LABGARD ES energy saver

LABGARD NU-677 CLASS II TYPE A2 NSF

BIOLOGICAL SAFETY CABINET / CAGE CHANGING STATION

NUAIRE

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NU-677

LabGard ES NU-677

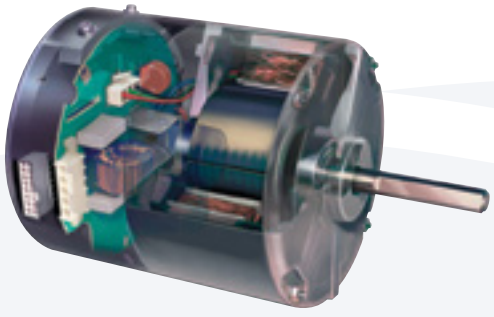
The NuAire LabGard ES (Energy Saver) model NU-677 Class II Type A2 Biological Safety Cabinet / Cage Changing Station is NSF listed to provide personnel, product, and environmental protection for sensitive animal handling and cage changing procedures.

LabGard Class II Biological Safety Cabinets 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.

Performance

Energy Saver DC ECM Eon™ Motor

Save up to 40% on your total cost of ownership compared to previously used motor technologies. ECM motor technology utilizes less energy while containing more torque to extend the lives of your filters. ECM motors produce less heat, reducing the strain on your facilities HVAC system, as well as operate at a lower dbA level with less vibration creating a healthy environment for you research animals.



Increase the Life of the HEPA Filter

The costs associated with filter changes can add up quickly. By selecting a properly sized motor, fan, and HEPA filter(s), a NuAire Biological Safety Cabinet can handle a 300% minimum increase in filter loading without reducing total air delivery by more than 10%. With the additional use of an internal exhaust damper and motor speed control, you can extend the life of your filters to ±10 years in an average vivarium setting.*

NSF Listed

The LabGard™ Biological Safety Cabinet provides biological containment protection for both the operator and product as defined by standard NSF/ANSI 49, and routinely validated by NuAire.

*Cabinet must be certified at least annually by an accredited NSF service technician. Back wall pre-filter must be routinely checked and cleaned to extend filter life and performance.

Unique Features Offer Workflow Flexibility

Feed Hoppers

Optional Feed hoppers allow technicians to easily access a food source within a sterile work zone. Up to 2 feed hoppers can be added on each side wall (total of 4) allowing the user to create a workflow utilizing one food source, or to segment up to 4 different diets.

Deep Wells

Optional deep wells can be added to stack clean or dirty cages inside a sterile work zone. Deep wells work well with the Innovive Disposable Caging System.

Waste Disposal System

Optional Waste Disposal System located within the work zone lets technicians dump bedding and waste while maintaining NSF/ANSI 49 Class II conditions.

Built-in Pass Through /Dirty Cage Collection

Optional Pass Through can allows technicians stack dirty cages outside of the work zone into a biohazard bag or can be built to connect to a glove box or even built into a wall for room to room transfers.

Ergonomics

The LabGard NU-677 is ergonomically designed for maximum user comfort and adjustability to meet the requirements of the Americans with Disabilities Act (ADA).

Height Adjustable

Taking a one size fits all philosophy, whether sitting or standing, the LabGard NU-677 offers an adjustable height range of 18 1/2" (470 mm), working height from 24 1/2" to 43" (622 to 1092 mm). **[A]**

[A]

Large Access Opening

The user access opening accommodates both rat cages and mouse cages through an adjustable window with an optimum 12" (305 mm) working height. **[B]**

[B]

Improved Visibility

Incorporating cool white lighting and a frameless polished edge window, the NU-677 allows for greater visibility and better sight lines, reducing glare and causing less eye strain.

Prop Up Work Tray

Assisting in routine cleaning, the work surface can be propped up allowing a technician to clean under the work surface. A drain valve is standard beneath the work tray. **[C]**

[C]

Mobility

5-inch (127mm) heavy-duty lockable castors allow the LabGard Biosafety Cabinet to freely move within the animal facility, and to be Easily transportable through a standard 36" (914mm) door. **[D]**

[D]

More useable work space

NuAire's cabinets provide the largest effective work zone which helps reduce arm/neck/shoulder strain. NuAire can provide up to 37% more useable work space compared to competitive models** **[E]**

[E]

Quiet

LabGard operates at a maximum of 67dbA with a background level of 57 dbA.

Construction

Monolithic Pressure Tight Design

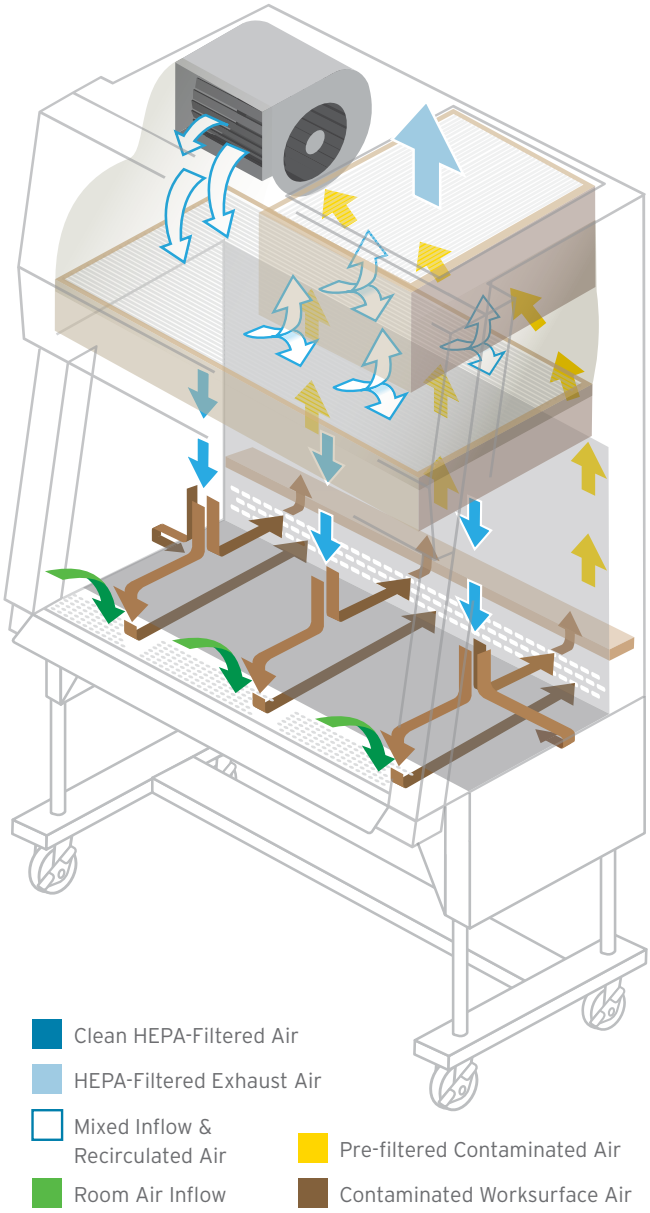
Constructed of 16 gauge type 304 stainless steel, the LabGard Biosafety Cabinet is designed for heavy use and long term usability. In fact, some of NuAire's original cabinets built in the 1970's are known to still be in use.

Animal Hair / Dander Pre-filter

A pre-filter located in the back wall of the cabinet has been positioned to capture bedding, hair, and dander particles to extend the life of your HEPA filters. **[F]** The pre-filter is secured by four thumb screws and is easily removed cleaning or reuse.

Thinner Profile

The NU-677 is designed to minimize space requirements, for a space savings up to 20% versus competitive units.**



Technology

FLOWGARD

The touchpad monitors pressure inside the plenum and alarms if the pressure goes out of set range.

nitecare **Night Setback**

Save money when running your cabinet 24 / 7. Initiated by closure of the window, the blower motor will reduce operational airflow to the minimum required to conserve energy while maintaining a sterile work zone.

**Calculations are based on a volume differential. Unit measurements have been taken from competitors purchase specifications and calculated by NuAire.

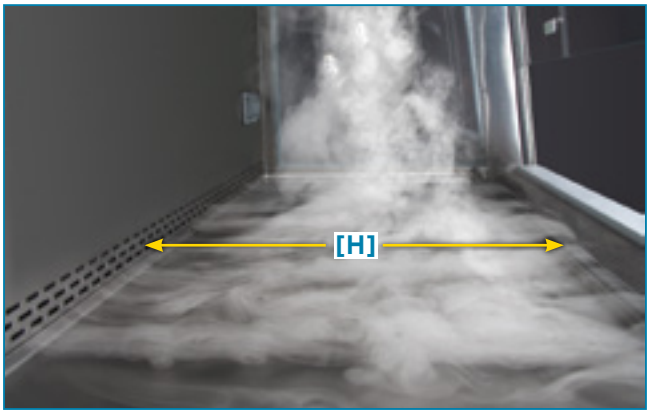
Safety

dynamic air barrier

An aerodynamic air foil pulls air into the front grill at a velocity of 105 fpm (0.53 m/s)**[G]**, isolating the work area from the surrounding environment while protecting the user.

trulaminar

The combination of ECM motor technology and HEPEX™ Zero Leak Airflow System produce uniform pressure over the surface of the supply HEPA filter, producing a constant and uniform airflow across the work surface at 60 fpm (0.30 m/s). **[H]**



HEPEX™ zero·leak airflow

All contaminated ducts, plenums, and gaskets are under negative pressure or surrounded by negative pressure to eliminate the possibility of cabinet or gasket leaks and to guard against HEPA failure. **[I]**

Password Protection

A security password can be set to lock cabinet settings.

Additional Options / Accessories

- Dual or Single Feed Hopper(s)
- Ultraviolet Light
- GFI Outlets (2 Standard)
- Additional Outlets
- Additional Service Valves for Gas, Air, Vac
- Pull-Out Storage Trays
- Lay in Sorbent Exhaust Filter
- Variable Airflow Exhaust Transition
- Stainless Steel Armrest
- Framed Window Sash

Notes:

- 5 Year Warranty Standard for Parts and Labor (US & CA)
- 6 Year Warranty Standard for Parts (INTL)

NSF c UL us

Specifications

Catalog Number	**NU-677-400** Nominal 4 foot (1.2m)	**NU-677-500** Nominal 5 foot (1.5m)	**NU-677-600** Nominal 6 foot (1.8m)
Performance Specifications Personal and Product Protection		NSF/ANSI 49	
NSF Std. No. 49 Class		Class II, Type A2	
Style of Cabinet		Bench top/console w/basestand	
Cabinet Construction		All welded stainless steel 16GA, Type 304 pressure tight design	
Diffuser for Air Supply (Metal)		Non-flammable	
HEPA Filter Seal Type: Supply Filter-99.99% Eff. on 0.3 microns Exhaust Filter-99.99% Eff. on 0.3 microns		HEPEX Seal Neoprene, Spring-loaded	
Fumigation per NIH/NSF Procedure		Yes	
Standard Services: Duplex Outlet		Two, Backwall	
Optional Services: Gas Cocks $^{3}/_{8}$" NPT Ultraviolet Light		Up to 3 ea. Sidewall One, Backwall	
Cabinet Size Inches (mm): Height Maximum Height Minimum Width Depth (with Control Center & Armrest)	 97 $^{1}/_{2}$ (2477) 79 (2007) 53 $^{5}/_{8}$ (1362) 32 $^{3}/_{4}$ (832)	 97 $^{1}/_{2}$ (2477) 79 (2007) 65 $^{5}/_{8}$ (1667) 32 $^{3}/_{4}$ (832)	 97 $^{1}/_{2}$ (2477) 79 (2007) 77 $^{5}/_{8}$ (1972) 32 $^{3}/_{4}$ (832)
Work Access Opening Inches (mm): Standard Opening Height/Optional Standard Inflow Velocity Work surface Height Min/Max	 12 (305) 105 FPM (.53 m/s) 24 $^{1}/_{2}$ (662) / 43 (1092)	 12 (305) 105 FPM (.53 m/s) 24 $^{1}/_{2}$ (662) / 43 (1092)	 12 (305) 105 FPM (.53 m/s) 24 $^{1}/_{2}$ (662) / 43 (1092)
Work Zone Inches (mm): Height Width Depth Measured at 12" (305 mm) Window Height	 28 (711) 46 $^{3}/_{8}$ (1178) 25 (635)	 28 (711) 58 $^{3}/_{8}$ (1483) 25 (635)	 28 (711) 70 $^{3}/_{8}$ (1788) 25 (635)
Viewing Window Inches (mm): Standard is tempered sliding glass		Fully closed to 20 (508) open	
Light Intensity on Work Surface:		90 – 120 lm/ft^2 (968 – 1291 Lux)	
Required Exhaust CFM/CMH Standard/Optional: Variable Flow Canopy (NU-911) Fixed Flow Canopy (NU-907)	 486 / 656 (626 / 1115) 526 (894)	 611 / 761 (1038 / 1293) 651 (1106)	 758 / 868 (1288 / 1475) 796 (1352)
Plant Duct Static Pressure		Minimum 0.05 in. (1.27 mm) | Maximum 0.1 in. (2.54 mm)	
Sound Level:		67 dbA	
Heat Rejected, BTU, Per Hour, Non-vented / Vented		 2551 / 157	
Electrical:		115V / 60 Hz | E: 230V / 50-60Hz	
Energy Usage:	275 W	425 W	445 W
Crated Shipping Weight*: Net Weight	800 lbs. / 362 kg. 750 lbs. / 340 kg.	865 lbs. / 392 kg. 815 lbs. / 369 kg.	930 lbs. / 421 kg. 880 lbs. / 398 kg.

* Crated shipping weight does not include weight for accessories or options.

critical cleaning components™

For more information please visit
www.nuaire.com or call **1.800.328.3352**

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