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# HANDLING ARM USER GUIDE

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# HANDLING ARM USER GUIDE



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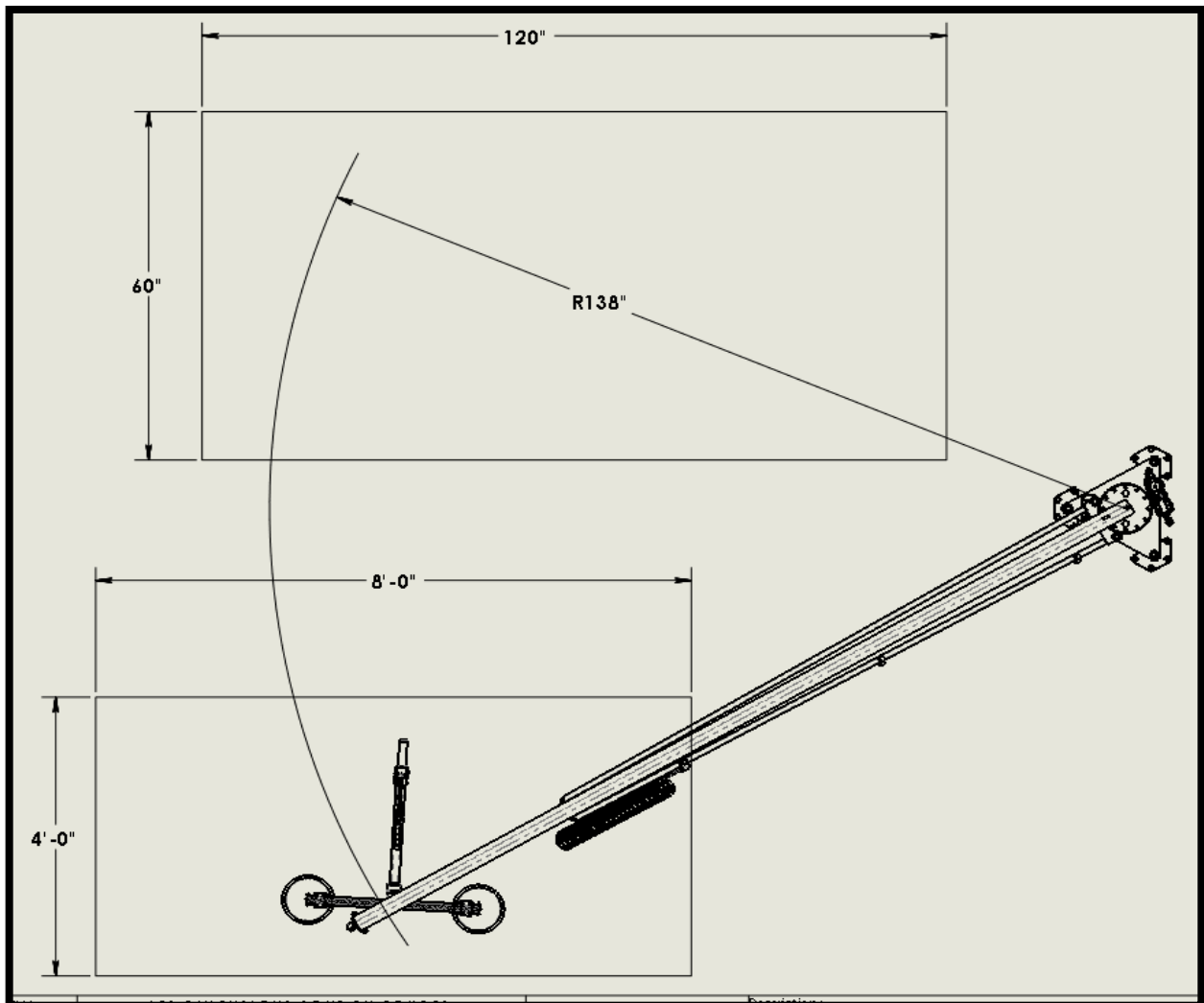
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## Preparation

### Determine the column location.

- a. The concrete floor should be:
  - i. At least 25mpa
  - ii. At least 5" thick
  - iii. Free of cracks.
- b. Anchors should be at least 6" away from any floor joint or crack.
- c. Make sure that there are no columns, racking or ducts in the way of the beam's radius of rotation



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### Tooling required:

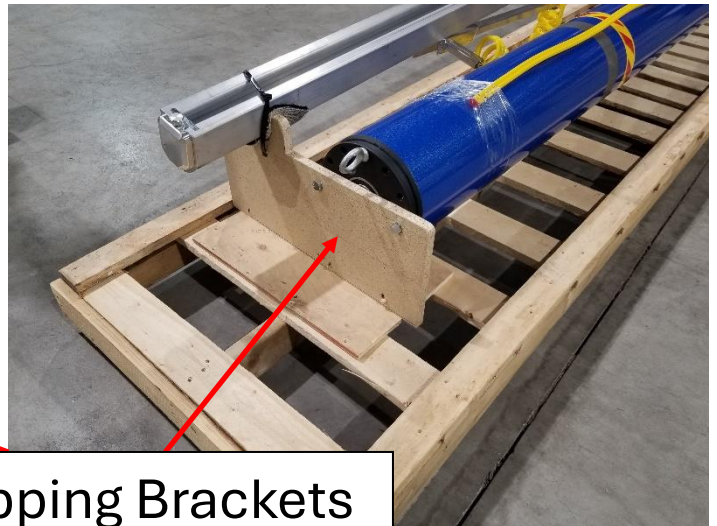
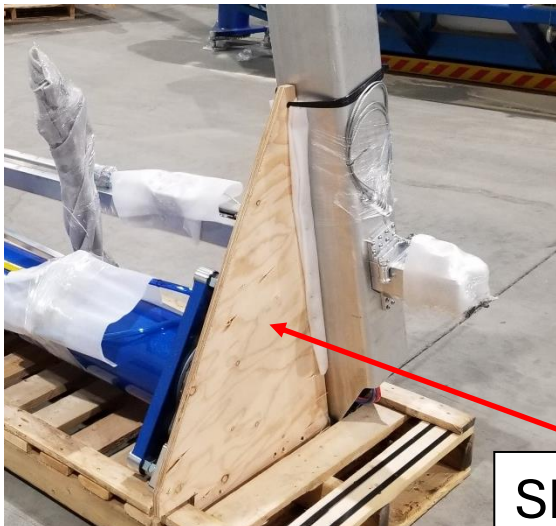
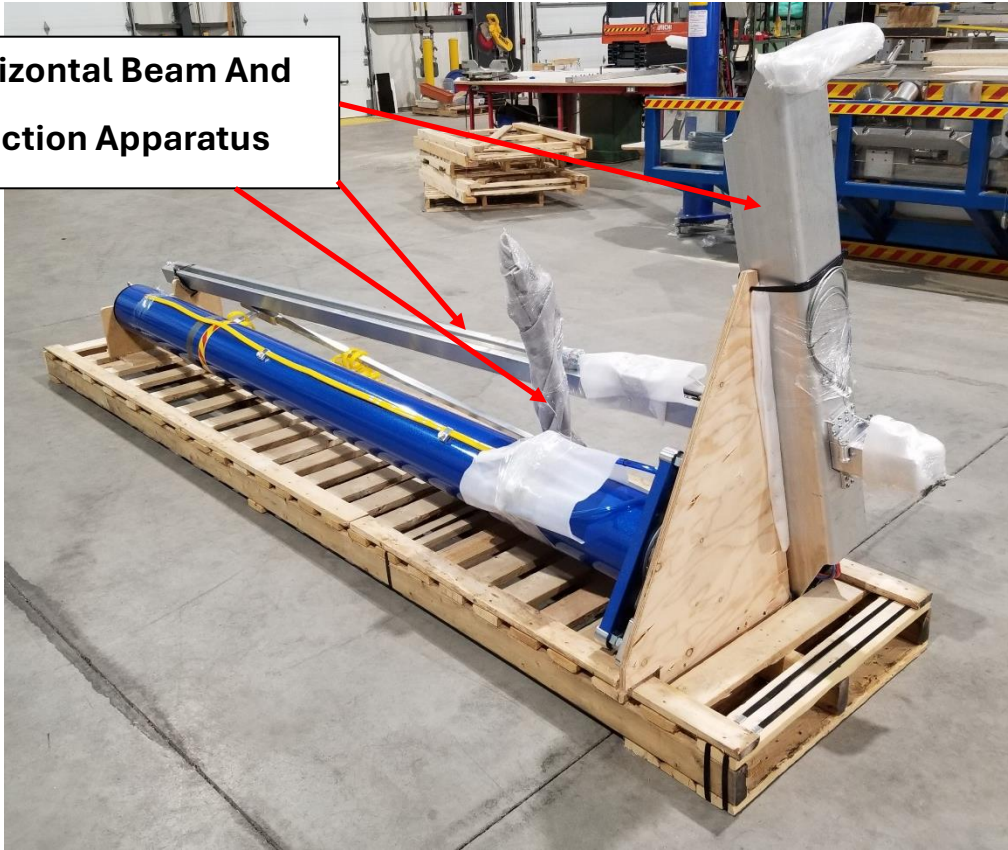
- a. Impact Screwdriver with a #2 square bit and a 7/16" hex socket
- b. Impact Drill (1/2")
- c. 1/2" (12mm) x 10" (250mm) lg Drill bit for concrete
- d. Level
- e. 1-5/16" open or adjustable wrench
- f. 1-5/8" open or adjustable wrench
- g. Torque wrench (23 ft-lb) with a 6" extension and 1/2" socket
- h. 9/16" wrench
- i. 1" x 48" lifting sling
- j. C-clamp
- k. Forklift
- l. Step ladder

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## Unpacking

- a. Remove the wrapping and cut the tie wraps
- b. Set the horizontal beam and the suction apparatus aside
- c. Secure the column with a forklift and sling
- d. remove the front and back shipping brackets

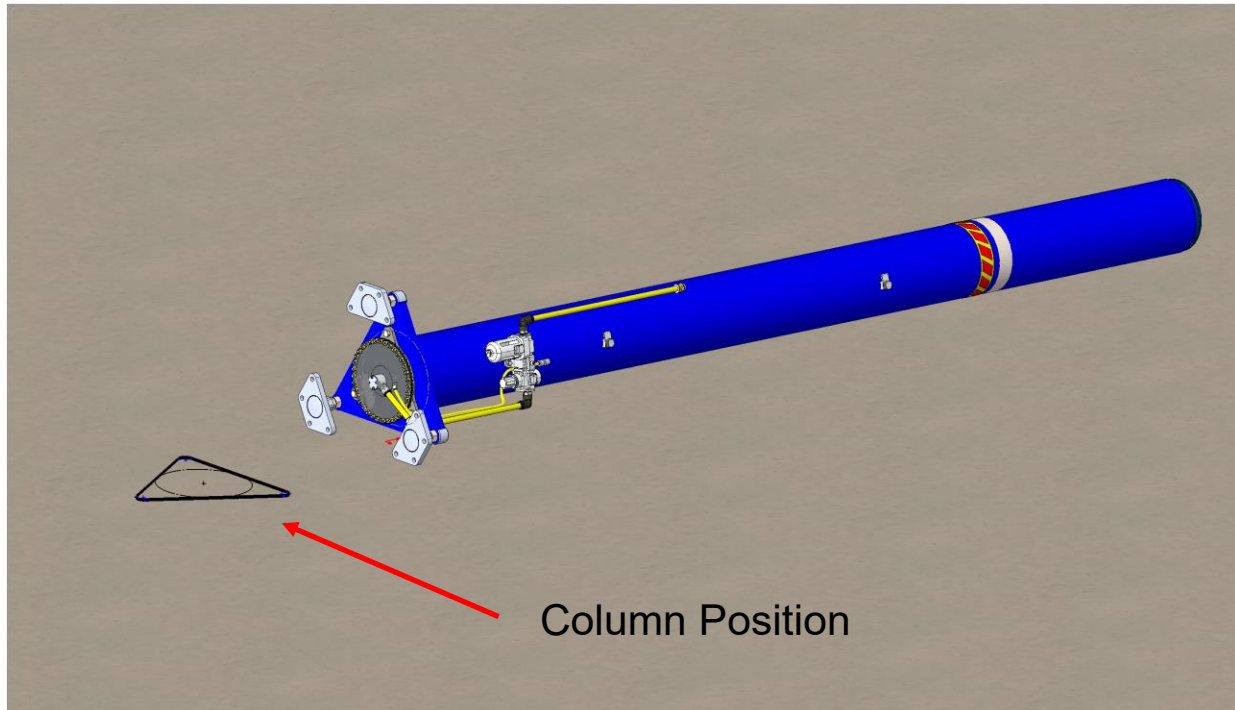
**Horizontal Beam And Suction Apparatus**



**Shipping Brackets**

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- e. Bring the column close to the installation location



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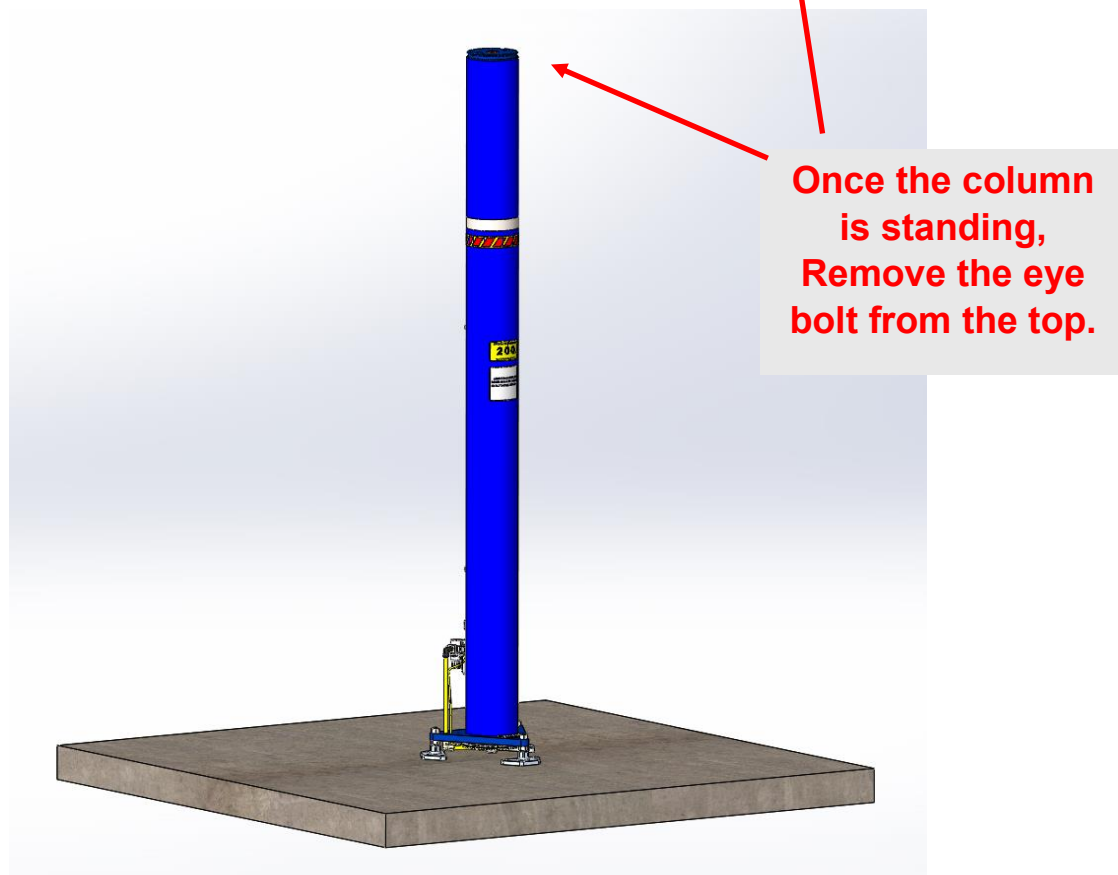
### Installing the Column

#### Lift the column

1. Lift the column up and position it to its determined location.
  - a. If possible, orient the column with the serial number facing and centered with its intended operating area.

Run a sling through the eye bolt on top so that the ends can be attached to the fork of a forklift.

Use a clamp to prevent the sling from sliding off the end of the fork while lifting the column.

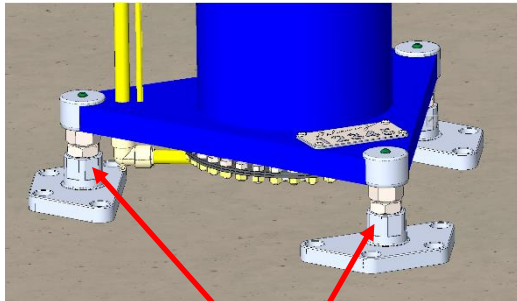




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### Level the Column

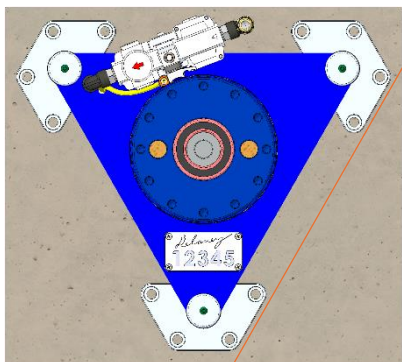
- a. Level the column by turning the appropriate leveling bushings.



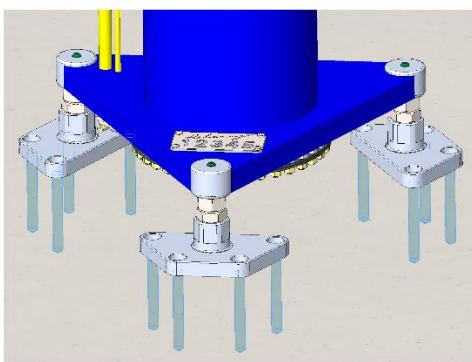
Leveling Bushings

Leveling **MUST** be done Before Tightening the anchors.

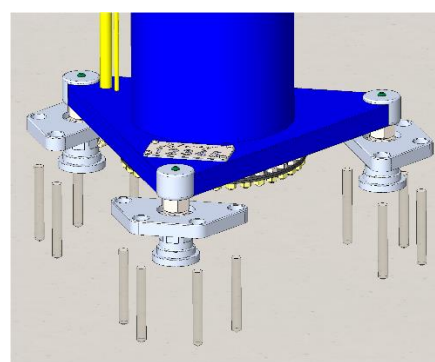
- b. Once levelled, align the aluminium plates to permit drilling the anchor holes.
- c. Drill and clean 1 hole per plate and insert an anchor in each without tightening it. This is to prevent the plates from moving while drilling the other holes.
- d. Drill and clean the other 9 holes.



Align



Drill



Clean

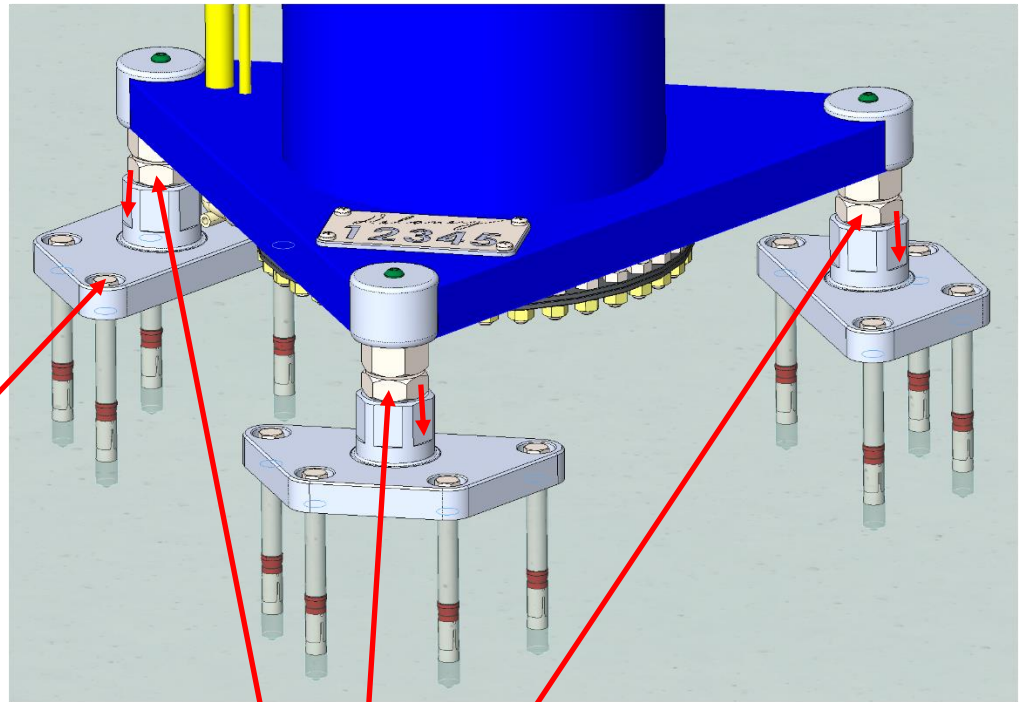
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### Install the Anchors

- a. Insert all the anchors, then torque them all to 23 ft-lbs.



**torque to  
23 ft-lbs**



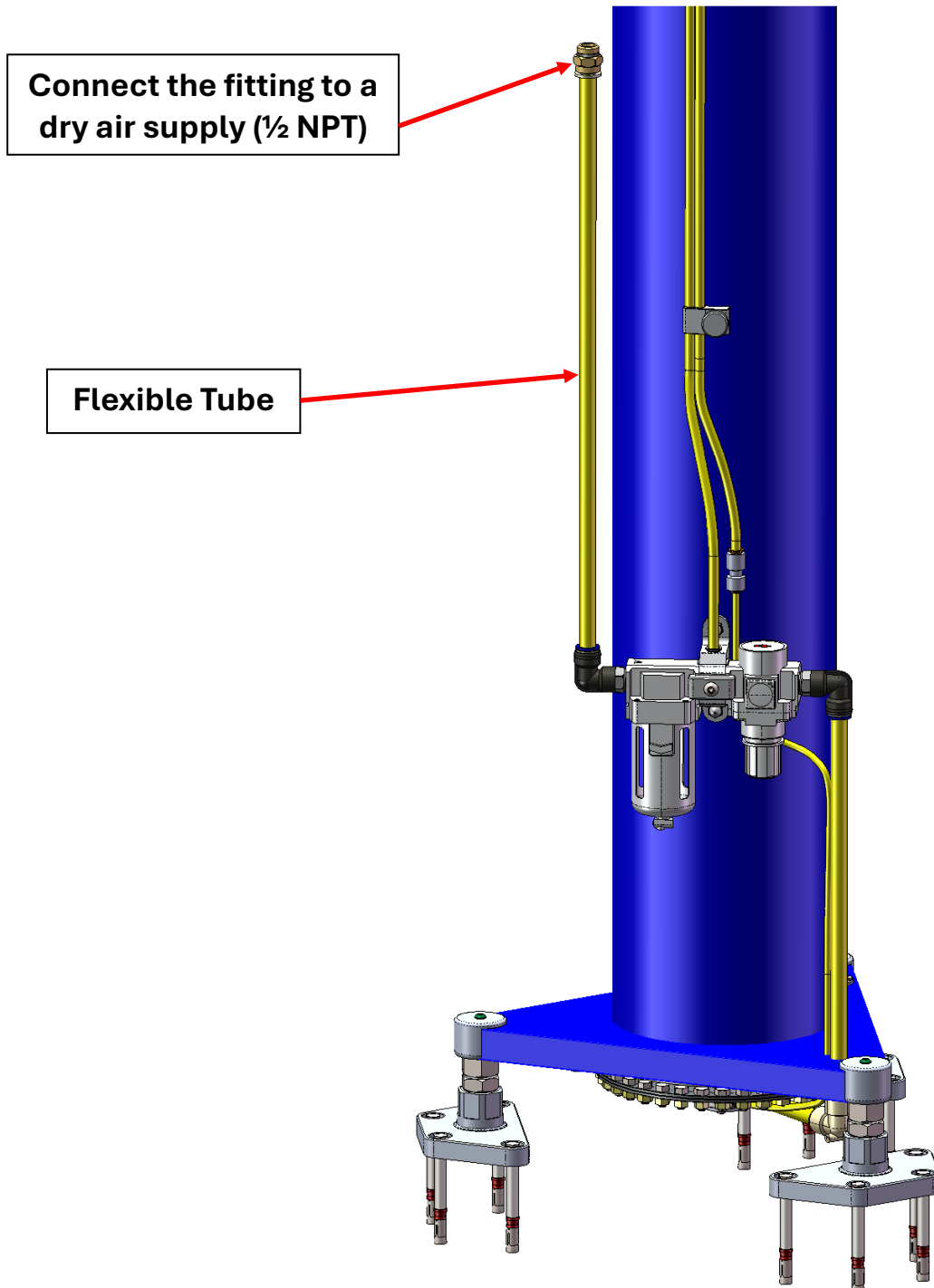
**Lock Nuts**

- b. Tighten the 3 lock nuts to the leveling bushings.

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### Air Connection

- a. Connect the air supply to the filter at the base of the column.



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## Installing The Beam

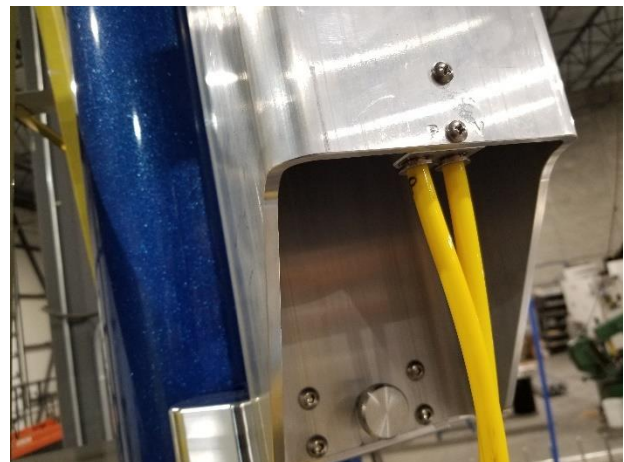
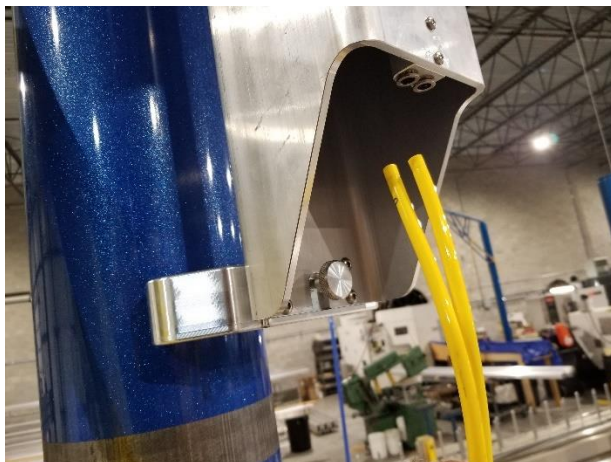
### Lift the Beam

1. Lift the beam so that the pivot is 6" above the top of the column and to the side to clear the opening of the top bearing.



### Connect Air Hoses

1. Connect the air hoses from the column to the manifold which is at the bottom of the beam's vertical tube.



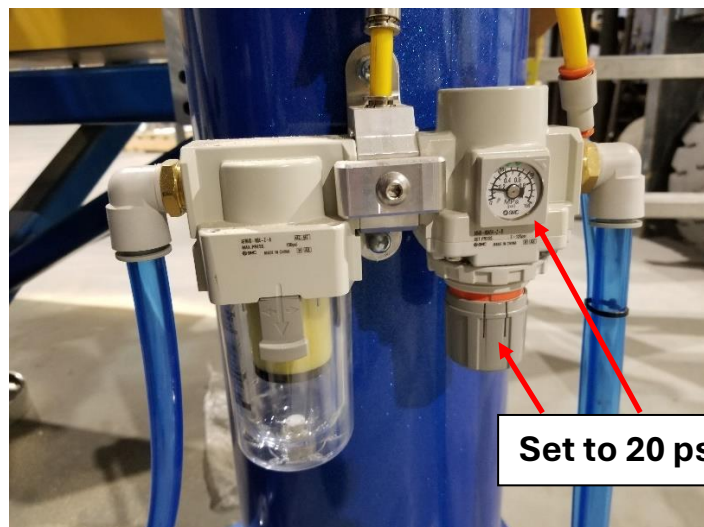
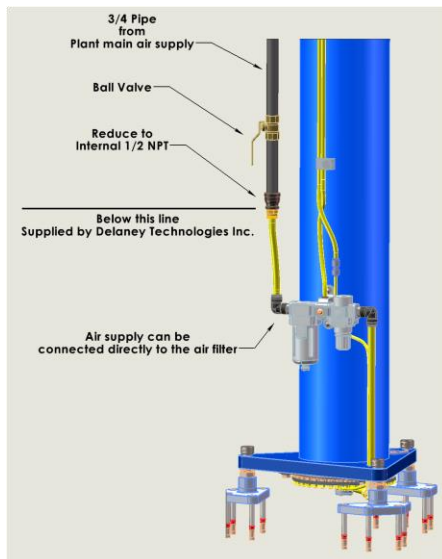
## HANDLING ARM USER GUIDE

2. Connect the suction apparatus air hose to the coil which is hanging from the beam.



### Connect the Air Supply

1. Connect and open the air supply.
2. Set the pressure of the regulator at the base of the column to approximately 20 psi.



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### Raise the Piston

1. Raise the piston, which is inside the column, by pulling the knurled lever on the vacuum apparatus control handle, towards you.
  - a. For the piston to remain at the top of the column, you may need to adjust the bronze knurled knob situated under the control handle by slightly tightening it (1/2 to 1 turn).



### Attach the Cable to the Piston

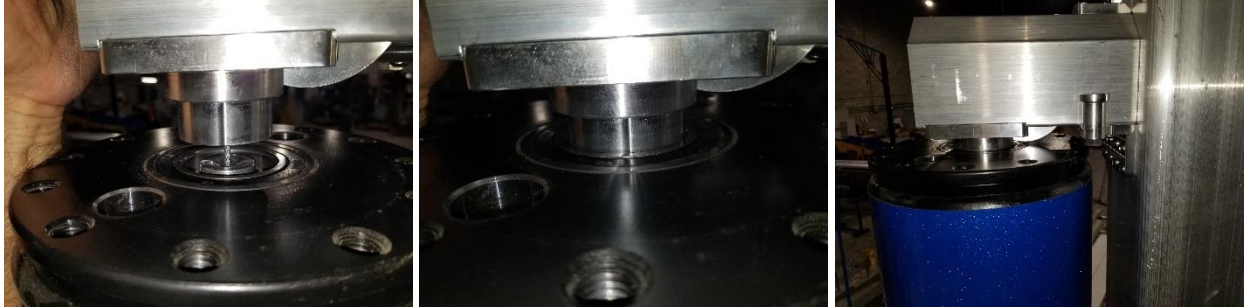
1. Once the piston is at the top, position the cable crimp into the piston making sure that the lock pin falls in flush with the top of the crimp.



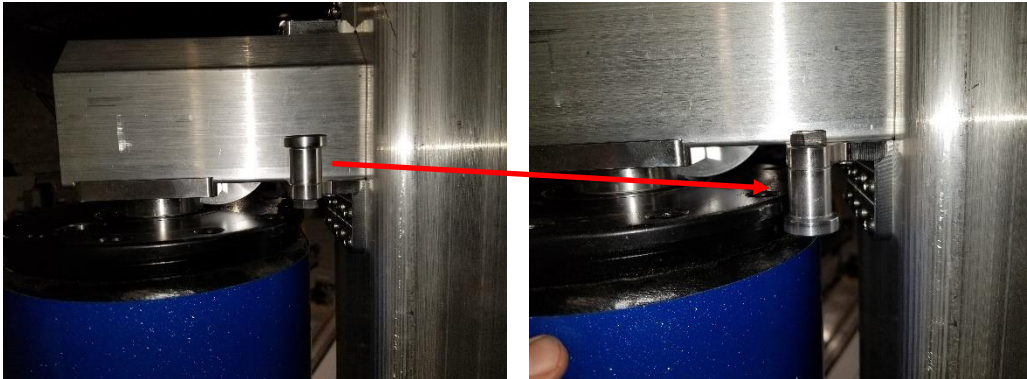
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### Insert the Beam

1. Insert the beam pivot into the bearing at the top of the column.

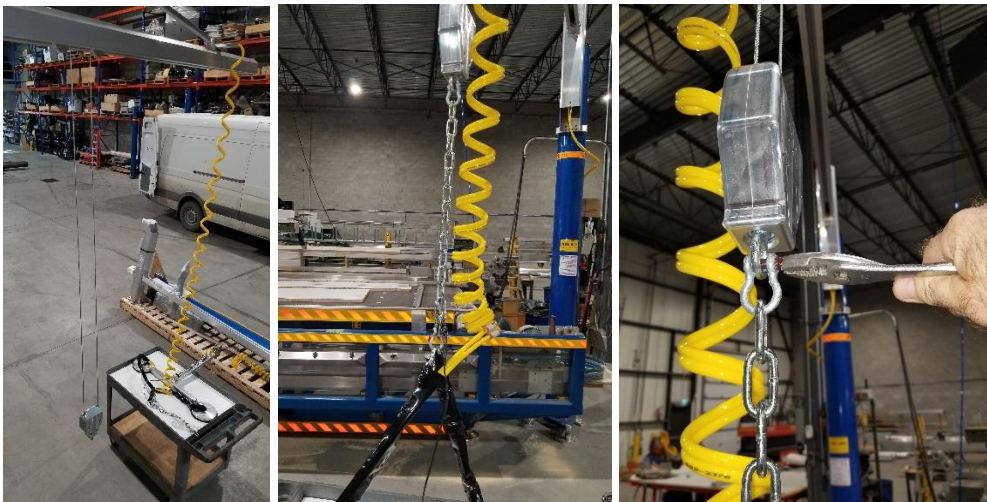


2. Install the 2 beam removal lock bushings (One on each side).



### Attach the Suction Apparatus

1. Secure the suction apparatus to the pulley block hanging from the beam.

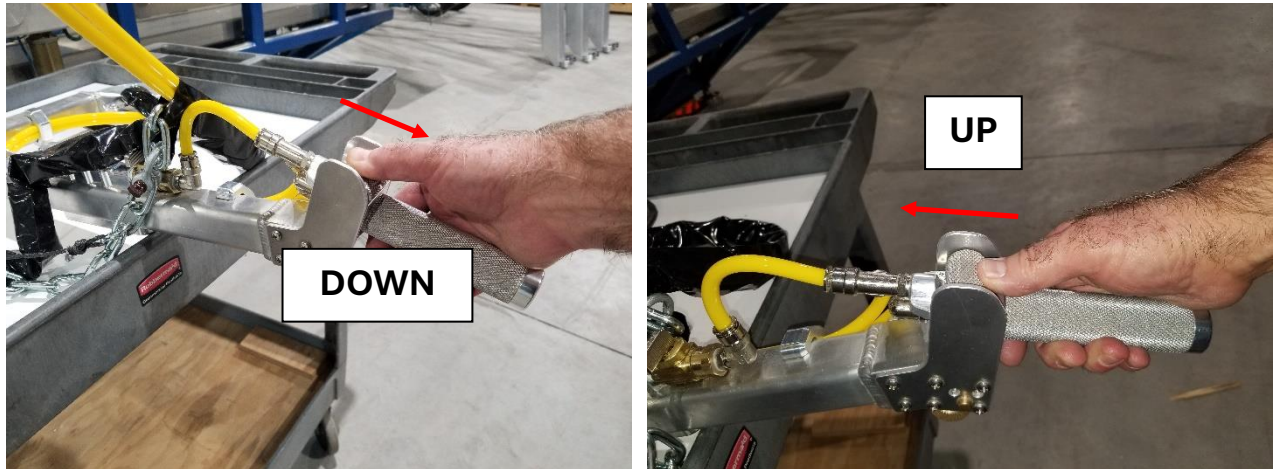


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### Getting Ready to Use the Unit

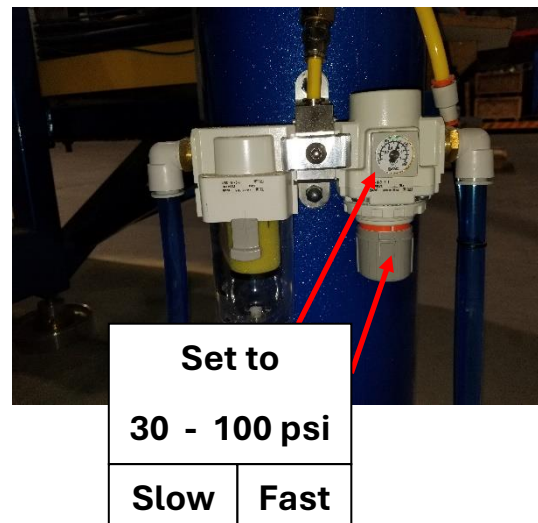
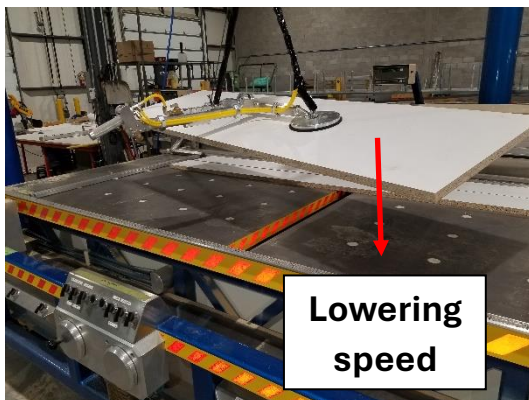
#### Moving UP or DOWN

- To move the Suction Apparatus up or down, you need to push or pull on the thumb lever of the control handle respectively.



#### Adjust Lowering Speed

- Increase the pressure of the regulator at the base of the column to (30 – 100 psi) this determines the downward speed. The more the pressure, the faster the descent.

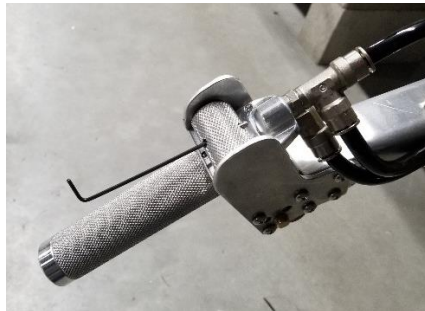




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### Adjust Upward Speed

1. The Upward Speed can be set with the set screw on the thumb lever using a 5/64" Allen key.
2. The downward or upward speeds can also be controlled by pulling or pushing the thumb lever gradually.



### Stopping Mid Vertical Travel (Neutral)

1. If the Suction Apparatus moves up or down without applying pressure on the thumb lever, the NEUTRAL can be adjusted by turning the bronze knob, located under the control handle, in the proper direction.



### Adjustment Procedure:

- Lower the suction apparatus a few feet by pulling on the control handle lever
- When releasing the lever, if the suction apparatus moves up, tighten the bronze knob gradually until it stops moving
- If it keeps on lowering, unscrew the knob until it starts moving up, then gradually tighten it until it stops moving.

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### Vacuum

1. The Vacuum can be activated by turning the bras valve lever. The vacuum level when lifting a melamine panel should be at maximum (24-25 inHg). When lifting porous materials like particle boards and MDF, the vacuum will be lower. It should still be in the green area of the gage.



2. A good practice is to check the vacuum on a clean, non-porous material to ensure that the vacuum is at its maximum (24-25 inHg).
3. If it is not, check the seals around the discs for possible damages. Also check the welds of the frame for possible cracks.
4. If the needle of the vacuum gage is in the yellow area, care should be taken when handling the panel.

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### Q and A

1. Loud Air Leak under the column.
  - a. Caused by the relief action of the valve when one tries to lower the suction apparatus lower than its end of stroke.
  - b. Push on the thumb lever until the suction apparatus until it raises.
  - c. Can also happen when the neutral adjustment is not set properly, and the suction apparatus lowers by itself.
    - i. Push on the thumb lever of the suction apparatus until it raises.
    - ii. Readjust the Neutral (pg. 15).
  
2. Downward movement is slow.
  - a. Check that the pressure of the air supply line is at least 90 psi.
  - b. Check that the pressure on the regulator at the base of the column is over 50 psi.
  - c. The air supply line should be large enough (3/4 pipe) and without restrictions like quick connect fittings.
  - d. Check if there is water in the filter bowl.
  - e. Check all tube connections for potential air leaks.

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# ENJOY!

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