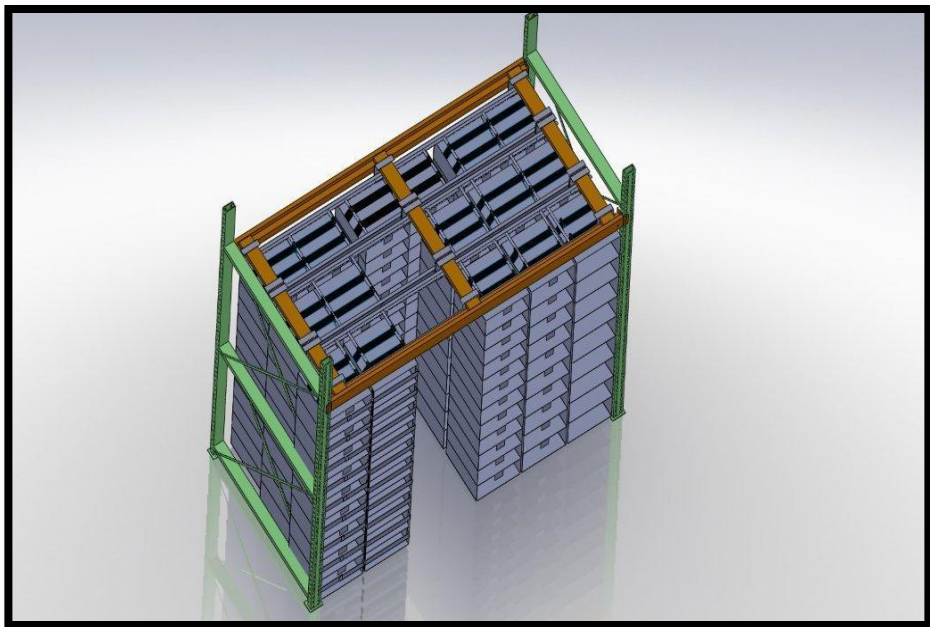
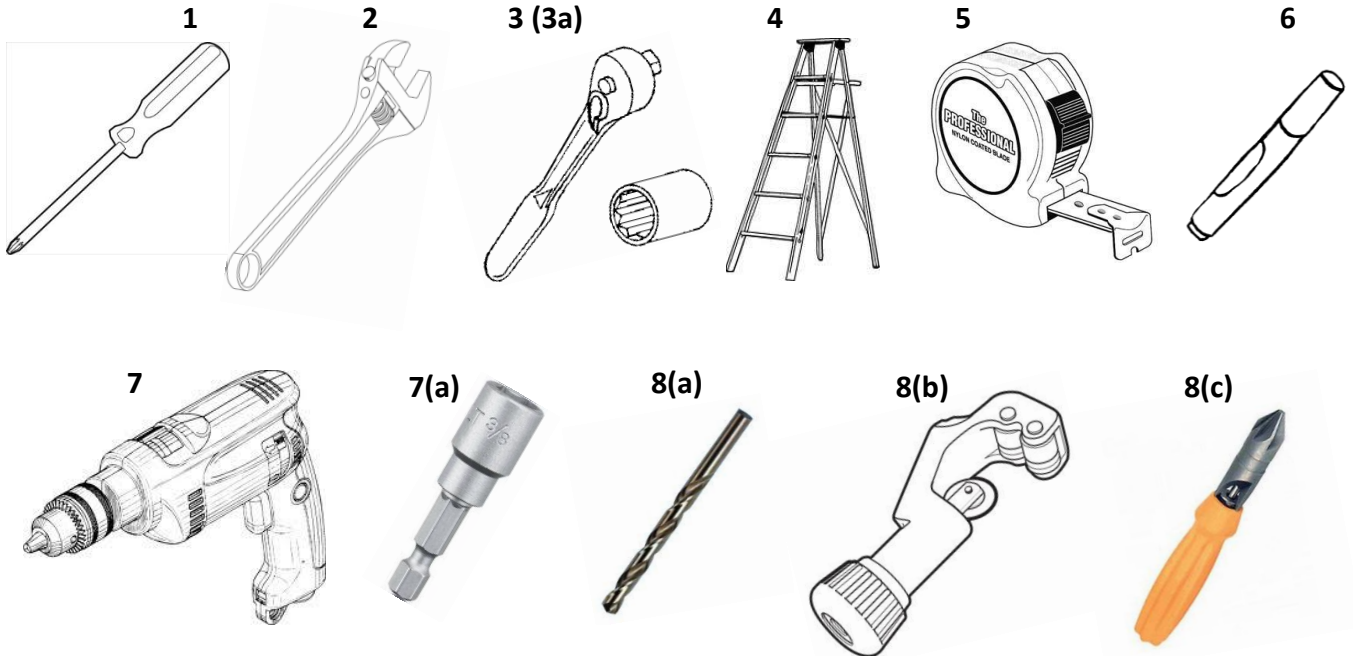


# SpeedCell Installation Instructions



\*\*\*Installation typically requires two people\*\*\*

# Required Tools



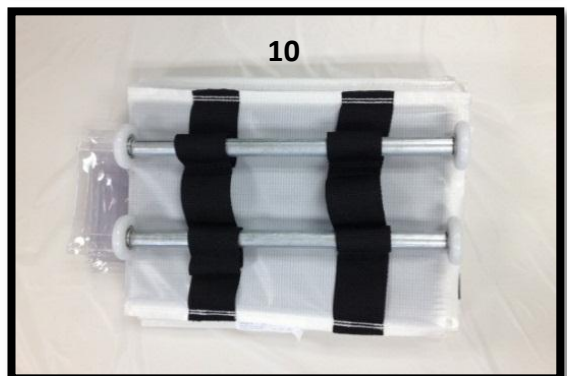
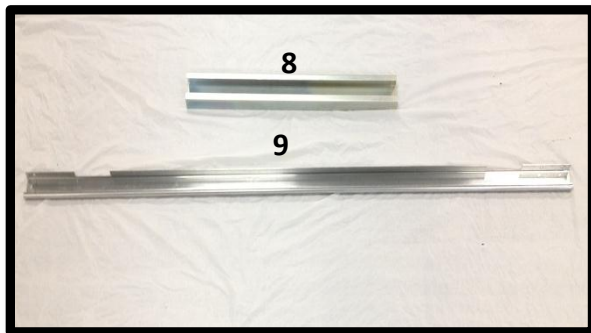
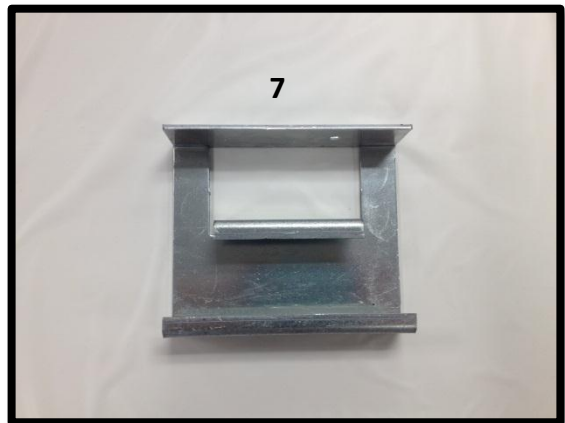
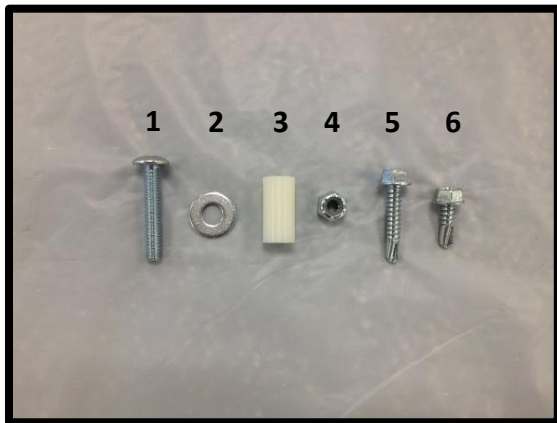
## KEY

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

# List of Materials

## KEY

- |  |   |
|--|---|
| 1. Bolt, 1.5"x .375" dia.<br>(~38mm x 9mm)     | 6. Tek Screw (Short), .25"x .25"dia.<br>(6mm x 6mm) |
| 2. Flat Washer, .25"(6mm)                      | 7. Single Bracket                                   |
| 3. Nylon Spacer                                | 8. Crossbar   |
| 4. Nylon Lock Nut, .25"(6mm)                   | 9. Suspension Track                                 |
| 5. Tek Screw (Long), 1.5"x.25"<br>(38mm x 6mm) | 10. Column  |



# Bay Configuration Examples

## 3 Rows-3 Deep ONE SIDE ENTRY (15-14-13 Configuration)

	Columns	1	2	3	4	5	6	7	8	9	10	11	12
Back of Bay	Rows	1	2	3	4	5	6	7	8	9	10	11	12
	1												
	2												
Front of Bay	3												

**LEGEND A:**

	Open Column Space (Typically 20"-32" space required)
	Back Row
	Middle Row
	Middle Row (Optional Column)
	Front Row



Total Columns: 34 max

## 4 Rows, Back to Back- 2 Deep OPTION B: BOTH SIDE ENTRY (14-15-15-14 Configuration)

	Columns	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Front of Bay	Rows	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Middle of Bay	1															
Middle of Bay	2															
Front of Bay	3															
	4															

**LEGEND B:**

	Open Column Space (Typically 20"-32" space required)
	Back Row
	Middle Row
	Middle Row (Optional Column)



Total Columns: 58 max

## 6 Rows, 6 Deep OPTION C: ONE SIDE ENTRY (15-14-13-13-13-13 Configuration)

	Columns	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Back of Bay	Rows	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	1															
	2															
	3															
	4															
	5															
Front of Bay	6															

**LEGEND C:**

	Open Column Space (Typically 20"-32" space required)
	Back Row
	Middle Row
	Middle Row (Optional Column)
	Front Row



Total Columns: 85 max

## 6 Rows, Back to Back- 3 Deep OPTION D: BOTH SIDE ENTRY (13-14-15-15-14-13 Configuration)

	Columns	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Front of Bay	Rows	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Middle of Bay	1															
Middle of Bay	2															
	3															
	4															
	5															
Front of Bay	6															

**LEGEND D:**

	Open Column Space (Typically 20"-32" space required)
	Back Row
	Middle Row
	Middle Row (Optional Column)
	Front Row



Total Columns: 86 max

Questions or Concerns Contact  
Holland Storage Systems  
616.772.2052

# Crossbar Installation

1. Start your SpeedCell installation off right by making sure 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 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 the 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: Materials

## For track installation you will need:

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: Bracket Assembly

## Bracket Set-up

1. All single brackets are to have crossbars ran through them and are to be contained inside of the beams.

\*\*\*\*Do not place brackets outside of the beams.\*\*\*\*

1. Layout the tracks in pairs facing each other.
2. Assemble a wheel stop on one end of each track.

### **The proper assembly order for wheel stops:**

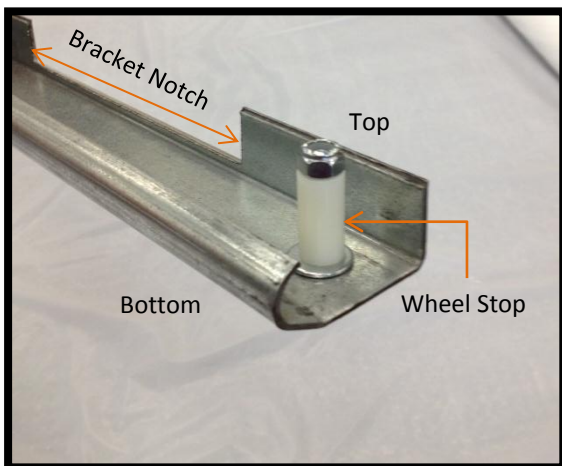
Bolt (1.5", ~38mm), Track, Washer, Nylon Spacer, and Nylon Lock Nut

3. Carefully slide the single brackets onto the tracks. The suspension tracks should under hang the crossbar opening on the bracket. Refer to the table on **page 5** for the number of brackets per track needed for proper installation.

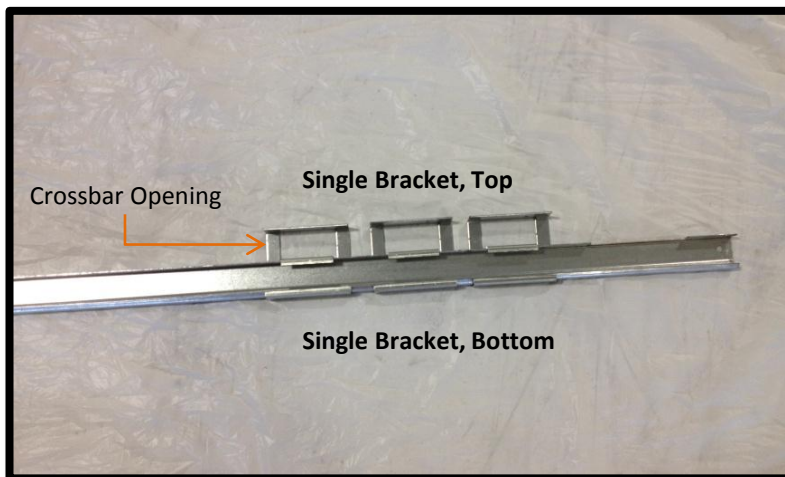
**NOTE:** Make sure that all the single brackets are facing the same direction and that they are **NOT** covering the notches on the top of the tracks, doing so will ensure proper installation.

4. Assemble the wheel stops on the other end of the tracks after installing all the single (same assembly order as #2).

2



3

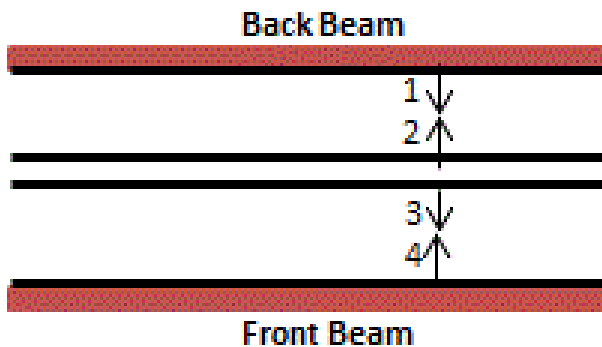


# Track Installation

1. Install the track & bracket assemblies on the crossbars from the front of the bay.
  - a) Do this with 2 people by lifting the track assemblies over the beams and by putting the crossbars through the brackets.

**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 as you slide the brackets up and out over the crossbars thus sliding the crossbars into the bracket openings.

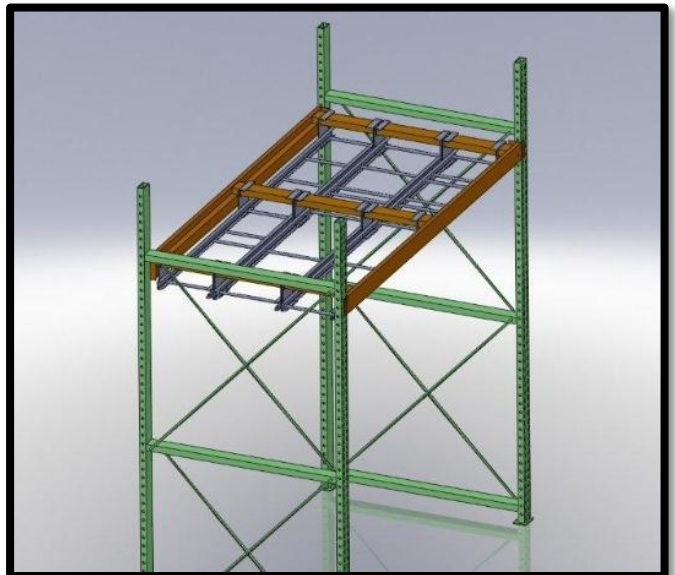
2. Secure Crossbars to beams
  - a) Once the Bracket & track assemblies are on the crossbars, fully secure the crossbars to the beams using provided tek screws (Long).
3. Properly locate/space Tracks on the crossbars
  - a) Starting at back of the bay pull the bracket flush to the beam and tek screw (small) in place



**NOTE:**

1. Black line =Tracks
2. Red line=Beams
3. Arrows=Track Direction
4. Numbers=Track Installation Order

3



# Track Installation Continued

1. Proper Alignment & Spacing of Tracks:
  - a) Work from the back of the bay to the front
  - b) Use a pair of column axles to properly space out the tracks.
  - c) Slide the middle row tracks into place making sure to leave a minimum of 1" of space between the rows.
  - 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. This will help prevent the brackets from lifting off the crossbar when securing them.
  - f) Repeat this process of aligning, spacing, and securing the tracks until all rows of tracks are in place.
2. Once all the rows of tracks are aligned and spaced make sure all the brackets are Tek Screwed (Short) to the crossbar.
4. 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 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. It should have no open column spaces.
3. Make sure to 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. The will ensure the bay is configured properly and will function.

**NOTE:** A typical three row deep installation will have a back row with no open column space and some number of columns less in the front two rows. Leaving these column spaces out in the middle and front rows allows you to gain access to the bay interior rows/columns by sliding the front row columns out of the way.

A typical bay ideally is configured with the follow clearances:

- walk space clearance of 20"-32"
- reach space clearance of 8-16"

2

Yes



No



## Typical Bay Configuration

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