

LABGARD 425 - FEATURES



- Clean HEPA Filtered Air
- Worksurface Air
- Room Air
- Mixed Room and/or Worksurface and HEPA Filtered Air



Optional elbow rest.



The NU-425 is available with optional IV bar and hooks.

The NU-425 can be operated by a seated user with the addition of NuAire's optional footrest **[A]** and motorized adjustable base stand **[B]**.



Please note that performance specifications vary for models and types. Please consult NuAire for exact performance specifications

All models are designed to meet UL, cUL, CE, and TUV criteria for safety and performance.



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Best Products, Best Performance, Best Protection.

Purchase Specifications For NuAire Labgard Nu-425 Biological Safety Cabinet

The intent herein is to provide a concise statement of requirements for a quality Class II, Type A2 (Formerly Type A/B3) Laminar Airflow Biological Safety Cabinet, which may be used to augment your purchase request/order. The LABGARD NU-425 meets the performance requirements of NSF/ANSI 49:2002. Your confidence is well placed in a Biological Safety Cabinet that meets NSF Standard. NuAire sales representatives will be pleased to explain the importance of the performance and control affected by each of the following requirements. The NuAire LABGARD NU-425 meets all of the requirements in the following SPECIFICATION.

1. Dimensions Inches (mm)

Overall Dimensions	NU-425-200	NU-425-300	NU-425-400	NU-425-500	NU-425-600
Width	28 1/2 (724)	41 5/8 (1057)	53 5/8 (1362)	65 5/8 (1667)	77 5/8 (1972)
Depth (Incl. Control Center)	24 (610)	32 7/8 (835)	32 7/8 (835)	32 7/8 (835)	32 7/8 (835)
Height (Incl. Exhaust Grill)	51 (1295)	63 (1600)	63 (1600)	63 (1600)	63 (1600)
Basestand, 30" W.S.	74 (1880)	89 1/2 (2273)	89 1/2 (2273)	89 1/2 (2273)	89 1/2 (2273)
Basestand, 36" W.S.	80 (2032)	95 1/2 (2426)	95 1/2 (2426)	95 1/2 (2426)	95 1/2 (2426)
Interior Dimensions					
Width	24 1/2 (622)	34 3/8 (873)	46 3/8 (1178)	58 3/8 (1483)	70 3/8 (1788)
Depth	19 (483)	23 1/2 (597)	23 1/2 (597)	23 1/2 (497)	23 1/2 (497)
Height	23 1/2 (597)	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)	28 1/2 (724)

2. Cabinet shall provide airflows & biological safety performance as specified.

- **a. Cabinet shall provide biological containment protection for both operator and product proven by an actual test, (e.g. test conducted by NSF) and routinely validated by NuAire.
- b. Cabinet shall be constructed from 16 GA, Type 304 stainless steel forming an all welded, monolithic, sealed structure.
- c. Cabinet shall be easily fumigated employing an established procedure such as that recommended by NSF.
- d. Supply HEPA filter shall be of full cabinet work zone width and depth; work zone below supply HEPA shall be of fixed cross-sectional area (sloping back wall or viewing window is unacceptable).
- *e. Supply HEPA filter shall be protected by a perforated metal diffuser covering the entire top of the work zone.
- f. Air Velocity from the supply filter shall average 65 to 75 FPM (.32 to .38 m/s) with no single point outside the 20% of average range measured in a horizontal plane defined by bottom edge of window.
- *g. Work access opening shall be 10 inches (254mm) high (8 inches (203mm) on NU-425-200 & NU-425-300). Average inflow velocity shall nominally be 105 LFPM (.53 m/s).

3. The cabinet shall be ergonomically designed for maximum user comfort and adjustability to meet the requirements of the Americans with Disabilities Act (ADA.)
 - Standard non-metallic armrest/airfoil incorporating large 1½ inch (38mm) forearm support area with ½ inch (12mm) recessed front grill designed for armrest comfort while maintaining containment performance.
 - Maximum visibility into cabinet workzone shall be at least 22¼ inches (565mm) from front access airfoil to exterior light housing.
 - Cabinet shall have a centrally located instrument panel within the control center that is easily serviced with quick disconnects.
 - Cabinet shall have the capability of incorporating a user adjustable base stand or base storage cabinet as an option.
 - The cabinet shall have a smooth operating sliding window from full closure to full opening at 19½ inches (495mm).
 - Cabinet shall have a large worktray (17⅞ inch (454mm) depth) removable with coved corners for easy cleaning.
- *4. The cabinet shall have all positive pressure plenums surrounded by a vacuum relative to the room (the LABGARD™ employs the HEPEX™ Zero Leak Airflow System).
5. Electrical power shall be supplied with a 12 foot (3.6m), 3-wire cord with molded plug. Electrical supply should be 115 VAC, 60 Hz (current rating varies per cabinet size, reference Electrical Requirements) protected with thermal circuit breaker from distribution panel.
6. The cabinet shall have two internal electrical circuits; one for blower/lights and one for the duplex outlets. Each circuit shall be protected with a circuit breaker located in the Control Center.
7. The cabinet shall be listed by Underwriters Laboratories to meet the requirements of both the U.S. and Canada for electrical/mechanical integrity.
8. Total cabinet airflow shall be controlled via a solid-state motor voltage regulator with adjustment available on the Control Center.
9. Balancing of cabinet workzone downflow (recycling flow) to exhaust flow shall be accomplished with an internal exhaust flow damper, externally adjustable with screwdriver and sealed with liquid tight fastener.
10. The cabinet shall be easily transportable through a standard 36-inch (914mm) wide door without disassembly.
11. Sound level shall be no more than 67 dbA measured 15 inches (381mm) above the work tray and 12 inches (305mm) in front of viewing window.
12. Fluorescent lighting shall be externally mounted and provide 90 (968) to 120 (1291) foot-candles (LUX) on work surface. The ballast to be electronic containing thermal protection with automatic reset.
- *13. Cabinet shall have a minihelic gauge to display pressure drop over the supply HEPA filter.
- *14. Cabinet shall come standard with two outlets with drip proof covers on back wall (one outlet for NU-425-200 & NU-425-300); one gas valve/service coupling on right side wall; one service coupling on right side wall.
15. Cabinet shall be easily converted to a freestanding console model with the addition of the optional Base Support Stand.

- *16. Cabinet work zone shall be all 16 GA. stainless steel and reinforced with stainless steel U channels to minimize vibration.
- 17. A $\frac{3}{8}$ - inch (10 mm) ball valve shall be provided in the drain trough beneath the work tray.
- *18. Cabinet shall have the capability of incorporating a permanent positive pressure plenum with quick release supply filter removal as an option.
- *19. Motor/blower shall be positioned so as to create an even filter loading, thereby prolonging the life of the supply HEPA filter, and shall deliver over 80% the initial HEPA filter static pressure with no more than a 10% decrease of CFM.
- *20. Cabinet shall be capable of front filter removal without disassembly of the control panel and sliding window tracks/hardware.
- 21. The following optional equipment shall be available to support installation and user requirements:

Various Access Opening Heights

Ultraviolet Light

Ground Fault Interrupter for Electrical System

Additional Service Valves for Gas, Air, Vacuum

Remote Service Valves

Additional Outlet

IV Bar with 6 Stainless Steel Hooks

Alarm Systems

Exhaust Interlocks

Base Support Stand (available in standard working surface heights of 30 or 36 inches) (762 or 914mm) With or Without Storage Shelves

Adjustable Control for Support Stand or Storage Cabinet

Hinged Viewing Window

Microscope Viewing Window

Sinks with Hot/Cold or DI Water Faucets

Storage Pull-Out Trays

Lay in Sorbent Exhaust Filter

Decorative Side Panels (hides plumbing fixture connections)

Permanent Plenum w/Quick Release Supply Filter

Metal Framed HEPA Filters

HEPA Filters 99.999% @ 0.3 Micron

Stainless Steel Armrest

Exhaust Transitions

*** Having all of these features is unique ONLY to NuAire cabinets.**

**** NU-425-300/500 containment tests performed by NuAire, Inc.**

LABGARD 425 - SPECIFICATIONS

Catalog Number	NU-425-200 Nominal 2 foot (.6m)	NU-425-300 Nominal 3 foot (0.9m)	NU-425-400 Nominal 4 foot (1.2m)	NU-425-500 Nominal 5 foot (1.5m)	NU-425-600 Nominal 6 foot (1.8m)
Performance Specifications 1. Personal Protection 2. Product Protection	NSF/ANSI 49:2002 NSF/ANSI 49:2002	NSF/ANSI 49:2002 NSF/ANSI 49:2002	NSF/ANSI 49:2002 NSF/ANSI 49:2002	NSF/ANSI 49:2002 NSF/ANSI 49:2002	NSF/ANSI 49:2002 NSF/ANSI 49:2002
NSF Std. No. 49 Class	Class II, Type A2	Class II, Type A2	Class II, Type A2	Class II, Type A2	Class II, Type A2
Style of Cabinet	Bench top/console w/base stand/storage cabine	Bench top/console w/base stand/storage cabinet	Bench top/console w/base stand/storage cabinet	Bench top/console w/base stand/storage cabinet	Bench top/console w/base stand/storage cabinet
Cabinet Construction	All welded stainless steel 16GA, Type 304 pressure tight design	All welded stainless steel 16GA, Type 304 pressure tight design	All welded stainless steel 16GA, Type 304 pressure tight design	All welded stainless steel 16GA, Type 304 pressure tight design	All welded stainless steel 16GA, Type 304 pressure tight design
Diffuser for Air Supply (Metal)	Non-flammable	Non-flammable	Non-flammable	Non-flammable	Non-flammable
HEPA Filter Seal Type: Supply Filter-99.99% Eff. on 0.3 microns Supply Filter-99.99% Eff. on 0.3 microns	HEPEX Seal Neoprene, Springloaded	HEPEX Seal Neoprene, Springloaded	HEPEX Seal Neoprene, Springloaded	HEPEX Seal Neoprene, Springloaded	HEPEX Seal Neoprene, Springloaded
Fumigation per NIH/NSF Procedure	Yes	Yes	Yes	Yes	Yes
Standard Services: Service Coupling (3/8" NPT) Gas Valve/Service Coupling (3/8" NPT) Duplex Outlet	One, Right Sidewall One, Backwall Center	One, Right Sidewall One, Right Sidewall One, Backwall Center	One, Right Sidewall One, Right Sidewall Two, Backwall	One, Right Sidewall One, Right Sidewall Two, Backwall	One, Right Sidewall One, Right Sidewall Two, Backwall
Optional Services: Gas Cocks (3/8" NPT) Remote Controlled Valves** Ultraviolet Light Standard/Cup Sinks	Up to 2 ea. Sidewall N/A One, Backwall N/A	Up to 3 ea. Sidewall Up to 3 ea. Sidewall One, Backwall Left or Right Work Surf.	Up to 3 ea. Sidewall Up to 3 ea. Sidewall One, Backwall Left or Right Work Surf.	Up to 3 ea. Sidewall Up to 3 ea. Sidewall One, Backwall Left or Right Work Surf.	Up to 3 ea. Sidewall Up to 3 ea. Sidewall One, Backwall Left or Right Work Surf.
Cabinet Size Inches (mm): Height (Fully Assembled) Height (Minimum for Transport) Width Depth (with Control Center)	51 (1295) 48 (1219) 28 1/2 (724) 24 (610)	63 (1600) 60 (1524) 41 5/8 (1057) 32 7/8 (835)	63 (1600) 60 (1524) 53 3/8 (1362) 32 7/8 (835)	63 (1600) 60 (1524) 65 3/8 (1667) 32 7/8 (835)	63 (1600) 60 (1524) 77 5/8 (1972) 32 7/8 (835)
Work Access Opening Inches (mm): Standard Opening Height/Optional Standard Inflow Velocity	8 (203) 105 FPM (.53 m/s)	8 (203) 105 FPM (.53 m/s)	10 (254)/8 (203) 105 FPM (.53 m/s)	10 (254)/8 (203) 105 FPM (.53 m/s)	10 (254)/8 (203) 105 FPM (.53 m/s)
Work Zone Inches (mm): Height Width Depth	23 1/2 (597) 24 1/2 (622) 19 (483)	28 1/2 (724) 34 3/8 (873) 23 1/2 (597)	28 1/2 (724) 46 3/8 (1178) 23 1/2 (597)	28 1/2 (724) 58 3/8 (1483) 23 1/2 (597)	28 1/2 (724) 70 3/8 (1788) 23 1/2 (597)
Viewing Window Inches (mm): Standard is tempered sliding glass Hinged Tempered Glass (optional)	Fully closed to 18" (457) open N/A	Fully closed to 19 1/2 (495) open 8 (203) opening	Fully closed to 19 1/2 (495) open 8 (203) & 10 (254) openings	Fully closed to 19 1/2 (495) open 8 (203) & 10 (254) openings	Fully closed to 19 1/2 (495) open 8 (203) & 10 (254) openings
Required Exhaust CFM/CMH Standard/Optional: Gas-Tight (NU-916/919) Thimble (NU-918/917) Thimble (NU-916)	150 / 255 194 / 330 214 / 365	200 (340) 282 (479) 326 (554)	338 (575)/270 (459) 438 (739)/370 (624) 496 (842)/428 (727)	426 (724)/340 (578) 542 (921)/456 (775) 572 (972)/486 (826)	513 (872)/410 (697) 647 (1100)/545 (925) 709 (1205)/606 (1030)
Plant Duct Static Pressure In./mm	0.05-0.1"/1.27-2.54mm	0.05-0.1"/1.27-2.54mm	0.05-0.1"/1.27-2.54mm	0.05-0.1"/1.27-2.54mm	0.05-0.1"/1.27-2.54mm
Heat Rejected , BTU, Per Hour (non-vented) (vented)	854 595	1442 865	1937 1162	2220 1320	2435 1460
Electrical: Volts, AC 60 Hz Amps: Blower/Lights Amps: Duplex Amps: Total 12 ft. Power Cord (one)	U.L./U.L.-C Listed 115 5 3 8 14 GA - 3 Wire, 15A	U.L./U.L.-C Listed 115 7 3 10 14 GA - 3 Wire, 15A	U.L./U.L.-C Listed 115 9 3 12 14 GA - 3 Wire, 15A	U.L./U.L.-C Listed 115 11/*9 3 14/*12 *12/14 GA-3 Wire, 20A Std., 15A Optional	U.L./U.L.-C Listed 115 11/*9 3 14/*12 *12/14 GA-3 Wire, 20A Std., 15A Optional
Crated Shipping Weight: *** Net Weight	260 lbs./118 kg. 300 lbs./136 kg.	475 lbs./215 kg. 425 lbs./193 kg.	550 lbs./249 kg. 500 lbs./227 kg.	650 lbs./295 kg. 600 lbs./273 kg.	730 lbs./331 kg. 680 lbs./308 kg.

*15A Configuration does not include accessory outlet. **Remote controlled valve handles project through front faring. Decorative side panels are available to cover plumbing. ***Crated shipping weight does not include weight for accessories or option.

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