

# AIREGARD<sup>ES</sup>



## LAMINAR AIRFLOW WORKSTATIONS



The Safer Choice



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ISO 13485:2016 Fernbrook  
ISO 9001:2015 & Niagara  
CERTIFIED Locations





# NUAIRE

## THE NUAIRE ADVANTAGE

In 1971, Max D. Peters designed his first Biosafety Cabinet (BSC) from inside his garage at the behest of the National Institute of Health (NIH) in Bethesda, Maryland. The NIH put out a public purchase order (NIH-03-112c) for a machine that could guarantee the safety of scientific personnel and their research specimens. Max D. Peters helped establish the very fundamental standards that all modern Biosafety Cabinets are held to this very day. After being awarded the NIH contract, a new laboratory equipment engineering and manufacturing company, NuAire, was born. Today, NuAire, Inc. is still owned and operated by the Peters family in Plymouth, MN.

For over half a century, NuAire has consistently led the industry in safety standards and customer satisfaction. We obsess over our customers' needs and tailor unique solutions to meet those needs. With invaluable input from customers like you, we now offer a wide range of biological safety cabinets, CO<sub>2</sub> incubators, animal handling devices, centrifuges, ultralow freezers, acid-resistant polypropylene cabinetry and fume hoods, hospital pharmacy compounding isolators, and much more. With our cutting-edge robotic sheet metal facility, we are able to deliver you custom, innovative laboratory safety solutions in addition to the standard products that we sell.

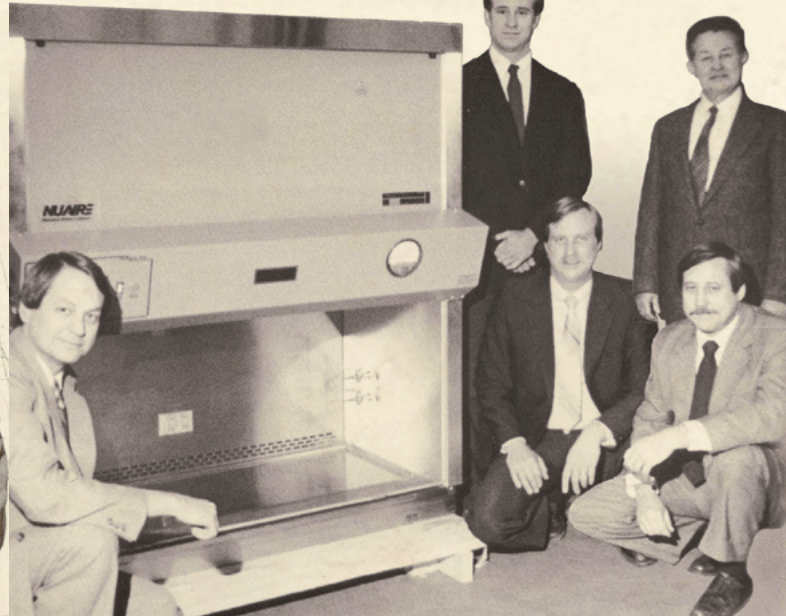
NuAire, Inc. has now sold more than 100,000 Laminar Airflow Workstations (LAFW) in more than 150 countries, spanning across all seven of the world's continents. We pride ourselves on our products' industry leading quality, reliability, low cost of ownership, and environmental sustainability. Our quality management system is certified to adhere to ISO 9001:2015 and 13485:2016 requirements. Our products are also celebrated for their ergonomic design, ease of use, and quiet operation. All standard LAFW units sold in the US and Canada come with a 5 year parts & labor warranty. Every one of our machines are built specifically to your order, so we can guarantee your satisfaction.

As NuAire continues to grow, we are committed to continuously improving our products and expanding our offerings. We always strive to provide you with the optimum level of personnel, environmental, and product protection throughout any industry.

### NuAire's Quality Policy:

- Satisfy Customers
- Comply with System Requirements
- Continually Improve

**Choose NuAire as the safer choice for your laboratory.**



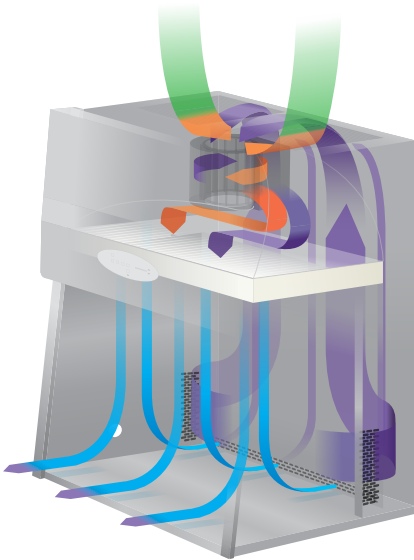
# WHAT IS A LAMINAR AIRFLOW WORKSTATION?

## ISO Class 5 Air Quality Protection.

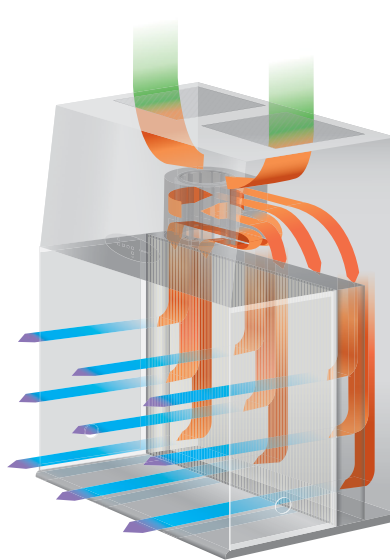
A laminar airflow workstation is a meticulously enclosed cabinet designed to prevent contamination of sensitive materials. Air is drawn through a HEPA filter and blown unidirectionally through the work zone and past the user at a constant velocity. Due to the uniform direction of the airflow, the product stays protected but the user is not protected from the product. All NuAire laminar airflow workstations also include our unique HEPEX™ Zero Leak Airflow System, longer lasting HEPA filters, and a central motor/blower control system for optimum air volume monitoring & control. Our cabinets are ideal for researching plant cells, electronics testing, and non-hazardous pharmacy drug preparation & compounding.

## Horizontal or Vertical Laminar Airflow?

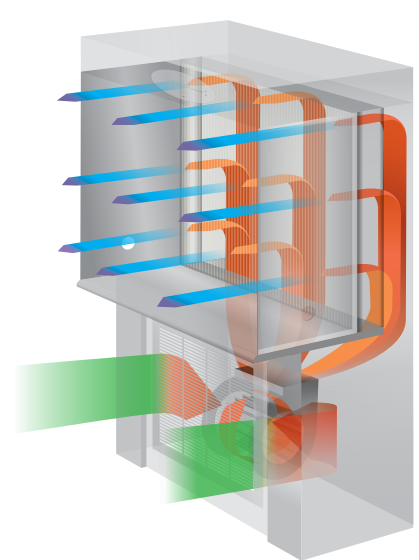
A horizontal air workstation will move HEPA filtered air from the back of the unit parallel to the work surface. A vertical flow cabinet will flush filtered air from the top of the unit down past the work zone. Both vertical and horizontal configurations provide effective sweeping action through the work zone but the type of application may determine which configuration is best for you. If your application process is performed above the work surface, a vertical air flow configuration may be ideal; particles inside a vertical configuration settle at the bottom of the work surface before exiting the enclosure. However, horizontal airflow may be preferred if your product must remain within the work zone for extended periods of time.



Vertical Laminar Airflow  
Top Side Air Intake



Horizontal Laminar Airflow  
Top Side Air Intake



Horizontal Laminar Airflow  
Bottom Side Air Intake

## NuAire Perfectly Fits for You and All Your Lab Needs.

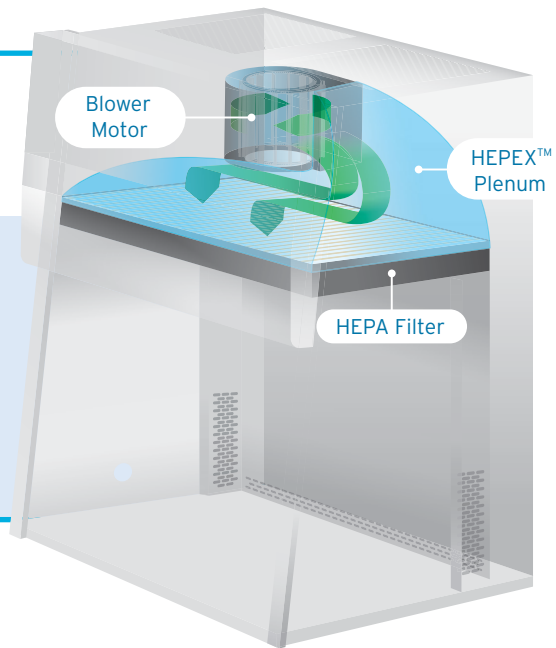
You deserve a high quality and robust laminar airflow cabinet each time you sit down for work. Each NuAire product goes through a stringent series of checks and balances before it arrives at your laboratory. As your product moves through each phase in the assembly process, each work station double checks the quality of the previous station; all filters are triple checked. Each cabinet is built to order for your specific application; It can be as simple as adding an additional service valve or as complex as redesigning the interior to fit a specific piece of laboratory equipment and/or automation.



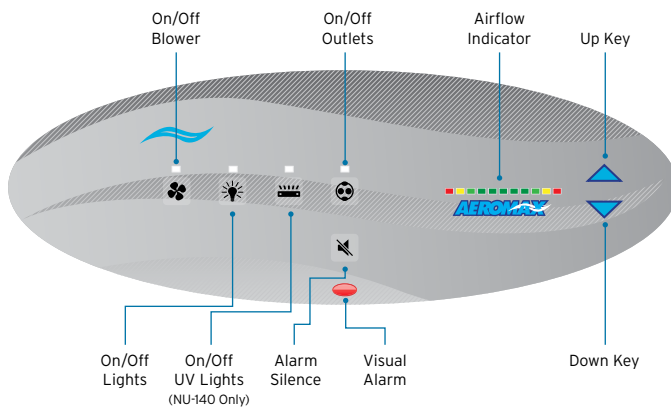
# SAFETY IS OUR NUMBER ONE PRIORITY

## HEPEX™ zero-leak airflow

The HEPEX™ Zero Leak Airflow System evenly disperses airflow over the HEPA filter surface resulting in a consistent air velocity throughout the entire work zone. The HEPEX™ plenum material also minimizes the unit's vibration and noise. It eliminates potential leakage by surrounding positive pressure chambers with negative ambient pressure.



## AEROMAX CONTROL CENTER



The AeroMax™ Control System is a simplified control system that monitors and displays airflow status via our single PressureFlow™ sensor - a specialized digital pressure transducer. The control panel also notifies lab workers with both visual and audio alarms if the unit's airflow pressure departs significantly from its set point. The user interface is operated through a series of buttons and LED indicators, which control the unit's blower, UV light, outlets, and single DC ECM motor.

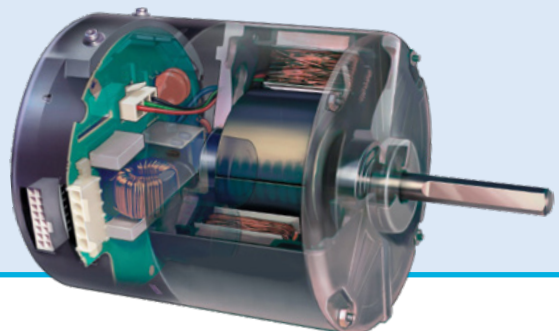
### Sustainability

NuAire remains committed to improving our local and global economies, environment, and social communities by utilizing products and supplies that minimize energy consumption and our environmental impact. We use recycled materials that will not deplete our natural resources whenever possible. We also offer a multitude of support and warranty plans to ensure you maximize the lifespan of all your NuAire lab equipment.

## SAVE MORE MONEY OVER LONGER PERIODS OF TIME.

### Ultra-High Efficiency DC ECM Motor.

A single ultra-high efficiency DC ECM motor with forward facing fan blades reduces total energy consumption while extending the lifespan of your filters. Our AireGard® Series optimize safety, efficiency, reliability, and longevity.

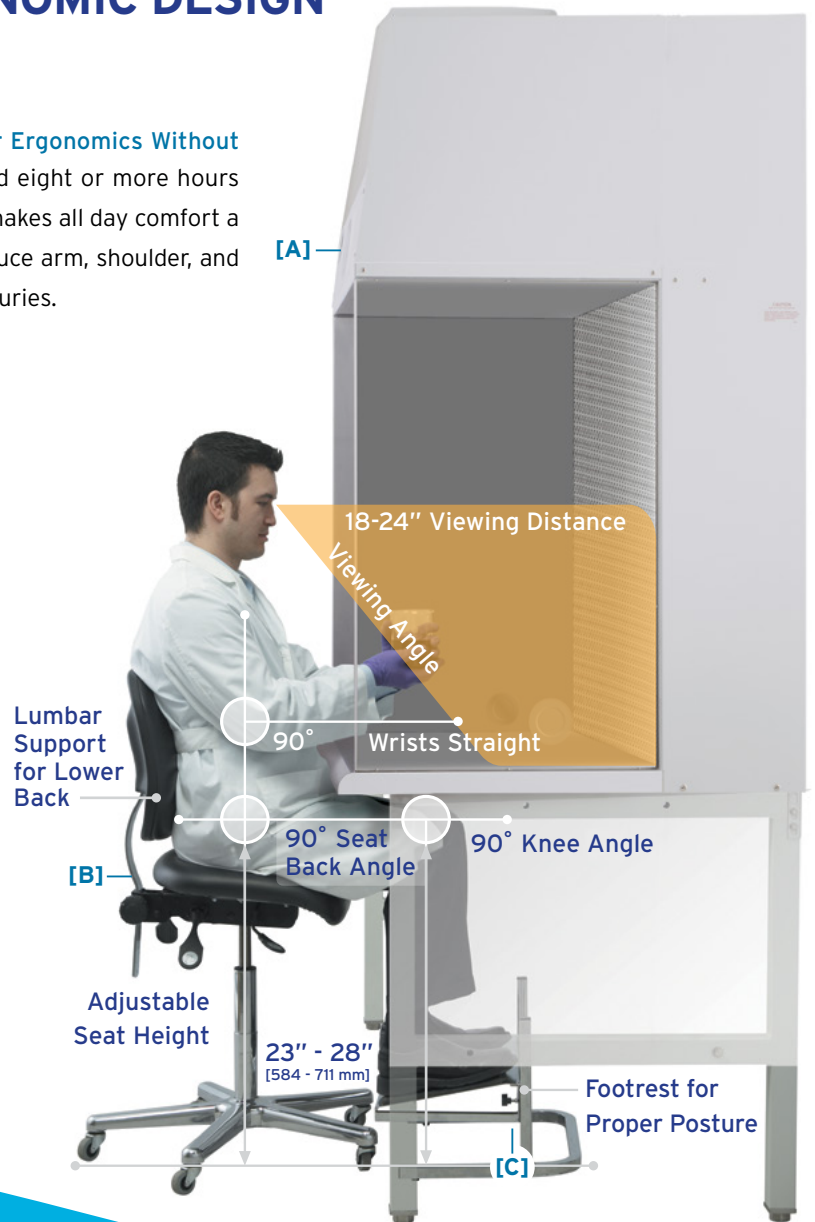


# ERGONOMIC DESIGN

**NuAire Laboratory Equipment Boasts Superior Ergonomics Without Compromising on Safety.** Scientists often spend eight or more hours sitting in front of a laminar airflow cabinet; this makes all day comfort a necessity. Our engineers' designs specifically reduce arm, shoulder, and neck strain that often contribute to workplace injuries.

## Ergonomic Benefits

All NuAire equipment is compliant with the Americans with Disabilities Act (ADA). The centrally located control panel **[A]** combined with a shorter reach into the work zone allows the user to bring their work closer for easy operation without sacrificing safety. An ergonomically designed chair **[B]** with the optionally available footrest **[C]** provide ideal back and leg support. Utilizing telescoping or motorized base stand options (NU-140 & NU-240 only) allows you to comfortably sit or stand at a wide range of heights. The work surface is illuminated by white fluorescent lighting, improving visibility and reducing eye fatigue. Increase your energy savings even more by upgrading to LED lighting.



## Options & Features

- Increased Knee & Leg Room
- Augmented Cabinet Work Zone
- Adjustable IV Bar w/ Six (6) SST Hooks
- Adjustable Base Stand and Footrest Options
- Movable Elbow Rests w/ Silicone Padding
- Cord Pass-Through Ports & GFCI Outlets
- Stainless Steel Turntable Accessories



Make IV compounding simple and easy with the adjustable IV bar + 6 hooks.



Perfect your posture with our adjustable footrest.



Reduce reaching across your work zone with our stainless steel turntable.



Movable elbow rests with silicone padding complements any NuAire airflow product.



# EASIER ON YOU & SERVICE PERSONNEL

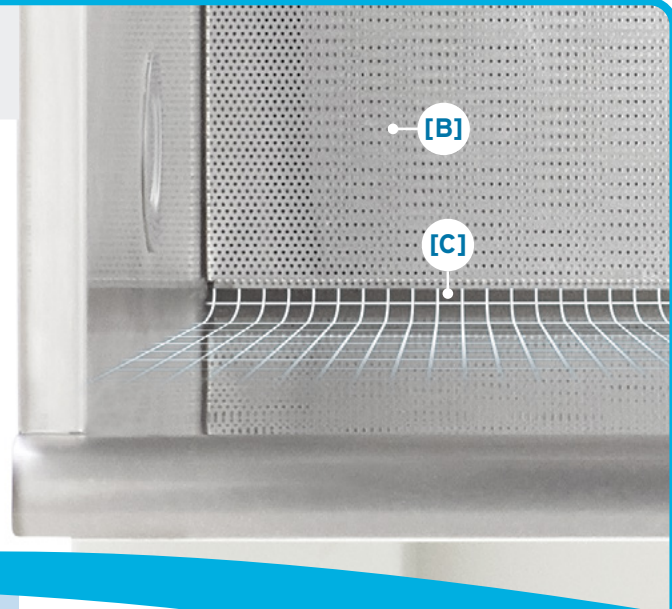
100% of Service Functions Can be Performed From the Front or Top of the Cabinet. No repositioning necessary! Our NuAire engineers designed every one of our laminar airflow workstations to be easily maintained by service professionals, which lowers your laboratory's downtime and service fees. For horizontal airflow units, removing the diffuser screen [A] located in the back of your work zone allows quick access to the HEPA filter. For the vertical laminar airflow units, the diffuser screen is located at the top of the cabinet's work zone. All NuAire LAFW units also come with a standard 5 year parts, labor, and filters warranty.\*



*\*Note: United States & Canada only; contact your local NuAire distributor for international warranty details.*

## CLEANABILITY

All AireGard® Laminar Airflow Workstations come standard with a type 304 stainless steel interior to improve cleanability. On horizontal airflow models, the metal diffuser screen that protects the HEPA filter [B] can be easily removed by hand without the use of tools for cleaning. It is designed with small perforated holes that do not catch or snag cloth and paper wipes. The work zone features a spill lip [C] that protects the HEPA filter in case of a liquid spill.



The NU-340 pre-filter is located just behind the front access grate [D] on the lower front panel of the cabinet.



The NU-140 Electronic, lighting, and filter components are accessible through the hinged front service panel.

# AIREGARD® ES NU-140

## Vertical Laminar Airflow Workstation

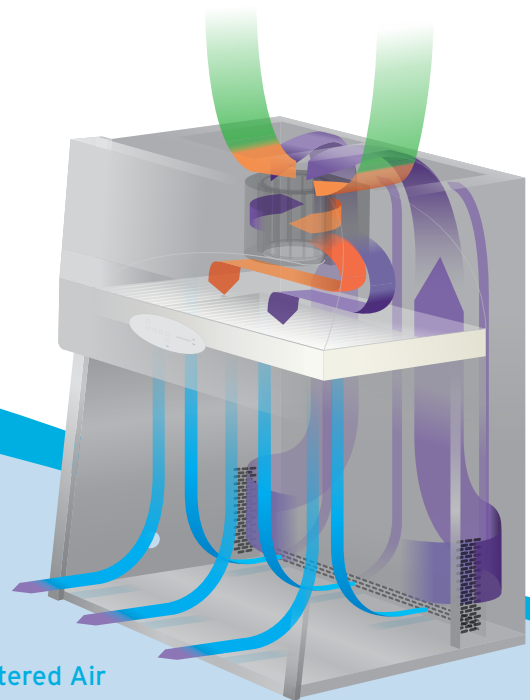


▲ AireGard® ES NU-140-430 shown with optional glass side walls and telescoping base stand with casters.

The AireGard® ES (Energy Saver) Model NU-140 Vertical Laminar Airflow Workstation is a bench/table top model with available base stand options. The NU-140 offers ISO Class 5 air product protection with HEPA filtered air flowing downward over the work zone at a constant velocity of 90 fpm (0.46 m/s). This unidirectional downflow minimizes air turbulence within the work zone and diminishes the potential for cross-contamination. The motor blower, in conjunction with our unique HEPEX™ Zero Leak Airflow System, is positioned to produce at least 90% of constant air delivery with filter loading of up to 250%; this greatly prolongs the overall lifespan of your HEPA filters. The NU-140 is ideal for the preparation of injectable drugs, IV solutions, tissue cultures, microelectronics, and anything else requiring ISO Class 5 air quality product protection.



product protection



- ➡ HEPA Filtered Air
- ➡ Contaminated Room Air
- ➡ Contaminated Work Zone Air
- ➡ Pre-filtered Work Zone Air



The AireGard® NU-140 can be optionally equipped with a mounted or portable Ultraviolet (UV) Light.



# AIREGARD® ES NU-240

## Horizontal Laminar Airflow Workstation

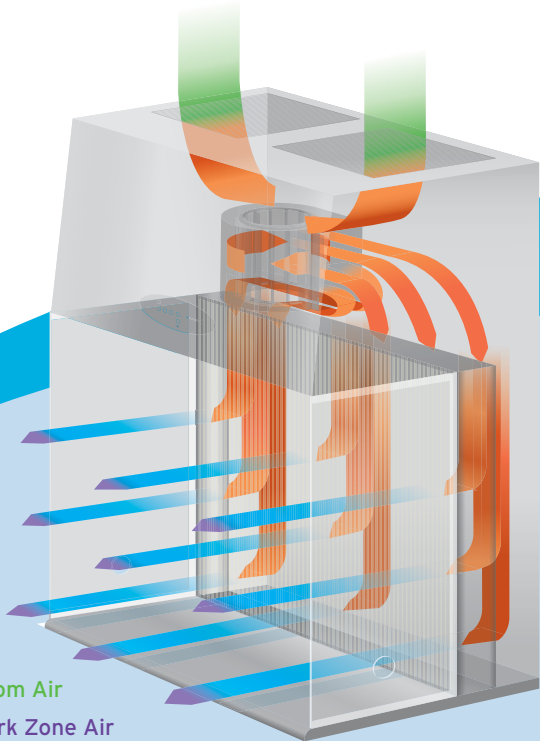
NuAire's AireGard® ES (Energy Saver) Model NU-240 Horizontal Laminar Airflow Workstation is designed as a bench/table top model with available base stand options. The NU-240 cabinet can be used where ISO Class 5 clean airflow is required for the preparation of non-hazardous drugs, IV solutions, tissue cultures, optics, microelectronics, etc. The NU-240 workstation is used to protect your product from environmental contamination and comes available with telescoping or auto-rising mechanical base stand options, placing your work surface at a comfortable height range of 28" to 40" (711 to 1016 mm). This model is also equipped with an ultra-high efficiency DC ECM motor that is paired with an optimally determined forward-facing fan. This unit lowers your total cost of ownership by using less energy while extending the lifespan of the HEPA filters. This combined with our signature HEPEX™ Zero Leak Airflow System reduces motor noise, minimizes work zone vibration, and automatically compensates for any filter loading and line voltage variance.



▲ AireGard® ES NU-240-430 shown with an optional IV bar and motorized auto-rising base stand with heavy-duty casters.



All AireGard® Laminar Airflow Cabinets can be optionally equipped with exterior GFCI duplex outlets attached just below the work surface.



- ➡ HEPA Filtered Air
- ➡ Contaminated Room Air
- ➡ Contaminated Work Zone Air
- ➡ Pre-filtered Work Zone Air

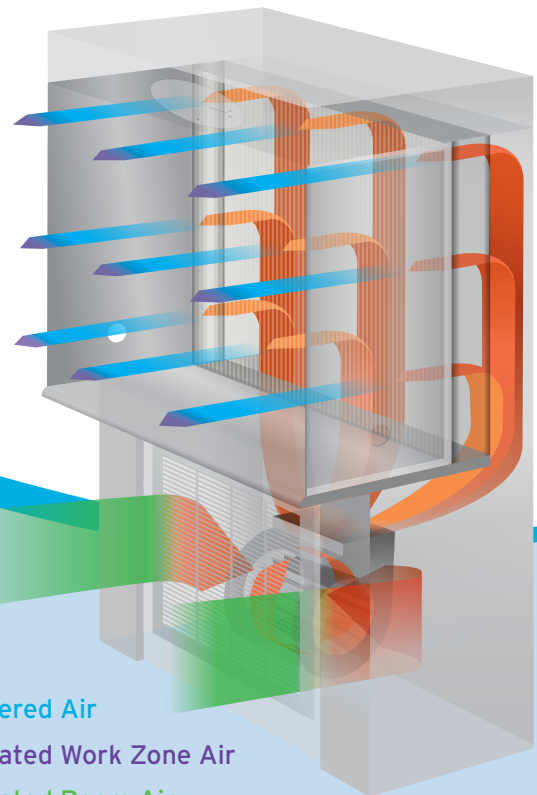
# AIREGARD® ES NU-340

Horizontal Laminar Airflow Workstation



▲ AireGard® ES NU-340-430 configured with a stainless steel interior, LED lighting, IV bar, and casters.

The AireGard® ES (Energy Saver) Model NU-340 Horizontal Laminar Airflow Workstation is a console model featuring the ultra high-efficiency DC ECM motor and pre-filter grate mounted below the work surface for additional overhead clearance. The built-in washable pre-filter greatly extends the overall lifespan of the HEPA filters by catching any large particles before accumulating within your HEPA filters. The NU-340 is also equipped with a single ultra-high efficiency DC ECM motor that lowers the overall cost of ownership by reducing energy consumption. Model NU-340 is ideal for mixing IV solutions, preparing and compounding sterile non-hazardous drugs, tissue cell cultures, micro-electronics, and anything else requiring ISO Class 5 air product protection.



The Ergotron™ Arm attaches a keyboard / mouse and computer monitor directly to your cabinet for a more efficient work zone.



- ➡ HEPA Filtered Air
- ➡ Contaminated Work Zone Air
- ➡ Contaminated Room Air
- ➡ Pre-filtered Work Zone Air



# FEATURES & SPECIFICATIONS

Laminar Airflow Workstations			
Model #	NU-140	NU-240	NU-340
Cabinet Style	Bench Top w/ Optional Base Stand		Full Console
Nominal Widths	3, 4, 5, 6 ft [0.9, 1.2, 1.5, 1.8 m]		
Laminar Airflow Direction	Vertical	Horizontal	
Workspace Dimensions (W x D x H)	(34 / 46 / 58 / 70) x 26.75 x 30 in [(860 / 1165 / 1470 / 1775) x 679 x 765 mm]	(36 / 48 / 60 / 72) x 19.6 x (32 / 38) in [(911 / 1216 / 1521 / 1826) x 498 x (813 / 965) mm]	
Exterior Dimensions (W x D x H)	(38 / 50 / 62 / 74) x 32 x 58 in [(965 / 1270 / 1575 / 1880) x 813 x 1473 mm]	(38 / 50 / 62 / 74) x 32 x (55.4 / 61.4) in [(965 / 1270 / 1575 / 1880) x 813 x (1406 / 1559) mm]	(38 / 50 / 62 / 74) x 32 x (76.4 / 82.4) in [(965 / 1270 / 1575 / 1880) x 813 x (1940 / 2093) mm]
Net Weight	300 - 600 lbs [136 - 270 kg]	290 - 470 lbs [132 - 213 kg]	330 - 540 lbs [150 - 245 kg]
Certifications	UL listed, ISO Class 5 Air Protection		
Access Opening	25.25 in [641 mm] (No UV Light Option) 20 in [508 mm] (w/ UV Light Option)	32 or 38 in [813 or 965 mm] (Nominal 6 ft sizes only available in 32 in [813 mm] height)	
Electrical Requirements	115 VAC / 60 Hz		
Filter Load Capacity	250%		
Laminar Airflow Velocity	90 fpm [0.46 m/s] True Laminar Airflow Velocity, ISO Class 5 Air Protection		
Supply Filter	3 in [76 mm] Wide HEPA 99.99% Efficient @ 0.3 microns	Filter Height: 30 or 36 in [762 or 914 mm]* Width: 3 in [76 mm] HEPA 99.99% Efficient @ 0.3 microns	
Pre-Filter	Washable & Reusable, Paper-Free Mesh Pre-Filter		
Control System	AeroMax™ w/ PressureFlow™ Pressure Sensor		
Lighting Options	Fluorescent		
	LED		
	Ultraviolet (UV) Light Option	Unavailable	
Password Protection	Yes		
Noise Level	Up to 67 dBA		
Construction Options	Cord Pass-Through Ports (Right/Left Sidewalls)		
	Service Valve/Coupling Options (Right/Left Sidewalls)		
	Duplex Outlet (Mounted Below Work Surface)		
	Rear Wall Recirculation Grill for Airflow Uniformity	Back Wall Metal Diffuser w/ Quick Clean Removal	
	Frameless Easy-to-Slide Viewing Window (Pairs with UV Light Option)	Unavailable	
	Stainless Steel Sidewalls		
	Clear Polycarbonate Sidewalls		
	AttenuMont™ Vibration Control Support System		
	Stainless Steel Work Surface w/ PVC Core		
	Nevamar Work Surface w/ PVC Core		
	IV Bar w/ 3 Height Locations, 6 Hooks		
Seismic Brackets (Rear / Floor Mount)			
Base Stand Options	Telescoping Adjustable Base Stand (w/ Leg Levelers or Caster Wheels)		Leg Levelers
	Motorized Adjustable Base Stand (w/ Leg Levelers or Caster Wheels)		Heavy-Duty Casters
Popular Accessories	Adjustable Ergonomic Footrest		
	Silicone Cushioned Movable Elbow Rests		
	Ergotron™ Monitor, Keyboard, and Mouse Mount		
	Storage Pull-Out Trays or Shelves		
Standard Feature		Optional Feature	

\*Note: Nominal 6 ft [1.8 m] size units do not have access to 36" [914 mm] HEPA filter height.



\*Contact your local NuAire distributor for international warranty details.



# POPULAR CONFIGURATIONS

Arranged by Industry Application

## Pharmacy Compounding

AireGard® ES NU-240

Stainless Steel Work Surface

Stainless Steel Sidewalls

IV Bar + Hooks

LED Lighting

Motorized Base Stand  
w/ Caster Wheels



## Medication Workflow

AireGard® ES NU-240

Stainless Steel Work Surface

Stainless Steel Sidewalls

IV Bar + Hooks

LED Lighting

Telescoping Base Stand  
w/ Base Stand Shelf

Ergotron™ Arm

Mounted Outlets



## Plant Cell Culture

AireGard® ES NU-140

LED Lighting

Stainless Steel Work Surface

Clear Polycarbonate Sidewalls

Telescoping Base Stand w/  
Heavy-Duty Caster Wheels

Padded Elbow Rests

Adjustable Footrest

UV Light with Sliding Window  
(NU-140 Only)

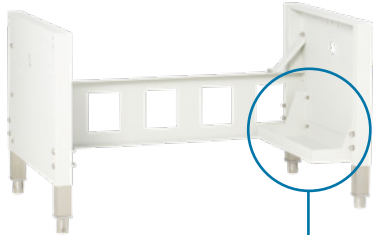


# POPULAR ACCESSORIES

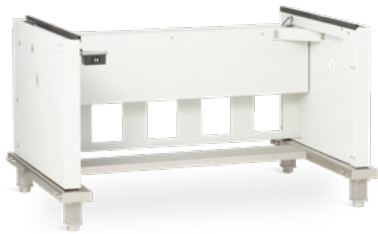
Add and Extend Your Lab's Capabilities

Personalize Your NuAire Laboratory Equipment for Extra Comfort and Versatility. Any NuAire laminar airflow workstation can be customized for any scientific application while preserving user comfort and safety for the entire day, every day. See below for our most popular accessories; if you don't see exactly what you're looking for, please give us a call at any time for assistance in picking out the perfect combination of items to fit any area of expertise.

## BSC Base Stands Options



**Telescoping Base Stand\***  
w/ Leg Levelers or Casters  
**Optional Shelf Attachment**  
8 or 12 in [203 or 305 mm]



**Motorized Base Stand\***  
w/ Leg Levelers or Casters  
(No Available Shelf Attachments)

*\*Base stand options are only available on the NU-140 & NU-240 models*

## Ergonomics & Workflow



**Ergotron™ Arm**



**Extended Work Surface**



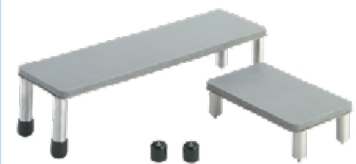
**Stainless Steel Turntable**



**IV Bar w/ 6 Hooks**  
Three (3) Bar Height Options

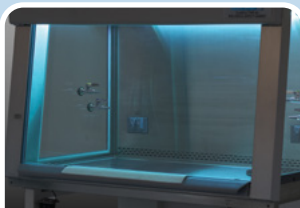


**Adjustable Foot Rest**



**Padded Elbow Rests**  
5 or 10 in [127 or 254 mm]

## Construction Options



**Ultraviolet (UV) Light**  
(NU-140 Model Only)



**Duplex GFCI Outlets**



**Interior LED Lighting**  
(Replaces Fluorescent Lighting)



**Service Valves/Couplings**



# CUSTOM SOLUTIONS

## Engineered to Your Lab's Specific Needs

In every NuAire product you'll find brilliant yet practical design with keen attention to detail in every phase of the fabrication and assembly process; you'll always receive thoroughly tested equipment at outstanding value, and with dependable customer service guaranteed. These are the fundamentals for NuAire's international reputation and the reasoning behind our universal recognition as the world's finest. Despite our engineers' finely honed genius, your lab may require something that has never been done before. Luckily, our custom sales department has nearly half a century's worth of experience in crafting all sorts of new and innovative lab equipment to meet your specific

needs. We routinely reshape our cabinet's inner and outer dimensions to neatly fit within any space inside your lab. We often add computer arms, monitors, and microscope windows into our standard cabinets, as well. Another common customization involves installing an IV bar and smooth interiors for efficient and ergonomic pharmacy compounding. Regardless of what type of modification your lab and research may require, NuAire is capable of meeting any esoteric laboratory need and provide you with excellent troubleshooting support for years to come, ensuring your custom equipment continues to perform at peak levels for the entirety of its lifespan.

**If your lab requires a unique solution, give us a call; we love a challenge.**



This LAFW was created with a nominal width of 8 ft [2.4 m], clear polypropylene sidewalls, and a custom mounted IV bar.



This LabGard® BSC was fitted with a microscope viewing window to accommodate workflow specializing in human cell tissue research.



A custom model NU-240 was designed to offer a broader and taller work zone to accommodate a single workflow process involving microscopes. A customized isolation table was added to eliminate vibration in the work surface. The extended work surface allows a technician to perform several protocols without having to leave the work zone.

# COMPLETE YOUR LABORATORY

Add and Extend Your Lab's Capabilities

NuAire manufactures scientific laboratory equipment and compounding pharmacy airflow products, which provide personnel, product, and environmental protection in critical research facilities throughout the world. Continue your journey with the NuAire family by completing your laboratory with the full suite of NuAire quality products.



**NUVIND**  
Centrifuges



**LABGUARD**  
Biosafety Cabinets



**IN-VITROCELL**  
CO<sub>2</sub> Incubators



**AIRECARD**  
Laminar Airflow Workstations



**ALLERGARD**  
Animal Handling Stations



**SLIZZARD**  
Ultralow Freezers



**PHARMAGARD**  
Compounding Isolators



Polypropylene Fume Hoods  
and Casework



Custom Solutions

# AIREGARD<sup>ES</sup>

LAMINAR AIRFLOW WORKSTATIONS

## LAMINAR AIRFLOW WORKSTATIONS



**The Safer Choice.**

For more information please visit:

[www.nuaire.com](http://www.nuaire.com) or call **1.800.328.3352**



Your Local NuAire Partner:



ISO 13485:2016 Fernbrook  
ISO 9001:2015 & Niagara  
CERTIFIED Locations



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Request a Quote Online

[www.nuaire.com](http://www.nuaire.com)