

BioChemGARD®

Delivering an optimum balance of
performance and energy efficiency



 Baker





The most advanced biological safety cabinet

BioChemGARD®
Class II Type B2 Biological Safety Cabinet

Based on six decades of research and innovation, the BioChemGARD® e3 is the most advanced biological safety cabinet engineered specifically for laboratories that need containment and removal of vapors, mists, and particulates.

With the optimum balance of performance and energy efficiency, the BioChemGARD® e3 protects personnel, product, and the environment, all while increasing lab productivity and user comfort. Each cabinet is precisely engineered to deliver a lower life cycle cost, the latest ergonomic design, and a revolutionary airflow management system.



Greater Versatility & Safety

Exclusive filter exchange system decreases downtime and increases safety

Our patented ExchangeSAFE™ Sealed Access Filter Exchange System permits filter bagging and exchanges within the work surface, providing improved access, a simpler process, and an overall reduction in maintenance time while still minimizing exposure to contaminants by running the exhaust during the filter change.

Innovative fume hood option offers greater versatility in the lab

With our optional Fume Hood Package, the BioChemGARD® e3 meets the UL requirements for Electrical/Mechanical Safety (UL 61010-1) and the UL requirements for Material Flammability and Effectiveness of Airflow Characteristics (UL 1805). The cabinet has been tested in accordance with ANSI/ASHRAE 110-1995. Usage should be determined by a professional industrial hygienist or safety officer.



PRODUCT OVERVIEW

- The BioChemGARD® e3 offers superior performance, versatility, energy savings, and simpler maintenance.
- Industry's most durable and reliable cabinet means lower life-cycle costs and years of trouble-free operation.
- Most energy-efficient operation available. A 70% reduction in electrical power compared to traditional B2 cabinets.
- Increased motor blower reserve extends filter life for less downtime.
- Continuously safe working environment with self-adjusting motor technology enhances productivity.
- ExchangeSAFE™ Sealed Access Filter Exchange System minimizes exposure to contaminants and allows faster, simpler maintenance.
- Quieter operation and ergonomic design with slanted viewscreen, cool-white lights for easier viewing and reduced heat generation.
- Meets and exceeds NSF/ANSI Standard 49 Class II and ISO class 4 criteria.
- Optional fume hood package for versatile laboratory design.

RESEARCH APPLICATIONS

- Research and life sciences.

CERTIFICATES



AN OPTIMUM BALANCE OF ENERGY EFFICIENCY

Precision engineering and our exclusive technologies work in concert to achieve an optimum balance of energy efficiency with high performance.

The BioChemGARD® e3 is the only total exhaust biosafety cabinet that offers your lab this level of high performance, user convenience and comfort, with such significant operational savings.

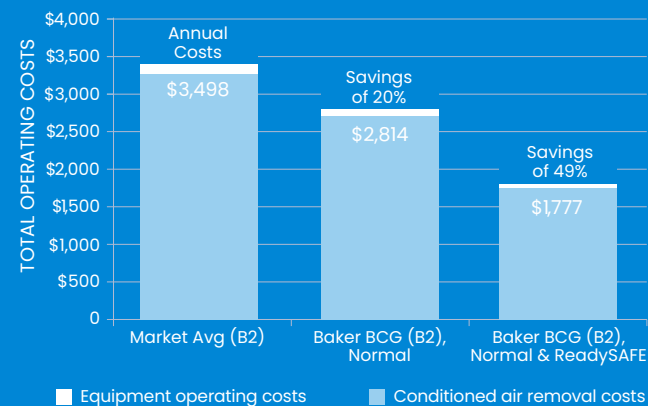
Our exclusive technologies – StediFLOW™, ReadySAFE™, UniPressure™ Preflow Plenum, and innovative motor/blower system – work seamlessly together to deliver unparalleled safety performance, less cabinet downtime for cleaning and maintenance, and increased productivity, all while reducing your equipment operating and conditioned air removal costs.



REDUCE YOUR ANNUAL OPERATING COSTS

The BioChemGARD® e3 is engineered to operate with a reduced-exhaust airflow and resistance. This minimizes noise, cuts the electrical power and static pressure requirements, while significantly reducing the volume of conditioned air exhausted from the laboratory.

Operating at only 664 CFM, the BioChemGARD® e3 offers a 23% reduction in exhausted conditioned air compared to traditional B2 cabinets. Together, Baker's exclusive technologies deliver an average reduction of 49% in a lab's annual operating costs.



1. Market average for NSF listed B2 Cabinets
 2. Assumes an average daily US industrial electrical operating cost of \$.0673 per kWh
 3. Assumes \$4.00/CFM/Year, lowest customer sampled



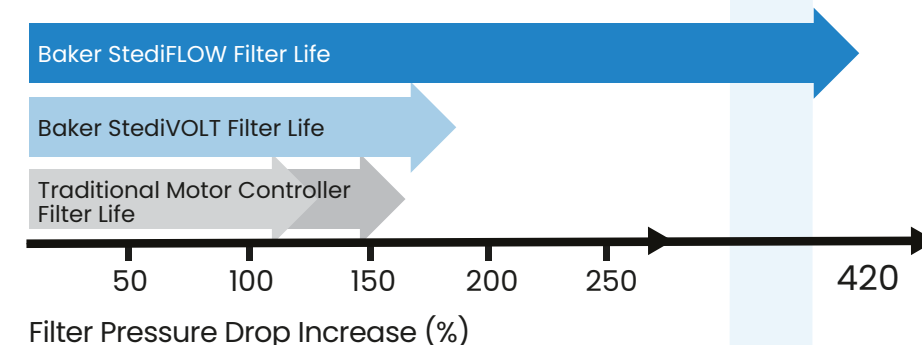
STEDIFLOW™ VFD MOTOR CONTROLLER AUTOMATICALLY ACHIEVES OPTIMUM PERFORMANCE

Baker's StediFLOW™ VFD (variable frequency drive) motor controller uses less energy, reduces heat output, and operates more quietly. VFD is state-of-the-art technology in HVAC systems for performance and energy savings.

The BioChemGARD® e3 cabinet was shown to automatically handle an increase in pressure drop of more than 420% across the filter without reducing total air delivery more than 10%.* There is no need for manual speed control.

- Maintains precise airflow and motor draws only 0.6 Amps – a 90% reduction in the draw of traditional B2 cabinets.
- Automatically compensates for normal power line variations, air disruptions, and filter loading.
- Constant air volume reduces risk of performance degradation, which can compromise personnel and product protection.
- Controls the ReadySAFE™ operating mode.

StediFLOW extends filter life



*Test was performed on a BCG401 (115 V unit) in the Baker laboratory. Data available on request.



Check out Baker's Total Cost of Ownership Calculator for Class II Type A2 Biosafety Cabinets. www.bakerco.com/calculator

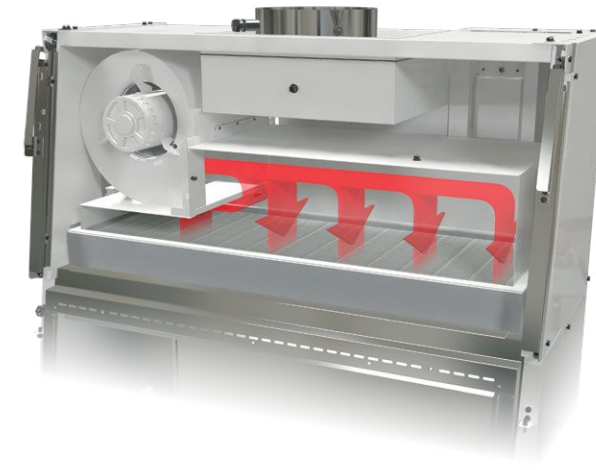
Ask us how to realize these savings in your own laboratory!

ReadySAFE™

A VERSATILE LOW FLOW MODE TO MAKE YOUR JOB EASIER

This versatile mode can be used during meetings, work breaks, and overnight to maintain safe conditions, create a quieter work environment, and significantly reduce energy usage, compared to leaving the cabinet in operating mode 24 hours per day.

- The BioChemGARD® e3 meets and exceeds NSF/ANSI Standard 49 Class II and ISO class 4 criteria in ReadySAFE™ mode. When the viewscreen is closed, which results in a 50% reduction in the electricity draw and a 55% reduction in exhaust airflow.
- Reduces laboratory air-conditioning requirements with less heat generation.
- Increases productivity by allowing user to have instantly safe working conditions upon opening the viewscreen and ongoing work can be left in the cabinet without fear of contamination.
- Reduces cabinet noise levels in laboratory environment; measured at 43 decibels (excluding exhaust system).
- Meets and exceeds NSF/ANSI Standard 49 Class II and ISO class 4 criteria.



The Baker exclusive UniPressure™ Preflow Plenum provides quieter, more efficient operation

INNOVATIVE UNIPRESSURE™ PREFLOW PLENUM

The BioChemGARD® e3 biological safety cabinet incorporates Baker's exclusive UniPressure™ Preflow Plenum high-performance airflow system that saves energy and extends filter.

- Apportions and distributes air across, then through, the HEPA supply filter, improving downflow uniformity, reducing noise, and increasing reserve blower/motor capacity.
- Filter mount provides direct seal of HEPA filters to plenum, and simplifies filter replacement.

MOTOR/BLOWER SYSTEM EXTENDS FILTER LIFE

Baker's optimum blower/motor design ensures performance and extends filter life at least an additional 50% over our previous cabinets – the longest life in the industry – with a range of over 10 years. (High levels of background particulates may shorten HEPA filter life.)

- Provides consistent volume of air despite increases in resistance due to filter loading, resulting in extremely long filter life.
- Extended filter life minimizes filter replacement and decontamination costs, reduces use of toxic fumigants, and produces less waste in the environment.
- Requires no manual adjustment over filter's life. All filter reserve is automatic.



EXCLUSIVE EXCHANGESAFE™ SEALED ACCESS FILTER EXCHANGE SYSTEM DECREASES DOWNTIME AND INCREASES SAFETY

Many traditional bag-in/bag-out (BIBO) filter systems, which are typically located overhead the cabinet's work surface, have complex and time-consuming procedures that can result in a higher risk of exposure to contaminants.

Our patented ExchangeSAFE™ Sealed Access Filter Exchange System permits filter bagging and exchanges within the work surface, providing improved access, a simpler process, and an overall reduction in maintenance time while still minimizing exposure to contaminants by running the exhaust during the filter change.



NEGATIVE-PRESSURE DOUBLE-WALL PLENUMS WITH CABLE PORTS ENHANCE SAFETY

With our optional Fume Hood Package, the BioChemGARD® e3 meets the UL requirements for Electrical/Mechanical Safety (UL 61010-1) and the UL requirements for Material Flammability and Effectiveness of Airflow Characteristics (UL 1805). The cabinet has been tested in accordance with ANSI/ASHRAE 110-1995. Usage should be determined by a professional industrial hygienist or safety officer.

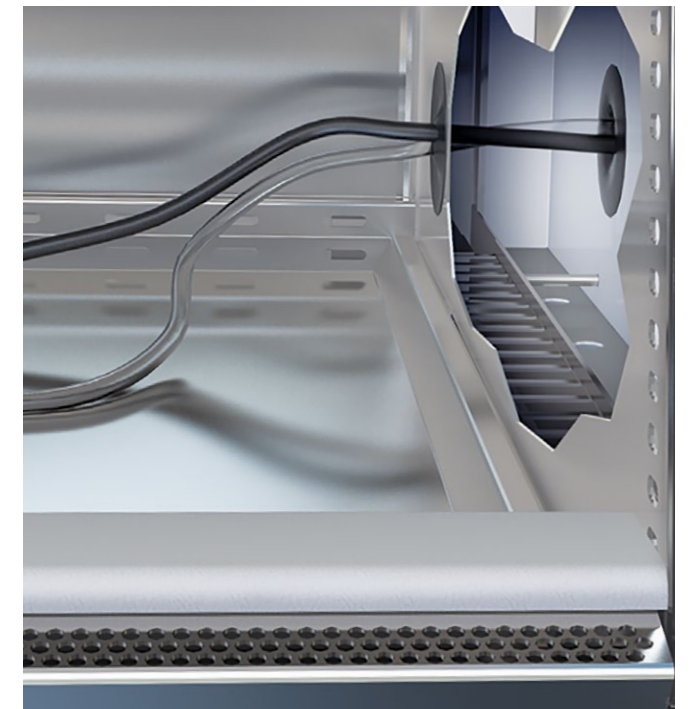
- Baker's unique all metal, double-wall design of the BioChemGARD® e3 cabinet creates base, side, and back wall plenums that capture and contain contaminated air under negative pressure. This prevents contaminated air from escaping into the laboratory environment in the event of damage to the cabinet walls.
- Our optional patent-pending cable ports are an industry exclusive, can be located in both the left and right side walls of the cabinet, and are NSF-approved. They provide a safe and ergonomic way of introducing cables or siphoning tubes into the work area without interfering with the viewscreen opening.

INNOVATIVE FUME HOOD OPTION OFFERS GREATER VERSATILITY IN THE LAB

With our optional Fume Hood Package, the BioChemGARD® e3 meets the UL requirements for Electrical/Mechanical Safety (UL 61010-1) and the UL requirements for Material Flammability and Effectiveness of Airflow Characteristics (UL 1805). The cabinet has been tested in accordance with ANSI/ASHRAE 110-1995. Usage should be determined by a professional industrial hygienist or safety officer.

CRAFTSMANSHIP AND INNOVATIVE, VERSATILE DESIGN ENSURES QUALITY AND PERFORMANCE

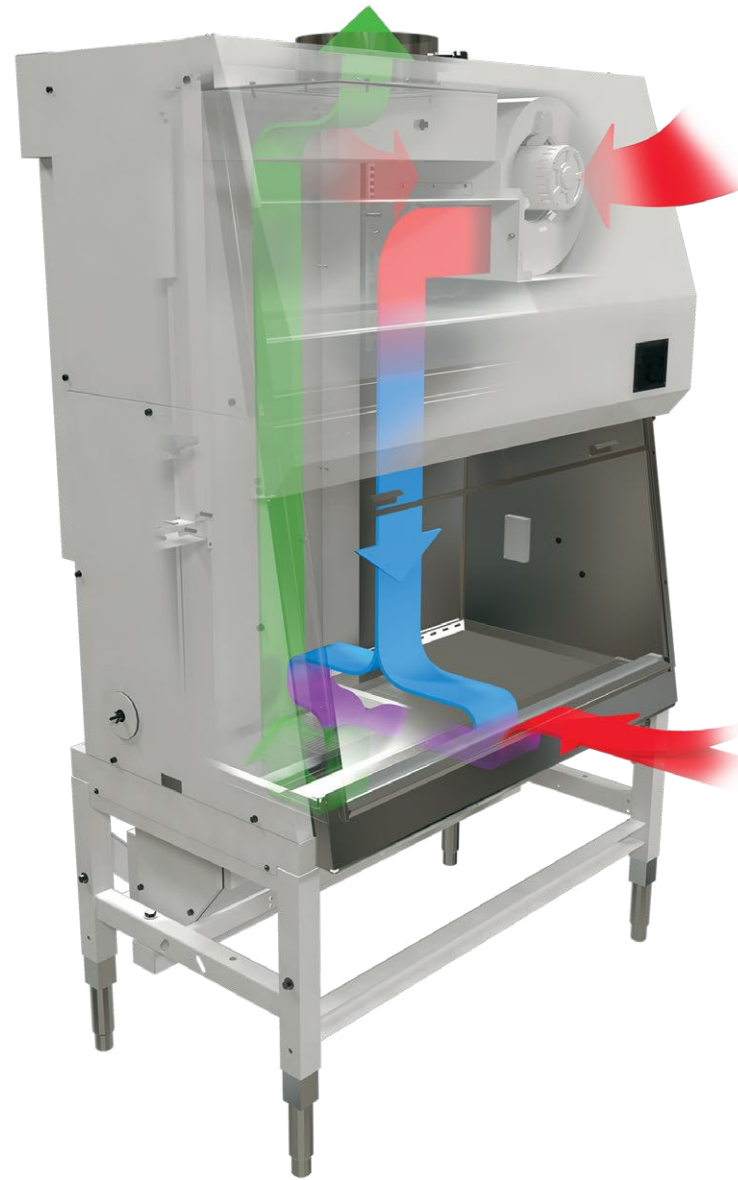
Baker cabinet designs represent many years of experience in stainless steel fabrication and craftsmanship. The BioChemGARD® e3, like all Baker cabinets, includes design features to improve safety, productivity, user-comfort, and performance throughout a range of repetitive tasks performed on a daily basis.



Cable ports allow cables/tubing to exit side walls rather than the front work area

UNIQUE AIRFLOW DESIGN REDUCES ENERGY REQUIREMENTS

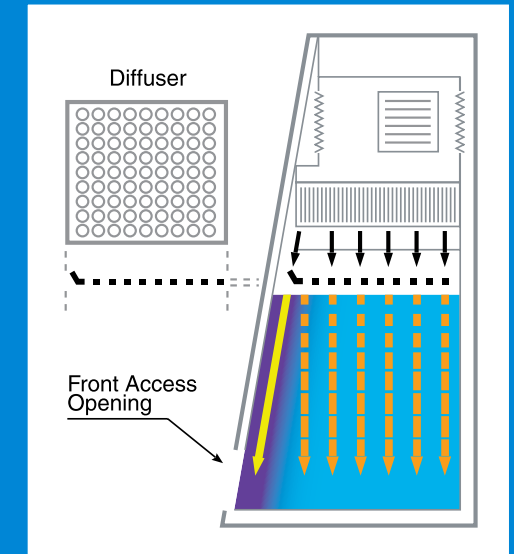
- The airflow of the BioChemGARD® e3 is designed to provide a work area that protects the experiment from the environment, and both the environment and researcher from the experiment.
- Room air is pulled through the front opening and into the front grille. HEPA-filtered downflow air and room air mixes in the exhaust plenum, flows through the exhaust HEPA filter and into the building exhaust system.
- The BioChemGARD® e3 operates with a reduced exhaust airflow and resistance. This minimizes noise and reduces the volume of conditioned air that is exhausted from the laboratory.
- Operating at only 664 CFM, electrical power requirements are 70% less compared to traditional B2 cabinets. The combined savings in electricity and conditioned air removal reduces the overall annual cost of operation by 49%.



MOMENTUM AIR CURTAIN AND HIGH-VELOCITY RETURN AIR SLOTS INCREASE PROTECTION

The BioChemGARD® e3 cabinet employs a unique momentum air curtain that offers an added measure of containment and protection exclusive to the Baker design.

- Creates a strong air barrier, or momentum air curtain, at the front of the cabinet, increasing protective capabilities for both products and personnel.
- Resulting air curtain combines with high-velocity return air slots, aerodynamically contoured front-opening surfaces, and optimum air intake velocity to minimize turbulence and prevent migration of airborne contaminants into or out of the work area.



Momentum Air Curtain

SUPPLY AND EXHAUST FILTERS PERFORM OPTIMALLY

Because filters remove microorganisms and airborne particulates (e.g. aerosols) from the air, the quality, performance, and useful life of downflow and exhaust HEPA/ULPA filters are critical biosafety considerations.



High-velocity return air slots maximize protection

- Leak-free performance is verified through scan tests conducted at the factory prior to shipping and is confirmed at the cabinet's initial certification.
- Closed-cell EPDM Gasket provides an airtight seal between the filter assembly and the metal plenum.
- VFD motor system and large-sized filters yield the longest filter life in the industry.
- An audible/visual airflow alarm and automatic shut-off system called the Airflow Monitor (AFM) warns when the exhaust airflow decreases.

SUPERIOR TECHNOLOGIES AND AN INDUSTRY-LEADING APPROACH TO ERGONOMICS ENSURE A NEW LEVEL OF PRODUCTIVITY AND USER COMFORT

The BioChemGARD® e3, like all Baker cabinets, includes design features to improve safety, productivity, user-comfort and performance throughout a range of tasks performed on a daily basis. Our cabinets are designed with the user in mind so that routine tasks can be done more comfortably, efficiently, and with less fatigue.



REDUCED NOISE LEVELS

The unique airflow design inside the cabinet, combined with the lower exhaust requirements, result in quieter operating noise levels. In standard operating mode, the BioChemGARD® e3 emits an average of 50 dB*, a 30% decrease in noise compared to our previous Type B2 cabinet. This drops to 43 dB when the cabinet is in ReadySAFE™ mode.

	Rustle of Leaves	Library	Average Office	BioChemGARD® e3	Normal Conversation	Traditional B2 Cabinet	Power Mower
Decibels	4'	6'	40	50	60	70	80
Relative loudness	1/32	1/16	1/8	1/2	1	2	4

*Average tested noise level. Noise level of cabinet is influenced by the building exhaust system



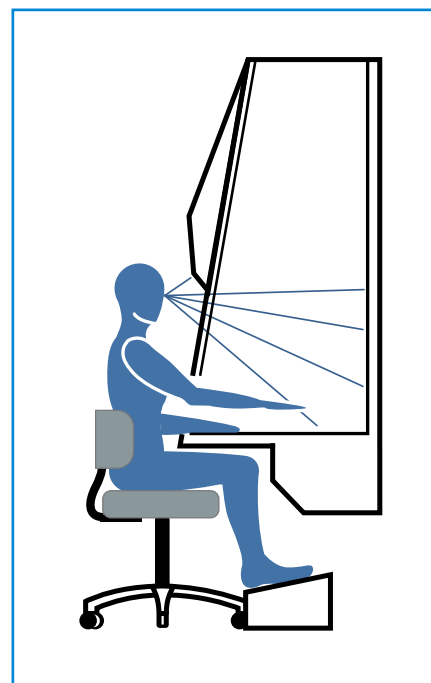


SLANTED VIEWSCREEN

The slanted sliding viewscreen minimizes glare and makes the cabinet easier and more comfortable to use.

A counterbalancing feature allows the user to open and close the laminated safety glass viewscreen effortlessly, which can also be fully closed for ReadySAFE™ mode, system shutdown, or UV light operation.

- Maximum opening of up to 20" simplifies equipment and instrument loading and unloading and allows for placement of large items more easily.
- Allows operator more comfortable head and elbow position, reducing fatigue.
- Provides safe, highly visible, and easily accessible work area for a wide range of procedures.
- Laminated safety glass with a stainless steel edge.



HIGHLY PRODUCTIVE WORK ENVIRONMENT

Design considerations such as wide radius corners, aerodynamically shaped surfaces, and non-glare satin finish interiors combine to improve comfort, simplify cleaning, and maintain proper containment.

- Large unobstructed, usable work area can accommodate more lab equipment because of the rear grille being parallel to the straight back wall.
- A reduced front grille depth moves the work surface area closer to front of the cabinet for better arm position and less back strain.
- Consolidated electrical controls on panel behind hinged light canopy offer unique access outside containment area.
- The fluorescent lights, UV light, and the electrical outlets can all be programmed in 15-minute or hour-long intervals to delay the time they power down.
- Petcocks, valves, and plumbing connections are strategically placed for convenience and proper air management.
- Work surface and walls are one-piece, corrosion-resistant, stainless steel with smooth radius corners for easy cleaning. White powder-coated finish protects cold-rolled steel cabinet exterior.



EFFICIENT LIGHTING

The work area is illuminated by one external fluorescent lamp with an electronic ballast. The cool-white lights use less energy, produce less heat, and provide better color fidelity.

OPTIONS AND ACCESSORIES

Most options, accessories, and modifications are factory installed and should be specified when ordering. Common options are listed below.

- Low exhaust static pressure kit.
- 5" casters with brakes.
- Fume Hood UL 1805.
- ULPA filters.
- VHP decon ports.
- Ergonomic adjustable footrest.
- Stainless steel IV bar.
- Remote-controlled petcocks.
- UV germicidal lamp.
- Auxiliary wiring package (for monitoring blower switch status).
- Floor/wall seismic restraints.
- Digital Display Package (DDP).
- Additional cable port.
- 220V, 50 Hz Electrical NSF/ANSI 49 & UL listed.
- Plastic storage bins.

For additional information, contact Baker or your local sales representative.



ORDERING

For ordering information, terms, and conditions of sale, contact The Baker Company or visit the Baker website at www.bakerco.com for the name of your authorized Baker Company representative.



Scan the QR code to access all the BioChemGARD® e3 resources

Technical Specifications – BioChemGARD® e3

CONSOLE MODEL NUMBER	BCG401	BCG601
Specification		
Size	4'	6'
Interior Dimensions (w x d x h)	46" x 22(7/8)" x 27(5/8)"	70" x 22(7/8)" x 27(5/8)"
Usable Workspace (w x d x h)	44(5/8)" x 18" x 27(5/8)"	68(5/8)" x 17(5/8)" x 27(5/8)"
Exterior Dimensions (w x d x h [min to max])	53(7/8)" x 33(5/8)" x [86" to 94½"]	77(7/8)" x 33(5/8)" x [86" to 94(1/2)"]
Cabinet Weight (lbs)	720lbs	850lbs
Shipping Weight	850lbs	1020lbs
Sash Height	8"	8"
Opening Max.	20"	20"
Operating Amperage		
- Normal Operating Mode	1.0 Amps	1.4 Amps
- ReadySAFE™ Mode	0.3 Amps	0.3 Amps
Power Consumption		
- Normal Operating Mode	115 Watts	161 Watts
- ReadySAFE™ Mode	35 Watts	35 Watts
Heat Generation (Note: 100% exhausted)		
- Normal Operating Mode	392 BTU/hr	549 BTU/hr
- ReadySAFE™ Mode	118 BTU/hr	118 BTU/hr
Other		
Electrical (requires 20 Amp outlet)	115V AC, 20 A, 60 Hz	115V AC, 20 A, 60 Hz
Noise, exhaust & cabinet, NSF International	59 dBA	60 dBA
Noise, cabinet	< 50 dBA	< 50 dBA

CONCURRENT BALANCE VALUE	BCG401	BCG601
Exhaust Flow Rate (Total CFM)		
- Normal Operating Mode	664 CFM	993 CFM
- ReadySAFE™ Mode	300 CFM	300 CFM
Exhaust Static Pressure Adjusted Value (Per NSF 49)		
- 12" Diameter Exhaust Collar (standard)	-1.6" W.G.	-1.7" W.G.
- 10" Diameter Exhaust Collar (optional)	-1.7" W.G.	-1.8" W.G.
- 8" Diameter Exhaust Collar (optional)	-1.9" W.G.	-2.3" W.G.

PURCHASE SPECIFICATION

Most options, accessories, and modifications are factory installed and should be specified when ordering. Common options are listed below.

APPROVALS

The cabinet shall have the following approvals, listings, and/or certifications:

1. UL 61010-1, Second Edition: Electrical Equipment for Measurement, Control, and Laboratory Use For Electrical, Fire, and Personal Safety.
2. NSF/ANSI 49, Biosafety Cabinetry: Design, Construction, Performance, and Field Certification.
3. UL 1805, First Edition: Standard for Laboratory Hoods and Cabinets For Material Flammability and Effectiveness of Airflow Characteristics
4. ANSI/ASHRAE 110-1995: Method of Testing Performance of Laboratory Fumehoods.

PERFORMANCE

1. The cabinet shall provide intake velocity through the front access opening of the cabinet at a minimum of 100 FPM.
2. The cabinet shall incorporate higher-velocity airflow behind the viewscreen (momentum air curtain) for added personnel and product protection.
3. The cabinet shall contain high-velocity return air slots in the sidewalls and top adjacent to the front access opening for enhanced containment and reduction of air turbulence at the sash opening.
4. The cabinet shall incorporate a high-performance airflow system (UniPressure™ Preflow Plenum). This system apportions and distributes air across and then through the HEPA supply filter.
5. The bottom of the cabinet access opening shall be aerodynamically designed to direct airflow into the front grille to optimize containment.
6. The cabinet exhaust requirements (Concurrent Balance Value per NSF/ANSI 49) for 12"-diameter exhaust collar, measured directly above the exhaust filter before any restrictions, elbows, or reductions, are:
 - a. BCG401 – 664 CFM at 1.6" W.G.
 - b. BCG601 – 993 CFM at 1.7" W.G.
7. The cabinet sound level as measured per NSF/ANSI 49 shall be no more than:
 - a. 50 dBA – (BCG401 and BCG601) cabinet without background noise
 - b. 60 dBA – (BCG401 and BCG601) cabinet and exhaust system
8. The cabinet shall have a reduced airflow energy-saving mode (ReadySAFE™), which is active when the viewscreen is closed. This mode of operation shall reduce energy consumption by at least 50% and still meet the product and personnel protection testing requirements of NSF/ANSI 49. Particle testing while the cabinet is in this mode shall exceed the requirements for ISO Class 5 conditions for 0.3 micron particles. A connection shall be provided for indicating the ReadySAFE™ status to the facility building management system.
9. The cabinet shall use a variable frequency drive (VFD) and three-phase motor/blower system (StediFLOW™) that is capable of maintaining a constant air volume as filter resistance increases. The system shall:
 - a. Be capable of automatically handling an increase in pressure drop across the filter of at least 420% (BCG401) without reducing total air volume by more than 10%.
 - b. Operate under normal conditions at a typical current of
 - BCG401 – 1.0 amp
 - BCG601 – 1.4 amps
 - c. Automatically compensate for normal power-line variations, air disruptions, and supply filter loading.
10. The manufacturer can provide a representative copy of the personnel, product, and cross-contamination biological tests upon request. These tests are equivalent to, or more demanding than, the tests specified in NSF/ANSI 49. Detailed biological test reports can be provided at additional cost.

CONSTRUCTION

1. The cabinet's exterior construction is of seal panels and dress panels of 16-gauge cold-rolled steel, powder-coated finish, PermaWhite™.
2. Exterior dimensions (W x D x H) of the cabinets are:
 - a. BCG401 – 537/8" x 335/8" x (86" to 94 1/2")
 - b. BCG601 – 777/8" x 335/8" x (86" to 94 1/2")
3. Cabinet shall have permanent metal double-wall construction with negative-pressure airflow between the walls, from drain pan to top of the work area, surrounding all biologically contaminated areas.
4. The cabinet shall contain a vertical sliding viewscreen slanted at an angle of 10° for user comfort.
5. The cabinet shall have an adjustable stand. The available work surface elevations are:
 - a. 295/8" to 32 1/8"
 - b. 355/8" to 38 1/8"
6. The cabinet interior work area will be constructed as one piece. The material shall be 16-gauge, Type-304 stainless steel. The interior shall have smooth coved-corners to facilitate cleaning.
7. The interior dimensions (W x D x H):
 - a. BCG401 – 46" x 227/8" x 275/8"
 - b. BCG601 – 70" x 227/8" x 275/8"Usable workspace (W x D x H):
 - a. BCG401 – 445/8" x 18" x 275/8"
 - b. BCG601 – 685/8" x 175/8" x 275/8"
8. The cabinet shall feature a straight back wall to maximize work area and more easily accommodate laboratory equipment.
9. The cabinet shall have a cable port to allow passage of tubes and/or cables through the negative-pressure double-wall plenum sidewalls of the cabinet. Design shall meet Class 100 (ISO Class 5) air cleanliness immediately inside the opening in the work area. The cabinet feature must be approved per NSF/ANSI 49.
10. The unit shall have standard HEPA filters for a protection effectiveness of 99.99% on 0.3 micron size particles. The cabinet supply filter, exhaust filter, and test ports shall be accessible from the front of the cabinet.
11. The viewscreen shall be constructed of 1/4" laminated safety plate glass, with a maximum opening of 20" to optimize access to the interior of the cabinet.
12. The cabinet shall feature a counterweighted pulley system to reduce the effort of opening and closing the viewscreen.
13. The cabinet shall be equipped with a stainless steel supply-air diffuser and exhaust-filter protector.
14. The cabinet contains exhaust filters located directly below the work surface. This location facilitates particle capture close to the site of generation. Exhaust filters shall be designed for safe bagging and removal in the work area and shall be sized to fit in a standard Department of Transportation (DOT) container for removal in a manner appropriate to their level of contamination. (ExchangeSAFE™)
15. A plenum assembly shall be provided to allow the supply filters to be directly clamped to the plenum against a closed-cell neoprene gasket. The plenum applies even force, rather than point force, to the full perimeter of the supply filters.
16. The cabinet shall have a unitized drain pan with smooth coved-corners and a fully removable work surface and work-surface supports to facilitate cleaning and prevent microbial growth.
17. The cabinet shall have a bypass armrest for user comfort and to allow intake airflow when the cabinet is in ReadySAFE™ mode.

18. The standard cabinet shall contain one petcock and one plugged penetration on the right side wall. The left sidewall shall be pre-punched for optional/additional plumbing connections.
19. The cabinet shall be equipped with a stainless steel ball drain valve to allow for safe and effective removal of spills.
20. The supply motor blower shall be located in a clean zone of the cabinet that does not require any decontamination should maintenance or replacement be required.

ELECTRICAL

1. The cabinet shall have a microprocessor-based control system with an easy-to-clean membrane control panel mounted on the front of the cabinet.
2. The cabinet shall have adjustable timers for fluorescent lights, outlets, and optional UV lights. Timers shall be able to be set in 15-minute and one-hour increments.
3. The work area of the cabinet shall be provided with two GFCI-protected duplex outlets with drip-proof covers and shall be protected by a self-resetting circuit breaker.
4. A single 14' power cord with NEMA 5-20 plug shall be provided for electrical power connection.
5. The unit shall have an optional UV light. Operation of the UV light is only permitted when the viewscreen is in a closed/safe position.
6. The cabinet shall have electronic ballasts to provide more efficient operation for fluorescent lighting and optional UV lighting.
7. The cabinet shall have an externally mounted fluorescent light fixture capable of providing an average of more than 100 foot-candles of illumination at work surface.
8. The cabinet shall be provided with a low-exhaust-flow alarm. This alarm shall have audible and visual indicators of the alarm condition and be interlocked to shut down the cabinet supply blower, which minimizes pressurization of the work zone in the event of a low-exhaust-flow condition. An audible alarm mute function shall be provided. The alarm shall automatically reactivate after five minutes if the alarm condition persists.
9. The cabinet shall have an audible and visual alarm indicating that the sliding viewscreen is in an unsafe position. An alarm mute function shall be provided to allow the operator full access to the work area. The alarm shall automatically reactivate after five minutes if the viewscreen remains in an unsafe position.

Caution

A Class II, Type B2, 100% total exhaust biological safety cabinet is suitable for work with low to moderate risk (Biosafety Levels 2 and 3) biological agents. It may also be used with biological agents treated with volatile toxic chemicals and radionuclides required as an adjunct to microbiological studies (as stated by NSF International Standard, NSF/ANSI Standard #49).

Note: The adequacy of this containment cabinet for the user's personal safety, as with any containment cabinet, should be determined by an industrial hygienist or safety officer. Site preparation information, architectural drawings, detailed dimensions, and purchase specifications are available.

72 Month Warranty

The Baker Company, Inc., expressly represents and warrants all goods (a) to be as specified (and described) in The Baker Company catalogs and literature, and (b) to be free under normal use, service, and testing (all as described in The Baker Company catalogs and literature) from defects in material and workmanship for a period of seventy-two months from the invoice date.

The exclusive remedy for any breach or violation of this warranty is as follows: The Baker Company, Inc., will F.O.B. Sanford, Maine, furnish without charge repairs to or replacement of the parts or equipment that proved defective in material or workmanship. No claim may be made for any incidental or consequential damages.

This warranty is expressly in lieu of all other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose unless otherwise agreed in writing signed by The Baker Company. (The Baker Company shall not be responsible for any improper use, installation, service or testing of the goods.)

BioChemGARD®



SafeGARD Solutions

NCB™ e3

Class II Type B1 Biosafety Cabinet. Developed to exceed the National Cancer Institute's Expectations... and yours.

1. All exhaust air is removed directly from the work area and pulled through a dedicated exhaust duct into the facility's separate exhaust system
2. Vapors and gases emitted from vessels or work behind the air split approximately half way back from the cabinet front - are removed and not recirculated
3. Dual supply HEPA filters assure that all positive pressure areas are free of particulate contamination. Recirculated air is HEPA-filtered immediately below the work surface before it is passed through a HEPA supply filter above the work area



AeroPROTECT 360°

Aseptic Contamination Enclosure. Optimum personnel & environment protection.

1. 360° visibility to the work area for easy monitoring
2. 8" [203mm] sash opening allows access to the work surface and is the primary means of access to ensure user protection
3. Front facing controls and gauges within easy reach when standing from both sides
4. Dual force hinged front view screen and rear access, offering easy equipment loading



BioChemGARD® e3

Class II Type B2 Biosafety Cabinet. The most energy efficient, comfortable and safe B2 cabinet in the industry.

1. A 70% reduction in electrical power compared to traditional B2 cabinets
2. Increased motor blower reserve extends filter life for less downtime
3. Continuously safe work environment with self-adjusting motor technology enhances productivity
4. Optional fume hood package for versatile laboratory design



BioPROTECT® e3

Walk-in Equipment Containment Enclosures. Designed expressly for high volume robotic and equipment applications.

1. Flexible modular design for high-volume robotic and automated equipment applications
2. Accommodates high-through put robotic systems (including ancillary devices), ultra-centrifuges, flow cytometers, aerosol generators and other large laboratory equipment
3. Ideal for high-throughput screening, combinatorial chemistry, immunology, tissue culture, clinical research, drug discovery, molecular biology, and quality control assays



IsoGARD®

Class III Glovebox. Designed to Handle Hazardous Microbiological Agents or Pharmaceutical Potent Compounds.

1. Pass-through and main chamber incorporate uniform unidirectional airflow to flush away any generated particles while bathing the work surface in HEPA-filtered air
2. Constructed with thick safety glass, solid closed-cell silicone gaskets and supplied with hypalon gloves
3. Stainless steel glove port design with one-piece sleeve-and-glove assembly allows gloves to be replaced or changed without breaking containment



AniGARD® e3

Animal Transfer Station. Confidence you can rely on.

1. Spacious, easily accessible work areas accommodate a variety of cage sizes and activities
2. Ergonomic design with efficient lighting increases user comfort and visibility
3. Designed for easy movement and maneuverability throughout the laboratory
4. Offers up to ISO Class 4 (Class 10) protection by delivering HEPA-filtered, particulate-free air



The Best Protection

EdgeGARD® HF

Horizontal-Flow Clean Bench designed with you in mind. Baker's exclusive technology maximizes product protection and helps meet up to ISO Class 4 (Class 10) air cleanliness requirements.

1. High-performance airflow system provides uniform airflow to the worksurface, extends filter life and minimizes maintenance costs
2. HEPA supply filter with 99.99% minimum efficiency in capturing 0.3 micrometer particulates
3. Spacious, easily accessible work areas accommodate multiple users and a variety of applications and instrumentation



EdgeGARD® VF

EdgeGARD® Vertical-Flow provides vertical, unidirectional and controlled airflow over the entire work surface, while reducing energy consumption, noise and airflow turbulence.

1. ISO Class 4 (Class 10) cleanliness (for 0.5 micrometer particles)
2. One-piece stainless steel work surface helps prevent surface contamination
3. Easy to move and maneuver when configured with mobile stand, casters and pull bars
4. Slanted 10° viewscreen for operator comfort and direct line-of-sight viewing
5. Well-lighted workspace reduces eyestrain



ChemoSHIELD®

Compounding Aseptic Containment Isolator (CAI). Offers a contained, pressurized work area for pharmacy applications.

1. One of the most comfortable isolators in the industry, with oval gloveports that offer easy reach to interior surfaces, and adjustable height stand
2. Slanted, top-hinged view screen allows for full opening for loading and unloading of pharmacy instrumentation or equipment
3. HEPA-filtered, unidirectional airflow with better than ISO Class 5 (Class 100) air cleanliness conditions to prevent contaminants from entering the work area



Air Sentry Chemical Fume Hood POWERED BY LAB CRAFTERS

Fume hoods designed for unparalleled safety for critical laboratory applications.

1. Substantially reduces roll effect (fluctuations in the airflow that may cause harm to the worker)
2. Offers a streamlined, unobstructed work area
3. Minimizes lingering concentrations above and behind the view screen
4. Reduces contaminant concentrations near the edge of the sash (window), reducing potential exposure hazard to personnel



SteriSHIELD®

Compounding Aseptic Isolator (CAI). Designed specifically for ultimate product protection of non-hazardous drugs.

1. Offers a contained, pressurized work area for pharmacy applications
2. One of the most comfortable isolators in the industry, with oval gloveports that offer easy reach to interior surfaces, and adjustable height stand
3. HEPA-filtered, unidirectional airflow with better than ISO Class 5 (Class 100) air cleanliness conditions to prevent contaminants from entering the work area



Baker's portfolio of contamination control solutions can be found within many industries, for a wide variety of applications in research and clinical care. Please consult your biosafety professional to understand what is right for you and your application.



 Baker



bakerco.com

