

PHARMAGARD^{ES}

RESTRICTED ACCESS BARRIER SYSTEMS

MINIMIZE RISK | MAXIMIZE STERILITY



NUAIRE
A Kewaunee Company

NuAire, Inc. | NUAIRE.COM

WORLD-CLASS LABS DESERVE FIRST-IN-CLASS SOLUTIONS

Empower Your Research with Kewaunee and NuAire.



We are thrilled to share that NuAire is now a Kewaunee company. This partnership brings together two of the most renowned names in laboratory furnishings, combining world-class portfolios and nearly two centuries of shared expertise to create a powerhouse of innovation and customer-centered solutions.

Together, Kewaunee and NuAire offer a comprehensive range of laboratory-grade products that cater to the unique needs of diverse scientific spaces. From Kewaunee's nearly 120 years of experience producing superior lab furniture and fume hoods to NuAire's advanced biosafety cabinets and airflow products, we offer tailored solutions that meet the highest standards of quality, safety, and efficiency.

NuAire has over 50 years of experience designing and building airflow equipment and is a leading brand in the biocontainment industry. Founded by Max Peters in the early 1970s, NuAire products serve the needs of many industries including microbiological research, animal research, hospital pharmacy compounding, and more.



Kewaunee Headquarters
& USA Manufacturing Facilities: Statesville, North Carolina



NuAire Headquarters
& Manufacturing Facilities: Plymouth, Minnesota

TOTAL LAB SOLUTIONS

A WORLD CLASS PARTNERSHIP

The partnership of Kewaunee Scientific and NuAire allows us to offer comprehensive laboratory equipment solutions and complete laboratory furniture infrastructure.



- Class II Biological Safety Cabinets
- Laminar Airflow Workstations
- Containment Ventilated Enclosures
- Restricted Access Barrier Systems
- CO₂ Incubators
- Ultra Low Temperature Freezers (via OEM)
- Animal Transfer Stations
- Animal Refuse Workstations
- Custom Lab Automation Enclosures
- Steel casework
- Wood casework
- Fume hoods
- Ventilated products
- Adaptable modular systems
- Moveable workstations
- Lab benches and tables
- Epoxy resin worksurfaces & sinks
- Stainless steel furniture



YOUR CHOICES FROM NUAIRE EQUIPMENT FOR EACH KEY APPLICATION

NuAire's portfolio of Restricted Access Barrier Systems (RABS) provides the protection required by many health system pharmacies that require primary engineering controls (PECs) and containment primary engineering controls (C-PECs) to prepare compounded sterile preparations (CSPs). Choose one of our models below or contact us for a bespoke solution.

Application & Model	Equipment Type	Pressure & Airflow	Protection
Sterile, Non-Hazardous Compounding			
NU-PR797	Compounding Aseptic Isolator (CAI)	Positive Pressure Recirculating	Compounded Sterile Preparations (CSPs)
Sterile, Hazardous Compounding			
NU-NR800	Compounding Aseptic Containment Isolator (CACI)	Negative Pressure Recirculating	CSPs, Technicians, and the Environment
Sterile, Hazardous Compounding			
NU-NTE800	Compounding Aseptic Containment Isolator (CACI)	Negative Pressure Total Exhaust	CSPs, Technicians, and the Environment
YOUR Unique, Specialized Medication Workflow			
NU-LXXX	Custom Equipment		Dependent on Workflow

COMPOUNDING ASEPTIC & CONTAINMENT ISOLATORS ENGINEERED TO MAXIMIZE PRODUCTIVITY AND COMFORT

PharmaGard Compounding Aseptic (CAI) and Containment (CACI) Isolators provide a sterile work environment for the compounding of hazardous and non-hazardous drugs. PharmaGard creates true HEPA filtered laminar airflow at 20 air changes per minute within both the work zone and interchange areas to assure ISO Class 5 conditions. Utilizing laminar flow ensures a continuous stream of HEPA filtered air across the work zone and interchange areas, ensuring

sterility and minimizing cross contamination. Once the air is through the work area, the airflow is split from front to rear. The airflow then proceeds under the work tray, up the rear divider panel where it is recirculated or exhausted.

The PharmaGard PR is a Compounding Aseptic Isolator that meets the USP 797 Standard for aseptic compounding of non-hazardous drugs.



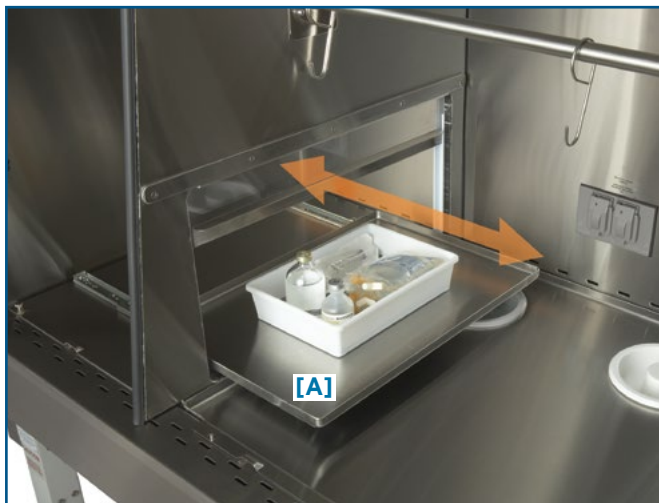
The PharmaGard NTE is a Compounding Aseptic Containment Isolator that meets the USP 800 Standard for handling hazardous drugs.



ERGONOMICALLY DESIGNED FOR YOUR WORKFLOW

Sliding Work Tray

Located in the transfer compartment, the sliding work tray [A] provides a seamless transition when entering compounding materials into the work zone. The stainless steel work tray is mounted on ball bearing brackets to smoothly enter compounding materials into the sterile work area.



Counter Balance Inner Transfer Window

The transfer window counter balance [B] is isolated from sterile product inside the inter-chamber wall. The window moves easily up or down with one finger. A security lock on NR and NTE units ensures the inner transfer door remains locked if the outer door is open.



ERGONOMIC DESIGN FEATURES

Ability to Sit or Stand at a Range of Heights

The isolator design maximizes knee/thigh clearance to improve posture and the adjustable base stand allows for optimization of leg and upper body support.



Expanded Vision Zone and Work Zone

PharmaGard isolators offer greater visibility due to cool white lighting and open sight lines. The large effective work zone [C] helps reduce arm / neck / shoulder strain. Large oval glove ports [D] extend the reach of the user, and three IV bar locations [E] provide proper compounding height/distance.



SHARPS AND WASTE SYSTEM TO SAVE YOU SPACE



SHARPS AND WASTE DISPOSAL

The PharmaGard Series allows users to dispose of waste and sharps directly from the sterile work zone. Two waste containers [A] are accessible through covered negative pressure drop tubes to maintain sterility inside the work area and containment on the isolator exterior.



Once a container has been filled and is ready for replacement, PharmaGard allows the end user to individually change out each container when needed.

After the waste or sharps container lid has been sealed, follow these steps:



1



Step 1. Release locking mechanism by pulling handle.

2



Step 2. Pull container tray down and out. Remove container block.

3



Step 3. Remove container from guides and replace.

DOCUMENTATION AND SURVEILLANCE TRAINING IN THE PHARMACY

US Pharmacopeia (USP) calls for the documentation of standard operating procedures (SOPs) and many pharmacies employ compounding software. NuAire has developed easy add-on accessories and built-in options to streamline the documentation process.



Monitor and Keyboard/Mouse Arm

The addition of a monitor and keyboard/mouse arm allows technicians to easily access and follow compounding SOPs. Workflow documentation can be entered throughout the compounding process.



VIDEO SURVEILLANCE CAMERAS



Video Cameras

One or more cameras can be added to a PharmaGard back wall or mounted to the front of the control panel to monitor the healthcare worker, document compounding processes or spill control procedures, etc.

The optional **Front Camera Mount**, available from NuAire, allows for the mounting of many different types of cameras outside the cabinet.



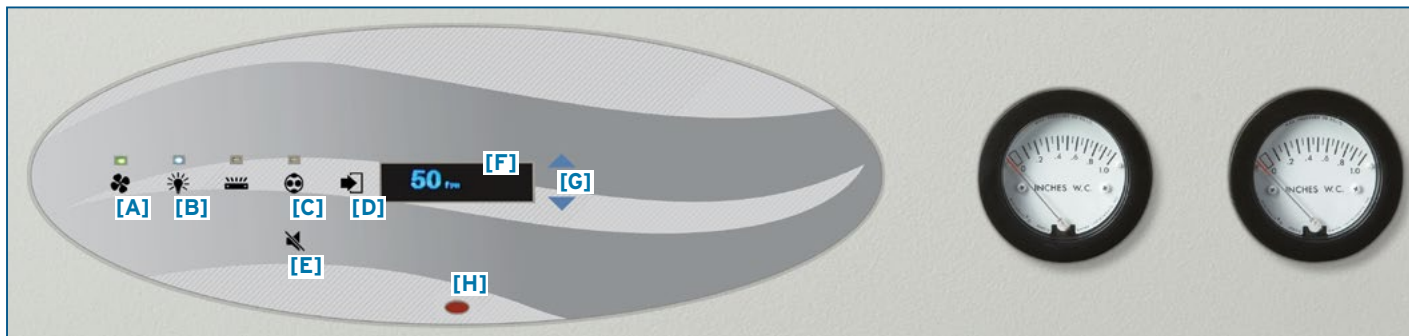
A video camera isolated from the **sterile work area** by a glass panel can be added to the back wall of a PharmaGard.

ELECTRONIC CONTROL SYSTEM (ECS)

Each **PharmaGard Electronic Control System (ECS)** is designed for high user adoption. Easy to read on/off switches make each PharmaGard simple to operate. Visual indication of system operations is shown through mini-helic gauges that monitor pressures within the interchange and main chamber.

Compounding Aseptic Isolators (CAI)

The optional Pharmagard Pressure Monitor displays the positive static pressure within the main chamber. The pressure monitor is calibrated in “inches of water gauge” pressure. The pressure monitor will read the same as the main chamber minihelic gauge and in addition, allow a low/high alarm limit point to be set. The default alarm limits is set to 0.10” w.g. low and 0.50” w.g. high. See optional equipment section for greater detail. See visual on next page.



[A] The Blower key indicates and controls ON/OFF power to the blower.

[B] The Light key indicates and controls ON/OFF power to the LED light.

[C] The Outlet key indicates and controls ON/OFF power to the outlets.

[D] The Enter key is used to select item on display or accept and enter current item, function or value.

[E] The Silence key allows a user to silence an audible alarm for 15 minutes. After 15 minutes if the alarm condition continues, the alarm will repeat.

[F] The FlowGard OLED screen displays a variety of functions.

[G] The Arrow Adjustment keys allow user interaction for various functions.

[H] The Red Alarm LED indicates any alarm condition.

PHARMAGARD DIGITAL MONITOR ELECTRONIC CONTROL SYSTEM (ECS)

Compounding Aseptic Containment Isolators

The PharmaGard Digital Monitor uses an integrated digital pressure transducer to monitor positive (CAI) or negative (CACI) pressure. System operational health is displayed visually through system LEDs. Each color represents specific condition outlined below:

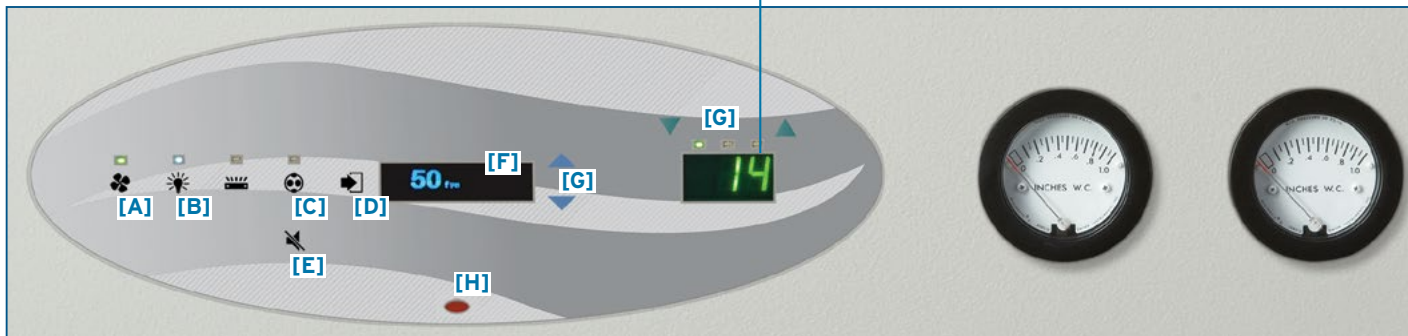
Green = Acceptable Pressure

Yellow = Caution, near alarm point

Red = Alarm Condition

In the event of an Alarm Status a audible alarm will sound notifying the end user the system no longer offers protection. The PharmaGard Digital Monitor comes standard on models NU-NR800 and NU-NTE800 and is an optional upgrade on model NU-PR797. See description for NU-PR797 on prior page.

The PharmaGard Pressure Monitor displays the negative static pressure within the main chamber. The pressure monitor is calibrated in "inches of water gauge" pressure. The pressure monitor will read the same as the main chamber mini-helic gauge and in addition, allow a low/high alarm limit point to be set. The default alarm limits is set to - 0.03" w.g. high and -1.50" w.g. low.



[A] The Blower key indicates and controls ON/OFF power to the blower.

[B] The Light key indicates and controls ON/OFF power to the LED light.

[C] The Outlet key indicates and controls ON/OFF power to the outlets.

[D] The Enter key is used to select item on display or accept and enter current item, function or value.

[E] The Silence key allows a user to silence an audible alarm for 15 minutes. After 15 minutes if the alarm condition continues, the alarm will repeat.

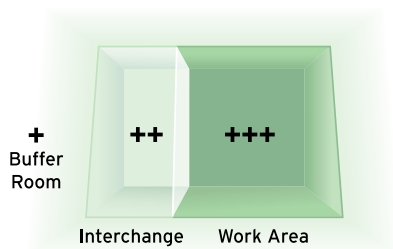
[F] The FlowGard OLED screen displays a variety of functions.

[G] The Arrow Adjustment keys allow user interaction for various functions.

[H] The Red Alarm LED indicates any alarm condition.

COMPOUNDING ASEPTIC ISOLATORS (CAI) FOR NON HAZARDOUS DRUGS

The PharmaGard PR creates a **positive pressure** clean air [ISO Class 5] controlled environment specifically for aseptic compounding of non-hazardous drugs. The HEPA filtered work area maintains a positive pressure relative to the interchange compartment, which operates at a positive air pressure relative to the surrounding room. These two levels of protection minimize the possibility of contamination migrating into the work zone.



Model	Size (nominal)	Electrical* (all sizes)	Overall Dimensions** W x D x H In. [mm]	Work Zone Dimensions (W x D x H) In. [mm]	Interchange Dimensions (W x D x H) In. [mm]	Net Weight
NU-PR797-400	4 ft. [1.2 m]	115 VAC / 60 Hz E: 230 VAC / 50 Hz	50 x 32 1/2 x 48 [1270 x 826 x 1219]	35 1/4 x 23 1/4 x 27 3/8 [895 x 591 x 695]	14 1/8 x 24 x 27 3/8 [359 x 610 x 695]	425 lbs. [193 kg.]
NU-PR797-600	6 ft. [1.8 m]		74 x 32 1/2 x 51 1/2 [1880 x 826 x 1219]	59 1/4 x 23 1/4 x 27 3/8 [1505 x 591 x 695]	14 1/8 x 24 x 27 3/8 [359 x 610 x 695]	575 lbs. [261 kg.]

*Specify models with appropriate letter suffix for electrical specifications. "NU-PR797-400E" for 230 VAC / 50 Hz

**Exterior width dimension will increase 3" minimum for base stand

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

SPECIFICATIONS

Performance Specifications:

ISO Class 5 Clean Air

50 fpm (0.25 m/s) Average Down Flow

Efficiency Features:

Ultra High Efficiency Motor(s)

Motor Speed Controller

Superior Construction Features:

Steel Construction

Removable Control Center

Removable Stainless Steel Coved Work Tray

Stainless Steel Spill Trough with Drain Valve

Vibration Reducing Work Surface

Support System

Minimum 45 foot-candles

(484 LUX) Lighting

Safety Features:

Supply HEPA Filter, 99.99% @ 0.3 Micron Efficiency Rating

HEPEX Zero Leak Airflow System

UL Listed

Standard Features:

Three (3) Position IV Bar w/ 6 hooks

Auto Lift Base Stand

Large Oval Glove Ports

Hinged Slanted Window

3/8" Thick Scratch Resistant Polycarbonate Window

Flexible Two-Piece Nitrile Sleeve / Glove

Front Filter Removal

Permanent Plenum with Supply Filter

External LED Lighting

Removable Work Tray

Metal Diffuser Over Supply Filter

Spill Trough with Drain Valve

One Duplex Outlet Back-wall

12 ft [2.5 m] Power Cord

GFI Outlet

Optional Features and Accessories:*

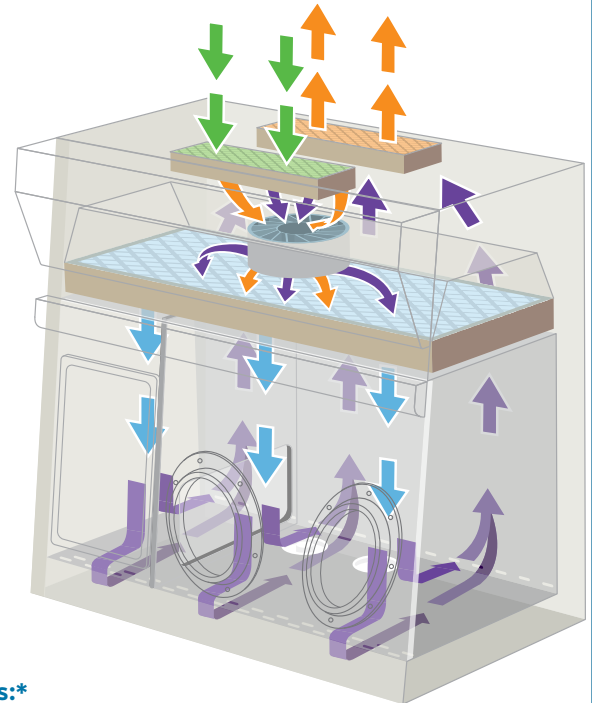
Sharps and Waste System

Storage Pull-Out Trays

Adjustable Footrest

PharmaGard Monitor

Custom Solutions



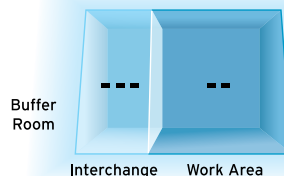
PharmaGard PR797 Airflow

- Room Air
- HEPA-Filtered Air
- Worksurface Air (Contaminated)
- Pre-Filtered Air

* Note: some optional features are not approved by 3rd party listings.
Please contact NuAire for more information.

COMPOUNDING ASEPTIC CONTAINMENT ISOLATORS (CACI) FOR HAZARDOUS DRUGS

The **PharmaGard NR and NTE** create a negative pressure clean air [ISO Class 5] controlled environment for the aseptic compounding of hazardous drugs. The HEPA filtered interchange compartment maintains a negative pressure relative to the work area, which operates at a negative air pressure relative to the surrounding room. These levels of protection minimize the possibility of chemotherapy agents or other hazardous materials migrating from the work area into the surrounding room as well as minimizing the possibility of contamination migrating into the work zone.



Model	Size (nominal)	Electrical* (all sizes)	Overall Dimensions** W x D x H In. [mm]	Work Zone Dimensions (W x D x H) In. [mm]	Interchange Dimensions (W x D x H) In. [mm]	Net Weight
NU-NR800-400	4 ft. [1.2 m]	115 VAC / 60 Hz E: 230 VAC / 50 Hz	50 x 32 ¹ / ₂ x 51 ³ / ₄ [1270 x 826 x 1314]	35 ¹ / ₄ x 23 ¹ / ₄ x 27 ³ / ₈ [895 x 591 x 695]	14 ¹ / ₈ x 24 x 27 ³ / ₈ [359 x 610 x 695]	440 lbs. [200 kg.]
NU-NR800-600	6 ft. [1.8 m]		74 x 32 ¹ / ₂ x 51 ³ / ₄ [1880 x 826 x 1314]	59 ¹ / ₄ x 23 ¹ / ₄ x 27 ³ / ₈ [1505 x 591 x 695]	14 ¹ / ₈ x 24 x 27 ³ / ₈ [359 x 610 x 695]	590 lbs. [268 kg.]
NU-NTE800-400	4 ft. [1.2 m]		50 x 32 ¹ / ₂ x 61 [1270 x 826 x 1550]	35 ¹ / ₄ x 23 ¹ / ₄ x 27 ³ / ₈ [895 x 591 x 695]	14 ¹ / ₈ x 24 x 27 ³ / ₈ [359 x 610 x 695]	465 lbs. [211 kg.]
NU-NTE800-600	6 ft. [1.8 m]		74 x 32 ¹ / ₂ x 61 [1880 x 826 x 1550]	59 ¹ / ₄ x 23 ¹ / ₄ x 27 ³ / ₈ [1505 x 591 x 695]	14 ¹ / ₈ x 24 x 27 ³ / ₈ [359 x 610 x 695]	615 lbs. [279 kg.]

*Specify models with appropriate letter suffix for electrical specifications. "NU-NR800-400E" for 230 VAC / 50 Hz

**Exterior width dimension will increase 3" minimum for base stand

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

Performance Specifications:

ISO Class 5 Clean Air
50 fpm (0.25 m/s) Average Down Flow

Efficiency Features:

Ultra High Efficiency Motor(s)
Motor Speed Controller

Superior Construction Features:

Steel Construction
Removable Control Center
Removable Stainless Steel Coved Work Tray
Stainless Steel Spill Trough with Drain Valve
Vibration Reducing Work Surface Support
Minimum 45 foot-candles (484 LUX) Lighting

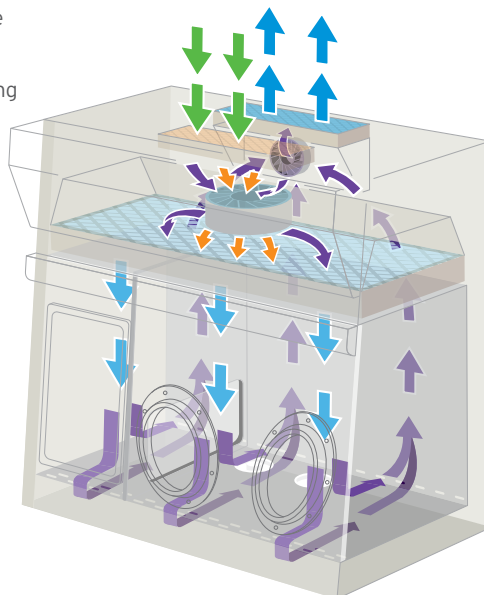
Safety Features:

Supply HEPA Filter, 99.99% @ 0.3 Micron Efficiency Rating
Exhaust HEPA Filter, 99.99% @ 0.3 Micron Efficiency Rating
UL Listed

Standard Features:

Three (3) Position IV Bar w/ 6 hooks
Auto Lift Base Stand
Large Oval Glove Ports
Hinged Slanted Window with Locks

3/8" Scratch Resistant Polycarbonate Window
Flexible Two-Piece Nitrile Sleeve / Glove
Front Filter Removal
Permanent Plenum with Supply Filter
External LED Lighting
Removable Work Tray
Metal Diffuser Over Supply Filter
Spill Trough with Drain Valve
One Duplex Outlet Back-wall
12 ft [2.5 m] Power Cord
GFI Outlet

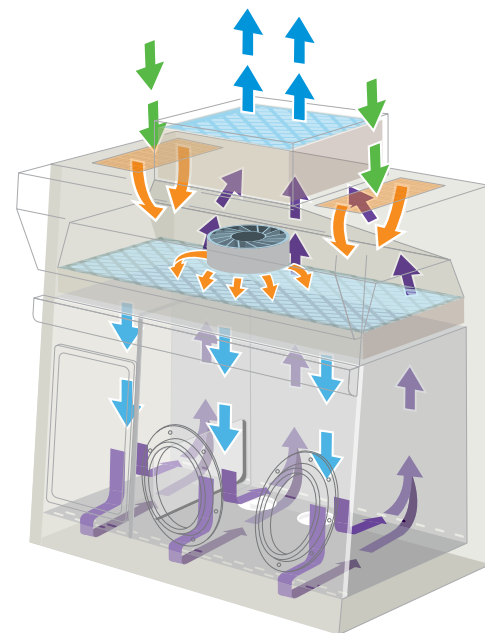


PharmaGard NR800 Airflow

Optional Features and Accessories:*

Sharps and Waste System
Exhaust Connections, Accessories and Alarms
Storage Pull-Out Trays
Adjustable Footrest
Custom Solutions

■ Room Air ■ Pre-Filtered Air
■ HEPA-Filtered Air ■ Worksurface Air (Contaminated)



PharmaGard NTE800 Airflow

* Note: some optional features are not approved by 3rd party listings. Contact NuAire for more information.

DESIGN YOUR OWN PHARMAGARD

Popular Built-in Options & Accessories

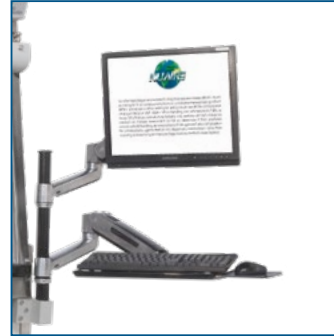
Each pharmacy is unique and every protocol can differ. Set your pharmacy up for success designing your NuAire RABS. Can be as simple as adding an extra IV bar or as involved as customizing the height of the work zone. NuAire can do it all. Invest in a product that lasts and is designed for your needs. Not all options and accessories shown. Contact NuAire for details.



Custom Back Wall Camera Mount.



Custom Front Camera Mount.



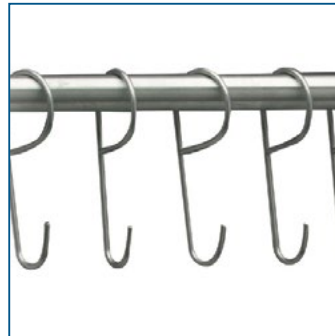
Support arm for monitor and keyboard/mouse



Sharps and Waste



Custom Back Wall Cutout for a Monitor



IV Bar and SST Hooks

OPTIONS AND ACCESSORIES



Replacement Waste Bins



Flex Duct



Silicone Connection Kit



Adjustable Foot Rest



Stainless Steel Turntable



**Manual and Automatic
Butterfly Valves**

ABOUT NUAIRE

Since 1971, NuAire has been committed to bringing the highest-quality, most dependable laboratory products to the market. We are universally recognized as one of the world's leading providers of reliable equipment for the most demanding environments.

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