

For detailed video installation instructions, please go to: www.unex.com/instructions

Assembling SpeedCartt requires:

- A 3/16" Allen wrench

DO NOT USE A HAMMER.

Before inserting any posts:

Check and back out any set screws that may be too far inset.

1 Assemble the framework

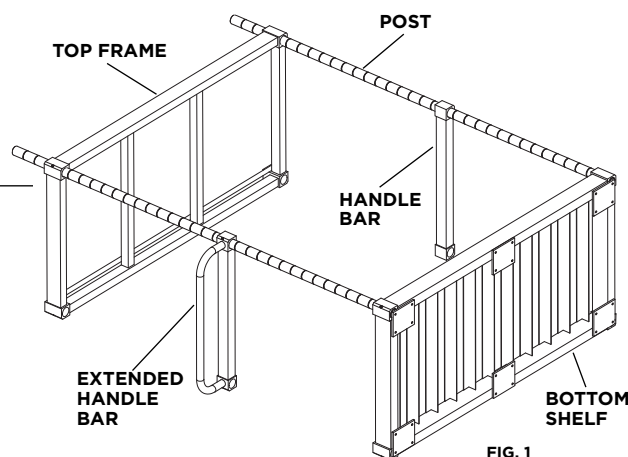
Set bottom shelf on the floor on its side. Position the first post into the bottom shelf, and tighten the set screw using the Allen wrench.

Slide the handle bar onto the first post.

Position the second post into the bottom shelf and tighten the set screw.

Slide the extended handle bar onto the second post.

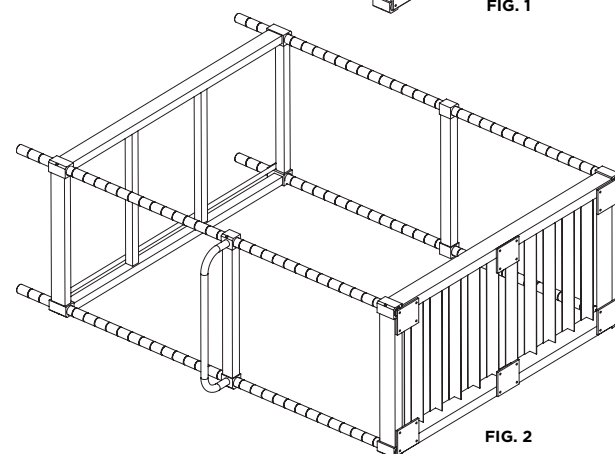
Slide the top frame onto the first and second posts. (FIG. 1)



2

Turn the framework over and inset the remaining posts. Tighten all set screws. (FIG. 2)

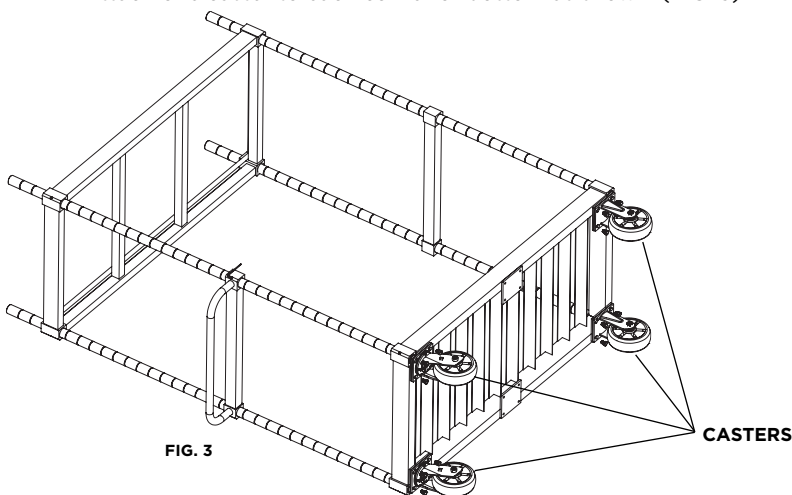
Place plastic inserts into holes on top of set screws to cover.



3

Install the casters

Attach one caster to each corner of bottom as shown. (FIG. 3)



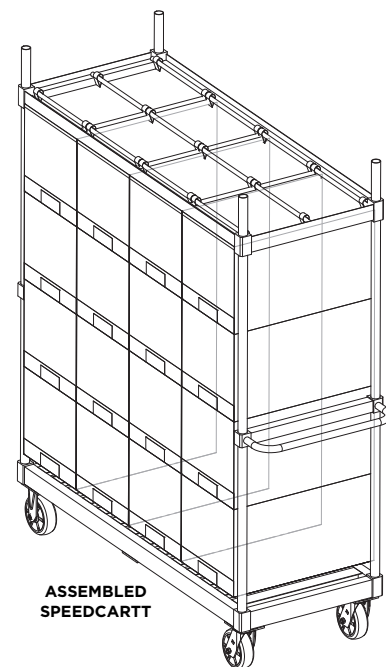
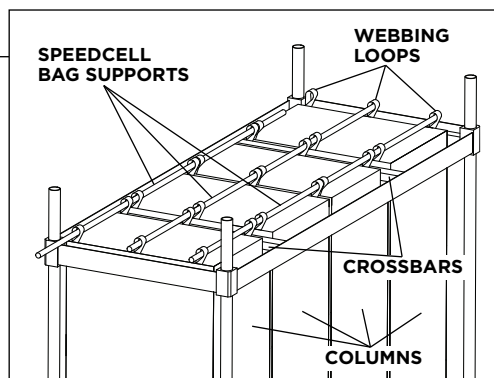
4

Install the columns

Stand the Cartt upright on casters.

Thread the SpeedCell bag supports through the webbing loops on top of the columns, keeping the supports on top of the cross bars on the top frame. Repeat for front, middle and back supports. (FIG. 4)

Overlap the webbing loops on the supports to keep columns from separating.



For detailed video installation instructions, please go to: www.unex.com/instructions

A FlowCell modular unit starts with a framework of vertical Posts & horizontal Beams (**FlowCell Structure**) bolted together with 3/8"-16 hardware (included)—only one wrench size (9/16") is required. This base structure plus **SpanTrack carton flow track** and any of several optional features complete the FlowCell assembly.

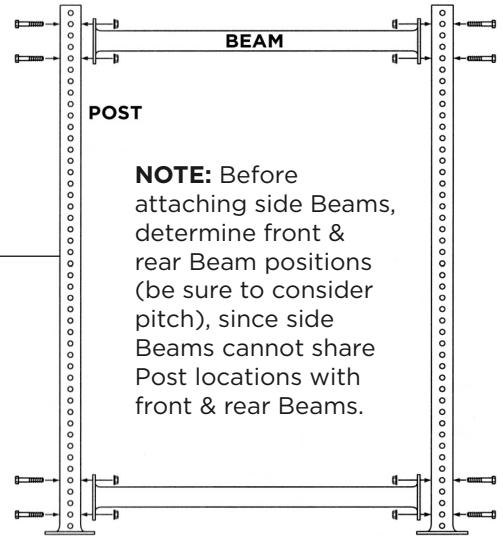
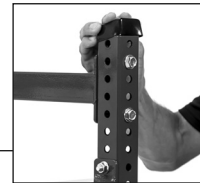
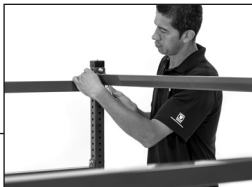
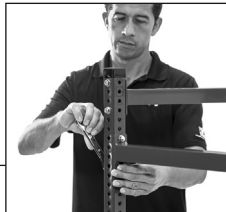
FlowCell Structure

- 1** Attach side Beams (2) to Posts (2) for each side of cell — one high, one low. FlowCell with Tool Bar will have 2 longer posts at front. Note: Ensure foot plates oriented in the same direction. If using rigid casters, align long dimension of plates in direction cell is to roll. The 3/8"- 16 UNC GRADE 2 hardware used to assemble the FlowCell has a recommend torque of 20 lb-ft.

- 2** Join the 2 sides by bolting on front beams at discharge heights at front of cell. For return lane front beam would be at load height.

- 3** Bolt on rear beams for each level approximately 1" higher per foot than front beams. Recommended pitch is 1 inch for every 1 foot of rack depth.

- 4** Slip plastic End Caps onto posts.



FlowCell Options (all necessary brackets and hardware are included)

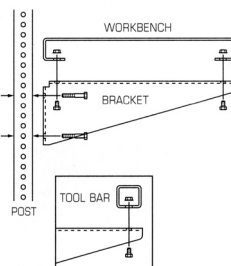
CASTERS

Attach casters to foot plates using 3/8" bolts. (provided)



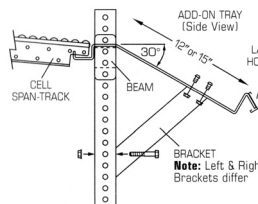
WORKBENCH

Attach shelf brackets (2) to posts at desired height using 3/8" bolts. Attach workbench, inserting 4 bolts from below.



OVERHEAD TOOL BAR

Attach brackets (2) at top of front posts using 3/8" bolts. Attach tool bar strut channel with 2 bolts inserted from below, and 2 strut nuts.



ADD-ON TRAY

Attach tray brackets to tray. Hang back of tray over front beam. Bolt brackets to posts. Attach full-length Label Holder to front surface of Add-On Tray using two-sided tape (provided on back side of Label Holder).

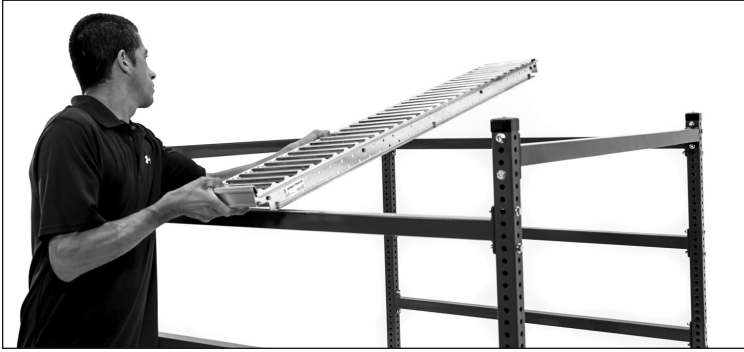


For detailed video installation instructions, please go to: www.unex.com/instructions

FlowCell framework (vertical Posts & horizontal Beams) accepts Cell SpanTrack and High Profile SpanTrack models.

Cell SpanTrack (Lane or Bed)

Drop-in installation. Notched front end rests on beam. Flat plate at rear wraps over beam.



High Profile & Knuckle SpanTrack Lane

Attach pre-punched Retainer Angles to front and rear beams (fig. 1) using supplied tek screws. Position track on retainers and lock into desired position with Lock Arm at load end of track (fig. 2).

Lock Arm can be positioned for track end flush with beam or overhanging.

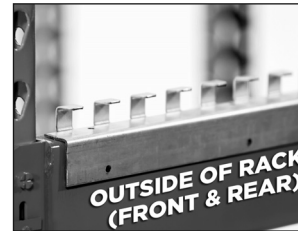


Figure 1

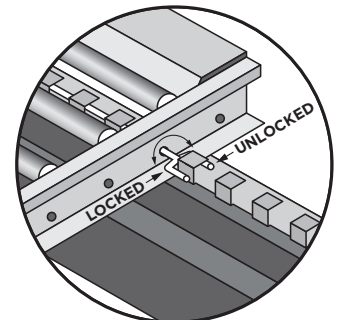
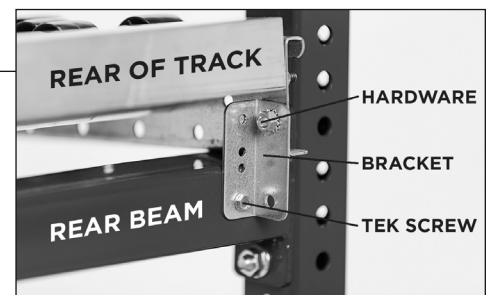


Figure 2

Knuckled end of track must extend entirely beyond beam

High Profile SpanTrack Wheel

Position the wheel bed track in the desired location on top of the beams. Once in position, line up the bracket with channel hole and beam hole. Affix the bracket with included hardware to the track. Once hardware is installed you can tek screw the bracket to the beam. Repeat for each side of the track. For more detailed installation instructions and video please refer to the product page at: unex.com/product/flow-cell



Test Pitch

With SpanTrack installed test pitch to ensure that products/totes flow effectively. Adjust beams if necessary.

This guide illustrates how to assemble one FCSKXXX and two FCSKXXX-TAND kits only. The FCSKXXX and FCSKXXX-TAND can be any width but must all be the same depth.

The shelf kits have been identified as follows:

- X - STANDARD SHELF KIT
- Y - TANDEM SHELF KIT (INTERIOR)
- Z - TANDEM SHELF KIT (EXTERIOR)

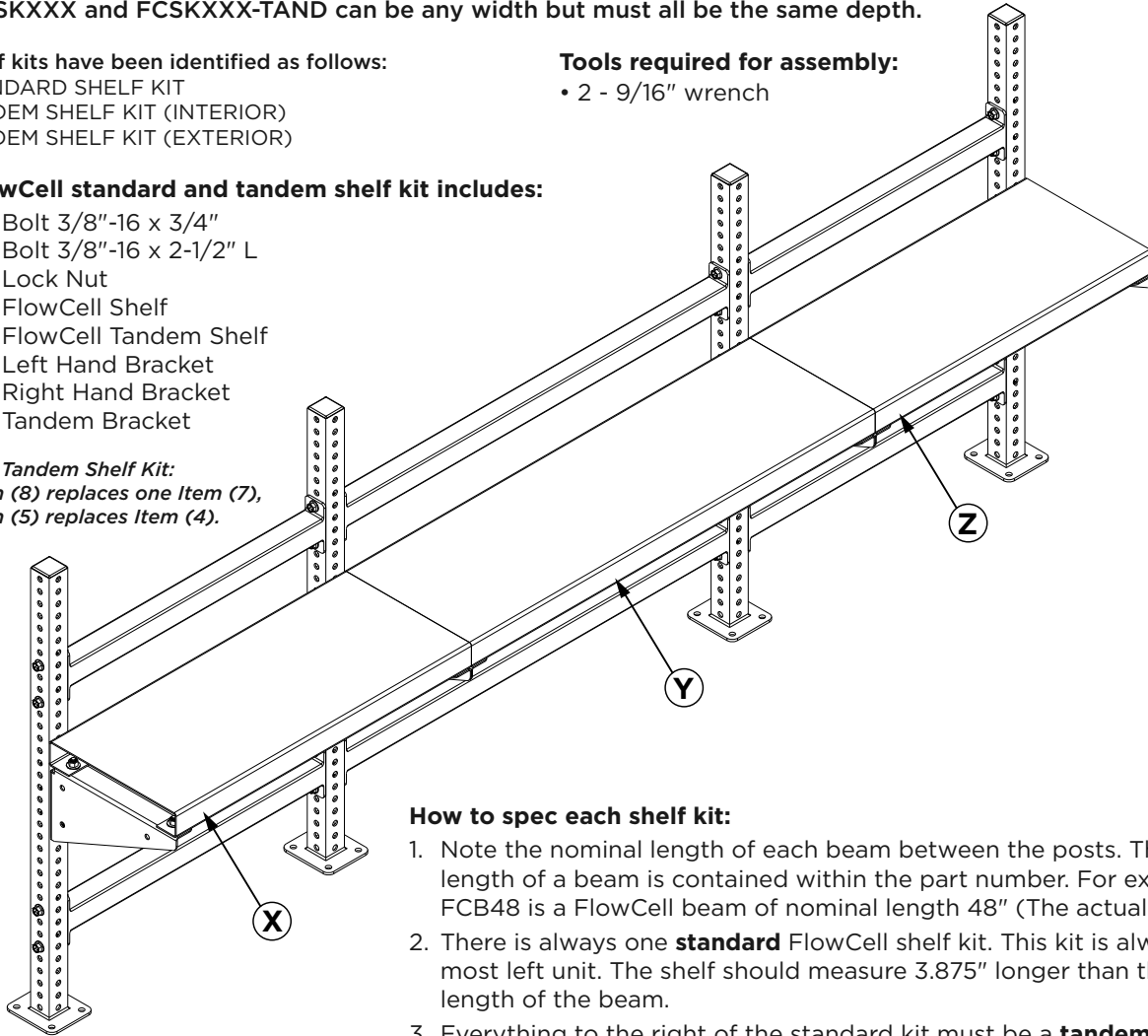
Tools required for assembly:

- 2 - 9/16" wrench

FlowCell standard and tandem shelf kit includes:

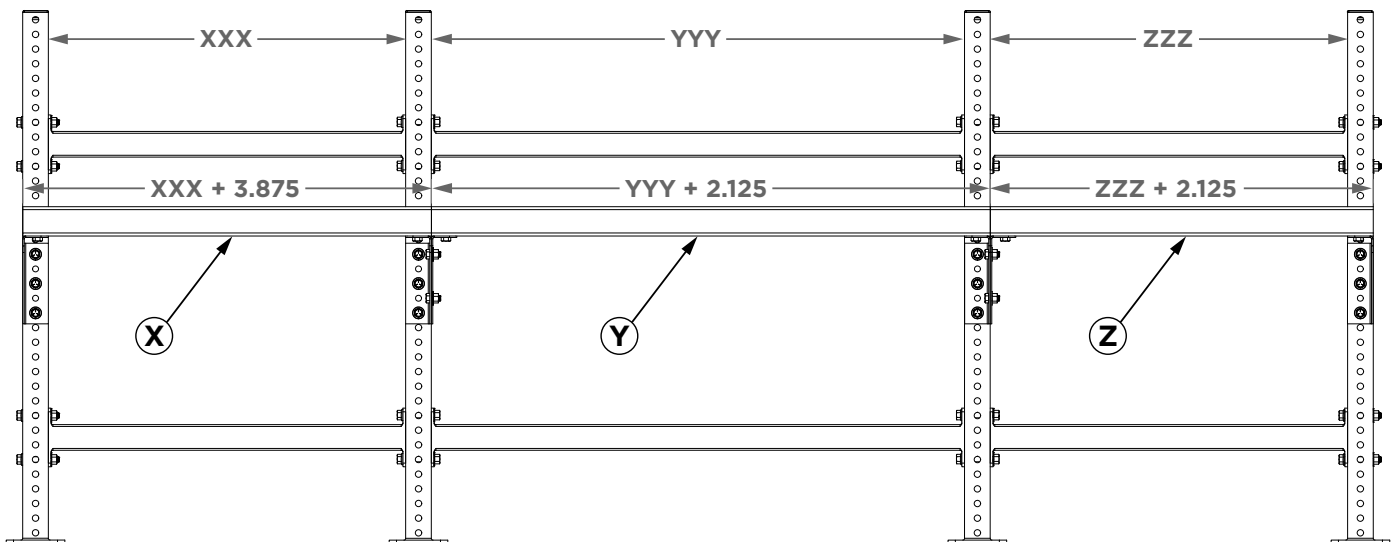
- (1) Bolt 3/8"-16 x 3/4"
- (2) Bolt 3/8"-16 x 2-1/2" L
- (3) Lock Nut
- (4) FlowCell Shelf
- (5) FlowCell Tandem Shelf
- (6) Left Hand Bracket
- (7) Right Hand Bracket
- (8) Tandem Bracket

In a Tandem Shelf Kit:
Item (8) replaces one Item (7),
Item (5) replaces Item (4).



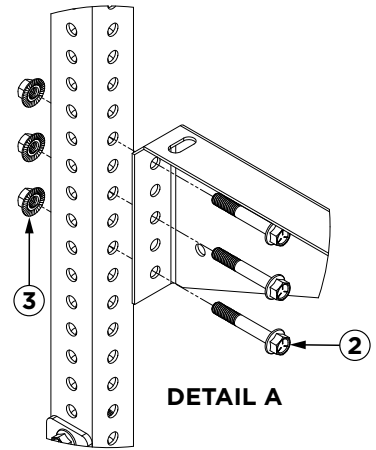
How to spec each shelf kit:

1. Note the nominal length of each beam between the posts. The nominal length of a beam is contained within the part number. For example, FCB48 is a FlowCell beam of nominal length 48" (The actual is 48.375").
2. There is always one **standard** FlowCell shelf kit. This kit is always the far most left unit. The shelf should measure 3.875" longer than the nominal length of the beam.
3. Everything to the right of the standard kit must be a **tandem** kit. They can be of any width but must be the same depth as the standard kit. The tandem shelves are 2.125" longer than the nominal length of the beam.



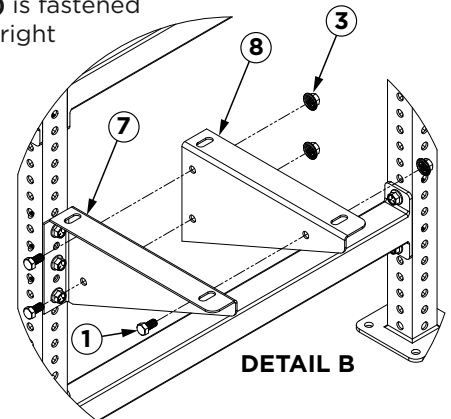
1 Installing shelf brackets:

1. Fasten left hand bracket (6) to the far most left post using 2-1/2" bolts (2) and lock nuts (3).
2. Fasten all right hand brackets (7) to posts using 2-1/2" bolts (2) and lock nuts (3). Be sure all right hand brackets (7) are at the same height as left hand brackets (6).



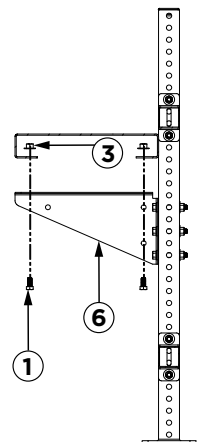
2 Installing tandem brackets:

- Fasten tandem brackets (8) to right hand brackets (7) using 3/4" bolts (1) and lock nuts (3). Tandem bracket (8) is fastened only to the interior right hand bracket (7).



3 Installing standard and tandem shelves:

1. Fasten FlowCell shelf (4) to left hand bracket (6) and right hand bracket (7) using 3/4" bolts (1) and lock nuts (3).
2. Fasten FlowCell tandem shelf (5) to right hand bracket (7) and tandem bracket (8) using 3/4" bolts (1) and lock nuts (3).
3. Repeat step 2. for the remaining FlowCell tandem shelves (5).



SECTION C-C
SCALE 1 : 5

UNEX BOLTED CONVEYOR SUPPORT

Adjustable Bracket

"H" Frame

Adjustable Bracket

3/8" strut nut (4)

3/8" flat washers (4)

3/8"x 1" bolt (4)

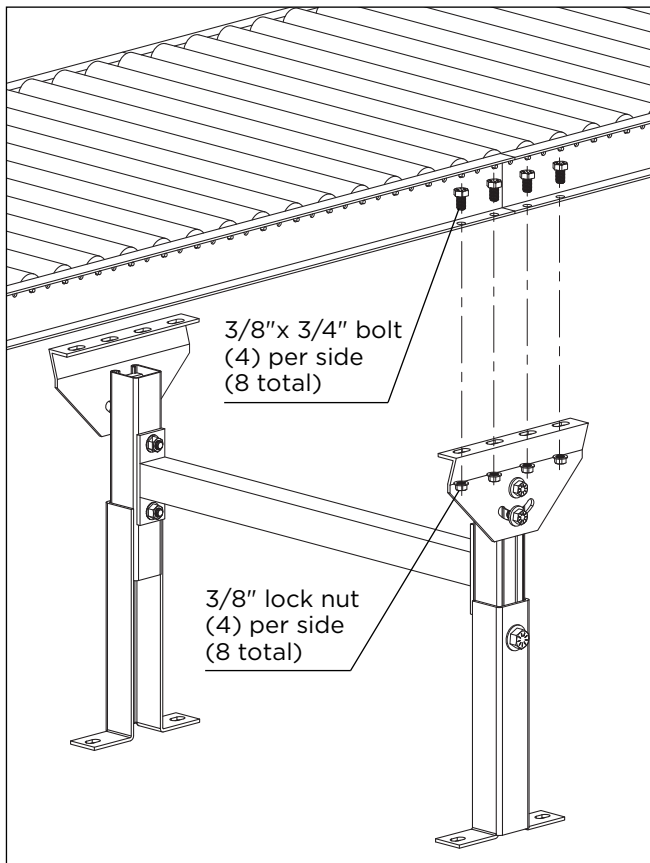
1/2" strut nut (2)

1/2" flat washer (2)

1/2"x 1" bolt (2)

Boot

Boot


3/8"x 3/4" bolt
(4) per side
(8 total)

3/8" lock nut
(4) per side
(8 total)

Secure leg supports to the floor utilizing the lag holes in the adjustable leg boot. Lag hardware not provided.

Tools Required:

3/4" wrench

9/16" wrench

Keg Flow includes:

Guards: part #GRKFFA6x_ (length)

Roller Stop Kit (roller, cross member and hardware): part #100KFHRS

Single Deep Only:

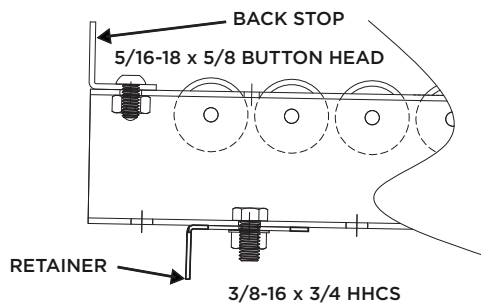
Back Stop: part #12FAES-JRS

Retainer: part #100RRA12



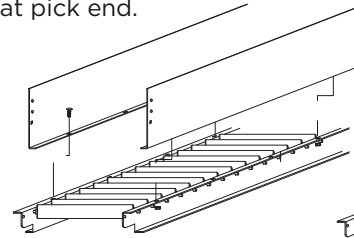
FOR SINGLE DEEP FRONT LOAD/PICK ONLY

Attach angle back stop and retainer.

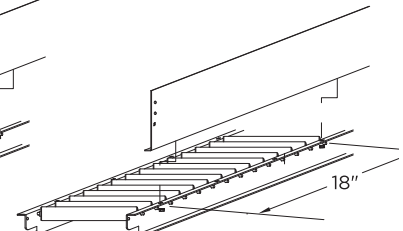


1

Attach Guards - use 1/4-20 x 1/2 carriage bolt with KEPS nut on 18" spacing. Guards should be flush to front of track at pick end.



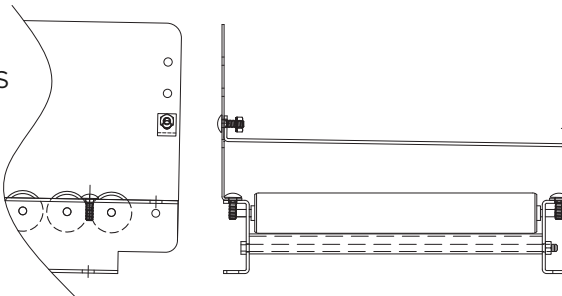
FIRST TRACK EACH LEVEL
GUARDS BOTH SIDES TOED IN



EACH ADDITIONAL TRACK EACH LEVEL
GUARDS RIGHT SIDE ONLY TOED IN

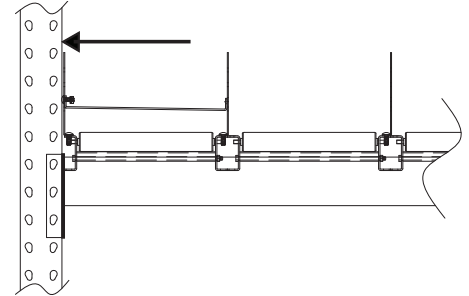
2

Attach first HRS cross member loosely on lefthand side of first track with carriage bolt.



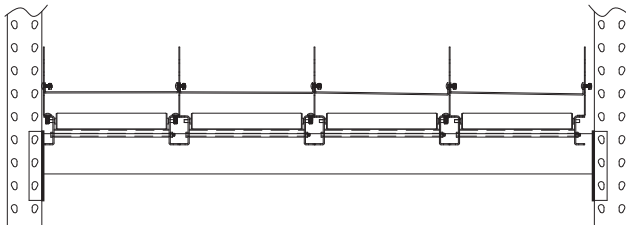
3

Place all tracks on level as far to lefthand side as possible, touching.



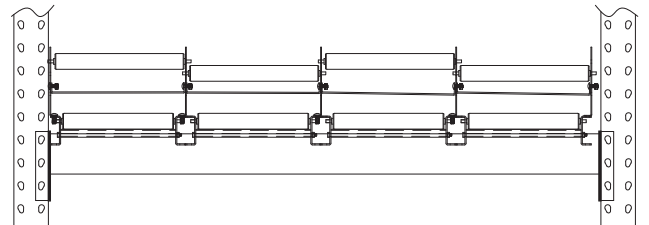
4

Complete attachment of cross member with common carriage bolt.

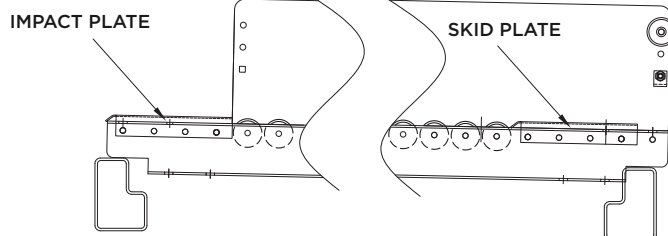


5

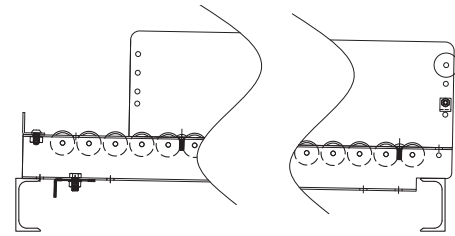
Insert spring loaded rollers alternating.



DOUBLE DEEP REAR LOAD TRACK 84" TO 102" deep - Offset beams 2"



SINGLE DEEP FRONT LOAD TRACK 30" to 60" deep - Beams are level



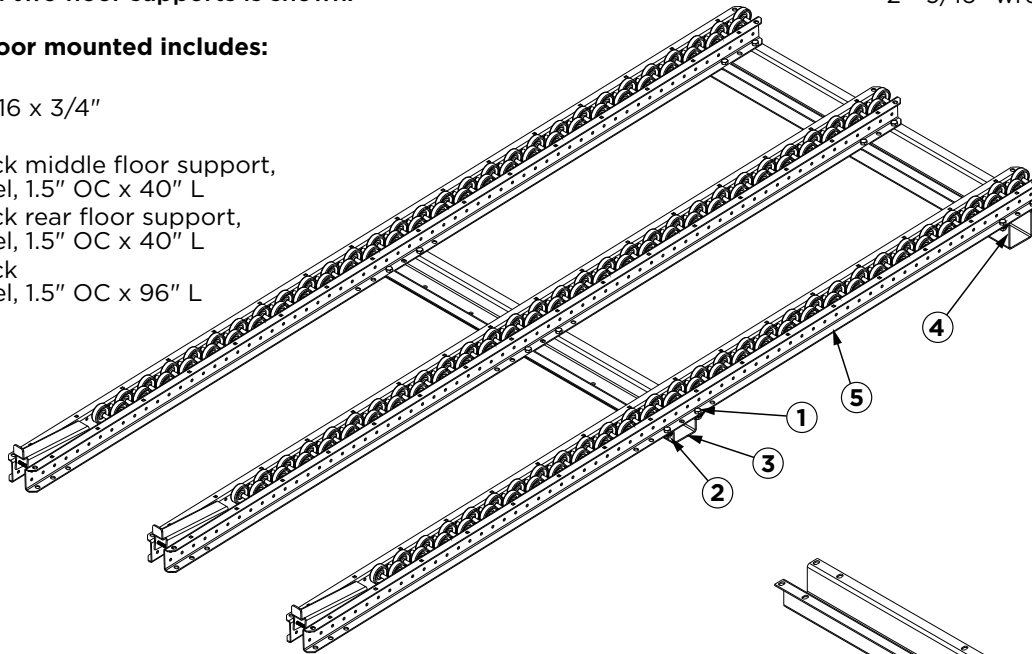
The following instructions may be used for any floor mounted pallet flow tracks. PPSW15x96 with two floor supports is shown.

Tools required for assembly:
• 2 - 9/16" wrench

Pallet Track, floor mounted includes:

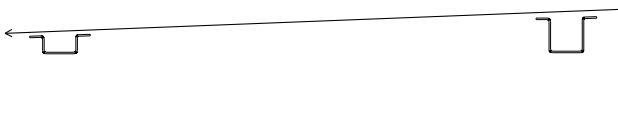
(item #)

- (1) Bolt 3/8"-16 x 3/4"
- (2) Lock Nut
- (3) Pallet Track middle floor support, skatewheel, 1.5" OC x 40" L
- (4) Pallet Track rear floor support, skatewheel, 1.5" OC x 40" L
- (5) Pallet Track skatewheel, 1.5" OC x 96" L



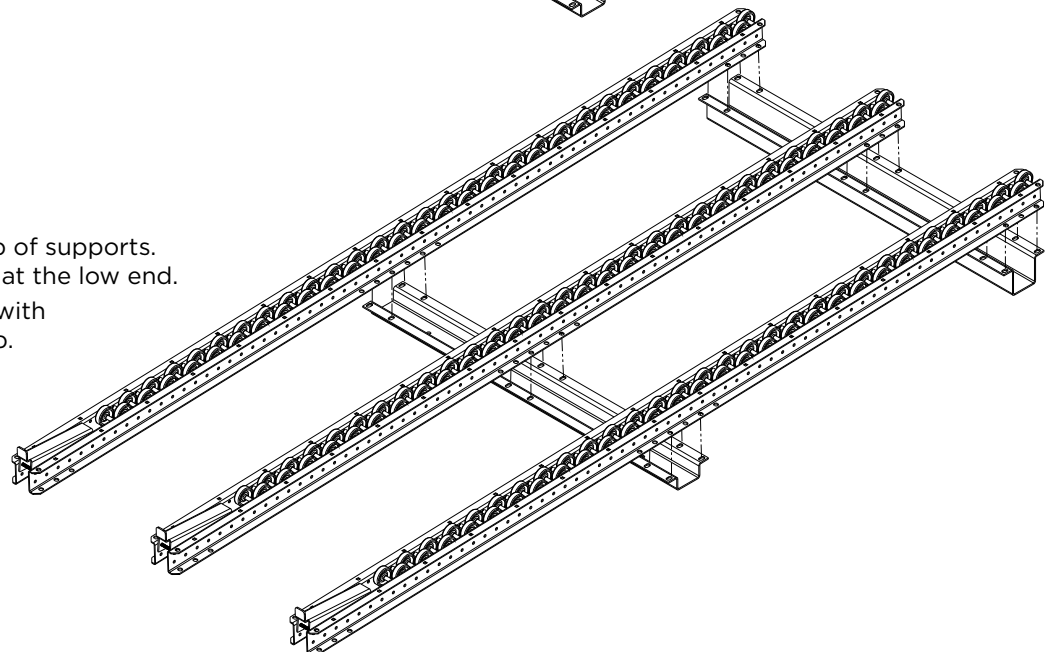
1 Installing floor supports:

1. Place supports on the floor so that the angled flanges create one continuous slope.
2. Supports are not symmetrical, one leg is longer than the other.



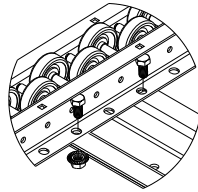
2 Installing pallet tracks:

1. Place all tracks on top of supports. Make sure the stop is at the low end.
2. Align holes of tracks with supports for next step.

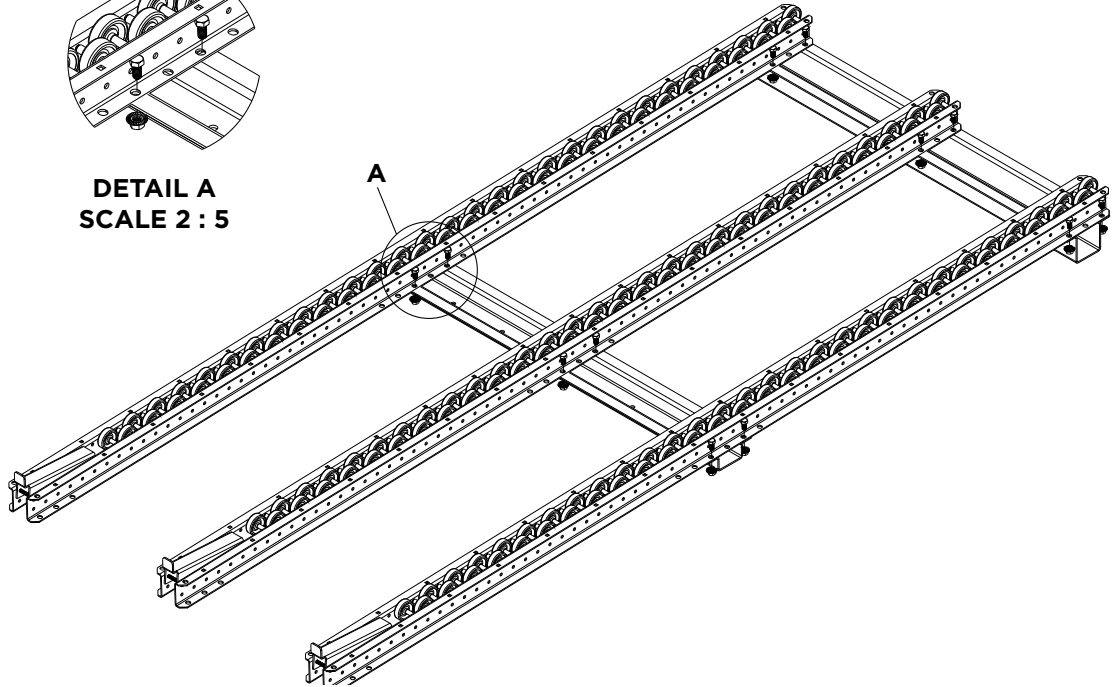


3 Installing hardware:

1. Fasten tracks to supports using 3/4" bolts (1) and lock nuts (2).



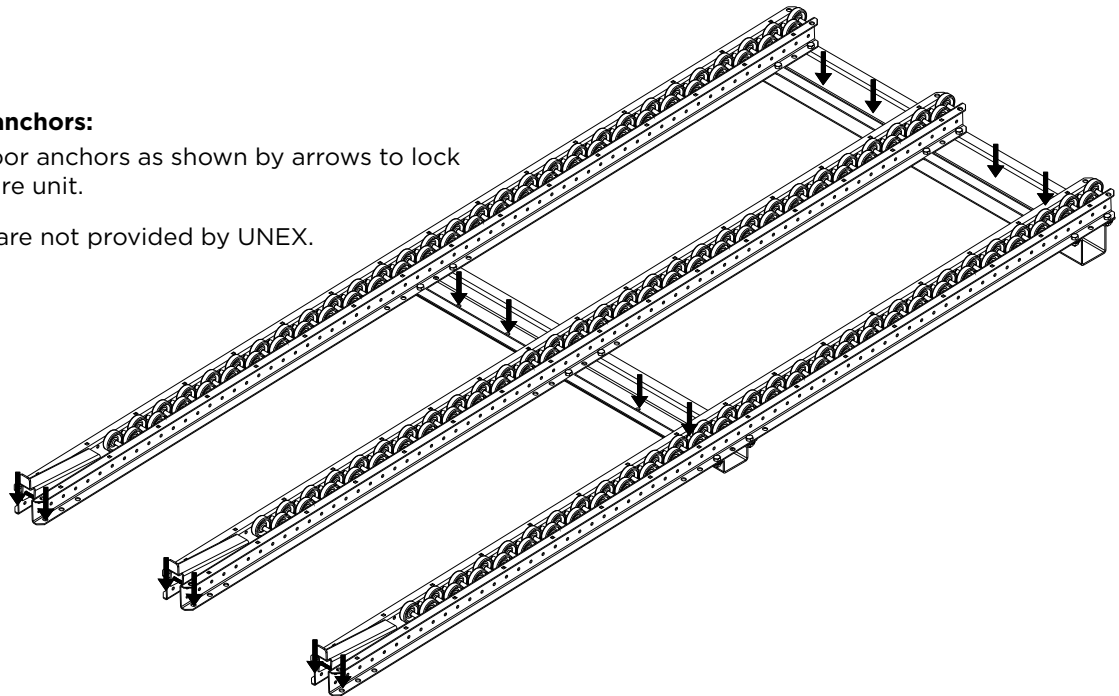
DETAIL A
SCALE 2 : 5



4 Installing floor anchors:

1. Install 3/8" floor anchors as shown by arrows to lock down the entire unit.

NOTE: Anchors are not provided by UNEX.



For detailed video installation instructions, please go to: www.unex.com/instructions

- Quick and easy install
- Speed pick rates & free up space
- Standalone units or rows of carton flow
- Robust unit made of 14 gauge steel

Tools - 1 - $\frac{3}{4}$ " Socket with Extension

Hardware - 3-OF18 $\frac{1}{2}$ " Bolt
3-OF67 $\frac{1}{2}$ " NUT

1 SECURE UPRIGHTS

6' & 8' Units utilize attached uprights (FIG. A)
4' Units are standalone and you can proceed to #2

Align uprights back to back with diagonal slant facing the front of the Roller Rack. Uprights are to be bolted in 3 locations as shown in (FIG. A).

2 SET BEAMS

Set front Roller Rack Beam to desired discharge elevation. Listen for the safety clip to click. Set rear beam at higher elevation for flow. Recommended pitch is 1 inch per foot.

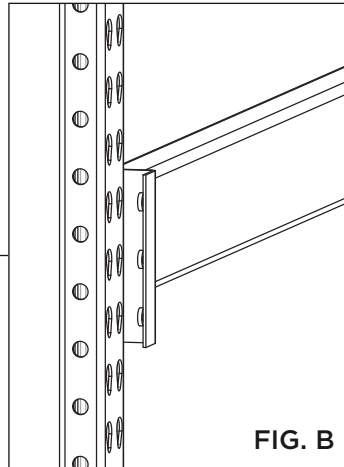


FIG. B

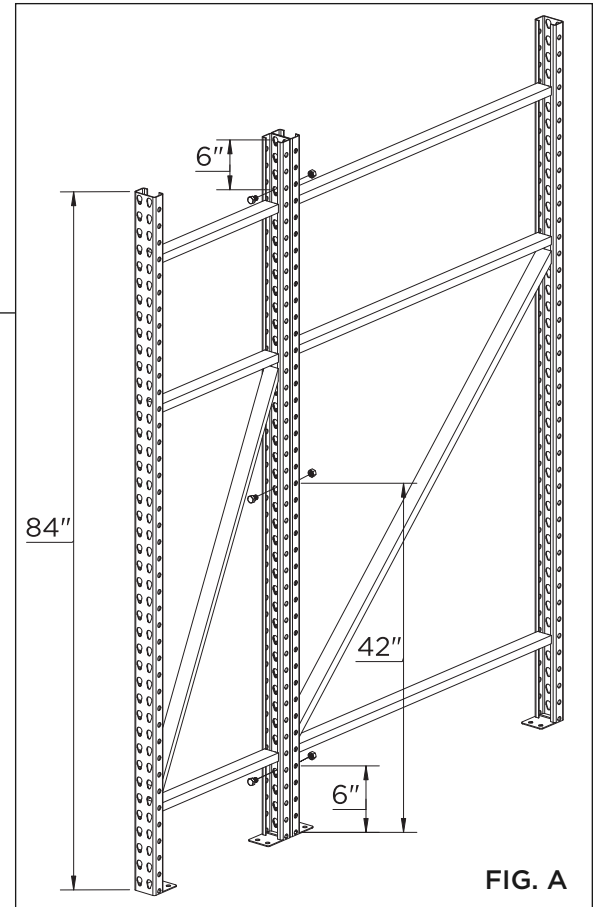
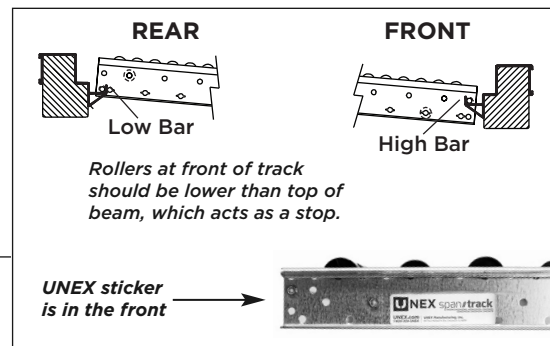


FIG. A

3 DROP IN HANGERS & TRACKS

Place one set of hangers on front and rear beams - do not force or hammer hangers onto beam. Note that front of track has a high hanger bar and rear of track has a low hanger bar.



4 Test PITCH

Test installed track section for product flow to determine if rear beam needs readjustment for effective pitch.

IMPORTANT: Track section to be tested should be loaded and allowed to sit for 24 hours. Then remove cartons at pick face and check for resulting flow. This is the most reliable way to ensure proper flow for your particular products and storage environment.

For detailed video installation instructions, please go to: www.unex.com/instructions

This installation guide shows how to install Low Profile, High Profile and Hangerless SpanTrack into pallet rack. Pick Tray, Rigid Splice and Bridge Splice installation is included inside.



LOW PROFILE



HIGH PROFILE



LOW PROFILE
WITH PICK TRAY

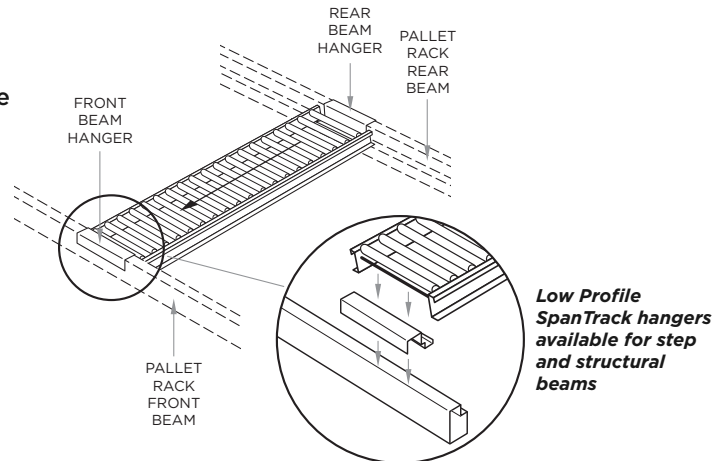


HANGERLESS

Straight sections of Low Profile SpanTrack install between pallet rack beams. Install the first level of track following the steps listed below, test for pitch, then repeat.

1 SET BEAMS

Set front pallet rack beam to desired discharge elevation. Set rear beam at higher elevation for flow. Recommended pitch is 1 inch for every 1 foot of rack depth.



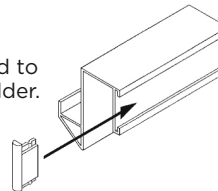
Low Profile SpanTrack hangers available for step and structural beams

2 ADD LABELS AND END CAPS TO HANGERS (If applicable)

Slip ID labels into slots and snap on end caps.

END CAPS

(included)
2 per hanger, add to sides of label holder.

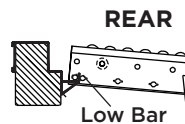


REPLACEABLE PRODUCT ID LABELS

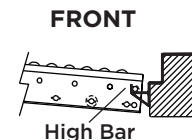
(included)
Insert into built-in labelholders of hangers.

3 ADD HANGERS & TRACK

Place one set of hangers on front & rear beams - do not force or hammer hangers onto beams. Note that front of track has a high hanger bar and rear of track has a low hanger bar (see diagrams). Place track in position on hangers.



Low Bar



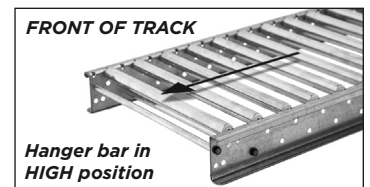
High Bar

Rollers at front of track should be lower than top of beam, which acts as a stop.



REAR OF TRACK

Hanger bar in LOW position



FRONT OF TRACK

Hanger bar in HIGH position

4 TEST PITCH

Test installed track section for product flow to determine if rear beam needs readjustment for effective pitch.

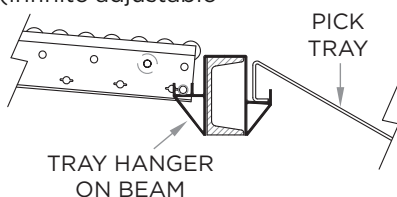
IMPORTANT: Track section to be tested should be loaded and allowed to sit for 24 hours. Then remove cartons at pick face and check resulting flow. This is the most reliable way to ensure proper flow for your particular products and storage environment.

For detailed video installation instructions, please go to: www.unex.com/instructions

The full width pick tray requires an 18" or 24" pallet rack upright or post extension of an upright. Rack framework must match pick tray sizes of 18" or 24" deep.

1 SET BEAMS & PLACE TRAY HANGER

See reverse (step 1) for setting beams. Place bridge hanger on a 3" - 4.1# structural beam (infinite adjustable not required). Place standard hanger on rear beam. Do not hammer or force hangers.



2 ADD TRACK

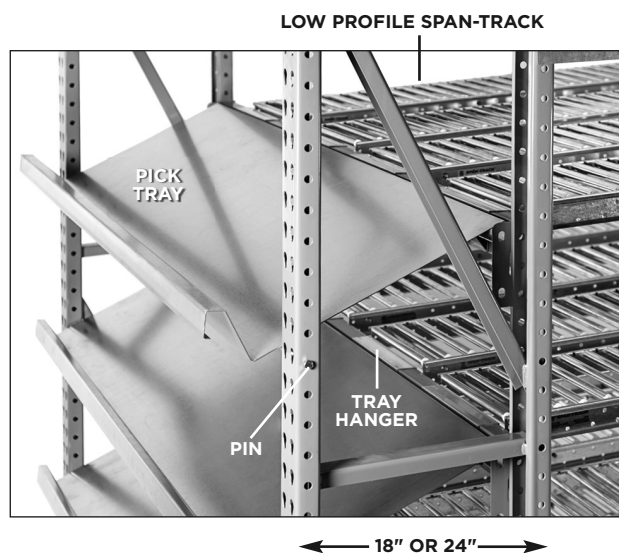
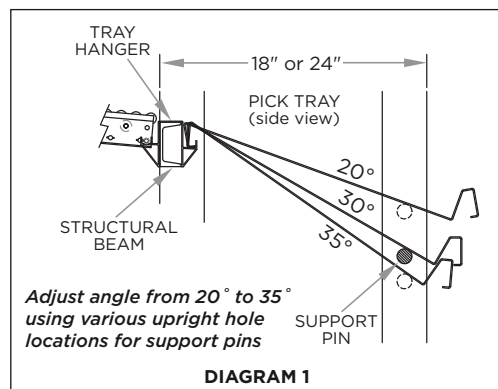
Place SpanTrack section in back lips of tray hanger as shown. End roller must not touch hanger. **Install and test one level of track for pitch (see reverse side - step 4).**

3 SET SUPPORT PINS & ADD TRAY

Mount support "pins" through side holes of front upright for desired pick tray angle (see diagram 1). Insert back edge of pick tray into the line of bridge hangers as shown. Underside (flat portion) of pick tray is supported at front by "pins". **NOTE: Top-heavy products may require shallower angle than indicated in diagram.**

- Pick tray is 1" narrower than bay width
- Pick tray does not affect the structural integrity of the rack
- In standard application, pick tray extends beyond front upright post by a maximum of 3-3/4" and a minimum of 1".

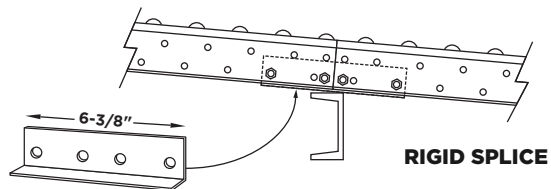
For structural posts, use double or single support brackets.



For detailed video installation instructions, please go to: www.unex.com/instructions

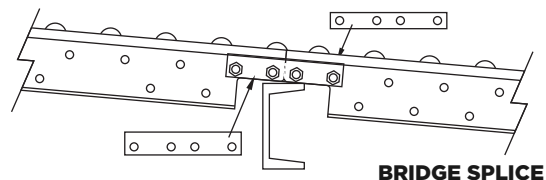
RIGID SPLICE

Identify the ends of both tracks that do not have end treatments (hanger bars, stop, impacts). Place angled metal splice bracket behind channel and secure with provided bolts.



BRIDGE SPLICE

Identify notched ends of tracks that do not have end treatments (stops, impacts, adjustable slider). Place metal bridge splice bar on the face of the channel and secure with provided bolts.



For detailed video installation instructions, please go to: www.unex.com/instructions

Straight and Knuckled high profile SpanTrack install **on** pallet rack beams. For each type of carton, install the first level of track following the instructions below and test for pitch before installing additional levels.

1 SET BEAMS

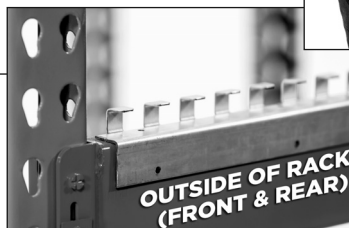
Set front pallet rack beam to desired discharge elevation. Set rear beam at higher elevation for flow. Recommended pitch is 1 inch for every 1 foot of rack depth.

Retainer angle installs on top outside (aisle side) edge of front and rear beams



2 ATTACH RETAINERS: SpanTrack Lane

Attach pre-punched retainer angles to outside of front and rear beams using supplied tek screws (screws should be minimum 2 ft. o.c.)



ATTACH RETAINERS: SpanTrack Bed

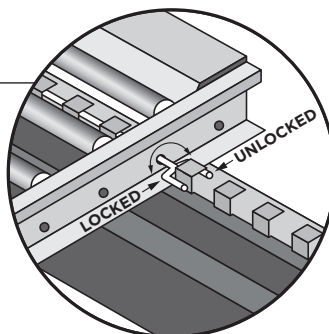
Attach brackets to rear of tracks with supplied 1/4" hardware.



When installing knuckled end SpanTrack, angled end of track **MUST** extend free and clear of front beam. Long, straight part of track should rest between retainer teeth.

3 ADD TRACK: SpanTrack Lane

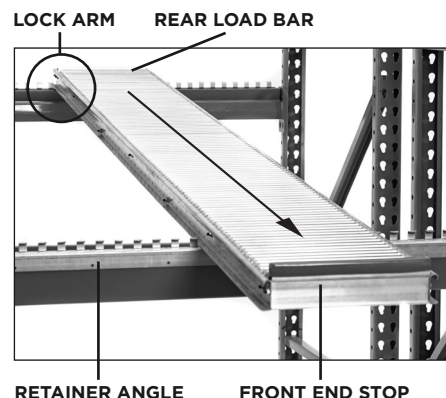
Locate lock arm at infeed end of track (near beam) and (with arm in unlocked position) hook onto teeth of rear retainer for desired front-to-back track position and overhang.* Adjust left-to-right to suit cartons being used. Flip lock arm to locked position.



ADD TRACK: SpanTrack Bed

Place track onto beams and secure brackets to beam face with tek screws.

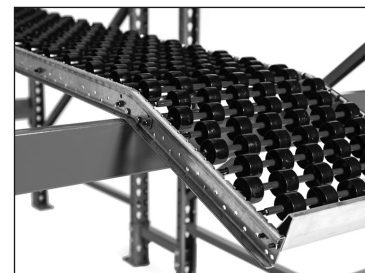
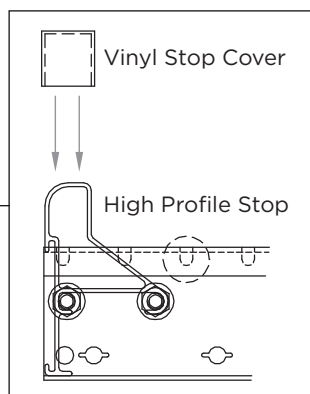
*Lock Arm pictured in locked position against retainer, and in unlocked position outside retainer. **NOTE:** Lock Arm is repositionable through holes in side channels. Use holes at end of track for track flush with beam. Use other holes if overhang (up to recommended maximum) is desired.



4 TEST PITCH

Test installed track section for product flow to determine if rear beam needs readjustment for effective pitch.

IMPORTANT: Track section to be tested should be loaded and allowed to sit for 24 hours. Then remove cartons at pick face and check resulting flow. This is the most reliable way to ensure proper flow for your particular products and storage environment.



High Profile knuckled SpanTrack bed

5 SpanTrack Lane STOP COVER

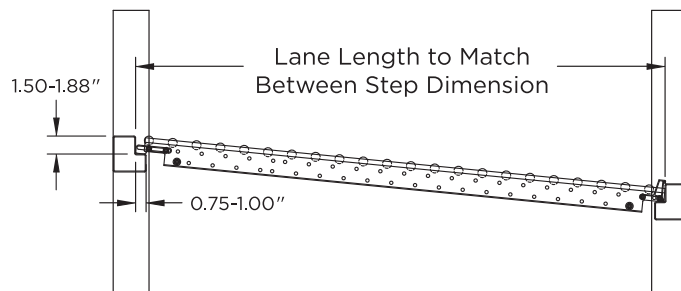
Place the cover over the front stop to prevent cutting hazard. Cover may need to be stretched to fit properly.

For detailed video installation instructions, please go to: www.unex.com/instructions

Hangerless SpanTrack can be added to any standard pallet rack with step beams. Track sections are supported by the front and rear step beams. For each type of carton, install the first level of track following the instructions below and test for pitch before installing additional levels.

1 ADJUST BEAMS

Set front pallet rack beam to desired discharge elevation. Set rear beam at higher elevation for flow. Recommended pitch is 1 inch for every 1 foot of rack depth. (Example: 4 foot deep rack would require the rear beam to be set 4 inches higher than the front beam).



2 ADD TRACK

Adjust and tighten the two bolts holding the rear extrusion in position such that the track fits snugly between the steps of the step beams.

3 TEST PITCH

Test installed track section for product flow to determine if rear beam needs readjustment for effective pitch.

IMPORTANT: Track section to be tested should be loaded and allowed to sit for 24 hours. Then remove cartons at pick face and check resulting flow. This is the most reliable way to ensure proper flow for your particular products and storage environment.

For detailed video installation instructions, please go to: www.unex.com/instructions

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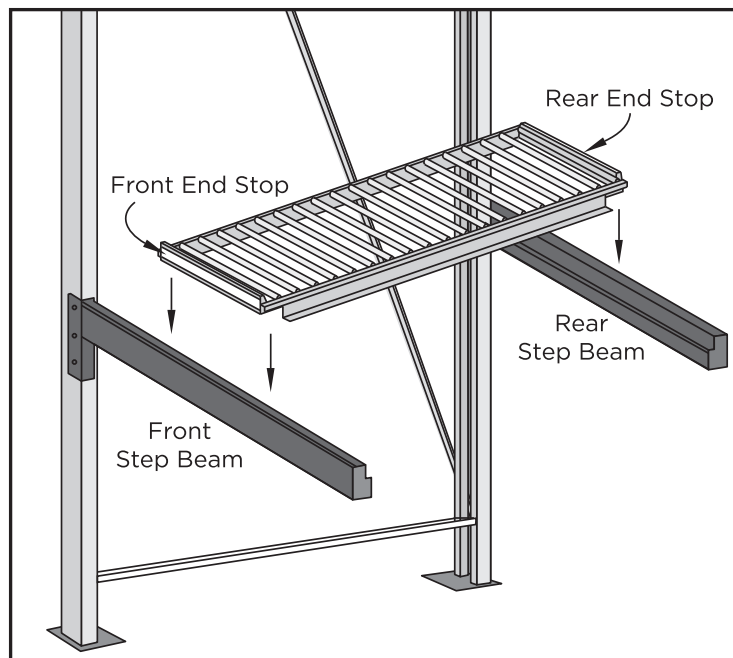
2 ADD TRACK

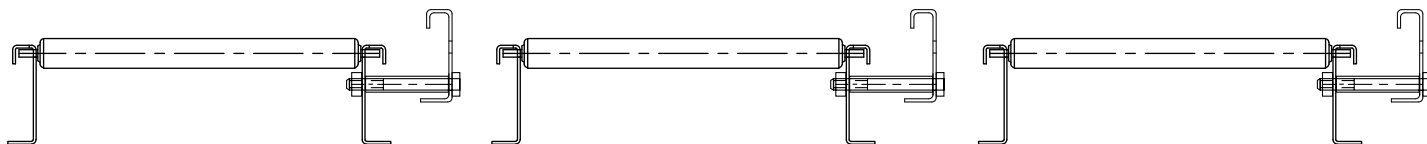
Drop track onto beams

3 TEST PITCH

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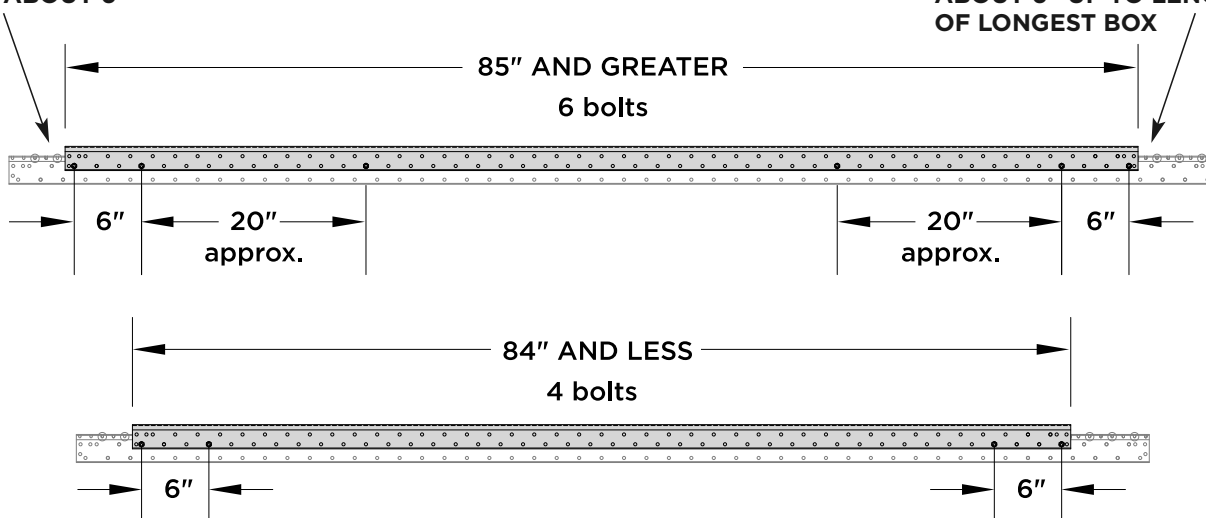


Suggested configuration - one side each track

- 1** Center the guard rail along the edge of the track.
Use only odd length guard rail with odd length track, even with even.

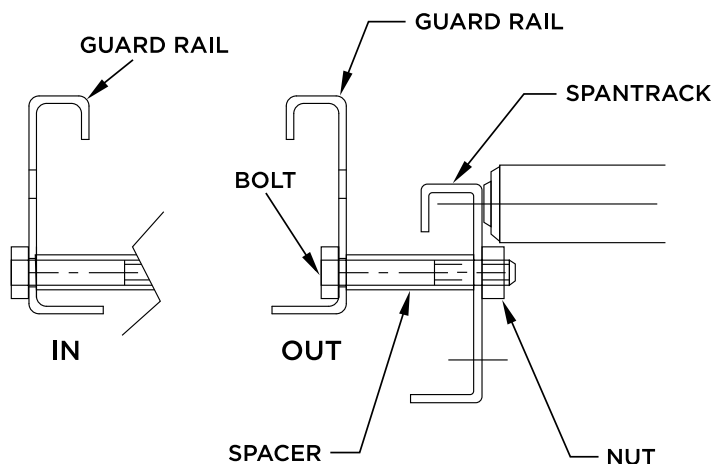
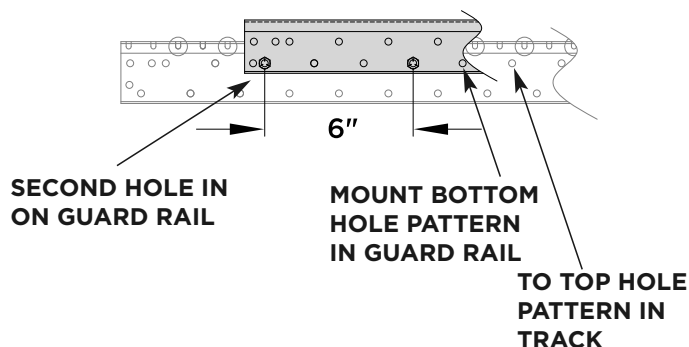
**FEED END - RECESS
GUARD ABOUT 6"**

**PICK END - RECESS GUARD
ABOUT 6" UP TO LENGTH
OF LONGEST BOX**

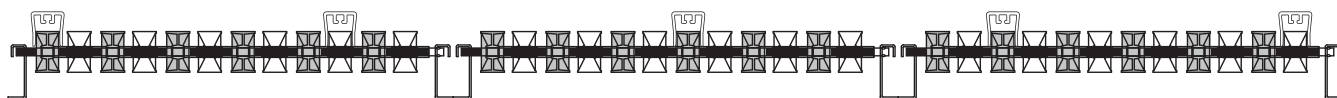


Note: When installing Guardrail on higher levels, ensure the end of the Guardrail is visible at the edge of the charge end. This will provide the loader a visual cue of where to place the box.

- 2** Lining up holes as shown, fasten the guard rail to the track using the supplied spacers and bolts. Refer to the drawing in **step 1** for number of bolts and fastening locations. Guard rail can be mounted with in- or out-flange configuration.

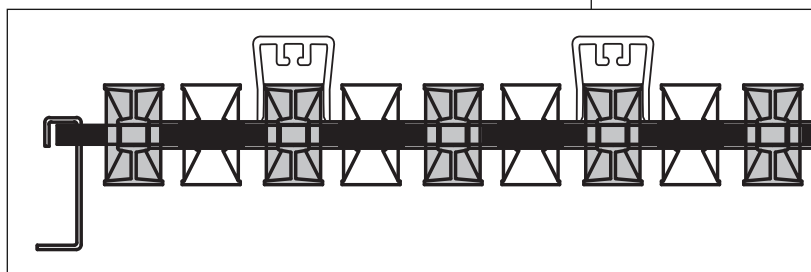
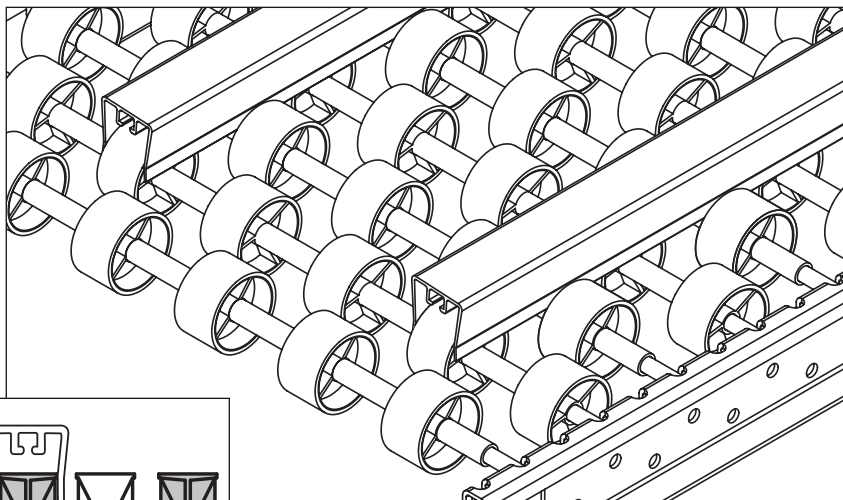


UNEX has 4 standard size spacers:
0.75", 1.5", 2" & 2.5"



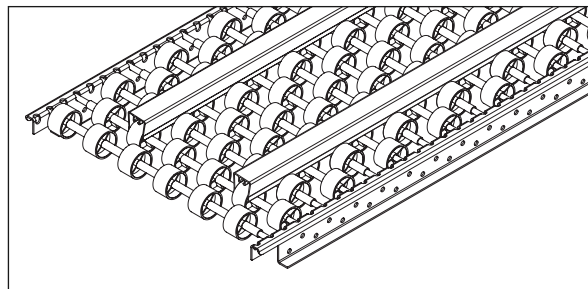
Suggested configuration

- 1** Guide rail securely snaps on over wheels.

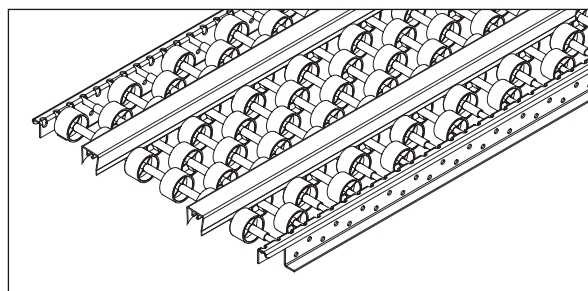


For Best Results:

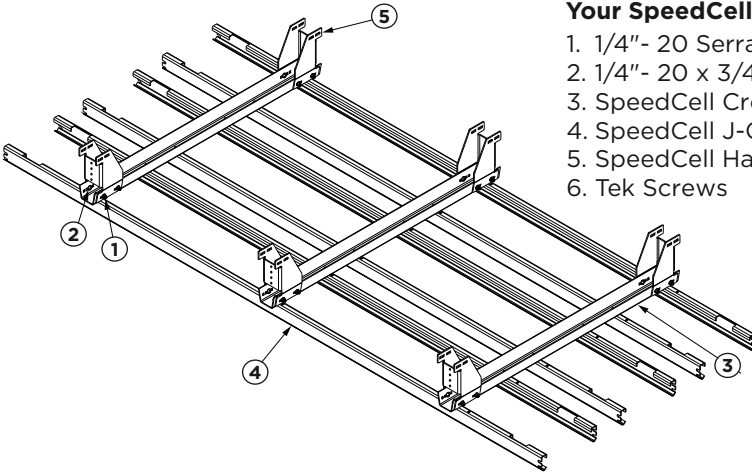
When installing guide rail on lower levels, ensure the guide rail is inset from the edge of the charge end. This will make it easier for loaders to lift and place boxes into the desired lane.



When installing guide rail on higher levels, ensure the end of the guide rail is visible at the edge of the charge end. This will provide the loader a visual cue of where to place the box.



A SpeedCell bay requires the use of pallet rack beams and posts. Please reference your SpeedCell Configuration drawing for the exact layout and quantities for parts/hardware.



Your SpeedCell assembly kit includes:

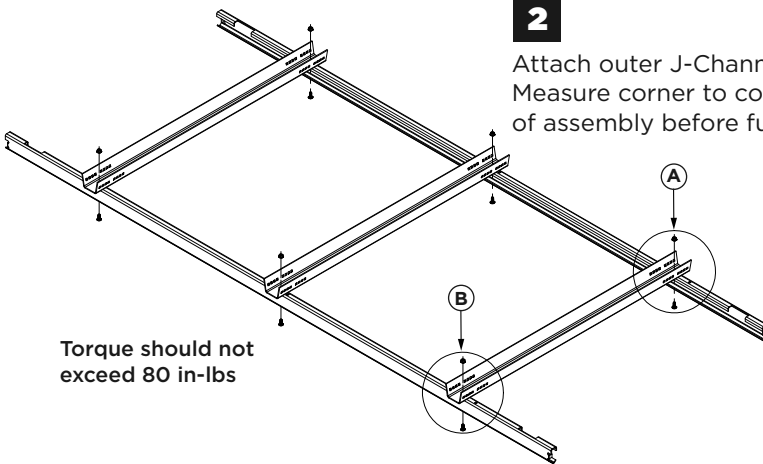
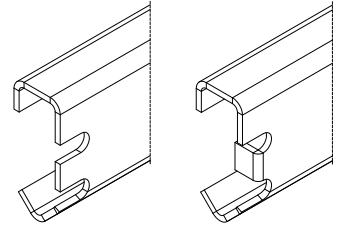
1. 1/4"- 20 Serrated Flange Nuts
2. 1/4"- 20 x 3/4" Grade 5 Carriage Bolts
3. SpeedCell Crossbeams
4. SpeedCell J-Channels
5. SpeedCell Hangers
6. Tek Screws

Tools required for assembly:

- Drill/Driver with Clutch
- Socket Wrench
- 7/16" Socket
- 5/16" Nut Driver
- Socket Adapter
- Swivel Socket
- 3" Extension
- Pliers or Crescent Wrench

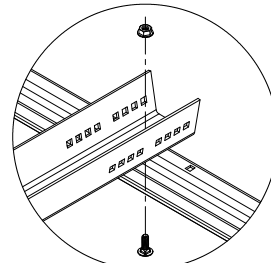
1

Bend both tabs
on all J -Channels
to 90°

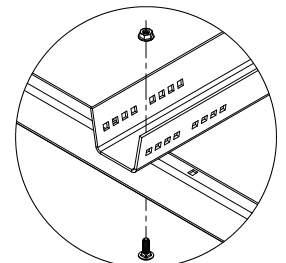


2

Attach outer J-Channels to crossbeams.
Measure corner to corner to check squareness
of assembly before fully torquing hardware.



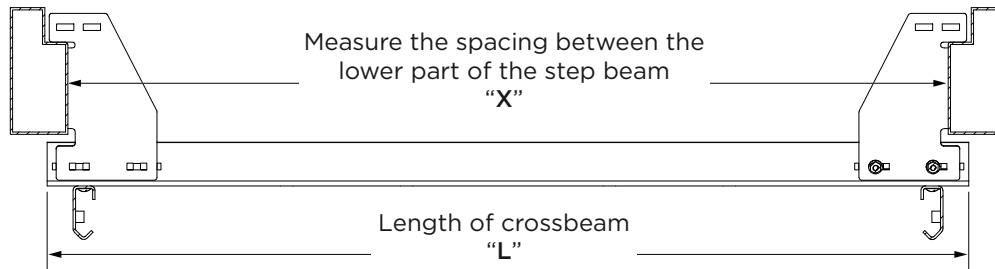
DETAIL A



DETAIL B

Torque should not exceed 80 in-lbs

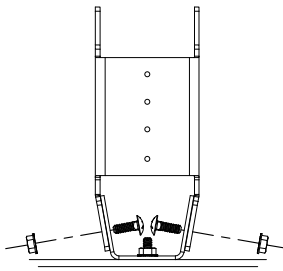
3



Using the formula $L - X$, match the result with the range on the right to attach the hanger using the correct group of holes.

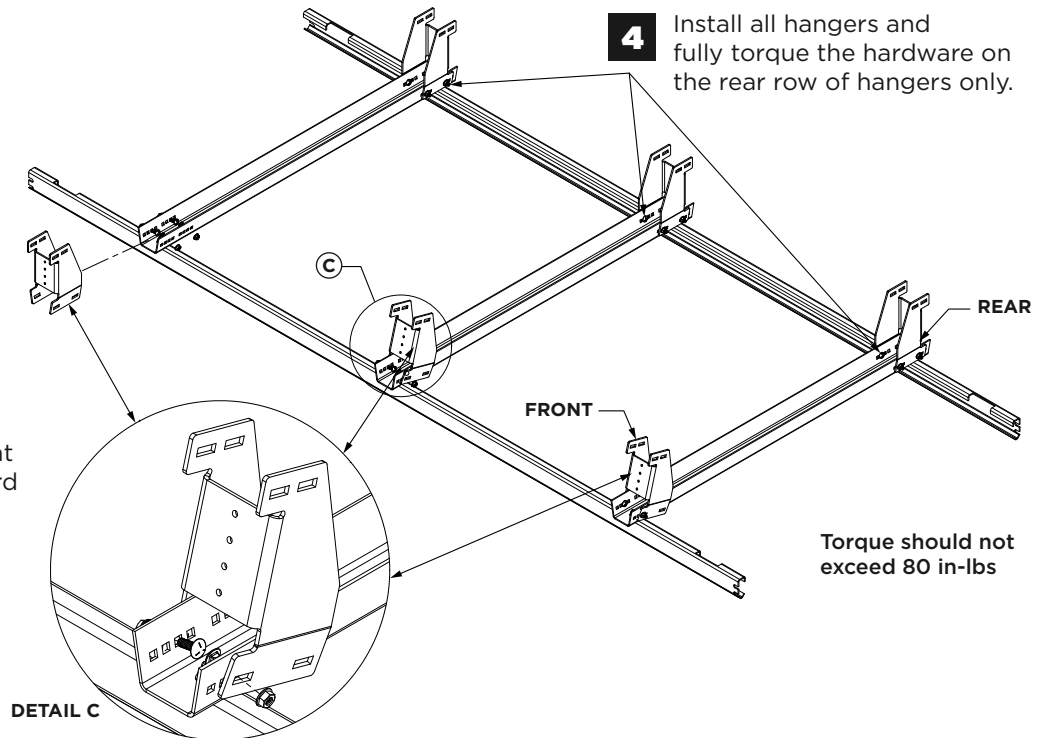
Example: $40 - 37 = 3 \gg \gg$ Use group C holes.

A)		0.25 - 1.25
B)		1.26 - 2.25
C)		2.26 - 3.25
D)		3.26 - 4.25



5

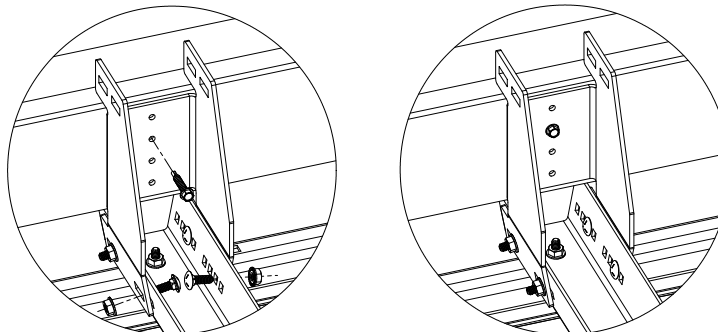
Install outer hardware in front row of hangers and tilt inward as shown. This will allow the steel set to clear support beams and be placed into the racking.



6

Place assembled SpeedCell steel set onto step beams of rack.

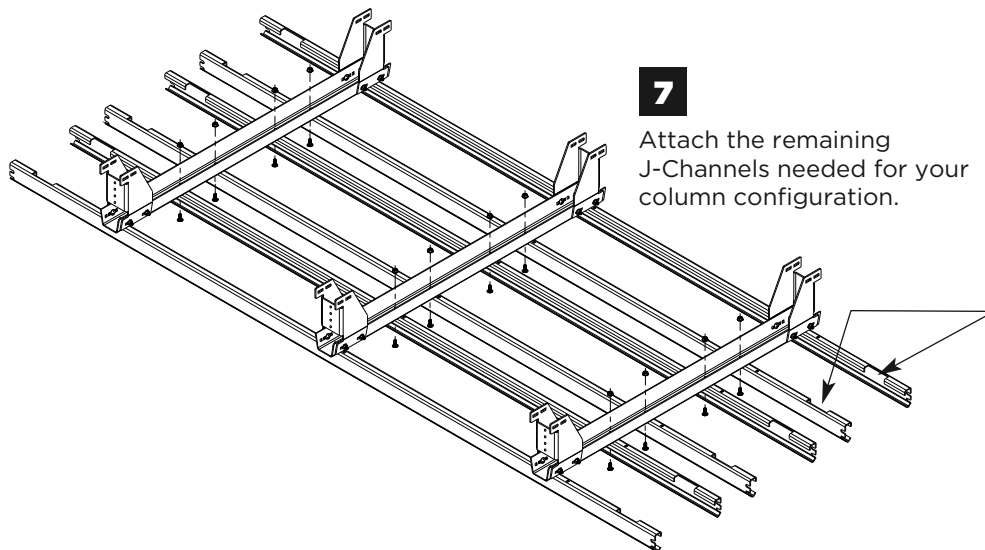
Use one Tek Screw and the most appropriate pilot hole in all hangers. Install inner hardware in front row of hangers as shown.



Fully torque all hardware after Tek Screws are installed.

7

Attach the remaining J-Channels needed for your column configuration.



8

Drop SpeedCell columns into the track notches, starting with the back row. Install all columns into the bay.

Ensure the black nylon webbing is properly aligned on the cylindrical conduit on top of the SpeedCell column.