



POLYPROPYLENE

RUST-FREE, METAL-FREE PRODUCTS



new england lab
lab-tested furniture systems





Table of Contents

FumeGard Series	4 - 9
<i>NU-156 Vertical Laminar Airflow Fume Hood</i>	4 - 5
<i>NU-162 Conventional Fume Hood</i>	6 - 7
<i>NU-164 By-Pass Fume Hood</i>	8 - 9
Fume Hood Base Cabinets	10 - 11
Acid Storage Cabinets	12 - 13
Polypropylene Casework	14 - 24
<i>Base Cabinets</i>	16 - 18
<i>Sink Units and Vented Storage</i>	19
<i>Knee Space and Filler Panels</i>	20 - 21
<i>Tall Storage Cabinets</i>	22
<i>Wall Cases</i>	22 - 24
<i>Other</i>	24
Chemical Resistance Guide	25



FUMEGARD



Setting the Standard in the most demanding environments

NuAire offers a wide variety of polypropylene laboratory furniture and equipment. Products include the FumeGard vertical laminar airflow fume hoods, FumeGard conventional and by-pass fume hoods, FumeGard base cabinets, FumeGard acid storage cabinets and a full line of polypropylene casework. All FumeGard hoods are available in nominal 4, 5, 6, and 8 foot lengths; and 24" (610 mm) or 30" (762 mm) work surface depths.

NuAire Polypropylene products are the ideal solution to meet your requirements. They have a proven performance record in a wide range of markets.

Applications:

- Chemical Engineering
- Electrical Engineering
- Material Science
- Environmental Toxic Analysis
- Analytical Chemistry
- Metallurgy
- Water Treatment Facilities
- Toxicology
- Trace Metal Analysis
- Marine Science
- Waste Management
- Soil Science
- Semiconductor

Durable Polypropylene Construction

NuAire Polypropylene products are constructed from primarily stress-relieved, fully seam-welded, and reinforced white polypropylene. The outer cabinet shell, inner workspace walls, spill trough plenum under workspace, and shelves are constructed from 1/2 inch (13 mm) polypropylene. The exhaust duct, access panels, and work surface are constructed from 1/4 inch (6 mm) polypropylene.

Polypropylene is a highly corrosive-resistant material that has high temperature and tensile strength. It possesses excellent chemical resistance to organic solvents and degreasing agents as well as electrolytic attack. The properties of polypropylene are enhanced with anti-oxidizing agents and UV stabilizers to increase strength

and improve thermal characteristics. Polypropylene is lightweight, stain resistant, and has a low moisture absorption rate. All this makes NuAire polypropylene products an excellent choice for long-lasting, highly corrosive-resistant, metal-free applications.

Our product's basic construction is polypropylene. However, depending upon customer requirements, other thermoplastics may be used. Polyvinyl Chloride (PVC), Chlorinated Polyvinyl Chloride (CPVC), Flame Retardant Polypropylene, Polyvinylidene Fluoride (PVDF), High Density Polyethylene (HDPE), and TFE-Tetrafluoroethylene (Teflon®) are available.

Virtually Metal Free

All FumeGard cabinets are virtually metal free and do not use nylon components. "Double wall"

construction forms the plumbing chase for the routing and connection of all services required **[A, B]**, including the electrical outlets. The sloped bottom polypropylene sink basin and strainer are fabricated from 1/4 inch (6 mm) polypropylene **[C]**. Access panels are provided for front maintenance of HEPA filters, services, electronic systems, and counterweight balance system. The window counterbalance contains metallic weights, but is encased in PVC **[D]**. Metallic components, such as the fluorescent lighting, are fully encased in non-metallic materials **[E]**. Drawers, drawer guides, sliding window components, drawer pulls, handles, hinges, and screws are also manufactured using polypropylene **[F, G, H]**.





FumeGard NU-156 vertical laminar airflow fume hood for high acid and trace metal analysis use

Constructed almost entirely of polypropylene, this fume hood contains the HEPEX™ Zero Leak Airflow System, available only from NuAire. The HEPEX™ system prevents uneven particulate loading by eliminating direct blasts to the HEPA filter, dispensing air over 100% of the surface. The system surrounds positive pressure airflow chambers and ducts with negative air pressure relative to the laboratory. This limits the possibility of leaks and guards against filter failure.

The FumeGard NU-156 is designed and tested to meet product and personnel containment performance as established by National Sanitation Foundation Standard No. 49 for Biological Safety Cabinets. These cabinets meet or exceed Federal Standard 209e, Class 10 air quality conditions, and have been independently tested for containment properties in accordance to ASHRAE Standard 110-1995 for Fume Hoods.

Standard Features

- HEPEX™ Zero Leak Air Flow System
- Large Separator-Less (Aluminum Free) HEPA Filters, 99.99% Efficient on 0.3 Micron Particles
- PVC Diffuser over Supply HEPA
- 1/2" (13 mm) Stress Relieved All Seam Welded Polypropylene Work Zone
- Vented and Plumbed Spill Trough Plenum under Work Surface
- 1/4" (6 mm) Lexan® with Margard® View Screen with 10" (254 mm) Access Opening at 105 LFPM
- View Screen Slides 19 1/2" (495 mm) Maximum Opening to Fully Closing
- Removable Work Surface/Inlet Grill
- Front Filter Removal without Removing View Screen
- Polypropylene Blower/HEPA Filter Module
- Polypropylene Enclosed Fluorescent Lighting with Lexan Cover: 100 Foot-Candles (1076 LUX) with Low-Heat Fluorescent Ballast
- Modular Electrical Component Construction Sealed in Polypropylene Case with Access Panel
- Solid State Motor Voltage Regulator

Optional Features

- ULPA Filters: 99.999% Efficient on 0.12 Micron Particles
- Remote Controlled Service Valves for Air, Vacuum, and/or N2 Available in PVC, PVDF, Teflon® or Polypropylene*
- Magnehelic Gauge to Monitor Supply Plenum Encased in Polypropylene Housing with Lexan® Window
- Additional Duplex Outlet(s) with PVC Covers
- Cascade Rinse Tanks with Nitrogen Purge
- Digital Manometer/Alarm
- Exhaust Interlocks for Building Controls
- D.I. or N2 Teflon® Spray Guns
- Teflon®, PVDF, or Polypropylene Dip Tanks with or without Drains
- Polypropylene or PVDF sinks with Hot/Cold or D.I. Water Faucets
- Teflon® Liquid/Air Aspirators to Syphon Chemicals
- Fully Perforated Work Surface (10% Open)
- Polypropylene Rectangle-to-Round Exhaust Transitions
- Custom Polypropylene Sinks with Chemically Resistant "P"-Trap
- Ground Fault Circuit Interrupter for Duplex Outlet
- Vented Base Support Cabinet

NU-156 Specifications

Overall Dimensions	4 ft Models	5 ft Models	6 ft Models	8 ft Models
Width	48 1/2" (1232 mm)	60 1/2" (1537 mm)	72 1/2" (1842 mm)	96 1/2" (2451 mm)
Depth: 24" Work Surface	36" (914 mm)	36" (914 mm)	36" (914 mm)	36" (914 mm)
Depth: 30" Work Surface (includes light and duct)	42" (1067 mm)	42" (1067 mm)	42" (1067 mm)	42" (1067 mm)
Height (includes pre-filter grill)	67 5/8" (1718 mm)	67 5/8" (1718 mm)	67 5/8" (1718 mm)	67 5/8" (1718 mm)
Work Area Dimensions				
Width	38 1/2" (978 mm)	50 1/2" (1283 mm)	62 1/2" (1588 mm)	86 1/2" (2197 mm)
Depth: 24" Work Surface	25 1/2" (648 mm)	25 1/2" (648 mm)	25 1/2" (648 mm)	25 1/2" (648 mm)
Depth: 30" Work Surface	31 1/2" (800 mm)	31 1/2" (800 mm)	31 1/2" (800 mm)	31 1/2" (800 mm)
Height	29" (737 mm)	29" (737 mm)	29" (737 mm)	29" (737 mm)
Shipping Weight**				
24" Work Surface	705 lbs (320 kg)	730 lbs (332 kg)	825 lbs (375 kg)	1265 lbs (575 kg)
30" Work Surface	756 lbs (344 kg)	839 lbs (381 kg)	900 lbs (409 kg)	1325 lbs (602 kg)
Exhaust Requirements***				
24" Work Surface	759 cFM (1290 m/hr)	995 cFM (1690 m/hr)	1232 cFM (2093 m/hr)	1705 cFM (2897 m/hr)
30" Work Surface	863 cFM (1466 m/hr)	1133 cFM (1925 m/hr)	1402 cFM (2382 m/hr)	1941 cFM (3298 m/hr)
Certification Value				
24" Work Surface	690 cFM (1171 m/hr)	905 cFM (1538 m/hr)	1120 cFM (1903 m/hr)	1550 cFM (2633 m/hr)
30" Work Surface	785 cFM (1334 m/hr)	1030 cFM (1753 m/hr)	1275 cFM (2168 m/hr)	1765 cFM (3000 m/hr)
Exhaust Static				
	0.8" (20 mm) w.g.	0.8" (20 mm) w.g.	0.8" (20 mm) w.g.	1.5" (38 mm) w.g.
Exhaust Duct Opening				
	4" x 24" (102 x 610 mm)	4" x 30" (102 x 762 mm)	4" x 30" (102 x 762 mm)	4" x 36" (102 x 914 mm)
Airflow Characteristics				
Down Flow Velocity: 60 LFPM (0.30 m/s) Inflow Velocity: 105 LFPM (0.53 m/s) @ 10" Access Opening				
Electrical Requirements****				
115 Volts AC, 60 Hz – or – 230 50 Hz Blower/Lights (Amps): 6 (8 for 8 ft Model) – or – (3 @ 230 VAC) Outlet 115 V (Amps): 15***** – or – (10 @ 230 VAC)				

* Metallic pipe, required for natural gas, or any other metallic surface, is coated with a 20-mil thickness of thermoplastic powder PolyArmor®

** Includes fume hood base cabinet. Leg levelers, handles, hinges and screws are made of polypropylene. Solid doors have adjustable air vents and are secured with a concealed magnetic latch.

*** Concurrent Balance Value shall be used for design and balance exhaust/supply HVAC requirements.

**** Metal or PVC junction box is provided for electrical connections.

***** If more amperage is required, separate circuits can be provided at additional cost.



FumeGard NU-162 **conventional fume hood**

The FumeGard NU-162 is built primarily of stress-relieved polypropylene to which NuAire has added anti-oxidizing agents and UV stabilizers. This increases tensile strength and improves thermal characteristics. NU-162 has a single piece airfoil across the bottom of the work access opening. As the sash is lowered, the face velocity increases rapidly. Fumes, gases, vapors, aerosols, and particulate are drawn through vents by an exterior exhaust duct. "Double wall" construction forms the plumbing chase for routing and connecting all services. This compartment is under negative pressure to minimize fume build-up.

NU-162 FumeGard has been independently tested to meet and exceed the requirements of ASHRAE Standard 110-1995 and is SEFA 1-1992 certified.

Available in polypropylene, PVC, CPVC, Flame Retardant Polypropylene, PVDF, HDPE or Teflon® construction.

Standard Features

- Superstructure Constructed from 1/2" (13 mm) Stress Relieved, All Seam Welded Polypropylene
- All Negative Pressure Interior
- Sealed Interior Fluorescent Lighting: 100 Foot-Candles (1076 LUX)
- Electronic Fluorescent Lamp Ballast
- Counterbalanced Lexan® View Screen Slides 18" (457 mm) Maximum Opening to Fully Closing
- Flush Mounted Exterior/Interior Plumbing Chase Access Panels
- Connection Provided for Venting a Base Cabinet
- Removable Rear Baffle for Maintenance
- Reinforced 1/2" (13 mm) Thick Polypropylene Work Surface
- Lower Work Access Opening Airfoil
- PVC Electrical Junction Box
- Modular Electrical Component Construction

Optional Features

- PVDF Lined Interior or Flame Retardant Polypropylene Fume Hood
- Composition Stone/Modified Epoxy Resin Work Surfaces
- Air Flow Alarm Systems
- Remote Controlled Service Valves for Air, Vacuum, and/or N2 Available in Polypropylene. Other Options Available upon Request.
- Cascade or Single Rinse Tanks with/without Nitrogen Purge
- Rear Exhaust Duct Wash-down System
- Polypropylene, Teflon® or PVDF Gooseneck Faucets
- Custom Polypropylene Sinks with Chemically Resistant "P"-Trap
- Teflon®, PVDF, or Polypropylene Dip Tanks with/without Drains
- Polypropylene or PVDF Sinks with Hot/Cold or D.I. Water Faucets
- Teflon® Liquid/Air Aspirators to Syphon Chemicals
- D.I. Water or N2 Teflon® Spray Guns
- Exhaust Interlocks for Building Controls
- Polypropylene Exhaust Damper with Quadrant Lock
- Ground Fault Circuit Interrupter for Duplex Outlet(s)
- Additional Duplex Outlet(s) with PVC Covers

NU-162 Specifications

Overall Dimensions	4 ft Models	5 ft Models	6 ft Models	8 ft Models
Width	48 1/2" (1232 mm)	60 1/2" (1537 mm)	72 1/2" (1842 mm)	96 1/2" (2451 mm)
Depth (excludes removable canopy)	31 1/2"-37 1/2" (800-952 mm)	31 1/2"-37 1/2" (800-952 mm)	31 1/2"-37 1/2" (800-952 mm)	31 1/2"-37 1/2" (800-952 mm)
Height (includes exhaust collar)	60 1/2" (1537 mm)	60 1/2" (1537 mm)	60 1/2" (1537 mm)	60 1/2" (1537 mm)
Height (with base)	88 3/4" (2254 mm)	88 3/4" (2254 mm)	88 3/4" (2254 mm)	88 3/4" (2254 mm)
Work Area Dimensions				
Width	38 1/2" (978 mm)	50 1/2" (1283 mm)	62 1/2" (1588 mm)	86 1/2" (2197 mm)
Depth: 24" Work Surface	25 1/2" (648 mm)	25 1/2" (648 mm)	25 1/2" (648 mm)	25 1/2" (648 mm)
Depth: 30" Work Surface	31 1/2" (800 mm)	31 1/2" (800 mm)	31 1/2" (800 mm)	31 1/2" (800 mm)
Height	29" (737 mm)	29" (737 mm)	29" (737 mm)	29" (737 mm)
Shipping Weight*				
24" Work Surface	705 lbs (320 kg)	730 lbs (332 kg)	825 lbs (375 kg)	1265 lbs (575 kg)
30" Work Surface	756 lbs (344 kg)	839 lbs (381 kg)	900 lbs (409 kg)	1325 lbs (602 kg)
Airflow Characteristics				
Inflow Velocity	105 LFPM (0.53 m/s)	105 LFPM (0.53 m/s)	105 LFPM (0.53 m/s)	105 LFPM (0.53 m/s)
Exhaust Volume (window full open)	481 cFM (818 cMH)	631 cFM (1073 cMH)	781 cFM (1328 cMH)	1081 cFM (1838 cMH)
Exhaust Static	0.3" (8 mm) w.g.	0.4" (10 mm) w.g.	0.5" (13 mm) w.g.	0.8" (20 mm) w.g.
Exhaust Duct Opening	12" diameter (305 mm)	12" diameter (305 mm)	12" diameter (305 mm)	12" diameter (305 mm)
Electrical Requirements**				
Volts AC, 60 Hz	115	115	115	115
Optional 230 VAC	230 50 Hz	230 50 Hz	230 50 Hz	230 50 Hz
Lights (Amps)	1	1	1	1
Amps @ Optional 230 VAC	1/2	1/2	1/2	1/2
Outlet (Amps)	15	15	15	15
Amps @ Optional 230 VAC	10	10	10	10

* Includes fume hood base cabinet. The leg levelers, easy-to-clean handles, hinges and screws are all made of polypropylene. Each solid polypropylene door has adjustable ventilation air vents and is secured with an easy-to-open concealed magnetic latch.

** For electrical connections PVC junction box is provided.



FumeGard NU-164 by-pass fume hood

Constructed of stress-relieved polypropylene, the FumeGard NU-164 has a by-pass (protected by a grill) which maintains a constant volume of airflow. As the sash is closed, air is by-passed at the top of the hood, causing the hood face velocity to increase much more slowly than a conventional fume hood. A deflector vane across the bottom of the opening directs airflow across the work surface. This provides a permanent opening even when the sash is closed. Most of the exhausted air enters the fume hood through the by-pass. The eye-level Control Center has on/off switches for exterior mounted fluorescent light or optional electrical devices (outlets, window alarms, night setback controls, or exhaust blower interlock systems).

The cabinet is designed to sit on existing casework or a NuAire polypropylene base. The NU-164 can be designed to meet your specific laboratory requirements.

Standard Features

- Superstructure Constructed from 1/2" (13 mm) Stress Relieved, All Seam Welded Polypropylene
- All Negative Pressure Interior
- Air By-Pass for More Uniform Face Velocity During View Screen Manipulation
- Sealed Interior Fluorescent Lighting: 100 Foot-Candles (1076 LUX)
- Electronic Fluorescent Lamp Ballast
- Counterbalanced Lexan® View Screen Slides 18" (457 mm) Maximum Opening to Fully Closing
- Flush Mounted Exterior/Interior Plumbing Chase Access Panels
- Polypropylene Service Valves (Except Natural Gas)
- Connection Provided for Venting a Base Cabinet
- Rear Baffle Removable for Maintenance
- Reinforced 1/2" (13 mm) Polypropylene Work Surface
- Lower Work Access Opening Airfoil
- PVC Electrical Junction Box
- Modular Electrical Component Construction

Optional Features

- PVDF Lined Interior or Flame Retardant Polypropylene Fume Hood
- Composition Stone/Modified Epoxy Resin Work Surfaces
- Air Flow Alarm Systems
- Remote Controlled Service Valves for Gas, Air, Vacuum, Available in PVC, PVDF, Teflon® or Polypropylene*
- Cascade or Single Rinse Tanks with/without Nitrogen Purge
- Rear Exhaust Duct Wash-Down System
- Polypropylene, Teflon® or PVDF Gooseneck Faucets
- Custom Polypropylene Sinks with Chemically Resistant "P"-Trap
- Teflon®, PVDF, or Polypropylene Dip Tanks with/without Drains
- Polypropylene or PVDF Sinks with Hot/Cold or D.I. Water Faucets
- Teflon® Liquid/Air Aspirators to Syphon Chemicals
- D.I. Water or N2 Teflon® Spray Guns
- Exhaust Interlocks for Building Controls
- Polypropylene Exhaust Damper with Quadrant Lock
- Ground Fault Circuit Interrupter for Duplex Outlet(s)
- Additional Duplex Outlet(s) with PVC Covers

NU-164 Specifications

Overall Dimensions	4 ft Models	5 ft Models	6 ft Models	8 ft Models
Width	48 1/2" (1232 mm)	60 1/2" (1537 mm)	72 1/2" (1842 mm)	96 1/2" (2451 mm)
Depth (excludes removable canopy)	31 1/2"-37 1/2" (800-952 mm)	31 1/2"-37 1/2" (800-952 mm)	31 1/2"-37 1/2" (800-952 mm)	31 1/2"-37 1/2" (800-952 mm)
Height (includes exhaust collar)	60 1/2" (1537 mm)	60 1/2" (1537 mm)	60 1/2" (1537 mm)	60 1/2" (1537 mm)
Height (with base)	88 3/4" (2254 mm)	88 3/4" (2254 mm)	88 3/4" (2254 mm)	88 3/4" (2254 mm)
Work Area Dimensions				
Width	38 1/2" (978 mm)	50 1/2" (1283 mm)	62 1/2" (1588 mm)	86 1/2" (2197 mm)
Depth: 24" Work Surface	25 1/2" (648 mm)	25 1/2" (648 mm)	25 1/2" (648 mm)	25 1/2" (648 mm)
Depth: 30" Work Surface	31 1/2" (800 mm)	31 1/2" (800 mm)	31 1/2" (800 mm)	31 1/2" (800 mm)
Height	29" (737 mm)	29" (737 mm)	29" (737 mm)	29" (737 mm)
Shipping Weight**				
24" Work Surface	705 lbs (320 kg)	730 lbs (332 kg)	825 lbs (375 kg)	1265 lbs (575 kg)
30" Work Surface	756 lbs (344 kg)	839 lbs (381 kg)	900 lbs (409 kg)	1325 lbs (602 kg)
Airflow Characteristics				
Inflow Velocity	105 LFPM (0.53 m/s)	105 LFPM (0.53 m/s)	105 LFPM (0.53 m/s)	105 LFPM (0.53 m/s)
Exhaust Volume (window full open)	506 cFM (860 cMH)	665 cFM (1130 cMH)	823 cFM (1399 cMH)	1140 cFM (1938 cMH)
Exhaust Static	0.3" (8 mm) w.g.	0.4" (10 mm) w.g.	0.5" (13 mm) w.g.	0.8" (20 mm) w.g.
Exhaust Duct Opening	12" diameter (305 mm)	12" diameter (305 mm)	12" diameter (305 mm)	12" diameter (305 mm)
Electrical Requirements***				
Volts AC, 60 Hz	115	115	115	115
Optional 230 VAC	230 50 Hz	230 50 Hz	230 50 Hz	230 50 Hz
Lights (Amps)	1	1	1	1
Amps @ Optional 230 VAC	1/2	1/2	1/2	1/2
Outlet (Amps)	15	15	15	15
Amps @ Optional 230 VAC	10	10	10	10

* Metallic pipe, required for natural gas, or any other metallic surface, is coated with a 20-mil thickness of thermoplastic powder PolyArmor®

** Includes fume hood base cabinet. The leg levelers, easy-to-clean handles, hinges and screws are all made of polypropylene. Each solid polypropylene door has adjustable ventilation air vents and is secured with an easy-to-open concealed magnetic latch.

*** For electrical connections PVC junction box is provided.



NU-55-624

NU-55 Fume Hood Base polypropylene fume hood bases

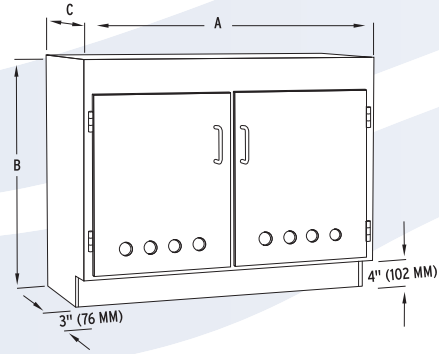
The NU-55 Fume Hood Base is available as an option for NuAire polypropylene fume hoods. The NU-55 is constructed from long-lasting, corrosive-resistant, white polypropylene. The outer cabinet shell, kick panel, and shelves are constructed using 1/2 inch (13 mm) polypropylene. The rear access panels use 1/4 inch (6 mm) polypropylene.

The entire cabinet is totally seam welded and reinforced with polypropylene supports to ensure the cabinets' ability to withstand the weight of the FumeGard Fume Hood. All bases come with adjustable leg levelers with 1 1/4 inch (32 mm) maximum adjustment.



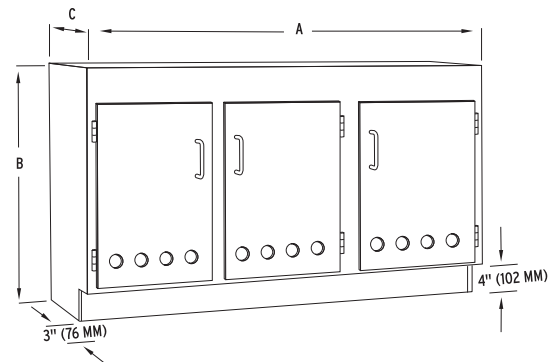
NU-55 4 ft Fume Hood Base

Overall Dimensions	Width (A)	Height (B)	Depth (C)
NU-55-424	48 1/2" (1232 mm)	28 1/4" (718 mm)	26" (660 mm)
NU-55-430	48 1/2" (1232 mm)	28 1/4" (718 mm)	32" (813 mm)



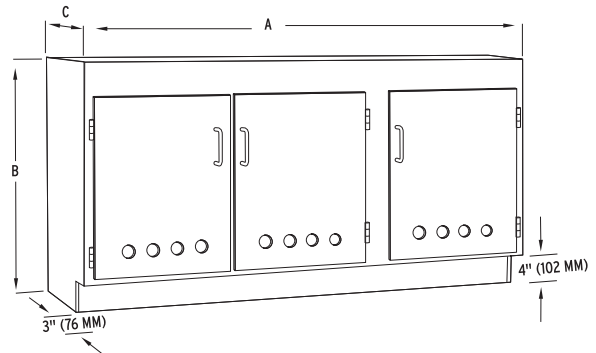
NU-55 5 ft Fume Hood Base

Overall Dimensions	Width (A)	Height (B)	Depth (C)
NU-55-524	60 1/2" (1537 mm)	28 1/4" (718 mm)	26" (660 mm)
NU-55-530	60 1/2" (1537 mm)	28 1/4" (718 mm)	32" (813 mm)



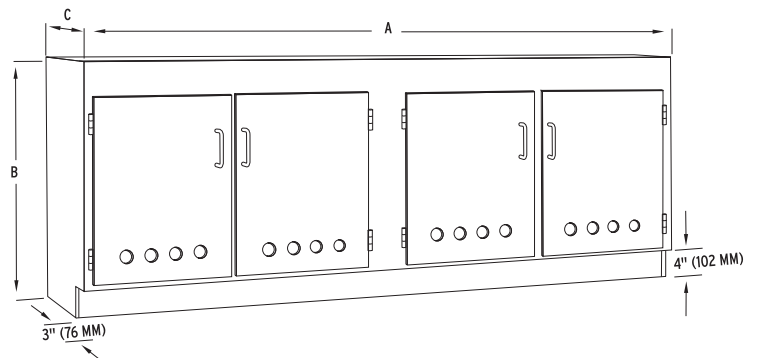
NU-55 6 ft Fume Hood Base

Overall Dimensions	Width (A)	Height (B)	Depth (C)
NU-55-624	72 1/2" (1842 mm)	28 1/4" (718 mm)	26" (660 mm)
NU-55-630	72 1/2" (1842 mm)	28 1/4" (718 mm)	32" (813 mm)



NU-55 8 ft Fume Hood Base

Overall Dimensions	Width (A)	Height (B)	Depth (C)
NU-55-824	96 1/2" (2451 mm)	28 1/4" (718 mm)	26" (660 mm)
NU-55-830	96 1/2" (2451 mm)	28 1/4" (718 mm)	32" (813 mm)





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