TION

INNOVATION IN ACTION

Ducted Fume Cupboards

A corrosion-proof fume extraction solution designed for chemical intensive applications.

Eliminate corrosion and maximise product longevity with TION's range of medical-grade, welded polypropylene fume cupboards. Purpose-built for acid-based processes.

Developed for a complex range of research, educational, pharmaceutical and military applications, ducted fume cabinets capture hazardous aerosols and vapours generated during the scientific process. This technology enables businesses to conduct chemical experiments without exposing personnel to toxic fumes, exhausting air directly into the atmosphere.

Key Benefits:

➤ Polypropylene Construction

➤ EN 14175 Certified.

➤ Customisable Dimensions

➤ DW154 Certified Ductwork

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

Worksurface Materials
We offer a wide variety of work surface materials, including 304 stainless steel, to suit the needs of your applications.

Red-Light Alarm System
The touch-screen control system features a programmable red-light alarm system to monitor the cabinet's internal airflow.

100% Polypropylene Carcass
No corrosion, ever. Enables ultimate flexibility in the design process, providing our clients with limitless customisation.

9-Inch Touch-Screen
The intuitive 9-inch control system features eco-friendly night setback mode, airflow controls and calibration.
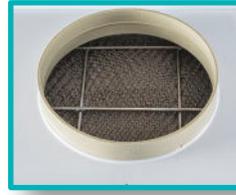
Vented Storage Cabinets
Suitable for holding chemical substances and materials, can be customised with drawers and knee spaces.

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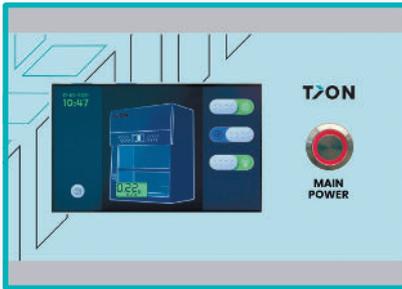
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TION's ducted fume cupboards are customisable systems prioritising technology and ergonomics. If your cabinet requires specific materials or functionality that is not listed below, contact our solution design team on 01223 790028.

Duct Connection

- Fishtail outlet
- 250mm or 315mm size

Touch Screen Control Panel

- Available in 7 (Standard 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

- *Vented Storage
- 90-minute cabinets
- Drawer units
- Height adjustable stand
- Custom / hybrid options

Aerofoil

- Improved performance through smoothing of inflow air

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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
- Epoxy
- Trespa

Polypropylene Carcass

- 100% corrosion resistant
- Sustainable
- Lightweight & durable

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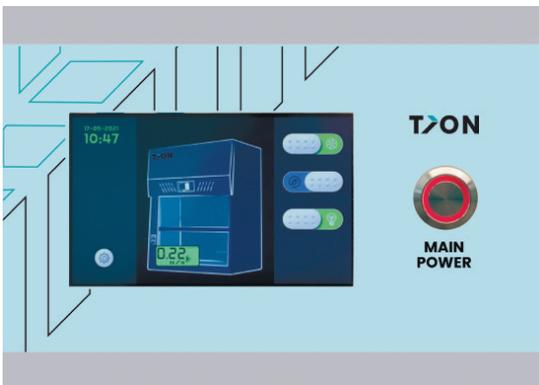
Thanks to its touch-screen functionality and form factor, no buttons or manual switches are required.

The control system is available in two types:

Standard 7" Touch Screen Panel

As standard, the TION non-VAV cabinets include a 7" touch-screen control panel that includes:
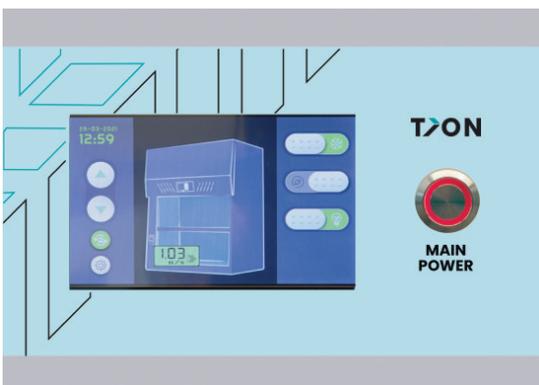
➤ Airflow velocity display

➤ Low airflow alarm display

➤ Fan control on/off

➤ Calibration settings

Pro 9" Touch Screen Panel

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

➤ VAV control

➤ Electronic auto sash (when fitted)

➤ Upgradable software system

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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.

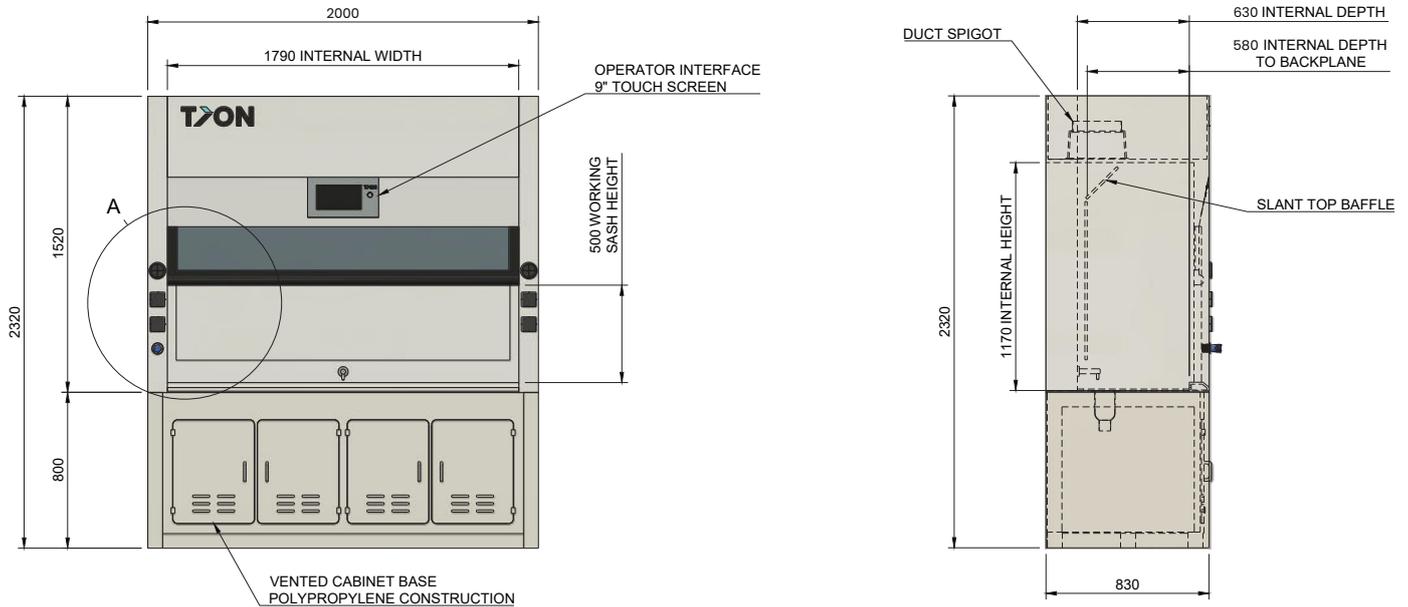When used in conjunction with our auto-sash solution our clients can save up to 80% on their energy costs.

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.

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Ducted Fume Cupboard Technical Data

Front view labels:
- 2000
- 1790 INTERNAL WIDTH
- OPERATOR INTERFACE 9" TOUCH SCREEN
- 1520
- 2320
- 800
- A
- 500 WORKING SASH HEIGHT
- VENTED CABINET BASE POLYPROPYLENE CONSTRUCTION

Side view labels:
- DUCT SPIGOT
- 630 INTERNAL DEPTH
- 580 INTERNAL DEPTH TO BACKPLANE
- SLANT TOP BAFFLE
- 2320
- 1170 INTERNAL HEIGHT
- 830

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	720 mm (unless otherwise specified)
Sash Work Height	500 mm (unless otherwise specified)

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

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Standard & Pro Ducted Fume Cupboards

Our ducted products use DW154-certified ductwork with energy-efficient VAV technology (optional). We also offer delivery, installation & commissioning services to ensure your cabinets are fully operational.

Spec/Model	PPFC120	PPFC150	PPFC180	PPFC2000	PPFC2500
Ducted Fume Cupboard: Standard & Pro					
External Size WxDxH (mm)	1200 x 830 x 2320 mm 47.3x 32.6 x 91.3"	1500 x 830 x 2320 mm 59.0 x 32.6 x 91.3"	1800 x 830 x 2320 mm 70.8 x 32.6 x 91.3"	2000 x 830 x 2320 mm 78.7 x 32.6 x 91.3"	2500 x 830 x 2320 mm 98.4 x 32.6 x 91.3"
Workspace: Rear Baffle To Aerofoil WxDxH (mm)	1000 x 580 x 1170 mm 39.4 x 22.8 x 46"	1300 x 580 x 1170 mm 51 x 22.8 x 46"	1600 x 580 x 1170 mm 63 x 22.8 x 46"	1800 x 580 x 1170 mm 70.8 x 22.8 x 46"	2300 x 580 x 1170 mm 90.5 x 22.8 x 46"
Stand Dimensions WxDxH (mm)	1200 x 800 x 800 mm	1500 x 800 x 800 mm	1800 x 800 x 800 mm	2000 x 800 x 800 mm	2500 x 800 x 800 mm
Front Sash Max Opening (mm)	720 mm / 28.3"				
Front Sash Working Height (mm)	500 mm / 19.6"				
Certification	EN - 14175/ASHRAE 110-1995				
Air Velocity	0.5±0.1 m/s, 100±20 FPM				
Cabinet Material	White polypropylene				
Work Table Material	HPL/Ceramic/Epoxy/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				

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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.
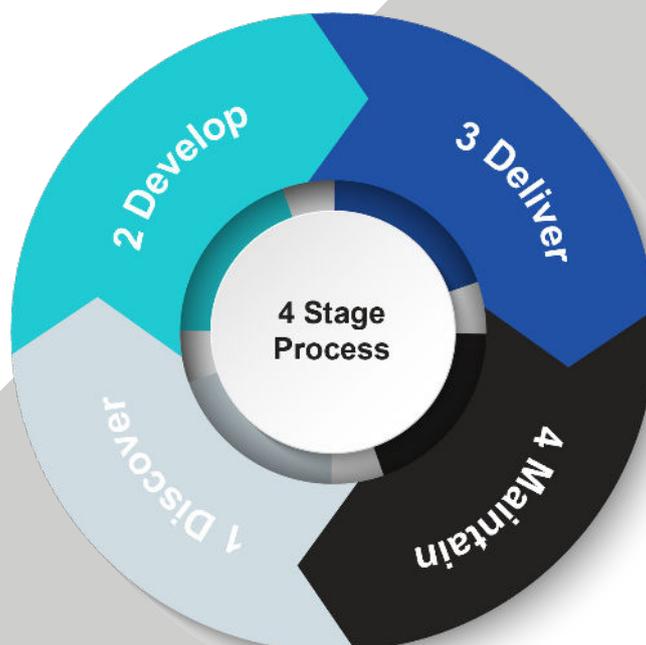
Deliver

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.

4 Stage Process

1 Discover
2 Develop
3 Deliver
4 Maintain

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