



## ECONOFLOW FUME CUPBOARD SPECIFICATIONS



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## ECONOFLOW FUME CUBOARD SPECIFICATION



### A TYPICAL SPECIFICATION

Fume cupboards shall be Conditionaire Econoflow bench-mounted type and shall comply with the following Australian/New Zealand Standards, as listed below:

- AS/NZ2243.8, Safety in laboratories (fume cupboards)
- AS/NZ2430.3, Classification of hazardous areas
- AS/NZ1530.3, Methods for fire testing building materials, combustibility test for materials
- AS/NZ3000 Electrical Installation (wiring rules)
- AS/NZ2208 Safety glazing material

The Econoflow fume cupboard contained in the specification must have all the outstanding features listed below.

#### Dimensions

- This fume cupboard shall have the following external dimensions, as listed below:
- 900mm (Single sided or Double sided)
- 1200mm (Single sided or Double sided)
- 1500mm (Single sided or Double sided)
- 1800mm
- 2000mm

#### Fume cupboard Construction

The fume cupboard chamber shall be constructed of White uPVC material with all internal smooth radiuses corners.

#### Back Baffle

The back baffle will be a two piece configuration and will be laboratory grade & chemical resistant HPL material; this back baffle system will remove fumes that are heavier than air. The back baffle shall be non-adjustable and easily removed for cleaning.



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### Fume cupboard Base- Standard

The working base of the fume cupboard shall be a chemical resistant laboratory grade H.P.L (High Pressure Laminate) in a white finish and will form an integral part of the fume cupboard body with a smooth finish, and be crevice free with no sharp corners. The front section of the fume cupboard base, shall have an aerodynamic anti spill lip.

### Fume cupboard Base- Optional

The working base of the fume cupboard shall be a chemical resistant laboratory grade TRESPA Top Lab Plus in a matte black finish and will form an integral part of the fume cupboard body with a smooth finish, and be crevice free with no sharp corners. The front section of the fume cupboard base, shall have an aerodynamic anti spill lip.

### Chamber Materials

This material offered, must be White uPVC and comply when tested to AS1530.3

### Aerodynamic Front Facia

The fume cupboard front facia shall be manufactured from uPVC: this front facia design shall be aerodynamically shaped to avoided turbulence and will be removable.

### Front Sliding Sash

This fume cupboard shall be provided with 6mm toughened sliding glass sash, which will be independently balanced and supported by a stainless steel cable, running on ball bearing plastic pulleys.

The front handle shall be the full width of the fume cupboard sash and be aerodynamic design.

### Fume cupboard lighting

The fume cupboard shall be complete with LED lighting and must illuminate the fume cupboard work area by a minimum of 400 LUX. These LEDs must be outside the air stream and will be sealed by a 6mm toughened glass and will be recess to the roof of the fume cupboard chamber.



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### Remote Control Services, Sinks and Power Points

This fume cupboard shall be supplied with the following services

Broen shall be mounted on the front facia of the under bench or open frame. The remote control valve shall be easily removable at all times for access to the 316# Stainless steel braided hose and fittings. The outlet will be side wall mounted to achieve the maximum working area

- Cold Water
- Hot Water
- Natural GAS complete with solenoid valve
- RCD protected double 10 amp power points with neons
- Polypropylene drip cup: 150 diam
- uPVC Sink: 300 x 300 x 200 (WLD)
- Polypropylene sink: 300 x 300 x 200 (WLD)
- 316 stainless steel sink: 300 x 300 x 200 (WLD)
- (Client to nominate service required)

### Fume cupboard control panel

The V5 control panel shall be state of the art system and must exceed and perform all the functions as nominated in the following standards AS/NZS 2243.8, AS/ANZ 3000 and AS/ANZ 2430.3.6.

### The Safe Tee control panel shall be complete with the following functions:

- Crystal screen
- Back light
- Push button display
- Light function
- Real time and date
- 60second counts down display (pre-purge)
- 20 minute count down display (post-purge)
- IVAC infinitely variable airflow function (Optional)
- Emergency isolator and remote emergency isolator
- Boost Function

### Infinitely variable air control system (IVAC)- If required



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The fume cupboards shall be supplied and fitted with the (IVAC) energy saving control system.

This system shall be infinitely variable in relation to the fume cupboard sash position; this system will be capable of comparing the fume cupboard face velocity to achieve the recommendation of 5 air changes per minute along with the average face velocity of not less than 0.5 m/s, when measured in accordance with appendix B.

The IVAC system shall also have the function to identify any airflow faulty at any sash position, this will allow the extraction fan to ramp up to maximum speed this function will also be available if the emergency push button is activated or the control panel boost function is also activated.

This IVAC system will achieve savings by infinitely varying the extraction fan speed in relation to the fume cupboard sash position, therefore reducing the air quantity, whilst maintaining a constant face velocity

**Please note: Two speed motors or limit switches will not be allowed**

### Centrifugal Chemical extraction fan

The exhaust fan used shall be a; centrifugal chemical extraction fan, single inlet, direct driven, constructed from uPVC material and with at least 20% reserve airflow capacity.

Complete with the following items:

- Polypropylene forward curve fully balanced impeller
- 4 pole, 3 phase, 415 volt **(IP55)** electric motor (outside the air stream)
- Weatherproof motor cover
- Weatherproof isolation switch **(IP66)**
- 25mm drain point located at the bottom of the fan scroll





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### **Support Open Frame- Option #1**

The Support open frame, which is designed to house the Conditionaire Econoflow fume cupboard, shall be manufactured in of 40 x 40 RHS Mild steel constructions and complete with front fascia panel and will be finished in White polyurethane and will be complete with adjustable feet.

### **Under Bench Support- Option #2**

The Support Under bench, which is designed to house the Conditionaire Econoflow fume cupboard, shall be of MDF construction and complete with hinged doors and front fascia panel and will be finished in White laminate.

**Please Note: For further information or technical data please call our Head office**