Air Science®

PurairRLF®

Reverse Laminar Flow Cabinets

- Horizontal and Vertical
- Protects the operator and the laboratory environment from particles, aerosols, powders and allergens

RLF Series model RVLF-48

Product Particulate

ENERGY STAR PARTNER

CERTIFIED
ISO 9001:2015
ISO 14001:2015

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INTRODUCTION

The Air Science Purair® RLF Reverse Laminar Flow horizontal and vertical cabinets protect the operator and the laboratory environment from particles, aerosols, powders and allergens. The large volume of horizontal inward (negative) airflow provides equivalent protection with superior access into the work zone compared with Class I biological safety cabinets, fume hoods or related containment devices. This cabinet does not provide protection to the work surface or the work product on the work surface from particulates or chemicals, vapors or aerosols.

KEY FEATURES

- All models use ULPA filters (99.999% efficient at particle size 0.12 µm).
- Available in horizontal or vertical flow configurations.
- All models equipped with a stainless steel work surface.

PERFORMANCE ADVANTAGE

Each Air Science Purair Reverse Laminar Flow cabinet includes features expressed through sound design and certified quality construction.

Professional Quality. Air Science cabinets comply with current technical and safety regulations.

Advanced Filtration. Air Science Multiplex ULPA Filtration provides high performance protection.

Industrial Components. The cabinet frame and work surfaces are durable and chemically resistant for long service life. All cabinet components are cleanroom compatible.

RLF Series RHLF-48

Deep into its second generation, Air Science embraces the diversity and cultural heritage of the founders and co-workers who are continuing a tradition of excellence. Demonstrating a commitment to adaptation, inclusion and quality output from a United States-based company with a domestic and global reach.

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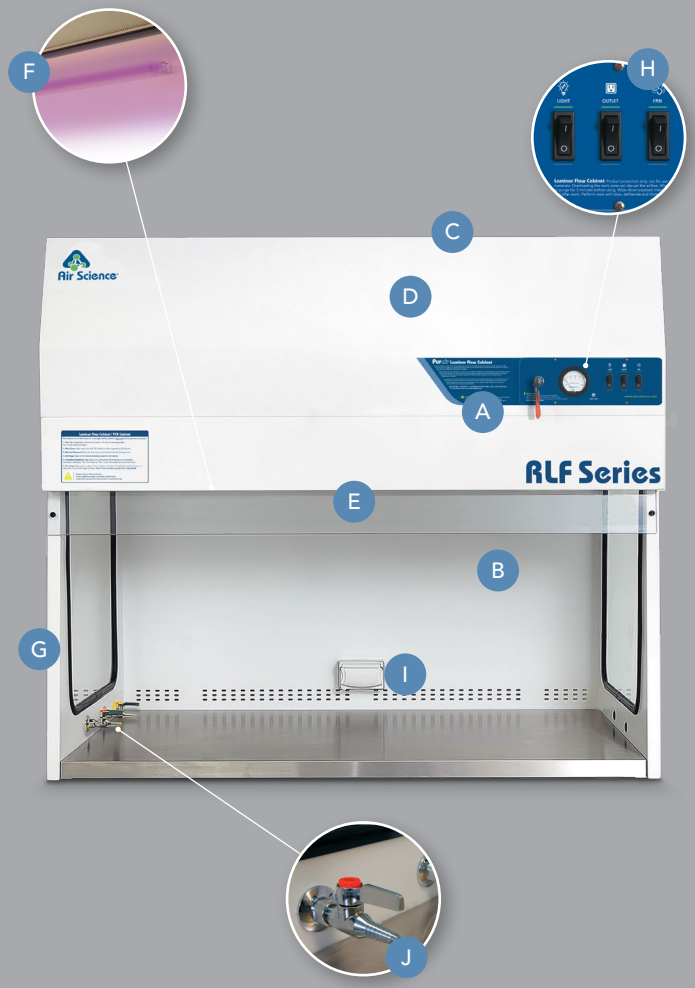

DESIGN FEATURES

A. Control Panel: The control panel includes On/Off switch for fan, lighting, GFCI outlets, Minihelic ULPA pressure gauge to measure filter condition, UV lamp key switch.

B. Main Filter: Long-life Camfil Farr ULPA main filter with efficiency of 99.999% at particle size 0.12 µm.

C. Pre-Filter: Disposable polyester fiber pre-filter with 85% arrestance.

D. Blower Motor: External rotor blower.

E. Lighting: Compact LED cabinet lamp located away from laminar flow area.

F. UV Lamp: Optional ultraviolet (UV) lamp to create light emission conditions known to safely sterilize and decontaminate work zone and cabinet contents between operating periods.

G. Ergonomic Design: Ergonomically angled front improves reach and comfort.

H. Fan Control: Recessed fan speed control.

I. Power Supply: GFCI outlet to power equipment in cabinet.

J. Service Fixtures: Optional petcock service fixture (maximum 4 per unit).

ADDITIONAL FEATURES

Visibility: Side windows allow ambient light into the chamber and provide users with three points of visibility for an unobstructed view of contents. (Not available on stainless steel models.)

Construction: Choose from standard powder coated interior with stainless steel work surface and side windows or optional stainless steel interior (-SS model). Available in 120V, 60Hz and 230V, 50Hz models.

RVLF-48, shown with optional mobile base stand and other selected options.

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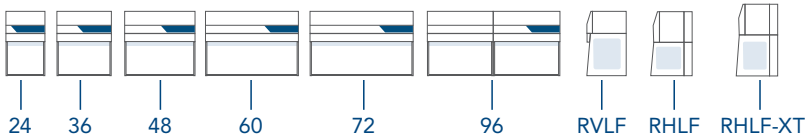
Options and accessories add functional performance to meet specific applications. Accessories include service fixtures, base stand and UV lamp.



PERFORMANCE

Air Science Multiplex ULPA Filtration provides high performance protection.

The main filter gasket evenly seals the filter face to prevent bypass air leakage. Our pour-in-place silicone gasket outperforms traditional style stick-on "dove-tail" gasketing.

The high capacity air handling system delivers inflow face velocity of 60 – 80 fpm.

Purair RVLF and RHLF cabinets have an ULPA filter pressure gauge to measure filter performance.

DESIGN

Air Science Reverse Laminar Flow cabinets incorporate an external rotor blower. The energy efficient design reduces operating costs and has low noise and vibration levels.

Products are designed for desktop use or installation on the optional mobile base stand.

SELECTION

Purair Reverse Laminar Flow cabinets are available in vertical and horizontal configurations with various sizes and options for a total of 36 models to choose from in 6 different widths. Select from standard powder coated interior or stainless steel interior (-SS models).

CONTROL

The **standard control panel** features On/Off switches for blower, lighting, GFCI outlets, in addition to a Minihelic ULPA pressure gauge to measure filter performance.

The **standard UV control panel** includes the same features as the standard control panel with the addition of a UV lamp key.

Standard Controller

UV Controller

RELIABILITY

Each cabinet is factory tested for safety and performance in accordance with international standards.

Purair Reverse Laminar Flow cabinets are shipped fully assembled. No installation is required; just plug them in and use them.

Through our partner company Filtco Filters, Air Science is a single source supplier of all pre-filters, carbon filters and HEPA/ULPA filters used in our products.

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AIRFLOW

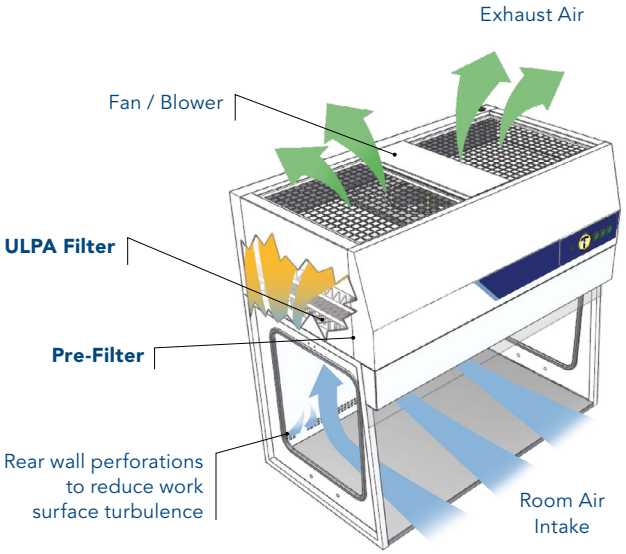
Both RVLF and RHLF Purair Reverse Laminar Flow cabinets offer the same level of quality and performance. When deciding between a RVLF or RHLF cabinet, the differences come down to personal preference for your specific application.

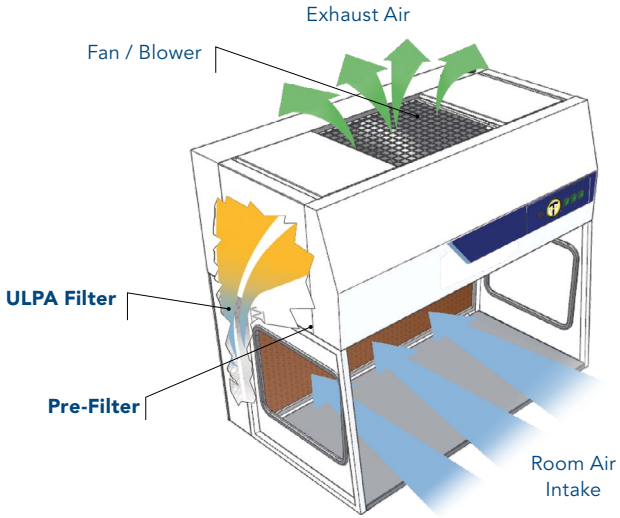
Reverse Vertical Airflow

- In reverse vertical flow cabinets, the ULPA filter is mounted above the work surface which provides a taller and deeper work space. This allows for larger equipment in the work zone without interrupted airflow.
- Reverse vertical flow cabinets are more easily customized to specific applications.

Reverse Horizontal Airflow

- In reverse horizontal flow cabinets, the airflow does not directly impinge on the work surface but rather is smoothly drawn across it. This creates less turbulence.
- Large or tall equipment in a reverse horizontal flow cabinet can interrupt airflow more than in a reverse vertical flow cabinet. This may create more turbulence and possible "dead" spots where airflow is lower.





Reverse Vertical Airflow:
1. *Room air entering through the front of the cabinet at a nominal inflow face velocity of 60 – 80 fpm. Room air flows across the work surface where vapors and particulates are swept vertically to the disposable pre-filter. Larger particles are trapped to increase main filter life.*
2. *Room air is pulled evenly across the work surface into the pre-filter, carbon filter and/or HEPA or ULPA filter. Filtered, purified air exits the cabinet through the top and returns to the room.*
3. *Ceiling perforations are strategically sized and positioned to create an even airflow across the entire surface of the filter to avoid disproportionate filter loading, to minimize work surface turbulence and reduce the possibility of dead air corners in the work zone.*

Reverse Horizontal Airflow:
1. *Room air entering through the front of the cabinet at a nominal inflow face velocity of 60 – 80 fpm flows across the work surface where vapors and particulates are initially captured in the back wall pre-filter. Larger particles are trapped to increase main filter life.*
2. *Room air is pulled evenly across the work surface into the pre-filter, carbon filter and/or HEPA or ULPA filter. Filtered, purified air exits the cabinet through the top and returns to the room.*
3. *Rear wall perforations are strategically sized and positioned to create an even airflow across the entire surface of the filter to avoid disproportionate filter loading, to minimize work surface turbulence and reduce the possibility of dead air corners in the work zone.*

The reverse laminar flow cabinets incorporate permanently lubricated direct drive centrifugal blowers. The energy efficient design reduces operating costs and has extremely low noise and vibration levels.

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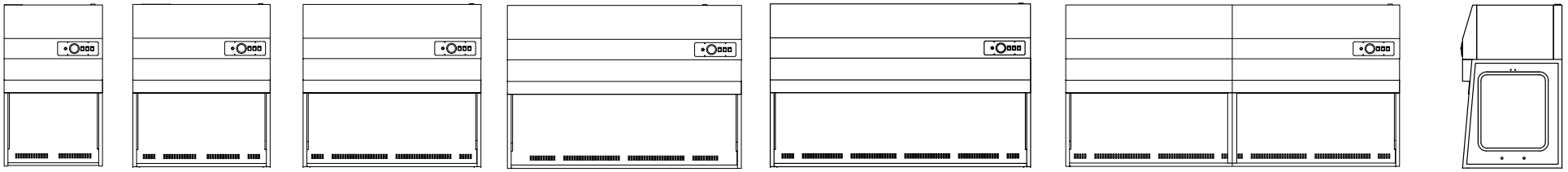
RVLF-24 RVLF-36 RVLF-48 RVLF-60 RVLF-72 RVLF-96



RVLF (side view)

MODEL		DIMENSIONS					WEIGHT (LBS/KG)	
Metal Interior	Stainless Interior	Nominal Width	Internal Height	Internal Depth	External (W × D × H)	Shipping (W × D × H) without base stand	Net	Ship
Vertical Laminar Flow Cabinets								
RVLF-24	**RVLF-24-SS**	24" / 610 mm	28.25" / 718 mm	28.25" / 718 mm	28.4" × 29.25" × 47.25" / 721 × 743 × 1200 mm	40" × 44" × 54" / 1016 × 1118 × 1372 mm	181 / 82	288 / 131
RVLF-36	**RVLF-36-SS**	36" / 914 mm	28.25" / 718 mm	28.25" / 718 mm	40.4" × 29.25" × 47.25" / 1026 × 743 × 1200 mm	45" × 44" × 54" / 1143 × 1118 × 1372 mm	268 / 122	371 / 168
RVLF-48	**RVLF-48-SS**	48" / 1219 mm	28.25" / 718 mm	28.25" / 718 mm	52.4" × 29.25" × 47.25" / 1331 × 743 × 1200 mm	60" × 44" × 54" / 1524 × 1118 × 1372 mm	322 / 146	478 / 217
RVLF-60	**RVLF-60-SS**	60" / 1524 mm	28.25" / 718 mm	28.25" / 718 mm	64.4" × 29.25" × 47.25" / 1636 × 743 × 1200 mm	70" × 44" × 54" / 1778 × 1118 × 1372 mm	401 / 182	525 / 238
RVLF-72	**RVLF-72-SS**	72" / 1829 mm	28.25" / 718 mm	28.25" / 718 mm	76.4" × 29.25" × 47.25" / 1941 × 743 × 1200 mm	91" × 44" × 54" / 2311 × 1118 × 1372 mm	478 / 217	595 / 270
RVLF-96	**RVLF-96-SS**	96" / 2438 mm	28.25" / 718 mm	28.25" / 718 mm	100.4" × 29.25" × 47.25" / 2550 × 743 × 1200 mm	110" × 44" × 54" / 2794 × 1118 × 1372 mm	620 / 281	745 / 338

Specifications are subject to change without notice.

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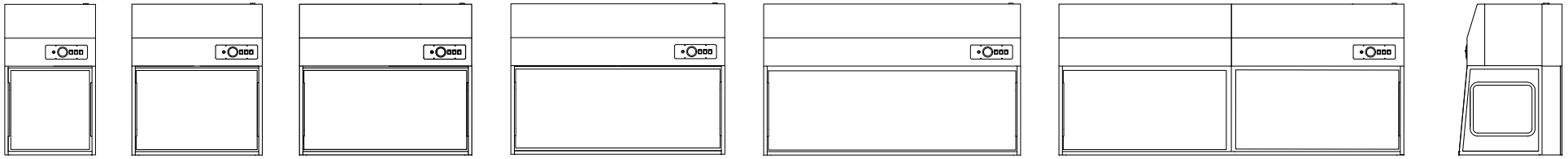
RHLF-24 RHLF-36 RHLF-48 RHLF-60 RHLF-72 RHLF-96 RHLF (side view)



MODEL		DIMENSIONS					WEIGHT (LBS/KG)	
Metal Interior	Stainless Interior	Nominal Width	Internal Height	Internal Depth	External (W × D × H)	Shipping (W × D × H)	Net	Ship
Horizontal Laminar Flow Cabinets								
RHLF-24	**RHLF-24-SS**	24" / 610 mm	23.75" / 603 mm	23.75" / 603 mm	25.25" × 29.5" × 42.75" / 641 × 749 × 1086 mm	40" × 44" × 54" / 1016 × 1118 × 1372 mm	170 / 77	280 / 127
RHLF-36	**RHLF-36-SS**	36" / 914 mm	23.75" / 603 mm	23.75" / 603 mm	37.25" × 29.5" × 42.75" / 946 × 749 × 1086 mm	45" × 44" × 54" / 1143 × 1118 × 1372 mm	246 / 112	371 / 168
RHLF-48	**RHLF-48-SS**	48" / 1219 mm	23.75" / 603 mm	23.75" / 603 mm	49.25" × 29.5" × 42.75" / 1251 × 749 × 1086 mm	60" × 44" × 54" / 1524 × 1118 × 1372 mm	289 / 131	478 / 217
RHLF-60	**RHLF-60-SS**	60" / 1524 mm	23.75" / 603 mm	23.75" / 603 mm	61.25" × 29.5" × 42.75" / 1556 × 749 × 1086 mm	70" × 44" × 54" / 1778 × 1118 × 1372 mm	344 / 156	494 / 224
RHLF-72	**RHLF-72-SS**	72" / 1829 mm	23.75" / 603 mm	23.75" / 603 mm	73.25" × 29.5" × 42.75" / 1861 × 749 × 1086 mm	91" × 44" × 54" / 2311 × 1118 × 1372 mm	439 / 199	595 / 270
RHLF-96	**RHLF-96-SS**	96" / 2438 mm	23.75" / 603 mm	23.75" / 603 mm	98.5" × 29.5" × 42.75" / 2502 × 749 × 1086 mm	110" × 44" × 54" / 2794 × 1118 × 1372 mm	725 / 329	878 / 398

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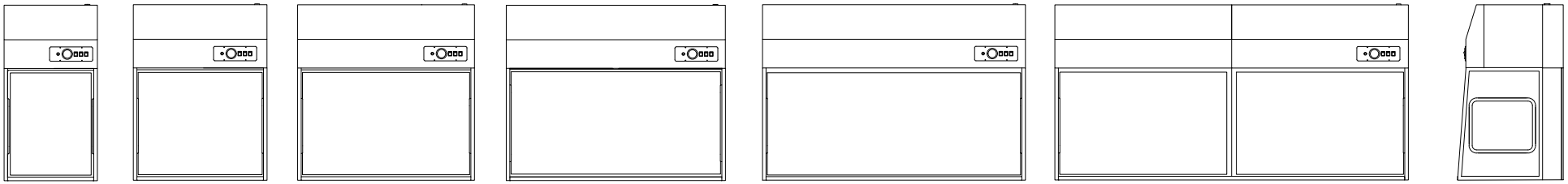
RHLF-24XT RHLF-36XT RHLF-48XT RHLF-60XT RHLF-72XT RHLF-96XT RHLF-XT (side view)



MODEL		DIMENSIONS					WEIGHT (LBS/KG)	
Metal Interior	Stainless Interior	Nominal Width	Internal Height	Internal Depth	External (W × D × H)	Shipping (W × D × H)	Net	Ship
Horizontal Laminar Flow Cabinets with Extra Tall Option								
RHLF-24XT	**RHLF-24XT-SS**	24" / 610 mm	29.5" / 749 mm	23.75" / 603 mm	25.25" × 29.5" × 48.75" / 641 × 749 × 1238 mm	40" × 44" × 60" / 1016 × 1118 × 1524 mm	191 / 87	295 / 134
RHLF-36XT	**RHLF-36XT-SS**	36" / 914 mm	29.5" / 749 mm	23.75" / 603 mm	37.25" × 29.5" × 48.75" / 946 × 749 × 1238 mm	45" × 44" × 60" / 1143 × 1118 × 1524 mm	266 / 121	391 / 177
RHLF-48XT	**RHLF-48XT-SS**	48" / 1219 mm	29.5" / 749 mm	23.75" / 603 mm	49.25" × 29.5" × 48.75" / 1251 × 749 × 1238 mm	60" × 44" × 60" / 1524 × 1118 × 1524 mm	319 / 145	508 / 230
RHLF-60XT	**RHLF-60XT-SS**	60" / 1524 mm	29.5" / 749 mm	23.75" / 603 mm	61.25" × 29.5" × 48.75" / 1556 × 749 × 1238 mm	70" × 44" × 60" / 1778 × 1118 × 1524 mm	375 / 170	525 / 238
RHLF-72XT	**RHLF-72XT-SS**	72" / 1829 mm	29.5" / 749 mm	23.75" / 603 mm	73.25" × 29.5" × 48.75" / 1861 × 749 × 1238 mm	91" × 44" × 60" / 2311 × 1118 × 1524 mm	479 / 217	635 / 288
RHLF-96XT	**RHLF-96XT-SS**	96" / 2438 mm	29.5" / 749 mm	23.75" / 603 mm	98.5" × 29.5" × 48.75" / 2502 × 749 × 1238 mm	110" × 44" × 60" / 2794 × 1118 × 1524 mm	585 / 265	746 / 338

Specifications are subject to change without notice.

PRODUCT SPECIFICATIONS

Airflow Pattern	Vertical	Horizontal		
Filtration	**RVLF-24 | RVLF-36 RVLF-48 | RVLF-60 RVLF-72 | RVLF-96**	**RHLF-24 | RHLF-36 RHLF-48 | RHLF-60 RHLF-72 | RHLF-96**	**RHLF-24XT | RHLF-36XT RHLF-48XT | RHLF-60XT RHLF-96XT**	**RHLF-72XT**
Airflow[1]	<··· 60 – 80 fpm. ···>			
Pre-Filter	<··· Disposable polyester fibers with 85% arrestance. ···>			
Main Filter	<··· ULPA, 99.999% efficient at particle size 0.12 µm. ···>			
Clamping	<··· Spring loaded, adjustable tension adjusts for gasket aging. ···>			
Construction				
Finish (exterior)	<··· White epoxy coated steel frame. ···>			
Finish (interior)	<··· Standard models, powder coated interior. -SS models, stainless steel interior. ···>			
Windows	<··· Tempered glass, transparant, not available on SS models. ···>			
Blower	<··· External rotor motor, permanently lubricated, low noise and vibration levels. ···>			
Controls	<··· Main On/Off switch; Solid state fan speed control with RFI filer; UV timer and key switch if included, specify when ordering. ···>			
Electrical	<··· 120V, 60Hz or 230V, 50Hz voltages available. Specify when ordering. Other voltage options available. ···>			
Work Surface	<··· Stainless steel. ···>			
GFCI outlet	<··· Standard, 5A maximum. ···>			
Monitoring	<··· Minihelic ULPA pressure gauge. ···>			
Efficiency				
Lighting	<··· LED. ···>			

[1] *Average airflow measured 6"/150 mm from filter face.*

OPTIONS & ACCESSORIES

		Vertical	Horizontal	Horizontal, Tall
Air Science Model		**RVLF-24 | RVLF-36 RVLF-48 | RVLF-60 RVLF-72 | RVLF-96**	**RHLF-24 | RHLF-36 RHLF-48 | RHLF-60 RHLF-72 | RHLF-96**	**RHLF-24XT | RHLF-36XT RHLF-48XT | RHLF-60XT RHLF-72XT | RHLF-96XT**
Base Stand, Mobile, with Casters	Floor-standing base for cabinet with locking castors 860 mm (34") height.	CART-VLF-BW-24 | CART-VLF-BW-36 CART-VLF-BW-48 | CART-VLF-BW-60 CART-VLF-BW-72 | CART-VLF-BW-96	CART-HLF-BW-24 | CART-HLF-BW-36 CART-HLF-BW-48 | CART-HLF-BW-60 CART-HLF-BW-72 | CART-HLF-BW-96	CART-HLF-BW-24 | CART-HLF-BW-36 CART-HLF-BW-48 | CART-HLF-BW-60 CART-HLF-BW-72 | CART-HLF-BW-96
Base Stand, Mobile, with Leveling Feet	Floor-standing base for cabinet with leveling feet 860 mm (34") height.	CART-VLF-BL-24 | CART-VLF-BL-36 CART-VLF-BL-48 | CART-VLF-BL-60 CART-VLF-BL-72 | CART-VLF-BL-96	CART-HLF-BL-24 | CART-HLF-BL-36 CART-HLF-BL-48 | CART-HLF-BL-60 CART-HLF-BL-72 | CART-HLF-BL-96	CART-HLF-BL-24 | CART-HLF-BL-36 CART-HLF-BL-48 | CART-HLF-BL-60 CART-HLF-BL-72 | CART-HLF-BL-96
Base Stand, Mobile, Motorized	Floor-standing base for cabinet with motorized height adjustment and leveling feet.	CART-VLF-BM-24 | CART-VLF-BM-36 CART-VLF-BM-48 | CART-VLF-BM-60 CART-VLF-BM-72 | CART-VLF-BM-96	CART-HLF-BM-24 | CART-HLF-BM-36 CART-HLF-BM-48 | CART-HLF-BM-60 CART-HLF-BM-72 | CART-HLF-BM-96	CART-HLF-BM-24 | CART-HLF-BM-36 CART-HLF-BM-48 | CART-HLF-BM-60 CART-HLF-BM-72 | CART-HLF-BM-96
Service Fitting	Sidewall mounting for service fixture. Available for petcocks, faucets and valves. Retrofit Kit. Maximum of 4 per cabinet.	SF-WALL	SF-WALL	SF-WALL
UV Lamp*	Creates light emission conditions know to safely decontaminate interior surfaces. Includes a timer, door microswitch, fully closing front sash and UV filtering clear polycarbonate panels. The UV operation must comply with local codes and facility safety practices.	UV-24 | UV-36 UV-48 | UV-60 UV-72 | UV-96	UV-24 | UV-36 UV-48 | UV-60 UV-72 | UV-96	UV-24 | UV-36 UV-48 | UV-60 UV-72 | UV-96

**Sold together; safety precautions must be followed. Factory installed; specify when ordering.*

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WARRANTY

This product is protected by the Air Science Legacy Limited Lifetime Warranty™.

For details visit the Warranty section of our website.

STANDARDS & COMPLIANCE

Quality Management Systems	ISO 9001: 2015
OSHA, Occupational Safety and Health Administration	OSHA Standard -29 CFR, Safety and Health Regulations for General Industry, 1910.1450: Occupational exposure to hazardous chemicals in laboratories. Part B, definition, laboratory type hood. This product may assist you with compliance or as part of your chemical hygiene plan. Please consult your Safety Officer and/or Industrial Hygienist.
Environment	ISO 14001: 2015 ENERGY STAR® Partner

Air Science®

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