CG2000 Cytogard

Cytotoxic Drug Safety Cabinets

Advanced technology
for safe handling of
Cytotoxic drugs

CLYDE-APAC

Applications

Cytotoxic drug safety cabinets are defined in Australian Standard AS 2639: 1994 as the primary barrier against exposure to aerosols that are produced in the preparation, manipulation and dispensing of cytotoxic drugs. Many of these drugs are known to be mutagens, and are suspected of being carcinogens and teratogens.

These effects are insidious and may not manifest themselves for some years. The requirements for protection involve the following:

- Protection of cabinet users and other staff from exposure to aerosols or vapours which may be generated in the preparation, manipulation and dispensing of cytotoxic drugs.

- Protection of drug products, so that they may be prepared in an environment which is essentially free from particulate and biological contamination.

- Protection of cabinet maintenance personnel from the residue of drug particles which can contaminate filters, fans and other mechanical components.

Australian Standards

CG2000 Cytogard™ cabinets are designed and manufactured to comply with AS 2567, and each cabinet is factory-certified by a NATA Accredited laboratory to meet the specified performance requirements. These cabinets may also be used where the handling of other drugs and chemicals requires both containment and aseptic manipulation.

CG2000 cabinets are part-recirculating laminar air-flow enclosures with high efficiency particulate air (HEPA) filtration of exhaust air and an air barrier at the work opening.

HEPA-filtered vertical laminar airflow which is recirculated in the work zone creates an ultra-clean work environment for product protection. An air barrier between the operator and the work zone is maintained by a flow of room air into a full-width grille in the work opening.

The barrier air mixes with the recirculated laminar flow air in a sump underneath the work surface, and is exhausted from the cabinet via a HEPA filter which is located directly under the work tray.

All positive pressure zones and filter seals are surrounded by negative pressure zones, so as to contain potentially hazardous aerosols.

Cabinets are available with the work zone width of 90cm, 120cm or 180cm, and are free standing units that incorporate a floor stand. Standard cabinets have exhaust discharge on the right-hand side with optional left-hand side or top exhaust available. Top exhaust is typically specified where cabinet exhaust air is to be entrained into the room exhaust in accordance with AS 2639.

These cabinets provide advanced system-monitoring technology and a number of unique design features intended to enhance safety and ease of use.

Construction

Cabinet. Constructed in electro-galvanised steel with joints welded using a gas-shielded arc process. This method produces a robust, leak-free housing that is able to withstand the rigours of transport and handling. Exterior is finshed in a high-quality powdercoat which has been developed for laboratory equipment.

Work zone. Constructed in grade 304 stainless steel with 2B finish. Corners are radiused and crevice-free for ease of cleaning and all surfaces are carefully dressed to remove sharp edges. The removable work tray is designed to allow cleaning access to its underside without removing it from the cabinet.

A pneumatic mechanism opens and closes the viewing window without the need for external fasteners or catches. The window is self-supporting in the fully-open position to facilitate cleaning and access for large items. Opening the window with the cabinet running automatically engages a boost mode for enhanced containment by activating a maximum exhaust airflow and the alarm systems.

HEPA Filters. Clyde-Apac® Microseal™ HEPA filters, are certified for compliance to AS 4260. Each filter is individually certified to be leak-free in accordance with AS 1807.6 . A manufacturer endorsed test label fitted with an extract of the test report is affixed to each filter.

A prefilter extends the life of the exhaust HEPA filter, and protects it from mechanical damage during cleaning of the work zone.

Fans. Separate direct-drive fans are provided for the exhaust and laminar flow HEPA filters. Fans are fitted with speed controllers to enable airflows to be maintained through filter life.

The fan control circuits are interlocked so that the laminar flow system will not operate until the exhaust system has achieved a containment condition.

Audible and visible alarms with rechargeable battery back-up signify any reduction in barrier containment or laminar airflow.

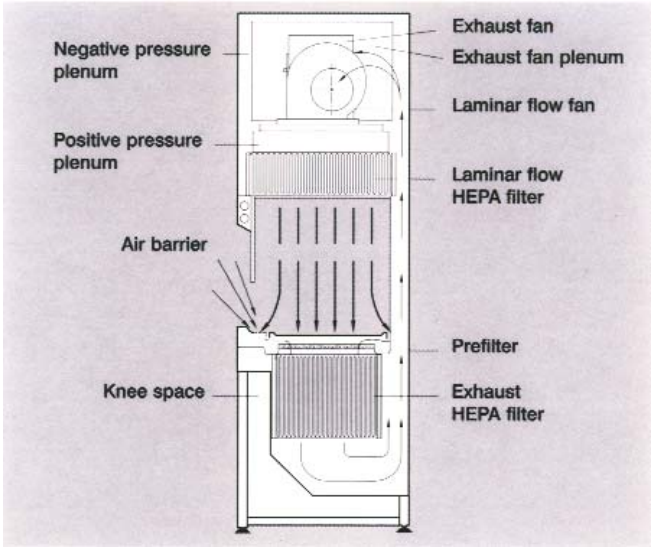
Electrical. Cabinets operate on single-phase 240V, 50 Hz power via a 10A outlet. The electrical system complies with Australian Standard AS 3100.

A low-voltage touch-control panel is located on the front of the Cabinet. The Optima 2000™ microprocessor-controlled control and diagnostic system provides continuous monitoring of critical cabinet functions with a digital display indicating the nature of any malfunction. The boost mode and a post-use over-run mode may be manually selected from the control panel. A real-time clock in the control panel may be programmed to function as a process timer.

An integral fluorescent lamp housing reduces heat build-up near the operator. Glare-free lamps provide a minimum lighting intensity of 800 lux at the work floor.

Standard Features

- Optima 2000™ programmable control and diagnostic system with digital display
- Low voltage touch controls
- Alarms and boost mode automatically engaged when viewing window is open
- Boost mode selectable at control panel
- Selectable post-use over-run timer
- Hour meter to record operating time
- Provision for interface with building energy-management systems
- Pneumatically-assisted viewing window
- Magnahelic gauge to monitor fan systems
- Fully-sealed work opening cover for testing procedures
- Comprehensive operation and maintenance manual

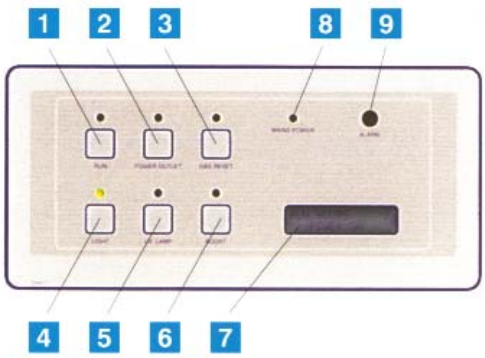


Quality control

Clyde-Apac® is a registered trade mark owned by Laminar Air Flow Pty Ltd. HEPA, Bio-safety, Cytotoxic, and Laminar Flow safety cabinets are manufactured under license in Australia by Vokes Air Filtration Pty Ltd.

Vokes Air Filtration manufacture and comply to an accredited Quality Management system that complies with the international standard ISO 9001:2008. Accreditation is confirmed by Quality Assurance Services registration

NCS INTERNATIONAL
CERTIFIED QUALITY MANAGEMENT SYSTEM
ISO9001



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

Physical data

Model	Overall			Work zone			Weight (kg)
	W	D	H	W	D	H	
CGA90	1135	770	2310*	880	560	610	326
CGA120	1440	770	2310*	1180	560	610	372
CGA180	2050	770	2310*	1790	560	610	487

Catalogue numbers

Model	RHS exhaust	LHS exhaust	Top exhaust
CGA120	2030021	2030022	2030023
CGA180	2030201	2030202	2030203
CGA180	2031201	2031202	2031203

On-site testing

CG2000 cabinets are factory-tested and certified for compliance to Australian Standards. Additional test and certification is recommended as follows:

(a) On site prior to use
(b) After any electrical or mechanical maintenance
(c) After filter replacement
(d)After re-location
(e) At least annually
(f) In special circumstances, e.g. faulty operation

AES Environmental, is NATA Accredited and provides a comprehensive on-site testing and accreditation service including maintenance, testing and certification services for safety cabinets, laminar flow work stations, clean-rooms and HEPA filter installations.

ACCREDITED FOR TECHNICAL COMPETENCE

This service is available from fully-equipped laboratories in major Australian centres. Similar services are provided by appointed service agents in other regions.

Other products

HWS Series™ horizontal laminar flow cabinets

VWS Series™ vertical laminar flow cabinets

BSC2000™ Class I biological safety cabinets

BH2000™ Class II biological safety cabinets

PCR laminar flow cabinets

Recirculating fume cabinets

TFP™ Series HEPA filter clean-room modules

Clyde-Apac

Clyde-Apac is an Australian manufacturer of laminar flow equipment, and supplies products to Australia and Asia's leading research and health care institutions.
International clients that demand the highest compliant product apply the Australian Standard as the only standard that specific for the application.
The Company's products fully comply with Australian Standard A.S 2567 and Australian manufactured products retain an enviable work health and safety record due to its two fan operation securing an air barrier.

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Note: In keeping with our policy of continuing product improvement, we reserve the right to alter specifications without notice

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