Your **Safety** is not an Option

Improved Principles of Biological Safety Cabinet Design

Recognizing the Difference

NuAire is universally recognized as the world leader in Class II Biological Safety Cabinets that offer better Personnel, Product, and Environmental Protection. Whether it’s cabinet design, cabinet integrity, HEPA filters, safety alarms, or maintenance - NuAire quality means an outstanding value to you! It’s why these Class II cabinets are the #1 selling Biological Safety Cabinet in the world.
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1. **True Laminar Airflow**
   Unidirectional airflow moving along parallel flow lines at a constant velocity minimizes air turbulence within the work zone. With proper techniques, activities within the work area can be performed safely minimizing the chance of cross-contamination.

2. **HEPEX™ Zero Leak Airflow System**
   The HEPEX™ Zero Leak Airflow System provides quiet, uniform velocities throughout the entire sterile work zone. All positive pressure chambers and ducts are surrounded by vacuum or negative air pressure relative to the room. This feature eliminates the possibility of cabinet and gasket leaks. Uneven particulate loading is prevented by maintaining high-static pressure over the entire filter surface assuring True Laminar Airflow.

3. **Greater Volume of Air Creates a Stronger Air Barrier**
   Air exchanges within a Class II, Type A2 Biological Safety Cabinet can occur 25 times per minute. This rapid air exchange system combined with an aerodynamic, ergonomic air foil and a significantly larger access opening creates the strongest air barrier [personnel protection] of any Biological Safety Cabinet.

4. **Single Piece Stainless Steel Construction**
   Better cabinet integrity is an important long-term attribute of a Biological Safety Cabinet. Our superior design prevents leaks that may occur through failures of the gaskets and seams. NuAire® Biological Safety Cabinets are designed and constructed of a single shell, all stainless steel, welded cabinet.

5. **Larger, Long Lasting HEPA Filters**
   The most important design feature of any Biological Safety Cabinet is the HEPA [High Efficiency Particulate Air] filters and how well the filters work within the system. Our individually selected HEPA filters are 25% larger, contain more surface area, and work well within the cabinet design to provide an even distribution of air across the filter.

6. **Motor/Blower System Extends HEPA Filter Life**
   As the main supply HEPA filter loads, the motor/blower system automatically compensates to assure performance and extend filter life. HEPA filter life is further extend by use of a speed controller and an external adjustable damper than allows a service technician to properly maintain optimal airflows.

   NuAire® Class II Type A2 Biological Safety Cabinets are capable of automatically handling 80% increase in pressure drop across the filter without reducing total air delivery more than 10%. With the use of a manual speed controller, the cabinet can handle more than a 200% increase in pressure drop across the filter.
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Centrally Located Control Center
The centrally located, eye-level, Control Center is stylish, attractive, and easy to access. The easy-to-maintain Control Center is located well away from the contaminated work zone.

State-of-the-Art Electronic Safety Systems
Each electronic control system is designed to service the control requirements of the Biological Safety Cabinet. The control safety system consists of three modules that perform the following functions:

BASIC
Cabinet BASIC controls include a minihelic pressure gauge [measures HEPA filter loading], motor voltage regulator, audible window alarm, power switch for fluorescent lights [three-way switch with ultraviolet light option], separate power switches for both interior outlet and blower/motor. BASIC also contains circuit breakers for both main and outlet power.

FLOWGARD™
The FlowGard™ Electronic Control System uses an easy to clean touch-pad membrane. On/Off functions for fluorescent light, ultraviolet light [option], blower motor, interior outlets and monitoring the window position are part of FlowGard™ Electronic Control System. The FlowGard™ lets a trained service technician set the manufacturer’s suggested optimal airflows and the FlowGard™ alarm system allows for interaction with facility HVAC system, HEPA filter loading, and protects/alarm in case of brownout or power failure.

TOUCHLINK™
The TouchLink™ Electronic Control System has an easy-to-use LCD touch screen which controls and displays all system functions. The TouchLink™ screen includes On/Off functions for blower motor, interior outlets, fluorescent light, and ultraviolet light, timers, and a Menu icon. The password protected TouchLink™ system controls and monitors high/low airflow limits for interior down-flow and air barrier inflow velocities. The system also monitors window position. Touchlink™ contain a unique date/clock and several timer functions; outlet timer, UV timer, auto-run timer, night setback timer, set-purge timer, or weekend turn-off. A complete diagnostic function allows a trained service technician access to set/monitor the complete Touchlink™ system.

Improved Quality, Easy to Clean, Reliable Equipment
A well designed cabinet works better, lasts longer, and is safer and more efficient to operate. Lower operational costs means greater saving to the laboratory professional throughout the lifetime of the cabinet.

All NuAire® Biological Safety Cabinets are designed to be quiet, easy to clean, and efficient to operate while requiring less maintenance.

Biological Tolerance Testing Assures Optimal Performance
A Biological Safety Cabinet’s performance consists of a range of operational airflow parameters: air inflow and down flow velocities within a cabinet design will pass standard microbiological aerosol tests for personnel, product, and environmental protection.

Effective Biological Safety Cabinet performance can be greatly affected by different laboratory conditions: Size of laboratory, location of cabinet within a room, traffic patterns of laboratory personnel, electrical variations, airflow ducts and grills, and other equipment. The greater the extremes, the increased likelihood a cabinet will pass-the safer the cabinet design.

NuAire® Class II Biological Safety Cabinets operate and can maintain maximum containment characteristics throughout a range of real-world conditions.