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FLIGHT

# Straight Stack: Steel First Installation Guide



## Tools & Supplies Needed for this Installation

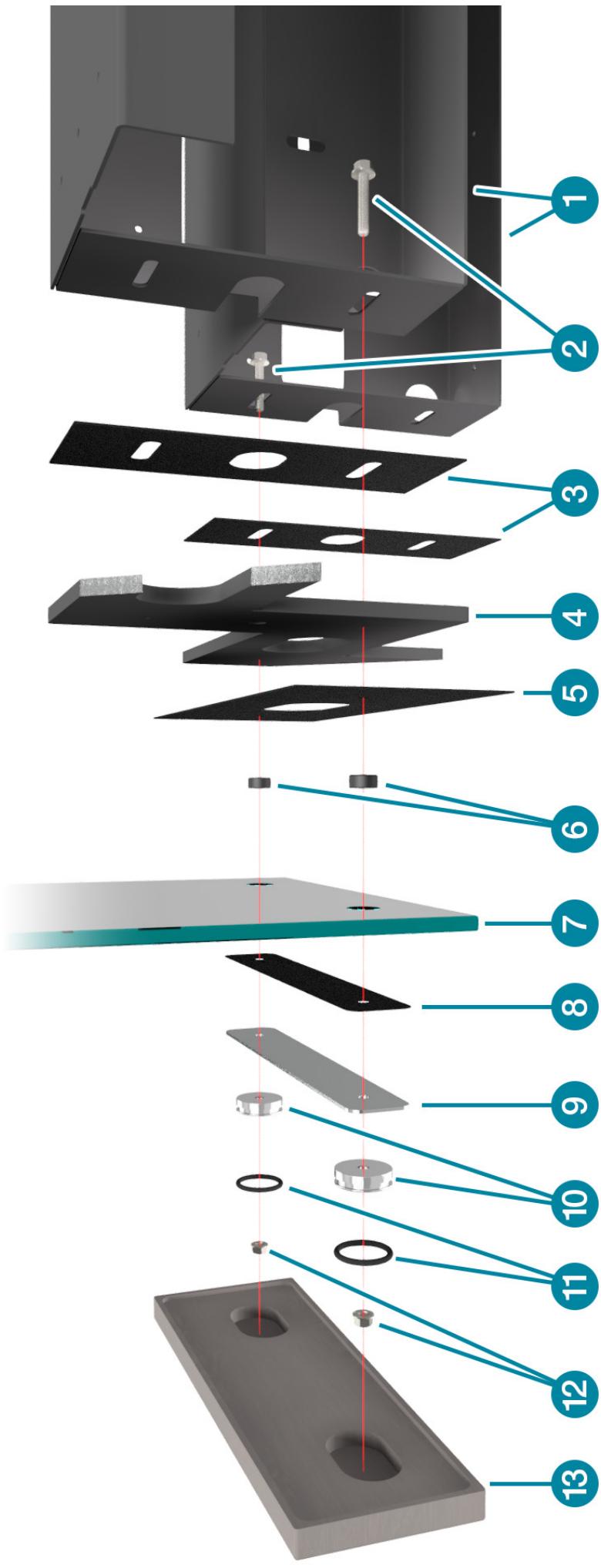
- Right Angle Drill
- Hammer Drill (*Concrete Header or Footer*)
- Impact Driver
- Torque Wrench
- Socket Wrench
- Pencil/Marker
- 1 1/64" Wood Drill Bit
- Concrete Drill Bit (*Concrete Header or Footer*)
- 9/16" Sockets
- T-30 Torx Socket
- Socket Extension
- 3/16" Allen Wrench
- Level
- Framing Square
- Measuring Tape
- Table Saw

## Things to Know Before You Get Started

- Before you get started, review your print set, specifically reviewing the steel exploded assembly print(s) and the wood exploded assembly print(s)
- Read over the provided material prior to the start of your installation
- This is, at minimum, a two person job
- Viewrail Glass systems and fittings are designed to have a 1" gap between panels of glass

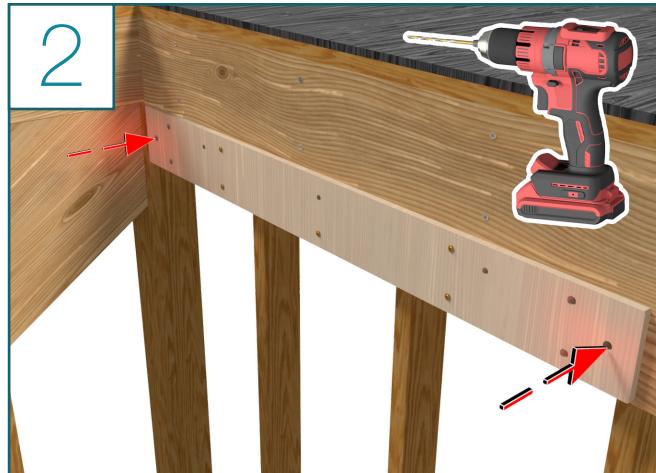
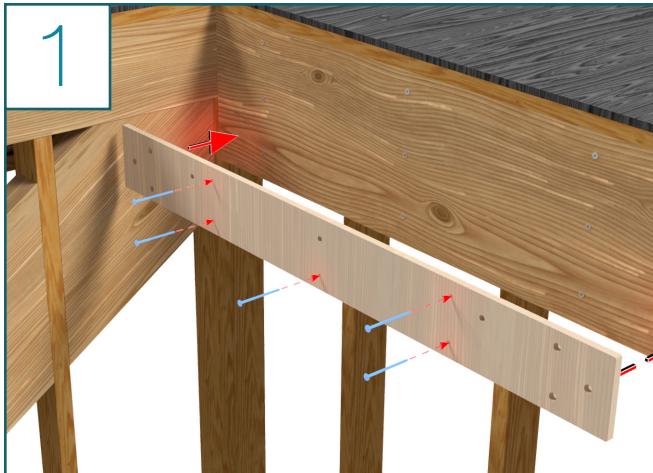


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[youtube.com/viewrail](https://youtube.com/viewrail)



|   |   |    |                                      |
|---|---|----|--------------------------------------|
| 1 | Tread Pans                                | 8  | Vedera Gasket                        |
| 2 | $\frac{3}{8}$ " x 2" Hex Head Flange Bolt | 9  | Vedera Plate                         |
| 3 | Tread Pan Gaskets                         | 10 | Vedera Glass End Caps                |
| 4 | Steel Stringer                            | 11 | Vedera O Rings                       |
| 5 | Tread Gasket                              | 12 | $\frac{3}{8}$ " Serrated Flange Nuts |
| 6 | Nylon Bushings                            | 13 | Tread Cap                            |
| 7 | Glass                                     |    |                                      |

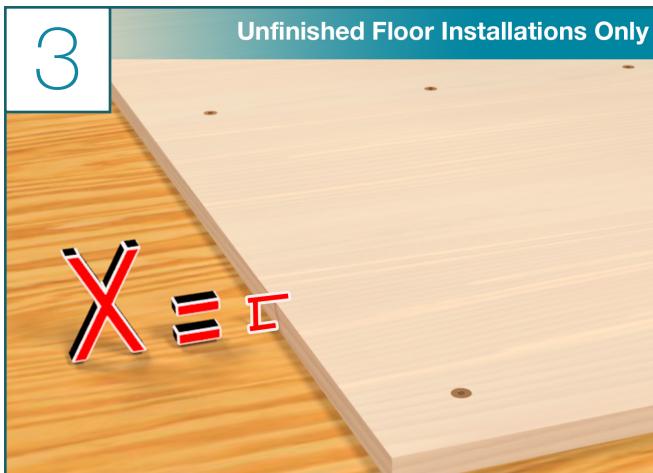
## Straight Stack: Steel First Installation Steps



- Per the provided plans, locate the called out Finished Floor to the top of Plywood Header Template measurement & mark where the template will be placed
- Hold the Plywood Template in place, drive 5 wood screws to secure the template to the header

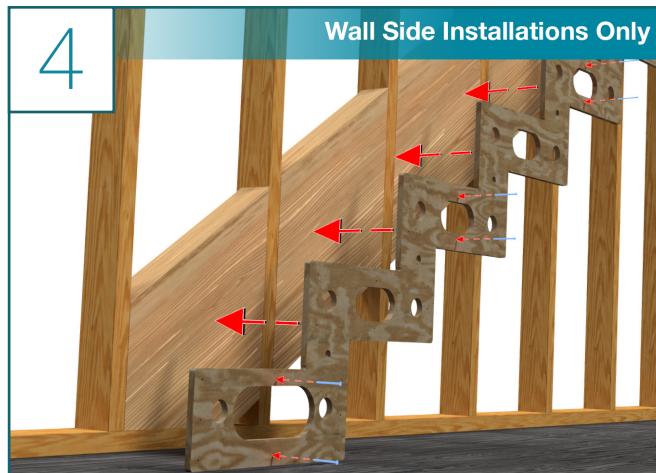
- Pre-drill the 2 outside holes in the Plywood Header Template using a  $1\frac{1}{64}$ " drill bit

**Note on Blocking:** Plywood Templates must be mounted directly to either double LVL or Triple 2x. If the wall has a compressible surface, e.g. drywall, it must be cut away before hand.



- If finished flooring is not yet installed, add subfloor material equal to the finished floor thickness (X) beneath the stringer feet and under tread pans 1 and 2

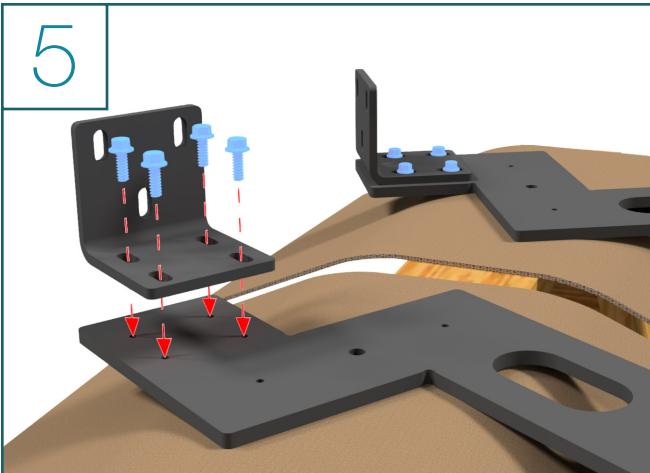
**Note:** X = thickness of the finished floor



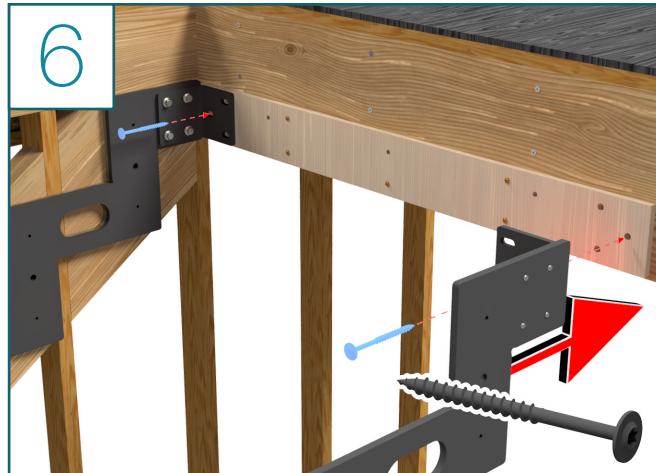
- Line up the top of the Plywood Stringer Template with the top of the Plywood Header Template
- While it is held in place, secure it to the wall backing using wood screws - it is not necessary to populate every hole, just enough to secure it for now

**Note on Blocking:** Plywood Templates must be mounted directly to either double LVL or Triple 2x. If the wall has a compressible surface, e.g. drywall, it must be cut away before hand.

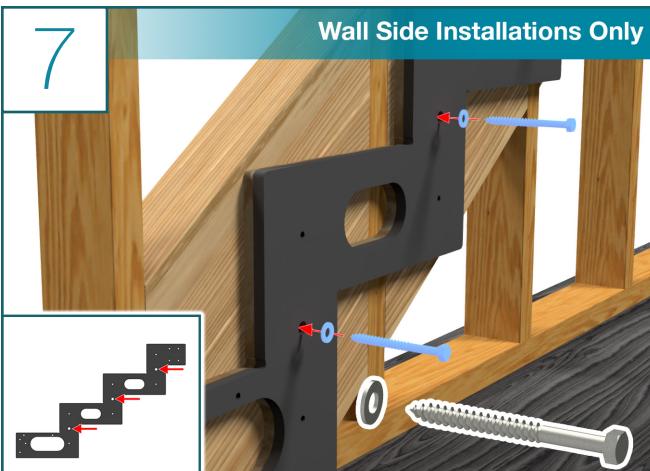
### Straight Stack: Steel First Installation Steps (Continued)



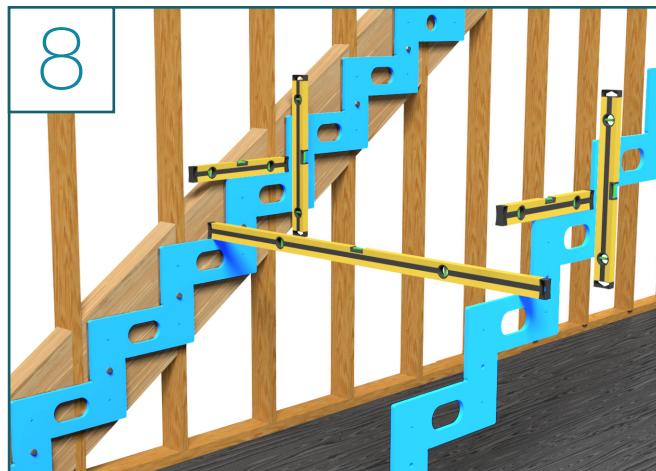
- Place steel stringers on sawhorses
- Attach the header brackets as shown using the provided 3/8" x 1" bolts
- Tighten bolts just until snug



- Hoist the stringers & line them up with the large holes predrilled in the Plywood Header Template
- Fix them in place with one 3/8" x 5" SPAX Screw each in the predrilled locations from **STEP 2**



- For installations up against a wall, align and secure the steel stringer to the wood template using the provided 3/8"-7 x 4" Hex Head Lag Screws and washers

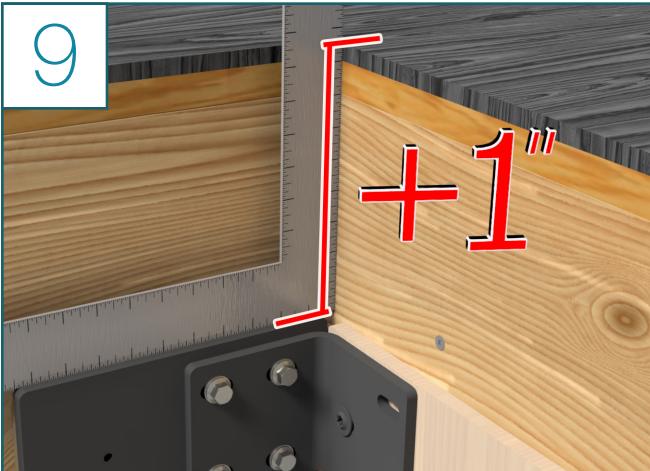


- Check for plumb on all 3 axis for each stringer
- Shim if necessary

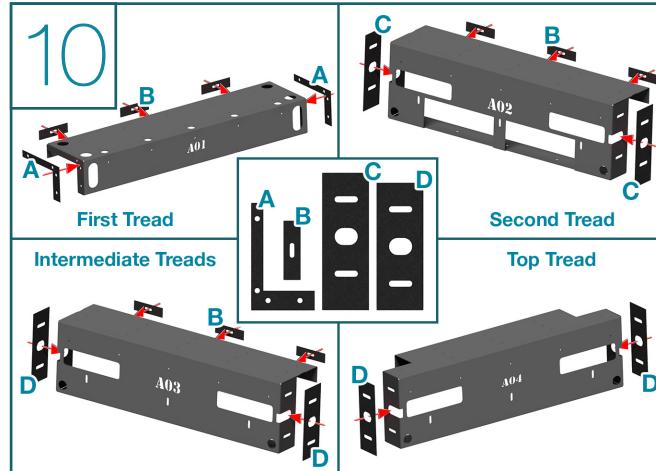


*It is imperative that the stringers are level & plumb, even if your wall/floor is not.*

### Straight Stack: Steel First Installation Steps (Continued)



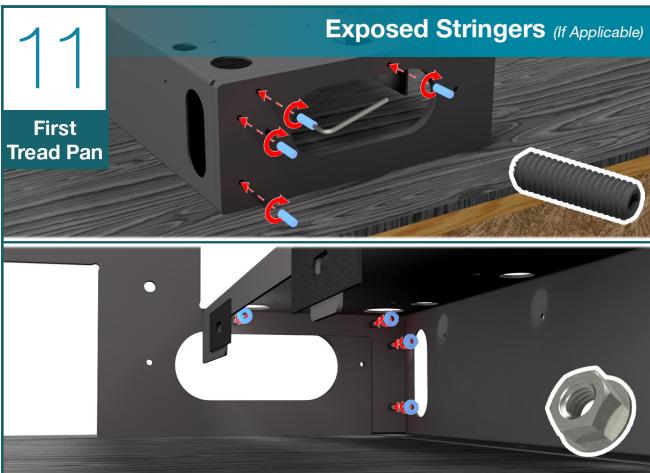
- Take this time to ensure that the measurement of the top rise is correct
- The measurement taken in this step should be 1" long of the Rise measurement on the provided plans - This is to account for the thickness of the finished wood tread to be placed in a later step



- Collect all Tread Pans and Tread Pan Gaskets and attach them together

*Note: Each Tread Pan requires gaskets. Tread Pans are labeled with a letter and number. The letter indicates the stair system, & the number indicates position.*

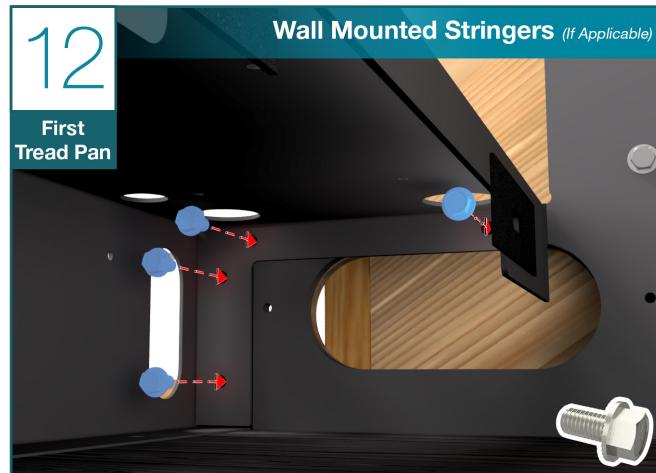
| Tread Pan | Description             | Gaskets Used    |
|-----------|-------------------------|-----------------|
| _01       | First Tread Pan         | (2) A's, (3)B's |
| _02       | Second Tread Pan        | (2) C's, (3)B's |
| _03       | Intermediate Tread Pans | (2) D's, (3)B's |
| _04       | Top Tread Pan           | (2) D's         |



- Place the First Tread Pan, (e.g. A01, B01, C01 etc.)
- Thread (4) of the provided  $\frac{3}{8}$ " -16 x  $1\frac{1}{4}$ " set screws from the outside of the free standing stringer
- Thread on (4) of the provided  $\frac{3}{8}$ " -16 Hex Head Serrated Flange Nuts onto each set screw from underneath
- DO NOT** tighten bolts all the way down in this step

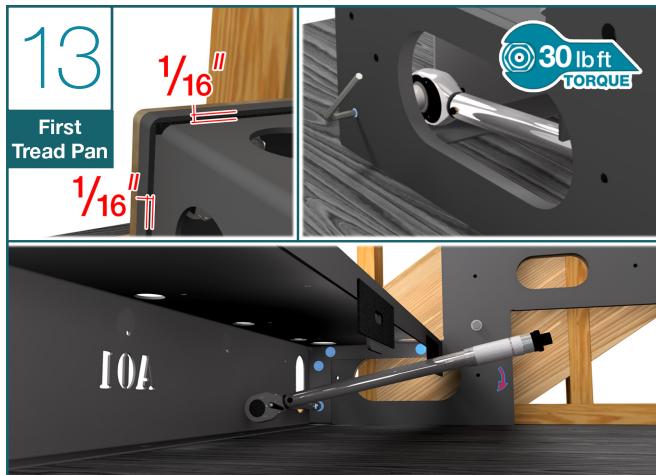
*Notes: On stringers that are not butted up to a wall, it will be easier to insert set screws from the outside.*

*Due to the powder-coating process, you may need to run a  $\frac{3}{8}$ " -16 bolt through the threaded holes on the stringers before mounting the tread pan, to clear the threads.*



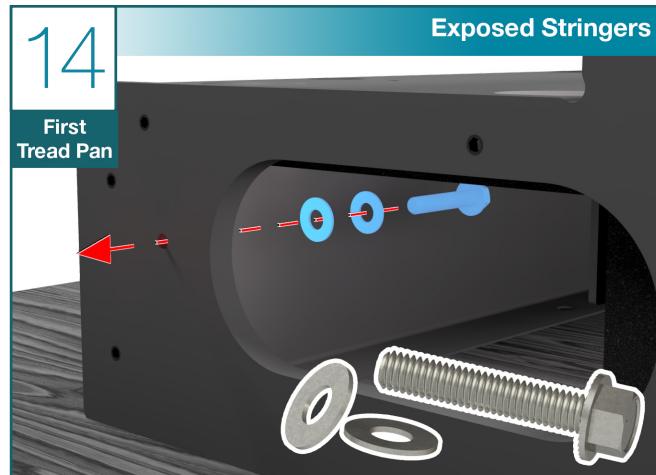
- Using (4)  $\frac{3}{8}$ " -16 x  $\frac{3}{4}$ " Hex Head Bolts secure the wall side of the tread pan to the metal stringer
- DO NOT** tighten bolts all the way down in this step

## Straight Stack: Steel First Installation Steps (Continued)

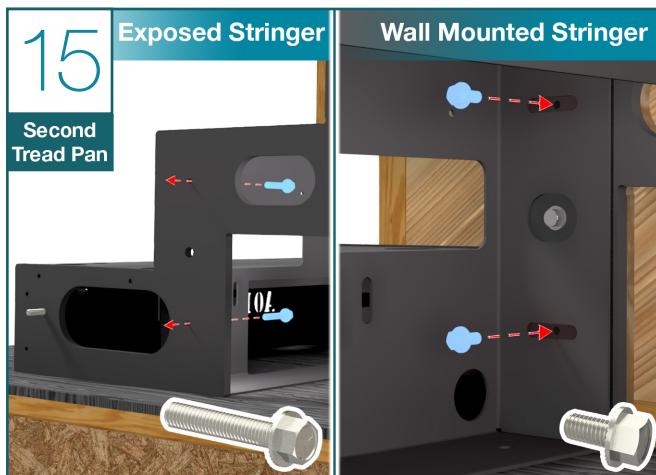


- Ensure the tread pan is level and recessed  $\frac{1}{16}$ " from the top and front edges of the steel stringers
- Torque the hardware placed in **STEPS 11 & 12** to 30 lb-ft

*Note: It may be necessary to use an socket extension to reach the nuts and bolts under the tread pan*



- Using (2) of the supplied  $\frac{3}{8}$ " Washers

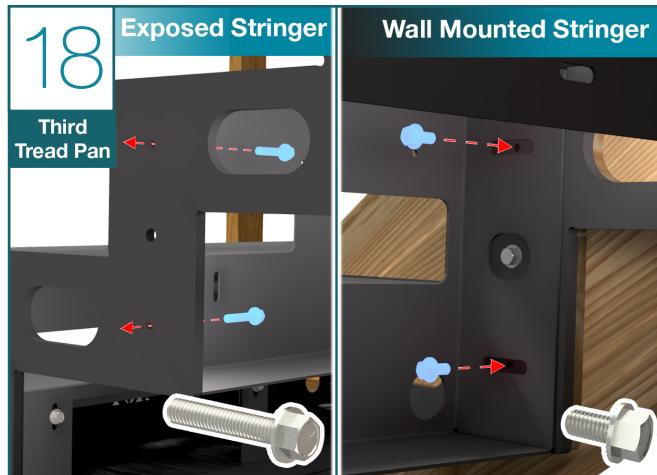
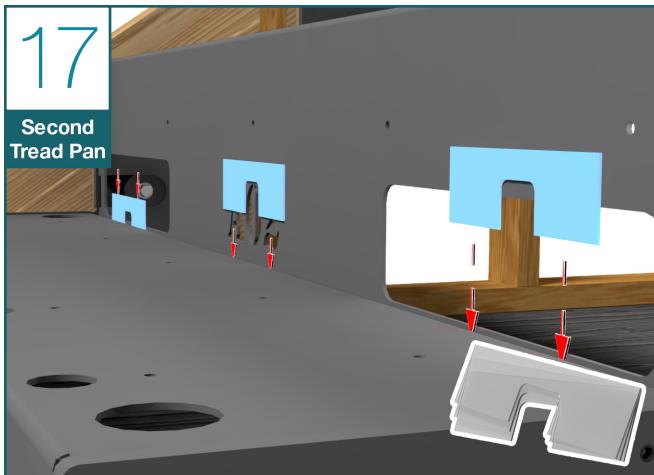


- Slide the Second Tread Pan (e.g. A02, B02, C03, etc.) into position behind the tread pan installed in the previous steps
- **Exposed Stringers:** Use (3)  $\frac{3}{8}$ " -16 x 2" Hex Head Serrated Flange Bolts secure the pan, through the (3) slots in front of the pan as shown above
- **Wall Mounted Stringers:** Use (2)  $\frac{3}{8}$ " -16 x  $\frac{3}{4}$ " Hex Head Bolts secure the pan, through the (2) slots in the side of the pan, into the stringer from under the pan
- **DO NOT** tighten bolts all the way down in this step



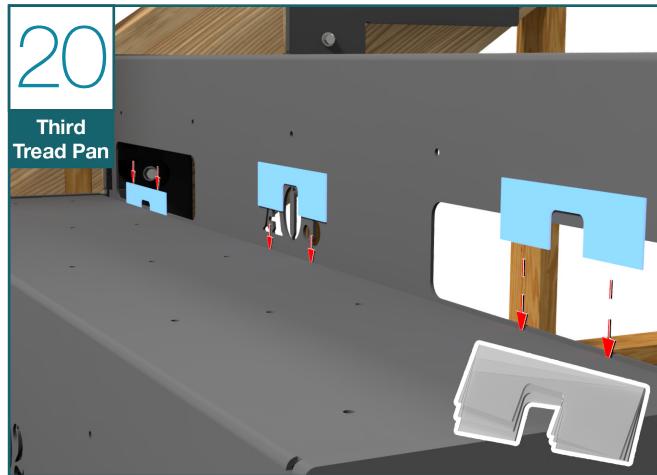
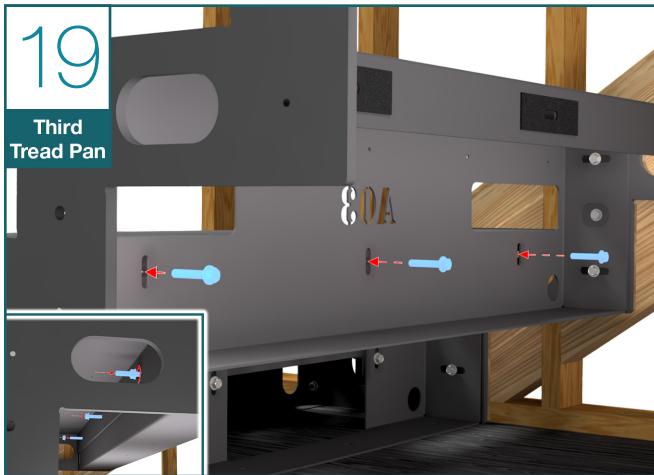
- Using (3) of the provided  $\frac{3}{8}$ " -16 x 2" Hex Head Serrated Flange Bolts secure the pan, through the (3) slots in front of the pan as shown above
- **DO NOT** tighten bolts all the way down in this step

**Straight Stack: Steel First Installation Steps (Continued)**



- Slide the Polycarbonate Shims into place between the First and Second Tread Pan

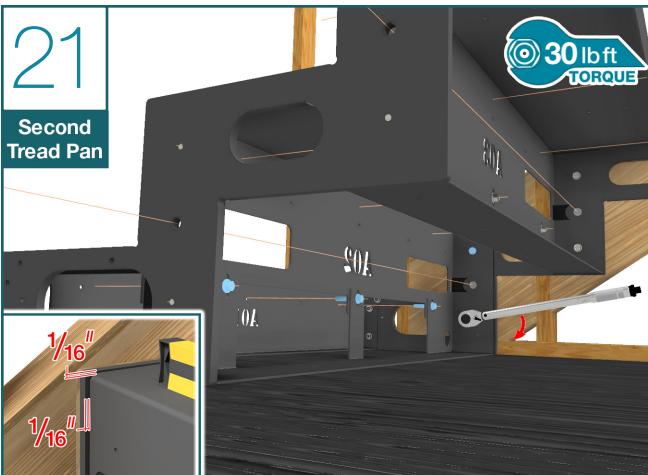
- Slide the Third Tread Pan (e.g. A03, B03, C03, etc.) into position behind the tread pan installed in the previous steps
- **Exposed Stringers:** Use (2)  $\frac{3}{8}$ " -16 x 2" Hex Head Bolts secure the pan, through the (2) slots in the side of the pan, into the stringer from under the pan
- **Wall Mounted Stringers:** Use (2)  $\frac{3}{8}$ " -16 x  $\frac{3}{4}$ " Hex Head Bolts secure the pan, through the (2) slots in the side of the pan, into the stringer from under the pan
- **DO NOT** tighten bolts all the way down in this step



- Using (3) of the provided  $\frac{3}{8}$ " -16 x 2" Hex Head Serrated Flange Bolts secure the pan, through the (3) slots in front of the pan as shown above
- **DO NOT** tighten bolts all the way down in this step

- Slide the Polycarbonate Shims into place between the Second and Third Tread Pan

### Straight Stack: Steel First Installation Steps (Continued)



- Return back to the Second Tread Pan and ensure that it is level and recessed  $\frac{1}{16}$ " from the top and front edges of the steel stringers
- Torque the all (7)  $\frac{3}{8}$ " bolts installed from **STEPS 14-16**, to 30 lb-ft

- Repeat **STEPS 17-20** for the remaining intermediate tread pans (e.g. A04) Following the pattern below

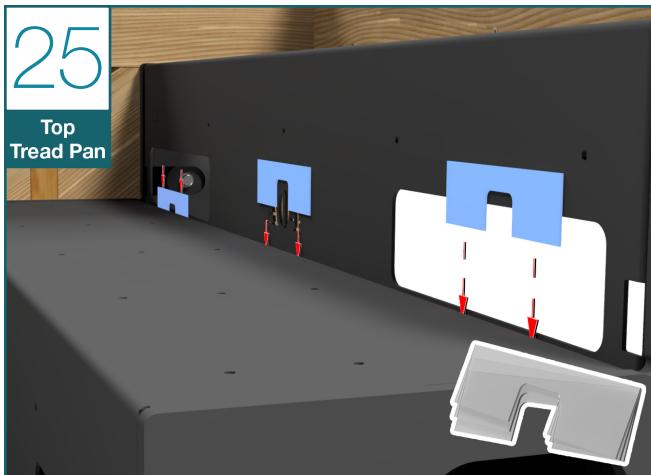
e.g. *Install 4th Tread Pan & square it up  
Torque down 3rd Tread Pan  
Install 5th Tread Pan & square it up  
Torque down 4th Tread Pan  
Install 6th Tread Pan & square up  
Torque down 5th Tread Pan, etc.*



- Now move up to the header area and predrill the (4) remaining holes through the Plywood Header Template using a  $1\frac{1}{64}$ " drill bit

- Install the top Tread Pan (e.g. A04, B04, C04, etc.) just like the others using the same hardware
- Leave hardware loose for now

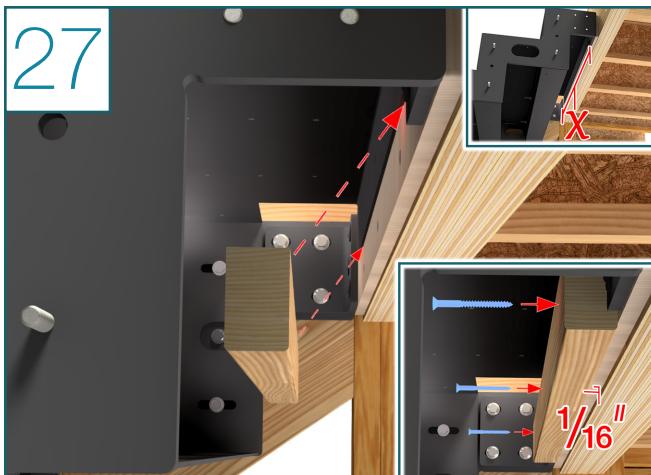
**Straight Stack: Steel First Installation Steps (Continued)**



- Slide the Polycarbonate Shims into place between the top most intermediate tread pan (e.g. A03) and the Top Tread Pan (e.g. A04)

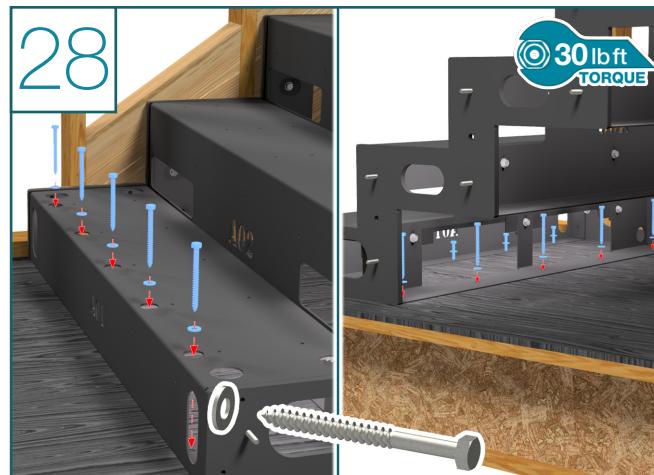


- Torque the all (7)  $\frac{3}{8}$ " bolts installed from **STEP 24**, to 30 lb-ft



- Cut the provided Header Frame Brace to the measurement indicated above (X)
- Install it into place using wood screws - This will be used to attached the finished Anti-Run wood in a later step

*Note: Make sure to center the wood in between the Metal Header Brackets and  $\frac{1}{16}$ " from the bottom of the steel stringer itself. The steel stringer sitting lower than the wood Header Frame Brace.*



- Secure the first and second Tread Pans using (10) of the provided  $\frac{3}{8}$ "-7 x 4" Hex Head Lag Screws and washers
- Torque to 30 lb-ft

**i** If you received all of your order including the finished wood treads and glass panels, skip ahead to **STEP 36**