Thermo Scientific Hyperclean TruAir
Ductless Fume Hoods

Innovation in air purification

unmatched air quality

- Protects the operator from fume and particle hazards
- Easy to change filters
- Improved filter clamping eliminates by-pass leakage
- Low airflow alarm

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Thermo Scientific™ Hyperclean TruAir
Ductless Fume Hoods

Thermo Scientific™ Hyperclean TruAir™ ductless fume hoods are a series of high-efficiency products designed to protect the user and the environment from hazardous vapors generated on the work surface. The Thermo Scientific Hyperclean TruAir fume hood product line features filtration technology that creates a safe work environment over the widest range of applications in the industry.

Applications

- Histology
- Forensics
- Compounding
- Enclosing balances, microscopes, and robotic equipment
- Educational
- Microscopy
- Mobile and classroom demonstrations
- Pharmaceutical
- Powder fingerprinting
- Powder weighing
- Sample prep work
- Soldering
- Solvent cleaning and welding
- Veterinary and dental work

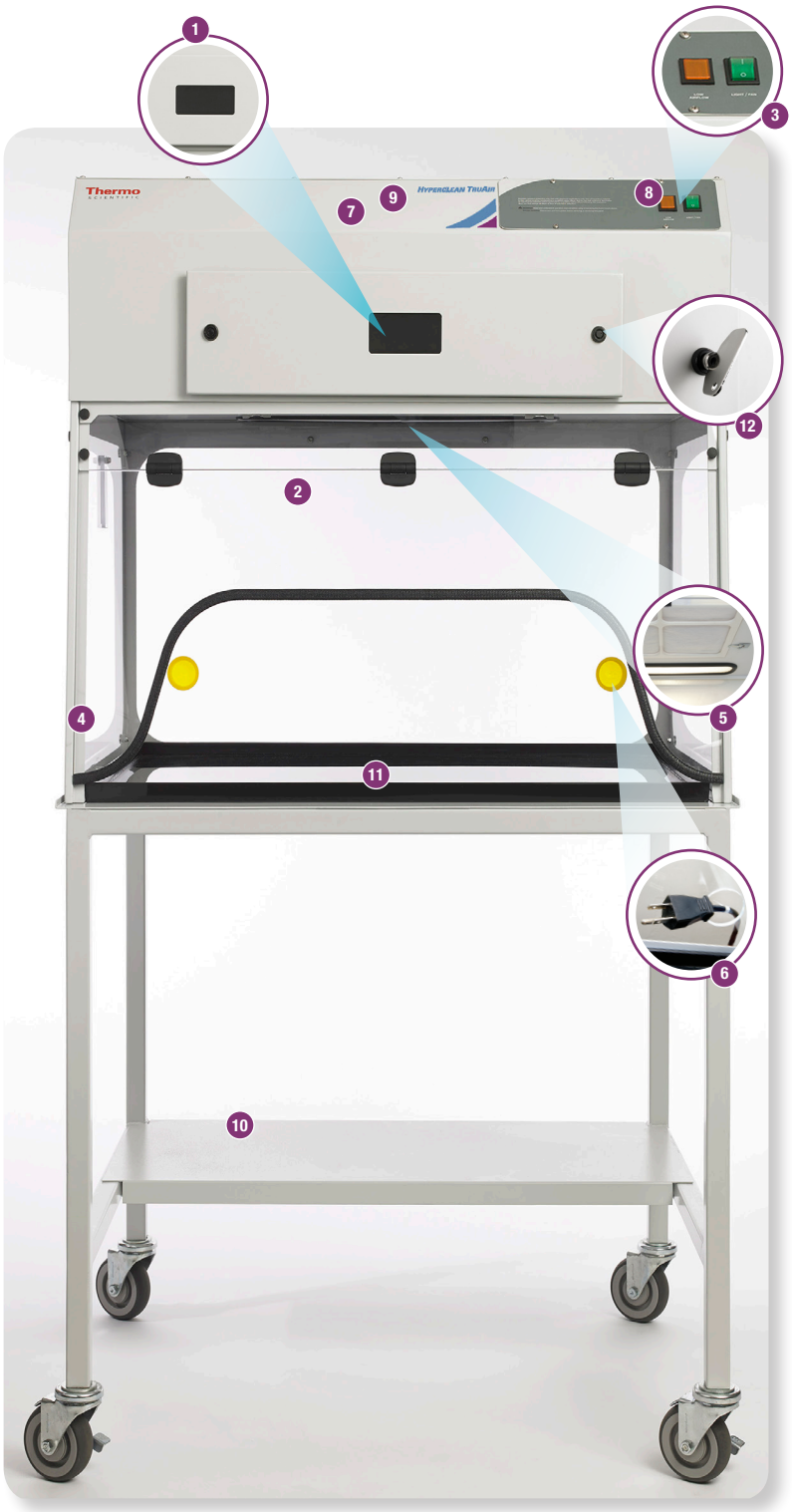
Ductless Technology: The Eco-Friendly Choice

Advanced carbon filtration technology offers a safe, high performance alternative to conventional ducted fume hoods for a broad range of applications.

- **Environmental Benefits:** Thermo Scientific ductless fume hoods isolate and trap chemical vapors to prevent ecological impact through release into the environment
- **Versatile:** Each filtration system is selected for its specific application. Carbon filters are available in several configurations for use with vapors or organic solvents, acids, mercury and formaldehyde. HEPA filters can add to biological safety
- **Easy to Install:** The ductless fume hood is self-contained and does not require venting to the outside. Many units are portable and may be moved from one location to the next with minimal down-time and without filter changes. Set up, operation and filter maintenance are straightforward
- **Energy Efficient:** Because filtered air is returned to the room, no demands are required of the facility HVAC capacity for make-up air
- **Cost Effective:** Facility ductwork, HVAC and construction costs are eliminated
- **Safe to Use:** Cabinet airflow and face velocity protect users from incidental exposures to fumes
- **Self testing:** Electronic airflow monitoring assures continuous safety

This Product Exceeds OSHA, ANSI and Other International Standards.

Made in the U.S.A.



Product Features

1. **Filter I.D. Window:** A strategically placed front cover window shows the installed filter part number and installation date for convenience and to encourage timely filter replacement.
2. **Hinged Front Sash:** When closed, the cabinet sash protects the contents from inadvertent external contact, and better isolates the air within. The sash is easy to open and close.
3. **Control Panel:** Electronic controls and displays include switches for the blower and low airflow alarm.
4. **Steel Support Frame:** The chemical resistant epoxy coated steel frame adds mechanical strength. The pre-filter can be changed while the unit is operating to prevent operator exposure to chemical vapors.
5. **Electrostatic Pre-Filter:** The 99.5% effective electrostatic pre-filter is accessible from inside the chamber to contain the release of any particulates that it traps.
6. **Pass Through Ports:** Electrical cords and cables are safely routed into the cabinet through ports on the back and side walls.
7. **Color:** The cabinet is light gray; side and back panels are clear.
8. **Airflow Alarm:** A continuous air velocity monitoring system alerts the operator upon unacceptable values.
9. **Internal Manual Speed Controller:** Authorized personnel may set the centrifugal fan motor speed as desired.
10. **Stand:** Optional mobile cart with locking casters.
11. **Work Surface:** The internal work surface can be fitted with an optional polypropylene tray (see Accessories).
12. **Filter Door Key:** Filter access keys prevent unauthorized removal or accidental exposure to dirty filters.

Other Features

360 Degree Visibility: Clear back and side panels allow ambient illumination into the chamber and provide users with an unobstructed view of its contents.

Standards Compliant: Performance specifications and construction meet or exceed OSHA, ANSI and relevant international standards to assure operator safety.

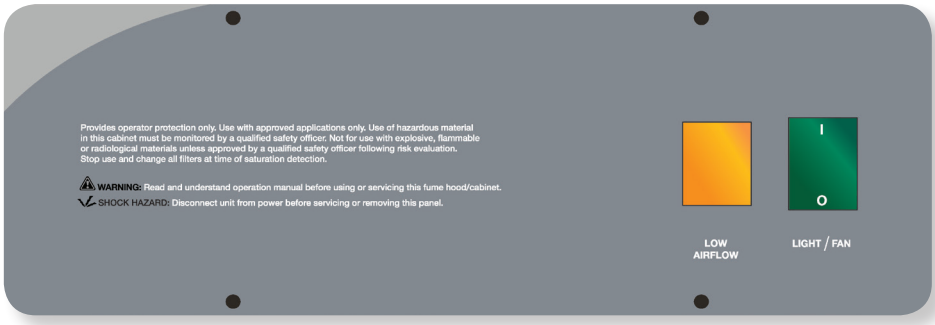
Construction: All models feature metal construction. See selection chart for specifications and dimensions. Available in 120 V, 60 Hz or 230 V, 50 Hz models.

The Thermo Scientific performance advantage

Each Thermo Scientific fume hood includes features expressed through sound design and certified quality construction. Options and accessories add functional performance to meet specific applications.

- **Professional Quality**
  Thermo Scientific fume hoods comply with current technical and safety regulations
- **Optimum Filtration**
  Thermo Scientific filters offer a range of options for high performance
- **Industrial Components**
  The cabinet frame and work surfaces are durable and chemically resistant
- **Reliability**
  Internal systems are isolated from fumes, extending product life

Thermo Scientific fume hoods use energy-efficient centrifugal blowers for long life, and dependable performance.



Control panel includes on/off switch and low airflow alarm.

Thermo Scientific Filtration Technology

Thermo Scientific filtration technology consists of a pre-filter and main filter to create a combination of chemical and physical architecture customized to each application. The mechanical design enhances safety, convenience and overall value.

- The electrostatic pre-filter is accessible from within the cabinet
- A patented filter clamping mechanism allows for the filter to be easily installed and ensures an even seal at the filter peripheral face at all times to prevent bypass leakage
- The filter chamber prevents contaminated air from contacting internal cabinet mechanisms
- The main filter number and installation date are displayed in a front-access window

The Thermo Scientific carbon filtration technique is based on enhanced, activated carbon particle formulations from specially selected, naturally occurring raw material superior to wood or other organic sources. The carbon is treated to attain the proper porosity and aggregate surface area and to react with several ranges of aerosolized chemicals moved through the filter by an air handling blower.

- The multiple filter option permits one or more filtration options to be combined to meet a wider range of multiple-use applications. It permits configuration for the capture of acids, bases and particulates such as biological aerosols when paired with HEPA filters
- The Thermo Scientific carbon filter is a self-contained assembly sized to fit the specified product model number, and configured to optimize airflow across 100% of the filter surface area for maximum efficiency, prolonged filter life, optimal diffusion and saturation capacity, and user safety

Thermo Scientific is the single source supplier for all pre-filters and carbon filters used in its products.

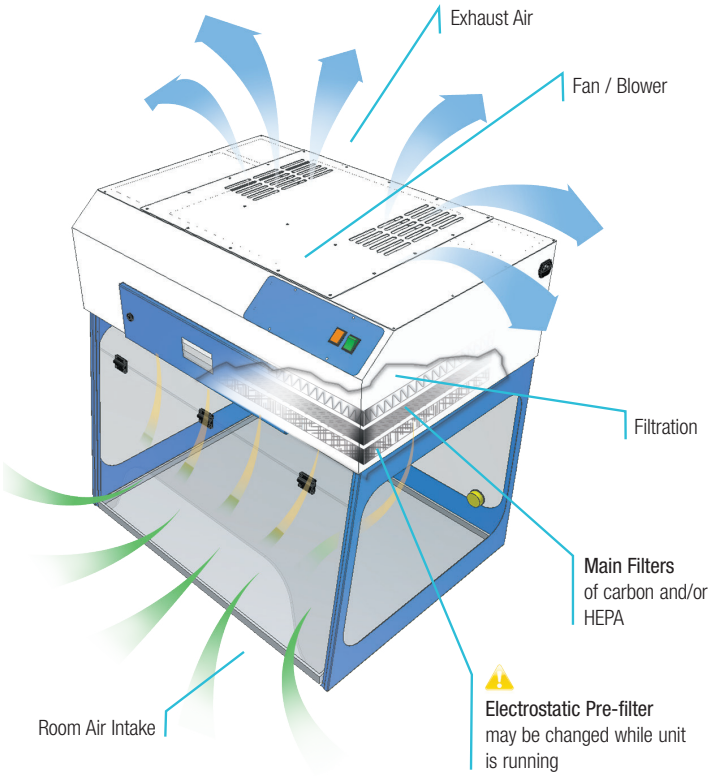
Thermo Scientific Hyperclean TruAir features and benefits

The Thermo Scientific Hyperclean TruAir product line is available in three standard sizes, each with four configuration options, totaling 24 standard models.

- High capacity air handling system delivers face velocity of 100 fpm
- A low airflow alarm warns of insufficient face velocity
- The Thermo Scientific filter assembly is easy to access, easy to change
- A unique filter clamping design eliminates bypass leakage outside the cabinet

A multiple filter configuration permits a customized combination of filter media for a broad range of chemical families and biological agents if required.

Hyperclean TruAir Airflow Pattern

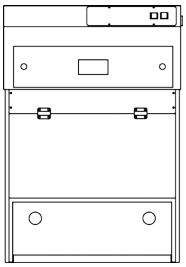


- *The Thermo Scientific Hyperclean TruAir ductless fume hood maintains a constant face velocity of 100FPM in compliance with USA and international standards for safety and performance. Contaminated air is pulled through the multiple filter system where activated carbon adsorbs chemical vapors and/or particulates are removed if HEPA filters are used. Clean air is returned to the room.*
- *The main filter is easy to replace, no tools required. The filter clamps tightly against the filter gasket to prevent filter bypass and maintain filter integrity.*

Thermo Scientific Hyperclean TruAir Filtration System, Summary

	Pre-Filter	Main Filter
Electrostatic	Protects the main filters from aerosols, mists, dust and particulates with filter efficiency superior to 95.5% down to 0.5 microns.	
	Standard	--
Activated Carbon	Contains activated carbon granules chemically formulated to capture one or more specific vapors or family of vapors.	
Single: One type of activated carbon	--	Specify
Stacked: Two filters each with a different type of carbon	--	Specify
HEPA	Designed to physically capture particles larger than 0.3 microns. ULPA filter designed to capture particles larger than 0.12 microns is also available upon special request. When used with a HEPA/ULPA filter the ductless fume hood may be applied as a Class I Biological Safety Cabinet.	
	--	Specify

Product Specifications



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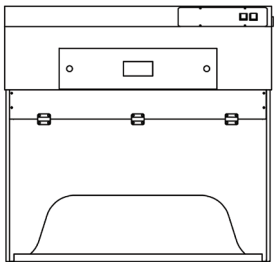

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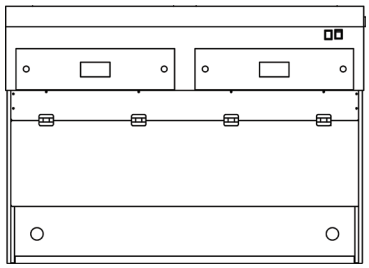

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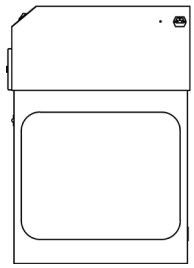
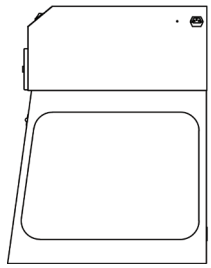


Side View
Straight Leg



Side View
Standard Leg

Model			Dimensions			Weight (lbs/Kg)	
	Order Number	Voltage	Internal Height	External (D x W x H)	Shipping (D x W x H)	Net	Ship
Hyperclean TruAir Standard Models							
24	B1115241 B1220241	120 V 230 V	19" 48.4 cm	27 x 24 x 31" 67.6 x 61.0 x 78.1 cm	40 x 40 x 40" 101.6 x 101.6 x 101.6 cm	68 / 31	125 / 57
36	B1115361 B1220361	120 V 230 V	19" 48.4 cm	27 x 36 x 31" 67.6 x 91.4 x 78.1 cm	40 x 40 x 40" 101.6 x 101.6 x 101.6 cm	95 / 43	152 / 69
48	B1115481 B1220481	120 V 230 V	19" 48.4 cm	27 x 48 x 31" 67.6 x 121.9 x 78.1 cm	55 x 45 x 40" 139.7 x 114.3 x 101.6 cm	133 / 60	190 / 86
Hyperclean TruAir Models with Straight Legs (Reduced Depth)							
24S	B1115242 B1220242	120 V 230 V	19" 48.4 cm	24 x 24 x 31" 61.0 x 61.0 x 78.1 cm	40 x 40 x 40" 101.6 x 101.6 x 101.6 cm	65 / 29	110 / 50
36S	B1115362 B1220362	120 V 230 V	19" 48.4 cm	24 x 36 x 31" 61.0 x 91.4 x 78.1 cm	40 x 40 x 40" 101.6 x 101.6 x 101.6 cm	92 / 42	142 / 64
48S	B1115482 B1220482	120 V 230 V	19" 48.4 cm	24 x 48 x 31" 61.0 x 121.9 x 78.1 cm	55 x 45 x 40" 139.7 x 114.3 x 101.6 cm	130 / 59	187 / 85
Hyperclean TruAir Standard Models with Extra Tall Legs							
24-XT	B1115243 B1220243	120 V 230 V	24" 61.0 cm	27 x 24 x 35" 67.6 x 61.0 x 88.9 cm	40 x 40 x 40" 101.6 x 101.6 x 101.6 cm	72 / 33	129 / 59
36-XT	B1115363 B1220363	120 V 230 V	24" 61.0 cm	27 x 36 x 35" 67.6 x 91.4 x 88.9 cm	40 x 40 x 40" 101.6 x 101.6 x 101.6 cm	99 / 45	157 / 71
48-XT	B1115483 B1220483	120 V 230 V	24" 61.0 cm	27 x 48 x 35" 67.6 x 121.9 x 78.1 cm	55 x 45 x 40" 139.7 x 114.3 x 101.6 cm	138 / 63	195 / 88
Hyperclean TruAir Models with Extra Tall Straight Legs (Reduced Depth)							
24-XTS	B1115244 B1220244	120 V 230 V	24" 61.0 cm	24 x 24 x 35" 61.0 x 61.0 x 88.9 cm	40 x 40 x 40" 101.6 x 101.6 x 101.6 cm	72 / 33	129 / 59
36-XTS	B1115364 B1220364	120 V 230 V	24" 61.0 cm	24 x 36 x 35" 61.0 x 91.4 x 88.9 cm	40 x 40 x 40" 101.6 x 101.6 x 101.6 cm	99 / 45	157 / 71
48-XTS	B1115484 B1220484	120 V 230 V	24" 61.0 cm	24 x 48 x 35" 61.0 x 121.9 x 88.9 cm	55 x 45 x 40" 139.7 x 114.3 x 101.6 cm	138 / 63	195 / 88

Specifications are subject to change without notice.

Product Specifications			
Thermo Scientific Model	24 24S 24-XT 24-XTS	36 36S 36-XT 36-XTS	48 48S 48-XT 48-XTS
Airflow CFM	135.9	206	281.25
Face Velocity FPM	100	100	100
Noise, dBA, 1 meter	< 50	< 50	< 53
Lighting	<… Compact fluorescent lamp …>		
Construction	<… Light gray coated steel frame and head unit. Clear sides and back panel …>		
Blower	<… centrifugal fan …>		
Electrical	<… 120V, 60Hz or 230V, 50Hz voltages available …>		
Electrical Switches	<… Main On/Off …>		
Monitoring	<… Low airflow alarm, standard …>		
Filter Specifications			
Pre-Filter	Electrostatic, 1 lbs / .45 kg (nominal)		
Main*	(1) 11 lbs / 5 kg	(1) 11 lbs / 5 kg	(2) 11 lbs / 5 kg

** Single stack; double stack doubles weight of all (i.e. 22, 22, 44 lbs).*

Options and Accessories				
		24 24S 24-XT 24-XTS	36 36S 36-XT 36-XTS	48 48S 48-XT 48-XTS
Spill tray	Polypropylene spillage tray, available in black, slides out for easy cleaning. Also available in white upon special request.	B1011241 B1011242 B1011241 B1011242	B1011361 B1011362 B1011361 B1011632	B1011481 B1011482 B1011481 B1011482
Base stand, mobile, with casters	Provides a lower storage shelf; accommodates wheelchair access. Locking casters fix the hood in place.	B1010241	B1010361	B1010481
Base cabinet, fixed	Provides storage space below.	B1010242	B1010362	B1010482
Base cabinet, fixed with cup sink and faucet	Provides storage space below and a cup sink, swan neck faucet, and service fixtures.	B1010243	B1010363	B1010483
Air flow indicator, dwyer	Continuous display of face velocity.	B1010001	B1010001	B1010001
Filter, particle pre-filter, 6 pack		B1010011	B1010011	B1010011
Filter, charcoal, GP		B1010012	B1010012	B1010012
Filter, ACI inorganic acid		B1010013	B1010013	B1010013
Filter, formaldehyde		B1010014	B1010014	B1010014
Filter, HEPA		B1010015	B1010015	B1010015

An audio and visual Filter Saturation Alarm with an electronic gas sensor is available upon special request. Call for details.

Product Compliance

Standards and Compliance	
Quality Management Systems	ISO 9001
Chemical Fume Containment	ANSIASHRAE 110 1995
Carbon Filter Efficiency	BS 7989-2001 SEFA Standard 9 ANFOR NFX 15-211
Biological Safety Filter Efficiency HEPA and ULPA	IEST-RP-CC-0034.2 IEST-RP-CC007.1 IEST-RP-CC001-4 EN 1822
Electrical Safety	UL-C-61616A CE Mark ROHS Exempt under EEE Category 9
Product Design	ANSI Z 9.5-2003 ANSI Z 9.7-1998
OSHA, Occupational Safety and Health Administration	OSHA Standard -29 CRF, Safety and Health Regulations for General Industry, 1910.1450: Occupational exposure to hazardous chemicals in laboratories. Part B, definition, laboratory type hood.
Environment	ISO 14001 Energy Star Partner

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