

Panel Jack™ Pro System

BRACING, ALIGNMENT
AND SCAFFOLDING EQUIPMENT

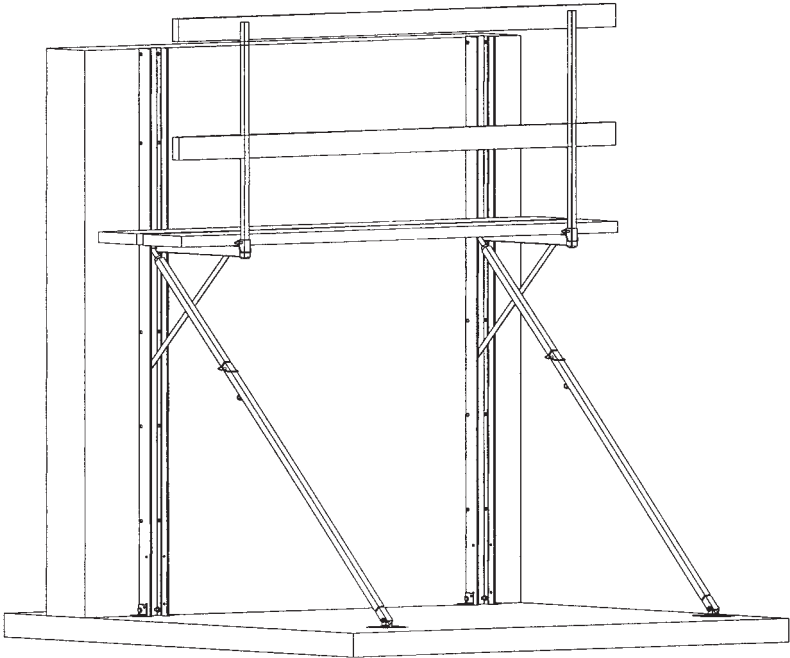


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Product Overview

Panel Jack Pro System is a product designed for use in insulating concrete form (ICF) wall forming applications.

The system provides support for builders at the required heights necessary to construct and fill the ICF form cavity with concrete. It also braces the wall unit until it has cured and provides the means to plumb and align the wall before the concrete sets.

Utilizing the **Panel Jack Pro System** allows the contractor the means to build ICF walls fast and straight, while ensuring a safe work environment and providing a professional job site appearance.

Performance and Specific Requirements

The **Panel Jack Pro System** is designed for use within an excavation or at grade level to support people in winds up to 40 mph. Any other use is not recommended and is at the users own risk.

Requirements identified in this manual represent the minimum requirements, the user is responsible to research and give precedence to federal, state and local codes and special site conditions.

Spacing of the bracing product should be determined by the installing contractor in accordance with federal, state and local codes for wind bracing and scaffold. The maximum spacing for each **Panel Jack Pro System** product is not to exceed 7 feet (6' recommended).

Scaffold planking and handrail materials should be:

American – Number 1 Southern Pine or Douglas Fir.

Approved laminated structural or manufactured planks and stages are recommended.

Anchoring of components is paramount to the performance of the system, specific to each site, and is the responsibility of the installing contractor to meet the following minimum requirements of a safe working load. See engineering requirements on page 8.

The duty rating for each **Panel Jack Pro System** is 300 lbs. each or 2 people per span plus materials including forms and rebar sufficient for three courses.

Relevant Codes and Standards

The user is responsible to review and apply the requirements of federal, state and local regulations for wind bracing and scaffolding as defined by the above code agencies. The **Panel Jack Pro System** is designed to be in compliance with all applicable OSHA scaffold standards.

This system is also engineered to meet the specific performance demands listed in this manual. All manufacturing processes are subjected to our in house inspection policy to insure the delivery of quality products void of manufacturing defects.

Component Description

Careful consideration has been given to the variety of applications that job site conditions and wall forming create to develop a product well suited for the intended use.

The basic system is represented by the following fundamental components:

- **Strongback** – The main vertical component of the system is a 6005 T-5 extruded aluminum channel intended to be secured to the footing or slab at the base of the wall and to the wall forms through the provided 1 ½ “ x 3/16” slots at two points per course. Use #10 screws to fasten the strongback to the ICF form. Through holes (21/32) drilled 12” on center provide the means for independently mounting the platform bracket and/or the diagonal turnbuckle brace to the strongback channel through the use of the provided 9/16” x 6” zinc plated HR pin held in position with a clip. The base of the strongback consists of two removable aluminum clips drilled for anchoring the strongback.
- **Diagonal Turnbuckle Brace** – The diagonal component of the system has three fixed adjustment positions to accommodate the 96”, 108”, 120” and 144” systems. These fixed adjustment positions place the platform bracket between 32” and 48” below the top of the wall. The diagonal turnbuckle brace can be placed at different angles to accommodate irregular excavation elevations. In addition, 6” of fine adjustment can be achieved twisting the turnbuckle brace. Approximately 2” of the threaded portion of the screw should be visible to ensure equal push and pull of the wall. A swivel foot assembly is mounted at the base of the diagonal turnbuckle brace and provides 25 square inches of surface area to support the loads. The base plate is equipped with holes sufficient to anchor the diagonal turnbuckle brace to soil or secure it to the footing, slab or intermediate floors. There is one 7/8” diameter hole and four ¼” holes per base plate.
- **Platform Bracket** – the platform bracket is a fixed position bracket designed for strength and durability. The platform bracket incorporates a 9/16” diameter hole to provide secure attachment of the platform bracket to the strongback through the corresponding holes provided in the strongback. The platform bracket is designed to accept two 2x10 scaffold planks and a 1-inch toeboard. Use two #10 x 3” wood screws to secure the overlapping planks together. An optional vertical handrail support accommodates 2 x 4 top rail, midrails and toeboards. ¼” holes are provided in the support brackets to secure the handrails in place. Handrails should be mounted in the inside of the scaffold work surface.
- **Mounting Hardware** – All mounting hardware or fasteners supplied with the system are SAE grade 2 and 9/16” HR zinc plated mild steel.

Preliminary Considerations of Use

- Review plans to determine the number of bracing units required for the project by starting with a bracing unit in the corner.
- Maximum spacing of the brace is 7 feet (6" recommended).
- Do not reduce the number of bracing units relative to the door or window openings. Instead, use additional bracing units to insure adequate support and ability to control the wall in areas where voids may occur.
- The bracing unit locations should be centered relative to the overall length of the wall, but offset relative to the changes in the direction of the wall. For example, at outside corners the first bracing unit in each direction should be located as close to the corner as form tie spacing will allow. Bracing on the inside corners a distance of not less than 27" is required for the clearance of platform bracket and planking.
- For longer and taller walls, bracing on both sides of the wall is recommended.

NOTE: WOOD BRACING FROM THE GROUND TO THE UNDER-SIDE OF THE PLANKING WILL BE REQUIRED AT THE CORNERS TO SUPPORT PLANKING OVERHANG.

Practical Use

Prepare the layout of the excavation, footings and wall form location in accordance with the wall designer and ICF installation procedures.

Gather the bracing components within the perimeter of the wall. Ensure that the diagonal turnbuckle braces are set to the fixed adjustment position relative to the intended height of the wall and that the fine adjusters are set to allow equal in and out adjustment of the wall after concrete is placed.

Install a minimum of three courses of ICF forms before erecting the bracing system.

Locate the positions for the bracing units at the base of the wall and center them on the form ties.

Stand the strongback in position and secure it to the footing.

Using two #10 pan head wood screws per course of block, secure the strongback to the ICF forms by screwing into the form ties through the slotted holes in the back of the strongback. The screws should be located at the **Top Of The Slot**. Tightened to allow full compression of the form interfaces, but not allowing the form to float upwards.

Fasten the top of the Diagonal turnbuckle brace and platform bracket by using the 6" pin and keeper pin. Attach the brace and platform bracket assembly to the strongback at the appropriate height location relative to the height of the wall being formed. Refer to the **Panel Jack Pro System** drawings in the back of this user manual. Hold a level held parallel to the strongback at eye-level and bring the strongback to within 1.5 degrees of plumb with the wall leaning in towards the perimeter and anchor the base of the diagonal turnbuckle brace. During this process it may be necessary to adjust the angle of the

brace relative to the strongback or even to readjust the fixed position to suit the excavation.

Once all of the strongback and platform bracket and diagonal brace assemblies have been erected, planking can be set in place to continue erection of the wall.

As each consecutive course is set in place, ensure that a minimum of two screws per course is used to secure the strongback to the form units.

As the form stacking approaches the intended wall height, the planking can be moved up to the final position with the planking and handrails in accordance with all applicable codes, and the final course erection and preparations to pour the walls can be completed.

OSHA requires scaffolding; handrails and toe board if the workers feet are 6' or more off the ground. Once the erection is complete, do a final check of the vertical condition of the wall. Ultimately, a slight inward tilt allows for the easiest plumb adjustment after the pour.

Once the wall has been poured, final plumb and alignment adjustments can be made using the fine adjustment of the individual diagonal turnbuckle braces in conjunction with alignment and plumbing measures taken during the process.

Do not remove the bracing or backfill until the wall has reached sufficient cure in accordance with the wall designer's direction, and intermediate floor and/or roof diaphragm have been installed.

Handling and Maintenance

With and emphasis toward performance, value and ease of use, the materials used in the **Panel Jack Pro System** are the strongest, most lightweight and user friendly we could design. The painted parts of the product are finished by electrostatic coating to provide excellent durability and corrosion resistance. Reasonable handling and maintenance will result in years of dependable service. Primary maintenance consists of periodic lubrication of the fine adjustment threaded portion at the top of the Diagonal Turnbuckle Brace and at the swivel at the bottom of the Diagonal Turnbuckle Brace.

WARNING! FAILURE TO READ AND FOLLOW ALL INSTRUCTIONS MAY RESULT IN SERIOUS INJURY OR DEATH. INSPECTION: Inspect unit for damage before each use. Never use unit if parts are missing, cracked, bent or after being exposed to any corrosive agent. Label the unit "Dangerous – Do Not Use" and discard, or call manufacturer. Handle all units with care. **SET-UP AND USE:** Do Not Exceed the duty rating of this unit. The maximum safe weight load for each unit is 300 pounds. Over loading could cause serious injury or death. Place the unit on a firm surface where footing is solid, rigid and capable of carrying the maximum intended load without slipping. Do not place the unit on snow, ice, loose gravel, mud, leaves or other slippery surfaces. Be sure the vertical strongback channel, foot and base clips

are properly secured to avoid slipping. Do not place boxes, ladders or other scaffolding on top of the plank to gain additional height. This unit **IS NOT** to be used independent of a rated plank or stage. Be sure all locking devices are secure. Do not use the unit beyond a plank height of 20 feet off the ground or floor. Be sure the plank or stage is supported a minimum of 12 to 18 inches on each end. The recommended spacing for the unit is 6 feet not to exceed 7 feet. Never set the units in front of unlocked doors or in other locations where the units could be bumped or kicked. Barricades must be used where necessary. Do not apply side loads to the unit or plank. Never pull or push anything while working on the units. Do not use the unit without an appropriately rated scaffold plank or stage. **DANGER!** Aluminum conducts electricity! Keep unit away from uninsulated electrical circuits and wires. Use extreme caution when working near electrical wires. Failure to comply may result in serious injury or death. Maximum scaffold height: 21 feet. **SECURLY ENGAGE ALL LOCKS AND BOLTS BEFORE CLIMBING.** Be sure to use fall restraint devices as prescribed by local, state and federal authorities. Failure to comply with all local, state and federal requirements may result in serious injury or death. Never drop or apply an impact load to the unit. Do not use the unit if you are not in good physical condition or are under the influence of any substance (including prescription medicine) that may impair your ability to use the unit properly and safely. Do not leave the unit set up when unattended. Do not use in high winds. Keep your body center in the work platform. Do not overreach. Never hoist anything from the scaffold plank. Do not bounce or run on the scaffold plank. Keep the unit clean and free of all foreign material. Do not store any material on the unit. The units should be properly supported and secured during transport. Always store in a clean, dry place. **WARNING:** All accessories must be installed in accordance with the manufacturers recommended procedure. This product **MEETS OR EXCEEDS ESTABLISHED OSHA REQUIREMENTS.**

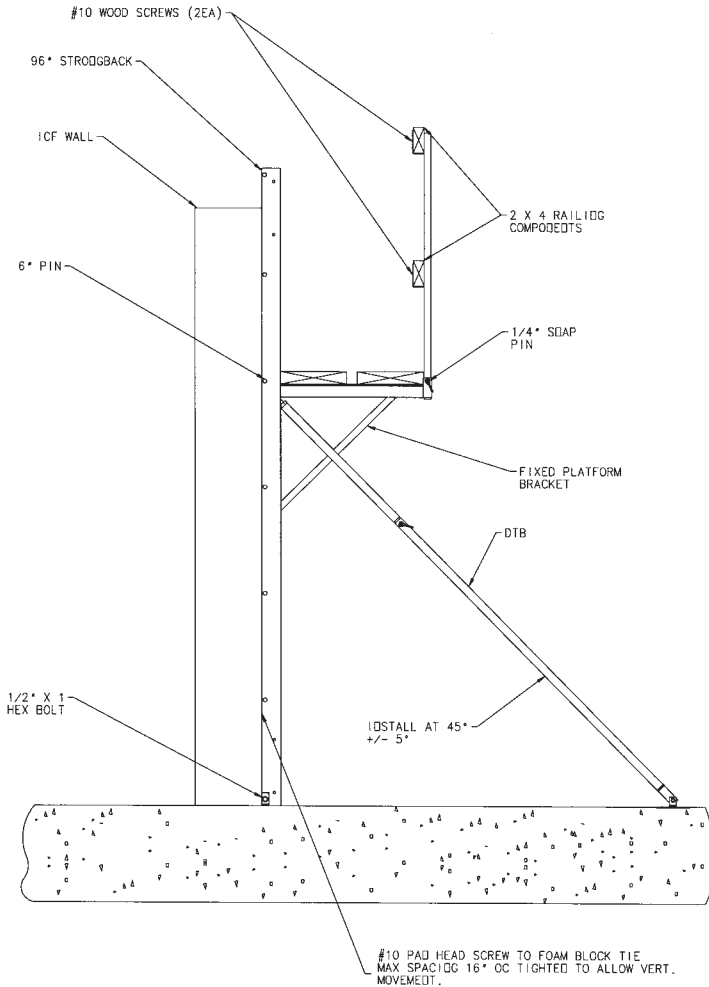
Wind Resistance

The **Panel Jack Pro System** is designed and engineered to resist wind loads from winds of up to 40 mph. Normal construction limits the potential wind resistance to that which foundation resistance will allow.

When used to provide wind bracing where the strut is staked to soil, the brace unit shall be installed on two sides of the wall. The mass of normal strip footings available to resist wind uplift limits safe occupancy of the scaffold to concurrent winds of 40 mph. Where scaffold members are anchored to soil, at wind speeds in excess of 40 mph the scaffold should be abandoned.

Where the competent founding materials are available to develop anchor loads, the brace may be installed on one side only.

Application and Design



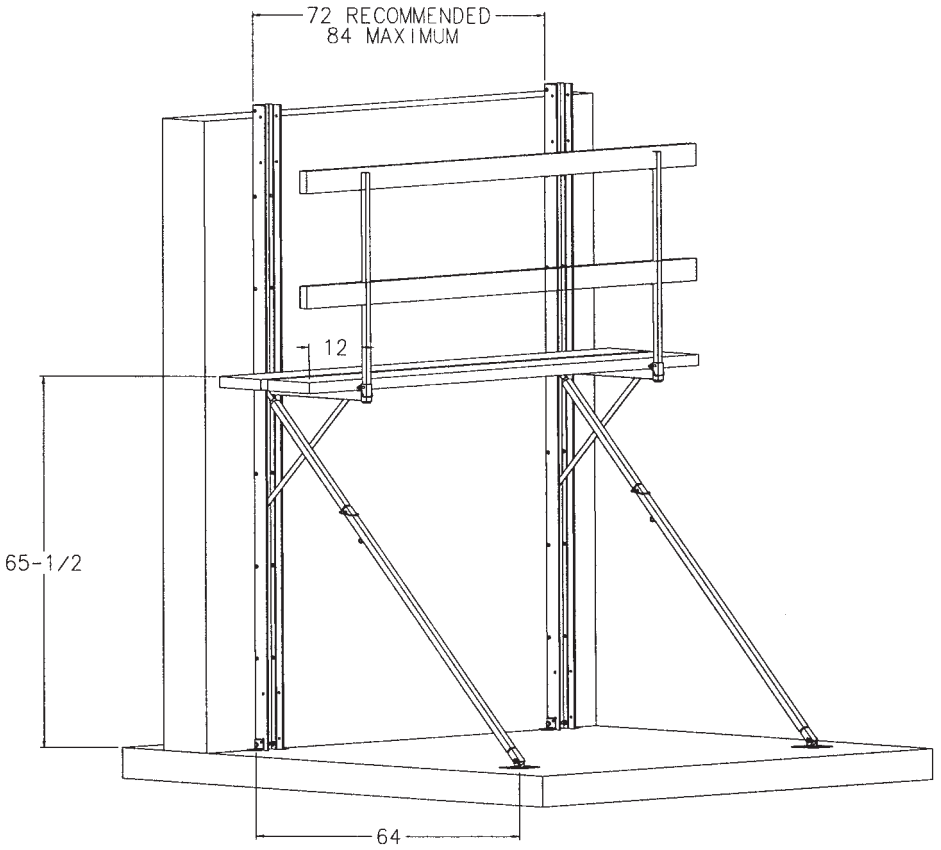
Design Standards

The **Panel Jack Pro System** is designed to meet ASD and Aluminum Design Manual 2000 requirements when installed as indicated.

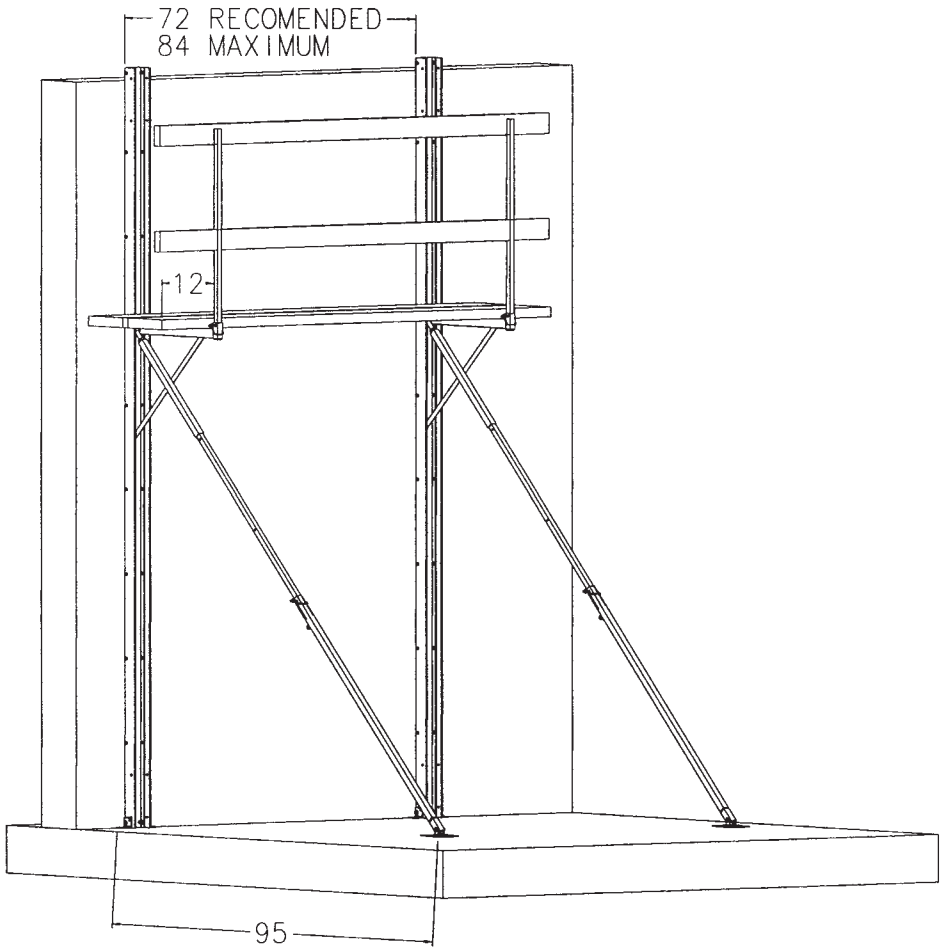
The **Panel Jack Pro System** is designed to withstand a 40 mph wind.

The manufacturer has given the **Panel Jack Pro System** a 300 pound working load limit per unit. In compliance with the Occupational Safety and Health Administration (OSHA) a safety factor of 4 has been met under a controlled test environment.

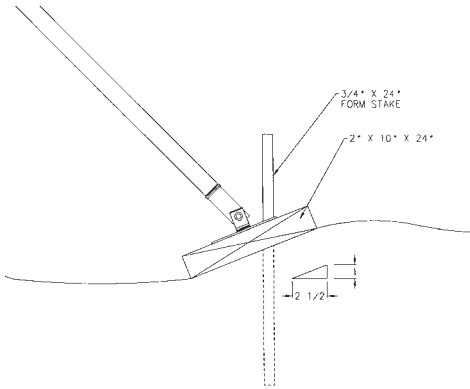
96" Panel Jack Pro System



144" Panel Jack Pro System



Anchoring Detail



Anchoring Adjustable Brace To Soil

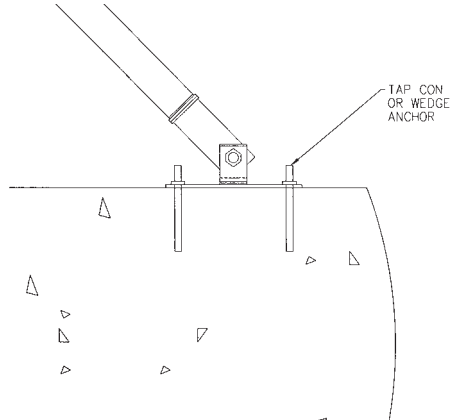
Prepare sill to support strut base plate.

Except in dense soils, provide bearing planks to support strut loads. Planks shall be 2 x 10 (nominal) in cross section and 24" minimum in length supported on mud sills and securely staked to ground.

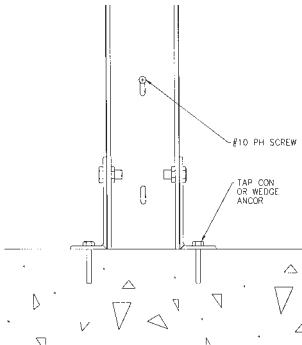
Anchoring Adjustable Brace To Concrete Slab

Provide two anchors at leading edge. Each anchor to have a safe working rated resistance of 400# in pullout and shear.

Scaffold may be used to resist wind on the scaffold side of the wall. Provide two anchors at trailing edge when used to resist wind in two directions.



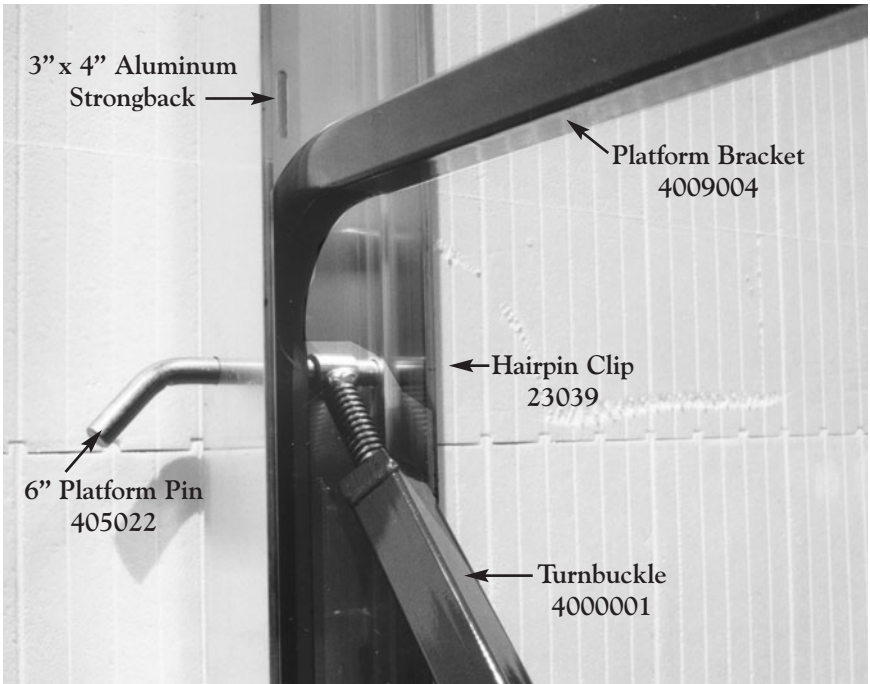
Base must have sufficient mass to prevent uplift of 1000# and similar loads.



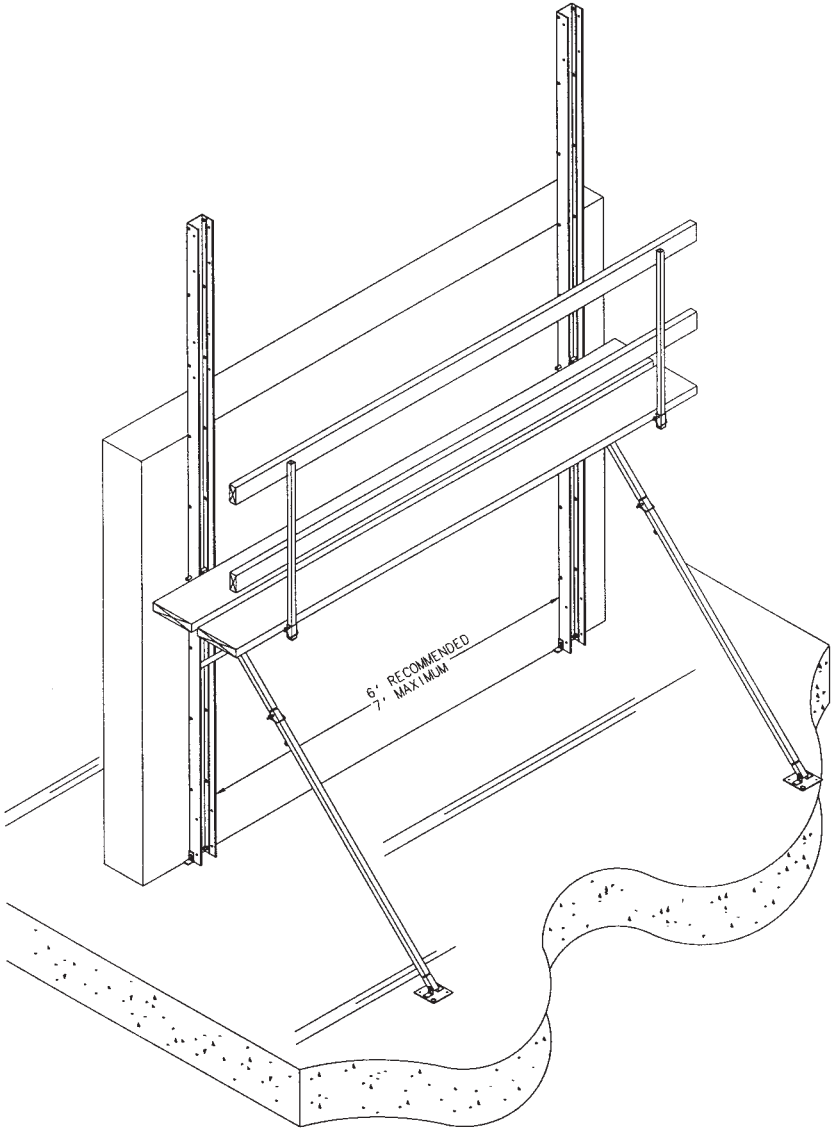
Strong Back Anchor

Provide two anchors at base. Each anchor to have a safe working rated resistance of 400# in pullout and shear.

Assembly Detail



Spacing Set-Up Detail



Accessories



4003028 Strong Back Extension Coupler with Hardware

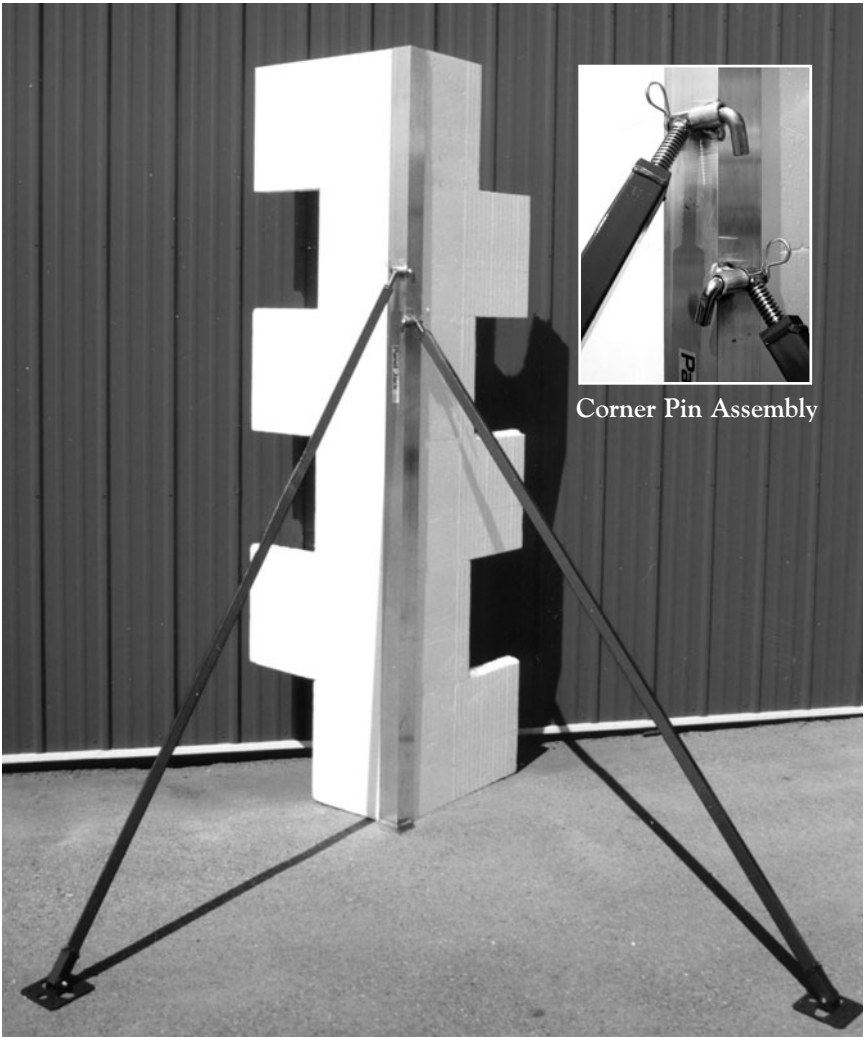
Accessories



16', 20', 24'
Tallwall System



5' Midspan Brace



Corner Pin Assembly

8', 10', 12' Outside or Inside Corner Brace

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