

**LABGARD<sup>ES</sup>**  
energy saver

**CELLGARD<sup>ES</sup>**  
energy saver

CLASS II BIOLOGICAL SAFETY CABINETS



## 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 part and process improvements. The following chart represents our current level of sustainability for Biological Safety Cabinets.

| General Cabinet<br>Component Description | % Content by Weight | % of Recycled Material<br>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%          |
|                                          | <b>100% BSC</b>     | <b>65%</b>                                      | <b>97%</b>   |



## Controlled Environments for Optimum Protection



NU-425



NU-437



NU-440



NU-427



NU-430 / 435



NU-475



NU-477



NU-480



NU-481

| Model        | Type | Exhausted Air vs.<br>Recirculated Air | Available Sizes<br>(nominal) | Safety                                                                                            | Performance<br>Specifications*                                        |
|--------------|------|---------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| LabGard      |      |                                       |                              |                                                                                                   |                                                                       |
| NU-425       | A2   | 30% / 70%                             | 2, 3, 4, 5, 6 ft.            | All models:<br><br>Product protection<br><br>Personnel protection<br><br>Environmental protection | All models:<br><br>NSF / ANSI 49<br><br>EN12469<br><br>UL/UL-C Listed |
| NU-437       | A2   | 30% / 70%                             | 3, 4, 5, 6 ft.               |                                                                                                   |                                                                       |
| NU-440       | A2   | 30% / 70%                             | 3, 4, 5, 6 ft.               |                                                                                                   |                                                                       |
| NU-427       | B1   | 70% / 30%                             | 4, 6 ft.                     |                                                                                                   |                                                                       |
| NU-430 / 435 | B2   | 100% / 0%                             | 3, 4, 6 ft.                  |                                                                                                   |                                                                       |
| CellGard     |      |                                       |                              |                                                                                                   |                                                                       |
| NU-475       | A2   | 30% / 70%                             | 3, 4, 5, 6 ft.               |                                                                                                   | CellGard NU-481:<br><br>EN12469<br><br>UL/UL-C Listed                 |
| NU-477       | A2   | 30% / 70%                             | 3, 4, 5, 6 ft.               |                                                                                                   |                                                                       |
| NU-480       | A2   | 30% / 70%                             | 3, 4, 5, 6 ft.               |                                                                                                   |                                                                       |
| NU-481       | A2   | 30% / 70%                             | 4, 5, 6 ft.                  |                                                                                                   |                                                                       |

\* Please note that performance specifications and listings vary for models and types. Please consult NuAire for exact performance specifications and listings. Not all certifications apply to all products.



## Select Your Perfect Cabinet

### 1 Select Your Slope

Cabinets are available with 0° (vertical) or 10° window angle



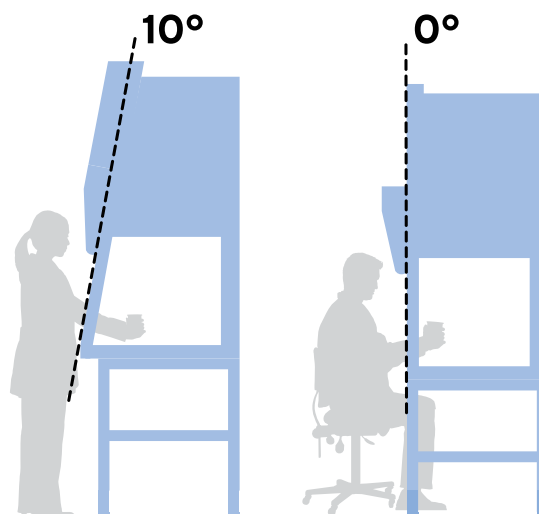
**CellGuard Class II**

Biological Safety Cabinet with 10° Slope



**LabGuard Class II**

Biological Safety Cabinet with 0° Slope



### 2 Select Your Controls



**TOUCHLINK™**

Electronic Control System

*Auto Monitor and Control Real Time Airflow*



**FLOWGARD™**

Easy Clean Touch Pad Control System

*Auto Monitor Plenum Pressure*



**ESSENTIALS**

Easy to Use Toggle Switch Controls

*Manual Monitor Plenum Pressure*

### 3 Select Options and Accessories

Many Accessories and Options, Plus Custom Configurations Are Available



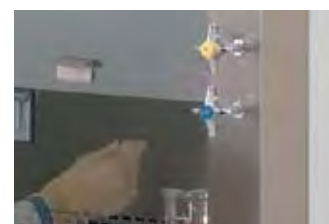
Motorized Adjustable Base Stand



Base Stand with Storage Cabinet



Motorized Adjustable Base Stand  
with casters



Remote Controlled Service Valves

#### Also Available:

Ultraviolet Germicidal Lamps  
Faucets and Sinks, Cup Sinks  
Pre-Piped Plumbing

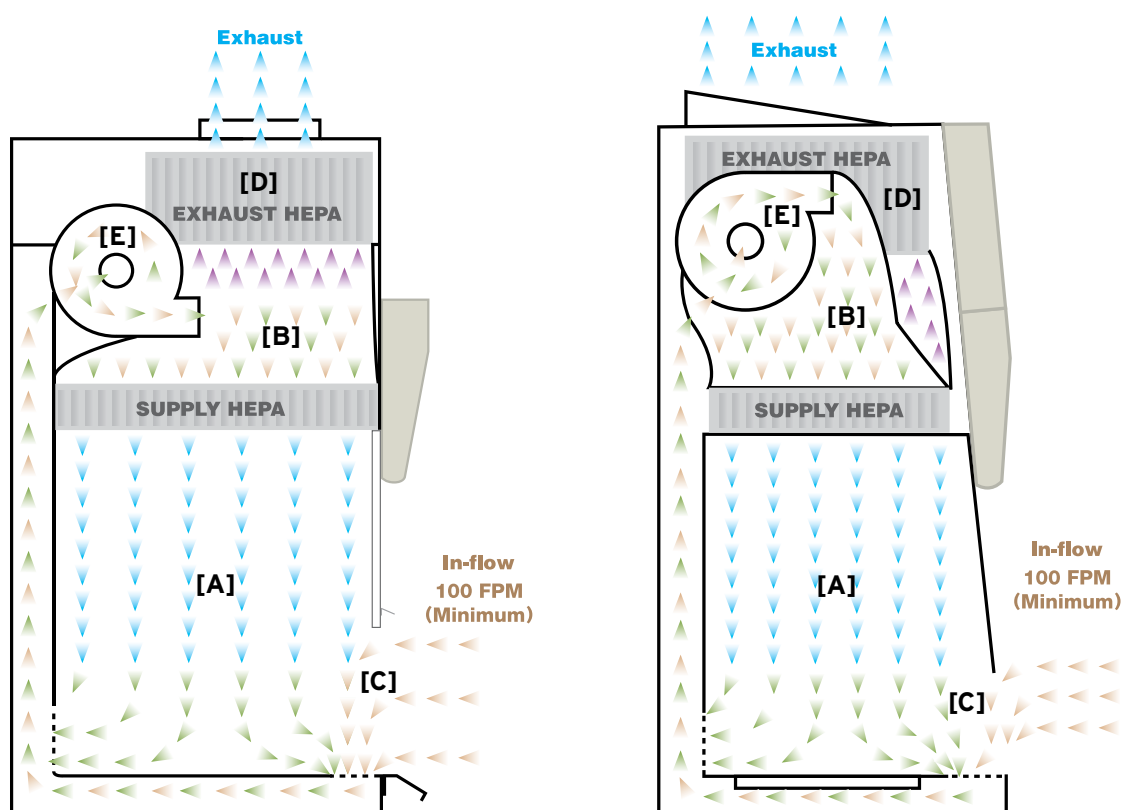
Ground Fault Interrupter  
Side Panels  
Seismic Brackets

Metal Frame HEPA Filter  
Microscope Window  
Heated Work Surface



For more information contact NuAire, Inc. at 1.800.328.3352 or [www.nuaire.com](http://www.nuaire.com)

## Improved Principles of Biological Safety Cabinet Design



Class II Type A2 Biological Safety Cabinet  
Airflow Schematics

▶ **HEPA FILTERED AIR**
▶ **CONTAMINATED WORK SURFACE AIR**  
▶ **ROOM AIR**
▶ **CONTAMINATED EXHAUST AIR**

### True Laminar Airflow [A]

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

### HEPEX™ Zero Leak Airflow System [B]

The HEPEX™ Zero Leak Airflow System eliminates the possibility of cabinet and gasket leaks.

### Greater Volume of Air Creates a Stronger Air Barrier [C]

Air exchanges within the Class II Type A2 Biological Safety Cabinet occur 25 times per minute.

### Larger, Long Lasting HEPA Filters [D]

NuAire utilizes HEPA filters that are typically 25% larger than those in competitive products.

### Motor/Blower System Extends HEPA Filter Life [E]

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

### Stainless Steel Construction

### Centrally Located Control Center

### State-of-the-Art Electronic Safety System

### Improved Quality, Reduced Noise

### Biological Tolerance Testing Assures Optimal Performance



Registered to: ISO 9001:2008  
ISO 13485:2003



## The best fit for your lab.

Advancements for biological safety cabinets

### 1 Ability to Sit or Stand at a Range of Heights



The cabinet design maximizes knee/thigh clearance to improve posture and the adjustable base stand allows optimization for leg and forearm support.

### 2 Expanded Vision Zone Reduces Awkward Postures and Proper Lighting Reduces Glare



Cabinets incorporate cool white lighting and frameless polished edge windows to allow for greater visibility and better sight lines.

### 3 Forearm Support for Comfort and Safety



Elbow Rest



Foam Armrest Pad

- Improves forearm support and keeps arms off front air grill
- Closed cell foam - easy to clean
- Rubber feet caps allow for use on variety of grill configurations
- Increased forearm comfort
- Closed cell non-absorbing foam pad
- Disposable pad-self-adhesive tape for easy application and removal (10 pads per package)

### 4 Effective Work Zone Area for More "User-Friendly" Space



Turntable

NuAire's cabinets provide the largest effective work zone which helps reduce arm/neck/shoulder strain. Extend reach up to 12" with 100% stainless steel turntable (ball bearing construction, easy to clean and can be autoclaved).



## 5 Ergonomically Designed Laboratory Chair and Footrest

NuAire's BioFit® chair has a star-based platform with adjustable height, back and lumbar support. The non-skid adjustable footrest provides optimal foot/leg support.



BioFit® Chair  
Adjustable Footrest

## 6 Class II Type A2 Cabinet with an Air-Break Canopy Transition\*

Class II Type A2 Cabinets with an adjustable base can be canopy connected with the use of Flex Duct and an Air-Break Transition. \*Flex Duct necessary if used with adjustable base stand.



Air-Break Canopy Transition

## Accessories



Automatic Adjustable  
Base Support Stand



Adjustable Footrest



Elbow Rest



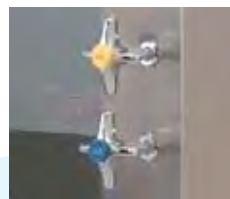
Stainless Steel Turntable



Foam Armrest Pad



Air-Break Canopy Transition



Remote Controlled Service Valves



BioFit® Ergonomic Adjustable Chair

Accessories from Scientific Visions make a difference. Order online at [www.scientificvisions.com](http://www.scientificvisions.com)

## Total Cost of Ownership Motor Comparison

| Comparison                                                   | NuAire<br>DC ECM | NuAire<br>AC PSC | BSC A<br>AC 3-Phase | BSC B<br>DC    |
|--------------------------------------------------------------|------------------|------------------|---------------------|----------------|
| <b>8 hrs per day / 5 days per week = 2,000 hrs per year</b>  |                  |                  |                     |                |
| KWH per year                                                 | 598              | 1128             | 828                 | 326            |
| \$0.09/kwh                                                   | <b>\$54</b>      | <b>\$102</b>     | <b>\$75</b>         | <b>\$29</b>    |
| <b>24 hrs per day / 7 days per week = 8,736 hrs per year</b> |                  |                  |                     |                |
| KWH per year                                                 | 2612             | 4927             | 3617                | 1424           |
| \$0.09/kwh                                                   | <b>\$235</b>     | <b>\$443</b>     | <b>\$326</b>        | <b>\$128</b>   |
| <b>15 Year Life Cycle Costs</b>                              |                  |                  |                     |                |
| Avg. Filter Changes*                                         | 1 Set            | 2 Sets           | 1 Set               | 3 Sets         |
| Estimated Cost of HEPA Filters                               | \$715            | \$1,430          | \$715               | \$2,145        |
| Total Cost of Decon/Certification                            | \$450            | \$900            | \$450               | \$1,350        |
| Motors to Replace**                                          | 1 Motor          | 1 Motor          | 1 Motor             | 2 Motors       |
| Cost of Motors/<br>Power Supplies/<br>Fan Control            | \$650            | \$420            | \$725               | \$2,544        |
| Utility Costs<br>(2,000 hrs/yr over 15 years)                | \$810            | \$1,530          | \$1,125             | \$435          |
| <b>Total Cost of Ownership</b>                               | <b>\$2,625</b>   | <b>\$4,280</b>   | <b>\$3,015</b>      | <b>\$6,474</b> |

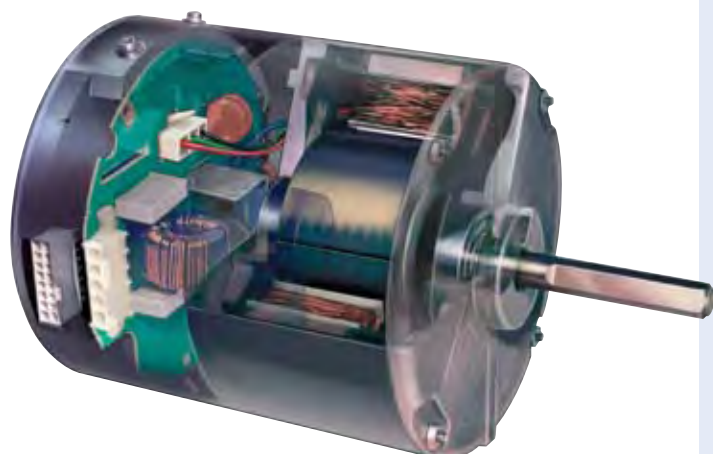
\* Estimate (See Filter Load Capacity)

\*\* Estimate based on historical information.

**Disclaimer:** This example is for illustrative purposes only and should not be deemed a representation of future performance or a guarantee of any kind. Information is based on internal performance data obtained through NuAire® testing and information provided by motor, blower, HEPA filter manufacturers, and independent service technicians.







## Experience energy savings with DC ECM Technology

NuAire incorporates our existing technology and new DC ECM technology to give you the best VALUE – lower energy costs, longer filter life, and reduced noise and vibration.

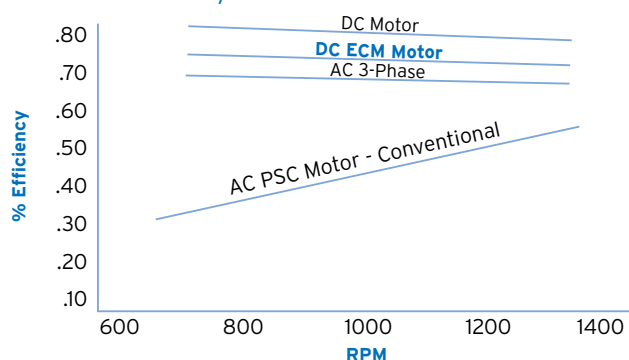
### Benefits of NuAire cabinets

- Largest HEPA filters with the most pleats per square inch
- Choice of three control systems
- Motor Speed Control
- Internal exhaust damper
- Optimally determined fan for each model size/width

### Added benefits from DC ECM technology

- Less energy to operate
- Greater horsepower and lower potential RPM
- Integrated digital control system
- Longer filter life
- Lowest possible noise and vibration
- Ability to upgrade classic AC PSC motor technology in existing cabinets to realize future energy savings

## Fan Motor Efficiency



Higher RPMs represent filter loading from particulates in the laboratory.

## Filter Loading Capacity

DC ECM technology increases filter life from the NSF minimum requirement of 50% or an approximate 3 year equivalent life to 10 years or more.

Percent increase in total load capacity\*:

85% - DC (4 Years)

180% - AC PSC (7 Years)

250% - DC ECM (10 Years)

250% - AC 3-Phase (10 Years)

\*Percent increase testing based on NSF/ANSI 49, ANNEX A.12 motor/blower performance test methods.

| Energy Costs          | AC PSC   | DC ECM   | DC       | AC 3-Phase |
|-----------------------|----------|----------|----------|------------|
| Kilowatts             | .564     | .299     | .163     | .414       |
| KWH                   | 4927     | 2612     | 1424     | 3617       |
| Annual Cost (\$/KWH)* | \$443.43 | \$235.09 | \$128.16 | \$325.53   |

4 Foot Type A2 BSC that runs 24/7 (8736 hours per year) plus the energy required to control the laboratory ventilation by adding the rejected heat.

\* U.S. DOE Average Cost

| Noise             | AC PSC    | DC ECM   | DC        | AC 3-Phase |
|-------------------|-----------|----------|-----------|------------|
| Airflow (Design)  | N/A       | N/A      | N/A       | N/A        |
| Fan (RPM)         | 1100-1700 | 800-1400 | 1400-2200 | 800-1400   |
| Motor (Harmonics) | Yes       | No       | No        | No         |

| Vibration        | AC PSC | DC ECM | DC     | AC 3-Phase |
|------------------|--------|--------|--------|------------|
| Airflow (Design) | N/A    | N/A    | N/A    | N/A        |
| Fan (RPM)        | Higher | Lower  | Higher | Lower      |

## Longer HEPA Filter Life

NuAire HEPA filters feature more filter media per square inch that translates into longer life. Introduce this type of filter into the proper system and you significantly increase the life of your filter resulting in increase safety and lower operating costs. NuAire uses a single ultra high efficiency DC ECM motor to lower energy costs but push more air through the filter over time. An internal exhaust dampener provides accurate control over airflow resulting in extended filter life.

The Energy Saver system built into every NuAire Biological Safety Cabinet can extend your HEPA Filter's life 10 or more years by engineering the following features into the system:

- Ultra High Efficiency DC ECM Motor
- Internal Exhaust Control Dampener
- Larger Exhaust HEPA Filter
- Larger Supply HEPA Filter
- Electronic Motor Speed Controller

NU-480 (Class II Type A2)  
NU-481 (Class II Type A2)  
NU-440 (Class II Type A2)  
NU-427 (Class II Type B1)  
NU-430 / 435 (Class II Type B2)

The **TOUCHLINK** is an easy-to-use touch screen LCD which will operate and display all system functions. On / off functions for fluorescent and germicidal ultraviolet lights, blower motor, and interior outlets. Monitors high / low limits for downflow, inflow, and sliding window position. The password protected **TOUCHLINK** also contains a unique date/clock display and timer function which can be used as a laboratory timer, to set purge cycles, outlet timer, UV light timer, auto-run timer, night setback, or weekend turn-off. The **TOUCHLINK** also contains diagnostic functions for a NSF trained service technician or certifier.

**nitecare™**- A unique system initiated by the window closure, will reduce motor / blower operational airflow to conserve energy while maintaining work zone sterility.

**intelliFlow™**- Fast, Accurate, Reliable, Dual Thermistor Airflow Sensors powered by TSI. The same sensor technology used in certification instruments designed to assure BSC optimal performance.



Interchangeable control panel face plates available.





### NU-425, NU-475 (Class II Type A2)

The **ESSENTIALS** cabinet control system includes a minihelic pressure gauge, motor voltage regulator, audible and visual window alarm, main and outlet power circuit breakers, and power switches for exterior mounted fluorescent lights and / or ultraviolet lights, interior outlets, and blower motor.



### NU-437, NU-477 (Class II Type A2)

The **FLOWGARD™ US** Electronic Control System Features:

- Easy to Clean Touch Pad
- On / Off Functions for:
  - Fluorescent Lighting
  - Ultraviolet Germicidal Light
  - Blower / Motor
  - Duplex Outlets
- Monitors Window Position
- Ring Back Function
- Password Protection
- Audible and Visual Alarms
- Remote Alarm Connector
- Relay contact closures for interaction with HVAC if BSC is connected to external exhaust.

- Digital Pressure Transducer
  - Monitors BSC Positive Pressure Plenum
  - Green LED- Normal Operation
  - Red LED- High Alarm Status
  - HEPA Filter Loading
  - Low Alarm Status
  - Low Airflow
- nitecare™- initiated by the window closure, will reduce motor / blower operational airflow to conserve energy while maintaining work zone sterility.



**NU-475**

**NU-477**

**NU-480**



## Class II Type A2 Biological Safety Cabinets

The CellGard Class II Biological Safety Cabinet can be either exhausted back into the room or connected to a facility HVAC system. The cabinet's airflow is 30% exhausted / 70% recirculated to minimize cross-contamination of low to moderate risk biologicals in the absence of volatile toxic chemicals.

### Specifications

| Model      | Size<br>(Nominal) | Electrical*<br>(All Sizes)                  | Interior Dimensions<br>(W x H x D) [ mm ]                                                                             | Exterior Dimensions<br>(W x H x D) [ mm ]                                                  | Weight             |
|------------|-------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------|
| NU-475-300 | 3 ft.             | 115 VAC / 60 Hz<br>E: 230 VAC / 50 Hz-60 Hz | 34 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 873 x 724 x 664 ]  | 41 <sup>5</sup> / <sub>8</sub> x 61 <sup>7</sup> / <sub>8</sub> x 33 [ 1057 x 1572 x 838 ] | 475 lbs. / 215 kg. |
| NU-475-400 | 4 ft.             |                                             | 46 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 1178 x 724 x 664 ] | 53 <sup>5</sup> / <sub>8</sub> x 61 <sup>7</sup> / <sub>8</sub> x 33 [ 1362 x 1572 x 838 ] | 565 lbs. / 256 kg. |
| NU-475-500 | 5 ft.             |                                             | 58 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 1483 x 724 x 664 ] | 65 <sup>5</sup> / <sub>8</sub> x 61 <sup>7</sup> / <sub>8</sub> x 33 [ 1669 x 1572 x 838 ] | 665 lbs. / 302 kg. |
| NU-475-600 | 6 ft.             |                                             | 70 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 1788 x 724 x 664 ] | 77 <sup>5</sup> / <sub>8</sub> x 61 <sup>7</sup> / <sub>8</sub> x 33 [ 1972 x 1572 x 838 ] | 750 lbs. / 340 kg. |
| NU-477-300 | 3 ft.             | 115 VAC / 60 Hz<br>E: 230 VAC / 50 Hz-60 Hz | 34 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 873 x 724 x 664 ]  | 41 <sup>5</sup> / <sub>8</sub> x 61 <sup>7</sup> / <sub>8</sub> x 33 [ 1057 x 1572 x 838 ] | 475 lbs. / 215 kg. |
| NU-477-400 | 4 ft.             |                                             | 46 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 1178 x 724 x 664 ] | 53 <sup>5</sup> / <sub>8</sub> x 61 <sup>7</sup> / <sub>8</sub> x 33 [ 1362 x 1572 x 838 ] | 565 lbs. / 256 kg. |
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| NU-477-600 | 6 ft.             |                                             | 70 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 1788 x 724 x 664 ] | 77 <sup>5</sup> / <sub>8</sub> x 61 <sup>7</sup> / <sub>8</sub> x 33 [ 1972 x 1572 x 838 ] | 750 lbs. / 340 kg. |
| NU-480-300 | 3 ft.             | 115 VAC / 60 Hz<br>E: 230 VAC / 50 Hz-60 Hz | 34 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 873 x 724 x 664 ]  | 41 <sup>5</sup> / <sub>8</sub> x 61 <sup>7</sup> / <sub>8</sub> x 33 [ 1057 x 1572 x 838 ] | 475 lbs. / 215 kg. |
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\*Specify model with appropriate letter suffix for electrical specifications. "NU-425-300E" for 230 VAC / 50 Hz

### Features

#### Standard Features

Energy Saver (ES) DC/ECM Motor  
Motor Speed Control  
Internal Exhaust Dampener  
Monolithic Pressure Tight Design  
Wood Frame Large HEPA Filters  
99.99% @ 0.3 Microns  
10" Access Opening  
(4, 5, 6 ft. Models)  
8" Access Opening (3 ft. Models)  
External Fluorescent Lighting  
Front Filter Removal  
Frameless Sliding Tempered  
Glass View Screen  
30° Hinged Wing Window Frame  
Armrest  
Removeable Work Tray  
Metal Diffuser Over Supply Filter  
Spill Trough with Drain Valve  
One Duplex Outlet Backwall  
(3ft. Models)  
Two Duplex Outlet Backwall  
(4, 5, 6 ft Models)  
Two Service Valves Right Side Wall  
DECON Sealable Window

#### Optional Features and Accessories

DECON 101 System  
Germicidal UV Light  
Ground Fault Interrupter  
Additional Duplex Outlet  
IV Bar with Six Hooks  
Base Support Stand  
Base Storage Cabinet  
Auto Lift Base Stand  
Hinged Viewing Window  
Microscope Window  
Additional Service Valves  
Remote Service Valves  
Exhaust Transitions  
ULPA Filters 99.999% @  
0.12 Microns  
Metal Framed HEPA Filters  
Permanent Plenum with Quick  
Release Supply Filter (NU-425)  
Storage Pull-Out Trays  
Decorative Side Panels  
8" (203 mm) Access Opening  
(4, 5, 6 ft. Models)  
Sinks with Hot/Cold or DI  
water Faucets

Heated Worksurface  
Adjustable Footrest  
Elbow Rests  
Custom Solutions

#### NU-480 Features

TOUCHLINK™ Control System  
intelliFlow™ - Monitor, Display,  
and Control Airflow Via Digital  
Dual Thermistor Airflow Sensors  
Alarm Setpoints  
Date/Clock Display, with  
Timer Functions  
Light and Outlet Control Via Solid  
State Switch  
Password Protection  
nitecare™ - Night Setback System

#### NU-477 Features

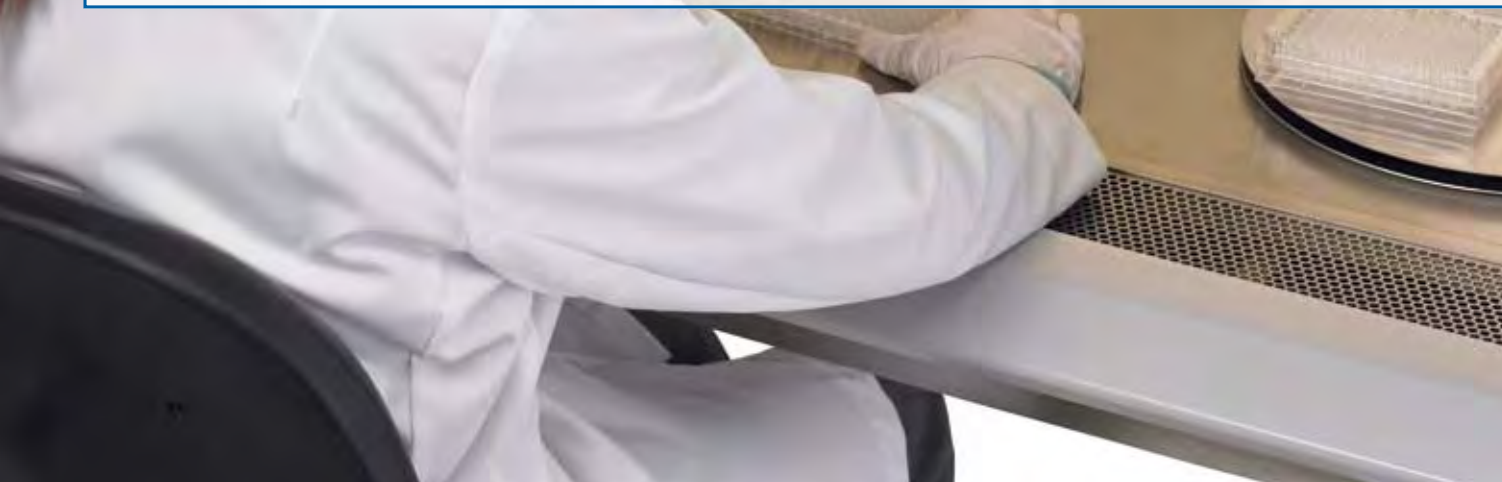
FLOWGARD™ Control System  
On/Off Functions For:  
Blower/Motor  
Lights  
UV Light  
Outlets  
Window Alarm Silence  
Monitor Window Position

Password Protection  
Audible and Visual Alarms  
Ring Back Function  
Plenum Monitor Via  
Digital Pressure Transducer  
nitecare™ - Night Setback System

#### NU-475 Features

ESSENTIALS Control System  
Power Switch Controls For:  
Blower/Motor  
Lights  
UV Light  
Outlet(s)  
Window Alarm  
Minihelic Pressure Gauge  
Audible and Visual Window Alarm





## Class II Type A2 Biological Safety Cabinets

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|-------------------|-------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------|
| <b>NU-425-300</b> | 3 ft.             | 115 VAC / 60 Hz                 | 34 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 873 x 724 x 597 ]  | 41 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1057 x 1600 x 835 ] | 475 lbs. / 215 kg. |
| <b>NU-425-400</b> | 4 ft.             | <b>E:</b> 230 VAC / 50 Hz-60 Hz | 46 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1178 x 724 x 597 ] | 53 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1362 x 1600 x 835 ] | 500 lbs. / 227 kg. |
| <b>NU-425-500</b> | 5 ft.             |                                 | 58 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1483 x 724 x 597 ] | 65 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1667 x 1600 x 835 ] | 600 lbs. / 273 kg. |
| <b>NU-425-600</b> | 6 ft.             |                                 | 70 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1788 x 724 x 597 ] | 77 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1972 x 1600 x 835 ] | 680 lbs. / 308 kg. |
| <b>NU-437-300</b> | 3 ft.             | 115 VAC / 60 Hz                 | 34 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 873 x 724 x 597 ]  | 41 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1057 x 1600 x 835 ] | 475 lbs. / 215 kg. |
| <b>NU-437-400</b> | 4 ft.             | <b>E:</b> 230 VAC / 50 Hz-60 Hz | 46 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1178 x 724 x 597 ] | 53 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1362 x 1600 x 835 ] | 500 lbs. / 227 kg. |
| <b>NU-437-500</b> | 5 ft.             |                                 | 58 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1483 x 724 x 597 ] | 65 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1667 x 1600 x 835 ] | 600 lbs. / 273 kg. |
| <b>NU-437-600</b> | 6 ft.             |                                 | 70 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1788 x 724 x 597 ] | 77 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1972 x 1600 x 835 ] | 680 lbs. / 308 kg. |
| <b>NU-440-300</b> | 3 ft.             | 115 VAC / 60 Hz                 | 34 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 873 x 724 x 597 ]  | 41 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1057 x 1600 x 835 ] | 475 lbs. / 215 kg. |
| <b>NU-440-400</b> | 4 ft.             | <b>E:</b> 230 VAC / 50 Hz-60 Hz | 46 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1178 x 724 x 597 ] | 53 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1362 x 1600 x 835 ] | 500 lbs. / 227 kg. |
| <b>NU-440-500</b> | 5 ft.             |                                 | 58 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1483 x 724 x 597 ] | 65 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1667 x 1600 x 835 ] | 600 lbs. / 273 kg. |
| <b>NU-440-600</b> | 6 ft.             |                                 | 70 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1788 x 724 x 597 ] | 77 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1972 x 1600 x 835 ] | 680 lbs. / 308 kg. |

\*Specify model with appropriate letter suffix for electrical specifications. "NU-425-300E" for 230 VAC / 50 Hz

### Features

#### Standard Features

- Energy Saver (ES) DC/ECM Motor (NU-437, NU-440)
- Motor Speed Control
- Internal Exhaust Dampener
- Monolithic Pressure Tight Design
- Wood Frame Large HEPA Filters 99.99% @ 0.3 Microns
- 10" Access Opening (4, 5, 6 ft. Models)
- 8" Access Opening (2, 3 ft. Models)
- External Fluorescent Lighting
- Front Filter Removal
- Frameless Sliding Tempered Glass View Screen
- Armrest
- Removeable Work Tray
- Metal Diffuser Over Supply Filter
- Spill Trough with Drain Valve
- One Duplex Outlet Backwall (3ft. Models)
- Two Duplex Outlet Backwall (4, 5, 6 ft Models)
- Two Service Valves Right Side Wall

#### Optional Features and Accessories

- Energy Saver (ES) DC/ECM Motor (NU-425)
- Germicidal UV Light
- Ground Fault Interrupter
- Additional Duplex Outlet
- IV Bar with Six Hooks
- Base Support Stand
- Base Storage Cabinet
- Auto Lift Base Stand
- Hinged Viewing Window
- Microscope Window
- Additional Service Valves
- Remote Service Valves
- Exhaust Transitions
- ULPA Filters 99.999% @ 0.12 Microns
- Metal Framed HEPA Filters
- Permanent Plenum with Quick Release Supply Filter (NU-425)
- Storage Pull-Out Trays
- Decorative Side Panels
- 8" (203 mm) Access Opening (4, 5, 6 ft. Models)
- Sinks with Hot/Cold or DI water Faucets

- Heated Worksurface
- Adjustable Footrest
- Elbow Rests
- Custom Solutions

#### NU-440 Features

- TOUCHLINK™ Control System
- intelliFlow™ - Monitor, Display, and Control Airflow Via Digital Dual Thermistor Airflow Sensors
- Alarm Setpoints
- Date/Clock Display, with Timer Functions
- Light and Outlet Control Via Solid State Switch
- Password Protection
- nitecare™ - Night Setback System

#### NU-437 Features

- FLOWGARD™ Control System
- On/Off Functions For:
  - Blower/Motor
  - Lights
  - UV Light
  - Outlets
  - Window Alarm Silence
- Monitor Window Position
- Password Protection

- Audible and Visual Alarms
- Ring Back Function
- Plenum Monitor Via Digital Pressure Transducer
- nitecare™ - Night Setback System

#### NU-425 Features

- ESSENTIALS Control System
- Power Switch Controls For:
  - Blower/Motor
  - Lights
  - UV Light
  - Outlet(s)
  - Window Alarm
- Minihelic Pressure Gauge
- Audible and Visual Window Alarm





**NU-481**



## Class II Type A2 Biological Safety Cabinets

The CellGard™ HD (Hazardous Drug) ES (Energy Saver) Class II, Type A2 Biological Safety Cabinet offers personnel, product, and environmental protection for handling of hazardous particulate drugs, powders. ISO Class 5 sterility and protection for your valuable in process work materials. True laminar airflow provides a sterile environment that minimizes cross contamination. A strong air barrier 105 fpm (0.53 m/s) protects the end user from hazardous materials in the work zone. Multiple oval HEPA pre-filters located underneath the work surface provide the primary means for particulate filtration that allows for an efficient and safe bag-in/bag-out filter change procedure without exposing the interior HEPA filters. Environmental protection is achieved by all contaminated air passing through a 99.99% HEPA filter.

### Specifications

| Model      | Size<br>(Nominal) | Electrical*<br>(All Sizes) | Interior Dimensions<br>(W x H x D) In. [ mm ]                                                                         | Exterior Dimensions<br>(W x H x D) In. [ mm ]                                              | Weight             |
|------------|-------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------|
| NU-481-400 | 4 ft.             | 115 VAC / 60 Hz            | 46 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 1178 x 724 x 664 ] | 54 <sup>7</sup> / <sub>8</sub> x 87 <sup>7</sup> / <sub>8</sub> x 33 [ 1394 x 2232 x 838 ] | 700 lbs. / 318 kg. |
| NU-481-500 | 5 ft.             | E: 230 VAC / 50 Hz-60 Hz   | 58 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 1483 x 724 x 664 ] | 66 <sup>7</sup> / <sub>8</sub> x 87 <sup>7</sup> / <sub>8</sub> x 33 [ 1699 x 2232 x 838 ] | 790 lbs. / 358 kg. |
| NU-481-600 | 6 ft.             |                            | 70 <sup>3</sup> / <sub>8</sub> x 28 <sup>1</sup> / <sub>2</sub> x 26 <sup>1</sup> / <sub>8</sub> [ 1788 x 724 x 664 ] | 78 <sup>7</sup> / <sub>8</sub> x 87 <sup>7</sup> / <sub>8</sub> x 33 [ 2003 x 2232 x 838 ] | 880 lbs. / 399 kg. |

\*Specify model with appropriate letter suffix for electrical specifications. "NU-425-300E" for 230 VAC / 50 Hz

### Features

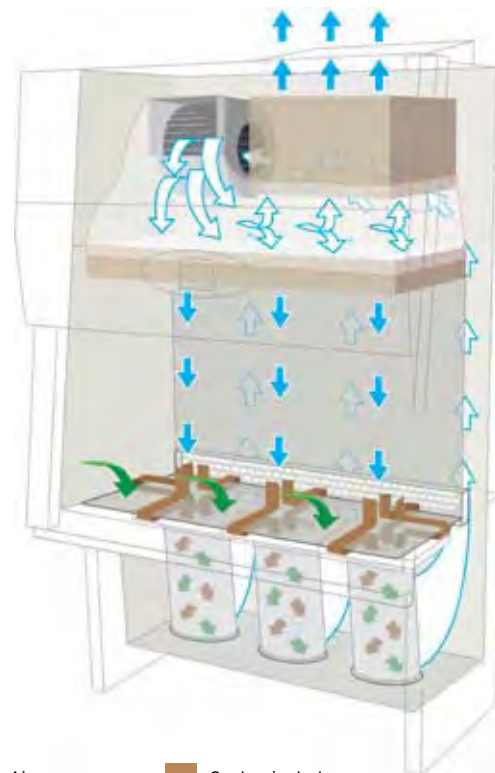
#### Standard Features

- Energy Saver DC ECM ES Motor
- Motor Speed Control
- Internal Exhaust Dampener
- TOUCHLINK™ Control System
- intelliFlow™ - Monitor, Display, and Control Airflow Via Digital Dual Thermistor Airflow Sensors
- nitecare™ - Night Setback System
- Monolithic Pressure Tight Design
- Large HEPA Filters 99.99% @ 0.3 Microns
- Oval Canister HEPA Pre-Filters 99.99% Efficiency Rated
- 10" Access Opening
- External Fluorescent Lighting
- Front Filter Removal
- Frameless Sliding Tempered Glass View Screen
- 30° Hinged Wing Window Frame
- Armrest
- Removeable Work Tray
- Metal Diffuser Over Supply Filter
- Spill Trough with Drain Valve
- Two Duplex Outlet Backwall (4, 5, 6 ft Models)
- Two Service Valves Right Side Wall
- DECON Sealable Window

#### Optional Features and Accessories

- Germicidal UV Lamp
- Ground Fault Interrupter
- IV Bar with Six Hooks
- Adjustable Footrest
- Hinged Viewing Window
- Additional Service Valves for Gas, Air, or Vacuum
- ULPA Filters 99.999 % at 0.12 Microns
- Metal Framed HEPA Filters
- Bag In / Bag Out Exhaust HEPA Filters
- Storage Pull-Out Trays
- Remote Service Valves
- Additional Duplex Outlets
- Alarm Systems
- Adjustable Control for Support Stand
- Decorative Side Panels
- Additional Oval Canister HEPA Pre-filters 99.99% Efficiency Rated
- Elbow Rests
- Custom Configurations

Airflow: 70% Exhausted / 30% Recirculated



- Room Air
- Contaminated Worksurface Air
- Clean Oval Canister HEPA Filtered Air
- Clean HEPA Filtered Air





## Class II Type B1 Biological Safety Cabinets

NuAire's LabGard NU-427 is the only 70% exhaust Class II Type B1 Laminar Flow Biological Safety Cabinet offering a single piece, low-profile configuration in combination with a number of other significant improvements. The LabGard NU-427 Class II Type B1 Biological Safety Cabinet may be used for work treated with minute quantities of volatile toxic chemicals and trace amounts of radionuclides required as an adjunct to microbiological studies if work is done in the direct exhausted portion of the cabinet, or if the chemicals or radionuclides will not interfere with the work when recirculated in the downflow air.

### Specifications

| Model      | Size<br>(Nominal) | Electrical*<br>(All Sizes) | Interior Dimensions<br>(W x H x D) In. [ mm ]                                                                         | Exterior Dimensions<br>(W x H x D) In. [ mm ]                                              | Weight             |
|------------|-------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------|
| NU-427-400 | 4 ft.             | 115 VAC / 60 Hz            | 46 <sup>3</sup> / <sub>8</sub> x 25 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1178 x 648 x 597 ] | 53 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1362 x 1600 x 835 ] | 550 lbs. / 249 kg. |
| NU-427-600 | 6 ft.             | E: 230 VAC / 50 Hz-60 Hz   | 70 <sup>3</sup> / <sub>8</sub> x 25 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1788 x 648 x 597 ] | 77 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1972 x 1600 x 835 ] | 740 lbs. / 336 kg. |

\*Specify model with appropriate letter suffix for electrical specifications. "NU-425-300E" for 230 VAC / 50 Hz

### Features

#### Standard Features

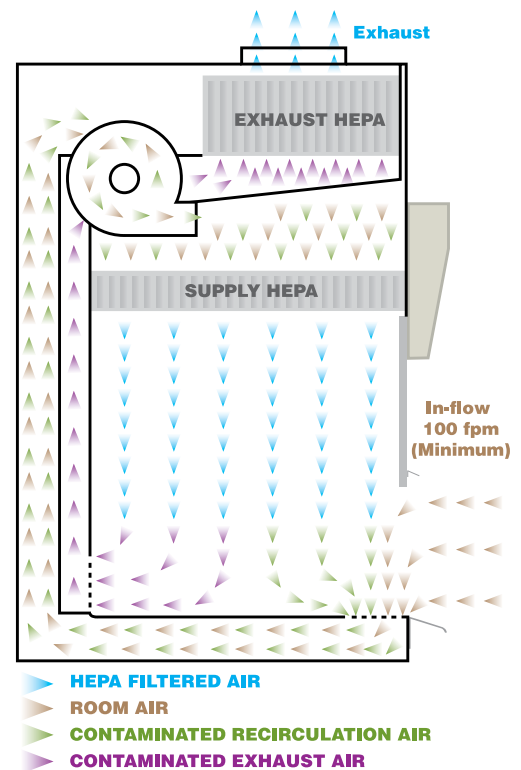
- HEPEX Zero Leak Airflow System
- TOUCHLINK System
- Large HEPA Filters
- 99.99% Efficiency Rated
- External Fluorescent Lighting
- Front Filter Removal
- Sliding Tempered Glass View Screen
- Removable Work Tray
- Metal Diffuser Over Supply Filter
- Removable Control Center
- Spill Trough with Drain Valve
- Armrest
- Two Gas Service Valves (Right Sidewall)
- One Duplex Outlet (Left Front)
- Energy Saver DC ECM ES Motor

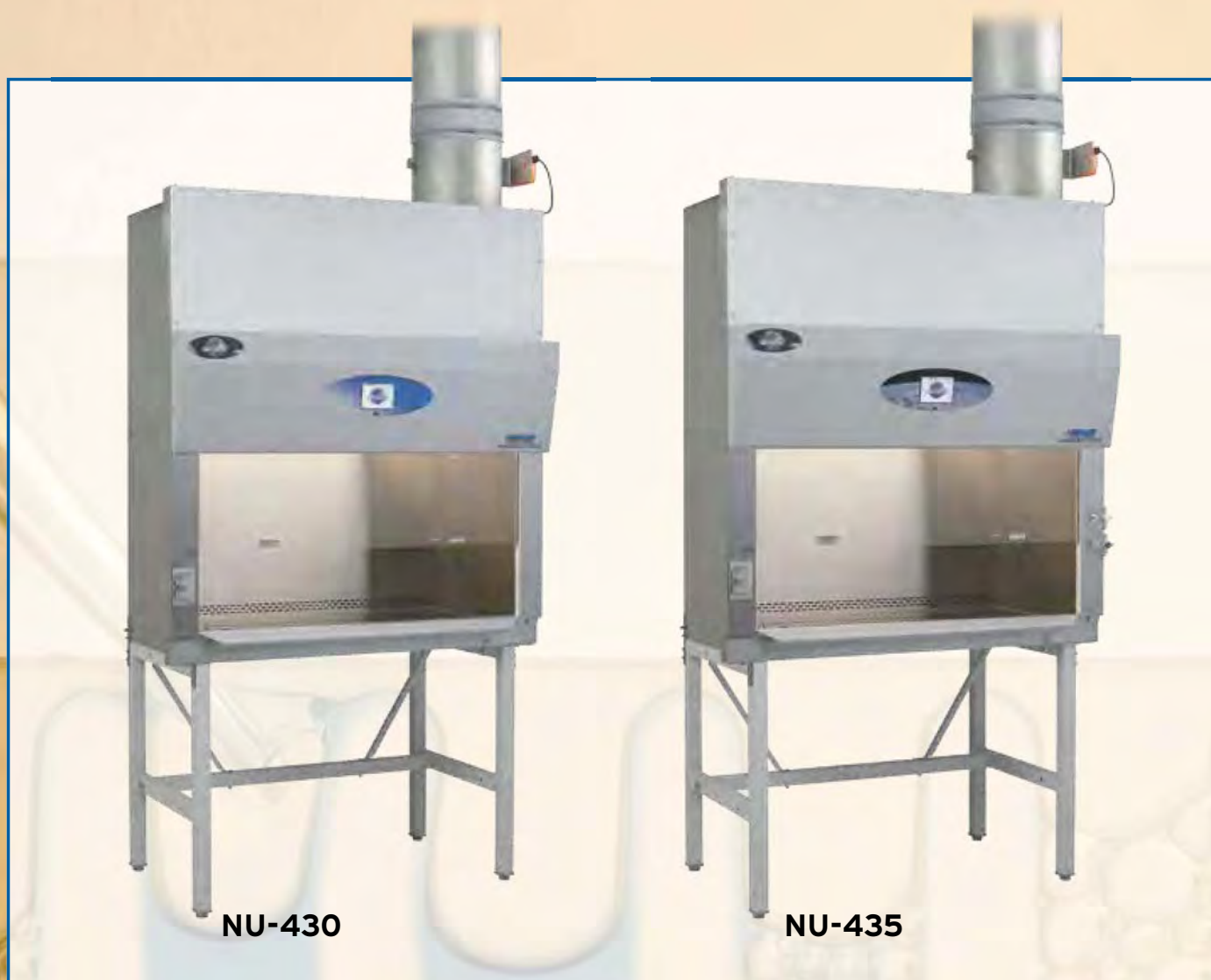


#### Optional Features and Accessories

- Germicidal UV Lamp
- Ground Fault Interrupter
- IV Bar with Six Hooks
- Base Support Stand
- Base Storage Cabinet
- Adjustable Footrest
- Hinged Viewing Window
- Microscope Viewing Window
- Additional Service Valves for Gas, Air, or Vacuum
- ULPA Filters
- 99.999 % at 0.12 Microns
- Metal Framed HEPA Filters
- Bag In / Bag Out Exhaust HEPA Filters
- Storage Pull-Out Trays
- Remote Service Valves
- Additional Duplex Outlets
- Alarm Systems
- Adjustable Control for Support Stand or Storage Cabinet
- Decorative Side Panels
- Sinks With Hot / Cold or DI Water Faucets
- Custom Configurations (i.e. 5 ft. models)

Airflow: 70% Exhausted / 30% Recirculated







## Class II Type B2 Biological Safety Cabinets

LabGard Class II Type B2 Biological Safety Cabinets feature downflow air drawn from within the laboratory or outside air. No downflow air is drawn from the cabinet exhaust air. All downflow and inflow air is exhausted through a HEPA filter without recirculation within the cabinet. All contaminated ducts and plenums are maintained at negative pressure. The LabGard Class II Type B2 Biological Safety Cabinet may be used for work with volatile toxic chemicals and radionuclides as required as adjuncts to microbiological studies.

### Specifications

| Model      | Size<br>(Nominal) | Electrical*<br>(All Sizes) | Interior Dimensions<br>(W x H x D) In. [ mm ]                                                                         | Exterior Dimensions<br>(W x H x D) In. [ mm ]                                              | Weight             |
|------------|-------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------|
| NU-430-300 | 3 ft.             | 115 VAC / 60 Hz            | 30 <sup>3</sup> / <sub>8</sub> x 25 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 772 x 648 x 597 ]  | 37 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 956 x 1600 x 835 ]  | 460 lbs. / 231 kg. |
| NU-430-400 | 4 ft.             | E: 230 VAC / 50 Hz-60 Hz   | 46 <sup>3</sup> / <sub>8</sub> x 25 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1178 x 648 x 597 ] | 53 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1362 x 1600 x 835 ] | 520 lbs. / 236 kg. |
| NU-435-400 | 4 ft.             |                            | 46 <sup>3</sup> / <sub>8</sub> x 25 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1178 x 648 x 597 ] | 53 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1362 x 1600 x 835 ] | 520 lbs. / 236 kg. |
| NU-430-600 | 6 ft.             |                            | 70 <sup>3</sup> / <sub>8</sub> x 25 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1788 x 648 x 597 ] | 77 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1972 x 1600 x 835 ] | 710 lbs. / 322 kg. |
| NU-435-600 | 6 ft.             |                            | 70 <sup>3</sup> / <sub>8</sub> x 25 <sup>1</sup> / <sub>2</sub> x 23 <sup>1</sup> / <sub>2</sub> [ 1788 x 648 x 597 ] | 77 <sup>5</sup> / <sub>8</sub> x 63 x 32 <sup>7</sup> / <sub>8</sub> [ 1972 x 1600 x 835 ] | 710 lbs. / 322 kg. |

\*Specify model with appropriate letter suffix for electrical specifications. "NU-425-300E" for 230 VAC / 50 Hz

### Features

#### Standard Features

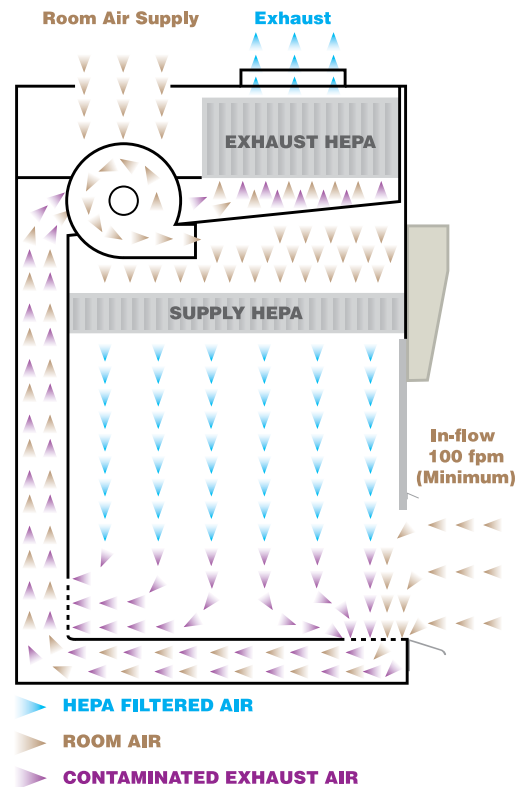
- HEPEX Zero Leak Airflow System
- TOUCHLINK System
- Large HEPA Filters
- 99.99% Efficiency Rated
- External Fluorescent Lighting
- Front Filter Removal
- Sliding Tempered Glass View Screen
- Removable Work Tray
- Metal Diffuser Over Supply Filter
- Removable Control Center
- Spill Trough with Drain Valve
- Armrest
- Two Gas Service Valves (Right Sidewall on NU-430)
- One Duplex Outlet (Left Front)
- Two Remote Service Valves (Right Front Farring on NU-435)
- Energy Saver DC ECM ES Motor



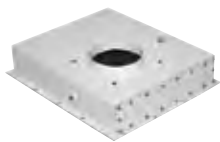
#### Optional Features and Accessories

- Germicidal UV Lamp (NU-430)
- Ground Fault Interrupter
- IV Bar with Six Hooks
- Base Support Stand
- Base Storage Cabinet
- Adjustable Footrest
- Hinged Viewing Window
- Microscope Viewing Window
- Additional Service Valves for Gas, Air, or Vacuum
- ULPA Filters
- 99.999 % at 0.12 Microns
- Metal Framed HEPA Filters
- Bag In / Bag Out Exhaust HEPA Filters
- Storage Pull-Out Trays
- Remote Service Valves
- Additional Duplex Outlets
- Alarm Systems
- Adjustable Control for Support Stand or Storage Cabinet
- Decorative Side Panels
- Sinks With Hot / Cold or DI Water Faucets
- Custom Configurations (i.e. 5 ft. models)

Airflow: 100% Exhausted / 0% Recirculated



## Options and Accessories



Low Profile  
Exhaust Transition



Canopy Exhaust Transition  
and Flex Duct



Butterfly Valves



8" to 10"  
Round Transition



Neoprene Connection Kit



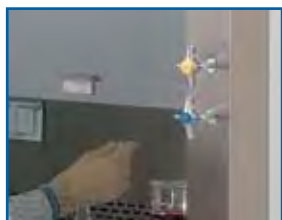
Exhaust Airflow Monitors



Elbow Rest



IV Bar With Hooks



Remote Controlled  
Service Valves



Foam Armrest Pad



Stainless Steel Turntable



Adjustable Footrest



Motorized Adjustable Base Stand



Base Stand with Storage Cabinet

### Also Available:

Ultraviolet Germicidal  
Lamps  
Faucets and Sinks, Cup Sinks  
Pre-Piped Plumbing  
Ground Fault Interrupter  
Side Panels

Seismic Brackets  
Metal Frame HEPA Filter  
Microscope Window  
Heated Work Surface  
Custom Configurations



For more information contact NuAire, Inc. at 1.800.328.3352 or [www.nuaire.com](http://www.nuaire.com)

## Sales Information

### To Locate a NuAire Representative

Please visit NuAire's Web site at: [www.nuaire.com](http://www.nuaire.com) and select the 'Sales Team' menu item. Information can be found there for both United States and international distributors.



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