



Thermo Scientific
1300 Series Class II
Biological Safety Cabinets

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.



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

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.

global market vision

Our design philosophy is grounded in compliance with current worldwide safety 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 (NF 095)

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

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, 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.

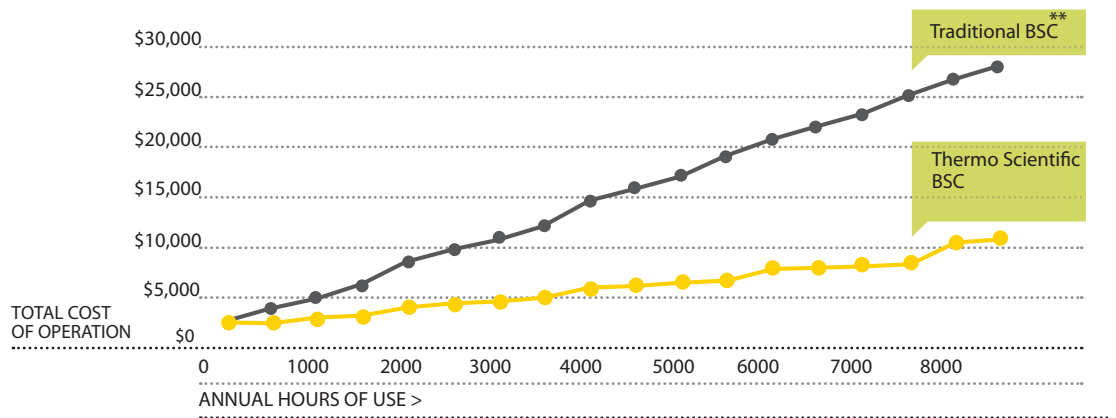


check the watts!

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.

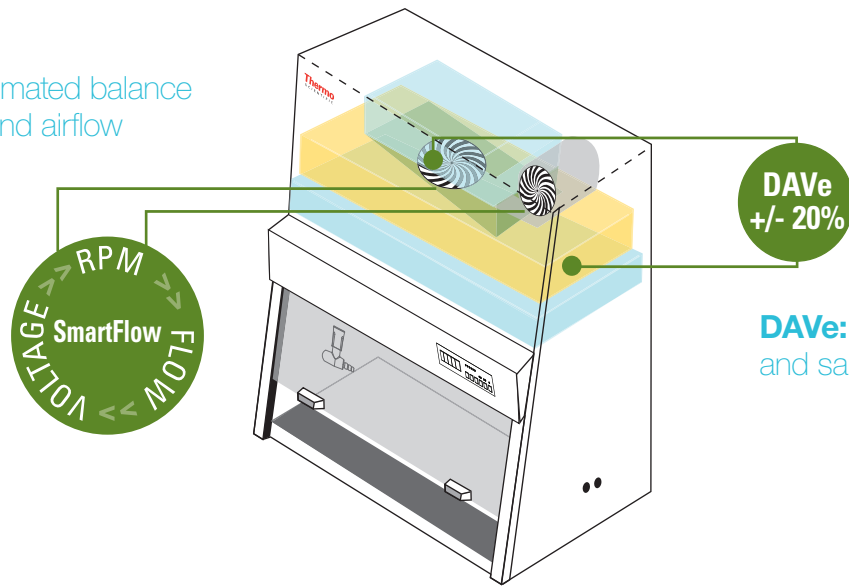
The more you use it, the more you save!

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

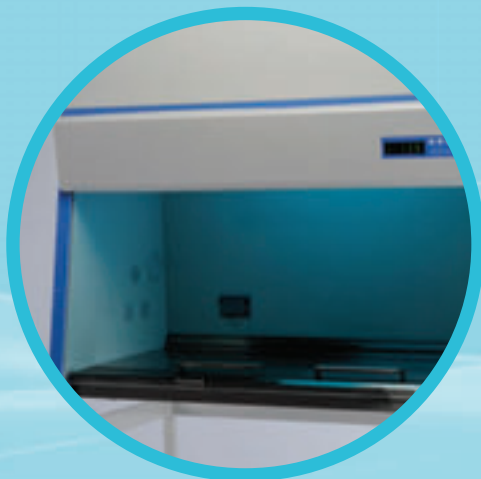


DAVe: monitoring of user and sample protection

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

smarter design

work smarter, more efficiently

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

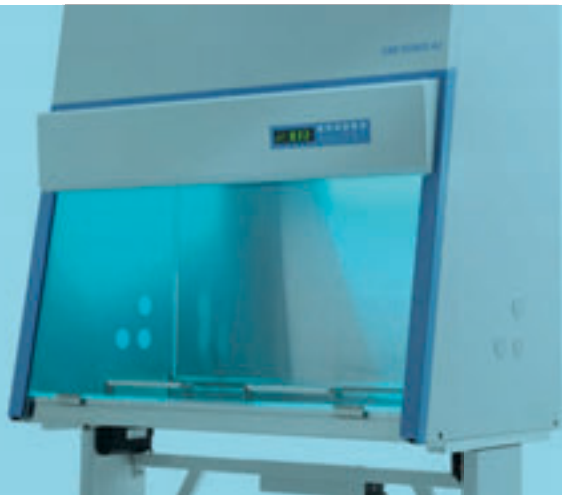


Thermo Scientific™ SmartPort™ convenience

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.



Outstanding UV decontamination

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

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

QUICK TIP

| 8

Closing the front sash during breaks or after hours is designed to ensure cleanliness and containment inside the BSC at a significantly lower cost to your facility.



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

More choices for you.

- Available in 0.9, 1.2, 1.5, or 1.8 m widths
- Choice of 200 or 250mm 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
*Compared to previous models.

Thermo Scientific 1300 Series A2 Biological Safety Cabinet

specifications

Size / Width		m / ft	0.9m / 3ft	1.2m / 4ft	1.5m / 5ft	1.8m / 6ft	
Dimensions	Exterior dimensions W x H x D	mm / in	1000 x 1568 x 798 / 39.4 x 61.8 x 31.5	1300 x 1568 x 798 / 51.2 x 61.8 x 31.5	1600 x 1568 x 798 / 63 x 61.8 x 31.5	1900 x 1568 x 797 / 74.8 x 61.8 x 31.5	
	Interior dimensions W x H x D	mm / in	900 x 780 x 630 / 35.4 x 30.7 x 24.8	1200 x 780 x 630 / 47.2 x 30.7 x 24.8	1500 x 780 x 630 / 59.1 x 30.7 x 24.8	1800 x 780 x 630 / 70.9 x 30.7 x 24.8	
	Shipping dimensions ¹ W x H x D	mm / in	1110 x 1730 x 925 / 43.7 x 68.1 x 36.4	1410 x 1730 x 925 / 55.5 x 68.1 x 36.4	1710 x 1730 x 925 / 67.3 x 68.1 x 36.4	2010 x 1730 x 925 / 79.1 x 68.1 x 36.4	
	Working height of front window	mm / in	Choice of 200 / 8 or 250 / 10				
	Maximum opening height of front window	mm / in	535 / 21				
Weight	Net weight	kg / lbs	170 / 375	200 / 441	230 / 507	280 / 617	
	Shipping weight ¹	kg / lbs	190 / 419	225 / 496	265 / 573	315 / 694	
Electrical Data	Voltage	V	230 (120V available upon request)				
	Frequency	Hz	50 / 60				
Filter Specification			H14 HEPA EN 1822, 99.995% MPPS				
Certification			NSF/ANSI 49, UL, CE				
Ergonomics	Lighting power	fc	>100	>120	>120	>120	
	SmartPort		Two 3" plugged cable ports, one on each side wall				
	Receptacles		2 duplex				
	Service valves		Up to 6 total (3 on each side wall)				
200mm / 8in Work Aperture	Sound pressure level	dB (A)	<62	<62	<64	<64	
	Energy consumption, operating set point ²	W	150	180	280	360	
	Energy consumption, Night Set-Back mode	W	70	70	120	120	
	Heat output, operating mode (non-vented)	BTU/hr (W)	512 (150)	614 (180)	955 (280)	1228 (360)	
	Heat output, Night Set-Back mode (lights off, non-vented)	BTU/hr (W)	239 (70)	239 (70)	410 (120)	410 (120)	
	Exhaust/inflow air volume	cfm (m3/h)	207 (351)	276 (468)	344 (585)	413 (702)	
	Exhaust volume, thimble ducted	cfm (m3/h)	269 (457)	358 (609)	448 (761)	537 (913)	
250mm / 10in Work Aperture	Sound pressure level	dB (A)	<63	<63	<65	<65	
	Energy consumption, operating set point ²	W	170	200	310	400	
	Energy consumption, Night Set-Back mode	W	70	70	120	120	
	Heat output, operating mode (non-vented)	BTU/hr (W)	580 (170)	683 (200)	1058 (310)	1366 (400)	
	Heat output, Night Set-Back mode (lights off, non-vented)	BTU/hr (W)	239 (70)	239 (70)	410 (120)	410 (120)	
	Exhaust/inflow air volume	cfm (m3/h)	258 (439)	344 (585)	431 (732)	517 (878)	
	Exhaust volume, thimble ducted	cfm (m3/h)	336 (571)	448 (761)	560 (951)	672 (1141)	

¹ Export packaging dimensions and weight upon request

² 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	200mm / 8in Work Aperture
SmartCoat Interior	0.9m / 3ft	1391
	1.2m / 4ft	1396
	1.5m / 5ft	1373
	1.8m / 6ft	1398
One-Piece Stainless Steel Interior	0.9m / 3ft	1393
	1.2m / 4ft	1336
	1.5m / 5ft	1367
	1.8m / 6ft	1338









Manual adjustable stand



UV light



Stainless steel armrests

	Size	250mm / 10in Work Aperture	Plugs
SmartCoat Interior	0.9m / 3ft	1331	
	1.2m / 4ft	1384-F	
		1384-G	
		1384-M	
		1386	
	1.5m / 5ft	1381	
		1389-F	
		1389-G	
		1389-M	
		1388	
One-Piece Stainless Steel Interior	0.9m / 3ft	1333	
	1.2m / 4ft	1376	
	1.5m / 5ft	1383	
	1.8m / 6ft	1378	

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

	Size	200mm / 8in Work Aperture	250mm / 10in Work Aperture
		Cat. No.	Cat. No.
SmartCoat Interior	0.9m / 3ft	1390	1330
	1.2m / 4ft	1326	1356
	1.5m / 5ft	1372	1380
	1.8m / 6ft	1328	1358
One-Piece Stainless Steel Interior	0.9m / 3ft	1392	1332
	1.2m / 4ft	1306	1346
	1.5m / 5ft	1366	1382
	1.8m / 6ft	1308	1348

Thermo Scientific 1300 Series A2 Biological Safety Cabinet

field-installed accessories

	Cat. No.	Description
Stands	1911400	Manual adjustable stand for 0.9m / 3ft cabinet, provides work surface height of 760 to 965mm / 30 to 38in adjustable in 55mm / 2in increments
	1911302	Manual adjustable stand for 1.2m / 4ft cabinet, provides work surface height of 760 to 965mm / 30 to 38in adjustable in 55mm / 2in increments
	1911401	Manual adjustable stand for 1.5m / 5ft cabinet, provides work surface height of 760 to 965mm / 30 to 38in adjustable in 55mm / 2in increments
	1911303	Manual adjustable stand for 1.8m / 6ft cabinet, provides work surface height of 760 to 965mm / 30 to 38in adjustable in 55mm / 2in increments
	50117449	Electric adjustable stand for 0.9m / 3ft cabinet (230V), provides infinite height adjustability of 760 to 965mm / 30 to 38in
	50109314	Electric adjustable stand for 1.2m / 4ft cabinet (230V), provides infinite height adjustability of 760 to 965mm / 30 to 38in
	50117450	Electric adjustable stand for 1.5m / 5ft cabinet (230V), provides infinite height adjustability of 760 to 965mm / 30 to 38in
	50109325	Electric adjustable stand for 1.8m / 6ft cabinet (230V), provides infinite height adjustability of 760 to 965mm / 30 to 38in
	1911409	Rolling castor stand for 0.9m / 3ft cabinet, provides fixed height of 760mm / 30in
	1911322	Rolling castor stand for 1.2m / 4ft cabinet, provides fixed height of 760mm / 30in
	1911410	Rolling castor stand for 1.5m / 5ft cabinet, provides fixed height of 760mm / 30in
	1911346	Rolling castor stand for 1.8m / 6ft cabinet, provides fixed height of 760mm / 30in
Exhaust Transitions	1911316	Thimble duct exhaust transition for 0.9m / 3ft, 1.2m / 4ft, 1.5m / 5ft cabinets
	1911317	Thimble duct exhaust transition for 1.8m / 6ft cabinet
	1910185	Alnor exhaust alarm for 1300 Series A2 biological safety cabinets, qualified install only
User Convenience Equipment	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, 585 to 775mm/23 to 30.5in adjustable seat height
	1911413	IV bag holder kit with 6 hooks (for 0.9m / 3ft cabinet only)
1911312	IV bag holder kit with 12 hooks (for 1.2m / 4 ft, 1.5m / 5 ft, 1.8m / 6 ft cabinets)	
Drain Valve	249098	Stainless steel ball valve (replaces standard non-corrosive PVC drain valve)
Sidewall Utilities	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

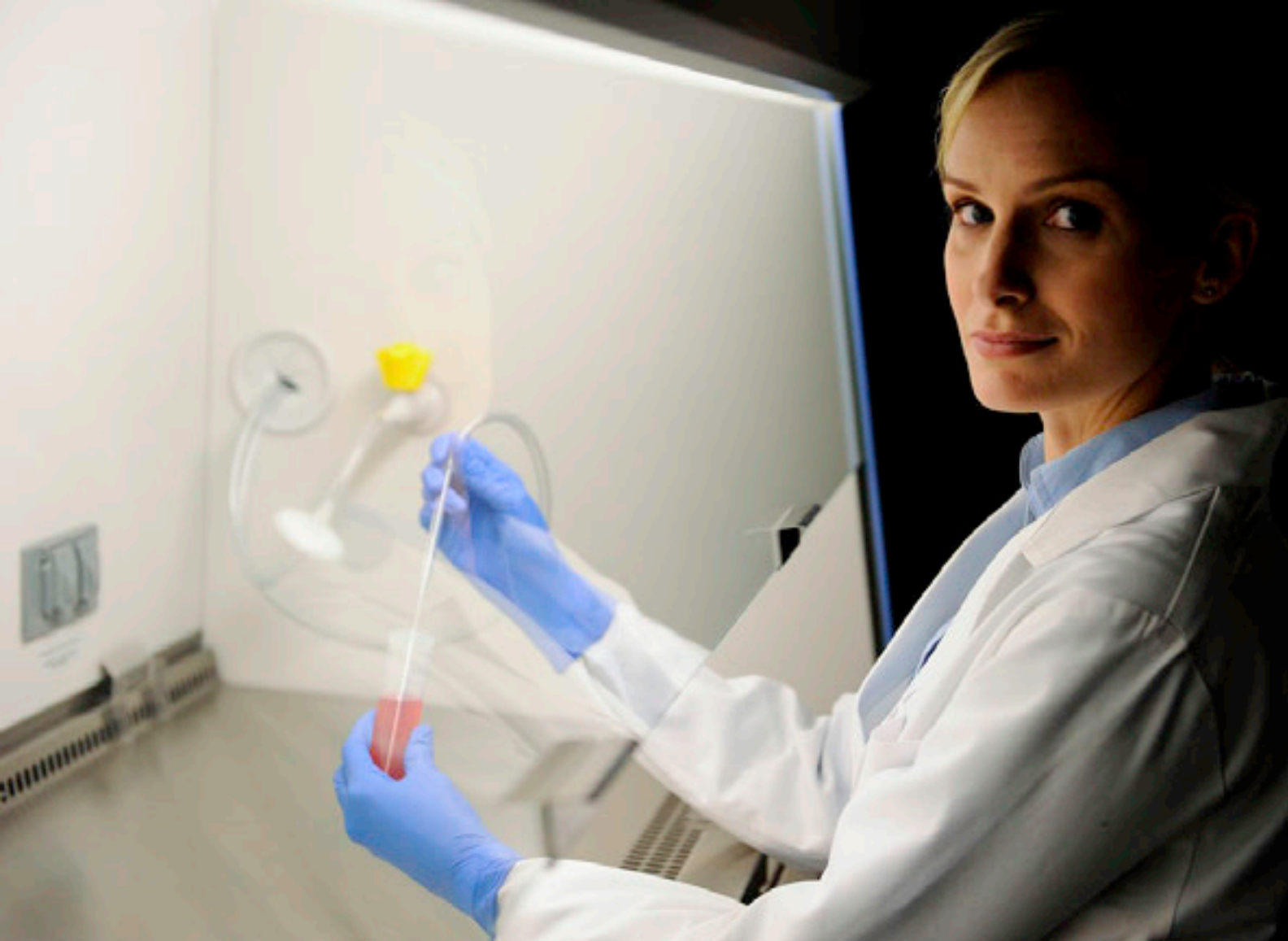


191127 optional adjustable footrest

factory-installed accessories

	Cat. No.	Left or Right Connection	Top or Bottom Connection
Universal Piping for 0.9m / 3ft Models	1910286	right	both
	1911415		top
	1910287	left	both
	1911416		top
Universal Piping for 1.2m / 4ft Models*	1911321	right	both
	1911417		top
	1911369	left	both
	1911418		top
Universal Piping for 1.5m / 5ft Models	1910288	right	both
	1911419		top
	1910289	left	both
	1911420		top
Universal Piping for 1.8m / 6ft Models*	1911367	right	both
	1911421		top
	1911370	left	both
	1911422		top
Universal Piping for All Models*	1911423	right	bottom
	1911424	left	
Universal Piping Utilities	Cat. No.	Description	
	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	
UV Light Options	1911319	UV light option for 0.9m / 3ft cabinet or 1.2m / 4ft cabinet	
	1911368	UV light option for 1.5m / 5ft or 1.8m / 6ft cabinet	

*Not available on models 1384 and 1389



To learn more visit thermoscientific.com/biosafetycabinets

© 2015 Thermo Fisher Scientific Inc. All trademarks are the property of Thermo Fisher Scientific Inc. and its subsidiaries. Specifications, terms and pricing are subject to change. Not all products are available in all countries. Please consult your local sales representative for details.

Australia +61 39757 4300

Austria +43 1 801 40 0

Belgium +32 53 73 42 41

China +86 21 6865 4588 or

+86 10 8419 3588

France +33 2 2803 2180

Germany national toll free 0800 1 536 376

Germany international +49 6184 90 6000

India toll free 1800 22 8374

India +91 22 6716 2200

Italy +39 02 95059 552

Japan +81 45 453 9220

Netherlands +31 76 579 55 55

New Zealand +64 9 980 6700

Nordic/Baltic/CIS countries

+358 10 329 2200

Russia +7 812 703 42 15

Spain/Portugal +34 93 223 09 18

Switzerland +41 44 454 12 22

UK/Ireland +44 870 609 9203

USA/Canada +1 866 984 3766

Other Asian countries +852 2885 4613

Countries not listed +49 6184 90 6000

Thermo
SCIENTIFIC

Part of Thermo Fisher Scientific