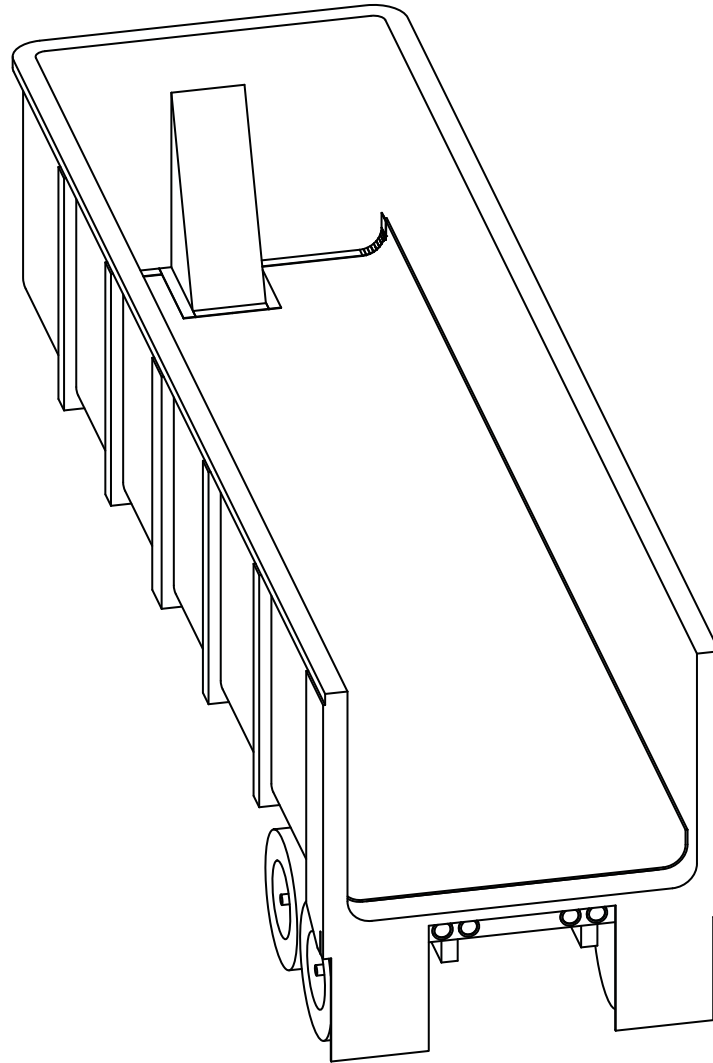




Serving the Truck & Trailer Industry
Since 1944



Aero Lining System

Installation Instructions & Preventative maintenance

Attention Dealers: Please give this owners manual to the customer when the product is delivered.

Call 800-535-9545 | www.aeroindustries.com

Indianapolis, IN | Omaha, NE | Streetsboro OH

This manual explains how to install and perform preventative maintenance of your Aero Lining System. Be sure to read the entire manual before beginning your installation.

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LAVASLIDE (POLYSLICK HT) LIFETIME WARRANTY

The LavaSlide industrial dump body liner material is warranted to the original purchaser to be free from defects in material and workmanship, including the fusion weld seam, under normal use and service from the date of proper installation for the lifetime of the liner down to within 1/8" remaining liner material. LavaSlide liners in 1/2" or thicker gauge are warranted for any temperature asphalt. For asphalt applications, LavaSlide liners must be a minimum 1/2" thickness and are warranted for any temperature asphalt. Liners less than 1/2" thickness are not suitable for hauling asphalt and will not be warranted. This warranty does not apply to the design or workmanship of the installation or application performance.



LANDSLIDE (POLYSLICK BR) FIVE YEAR WARRANTY

The LandSlide industrial dump body liner material is warranted to the original purchaser to be free from defects in material and workmanship, including the fusion weld seam, under normal use and service for a period of 60 months from the date of proper installation, or to within 1/8" remaining liner material, whichever comes first. LandSlide is not designed for use in Asphalt applications. This warranty does not apply to the design or workmanship of the installation or application performance.

General Manufacturer's Warranty for LavaSlide and LandSlide

The warranty is expressly limited to the replacement or repair of LavaSlide or LandSlide products at a LavaSlide or LandSlide authorized dealer location, or such other place as Polymer Industries ALD may designate. All LavaSlide or LandSlide liners or parts of LavaSlide or LandSlide liners returned to Polymer Industries ALD, or to a location designated by Polymer Industries ALD for factory inspection of possible defects in workmanship or material, shall be sent with all transportation charges prepaid.

This warranty does not apply to any LavaSlide or LandSlide liner material of Polymer Industries ALD which has been repaired or altered outside of Polymer Industries ALD or which has been installed or used other than in accordance with the printed instructions for LavaSlide or LandSlide liners from Polymer Industries ALD. **NO EMPLOYEE OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY.**

This warranty does not obligate Polymer Industries ALD to bear the cost of labor in replacing defective parts. No other obligation is assumed or authorized to be assumed with respect to other products of Polymer Industries ALD other than herein set forth.

OTHER THAN STATED ABOVE, POLYMER INDUSTRIES ALD DOES NOT ASSUME ANY OTHER LIABILITY, INCLUDING BUT NOT LIMITED TO, LIABILITY FOR SECONDARY CHARGES, EXPENSES FOR INSTALLATION OR REMOVAL, OR ANY OTHER CONSEQUENTIAL LOSSES OR DAMAGES.

POLYMER INDUSTRIES ALD MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE.

Supplemental Aero Warranties

Asphalt Application

Liners used in an asphalt application must possess all of the following in order to qualify for warranty:

- 1) Material must be LavaSlide.
- 2) Thickness must be a minimum 1/2".
- 3) Liner must have a rear hold down plate.

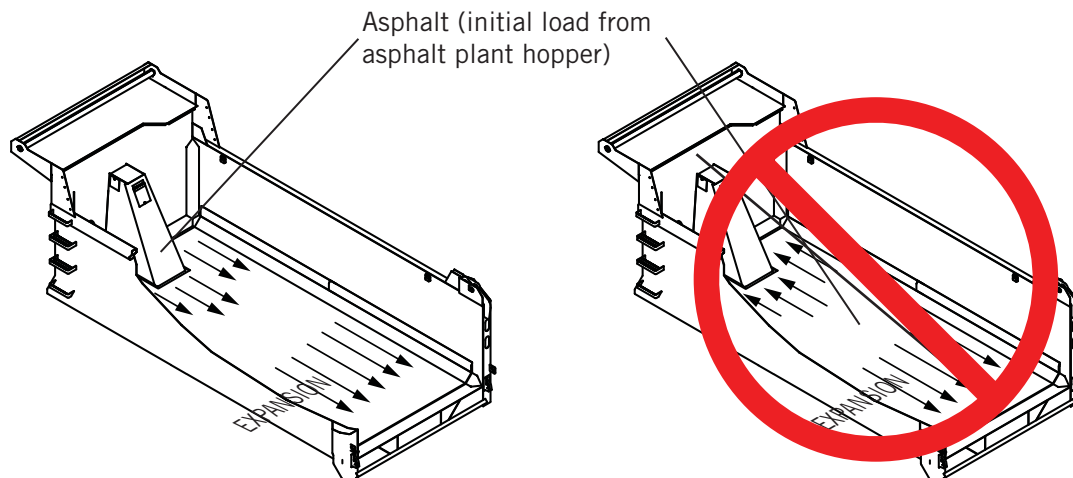
Any exception shall void the warranty.

Securing and Maintaining the Liner

LavaSlide and LandSlide liners are warranted for normal use and service from the date of proper installation, which foremost requires proper securement. Correct bolt quantities, location and spacing are required for the warranty to apply. (See STEP 8). Normal use includes preventative maintenance and attention to loading. (See Preventative Maintenance on Page 4).

Proper Installation, attention to loading, and completing preventive maintenance of your Aero Lining System will help maintain performance and extend the life of your liner.

- All materials should be loaded front to back. Liner can buckle (see drawing below) due to incorrect loading patterns of hot products can cause liner failure. Dropping the first load in the center can cause buckling of the liner towards the front.
- Check for asphalt emulsion build-up on liner. Emulsion used as an asphalt binder can accumulate on the liner. Bulk materials can stick to emulsion build-up. Use a chemical release agent (check local regulations for proper usage), or rotate asphalt with abrasive loads to wear away the buildup.
- Check daily for fines under the liner and remove them. Material Trapped under Liner Material can cause accelerated wear and can cause holes in the liner. Fines can accumulate during unloading or tailgate closing.
- It's also important to remove bulk materials that may have become lodged between the protector and liner. These conditions could trap the liner, preventing movement needed for thermal expansion.
- Periodically check leading edge and front liner retaining strip to make sure liner can expand and contract. Replace damaged leading edge or front liner retaining strip and straighten bends, dents or kinks.



Explanation of Safety Messages

- ⚠ DANGER:** Risk of death or serious injury to operator or bystander will result.
- ⚠ WARNING:** Risk of death or serious injury to operator or bystander could result.
- ⚠ CAUTION:** Risk of injury to operator or bystander could result.
- NOTICE:** Risk of product or vehicle being damaged.
- NOTE:** Contains information critical to the installation or operation of this product.

Safety Messages

- ⚠ DANGER:** Read this entire manual before installing this product.
- ⚠ WARNING:** Use appropriate safety equipment during installation and maintenance.
- ⚠ WARNING:** Be sure that your working platform is secure as you work on the truck. Use OSHA approved ladders or scaffolding to work above ground level.
- ⚠ WARNING:** Always wear safety glasses during installation and operation.
- ⚠ CAUTION:** Keep all clothing clear of moving parts.

Liner and Trailer/Body Preparation

- *24 hours before installation: Flatten the liner before use, uncoil and place the curled edge down so the sheet will flatten. Uncoil and lay out sheet 24 hours before installation or blow heat under liner to flatten out.*
- *Clean and dry the trailer bed thoroughly.*
- *Repair the dump body. Patch all holes and thin metal. NOTE: Waves or dents can cause accelerated liner wear. Repair floor waves or dents greater than 1/2" (12.7 mm). Welding should be done on body parts directly touching installed liner.*
- *Remove the tailgate and safely store away from the installation.*
- *Have the capability to raise the block and dump body for access to the underside.*

Suggested Tools for Installation

| | |
|------------------------------------|---|
| Safety Glasses | Welding Equipment: Aluminum/Steel |
| Tape Measure (length of dump body) | Hand Router with 1/4" round bottom veining bit |
| Wood Blocks | Reciprocating saw, or Saber saw and Wood blades |
| China Marker | C-clamps or Vise Grips |
| Chalk Line | Loading jacks |
| 5' (1524 mm) Straight Edge | 1/2" (12.7 mm) Drill/Driver |
| Scribe | Drill Bits: 5/16", T (.358"), 3/8", 1" |
| Hammer | Wrench or Drivers: T 40, T45, 1/2", 9/16" |
| Portable Grinder or Wire Wheel | |

STEP 1

Measure Trailer/Body and Cut Liner Length

1) See **Figure 1**. Measure inside length of trailer/body.

For 'Normal Loads'

NOTE: Liners expand due to heat and loading and must be cut to allow expansion gap at the front and rear of the trailer/body.

3) For every 10' (3 m) of body/trailer length subtract 1" (25 mm) for the cut length.

Example: 10' body length - 1" = 9' 11"
 20' body length - 2" = 19' 10"

For 'Asphalt Loads'

NOTE: Liners expand due to heat and loading and must be cut to allow expansion gap at the front and rear of the trailer/body.

3) For every 10' (3 m) of body/trailer length subtract 1-1/2" (25 mm) for the cut length.

Example: 10' body length - 1-1/2" = 9' 10-1/2"
 20' body length - 3" = 19' 9"

4) Cut liner to length.

NOTE: Liner should be flattened.

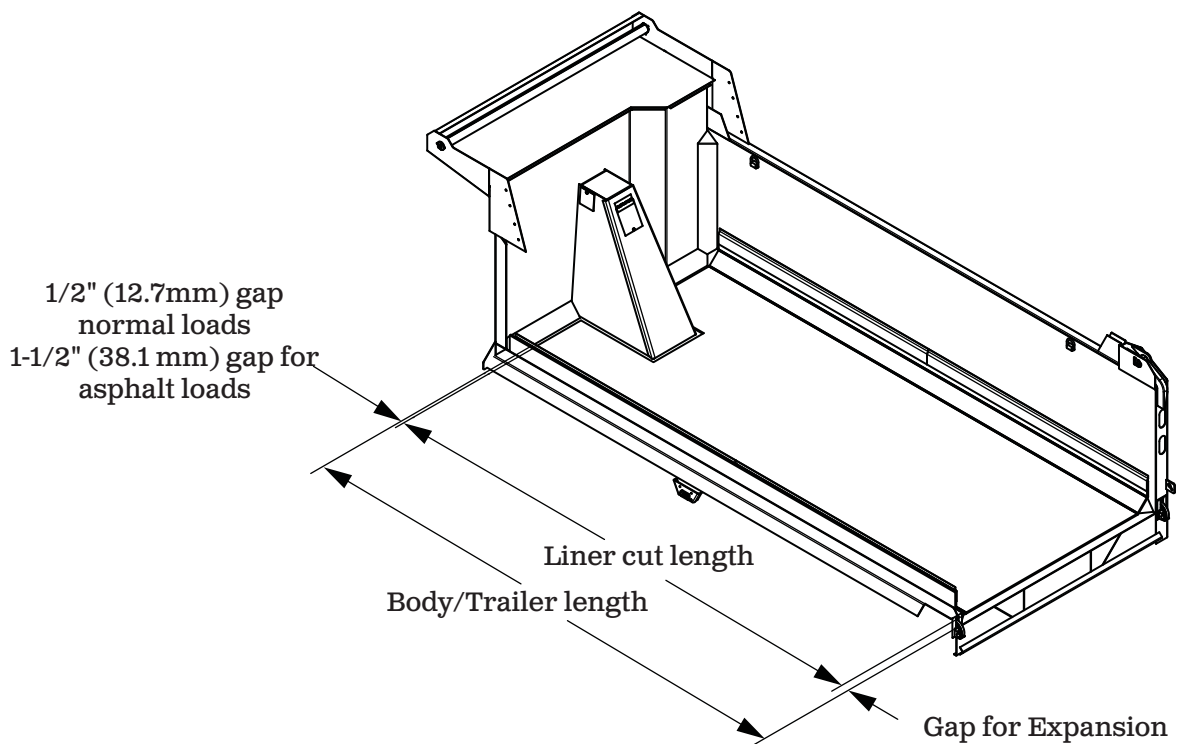


Figure 1

STEP 2

Cut Out for the Doghouse/Bulkhead

NOTE: Make a cardboard or vinyl template for one side of the doghouse, flipping the template over should match the other side of the doghouse. (Vinyl is more durable and can be rolled up to store for future use.)

NOTE: Liner sheet should be laid flat for 24 hours before installation.

NOTE: For Normal Loads the liner will spaced 1/2" (12.7mm) from the front where the flat bottom of the trailer/body transitions into the bulkhead. For Asphalt Loads the liner will be spaced 1-1/2" (38.2 mm) from the front where the flat bottom of the trailer/body transitions into the bulkhead.

- 1) With flattened liner mark center line of both the liner and trailer/body floor at both front and rear.
- 2) See Figures 2, & 3. Make a cardboard template for one half of the doghouse (flipping the template over should match the other side of the doghouse). For normal loads the template should be spaced 1/2" (12.7mm) doghouse/bulkhead and for asphalt loads the template should be spaced 1-1/2" (38.1 mm) from doghouse/bulkhead.
- 3) Align your cardboard template with the center line and front edge of liner and doghouse markings and draw your pattern to cut from.
- 4) Cutout your doghouse/bulkhead pattern with a circular saw/reciprocating saw.

⚠ CAUTION: Follow safety instructions for saw when sawing liner.

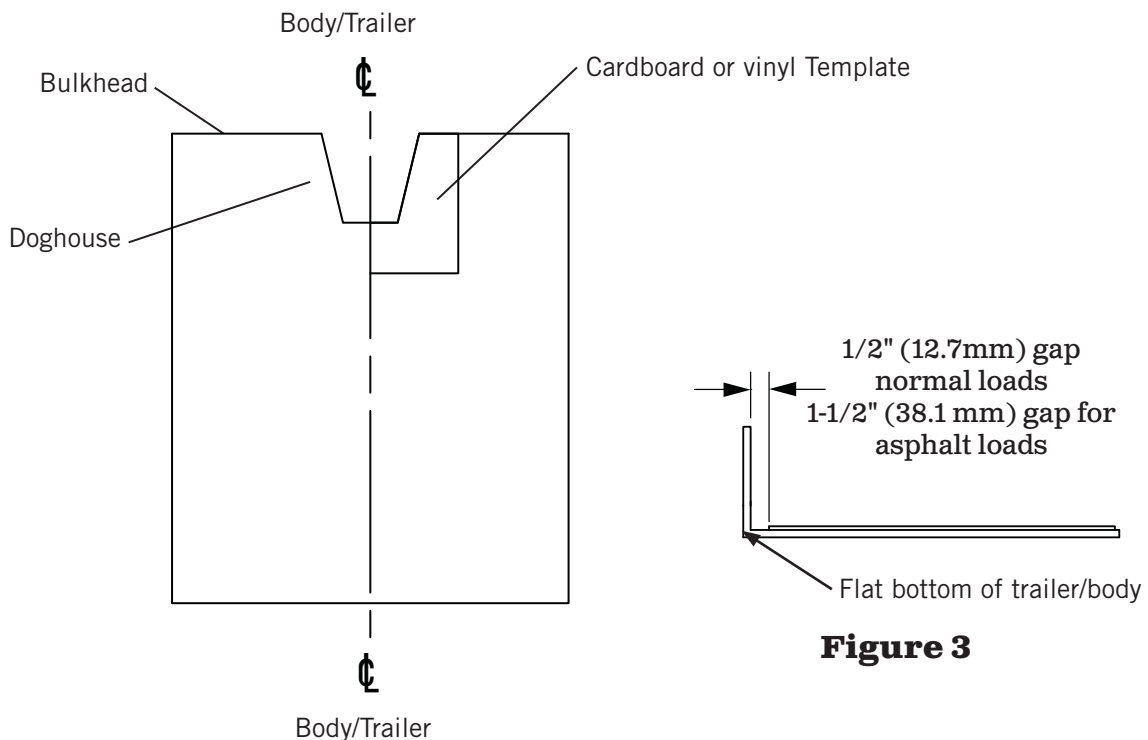


Figure 2

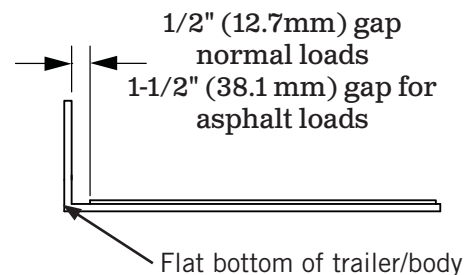


Figure 3

STEP 3

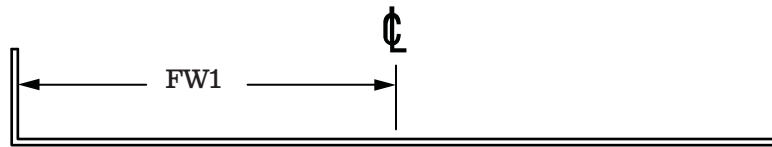
Measure Sheddors

NOTE: If you ordered your Aero Lining System scored for the shedder skip to STEP 5.

NOTE: 1/4" Liner is not scored.

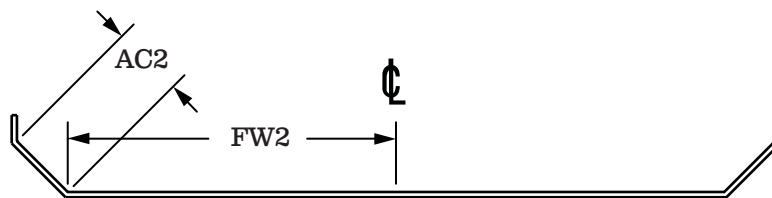
- 1) See Figures 4, 5, & 6. Measure the distance from the center line (marked in STEP 2) to the shedder, "FW".
- 2) Measure the distance of the shedder width, "AC" for 45 degree and "RC" for radius. No other dimensions are needed for a square trailer/body.

NOTE: Floor Width (FW) on the Dump Liner Template is the width of the flat from shedder to shedder. FW1, FW2, & FW3 are from the centerline and are half of FW.



FW1 = _____

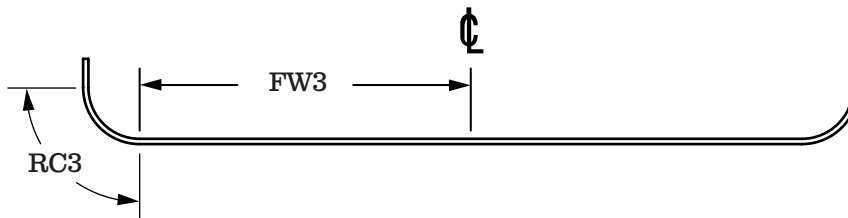
Figure 4
Square/90 degree



FW2 = _____

AC2 = _____

Figure 5
45 degree Shedder



FW3 = _____

RC3 = _____

Figure 6
Radius Shedder

NOTE: RC3 dimension is the measure of the surface area for the radius. Lay the tape measure against the radius not across the points.

STEP 4

Mark and Score the Liner

- 3) Mark your dimensions according to the type of shedder. If you have a guide for your router only one side of the liner needs to be marked. Set the guide from the outer edge of the liner and use that setting to score the other side of the liner.

90 degree (Square Trailer/Body)

- 4) See **Figure 7**. Measure from center mark on liner and mark "FW1" front and rear. Snap chalk lines on both sides of center line (2 scores total).

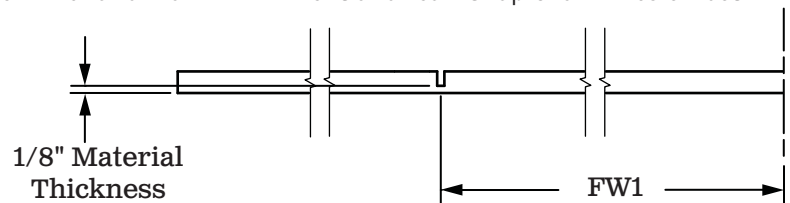


Figure 7

45 degree Shedder

- 5) See **Figure 8**. Measure from center mark on liner and mark "FW2" front and rear. Snap chalk lines on both sides of center line.
- 6) See **Figure 8**. Measure from "FW2" mark on liner and mark "AC2" front and rear. Snap chalk lines on both sides of center line (4 scores total).

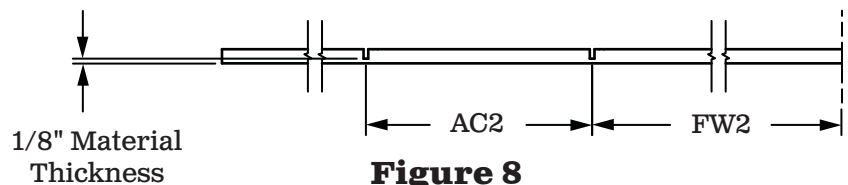


Figure 8

Radius Shedder

- 7) See **Figure 9**. Measure from center mark on liner and mark "FW3" front and rear. Snap chalk lines on both sides of center line.
- 8) See **Figure 9**. Measure from "FW3" mark on liner and mark "RC3" front and rear. Snap chalk lines on both sides of center line (4 scores total).
- 9) See **Figure 9**. From "FW3" measure 3 equal spaces and make 2 marks front and rear. Snap chalk lines on both sides of center line (8 scores total).

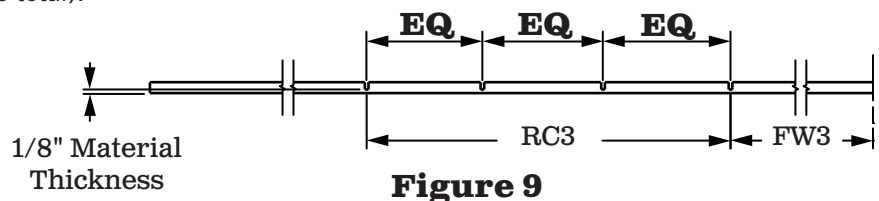


Figure 9

- 10) Set your router depth to score at 1/4" (6.3 mm) deep for 3/8" (9.5 mm) thick liner 3/8" (9.5 mm) deep for 1/2" (12.7 mm) thick liner. There should be 1/8" of material thickness at the bottom of the score. Test your score depth on a scrap piece of liner.

- 11) Route all chalk lines the complete length of the liner using a 1/4" round bottom veining bit.

STEP 5

Place Liner in Trailer/Body

⚠ DANGER: The liner is very heavy, take necessary precautions when lifting and moving.

- 1) Make sure the scores are facing up and cut outs for doghouse and other obstructions are pointing in the right direction.
- 2) Place liner into trailer/body.
- 3) **See Figures 10.** Center the liner with the trailer/body using the center line marks made in STEP 2 and flush against the bulkhead for normal loads and 1-1/2" from the bulkhead for hauling asphalt.
- 4) On each side of the doghouse drill a hole using T (.358") bit and secure the liner with 3/8-16 x 2" elevator bolts or 3/8-16 x 1-1/2" Torx button head cap screw. Make sure the fasteners follow the correct placement be the directions in the next section.

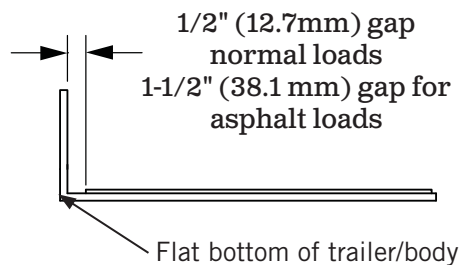


Figure 10

STEP 6

Install Leading Edge Protector

- 1) See **Figure 11**. Compress the liner (one side at a time) to the floor using load jacks or Port-A-Power(s). The length of the body/trailer.
- 2) See **Figures 12 & 13**. Weld the leading edge protector to the sidewall of the trailer/body. For proper placement use diagrams below.
- 3) Repeat on opposite side of body/trailer.

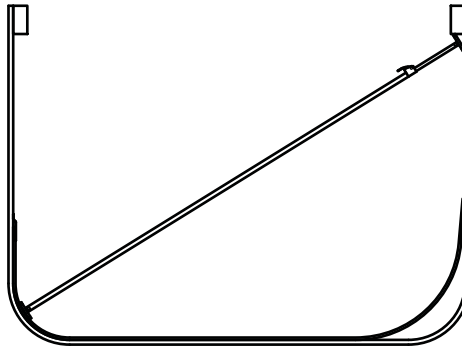


Figure 11

Normal Load
1" (25.4 mm)

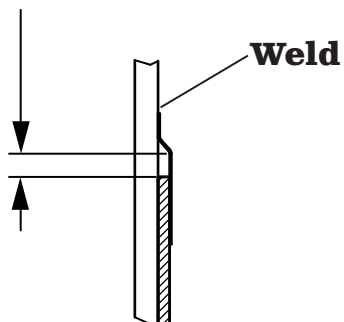


Figure 12

Asphalt Load
1-1/2" (38.1 mm)

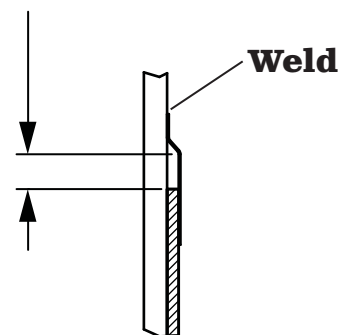


Figure 13

STEP 7

Bolt the Liner to the Floor

| Index | Description | Qty | Index | Description | Qty |
|-------|-----------------------------------|-----|-------|----------------------|-----|
| 1 | 3/8-16 x 1-1/2" Torx Self-tapping | 30 | 3 | 3/8 16 Nylon Hex Nut | 12 |
| 2 | 3/8-16 x 2" Elevator Bolt | 12 | 4 | 3/8 Lock Washer | 12 |

NOTE: For warranty purpose the minimum number of bolts and pattern must follow these guidelines.

NOTE: The type and make of the trailer/body will determine the exact pattern for securing the liner.

NOTE: There must be a minimum of (10-12) 3/8 elevator bolts or (25) 3/8 self-tapping screws. When using a combination of the two there should be (2) 3/8 self-tapping screws for every 3/8 elevator bolts not use. Example: Using (7) elevator bolts and (10) self-tapping screws or (5) elevator bolts and (14) self-tapping screws.

NOTE: See Figures 14, 15, & 16. It is **IMPORTANT** that all bolts are a minimum of 3" from the edge of the liner and 3" from any score line. Also all bolts should be 4" for normal loads and 4-1/2" for asphalt loads from the front of the trailer as to not interfere with the front retaining strip.

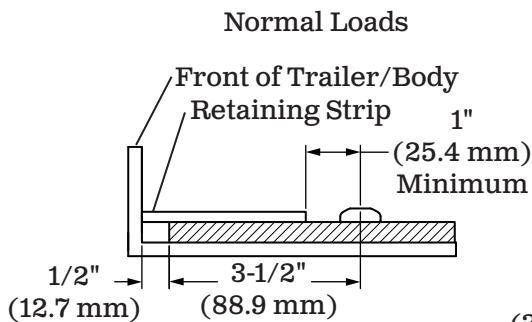


Figure 14

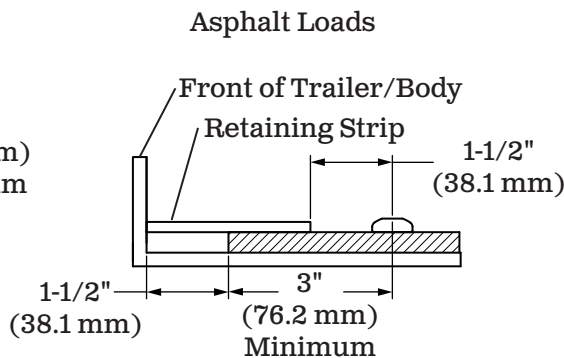


Figure 15

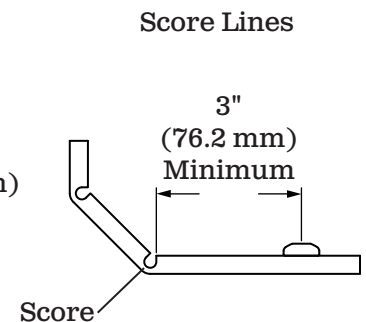


Figure 16

- 1) **Figure 17.** Measure from bulkhead to cross members and mark the liner with location of cross members. Use 3/8 self-tapping screws into cross members to hide screws from the outside. If 3/8 elevator bolts are used, access to the bolt from underneath is needed to install the lock washer and nylon nut.

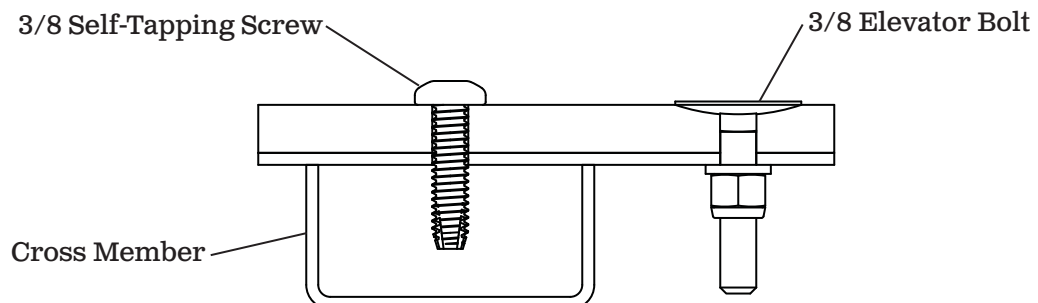


Figure 17

Using only 3/8" self-tapping Torx screws

NOTICE: The bolt pattern below is for heavy duty applications.

- 1) **Figure 19.** Must use a minimum of (25) 3/8" self-tapping screws. Lay out and mark pattern for bolts across the bulkhead and beside and behind the doghouse in staggered pattern at a minimum of 6" apart making sure holes are in cross members. Also place screws along score lines.
- 2) Drill T (.358") holes through liner and trailer.
- 3) Secure liner to the floor of the trailer/body with 3/8" self-tapping screws.

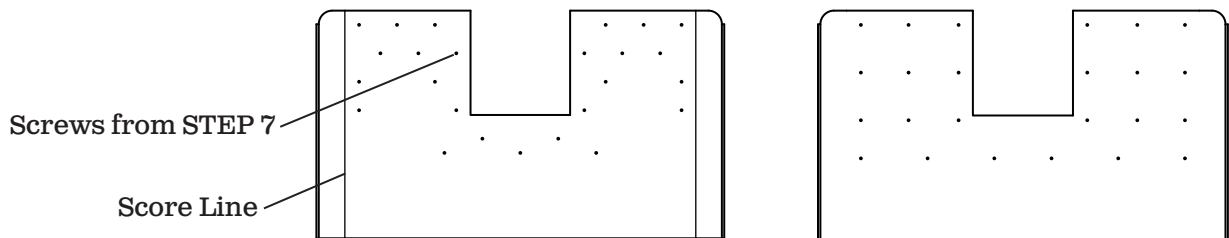


Figure 19

Using only 3/8" elevator bolts

NOTICE: The bolt pattern above is for heavy duty applications. Most lighter applications can use the following bolt pattern.

- 1) **Figure 18.** Must use a minimum of (10-12) 3/8" elevator bolts. Lay out and mark pattern for bolts across the bulkhead and behind the doghouse at a minimum of 6" apart making sure holes are NOT in cross members.
- 2) Drill 3/8" holes through liner and trailer.
- 3) Secure liner to the floor of the trailer/body with 3/8" elevator bolts, lock washers and nylon nuts.

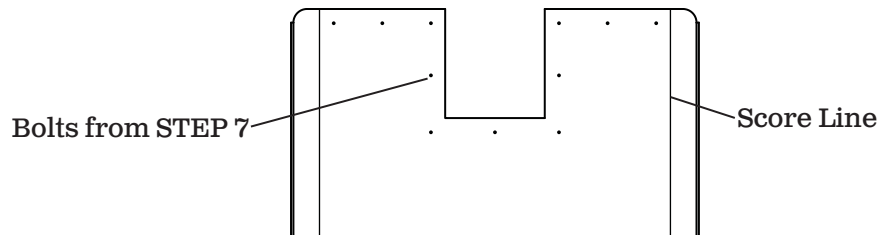


Figure 18

Using a combination of 3/8" elevator bolts and self-tapping screws

- 1) **Figures 18 & 19.** When using a combination of the two for every elevator bolts not used, use two self-tapping screws. Lay out and mark pattern across the bulkhead and around the doghouse at a minimum of 6" apart. Minimum distance from edge of liner and location of cross members will determine bolt pattern.
- 2) Drill holes for screw or bolt being used. Mark hole to remember correct fastener.
- 3) Secure liner to the floor of the trailer/body.

Alternate pattern for hauling asphalt

- 1) **Figure 20.** When hauling asphalt an alternate pattern using (12) 3/8" elevator bolts or 3/8" self-tapping screws is acceptable. Check location of cross members and lay out and mark a line a minimum distance of 18" from behind the doghouse and another row 3" further based on type of screw or bolt used. Fasteners must be staggered and a minimum 6" apart and 3" from the first score line.
- 2) Drill holes for screw or bolt being used. Mark hole to remember correct fastener.
- 3) Secure liner to the floor of the trailer/body.

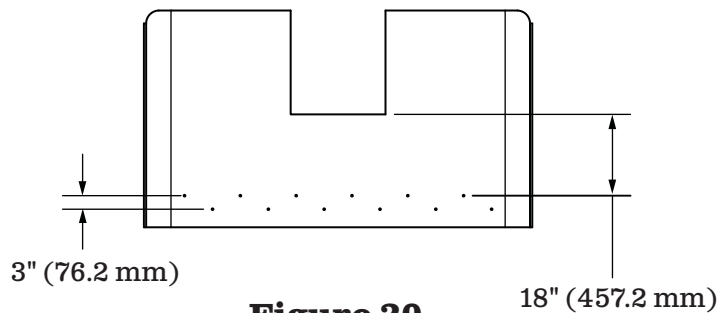


Figure 20

Half Round Trailer pattern

- 1) **Figure 21.** Two rows of screws or bolts, the first is a minimum of 6" from the edge of the liner part and the second is 3" from the first row. 3" from the out side edge of the liner stagger the screws every 6" across the trailer. Patterns for 5' and 9' are shown.
- 2) Drill holes for screw or bolt being used. Mark hole to remember correct fastener.
- 3) Secure liner to the floor of the trailer/body.

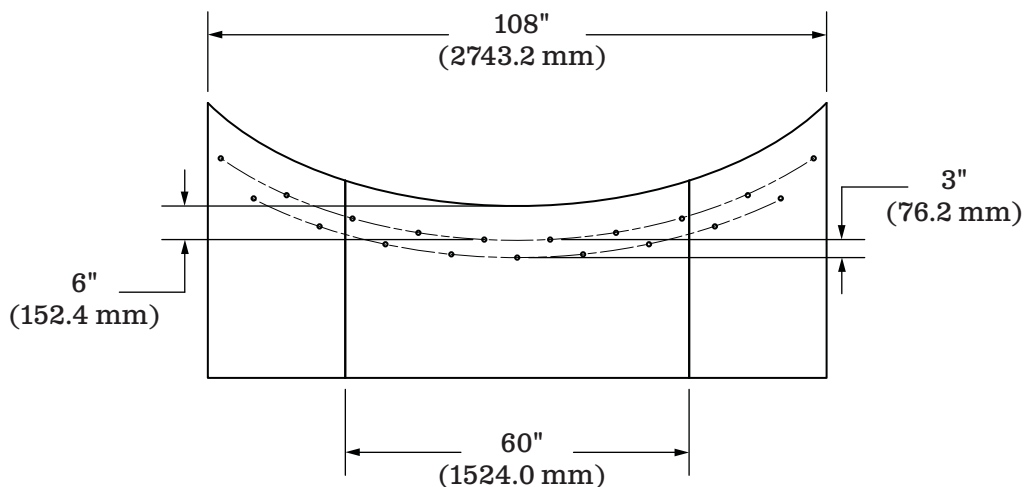


Figure 21

STEP 8

Weld Front Retaining Strip at front of liner

- 1) See **Figure 22 & 23**. Cut 3/16" x 3" (76.2 mm) wide flat-stock to fit along the floor around the bulkhead/doghouse on top of the liner. Use same material as body/trailer material.
- 2) Cut front retaining strip for shedder, use smaller pieces for radius corners. Using smaller pieces will lessen the need to form the retaining strip.
- 3) Weld front retaining strip to bulkhead/doghouse.

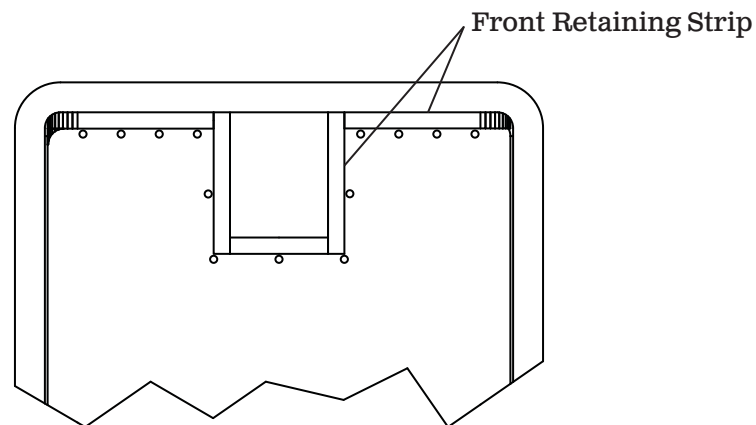


Figure 22

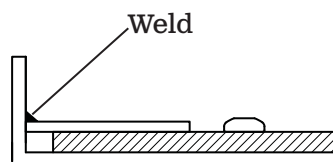


Figure 23

STEP 9

Installation of Asphalt Hold-Down Plate

| Index | Description | Qty | Index | Description | Qty |
|-------|----------------------|-----|-------|-----------------------------|-----|
| 1 | Rear Hold Down Plate | 1 | 3 | Liner Plug - Rear Hold Down | 14 |
| 2 | Washer, Steel Weld | 14 | | | |

- 1) See **Figure 24**. Use 14 gauge (.0747") steel sheet to construct the hold-down plate.
 - 2) The length of the plate should be 2" (50.8 mm) (72" is supplied from factory) less than the overall floor width.
 - 3) The width of the hold-down plate is always 12" (304.8 mm).
 - 4) See **Figure 25**. Trace the rear hold down plate (1) onto the liner. Drill (14) 1" diameter holes equally spaced through liner.
- NOTICE:** Raise liner and prop up when drilling holes to avoid damaging bits.
- 5) Use the counterbore tool and bore each hole to the same depth as the thickness of the liner plug (3).
 - 6) Place the rear hold down plate underneath the liner.
 - 7) Set the steel weld washer (2) into the hold and weld to the steel plate.
 - 8) Insert the liner plug (3) into the holes. Flush them with the liner.

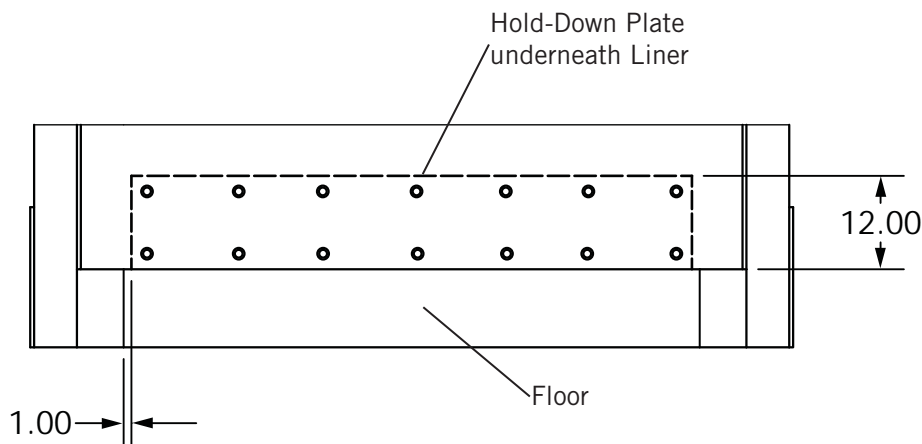


Figure 24

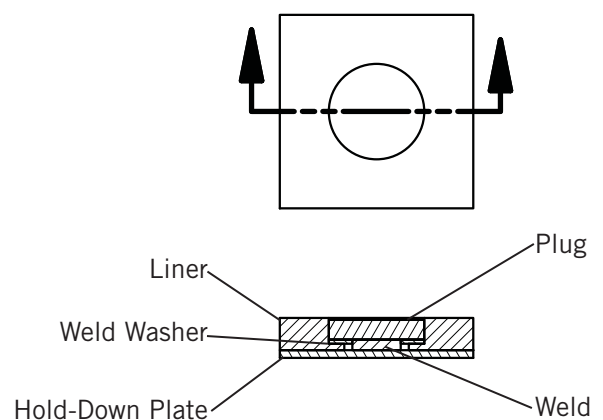


Figure 25

STEP 10

Install Side Wall Liner

- 1) Measure and cut liner to match length of main liner.
- 2) See **Figure 26, 27, & 28**. Side wall liner should cover the upper section of the leading edge protector holding the main liner. If the trailer has single wall make sure screws will be going into posts or voids so they don't go on the outside of the trailer. Screws should be 6" from front or rear of liner and 24" on center. If posts are further apart the center to center distance can be 36" maximum.
- 3) Mark and drill T (.358") holes through liner and trailer.
- 3) Secure liner to the floor of the trailer/body.
- 4) Place the leading edge protector at the top of the side wall liner leaving a 1" gap for expansion and weld in place. Leading edge protector may not be at the top of the trailer.

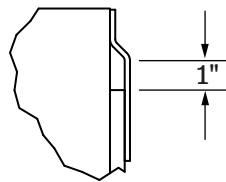


Figure 27

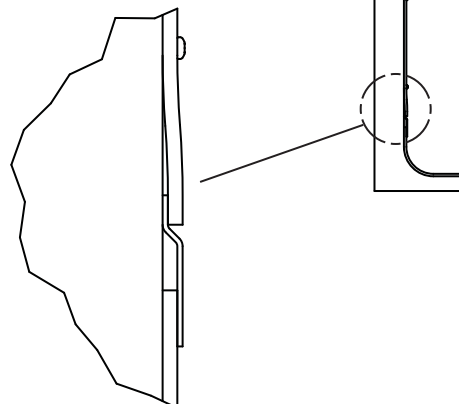


Figure 28

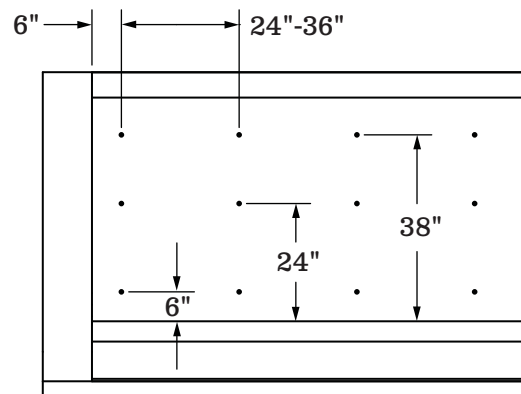


Figure 26

STEP 11a

Install Front Wall Liner (External Hoist)

- 1) Measure and cut liner to fit front wall.
- 2) Bottom edge of liner will set just above the front retaining strips. Bolts should be 6" from either side or bottom edge and 24" on center from side to side and 18" on center from bottom to top.
- 3) Mark and drill 5/16" holes through liner and trailer.
- 3) Secure liner to front wall with minimum of 15 bolts. Use 5/16-18 x 1-1/2" stainless steel bolts through the liner and 5/16 stainless steel bond washer and 5/16-18 stainless steel nylon hex nuts.
- 4) Place the leading edge protector at the top of the front wall liner leaving a 1" gap for expansion and weld in place. Leading edge protector may not be at the top of the trailer.

STEP 11b

Install Front Wall Liner (Internal Hoist)

- 1) Measure and cut liner to fit front wall on both sides of the doghouse.
- 2) Bottom edge of liner will set on top of front retaining strips. Bolts should be 6" from either side or bottom edge and 24" on center from side to side and 18" on center from bottom to top.
- 3) Mark and drill 5/16" holes through liner and trailer.
- 4) Secure liner to front wall with minimum of 16 bolts. Use 5/16-18 x 1-1/2" stainless steel bolts through the liner and 5/16 stainless steel bond washer and 5/16-18 stainless steel nylon hex nuts.
- 5) Measure and cut liner to fit the sides of the doghouse.
- 6) Secure the liner on the sides with minimum of 4 fasteners on each side.
- 7) Measure and cut liner to fit the front of the doghouse and overlap the liner on the sides.
- 8) Secure the liner on the front with minimum of 6 fasteners.
- 9) Cut the leading edge protector to fit around the top of the front wall liner leaving a 1" gap for expansion and weld in place. Leading edge protector may not be at the top of the trailer.

STEP 12

Install Tail Gate Liner

- 1) Measure and cut liner to fit tail gate. Make sure liner will not interfere with opening or closing of tail gate.
- 2) Bottom edge of liner will set above the floor of the trailer. Bolts should be 6" from either side of tail gate and 24" on center. Minimum of 15 fasteners should be used. Use 3/8 x 1-1/2 self-tapping screws into post or hollow sections and 5/16-18 x 1-1/2" stainless steel bolts through the liner and 5/16 stainless steel bond washer and 5/16-18 stainless steel nylon hex nuts for through the tail gate.
- 3) Mark hole locations and drill T (.358") holes for self-tapping screws or 5/16" holes for bolts through liner and trailer.
- 3) Secure liner to the tail gate with the appropriate fasteners.
- 4) Place the leading edge protector at the top of the tail gate liner leaving a 1" gap for expansion and weld in place. Leading edge protector may not be at the top of the tail gate.



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