

# Fall Restraint Reinforcement Kit

Installation Manual

PNEG-1753

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GSI GROUP



PNEG-1753



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## Contents

<b>Chapter 1 Introduction .....</b>	<b>4</b>
<b>Chapter 2 Safety .....</b>	<b>5</b>
Safety Guidelines .....	5
Safety Instructions .....	6
<b>Chapter 3 Installation in Newly Constructed Tanks .....</b>	<b>7</b>
<b>Chapter 4 Installation in Existing Tanks .....</b>	<b>10</b>
<b>Chapter 5 Warranty .....</b>	<b>15</b>

## 1. Introduction

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READ THIS MANUAL carefully to learn how to properly use and install equipment. Failure to do so could result in personal injury or equipment damage.

INSPECT the shipment immediately upon arrival. The customer is responsible for ensuring that all quantities are correct. The customer should report and note any damage or shortage on the bill of lading to justify their claim to the transport company.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your equipment and should be easily accessible when needed.

This warranty provides you the assurance that the company will back its products when defects appear within the warranty period. In some circumstances, the company also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the factory specifications, the warranty will become void and field improvements may be denied.

## Safety Guidelines

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.



**This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.**



**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



**CAUTION** used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.



**NOTE** indicates information about the equipment that you should pay special attention.

## 2. Safety

### Safety Instructions

Our foremost concern is your safety and the safety of others associated with this equipment. We want to keep you as a customer. This manual is to help you understand safe operating procedures and some problems which may be encountered by the operator and other personnel.

As owner and/or operator, it is your responsibility to know what requirements, hazards and precautions exist, and to inform all personnel associated with the equipment or in the area. Safety precautions may be required from the personnel. Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation where **SERIOUS INJURY** or **DEATH** may occur.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

#### Wear Protective Clothing

Wear close fitting clothing and safety equipment appropriate to the job.

Remove all jewelry.

Long hair should be tied up and back.

Safety glasses should be worn at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

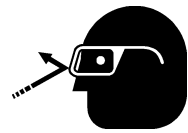
Wear steel toe boots to help protect your feet from falling debris. Tuck in any loose or dangling shoe strings.

A respirator may be needed to prevent breathing potentially toxic fumes and dust.

Wear hard hat to help protect your head.

Wear appropriate fall protection equipment when working at elevations greater than six feet (6').

**Eye Protection**



**Gloves**



**Steel Toe Boots**



**Respirator**



**Hard Hat**



**Fall Protection**



### 3. Installation in Newly Constructed Tanks

This section is for the installation of the fall restraint reinforcement kit to be installed in newly constructed tanks only. Refer to Chapter 4 [on Page 10](#) for installing in existing tanks.

#### 105'-25K Roof Fall Restraint Reinforcement Installation Instructions for CRP-6945

The center collar and one eave tension plate will need to be drilled to allow for the assembly of this reinforcement kit.

1. Install CRP-6930 to every roof beam stiffener as shown in [Figure 3A](#) using five (5) 3/8" x 1-1/2" grade 8 flange bolts (S-7928) and flange nuts (S-9373).

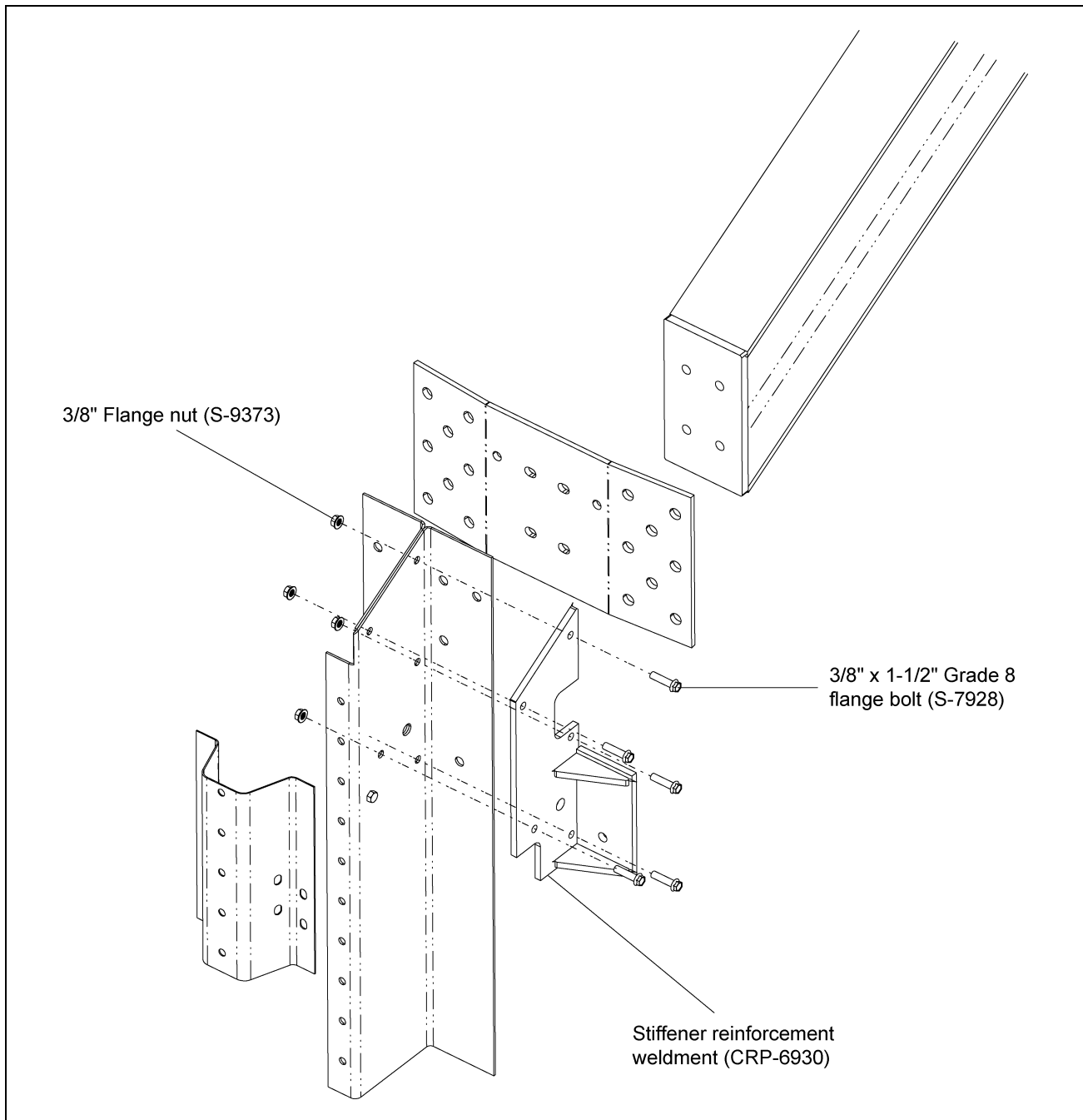


Figure 3A

### 3. Installation in Newly Constructed Tanks

#### 105'-25K Roof Fall Restraint Reinforcement Installation Instructions for CRP-6945 (Continued)

2. Install CRP-6939 inside of the tank and attached to the vertical row of stiffener bolts adjacent to the roof beam stiffener nearest the manway. For a reference, *See Figure 3B*. Top stiffener bolts are to be removed to install CRP-6939. Replace top stiffener bolts with two (2) 3/8" x 1-1/2" grade 8 bolts with steel back neoprene washers (S-5060). Use spacer (S-7041) as shown when installing in an outside stiffened tank.
3. Drill holes in the tension plate. For a reference, *See Figure 3B*. Use two (2) 3/8" x 1-1/2" grade 8 flange bolts (S-7928) and flange nuts (S-9373) to attach CRP-6939 to the tension plate at the drilled holes. Use shims (CRP-6947) as necessary to fill the gap between the tension plate and CRP-6939.

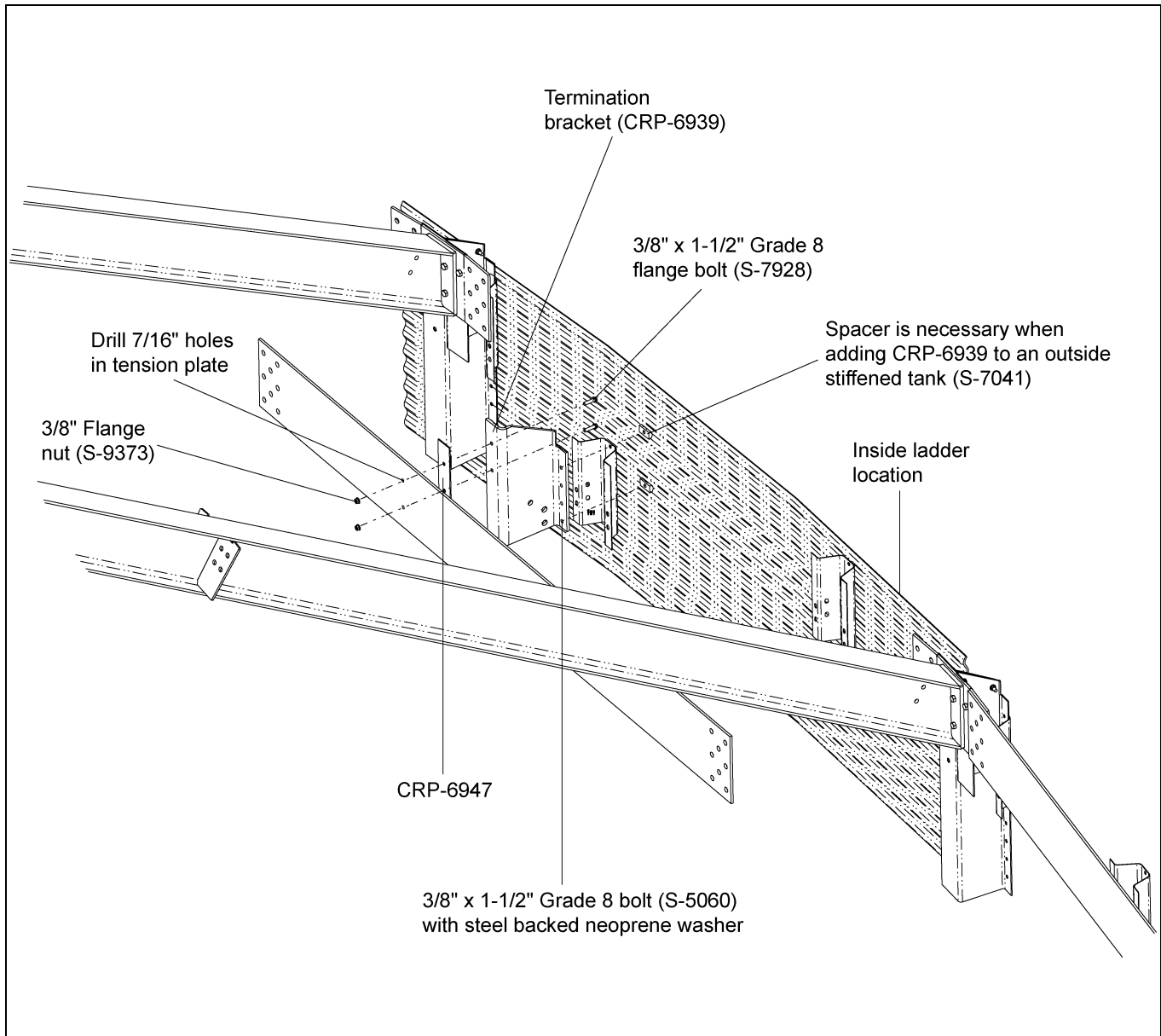
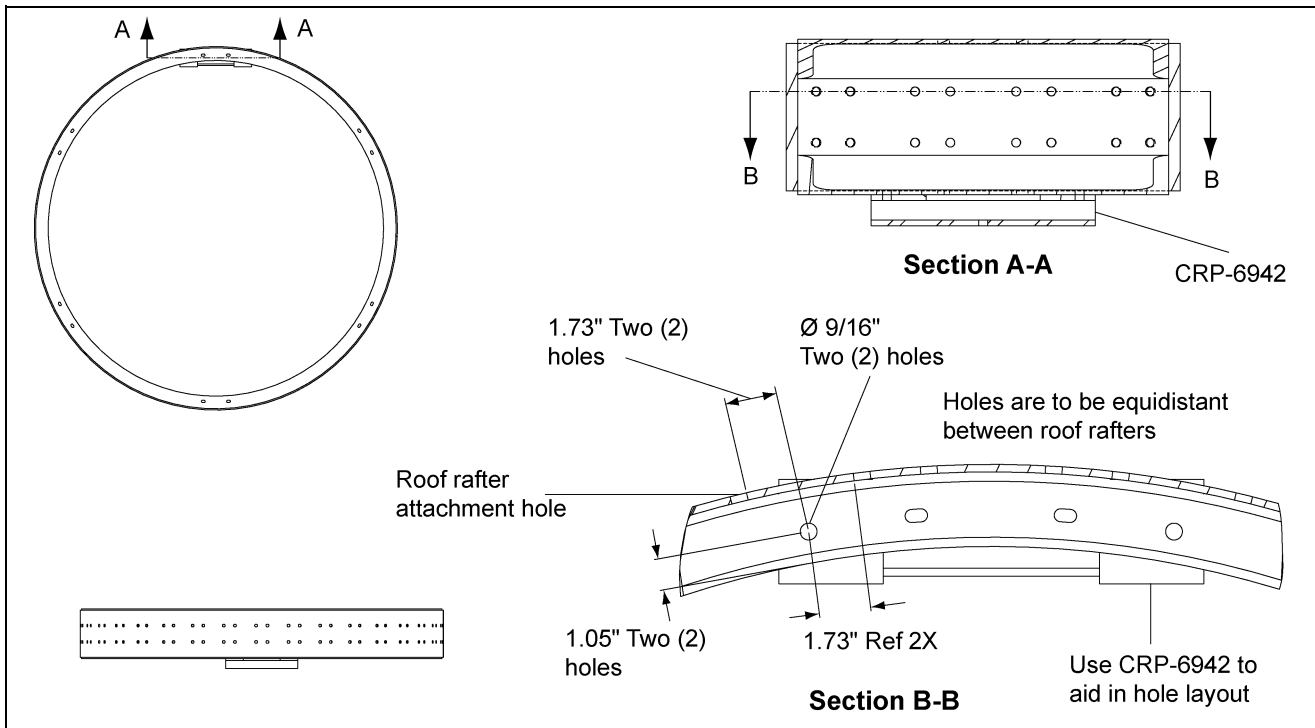


Figure 3B

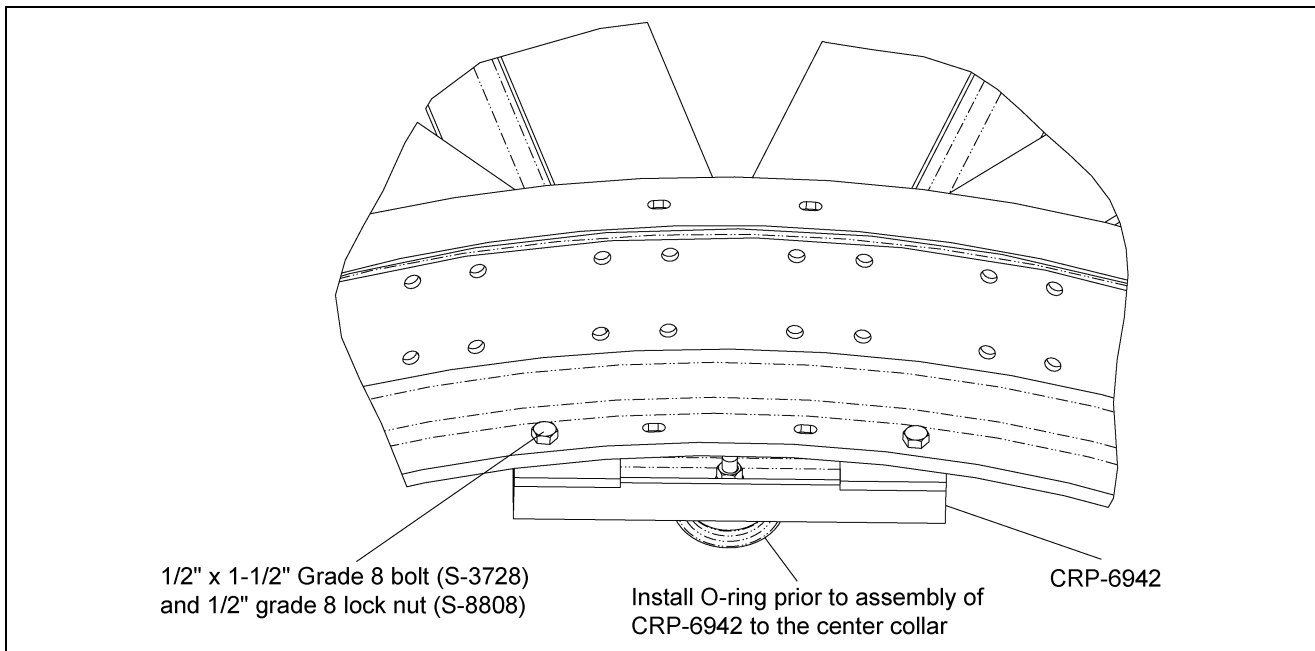
### 105'-25K Roof Fall Restraint Reinforcement Installation Instructions for CRP-6945 (Continued)

4. Drill holes in the center collar. For a reference, [See Figure 3C](#). The holes must be positioned equidistant between roof rafters and as close as possible to the manway, as shown. Use CRP-6942 to aid in the setup of holes.



**Figure 3C**

5. Install CRP-6942 to the center collar using two (2) 1/2" x 1-1/2" grade 8 bolts (S-3728) and nuts (S-8808). For a reference, [See Figure 3D](#).



**Figure 3D**

## 4. Installation in Existing Tanks

This section is for the installation of the fall restraint reinforcement kit to be retrofit in existing tanks only. See Chapter 3 [on Page 7](#) for installing in newly constructed tanks.

### 105'-25K Roof Fall Restraint Reinforcement Installation Instructions for CRP-6948

The center collar, all of the roof beam stiffeners and one eave tension plate will need to be drilled to allow for the assembly of this reinforcement kit.

1. Use CRP-6943 as a template to locate and drill four (4) 7/16" holes and one 9/16" hole in every roof beam stiffener as shown in [Figure 4A](#). Drill one 11/16" hole in only one roof beam stiffener at the termination point.

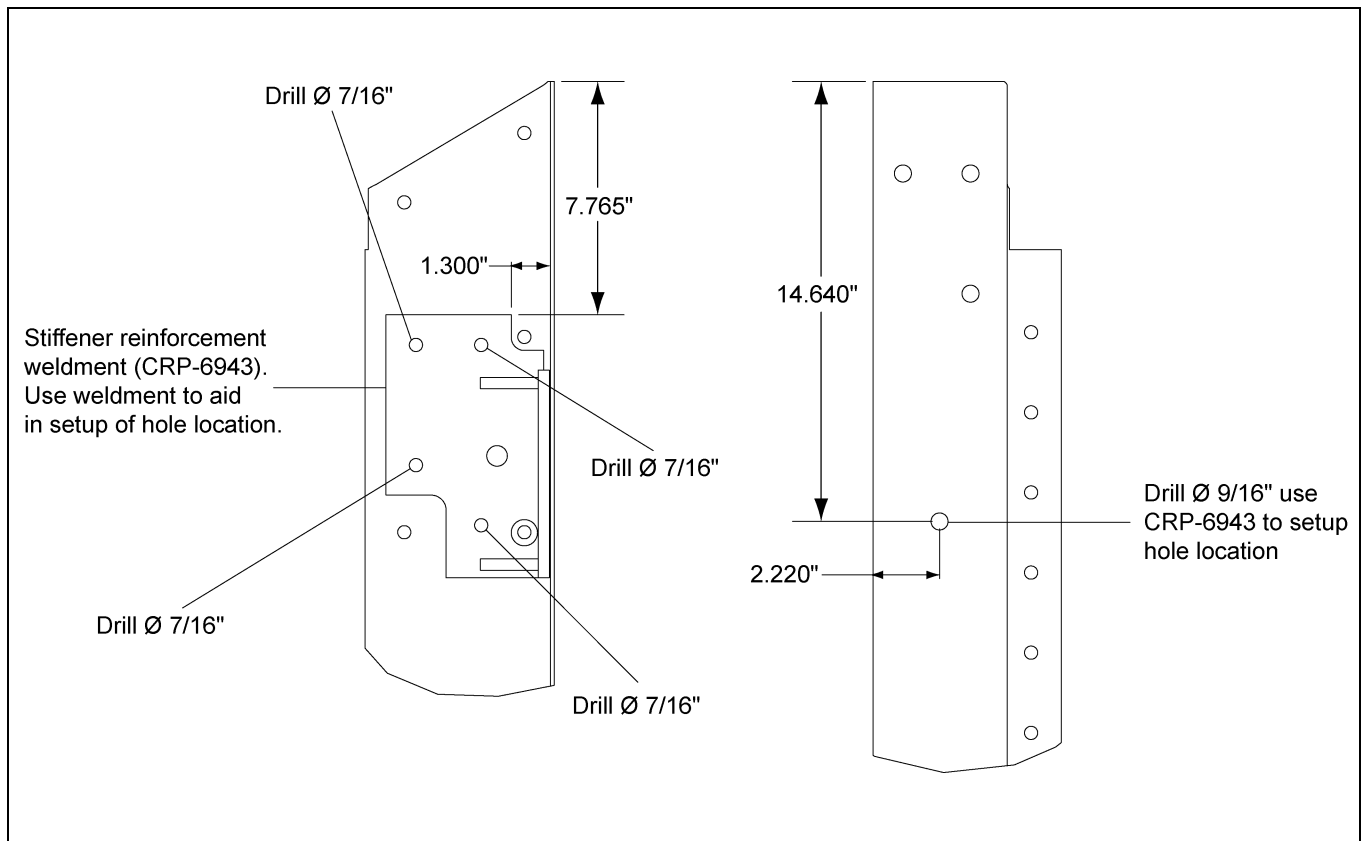


Figure 4A

## 105'-25K Roof Fall Restraint Reinforcement Installation Instructions for CRP-6948 (Continued)

2. Install CRP-6943 to every roof beam stiffener as shown in [Figure 4B](#) using four (4) 3/8" x 1-1/2" grade 8 flange bolts (S-7928) and flange nuts (S-9373).

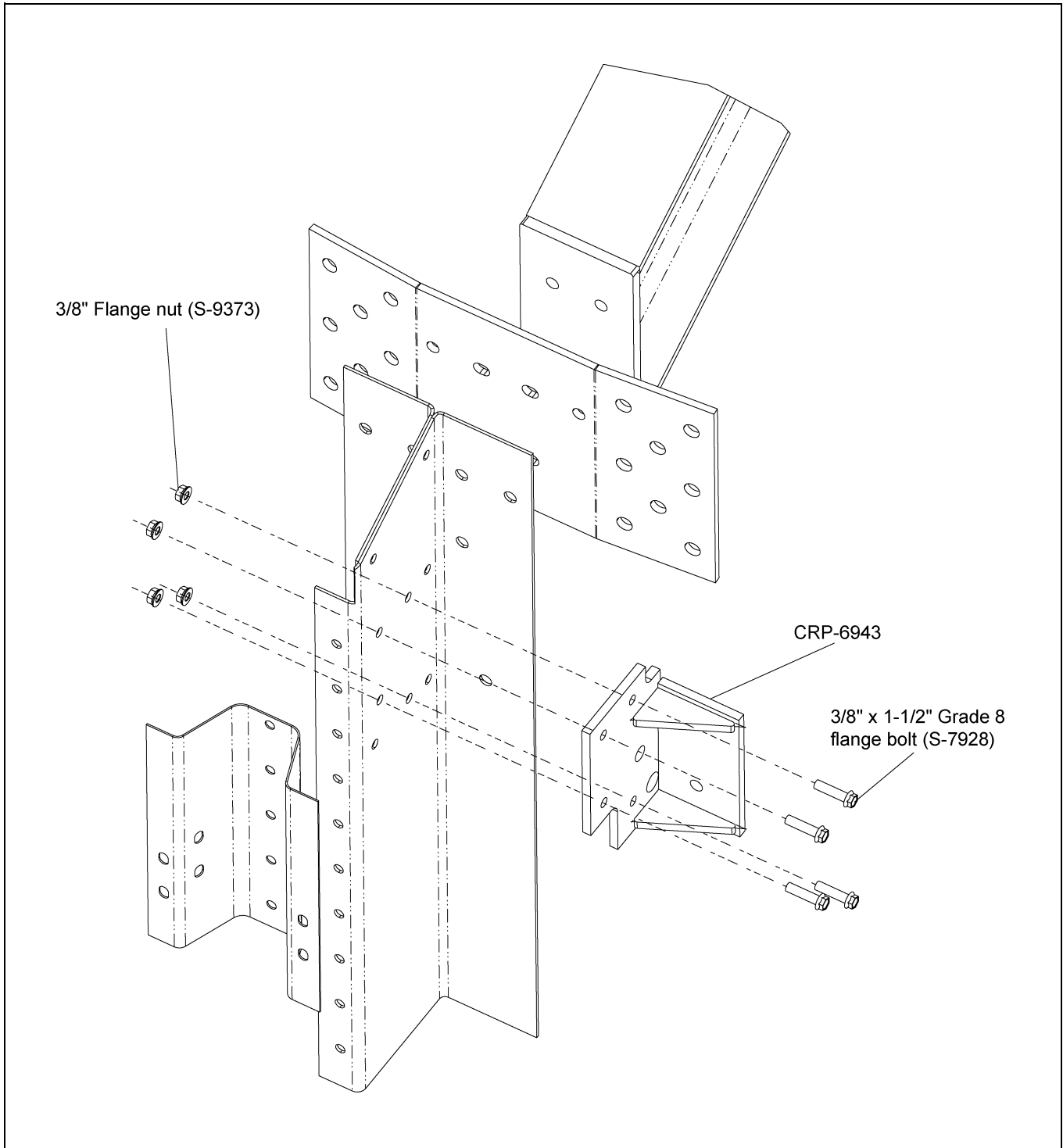


Figure 4B

## 4. Installation in Existing Tanks

### 105'-25K Roof Fall Restraint Reinforcement Installation Instructions for CRP-6948 (Continued)

3. Install CRP-6939 inside of the tank attached to the vertical row of stiffener bolts adjacent to the roof beam stiffener nearest the manway. For a reference, [See Figure 4C](#). Top stiffener bolts are to be removed to install CRP-6939. Replace the top stiffener bolts with two (2) 3/8" x 1-1/2" grade 8 bolts with steel back neoprene washers (S-5060). Use spacer (S-7041) between the sidewall and CRP-6939 as shown in [Figure 4C](#).
4. Use CRP-6939 to locate and drill two (2) 7/16" holes in the tension plate. For a reference, [See Figure 4C](#). Use two (2) 3/8" x 1-1/2" grade 8 flange bolts (S-7928) and flange nuts (S-9373) to attach CRP-6939 to the tension plate at the drilled holes. Use shims (CRP-6947) as necessary to fill the gap between the tension plate and CRP-6939.

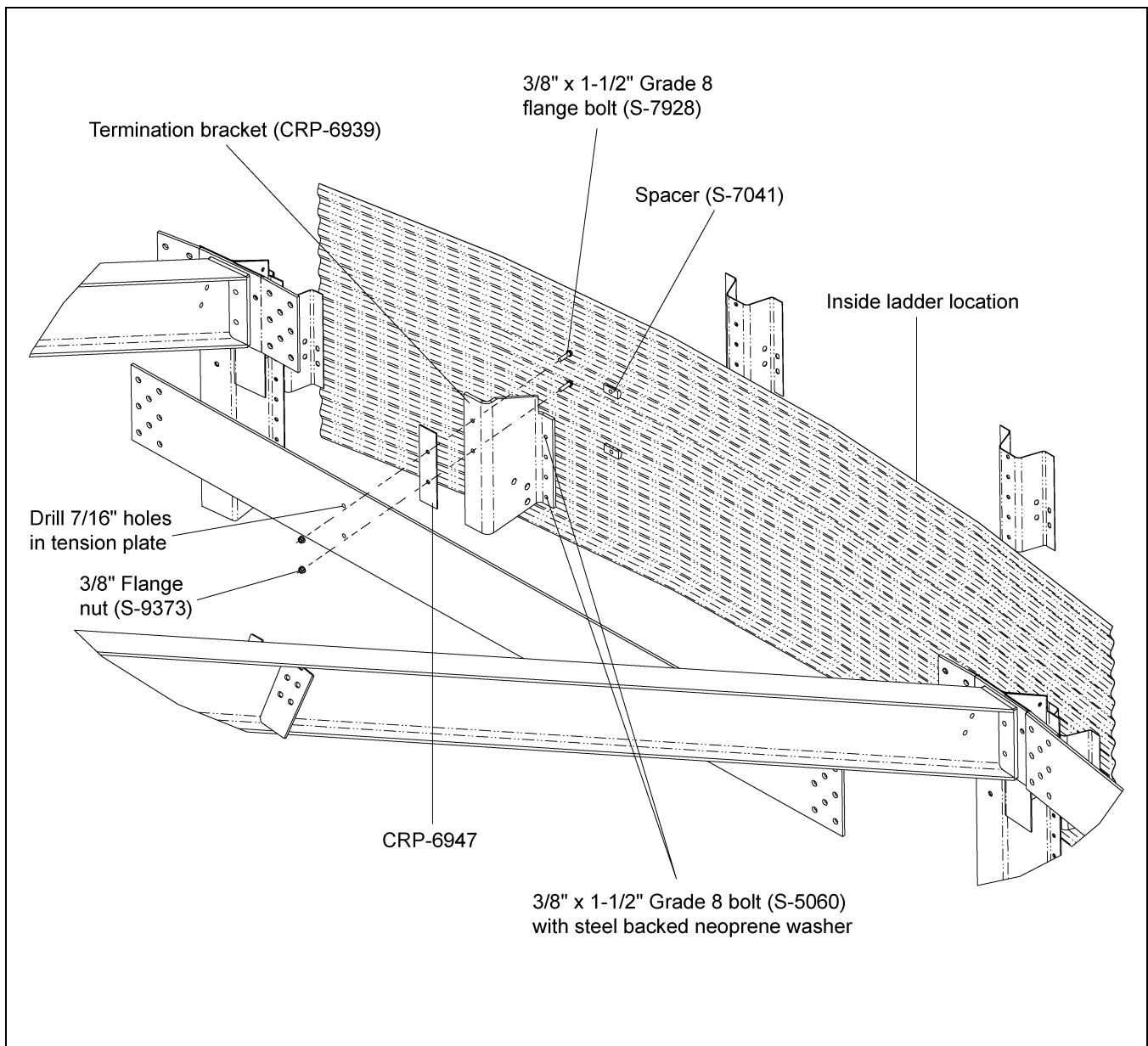


Figure 4C

### 105'-25K Roof Fall Restraint Reinforcement Installation Instructions for CRP-6948 (Continued)

5. Drill holes in the center collar. For a reference, *See Figure 4D*. The holes must be positioned equidistant between roof rafters and as close as possible to the manway, as shown. Use CRP-6942 to aid in the setup of holes.

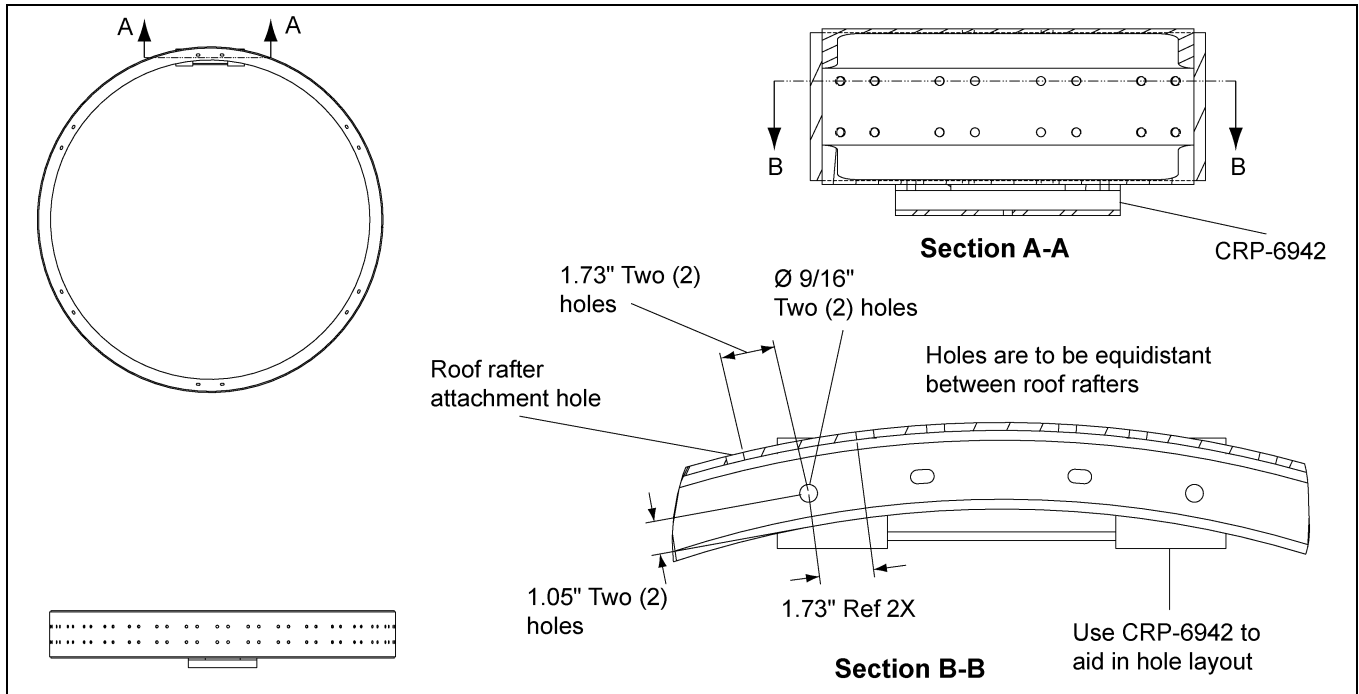


Figure 4D

6. Install CRP-6942 to the center collar using two (2) 1/2" x 1-1/2" grade 8 bolts (S-3728) and nuts (S-8808). For a reference, *See Figure 4E*.

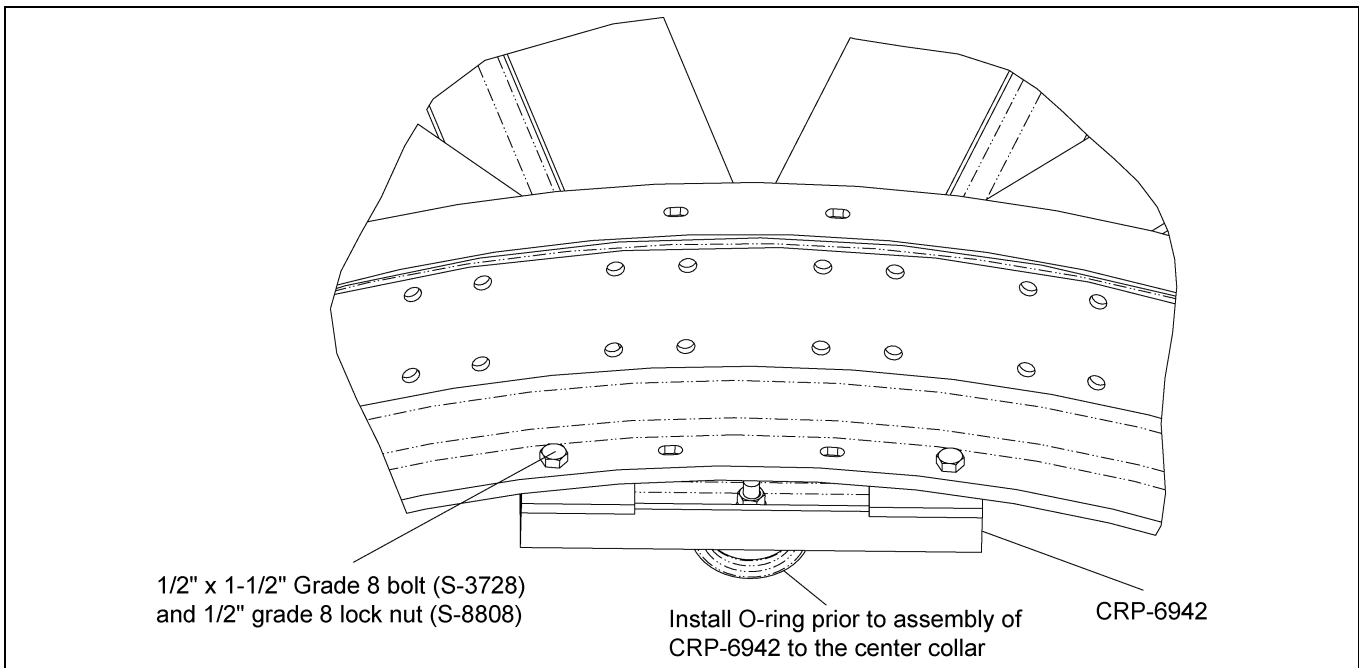


Figure 4E

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# NOTES

## GSI Group, LLC Limited Warranty

The GSI Group, LLC ("GSI") warrants products which it manufactures to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months after sale to the original end-user or if a foreign sale, 14 months from arrival at port of discharge, whichever is earlier. The end-user's sole remedy (and GSI's only obligation) is to repair or replace, at GSI's option and expense, products that in GSI's judgment, contain a material defect in materials or workmanship. Expenses incurred by or on behalf of the end-user without prior written authorization from the GSI Warranty Group shall be the sole responsibility of the end-user.

### Warranty Extensions:

The Limited Warranty period is extended for the following products:

	Product	Warranty Period	
<b>AP Fans and Flooring</b>	Performer Series Direct Drive Fan Motor	3 Years	* Warranty prorated from list price: 0 to 3 years - no cost to end-user 3 to 5 years - end-user pays 25% 5 to 7 years - end-user pays 50% 7 to 10 years - end-user pays 75%
	All Fiberglass Housings	Lifetime	
	All Fiberglass Propellers	Lifetime	
<b>Cumberland Feeding/Watering Systems</b>	Feeder System Pan Assemblies	5 Years **	** Warranty prorated from list price: 0 to 3 years - no cost to end-user 3 to 5 years - end-user pays 50%
	Feed Tubes (1-3/4" and 2.00")	10 Years *	
	Centerless Augers	10 Years *	
	Watering Nipples	10 Years *	
<b>Grain Systems</b>	Grain Bin Structural Design	5 Years	
<b>Grain Systems Farm Fans Zimmerman</b>	Portable and Tower Dryers	2 Years	† Motors, burner components and moving parts not included. Portable dryer screens included. Tower dryer screens not included.
	Portable and Tower Dryer Frames and Internal Infrastructure †	5 Years	

GSI further warrants that the portable and tower dryer frame and basket, excluding all auger and auger drive components, shall be free from defects in materials for a period of time beginning on the twelfth (12<sup>th</sup>) month from the date of purchase and continuing until the sixtieth (60<sup>th</sup>) month from the date of purchase (extended warranty period). During the extended warranty period, GSI will replace the frame or basket components that prove to be defective under normal conditions of use without charge, excluding the labor, transportation, and/or shipping costs incurred in the performance of this extended warranty.

### Conditions and Limitations:

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH ABOVE. SPECIFICALLY, GSI MAKES NO FURTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) PRODUCT MANUFACTURED OR SOLD BY GSI OR (II) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

GSI shall not be liable for any direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. The sole and exclusive remedy is set forth in the Limited Warranty, which shall not exceed the amount paid for the product purchased. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor.

GSI assumes no responsibility for claims resulting from construction defects or unauthorized modifications to products which it manufactured. Modifications to products not specifically delineated in the manual accompanying the equipment at initial sale will void the Limited Warranty.

This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained. This Limited Warranty extends solely to products manufactured by GSI.

Prior to installation, the end-user has the responsibility to comply with federal, state and local codes which apply to the location and installation of products manufactured or sold by GSI.

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

G S I G R O U P



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