

## Aquaponic Raft Beds



\*Actual raft bed may differ from what is shown.

115330*	RAFT BED	8' x 8'- 0"
115331*	RAFT BED	8' x 16'- 1.5"
115332*	RAFT BED	8' x 24'- 3"
115333*	RAFT BED	8' x 32'- 4.5"
115334*	RAFT BED	8' x 48'- 8"
115335*	RAFT BED	8' x 56'- 8"

\*Shows inside-to-inside dimensions.

©2023 Growers Supply  
 All Rights Reserved. Reproduction  
 is prohibited without permission.



WARNING: Cancer and Reproductive Toxicity - P65Warnings.ca.gov

Revision date: 05.24.23

# Important Information

## READ THIS DOCUMENT BEFORE YOU BEGIN

Thank you for purchasing this raft bed. When properly assembled and maintained, this raft bed will provide years of reliable service. These instructions include helpful hints and important information needed to safely assemble and properly maintain the raft bed. Please read and understand these instructions **before** you begin. If you have any questions during the assembly, contact customer service.

## SAFETY PRECAUTIONS

- Wear eye protection.
- Wear gloves when handling metal pipes.
- Use a portable GFCI (Ground Fault Circuit Interrupter) when working with power tools and cords.

## REQUIRED TOOLS

The following list identifies the main tools needed to assemble the raft bed. Additional tools may be needed.

- Tape measure and marker
- Variable speed drill (cordless with extra batteries works best)
- Small hammer and gloves
- Level (4'- recommended)
- Utility knife or scissors
- Duct tape
- Magnetic nut setter (5/16" x 2-9/16")



## UNPACK AND IDENTIFY PARTS

The following steps will ensure that you have all the necessary parts **before** you begin assembly.

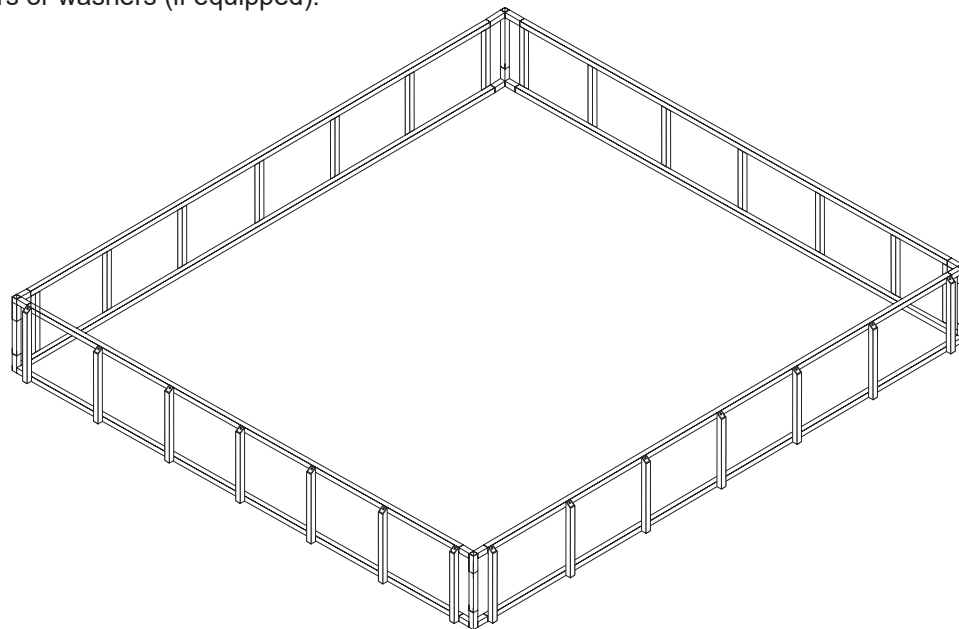
1. Unpack the contents of the shipment and place where you can easily inventory the parts. Refer to the Bill of Materials/Spec Sheets.
2. Verify that all parts listed on the Bill of Materials/Spec Sheets are present. If anything is missing or you have questions, consult the Pictorial Parts Guide and all diagrams for clarification, or contact Customer Service.

**NOTE:** At this time, you do not need to open the plastic bags containing smaller parts such as fasteners or washers (if equipped).



**DROWNING HAZARD:** Never allow children or others in or around the raft bed when filled. Raft bed is not a toy or swimming pool.

Always have an assistant present during cleaning and maintenance to prevent accidents.



## Important Information

### PICTORIAL GUIDE

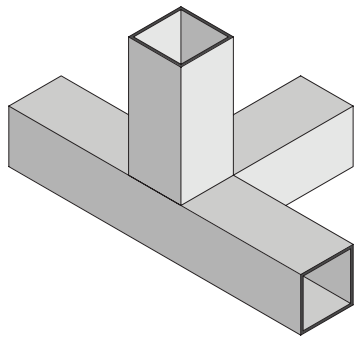
The following graphics and photos will help identify the different parts of the raft bed. (Some parts may not be shown.) **Sort all tubing by size before you begin for easier assembly. Consult the assembly diagrams near the back of this guide for your raft bed for additional details.**



FA4472B



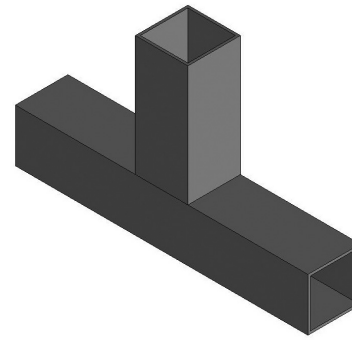
102921B



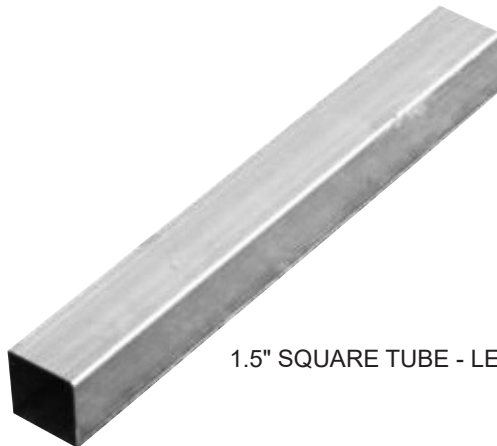
113303



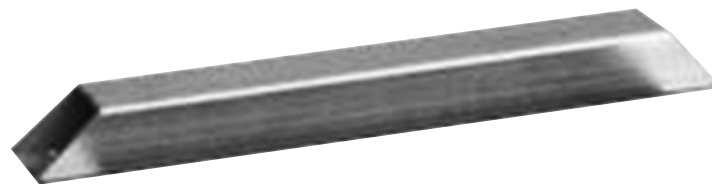
110611



104626



1.5" SQUARE TUBE - LENGTHS VARY



112375

# Getting Started

## ASSEMBLY PROCEDURES

Below are the main steps to assemble your raft bed. Procedures can occur simultaneously when assistants are available, or each procedure can be completed before moving onto the next. In most instances, the site and available space drive which procedures can be completed first before moving onto the next. Review this entire guide before you begin to ensure that you understand how to position and connect the different components.

1. Determine raft bed position. Allow space all around raft bed for maintenance and harvest activities.
2. Construct raft bed as shown in diagrams. **Raft bed requires a flat, level surface free of debris and obstructions.** Install and assemble frame according to instructions.
3. Install insulation.
4. Install raft bed heat tube system (additional purchase required).
5. Install the raft bed liner.
6. Fill bed with water and check for leaks.
7. Prepare and install plant rafts.
8. Read and follow the care and maintenance information.

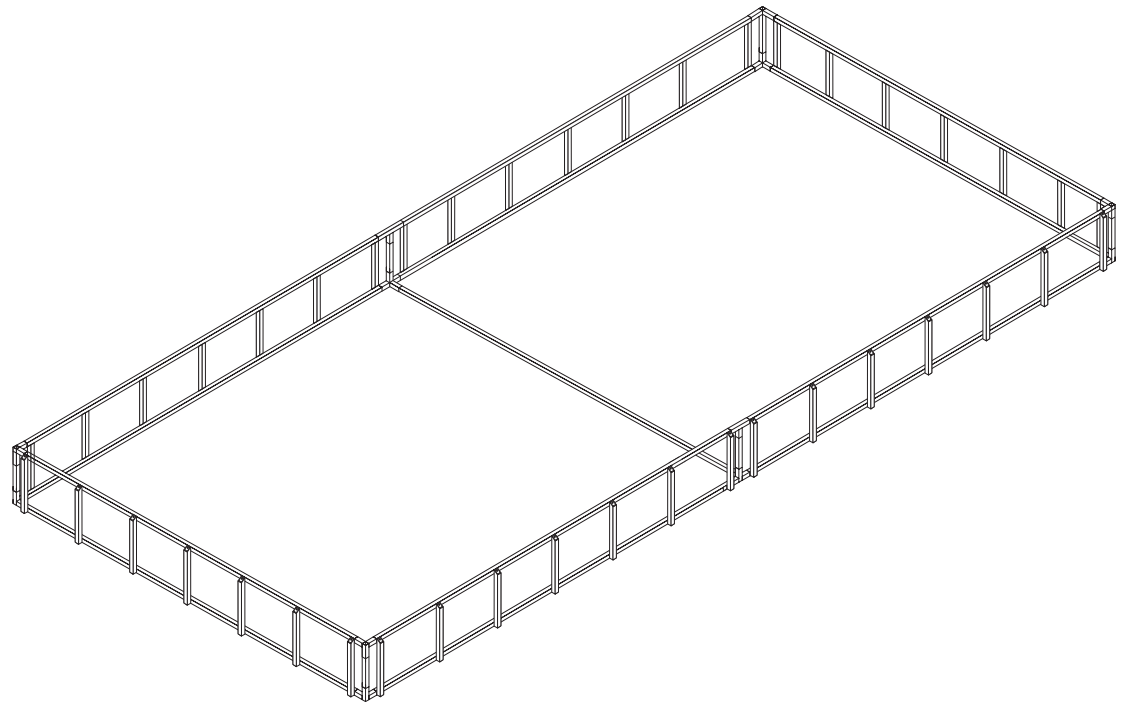
## BASIC CARE AND MAINTENANCE

### Daily

1. Check water level in raft bed.
2. Check and maintain desired water temperature.
3. Check liner for leaks.
4. Check water condition according to your growing needs.
5. Keep the area around the raft bed clean and picked up. Do not allow miscellaneous tools or maintenance and harvest equipment to stack up against the raft bed.

### Monthly

1. Check all frame fittings and fasteners.
2. Test water hardness and other parameters according to your growing needs.



# Raft Bed Assembly

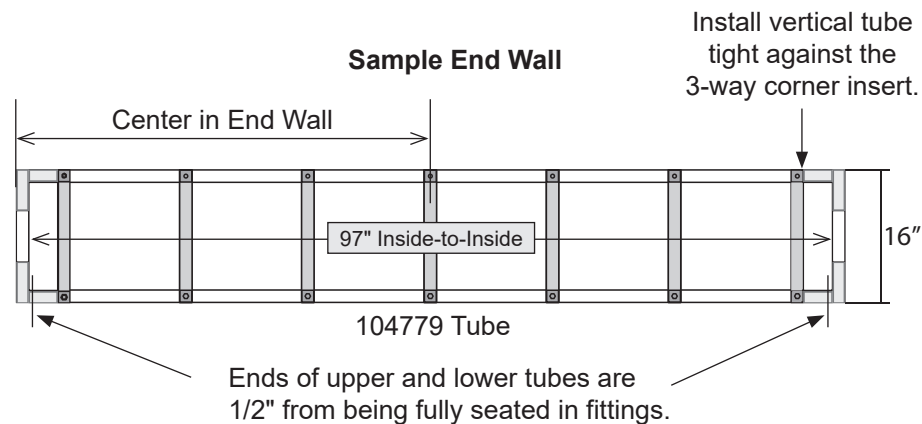
## 1

### ASSEMBLY STEPS

Follow these general steps when constructing raft bed:

1. To minimize possible damage to liner, install all fans, heaters, and lighting (including wiring) that will be positioned above raft bed **before** assembling bed.
2. Frame cannot be moved once assembled. Take the necessary steps to keep frame square during assembly.
3. Clear site of debris and obstacles that could hamper construction progress.
4. Level the surface where raft bed will be located.
5. Read all assembly steps for raft bed to better understand parts layout.
6. Separate parts and set aside (if this has not been done) to prevent confusion and mixing of parts during construction.
7. Secure all tube and fitting connections using FA4572 Tek screws.
8. Install Tek screws in positions that will not contact bed liner when it is installed.

**ASSEMBLY NOTE:** During frame assembly, set inside-to-inside dimensions listed with the rafter bed. Do not seat tubes tight to inside of corner fittings. Doing so will result in a dimension too narrow to accept 96" lettuce rafts once liner is installed. **When setting inside dimensions always evenly divide space between corner fittings. At least 2" of any tube must remain within a coupler, fitting, or other tube.**



\*Not to scale.

## 1a

### ASSEMBLY STEPS – MAIN FRAME

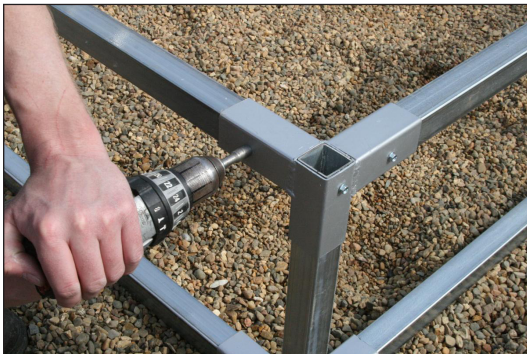
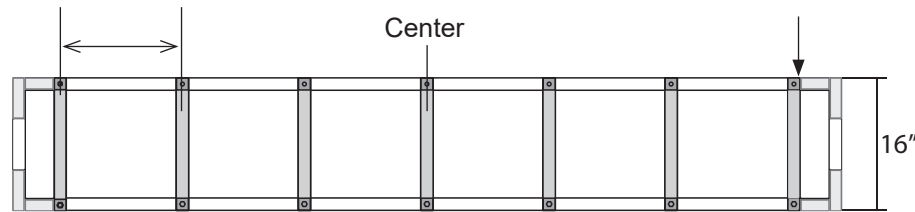
Use photos below and diagrams on previous pages to assemble one raft bed frame.

Complete these steps:

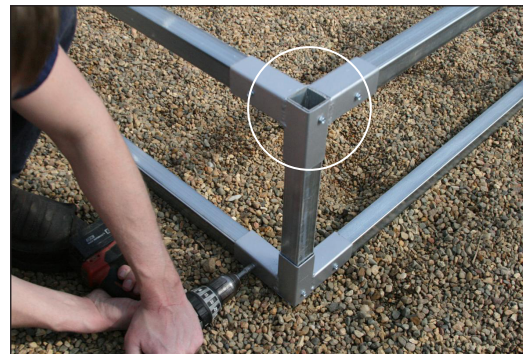
1. Construct main frame using corner fittings and the upper and lower tubes.
2. After perimeter frame is assembled, install vertical supports. Secure each support to upper and lower tubes using two (2) FA4572 Tek screws for each beveled support.



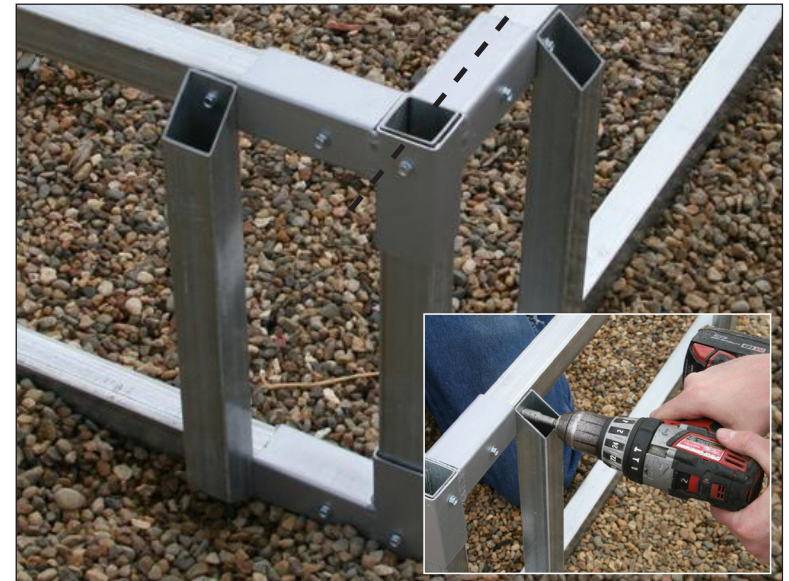
Above photo shows assembled cross supports installed and spaced on lower perimeter frame. Cross bed supports are supplied on models 115331 thru 115335.



Evenly space all beveled vertical supports throughout length and width of raft bed frame.



Install vertical tube tight against 3-way corner and 3-way tee fittings (if present).



**ATTENTION:** Do not install any Tek screw along top rail of raft bed frame. Surface is reserved for installation of raft bed liner.

Install all corner tubes flush with top of 3-way fitting as shown. See dashed line above.

# Raft Bed Assembly

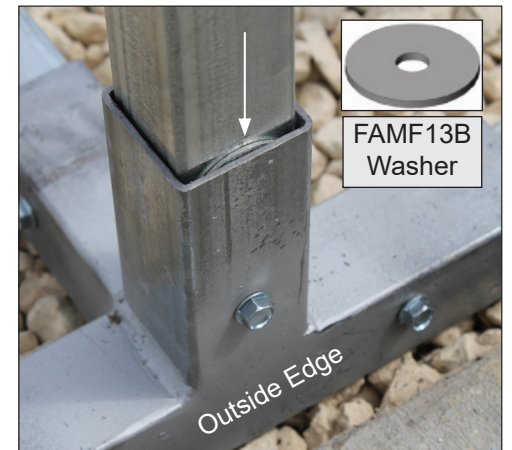
## 1a

### ASSEMBLY STEPS – continued

During assembly and installation of all mid-frame supports (if supplied), pull or push top of support *toward inside the frame*. Then install two Tek screws – one on each side of 4-way fitting – to secure fitting to cross brace. Off-set screw positions by 1"-2" to prevent creating a pivot point for cross brace.



Dashed lines show location of each Tek screw—one installed through each side.



Arrow shows where to insert washers to tighten fitting and tube connection.

Install all Tek screws in locations that will not contact liner when installed.

**ASSEMBLY NOTE:** During assembly, insert flat washer(s) (FAMF13B) between 4-way fitting and 12-1/2" tube outside the frame to tighten connection (if supplied). (Some connections may need two (2) washers.) Tap into place flush with top of fitting before installing Tek screw to secure connection. It is best to have the vertical frame tube tilted inward at the top. Weight of water when bed is filled will push outward on frame.

# Raft Bed Assembly

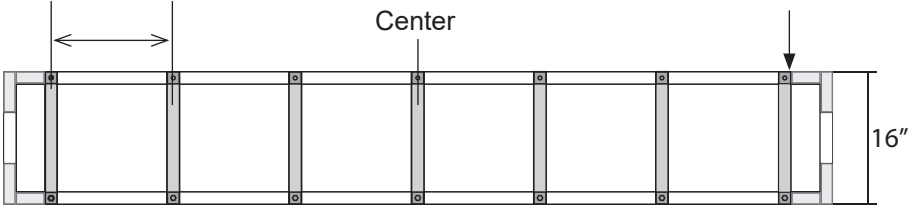
1a

## ASSEMBLY STEPS – continued

After perimeter frame is assembled, install all vertical supports. Secure each support using two (2) FA4572 Tek screws.

Evenly space all verticals throughout length of raft bed frame.

Install vertical tube tight against 3-way corner and 3-way tee fittings.



Install verticals tight to 3-way tee fittings.

**IMPORTANT!** Ensure Tek screws are driven through fitting and *splice* of upper and lower frame tubes at all fitting positions.

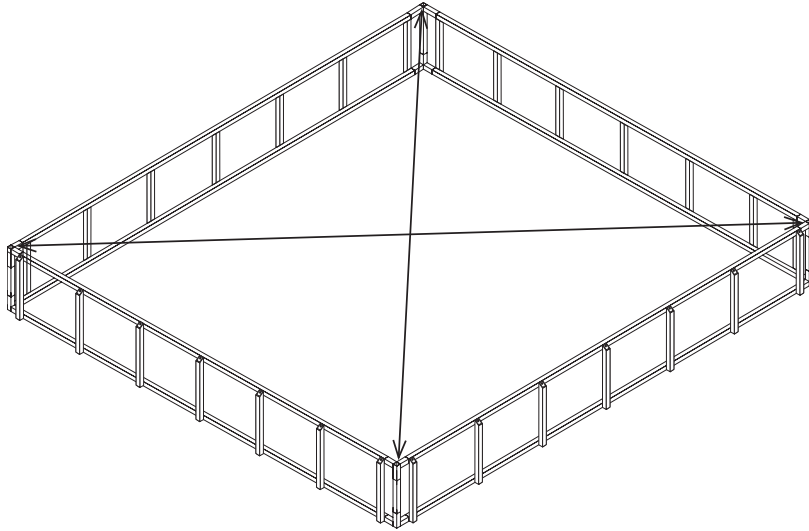


## 1b

### SQUARE ASSEMBLED RAFT BED FRAME

**ATTENTION:** Actual frame may differ from what is shown. Procedure to square frame is the same.

After assembly, check all connections to verify that Tek screws are properly installed. Next, measure corner-to-corner diagonally as shown. When dimensions are the same, frame is square. Be sure to measure from same points at each corner. Finally, level frame. **Frame must be level so water depth is consistent throughout frame once raft bed is filled.** Prepare site inside the raft bed frame if not on a solid surface such as wood or concrete.

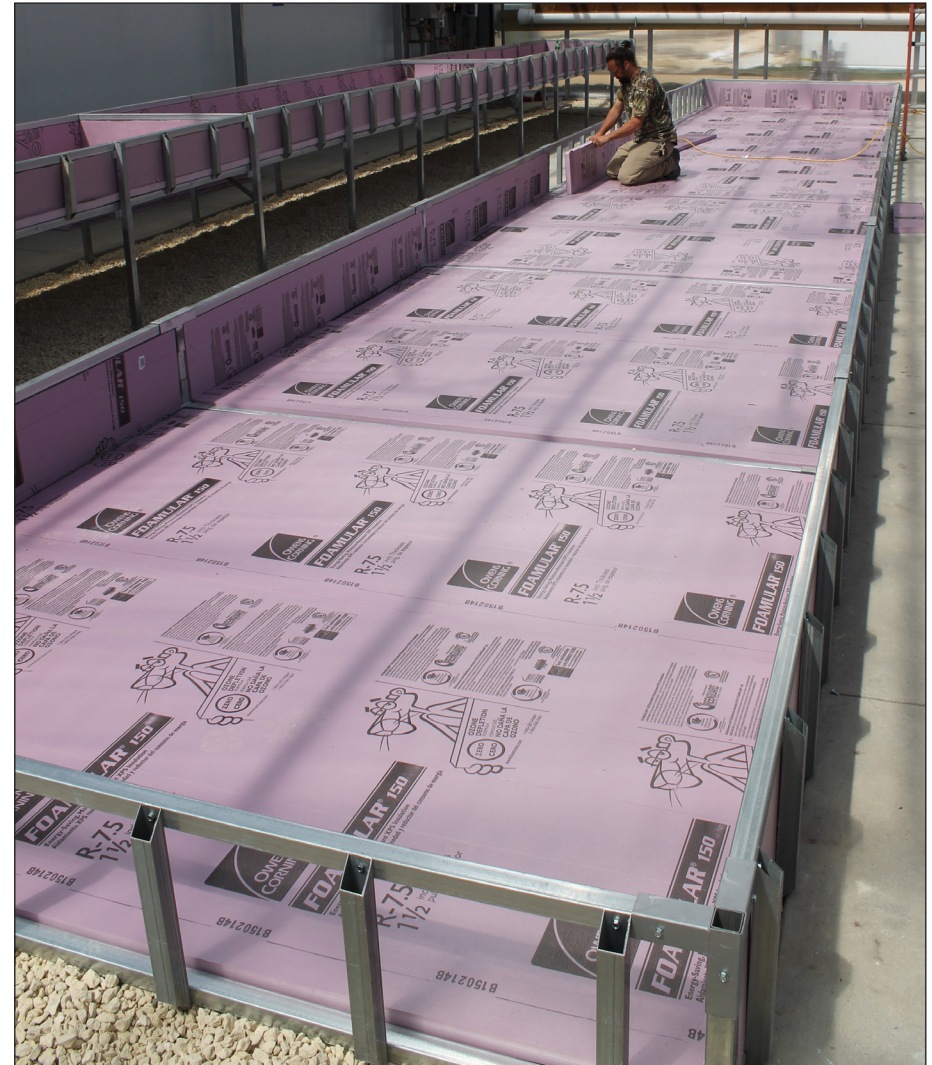


## 1c

### INSULATE RAFT BED FRAME

Complete these steps:

1. Once frame is level, insulate frame bottom. (Frame shown below may differ from actual frame.)



2. Cut insulation board as needed to fit side and end walls.
3. Continue with the next procedure.

# Optional Heat Package Installation Note



## OPTIONAL HEAT PACKAGE INSTALLATION

Heat package kits contain components to heat aquaponic raft beds. These kits are typically installed to help maintain a constant water temperature to optimize fish and plant growth.

**Additional purchase is required for heat packages.**

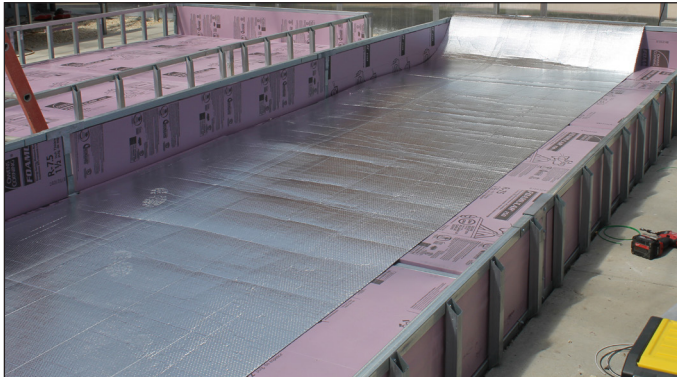
If you purchased a heat package for your aquaponic system, install tubing in raft bed before liner installation. Instructions for heat package installation are included with heat package. Consult that documentation to install kit components. See note above.

If needed, consult the services of a qualified contractor familiar with installing similar heating systems. After installing raft bed tubing, return to these instructions and continue with **Section 2** to install raft bed liner.

**ATTENTION:** Regardless of raft bed size, follow these general guidelines:

- Maximum length of any tube loop should not exceed 300';
- Loops must be of equal length.

\*Actual raft bed and number of lines may differ from examples shown. Some systems may not need a heat package.



# Raft Bed Liner Installation

## 2

### INSTALL RAFT BED LINER

Once raft bed is prepared, continue with installation of liner. Assistants are required to complete this installation.

Required parts:

- Raft Bed Liner
- FA4572 Tek Screws, 102921B Washers, and 5/16" x 2-9/16" Magnetic Nut Setter

**ATTENTION:** During liner installation, do not drop any tools or sharp objects into liner bed. Doing so can puncture liner! Exercise caution!

Verify that all debris is removed from insulation surface that could damage or puncture liner once installed.



1. With assistance, carefully spread liner over assembled frame. Ensure that equal lengths overhang ends and sides.



2. Beginning at one corner, loosely and carefully fold and press liner into corner and along inside of base rails.



3. Fold liner evenly up and over top of frame rails. Remove as many wrinkles as possible. **Do not crease liner material.**



4. Take two (2) FA4572 Tek screws and two (2) 102921B neo-bonded washers and carefully secure liner to top of frame.



**NOTE:** Ensure liner is fully seated in corners and on bottom before installing fasteners. These are removed later in procedure.



5. Move to another corner and press liner into place.

# Raft Bed Liner Installation

## 2

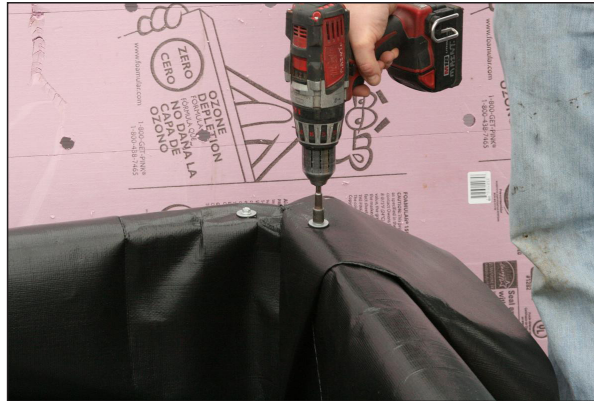
### INSTALL RAFT BED LINER — continued

**ATTENTION:** During liner installation liner, do not drop any tools or sharp objects into ben liner. Doing so can puncture the liner! Exercise caution!



6. Cut material as needed to allow it to fit more evenly at corners.

**ATTENTION:** Do not drop any sharp objects into bed liner at any time. Contact your sales representative for products used to repair damage to liner if needed.



7. Repeat steps to secure liner material.  
8. Check bottom of liner for wrinkles and remove these by working material toward free edge.



9. Start adding water to raft bed to allow water to seat liner inside frame.

**NOTE:** Add until about half full.



10. Move to remaining corners and repeat steps to temporarily secure them to frame.



11. While adding water, remove any excess material that touches ground. Allow a couple inches to remain for final steps.



12. Install pre-drilled aluminum retaining strap as described in the next procedure.

# Raft Bed Liner Installation

## 2

### SECURE LINER TO FRAME

Attach 110155 aluminum flat stock to frame using FA4572 Tek screws and 5/16" x 2-9/16" magnetic nut setter.



**ATTENTION:** There are enough Tek screws to install one in each hole of the aluminum stock. However, to reduce assembly time and labor, installing one in every other hole will serve to secure liner.



1. Begin at a corner and remove Tek screw and washer to install first 110155 strap.



2. Align strap with frame fitting and attach using the FA4572 Tek screw.



3. Grip edge of bed liner with duck-bill locking pliers or similar tool.



4. Apply *slight downward force* to stretch liner material and secure strap with Tek screws.

**NOTE:** Do not lift liner or pull it away from frame sides. **Use slight force only!**

Take the necessary steps prevent metal shavings from dropping into raft bed.



5. Continue attaching aluminum straps to frame until entire perimeter of bed liner is secure.

**NOTE:** Remove temporary Tek screws and washers before installing aluminum straps.

6. Install 112770 finishing plug at each corner when liner is secured.



7. Using a utility knife or scissors, remove excess bed liner material. Allow 1" or so to remain beyond the edge of aluminum strap if desired.

**NOTE:** To prevent contamination and algae growth, *do not fully fill raft bed until remainder of system is constructed. If possible, cover to block light and prevent liner damage.*

## 3

### RAFT BED CHECK BEFORE USE

After the raft bed is completely assembled, follow the guidelines below to complete a final check.

**ATTENTION:** This manual describes how to set up your raft bed and check for proper operation. Additional information is presented regarding the basic maintenance of the bed. This manual does not however describe how to grow various types of fish and plants. Since the specifics of such an undertaking would fill many books, it is best to determine beforehand exactly how you want to use this raft bed. Water quality, location, growing environment, available resources, personal knowledge and experience among other things all must be considered before populating your raft bed with fish and plants. Consult with your sales representative for additional resources and information to ensure a successful start.

Complete these steps:

1. Fill the raft bed with water and test for leaks.

Water quality is extremely important. For well water, consult all documentation that you have that pertains to what you plan to grow, and test the water according to those recommendations. If you are using a chlorinated water supply, determine what is used to chlorinate the bed. If chlorine gas is used, allow the chlorinated water to “off-gas” for 48 hours after filling the bed to remove all chlorine. If the water source uses chlorimine to chlorinate the water and not chlorine gas, you may need to consider an alternative water source. Chlorimine will not “off-gas” and can kill fish growing in an aquaponic system.

2. Check and adjust water temperature in the raft bed.

Accurate water temperature can be the difference between life and death for your fish. Consult documentation that describes the environment your fish need. The raft bed includes insulation and heat tubes installed under the bed liner. This tubing should be connected to a water heater (additional purchase required) to help control the temperature of the water in your raft bed. In some climates, it may be necessary to keep the water cooler than the ambient air. Consult with your aquaponic representative for additional information regarding the heating and cooling of water.

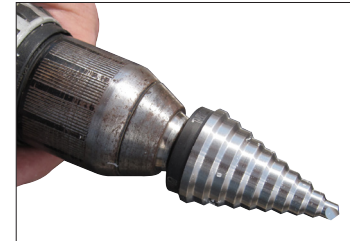
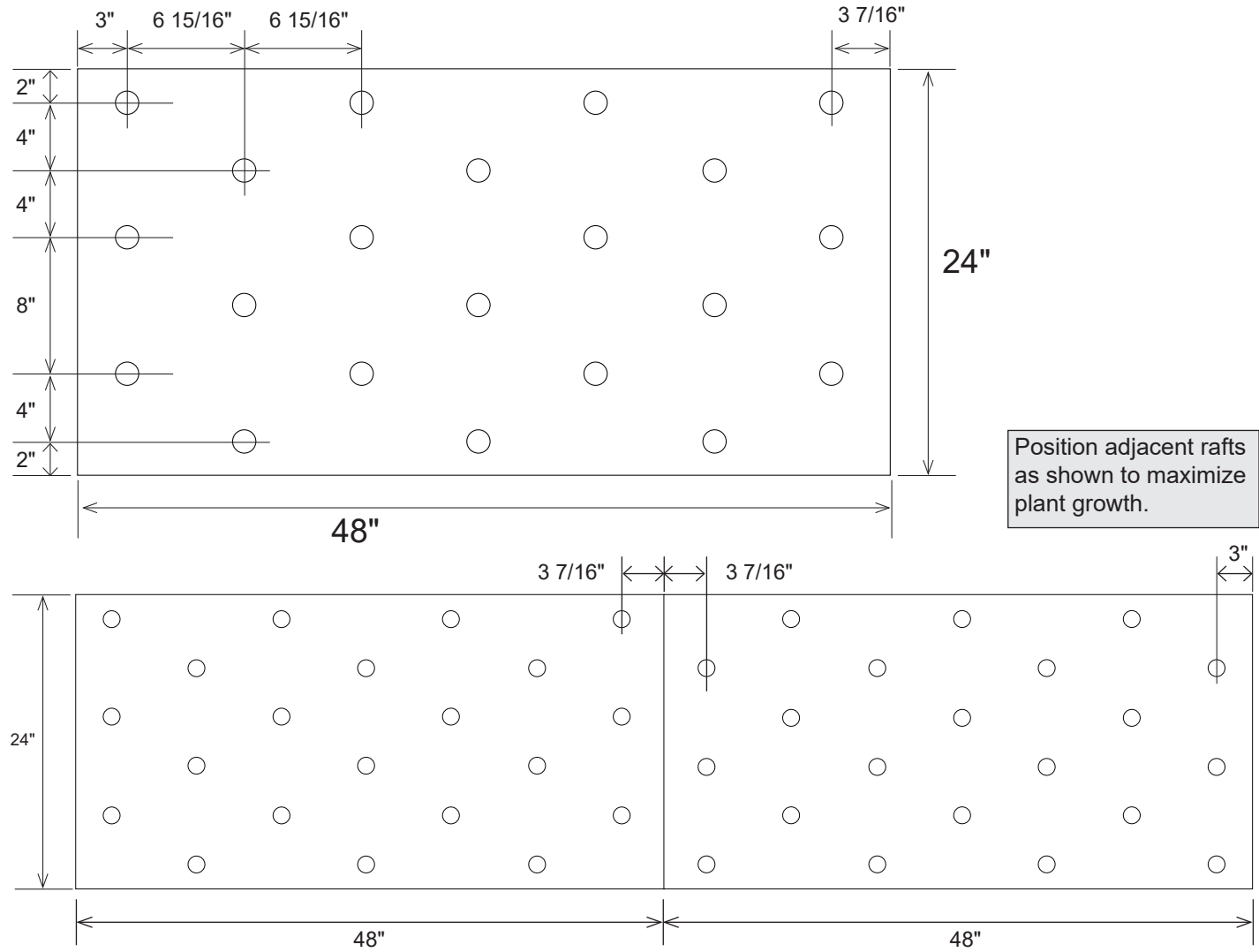
3. Prepare the plant rafts.

# Prepare Plant Rafts

## 4

### PREPARE PLANT RAFTS

The templates below show one of many ways to prepare plant rafts. (There are other patterns.) Each has its advantages. Determine the best pattern for your growing needs and prepare the 4' x 8' rigid foam boards as needed. Rafts can be cut in half or quarters (shown) for easier handling and harvesting. Layout desired pattern and drill holes. Hole size depends on what plants you intend to grow and media you will use. Consult with your sales representative for additional information about growing plants in your aquaponic system. Hole size shown is 1-3/8". **Top diagram shows a 24" x 48" panel.**



A step bit\* allows for drilling a uniform size hole through the rigid foam board. It also allows you to drill a tapered hole that works better for some media. Determine which type of hole is needed for your planting needs and prepare the rafts accordingly.

Experiment with different bits until desired results are achieved. For net pots, do not use a step bit.

\*Step bit is not included. Purchase locally if needed.

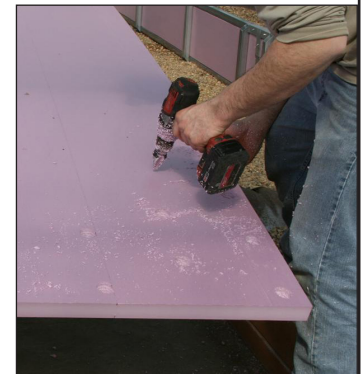
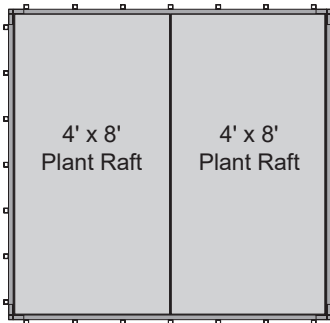


Photo above shows drilling holes in the rigid foam board using a step bit. Hole pattern show above is staggered.

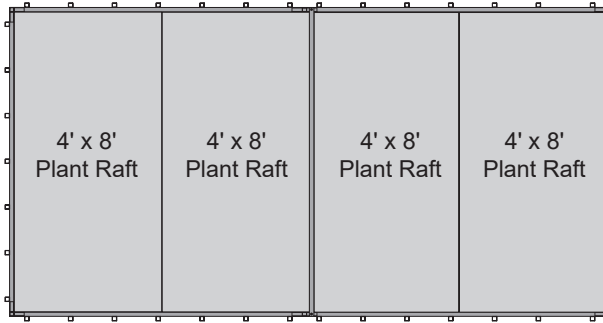


# Plant Raft Layouts

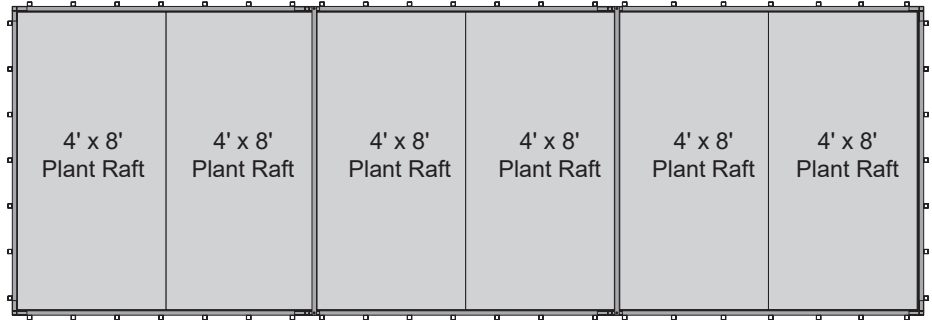
**115330 Raft Bed 8' x 8'**



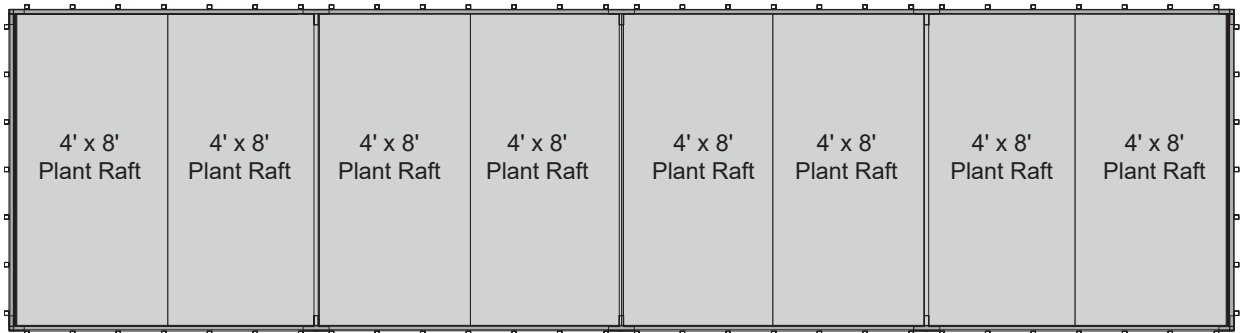
**115331 Raft Bed 8' x 16'- 1 1/2"**



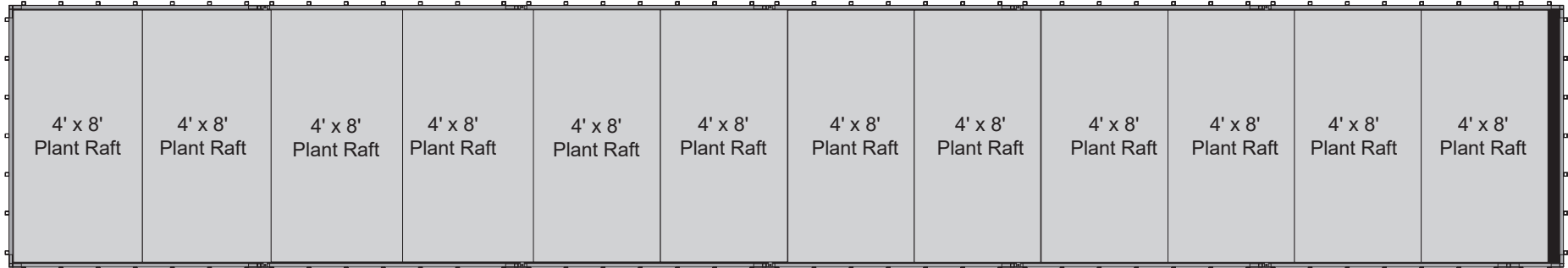
**115332 Raft Bed 8' x 24'- 3"**



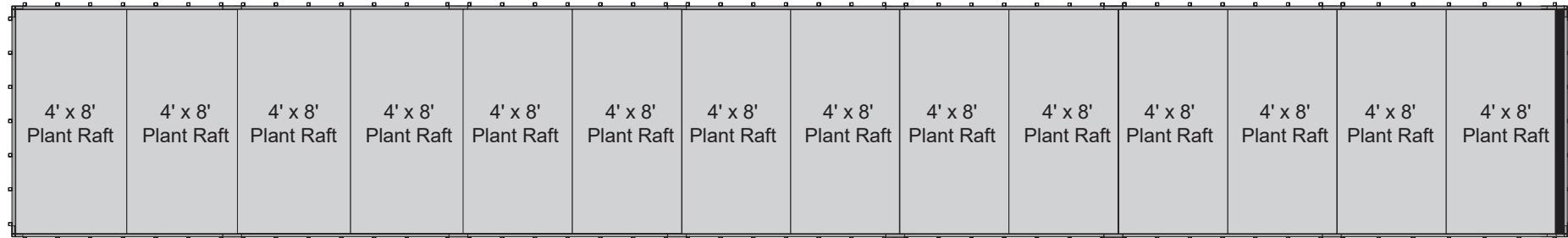
**115333 Raft Bed 8' x 32'- 4 1/2"**



**115334 Raft Bed 8' x 48'- 8"**

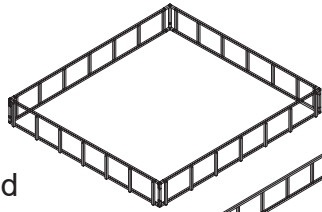


**115335 Raft Bed 8' x 56'- 8"**

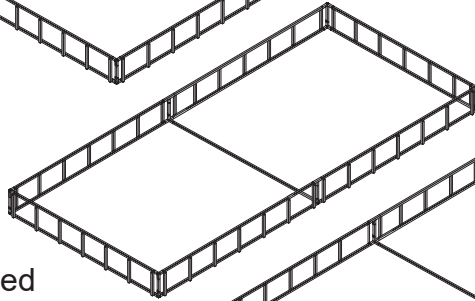


# Quick Start Guide

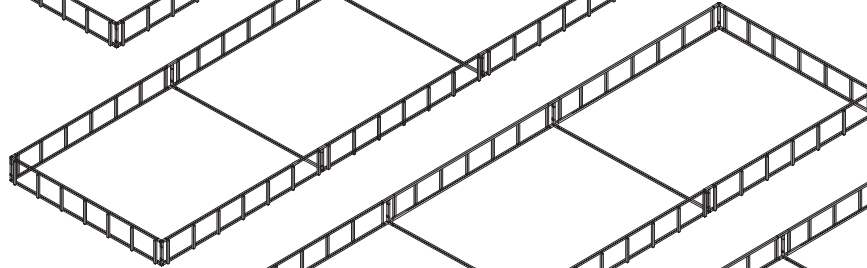
115330 - 8' x 8'- 0" Raft Bed



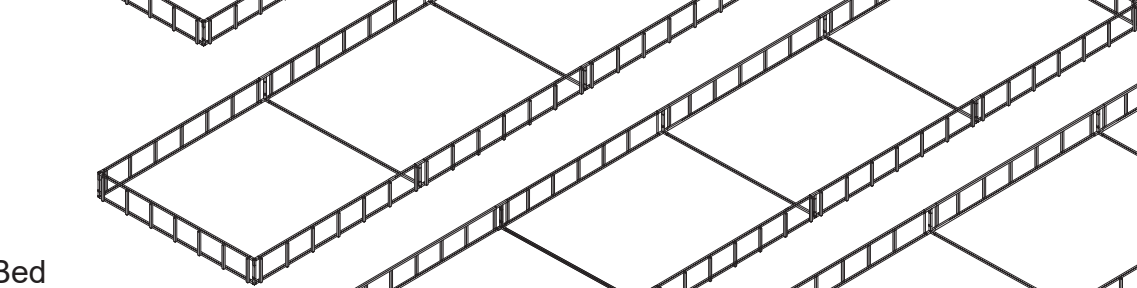
115331 - 8' x 16'-1 1/2" Raft Bed



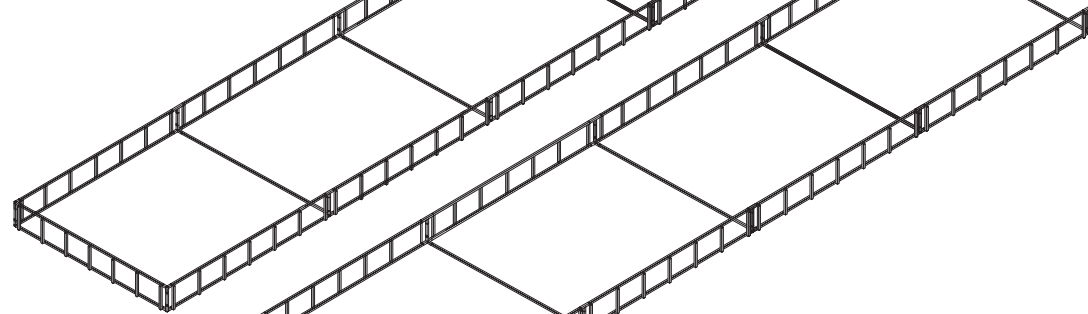
115332 - 8' x 24'- 3" Raft Bed



115333 - 8' x 32'- 4 1/2" Raft Bed



115334 - 8' x 48'- 8" Raft Bed



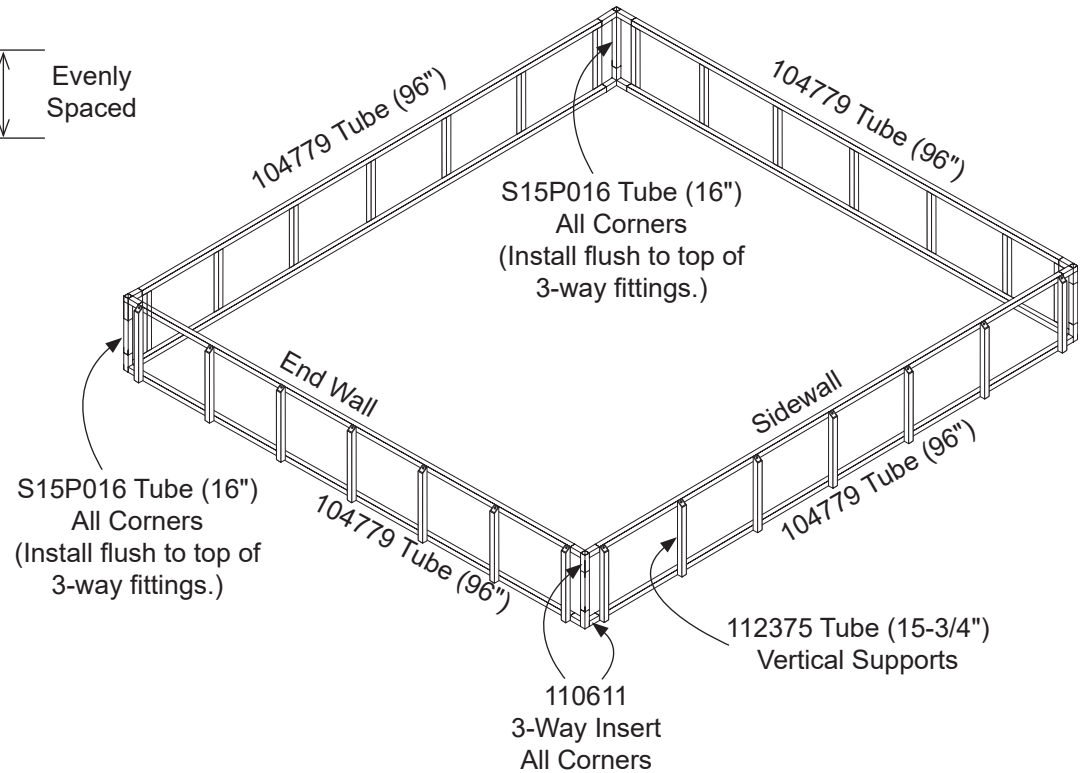
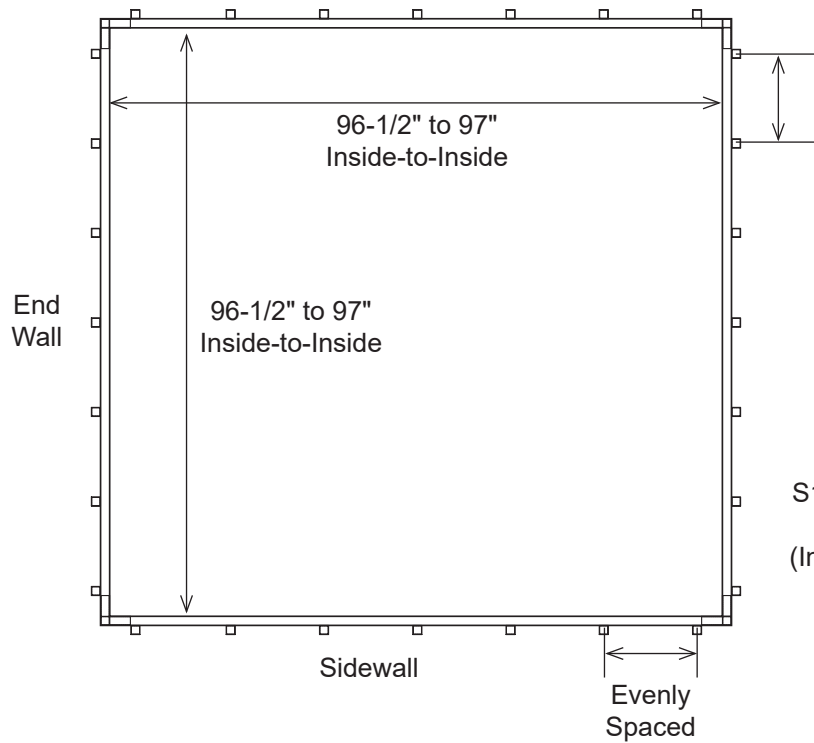
115335 - 8' x 56'- 8" Raft Bed



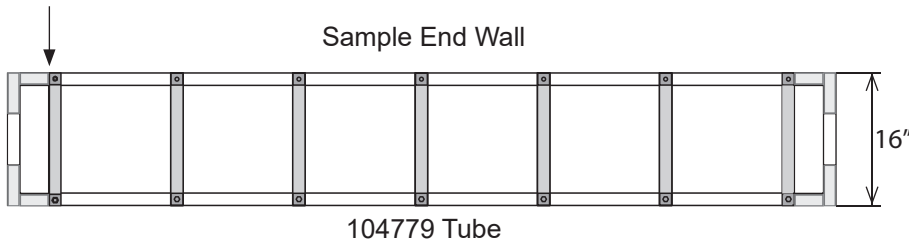
# 115330 Frame Diagram - 8' x 8'- 0" Raft Bed

Diagrams below show layout of assembled 8' x 8' raft bed. Use these diagrams and dimensions as guides during raft bed frame assembly. The inside-to-inside dimensions allow room for liner and plant rafts.

**ATTENTION:** Measure all long tubes to confirm length before assembly.



Install vertical tube tight against the 3-way corner insert.



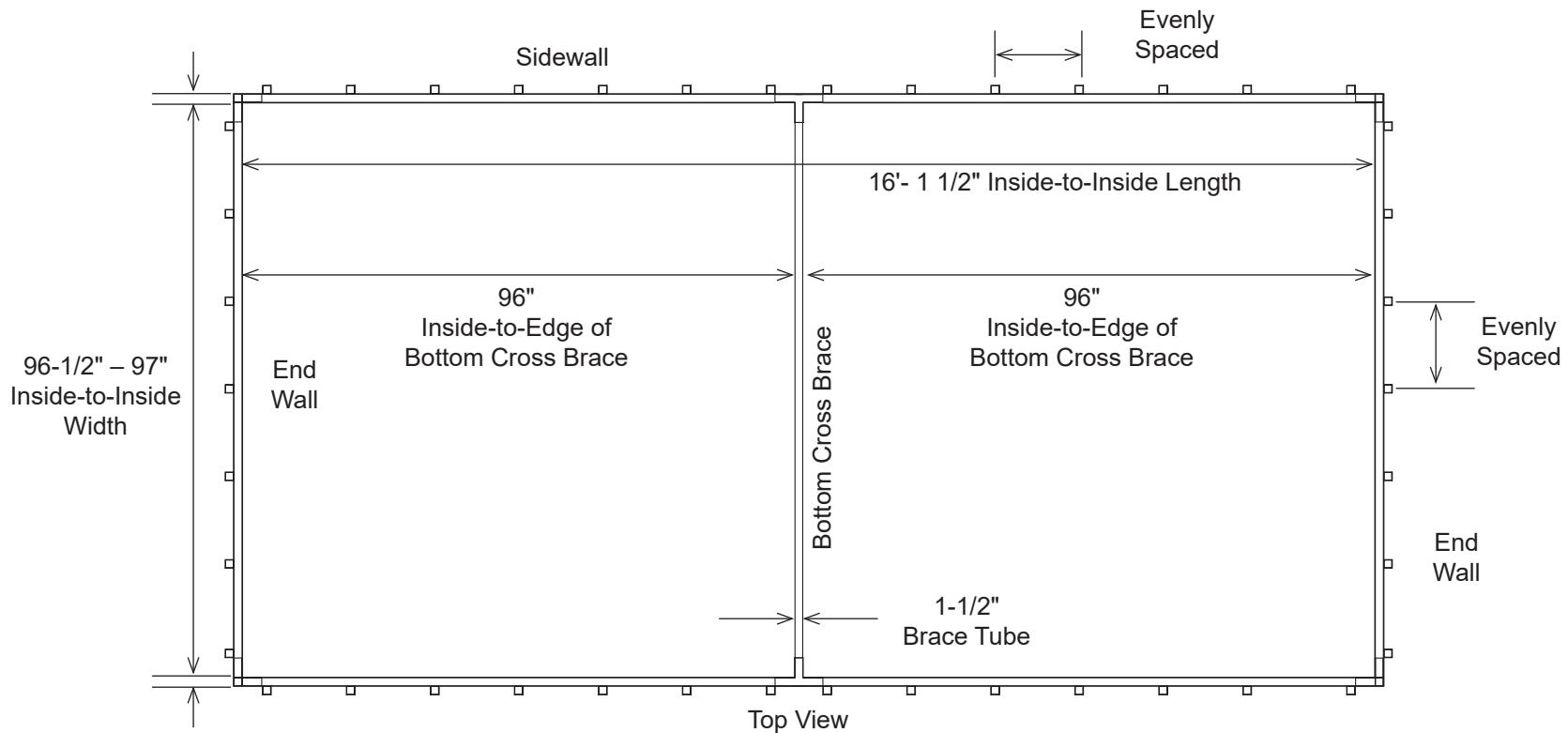
Required parts:

- 110611 3-Way Corner Insert (8)
- S15P016 Square Tube @ 16" (4)
- 104779 Square Tube @ 96" (8)
- 112375 Square Tube @ 15-3/4" w/ 45° Cuts (28)
- FA4572 Tek Screws
- Magnetic Nut Setter (5/16" x 2-9/16")

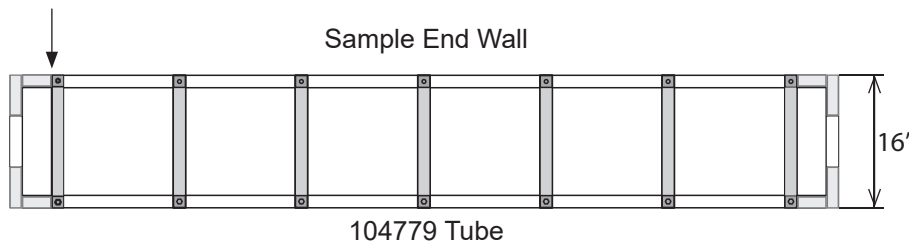
# 115331 Frame Diagram - 8' x 16'-1 1/2" Raft Bed

Diagrams below show layout of assembled 8' x 16'-1 1/2" raft bed. Use these diagrams and dimensions as guides during raft bed frame assembly. The inside-to-inside dimensions allow room for liner and plant rafts.

**ATTENTION:** Measure all long tubes to confirm length before assembly.



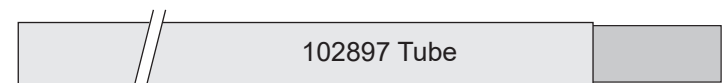
Install vertical tube tight against the 3-way corner insert.



**ATTENTION:** Each upper and lower side rail consist of two 102897 tubes. Review diagram above and on previous page. Measure and cut tubes as needed so inside-to-inside dimension of assembled frame is 16 -1 1/2".

**When cutting tube to length, remove a portion of the swaged end. Do not cut off the plain end of any tube.**

Plain End

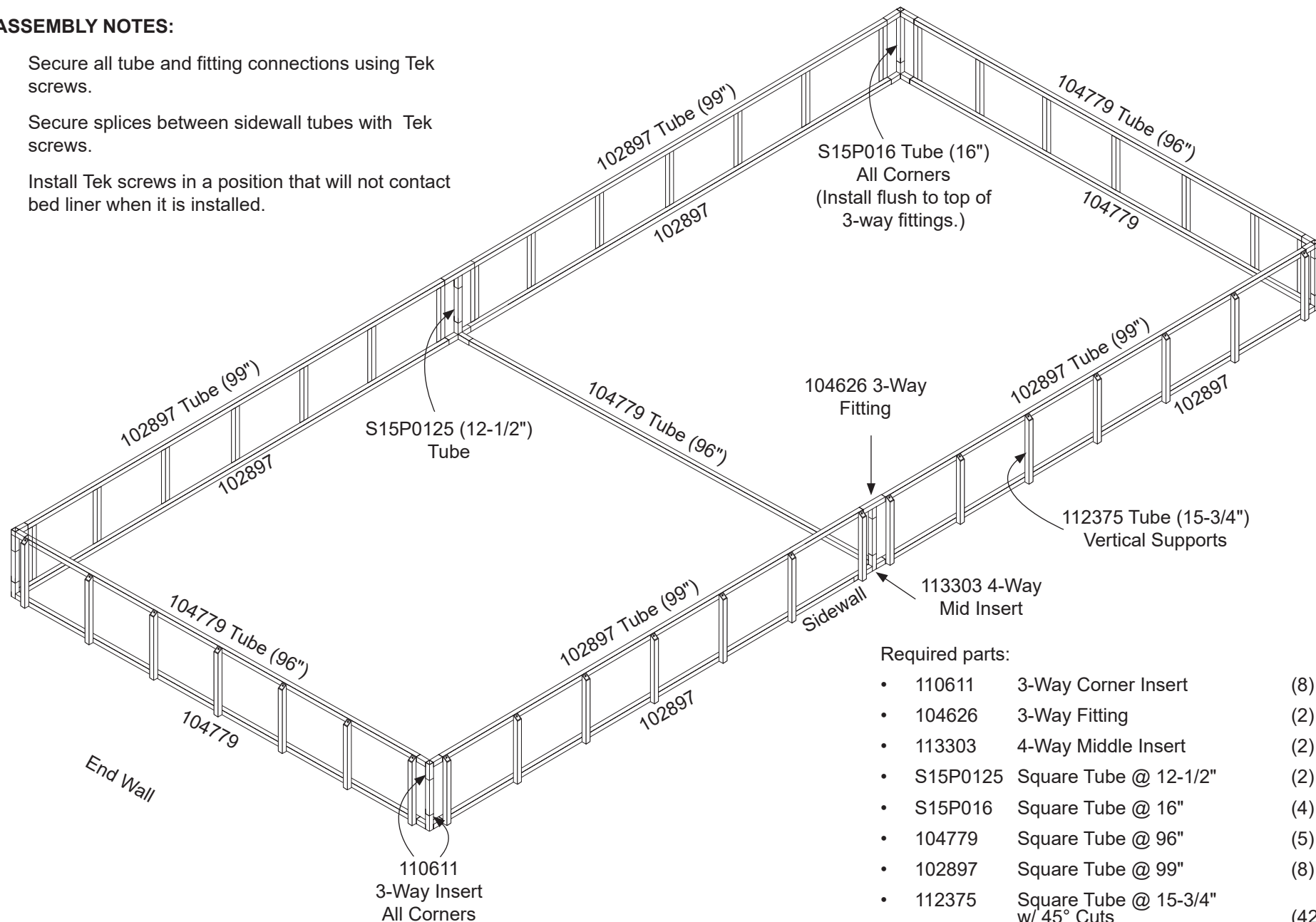


Shorten tube at swaged/tapered end. Do not cut plain end.

# 115331 Frame Diagram - 8' x 16'-1 1/2" Raft Bed

## ASSEMBLY NOTES:

- Secure all tube and fitting connections using Tek screws.
- Secure splices between sidewall tubes with Tek screws.
- Install Tek screws in a position that will not contact bed liner when it is installed.



### Required parts:

- |            |                                       |      |
|------------|---------------------------------------|------|
| • 110611   | 3-Way Corner Insert                   | (8)  |
| • 104626   | 3-Way Fitting                         | (2)  |
| • 113303   | 4-Way Middle Insert                   | (2)  |
| • S15P0125 | Square Tube @ 12-1/2"                 | (2)  |
| • S15P016  | Square Tube @ 16"                     | (4)  |
| • 104779   | Square Tube @ 96"                     | (5)  |
| • 102897   | Square Tube @ 99"                     | (8)  |
| • 112375   | Square Tube @ 15-3/4"<br>w/ 45° Cuts  | (42) |
| • FA4572   | Tek Screws                            |      |
| •          | Magnetic Nut Setter (5/16" x 2-9/16") |      |

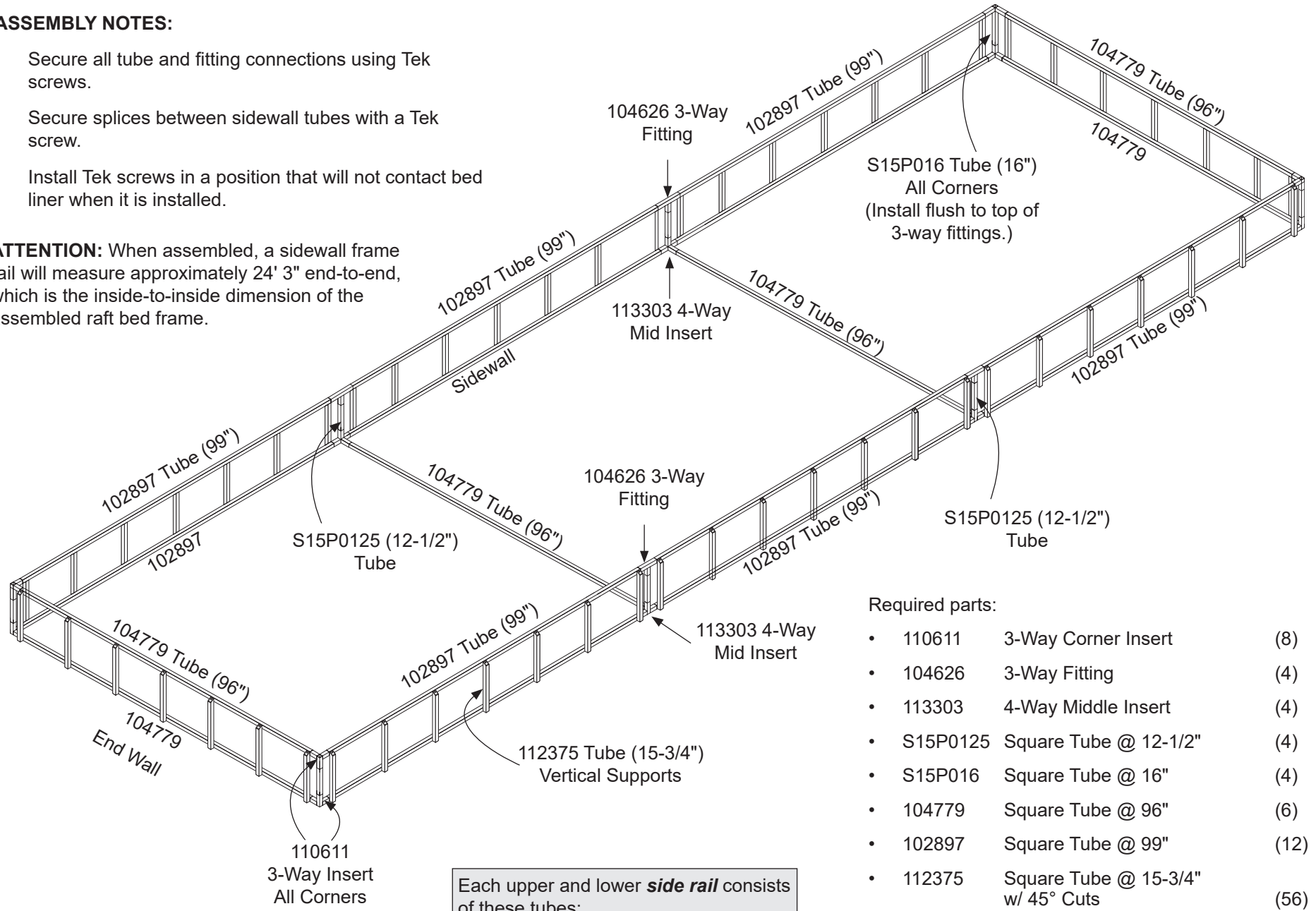


# 115332 Frame Diagram - 8' x 24'- 3" Raft Bed

## ASSEMBLY NOTES:

- Secure all tube and fitting connections using Tek screws.
- Secure splices between sidewall tubes with a Tek screw.
- Install Tek screws in a position that will not contact bed liner when it is installed.

**ATTENTION:** When assembled, a sidewall frame rail will measure approximately 24' 3" end-to-end, which is the inside-to-inside dimension of the assembled raft bed frame.



Each upper and lower **side rail** consists of these tubes:

- 102897 Tube (3)

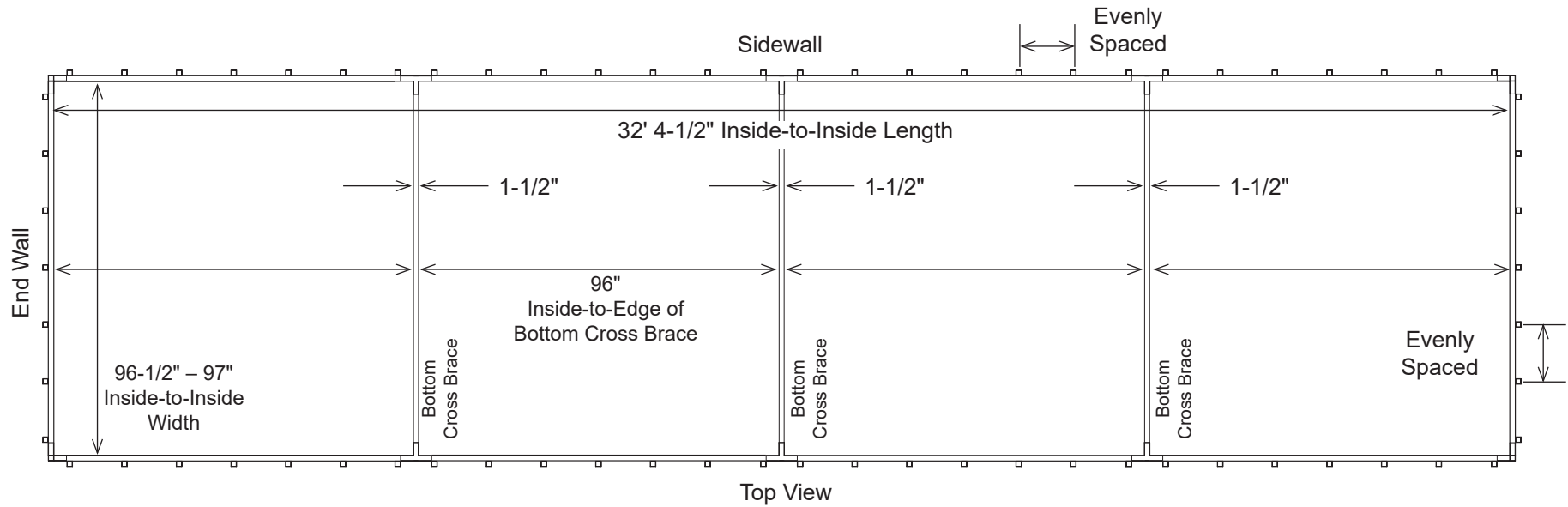
### Required parts:

- |            |                                       |      |
|------------|---------------------------------------|------|
| • 110611   | 3-Way Corner Insert                   | (8)  |
| • 104626   | 3-Way Fitting                         | (4)  |
| • 113303   | 4-Way Middle Insert                   | (4)  |
| • S15P0125 | Square Tube @ 12-1/2"                 | (4)  |
| • S15P016  | Square Tube @ 16"                     | (4)  |
| • 104779   | Square Tube @ 96"                     | (6)  |
| • 102897   | Square Tube @ 99"                     | (12) |
| • 112375   | Square Tube @ 15-3/4" w/ 45° Cuts     | (56) |
| • FA4572   | Tek Screws                            |      |
| •          | Magnetic Nut Setter (5/16" x 2-9/16") |      |

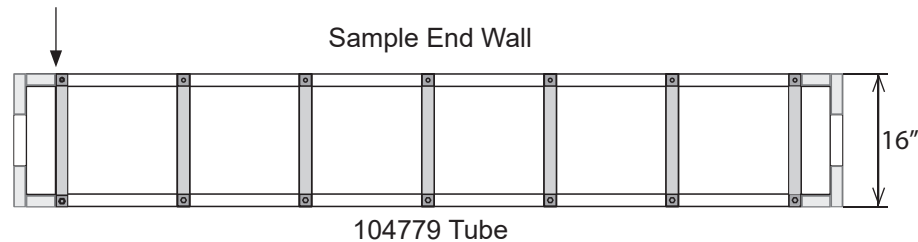
# 115333 Frame Diagram - 8' x 32'- 4 1/2" Raft Bed

Diagrams below show layout of assembled 8' x 32'- 4 1/2" raft bed. Use these diagrams and dimensions as guides during raft bed frame assembly. The inside-to-inside dimensions allow room for liner and plant rafts.

**ATTENTION:** Measure all long tubes to confirm length before assembly.



Install vertical tube tight against the 3-way corner insert.



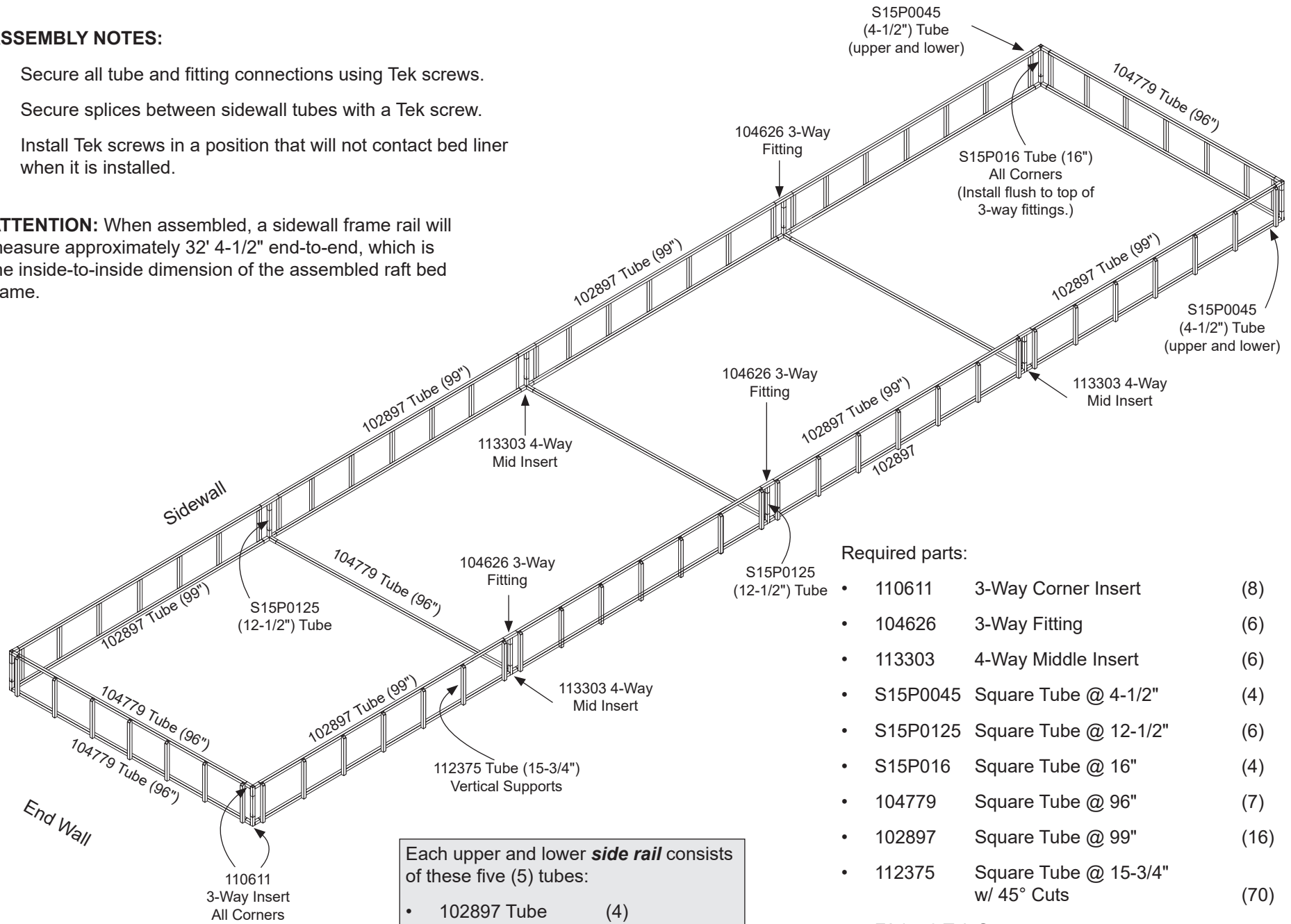


# 115333 Frame Diagram - 8' x 32'- 4.5" Raft Bed

## ASSEMBLY NOTES:

- Secure all tube and fitting connections using Tek screws.
- Secure splices between sidewall tubes with a Tek screw.
- Install Tek screws in a position that will not contact bed liner when it is installed.

**ATTENTION:** When assembled, a sidewall frame rail will measure approximately 32' 4-1/2" end-to-end, which is the inside-to-inside dimension of the assembled raft bed frame.



Each upper and lower *side rail* consists of these five (5) tubes:

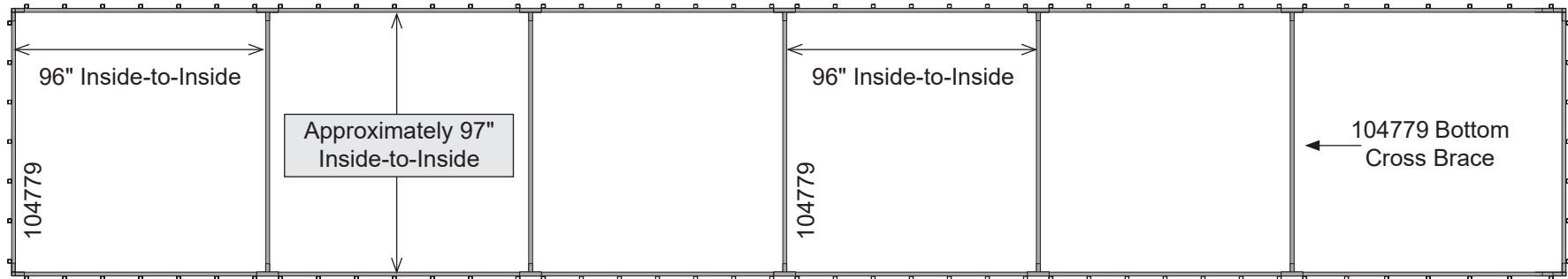
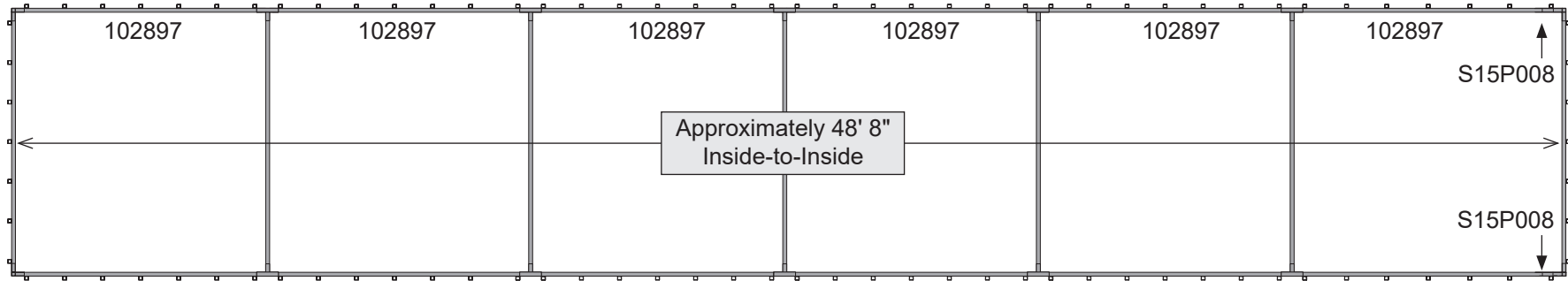
- 102897 Tube (4)
- S15P0045 Tube (1)

## Required parts:

- |            |                                       |      |
|------------|---------------------------------------|------|
| • 110611   | 3-Way Corner Insert                   | (8)  |
| • 104626   | 3-Way Fitting                         | (6)  |
| • 113303   | 4-Way Middle Insert                   | (6)  |
| • S15P0045 | Square Tube @ 4-1/2"                  | (4)  |
| • S15P0125 | Square Tube @ 12-1/2"                 | (6)  |
| • S15P016  | Square Tube @ 16"                     | (4)  |
| • 104779   | Square Tube @ 96"                     | (7)  |
| • 102897   | Square Tube @ 99"                     | (16) |
| • 112375   | Square Tube @ 15-3/4" w/ 45° Cuts     | (70) |
| • FA4572   | Tek Screws                            |      |
| •          | Magnetic Nut Setter (5/16" x 2-9/16") |      |

# 115334 Frame Diagram - 8' x 48'- 8" Raft Bed

Diagrams below show layout of assembled 8' x 48'- 8" raft bed. Use these diagrams and dimensions as guides during raft bed frame assembly. The inside-to-inside dimensions allow room for liner and plant rafts.

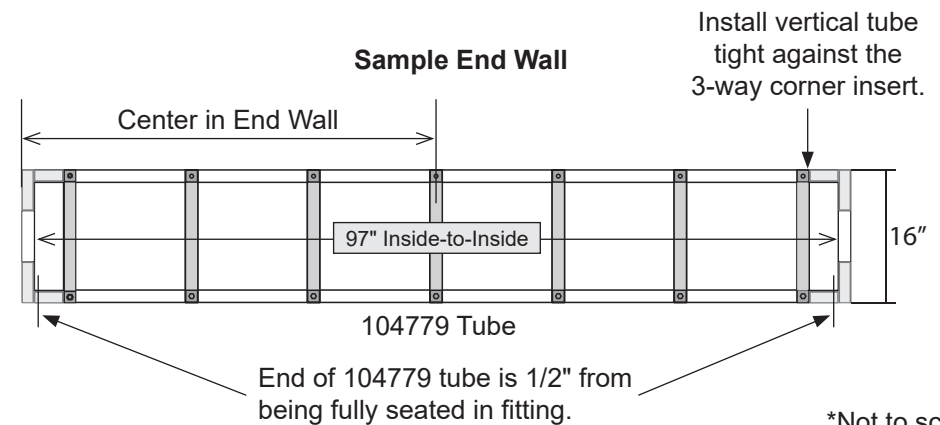


**ASSEMBLY NOTE:** During end frame assembly, set inside-to-inside dimension at 97". Do not seat tube tight to the inside of corner fitting. Doing so will result in a dimension too narrow to accept 96" lettuce rafts once liner is installed.

**When setting inside dimensions always evenly divide space between couplers. At least 2" of any tube must remain within a coupler, fitting, or other tube.**

Measure and set the 97" inside-to-inside width at each bottom cross brace throughout the length of raft bed frame.

Evenly space all beveled vertical frame supports. Secure to upper and lower frame members using FA4572 Tek screws.

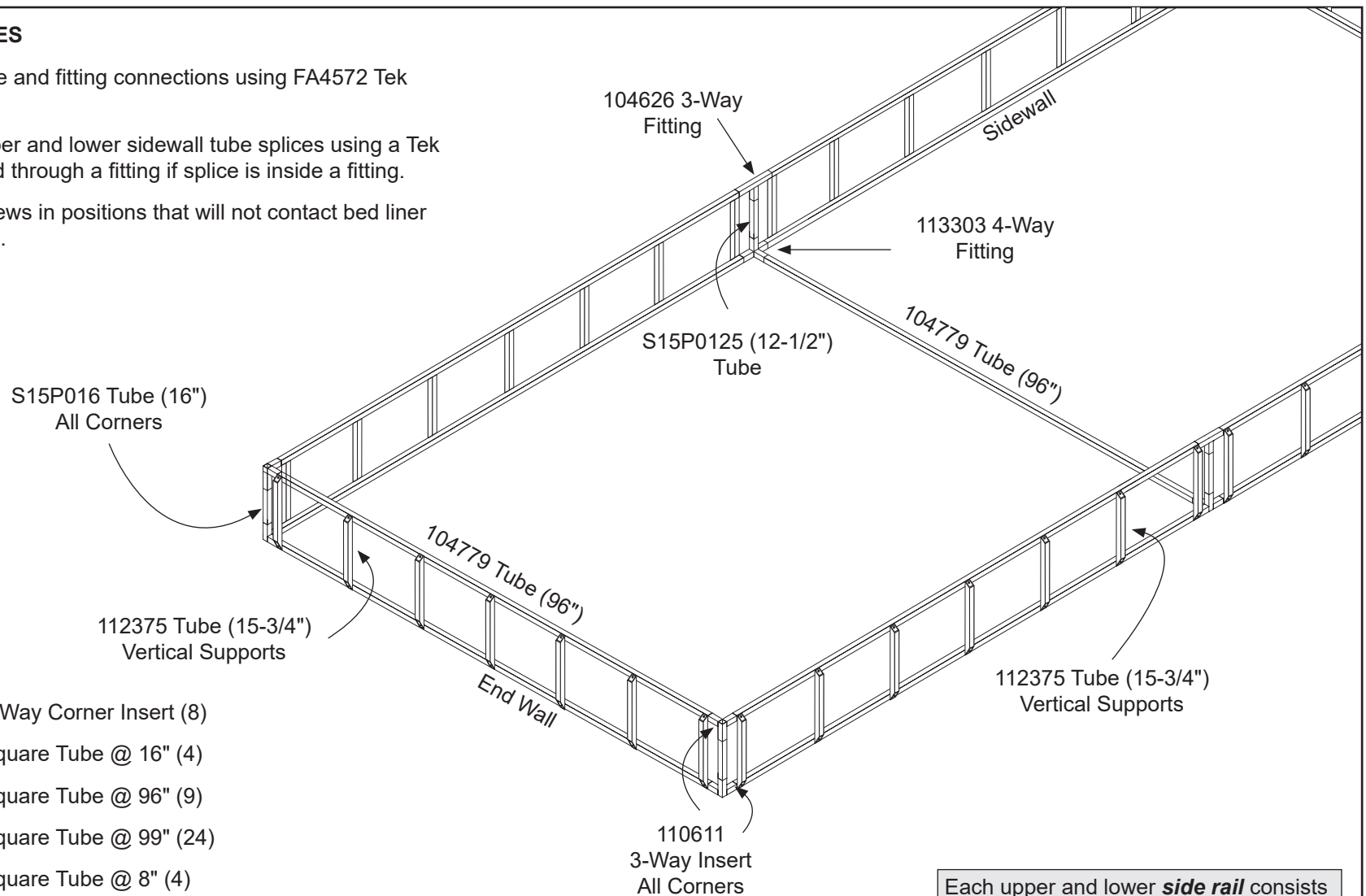


\*Not to scale.

# 115334 Frame Diagram - 8' x 48' - 8" Raft Bed

## ASSEMBLY NOTES

- Secure all tube and fitting connections using FA4572 Tek screws.
- Secure all upper and lower sidewall tube splices using a Tek screw installed through a fitting if splice is inside a fitting.
- Install Tek screws in positions that will not contact bed liner when installed.



### Required parts:

- 110611 3-Way Corner Insert (8)
- S15P016 Square Tube @ 16" (4)
- 104779 Square Tube @ 96" (9)
- 102897 Square Tube @ 99" (24)
- S15P008 Square Tube @ 8" (4)
- 112375 Square Tube @ 15-3/4" w/ 45° Cuts (98)
- S15P0125 Square Tube @ 12-1/2" (10)
- 104626 3-Way T Fitting (10)
- 113303 4-Way Fitting (10)
- FA4572 Tek Screws
- Magnetic Nut Setter (5/16" x 2-9/16")

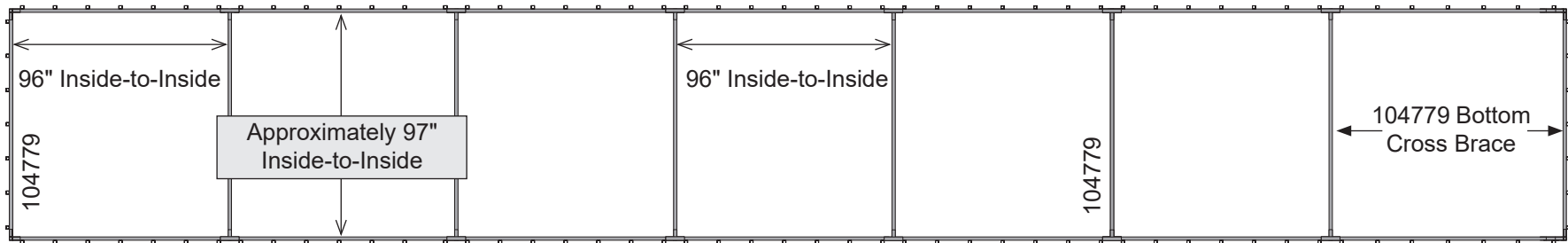
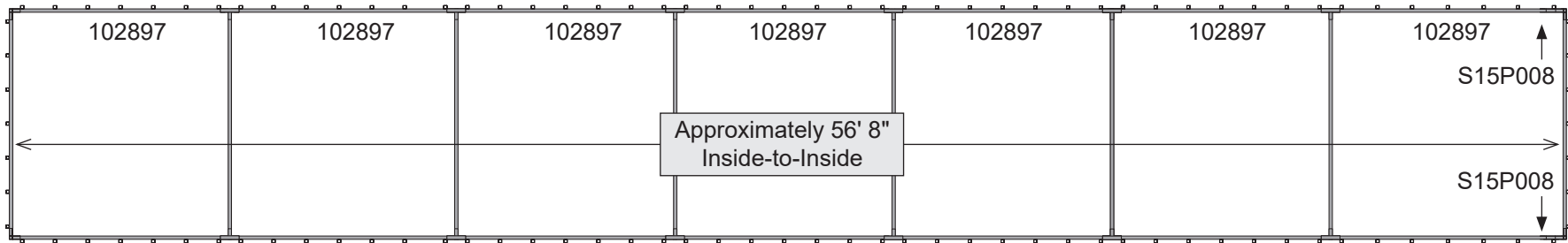
Each upper and lower **side rail** consists of these seven (7) tubes:

- 102897 Tube (6)
- S15P008 Tube (1)

Diagram shows typical layout of square tube for upper and lower sidewall rails. Secure each tube splice using a Tek screw after frame is assembled. Install screws in locations that will not contact bed liner.

# 115335 Frame Diagram - 8' x 56'- 8" Raft Bed

Diagrams below show layout of assembled 8' x 56'- 8" raft beds. Use these diagrams and dimensions as guides during raft bed frame assembly. The inside-to-inside dimensions allow room for liner and plant rafts.

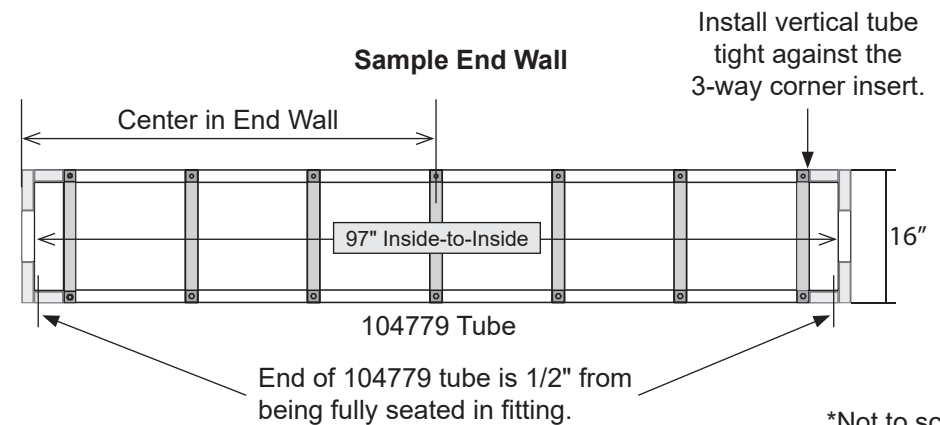


**ASSEMBLY NOTE:** During end frame assembly, set inside-to-inside dimension at 97". Do not seat tube tight to the inside of corner fitting. Doing so will result in a dimension too narrow to accept 96" lettuce rafts once liner is installed.

**When setting inside dimensions always evenly divide space between couplers. At least 2" of any tube must remain within a coupler, fitting, or other tube.**

Measure and set the 97" inside-to-inside width at each bottom cross brace throughout the length of raft bed frame.

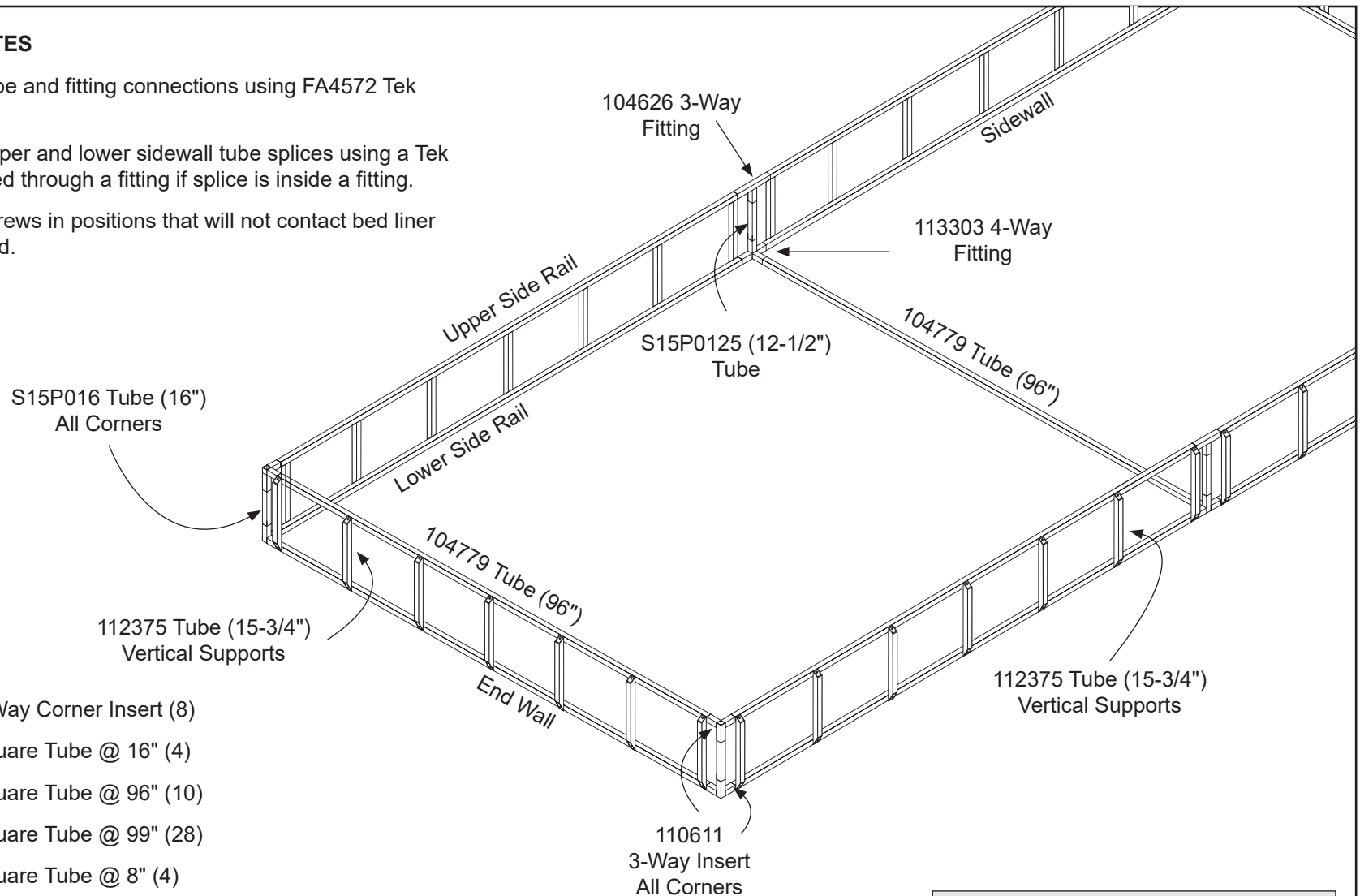
Evenly space all beveled vertical frame supports. Secure to upper and lower frame members using FA4572 Tek screws.



# 115335 Frame Diagram - 8' x 56'- 8" Raft Bed

## ASSEMBLY NOTES

- Secure all tube and fitting connections using FA4572 Tek screws.
- Secure all upper and lower sidewall tube splices using a Tek screw installed through a fitting if splice is inside a fitting.
- Install Tek screws in positions that will not contact bed liner when installed.



### Required parts:

- 110611 3-Way Corner Insert (8)
- S15P016 Square Tube @ 16" (4)
- 104779 Square Tube @ 96" (10)
- 102897 Square Tube @ 99" (28)
- S15P008 Square Tube @ 8" (4)
- 112375 Square Tube @ 15-3/4" w/ 45° Cuts (112)
- S15P0125 Square Tube @ 12-1/2" (12)
- 104626 3-Way T Fitting (12)
- 113303 4-Way Fitting (12)
- FA4572 Tek Screws
- Magnetic Nut Setter (5/16" x 2-9/16")

Each upper and lower **side rail** consists of these eight (8) tubes:

- 102897 Tube (7)
- S15P008 Tube (1)

Diagram shows typical layout of square tube for upper and lower sidewall rails. Secure each tube splice using a Tek screw after frame is assembled. Install screws in locations that will not contact bed liner.