

# Wash-Down Fume Cupboards

Specifically Designed To Prevent Perchlorate Salt Formation.



TION's wash-down fume cupboard range is a ducted, high-capacity product designed to eliminate perchloric salt formation. The unit is equipped with a 9" touch-screen control system and airflow alarms to maintain your staff's safety no matter the circumstance.

Our wash-down fume cabinets are fixed fume extraction systems fitted with angular walls and bespoke water spray nozzles. These nozzles disperse chemical residues throughout the cabinet's interior and duct connections, eliminating the chance of explosive perchloric salt formation inside your laboratory. It's a failsafe solution that leverages the latest innovations in safety, technology, and design.

# **Key Benefits:**

- Corrosion-Proof Build
- BS EN 14175 Certified
- Customisable Dimensions
- Full Installation & Commissioning



# **Integrated Water Sprinklers**

H20 rinses the cabinet's rear baffle plate, backspace, and duct connections to prevent residue build-up.



#### **Worksurface Materials**

We offer polypropylene, stainless steel, ceramic and epoxy worksurface materials.



#### **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

Our units feature a control system with integrated airflow monitoring, calibration settings, alarms and fan controls.



#### **Angular Rear Wall**

Ensures a smooth and consistent downward flow of water, capturing perchloric vapours behind the cabinet's rear baffle plate.



TION's wash-down 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.

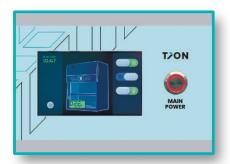
#### **Duct Connection**



- Fishtail outlet
- 250mm or 315mm size

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#### **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**

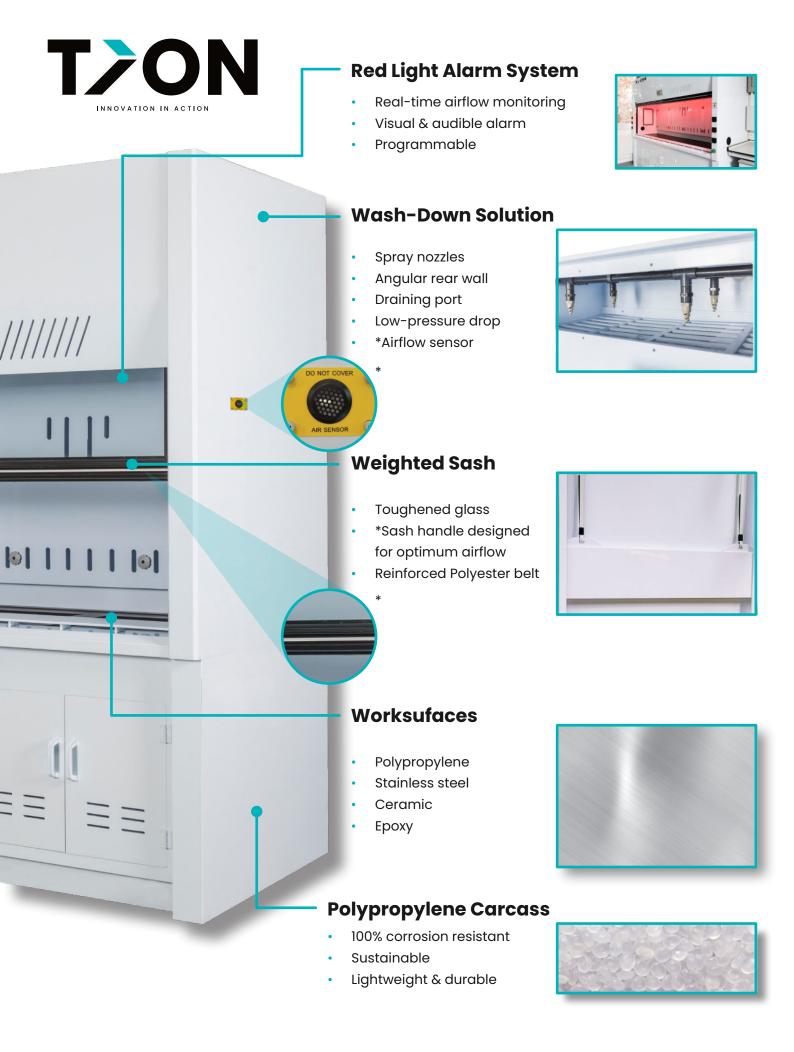


- \* Vented Storage
- 90-minute cabinets
- Drawer units
- · Height adjustable stand
- Custom / hybrid options

#### **Aerofoil**



Improved performance through smoothing of inflow air







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.

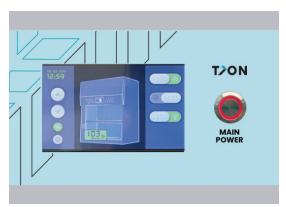
The control system is available in two types:



#### 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







#### **Red Light Alarm System**

The TION control system incorporates a programmable red-light airflow alarm, which alerts 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 & 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.



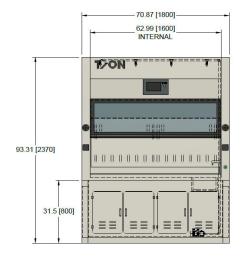
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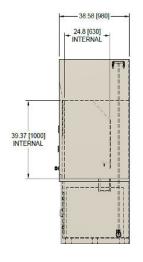
The preferred fume cupboard material of choice, medical-grade welded polypropylene, offers increased chemical resistance and durability. It's a lightweight material with a high tensile strength that's able to support up to 4800psi.



# Wash-Down 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	720mm (unless otherwise specified)					
Sash Work Height	500mm (unless otherwise specified)					

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





# **Wash-Down Fume Cupboards**

Our wash-down 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	PPFC1200 -WD	PPFC1500-WD	PPFC1800-WD	PPFC2000-WD	PPFC2500-WD		
Wash-Down Fume Cupboard: Standard & Pro							
External Size WxDxH (mm)	1200 x 980 x 2370 mm 47.3 x 38.6 x 93.3"	1500 x 980 x 2370 mm 59 x 38.6 x 93.3"	1800 x 980 x 2370 mm 70.9 x 38.6 x 93.3"	2000 x 980 x 2370 mm 78.7 x 38.6 x 93.3"	2500 x 980 x 2370 mm 98.4 x 38.6 x 93.3"		
Workspace: Rear Baffle Plate To Aerofoil WxDxH (mm)	1000 x 580 x 1000 mm 39.4 x 22.8 x 39.4"	1300 x 580 x 1000 mm 51.2 x 22.8 x 39.4"	1600 x 580 x 1000 mm 63 x 22.8 x 39.4"	1800 x 580 x 1000 mm 70.8 x 22.8 x 39.4"	2300 x 580 x 1000 mm 90.5 x 22.8 x 39.4"		
Stand Dimensions WxDxH (mm)	1200 x 950 x 800 mm	1500 x 950 x 800 mm	1800 x 950 x 800 mm	2000 x 950 x 800 mm	2500 x 950 x 800 mm		
Front Sash Max Opening (mm)	720 mm / 28.3"						
Front Sash Working Height (mm)	500 mm						
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" colour touch-screen with air velocity, low airflow alarms, fan control, calibration settings and energy-efficient eco mode						
Optional Control System (Pro Model)	9" full-colour touch screen with dynamic VAV controls						
Power Supply Options	110/220V, 50/60 Hz, includes a single-phase power supply. A three-phase power supply can be specially 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						





#### **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.

