



**Thermo Scientific**  
Class II, Type A2  
Biological Safety Cabinets  
and Clean Benches

# protection

that never takes a day off

**Thermo**  
SCIENTIFIC

# protection

## that never takes a day off

With Thermo Scientific™ biological safety cabinets, the certified performance and protection you receive on Day 1 stays with you every day. Not true with ordinary cabinets.

The difference is our design: Thermo Scientific™ SmartFlow™ technology features dual-DC motors to automatically balance the cabinet inflow and downflow air velocities in real time – even as the filters load. That means outstanding user and sample protection you never have to think about. Plus, our Digital Airflow Verification (DAVe) alarm signals any out-of-spec conditions, for added assurance.

With our proven reliability, ergonomics and energy efficiency, the ideal choice is the one you can trust completely. And not just on Day 1.

**5** YEAR  
**SmartPromise**  
**Comprehensive Warranty\***  
delivers peace of mind!

### technology leadership

Technical advancements include:

1965

Our first line of clean-air products

1978

Thermo Scientific first NSF-certified BSC

1985

World's first TÜV-certified BSC

1993

World's first BSC with motorized front window and aerosol-tight sealing

\* 5 year warranty only available on biological safety cabinets in the United States and Canada.

## global market vision

Our design philosophy is grounded in compliance with current worldwide safety standards.

## Globally Certified Biological Safety Cabinet

Not all biological safety cabinets (BSCs) are manufactured to the same safety standards. Our design philosophy is grounded in compliance with the recognized worldwide safety standards.

There are three validated global standards for BSC performance; EN12469 (European Standard), NSF/ANSI 49 (American Standard) and YY0569 (Chinese Standard). Regions without a selected BSC standard are often influenced by one or more of the major global standards.

## quality built, premium features

Our BSCs feature quality engineering for outstanding reliability. Discover why laboratories around the globe rely on Thermo Scientific BSCs every day.



### NSF/ANSI 49

Thermo Scientific 1300 series Class II biological safety cabinets are independently tested and certified to NSF/ANSI 49, by NSF International, a leading testing agency in the USA.



### EN 12469

Thermo Scientific™ Herasafe™ KS 1.2 m cabinet and MSC-Advantage™ 0.9 m and 1.2 m cabinets are independently tested and certified to EN 12469 by LNE, a leading testing agency in France.



### EN 12469

Our Class II biological safety cabinets are independently tested and certified to EN 12469 standard for Class II biological safety cabinets by TÜV Nord, a leading testing agency in Europe.



### DIN 12980

Herasafe KSP and Thermo Scientific™ Maxisafe™ 2020 cabinets with single-piece worktops are independently tested and certified to the DIN 12980 standard "Safety Cabinets for Handling Cytotoxic Substances," for applications requiring the highest personal, sample and environmental protection.



### YY0569

1300 series Class II biological safety cabinets are independently tested and certified to YY0569.

1995

LNE-certified BSC units available

1996

DIN 12980-certified BSC for cytotoxic drugs

2002

World's first BSC with innovative brushless dual-DC motor technology (Herasafe KS BSC)

2007

Launch of the energy efficient 1300 Series A2 BSC

2011

Launch of Thermo Scientific BSC with SmartPort tubing organizer

2013

Launch of Thermo Scientific Heraguard ECO clean bench with DC motor technology

# the right cabinet

for you



Thermo Scientific Herasafe KS  
biological safety cabinet  
**outstanding protection, comfort and  
performance for advanced applications**



Thermo Scientific 1300 Series A2  
biological safety cabinet  
**exceptional efficiency, safety and  
value for daily applications**

Thermo Scientific™ Heraguard™ ECO\*  
clean bench  
**Ideal when sample protection is required.  
Due to DC motors, Heraguard ECO clean  
benches use less energy to operate so  
there is less heat emitted into the lab\***



\*Based on data from internal testing and The University of Michigan field study, published in American Biotechnology Laboratory.

# outstanding performance

for every application

		Herasafe KS	1300 Series A2	Heraguard ECO	
<b>Types of Protection</b>	Sample	•	•	•	
	Operator	•	•		
	Environmental	•	•		
	Cross-contamination	•	•	•	
<b>Recommended Applications</b>	Tissue culture	•	•	•	
	Biosafety level 1	•	•		
	Biosafety level 2	•	•		
	Biosafety level 3	•	•		
<b>Features</b>	<b>Efficiency</b>	Low-energy DC motors for operational cost savings and low heat emission	•	•	•
		Automated reduced flow mode for enhanced energy efficiency	•	•	
		Long-life DC motors	•	•	•
	<b>Containment</b>	Automatic airflow balancing for safety in between certifications (SmartFlow)	•	•	•
		Real-time monitoring of HEPA filter efficiency (SmartFlow indicator / PER factor)	•	•	•
		Night Set-Back Mode (maintains sterility)	•	•	
		Timed UV system for long bulb life	•	•	•
		Real-time airflow alarms to notify user of impaired safety	•	•	•
		Aerosol-tight sealing front window	•		
		Negative pressure side wall plenums	•	•	
		All metal plenums	•	•	•
	<b>Convenience</b>	Easy access to interior of front sash for cleaning, without tools	•	•	
		Motorized front window for finger-tip opening and closing	•		
		316 stainless steel interior for enhanced resistance to corrosion	•		•
		304 stainless steel work surface		•	
		Transparent side windows to maximize light and visibility inside the unit	•		•
		SmartClean window design		•	
		SmartClean Plus window design	•		
	SmartPort tubing/cable organizer		•	•	
	<b>Comfort</b>	Forearm support armrest design to maximize comfort	•	•	
Angled sash to encourage natural posture		•	•		
Frameless front sash for maximum visibility		•	•		
8-inch window option			•		

# innovations

## in containment and efficiency

### Brushless DC motors since 2002

We pioneered the first innovative brushless DC motor technology. Now available in our full line of BSCs and the Heraguard ECO clean benches, DC motor advancements have redefined and transformed BSC energy efficiency, safety, performance and reliability.

#### Use less energy, reduce costs

DC motors use less energy to operate, so there is less heat emitted back into the lab – delivering better comfort and lower air conditioning costs. On average, our BSCs use 75% less energy than traditional AC motor cabinets.\*

#### Exceptional reliability

Our dual-motor BSC design offers an expected lifetime of more than 11 years – at least double the published life of traditional AC motor and single DC motor systems – resulting in significant savings on motor replacements over the life of the cabinet.

#### Long filter life

Larger mini-pleat H14 HEPA filters and balanced airflow, coupled with eight-inch work aperture, results in higher filtration efficiency and longer filter life when compared to previous models.

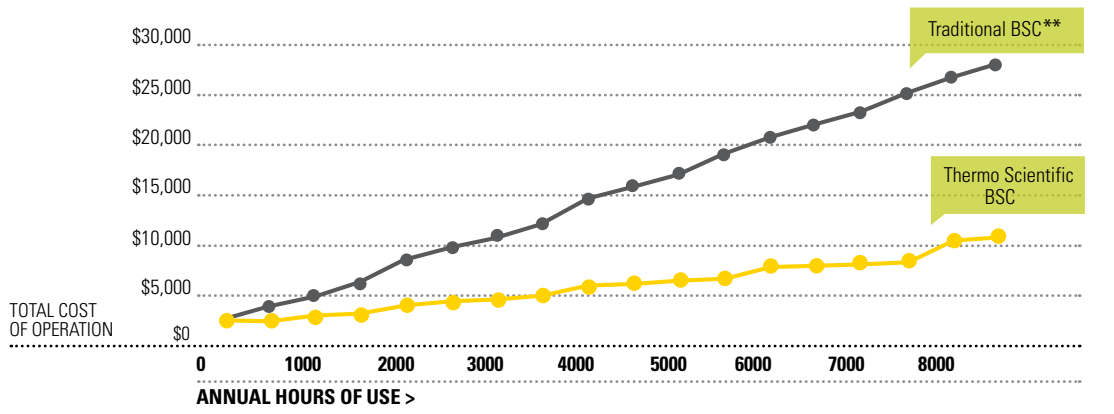


### check the watts!

**Thermo Scientific biological safety cabinets lead the industry in operational cost efficiency with energy consumption as low as 150W.\***

### optimizing total cost of operation

Thermo Scientific SmartFlow airflow compensation and balanced filters have led to BSCs that are designed to be safer, easier to use and less costly to operate.\*\*



\* Based on data from internal testing and The University of Michigan Field Study of Class II Biological Safety Cabinet Energy Consumption Costs, published in American Biotechnology Laboratory.

\*\* Compared to previous models.

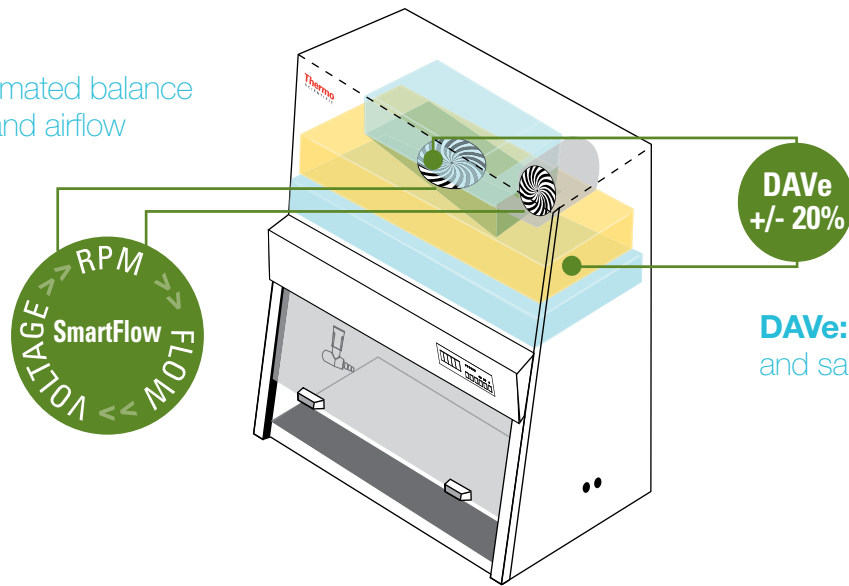
**The more you use it, the more you save!**

## advanced design for peace of mind

A BSC's primary function is to provide you cleanliness and containment. Available on our full range of BSCs, **Thermo Scientific SmartFlow, Digital Airflow Verification and Night Set-Back Mode** are innovations designed to increase safety and minimize sample contamination.

- ▶ H14 HEPA filters increase filtration efficiency at 99.995% of MPPS
- ▶ Solid plenums for long life and lasting containment
- ▶ Negative-pressure, dual side walls protect from leaks to the exterior environment

**SmartFlow:** automated balance of RPM, voltage, and airflow



## SmartFlow designed to ensure safety

### Unique airflow system takes safety and containment to new levels

- Smart DC motors monitor and control fan speed in real time to maintain constant airflow during filter loading or temporary obstruction.
- Unlike single motor designs, the independent supply and exhaust blowers automatically balance the downflow and inflow velocities to maintain user and sample protection.



## Digital Airflow Verification (DAVe) validates protection

### Monitoring system alerts user when containment is compromised

- Independent sensors detect pressure changes across the exhaust and downflow plenums.
- Alarm signals when a 20% change in inflow/exhaust or downflow occurs.
- Airflow velocities are displayed on the control panel for monitoring and recording.

## Night Set-Back Mode saves energy, maintains sterility

### When the front sash is closed, our intelligent speed control automatically reduces blower speed

- Continuous airflow helps to maintain a sterile working environment, even when the cabinet is not in use.
- Less air flows through the HEPA filters, extending filter life and decreasing energy consumption.

# designed for comfort and convenience

Thermo Scientific BSCs offer an efficient workspace, ergonomics, and added conveniences that provide you outstanding productivity.

## Ergonomic design

- Sloped front window is designed to reduce user fatigue
- Bright, open chamber improves visibility
- Quiet airflow design offers noticeably reduced noise level

## Ergonomically position arm rest

- Front air-grill arm rest extends user reach inside cabinet
- Provides forearm support to reduce strain
- Ensures clothing does not block front air intake grill
- Supports work midway between rear and front grill

## Thermo Scientific™ Ergolign™ saddle stool

- Exclusive seat design reduces back strain and fatigue
- Clean-room-ready, with 0.5 µm filtration system within the seat, trapping 99.9% of particles exhausted, fulfilling Class 100 requirements
- Fully adjustable seat height and tilt, using a patented icon plate mechanism
- Stores easily under the BSC to save floor space



work smarter, more efficiently

- ▶ Easy to use
- ▶ Easy to clean, without the use of tools
- ▶ Quiet operation

# smarter design



## Thermo Scientific™ SmartPort™ convenience

Clean and safe routing for vacuum tubing and cables through the side of the BSC for improved organization and work efficiency. (1300 Series A2 BSC only)

## Thermo Scientific™ SmartClean™ window design

Our unique window design easily lowers for thorough cleaning of inner surfaces and designed to protect users by maintaining inflow, even when the window is lowered. (1300 Series A2 BSC only)



## Thermo Scientific SmartClean Plus

Fully-open, front hinging window design allows convenient posture for thorough, easy cleaning and disinfection, with full access to BSC interior. (Herasafe KS BSC only)



## Outstanding UV decontamination

Optional UV light is programmable from 30 minutes to 24 hours, in 30-minute increments, extending bulb life and saving energy.

Powerful cross-beam UV irradiation in both side walls illuminates entire work area, designed to ensure thorough disinfection of the complete chamber (Herasafe KS BSC only).

# Thermo Scientific Herasafe KS biological safety cabinet

**outstanding protection, comfort and performance**  
for advanced applications

Featuring an advanced design for protection and ease of use, our Herasafe KS BSC enables quick, simple cleaning and fumigation.

## Containment

- **SmartFlow design** automates airflow compensation and balancing
- **Digital Airflow Verification (DAVe)** alerts user to compromised containment
- **H14 HEPA filters** remove airborne contaminants
- **Performance factor safety indicator** displays performance status
- **Cross beam UV disinfection system** illuminates entire work area without shadows
- **SampleGuard aerosol-tight window sealing** for added sample protection easy sealing fumigation

## Comfort

- **Reduced noise level** is designed to enhance user focus
- **10° sloped front** for outstanding comfort and ergonomics
- **Spacious work area** with comfortable armrests
- **Transparent side-glass windows** maximize light and visibility

## Convenience

- **SmartClean Plus** hinged-front window design for easy cleaning
- **Intuitive eye-level control panel** with handheld controls to assist with ADA compliance
- **Motorized frameless window sash** designed to ensure safe sash height at the push of a button
- **Scratch-free, 316 stainless steel work surfaces** are available as single or segmented modules and are easy to clean or autoclave
- **Programmable cross-beam UV light** extends bulb life and saves energy



**SampleGuard**  
aerosol-tight window sealing  
provides extra containment  
when window is closed

## Efficiency

- **DC motors** offer low energy consumption and greater than 11 years of use
- **Night Set-Back Mode** reduces airflow to 30% during low-usage periods compared to normal usage, with the window open
- **Longer filter life\***
- **Longer UV bulb life\*** programmable UV light extends bulb life

\*Compared to previous models.



Cross-beam UV lighting

Intuitive eye-level control panel

Transparent side-glass windows

Motorized sash

Optional universal piping/rear wall service taps

316 stainless steel interior

Customizable work surfaces

Optional electric adjustable height stand

## More choices for you.\*

- Choice of 3-, 4-, 5- or 6-foot widths
- Available with 10-inch work aperture
- Choice of electrical or manual adjustable height stands

# Thermo Scientific 1300 Series A2 biological safety cabinet

## optimized efficiency, safety and value

for your daily applications

Thermo Scientific 1300 Series Class II, Type A2 biological safety cabinets combine safety, energy efficiency and value for today's laboratory.

### Containment

- **SmartFlow design** automates airflow compensation and balancing
- **Digital Airflow Verification (DAVe)** alerts user to compromised containment
- **H14 HEPA filters** remove airborne contaminants
- **SmartFlow indicator** displays performance status

### Comfort

- **Low noise level** helps enhance user focus
- **10° sloped front** for outstanding comfort and ergonomics
- **Spacious work area** with comfortable armrests
- **Increased light intensity** for a brighter work environment

### Convenience

- **SmartClean** front window design
- **Intuitive control panel** displays safety and performance data
- **SmartPort** organizes tubing and cables
- **Programmable UV light** extends bulb life and saves energy

**Intuitive Control Panel:** Displays valuable safety and performance data with constant read-out of downflow/inflow velocities



#### Airflow Read-Out & Hour Counter:

Clearly displays realtime performance data, including inflow and downflow velocities and hours of operation

#### SmartFlow Indicator:

Visually demonstrates power and capacity to maintain protection

#### Front Window Status:

Visual and audible alarm indicates whether front window is in correct working position

#### Night Set-Back Indicator:

Displays reduced speed operation when front window is closed

#### DAVe Airflow Indicator:

Audible and visual alarms indicate when airflow is safe or restricted



**Thermo Scientific Ergolign Saddle Stool**  
Designed to relieve back pressure and optimize working posture during long work sessions

## More choices for you.

- Available in 3-, 4-, 5- or 6-foot widths
- Choice of 8- or 10-inch work aperture
- Choice of SmartCoat interior for reduced glare in workspace or seamless one-piece stainless steel
- Simple ordering with package configurations that include accessories (manual adjustable height stand, UV light and armrest)
- Optional electrical adjustable height stands

### 1300 Series A2 BSC

shown with optional manual floor stand, floor-stand hanging shelf, vacuum valve and rear-wall tubing clips (Bottle not included)

## Efficiency

- **DC motors** offer low energy consumption and designed to offer an expected life of more than 11 years
- **Night Set-Back Mode** reduces airflow to 30% during low-usage periods
- **Longer filter life\***
- **Longer UV bulb life\***
- **Programmable UV light** extends bulb life

**Certifications:** All 1300 Series A2 models have been independently tested and certified to NSF/ANSI 49 for Class II biological safety cabinets

**Manufactured in a ISO 9001 facility**

\*Compared to previous models.

# Thermo Scientific Heraguard ECO\* clean bench

## high performance with optimized efficiency

sterility and functionality

NEW Thermo Scientific™ Heraguard™ ECO clean benches are ideal for laboratory applications where sample protection is required. Due to DC motors, Heraguard ECO clean benches use less energy to operate so there is less heat emitted into the lab.\*

### Containment

- **Thermo Scientific Smartflow design** compensates for filter loading and maintains airflow
- **SmartFlow indicator** displays performance status
- **H14 HEPA filters** remove airborne contaminants

### Comfort

- **Optional transparent hinged wind screen** designed to shield the user against the dry purified air flow.
- **Side windows** increase the available light inside the work area.

### Convenience

- **Prefilter** extends the HEPA filter life and is easily changed by hand without the need of tools
- **Intuitive control panel** displays safety and performance data
- **Easy HEPA filter exchange** from the front of the unit
- **Choice of work tops** in melamine or stainless steel (316L) for different applications and individual work space designs
- **Modular side windows** made of single pane safety glass with an access port for tubing or a media tap. Optional lacquered sheet steel plate with two utility ports and a SmartPort
- **Programmable UV light** extends bulb life and saves energy
- **Variety of sizes** 3,4,5 and 6ft, with the 6ft also available with an increased interior height of 950mm



### Efficiency

#### NEW DC motors

Now available with DC motors which offer over 60% lower energy consumption compared to previous model\*

#### Extended filter life

Smartflow compensates for filter loading and extends filter life

Intuitive control panel displays valuable safety and performance data

\* Based on data from internal testing and The University of Michigan field study, published in American Biotechnology Laboratory.



### UV disinfection (optional)

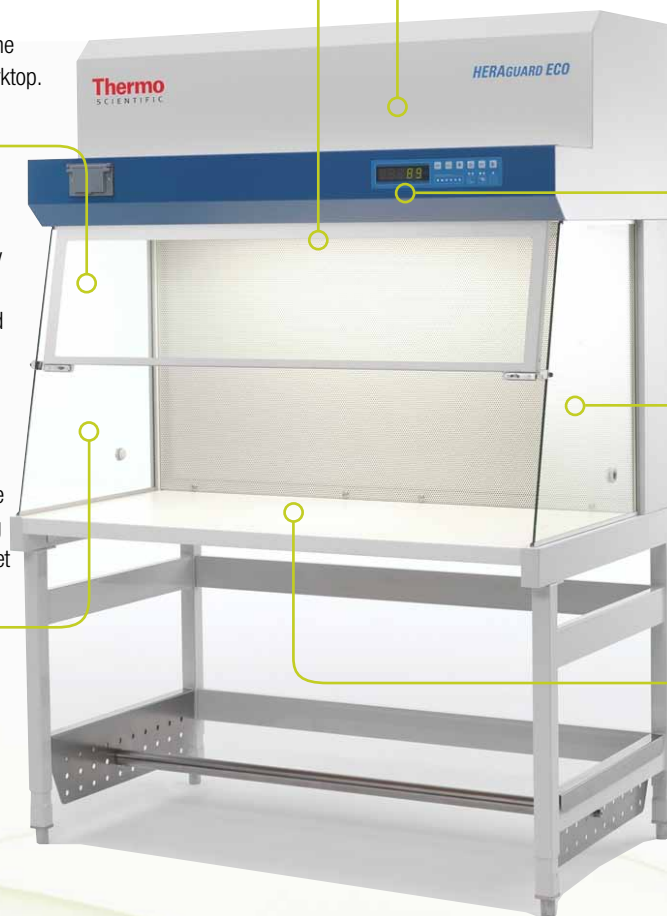
A UV disinfection light can be fitted into the top of the work space to disinfect the worktop.

### Transparent hinged wind screen (optional)

Designed to shield the user against the dry purified air flow. The wind screen is folded under the light housing and can be flipped down for use.

### Modular side windows

The side windows are made of single pane safety glass with an access port for tubing or a media tap. Optionally, a lacquered sheet steel plate with three holes can be used.



### Prefilter

The prefilter on the intake side can be changed by hand, without the need for tools. Prefilter exchange is made economical and easy.

### NEW Intuitive control panel

Displays safety and performance data.

### Easy HEPA filter exchange

The HEPA filter is easily removed from the front – a simple process that does not involve any disassembly or removal of equipment from the wall. This saves time during service visits.

### Choice of work tops

Standard melamine or optional stainless steel tops are available for different applications and individual work space designs.

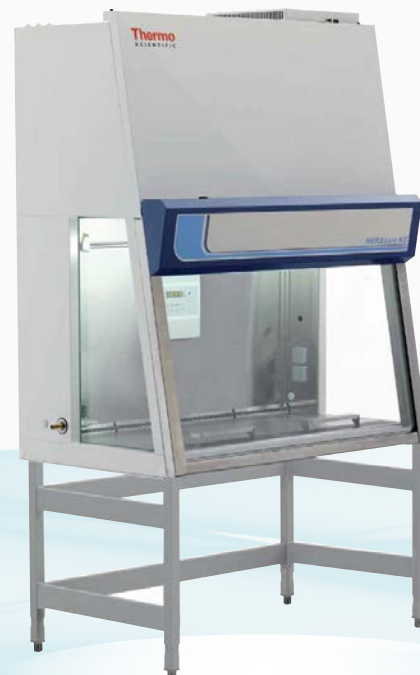
# Thermo Scientific Herasafe KS Biological Safety Cabinet

## specifications

Size/Width			3-foot	4-foot	5-foot	6-foot
<b>Dimensions</b>	Exterior dimensions W x H x D	in	39.4 x 62.4 x 31.5	51.2 x 62.4 x 31.5	63.0 x 62.4 x 31.5	74.8 x 62.4 x 31.5
	Interior dimensions W x H x D	in	35.4 x 30.7 x 24.8	47.2 x 30.7 x 24.8	59.1 x 30.7 x 24.8	70.9 x 30.7 x 24.8
	Shipping dimensions <sup>1</sup> W x H x D	in	43.7 x 69.3 x 36.4	55.5 x 69.3 x 36.4	67.3 x 69.3 x 36.4	79.1 x 69.3 x 36.4
	Working height of front window	in	10			
	Maximum opening height of front window	in	30.4			
<b>Weight</b>	Net weight	lbs	375	441	507	617
	Shipping weight <sup>1</sup>	lbs	419	496	573	694
<b>Electrical Data</b>	Voltage	V	120			
	Frequency	Hz	60			
<b>Filter Specification</b>			H14 HEPA EN 1822, 99.995% MPPS			
<b>Certification</b>			NSF/ANSI 49, ETL, CE			
<b>Ergonomics and Utilities</b>	Lighting power	fc	>70	>70	>110	>120
	Receptacles		2 GFI duplex, one on each sidewall			
	Service valves		Up to 4 may be installed through access ports (2 on each side) Up to 6 more may be factory-installed on rear wall (optional)			
<b>10-Inch Work Aperture</b>	Sound pressure level	dB (A)	<65			
	Energy consumption, operating set point <sup>2</sup>	W	210	275	350	435
	Energy consumption, Night Set-Back mode	W	40	40	70	70
	Heat output, operating mode (non-vented)	BTU/hr	717	938	1194	1484
	Heat output, Night Set-Back mode (lights off, non-vented)	BTU/hr	136	136	239	239
	Exhaust / inflow air volume, recirculated	cfm	255	342	428	514
	Exhaust volume, thimble ducted	cfm	332	444	556	668

<sup>1</sup> Export packaging dimensions and weight upon request

<sup>2</sup> Clean filters, fans operating at nominal set point, interior lighting activated

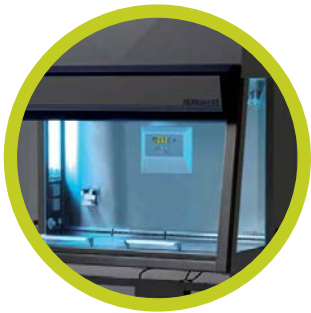




# ordering information

The Herasafe KS BSC standard configuration includes cabinet, UV light, armrests, 316 stainless steel indented work surface, and battery back-up for motorized sash. Stands must be ordered separately.

Size/Width		3-foot	4-foot	5-foot	6-foot
<b>Standard Configuration</b>	Includes cabinet, cross-beam UV, one-piece indented worktray and battery back-up for front window. Stands are sold separately.	51027116	51027117	51027118	51027120



Cross-beam UV light



Stainless steel armrests



One-piece indented worktray

Size/Width		3-foot	4-foot	5-foot	6-foot
<b>Stands:</b> <i>(Must be ordered separately)</i>	Manual adjustable floor stand, 30 to 38 inches in 2-inch increments	50116443	50109312	50116444	50109313
	Electric adjustable floor stand, with cable remote control, 30 to 38 inches working height, 120V	50119096	50119126	50119127	50119128
	Castor set (may not be used with electric stands; fixed 30-inch work surface height)	50109977			



Electric adjustable stand



Manual stand



Castors

To build your own Herasafe KS BSC, start with these cabinet-only part numbers (with armrests):

Size/Width		3-foot	4-foot	5-foot	6-foot
<b>Special Order</b>	Cabinet-Only Part Number	51022485	51022486	51022487	51022488

# Thermo Scientific Herasafe KS Biological Safety Cabinet

## field-installed accessories

	Cat. No.	Description
<b>Exhaust Transitions</b>	50078796	Thimble duct exhaust transition for Herasafe KS 9 (3 ft) cabinet
	50073770	Thimble duct exhaust transition for Herasafe KS 12 (4 ft) or KS 15 (5 ft) cabinet
	50078795	Thimble duct exhaust transition for Herasafe KS 18 (6 ft) cabinet
	191780	Alnor exhaust alarm for thimble duct, 120v (independent from BSC, plugs into wall outlet)
<b>User Convenience Equipment</b>	50078900	Utility basket for use with hanging bars 50073943 or 1911312
	50078901	2 Utility baskets including additional hanging bar
	50073943	Hanging bar with set of 6 hooks for KS 9 (3 ft) cabinet only
	1911312	Hanging bar with set of 12 hooks for KS 12, 15, 18 (4, 5, 6 ft.) cabinets
	1911313	Replacement stainless steel armrest (set of 2)
	191127	Adjustable foot rest. For ergonomic foot and posture support
	1910179	Shelf to hang from base stand
	1910083	Interior tubing retainer clips (6 per kit)
	ERG-CR-2330	Thermo Scientific Ergolign Saddle Stool, 23 inch to 30.5 inch adjustable seat height
<b>Sidewall Utilities</b>	1911308	Combustible gas tap for side wall
	1911309	Noncombustible gas tap for side wall
	1911310	Vacuum tap for side wall
	1911311	Water tap for side wall
	50059017	Hose connection to fit through side wall access port, fits 0.5 inch (10-13 mm) inner diameter tubing
	50076408	Hose connection to fit through side wall access port, fits 0.1 inch (3 mm) inner diameter tubing



50073700  
thimble duct exhaust transition



50078900  
utility basket



1911311  
water tap for side wall



Optional rear wall  
3 service tap connections

## factory-installed accessories

	Cat. No.	Description
<b>Customized Models</b>		The Herasafe KS worksurfaces are fully customizable to accommodate any unique work task. Review ordering information with your Thermo Fisher Scientific sales representative. Lead times will be extended for custom orders.
<b>Worksurfaces</b>	51900651	KS 9 (3 ft) without worksurface — required for installation of non-standard worksurface options
	51900652	KS 12 (4 ft) without worksurface — required for installation of non-standard worksurface options
	51900653	KS 15 (5 ft) without worksurface — required for installation of non-standard worksurface options
	51900654	KS 18 (6 ft) without worksurface — required for installation of non-standard worksurface options
	50073666	Flat worksurface module 150 mm wide (316SS)
	50072685	Flat worksurface module 300 mm wide (316SS)
	50073667	Flat worksurface module 600 mm wide (316SS)
	50076398	Flat worksurface module 900 mm wide (316SS)
	50082970	Flat worksurface module 1200 mm wide (316SS)
	50122210	Flat worksurface module 1500 mm wide (316SS)
	50085281	Flat worksurface module 1800 mm wide (316SS)
	50073757	Vibration damped worksurface 300 mm width. Constructed in stainless steel with granite plate. For weighing and microscopy equipment (316SS)
	50076162	Vibration damped worksurface 600 mm width. Constructed in stainless steel with granite plate. For weighing and microscopy equipment (316SS)
	50078875	Minisink tabletop insert 300 mm. Holds ~3 liters
	50073668	Indented worksurface module 600 mm wide (316SS)
	50073669	Indented worksurface module 900 mm wide (316SS)
	50073670	Indented worksurface module 1200 mm wide (316SS)
	50073671	Indented worksurface module 1500 mm wide (316SS)
50078750	Indented worksurface module 1800 mm wide (316SS)	
<b>Universal Piping</b>	51900981	Rear wall 3 service tap connections, NPT 3/8, left side of cabinet
	51900982	Rear wall 3 service tap connections, NPT 3/8, right side of cabinet
	51900984	Rear wall 6 service tap connections, NPT 3/8, 3 on left and 3 on right side of cabinet. (May not be used with KS 9 (3 ft) cabinet.)
	1911304	Combustible gas tap for rear wall (must be ordered with rear wall service tap connections - above)
	1911305	Noncombustible gas tap for rear wall (must be ordered with rear wall service tap connections - above)
	1911306	Vacuum tap for rear wall (must be ordered with rear wall service tap connections - above)
	1911307	Water tap for rear wall (must be ordered with rear wall service tap connections - above)
<b>UV Options</b>	51900642	Cross beam UV-C light option in side walls (comes with protective cover)



50078875  
optional minisink tabletop insert



50076162 optional 600 mm vibration  
dampened granite block



Optional 316 stainless steel  
worksurface configurations

# Thermo Scientific 1300 Series A2 Biological Safety Cabinet

## specifications

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	Working height of front window	in	Choice of 8 or 10			
	Maximum opening height of front window	in	21			
<b>Weight</b>	Net weight	lbs	375	441	507	617
	Shipping weight <sup>1</sup>	lbs	419	496	573	694
<b>Electrical Data</b>	Voltage	V	120			
	Frequency	Hz	60			
<b>Filter Specification</b>			H14 HEPA EN 1822, 99.995% MPPS			
<b>Certification</b>			NSF/ANSI 49, UL, CE			
<b>Ergonomics</b>	Lighting power	fc	>100	>120	>120	>120
	SmartPort		Two 3" plugged cable ports, one on each side wall			
	Receptacles		2 GFI duplex			
	Service valves		Up to 6 total (3 on each side wall)			
<b>8-Inch Work Aperture</b>	Sound pressure level	dB (A)	<62	<62	<64	<64
	Energy consumption, operating set point <sup>2</sup>	W	150	180	280	360
	Energy consumption, Night Set-Back mode	W	70	70	120	120
	Heat output, operating mode (non-vented)	BTU/hr	512	614	955	1228
	Heat output, Night Set-Back mode (lights off, non-vented)	BTU/hr	239	239	410	410
	Exhaust/inflow air volume	cfm	207	276	344	413
	Exhaust volume, thimble ducted	cfm	269	358	448	537
<b>10-Inch Work Aperture</b>	Sound pressure level	dB (A)	<63	<63	<65	<65
	Energy consumption, operating set point <sup>2</sup>	W	170	200	310	400
	Energy consumption, Night Set-Back mode	W	70	70	120	120
	Heat output, operating mode (non-vented)	BTU/hr	580	683	1058	1366
	Heat output, Night Set-Back mode (lights off, non-vented)	BTU/hr	239	239	410	410
	Exhaust/inflow air volume	cfm	258	344	431	517
	Exhaust volume, thimble ducted	cfm	336	448	560	672

<sup>1</sup> Export packaging dimensions and weight upon request

<sup>2</sup> Clean filters, fans operating at nominal set point, interior lighting activated



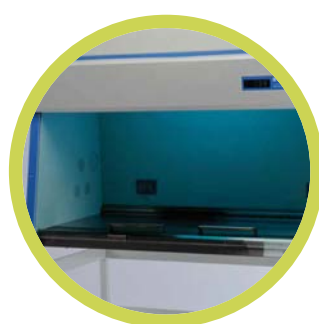
## ordering information

Our 1300 Series A2 BSC packages feature everything required to get started, including cabinet, manual adjustable height stand, factory-installed UV light and one set of armrests.

	Size	8-inch work aperture	10-inch work aperture
<b>SmartCoat Interior</b>	3-foot	1340	1321
	4-foot	1395	1385
	5-foot	1351	1369
	6-foot	1397	1387
<b>One-Piece Stainless Steel Interior</b>	3-foot	1342	1323
	4-foot	1335	1375
	5-foot	1353	1371
	6-foot	1337	1377



Manual adjustable stand



UV light



Stainless steel armrests

To build your own 1300 Series A2 BSC, start with these cabinet-only part numbers:

	Size	8-inch work aperture	10-inch work aperture
<b>SmartCoat Interior</b>	3-foot	1339	1320
	4-foot	1325	1355
	5-foot	1350	1368
	6-foot	1327	1357
<b>One-Piece Stainless Steel Interior</b>	3-foot	1341	1322
	4-foot	1305	1345
	5-foot	1352	1370
	6-foot	1307	1347

# Thermo Scientific 1300 Series A2 Biological Safety Cabinet

## field-installed accessories

	Cat. No.	Description
<b>Stands</b>	1911400	Manual adjustable stand for 3 foot cabinet, provides work surface height of 30 to 38 inches adjustable in 2 inch increments
	1911302	Manual adjustable stand for 4 foot cabinet, provides work surface height of 30 to 38 inches adjustable in 2 inch increments
	1911401	Manual adjustable stand for 5 foot cabinet, provides work surface height of 30 to 38 inches adjustable in 2 inch increments
	1911303	Manual adjustable stand for 6 foot cabinet, provides work surface height of 30 to 38 inches adjustable in 2 inch increments
	50119096	Electric adjustable stand for 3 foot cabinet (120V), provides infinite height adjustability of 30 to 38 inches
	50119126	Electric adjustable stand for 4 foot cabinet (120V), provides infinite height adjustability of 30 to 38 inches
	50119127	Electric adjustable stand for 5 foot cabinet (120V), provides infinite height adjustability of 30 to 38 inches
	50119128	Electric adjustable stand for 6 foot cabinet (120V), provides infinite height adjustability of 30 to 38 inches
	1911409	Rolling castor stand for 3 foot cabinet, provides fixed height of 30 inches
	1911322	Rolling castor stand for 4 foot cabinet, provides fixed height of 30 inches
	1911410	Rolling castor stand for 5 foot cabinet, provides fixed height of 30 inches
	1911346	Rolling castor stand for 6 foot cabinet, provides fixed height of 30 inches
	<b>Exhaust Transitions</b>	1911316
1911317		Thimble duct exhaust transition for 6 foot cabinet
1910185		Alnor exhaust alarm for 1300 Series A2 biological safety cabinets, qualified install only
<b>User Convenience Equipment</b>	1910083	Interior tubing retainer clips (6 per kit)
	1910179	Hanging shelf for base stand
	1911313	Stainless steel armrest (set of two)
	191127	Adjustable footrest
	1910112	Replacement SmartPort grommets (4 per kit)
	ERG-CR-2330	Thermo Scientific Ergolign Saddle Stool, 23 inch to 30.5 inch adjustable seat height
	1911413	IV bag holder kit with 6 hooks (for 3 foot cabinet only)
1911312	IV bag holder kit with 12 hooks (for 4 foot, 5 foot, and 6 foot cabinet)	
<b>Universal Piping Utilities</b>	249098	Stainless steel ball valve (replaces standard non-corrosive PVC drain valve)
<b>Sidewall Utilities</b>	1911308	Combustible gas valve
	1911309	Non-combustible gas valve
	1911310	Vacuum valve
	1911311	Water valve



1910179 hanging shelf for base stand



ERG-CR-2330 Ergolign Saddle Stool



191127 optional adjustable footrest

## factory-installed accessories

	<b>Cat No :</b>	<b>Left or right connection</b>	<b>Top or bottom connection</b>
<b>Universal Piping for 3 Foot Models</b>	1910286	Right	Both
	1911415		Top
	1910287	Left	Both
	1911416		Top
<b>Universal Piping for 4 Foot Models</b>	1911321	Right	Both
	1911417		Top
	1911369	Left	Both
	1911418		Top
<b>Universal Piping for 5 Foot Models</b>	1910288	Right	Both
	1911419		Top
	1910289	Left	Both
	1911420		Top
<b>Universal Piping for 6 Foot Models</b>	1911367	Right	Both
	1911421		Top
	1911370	Left	Both
	1911422		Top
<b>Universal Piping for All Models</b>	1911423	Right	Bottom
	1911424	Left	
	<b>Cat No :</b>	<b>Description</b>	
<b>Universal Piping Utilities</b>	1911304	Combustible gas valve for universal piping option	
	1911305	Non-combustible gas valve for universal piping option	
	1911306	Vacuum valve for universal piping option	
	1911307	Water valve for universal piping option	
<b>UV Light Option</b>	1911319	UV light option for 3 foot or 4 foot cabinet	
	1911368	UV light option for 5 foot or 6 foot cabinet	

# Fumigation Sealing Kits

## field-installed accessories

Available for Herasafe KS and 1300 Series biological safety cabinets. In addition to surface wipe downs within the BSC work area, it may be necessary to fumigate the potentially contaminated interior plenums of the unit. Fumigation to access biologically contaminated BSC plenums is most often done using formalin, paraformaldehyde, or hydrogen peroxide vapor. With these and most other methods, it is necessary to first seal off the unit, then introduce the fumigating agent, allow appropriate time for the agent to be effective, then neutralize and/or release the fumigating agent. The fumigating agent and method selected is usually specified by local regulations or institution guidelines based on the type of contamination. The kits and accessories below facilitate the fumigation process.

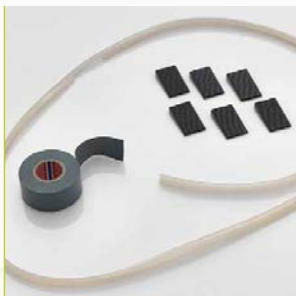
	Cat. No.	Description
<b>Complete Kits</b>	50132757	H <sub>2</sub> O <sub>2</sub> adjustable sealing kit (ASK) includes adjustable top box and front window cover. Fits all sizes of BSC. (includes outlet and inlet connections for STERIS™)
<b>Inlets Only</b>	50135768	H <sub>2</sub> O <sub>2</sub> front window sealing plate. This seals the front aperture, and has a STERIS connector
	50137105	STERIS H <sub>2</sub> O <sub>2</sub> Camlock inlet connector. Fits into one access port left or right side of the BSC
	50137107	Bioquell™ H <sub>2</sub> O <sub>2</sub> Camlock inlet connector (includes sample connector). Uses two access ports on side of BSC
<b>Outlets Only</b>	50137106	STERIS or Bioquell Camlock outlet connector (for connection to top box or duct connectors)
	50135767	H <sub>2</sub> O <sub>2</sub> adjustable top box for Thermo Scientific BSC with outlet connector (STERIS or Bioquell)
<b>Others</b>	50114036	Fumigation window sealing kit for 1300 series BSC only
	50109998	Disinfection tent for formaldehyde disinfection

### H<sub>2</sub>O<sub>2</sub> Fumigation Accessories

When fumigating a biological safety cabinet using H<sub>2</sub>O<sub>2</sub>, there are many accessories available. When choosing accessories there are basic questions to consider.

- Is the biological safety cabinet recirculating or ducted? See the chart below for guidance.
- Is the inlet of the H<sub>2</sub>O<sub>2</sub> generator connected via a removable front sealing gasket (STERIS only) or through a fixed side connector (STERIS or Bioquell)? See chart below for guidance.

	Recirculating		Ducted	
	Side Connection	Front Connection	Side Connection	Front Connection
<b>STERIS</b>	50137105 (one per cabinet)	50132757 (one required)	50137105 (one per cabinet)	50135768 (one required)
	50135767 (one required)		50137106 (one per cabinet)	50137106 (one per cabinet)
<b>Bioquell</b>	50137107 (one per cabinet)	Not available	50137107 (one per cabinet)	Not available
	50135767 (one required)		50137106 (one per cabinet)	



50114036 fumigation window sealing kit



H<sub>2</sub>O<sub>2</sub> side wall connections



H<sub>2</sub>O<sub>2</sub> adjustable sealing kit (ASK)



# Thermo Scientific Heraguard ECO Clean Benches

## specifications

Model		ECO 0.9	ECO 1.2	ECO 1.5	ECO 1.8	ECO 1.8/95
<b>Ordering Information</b>						
White melamine worksurface		51029696	51029697	51029698	51029699	51029700
Stainless steel worksurface		51029691	51029692	51029693	51029694	51029695
<b>Dimensions</b>						
Exterior dimensions W x H x D	in	39.4 x 46.1 x 31.9	51.2 x 46.1 x 31.9	63.0 x 46.1 x 31.9	74.8 x 46.1 x 31.9	74.8 x 58.1 x 39.8
Interior dimensions W x H x D	in	36.2 x 25.4 x 23.0	48.0 x 25.4 x 23.0	59.8 x 25.4 x 23.0	71.6 x 25.4 x 23.0	71.6 x 37.4 x 30.9
Shipping dimensions <sup>1</sup> W x H x D	in	44.5 x 52.0 x 38.6	56.3 x 52.0 x 38.6	68.1 x 52.0 x 38.6	79.9 x 52.0 x 38.6	79.9 x 63.8 x 46.5
<b>Weight</b>						
Net weight	lbs	245	275	310	355	375
Shipping weight <sup>1</sup>	lbs	300	330	400	440	485
Max. load capacity of worksurface	lbs	66	66	66	66	66
<b>Electrical Data</b>						
Voltage	V			120		
Frequency	Hz			60		
Protection class				I		
Overvoltage category				II		
IP protection system				IP 20		
<b>Compliance</b>						
Agency				CSA		
Standards				CAN/CSA-C22.2 No. 61010-1; UL Std. No. 61010-1; IEC 61010-1		
	prefilter			Type (EN779) G 3 dust filter, filtering efficiency: coarse - medium		
<b>Performance Specifications</b>						
Power consumption	W	279	279	574	574	574
Heat output	BTU/hr	951	951	1930	1930	1930
Air velocity	ft/min	89 +- 20%				79 +- 20%
Reduced airflow velocity	ft/min	45 +- 20%				
Lighting intensity	fc	93				
Noise pressure level	dB(A)	< 55		< 60		
Minimum clearance from room ceiling	in	5.9				
Side windows		Tempered safety glass				
Receptacles <sup>2</sup>		2				
Service valves		Up to 2 may be installed through access ports (1 left, 1 right)				

<sup>1</sup> Export packaging dimensions and weight upon request.

<sup>2</sup> The receptacles have a load capacity of up to 5 A and are protected with T 5 A fuses. When all receptacles are in use simultaneously they must not exceed the maximum total load capacity of 5 A.

# Thermo Scientific Heraguard ECO Clean Benches

## ordering information

<b>Heraguard ECO, Stainless Steel (SS)</b>	<b>51029691<sup>1</sup></b>	Heraguard ECO 0.9, SS worksurface (316L, 1.4404), 120V/60Hz, 3ft
	<b>51029692<sup>1</sup></b>	Heraguard ECO 1.2, SS worksurface (316L, 1.4404), 120V/60Hz, 4ft
	<b>51029693<sup>1</sup></b>	Heraguard ECO 1.5, SS worksurface (316L, 1.4404), 120V/60Hz, 5ft
	<b>51029694<sup>1</sup></b>	Heraguard ECO 1.8, SS worksurface (316L, 1.4404), 120V/60Hz, 6ft
	51029695	Heraguard ECO 1.8/95, SS worksurface (316L, 1.4404), 120V/60Hz, 6ft, 37.4" internal height
<b>Heraguard ECO, SS with built-in UV light</b>	<b>51029935<sup>1</sup></b>	Heraguard ECO 0.9, SS worksurface (316L, 1.4404), 120V/60Hz, 3ft, with UV option
	<b>51029937<sup>1</sup></b>	Heraguard ECO 1.2, SS worksurface (316L, 1.4404), 120V/60Hz, 4ft, with UV option
	<b>51029939<sup>1</sup></b>	Heraguard ECO 1.5, SS worksurface (316L, 1.4404), 120V/60Hz, 5ft, with UV option
	<b>51029940<sup>1</sup></b>	Heraguard ECO 1.8, SS worksurface (316L, 1.4404), 120V/60Hz, 6ft, with UV option
<b>Heraguard ECO</b>	51029696	Heraguard ECO 0.9, 120V/60Hz, 3ft
	51029697	Heraguard ECO 1.2, 120V/60Hz, 4ft
	51029698	Heraguard ECO 1.5, 120V/60Hz, 5ft
	51029699	Heraguard ECO 1.8, 120V/60Hz, 6ft
	51029700	Heraguard ECO 1.8/95, 120V/60Hz, 6ft, 37.4" internal height

<sup>1</sup> Model is a stocked configuration.



Left hand glass with metal sheet and two service valves (optional)



UV-resistant night cover



Wind screen protection kit

## field-installed accessories

<b>UV Resistant Night Covers</b>	50139417	UV-resistant night cover for Heraguard ECO 0.9
	50139418	UV-resistant night cover for Heraguard ECO 1.2
	50139419	UV-resistant night cover for Heraguard ECO 1.5
	50139420	UV-resistant night cover for Heraguard ECO 1.8
	50139421	UV-resistant night cover for Heraguard ECO 1.8/95
<b>Stands</b>	50116443	Adjustable floor stand for 3ft. Provides variable work height of 30 to 38 inches in 2-inch increments
	50109312	Adjustable floor stand for 4ft. Provides variable work height of 30 to 38 inches in 2-inch increments
	50116444	Adjustable floor stand for 5ft. Provides variable work height of 30 to 38 inches in 2-inch increments
	50109313	Adjustable floor stand for 6ft. Provides variable work height of 30 to 38 inches in 2-inch increments
	191127	Adjustable foot rest. For ergonomic foot and posture support
<b>Media Valves</b>	1911308	Combustible gas tap for side wall
	1911309	Noncombustible gas tap for side wall
	1911310	Vacuum tap for side wall
	1911311	Water tap for side wall
	50059017	Hose connection to fit through side wall access port, fits 0.5 inch (10-13 mm) inner diameter tubing
	50076408	Hose connection to fit through side wall access port, fits 0.1 inch (3 mm) inner diameter tubing
<b>Hanging Bars</b>	50073943	Hanging bar with 6 hooks for 3ft clean bench
	1911312	Hanging bar with 6 hooks. For use with 4ft, 5ft, 6ft clean bench
<b>Windscreen Protection Kits</b>	50052208	Wind screen protection kit, complete with hinges to fit the control unit for Heraguard ECO 0.9
	50052460	Wind screen protection kit, complete with hinges to fit the control unit for Heraguard ECO 1.2
	50052461	Wind screen protection kit, complete with hinges to fit the control unit for Heraguard ECO 1.5
	50052462	Wind screen protection kit, complete with hinges to fit the control unit for Heraguard ECO 1.8

## factory-installed accessories

<b>Side Window Modifications</b>	51901071	Left hand glass with metal sheet and 2 media valve holes and SmartPort for all models
	51901072	Right hand glass with metal sheet and 2 media valve holes and SmartPort for all models
<b>UV Light Option</b>	51901073	UV option, supplied with UV-resistant night cover

# what you need to meet an application challenge



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