



CELLGARD HD 481ES

energy saver

ADVANCED SAFETY ENGINEERING FOR EFFECTIVE
HANDLING OF HAZARDOUS PARTICULATE DRUGS
AND POWDERS IN A CLASS II, TYPE A2 BIOLOGICAL
SAFETY CABINET



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 and powders. ISO Class 5 sterility and protection for your valuable in process work materials.

Levels of Protection

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.

Benefits of NuAire Cabinets

- Largest HEPA filters with the most pleats per square inch
- TOUCHLINK™ Electronic Control System
- Internal exhaust damper
- An optimally determined fan for each model size/width



TOUCHLINK™ Electronic Control System Display



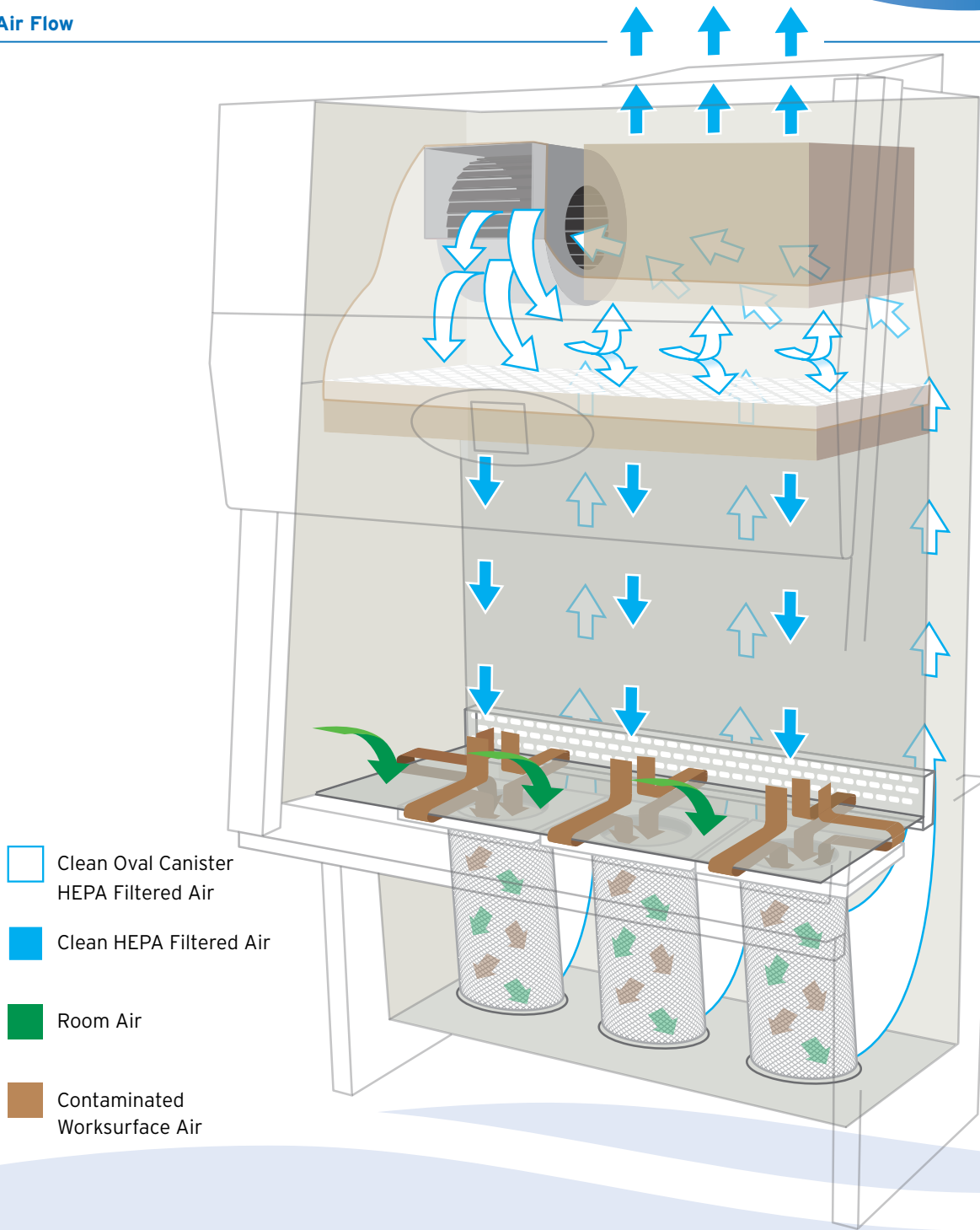
TOUCHLINK™ Electronic Control System





- On/off functions for fluorescent and germicidal ultraviolet lights, blower motor, and interior outlets.
- Monitors high/low limits for airflow and window position.
- Date/clock display
- Timer function (laboratory timer, set purge cycles, outlet timer, UV light timer, auto-run timer, night setback, or weekend turn-off.
- Complete 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. (Configurable)

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

Air Flow



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

Energy Saver 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.



DC ECM Motor

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

Oval Canister HEPA 99.99% Filter Technology

The oval canister size and shape of the HEPA pre-filter provides the necessary surface area for a longer filter life, and optimizing the replacement process.



The Ease of Bag-In / Bag-Out

1. Remove work surface
2. Remove paper catch grill over each oval HEPA prefilter
3. Seal contaminated interior of each oval HEPA filter
4. Remove four (4) fasteners per each oval HEPA prefilter
5. Bag-Out used oval HEPA prefilter and replace



Note: Filter change process should be performed by a qualified service technician.



NU-481

Experience Ergonomics™

The NU-481 provides an ergonomically correct environment by providing the following:

- Ability to sit or stand at a range of heights (Telescoping or Auto)
- Expanded vision zone reduces awkward postures and proper lighting reduces glare
- Forearm support for comfort and safety
- Effective work zone area for more “user-friendly” space



critical cleaning components™



CellGard™ HD ES NU-481 Biological Safety Cabinet

Specifications

| Catalog Number | NU-481-400 Nominal 4 Foot (1.2 m) | NU-481-500 Nominal 5 Foot (1.5 m) | NU-481-600 Nominal 6 Foot (1.8 m) |
|--|---|---|---|
| Performance Specifications: | | | |
| 1. Personal Protection | NSF/ANSI 49 | NSF/ANSI 49 | NSF/ANSI 49 |
| 2. Product Protection | | | |
| NSF / ANSI 49 (Class / Type) | Class II, Type A2 | Class II, Type A2 | Class II, Type A2 |
| Style of Cabinet | Console w/base stand | Console w/base stand | Console w/base stand |
| 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 |
| Diffuser for Air Supply (Metal) | Non-flammable | Non-flammable | Non-flammable |
| HEPA Filter Seal Type: | | | |
| Supply Filter - 99.995% Eff. on 0.3 Microns | HEPEX™ Seal | HEPEX™ Seal | HEPEX™ Seal |
| Exhaust Filter - 99.995% Eff. on 0.3 Microns | Neoprene | Neoprene | Neoprene |
| Oval PreFilter - 99.995% Eff. on 0.3 Microns | Neoprene | Neoprene | Neoprene |
| Fumigation: Automated per NIH/NSF Procedures | Yes | Yes | Yes |
| Standard Services: | | | |
| Service Coupling (3/8 inch NPT) | One, Right Sidewall | One, Right Sidewall | One, Right Sidewall |
| Gas Valve / Service Coupling (3/8 inch NPT) | One, Right Sidewall | One, Right Sidewall | One, Right Sidewall |
| Duplex Outlet | Two, Backwall | Two, Backwall | Two, Backwall |
| Optional Services: | | | |
| Gas Cocks (3/8 inch NPT) | Up to 3 each Sidewall | Up to 3 each Sidewall | Up to 3 each Sidewall |
| Remote Controlled Valves | Up to 3 each Sidewall | Up to 3 each Sidewall | Up to 3 each Sidewall |
| Ultraviolet Light | One, Backwall | One, Backwall | One, Backwall |
| Standard/Cup Sinks | Left or Right Work Surface | Left or Right Work Surface | Left or Right Work Surface |
| Cabinet Size Inches (mm): | | | |
| Height (Fully Assembled), Min/Max | 87 7/8 (2232) / 93 7/8 (2384) | 87 7/8 (2232) / 93 7/8 (2384) | 87 7/8 (2232) / 93 7/8 (2384) |
| Height (Min for Transport) | 79 3/8 (2016) | 79 3/8 (2016) | 79 3/8 (2016) |
| Width | 54 7/8 (1394) | 66 7/8 (1699) | 78 7/8 (2003) |
| Depth | 33 (838) | 33 (838) | 33 (838) |
| Work Access Opening Inches (mm): | | | |
| Standard Opening Height/Optional | 10 (254) / 8 (203) | 10 (254) / 8 (203) | 10 (254) / 8 (203) |
| Standard Inflow Velocity | 105 fpm (.53 m/s) | 105 fpm (.53 m/s) | 105 fpm (.53 m/s) |
| Work Zone Inches (mm): | | | |
| Height | 28 1/2 (724) | 28 1/2 (724) | 28 1/2 (724) |
| Width | 46 3/8 (1178) | 58 3/8 (1483) | 70 3/8 (1788) |
| Depth | 26 1/8 (664) | 26 1/8 (664) | 26 1/8 (664) |
| Viewing Window Inches (mm): | | | |
| Standard safety plate sliding glass | Fully Closed to 18 (457) Open | Fully Closed to 18 (457) Open | Fully Closed to 18 (457) Open |
| Required Exhaust CFM / CMH | 8 (203) / 10 (254) Opening | 8 (203) / 10 (254) Opening | 8 (203) / 10 (254) Opening |
| Thimble (NU-906/908) | 359 (610) / 426 (724) | 445 (756) / 531 (902) | 532 (904) / 634 (1077) |
| Thimble (NU-907) | 389 (660) / 456 (755) | 474 (806) / 560 (952) | 563 (935) / 665 (1130) |
| Plant Duct Static Pressure Eng / Metric | 0.05 - 0.1" / 1.27 - 2.54 mm | 0.05 - 0.1" / 1.27 - 2.54 mm | 0.05 - 0.1" / 1.27 - 2.54 mm |
| Heat Rejected, BTU / Hr (non-vented) | 2669 | 2983 | 3140 |
| (vented) | 157 | 198 | 198 |
| Electrical: | | | |
| Volts, AC 60 Hz | U.L. / U.L.-C Listed 115 | U.L. / U.L.-C Listed 115 | U.L. / U.L.-C Listed 115 |
| Amps*: Blower/Lights (10 / 8 Openings) | 6.0 / 5.8 | 6.0 / 5.8 | 6.0 / 5.8 |
| Amps: Outlets | 3 | 3 | 3 |
| Amps: Total | 14 | 14 | 14 |
| 3.7 m Power Cord (one) | 12 GA - 3 Wire, 20A | 12 GA - 3 Wire, 20A | 12 GA - 3 Wire, 20A |
| Crated Shipping Weight** | 750 lbs. / 340 kg. | 840 lbs. / 381 kg. | 930 lbs. / 422 kg. |
| Net Weight | 700 lbs. / 318 kg. | 790 lbs. / 358 kg. | 880 lbs. / 399 kg. |

*Based on cabinet with new filters running at 115 VAC **Crated shipping weight does not include weight for accessories or options



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

