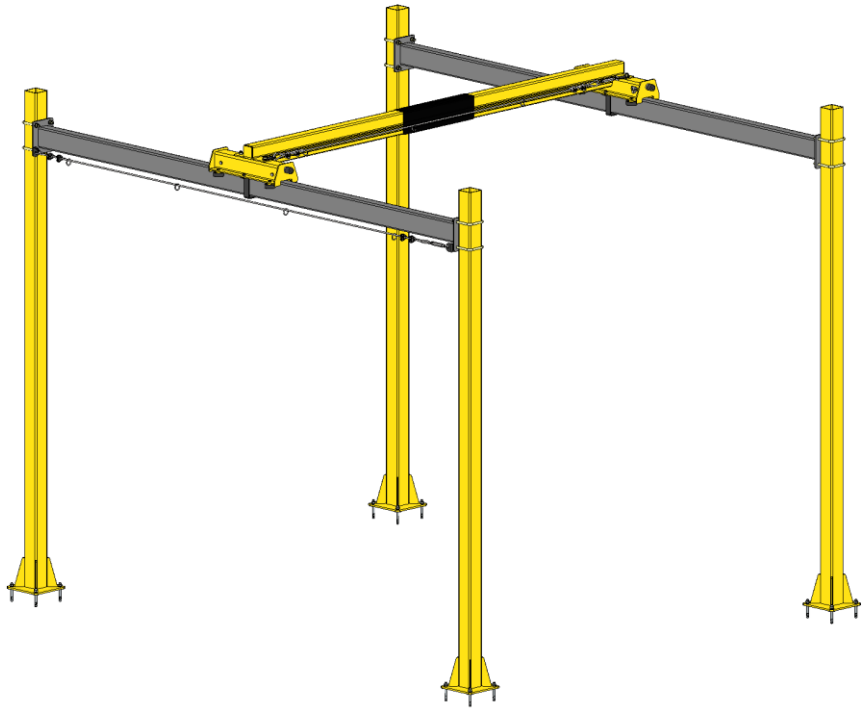
Aero Crane System

Installation, Operation, & Maintenance Manual



Date purchased_____

SN_____

Order Number_____

Before you begin. Read the instructions carefully, from beginning to end, and follow the proper sequence.

Thank you for purchasing a PWI crane! We have been building overhead cranes for years and our experience and knowledge should give you peace of mind. We too use overhead cranes in our manufacturing processes. From design & engineering, all the way to installation of our crane systems, our experience and passion for quality crane systems is shown in our products. We hope you find the installation ease and use of our PWI products to be among the best items you have purchased.

Thank you from the entire staff at PWI.

General Safety:

- ☐ Safety comes first when unloading and assembling your crane system. Many of the components are heavy and require lifting equipment to move and set them in place. Make sure the equipment you choose to support and lift each piece is capable of the task with extra capacity to do the job. Do not end up in a dangerous situation.
- ☐ Start with checking any lifting fixtures/tools for damage or wear that could lead to severe injury or death.
- ☐ This manual assumes that you have performed any foundation analysis ahead of placing your crane system in the proper location. Failure to provide the proper footing depth and width based on your column loads can result in failure of the floor structure supporting your crane.
- ☐ Please call PWI if you are unsure of the slab/foundation requirements for your crane system.

WARNING

There must be 3” minimum clearance to any obstruction above the unit and **there must be 2” minimum clearance** on the sides of the rolling portion of your crane to any obstruction or part of your building.

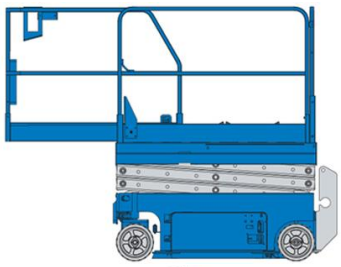
Aero Crane System

Pre-Installation Checklist:

- ☐ Check your shipment for the correct components and hardware. Your shipment should include shipping sheets that were checked off by our team
- ☐ Check your shipment for drawings for layout and installation of components
- ☐ Clear the area as much as possible of items that could be damaged or create hazards during the installation. When assembling near electrical panels be aware of any regulations regarding perimeters required around those objects
- ☐ Forklift or suitable lifting equipment
- ☐ Should you have any technical questions, or feel you have defective components or missing items, call us immediately. We will be glad to assist you.

Possible Tools Needed:

- ☐ Proper PPE
- ☐ Forklift/Lifting Equipment
- ☐ Ladder/Man Lift
- ☐ Nylon Lifting Sling
- ☐ Marker
- ☐ Tape Measure
- ☐ Chalk Line
- ☐ Level
- ☐ Hammer
- ☐ Torque Wrench
- ☐ Wrench Set
- ☐ Laser Level
- ☐ Paint Brush
- ☐ Hammer Drill
- ☐ Hammer Drill Bits

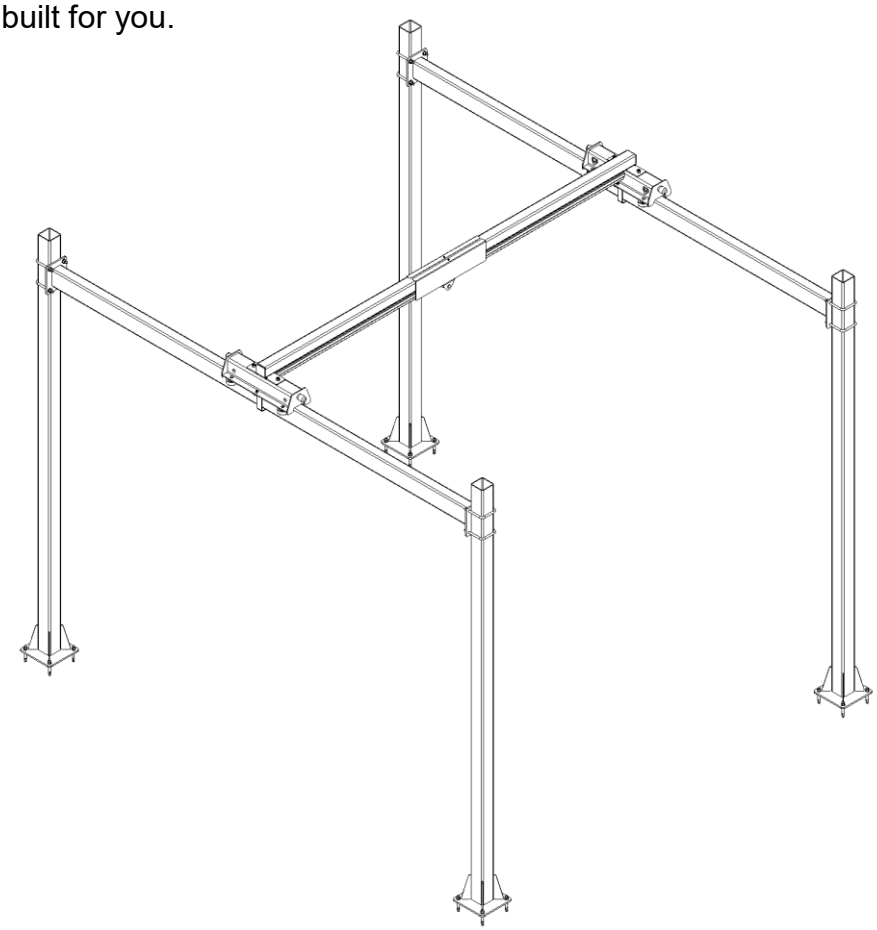


Owner's Manual

System Capacity Information:

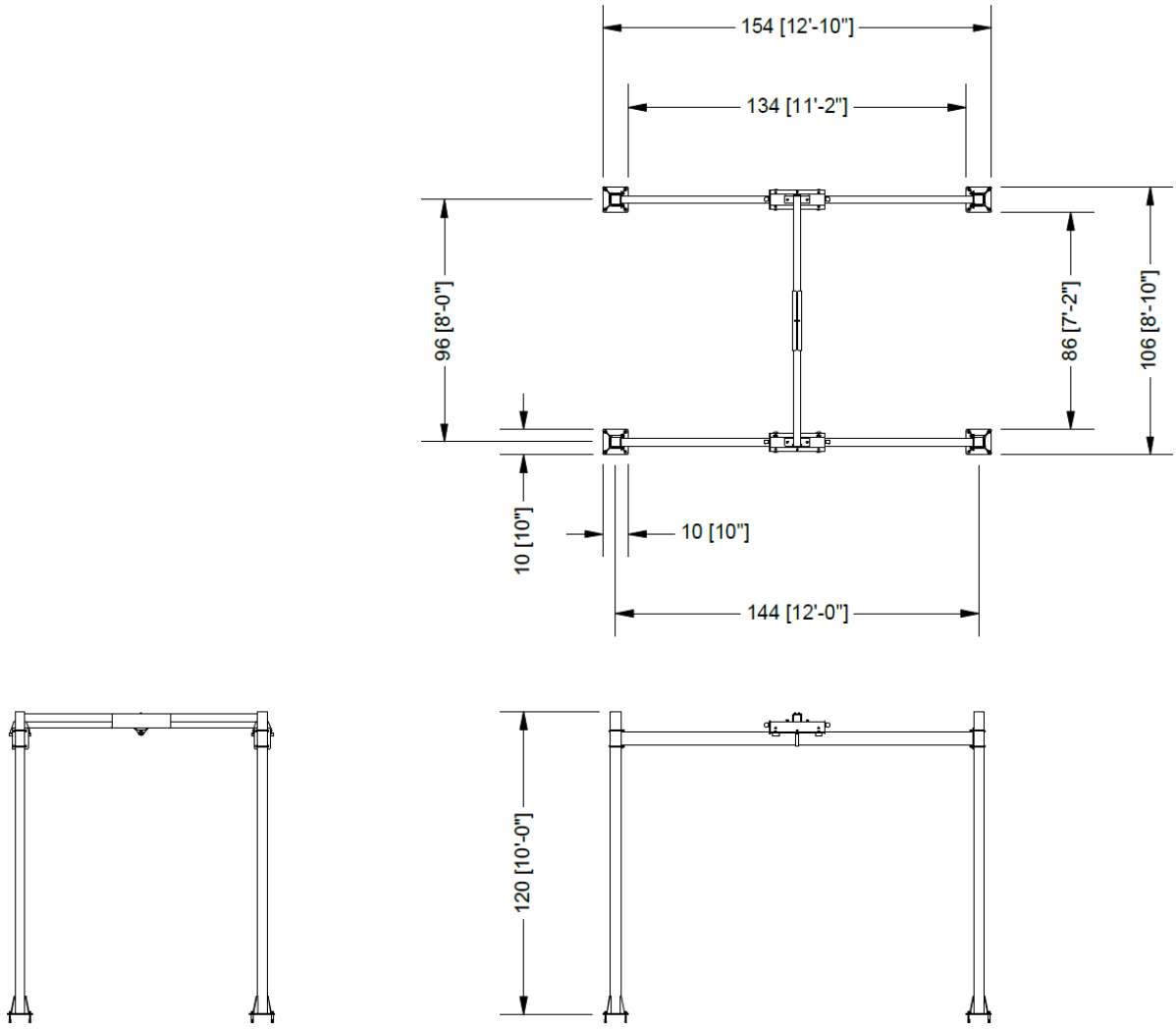
The innovative design and heavy-duty construction of the PWI Garage Series system will provide a superior quality product that will offer years of long-term value. The hoist weight allowance is 15% of the cranes capacity (for example, a crane rated for 1000 pounds allows for a 1000-pound live load plus 150 pounds for the weight of the hoist). There is also an allowance of 15% of the crane capacity for impact caused by hoist use. PWI Garage Series systems will provide many years of dependable service by following the installation and maintenance procedures described herein.

Note: Any dimensions shown in this manual are for illustration purposes only. Refer to the drawings that were sent with your system for the exact measurements and configuration of the system we built for you.

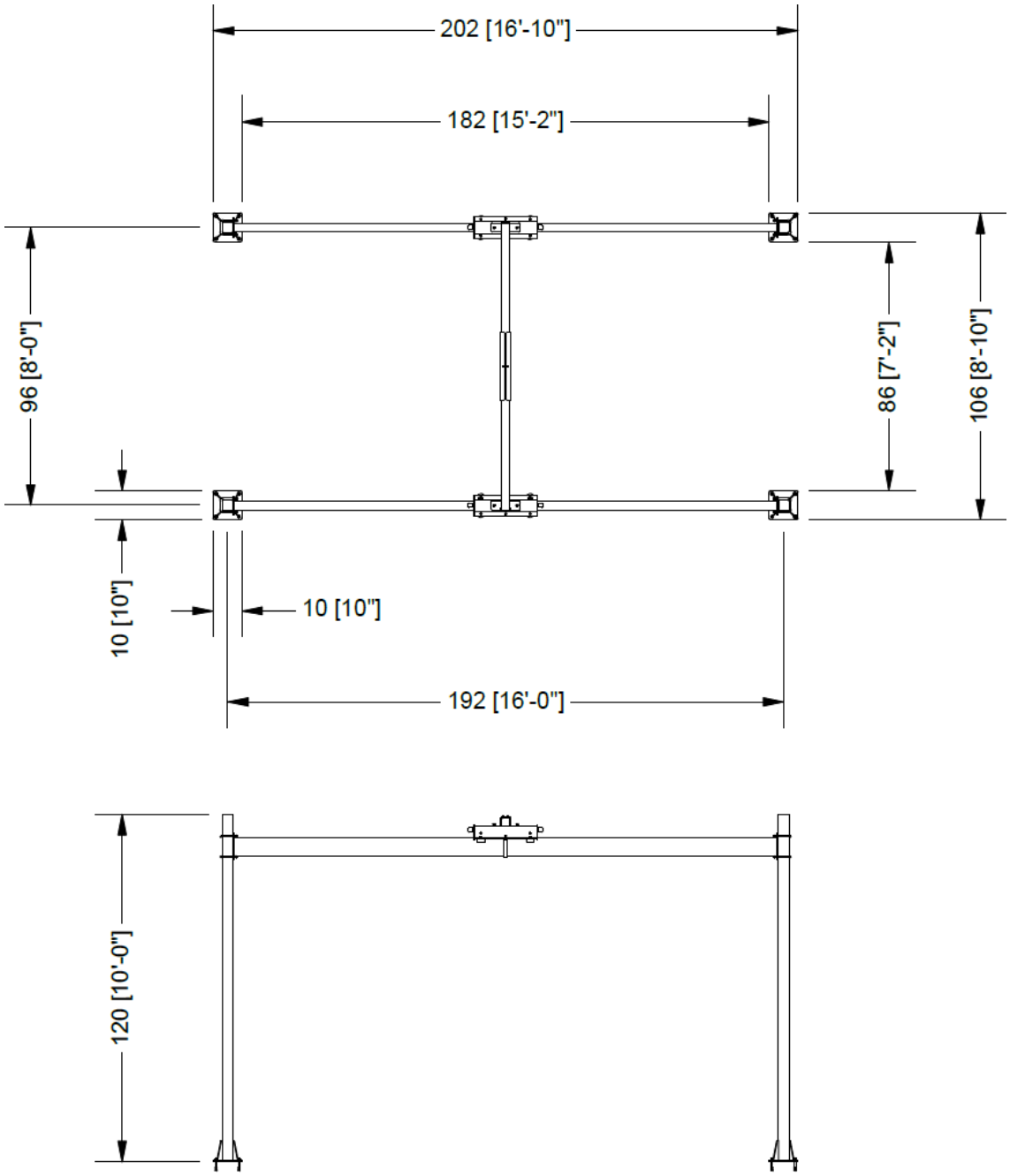


Aero Crane System

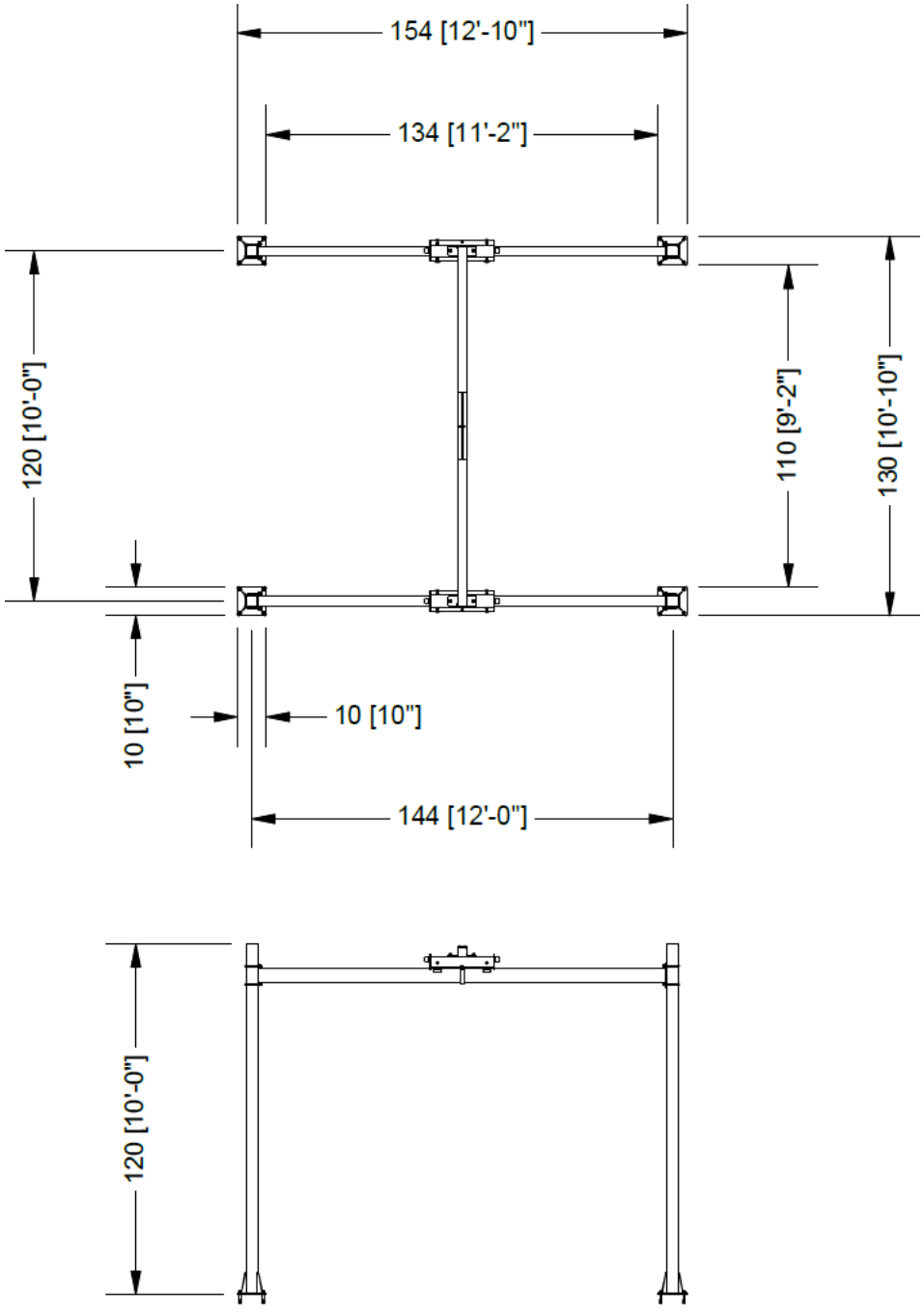
8’ Bridge and 12’ Length System Layout Drawing



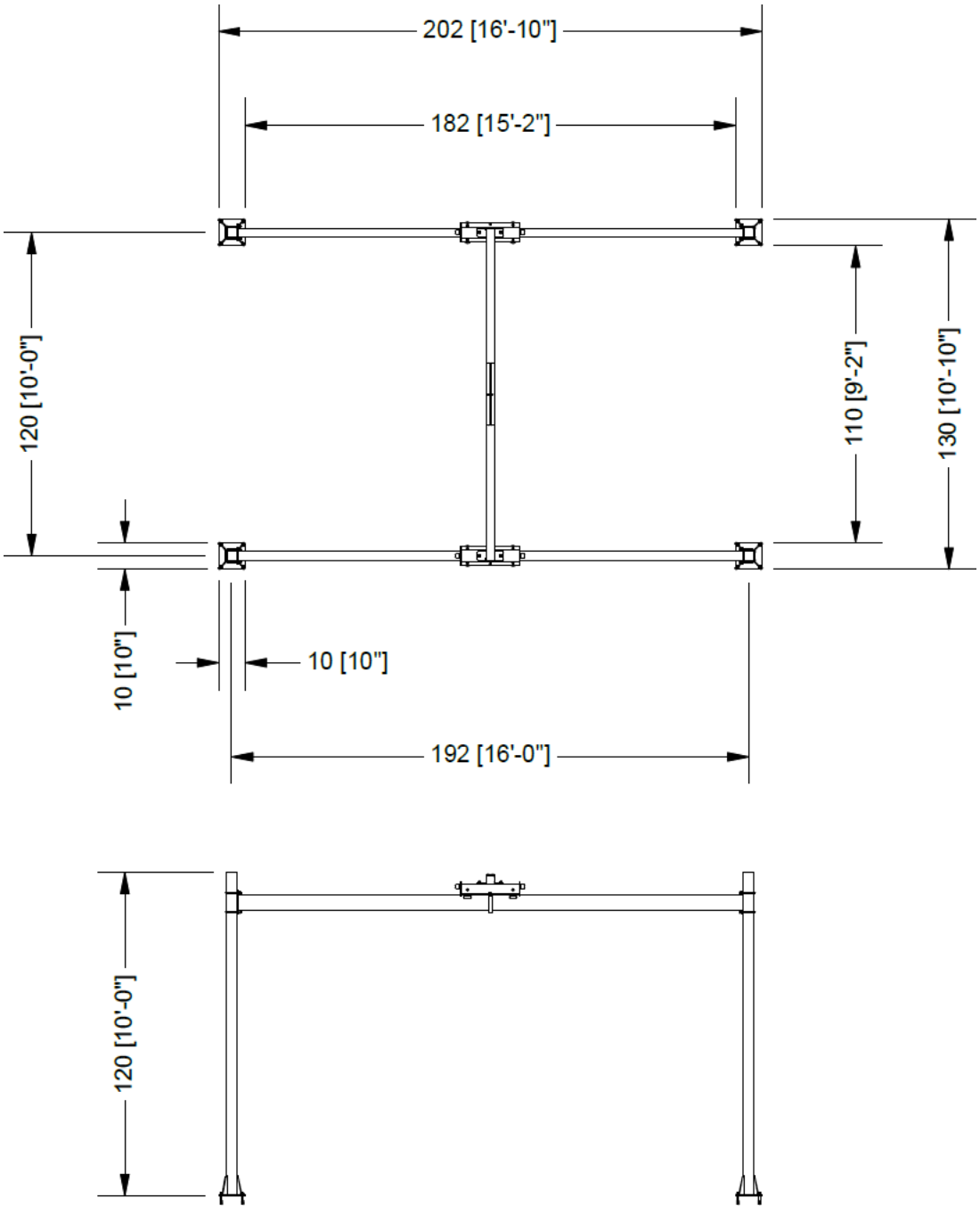
8’ Bridge and 16’ Length System Layout Drawing



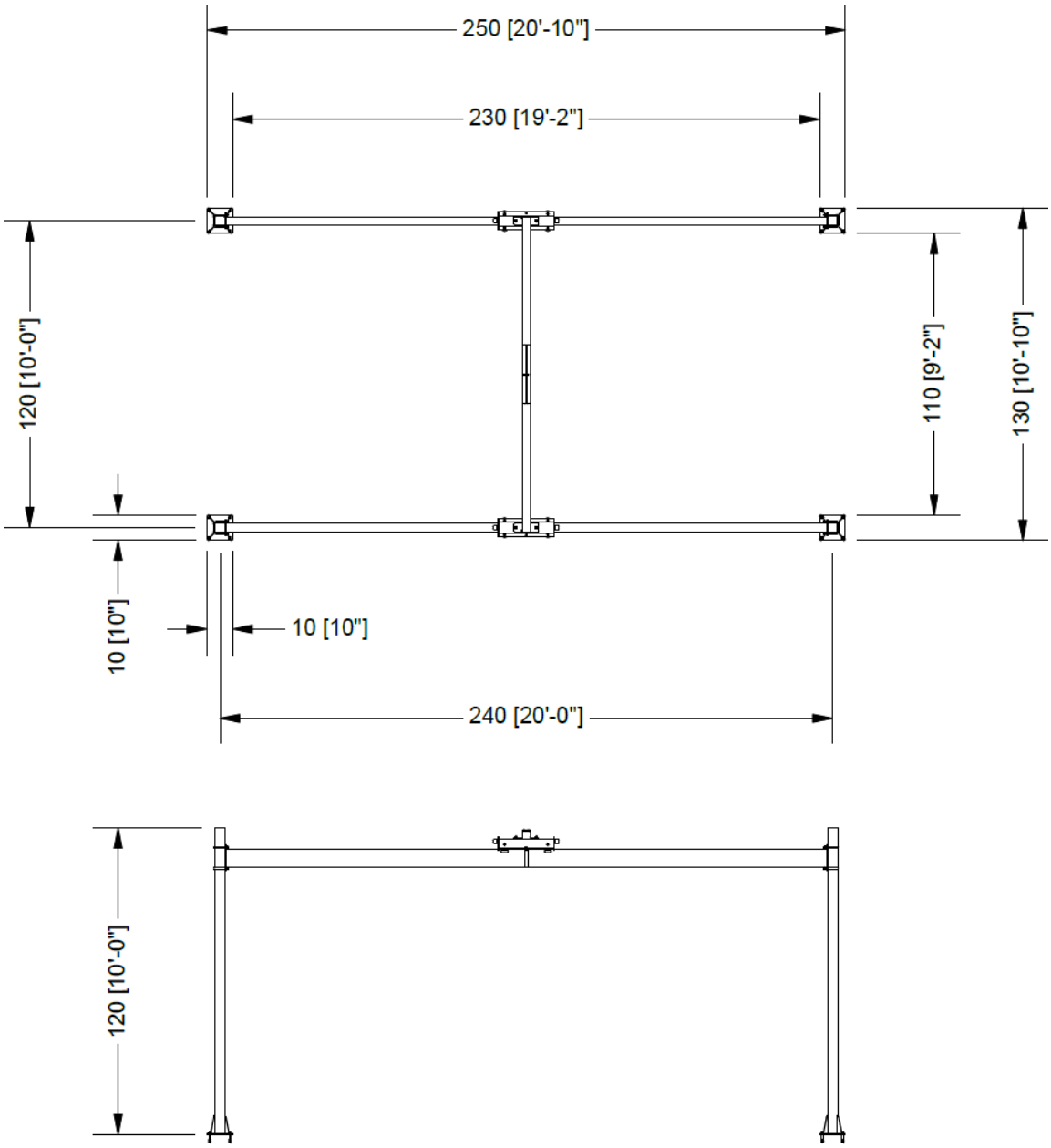
10’ Bridge and 12’ Length System Layout Drawing



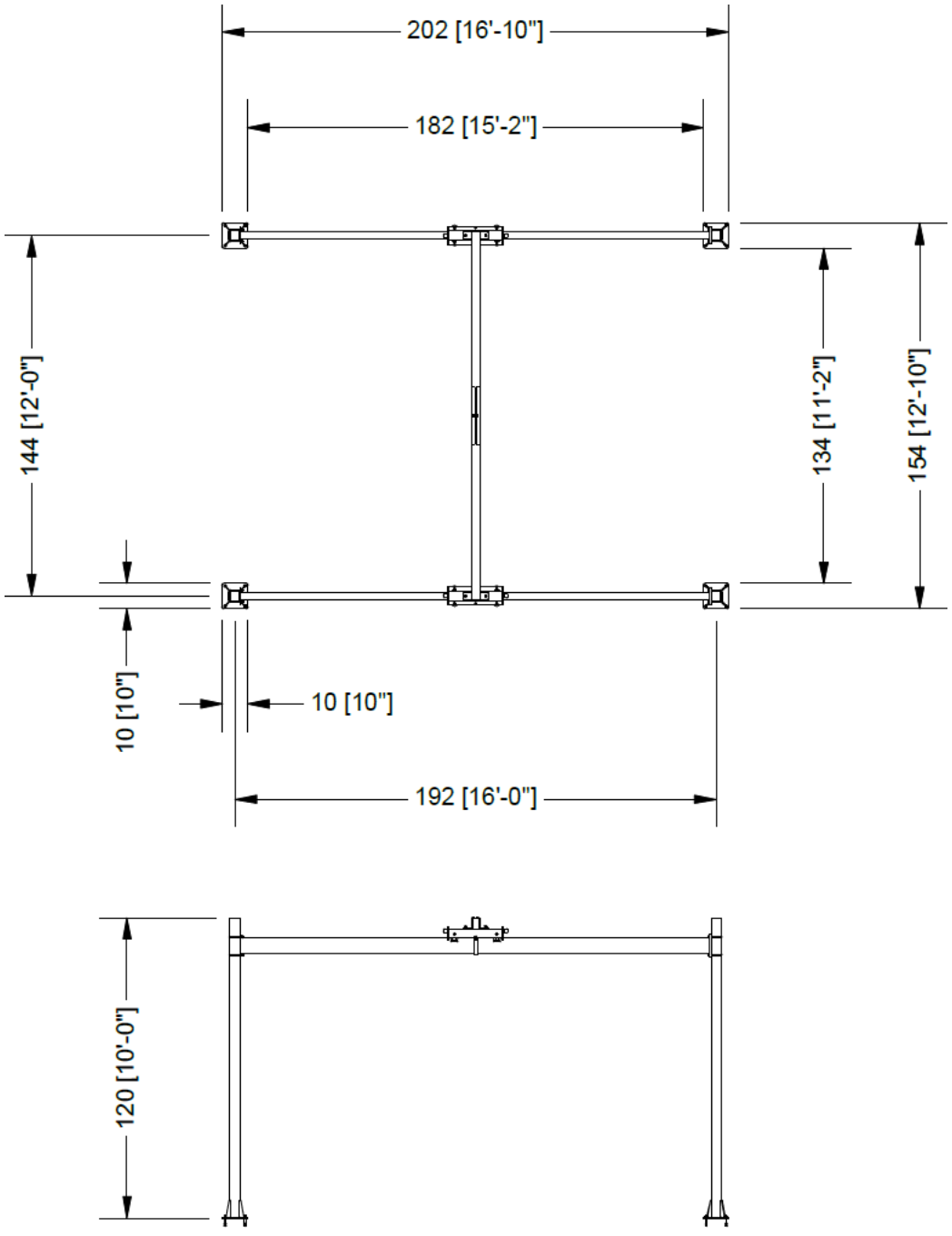
10’ Bridge and 16’ Length System Layout Drawing



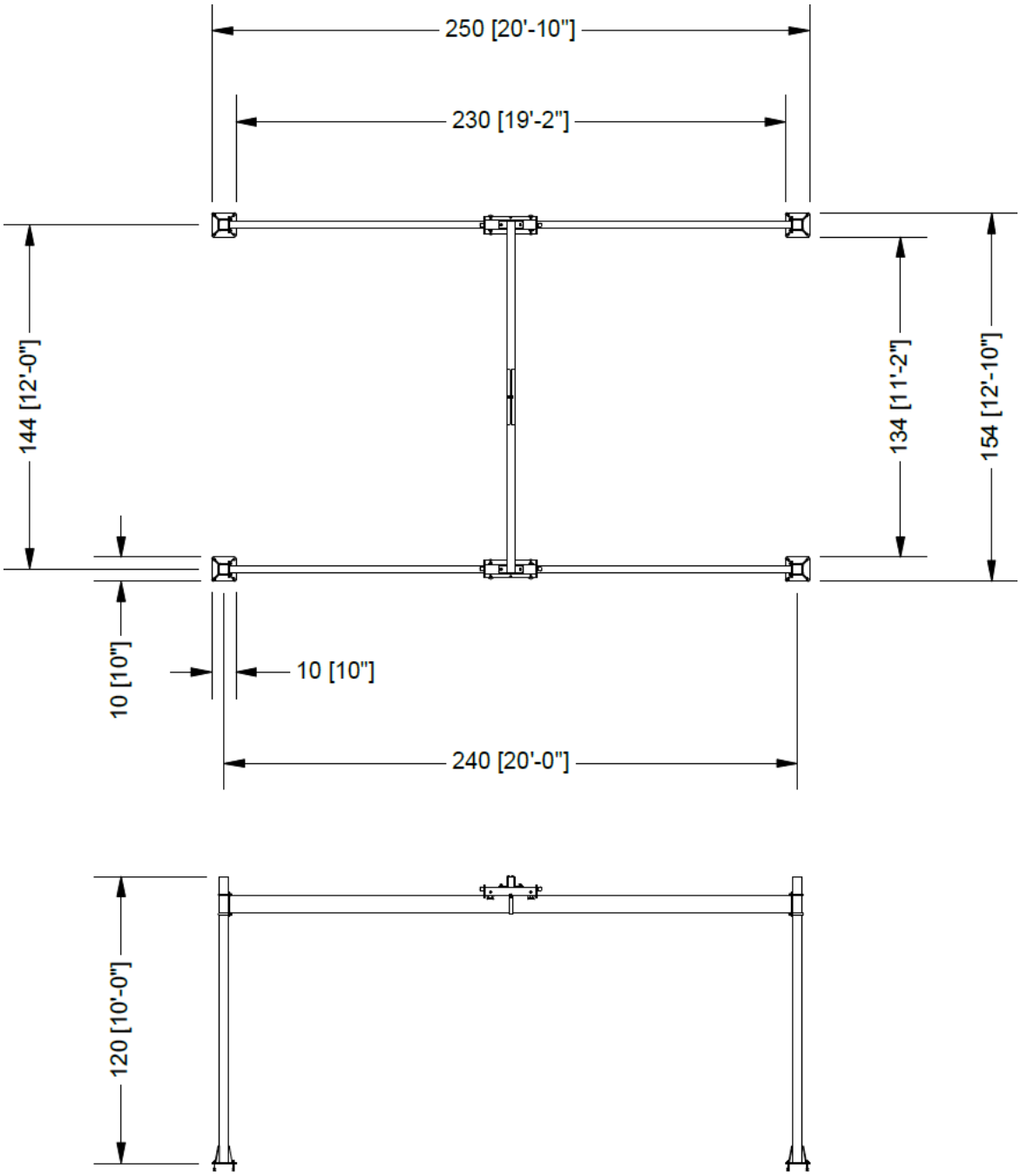
10’ Bridge and 20’ Length System Layout Drawing



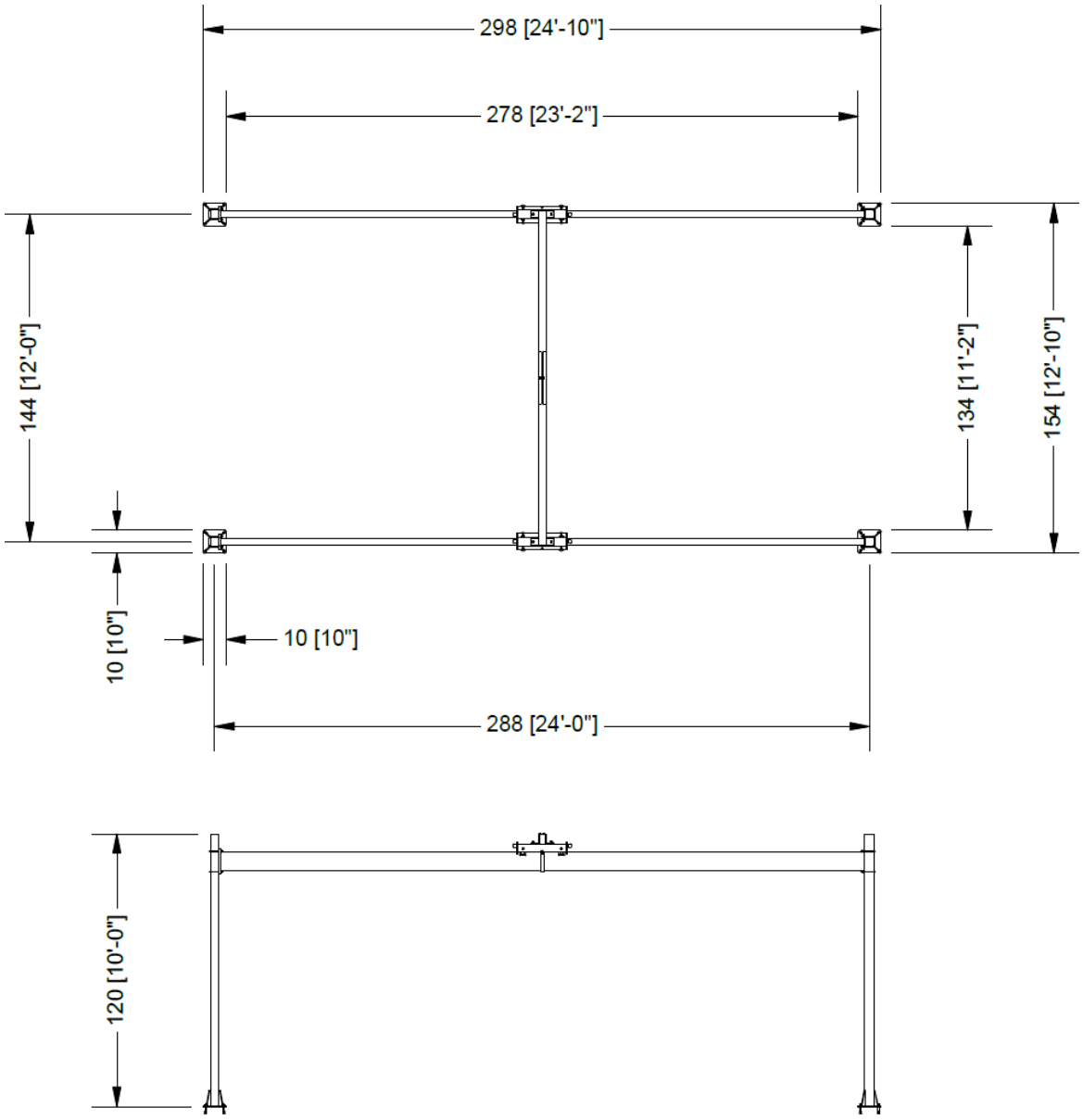
12’ Bridge and 16’ Length System Layout Drawing



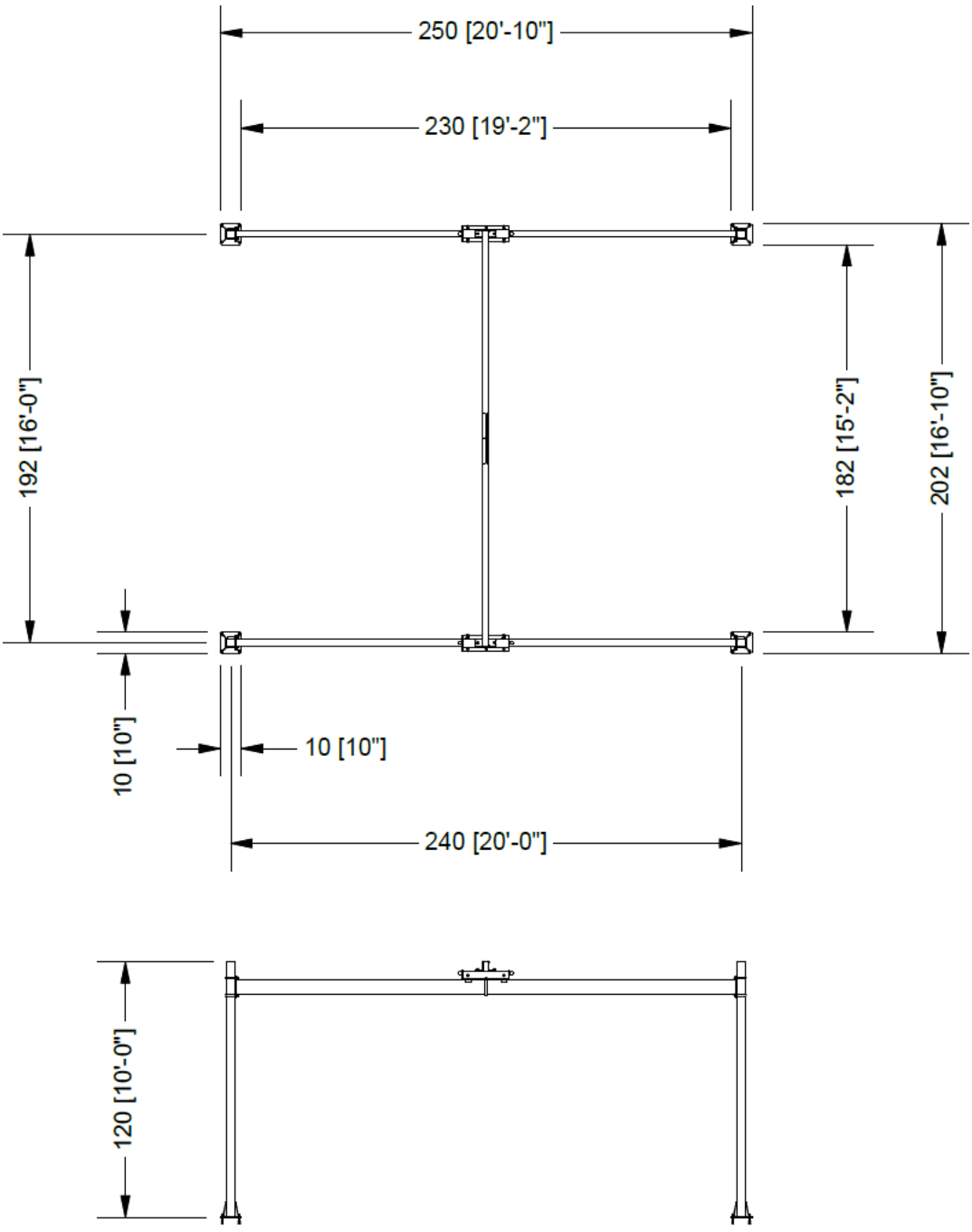
12’ Bridge and 20’ Length System Layout Drawing



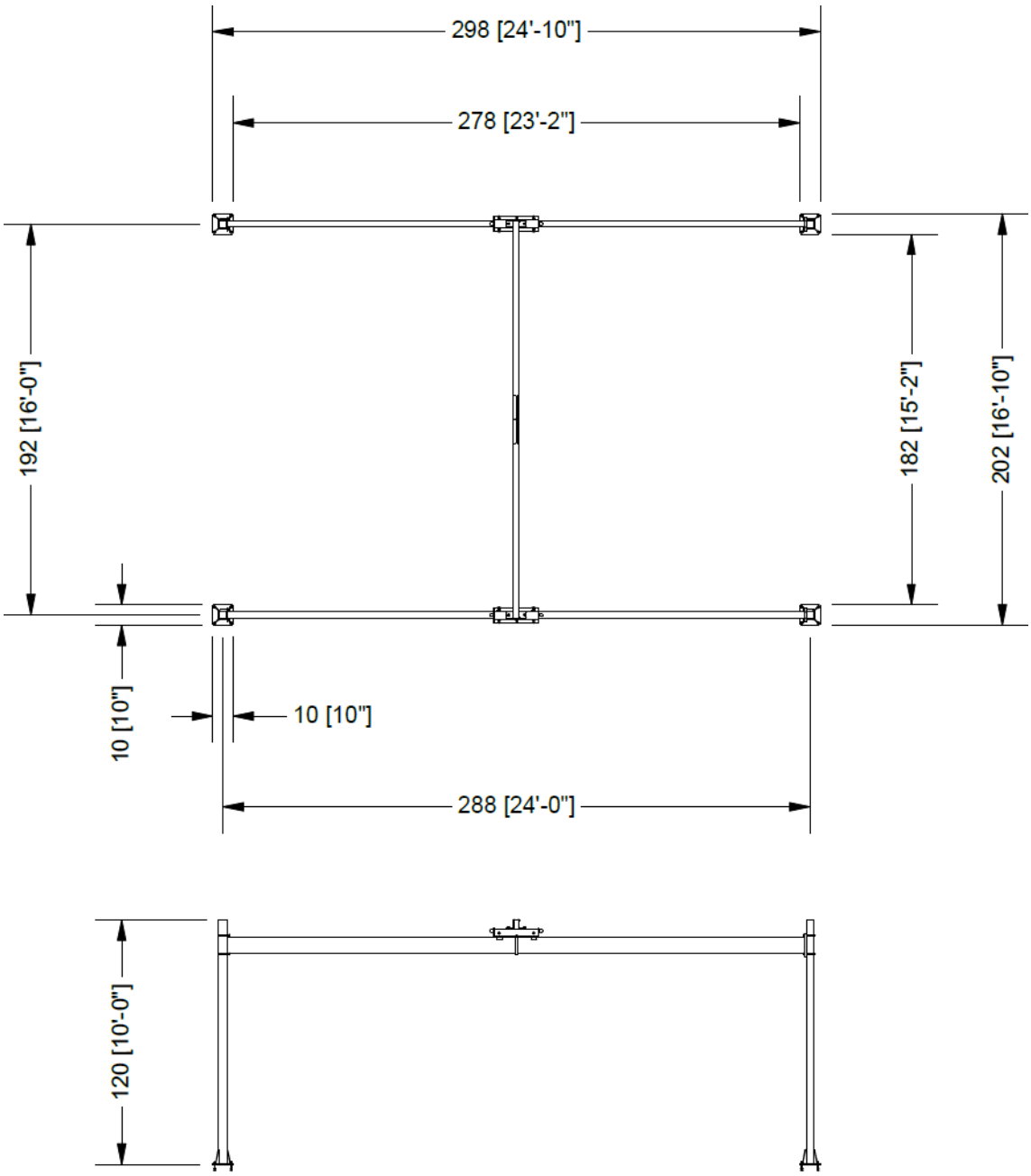
12’ Bridge and 24’ Length System Layout Drawing



16’ Bridge and 20’ Length System Layout Drawing



16’ Bridge and 24’ Length System Layout Drawing



Step 1. Pre-Assembly

1. If your floor surface is uneven grout under the column bottom base plates will be required to provide a level foundation to build on. Leveling nuts under the column base plate is also an acceptable method that will aid leveling your system. (Shimming and leveling nuts and epoxy anchors are not supplied with your system). If you must grout under your columns to get a level system, the use of epoxy anchor bolts (not included) is recommended. Epoxy anchors need to withstand 4880lbs of pull force. Contact PWI if you have questions. **(Image 1.1)**

Step 2. Laying Out Your Columns

1. Using the drawings supplied with your system, verify that the area you are placing the crane system in will not encounter unforeseen obstructions. Mark on the floor the center point of each column. Look for obstructions that would require moving the system to avoid interference with items in your area. (Example – proximity to electrical panels and controls, doors and walkways, wall switches, garage door openers & tracks, overhead obstructions).
2. Once you have found the best place for your system and have marked the column centers, check that your marks are “square” by measuring diagonally from column center to column center. Once your system layout is correct and square you can measure out from the center mark that you have made and sketch on the floor the outline of the column base plates. **(Image 2.2)**

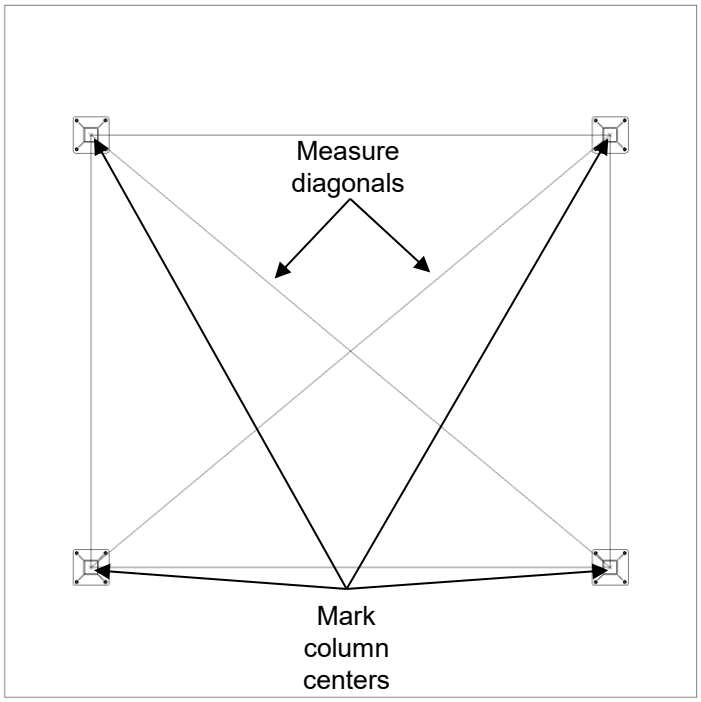


Image 2.2 *Column Spacing*

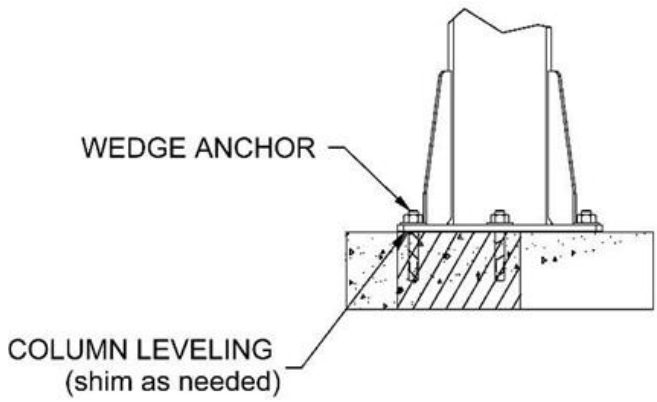


Image 1.1 *Leveling*

3. Measure to verify that the column is not too tall for the area. Cut off any excess column at the open end of the column tube. File smooth any sharp edges for safety. Remember, **There must be 3" minimum clearance** to any obstruction above the unit. **(Image 2.3)**

4. Stand the column up with a suitable lifting device and have help available to help hold the column in place while drilling the anchor holes.

5. Drill **ONLY 2** anchor holes (check your paperwork supplied for sizes and torque specs of the anchor hardware) diagonally across from each other to temporarily anchor the columns. **(Image 2.5)**

   Hint – Drill completely through the concrete floor. (The minimum depth from the top of the finished floor is 4 inches)

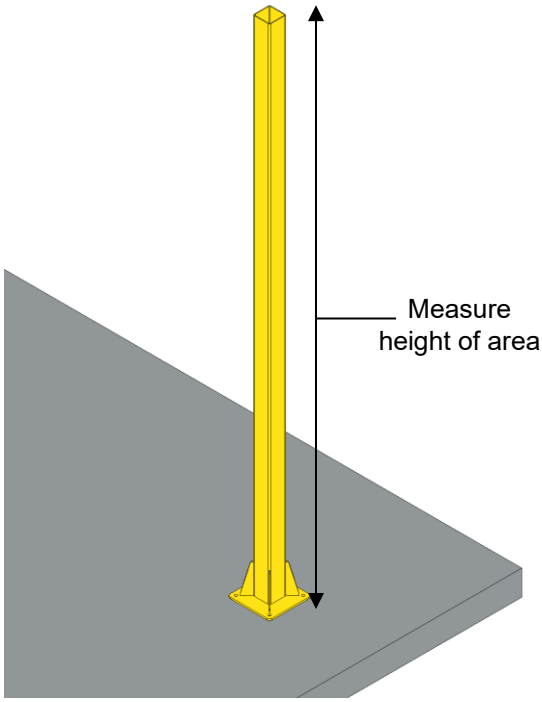


Image 2.3 *Column Height Measurement*

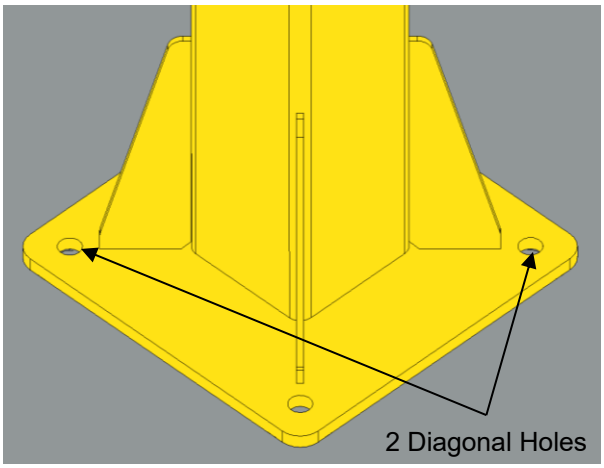


Image 2.5 *2 Holes Drilled*

Image 2.7 *Prepped Anchor*

6. Suck out any debris from the anchor holes either during the drilling process or after drilling is complete. This ensures a more secure grip from the anchors.

7. Loosely thread each nut onto each anchor and slide each washer on beneath the nuts. **(Image 2.7)**

8. Slide 2 wedge anchors into their respective holes diagonal from each other and tighten with the proper torque for their respective anchor size. **(Images 2.8A & 2.8B)**

9. Repeat **steps 2.3 – 2.8** for each column until all 4 columns are upright and anchored by 2 diagonal anchors each.

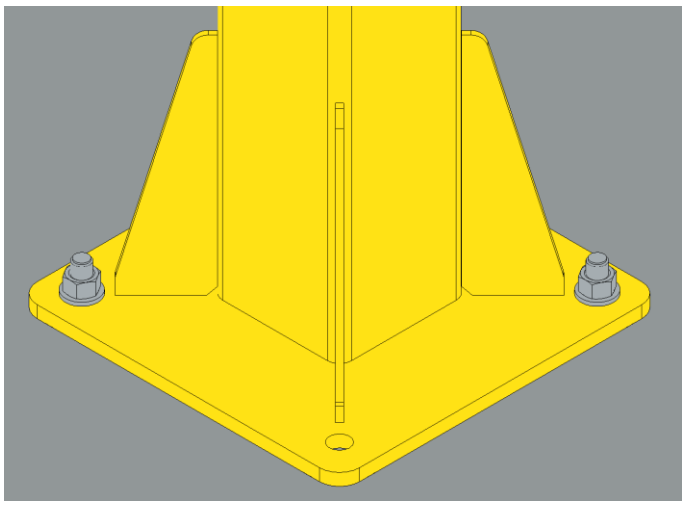


Image 2.8A *2 Anchors Inserted*

Bolt Size	Torque
1/2"	55 lb/ft
9/16"	70 lb/ft
5/8"	95 lb/ft
3/4"	160 lb/ft
7/8"	190 lb/ft

Grade 8 Required

Image 2.8B *Torque Chart*

Step 3. End Truck Installation

1. Before attaching the end trucks, slide on the hoist trolley. You will not be able to slide it on after the end trucks are attached. **(Image 3.1)**

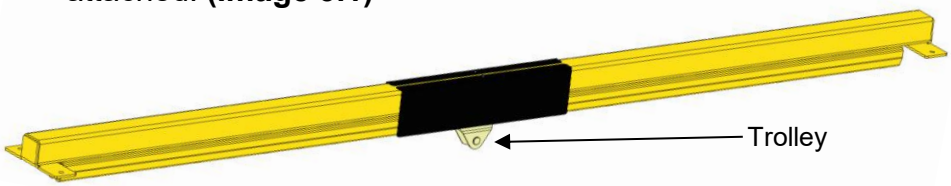


Image 3.1 *Trolley Installed*

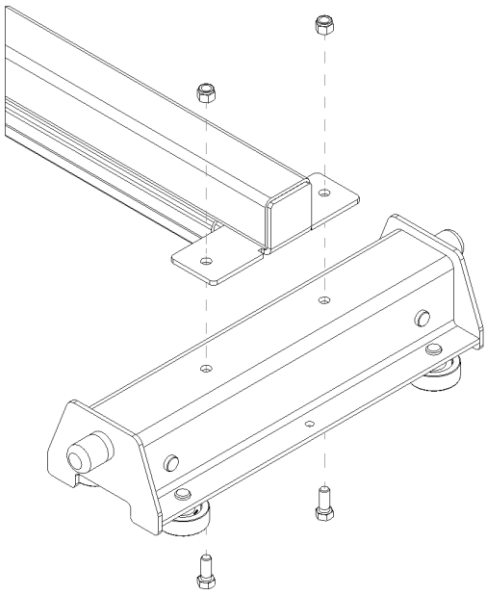


Image 3.2A *End Truck Exploded View*

2. Bolt the End Trucks onto each side of the bridge using the hardware provided as shown. **(Images 3.2A & 3.2B)**

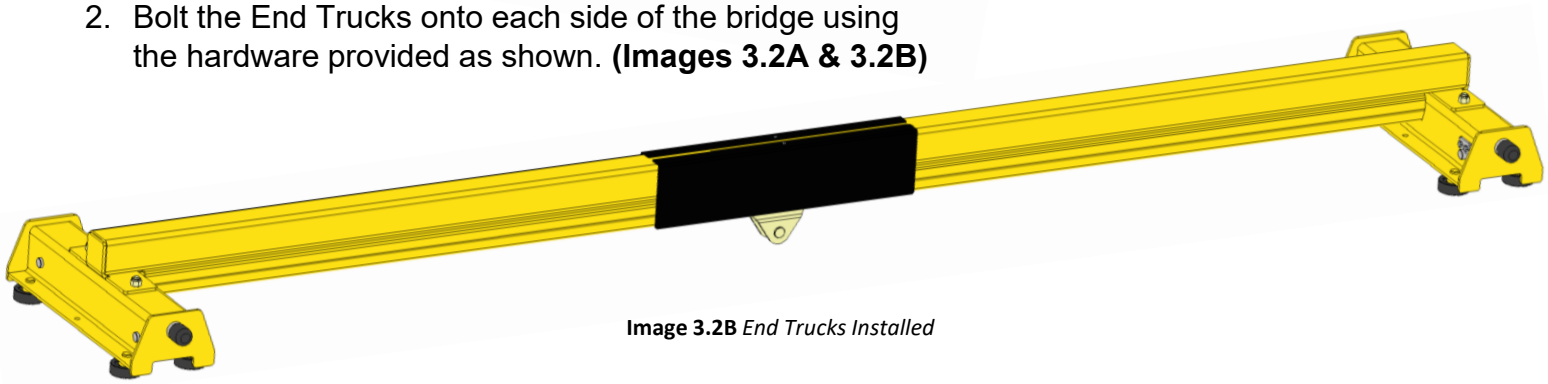


Image 3.2B *End Trucks Installed*

Step 4. Runway Installation

1. Once all 4 columns are temporarily anchored with 2 anchors each and the end trucks are installed on the bridge, find the included U-bolts and associated nuts and washers.

2. For stability of the system, the top of the **bridge tube** can be **no higher** than the top of your **column.** **(Image 4.3)**

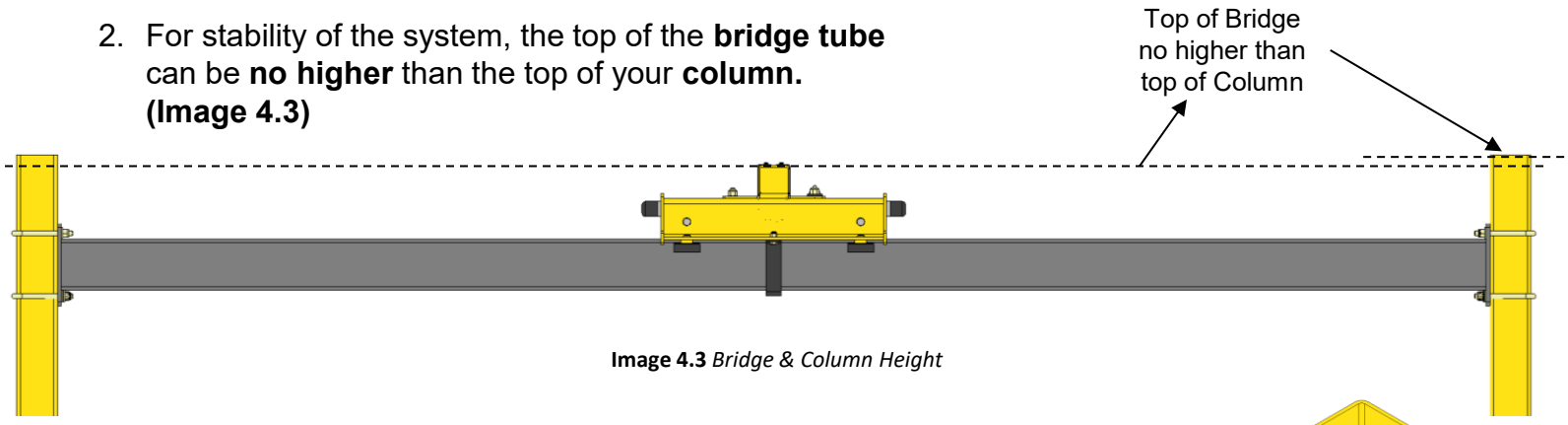


Image 4.3 *Bridge & Column Height*

4. Referring to the table to the right **(Image 4.2)** , mark the inside of each column with a horizontal line. **(Image 4.4)**

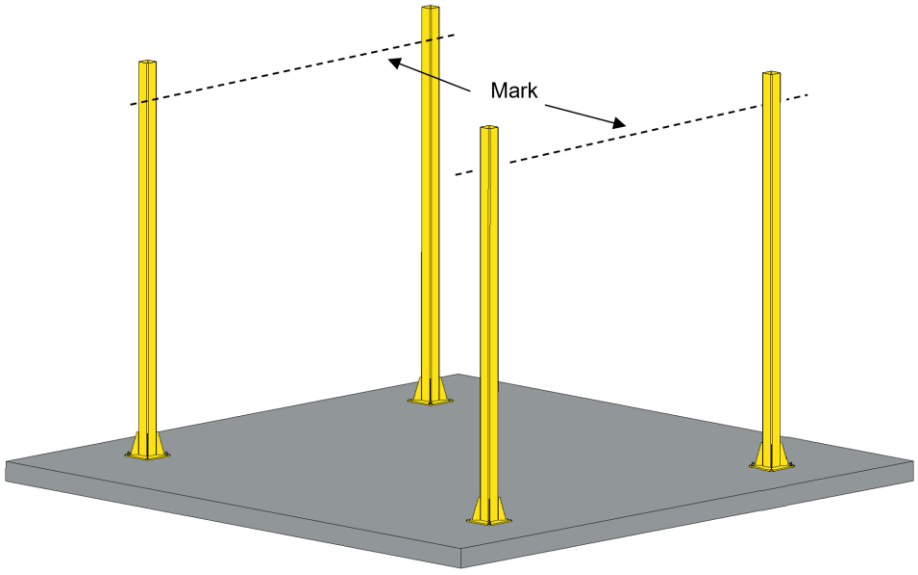


Image 4.4 *Marking the Columns*

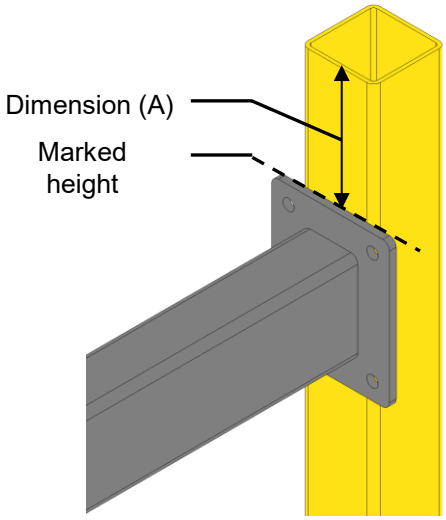


Image 4.5 *Runway at Height*

5. Support a runway with a suitable lifting device and move it into position between the columns. Raise to the marked height. (Image 4.5)

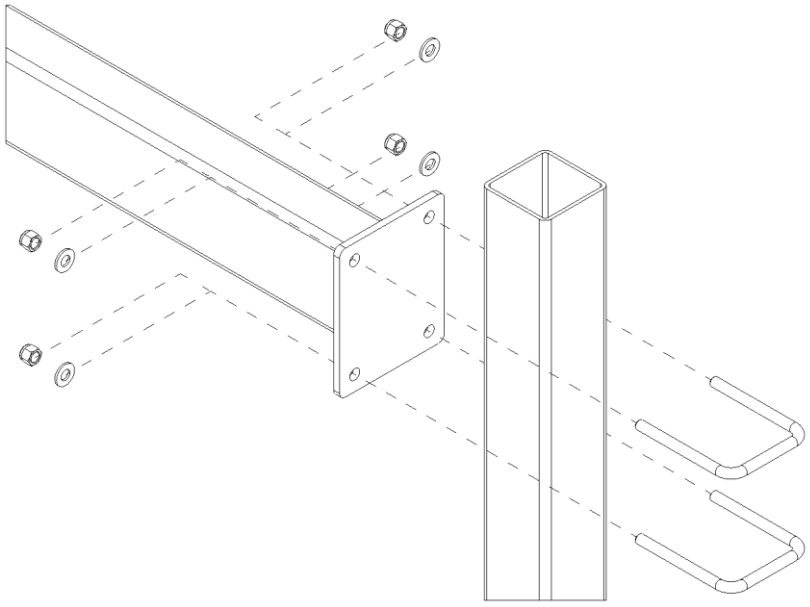


Image 4.6 *U-Bolt Exploded View*

5. Using the U-Bolts and provided hardware, bolt the runway to the column as shown. **(Image 4.6)**

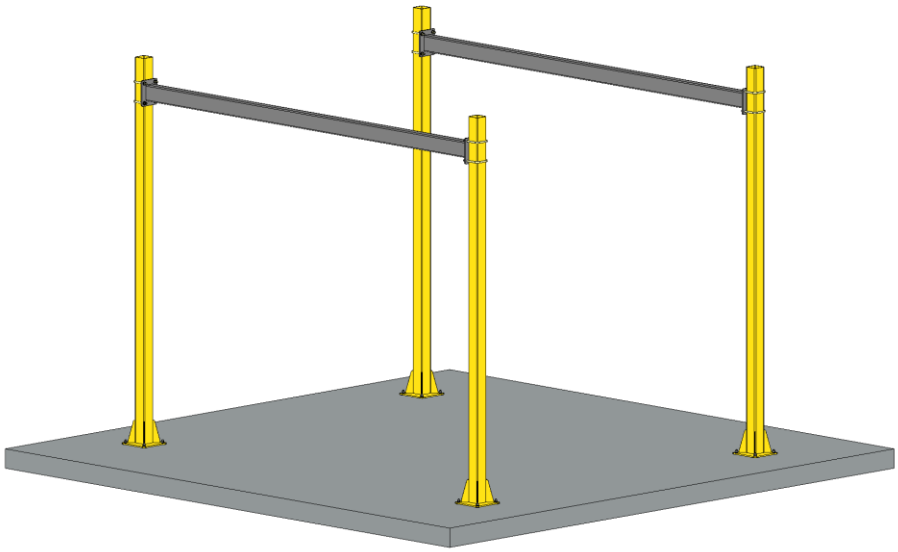


Image 4.8 *Runways Installed*

7. After bolting both sides of the runway to their respective columns, check to make sure the runway is **perfectly level**. Adjust as needed.

8. Repeat **steps 4.5 – 4.7** for the other runway to complete runway installation. **(Image 4.8)**

9. Repeat **steps 2.3 – 2.8** for each column to fill in the remaining anchor bolt holes.

Step 5. Runway Electrification Cable Kit (Optional)

These steps are for only if you purchased the optional Tagline Kit.

1. Lay out all the parts of the kit (use the following parts list as a guide)

Item	Qty	Part Number
Runway cable (cut)	1	800-10025
Runway cable brackets	2	800-10026
Runway cable clamps	4	800-10027
Runway tagline rings	3' spacing	800-10028
Runway turnbuckle	1	800-10029
Bridge beam cable (cut)	1	800-10030
Bridge beam cable brackets	2	800-10031
Bridge beam cable clamps	4	800-10032
Bridge beam tagline rings	3' Spacing	800-10033
Bridge beam turnbuckle	1	800-10034
Zip ties	as req'd	

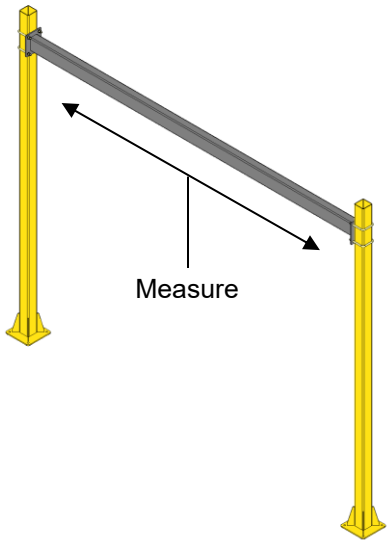


Image 6=5.2 *Runway*

2. To install the runway Tagline Kit, measure the length of the runway and cut the Runway Cable **2 feet longer** than the runway measurement.

3. Choose the runway you would like your tagline kit on, take each runway cable mount bracket, unbolt their respective U-Bolt nut, slide on the bracket with the flange furthest from the runway, and tighten the U-Bolt nut back on the U-Bolt as shown. (**Images 5.3A & 5.3B)**

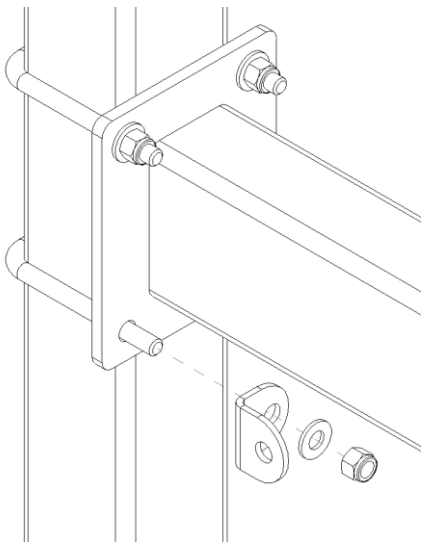


Image 5.3A *Runway Bracket Exploded View*

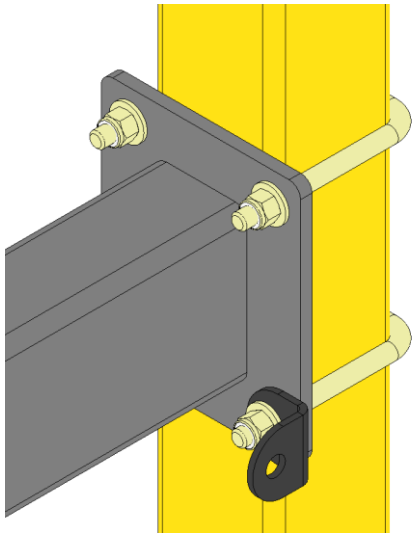


Image 5.3B *Runway Bracket*

4. Once both brackets have been mounted, choose a bracket, route the runway cable you cut previously through the bracket, turn the cable back on itself to make a small loop **(approx. 10”)**, and attach **2** cable clamps **(approx. 3” apart)** to fasten the loose end of the cable. **(Images 5.4A & 5.4B)**

   WHEN ATTACHING CABLE CLAMPS MAKE SURE TO FOLLOW THE “DON’T SADDLE A DEAD HORSE RULE”!

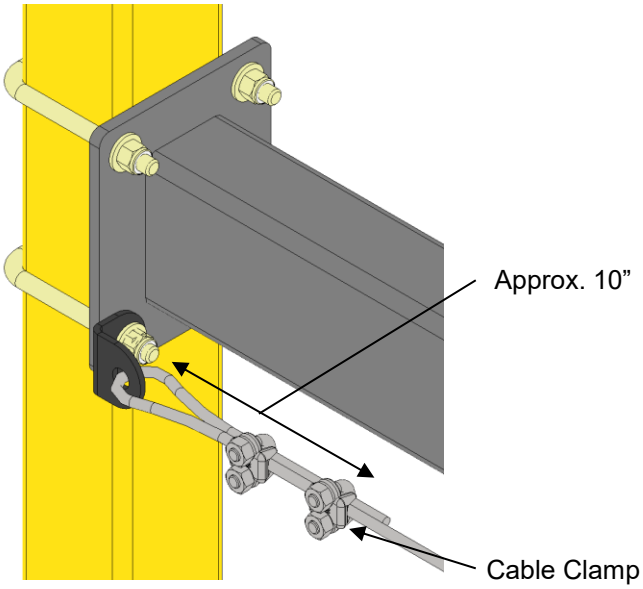


Image 5.4A *Cable Clamp*

5. At the other bracket, attach the turnbuckle and lengthen the turnbuckle to make it as long as possible. **(Image 6.5)**

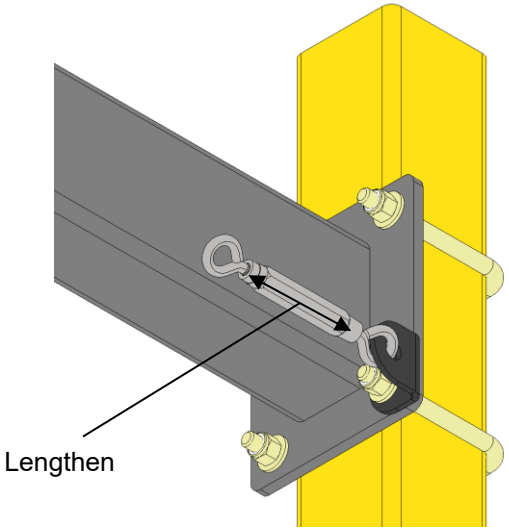


Image 6.5 *Turnbuckle*

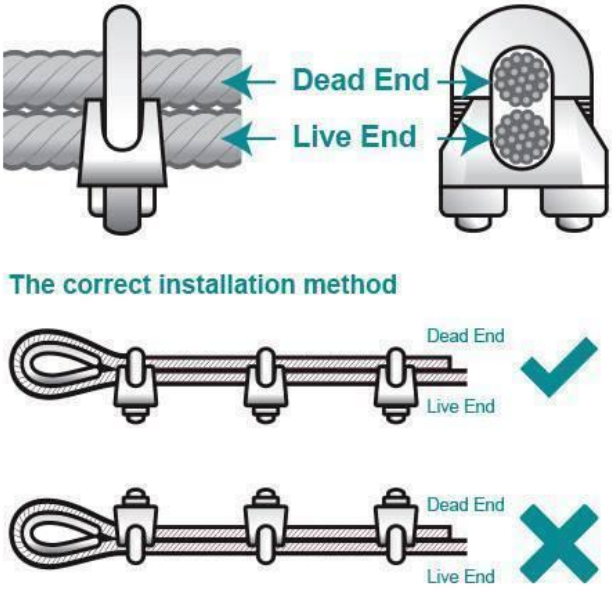
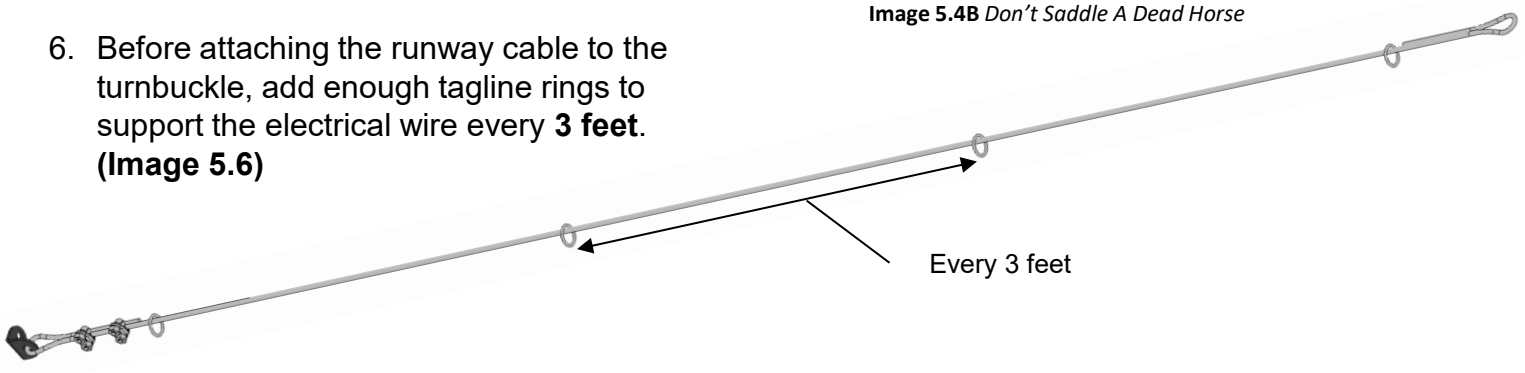


Image 5.4B *Don’t Saddle A Dead Horse*

6. Before attaching the runway cable to the turnbuckle, add enough tagline rings to support the electrical wire every **3 feet**. **(Image 5.6)**



7. Loop the loose end of the runway cable through the turnbuckle, clamp the loose end with **2** cable clamps, and tighten the turnbuckle. Use the same measurements as described in **step 5.4. (Image 5.7)**

   DO NOT FORGET THE CABLE CLAMP RULE!

   DO NOT OVERTIGHTEN THE TURNBUCKLE WHEN SETTING THE STEEL CABLE TENSION!

   Use only enough force to pull the cable tight enough to support the weight of the electrical wire.

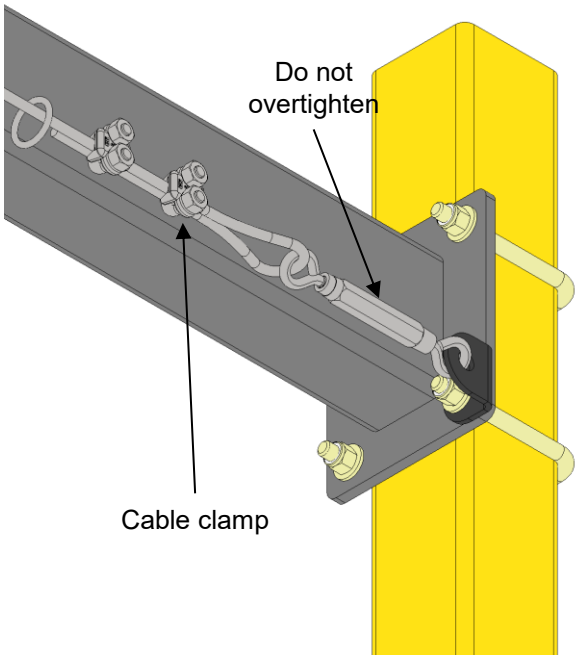


Image 5.7 *Cable to Turnbuckle*

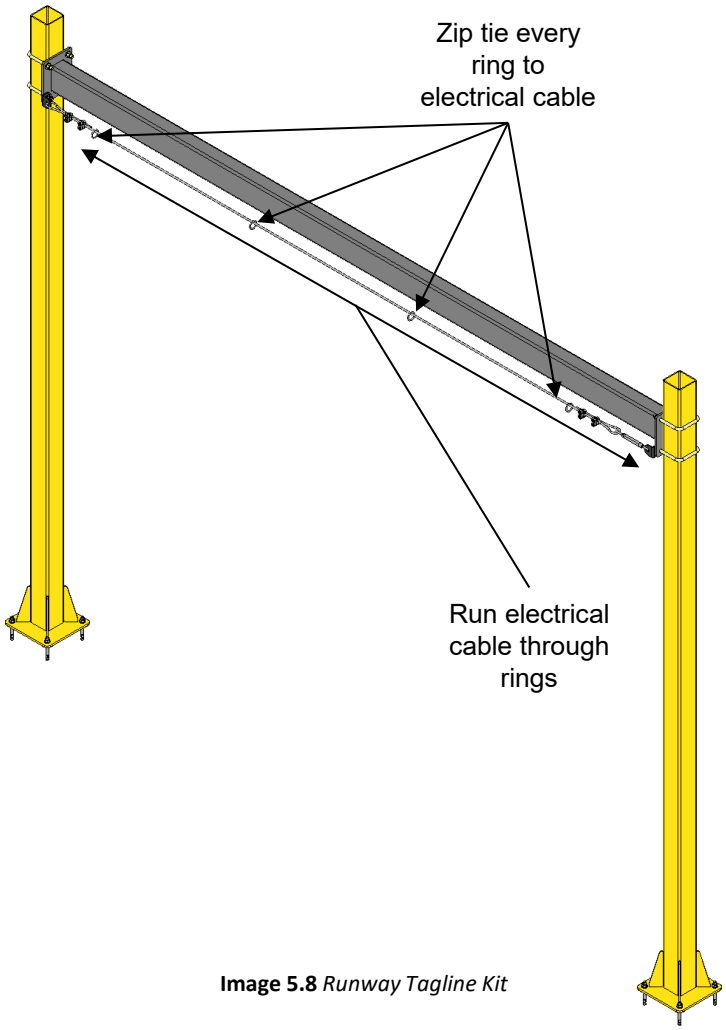


Image 5.8 *Runway Tagline Kit*

8. With your tagline rings spaced roughly **3 feet apart**, route your electrical cable through each tagline ring with a few inches of excess past the farthest ring. Once routed through, zip tie the electrical cable to each tagline ring. **(Image 5.8)**

   Your runway tagline kit is now complete. Next is the set up for the bridge tagline kit.

9. Measure the length of the bridge and cut your bridge cable **2 feet longer** than your bridge measurement. **(Image 5.9)**

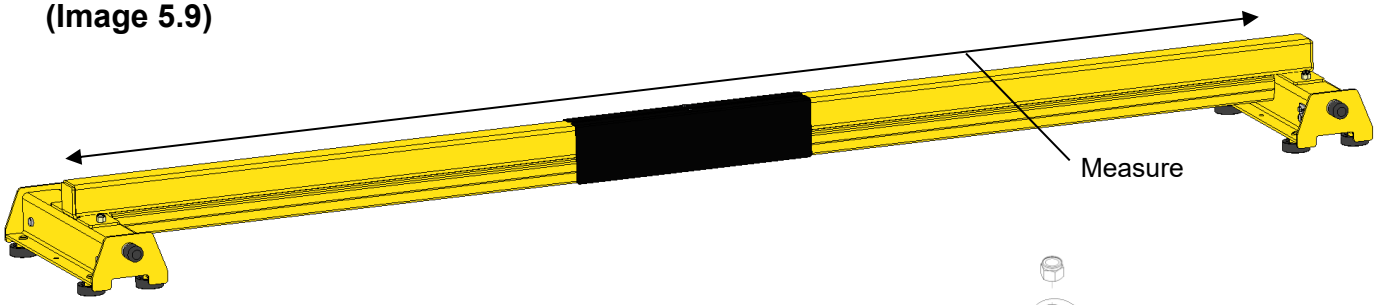


Image 5.9 *Bridge Tagline Kit*

10. Choose a side of the bridge for the tagline kit, take your bridge cable brackets, undo their respective bolts on the bridge weldment, insert the cable brackets with the tabs pointed towards each other, and tighten the bolts back down as shown. **(Images 5.10A & 5.10B)**

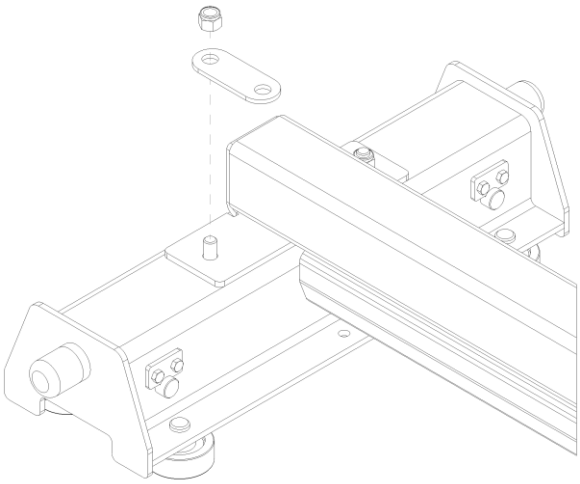
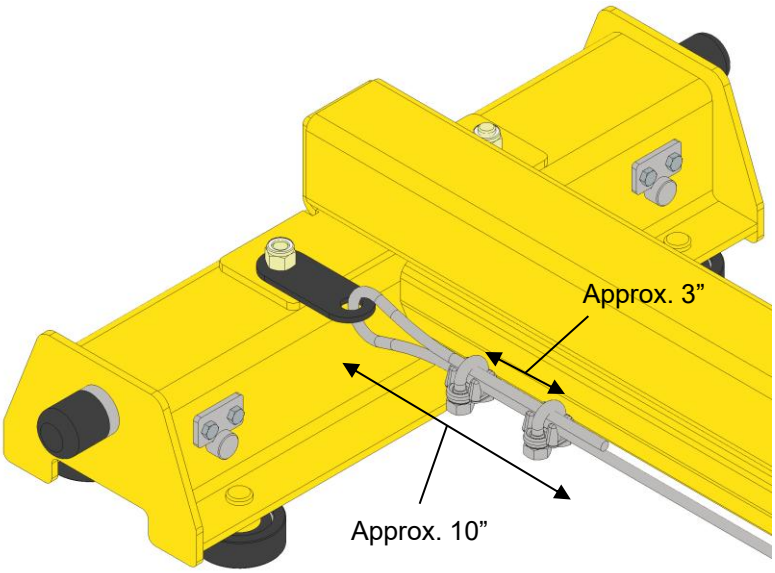


Image 5.10A *Cable Bracket Exploded View*

11. Take your bridge cable, loop it through the bracket closest to your runway tagline kit **(approx. 10")**, and clamp the cable down with **2** cable clamps **(approx. 3" apart) (Image 5.11)**

DO NOT FORGET THE CABLE CLAMP RULE!
CHECK 2 PAGES EARLIER FOR RULE.



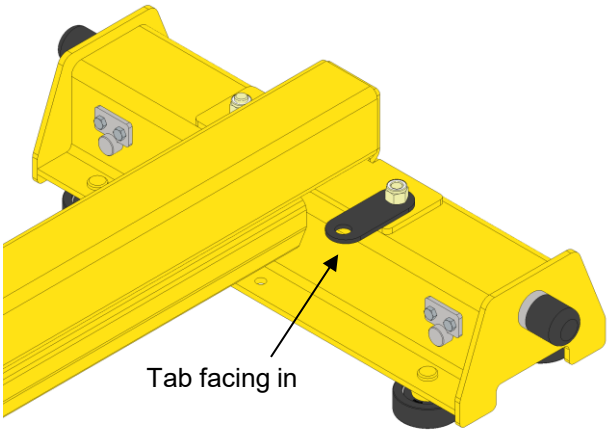


Image 5.10B *Cable Bracket*

12. At the other bracket, attach the turnbuckle and lengthen the turnbuckle to make it as long as possible. **(Image 5.12)**

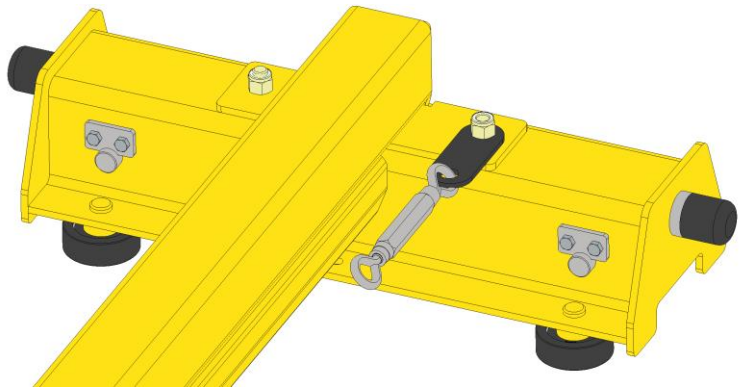


Image 5.12 *Turnbuckle*

13. Before attaching the bridge cable to the turnbuckle, add enough tagline rings to support the electrical wire every **3 feet**. **(Image 5.13)**

Image 5.13 *Tagline Rings*

14. Loop the loose end of the bridge cable through the turnbuckle, clamp the loose end with a cable clamp, and tighten the turnbuckle. Use the same measurements as described in **step 5.11. (Image 5.14)**

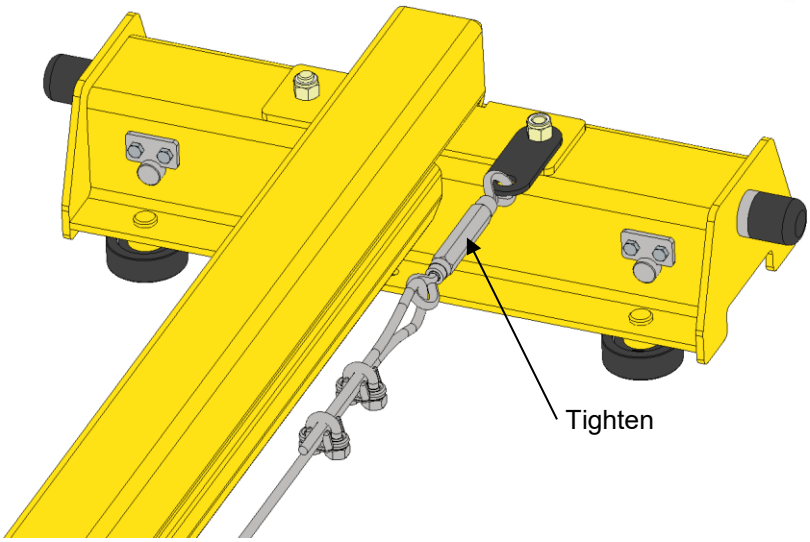


Image 5.14 *Cable to Turnbuckle*

DO NOT FORGET THE CABLE CLAMP RULE! CHECK 3 PAGES EARLIER FOR RULE.

DO NOT OVERTIGHTEN THE TURNBUCKLE WHEN SETTING THE STEEL CABLE TENSION.

Use only enough force to pull the cable tight enough to support the weight of the electrical wire.

15. With your tagline rings spaced roughly 3 feet apart, route your electrical cable through each tagline ring with a few inches of excess past the farthest ring. Once routed through, zip tie the electrical cable to each tagline ring. **(Image 5.15)**

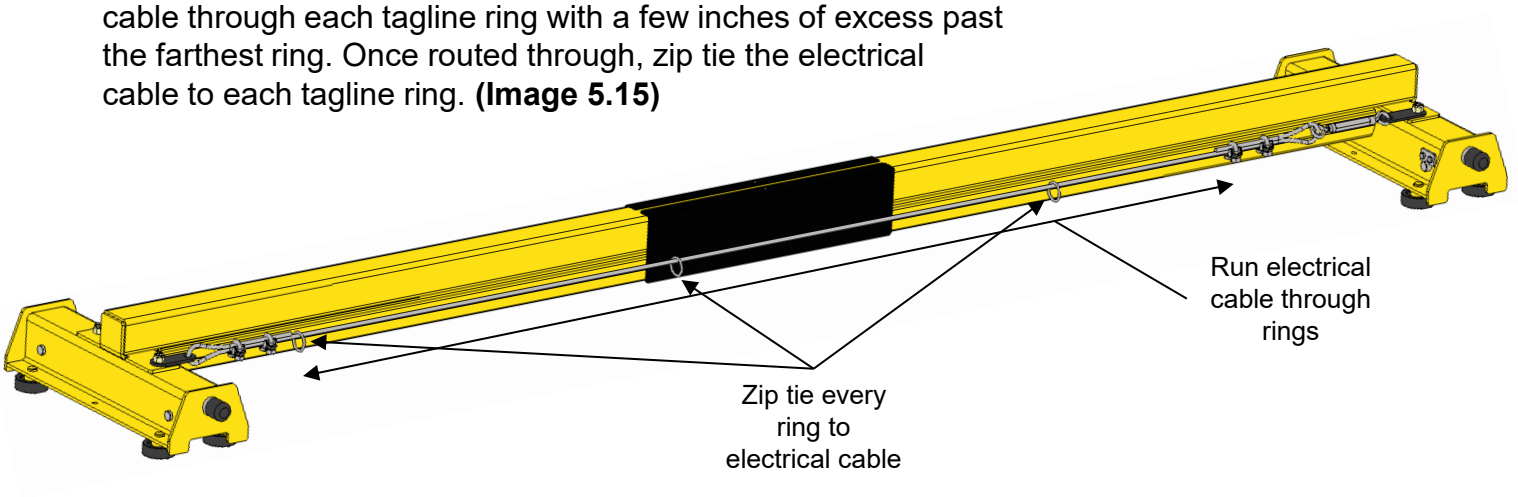


Image 5.15 *Electrical Cable*

16. Once your bridge is attached to your runways **(next page),** plug in the end of your bridge electrical cable to the runway electrical cable. You choose if the cable should go over or under the runway when connecting.

OR

17. If you prefer, repeat **step 5.7 & 5.15** for both the runway tagline and the bridge tagline but use **1** longer cable and route it through both tagline kits. Make sure to include enough slack on each kit to use effectively. **(Image 5.16-17)**

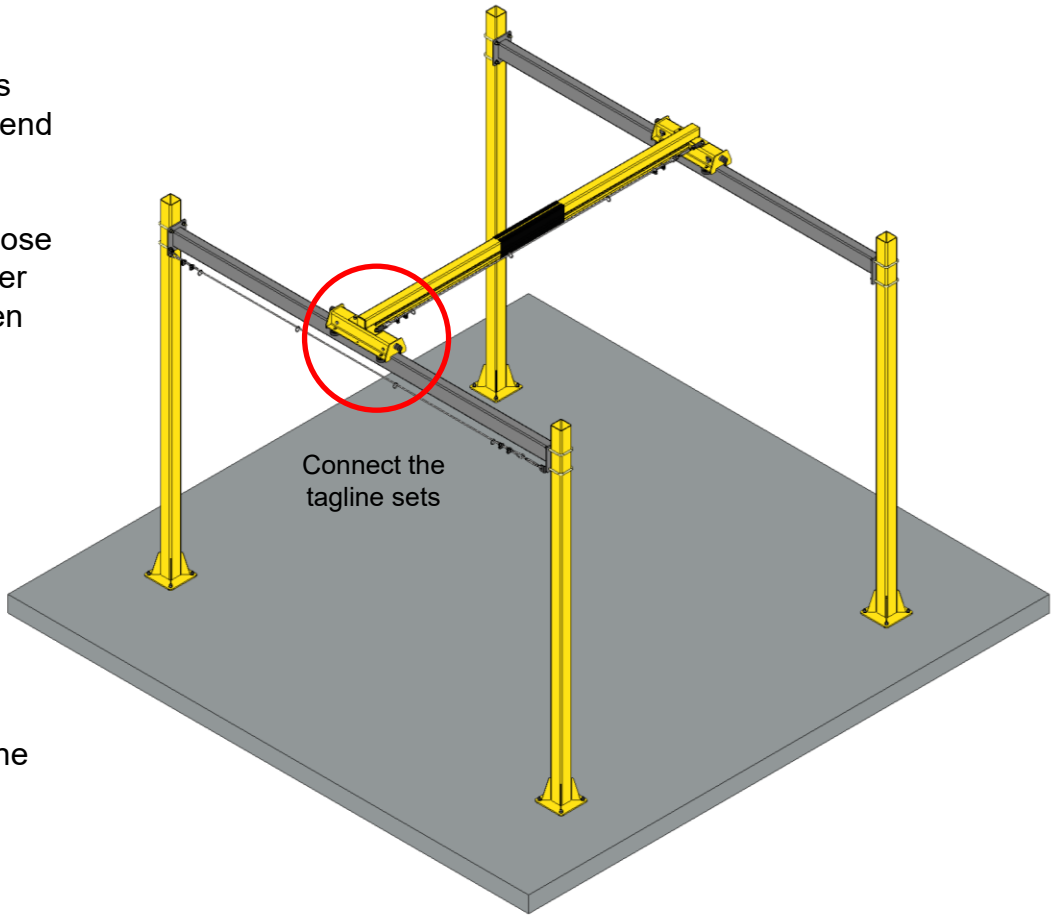


Image 5.16-17 *Connection*

Step 6. Bridge Installation On Runways

1. Lift your bridge with a suitable lifting device and place it on top of the runways. **(Image 6.1)**

2. Install the end truck bridge lock brackets using the provided hardware as shown. **(Image 6.2A & 6.2B)**

   WARNING: THERE MUST BE A MINIMUM OF TWO THREADS SHOWING AT THE END OF THE BOLT AFTER THE NUT IS INSTALLED AND TIGHTENED.

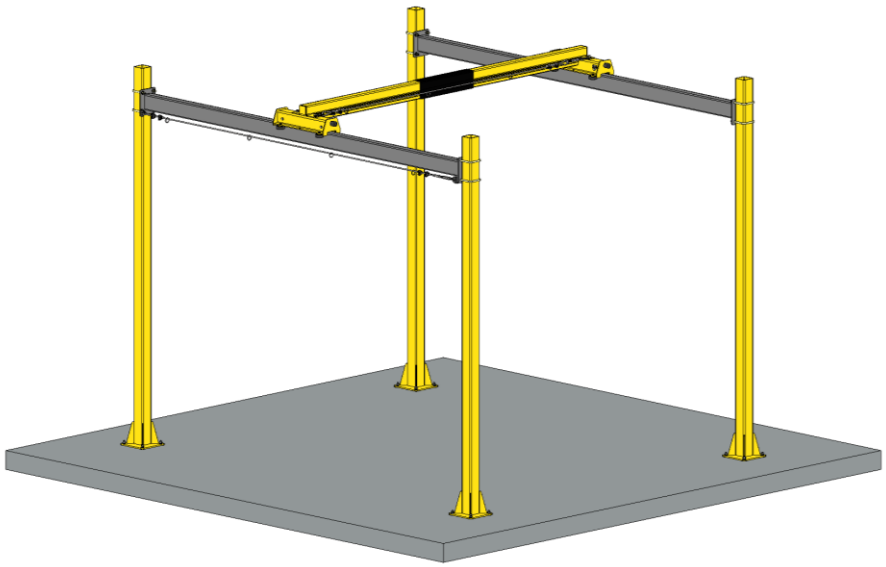


Image 6.1 *Bridge Placed*

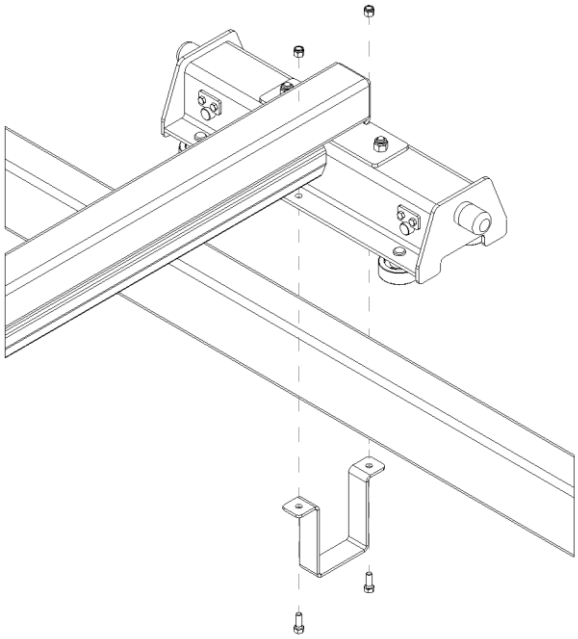


Image 6.2A *Lock Bracket Exploded View*

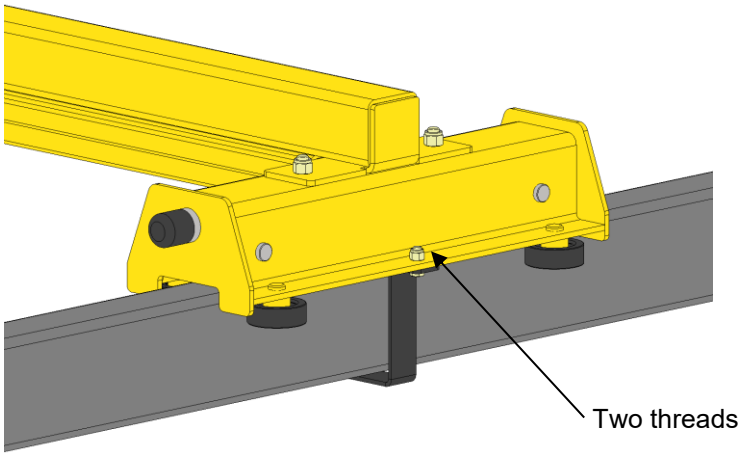


Image 6.2B *Lock Bracket Installed*

CRANE OPERATOR INSTRUCTIONS

1. **General:** At PWI, safety is our top priority, especially when operating overhead cranes and jib cranes in work areas where personnel are present. Proper training and attention to detail are essential to prevent accidents and ensure safe operation. These guidelines are designed to supplement your existing safety protocols and OSHA regulations, not replace them. Reviewing this information will help operators better understand safe practices, protecting both employees and equipment on the job site. It is important to note that these guidelines serve as recommendations for crane operators. Employers are responsible for ensuring their teams are aware of and comply with all relevant federal, state, and local regulations and that operators are adequately trained.

2. **Operator Qualifications:** Safe crane operation demands skill, attentiveness, and a strong commitment to safety. All crane operators should meet the following criteria:

    A. Language Proficiency: The operator must understand the appropriate language and be able to read safety and instruction materials.
    B. Legal Age: Operators must meet the minimum legal age requirement for operating such equipment.
    C. Health and Fitness: Operators must have sufficient vision and hearing (corrected if necessary) and must not suffer from health conditions, such as heart issues, that could impair performance.
    D. Training and Knowledge: Operators must have read and understood all operating instructions, completed proper training, and demonstrated their knowledge through practical application.

3. **Operating the Jib Crane Boom:**
    A. Before using the boom, ensure the hook is positioned high enough to avoid obstructions.
    B. Align the jib boom directly over the load before attempting to lift.
    C. Operate the boom gradually, starting slowly and increasing speed smoothly. As the boom approaches the stopping point, reduce speed to ensure a controlled stop.

4. **Operating the Trolley:**
    A. Position the hoist directly over the load before lifting. Ensure all slack in the slings is taken up.
    B. Avoid starting to lift until the hoist is properly centered to prevent the load from swinging.
    C. Start trolley motion at a slow speed and decelerate gradually when nearing the destination.

5. **Hoist Operation:**
    A. Refer to the operating manual specific to your lifting equipment for detailed instructions. Always follow the manufacturer's recommendations and guidelines for safe operation.

6. **Know Your Crane:** Crane operators must be familiar with the key components of a crane and possess a thorough understanding of crane control functions and movements. Operators must know the location and correct operation of the main disconnecting means for all power to crane attachments.

7. **Responsibility:** Crane operators bear direct responsibility for the safe operation of the crane. If there is any doubt regarding **safety**, the operator must stop the crane and refuse to handle loads until either:
    A. Safety is ensured, or
    B. The operator is directed to proceed by a supervisor, who then assumes full responsibility for the safety of the lift.

8. **Riding Policy:** Never allow anyone to ride on the hook or a load.

9. **Inspection:** At the start of each shift, test crane movements and all attachments. If an issue is identified, report it immediately to a supervisor, and ensure corrective action is taken before operating.

10. **Operating:** A skilled crane operator ensures smooth and controlled crane operation. Adhere to the following guidelines for safe and efficient crane handling:
    A. Move the crane smoothly to avoid abrupt or jerky load movements. Remove slack from slings and hoisting ropes before lifting.
    B. Position the crane directly over the load before lifting to minimize swinging. Avoid swinging loads to reach areas not directly beneath the crane.
    C. Keep crane-hoisting ropes vertical. Cranes must not be used for side pulls.
    D. Ensure the area around the load is clear, and everyone is aware of the movement.
    E. Never exceed the rated load capacity of the crane, slings, or lifting devices.
    F. Confirm slings, chains, or lifting devices are fully seated in the hook saddle with the latch closed (if equipped).
    G. Verify the load and/or block is high enough to clear obstructions when moving the boom or trolley.
    H. Do not leave a suspended load unattended. When holding a load, keep the power on and stay at the controls with the load positioned as low as possible.
    I. Do not lift with loose sling hooks. Store unused hooks securely or switch to an appropriate sling.
    J. Remove all slings or cables from crane hooks when not in use to prevent snagging.
    K. Avoid carrying loads or blocks over personnel. Exercise additional caution with magnets or vacuum devices, as load failure can occur.
    L. Operator Procedure when they leave the crane:
        a. Raise hooks to an intermediate position.
        b. Park the crane at a designated location.
        c. Turn all controls off.
        d. Shut off the main switch.
        e. Visually inspect the area before leaving.

11. **Emergency Procedures:** In emergencies or during maintenance, display warning signs and lock the main switch in the “off” position. This applies regardless of who is performing the task.

12. **End Stops**: Contact end stops cautiously. Ensure the safety of people below and communicate clearly with other crane operators in the area.

13. **Safety Features:** All safety mechanisms and features provided by PWI are essential for crane operation. Do not disable or remove any safety features. Any such actions void all warranties.

ANY SAFETY FEATURES AND MECHANISMS BUILT IN OR OTHERWISE PROVIDED WITH THE CRANE BY PWI ARE REQUIRED FOR THE SAFE OPERATION OF THE CRANE. DO NOT, UNDER ANY CIRCUMSTANCES, REMOVE OR OTHERWISE IMPAIR OR DISABLE THE PROPER FUNCTIONING OF ANY CRANE SAFETY MECHANISMS OR FEATURES BUILT-IN OR OTHERWISE PROVIDED BY PWI FOR SAFE OPERATION OF THE CRANE. ANY REMOVAL, IMPAIRMENT OR DISABLING OF ANY SUCH SAFETY MECHANISMS OR FEATURES OR OTHER USE OR OPERATION OF THE CRANE WITHOUT THE COMPLETE AND PROPER FUNCTIONING OF ANY SUCH SAFETY MECHANISMS OR FEATURES AUTOMATICALLY AND IMMEDIATELY VOIDS ANY AND ALL EXPRESS AND IMPLIED WARRANTIES OF ANY KIND OR NATURE.

➧ **TIP:** Do not throw away this manual: the maintenance schedule is included. Keep Packing List, Installation Manual, General Arrangement Drawing, and any other inserts filed together in a safe place.

GENERAL WARRANTY

This warranty will not apply to any product that has been repaired or altered outside of PWI manufacturing plant, or without specific instructions from PWI to make alterations. PWI will in no case, allow or offer reimbursement for outside sources to perform repairs or make alterations to product in reference. If the product has (in PWI's judgment), had alterations made which adversely affect its serviceability or was subject to misuse, negligence, accident, or operated contrary to instructions or common practice, warranty shall be considered void.

Defective items will be repaired or replaced and returned to PWI at the cost of the owner. If PWI, at its discretion, finds the warranty claims to be justifiable, PWI will compensate by means of replacing or repairing faulty products or components free of charge. The sole liability of PWI for warranty claims is limited to those here. In no event will PWI be liable for damages in excess of the original sale price of the defective product, or for any consequential damages, nor will PWI be liable for any special or other work done unless specifically agreed to in writing. This warranty does not include or apply to fire, natural disasters, or other Acts of God.

Should the warrantee destroy, intentionally or not, any part of the warrantied product, or any evidence concerning the origin of an alleged defect, or try to conceal evidence of causation, this warranty is cancelled, and warrantee will have no claim against PWI whatsoever.

This warranty does not cover coatings on any PWI products including paint, powder-coat, zinc, or galvanized coatings. Coating life can vary greatly based on the ambient environment your PWI product is installed in, which is simply out of the manufacturer's control. Touch-up painting or coating repair (after initial installation by PWI or customer) shall be the responsibility of the owner, unless specifically guaranteed in writing on project quotation.

Any interpretation of this warranty shall be done in common pleas court in Indianapolis under Indiana law.

ALL OTHER REPRESENTATIONS, EXPRESS OR IMPLIED, WARRANTY, OR LIABILITY RELATING TO THE CONDITION OR USE OF THE PRODUCT ARE SPECIFICALLY, DISAVOWED, AND IN NO EVENT SHALL PWI BE LIABLE TO BUYER, OR ANY THIRD PARTY, FOR ANY DIRECT OR INDIRECT CONSEQUENTIAL OR INCIDENTAL DAMAGES

LIMITED WARRANTY

STRUCTURAL: 3-Year (36 Month) Parts & Workmanship Warranty

Structural items include but are not limited to columns, headers, runways, and other stationary components of this PWI jib crane.

Unless otherwise specified, PWI guarantees that the structure or this product is free from material defects in design, materials, and workmanship under normal use, proper maintenance, and service. A corrosive or abrasive atmosphere is not to be considered a normal atmosphere.

This warranty is strictly limited to 36 months for single shift operation or 6,000 hours after installation, or 38 months after shipment, whichever is shorter. Within ten days after defect is found, warrantee must deliver a written notice to PWI. All requested warranty information must be received promptly by PWI in no more than 5 business days.

MECHANICAL: 1 Year (12 Month) Parts & Workmanship Warranty

Mechanical items include but are not limited to all types of Overhead Cranes, and other non-stationary PWI products that are designed for specific functional operation.

Unless otherwise specified, PWI guarantees that this mechanical product is free from material defects in design and workmanship under normal use, proper maintenance, and service.

This warranty is strictly limited to 12 months for single shift operation or 2,000 hours after installation, or 14 months after shipment, whichever is shorter. Within ten days after defect is found, warrantee must deliver a written notice to PWI. All requested warranty information must be received promptly by PWI in no more than 5 business days.

All standard non-engineered products including but not limited to hoists, trolleys, wheels, gearmotors, controls, and safety products, will fall under the default warranty of that specific manufacturer.

PERIODIC INSPECTION AND LUBRICATION RECOMMENDATIONS

The following is a checklist to be followed in performing periodic inspections and preventative maintenance on PWI Crane Systems. It is intended that this checklist be supplemented with any additional instruction sheets and maintenance manuals sent with each job.

The frequency of inspection and lubrication recommendations presented herein is based upon normal operating conditions of one complete handling cycle every 10 minutes throughout a 40-hour week. If the actual duty cycle of a particular unit is greater or less than this, the inspections and lubrications should be performed more frequently or less frequently in proportion.

Each industry has conditions peculiar to it, which may cause wear of certain parts. The tabulation given is only general and may be supplemented by an individual maintenance department program to meet its own particular requirements. Particular attention should be given to corrosive conditions, excessive vibrations, extreme ambient temperature variations, and rough handling conditions.

Questions regarding damaged, worn or cracked equipment components should be directed to the PWI Inside Sales Department at 574-646-2015.

The recommendations contained herein are to be supplemented by any vendor instructions, which are included in this manual.

Power should be off and locked when performing maintenance.

Please check the state and local code manuals in your area to ensure compliance

Parts: Your system is custom designed for your space. The drawings that you received are specific to your system. PWI has copies of your drawings in a file under the company name or the name of the purchaser. If you require replacement parts, please call or email PWI and we will be glad to assist you in getting what you need. parts@pwiworks.com

RUNWAYS & SUPPORT STEEL

COMPONENT	MAINTENANCE	FREQUENCY
Header-Column Hardware	Check for loose bolts & cracked fittings. Check for full compression of lock washer. Bolt should be tightened to manufacturer's specifications.	Every 1,000 hours or 6 months
Header-Runway Hardware	Check for loose bolts & cracked fittings. Check for full compression of lock washer. Bolt should be tightened to manufacturer's specifications.	Every 1,000 hours or 6 months
Column Anchoring	Check for loose bolts & cracked fittings.	Every 1,000 hours or 6 months
Sway Brace Connection (If used)	Check for loose bolts & cracked fittings.	Every 1,000 hours or 6 months
Runway	Check for runway wear or damage.	Every 2,000 hours or yearly
Joints	Check for loose or worn hardware or if welded type, for incipient cracks. Check for runway alignment and that wheel rolling surface is flush.	Every 2,000 hours or yearly
End Stops	Check for loose bolts and for incipient cracks.	Every 2,000 hours or yearly
Paint	Clean periodically and repaint where corrosion is present.	Every 2,000 hours or yearly

BRIDGE

COMPONENT	MAINTENANCE	FREQUENCY
Controls	Check for burned contacts, broken shading coils, worn or cracked arc barriers, auxiliary contacts, and proper seating.	Every 1,000 hours or 6 months
Push Buttons & Pendant	Check contacts. Tighten leads. Check for sticking buttons. Check ground wire continuity. Check pendant cable top and bottom for broken wires. Check strain chain to see that any pulling force is not put on pendant cables.	Every 1,000 hours or 6 months
Bridge Girder	Check Bridge Girder for wear or damage.	Every 2,000 hours or yearly
End Stops	Check for loose bolts and for incipient cracks.	Every 2,000 hours or yearly
Paint	Clean periodically and repaint where corrosion is present.	Every 2,000 hours or yearly

END TRUCK, & HOIST TROLLEY

COMPONENT	MAINTENANCE	FREQUENCY
Structural Frame & Load Bars	Check for incipient cracks in welds and castings. Check for loose bolts.	Every 2,000 hours or yearly
Suspension Point	Check for wear and loose or missing screws or pins.	Every 150 hours or 1 month
Wheels & Guide Rollers	Check for loose wheel bearings. Check wheels for proper contact and tracking on rail. Check wheel diameter for wear (Replace when 1/4” under original diameter). Check axle nuts for tightness.	Every 500 hours or 3 months

FESTOON ELECTRIFICATION

COMPONENT	MAINTENANCE	FREQUENCY
Connections	Check connections to ensure no wires are worn and no conductors are exposed.	Every 150 hours or 1 month
Insulation	Check to ensure no damage is visible.	Every 2,000 hours or yearly
Complete System	In environments that are subject to considerable buildup of dust, especially conductive dust, remove this dust by brushing.	Every 2,000 hours or yearly

STARKE ELECTROTRACK

COMPONENT	MAINTENANCE	FREQUENCY
Rail	Check for corrosion, bowing, or sagging. Check alignment at moving gaps. Realign if necessary.	Every 2,000 hours or yearly
Couplings	Check bolt or screw tightness. Check for corroded contact surfaces.	Every 2,000 hours or yearly
Supports	Check for loose bolts and/or screws and bent brackets.	Every 2,000 hours or yearly
Insulators	Check for loose bolts, sheared support ears, current carrying deposits on surface.	Every 2,000 hours or yearly
Rail Covering	Check for accidental abrasion and peeled covering.	Every 2,000 hours or yearly
Current Taps	Check bolt and terminal screw tightness. Check for corroded contact surface.	Every 2,000 hours or yearly
Ground	Check for ground continuity. Check at load side of disconnect switch (current off), with meg-ohm tester, for overall system insulation resistance.	Every 2,000 hours or yearly
Collectors	Check for worn shoes. Check flexible leads from wheel clevis pigtail or slide shoe shaft. Check tightness of lead connections. Check for cracked insulators. Replace if necessary.	Every 750 hours or 4 months

HOIST (Refer to Hoist Manufacturer)

Notes