



# XPert® Filtered Balance Systems

## FEATURES & BENEFITS

Patented\* XPert Filtered Balance Systems provide user protection by keeping powders and particulates contained during procedures involving powders. **The built-in blower and exhaust HEPA filter mounted in the upper plenum conserves space while isolation supports minimize blower vibration.** Since HEPA filtered air is returned to the laboratory, these enclosures have

the added benefits of low installation costs, portability and no required outside ducting. Interior dimensions accommodate large analytical and micro balances. Containment-enhancing features ensure that potent powders frequently found in pharmaceutical, dry chemical, and industrial hygiene applications are kept away from the operator. Systems are available in 2', 3', 4', 5' and 6' widths.

**True bag-in/bag-out HEPA filter disposal system** allows for safe filter replacement. See page 4.

**Space-saving design.** Impeller and HEPA filter are contained within the enclosure's upper plenum for a smaller overall footprint than a separate enclosure and exhauster can offer.

**Built-in airflow monitor** alerts the user to face velocities outside of preset range. Models without monitor are also available.

**Quiet operation** as low as 48 decibels.

**Optimal HEPA filter location** permits leak-detection scan of entire surface.

**Static-dissipative powder-coated aluminum frame and steel rear plenum and baffle.** No unreliable plastic-to-plastic bonding is used.

**Front-mounted pressure gauge** helps determine HEPA filter loading.

**Upper dilution air supply** sweeps clean air to the back of sash to keep contaminants away from the operator. See page 3.

**Tempered safety glass** provides better fire, scratch and chemical resistance than acrylic and dissipates static charge.

**Ergonomic angled sash** for comfortable viewing.

**Side-entry air foils** allow air to sweep interior surfaces to enhance containment. See page 3.

**Upper containment sash foil** directs contaminants away from the user's breathing zone. See page 3.

**Deep 23.4" interior** easily accommodates large analytical balances. Some 5' and 6' models are available with 30" interior depths.

**Patented† Clean-Sweep™ air foil** allows air to sweep the work surface to maximize containment. See page 3.

**Built-in impeller has vibration-isolation supports** to minimize disturbance to sensitive balances.

**Intrinsically safe.** The positive pressure impeller is surrounded by a negative pressure plenum so that if a leak should develop, the unfiltered air is captured and refiltered.



**Patented† rear baffle** with zones of perforations promotes horizontal laminar airflow. See page 4. The baffle pivots down for cleaning.

**Optional left-side mounted waste chute** isolates contaminated waste in a sealable bag. Some 5' and 6' models include a waste chute. Contact Labconco for ordering information on other models.

**Exclusive feature**

\* U.S. Design Patent D538,941

† U.S. Patent 6,461,233



# XPert® Filtered Balance Systems

## SPECIFICATIONS



XPert Filtered Balance System 3950402 is shown with Black Solid Epoxy Dished Work Surface 3909902 and Protector Standard Storage Cabinets 9900300. Work surface and base cabinet must be ordered separately.

### All models feature:

- Patented\* design.
- Deep interior of 23.4" or 30.0" depending on the model.
- Ergonomic air foil with aerodynamic Clean-Sweep<sup>†</sup> airflow openings.
- Upper dilution air supply.
- Upper containment sash foil.
- Zone-perforated, pivoting rear baffle.<sup>†</sup>
- Side-entry air foils.
  - Exhaust HEPA filter, 99.99% efficient on particles 0.3 micron in size.
- Top-accessible HEPA filter for leak scanning of entire surface.
- True bag-in/bag-out filter disposal system (requires certified technician).
  - Built-in blower with dynamically-balanced, vibration-isolated motorized impeller and speed control. Blower has a 40% reserve so that the speed may be adjusted as needed by a certified technician as the filter loads.
  - Pressure gauge.

Exclusive feature

\*U.S. Design Patent D538,941  
<sup>†</sup>U.S. Patent 6,461,233

- Intrinsically safe, negative pressure design.
  - Space-saving design. No separate filtered exhaust is required.
  - Upper diffuser screen.
  - Quiet operation (see chart below).
  - Glacier white and gray, powder-coated aluminum frame and steel rear plenum and baffle. No unreliable plastic-to-plastic bonding is used.
  - Pre-wired fluorescent lamp and switches for blower and light.
  - 1/4" thick tempered safety glass front sash and sides.
  - Ergonomic angled and hinged, pivoting sash with wiping seal. Sashes on 5' and 6' models incorporate an external gas-assist lift.
  - 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 have 25.75" locking height and 28.25" maximum loading height.
  - Two (1.5") utility ports for pass-through of electrical cords.
  - 8' cord included.
  - Particulate containment independently verified by SafeBridge Consultants, Inc.
  - Validation package available at [www.labconco.com](http://www.labconco.com) containing Test Reports; Installation Qualification/Operation Qualification (IQ/OQ) Protocol; and Maintenance Log.

### All models conform to the following regulations and standards:

- SEFA 1
- Modified ASHRAE 110
- ANSI Z9.5
- UL 61010-1

- CAN/CSA C22.2 No. 1010.1
- CE Conformity Marking (230 volt models)

### Models with Guardian Airflow Monitor include:

- Guardian Airflow Monitor that continuously monitors airflow with a green LED that glows when airflow is within set point range and a red LED that glows and an audible alarm that sounds when airflow is outside set point range.

### Models with Guardian 1000 Digital Airflow Monitor include:

- Guardian 1000 Digital Airflow Monitor that continuously monitors airflow and provides a digital readout of actual face velocity. An audible/visual alarm alerts the operator when airflow is outside set point range. RS-485 communications port allows connection to user-supplied computer.

### 5' and 6' models with 35.5" exterior depth include:

- Left-side mounted waste chute. Bags not included. Minimum bag size required: 10" x 16".

### All models require:

- Work surface. See page 43.
- Supporting base. See pages 44-45.

### Optional accessories for on-site installation include:

- Trace Odor Carbon Filters. See page 41.
- Utility Shelves, Bottle Holder and Tissue Holder. See page 46.
- Canopy Connections. See page 47.
- Remote Blowers. See page 48.
- Ductwork. See pages 49-50.
- Waste Chute Bags. See page 46.

Nominal Width	Sash Opening Ht.	Total Exhaust CFM and Sound Levels					
		100 fpm	db(A)	80 fpm	db(A)	60 fpm	db(A)
2 Feet	9.4"	145	53-58	115	50-55	85	48-53
3 Feet	9.4"	220	58-61	175	53-58	130	48-53
4 Feet	9.4"	295	62-66	235	58-61	175	49-54
4 Feet	12.0"	380	67-70	305	62-66	230	58-61
5 Feet	12.0"	480	63-67	385	58-63	290	52-56
6 Feet	12.0"	580	67-69	465	61-63	350	55-57



## XPert® Filtered Balance Systems

### 2', 3' AND 4' MODELS ORDERING INFORMATION & DIMENSIONAL DATA

XPert Filtered Balance Systems							
Nominal Width	Catalog Number	Overall Dimensions	Interior Dimensions	Electrical Requirements	Built-In Airflow Monitor	Shipping Weight lbs./kg	
22.7" INTERIOR HEIGHT & 23.4" INTERIOR DEPTH	2'	<b>3950200</b>	24.0" w x 29.0" d x 37.1" h	21.6" w x 23.4" d x 22.7" h	100-115 volts, 50/60 Hz	None	175/79
	2'	<b>3950201</b>	24.0" w x 29.0" d x 37.1" h	21.6" w x 23.4" d x 22.7" h	100-115 volts, 50/60 Hz	Guardian	180/82
	2'	<b>3950202</b>	24.0" w x 29.0" d x 37.1" h	21.6" w x 23.4" d x 22.7" h	100-115 volts, 50/60 Hz	Guardian 1000 Digital	180/82
	2'	<b>3950220*</b>	24.0" w x 29.0" d x 37.1" h	21.6" w x 23.4" d x 22.7" h	230 volts, 50/60 Hz no plug	None	175/79
	2'	<b>3950221*</b>	24.0" w x 29.0" d x 37.1" h	21.6" w x 23.4" d x 22.7" h	230 volts, 50/60 Hz no plug	Guardian	180/82
	2'	<b>3950222*</b>	24.0" w x 29.0" d x 37.1" h	21.6" w x 23.4" d x 22.7" h	230 volts, 50/60 Hz no plug	Guardian 1000 Digital	180/82
22.7" INTERIOR HEIGHT & 23.4" INTERIOR DEPTH	3'	<b>3950300</b>	36.0" w x 29.0" d x 37.1" h	33.6" w x 23.4" d x 22.7" h	100-115 volts, 50/60 Hz	None	225/102
	3'	<b>3950301</b>	36.0" w x 29.0" d x 37.1" h	33.6" w x 23.4" d x 22.7" h	100-115 volts, 50/60 Hz	Guardian	230/104
	3'	<b>3950302</b>	36.0" w x 29.0" d x 37.1" h	33.6" w x 23.4" d x 22.7" h	100-115 volts, 50/60 Hz	Guardian 1000 Digital	230/104
	3'	<b>3950320*</b>	36.0" w x 29.0" d x 37.1" h	33.6" w x 23.4" d x 22.7" h	230 volts, 50/60 Hz no plug	None	225/102
	3'	<b>3950321*</b>	36.0" w x 29.0" d x 37.1" h	33.6" w x 23.4" d x 22.7" h	230 volts, 50/60 Hz no plug	Guardian	230/104
	3'	<b>3950322*</b>	36.0" w x 29.0" d x 37.1" h	33.6" w x 23.4" d x 22.7" h	230 volts, 50/60 Hz no plug	Guardian 1000 Digital	230/104
22.7" INTERIOR HEIGHT & 23.4" INTERIOR DEPTH	4'	<b>3950400</b>	48.0" w x 29.0" d x 37.1" h	45.6" w x 23.4" d x 22.7" h	100-115 volts, 50/60 Hz	None	275/125
	4'	<b>3950401</b>	48.0" w x 29.0" d x 37.1" h	45.6" w x 23.4" d x 22.7" h	100-115 volts, 50/60 Hz	Guardian	280/127
	4'	<b>3950402</b>	48.0" w x 29.0" d x 37.1" h	45.6" w x 23.4" d x 22.7" h	100-115 volts, 50/60 Hz	Guardian 1000 Digital	280/127
	4'	<b>3950420*</b>	48.0" w x 29.0" d x 37.1" h	45.6" w x 23.4" d x 22.7" h	230 volts, 50/60 Hz no plug	None	275/125
	4'	<b>3950421*</b>	48.0" w x 29.0" d x 37.1" h	45.6" w x 23.4" d x 22.7" h	230 volts, 50/60 Hz no plug	Guardian	280/127
	4'	<b>3950422*</b>	48.0" w x 29.0" d x 37.1" h	45.6" w x 23.4" d x 22.7" h	230 volts, 50/60 Hz no plug	Guardian 1000 Digital	280/127
32.0" INTERIOR HEIGHT & 23.4" INTERIOR DEPTH	4'	<b>3950460</b>	48.0" w x 29.0" d x 46.3" h	45.6" w x 23.4" d x 32.0" h	100-115 volts, 50/60 Hz	None	285/129
	4'	<b>3950461</b>	48.0" w x 29.0" d x 46.3" h	45.6" w x 23.4" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian	290/132
	4'	<b>3950462</b>	48.0" w x 29.0" d x 46.3" h	45.6" w x 23.4" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian Digital	290/132
	4'	<b>3950470*</b>	48.0" w x 29.0" d x 46.3" h	45.6" w x 23.4" d x 32.0" h	230 volts, 50/60 Hz no plug	None	285/129
	4'	<b>3950471*</b>	48.0" w x 29.0" d x 46.3" h	45.6" w x 23.4" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian	290/132
	4'	<b>3950472*</b>	48.0" w x 29.0" d x 46.3" h	45.6" w x 23.4" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian Digital	290/132
32.0" INTERIOR HEIGHT & 30.0" INTERIOR DEPTH	4'	<b>3950430</b>	48.0" w x 35.5" d x 46.3" h	45.6" w x 30.0" d x 32.0" h	100-115 volts, 50/60 Hz	None	315/143
	4'	<b>3950431</b>	48.0" w x 35.5" d x 46.3" h	45.6" w x 30.0" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian	320/145
	4'	<b>3950432</b>	48.0" w x 35.5" d x 46.3" h	45.6" w x 30.0" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian Digital	320/145
	4'	<b>3950440*</b>	48.0" w x 35.5" d x 46.3" h	45.6" w x 30.0" d x 32.0" h	230 volts, 50/60 Hz no plug	None	315/143
	4'	<b>3950441*</b>	48.0" w x 35.5" d x 46.3" h	45.6" w x 30.0" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian	320/145
	4'	<b>3950442*</b>	48.0" w x 35.5" d x 46.3" h	45.6" w x 30.0" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian Digital	320/145

\* International electrical configuration



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### 5' AND 6' MODELS ORDERING INFORMATION

XPert Filtered Balance Systems							
Nominal Width	Catalog Number	Overall Dimensions	Interior Dimensions	Electrical Requirements	Built-In Airflow Monitor	Shipping Weight lbs./kg	
23.4" INTERIOR DEPTH	5'	<b>3950500</b>	60.0" w x 29.0" d x 46.3" h	57.6" w x 23.4" d x 32.0" h	100-115 volts, 50/60 Hz	None	500/227
	5'	<b>3950501</b>	60.0" w x 29.0" d x 46.3" h	57.6" w x 23.4" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian	505/229
	5'	<b>3950502</b>	60.0" w x 29.0" d x 46.3" h	57.6" w x 23.4" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian 1000 Digital	505/229
	5'	<b>3950520*</b>	60.0" w x 29.0" d x 46.3" h	57.6" w x 23.4" d x 32.0" h	230 volts, 50/60 Hz no plug	None	500/227
	5'	<b>3950521*</b>	60.0" w x 29.0" d x 46.3" h	57.6" w x 23.4" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian	505/229
	5'	<b>3950522*</b>	60.0" w x 29.0" d x 46.3" h	57.6" w x 23.4" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian 1000 Digital	505/229
30.0" INTERIOR DEPTH & INCLUDES WASTE CHUTE†	5'	<b>3950530</b>	60.0"† w x 35.5" d x 46.3" h	57.6" w x 30.0" d x 32.0" h	100-115 volts, 50/60 Hz	None	535/243
	5'	<b>3950531</b>	60.0"† w x 35.5" d x 46.3" h	57.6" w x 30.0" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian	540/245
	5'	<b>3950532</b>	60.0"† w x 35.5" d x 46.3" h	57.6" w x 30.0" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian 1000 Digital	540/245
	5'	<b>3950540*</b>	60.0"† w x 35.5" d x 46.3" h	57.6" w x 30.0" d x 32.0" h	230 volts, 50/60 Hz no plug	None	535/243
	5'	<b>3950541*</b>	60.0"† w x 35.5" d x 46.3" h	57.6" w x 30.0" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian	540/245
	5'	<b>3950542*</b>	60.0"† w x 35.5" d x 46.3" h	57.6" w x 30.0" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian 1000 Digital	540/245
23.4" INTERIOR DEPTH	6'	<b>3950600</b>	72.0" w x 29.0" d x 46.3" h	69.6" w x 23.4" d x 32.0" h	100-115 volts, 50/60 Hz	None	600/272
	6'	<b>3950601</b>	72.0" w x 29.0" d x 46.3" h	69.6" w x 23.4" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian	605/274
	6'	<b>3950602</b>	72.0" w x 29.0" d x 46.3" h	69.6" w x 23.4" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian 1000 Digital	605/274
	6'	<b>3950620*</b>	72.0" w x 29.0" d x 46.3" h	69.6" w x 23.4" d x 32.0" h	230 volts, 50/60 Hz no plug	None	600/272
	6'	<b>3950621*</b>	72.0" w x 29.0" d x 46.3" h	69.6" w x 23.4" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian	605/274
	6'	<b>3950622*</b>	72.0" w x 29.0" d x 46.3" h	69.6" w x 23.4" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian 1000 Digital	605/274
30.0" INTERIOR DEPTH & INCLUDES WASTE CHUTE†	6'	<b>3950630</b>	72.0"† w x 35.5" d x 46.3" h	69.6" w x 30.0" d x 32.0" h	100-115 volts, 50/60 Hz	None	640/290
	6'	<b>3950631</b>	72.0"† w x 35.5" d x 46.3" h	69.6" w x 30.0" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian	645/293
	6'	<b>3950632</b>	72.0"† w x 35.5" d x 46.3" h	69.6" w x 30.0" d x 32.0" h	100-115 volts, 50/60 Hz	Guardian 1000 Digital	645/293
	6'	<b>3950640*</b>	72.0"† w x 35.5" d x 46.3" h	69.6" w x 30.0" d x 32.0" h	230 volts, 50/60 Hz no plug	None	640/290
	6'	<b>3950641*</b>	72.0"† w x 35.5" d x 46.3" h	69.6" w x 30.0" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian	645/293
	6'	<b>3950642*</b>	72.0"† w x 35.5" d x 46.3" h	69.6" w x 30.0" d x 32.0" h	230 volts, 50/60 Hz no plug	Guardian 1000 Digital	645/293

\* International electrical configuration

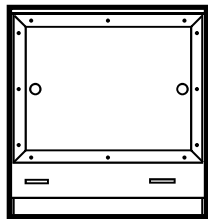
† Width does not include waste chute. Waste chute adds 1.3" to overall width. See page 46 for Waste Chute Stopper.



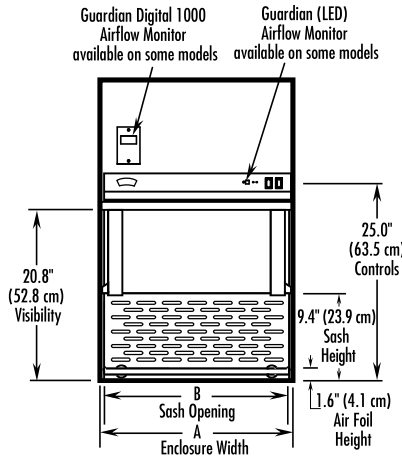
# XPert® Filtered Balance Systems

## DIMENSIONAL DATA

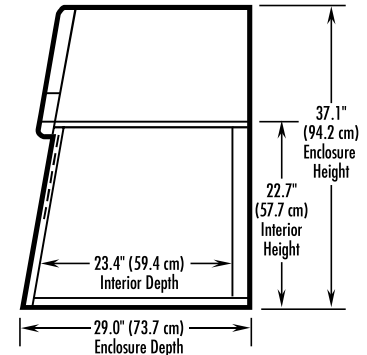
	2-Foot	3-Foot	4-Foot	4-Foot (Tall)	4-Foot (Tall & Deep)	5-Foot	6-Foot
<b>A</b>	24.0" (61.0 cm)	36.0" (91.4 cm)	48.0" (121.9 cm)	48.0" (121.9 cm)	48.0" (121.9 cm)	60.0" (152.4 cm)	72.0" (182.9 cm)
<b>B</b>	21.6" (54.9 cm)	33.6" (85.3 cm)	45.6" (115.8 cm)	45.6" (115.8 cm)	45.6" (115.8 cm)	57.6" (146.3 cm)	69.6" (176.8 cm)



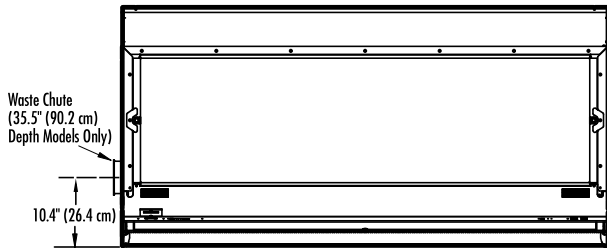
**TOP**  
**(2', 3', 4' MODELS)**



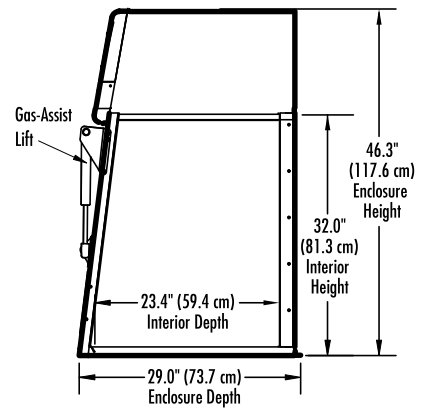
**FRONT**  
**(2', 3', 4' MODELS)**



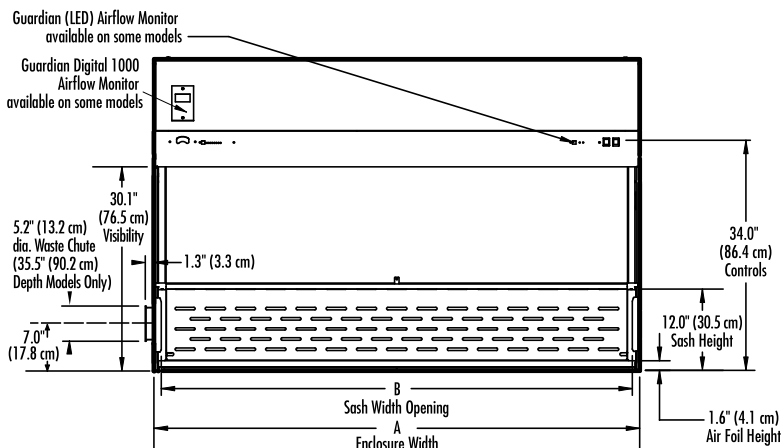
**SIDE**  
**(2', 3', 4' MODELS)**



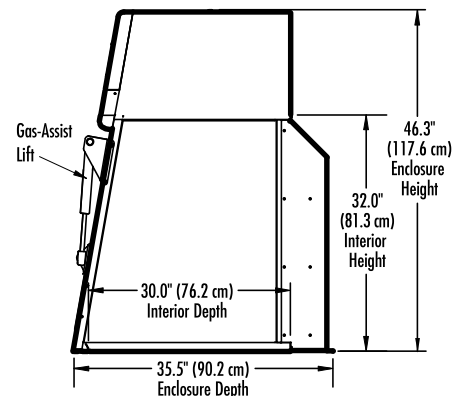
**TOP**  
**(4', 5', 6' MODELS, TALL & DEEP\*)**



**SIDE**  
**(4', 5', 6' MODELS, TALL)**



**FRONT**  
**(4', 5', 6' MODELS, TALL/TALL & DEEP\*)**



**SIDE**  
**(4', 5', 6' MODELS, TALL & DEEP)**

\*Waste Chute available on 5' and 6' Tall and Deep models only.