



# Zip Rail System

Keep this Operations manual with the Zip Rail at all times. New users are required to read it before installing and using the Zip Rail system.

It is the Zip Rail owner's duty to arrange that all workers using this system are completely trained. Present all workers with this manual and verify that they have read and understand its contents. If necessary read the entire manual to each worker. Untrained and inadequately instructed workers should not install or use this system as it may result in property or materials damage and or serious injury or death to personnel.

Tie Down Engineering provides this operators manual with each Zip Rail System at the time of sale as a means to help instruct the owner/worker in the correct installation and use of the Zip Rail system and expects the reseller and owner/worker to make every effort to educate themselves regarding the installation, use and limits of the Zip Rail system before placing into service.



## WARNING



Before installing Zip Rail on a roof, a competent professional must evaluate the roof and its structure in order to determine whether it can hold the weight of not only the system but also all workers and other equipment that will be in the work immediate area. In addition the roof edge structure must also withstand the forces of a 200 lb. impact onto the top rail per OSHA 1926.502 conveyed against the Zip Rail system in the event a worker would fall against it.

Thank you for purchasing the Zip Rail System by Tie Down Engineering. With normal use and standard care, the Zip Rail System will serve you and your workers for many years. For Safety of the operator and workers it is essential that those installing and using the Zip Rail System read and understand this manual before setting up.

Date of Purchase: \_\_\_\_\_

Purchased From: \_\_\_\_\_



# ZIP RAIL

# Compression Kit #70736



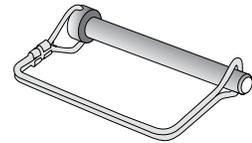
10 ft. Zip Rail - Painted Yellow #70733 (Qty. 63)



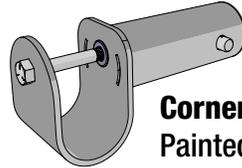
Adjustable Zip Rail 5' - 8' - Zinc Finish #70732 (Qty. 8)



Adjustable Zip Rail 32'' - 48''  
Zinc Finish #70731 (Qty. 4)

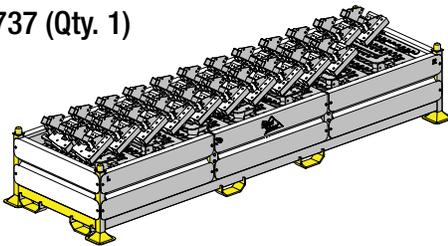


Safety Locking Pin  
#10500 (Qty. 36)

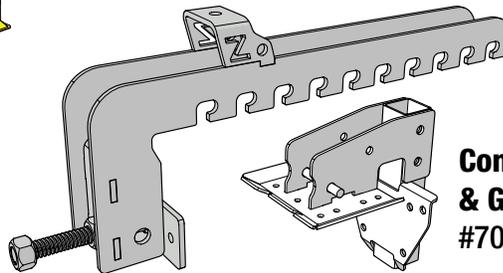


Corner Bracket Assembly  
Painted Yellow #70730  
(Qty. 12)

Zip Rail Stack Container  
#70737 (Qty. 1)

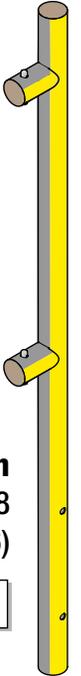


Complete Kit with Container  
#70736



Compression Bracket  
& Gravel Stop  
#70725/70723 (Qty. 36 each)

Zip Rail Stanchion  
Painted Yellow #70728  
(Qty. 36)



# ZIP RAIL

# Gravel Stop Kit #70755



10 ft. Zip Rail - Painted Yellow #70733 (Qty. 76)

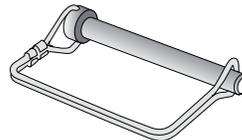


Adjustable Zip Rail 5' - 8' - Zinc Finish #70732 (Qty. 8)



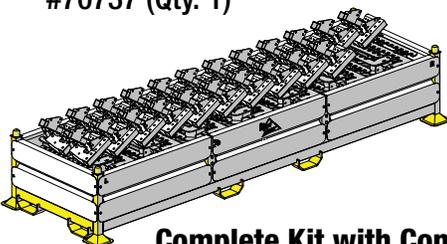
Adjustable Zip Rail 32'' - 48''  
Zinc Finish #70731 (Qty. 4)

Zip Rail Stanchion  
Painted Yellow #70728  
(Qty. 43)

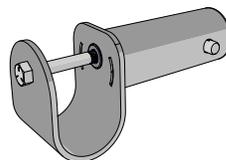


Safety Locking Pin  
#10500 (Qty. 43)

Zip Rail Stack Container  
#70737 (Qty. 1)

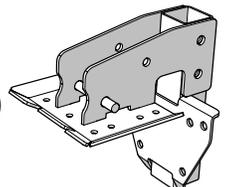


Complete Kit with Container  
#70755



Corner Bracket Assembly  
Painted Yellow #70730  
(Qty. 6)

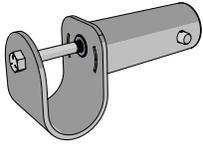
Gravel Stop  
#70723 (Qty. 43)



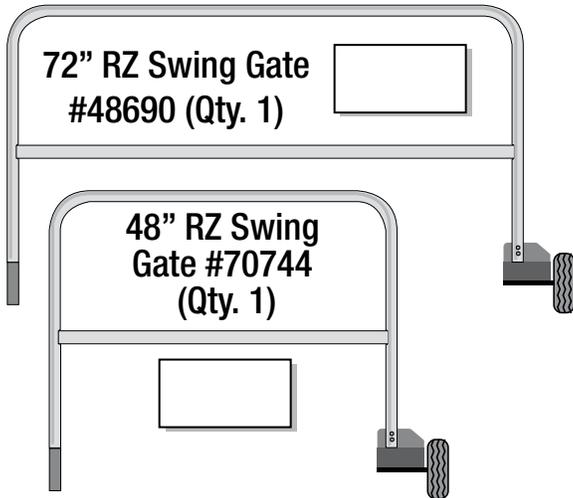
# ZIP RAIL

## Optional Kit "A"

### #70740

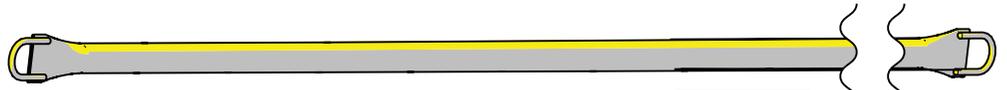
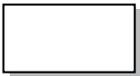


Corner Bracket Assembly  
Painted Yellow #70730 (Qty. 8)



72" RZ Swing Gate  
#48690 (Qty. 1)

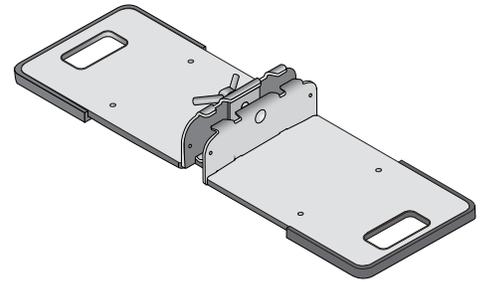
48" RZ Swing Gate  
#70744  
(Qty. 1)



10 ft. Zip Rail - Painted Yellow #70733 (Qty. 8)



Zip Rail  
Stanchion  
Painted  
Yellow #70728  
(Qty. 4)



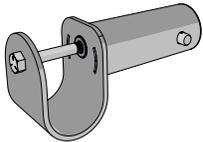
RZ Guard Rail Base Assembly  
#48680 (Qty. 4)



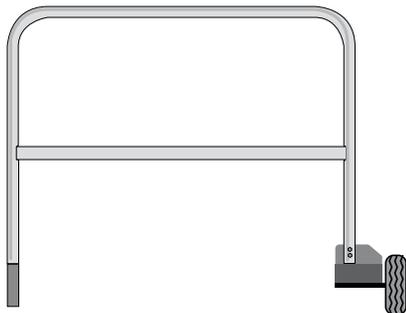
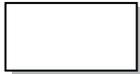
# ZIP RAIL

## Optional Kit "B"

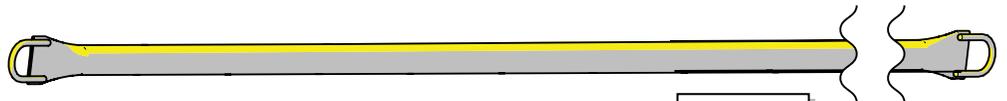
### #70741



Corner Bracket Assembly  
Painted Yellow #70730 (Qty. 4)



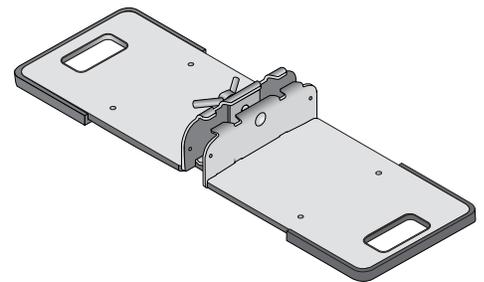
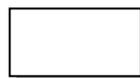
48" RZ Swing Gate #TBD  
(Qty. 1)



10 ft. Zip Rail - Painted Yellow #70733 (Qty. 4)



Zip Rail  
Stanchion  
Painted  
Yellow #70728  
(Qty. 2)



RZ Guard Rail Base Assembly  
#48680 (Qty. 2)



## Intended Use

The Zip Rail System is designed for providing fall protection for workers near the roof edge according to the standards set forth in OSHA 1926.502. These activities are to be performed on flat, level roofs only with a maximum pitch of ½ in per foot (.5/12). Any other use of the Zip Rail System not mentioned here voids the manufacturer's warranty and is the sole responsibility of the owner/worker should any damage or injuries occur.



### **WARNING**



**Before work begins, install OSHA approved perimeter guarding systems around all roof edges, openings, skylights, and roof hatches which are left open or removed.**

**It's against the law to leave the above roof areas unguarded and will result in fines against the contractor if any unguarded openings are on the roof**

**In the event of injury or death from falling due to an unguarded edge or opening, litigation and prosecution may be brought against the contractor, equipment owner and building owner.**

**WARNING:** Working at or near the roof edge is dangerous and can subject the worker to serious injury or death from falls. The roofing contractor and the worker must make every effort to insure the area where he/she will be working is as safe as possible. This means taking only the tools you need to the roof edge, removing all trip hazards and loose materials, the wearing and proper use of OSHA approved fall arrest devices. Use harnesses and life-lines when and where required, make no sudden or unplanned moves and always be constantly aware of your surroundings and your position/location relative to the roof edge.

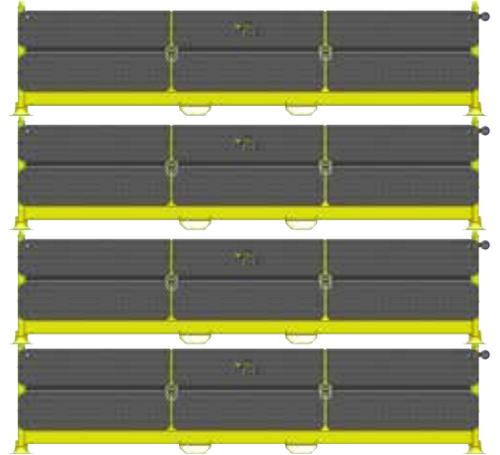
It is also imperative that the worker read the operators manual for this Zip Rail system and thoroughly understand how to set up and use this system. This includes knowledge of what the system can do and also how to avoid situations this system was not designed to handle. Tie Down Engineering provides this manual at the time of sale as a tool to help instruct the owner/worker in the proper use of the Zip Rail system and expects the reseller and owner/worker to make every effort to educate themselves before putting this system into service.

## Zip Rail Containers



**DO**

**DON'T**



**IMPORTANT!  
DO NOT STACK MORE THAN  
4 UNITS HIGH**

**When lifting with a forklift;  
Lift one container per forklift operation.**

## Preparation

**READ Zip Rail Operators Manual!** Reading and comprehending the Zip Rail manual completely is the required first step to working safely. Any person not fully understanding the use of the Zip Rail system can cause injury and or death to themselves and others. ***NOTICE TO Worker! Make sure you have full proficiency on how to install the Zip Rail system as well as its limitations before using. All workers must READ AND UNDERSTAND THE OPERATORS INSTRUCTION MANUAL!***

### **Proper Attire When Roofing**

When roofing or repairing any roof, if any cutting, scraping or sweeping is being done wear safety glasses. If overhead work is being done, hardhats must be worn. When working with hot materials, wear long sleeved shirts. Also Long pants without cuffs as well as a proper face covering are required.

### **Job Site Preparation**

1. Before hoisting Zip Rail System carrier to the roof: First, the roof must be able to support the combined weight of the carrier (2,500 lbs.) plus all materials, equipment, and personnel which will be on the roof.
2. Setting up the Zip Rail system for use on the roof with parapet: Be sure that the area where the Zip Rail carrier will be placed is free of debris and loose materials. Also the area should be free of ice, snow, water, oils, dirt, dust, loose materials that may cause a tripping hazard.

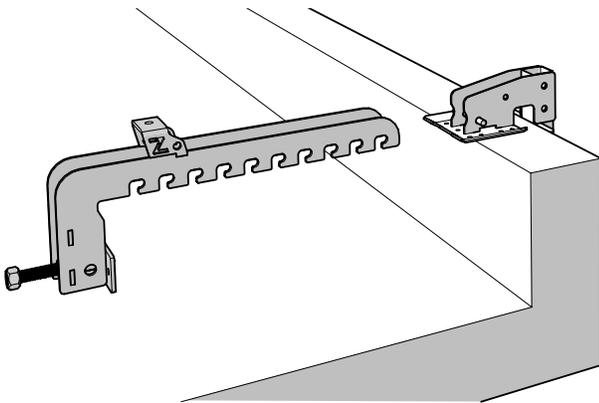
**WARNING!**

No worker should be on the roof or sent to any job or repair site by themselves. This leaves the worker unaided in the event of an accident regardless of its nature.

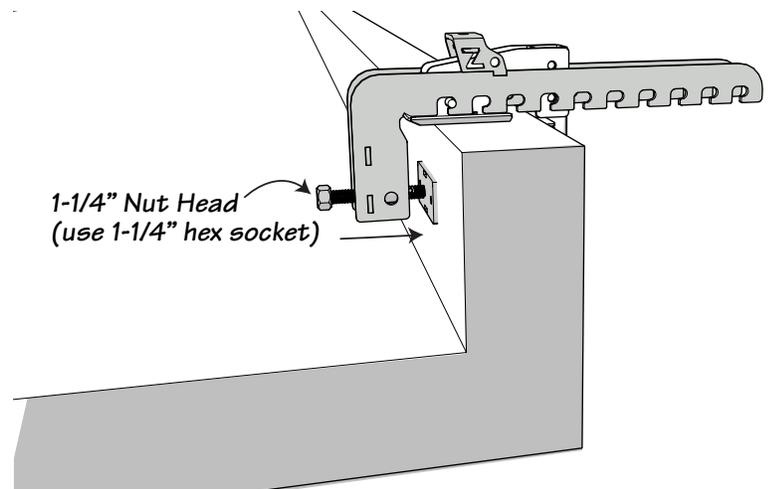
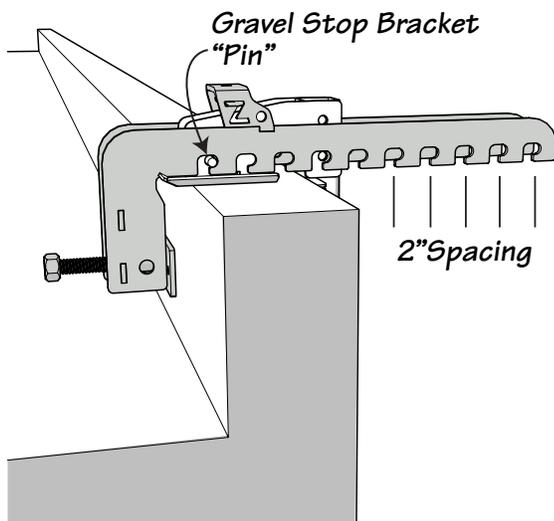
**WARNING!**

To install Zip Rail system at the roof edge, all workers must be tied off to an OSHA approved fall arrest system. Workers must remain attached to the fall arrest system until installation of the Zip Rail system is complete.

## Assembly Instructions



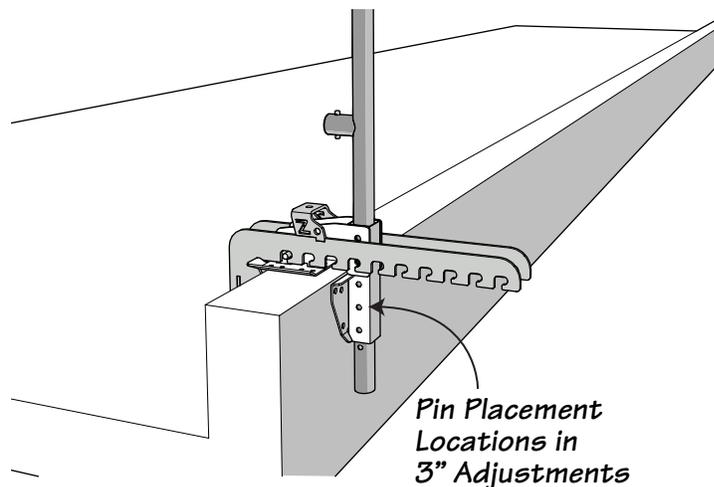
Place Compression Bracket over top of parapet as shown. Prior to installing, make sure that the parapet surface is in good condition and capable of supporting the compression bracket.



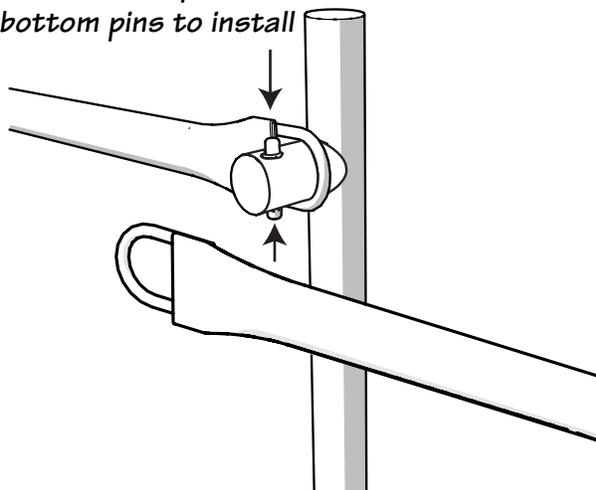
Place Compression Bracket over the Gravel Stop Bracket with keyhole slot fitting over the pin, as close to the parapet wall as possible. The Compression Bracket and Gravel Stop Bracket can be fitted ahead of time for faster installation. Slot spacing is 2 inches. Tighten Compression Bracket using 1-1/4" socket or open wrench.

# Assembly Instructions

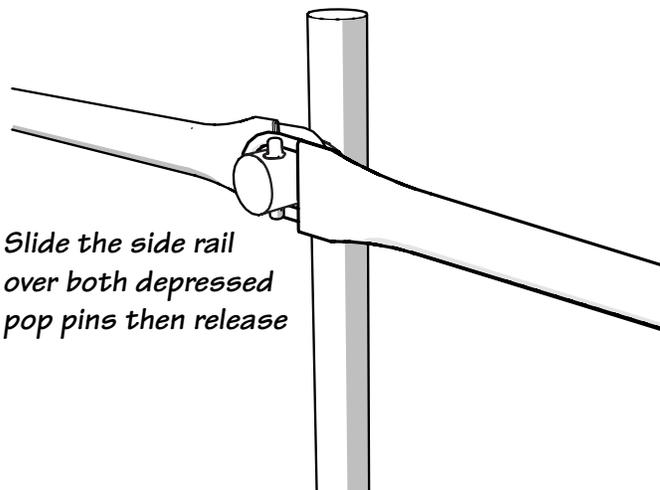
To install Stanchion Tube into Compression Bracket, lower until the top of Stanchion Tube is 42" from roof top walking level. Pin into place with the short tubes facing worker. Holes on compression bracket provide for 3" adjustment increments.



*Press both top and bottom pins to install*



*Slide the side rail over both depressed pop pins then release*

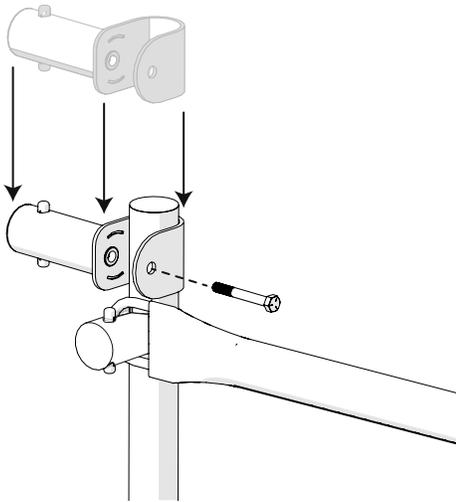
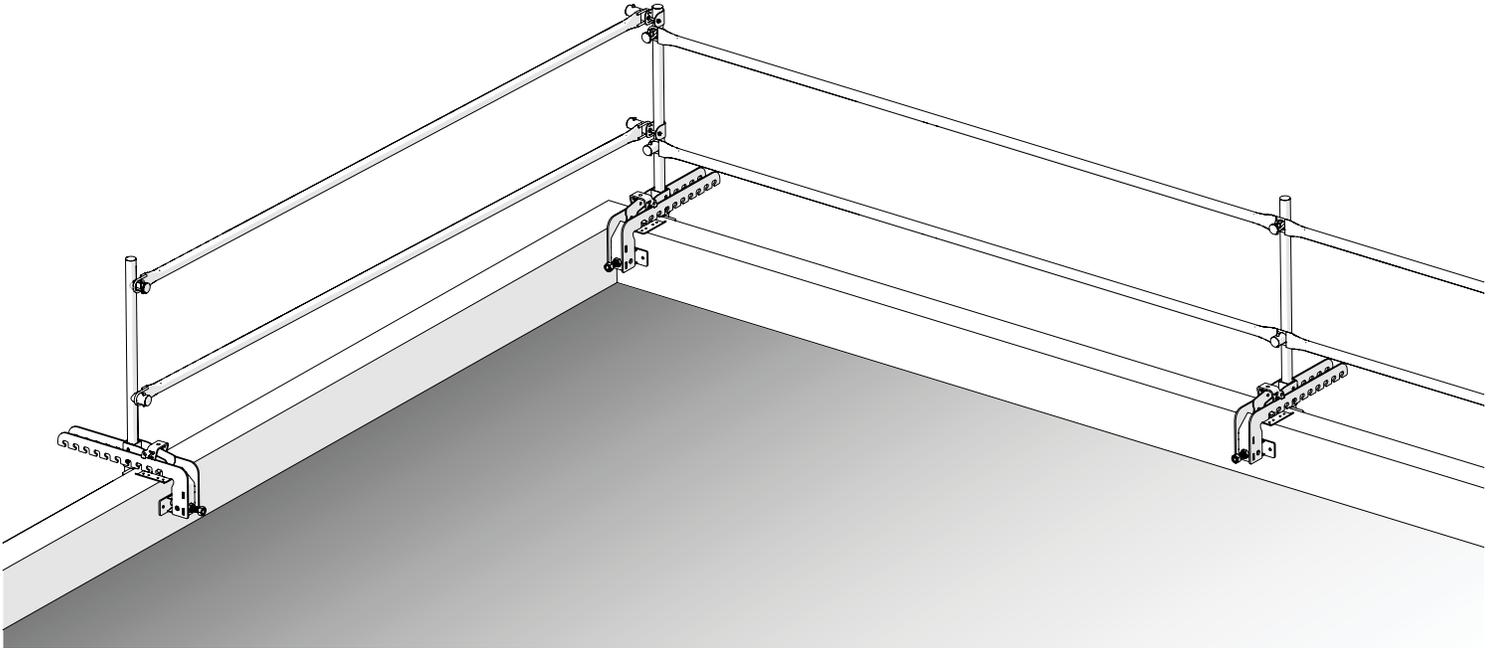


## **Placing rails into Stanchion:**

Slide rail U-bolt onto short tubes of stanchion. Squeeze pop pins in with fingers to insert rail into position as shown. Continue adding upper and mid-rails in the same manner until the Zip Rail System is completed.

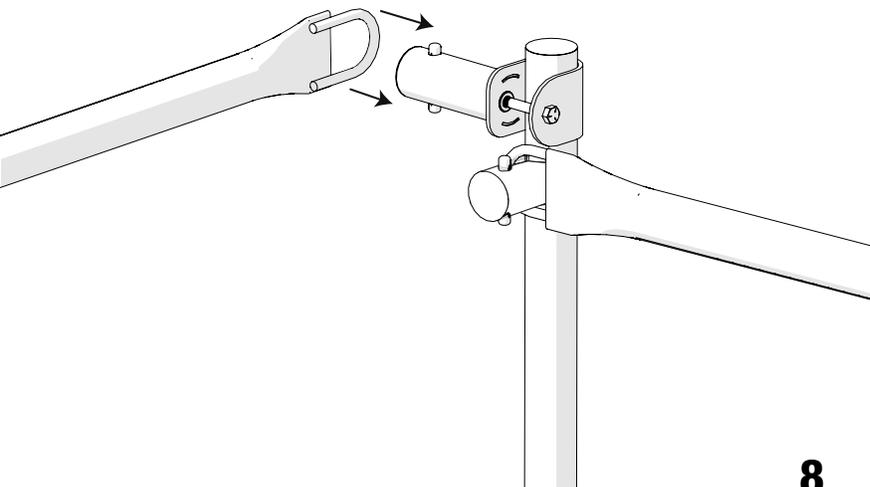
**WARNING! To install Zip Rail system at the roof edge, all workers must be tied off to an OSHA approved fall arrest system. Workers must remain attached to the fall arrest system until installation of the Zip Rail system is complete.**

# Zip Rail Corner Assembly



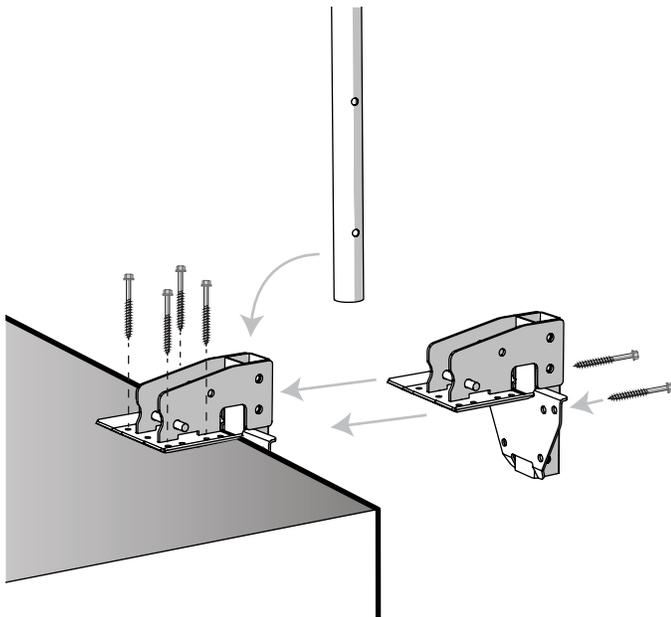
Slide corner bracket over stanchion and lightly tighten bolt.

Install corner brackets on the next stanchion. Slide rails onto corner brackets; lightly tighten so that positioning can be completed. Once positioned, make sure to tighten corner bracket bolts.



Continue installing Zip Rail.

# Zip Rail with Gravel Stop



1/4" x 2" Standard Lag Bolt  
(for wood, 4 required)



5/16" x 3-1/2" SPAX® Lag Bolt  
(for wood, 2 required)



1/4" x 2-1/4" Tapcon Blue Steel ST Screws  
(for concrete, 4 required)

Zip rail can also be installed by attaching Gravel Stop Bracket directly to the building with screws or concrete anchors. It is imperative that the building parapet structure (both vertical and horizontal) to properly secure the screws in order to allow the Zip Rail system to meet the OSHA specification of 200 lb. push on the top rail.

## Attaching Zip Rail with Gravel Stop

Attach with a minimum of:

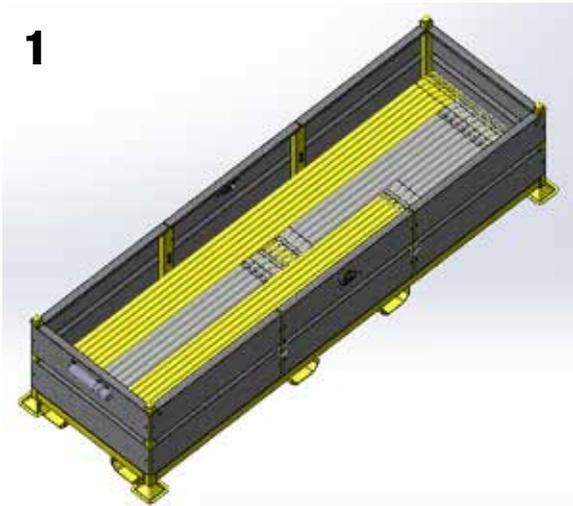
- (4) 1/4" x 2" lag bolts (for wood)
- or (2) 2-5/16" x 3-1/2" SPAX Self tapping lag bolts (for wood) **IMPORTANT: Mount only to top vertical plate holes (see illustration above)**
- or (4) 1/4" x 2-1/4" Tapcon Blue Steel self tapping concrete screws (for concrete).

Be sure to install equal number of fasteners on each side of compression plate; for example 2 on the left and 2 on the right.

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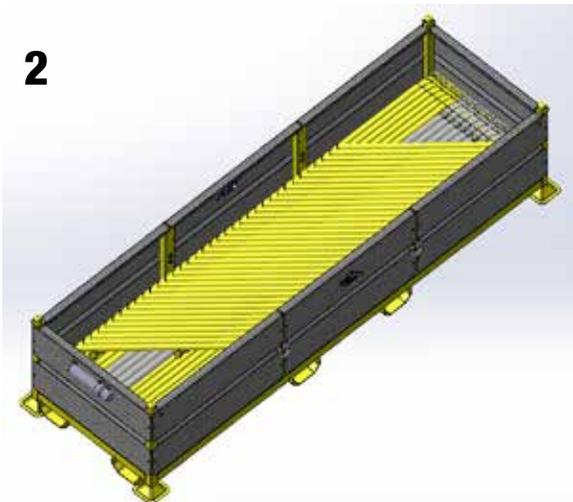
# Repacking Zip Rail into Shipping Container

**1**



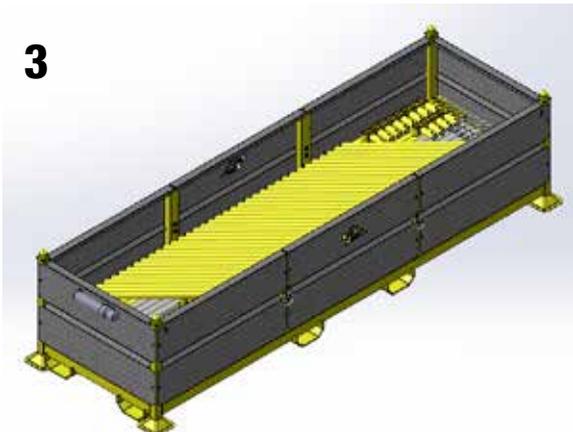
Place all 10 ft. rails length wise, it may require 2 to 3 levels. Once all the 10 ft sections are packed, add the adjustable rails.

**2**



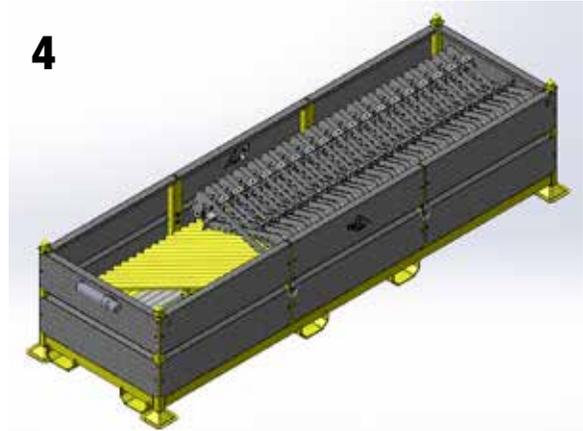
Start on one end and position the stanchions at a 45 degree angle.

**3**



Place the corner bracket assemblies one end of the container.

**4**



Start on the end and place the compression brackets only. Alternate (rotate 180 degrees) the placement of the compression bracket each time.

**5**



Place the gravel stop brackets into the remain available space on the end.

## ZIP RAIL PRODUCT LINE LIMITED WARRANTY

Tie Down Engineering will repair or replace, free of charge, any part, or parts of the Zip Rail that are defective in material or workmanship or both. The limited warranty is in effect for 12 months (1 year) from date of purchase. Return the defective unit to the dealer or contact Tie Down direct at 800-241-1806.

This warranty does not apply to damage or loss caused by any or all of the following circumstances or conditions:

- Damage caused during assembly or installation.
- Parts, accessories, materials or components used with or replacing any TIE DOWN Zip Rail part not obtained from or approved in writing by TIE DOWN.
- Misapplication, misuse and failure to follow the directions or observe cautions and warnings on installation, operation, application, inspection or maintenance specified in any TIE DOWN quotation, acknowledgment, sales literature, specification sheet or installation instruction and service manual ("applicable literature").
- Use of product in any other application other than those described in TIE DOWN's product information materials.

If any TIE DOWN products are found upon TIE DOWN's examination to have been defective when supplied, TIE DOWN will either: credit the purchaser's account for the purchase price of the TIE DOWN product; replace the TIE DOWN product; or repair the product. TIE DOWN has sole discretion in choosing which option to provide. For this LIMITED WARRANTY to apply, TIE DOWN must receive notice of the alleged defect within 30 days of either the discovery of the alleged defect or the expiration of the warranty period, whichever is earlier. Any claim not made within this period shall conclusively be deemed waived.

If requested by TIE DOWN, purchaser shall return the alleged defective product to TIE DOWN for examination at purchasers expense. TIE DOWN will not pay for expenses incurred in returning a product to TIE DOWN without TIE DOWN's prior written authority. TIE DOWN shall not be liable for any other expenses purchaser incurs to remedy any defect. Purchasers waive subrogation on all claims under any insurance.

**Limitation of Liability:** It is expressly agreed that the liability of TIE DOWN is limited and TIE DOWN does not function as an insurer. THE REMEDIES SET FORTH IN THIS WARRANTY SHALL CONSTITUTE THE EXCLUSIVE REMEDIES AVAILABLE TO THE PURCHASER OR USER AND ARE IN LIEU OF ALL OTHER REMEDIES, EXPRESS OR IMPLIED. THE LIABILITY OF TIE DOWN, WHETHER IN CONTRACT, IN TORT, UNDER ANY WARRANTY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE OF THE PARTICULAR PRODUCT MANUFACTURED, SOLD OR SUPPLIED BY TIE DOWN.

**To Obtain Technical Assistance:** To enable TIE DOWN to respond to a request for assistance or evaluation of customer or user operating difficulty, please provide at a minimum the following information by calling 404-344-0000:

- Model number, serial number and all other data on the specific component which appears to be involved in the difficulty.
- The date and from whom you purchased your TIE DOWN product.
- State your difficulty, being sure to mention at least the following: Application, Nature of load involved, and Weight of the load.

**THIS WARRANTY DOES NOT COVER NOR EXTEND TO INCIDENTAL OR CONSEQUENTIAL DAMAGE.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

No representative has authority to make any representation, promise or agreement except as stated in this Limited Warranty. TIE DOWN reserves the right to make design and other changes upon its products without any obligation to install the same on any previously sold or delivered products.

**THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE DESCRIBED ABOVE. EFFECTIVE JANUARY 2016 THIS WARRANTY SUPERSEDES ALL PRIOR WARRANTIES, WRITTEN OR IMPLIED.**

# Zip Rail System

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