Biological safety cabinets

Herasafe 2025
Biological Safety Cabinet

Smart protection that never takes a day off

thermo scientific

Smart protection
that never takes a day off

The most important factor in selecting a biological safety cabinet is the assurance of excellent containment. Thermo Scientific™ Herasafe™ 2025 Biological Safety Cabinets (BSCs) feature advanced technologies for maximum safety and protection that never take a day off.

Robust construction and excellent ergonomic design are combined with autonomous safety features and a simple-to-understand interface that always gives a clear status indication.

The Herasafe 2025 BSC delivers reliable performance with exceptional precision for a broad range of applications requiring assured safety for product, personnel and environment.

Thermo Scientific™ biological safety cabinets are designed to maximise sample protection and user safety, with an emphasis on containment, comfort and convenience, all day, every day. For more than five decades, we have been a pioneer and innovator of clean air technologies. Our global vision and experience have enabled us to continually provide improved application-based solutions well suited for your requirements and working environment, with compliance to all major worldwide safety standards.

Precise self-adjusting protection
Autonomous safety features maintain proper air flow and monitor critical conditions in real time without user interaction. This supports valuable research by enabling our customers to focus where needed.

Simplified operation and ergonomics
An intuitive, simple-to-use interface with clear icons provides the information you need, while the electronic sash with fully hinged opening enables easy access for supplies and equipment, and simplifies cleaning and disinfection.

Smart technology
Optimal containment and energy efficiency

Autonomous safety features like the Thermo Scientific™ SmartFlow™ Plus and DAVe™ Plus technologies help ensure continuous accuracy that never takes a day off—providing optimal protection from contamination by compensating to match the way you work and your lab environment.

Sash opening: 200 mm | Efficient design
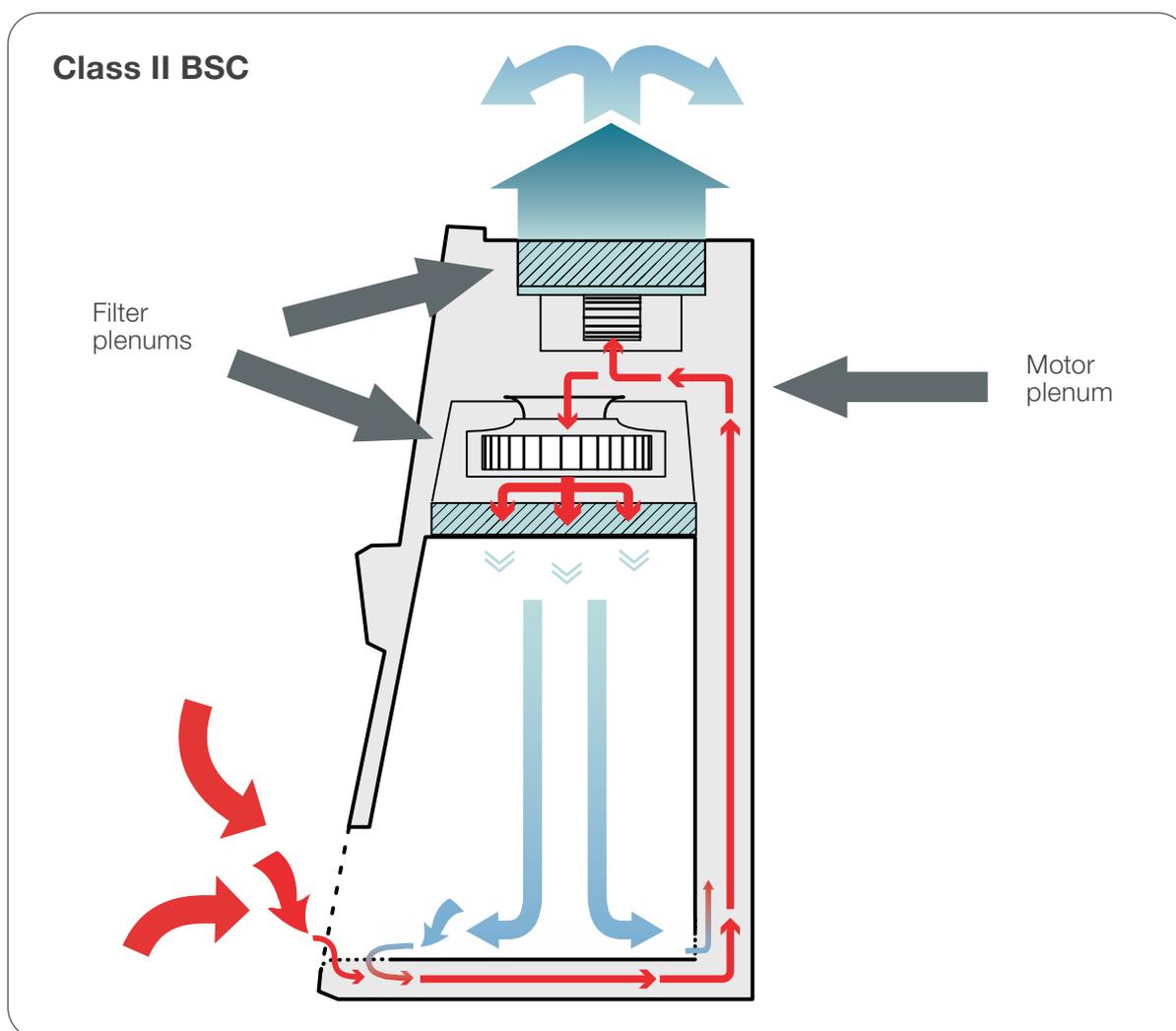## SmartFlow Plus | DAVe Plus Technologies

Electronic front sash
With one-touch simplicity, the front window automatically positions itself to help ensure proper working conditions. The sloped front window allows a fatigue-free working position and has an aerosol-tight seal when closed.

200 mm sash opening
Optimum balance of comfort and efficiency.

Class II BSC

Filter plenums

Motor plenum

SmartFlow Plus Technology

The SmartFlow Plus Technology automatically balances the performance of dual DC blower motors in order to maintain appropriate air flow rates whilst compensating for the loading condition of the protective HEPA filters unlike typical biological safety cabinets, which rarely perform at the same levels day after day due to HEPA loading, and potential disruptions to airflow such as paper covering vent openings.

How does this work?

Independent intelligent DC motors for downflow and inflow monitor and control fan speed in real time to maintain balanced airflow during filter loading or temporary obstruction.

Exclusive to our BSCs, independent supply and exhaust blowers automatically balance both the downflow and inflow velocities to maintain both operator and sample protection.

DAVe Plus Technology

Our unique Digital Airflow Verification system validates protection by monitoring airflow velocities with independent pressure sensors that detect and alert to any changes across the exhaust and downflow plenums.

How does this work?

By sensing pressure in the exit of the blowers, DAVe Plus Technology monitors airflow directly for the inflow and downflow in the Herasafe 2025 BSC to help ensure both personnel and sample protection.

Programmable crossbeam UV function

The Herasafe 2025 BSC is available with the option of an integrated powerful crossbeam UV disinfection system. The UV lights are installed on both side walls to illuminate the entire work surface without leaving shadows. This ensures thorough disinfection of the complete chamber for maximum sample protection.
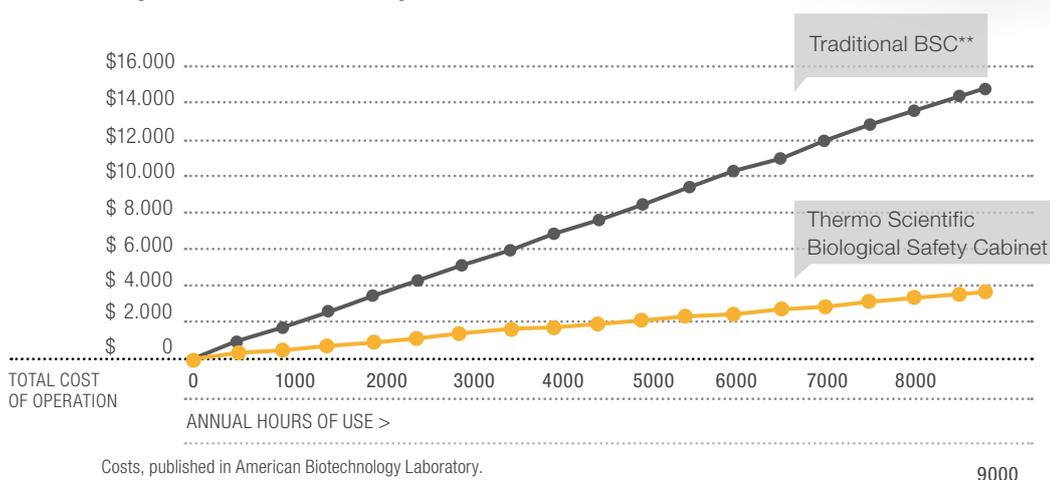
Energy efficient design

• Energy conserving dual DC motor design, generates less heat than older AC designs with double the usage lifetime and is digitally controllable for precision performance

• Stand-by mode automatically reduces blower speed to protect samples with reduced energy usage until being ready to resume work

Optimising total cost of operation

SmartFlow Plus airflow compensation and balanced filters have led to safer BSCs that are easier to use and significantly less costly to operate.*

The more you use it, the more you save!

Traditional BSC**

Thermo Scientific
Biological Safety Cabinet

TOTAL COST
OF OPERATION

ANNUAL HOURS OF USE >

Costs, published in American Biotechnology Laboratory.

*Compared to previous models.

**Comparison based on 15 year life of 1.2 m wide biological safety cabinets.
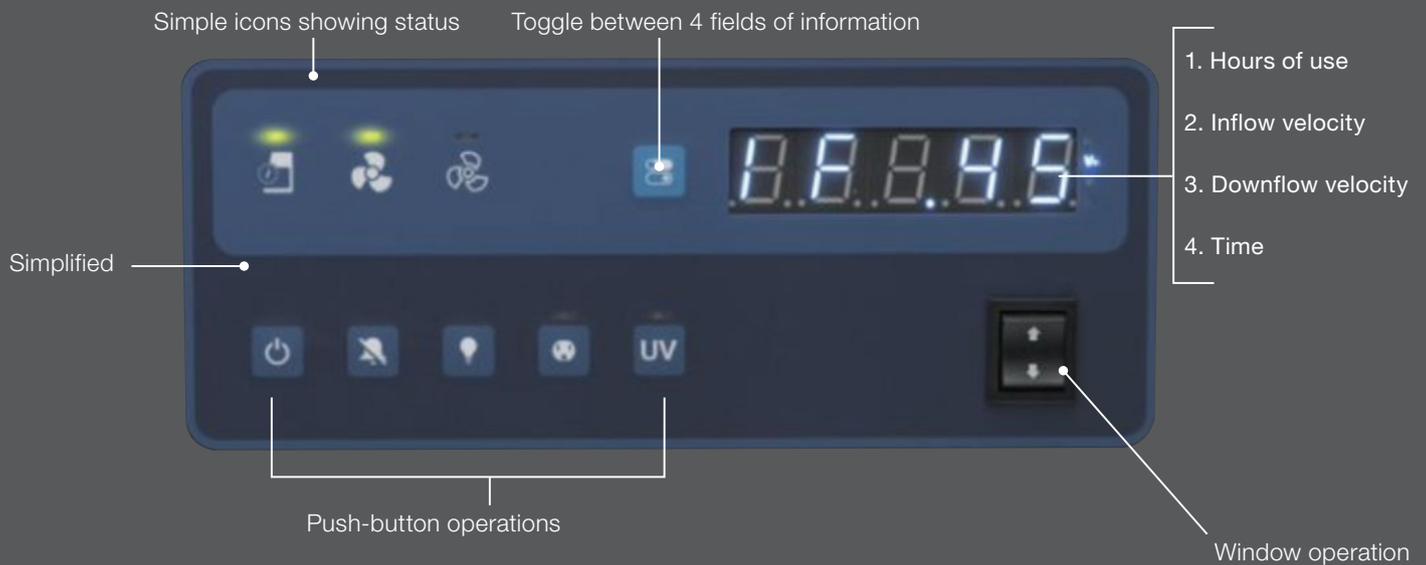"Traditional BSC" estimates based on published product specifications for readily available BSCs using AC motor technology.

Simplified operation and ergonomics

A readily understandable graphical display provides the information you need, while the electronic sash with fully hinged opening enables easy access for supplies and equipment, as well as effortless cleaning and disinfection.

Helping ensure that the Herasafe 2025 BSC is managing safety conditions autonomously and is simple and intuitive to use allows our customers to fully focus on a broad range of demanding applications.

Intuitive | Simple | Convenient

Simple icons showing status

Toggle between 4 fields of information

1. Hours of use

2. Inflow velocity

3. Downflow velocity

4. Time

Simplified

Push-button operations

Window operation

Thermo Scientific™ SmartClean Plus Technology
Fully opening front-hinged window design enables easy cleaning and disinfection with full access to the interior cabinet space.

Full opening also allows access to the biological safety cabinet for thorough cleaning and visible reach to all cabinet surfaces including rear wall.

Stainless steel interior
The 304 stainless steel interior and the 316L stainless steel work surface provide resistance to commonly used chemicals and regular cleaning protocols. The finish is "brushed and sanded," which both reduces glare and offers better scratch resistance.

Simplified use, comfort and cleaning

Customisation
The Herasafe 2025 BSC can be modified using our full customisation program. We have vast experience in designing custom adaptations to our safety cabinets. We can design from scratch or provide frequently requested solutions.

Large interior work space/ premium, non-corrosive stainless steel
Conveniently large interior workspace provides ample room for incorporation of instruments and process optimisation devices including robotic arms. The interior surface is made of 304 stainless steel and the work surface of 316L stainless steel. We utilize a "brushed and sanded" finish to provide maximum scratch resistance and non-reflective properties.

Interior LED lights
Visibility within the cabinet is enhanced with the use of bright, energy efficient lighting, reducing the potential for fatigue often experienced with use of standard fluorescent lighting.

Smart Clean Plus hinged front window
Our exclusive fully opening front hinged window design enables easy cleaning and full access to the cabinet interior work space for thorough cleaning/disinfection and incorporation of ancillary work tools and equipment as may be desired.

Padded armrests
Adjustable ergonomic armrests are provided with each unit to assure proper arm support to reduce strain during prolonged work periods while extending reach within the cabinet. Removable gel filled comfort pads are available as an option to enhance the user experience.

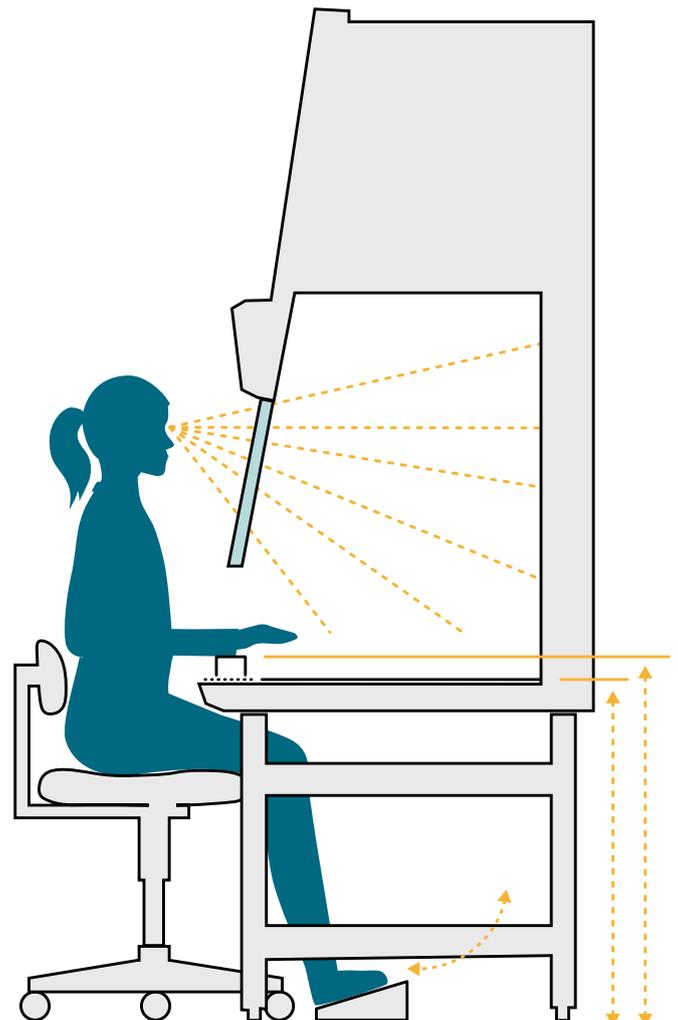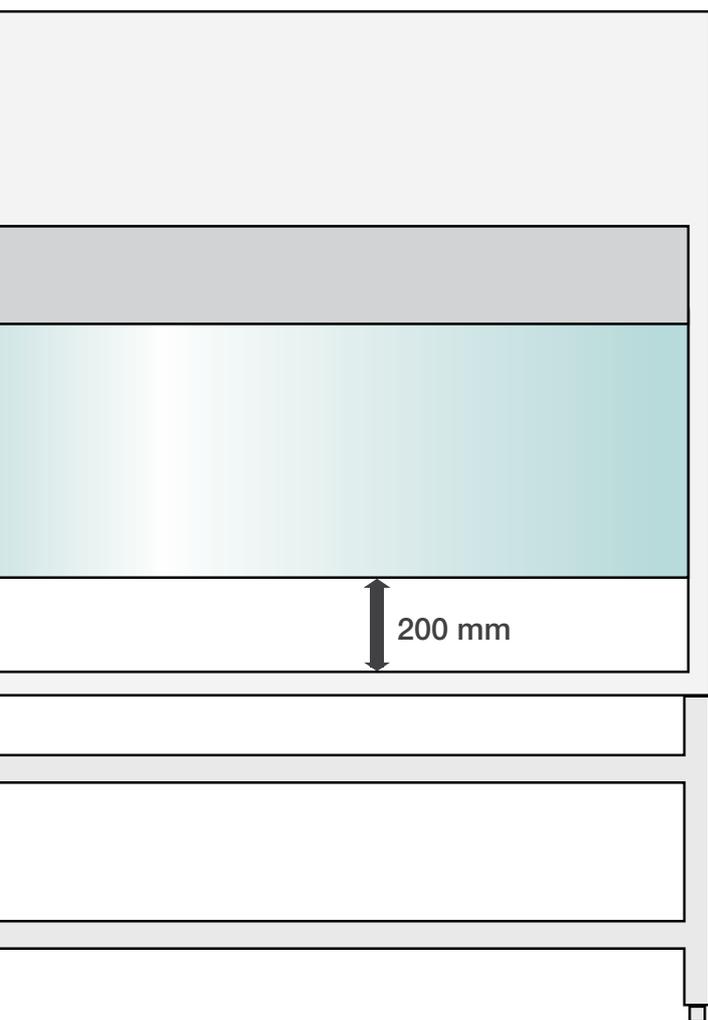Smart Clean Plus hinged front window

Removable gel-filled comfort pads

Outstanding comfort and ergonomic design

Featuring advanced designs for easy operation and maximum safety, the Herasafe 2025 Biological Safety Cabinet is recommended wherever sample and user protection is paramount.

- 10° sloped cabinet front–for exceptional comfort and ergonomics

- Bright workspace (side windows)–maximises light and visibility

- Unique internal armrest–positions hands in the centre of the work area for optimum protection

- Adjustable base stands–enables height to be set to suit environment and users

- Footrest accessory available for fitting to base stand

- Spacious work area–enables uncluttered work area for increased safety

- Motorised sash opening height of 200 mm for optimised usability and efficiency

- Standard battery backup to enable closure during power failure scenario

200 mm

Specifications and ordering information

Herasafe 2025 BSC			EN 12469			
Dimensions						
Size/internal width in m (ft)			0.9 (3)	1.2 (4)	1.5 (5)	1.8 (6)
External dimension (cabinet only)	depth	mm (in.)	800 (31.5)	800 (31.5)	800 (31.5)	800 (31.5)
	width	mm (in.)	1000 (39.4)	1300 (51.2)	1600 (63.0)	1900 (74.8)
	height	mm (in.)	1552 (61.1)	1552 (61.1)	1552 (61.1)	1552 (61.1)
Usable work surface (net, without air intake grill)	depth	mm (in.)	465 (18.3)	465 (18.3)	465 (18.3)	465 (18.3)
	width	mm (in.)	900 (35.4)	1200 (47.2)	1500 (59.1)	1800 (70.9)
Total internal height of work area		mm (in.)	780 (30.7)	780 (30.7)	780 (30.7)	780 (30.7)
Shipping dimensions	depth	mm (in.)	925 (36.4)	925 (36.4)	925 (36.4)	925 (36.4)
	width	mm (in.)	1110 (43.7)	1410 (55.5)	1710 (67.3)	2010 (79.1)
	height	mm (in.)	1710 (67.3)	1710 (67.3)	1710 (67.3)	1710 (67.3)
Working height of front window		mm (in.)	200 (8)			
Maximum window opening (for cleaning, loading/unloading)		mm (in.)	773 (30.4)	773 (30.4)	773 (30.4)	773 (30.4)
Work surface height		mm (in.)	750-950 (29.5-37.4)			
Weight						
Net weight		kg (lbs)	170 (375)	200 (441)	230 (507)	280 (617)
Shipping weight		kg (lbs)	190 (419)	225 (496)	260 (573)	315 694)
Maximum load capacity of one-piece work surface		kg (lbs)	50 (110)	75 (165)	75 (165))	75 (165)
Maximum load capacity of single segmented work surfaces (per 30 cm segment)		kg (lbs)	25 (55)	25 (55)	25 (55)	25 (55)
Electrical data						
Voltage		V	230			
Hertz		Hz	50/60			
Protection class			1/IP20			
Filter specification						
Specification			H14 HEPA EN1822, 99.995% MPPS			
Certifications						
Standard			EN 12469			
Agency certified			TÜV	TÜV	TÜV	TÜV
NF certification by LNE (France only)				51901254		
Ergonomics and utilities						
Lighting intensity		lux (fc)	1000 (93)	929 (86)	1500 (139)	1418 (132)
Interior outlets		pcs.	2 rear wall		2 rear wall	
Service valve ports		pcs.	2 on each side			
Slope of front window		degree	10			
Herasafe 2025 noise, power, and heat specifications						
Noise level (measured according to EN 12469) 200 mm opening		dB (A)	57		57	
Power consumption (in normal operation, fans on, lights on) 200 mm opening		Wh	133	153	217	251
Power consumption (in stand-by mode)		Wh	55	55	80	80
Normal heat output in operation mode (non-vented) 200 mm opening		W	133	153	217	251
Stand-by heat output (lights off, non-vented)		W	55	55	80	80
Exhaust volumes						
Exhaust volume of cabinet 200 mm opening		m³/h (cf/m)	288 (169)	386 (227)	483 (284)	580 (341)
Exhaust volume, thimble ducting 200 mm opening		m³/h (cf/m)	385 (226)	513 (302)	641 (377)	770 (453)

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Size/internal width in m (ft)			0.9 (3)	1.2 (4)	1.5 (5)	1.8 (6)
200 mm sash with cross beam UV-C in side walls			51033315	51033316	51033317	51033318
200 mm sash – no options included			51033311	51033312	51033313	51033314

Receptacle options

Country-specific configurations are available to ensure correct line cord and internal receptacles are shipped with the cabinet. Standard version for EN12469 cabinets is Schuko, and for NSF cabinets is type B.

Switzerland		Option	51900300			
UK		Option	51900303			
Italy		Option	51900306			
FR/B/CZ/SK/PL		Option	51900921			
Australia		Option	51900449			
Denmark		Option	51900481			
Israel		Option	51901255			

Stand options

We recommend ordering a base stand to ensure a robust and stable installation of the BSC. All of our base stands have been tested with our units for stability and functionality. Choose between a fixed height, manually adjustable working height or electrically adjustable working height. Please consider the total height of the room when choosing the right working height. Footrest and castor options are available for added convenience.

Fixed height stand, charcoal grey Provides work height of 750 mm		Accessory	50155665	50155666	50155667	50155668
Adjustable height stand, charcoal grey Provides work height of 750-950 mm		Acc.	50155688	50155689	50155690	50155691
Electric adjustable stand, grey-white (RAL 9002)		Acc.	50117449	50109314	50117450	50109325
Footrest bar (for non-electric floorstand)		Acc.	50051982	50051983	50051984	50051985
Castor-set for stand, grey-white (4 pcs.) (RAL9002) Provides work height of 850 mm (for fixed stands only)		Acc.	50109977			

Work surface options

You have the option to fully customise your new BSC to accommodate any work task. The standard EN cabinet includes our 316L stainless steel segmented worktray for easy removal, autoclaving, and cleaning under the work surface. To customise your work area, order the part number to remove the standard worktray and configure the cabinet with 316L stainless steel work surface modules as desired.

Without table tops (negative price)		Option	51900651	51900652	51900653	51900654
Flat work surface module (150 mm)	KAM15	Acc.	50073666			
Flat work surface module (300 mm)	KAM30	Acc.	50072685			
Flat work surface module (600 mm)	KAM60	Acc.	50073667			
Flat work surface module (900 mm)	KAM90	Acc.	50076398			
Flat work surface module (1200 mm)	KAM120	Acc.	50082970		50082970	
Flat work surface module (1500 mm)	KAM150	Acc.	No		50122210	
Flat work surface module (1800 mm)	KAM180	Acc.	No			50085281
Lowered work surface module (600 mm)	KAML60	Acc.	50073668			
Lowered work surface module (900 mm)	KAML90	Acc.	50073669			
Lowered work surface module (1200 mm)	KAML120	Acc.	No	50073670		
Lowered work surface module (1500 mm)	KAML150	Acc.	No		50073671	
Lowered work surface module (1800 mm)	KAML180	Acc.	No			50078750
Vibration dampened surface module with granite plate (300 mm)	KAMW30	Acc.	50073757			
Vibration dampened surface module with granite plate (600 mm)	KAMW60	Acc.	50076162			

Herasafe 2025 BSC			EN 12469			
Size/internal width in m (ft)			**0.9 (3)**	**1.2 (4)**	**1.5 (5)**	**1.8 (6)**
Replacement armrests KAS 30 (Set of 2 armrests 316L SS)	KAS 30	Accessory	50073663			
Padded armrest 316L SS (Set of 2 including gel inserts)		Acc.	50156438			
Replacement gel pads for padded armrest (2 pcs.)	Acc.		50156437			
Additional filter options						
Additional exhaust HEPA filters (AEFs) can be fitted to the top of the BSC to provide 99.99999975% cumulative exhaust filtration. Please note that AEFs are not a requirement for recirculating BSCs, even in the UK, where BS5726 has been superceded by EN12469, since 2000. Additional exhaust carbon filters can be fitted on top of the BSC, but should only be used for traces of solvents being used as an adjunct to microbiological study.						
Additional exhaust HEPA filter, retro-fit	KAEF	Acc.	50078857	50073772		50078856
Additional exhaust carbon filter, retro-fit	KAEFC	Acc.	50078783	50073773		50078784
Grid filter set (5 pcs)		Accessory	50076846		50076921	
UV options						
Cross beam UV-C light option in side walls includes protective cover						
Included in models: 51033315, 51033316, 51033317, 51033318		Standard	Standard (Cross Beam - in side walls)			
Available for models: 51033311, 51033312, 51033313, 51033314		Option	51900642 (Cross Beam - in side walls)			
Media valves						
Our standard BSCs feature a dual side-wall negative pressure design, which allows the user to install service valves through the side access ports. We also offer factory-installed piping options on our premium units to connect utilities to the top of the BSC to conserve right to left exterior footprint.						
Rear wall media connections						
3 utility connectors prep (rear wall) Select rear wall service taps additionally						
Available for models: 51033311, 51033312, 51033313, 51033314		Option	51901251 (G3/8")			
Rear wall service taps/media valves (supplies are connected above BSC)						
Combustible gas tap for rear wall		Acc.	50068235			
Non-combustible gas tap for rear wall		Acc.	50068234			
Water tap for rear wall		Acc.	50068233			
Vacuum tap for rear wall		Acc.	50068232			
Side wall service taps/media valves/lead throughs						
Combustible gas tap for side wall		Acc.	50046015			
Non-combustible gas tap for side wall		Acc.	50045959			
Water tap for side wall		Acc.	50044679			
Vacuum tap for side wall		Acc.	50044678			
Hose connection for side wall, hose dia. 10-13mm		Acc.	50059017			
Hose connection for side wall, hose dia. 3mm		Acc.	50076408			
Hose connection for side wall, hose dia. 6/3mm		Acc.	50066668			
Solenoid valve (should be quoted with combustible gas G3/8 connection						
Solenoid valve for combustible gas tap		Acc.	50109978			

Herasafe 2025 BSC — EN 12469

Exhaust duct connection kits

HEPA filters do a great job of trapping particles and biohazards, but they do not trap gases and toxic chemicals that may be used as an adjunct to microbiological studies. In these applications, it is important to select an exhaust duct transition to route exhaust air out of the laboratory to the external environment. We offer two different connections that can be installed in three different ways, depending upon facility requirements.

Thimble duct exhaust transition (Connection diameter 200 mm/8")	KTD	Acc.	50078796	50073770	50078795
Direct duct exhaust transition with anti blowback valve (Connection diameter 200 mm/8")	KDD	Acc.	50078791	50073771	50078790

Herasafe 2025 BSC — EN 12469

Size/internal width in m (ft)			0.9 (3)	1.2 (4)	1.5 (5)	1.8 (6)

User convenience options

We offer unique customer-installed accessories to help organize your workspace and free up valuable space inside and around the Herasafe 2025 BSC.

Hanging bar with set of 6 hooks	IVB 6 6	Acc.	50073943	No
Hanging bar with set of 12 hooks	IVB 10 12	Acc.	No	50073944
Utility basket to be used with hanging bar	KB	Acc.	50078900	
2 utility baskets incl. additional hanging bar	KBB	Acc.	50078901	

Herasafe 2025 BSC

Additional topboxes for fumigation

	Cat. No.	m (ft)
KSF frame fixed to top of each recirculating cabinet to accept the relevant topbox for fumigation. Brackets are fitted to side of frame to allow the use of speed clamps. Height = 50 mm.	KSF9	Acc.
	KSF12/15	Acc.
	KSF18	Acc.
KSNB topbox for use with hydrogen peroxide fumigation. Speed clamps allow for fixture to a KSF frame. The 35 mm hole will accept a Steris OR Bioquell outlet camlock fitting. Height = 110 mm with gasket.	KSNB9	Acc.
	KSNB-12/15	Acc.
	KSNB-18	Acc.
KS-EVBOX for use with formonia system and formaldehyde. Speed clamps allow it to be clamped to KSF frame, while the 2 threaded holes accept the ABEKP3 charcol filters. This box can only be used if the formaldehyde is being neutralised with ammonia after fumigation. Height = 110 mm with gasket.	KS-EVBOX-9	Acc.
	KS-EVBOX-12/15	Acc.
	KS-EVBOX-18	Acc.
KSDB for use with formaldehyde fumigation only. Speed clamps allow for fixture to a KSP frame. This top box is supplied with a 3 m flexi trunking that allows formaldehyde to vent out into another exhausted application to purge fumes from cabinet. Side exit only. Height = 190 mm with gasket.	KS9DB160	Acc.
	KS12DB160	Acc.
	KS18DB160	Acc.
KSP(FD) for use with formaldehyde fumigation. Fixes to a KSF frame. Supplied with a 3 m flexi trunking that allows venting of fumes to an exhausted application. Top exit only. Height = 50 mm (frame).	KSP(FD)-9	Acc.
	KSP(FD)-12/15	Acc.
	KSP(FD)-12/15	Acc.
ABEKP3 charcoal filters screw into KS-EVBOX. Pack is 3 filters.	KSP(FD)-12/15	Acc.

Not all BSCs are manufactured to the same safety standards. Our design philosophy is grounded in compliance with the recognised worldwide safety standards, because your work cannot compromise on safety. Our biological safety cabinets are subjected to the following certifications:

NF EN 12469

Our Herasafe 2025 class II biological safety cabinet (1.2 m model) has been independently tested and certified to EN 12469 with the NF mark by LNE.

EN 12469

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

Learn more at **thermofisher.com/herasafe2025**

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