Ductless Carbon-Filtered Enclosures

O V E R V I E W

Paramount Ductless Enclosures offer Labconco's broadest range of widths, depths and heights as well as the most filter type choices. Two types of filters may be stacked for mixed use applications.

Ductless Carbon-Filtered Enclosures (often referred to as Ductless Hoods) are viable alternatives to the traditional ducted fume hood when working with volatile chemical fumes and vapors. As defined by SEFA 9-2010 (Recommended Practices for Ductless Enclosures), three categories of "ductless hood" (DH) exist.

DH I – A ductless hood equipped with a filtration device designed to control non-toxic chemicals, nuisance odors and particulates.

DH II – A ductless hood capable of meeting all DH I requirements, and equipped with a filtration device designed to filter manufacturer-approved toxic contaminants up to filter break through only.

DH III – A ductless hood capable of meeting all DH II requirements, and equipped with a filtration device designed to filter manufacturer-approved toxic contaminants beyond primary filter break through by providing secondary back-up protection.

Ductless enclosures offer these advantages and more:

▲ **FLEXIBLE** – They can be utilized and flexible in hard-to-duct areas such as the center or bottom level of multi-level buildings.

▲ **TURNKEY** – Installation expenses are far less than traditional hoods because no ductwork and remote blower are required.

▲ **PORTABLE** – Since they are portable, they may be shared among several laboratories or stored when not in use.

▲ **SUSTAINABLE** – Since they have no make-up air requirements, they may be used in air-starved laboratories or offset air requirements of ducted fume hoods.

▲ **GREEN** – Unlike traditional fume hoods, costly tempered room air is not exhausted form the laboratory, resulting in lower energy costs.

Labconco offers several options when choosing a Ductless Carbon-Filtered Enclosure. The Selection Guide below lists the enclosures according to their DH category and provides a summary of the range of dimension and filter choices available for each.

Selection Guide

Ductless Enclosure	Overall Width	Inside Depth	Inside Height	OV	AG	FORM	AM	RAD	MIXED	HEPA
						Filter Types Available*				
DH II Enclosures: Suitable for toxic levels of certain chemicals										
Paramount Ductless Enclosure	2', 3', 4', 5', 6'	23.4", 30.0"	22.7", 32.0", 35.0"	•	•	•	•	•	•	•
DH I Enclosures: Suitable for nuisance odors and non-toxic levels of certain chemicals and particulates.										
Protector® XVS Ventilation Station connected to FilterMate™ Portable Exhauster	2', 3', 4', 5', 6', 8'	23.4", 30.0"	22.3", 31.5"	•		•	•			•
Protector® Demonstration Hood connected to FilterMate™ Portable Exhauster	3'	23.0"	22.3", 31.5"	•		•	•			•
Protector® Work Station	4'	17.2"	20.0"	•		•	•			
Fume Adsorber	2.5', 5'	14.5"	13.5"	•		•	•			

* See filter descriptions on page 3. OV = Organic Vapor, AG = Acid-Sulfur Gases, FORM = Formaldehyde/Formalin, AM = Ammonia-Amines, RAD = Radioisotopes, Mixed = Mixed Bed (Organic Vapor, Acid-Sulfur, Ammonia-Amine, Formaldehyde), HEPA = 99.99% efficient Particulate

Ductless Carbon-Filtered Enclosures

OVERVIEW

Labconco, an industry leader in laboratory ventilation since the 1930's, is dedicated to providing world class safety enclosures for your space. Whether or not a ductless carbon-filtered enclosure is the right ventilation product for your application requires consideration of factors such as the time-weighted exposure limits of your materials. The Application Matrix below provides examples of appropriate uses for carbon and HEPA filters used in Labconco enclosures. Depending on the Labconco enclosure, several filter types may be used.

To determine if your application is suitable for a ductless enclosure, Labconco offers an exclusive **Chemical Assessment** available at **www.labconco.com.** After submitting your assessment form, a Labconco specialist analyzes your chemical applications and provides you with a report recommending the appropriate enclosure. Once installed, Labconco website tools keep you informed. The **Filter Reminder Service** alerts you with emails when it is time to check or change your filters. The online **Chemical Guide** provides a reference to check a specific chemical's suitability for a ductless enclosure.

▲ **Organic Carbon Filters** are suitable for vapors from solvents including acetone, ethyl acetate, toluene and xylene.

▲ **Acid-Sulfur Carbon Filters** are suitable for acid and sulfur gases.

▲ **Ammonia Carbon Filters** are suitable for ammonia and low molecular weight amines.

▲ **Formaldehyde Carbon Filters** are suitable for vapors from formaldehyde, formalin and gluteraldehyde.

▲ **Radioisotope Carbon Filters** are suitable for iodine radioisotope vapors.

▲ **Mixed Bed Carbon Filters** are a combination of Organic, Acid-Sulfur, Formaldehyde and Ammonia media.

▲ **HEPA Filters,** 99.99% efficient, are suitable for removing particulates such as powders and pollen. They should not be used to capture biohazardous materials or volatile organic material.

Time to change your filter?
Sign up for our Filter Reminders!

Sign up at labconco.com

For light duty applications, Protector XVS Ventilation Stations may be paired with FilterMate Portable Exhausters, which return filtered air to the laboratory.

Application Matrix

Filter Type	Organic	Acid-Sulfur	Ammonia	Formaldehyde	Radioisotope	Mixed Bed	HEPA	HEPA + Carbon*
Acid pouring and mixing		•				•		
Asbestos handling							•	
Cleanroom/critical environment								•
Combination dry and liquid chemicals								•
Endoscopy instrument cleaning				•				
Fertilizer research			•					
Histology/cytology tissue staining, coverslipping	•					•		
Hormone research							•	•
Iodine isotope handling					•			
Non-biohazardous microbiological samples with trace chemicals**								•
Particulates in conjunction with chemical agents								•
Pathology/tissue grossing				•		•		
Pollen handling							•	
Science education						•		
Soldering	•							•
Solvent cleaning, welding/gluing	•					•		

A combination of HEPA filter(s) and any other carbon filter type appropriate to the application may be used in either a Paramount Ductless Enclosure or FilterMate Portable Exhauster.

** *Ductless carbon-filtered enclosures are not designed to accommodate changing and disposal of biohazardous filters and materials and, therefore, should not be used as biosafety enclosures.*

Paramount® Ductless Enclosures

Paramount® Ductless Enclosures are self-contained while allowing for safe handling of organic, formaldehyde, acid gas, sulfur compounds or ammonia chemical fumes and vapors as well as particulates. Air inside the enclosure passes through carbon filters and, in some cases additional HEPA filters, before being safely exhausted back into the laboratory.

Two filter types may be stacked for mixed chemical or combination gaseous/particulate applications. No outside ducting is required.

Electronic security lock, when enabled, prevents operation of the enclosure by unauthorized users. The user must enter the proper sequence of keystrokes to begin operation.

Fluorescent light illuminates the interior. Timer may be set for a specific time period for energy-savings as well as a safeguard for light-sensitive materials.

Upper dilution air supply sweeps clean air to the back of the sash to keep contaminants away from the operator.

Upper containment sash foil directs contaminants away from the user's breathing zone.

Side-entry air foils allow air to sweep interior surfaces to enhance containment.

Patented* Clean-Sweep™ air foil allows air to sweep the work surface to maximize containment.

Safety-First Vapor Sensor accurately detects filter break through. Primary and secondary backup sensors provide redundant monitoring and detection of organic solvents, smoke particulates, ammonia gases, formaldehyde gases and hydrosulfide gases. The sensor also provides an early warning when 5-10% of filter life is remaining to allow time for the user to change filters. See page 8 for details.

Durable powder-coated aluminum frame, steel rear baffle and plenum provide chemical resistance and robust construction. No unreliable plastic-to-plastic bonding is used.

Quieter, cooler and more energy-efficient ECM impeller is 95% efficient, generates less heat for more comfortable working conditions, and operates from 52 to 62 dBA at 80 fpm depending on model.

Patented* rear baffle with zones of perforations promotes non-turbulent horizontal laminar airflow. The baffle pivots down for cleaning.

Optional clear safety glass baffle provides 360° visibility for teaching demonstrations. The baffle pivots down for cleaning.

Smart-Flow™ System adjusts the motor speed automatically for filter pressure drop, barometric pressure, and room temperature, and maintains constant airflow at the calibrated value.

Durable tempered safety glass front sash and sides provide visibility, ambient light and chemical resistance. Glass does not easily discolor or craze like plastic can.

Accommodates seven filter types to cover a wide variety of needs. Filters are stackable to handle mixed chemical applications.

Large LCD displays face velocity and filter status, and touchpad control of enclosure operation. Filter life and check timers trigger audible/visual alert messages after the specified number of hours has elapsed.

Two utility ports allow passage of tubing, electrical cords and interface cables from inside to back exterior for connection to services.

Ergonomic angled sash and patented** sloped front allow a closer view of the work area, reduce glare and provide a more comfortable operating position. Hinged sash pivots upward for loading and has a wiping seal to contain contaminants. Larger models incorporate an external gas-assist lift.

Spacious sash opening provides comfortable access to the work area. Opening spans the width of the enclosure and is 9.4" (23.9 cm) or 12.0" (48.3 cm) high depending on the model.

Convenient, front-accessible filter replacement. The gas spring-assisted clamping mechanism opens effortlessly and applies uniform pressure across the top surface of the filters for leak-proof, one-step filter replacement.

Intertek

Paramount® Ductless Enclosures

Above: 4' Paramount Ductless Enclosure 6963401 is shown with Work Surface 3909902 and Protector Standard Base Cabinet 9900000. Work Surface, Base Cabinet and filters are sold separately. At left: Three screens alternate on the LCD display: filter types and status, estimated filter life for the bottom filter(s), and estimated filter life for the top filter(s). All three screens display face velocity.

All models feature:
- Clean-Sweep air foil.*
- Upper dilution air supply.
- Upper containment sash foil.
- Zone-perforated rear baffle that pivots down for cleaning.*
- ▲ Side-entry air foils.
- Safety-First™ vapor sensor with early audible warning for accurate detection of filter break through.
- ECM impeller with timer that operates at 52-62 dBA at 80 feet per minute. 6' Paramounts have two impellers.

- Smart-Flow™ system to automatically adjust motor speed for filter pressure drop, barometric pressure and room temperature.
- LCD message center, 3" x 1.5", to provide continuous status reports for each filter, airflow speed, and filter saturation and low airflow alarm messages.
- ▲ Filter life and check timers with audible/LCD visual elapsed time alerts.
- ▲ Digital touchpad controls.
- Powder-coated aluminum frame and steel rear plenum and baffle. No plastic-to-plastic bonding is used.
- ▲ Pre-wired fluorescent lamp with timer.
- ▲ Electronic security lock (optional activation) that requires password to change operating parameters.
- ▲ 1/4" thick tempered safety glass front sash and sides.
- ▲ Ergonomic angled and hinged pivoting sash with wiping seal and patented** sloped front.
- ▲ Models with 9.4" sash opening height have 16.5" locking height and 19.0" maximum loading height. Models with 12.0" sash opening height and 32.0" interior height have 25.8" locking height and 28.3" maximum loading height. Models with 12.0" sash opening height and 35.0" interior height have 28.8" locking height and 31.3" maximum loading height.
- Filter efficiency performance independently verified by University of Kansas.
- ▲ Particulate containment data independently confirmed by SafeBridge† Consultants, Inc.
- ▲ 8.2' power cord and plug. No plug on 230 volt models.
- ▲ ETL† listed (115 volt models).

All models conform to the following regulations and standards:
- ▲ SEFA† 9-2010, DH II
- ▲ SEFA† 8-2010, Cabinet Surface Finish Tests
- ▲ ASHRAE† 110-95
- ▲ ANSI† Z9.5-2011
- ▲ UL† 61010-1
- ▲ CAN/CSA† C22.2 No. 61010-1
- ▲ CE† Conformity Marking (230 volt models)

Models with glass baffle feature:
- ▲ 1/4" thick tempered safety glass baffle without perforations that pivots down for cleaning.

All models require (not included):
- ▲ Work Surface and Base. See page 9. Contact Labconco for stand and cabinet options.
- ▲ Filters. See page 8.

Optional accessories:
- ▲ Canopy Exhaust Transition. See page 9.
- ▲ Sash Closures. See page 9.
- ▲ Utility Shelves, Bottle Holder and Tissue Holder. See page 23.

Contact Labconco at 800-821-5525 or 816-333-8811 for application assistance.

Ordering Information

PARAMOUNT® DUCTLESS ENCLOSURES

Nominal Width	Catalog (Description)	Electrical Requirements	Overall W x D x H	Internal Working Height	Sash Opening Working Height	Sash Opening Loading Height*	Face Velocity (fpm)	Airflow Exhaust Volume (CFM)	Noise Pressure (dbA)	Shipping Weight (lbs./kg)
2'	**6963200** (Std.)	115 volts, 50/60 Hz	24.0" x 29.0" x 43.7" (61.0 x 73.7 x 111.0 cm)	22.7" (57.7 cm)	9.4" (23.9 cm)	19.0" (48.3 cm)	60 80 100	85 115 145	50 54 59	175/79
2'	**6963220**** (Std.)	230 volts, 50/60 Hz	24.0" x 29.0" x 43.7" (61.0 x 73.7 x 111.0 cm)	22.7" (57.7 cm)	9.4" (23.9 cm)	19.0" (48.3 cm)	60 80 100	85 115 145	50 54 59	175/79
3'	**6963300** (Std.)	115 volts, 50/60 Hz	36.0" x 29.0" x 43.7" (91.4 x 73.7 x 111.0 cm)	22.7" (57.7 cm)	9.4" (23.9 cm)	19.0" (48.3 cm)	60 80 100	130 175 220	46 52 56	225/102
3'	**6963301** (Tall)	115 volts, 50/60 Hz	36.0" x 29.0" x 53.0" (91.4 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	170 230 285	52 57 62	255/116
3'	**6963302**† (Tall & Clear)	115 volts, 50/60 Hz	36.0" x 29.0" x 53.0" (91.4 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	170 230 285	52 57 62	275/125
3'	**6963320**** (Std.)	230 volts, 50/60 Hz	36.0" x 29.0" x 43.7" (91.4 x 73.7 x 111.0 cm)	22.7" (57.7 cm)	9.4" (23.9 cm)	19.0" (48.3 cm)	60 80 100	130 175 220	46 52 56	225/102
3'	**6963321**** (Tall)	230 volts, 50/60 Hz	36.0" x 29.0" x 53.0" (91.4 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	170 230 285	52 57 62	255/116
3'	**6963322****† (Tall & Clear)	230 volts, 50/60 Hz	36.0" x 29.0" x 53.0" (91.4 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	170 230 285	52 57 62	275/125
4'	**6963400** (Std.)	115 volts, 50/60 Hz	48.0" x 29.0" x 43.7" (121.9 x 73.7 x 111.0 cm)	22.7" (57.7 cm)	9.4" (23.9 cm)	19.0" (48.3 cm)	60 80 100	175 235 295	53 57 62	275/125
4'	**6963401** (Tall)	115 volts, 50/60 Hz	48.0" x 29.0" x 53.0" (121.9 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	230 305 380	57 62 67	315/143
4'	**6963402**† (Tall & Clear)	115 volts, 50/60 Hz	48.0" x 29.0" x 53.0" (121.9 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	230 305 380	57 62 67	345/156
4'	**6963403** (Tall & Deep)	115 volts, 50/60 Hz	48.0" x 35.5" x 56.0" (121.9 x 90.2 x 142.2 cm)	35.0" (88.9 cm)	12.0" (30.5 cm)	31.3" (79.4 cm)	60 80 100	230 305 380	59 62 67	540/245
4'	**6963420**** (Std.)	230 volts, 50/60 Hz	48.0" x 29.0" x 43.7" (121.9 x 73.7 x 111.0 cm)	22.7" (57.7 cm)	9.4" (23.9 cm)	19.0" (48.3 cm)	60 80 100	175 235 295	53 57 62	275/125
4'	**6963421**** (Tall)	230 volts, 50/60 Hz	48.0" x 29.0" x 53.0" (121.9 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	230 305 380	57 62 67	315/143
4'	**6963422****† (Tall & Clear)	230 volts, 50/60 Hz	48.0" x 29.0" x 53.0" (121.9 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	230 305 380	57 62 67	345/156
4'	**6963423**** (Tall & Deep)	230 volts, 50/60 Hz	48.0" x 35.5" x 56.0" (121.9 x 90.2 x 142.2 cm)	35.0" (88.9 cm)	12.0" (30.5 cm)	31.3" (79.4 cm)	60 80 100	230 305 380	59 62 67	540/245
5'	**6963501** (Tall)	115 volts, 50/60 Hz	60.0" x 29.0" x 53.0" (152.4 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	9.4" (23.9 cm)	28.3" (71.8 cm)	60 80 100	220 295 370	57 62 67	395/179
5'	**6963503** (Tall & Deep)	115 volts, 50/60 Hz	60.0" x 35.5" x 56.0" (152.4 x 90.2 x 142.2 cm)	35.0" (88.9 cm)	9.4" (23.9 cm)	31.3" (79.4 cm)	60 80 100	220 295 370	57 62 67	565/256
5'	**6963521**** (Tall)	230 volts, 50/60 Hz	60.0" x 29.0" x 53.0" (152.4 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	9.4" (23.9 cm)	28.3" (71.8 cm)	60 80 100	220 295 370	57 62 67	395/179
5'	**6963523**** (Tall & Deep)	230 volts, 50/60 Hz	60.0" x 35.5" x 56.0" (152.4 x 90.2 x 142.2 cm)	35.0" (88.9 cm)	9.4" (23.9 cm)	31.3" (79.4 cm)	60 80 100	220 295 370	57 62 67	565/256
6'	**6963601** (Tall)	115 volts, 50/60 Hz	72.0" x 29.0" x 53.0" (182.9 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	350 465 580	57 61 66	475/215
6'	**6963603** (Tall & Deep)	115 volts, 50/60 Hz	72.0" x 35.5" x 56.0" (182.9 x 90.2 x 142.2 cm)	35.0" (88.9 cm)	12.0" (30.5 cm)	31.3" (79.4 cm)	60 80 100	350 465 580	57 61 66	680/308
6'	**6963621**** (Tall)	230 volts, 50/60 Hz	72.0" x 29.0" x 53.0" (182.9 x 73.7 x 134.6 cm)	32.0" (81.3 cm)	12.0" (30.5 cm)	28.3" (71.8 cm)	60 80 100	350 465 580	57 61 66	475/215
6'	**6963623**** (Tall & Deep)	230 volts, 50/60 Hz	72.0" x 35.5" x 56.0" (182.9 x 90.2 x 142.2 cm)	35.0" (88.9 cm)	12.0" (30.5 cm)	31.3" (79.4 cm)	60 80 100	350 465 580	57 61 66	680/308

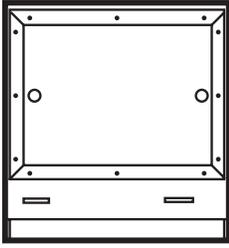*Locking height is 2.5" (6.4 cm) less than the loading height. ** International electrical configuration †360° visibility with glass rear wall and baffle
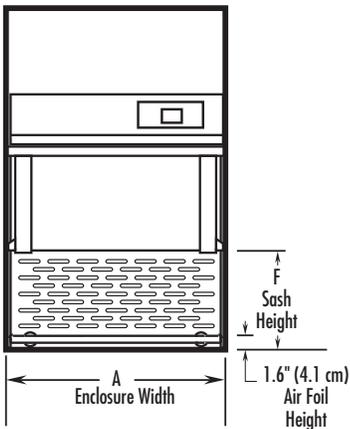
Ordering Information

TOP

FRONT

A
Enclosure Width

F
Sash
Height

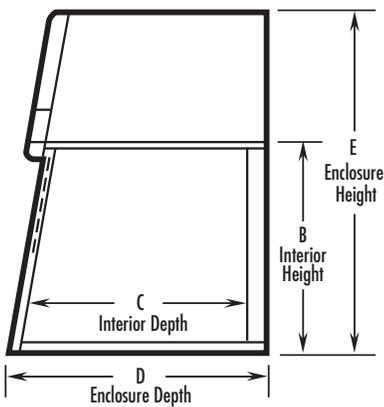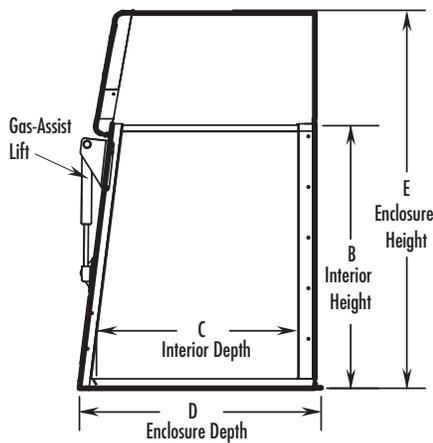1.6" (4.1 cm)
Air Foil
Height

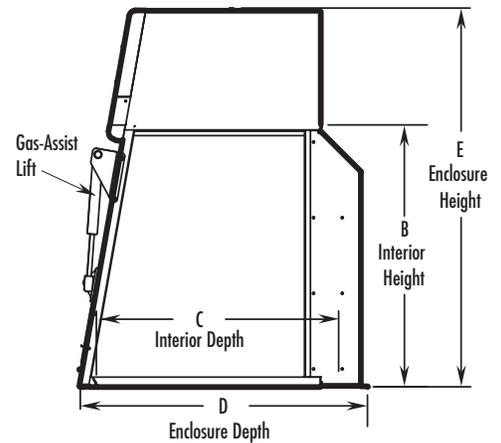| Catalog Numbers	Paramount Description	Overall Width A	Interior Height B	Interior Depth C	Exterior Depth D	Exterior Height E	Sash Opening F
6963200 6963220	2' Standard	24.0" (61.0 cm)	22.7" (57.7 cm)	23.4" (59.4 cm)	29.0" (73.7 cm)	43.7" (111.0 cm)	9.4" (23.9 cm)
6963300 6963320	3' Standard	36.0" (91.4 cm)	22.7" (57.7 cm)	23.4" (59.4 cm)	29.0" (73.7 cm)	43.7" (111.0 cm)	9.4" (23.9 cm)
6963301 6963321	3' Tall	36.0" (91.4 cm)	32.0" (81.3 cm)	23.4" (59.4 cm)	29.0" (73.7 cm)	53.0" (134.6 cm)	12.0" (30.5 cm)
6963302 6963322	3' Tall with Clear Baffle	36.0" (91.4 cm)	32.0" (81.3 cm)	23.4" (59.4 cm)	29.0" (73.7 cm)	53.0" (134.6 cm)	12.0" (30.5 cm)
6963400 6963420	4' Standard	48.0" (121.9 cm)	22.7" (57.7 cm)	23.4" (59.4 cm)	29.0" (73.7 cm)	43.7" (111.0 cm)	9.4" (23.9 cm)
6963401 6963421	4' Tall	48.0" (121.9 cm)	32.0" (81.3 cm)	23.4" (59.4 cm)	29.0" (73.7 cm)	53.0" (134.6 cm)	12.0" (30.5 cm)
6963402 6963422	4' Tall with Clear Baffle	48.0" (121.9 cm)	32.0" (81.3 cm)	23.4" (59.4 cm)	29.0" (73.7 cm)	53.0" (134.6 cm)	12.0" (30.5 cm)
6963403 6963423	4' Tall & Deep	48.0" (121.9 cm)	35.0" (88.9 cm)	30.0" (76.2 cm)	35.5" (90.2 cm)	56.0" (142.2 cm)	12.0" (30.5 cm)
6963501 6963521	5' Tall	60.0" (152.4 cm)	32.0" (81.3 cm)	23.4" (59.4 cm)	29.0" (73.7 cm)	53.0" (134.6 cm)	9.4" (23.9 cm)
6963503 6963523	5' Tall & Deep	60.0" (152.4 cm)	35.0" (88.9 cm)	30.0" (76.2 cm)	35.5" (90.2 cm)	56.0" (142.2 cm)	9.4" (23.9 cm)
6963601 6963621	6' Tall	72.0" (182.9 cm)	32.0" (81.3 cm)	23.4" (59.4 cm)	29.0" (73.7 cm)	53.0" (134.6 cm)	12.0" (30.5 cm)
6963603 6963623	6' Tall & Deep	72.0" (182.9 cm)	35.0" (88.9 cm)	30.0" (76.2 cm)	35.5" (90.2 cm)	56.0" (142.2 cm)	12.0" (30.5 cm)

E
Enclosure Height

B
Interior Height

C
Interior Depth

D
Enclosure Depth

**SIDE
(Standard Models)**

6963200, 6963220,
6963300, 6963320,
6963400, 6963420

Gas-Assist
Lift

E
Enclosure
Height

B
Interior
Height

C
Interior Depth

D
Enclosure Depth

**SIDE
(Tall Models)**

6963301, 6963302,
6963321, 6963322,
6963401, 6963402,
6963421, 6963422,
6963501, 6963521,
6963601, 6963621

Gas-Assist
Lift

E
Enclosure
Height

B
Interior
Height

C
Interior Depth

D
Enclosure Depth

**SIDE
(Tall & Deep Models)**

6963403, 6963423,
6963503, 6963523,
6963603, 6963623

Safety-First™ Vapor Sensor Details

PARAMOUNT® DUCTLESS ENCLOSURES

The Safety-First™ Organic Vapor sensor detects contaminants in the exhaust indicating break through and has a sensitivity range of 0.1-30 ppm. Typical chemicals detected by the sensor are indicated in the chart below.

Chemical Sensitivity Alert Concentrations

Chemical Family	Chemical	Sensitivity Alert Concentration	Odor Threshold (ppm)	Exposure Limit TWA* (ppm)	Filter Capacity† (% W)	Filter Type
Aldehydes & Ketones	Cyclohexanone	0.2-0.5 ppm	0.068	50	22%	OV
Mixture of Aliphatic Hydrocarbons	Gasoline	0.3-1.0 ppm	0.3	300	11%	OV
Particulates	Cigarette smoke	0.4-1.0 ppm	N/A	N/A	N/A	OV & HEPA
Aldehydes & Ketones	Acetone	0.5-1.0 ppm	4.58	250	2%	OV
Aromatic Hydrocarbons	Toluene	0.5-1.0 ppm	0.16	100	20%	OV
Ethers	Methyl Tert-Butyl Ether	0.5-1.0 ppm	0.053	50	9%	OV
Sulfur Compounds	Hydrogen Sulfide	0.5-2.0 ppm	0.0005	10	10%	AG
Nitrogen Compounds	Diethylamine	1.5-2.0 ppm	0.186	10	7%	OV
Esters	Ethyl Acetate	1.5-4 ppm	0.61	400	9%	OV
Ethers	Diethyl Ether	2-4 ppm	2.29	400	4%	OV
Aldehydes	Formaldehyde	2-4 ppm, best to use other detector methods	0.87	0.1 ceiling, 0.016	10%	FORM
Nitrogen Compounds	Ammonia Solution (Ammonium Hydroxide)	2-5 ppm	5.75	25	10%	AM
Alcohols	Ethyl Alcohol**	2.5-6 ppm	0.136	1000	1.3%	OV
Acids	Acetic Acid	5-6 ppm	0.016	10	4%	OV
Halogens	Chlorobenzene	5-8 ppm	0.741	10	20%	OV
Alcohols	Isopropyl Alcohol	8-11 ppm	22	200	7%	OV
Aliphatic Hydrocarbons	Hexane	9-15 ppm	21.9	50	11%	OV
Alcohols	Methanol**	15-25 ppm	141	200	0.1%, very low	not recommended
Mineral Acids	Hydrochloric Acid	Not detected.†† Use other means.	0.77	5	17%	AG

* Time-weighted average recommended by NIOSH   †Based on 10 ppm inlet concentration
**Important Note: Clean up procedures using alcohols or volatile chemicals with low filter capacity could saturate the filters quickly.   †† Important Note: The vapor sensor does not detect mineral acid gases such as hydrochloric acid, nitric acid, or sulfuric acid. Other detector means such as a mineral acid sensor or interval timed sampling with sampling tubes must be used. The chart is only a guideline. Frequent chemical testing or filter monitoring is recommended. If chemical suitability is ever in question, always work below the acceptable exposure limit/TWA to maximize both safety and filter performance.
OV=Organic Vapors, AG=Acid-Sulfur Gases, FORM=Formaldehyde, AM=Ammonia-Amine

Filters & Accessories

PARAMOUNT® DUCTLESS ENCLOSURES

The Application Matrix on page 3 provides examples of appropriate uses for Paramount Carbon and HEPA Filters. Filters are available in seven different types and any two types of filters may be stacked to handle mixed chemical applications. Before selecting a Paramount Ductless Enclosure or any Labconco carbon-filtered enclosure, please complete the online **Chemical Assessment** form available at www.labconco.com or contact Labconco at 816-333-8811 or 800-821-5525. A Labconco specialist will review your application and chemical usage and recommend the enclosure and filters right for you.

Paramount Filters

Contain porous, coconut shell carbon for maximum adsorption. Roughing prefilters are adhered to both sides of each filter to remove dust and other particles. All impregnated carbon filters contain 25% activated carbon by weight.

Paramount Width	No. of Filters Required (not included)*	Total Organic Vapor Filter Weight
2'	2	15 lbs. (6.8 kg)
3'	4	30 lbs. (13.6 kg)
4'	6	45 lbs. (20.4 kg)
5'	6	45 lbs. (20.4 kg)
6'	8	60 lbs. (27.2 kg)

*Labconco strongly recommends ordering and keeping an extra set of filters to have readily available when filters become saturated and require replacement.

Catalog Number	Filter Description	Shipping Weight (lbs./kg)
6938100	HEPA, 99.99% efficient particulate	9.0/4.0
6938200	Activated Carbon, Organic Vapor, 7.5 lbs.	12.5/5.7
6938201	Impregnated Carbon, Acid-Sulfur, 10 lbs.	15.0/6.8
6938202	Impregnated Carbon, Ammonia-Amine, 11 lbs.	16.0/7.3
6938203	Impregnated Carbon, Formaldehyde, 10 lbs.	15.0/6.8
6938204	Mixed Bed Carbon, 10 lbs. Contains approximately 43% Activated Carbon (Organic Vapor), 19% Acid-Sulfur, 19% Ammonia-Amine and 19% Formaldehyde by weight	15.0/6.8
6938205	Impregnated Carbon, Radioisotope, 10 lbs.	15.0/6.8

Filter Accessories

Catalog Number	Description	Shipping Weight (lbs./kg)
6924900	Syringe Kit for carbon filter saturation detection	1.0/0.5
6925700	Ammonia Detector Tubes, package of 3	0.5/0.2
6925800	Acid Gas Detector Tubes, package of 3	0.5/0.2
6926000	Formaldehyde Detector Tubes, package of 3	0.5/0.2

Black Solid Epoxy Work Surfaces

Chemical-resistant, black solid epoxy work surfaces, offered in 2', 3', 4', 5' and 6' widths, are dished to contain spills and contoured to fit the dimensions of Paramount Ductless Enclosures. 1.0" (2.5 cm) thick.
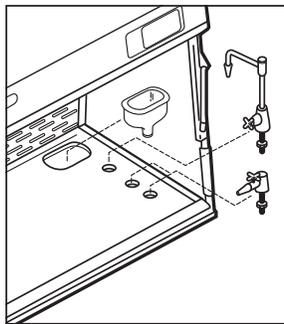
Catalog #	Nominal Width	For use with:	Dimensions (w x d)	Ship. Wt. (lbs./kg)
3909900	2'	Paramount	24.0" x 29.0" (61.0 x 73.7 cm)	50/23
3909901	3'	Paramount	36.0" x 29.0" (91.4 x 73.7 cm)	75/34
3909902	4'	Paramount	48.0" x 29.0" (121.9 x 73.7 cm)	100/45
3909906	4'	Paramount, Deep	48.0" x 35.5" (121.9 x 90.2 cm)	125/56
3909907	5'	Paramount	60.0" x 29.0" (152.4 x 73.7 cm)	125/56
3909908	5'	Paramount, Deep	60.0" x 35.5" (152.4 x 90.2 cm)	155/70
3909910	6'	Paramount	72.0" x 29.0" (182.9 x 73.7 cm)	150/68
3909911	6'	Paramount, Deep	72.0" x 35.5" (182.0 x 90.2 cm)	186/84

Stainless Steel Work Surfaces

Type 304 stainless steel work surfaces, offered in 4', 5' and 6' widths, include a 0.8" (2.0 cm) deep front trough to contain spills. 0.8" (2.0 cm) thick.

Catalog #	Nominal Width	For use with:	Dimensions (w x d)	Ship. Wt. (lbs./kg)
3975504	4'	Paramount, Deep	48.0" x 35.5" (121.9 x 90.2 cm)	145/65
3975502	5'	Paramount	60.0" x 29.0" (152.4 x 73.7 cm)	150/68
3975503	5'	Paramount, Deep	60.0" x 35.5" (152.4 x 90.2 cm)	180/82
3975602	6'	Paramount	72.0" x 29.0" (182.9 x 73.7 cm)	180/82
3975603	6'	Paramount, Deep	72.0" x 35.5" (182.0 x 90.2 cm)	220/100

Work Surfaces with Deck-Mounted Service Fixtures

These chemical-resistant, black solid epoxy work surfaces, offered in 3', 4', 5' and 6' widths, are dished to contain spills and contoured to fit the dimensions of Paramount Ductless Enclosures. Pre-drilled holes allow installation of two deck-mounted service fixtures with hose barbs for plumbing to water, air and vacuum; a 3" x 6" cupsink; and a gooseneck faucet with vacuum breaker. Two standard chrome-plated service fixtures with turrets, hose barbs, brass valves and 3/8" NPS pipe connections; a 3" x 6" polypropylene oval cupsink; and a brass cold water faucet with swivel/ rigid gooseneck, brass valve and 1/4" NPS pipe connection are included. 29.0" (73.7 cm) x 1.0" (2.5 cm) thick.

Catalog #	Nominal Width	For use with:	Actual Width	Ship. Wt. (lbs./kg)
6963800	3'	Paramount	36.0" (91.4 cm)	85/38
6963801	4'	Paramount	48.0" (121.9 cm)	110/50
6963802	5'	Paramount	60.0" (152.4 cm)	135/61
6963803	6'	Paramount	72.0" (182.9 cm)	160/72

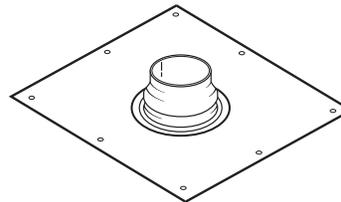### SoLo™ Hydraulic Lift Base Stands

Allow Paramount transport through standard doorways. For example, Paramount 6963403 mounted atop Work Surface 3909906 may be lowered to 71.2". Powder-coated steel. Remote-control operated hydraulic lift provides infinitely adjustable work surface heights from 15.2" to 34.8" high. Depth is 34.3". Toe-locking casters, 5" diameter, with bearings. **Work surface is required.**

Solo Hydraulic Lift Base Stand 3780311

Catalog #	Nominal Width	Actual Width	Electrical Requirements	Ship. Wt. (lbs./kg)
3780310	3'	53.5" (135.9 cm)	115 volts, 60 Hz, 2 amps	395/179
3780314*	3'	53.5" (135.9 cm)	230 volts, 50 Hz, 3 amps	395/179
3780311	4'	65.5" (166.4 cm)	115 volts, 60 Hz, 2 amps	435/197
3780315*	4'	65.5" (166.4 cm)	230 volts, 50 Hz, 3 amps	435/197
3780312	5'	77.5" (196.9 cm)	115 volts, 60 Hz, 2 amps	460/209
3780316*	5'	77.5" (196.9 cm)	230 volts, 50 Hz, 3 amps	460/209
3780313	6'	89.5" (227.3 cm)	115 volts, 60 Hz, 2 amps	600/272
3780317*	6'	89.5" (227.3 cm)	230 volts, 50 Hz, 3 amps	600/272

*Comply with height and knee clearance guidelines outlined in Americans with Disabilities Act (ADA) Standards for Accessible Design. *International electrical configuration*

6963700 Canopy Exhaust Transition

Allows the Paramount Ductless Enclosure to be thimble-ducted to the outside for additional protection. The canopy's air gap provides a means of balancing air by allowing room air to enter the ductwork and mix with the filtered air being exhausted from the Paramount. House exhaust or remote blower and ductwork are required (not included). 6" (15 cm) diameter outlet. 6' Paramount Enclosures require two Exhaust Transitions. **Requires installation.** Contact Labconco ordering information on remote blowers and ductwork. Shipping weight 18 lbs. (8 kg)

Sash Closures

Bi-fold doors allow the sash opening to be closed to prevent contaminants from entering the enclosure during periods of non-use. Include powder-coated steel doors and mounting hardware. **Require installation.**

Catalog #	Sash Closure Dimensions (w x h)	Ship. Wt. (lbs./kg)
6963900	24.0" x 9.4" (61.0 x 23.9 cm)	10/5
6963901	36.0" x 9.4" (91.4 x 23.9 cm)	12/6
6963902	36.0" x 12.0" (91.4 x 30.5 cm)	15/7
6963903	48.0" x 9.4" (121.9 x 23.9 cm)	16/7
6963904	48.0" x 12.0" (121.9 x 30.5 cm)	20/9
6963905	60.0" x 9.4" (152.4 x 23.9 cm)	25/12
6963906	72.0" x 12.0" (182.9 x 30.5 cm)	30/14

Contact Labconco for additional base stands and cabinets. See ordering information on Utility Shelves, Bottle Holder and Tissue Holder on page 23.