Ultra Safe

Class II Biological Safety Cabinets

CLYDE-APAC

Introducing the new UltraSafe Series II Cabinet by Clyde APAC

This new design cabinet features an ergonomically-designed operating window that slants away from the operator. A feature which greatly enhances the new cabinets ease of use without compromising the clean integrity of the work zone. Add to this a wide range of accessories, and the proven reliability of the Clyde APAC brand and the Ultrasafe represents excellent value for money in the Laminar Flow market.

Ultrasafe cabinets use digital technology to maintain constant airflow during normal filter loading or temporary airflow obstruction from foreign objects.

Pressure sensor monitoring ensures safe and uniform airflow across the entire work surface of the cabinet. Independent alarm systems immediately alert the user to any airflow obstruction.

Ultrasafe cabinets have various exhaust options to ensure the unit can be used for any room set-up. These options include Front, Top, Left or Right.

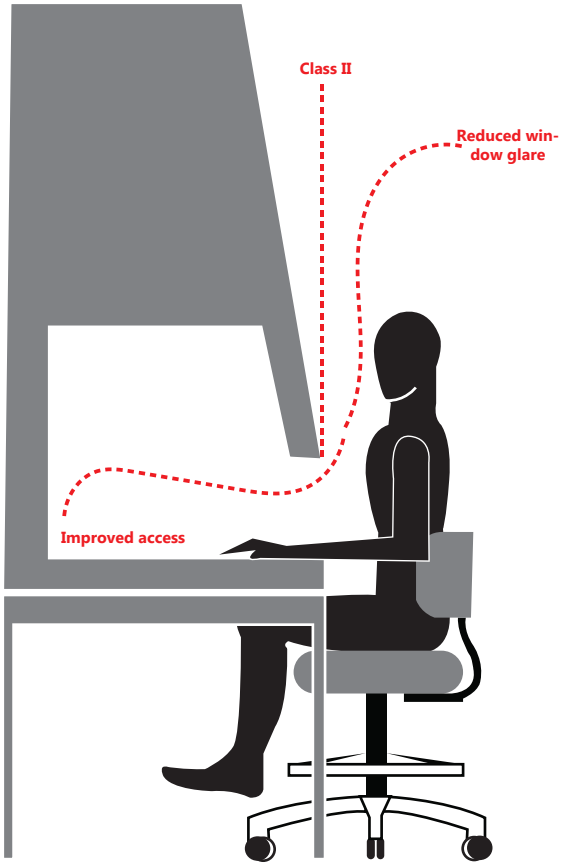
User-friendly

The functions of the cabinet are simply controlled by low-voltage electronic touch controls with an easy to read digital display. The transparent side UV resistant safety glass maximizes light and visibility inside the cabinet, providing a bright and open working environment.

Ergonomic design

User discomfort and ergonomic hazards associated with traditional BSCs include working in a static, extended posture, limited visibility at the sight line and lack of knee/leg space under the cabinet.

The new Ultrasafe cabinet is designed with a sloping front, work tray options and electric height-adjustable stand to offer significantly improved ergonomics compared to a traditional cabinet.



Silence without compromising comfort and safety.

User safety and comfort is paramount with all Clyde APAC manufactured Class II Biological Safety Cabinets. The comfortable, 200mm front working aperture on the Ultrasafe does not compromise safety or sample containment while significantly reducing noise level. All our cabinets have been tested at nominal airflow velocities for added security.

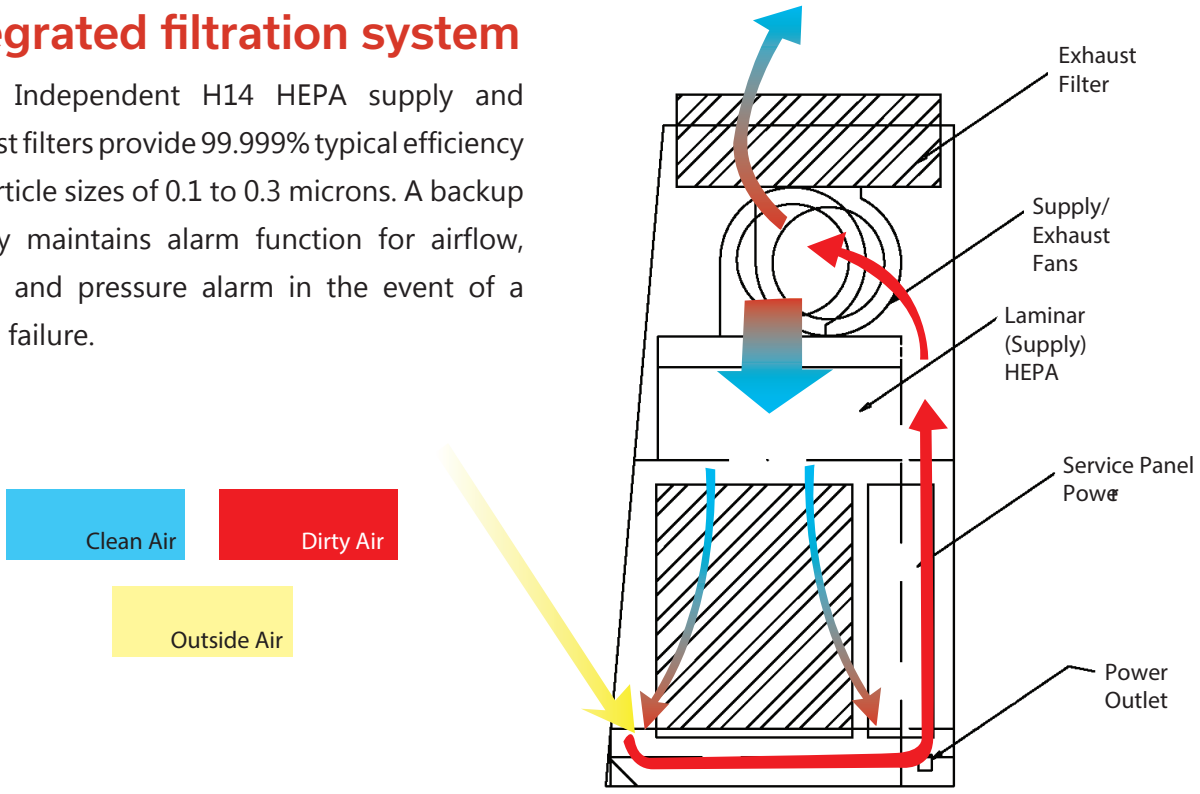
Dual fan design for guaranteed safety. If one fan fails, minimal protection is still maintained with only one fan running.

Integrated filtration system

Independent H14 HEPA supply and exhaust filters provide 99.999% typical efficiency for particle sizes of 0.1 to 0.3 microns. A backup battery maintains alarm function for airflow, power and pressure alarm in the event of a power failure.

Customised work surfaces

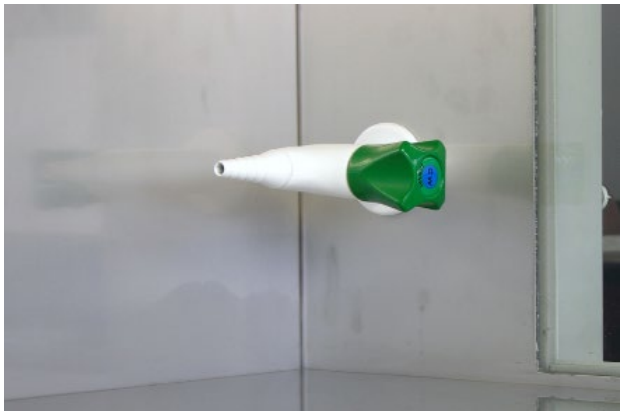
Scratch-free, high quality stainless steel work surfaces are available as single or segmented modules and are easy to clean or autoclave. The indented work modules easily trap spilled liquids.



Accessories & Options

- Choice of Top, Front, L/H or R/H exhaust
- Service taps (air, CO2, etc.)
- Vacuum tap (disc filter holder)
- Extra power outlet (1 x power outlet supplied as standard feature)
- Decontamination panel
- Floor stand, semi-adjustable (height to order)
- Electronically-controlled, height adjustable floor stand
- Gas tap (solenoid-interlocked)
- Front, Top, Left or Right Exhaust options available

Gas tap

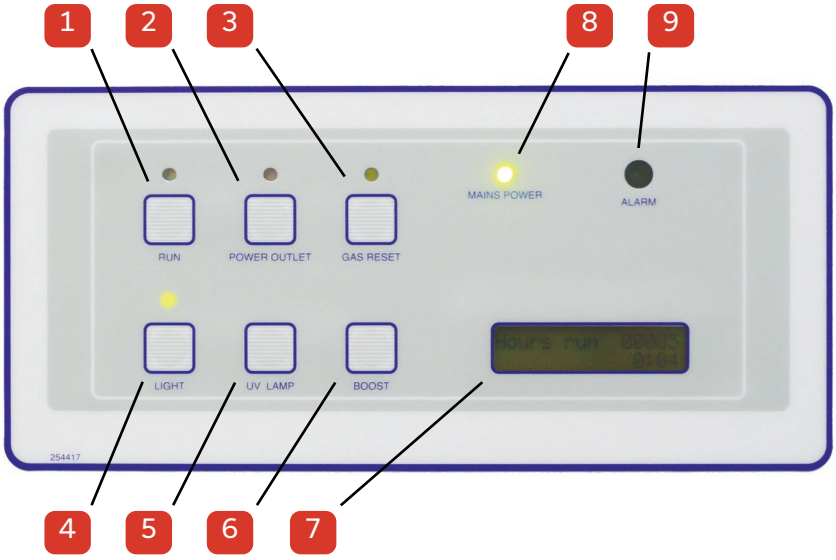


Floor stand

Glass sides & large front access opening

AES Environmental maintains an ISO 9001:2015 quality management system to ensure process and product conformance.

Operation



Control Panel

1. Fan/post-use over-run switch
2. Power outlet switch
3. Gas reset switch*
4. Fluorescent light switch
5. UV lamp switch*
6. Boost mode switch
7. Display panel
8. Mains power indicator
9. Alarm indicator

*optional function

High-efficiency filters and fans deliver quiet operation and safety. Negative pressure zones surround all positive pressure areas, eliminating the possibility of contaminated air bypassing the filter or escaping from the cabinet. Outer shells are gas-tight for safe decontamination.

In operation, vertical laminar airflow through a HEPA filter bathes the work tray, dividing and passing around the perimeter to create a biologically clean work area.

In Class II Cabinets

An air barrier across the work access opening, into the sump, reduces potential risks to personnel from airborne contaminants in the work zone.

In Class II models, the airflows mix in the sump before recirculation via a return air plenum to the top housing. Exhaust air is passed through a HEPA filter for return to the laboratory.

Separate fan/filter arrangements allow independent adjustment to maintain an effective air barrier.

A microprocessor is used to control the speed of the blower motors. This microprocessor also allows fingertip control of functions and status including:

- Cabinet performance and status clearly displayed in English.
- Boost mode.

General Specification Ultrasafe Class II Biological Safety Cabinet

Model		Ultrasafe 90	Ultrasafe 120	Ultrasafe 150	Ultrasafe 180
Part No.		1687-6000/90T	1687-6000/120T	1687-6000/150T	1687-6000/180T
Nominal Size		0.9m (3')	1.2m (4')	1.5m (5')	1.8m (6')
External Dimensions (WxDxH)		1035x790x 1570mm	1350x790x 1570mm	1650x790x 1570mm	1975x790x 1570mm
Internal Work Zone Dimensions (WxDxH)		870x580x620mm	1180x580x620mm	1480x580x620mm	1810x580x620mm
Test Opening		210mm	210mm	210mm	210mm
Working Opening		210mm	210mm	210mm	210mm
Fans: 240V single phase direct drive		2	2	3	3
Average Airflow Velocity	Inflow to grille	1m per second at set point			
	Downflow	0.4 - 0.45m per second			
Airflow Velocity	Inflow	250L/s	300L/s	490L/s	490L/s
	Downflow	240L/s	290L/s	470L/s	470L/s
	Exhaust	250L/s	300L/s	490L/s	490L/s
Sound Emission		< 58.8 dB (A)	< 60.2 dB (A)	< 62.8 dB (A)	< 62.8 dB (A)
HEPA Filter Typical Efficiency	Downflow	99.995% at 0.1 to 0.3 microns to AS4260/EN1822			
	Exhaust	99.995% at 0.1 to 0.3 microns to AS4260/EN1822			
Germicidal UV Lamp AS1807:2021 Clause 4.5		400mW/m^2			
Fluorescent Lamp Intensity S1807:2021 Clause 4.5		1200 Lux			
Certification to Australian Standards		AS1807: 2021 Clause 4.1/ Clause 4.3/ Clause 4.4/ Clause 4.5/ Clause 4.7/ Clause 4.9/ Clause 4.10			
Cabinet Contruction AS2252.2 - 2009	Main Body	1.2mm 18 gauge powder coated electro galvanised steel			
	Work Surface	1.2mm 18 gauge type 304 stainless steel with B2 finish			
	Side Walls and Sump	1.2mm 18 gauge type 304 stainless steel with B2 finish			
Gas tightness of outer shell		Gas tightness of outer shell determined in accordance with AS1807:2021 Cl. 4.11			
Front viewing window		6mm laminated glass	6mm laminated glass	6mm laminated glass	6mm laminated glass
Electrical 220-240V AC 50Hz	Cabinet Power/ Amp	1300 Watts - 10 Amps	1300 Watts - 10 Amps	1300 Watts - 10 Amps	1300 Watts - 10 Amps
	Outlet Amp Fuse	10 Amps	10 Amps	10 Amps	10 Amps
	Full Load Amps	4.5 Amps	4.5 Amps	6.75 Amps	6.75 Amps
	Power Consumption	0.7 Kw	0.7 Kw	0.9 Kw	0.9 Kw
Cabinet Net Weight (kg)		210	250	280	300
Shipping Dimensions		1085x800x1650mm	1400x800x1650mm	1650 x 800 x 1650mm	2025 x 800 x 1650mm
Total Shipping Weight (kg)		240	280	310	330
Shipping Volume		1.4322m^3	1.848m^3	2.178m^3	2.673m^3

Support

From years of experience in the design and manufacture of safety cabinets in Australia, the new generation Ultrasafe series cabinets have been designed with the end user in mind. Simple to operate and encompassing safety and reliability this stylish new cabinet is supported by our nationally focused spare parts and service divisions located in all major centres.

WARNING

Clyde APAC Class II biological safety cabinets comply with AS 2252.2 in all three vital areas:

- Cabinet design/construction
- Cabinet performance
- Air filter performance

Some cabinets on the Australian market do not comply in all of these areas. A decision to use such equipment should be taken only after careful consideration of the risk posed by the materials to be handled and with the agreement of those who will operate the equipment. (See current and proposed Health and Safety Regulations).