



Fiberglass Fabricators, Incorporated

Installation and Maintenance Manual

FRP Troughs/Launders

- **Unloading**
- **Storage**
- **Installation**

NOTE: Be sure to completely read and understand the following unloading, storage, and installation instructions before proceeding. Contents are subject to change without notice or obligation.

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1. Receiving, Inspection and Storage

1.1. Introduction

Fiberglass Fabricators, Inc. FRP Troughs have been manufactured utilizing the finest resins and fabrics to provide many years of trouble free use. Great care has been taken to prepare the Troughs and associated parts for shipment, storage and field assembly.

Please take a few minutes to read these inspection, handling and storage instructions completely before unpacking the shipment.

1.2. General Shipping Information

1. In general, FRP Troughs are shipped loosely or on wooden skids unless other arrangements have been made. Sometimes the wooden skids become damaged during transit, so care must be taken when unloading.
2. Associated parts such as brackets, hardware, gaskets, etc. are shipped separately in cardboard boxes, on wooden skids or in wooden crates, as appropriate. If any damage to the cartons or crates is noticed, please follow the instructions for damaged goods described later in this manual.
3. In instances where field kits and gel-coat are supplied, they will also be sent in separate cartons. Please be aware that some components in these kits are flammable. Please unpack and store the flammable components in an appropriate storage area upon receipt of shipment. If not included, MSDS sheets can be obtained by contacting Customer Service at (401) 231-3552.

1.3. Unloading and Storage

You will receive your Fiberglass Fabricators FRP Troughs by a commercial carrier. When unloading, please be careful. This equipment is fragile and special precautions must be taken:

1. Protect the surface of FRP units from cuts, scratches, gouges, abrasions and impacts. Do not use wire slings unless material is fully protected. Use spreader bars when lifting these materials. Do not drag Troughs across one another unless separated by a non-scratching spacer.
2. Each crate or box should be unloaded by forklift or crane (in the instance of packages and accessories of small size, it may be possible to unload by hand).
3. Care should be taken that all boxes, crates, etc. are not punctured or crushed while unloading. Observe any shipping label instructions ("This End Up", "Do Not Stack", etc.).
4. Keep all FRP materials covered - do not stack or store other building materials on top of unprotected units. Store materials in a dry location, up off the ground, and allow for ventilation.

5. Take inventory of the condition of the equipment and immediately notify the carrier if there is any damage!

1.4. Damaged Shipments



READ BEFORE ACCEPTING DELIVERY

- It is the consignee's responsibility to accept delivery of damaged goods unless permission to refuse delivery has been given by Fiberglass Fabricators, Inc.
- **DO NOT REFUSE DELIVERY** of damaged goods without prior authorization.
- Refusal of delivery may impede recovery for damages.
- **Unauthorized refusal of the shipment will result in a 20% restocking fee.**
- Upon notification of damages by consignee Fiberglass Fabricators, Inc. will contact the shipping company and pursue the appropriate action for filing claims.

1.5. Equipment Inspection And Delivery Acceptance

All efforts have been taken at the factory to insure that your equipment arrives safely. However, there may be many fragile components that require careful Inspection to ensure that no damage has occurred during shipment.

- Please refer to the packing list to verify the contents. In some cases, there may be assembly numbers or drawings to identify the shipped parts. If the shipment does not appear to agree with the enclosed documentation, or if there are questions regarding the shipment, please call Customer Service at (401) 231-3552.
- Verify that the number of parcels on the Bill of Lading is the same as the number of parcels received. Inspect all exterior components for visible damage. Report any apparent damages or material shortages to the carrier and make notations on the carrier's copy of the Bill of Lading. ***Specify the type and extent of damage and notify Fiberglass Fabricators, Inc. immediately!***
- **Do not proceed with the installation of damaged equipment without the express written permission of Fiberglass Fabricators, Inc. The customer will assume responsibility for installation of any damaged equipment unless express written permission to proceed with the installation is given by Fiberglass Fabricators, Inc.**

1.6. Inspection Checklist

- ☑ Inspect each piece of equipment before accepting delivery. Check for torn cartons, broken skids or saddles.
- ☑ Check the equipment for concealed damage as soon as possible after delivery.
- ☑ In the event of suspected concealed damage, ask the driver to wait while you inspect the equipment. Concealed damage must be reported *within 15 days of receipt of equipment*.
- ☑ If concealed damage is found, stop unpacking the shipment. Do not remove damaged equipment from the receiving location. If possible, take photos of the damage. The owner must provide reasonable evidence that the damage did not occur after delivery.
- ☑ *Notify the carrier of the damage as soon as possible.* Request an immediate joint inspection by the carrier and consignee. A determination of responsibility will be made and the carrier will authorize repairs in the event of admission of fault.
- ☑ *Notify Fiberglass Fabricators, Inc. immediately!*

NOTE

Fiberglass Fabricators, Inc. will coordinate repairs and/or replacements with the owner and carrier. Do not attempt to repair or replace any equipment without the express written permission of Fiberglass Fabricators, Inc.

1.7. Long-Term Storage

- If the Troughs are to be stored outside, they should be store on dry level ground away from direct sunlight, if possible. The Troughs should be covered and well ventilated to minimize excessive heat under cover. If the Troughs are to be stored inside, they should be slightly elevated off the floor surface with an ample number of supports, and well ventilated.
- Troughs should be nested inside each other on the floor or ground in lots of (9) nine. This amount allows the Troughs to support themselves from tipping over.
- Field kits (when provided) contain both resins and catalysts. Both items require special storage considerations:
- Resins should be stored in an approved flammables cabinet.
- Resins should be stored at room temperature. If they are allowed to freeze, they must be discarded.
- Resins have a shelf life of approximately three months, after that their performance will degrade rapidly.
- The catalyst **must** be stored separately from the resin.

- Catalysts are strong oxidizers, and special care must be taken in their handling.
- The fiberglass cloth must be kept dry. If it becomes damp or wet, it will be unusable.

2. Installation Instructions

2.1. Instructions for the Installation of Wash Water Troughs Using Anchor Bolts

NOTE

Installation procedure is job specific, use the following as a reference only.

1. Troughs are generally shipped in crates or on skids in "assembled" condition. Expansion washers, gullet embedment bolts and other hardware are boxed separately. The weirs are in the "low" position for shipment. In preparing to mount the filter, the weir should be raised to mid-position; that is, one-half inch above the "low" position.
2. Ensure that the gullet wall is poured with ample keyed openings to take the trough ends and grout for embedment.
3. Roughly position all troughs in the filter box or basin with the end plates at the back wall.
4. Install the embedment bolts in the gullet ends of the troughs with the heads standing away from the troughs.
5. By means of temporary supports such as wedges, blocks, and clamps, adjust the troughs until their weir edges are within 1/8 inch of the final desired level and the inter-trough distances are correct.
6. For backwall anchorage, drill holes of the same diameter as the anchor bolts through the trough end plate at the premarked locations into the concrete wall to the required depth. Before drilling, ensure that the end plate is square to the wall and at the proper elevation.
7. To prevent accidental trough dislocation, it is recommended that the first bolt be tapped into the hole before starting to drill the second hole (do not tighten the nut). After both holes have been drilled, back off the trough temporarily from the back wall to allow installation of the FRP expansion washers between the end plate and the concrete wall.
8. After expansion washers are in place, move the trough back against the back wall and tap both anchor bolts into the correct depth and bring nuts to a hand-tight condition. Complete the installation by tightening the nuts three to five complete 360⁰ turns.
9. At the gullet end be sure that the keying band is located about halfway through the wall. Trim ends of vertical legs of weir angles so that they are in line with the face of the concrete. Be careful that these ends are not caught in the concrete, or they will not be free for adjustment.
10. Grout the trough into the wall using non-shrink grout, being careful to leave no voids.

11. Adjust weir edges until they are within 1/16 inch of the desired level at all points in the filter, using a level or transit with rod or rule. A man's weight while working on the troughs will not deflect them downward appreciably even though the weir adjusting bolts may be loosened. When installing troughs, **do not** attempt to pitch the bottom of the trough more than 1/8 inch total toward the gullet wall.

2.2. Cleaning

1. Clean products as required with soap and water. Use with a soft bristled brush, such as you would use to wash your vehicle.
2. Clean spills or stains that will not respond to soap and water with common solvents. Solvents such as acetone may remove the polyester gel-coat coating. Use solvents sparingly and only when absolutely necessary. Use all appropriate and necessary precautions and protections when using solvents.

2.3. Summary

We hope that the drawings already provided for the Troughs will assist you during installation. Trough installation, while challenging, can be a straightforward process if carefully planned in advance. Again, please remember that Fiberglass Fabricators, Inc. is always ready to provide advice for any questions or problems that you may have.

2.4. For More Information or Replacement Parts

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