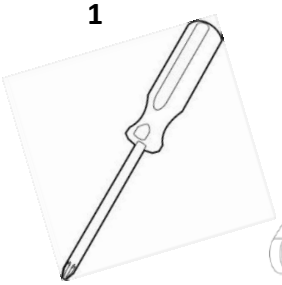
SpeedCell Installation Instructions

Installation typically requires two people

Questions or Concerns Contact
Holland Storage Systems
616.772.2052

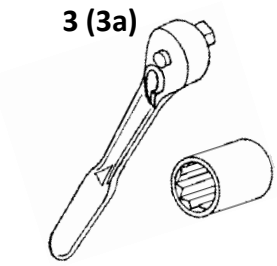
Required Tools

1



2

3 (3a)



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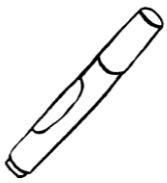

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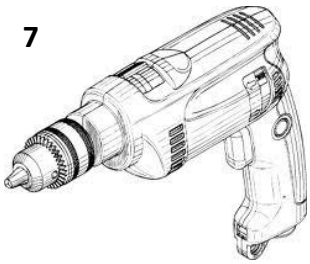
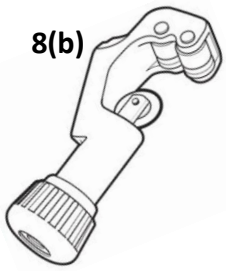


7(a)

8(a)

8(b)



8(c)

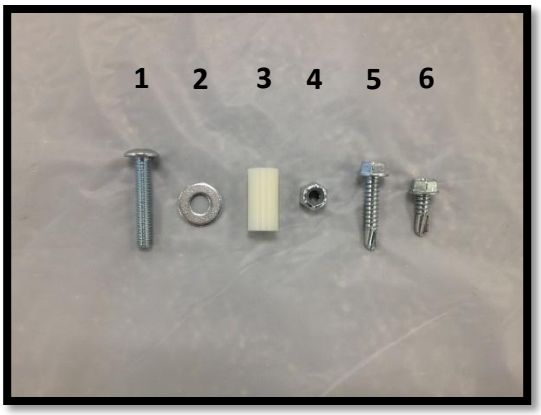
KEY

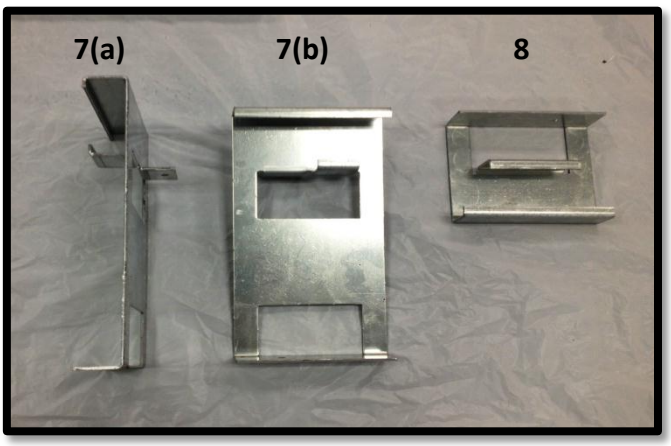
1. Philips Screw Driver
2. Crescent Wrench
3. 3/8” Socket Wrench
    a) 7/16” Socket (~11mm)
4. 2 Ladders
5. Measuring Tape
6. Permanent Marker
7. 3/8” Drill
    a) 3/8” (~10mm) Nut Driver
8. <u>Optional Equipment</u>:
    a) 5/16” (~8mm) Drill Bit
    b) Pipe Cutter
    c) Deburring Tool

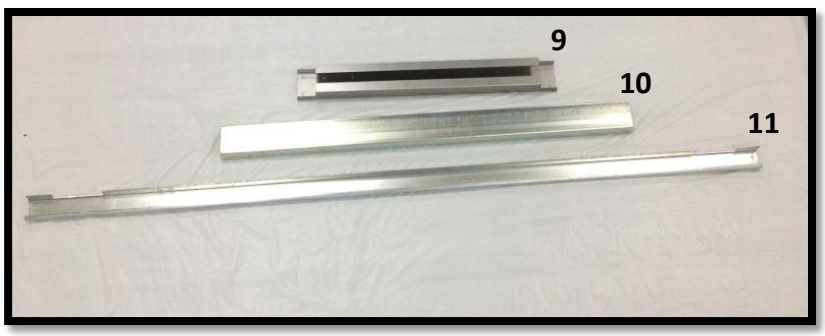
List of Materials

KEY

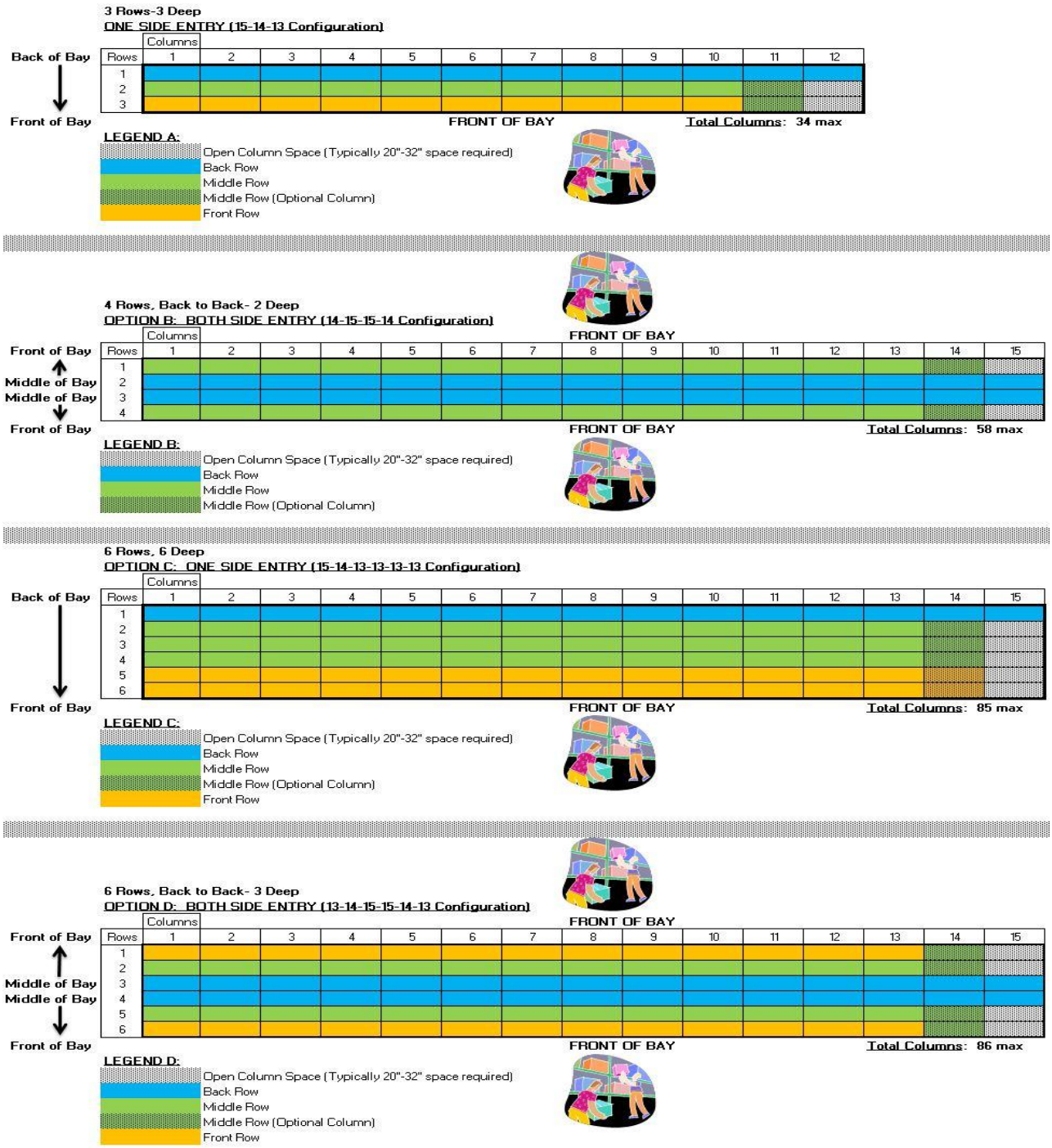
1. Bolt, 1.5”x .375” dia. (~38mm x 9mm)
2. Flat Washer, .25”(6mm)
3. Nylon Spacer
4. Nylon Lock Nut, .25”(6mm)
5. Tek Screw (Long), 1.5”x.25” (38mm x 6mm)
6. Tek Screw (Short), .25”x .25”dia. (6mm x 6mm)
7. Double Bracket
   a) Side view
   b) Front view
8. Single Bracket
9. Crossbar
10. Flue Bar
11. Suspension Track
12. Column







Bay Configuration Examples



Crossbar Installation

1. Start your SpeedCell installation off right by insuring that your racking bay is square, plum, & level and that your beams are at the same elevation.
2. Properly locate the crossbars on your beams:
    a. Locate the center line of the beam,

        place a locating mark or set a crossbar between the beams.

        Note: 4 crossbar installations, will use the center line as a reference point. Measure out in both directions of the C/L 18" (457mm) and place a mark or set a crossbar.

    b. Locate the outer most crossbars,

        measure from the uprights measure inward on the beams 12" (305mm),

        place a locating mark or set a crossbar between the beams (do this for all installations).
3. Begin securing crossbars
    a. Starting with the back beam, loosely Tek Screw(Long) the back end of each crossbar to the beam (see **NOTE** below)

*******(Do not secure the crossbar to the front beam at this time)*******

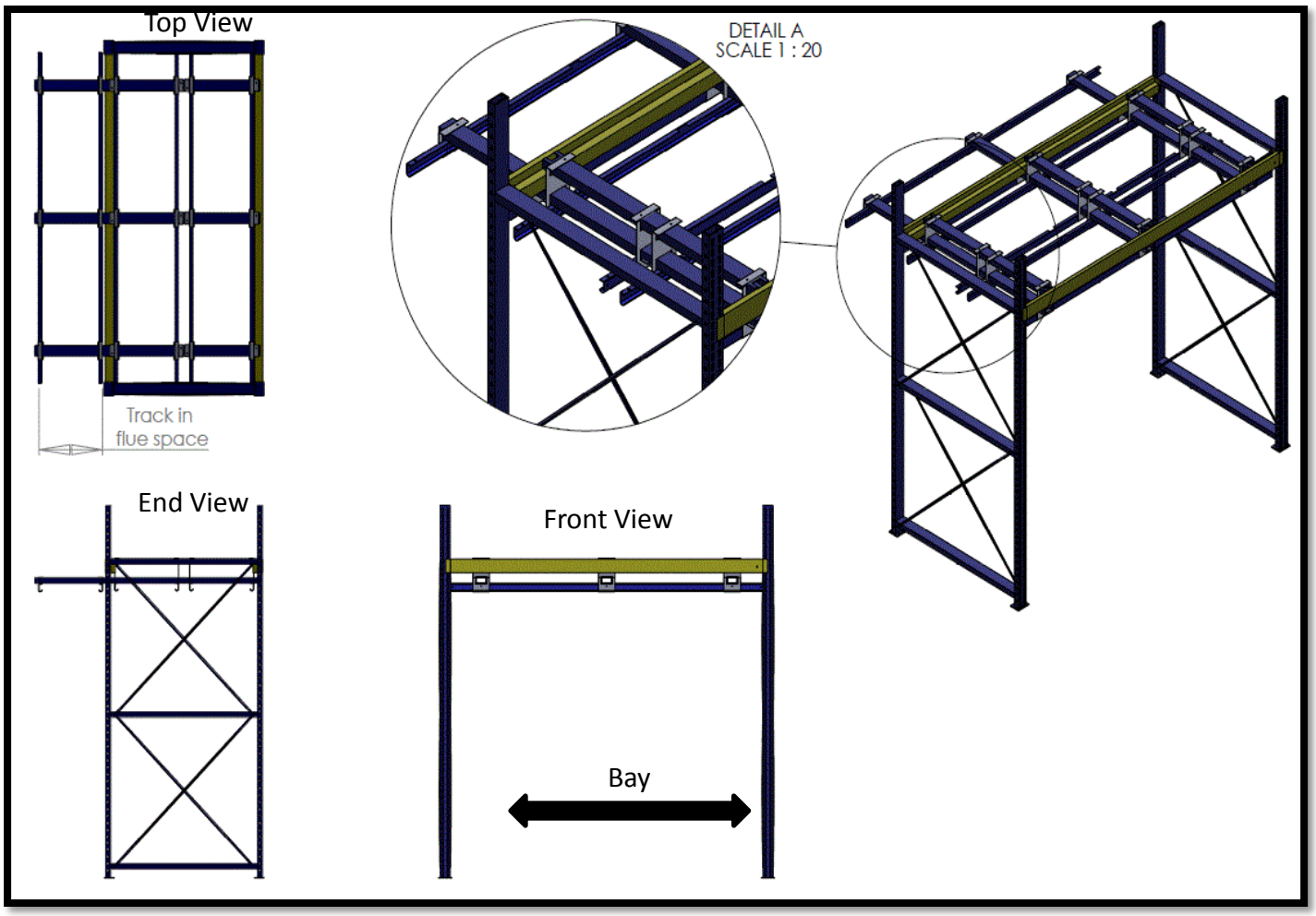
NOTE: Only loosely tek screw each crossbar (~1/4"(6mm) a few threads deep) into the back beam at this time. The crossbar should be secure enough to prevent the crossbar from falling out of the beam, but not so tight that it will prohibit lifting the front end of the crossbar above the top edge of the front beam. This "play" is needed to allow you to put the brackets & tracks on the crossbars.

4. Install the additional crossbars in this same manner, final securing of the crossbars will happen after all track assemblies are installed…

2. (Simple layout view)

3. (Crossbar initial install detail)

Track Installation



Track Installation: Materials

Track installation requires:

1. Brackets (see table for quantity per track)
   a) Tek screws (Short)
2. Tracks
   a) Track Stoppers (2 per track)
      1) Bolt, washer, nylon spacer, nylon lock nut
3. Wrench, Crescent &/or Socket with 7/16" Socket
4. Philips Screw Driver
5. 3/8" Drill
   a) 3/8" (10mm) Nut Driver (Tek Screws)
   b) 7/16" (11mm) Nut Driver (Stopper Assembly)

Optional Equipment

1. 3/8" (10mm) Drill Bit
2. Pipe Cutter & Deburring Tool
   a) (for use with column axles if modification is needed)

Beam Length (Imperial)	Brackets per Track
<10'	3
>10' - <12'	4
>12' - <14'	5

Beam Length (Metric)	Brackets per Track
<~3.1m	3
>~3.1m- <~3.7m	4
>~3.7m - <~4.3m	5

Track Installation:
Track Bracket Assembly

Bracket Set-up

1. Use double brackets for all but the back track assembly which is in the Flue space.

NOTES:

a) All double brackets are to have crossbars ran through the top opening and flue bars through the bottom opening.

b) All double brackets are to be located inside of the beams, unless advised by the manufacturer.
****Do not place double brackets outside of the beams.*****

Example:
(front)BEAM-Double-Double-Double-BEAM-Single(back)

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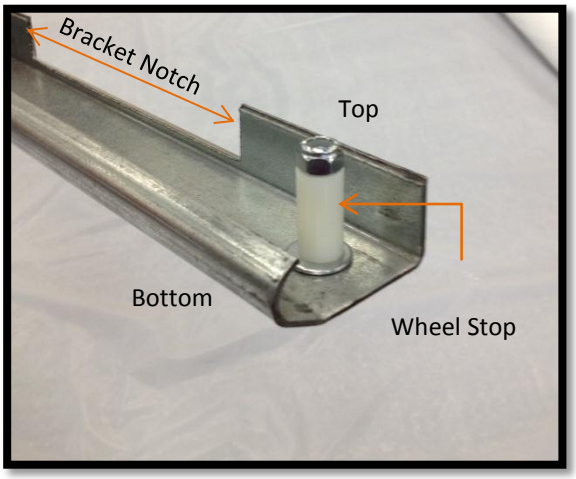
1. Layout Bay Tracks
   a. Three Rows = 6 tracks or 3 pairs of tracks
   b. In front of the bay lay out pairs of tracks facing each other.
2. Put the Brackets on Tracks
   a) Assemble a wheel stop on one end of each track at this time.
      The proper assembly order for wheel stops:
      Bolt (1.5",~38mm), Track, Washer, Nylon Spacer, and Nylon Lock Nut
   b) Slide the Double brackets onto the tracks.
      The suspension tracks should under hang the crossbar openings on the bracket. Refer to the table on **page 5** for the number of brackets per track needed for proper installation.
   c) Assemble the wheel stop on the other end of the tracks after installing all the double and single brackets (single bracket track assemblies follow the same assembly method as above).

NOTE: Make sure that all the brackets are facing the same direction and that they are **NOT** covering the notches on the top of the tracks, doing so will ensure proper installation.

2a



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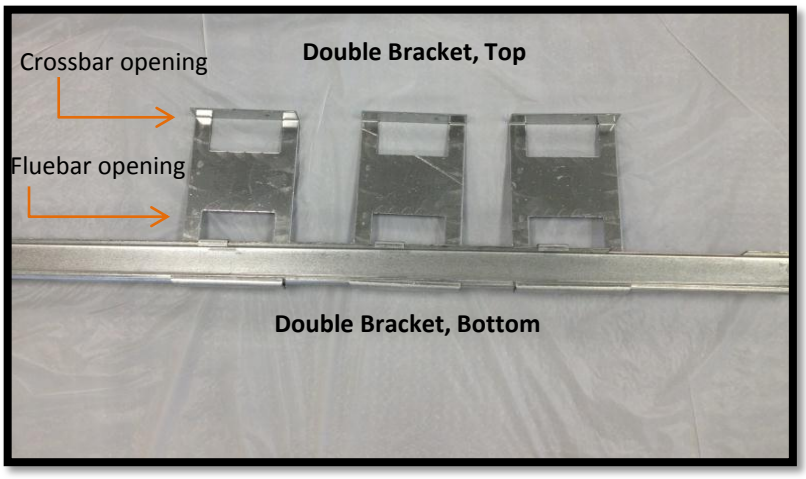


Track Installation

1. Install the track & bracket assemblies on the crossbars from the front of the bay.

   Do this with 2 people by lifting the track assemblies over the beams and by putting the crossbars through the brackets.

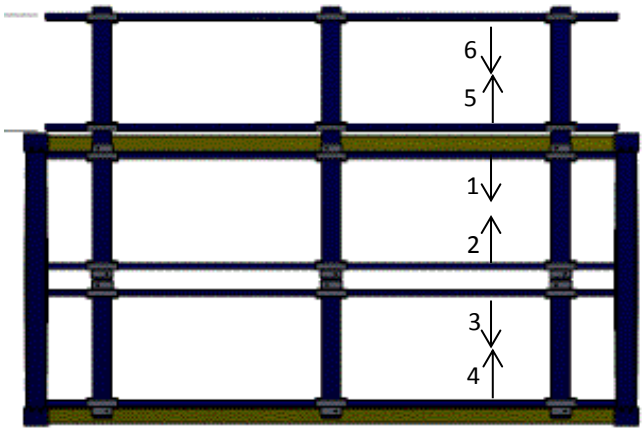
   The arrows in **1a** indicate the proper bracket/track direction. The numbers indicate when each track is installed (top view image used).

NOTE: With the track assemblies flat under the crossbars and with the bracket openings facing up & out, lift the crossbars with the tracks above the beam. Rotate the Bracket & Track assemblies at the same time you slide the tracks up and out over the crossbars thus sliding the crossbars into the bracket openings. (See **1b** for example).

2. Once all track assemblies are on the crossbars secure the crossbars to the beams using the provided Tek Screws (Long) in front and now in back.
3. Generally locate/space out the track rows in the bay.
4. Slide the provided flue bars through the double brackets.
5. Tek Screw (Short) the front of the flue bars flush to the bottom tab of the double brackets.
6. Tek Screw (Short) the front double bracket to the crossbar flush to the inside of the front beam.
7. Go to the back of the bay and Tek Screw (Short) the track with the single brackets over the end of the flue bar in the flue space.

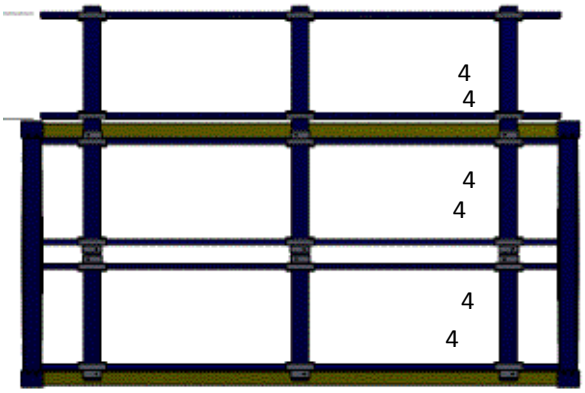
   To maximum space, the single bracket track should be placed close to the end of the flue bar. See picture **3**...

1a



1b

5-7



Track Installation Continued

9) Once the back track in the flue space is installed use it as your initial point of reference for the spacing of all other tracks.

NOTES:

a) Make sure the flue bar is cantilevered into the flue space at the back of the bay.

b) Make sure the flue bar is flush to the front bracket in the front of the bay and secured.

c) Make sure to Tek Screw (Short) the back bracket as close to the end as possible.

d) When properly spaced the track pairs will be parallel to the beams & allow the axles to roll smoothly.

e) Before Tek Screwing the Brackets into the Crossbar, make sure the Brackets lay flat on the Crossbars. Do this will help prevent the brackets from lifting off the crossbar when securing them.

10) Slide the middle row tracks into place taking care to leave a minimum of 1" of space between the rows. Use a pair of column axles to properly space out the tracks. Doing this allows for proper row and track placement. Repeat this process of aligning, spacing, and securing the tracks until all rows of tracks are in place.

NOTE: Take care to insure that a minimum of 1" (25mm) of space is between all interior rows of tracks, so as to leave room for free movement of the columns.

11) Once all the rows of tracks are aligned and spaced make sure all the brackets are Tek Screwed (Short) to the Flue Bars and Crossbars as well.

12) Proceed to Column Installation

Column Installation

1. Start installing columns in the back row. Use the notches in the track to slide the column axle assemblies into tracks.

NOTE: Prior to suspending the columns make sure that the axles are through all four of the webbing loops. If not, remove one roller and slide the axle properly through the loop. Reinstall the roller and proceed with installation.

2. The back row is complete when there is no more room for columns or meets installation layout. There should be no open column spaces.
3. Proceed to install the remaining rows using the same methods as in (1&2) but leave out, a minimum, 1 column space per row.
4. Make sure to install the columns in each row per provided design (See Next Page Example. This will ensure the bay is configured properly and will function.

NOTE: A typical three row installation will have a back row with no open column spaces. The middle and front rows will have some number of columns less, so as to have space to reach the product.

Leaving these column spaces out in the front & middle rows is important as it allows you to gain access to the bay's interior columns by sliding the front & middle row columns out of the way.

Ideally a bay is configured with the follow clearances:

-reach space clearance of 8-16" wide

-walk space clearance of 20"-32" wide

2

yes

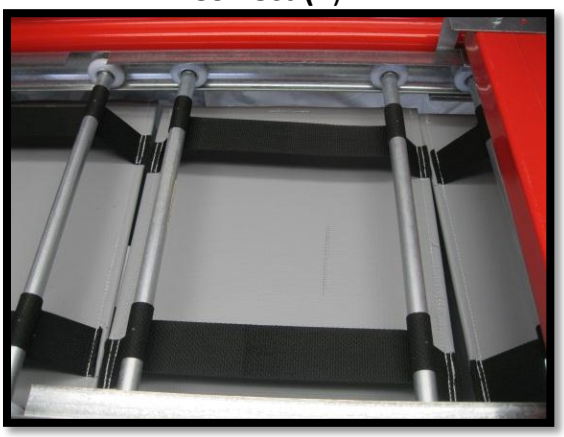
no

Typical Bay Configuration	
Rows	# of Columns
Row 1/Front	8
Row 2/Middle	8-9
Row 3/Back	10

Column Installation Continued

1. When installing column rows, make sure textile straps are square on the axles and parallel to the tracks and beams. This will ensure proper function of the columns on the tracks.
2. Test all columns to ensure that everything is evenly spaced, plum, and has proper clearance to allow for free left to right movement.

Correct (1)



Incorrect (1)

2

2