



AIREGARD^{ES} energy saver
LABGARD^{ES} energy saver



LAMINAR AIRFLOW EQUIPMENT
CLASS I BIOLOGICAL SAFETY CABINETS
BIOLOGICAL ENCLOSURES



Sustainability

We at NuAire continually strive to improve our responsibilities to the economy, environment, social communications, and our customer satisfaction. Our commitment extends to purchasing or using products that reduce energy consumption, reduce environmental impact, minimize pollution and make use of recycled content that will not deplete natural resources. We continually use more recycled materials in our cabinets through both design and supplier parts and process improvements. The following chart represents our current level of sustainability for Biological Safety Cabinets.

General Cabinet Component Description	% Content by Weight	% of Recycled Material used in Manufacturing	% Recyclable
Stainless Steel	75%	80%	100%
Mild Steel	10%	10%	100%
Copper	2%	0%	100%
Aluminum	2%	50%	100%
Glass	3%	0%	100%
Electronics	1%	0%	25%
Filter Media	1%	0%	0%
Misc. Plastic Parts	1%	0%	0%
Packing Materials	5%	60%	95%
	100% BSC	65%	97%



NU-301



NU-813



NU-126



NU-101



NU-125



NU-201



NU-114



NU-112



NU-819



NU-105

Improved Principles of Laminar Airflow Designs



Unidirectional airflow moving along parallel flow lines at a constant velocity minimizes air turbulence within the work area.



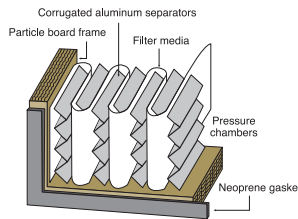
This unique airflow system eliminates the possibility of structural or gasket leaks.

Optimum Air Volume Creates A Safe Environment

Selection of specific motor/blower, HEPA filter(s), materials, electronics, work space and plenum sizes creates a crucial combination of elements providing an optimal air volume for personnel, product, and environmental protection.

Larger, Long Lasting HEPA Filters

NuAire hand selects and tests each HEPA filter to ensure the integrity of the system. Our HEPA filters are typically larger and therefore last longer than those in most competitive products.



Motor/Blower System Extends HEPA Filter Life

As the HEPA filter loads, the motor/blower system automatically compensates to assure optimum performance and extended filter life.



The Attenuamount vibration control system provides extraordinary attenuation of sound and vibrations.

Centrally Located Control Center with State-of-the-art Electronic Control System

Each NuAire product utilizes the most advanced and reliable electronic technology available at the time the product is manufactured.



Registered to: ISO 9001:2008
ISO 13485:2003



Ergo: "Work" **Nomos:** "The Study or Laws of...."

Combines to mean: "The Laws of Work"



NuAire designs equipment that accommodates advancement for: improved safety conditions; improved productivity; improved quality and reliability; and reduction of arm, shoulder, and neck strain contributing to common work place injuries.

Ergonomically-designed equipment improves productivity, quality, and reliability. Expanded vision zone, large work area, proper lighting for reduced glare, forearm support for comfort and safety, and maximum knee/thigh clearance are just a few of the many ergonomic features designed into each NuAire product.

ALL NUAIRE PRODUCTS meet or exceed ISO Std 14644 Class 5 for Air Quality Conditions.

ISO 14644-7, Cleanrooms and associated controlled environments - Part 7: Separative devices (clean air hoods, gloveboxes, isolators and minienvironments) is an international standard outlining the performance requirements of "Separative devices". This part of ISO 14644 specifies the minimum requirements for the design, construction, installation, testing, and approval of separative devices. Separative devices range from open to closed systems.

* In 2000, ISO 14644-2 was published, which began the process of FED-STD-209E being cancelled. The U.S. General Services Administration (GSA) released a Notice of Cancellation for FED-STD-209E, Airborne Particulate Cleanliness Classes in Cleanrooms and Clean Zones, on November 29, 2001 and FED-STD-209E was then superseded by ISO 14644-1 and ISO 14644-2.

ISO Class	ISO 14644-1		FED-STD-209E*	
	English		Metric	
1				
2				
3	1		M1.5	
4	10		M2.5	
5	100		M3.5	
6	1,000		M4.5	
7	10,000		M5.5	
8	100,000		M6.5	
9				

Custom Engineered Enclosures

NuAire delivers a custom product to the customer that is cost effective, exceeds their requirements, delivers product on-time, and increases productivity and profitability.

NuAire has designed and manufactured hundreds of customized specials that are cost effective and functional for a variety of customers. Applications for use in cancer research, pharmaceutical aseptic drug production and manufacturing, laboratory animal facilities, food processing, clean areas for cGMP manufacturing requirements, and robotic enclosures.

About The Process

Each project is assigned a NuAire custom products specialist who interfaces with the customer from the initial idea, design, and quote stages through the fabrication, testing, and delivery stages to the installation, service, and after support stages. You'll have just one NuAire contact making sure we meet your expectations.





NU-201

NU-201 features include an ergonomically designed radius front work surface, removable front grill for easy cleaning, and a 1/2" radius lip located on back of work surface to protect the HEPA filter from inadvertent spills.

Standard Sizes

Catalog Number	Nominal Cabinet Width, Feet (mm)	Work Zone [Filter] Height, Inches (mm)
NU-201-224	2 (610)	24 (610)
NU-201-230	2 (610)	30 (762)
NU-201-324	3 (914)	24 (610)
NU-201-330	3 (914)	30 (762)
NU-201-336	3 (914)	36 (914)
NU-201-424	3 (914)	24 (610)
NU-201-430	3 (914)	30 (762)
NU-201-436	3 (914)	36 (914)
NU-201-524	5 (1524)	24 (610)
NU-201-530	5 (1524)	30 (762)
NU-201-536	5 (1524)	36 (914)
NU-201-624	6 (1829)	24 (610)
NU-201-630	6 (1829)	30 (762)

Standard Features

HEPEX™ Zero-Leak Airflow System	Protective Fiber Grill
Clear Top/Side Acrylic Panels	Glass Disposable Pre-filter
Textured Powder Coat Urethane Finish	Full Instrument Panel
Smooth Formica™ Work Surface	Minihelic Gauge
Front Maintenance	115 VAC, 60 Hz, Single Phase
Fluorescent Light	8 ft, 3-wire Grounded Flexible Power Cord

NU-201 Horizontal Airflow Workstation

The AireGard NU-201 Horizontal Laminar Airflow Table Top Workstation provides a HEPA filtered clean work area that is ideal for operations requiring a particle-free, bacteria-free, clean air environment.

The NU-201 features true laminar airflow, a large 99.99% HEPA filter, disposable fiberglass pre-filters, high-capacity motor/blower, adjustable motor speed controller, Minihelic® pressure gauge, and the HEPEX™ Zero Leak Airflow System.

Applications

Life Science Research

The clean work area provides an excellent work space for small laboratory appliances, microscopes, pipetting, or similar applications.

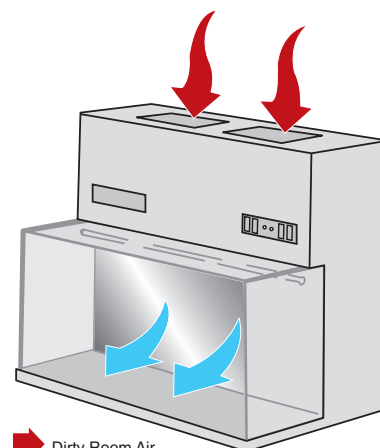
Pharmacy



For use in compounding sterile drug preparations or IV admixture preparation.

Animal or Plant

For procedures requiring work-in-progress protection from outside potentially harmful contaminants.

Electronic Testing, Manufacturing, or Inspections



 Dirty Room Air
 Clean Filtered Air

Accessories and Options

Energy Saver DC ECM Motor	Base Support Stand for NU-201
Ultraviolet Light	Footrest
Outlet	Storage Trays
Service Valves	Stainless Steel Work Surface
Ground Fault Interrupter (GFI)	Stainless Steel Side Walls
IV Bar	
Adjustable Base Support Stand for NU-201	



NU-301 Horizontal Airflow Workstation

The AireGard NU-301 Horizontal Laminar Airflow Console Workstation provides a HEPA filtered clean work area that is ideal for operations requiring a particle-free, bacteria-free, clean air environment.

The NU-301 features true laminar airflow, a large 99.99% HEPA filter, disposable fiberglass pre-filters, high-capacity motor/blower, adjustable motor speed controller, Minihelic® pressure gauge, fluorescent lighting, and the HEPEX™ Zero Leak Airflow System.

Applications

Life Science Research

The clean work area provides an excellent work space for small laboratory appliances, microscopes, pipetting, or similar applications.

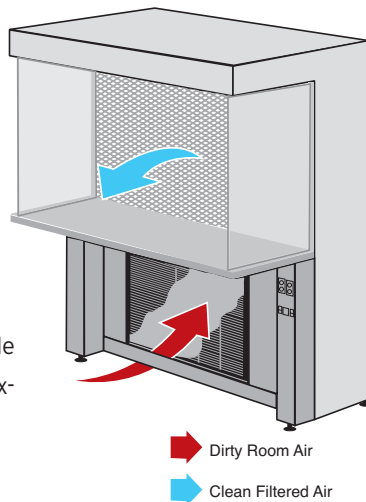
Pharmacy

For use in compounding sterile drug preparations or IV admixture preparation.

Animal or Plant

For procedures requiring work-in-progress protection from outside potentially harmful contaminants.

Electronic Testing, Manufacturing, or Inspections



NU-301

Standard Sizes

Catalog Number	Nominal Cabinet Width, Feet (mm)	Work Zone [Filter] Height, Inches (mm)
NU-301-324	3 (914)	24 (610)
NU-301-330	3 (914)	30 (762)
NU-301-336	3 (914)	36 (914)
NU-301-424	4 (1219)	24 (610)
NU-301-430	4 (1219)	30 (762)
NU-301-436	4 (1219)	36 (914)
NU-301-524	5 (1524)	24 (610)
NU-301-530	5 (1524)	30 (762)
NU-301-536	5 (1524)	36 (914)
NU-301-624	6 (1829)	24 (610)
NU-301-630	6 (1829)	30 (762)
NU-301-636	6 (1829)	36 (914)

Standard Features

- HEPEX™ Zero-Leak Airflow System
- Protective Grill
- Glass Disposable Pre-filter
- Clear Top/Side Acrylic Panels
- Full Instrument Panel
- Textured Powder Coat Urethane Finish
- Minihelic Gauge
- Smooth White Formica™ Work Surface
- 115 VAC, 60 Hz, single phase
- Front Maintenance
- 8 ft, 3-wire Grounded Flexible Power Cord
- Fluorescent Light

Accessories and Options

- Energy Saver DC ECM Motor
- Storage Trays
- Ultraviolet Light
- Stainless Steel Work Surface
- Outlet
- Stainless Steel Side Walls
- Service Valves
- Ground Fault Interrupter (GFI)
- IV Bar
- Footrest

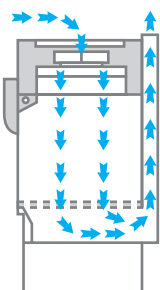




NU-101

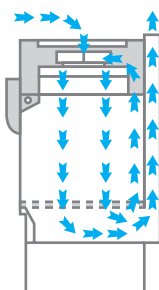
Available Airflow Modes

Mode "E"



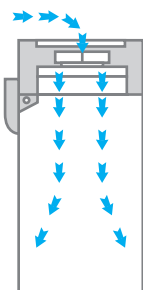
Exhaust

Mode "ER"



Exhaust With Recirculation

Mode "O"



Open Base

Mode "WO"

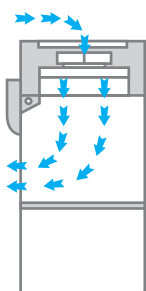
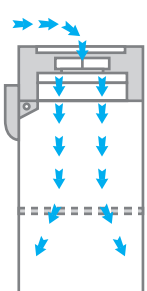


Table Top Wash Out

Mode "WT"



Perforated Table Top Wash Through

NU-101 Vertical Airflow Clean Workstation

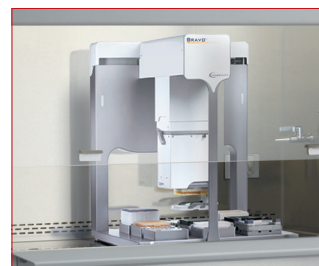
The NU-101 Vertical Airflow Clean Workstation provides better than an ISO Class 5 clean air environment.

The NU-101 can be used for many applications involving the need to keep work free of contaminants. Available in 5 airflow modes and 12 different sizes, the NU-101 can be configured to meet your needs.

Applications

Life Science Research

The NU-101 has a variety of uses including the accommodation of robotic equipment for lab automation.



Pharmacy

The NU-101 can be used for the sterile preparation of IV admixtures, CSP's, antibiotics, or automated compounding equipment.

Class 5 Air Quality Applications

For procedures requiring work-in-progress protection from outside potentially harmful contaminants.

Standard Features

12 Sizes Available

HEPEX™ Zero Leak Airflow System

99.99% HEPA Filtration System

Air Intake Grill and Pre-Filter

Fluorescent Lighting

8 ft Power Cord

Centrally Located Control Center

Powder Coat Urethane Finish

Interior Cold-Rolled Finished Steel

Attenuum™ Vibration Control System

Optional Features

Duplex Outlets

Exhaust Chambers

Exhaust Transitions

Stainless Steel Interior

IV Bar

Ultraviolet Lights

Service valves for Air, Gas, Vacuum

Side Panels

Tables and Table Tops

Stainless Steel Work Surfaces

Increased Work Zone Height

Custom Design Applications

NU-126 Vertical Airflow Clean Workstation

The AireGard NU-126 Vertical Laminar Airflow Workstations are designed to provide the ideal particle-free, bacteria-free clean-air environment needed for laboratory work, testing, manufacturing, inspection, or pharmaceutical procedures. The exclusive design innovations built into the NU-126 will provide exceptional performance in the most demanding environments.

Applications

Life Science Research

Use with a thermal cycler, small centrifuge, or other types of small equipment where clean air is a requirement.

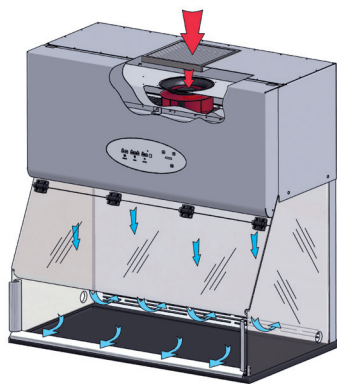
Pharmacy

For use in the sterile preparations of an IV Admixture, Antibiotics, or other drugs.

Animal or Plant

For work involving procedures requiring work-in-progress protection from outside potentially harmful contaminants.

Testing Manufacturing or Inspections



Room Air



HEPA Filtered Clean Air



NU-126

Standard Sizes

Catalog Number	NU-126-300/E	NU-126-400/E	NU-126-600/E
Overall Dimensions, Inches (mm)			
Width	30 (762)	42 (1067)	71 5/8 (1818)
Depth	22 (559)	22 (559)	26 7/8 (684)
Height	44 (1118)	44 (1118)	50 5/8 (1285)
Work Area Dimensions, Inches (mm)			
Width	29 (737)	41 (1041)	70 5/8 (1794)
Depth	21 3/4 (552)	21 3/4 (552)	26 5/8 (675)
Height	24 (610)	24 (610)	28 3/8 (721)

Note: Specifications are subject to change. Dimensions have changed with series 21. Please contact NuAire before purchase.

Standard Features

Vertical Airflow-Product Protection

Fluorescent Lighting

Clear Acrylic Side Walls

Clear Polycarbonate Viewing Window

Hinged View Screen w/AutoLift

Two Service Ports

HEPA Filtered Airflow

Fiberglass Pre-filters

90 FPM (.46 m/s) Down Flow Air Velocity

White Formica Work Surface

99.99% HEPA

8.5" Access Opening

Minihelic® Pressure Gauge Indicates Filter Load

FlowGard Pressure Monitor (NU-126-600/E)

Optional Features

Energy Saver EC Impeller Motor

Service Vales for Gas, Air, Vacuum

Stainless Steel Work Surface

IV Bar with Six Hooks

Ultraviolet (Germicidal) Lamp

30" (762 mm) Base Support Stand

36" (914 mm) Base Support Stand

Front Closure Panel





NU-112/114 Clean Air Scrubbers

The NU-112 and NU-114 Clean Air Scrubbers are portable self-contained units capable of filtering particulates where ISO Class 7 or Class 8 Air Quality is a requirement.

The cabinet utilizes rough disposable pre-filters to help prolong the life cycle of the main 99.99% HEPA filter. Each scrubber can be used in a variety of different locations, depending upon the need for clean air.

Applications

This versatile unit can be used to recirculate air in a defined area, or be placed between two distinct adjacent areas to act as a positive or negative pressure and the outlet side will have higher (positive) air pressure.

Construction

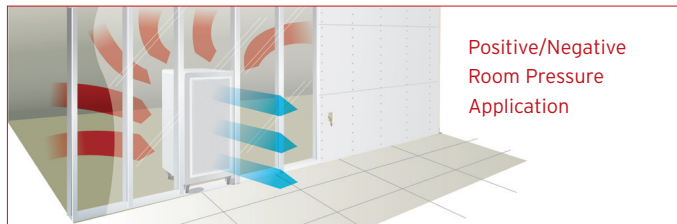
The AireGard 114 can be “built in” to a temporary wall or hallway during construction or remodeling projects. Air can be continuously drawn away from the contaminated area and exhausted as clean HEPA-filtered air into the clean area. The AireGard 114 can also be used within a construction area to recirculate and purify air when ceiling tiles, walls, or plumbing are disrupted or if fumes and odors are evident from cleaning, painting, etc.

Clinical/Medical

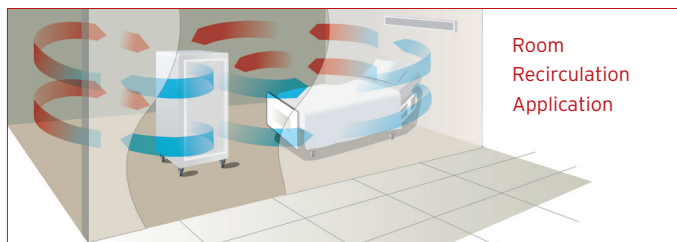
The AireGard 112 can be used for recirculating air in common areas where highly filtered air is desired and any location where the potential infection status of occupants is a concern. HEPA filtration is effective in controlling infectious bacteria and viruses ranging from common “cold” germs to more dangerous organisms such as SARS and TB.

Biological Terrorism

The unit can provide a significant measure of safety in the capture and containment of microbes having a history of use or those likely to be used in an act of terrorism



Positive/Negative
Room Pressure
Application



Room
Recirculation
Application

More Air Changes Means Air is Filtered More Frequently Resulting in Superior Air Quality

General Air Quality

Room Size in Feet (H x W x D) = X cu.ft.

$$\frac{720 \text{ CFM (Air Volume)}}{\text{Room Size in cu.ft.}} = \text{number of room air changes per minute}$$

Example

Room Size = 8 ft. x 10 ft. x 12 ft. = 960 cu.ft.

$$\frac{720 \text{ CFM}}{960 \text{ cu.ft.}} = .75 \text{ room air changes per minute}$$

$$.75 \times 60 \text{ minutes} = 45 \text{ room air changes / hour}$$

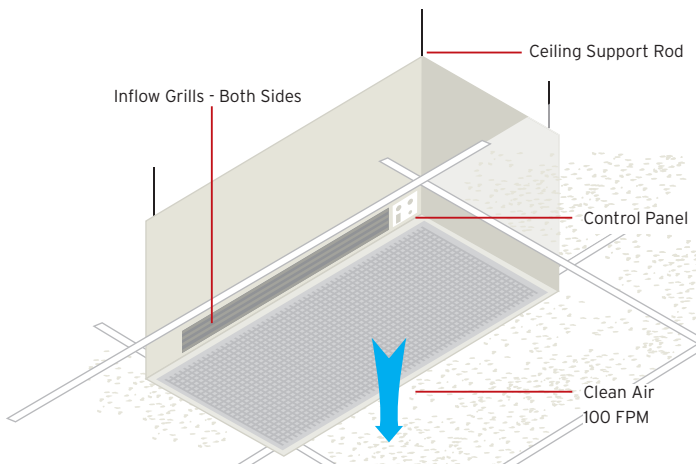
NU-105 Air Cleaning Ceiling Modules

NuAire has developed this unique type of air cleaning ceiling module for clean room use.

This product was developed to provide an inexpensive solution for today's modern laboratory professional.

Air Cleaning Module with Remote Blower

The NU-105 is an inexpensive way of creating a clean room providing both HEPA filtered air and fluorescent lighting in a single unit. The modules may be placed as needed to provide light and clean air over critical areas.



The NU-105 is designed to permit the normal plant ventilation air to flow freely into the room through the adjustable grills when the ceiling module blower is not running. This automatic by-pass feature prevents the HEPA filter from blocking airflow into the room when the supply blower is not operating.

Normally, the recycling grills are fully open to permit the highest cycling rate in terms of air changes per hour. However, if it



NU-105

is desired to have the greatest amount of ventilation fresh air inflow through the module, simply close the recycling grills and fully open the inflow damper.

Energy Saver Shower

The NU-105 is a recycling air shower designed to provide particulate-free air to a room. It is the least expensive way to create a sterile clean room having Class 100 air cleanliness. The air shower is adaptable to large or small rooms.

Single-Pass Air Shower

A completely self-contained air cleaning module that accepts rough-filtered plant ventilation air and forces it through a HEPA filter. It can be used to create a small sterility room, or with multiple ceiling installations to create a large clean room to handle heat loads, odor dilution, etc.

Standard Sizes

Catalog Number	Overall Dimensions, Inches (mm)		
	Width	Depth	Height
NU-105-400	23 (584)	47 (1194)	22 (559)
NU-105-424	35 (889)	51 1/2 (1308)	25 (635)
NU-105-430	41 (1041)	51 1/2 (1308)	28 (711)
NU-105-530	41 (1041)	63 1/2 (1613)	28 (711)
NU-105-630	41 (1041)	75 1/2 (1918)	30 (762)

Standard Features

HEPA Filter, 99.99% Efficient on 0.3 Microns
16 GA Welded Construction

Bottom Filter Service
Flow Control Valve

Electrical Junction Box
Ceiling Hanger Corner Inserts (1/2" 13 Thread)

Optional Features

Fluorescent Lighting
Duplex outlet



NU-125



NU-125 Class II Biological Safety Cabinet Mini-Room

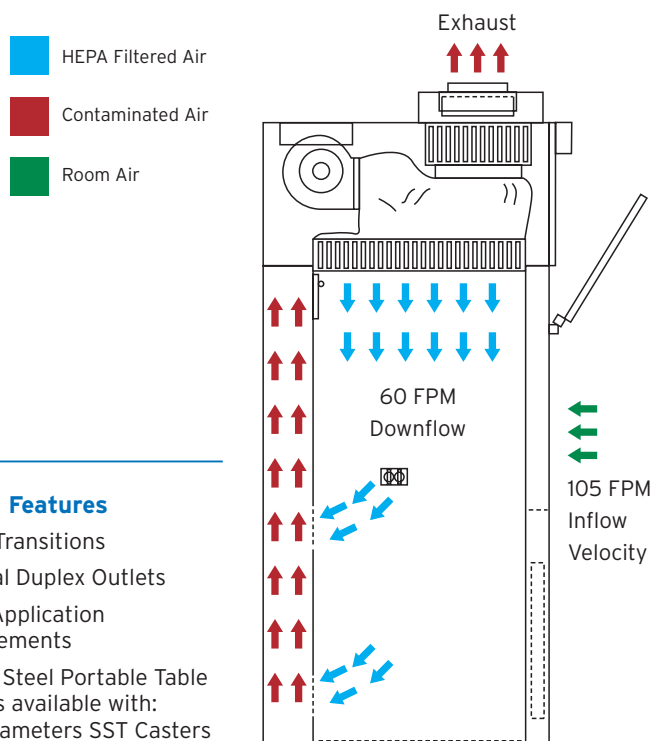
Class II Protection for Your Robotics.

The NU-125 provides Class II protection for personnel, product, and the environment. The room can be used for applications involving high-throughput robotic systems, large high-speed cell sorters, ultra-centrifuges, and laboratory equipment requiring Class II protection from potentially harmful aerosols and airborne particles.

Applications

A perfect match for the BD FACS Airflow Cytometer Laboratory equipment or processes requiring sterility Class II Biological Safety Cabinet protection for robotics

Airflow



Standard Features

- Energy Saver DC ECM Motor
- True Laminar Airflow
- Stainless Steel Interior
- ISO Class 5 Air Quality
- HEPEX™ Zero Leak Airflow System
- Side Access Ports

- 8" Access Work Opening
- Central Control Panel
- Hinged View Screen
- Minihelic® Pressure Gauge
- Front Filter Removal
- Fluorescent Lighting
- GFI Duplex Outlets

Optional Features

- Exhaust Transitions
- Additional Duplex Outlets
- Custom Application Requirements
- Stainless Steel Portable Table
- Table is available with:
 - 5" Diameters SST Casters
 - Adjustable w/Autolift

NU-813 Class I Safety Cabinet

Portable Safety Station For Personnel Protection Containment.

The NU-813 provides personnel protection for handling aerosols and particulate matter of low risk assessment. This configuration employs a 99.99% efficient HEPA filter.

Ductless Fume Hood

The NU-813 provides personnel protection from solvents such as those employed in cytology. This configuration uses either a Purafil® filter or a charcoal filter.

The Class I safety cabinet allows room air to enter the hood, flowing past the operator into the work access opening. This provides an air barrier which minimizes contaminants generated within the hood work zone from migrating into the room.

Applications

Life Science and/or Hospital

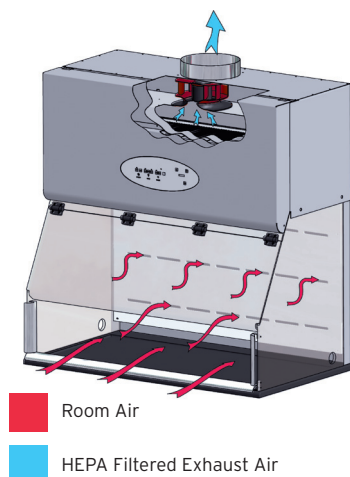
Ideal for the safe handling of powders or liquids. Can use a micro-computer based balance within the work area.

Pharmacy

For compounding powders in a safe environment.

Animal

For necropsy or other processes that require personnel protection.



Standard Sizes

Catalog Number	NU-813-300/ 300E	NU-813-400/ 400E	NU-813-600/ 600E
Overall Dimensions, Inches (mm)			
Width	36 (914)	48 (1219)	72 (1829)
Depth	29 (737)	29 (737)	29 (737)
Height	51 1/2 (1308)	51 1/2 (1308)	51 1/2 (1308)
Interior Dimensions, Inches (mm)			
Width	34 3/8 (873)	46 3/8 (1178)	70 3/8 (1788)
Depth	24 (610)	24 (610)	24 (610)
Height	28 (711)	28 (711)	28 (711)

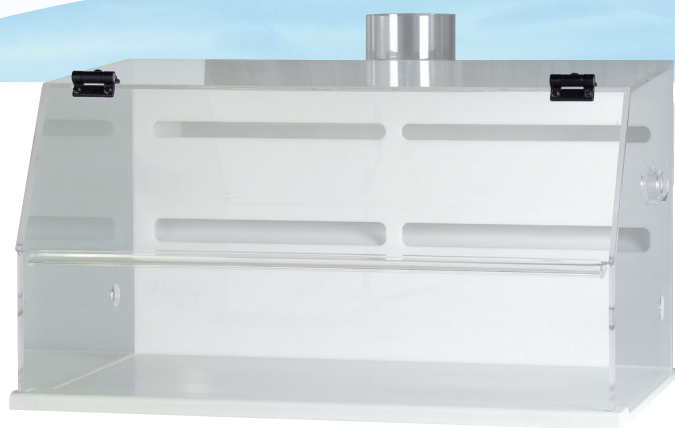
Standard Features

Self Exhausting	Coved Epoxy Black Base
Fluorescent Lighting	Hinged Viewing Window
Clear Polycarbonate Side Panels	99.99% Exhaust HEPA Filter
White Polycarbonate Back Panel	Two Service Ports
	FlowGard Pressure Monitor

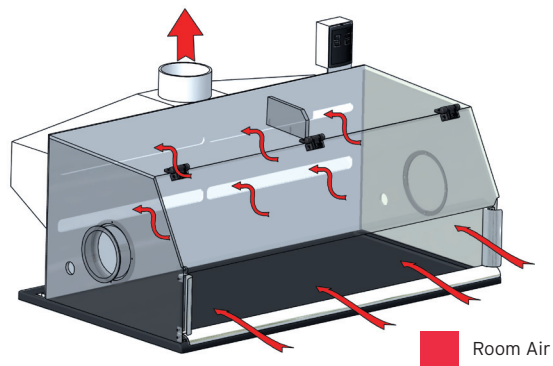
Optional Features

Energy Saver EC Impeller Motor
Base Support Stands
Purafil® Filter (in Lieu of HEPA)
Charcoal Filter (in Lieu of HEPA)





NU-819



NU-819 Class I Vented Workstation

Portable FumeHood Safety.

The NU-819 is a Class I vented enclosure designed to contain and remove contaminants from the work surface with the aid of an external exhaust system. The NU-819 is a partially enclosed workspace with clear acrylic side walls and front view screen. An air barrier inflow velocity set between 75 and 100 FPM provides optimal personnel protection.

The NU-819 work surface is constructed using black epoxy and incorporates an ergonomically designed work access air foil to maximize comfort and improve air barrier protection.

Applications

The NU-819 Vented Workstation provides safe, reliable performance for applications involving pipetting, staining, transfers, animal necropsy, slide preps; small equipment uses such as blenders, robotics, balances, water baths, and centrifuges; or other applications where personnel safety is mandatory.

Standard Sizes

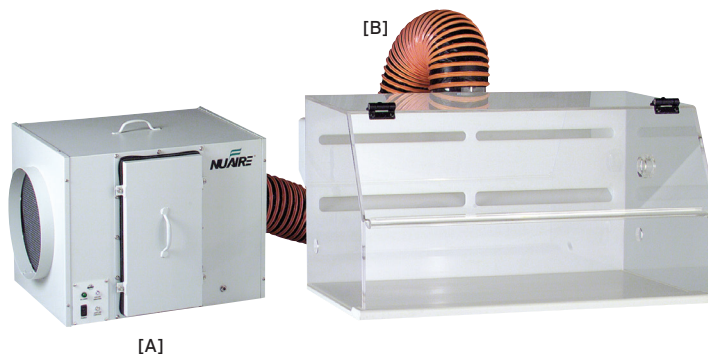
Catalog Number	NU-819-300	NU-819-400
Overall Dimensions, Inches (mm)		
Width	36 (914)	48 (1219)
Depth	31 3/4 (806)	31 3/4 (806)
Height	22 7/8 (581)	22 7/8 (581)
Work Area Dimensions, Inches (mm)		
Width	34 3/4 (883)	46 3/4 (1187)
Depth	21 1/4 (540)	21 1/4 (540)
Height	18 1/8 (460)	18 1/8 (460)

Standard Features

- Clear Acrylic Side Walls
- Clear Acrylic Hinged Viewing Window
- White Acrylic Back Panel
- Black Epoxy Work Surface

Optional Features

- Low Flow Alarm
- Base Support Stand
- Exhaust HEPA Filter Blower Module [A]
- Flexible Exhaust Duct [B]



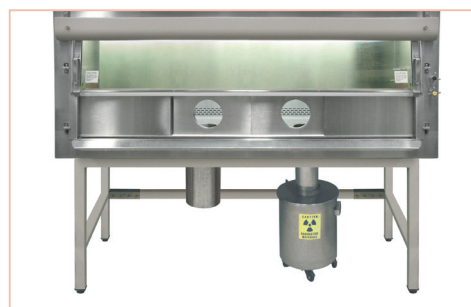
Experience Customized Equipment Any Product, Any Time, Any Where.

A dedicated engineering department provides you exactly what you need – NuAire puts their customers first. In a demanding world where you cannot always get what you want, NuAire is there making sure you get what you need down to every detailed specification.

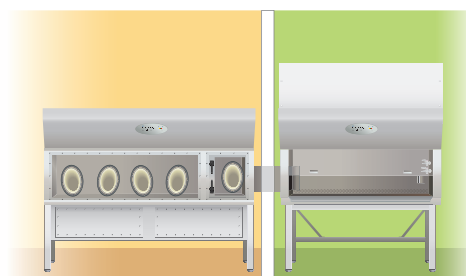
Experts in laminar flow, NuAire engineers customize products to meet rigid standards which ensure personnel, product, and environmental protection.

Products that can be customized to your specifications: biological safety cabinets, laminar flow hoods, pharmacy isolators, small animal bedding disposals, small animal handling equipment, laminar flow walk-in enclosures, Class III glove boxes, polypropylene products, and much more!

Experience NuAire custom engineered equipment and get what you really need.



Lead-Lined Biological Safety Cabinet



Class II to Class III Room Pass-Through

Laboratory Equipment and Supplies

NuAire offers a select variety of laboratory equipment supplies, aids, and accessories for use by the laboratory professional to improve their work environment.

Products include: an ergonomically-designed elbow/forearm rest, stainless steel turntable, footrests, portable ultraviolet

light for use within a biological safety cabinets, ultralow temperature freezer racks, CO₂ incubator shelves and tank switches, electrical surge suppressor, small acrylic fume hoods, and stainless steel butterfly valves. Scientific Visions products can make a difference.

www.scientificvisions.com



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