The LabGard® 425 is a Class II Type A/B3 Biological Safety Cabinet which can either be exhausted back into the room or exhausted with the aid of a house exhaust system to some other location.

The gastight 30% exhaust / 70% recirculated air cabinet minimizes cross contamination of biologicals of low to moderate risk assessment in the absence of volatile toxic chemicals and protects the laboratory professional and environment from exposure to biologicals and/or chemical agents within the work zone.

The LabGard® 425 serves laboratory professionals better with significant improvements in increased personnel protection, product safety, simpler maintenance, lower life-cycle cost, and greater dependability.
**Built to Last and Work Quietly**

The LabGard® 425 is a 16 gauge pressure tight, all welded, 100% stainless steel shell. All welds are meticulously hand-finished and polished to be free of burrs. The shell is structurally reinforced to minimize vibration, noise levels and maintain a flat surface structure. The stainless steel is easily cleaned with all ducts, plenums, and penetrations for utilities sealed to prevent the escape of contaminants into the laboratory.

**HEPEX™ Zero Leak Airflow System**

This NuAire exclusive design results in a quiet, uniform down flow velocity over the sterile work zone. The HEPEX™ Zero Leak Airflow System prevents uneven particulate loading by eliminating direct blower blasts to the HEPA filter, spreading high static pressure over 100% of the filter surface.

The system surrounds all positive pressure airflow chambers and ducts with vacuum or negative air pressure relative to the laboratory. This eliminates the possibility of cabinet or gasket leaks and guards against HEPA filter failure. This system also allows for the change of the supply HEPA filter without having to expose the dirty, contaminated side of the HEPA filter to the laboratory or service technician.

**Control Center**

The eye-level modular Control Center has enable on / off switches for the exterior mounted fluorescent lights, (this is a three-way switch with ultraviolet light option), interior convenience outlet, blower motor, sliding window audible alarm enable, reset switches for power and outlet circuit breakers, minihelic gauge to display pressure drop over the supply HEPA filter, and adjustable motor speed control.

**Safety Features**

- Personnel, Product, and Environmental Protection
- True Laminar Airflow
- HEPEX Zero Leak Airflow System
- 100% Stainless Steel Sealed Construction
- Flexible Configuration
- Minimum Air Turbulence
- 100 LFPM Air Barrier
- 8” or 10” Access Opening
- Sliding Glass View Screen Closes Completely
- Large Work Space
- Ergonomic Design
- Front Maintenance
- Internationally Tested

**Configuration Flexibility**

The LabGard® is available in 2, 3, 4 or 6 foot nominal widths and can be configured and equipped to fulfill your specific needs. Window configuration flexibility is a good example of the practical variations available. The hinged window with hydraulic lift allows easy access. Direct microscope viewing into the contained work area is convenient with the hinged microscope window. The sliding window moves vertically to save space.

Hinged window configuration allows for easy access to the contained work area.
LOW MAINTENANCE, LOWER OPERATING COSTS
The LabGard® 425 is easy to maintain. The heavy gauge stainless steel work tray, all perforated grills, and the protective HEPA filter metal diffuser are all removable for easy cleaning and sterilization. A stainless steel wire mesh acts as a paper catch to stop any cleaning materials from being drawn up into the motor / blower assembly.

All maintenance is performed from the front of the cabinet. HEPA filter replacement can be completed without removal of the front view screen or disconnecting exhaust or plumbing connections. For ease of calibration and certification, all controls and adjustments are accessible from the front of the cabinet. Two fluorescent cool white lamps, placed external to the cabinet’s interior aid maintenance, provide excellent interior lighting and minimize heat build-up within the cabinet. The heat rejected (BTUs per hour) when operating the cabinet has been reduced over 10% from previous models.

WORLDWIDE PERFORMANCE
Quality Assurance is literally built into every NuAire product. NuAire conducts 15 separate tests on each biological safety cabinet prior to shipment and a copy of the test report accompanies each cabinet to its final destination. In addition, cabinets are routinely subjected to extensive biological aerosol testing and electrical integrity testing in NuAire’s Biological and Electrical Laboratories. NuAire Biological Safety Cabinets have been tested extensively to meet other countries’ international standards to assure the very best in dependability, performance, safety and service.

BUILDING DEPENDABILITY BY DESIGN
True Laminar Airflow, highest quality HEPA filters, longer filter life, and a superior airflow filtration system are the foundation of a better airflow cabinet.

TRUE LAMINAR AIRFLOW
The LabGard® 425 creates true laminar airflow: uniform down flow velocity throughout the work zone. Complete air changes occur thirty-five times per minute. Aerosols generated within the work zone flow instantly into the front and back work surface grills with no lateral movement. With good laboratory technique, cross contamination within the work zone is minimized and aerosols are completely contained within the system.

HEPEX™ FILTERS
NuAire’s exclusive High Efficiency Particulate Air (HEPA) filtration is used for both supply (recirculated) air and exhaust air systems. The HEPA filters are rated 99.99% efficient on removal of all particulate matter 0.3 microns, with greater efficiency on larger and smaller particles.

LONGER FILTER LIFE
Filter Life is extended by: 1) having the motor / blower combination positioned to create an even filter loading, 2) using a single high capacity motor / blower that automatically compensates for filter loading, 3) use of electronically controlled motor speed controller, and 4) use of an internal damper to control exhaust flow and balance the airflow performance specifications of the cabinet.

SUPERIOR ERGONOMIC DESIGN
The LabGard® 425 is ergonomically designed for maximum user comfort and adjustability to meet the requirements of the Americans with Disabilities Act (ADA). The work surface to cabinet bottom dimension has been reduced to allow for more knee space. The front Access Airfoil has been increased and recessed for armrest comfort while maintaining containment performance. Maximum visibility has been improved by increasing the viewing area and by providing an unobstructed view through the polished lower edge of a fully counterbalanced sliding or hinged tempered glass window. Internal service valves have been staggered on the work zone side walls making valves easier to reach. The centrally located instrument panel is now in the middle of the Control Center. Optional adjustable base support stands / base storage cabinets and ergonomic accessories are also available.
## Specifications

### NuAire LabGard 425

**NSF Std. No. 49, JACA Std., DIN 12950, NIH-03-112c, AS 2252, CDin VDE 0789, BS 5726, U.L./U.L.-C Listed, AFNOR NFX 44-201**

### Airflow Control System

**Exhaust Choke**

Internal, manually operated balancing damper establishes an optimum air balance between the cabinet's recirculated air system and the exhaust air system.

**Motor Speed Control**

Blower speed is regulated by a solid state triac motor speed controller.

### HEPA Filters

Two (exhaust and supply) disposable extended media, dry type filter at rated airflow capacity in accordance with specification MIL-F-51068.

### Utility Connections / Installations

**Service Valves**

One standard, right side wall. Up to three can be installed in either or both side walls.

**Duplex Outlet**


**Plant Duct Static Pressure**

0.05 - 0.1" H2O Vacuum

### Electrical Requirements

115 VAC, 60 Hz, single phase, optional 220 VAC, 50 Hz

### Dimensions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NU-425-200</strong></td>
<td>23½&quot; (597) height x 24½&quot; (622) width x 19&quot; (483) depth</td>
<td>50&quot; (1270) height x 28½&quot; (724) width x 24&quot; (601) depth</td>
<td>260 lbs. / 118 kg.</td>
<td>300 lbs. / 136 kg.</td>
<td>8&quot; opening = 150 cfm</td>
<td>8&quot; opening = 105 LFM</td>
</tr>
<tr>
<td><strong>NU-425-300</strong></td>
<td>28½&quot; (724) height x 34½&quot; (873) width x 23½&quot; (597) depth</td>
<td>60&quot; (1524) height x 41½&quot; (1057) width x 32½&quot; (835) depth</td>
<td>305 lbs. / 138 kg.</td>
<td>340 lbs. / 154 kg.</td>
<td>8&quot; opening = 200 cfm</td>
<td>8&quot; opening = 200 cfm</td>
</tr>
<tr>
<td><strong>NU-425-400</strong></td>
<td>28½&quot; (724) height x 46½&quot; (1178) width x 23½&quot; (597) depth</td>
<td>60&quot; (1524) height x 53½&quot; (1362) width x 32½&quot; (835) depth</td>
<td>441 lbs. / 200 kg.</td>
<td>490 lbs. / 222 kg.</td>
<td>8&quot; opening = 270 cfm</td>
<td>8&quot; opening = 270 cfm</td>
</tr>
<tr>
<td><strong>NU-425-600</strong></td>
<td>28½&quot; (724) height x 70½&quot; (1788) width x 23½&quot; (597) depth</td>
<td>60&quot; (1524) height x 77½&quot; (1972) width x 32½&quot; (835) depth</td>
<td>598 lbs. / 271 kg.</td>
<td>680 lbs. / 308 kg.</td>
<td>8&quot; opening = 410 cfm</td>
<td>10&quot; opening = 513 cfm</td>
</tr>
</tbody>
</table>

### Standard Features

- HEPEX Zero Leak Airflow System
- Large HEPA Filters: 99.99% Efficiency Rated
- External Fluorescent Lighting
- Front Filter Removal
- Sliding Glass View Screen
- Removable Work Tray
- M etal Diffuser over Supply Filter
- Tempered Glass Window
- Removable Control Panel
- Spill Trough with Drain Valve
- M inihelic Gauge
- Armrest

### Optional Features and Accessories

- Germicidal Ultraviolet Lamp
- Ground Fault Interrupter
- IV Bar with Six Hooks
- Base Support Stand
- Base Storage Cabinet
- Footrest
- Hinged Viewing Window
- Microscope Viewing Window
- Additional Service Valves for Gas, Air or Vacuum
- Exhaust Transitions — Thimble to Gastight
- HEPA Filters 99.99% at 0.3 microns
- M etal Framed HEPA Filters
- Storage Pull-Out Trays
- Permanent Plenum with Quick Release Supply Filter
- Remote Service Valves
- Additional Duplex Outlets
- Alarm Systems
- Adjustable Control for Support Stand or Storage Cabinet
- Decorative Side Panels
- 8" (203 mm) Access O pening
- Sinks with Hot/Cold or DI Water Faucets

Please note that NuAire continually makes product improvements which may cause the product specifications to change. Please consult factory to verify current product specifications.

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