

Ductless Fume Cupboards

A self-contained fume extraction solution, built for small-scale applications.



Ductless fume cupboards are a mobile, cost-effective alternative to a conventional ducted system.

They filter contaminated air through pre-installed HEPA, Carbon or ULPA filters inside the cabinet. These filters remove harmful gases, vapours and particulates from the airstream before recirculating air back into the room. Hence the term recirculating fume cupboard.

These products have become increasingly popular due to their quick installation time and lower investment costs. They also require less energy to operate. However, filters do need replacing regularly to maintain safety and compliance.

Key Benefits:

- Polypropylene Construction
- EN 14175 Certified
- Customisable Dimensions
- Multiple Filter Options



Energy-Efficient LED Lighting

Reduce your energy consumption with a long-lasting LED light - 800 LUX.



Red Light Alarm System

Our complete safety solution includes a state-of-the-art red light alarm system to monitor your cabinet's internal airflow.



Safe & Compliant

Our cupboards are built to comply with BS EN 14175 and also to ASHRAE 110 - 1995.



100% Polypropylene Carcass

No corrosion, ever. Allows for ultimate flexibility in the design process.



Worksurface Materials

Whatever the material, TION can supply it. Our worksurface options include polypropylene, stainless steel, ceramic, and epoxy.



Intuitive User Interface

Regulate your airflow controls and monitor cabinet safety with our cutting-edge 9" touch-screen technology.

Call now on **+44 (0) 1223 790028** to place your order or email **support@tion.co.uk**

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

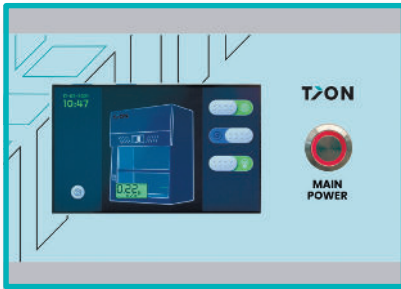
TION's ductless fume cupboards are mobile systems prioritising technology and ergonomics. If your cabinet requires specific materials or functionality that is not listed below, contact our solution design team on 01223 790028.

Particle Filtration



- HEPA filters
- Carbon filters
- ULPA filters

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



- Only available on the 9" Pro panel
- Air volume is controlled based on the cabinet's face velocity
- Variable fan speeds
- Chemical / humidity sensor
- 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
- *Easy grip handles
- Reinforced polyester belt



Custom Accessories

- Sinks
- Gas taps
- *Power outlets
- Centrifugal fans



Worksufaces

- Polypropylene
- Stainless steel
- Ceramic
- Epoxy
- Trespa



Polypropylene Carcass

- 100% corrosion resistant
- Sustainable
- Lightweight & durable



At TION, we manufacture our products using 100% medical-grade, welded polypropylene to eliminate corrosion and increase the flexibility of our design process. Every cabinet is fully customisable, this includes the filters, gas taps, sash type and dimensions. Contact our team today for a no-obligation free quote. We currently have three models available:



Features	Economy	Essentials	Standard / Pro
Control Panel	No touch screen	7-inch touch screen	7/9-inch touch screen
Customisable Design	✓	✓	✓
Full Polypropylene Build	✓	✓	✓
Multiple Filter Options	✓	✓	✓
Benchtop Mounting Available	✓	✓	✓
Sliding Sash	✓	✓	✓
Metal or Vented Storage	✗	✓	✓
Low Airflow Alarm	✗	✓	✓
Filter Replacement Alarm	✗	✓	✓
Variable Air Volume (VAV) Control	✗	✗	✗ / ✓
Chemical Sensor Alarm	✗	✗	✗ / ✓
Temperature & Humidity Sensor	✗	✗	✗ / ✓

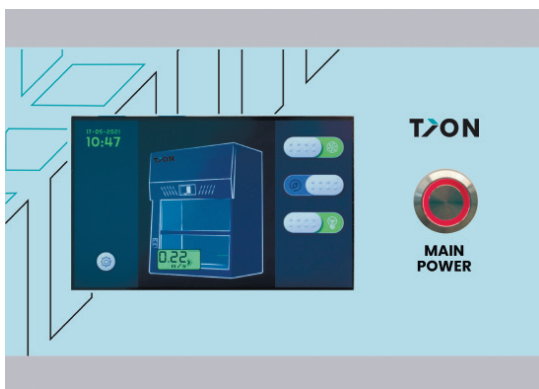
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The TION control system and software are manufactured in-house, working as one centralised unit. This removes the breakdown potential between third-party systems and provides greater design flexibility.

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

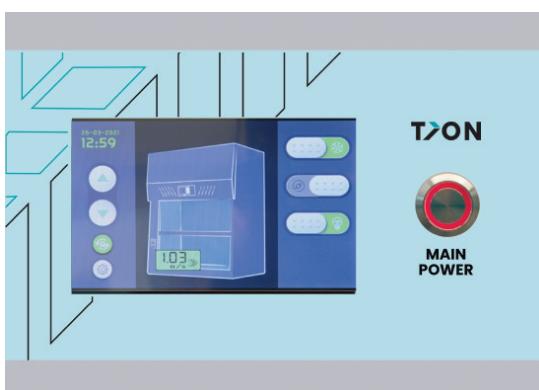
The control system is available in two types:



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



Red Light Alarm System

The TION control system incorporates a red-light airflow alarm, alerting the user to a potential airflow fault or obstruction inside the cabinet.

This system is particularly effective in noisy environments or large facilities where visual fault recognition is a priority. When alerting, the cabinet will glow red until the issue is resolved.



VAV Technology

VAV, or Variable Air Volume, is a smart energy conservation system designed to mitigate excessive energy usage and costs. It achieves this by limiting airflow according to the cabinet's sash height. If the sash is closed, airflow stops, consuming less electricity by reducing external fan speeds.

When used in conjunction with our auto-sash solution our clients can save up to 80% on their energy costs.

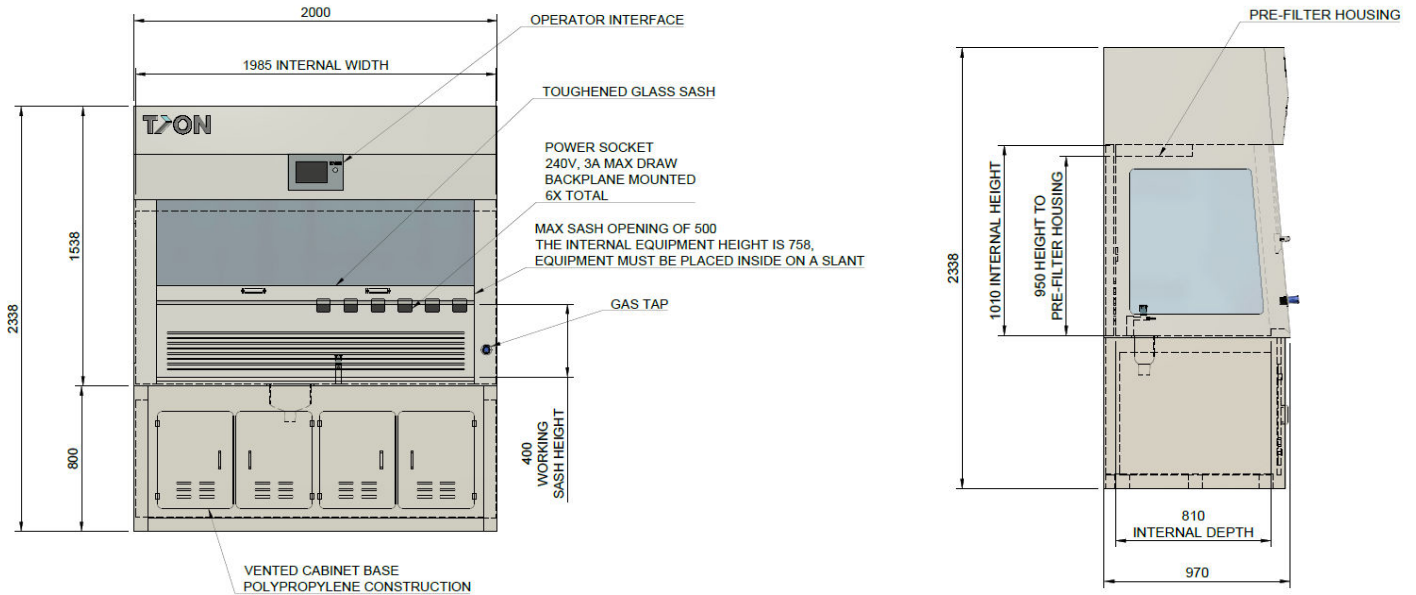


100% Polypropylene Carcass

No corrosion, ever. Enables ultimate flexibility in the design process, providing our clients with limitless customisation options.

The preferred fume cupboard material of choice, medical-grade welded polypropylene, offers increased chemical resistance and durability. It's a lightweight material with a high tensile strength that's able to support up to 4800psi.

Ductless 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	495 mm (unless otherwise specified)
Sash Work Height	400 mm (unless otherwise specified)

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

Spec/Model	DFC600-P	DFC900-P	DFC1200-P	DFC1500-P	DFC1800-P
Ductless Fume Cupboard: Standard & Pro					
External Size WxDxH (mm)	600 x 750 x 1223 mm 23.62 x 29.5 x 48"	900 x 750 x 1223 mm 35.4 x 29.5 x 48"	1200 x 750 x 1223 mm, 47.24 x 29.5 x 48"	1500 x 750 x 1223 mm, 59 x 29.5 x 48"	1800 x 750 x 1223 mm, 70.8 x 29.5 x 48"
External Size For XL Model With 2 Internal Filters WxDxH (mm)	600 x 750 x 1500 mm, 23.62 x 29.5 x 59"	900 x 750 x 1500 mm, 35.4 x 29.5 x 59"	1200 x 750 x 1500 mm, 47.24 x 29.5 x 59"	1500 x 750 x 1500 mm, 59 x 29.5 x 59"	1800 x 750 x 1500 mm, 70.8 x 29.5 x 59"
Workspace: Top Of Pre-Filter Housing To Work Surface WxDxH (mm)	585 x 590 x 670 mm, 23 x 23.2 x 26.3"	885 x 590 x 670 mm, 34.8 x 23.2 x 26.3"	1185 x 590 x 670 mm, 46.6 x 23.2 x 26.3"	1485 x 590 x 670 mm, 58.4 x 23.2 x 26.3"	1785 x 590 x 670 mm, 70.2 x 23.2 x 26.3"
Workspace: Bottom Of Pre-Filter Housing To Work Surface WxDxH (mm)	585 x 590 x 646 mm, 23 x 23.2 x 25.4"	885 x 590 x 646 mm, 34.8 x 23.2 x 25.4"	1185 x 590 x 646 mm, 46.6 x 23.2 x 25.4"	1485 x 590 x 646 mm, 58.4 x 23.2 x 25.4"	1785 x 590 x 646 mm, 70.2 x 23.2 x 25.4"
Noise Level	<52dB	<52dB	<54dB	<60dB	<62dB
Stand Dimensions WxDxH (mm)	600 x 720 x 800 mm	900 x 720 x 800 mm	1200 x 720 x 800 mm	1500 x 720 x 800 mm	1800 x 720 x 800 mm
Front Sash Max Opening (mm)	495 mm / 19.5"				
Front Sash Working Height (mm)	400 mm / 15.7"				
Certification	EN-14175 / CE / ASHRAE 110-1995				
Air Velocity	0.5±0.1 m/s, 100±20 FPM				
Cabinet Material	Welded white polypropylene structure with built-in sealed polypropylene worktop.				
Work Table Material	HPL/Ceramic/Epoxy/Polypropylene/Stainless Steel				
Filter Types	Carbon filters for solvents, acids, bases, formaldehyde, multi gas or HEPA and ULPA filters. HEPA and ULPA can also be used along with carbon filters for fume and particulate extraction				
Control System	7" full-colour touch screen with active airflow monitoring (low airflow alarms), a red-light alarm system (audio & visual), 10 speed VAV control, filter change timer and service timer				
Optional Control System (Pro Model)	9" full-colour touch screen with auto 10 speed VAV control, a chemical alarm and a temperature/humidity sensor				
Power Supply Options	110 / 220V 50/60 Hz, single phase				
Illumination	800 LUX, eco-friendly LED lighting				
Customisation Options	Taps: (water, gas nitrogen, vacuum, others), sinks, sumps, shelves, multi-sash, partitions, glove apertures, dimensions				

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Essential Ductless Fume Cupboards

The Essential range is a compact alternative to our standard ductless units. While the screen sizes and functionality are the same, it lacks the depth needed to hold substantial testing equipment.

Spec/Model	DFC750-E	DFC900-E	DFC1200-E
Ductless Fume Cupboard: Essentials			
External Size WxDxH (mm)	750 x 580 x 1050 mm 29.5 x 22.8 x 41.3"	900 x 580 x 1050 mm 35.4 x 22.8 x 41.3"	1200 x 580 x 1050 mm 47.2 x 22.8 x 41.3"
Workspace WxDxH (mm)	730 x 450 x 550 mm 28.7 x 17.7 x 21.6"	880 x 450 x 550 mm 34.6 x 17.7 x 21.6"	1180 x 450 x 550 mm 46.4 x 17.7 x 21.6"
Noise Level	<52dB	<55dB	<57dB
Stand Dimensions WxDxH (mm)	750 x 550 x 800	900 x 550 x 800	1200 x 550 x 800
Front Sash Max Opening (mm)	500 mm / 19.7"		
Front Sash Working Height (mm)	350 mm / 13.8"		
Certification	EN-14175 / CE / ASHRAE 110-1995		
Air Velocity	0.5±0.1 m/s, 100±20 FPM		
Cabinet Material	Welded white polypropylene structure with built-in sealed polypropylene worktop		
Work Table Material	White polypropylene		
Filter Types	Carbon filters for solvents, acids, bases, formaldehyde, multi gas (blend of materials) /HEPA/ULPA		
Control System	7" full-colour touch screen with Airflow alarm, 10-speed Fan control, filter timer, service timer and lighting controls		
Power Supply Options	110 / 220V, 50/60 Hz, single phase		
Illumination	800 LUX eco-friendly LED lighting		
Customisation Options	Taps: (water, gas nitrogen, vacuum, others), sinks, sumps, shelves, multi-sash, partitions, glove apertures, dimensions		

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Economy Ductless Fume Cupboards

The Economy range is a basic ductless model designed for small-scale experiments in educational environments. The cabinet does not feature a touch-screen control system or stand (bench-mounted).

Spec/Model	DFC750-EC	DFC900-EC	DFC1200-EC
Ductless Fume Cupboard: Economy			
External Size WxDxH (mm)	750 x 520 x 840 mm 29.5 x 20.4 x 33"	900 x 520 x 840 mm 35.4 x 20.4 x 33"	1200 x 520 x 840 mm 47.2 x 20.4 x 33"
Workspace WxDxH (mm)	735 x 400 x 450 mm 28.9 x 15.7 x 17.7"	885 x 400 x 450 mm 34.8 x 15.7 x 17.7"	1185 x 400 x 450 mm 46.6 x 15.7 x 17.7"
Noise Level	<60dB	<60dB	<60dB
Stand Dimensions WxDxH (mm)	Bench mounted only		
Front Sash Max Opening (mm)	450 mm / 17.7"		
Front Sash Working Height (mm)	200 mm / 7.8"		
Certification	EN-14175 / CE / ASHRAE 110-1995		
Air Velocity	0.5±0.1 m/s, 100±20 FPM		
Cabinet Material	Welded white polypropylene structure with built-in sealed polypropylene worktop		
Work Table Material	White polypropylene		
Filter Types	Carbon filters for solvents, acids, bases, formaldehyde, multi gas (blend of materials) /HEPA/ ULPA		
Control System	Analogue control system with fan adjustment, light and power buttons		
Power Supply Options	110 / 220V, 50/60 Hz, single phase		
Illumination	800 LUX eco-friendly LED lighting		
Customisation Options	Taps: (water, gas nitrogen, vacuum, others), sinks, sumps, shelves, multi-sash, partitions, glove apertures, dimensions		

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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.



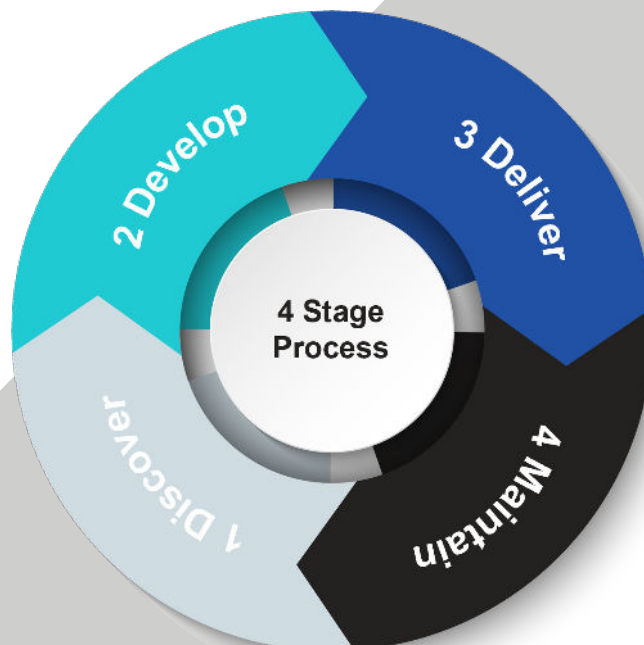
Deliver

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.





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