Thermo Scientific 1300 Series A2
Class II, Type A2 Biological Safety Cabinets

Good for you,
good for the environment
Laboratories today are facing new challenges. Safety and reliability continue to be paramount. Yet, there is growing need for improved energy efficiency, simpler operation and less maintenance.

Our Thermo Scientific 1300 Series A2 Class II, Type A2 biological safety cabinets provide best-in-class safety, ergonomics and energy efficiency for today’s most demanding laboratory applications.
The Thermo Scientific 1300 Series A2 is backed by our global reputation and commitment to provide the safest and most reliable biological safety cabinets available.

We have decades of market leadership in biological safety cabinets, as well as a full suite of laboratory solutions – all with unmatched quality and world-renowned service and support.
More Flexibility for Added Convenience

One-piece stainless steel interior is now available as an alternative to our coated interior cabinets. Select either the manual or electric adjustable stand for increased flexibility.

Ergonomic Design Enhances Safety

Sloped Front
Cabinet front is sloped 10° for enhanced comfort and reduced operator fatigue.

Reduced Noise Level
Lower noise level enhances the attention and allows user to focus on work without distraction.

Spacious Work Area
The large, unobstructed work surface increases productivity and safety.

Single-Piece Work Tray
The flat, single-piece stainless steel work tray supports ease of cleaning.

Comfortable Armrest
Armrests sit just above the intake grill to enable farther reach inside the cabinet while maintaining safe airflows.

Two Choices of Cabinet Interior
The 1300 Series A2 biological safety cabinet is available with a painted cabinet interior which provides a glare-free working environment, or with a seamless one-piece side and rear wall stainless steel interior configuration.

Easy-to-Access Control Panel and Performance Data
The large control panel displays valuable safety and performance data, and is within easy view and reach from a seated position. The intuitive interface delivers a constant read-out of downflow and inflow velocities and overall cabinet performance status.

All models of the Thermo Scientific 1300 Series A2 have been fully tested and verified to meet NSF/ANSI 49 for Class II, Type A2 conditions.
Ease-of-Use for Enhanced Safety

An efficient working environment can eliminate expensive disruptions to lab procedures. Our Thermo Scientific 1300 Series A2 delivers easy-to-use features that enable you to perform your best work – productively and safely.

SmartClean™ Window Design
To reduce risk of sample contamination, our patented window design easily lowers for thorough cleaning of the window’s inner surface. This unique design protects the operator by maintaining inflow even when the window is lowered.

Easy Servicing
Fan control and power supply can be replaced independently of the DC motor with no need for disruptive decontamination of the cabinet. All cabinet components, including HEPA filters, are easily accessible from the front to allow for rapid service and minimal work disruption. The SmartClean window design simplifies access to the downflow filter during annual certification.

Exceptional Safety
Smooth components are used throughout the cabinet, virtually eliminating the risk of injury during routine cleaning, servicing and maintenance procedures.

Worry-free Decontamination
The easy to use, optional UV light is programmable from 30 minutes to 24 hours in 30-minute increments, extending bulb life and saving energy.

Hour Counter & Airflow Read-Out:
Clearly displays critical safety and real-time performance data including inflow and downflow velocities and hours of operation.

Patented Performance Factor:
Displays real-time information of overall cabinet status including operation safety and service requirements.

Front Window Status:
Visual and audible alarm indicates whether front window is in correct working position.

Operating Speed Airflow Indicator:
Audible and visual alarms indicate when airflow is safe or restricted.

Energy-Savings Airflow Indicator:
Displays reduced speed operation when front window is closed.
Thermo Scientific 1300 Series A2 features advancements in brushless DC motor technology for dramatically improved energy efficiency, safety performance and reliability. We pioneered the use of brushless DC motors in our biological safety cabinets in 2002, and now use them across our full line.

DC motors —
- reduce energy costs
- increase reliability
- reduce air conditioning costs
- optimize environmental protection

Thermo Scientific biological safety cabinets are available in the broadest selection of energy saving models for any application or budget. Visit www.thermo.com/bsc to learn more about the independent validation of our energy saving calculations.
Independent **Safety** Systems for Unmatched **Security**

**SmartFlow™** maintains a safe working environment.

The 1300 Series A2 employs a unique airflow system that raises safety and containment to a new level. Independent supply and exhaust blowers automate balancing of downflow and inflow/exhaust velocities to ensure continuous safe working conditions. Our smart DC motors monitor and control fan speed in real-time to maintain user protection at the access opening, even as the filters load or the line voltage fluctuates.

**Digital Airflow Verification (DAVe)** validates product and personnel protection.

Independent pressure sensors detect changes in pressure across the exhaust and downflow plenums. An alarm signals when a 20% change in inflow/exhaust or downflow occurs to alert the user if safety is compromised. Airflow velocities are displayed on the control panel for monitoring and recording.

**Night-set-back mode** saves energy while maintaining a clean work area.

When the front sash is closed, our intelligent speed control automatically reduces blower speed to 30%, extending HEPA filter life and ensuring a sterile working environment even when the cabinet is not in use.

This reduced flow mode uses only <40W (4 foot cabinet) to operate, and is >75% more energy efficient than similar features on other biological safety cabinets.
# Thermo Scientific 1300 Series A2

## Ordering Information for Options and Accessories

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Application</th>
<th>Additional Comments</th>
<th>Factory Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1911302</td>
<td>Manual adjustable stand for 4 foot cabinet</td>
<td>Provides comfortable work surface height of 30” (750 mm) to 37” (950 mm) adjustable in 1” increments for seated or standing applications.</td>
<td>This accessory is included in the 1300 Series packages.</td>
<td></td>
</tr>
<tr>
<td>1911303</td>
<td>Manual adjustable stand for 6 foot cabinet</td>
<td>Provides infinite adjustability for comfortable work surface height of 30” (750 mm) to 37” (950 mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5019126</td>
<td>Electric adjustable stand for 4 foot cabinet (120V)</td>
<td>Provides comfortable fixed work surface height of 34” (860 mm) for seated applications.</td>
<td>Designed for limited mobility of the cabinet for cleaning purposes.</td>
<td></td>
</tr>
<tr>
<td>5019128</td>
<td>Electric adjustable stand for 6 foot cabinet (120V)</td>
<td>Provides for water dispensing inside the cabinet chamber.</td>
<td></td>
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</tr>
<tr>
<td>1911322</td>
<td>Rolling castor stand for 4 foot cabinet</td>
<td>Provides for water dispensing inside the cabinet chamber.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911346</td>
<td>Rolling castor stand for 6 foot cabinet</td>
<td>Provides for water dispensing inside the cabinet chamber.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911319</td>
<td>UV light option for 4 foot cabinet</td>
<td>Provides safe and easy method for cabinet disinfection.</td>
<td>This accessory is included in the 1300 Series packages.</td>
<td></td>
</tr>
<tr>
<td>1911368</td>
<td>UV light option for 6 foot cabinet</td>
<td>Provides safe and easy method for cabinet disinfection.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911313</td>
<td>Stainless steel armrest (set of 2)</td>
<td>Provides ergonomic forearm support and extended reach inside the cabinet with less airflow disruption.</td>
<td>The service valve for standard applications offers a long stem pipe fitting and is appropriate for side access media services. For bottom, top or rear access, refer to the Universal Piping options listed below for use with the short stem valves. The thimble duct exhaust connection is the method recommended by NSF/ANSI 49 for externally exhausting the Class II, Type A2 biological safety cabinet.</td>
<td></td>
</tr>
<tr>
<td>1911308</td>
<td>Combustible gas valve</td>
<td>Rated for combustible gas dispensing inside the cabinet chamber.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911309</td>
<td>Non-combustible gas valve</td>
<td>Rated for non-combustible gas dispensing inside the cabinet chamber.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911310</td>
<td>Vacuum valve</td>
<td>Rated for routing vacuum inside the cabinet chamber.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911311</td>
<td>Water valve</td>
<td>Rated for water dispensing inside the cabinet chamber.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1911312</td>
<td>IV bag holder kit with 12 hooks</td>
<td>Provides bar and hooks to hang IV bags near the interior ceiling of the cabinet.</td>
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</tr>
<tr>
<td>191127</td>
<td>Adjustable footrest</td>
<td>Provides bar and hooks to hang IV bags near the interior ceiling of the cabinet.</td>
<td></td>
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</tr>
<tr>
<td>1911316</td>
<td>Thimble duct exhaust transition for 4 foot cabinet</td>
<td>Allows the biological safety cabinet to be connected to an external exhaust for the removal of volatile toxic chemicals or radionuclides used in the cabinet.</td>
<td>The thimble duct exhaust transition for the removal of volatile toxic chemicals or radionuclides used in the cabinet.</td>
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</tr>
<tr>
<td>1911317</td>
<td>Thimble duct exhaust transition for 6 foot cabinet</td>
<td>Allows the biological safety cabinet to be connected to an external exhaust for the removal of volatile toxic chemicals or radionuclides used in the cabinet.</td>
<td>The thimble duct exhaust connection is the method recommended by NSF/ANSI 49 for externally exhausting the Class II, Type A2 biological safety cabinet.</td>
<td></td>
</tr>
<tr>
<td>1911321</td>
<td>Universal piping for models 1355 and 1385, right side</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td>User must select which side of the cabinet requires piping routed through the side wall. Select Right or Left Side as you stand in front, facing the cabinet. Selection must be made at the time of order.</td>
<td>x</td>
</tr>
<tr>
<td>1911369</td>
<td>Universal piping for models 1355 and 1385, left side</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td>Due to the one piece stainless steel liner used on these models, when universal piping is required on both sides of the cabinet you must specify this with the unique part number listed rather than ordering left and right side separately.</td>
<td>x</td>
</tr>
<tr>
<td>1911367</td>
<td>Universal piping for models 1357 and 1387, right side</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911370</td>
<td>Universal piping for models 1357 and 1387, left side</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911381</td>
<td>Universal piping for models 1345 and 1375, right side</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911382</td>
<td>Universal piping for models 1345 and 1375, left side</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911389</td>
<td>Universal piping for models 1345 and 1375, both sides</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911383</td>
<td>Universal piping for models 1347 and 1377, right side</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911384</td>
<td>Universal piping for models 1347 and 1377, left side</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911391</td>
<td>Universal piping for models 1347 and 1377, both sides</td>
<td>Allows air and gas service to be piped through the top, sides, or bottom of the cabinet to minimize the side-to-side footprint of the cabinet’s utility piping. Two pre-plumbed service ports per side only.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911304</td>
<td>Combustible gas valve for universal piping option</td>
<td>Rated for combustible gas dispense inside the cabinet chamber.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911305</td>
<td>Non-combustible gas valve for universal piping option</td>
<td>Rated for non-combustible gas dispense inside the cabinet chamber.</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1911306</td>
<td>Vacuum valve for universal piping option</td>
<td>Rated for routing vacuum inside the cabinet chamber.</td>
<td>For use with Universal Piping options only. The Short piping stem on this valve will not penetrate the side wall of the cabinet.</td>
<td>x</td>
</tr>
<tr>
<td>1911307</td>
<td>Water valve for universal piping option</td>
<td>Rated for water dispensing inside the cabinet chamber.</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
1300 Series A2: Designed for Class II, Type A2 applications

The 1300 Series A2 features HEPA-filtration with recirculation of the air inside the work chamber, creating a near particle-free environment – ideal for most microbiological and tissue culture applications. The 1300 Series A2 may be exhausted to the outside of the building using the optional thimble exhaust connection, providing a safe working environment when working with minute quantities of volatile toxic chemicals.

Attention: With additional gas valves in the side walls, you must plan for more width (dimension D)
# Specifications and Ordering Information

## Standard Model
- Coated interior walls, cabinet only
- Includes coated interior cabinet walls, manual adjustable height stand, factory installed UV light, and one set of armrests
- **4 ft models:** 1355, 1356
- **6 ft models:** 1357, 1358

## Standard Package
- Includes coated interior cabinet walls, manual adjustable height stand, factory installed UV light, and one set of armrests
- **4 ft models:** 1385, 1386
- **6 ft models:** 1387, 1388

## Stainless Steel Model
- One-piece stainless steel interior, cabinet only
- Includes stainless steel interior cabinet walls, manual adjustable height stand, factory installed UV light, and one set of armrests
- **4 ft models:** 1345, 1346
- **6 ft models:** 1347, 1348

## Stainless Steel Package
- Includes stainless steel interior cabinet walls, manual adjustable height stand, factory installed UV light, and one set of armrests
- **4 ft models:** 1375, 1376
- **6 ft models:** 1377, 1378

## Electrical Requirements for Standard and Stainless Steel
- 120V, 50/60Hz
- 230V, 50/60Hz

## Dimensions
- **Exterior Dimensions H x W x D inches (mm)**
  - 4 ft models: 61.8 x 51.2 x 31.5 (1568 x 1300 x 800)
  - 6 ft models: 61.8 x 74.8 x 31.5 (1568 x 1900 x 800)
- **Interior Dimensions H x W x D inches (mm)**
  - 4 ft models: 30.7 x 47.2 x 18.3 (780 x 1200 x 465)
  - 6 ft models: 30.7 x 70.9 x 18.3 (780 x 1800 x 465)
- **Working Height of Front Window inches (mm)**
  - 4 ft models: 10 (254)
  - 6 ft models: 10 (254)
- **Maximum Opening Height of Front Window inches (mm)**
  - 4 ft models: 21 (535)
  - 6 ft models: 21 (535)
- **Shipping Dimensions H x W x D inches (mm)**
  - 4 ft models: 68.1 x 55.5 x 36.4 (1730 x 1410 x 925)
  - 6 ft models: 68.1 x 79.1 x 36.4 (1730 x 2010 x 925)

## Weight
- **Net Weight lbs (kg)**
  - 4 ft models: 375 (170)
  - 6 ft models: 507 (230)
- **Shipping Weight lbs (kg)**
  - 4 ft models: 430 (195)
  - 6 ft models: 584 (265)
- **Maximum Load of One-Piece Work Tray lbs (kg)**
  - 4 ft models: 110 (50)
  - 6 ft models: 110 (50)

## Ventilation System
- **Exhaust/Inflow Air Volume CFM (m³/h)**
  - 4 ft models: 342 (582)
  - 6 ft models: 513 (872)

## Heat Emission
- **Heat Emission at 25°C Ambient BTU/hr (kW)**
  - 4 ft models: 683 (0.2)
  - 6 ft models: 1368 (0.4)

## Filter Specification
- **Supply/Exhaust Air Filter**
  - H14 HEPA EN 1822 99.999% at the most penetrating particle size (mini-pleated)

## Performance
- **Certification**
  - NSF/ANSI 49, UL
  - NSF/ANSI 49, UL
- **Sound Pressure Level dBA**
  - 63
  - 65
- **Lighting Power (fc)**
  - >120
  - >120

## Electrical Data
- **Power Consumption, Operating Set Point (kW)**
  - 0.2
  - 0.4
- **Current Consumption (Amps)**
  - 2.3
  - 1.2
  - 3.6
  - 1.9

## Supply Management
- **Receptacles**
  - 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.

## Features
- **Access Ports 0.94” (24 mm) diameter**
  - 6 (3 on each side)
- **Service Valves**
  - Up to 6 (installed through side wall access ports)
- **Receptacles (Rear Wall)**
  - GFI Duplex, right side
  - Single, right side
  - GFI duplex, left and right side
  - Two single, left and right side
- **Warranty**
  - 3 years

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*The depth of 465mm is the usable work area depth, not including the air intake grills.*