism prevents UV exposure

## Height Adjustable Stand



- Four tiers of height adjustment
- Reinforced steel screws
- \*Lockable, rubberised casters
- Vented storage available
- Hydraulic options available



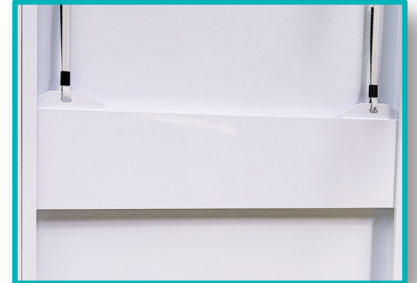
## Red Light Alarm

- Airflow monitoring
- Visual and audible
- Programmable



## Weighted Sash

- Toughened glass
- \*Easy grip handles
- Reinforced polyester belt



## Custom Accessories

- Taps
- Sinks
- \*Power outlets
- Internal shelving



## Worksurfaces

- Stainless steel
- Polypropylene
- Ceramic



## Polypropylene Carcass

- Easy cleaning
- Sustainable
- Lightweight & durable



At TION, we offer two laminar flow cabinet models: **Essential and Pro**.

The Essential models are equipped with 7-inch touch screens and manufactured using mild steel. The Pro models are built using 100% virgin medical-grade welded polypropylene and come equipped with a 10.1-inch full-colour display.

## Essential Laminar Flow Cabinet: Metal (Vertical & Horizontal)



## Pro Laminar Flow Cabinet: Polypropylene (Vertical & Horizontal)



Features	Essential Laminar Flow Cabinet	Pro Laminar Flow Cabinet
Control Panel	7-inch touch screen	10.1-inch touch screen
Customisable Design	✓	✓
Metal Stand	✓	✓
Benchtop Mounting Available	✓	✓
Optional Sash	✓	✓
Multiple Filter Options	✓	✓
Filter Timer	✓	✓
Low Airflow Alarm	✓	✓
Low Airflow Internal Warning Light	✓	✓
Variable Air Volume (VAV) Control	✓	✓
Red Light Alarm	✓	✓
Full Polypropylene Build	✗	✓

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## Modern Touch-Screen With Integrated Particle Monitoring System

TION Global's integrated Particle Monitoring System (IPMS) measures particle contamination in real time. The feed displays actionable data to the touch-screen control system, ensuring your workspace maintains ISO-5-level cleanliness. It's a cost-effective air quality control solution that eliminates the need for expensive 3rd party particle counters to be integrated.



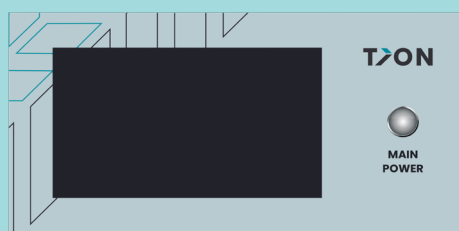
### Green Light Indicator

➤ The level of cleanliness is equal to or better than the ISO-5 requirement within the cabinets workspace.



### Red Light Indicator

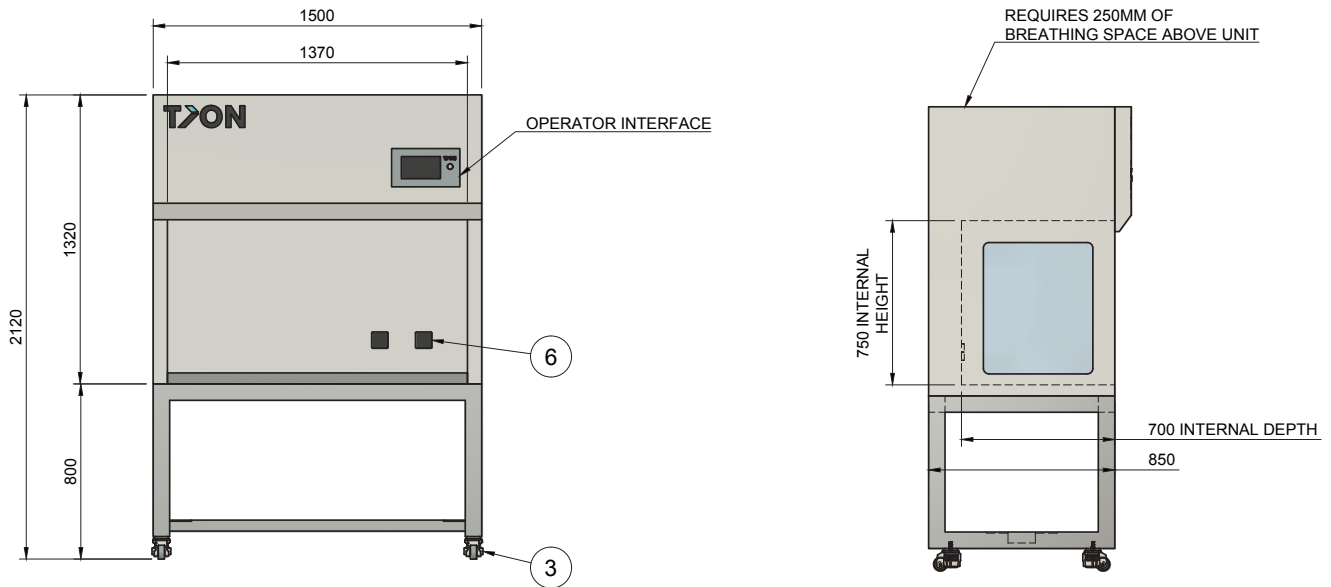
➤ The level of cleanliness is lower than the ISO-5 requirement within the cabinets workspace.



### Control Panel Functionality

➤ The control panel is equipped with low airflow alarms, filter alarms, electronic sash controls and red-light alarm notifications.

## Pro Laminar Flow Cabinet 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	Constant Air Volume (CAV)

### 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	610 mm (unless otherwise specified)
Sash Work Height	200 mm (unless otherwise specified)

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

## Pro Laminar Flow Cabinet: Vertical

Spec/Model	LAF900-VP	LAF1200-VP	LAF1500-VP	LAF1800-VP
<b>Pro Laminar Flow Cabinet: Vertical</b>				
External Size WxDxH (mm)	900 x 850 x 1320 mm 35.4 x 33.4 x 51.9"	1200 x 850 x 1320 mm 47.2 x 33.4 x 51.9"	1500 x 850 x 1320 mm 59 x 33.4 x 51.9"	1800 x 850 x 1320 mm 70.8 x 33.4 x 51.9"
Workspace WxDxH (mm)	770 x 700 x 750 mm 30.3 x 27.5 x 29.5"	1070 x 700 x 750 mm 42.1 x 27.5 x 29.5"	1370 x 700 x 750 mm 53.9 x 27.5 x 29.5"	1670 x 700 x 750 mm 65.7 x 27.5 x 29.5"
Noise Level	<52dB	<54dB	<56dB	<56dB
Stand Dimensions WxDxH (mm)	900 x 830 x 735 mm	1200 x 830 x 735 mm	1500 x 830 x 735 mm	1800 x 830 x 735 mm
Front Sash Max Opening (mm)	610 mm / 24"			
Front Opening Without Sash (mm)	650 mm / 25.6"			
Certification	Class-100 (FS 209E) ISO 5, ISO-14644-1			
Air Velocity	0.33 m/s, 66 FPM			
Cabinet Material	Welded white polypropylene			
Work Table Material	304 stainless steel			
Filter Types	1 x HEPA H14 filter with an efficiency of 99,9995% at 0.3 Microns (ULPA filters are also available)			
Control System	10.1" full-colour touch screen with low airflow alarms, filter change and service timers, red-light alarms, eco mode and an optional integrated particle monitoring system (IPMS)			
Power Supply Options	110 / 220V, 50/60 Hz, single phase			
Illumination	800 LUX, eco-friendly LED lighting			
UV Light	Waterproof, germicidal UV sterilisation light operating at 254nm			
Customisation Options	Taps: (water, gas, nitrogen, vacuum, others), sinks, sumps, shelves, sash, partitions, dimensions and height adjustable stands			

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## Pro Laminar Flow Cabinet: Horizontal

Spec/Model	LAF900-HP	LAF1200-HP	LAF1500-HP	LAF1800-HP
<b>Pro Laminar Flow Cabinet: Horizontal</b>				
External Size WxDxH (mm)	900 x 930 x 1320 mm 35.4 x 36.6 x 51.9"	1200 x 930 x 1320 mm 47.2" x 36.6 x 51.9"	1500 x 930 x 1320 mm 59 x 36.6 x 51.9"	1800 x 930 x 1320 mm 70.8 x 36.6 x 51.9"
Workspace WxDxH (mm)	770 x 620 x 600 mm 30.3 x 24.4 x 23.6"	1070 x 620 x 600 mm 42.1 x 24.4 x 23.6"	1370 x 620 x 600 mm 53.9 x 24.4 x 23.6"	1670 x 620 x 600 mm 65.7 x 24.4 x 23.6"
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Power Supply Options	110 / 220V, 50/60 Hz, single phase			
Illumination	800 LUX, eco-friendly LED lighting			
UV Light	Waterproof, germicidal UV sterilisation light operating at 254nm			
Customisation Options	Taps: (water, gas, nitrogen, vacuum, others), sinks, sumps, shelves, multi-sash, partitions, dimensions and height adjustable stands			



## Essential Laminar Flow Cabinet: Vertical

Spec/Model	LAF900-VE	LAF1200-VE	LAF1500-VE	LAF1800-VE
<b>Essential Laminar Flow Cabinet: Vertical</b>				
External Size WxDxH (mm)	900 x 850 x 1220 mm 35.4 x 33.4 x 48"	1200 x 850 x 1220 mm 47.2 x 33.4 x 48"	1500 x 850 x 1220 mm 59 x 33.4 x 48"	1800 x 850 x 1220 mm 70.8 x 33.4 x 48"
Workspace WxDxH (mm)	770 x 620 x 600 mm 30.3 x 24.4 x 23.6"	1070 x 620 x 600 mm 42.1 x 24.4 x 23.6"	1370 x 620 x 600 mm 53.9 x 24.4 x 23.6"	1670 x 620 x 600 mm 65.7 x 24.4 x 23.6"
Noise Level	52dB	54dB	56dB	56dB
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Front Sash Max Opening (mm)	610 mm / 24"			
Front Opening Without Sash (mm)	650 mm / 25.6"			
Certification	Class-100 (FS 209E) ISO 5, ISO-14644-1			
Air Velocity	0.33 m/s, 66 FPM			
Cabinet Material	Metal with epoxy-coated paint			
Work Table Material	304 stainless steel			
Filter Types	1 x HEPA H14 filter with an efficiency of 99,9995% at 0.3 Microns (ULPA filters are also available)			
Control System	7" full-colour touch screen with filter replacement alarm, hour counter and optional integrated particle monitoring system (IPMS)			
Power Supply Options	110 / 220V, 50/60 Hz, single phase			
Illumination	800 LUX LED lighting			
UV Light	Waterproof, germicidal UV sterilisation light operating at 254nm			
Customisation Options	Taps: (water, gas, nitrogen, vacuum, others), sinks, sumps, shelves, multi-sash, partitions, dimensions and height adjustable stands			

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## Essential Laminar Flow Cabinet: Horizontal

Spec/Model	LAF900-HE	LAF1200-HE	LAF1500-HE	LAF1800-HE
<b>Essential Laminar Flow Cabinet: Horizontal</b>				
External Size WxDxH (mm)	900 x 930 x 1220 mm 35.4 x 36.6 x 48"	1200 x 930 x 1220 mm 47.2 x 36.6 x 48"	1500 x 930 x 1220 mm 59 x 36.6 x 48"	1800 x 930 x 1220 mm 70.8 x 36.6 x 48"
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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.



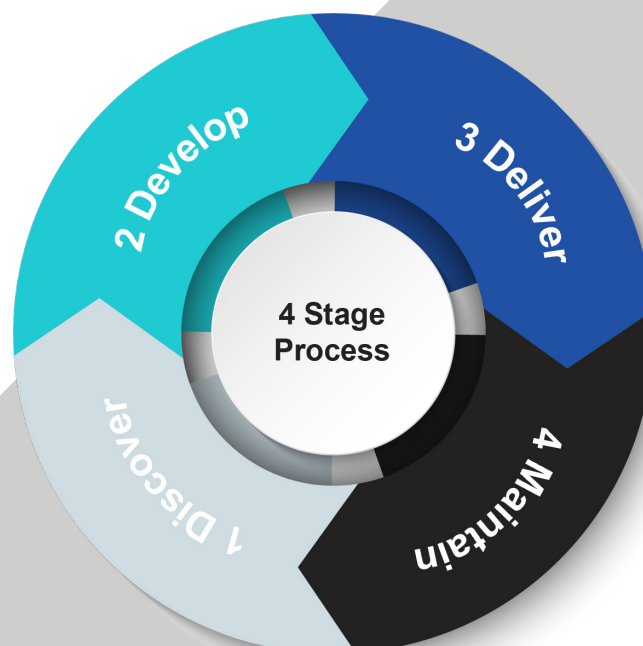
## Deliver

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, and PPM (Planned preventative maintenance) is covered by our methodology.





Contact us today for more information  
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