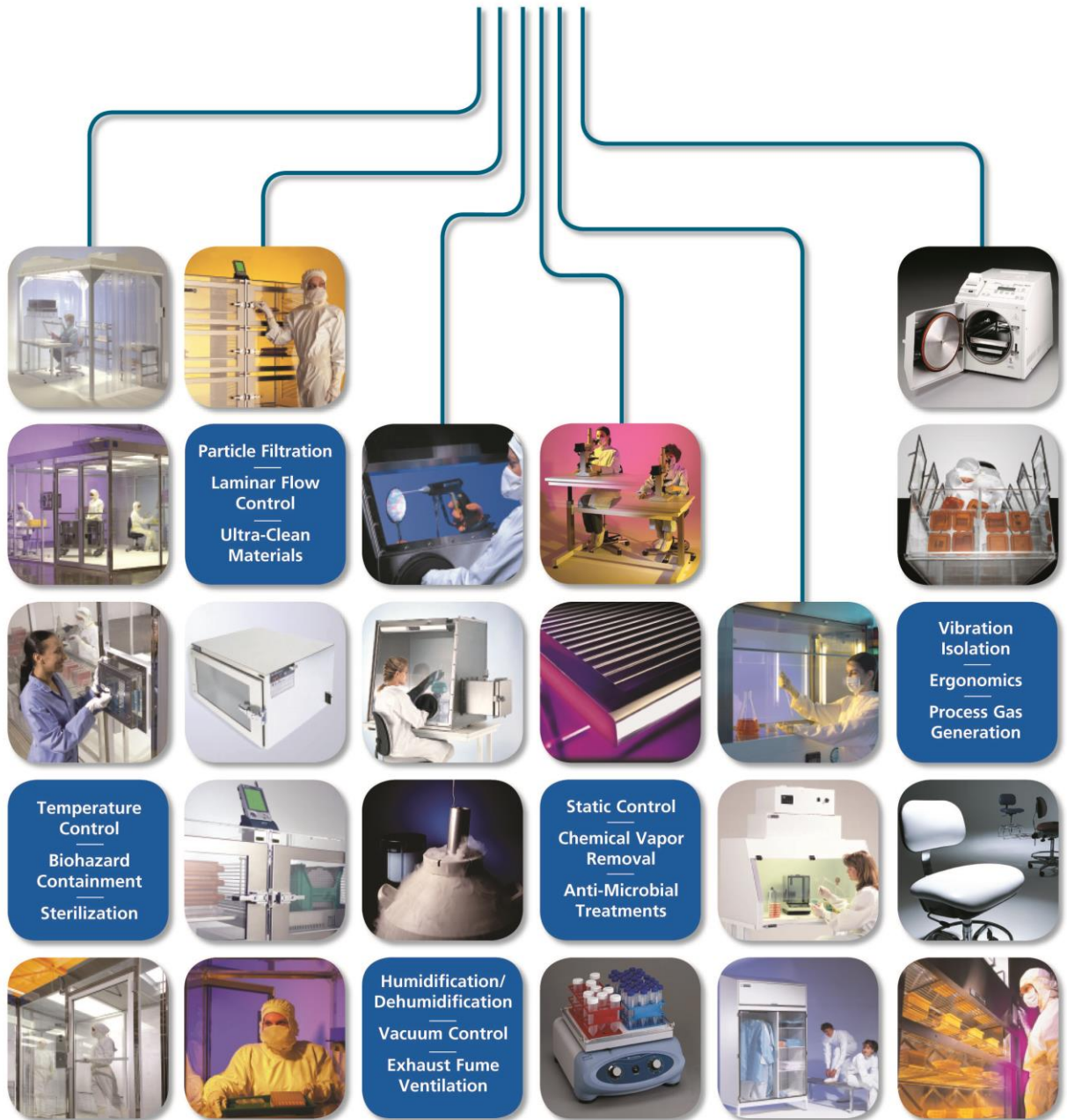


# Ductless Exhaust Fume Hood

© Copyright 2016 Terra Universal Inc. All rights reserved. • Revised December 2016

## Your Comprehensive Equipment Source





# Ductless Exhaust Fume Hood

## Proprietary Notice

This manual pertains to proprietary devices manufactured by Terra Universal, Inc. Neither this document nor any portion of it may be reproduced in any way without prior written permission from Terra Universal.

## Safety Notice

A thorough familiarity with all operating guidelines is essential to safe operation of the product. Failure to observe safety precautions could result in poor performance, damage to the system or other property, or serious bodily injury or death.

The following symbols are intended to call your attention to two levels of hazard involved in operation:

Terra Universal makes no warranties applying to information contained in this manual or its suitability for any implied or inferred purpose. Terra Universal shall not be held liable for any errors this manual contains or for any damages that result from its use.



CAUTION

Cautions are used when failure to observe instructions could result in significant damage to equipment.



WARNING

Warnings are used when failure to observe instructions or precautions could result in injury or death.

The information presented here is subject to change without notice.

## READ THE FOLLOWING WARNINGS CAREFULLY



WARNING

- If your application involves flammable exhaust, you must use an Explosion-Proof Blower/Ventilator. Contact Terra for more information.
- If your hood is configured as an Exhaust Purification System, you must ensure that all toxic fumes have been effectively filtered out of the exhaust before releasing it back into the work environment. Terra recommends use of a toxic gas detector to monitor these fumes.
- If your system functions as an exhaust ventilator but does not incorporate the purification filter, you can direct hazardous exhaust from the ventilator outlet to your in-house exhaust system. You will need a Flange Adapter Panel for this (contact Terra for assistance).
- Make sure that your hood and filter housing are compatible with the fumes involved in your application! Acrylic hoods are not designed for corrosive or flammable fumes. Static-Dissipative PVC hoods and filter housings are safe with a wide range of chemicals that damage acrylic.
- Activated carbon filters operate with varying efficiency on chemical vapors – thorough testing for suitability is advised before operation.
- Air speed and filter integrity must be monitored and tested frequently.
- Terra Universal assumes no liability for damage or injury that may result as a consequence of improper filter selection, use or testing.



NOTE

Terra Universal also offers toxic gas detection systems for testing the activated carbon filter for saturation. Please contact a Terra representative for more information or follow the link below:

<https://www.terrauniversal.com/safety-equipment/toxic-gas-detector-systems.php>



# Ductless Exhaust Fume Hood

## 1.0 Description

Terra's Ductless Exhaust Fume Hoods provide safe removal of a broad range of organic chemical fumes without the need for cumbersome ductwork.

These high-capacity hoods feature dual 3000-RPM impellers (each rated for 740 CFM @ 0" static pressure) to ensure a safe exhaust flow speed of 100 fpm under filter load. Bonded activated charcoal filters eliminate voids in the filter medium and minimize particle sloughing. For cleanroom operation, an exit HEPA filter, rated 99.99% efficient @ 0.3-micron particle size, may be specified.

Terra's standard model (No. 2900-20) is ideal for most benchtop applications. The all-polypropylene construction is resistant to most chemicals. This model features a built-in air Vaneometer™ Air Velocity Meter for easy monitoring of the exhaust air speed.

Terra's High-Clearance Chemical Fume Hood (Nos. 2900-30 through 2900-33) provides over 28" of vertical clearance with the access shield open, making it ideal for distillation and other operations with large glassware or equipment. It is available in several hood materials and includes a spill tray made of white polypropylene.

### Vapor-Sealed, Fluorescent Lighting

In order to avoid potential fire or explosion hazards, the Ductless Exhaust Fume Hood includes vapor-sealed lighting as a standard light fixture.

## 2.0 Installation

Carefully uncrate the Ductless Exhaust Fume Hood and visually inspect for damage. Any damage should be reported according to the procedures outlined in the shipping agreement.

The hood is normally shipped fully assembled, with filter(s) installed inside the filter housing and both filter and blower housings securely clamped in place.

To operate the unit, simply place the hood on a sturdy, level work surface, plug the blower power cord into a grounded 115/230VAC, 50/60Hz power source, and turn it on (the blower must be ordered for the proper voltage supply).



## 3.0 Maintenance

Use a clean, damp cloth and mild detergent to clean hood surfaces.

Activated carbon filters will not show any signs of saturation, so they must be tested frequently with a chemical-specific detector tube or other gas detection system. It is advisable to conduct time studies using a Threshold Limit Value (TLV) to better estimate the usable life of the filter in your application.

HEPA (or ULPA) final filters should be replaced about every two years, depending on use. As these filters clog, you will notice a reduction in air speed and noisier blower operation.

### To replace filters from inside the work area:

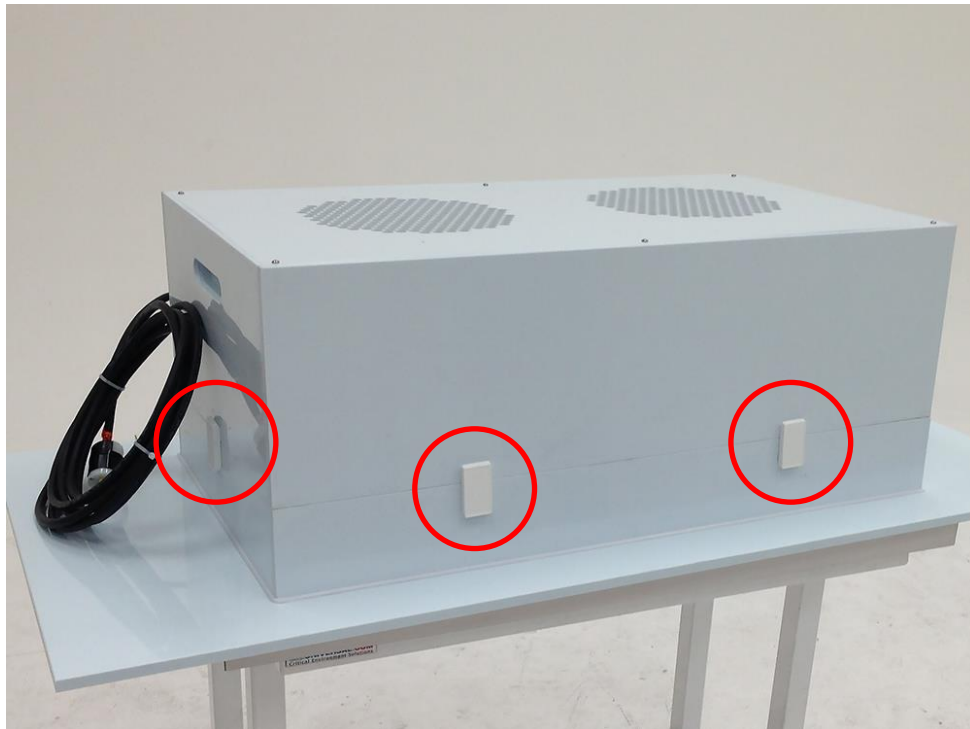
The filter(s) are held securely in place by two plated-steel pawls along the front edge of the filter housing. Rotate each black knob 90° to release the filter(s) and then carefully lower them out of the housing. Insert the replacement filter(s) and rotate the pawls back into position.



Pawl and Latch Assembly

### To replace filters from outside the work area:

Disengage the polypropylene latches that hold the blower housing to the filter housing. The routed grips on either side of the blower housing allow it to be lifted off of the filter housing. Once it is removed, simply lift the filter(s) out of their housing and replace with new ones; then, reattach the blower housing.



Shown: Three of the six latches that hold the blower housing (top) to the filter housing (bottom)



# Ductless Exhaust Fume Hood

## 4.0 Specifications

### General Specifications

Air Monitor	Swing Vaneometer™ (0 – 400 fpm)
-------------	---------------------------------

### Ventilation Module Specifications Table

Material	¼" White Polypropylene
Filter	27.75" x 13" x 0.25" (Activated carbon)
Housing Dimensions	31.5" x 17.75" x 12.75"
Mounting Panel Dimensions (Nominal)	48" x 24" x 0.5"
Weight	104 lbs.
Electrical	120/240VAC, 50/60Hz, 20A, 1Ph

### Individual Blower Specifications Table

Horsepower	½ HP
Power Use	196 W
Max Amps	1.96 A
Max Airflow	598 CFM
Fan Speed	3104 RPM
Fan Wheel Type	Backward centrifugal
Impeller	High-impact polypropylene, external rotor
Insulation	Class B
Enclosure	IP44
Housing	Heavy gauge galvanized sheet metal
Motor Bearings	Permanently sealed, self-lubricating ball bearings
Max Air Temperature	140°F
Safety	Automatic reset thermal overload protection
Continuous Duty	Yes

### Individual Blower Performance

Static Pressure ("WC)	0"	0.1"	0.2"	0.4"	0.6"	0.8"	1.0"	1.25"	1.5"	2"	2.5"
CFM	589	574	560	531	503	472	441	400	355	257	137

### Replacement Parts

Activated Carbon Filter	Cat. # 1681-04A
HEPA Filter	Cat. # 1681-02
ULPA Filter	Cat. # 1681-10





## 5.0 Warranty

**Products Manufactured by Terra:** Terra Universal, Inc., warrants products that it manufactures to be free from defects for a period of 12 months for parts and 90 days for labor, commencing from the date of shipment. Terra's sole responsibility is to repair or replace, at its option, any part of the product that proves defective or malfunctioning during this time limit. In some cases, components incorporated in Terra Universal products are covered by additional warranties from component manufacturers; obtain specific information from Terra sales representatives. This warranty is void if the equipment is abused or modified by the customer, is operated outside Terra's operating instructions or specifications, or is used in any application other than that for which it is specified. This warranty does not include routine maintenance or service procedures, breakage of quartz baths after 60 days, shipping damage, nor damage from misuse, intentional or unintentional abuse, neglect, natural disasters, or acts of God.

**Products Manufactured by Others:** Terra Universal, Inc., warrants that, to the best of its ability, Terra's representations of products that are manufactured by others reflect the manufacturer's representations, subject to change without notice. Sole warranty for these products is the original manufacturer's warranty that is passed forward to the purchaser and constitutes the customer's sole remedy for these products. Detailed warranties for distributed products are available through Terra sales representatives.

**Freight Shortage or Damage:** Upon receipt of any equipment from Terra Universal, Inc., customer shall immediately unpack and inspect for damage or shortage. The customer shall not accept a damaged package or a short shipment until the carrier makes a "damage or shortage" notation on both the carrier's and customer's copy of the freight bill or delivery receipt. Service title passes when the shipment is loaded, so customer is responsible for filing and collecting a freight claim. Any replacement products must be ordered and paid for separately. For Terra's "Policy and Procedures for Returning Goods," see Terra's Internet site: [www.TerraUniversal.com](http://www.TerraUniversal.com).

Generally, customers can improve the chance of collecting on a freight claim by following these procedures: 1) formally requesting that the carrier inspect the shipment immediately upon suspecting damage or shortage to verify condition; 2) notifying the carrier upon discovery of concealed damage and requesting an inspection within 15 days of receipt, both in person or phone and following up via mail; 3) keeping the shipment as intact as possible, including retaining original packaging materials and keeping the product as close to the original receiving location as possible; 4) holding salvage for disposition by the carrier.

**All Claims:** Terra Universal expressly disclaims all other warranties, expressed or implied or implied by statute, including the warranties of merchantability or fitness for intended use. Terra Universal is not responsible for consequential or incidental damages arising out of the purchase or use of the products supplied by Terra Universal. Terra Universal is not liable for damage to facilities, other equipment, products, property or personnel of others, or of their agents, suppliers, or affiliated parties, which is caused or alleged to have been caused by products supplied by Terra Universal. In any event or series of events, Terra Universal's total liability for any and all damages whatsoever is limited to the lesser of the actual damages or the original invoice cost of the items alleged to have caused the damage. The customer's sole and exclusive remedy for any cause of action whatsoever is repair or replacement of the non-conforming products or refund of the actual purchase price, at the sole option of Terra Universal. All claims must be made in writing within 90 days of the date the product was shipped. Any claims not made within this time limit shall be deemed waived by the customer. Terra Universal is not responsible for any additional costs of repair caused by poor packaging or in-shipment damage during return.

**Warranty Returns:** All warranty returns must be authorized in advance by Terra Universal and approved under an RMA. Unless approved in advance for good reason, all returns must be in original condition, including all manuals, and must be packaged in original packaging materials. All returned goods are to be shipped to Terra Universal, freight prepaid at customer's expense. See Terra's "Policy and Procedure for Returned Goods."

***Thank you for ordering from  
Terra Universal!***