

Fire-Rated Pass-throughs

© Copyright 2017 Terra Universal Inc. All rights reserved. • Revised July, 2019

Your Comprehensive
 Equipment Source

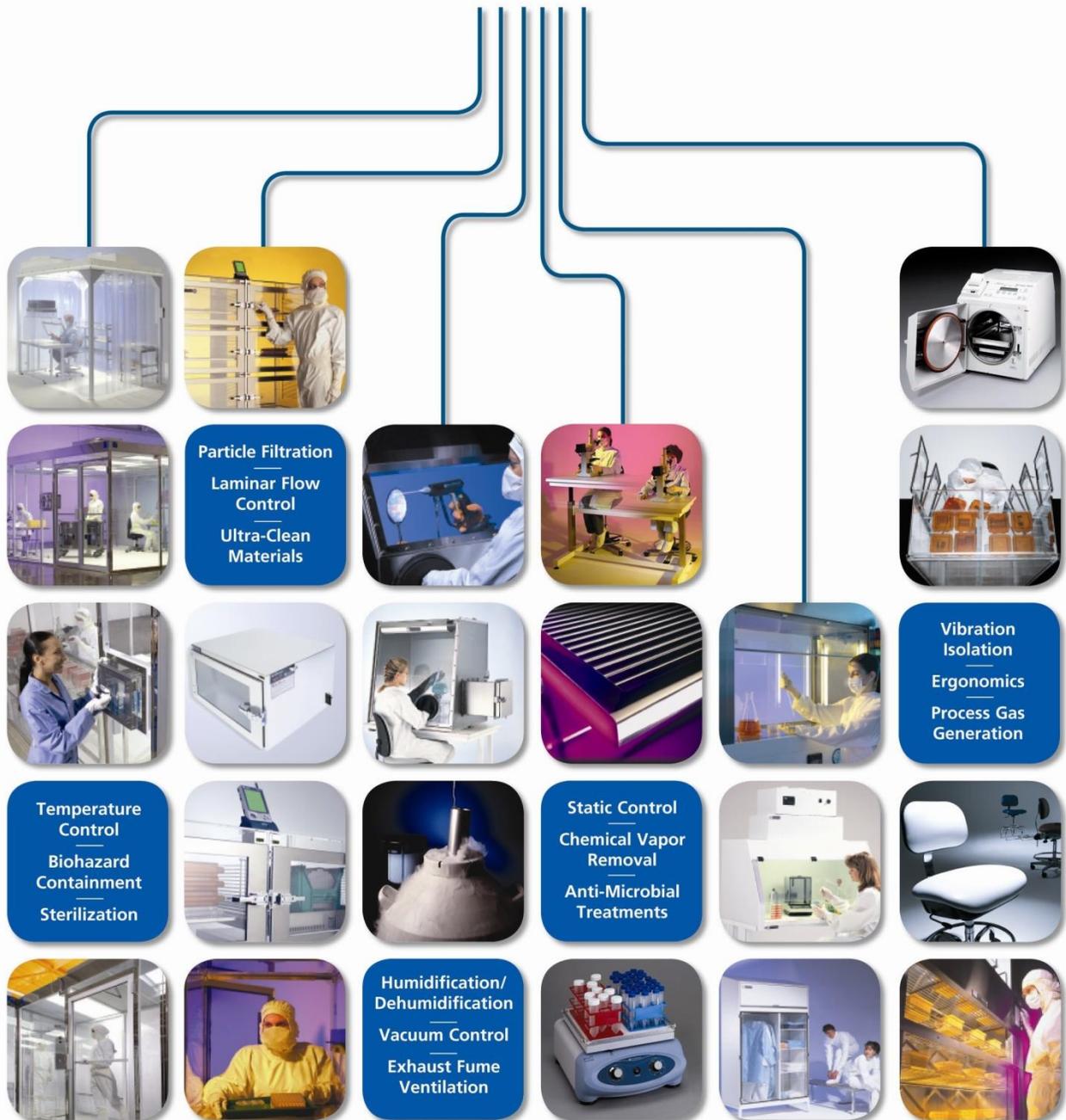




Table of Contents

1.0	Description.....	3
2.0	Installation	4
2.1	Wall Cut-Out	4
2.2	Installing the Pass-through Chamber	4
3.0	Maintenance.....	6
4.0	Warranty.....	7



Fire-Rated Pass-throughs

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.

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.

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:

The information presented here is subject to change without notice.



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.

1.0 Description

Terra Universal Fire-Rated Pass-Through Chambers allow room-to-room transfer of materials and samples without disrupting the integrity of a fire-rated wall. The mounting system allows installation on any wall type (such as wood or masonry) and thickness.

Fire-rated cleanroom pass-throughs include a mechanical interlock system that minimizes the risk of cross-contamination. This device allows only one open door at a time, thus minimizing the amount of "dirty" air that can enter the cleanroom. The double-wall design isolates the mechanical interlock, providing a smooth chamber surface, making it ideal for the life sciences and clinical applications where cleanliness is critical.



CAUTION

The operator should always verify that the opposite door is fully shut prior to opening a door. Do not yank, shake, or apply excessive force to the doors. Attempting to force open a door while the mechanical interlock is engaged may result in damage to the unit.



Fire-Rated Pass-throughs

2.0 Installation



To ensure proper functioning of the self-closing door, the installer is responsible for the following:

- All sides of the wall cut-out must be flat and level.
- The fire-rated door must be tested **before and after** any fastening steps, including installing the mounting bracket and installing the support bracket (if a support bracket is used).
- Before fastening, the pass-through is checked with a level and shimmed where necessary.

Failure to comply with any of the instructions contained in this manual can result in improper installation or damage to the unit, rendering the pass-through inoperable.

Table 1: Wall cut-out specifications

Style	Pass-Through Model	Wall Cut-Out Dimensions
A	Standard Plastic, Steel, CleanSeam, or BioSafe pass-throughs	Add 1/2" to the width and 1/2" to the height of the body of the chamber
B	Any CleanMount™ pass-through	Add 3" to the width and 1" to the height of the body of the chamber

2.1 Wall Cut-Out

Make a wall cut-out that is wider and taller than the body of the pass-through chamber. Frame and finish the cut-out with appropriate materials that meet the design specifications for the fire-rated wall.

2.2 Installing the Pass-through Chamber

Required Materials:

- Appropriate fasteners for wall type
 - Level
 - Shims
 - Fire-rated caulking or expansion foam
- Insert the pass-through into the wall until the attached bracket (flange) contacts the wall surface.
 - Ensure the bracket is flush against the wall and use a level to check the chamber positioning. If necessary, use shims to properly align the chamber in the wall cut-out.
 - Open the fire-rated door and locate the predrilled holes along the interior edge. Insert a fastener into the wall at each corner to temporarily tack the pass-through chamber in position.
 - Test the fire-rated door to ensure that it closes properly. Adjust the alignment of the pass-through as needed before proceeding with the installation.
 - After confirming proper functioning of the pass-through doors, install the remaining fasteners.

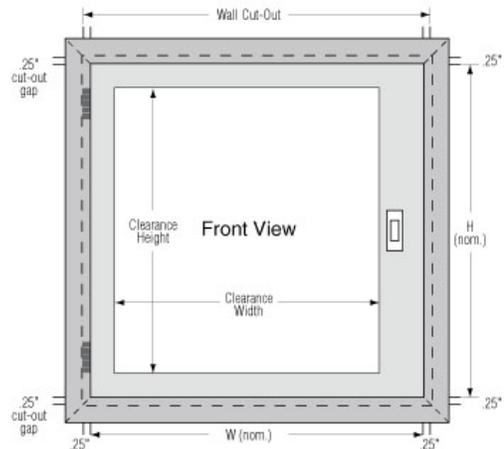


Figure 1. Wall cut-out diagram

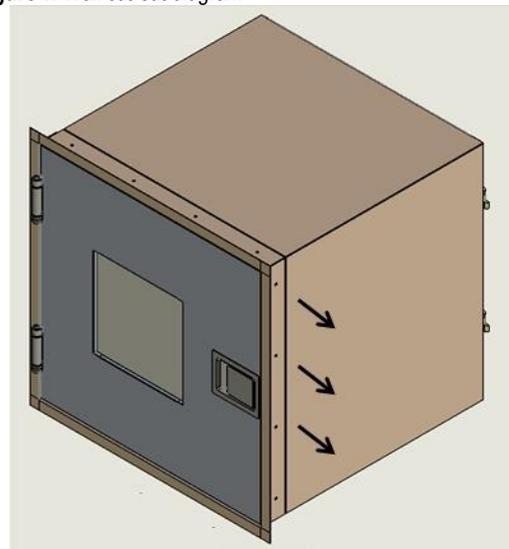


Figure 2. Open the chamber door to access the holes for fasteners



Fire-Rated Pass-throughs

For large pass-throughs requiring a support bracket, install the support bracket now (See **Figure 4**). Support brackets should be positioned to press up against the bottom of the chamber and fastened to the wall only. The pass-through chamber should rest its weight on the bracket, without any fasteners piercing the body of the pass-through.

- F. On the opposite side of the wall (the “dirty-side” where the pass-through body extends from the wall), slide the loose mounting bracket onto the body of the pass-through.
- G. Fasten the bracket to the wall surface only. Do not over-tighten the fasteners as this may bend the bracket and create gaps.
- H. Test the pass-through doors again for proper functioning.
- I. After installation is complete, fire-rated caulking or expansion foam may be used to fill any remaining gaps, if desired.

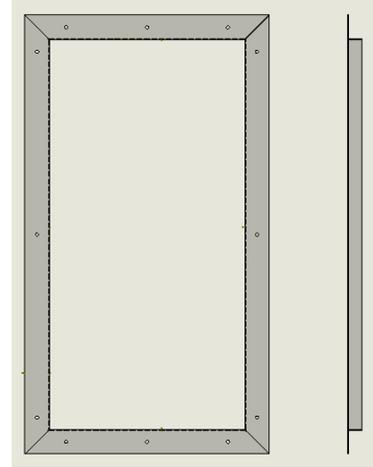


Figure 3. Loose mounting bracket

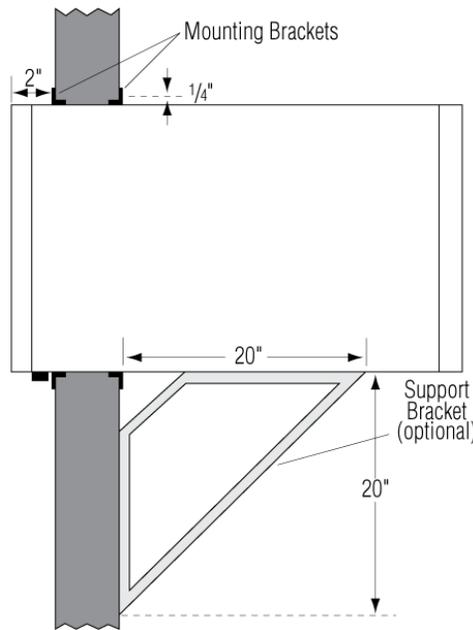


Figure 4. Installed pass-through chamber with support bracket



3.0 Maintenance



Bleach may cause pitting on stainless steel surfaces.

In general, Terra Universal's Fire-Rated Pass-throughs feature no user-serviceable parts and requires no maintenance aside from periodic cleaning. Any worn or damaged component should be thoroughly examined and a safety evaluation should be performed before continuing to operate the pass-through.

When the pass-through is used in a cleanroom environment, Terra recommends use of knitted polyester wipers or spun-lace, non-woven blends of cellulose and polyester manufactured and packaged specifically for cleanroom use. These products are manufactured under tightly controlled conditions that restrict the use of binders or chemical treatments that can outgas, and cleanroom packaging and strict lot control ensure optimal cleanliness.

Less critical environments (ISO 6 – 8 / Class 1000 – 100,000) generally tolerate more absorbent materials made of 100% cotton twill or cellulose.

Clean surfaces with clean, lukewarm water with or without a mild, non-abrasive detergent. In critical cleanroom applications, DI water or isopropyl alcohol may be required.

For thorough, repeatable results, avoid cleaning with a circular motion, which rubs dirt or grit into the surface. Using mild pressure, wipe in one direction, from top to bottom or side to side, in slightly overlapping strokes. Fold the wiper between strokes, and replace with a clean wiper often.



4.0 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.

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!*