SureBuilT
Concrete Forms & Accessories

SoloForm™ Application Guide

MADE IN USA

General Safety

Concrete Placement Safety

The Solo Form System is designed to withstand up to 1500 pounds per square foot as defined by ACI- 347. There are a number of factors that contribute to concrete pressure, none of which are under the control of Surebuilt. Concrete pressure is impacted by temperature, rate of placement, vibration methods, re-vibration, density, cement slump and admixtures.

Exceeding formwork designed pressures will result in damage to rental equipment and potential formwork failures. Formwork failures can result in injury, loss of life, loss of time and loss of money. Immediately following concrete placement, an effort should be made to clean concrete spillage from the formwork before it sets. This will greatly increase crew productivity and reduce cleaning charges.

Stripping and Dismantling Formwork

Concrete formwork and/or shoring should not be stripped until the concrete has reached the proper design strength as specified by the contract documents or until the fresh concrete can sustain itself. Never attempt to break the bond between the concrete and the formwork with a crane. Attempts to break the bond with a crane may result in serious injury. The bond between the concrete and formwork should be broken by use of pry bars and wedges.

When dismantling formwork do not drop components or accessories from above. Place all panels, fillers, hardware and accessories in logical groups for easy transportation to the next location. Make sure careful attention is paid to how the dismantling operation impacts adjacent formwork. Unsecured formwork can fall and cause serious injury.

Climbing Rods

Climbing rods are standard on all 08'x08', 04'x08', 30", and 24" wide panels. The climbing rods provide not only a great source for climbing the formwork, but they also exceed the required OSHA standard for fall protection. Prior to climbing the formwork, job site personnel must ensure that the formwork has been properly erected and secured. The formwork must be braced to resist any and all loads associated with wind and live load produced by job site conditions.

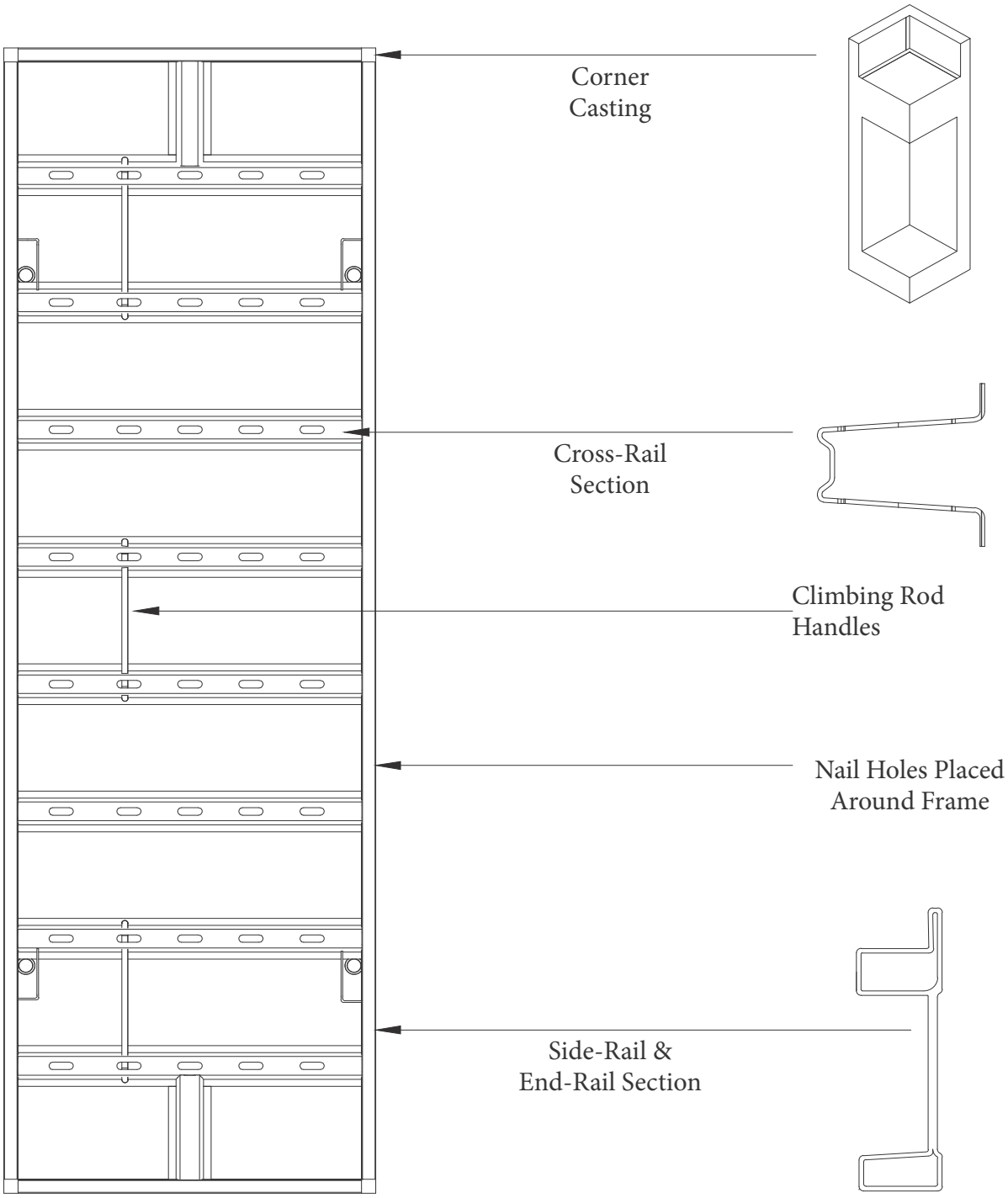
Transportation and Handling

The Solo Form System will be shipped to your job site in panel stacks of (10), which are banded together with nylon strapping. Careful consideration should be given prior to removing the banding, as uneven job site conditions will result in form movement once the banding has been removed. Panel stacks can safely and easily be moved by use of choker straps. These straps must have a safe working load of 1,500 lbs and an ultimate capacity of 7,500 lbs.

Note on Staging Returns:

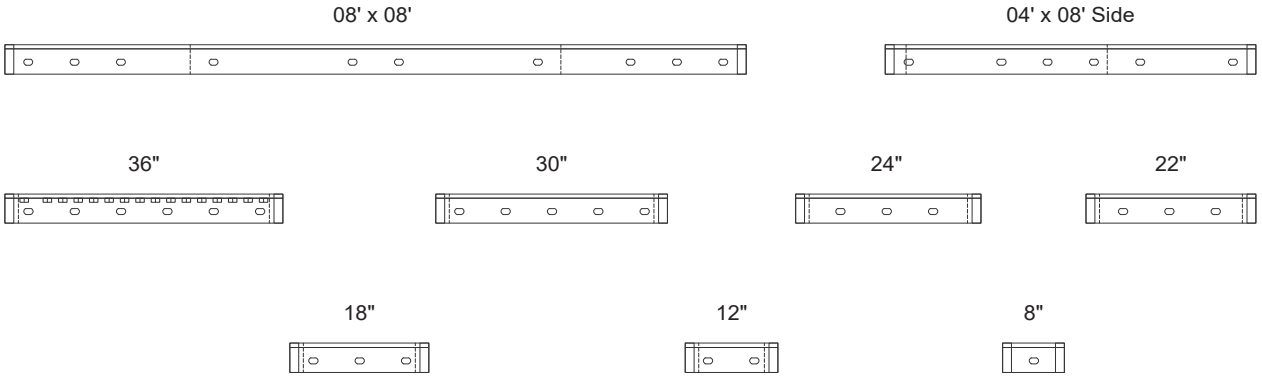
Equipment should be cleaned & treated with formwork release prior to staging. Panels and fillers should be staged in stacks of (10) & banded together with nylon strapping. Accessories and hardware should be segregated and returned as they were shipped to the project. Steel banding is not permitted and will severely damage the formwork panels.

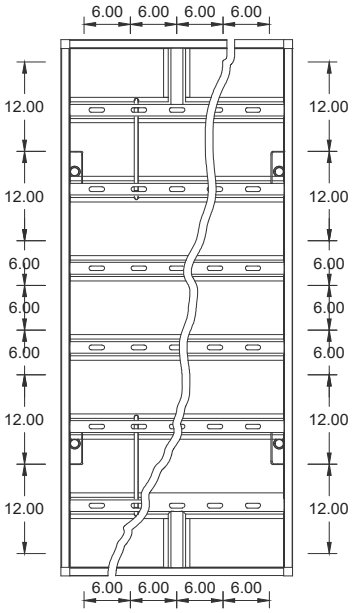
Solo Form System



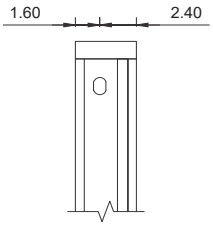
Panel Features

End-Rails

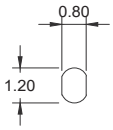




Standard Nail Hole Locations on Panels

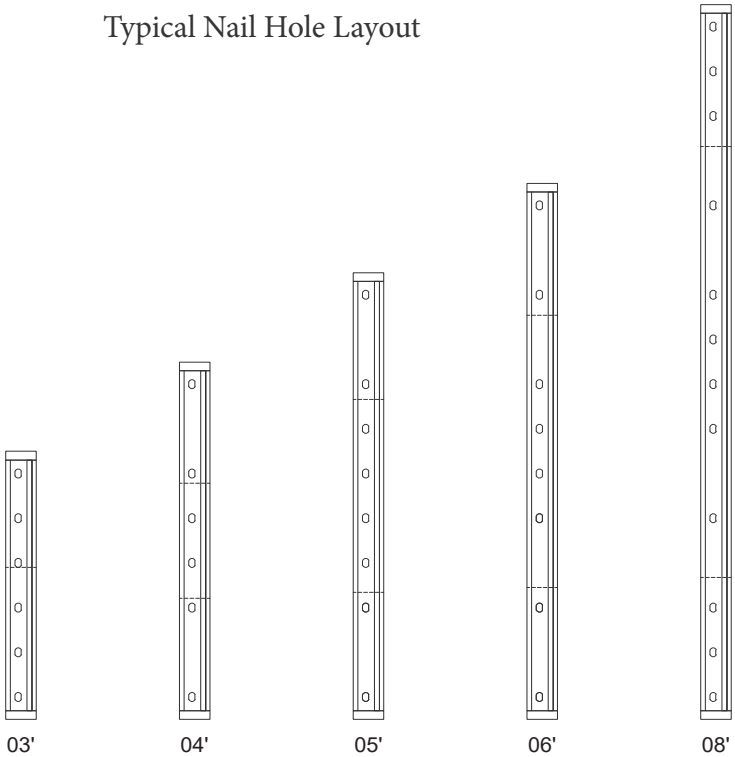


Typical Nail Hole Layout

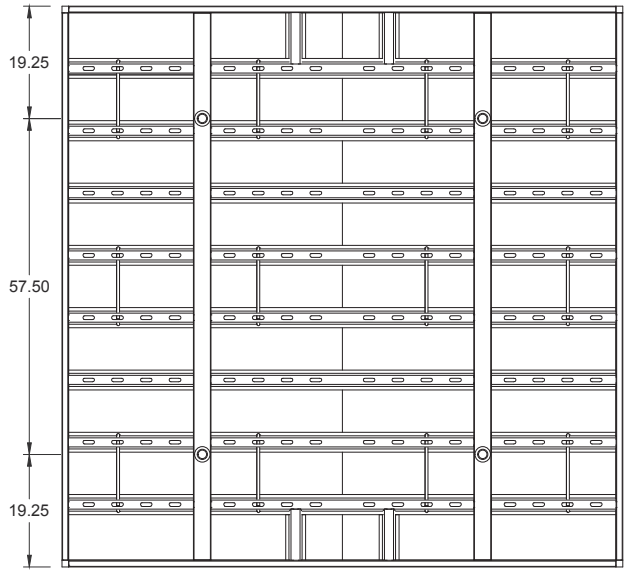


Standard Side-Rail Slots

Side-Rails

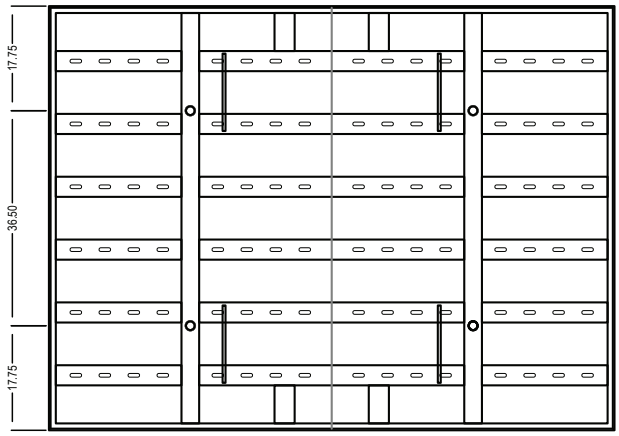


Large Panels



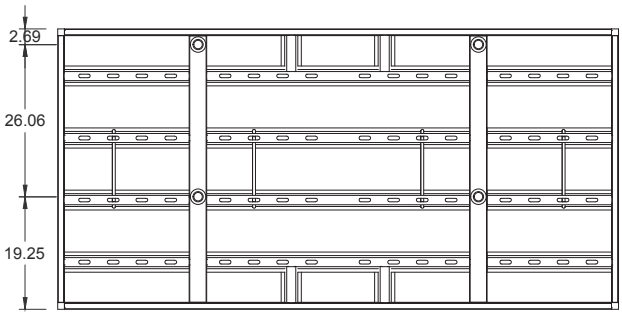
8’-0" x 8’-0"

SBSFP0808-G



6’-0" x 8’-0"

SBSFP0608-G

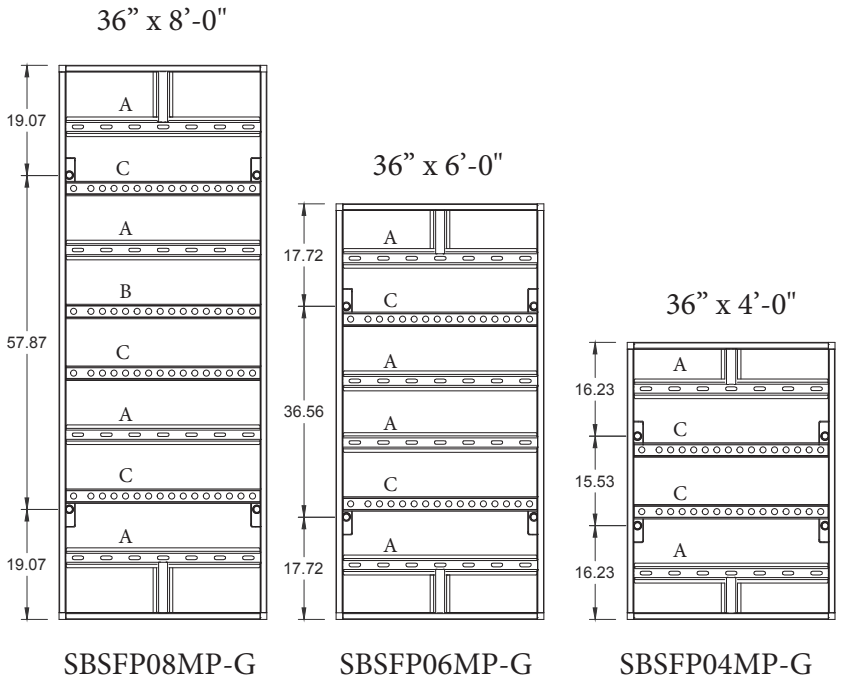


4’-0" x 8’-0"

SBSFP0408-G

Multipurpose Panels

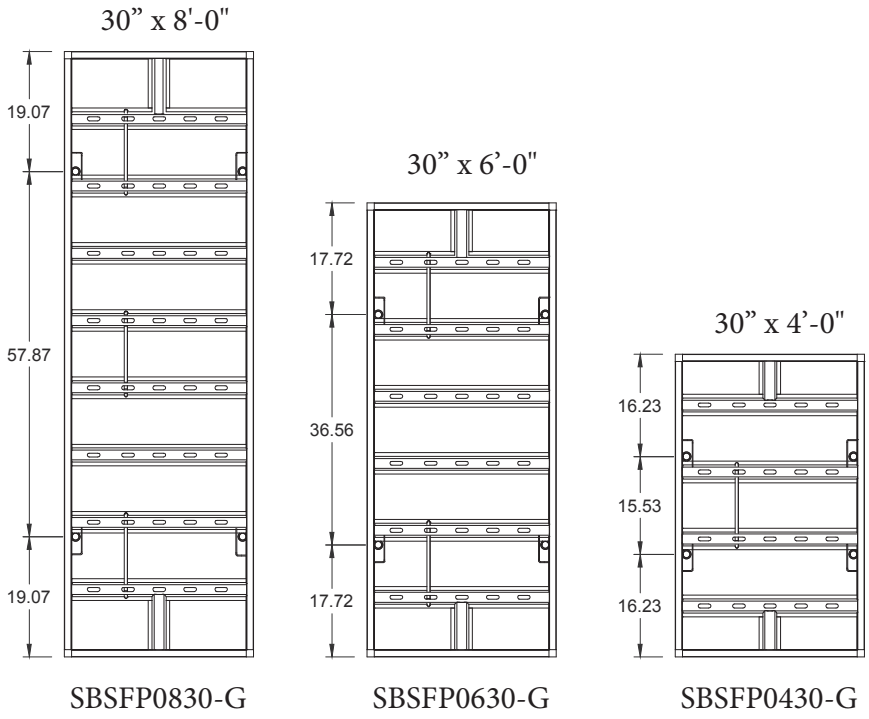
A - Cross member slot hole only
B - Cross member round hole only
C - Cross members round hole and drill wood holes, and plastic plugs



SBSFP08MP-G SBSFP06MP-G SBSFP04MP-G

Special Sizes by Request

30” Standard Panels

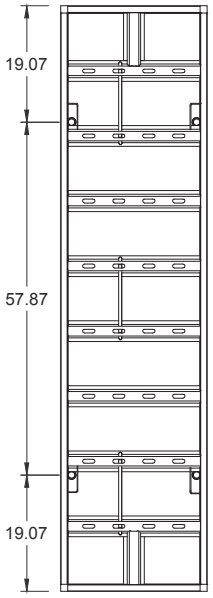


SBSFP0830-G SBSFP0630-G SBSFP0430-G

Special Sizes by Request

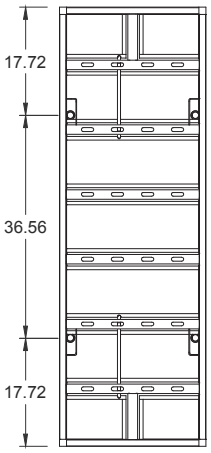
24” Standard Panel

24” x 8’-0"



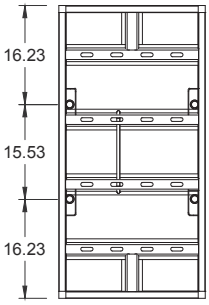
SBSFP0824-G

24” x 6’-0"



SBSFP0624-G

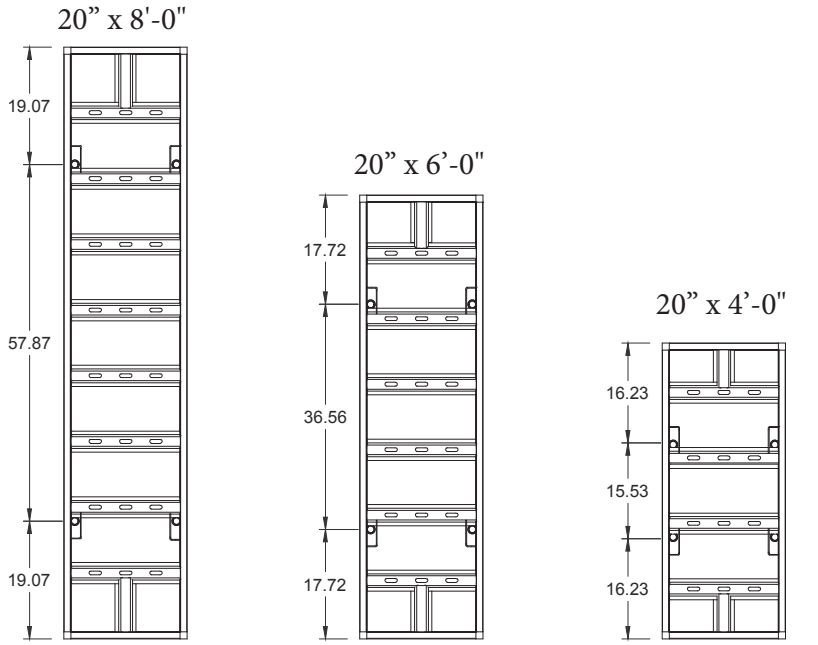
24” x 4’-0"



SBSFP0424-G

Special Sizes by Request

20” Panel - Purchase Only

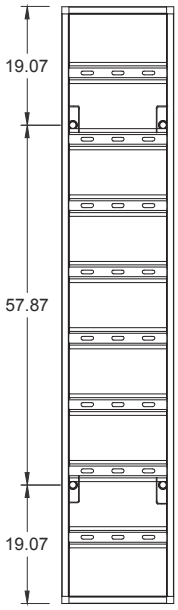


SBSFP0820-G SBSFP0620-G SBSFP0420-G

Special Sizes by Request

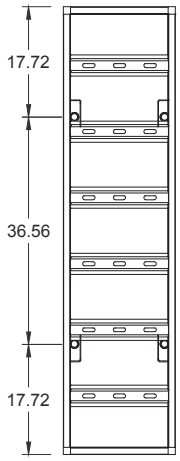
18” Standard Panel

18” x 8'-0"



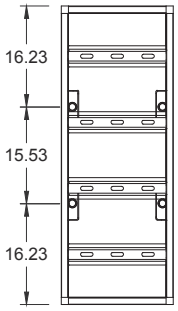
SBSFP0818-G

18” x 6'-0"



SBSFP0618-G

18” x 4'-0"

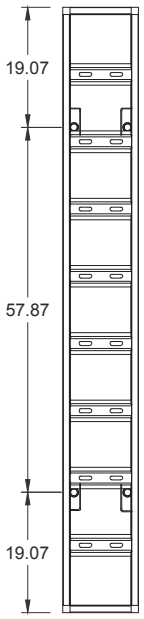


SBSFP0418-G

Special Sizes by Request

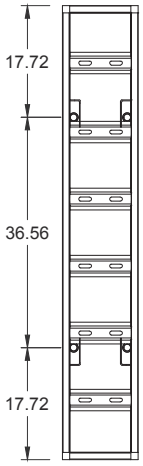
12” Standard Panels

12” x 8’-0"



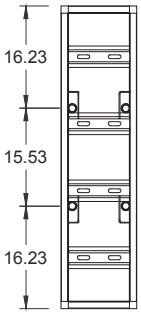
SBSFP0812-G

12” x 6’-0"



SBSFP0612-G

12” x 4’-0"

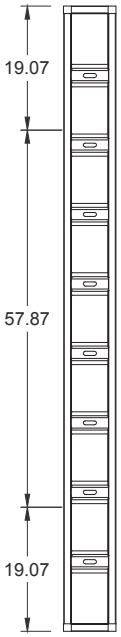


SBSFP0412-G

Special Sizes by Request

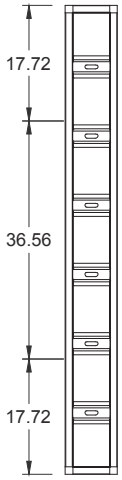
8” Standard Panels

8” x 8’-0"



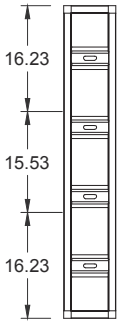
SBSFP8008-G

8” x 6’-0"



SBSFP6008-G

8” x 4’-0"



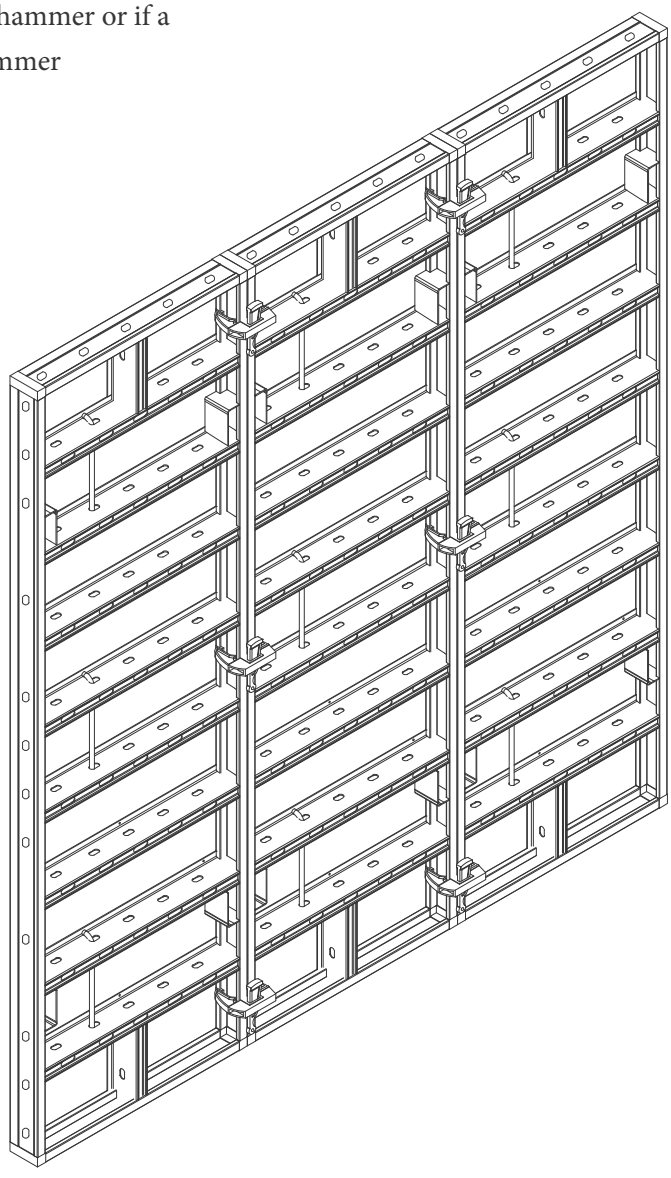
SBSFP4008-G

Special Sizes by Request

Assembling the Forms

The Solo Form Wedge Clamp and the Solo Form Adjustable Wedge Clamp are simple to use and properly align panel joints in a single hammer blow. The patented formwork profile and patented wedge clamp are designed to both join and align the formwork joints in all directions.

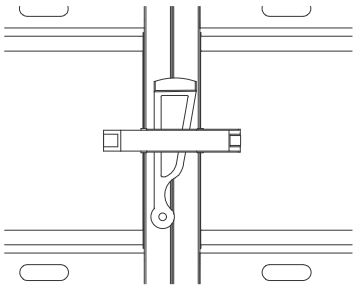
Pay careful attention to use appropriate tools when engaging clamps and aligning formwork. Damage will result if the frame profile is struck with a hammer or if a clamp is repeatedly struck with a hammer. The maximum size hammer allowed for clamp connections is 28 oz.

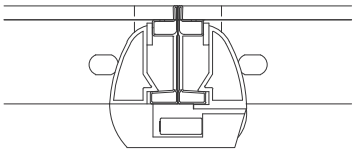


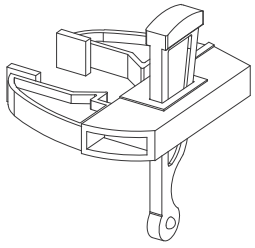
Standard Clamp Requirements

VERTICAL Panel Joints	
Form HEIGHT	Number of Clamps
9’ - 0”	3
8’ - 0”	3
6’ - 0”	2
5’ - 0”	2
4’ - 0”	2
3’ - 0”	2

HORIZONTAL Panel Joints	
Form WIDTH	Number of Clamps
36” - 18”	2
12” - 8”	1





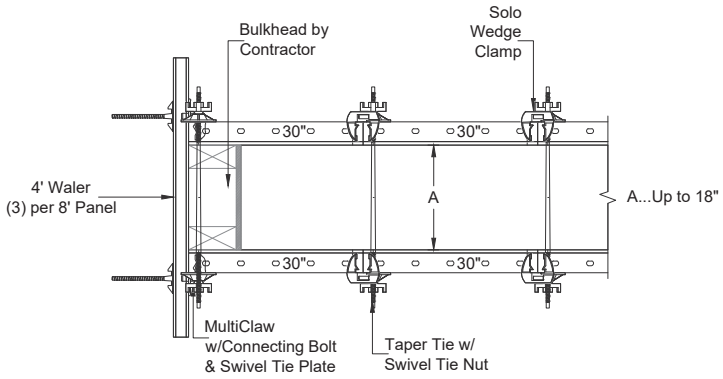


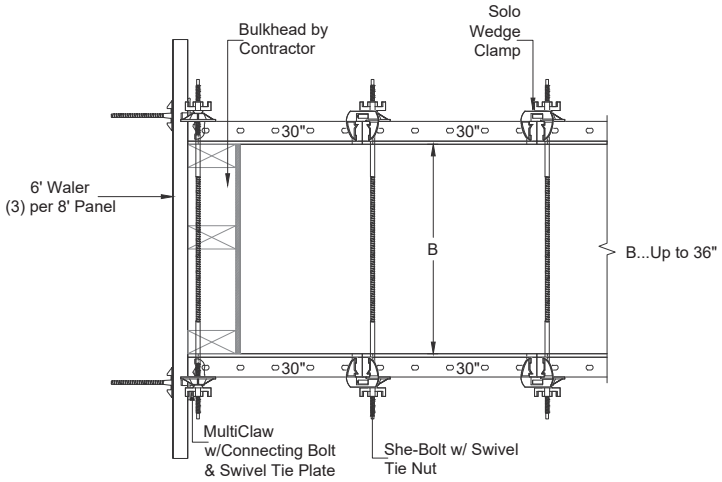
Areas of Increased Formwork Pressure

Careful consideration should be given to areas that have increased tension on panel joints, such as outside corners, panel joints immediately adjacent to outside corners & panel joints immediately adjacent to form-work bulkheads.

Vertical	
Form Height	Number of Clamps
9’ - 0”	5
8’ - 0”	4
6’ - 0”	3
5’ - 0”	2
4’ - 0”	2
3’ - 0”	2

Bulk Head

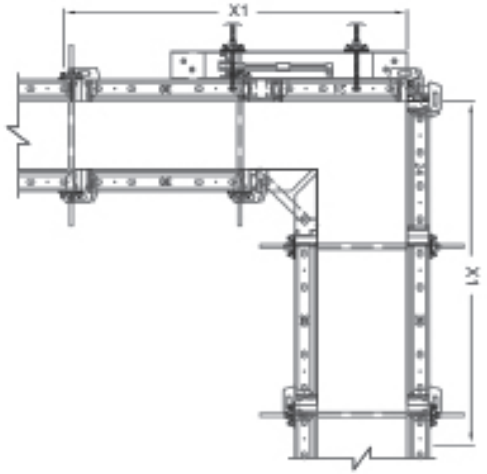


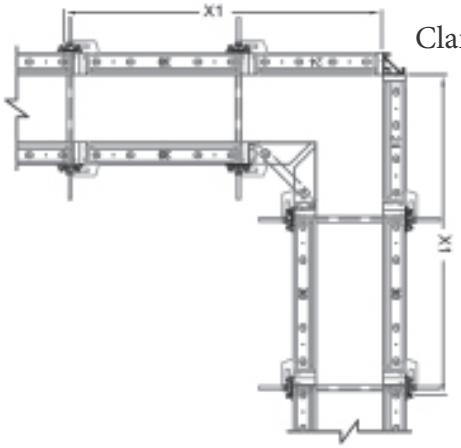


Outside Corner Locations

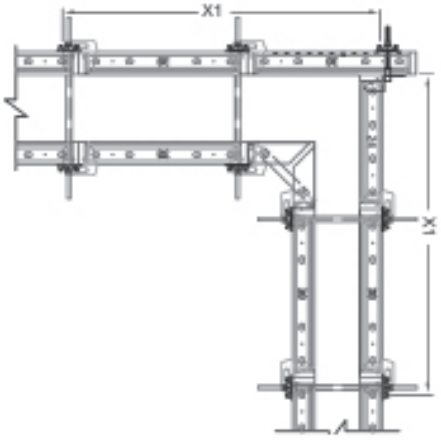
The outside corner locations have increased tension

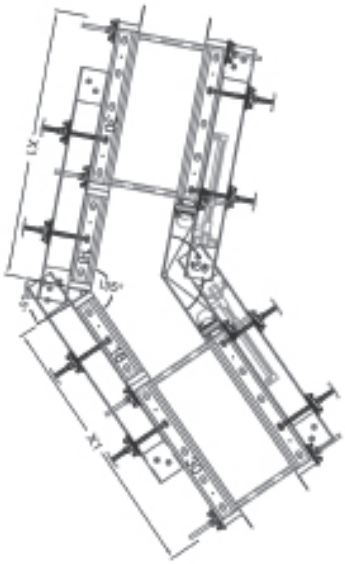
Vertical Joints Within 6’ of Outside Corner	
Panel Height	Number of Clamps
Thickness Up to 24”	
9’ - 0”	4
8’ - 0”	4
6’ - 0”	3
5’ - 0”	2
4’ - 0”	2
3’ - 0”	2
Thickness 24” to 36”	
9’ - 0”	5
8’ - 0”	5
6’ - 0”	4
5’ - 0”	3
4’ - 0”	2
3’ - 0”	2

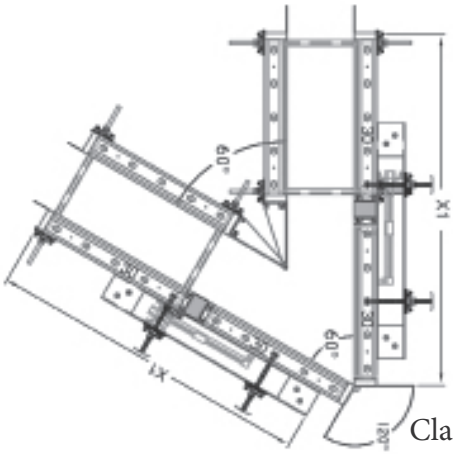




Clamps







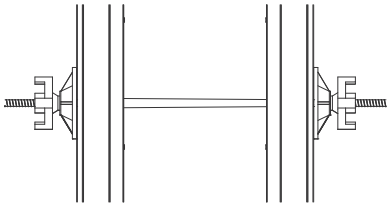
Clamps

Installing Formwork Ties

The Solo Form Clamp System Is designed to be used with the following types of ties:

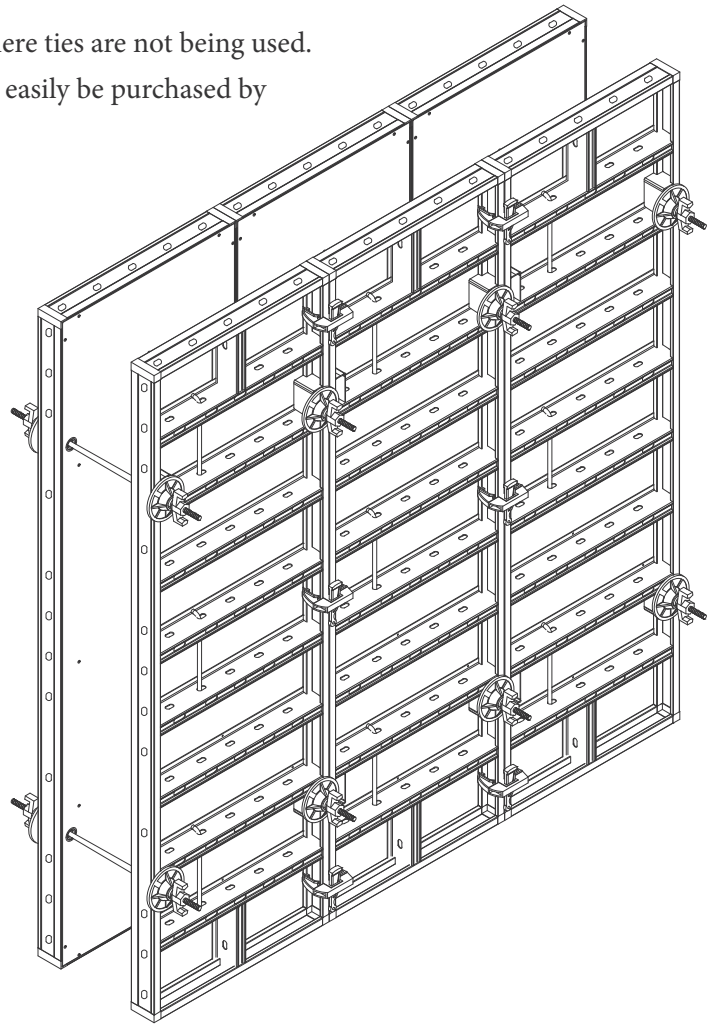
- 15mm Pass Thru She Bolts
- 15mm Cone Style She Bolts
- 15mm Sleeved Rod 15mm Taper Ties

Taper Tie 1" to 5/8" (15mm)
SWL - 19,100lb.
Safety Factor: 2 to 1



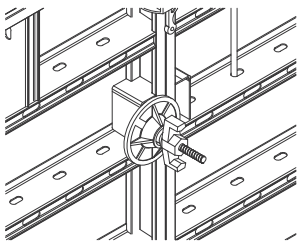
The system is designed for joined panels to share tie loads over common joints. The basic rule is to place a tie in all tie box locations that do not already have a similar tie in the adjacent panel. When sharing ties across panel joints, careful attention must be paid to the size and location of the tie washer plate. The tie washer plate must be large enough (5 1⁄2" diameter plate recommended) to support both panels. When sharing ties across panel joints, always be sure to place the tie in the larger of the two width panels.

Careful attention must be paid to install form tie hole plugs where ties are not being used. The form tie hole plug is not included with the system and can easily be purchased by contacting your local SOLO representative.



Euro Taper Tie 1" (15mm)					
Length	Taper	Walls		Thread	Weight
		From	To		
35"	11"	6"	11"	15mm	4.5 lbs
41"	17"	11"	18"	15mm	5.25 lbs
49"	25"	18"	25"	15mm	8.0 lbs
57"	33"	25"	33"	15mm	9.5 lbs
65"	41"	33"	41"	15mm	12 lbs

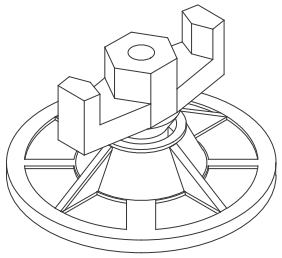
Tie Plate Needs to Rest on the Box



5 1/2"Fixed or Swivel Tie Nut

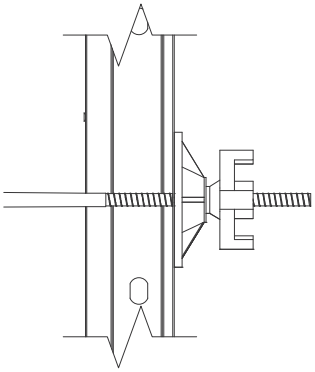
Battered Wall Forming

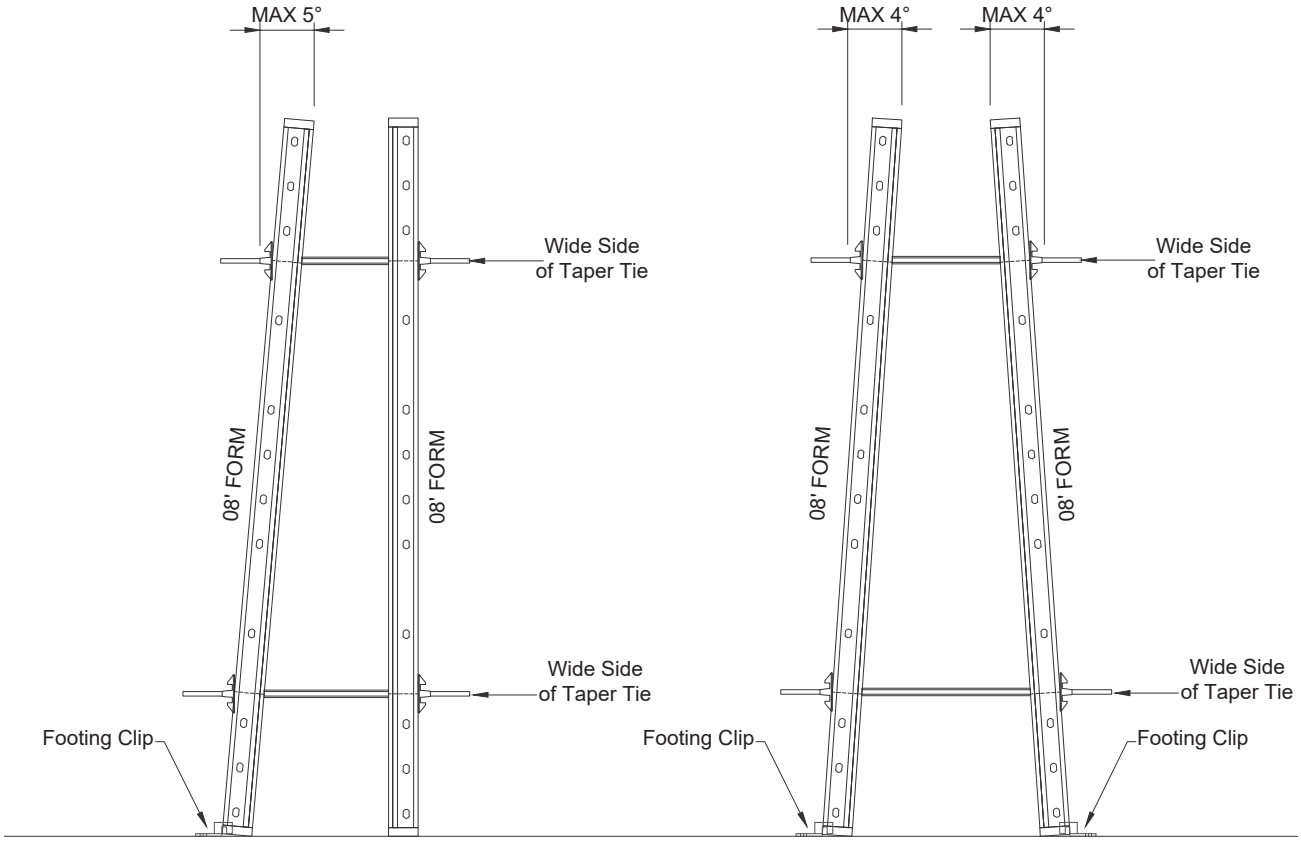
By utilizing the swivel tie plate, batter wall applications can be accomplished. Walls that batter up to 5 degrees on one side can be achieved with standard she bolts and swivel tie nuts. Walls that batter up to 4 degrees on each side can be achieved with standard she bolts and swivel tie nuts.



Offset Formwork Elevations

Often the concrete footer or slab is slightly offset in elevation from one side of a wall to another. Applications of this nature are easily accomplished using the swivel tie plate assembly. Please consult your SOLO representative regarding your specific application.



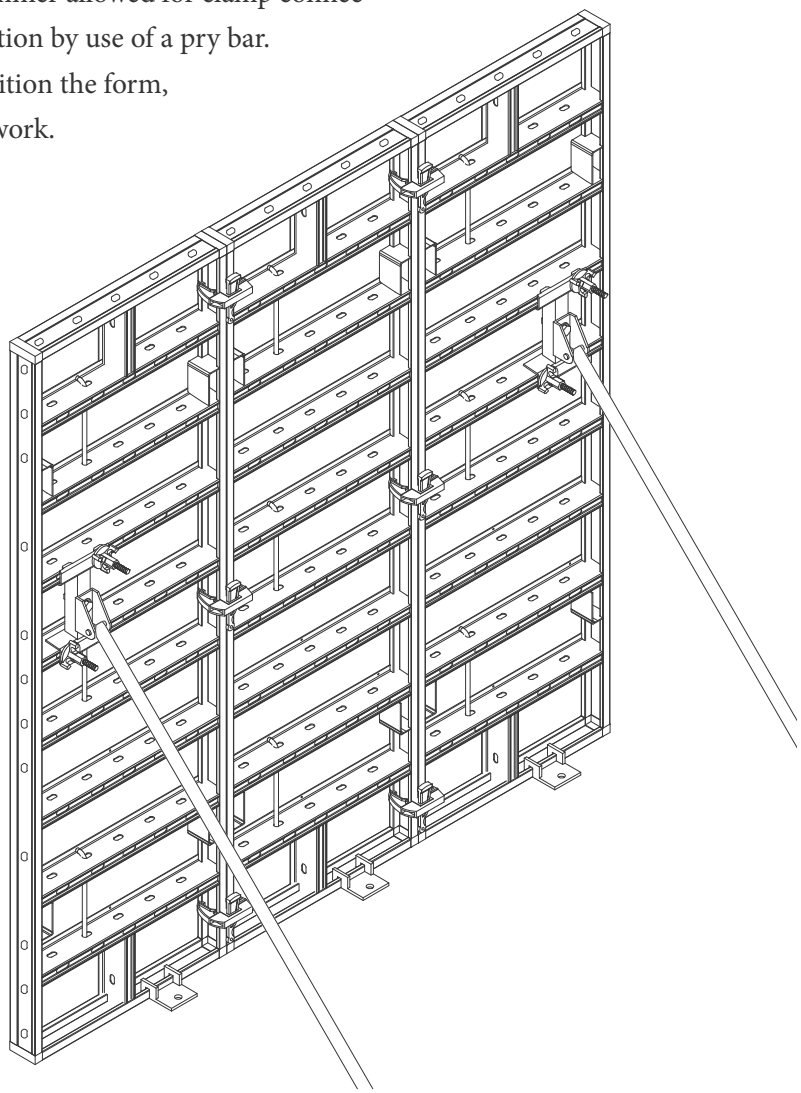


Formwork Erection

Prior to formwork erection, the job site personnel should treat the formwork with release agent. Failure to use form release will result in excessive concrete build up and subsequent cleaning costs.

1. Plan and locate a logical starting point for your formwork erection. Typically the best place to begin is in a corner. Fix the first panel to the footer by using the footing clip or by nailing the formwork to a sill plate thru the manufactured nail holes. Immediately brace the first panel back to the footer or contractor supplied concrete blocks. Bracing the formwork is an absolute requirement, failure to adequately brace formwork will result in injury.

2. Continue erecting formwork as depicted in the erection drawings and outlined in detail on pages 35 - 60 of the Application Guide. Pay careful attention to use appropriate tools when engaging clamps and aligning formwork. Damage will result if the frame profile is struck with a hammer or if a clamp is repeatedly struck with a hammer. The maximum size hammer allowed for clamp connections is 28 oz. Formwork should be moved in final position by use of a pry bar. Never hit the formwork with a hammer in order to position the form, misuse of this nature will result in damage to the formwork.



Formwork Erection - Closing the Wall

Now that you have set the first face of your wall, it is time to tie your rebar and set any required imbeds, sleeves and/or box outs.

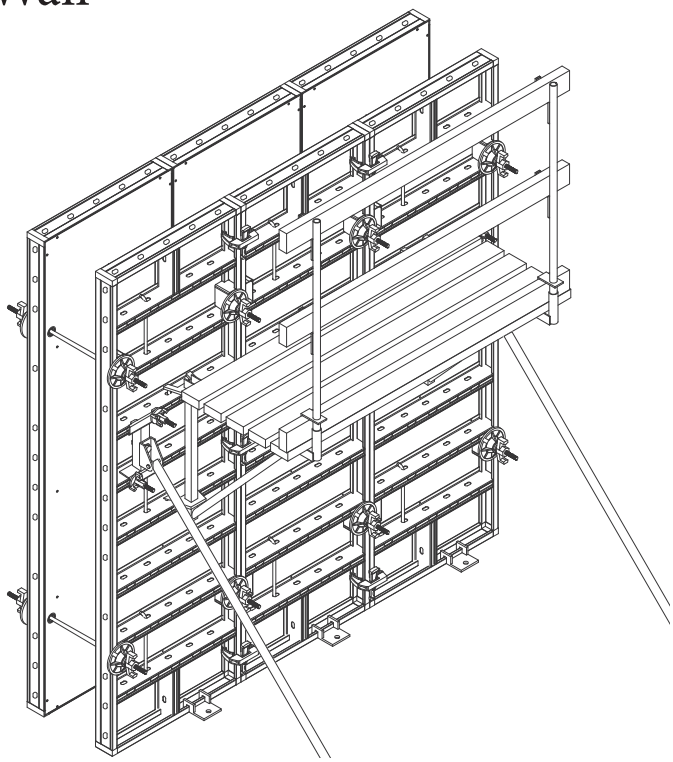
1. Plan and locate a logical starting point for continuing your formwork erection. Typically the best place to start the formwork operation is in a corner. Place the first panel in the proper location and secure the panel by placing ties thru the tie holes, be sure to affix tie nuts to the ties on both sides of the wall. Next, secure the base of the panel to the footer.

2. Take the time to plumb the first panel. Locate the second panel and secure the panel joints with the proper amount of wedge clamps. The wedge clamp should first be 'seated' on the panel joint and then driven tight with a hammer. The maximum size hammer allowed for clamp connections is 28 oz.

3. Continue erecting the formwork in this manner until your form work operation is complete. Careful attention should be given to installing the proper amount of formwork ties. Failure to install the proper number of ties will result in formwork failure.

4. Careful consideration should be given to areas that have increased pressures on panel joints, such as outside corners, panel joints immediately adjacent to outside corners and panel joints immediately adjacent to formwork bulkheads. Follow the instructions on pages 14 to 16 for safely addressing these areas of concern.

5. Once the formwork is erected and properly secured you may install your walkway brackets, scaffold planks and guard rail posts. The walkway brackets have a safe working load of 500 lbs each.



Concrete Placement

The Solo Form Clamp System is design to withstand 1500 pounds per square foot of concrete pressure as defined by ACI-347. Exceeding 1500 pounds per square foot of concrete pressure will result in damage and potential form failure. Form failure can result in injury and costly repair.

Careful attention should be paid to mix design, weather conditions and vibration.

Controlling concrete pressure is the responsibility of the contractor.

Immediately following concrete placement, every effort to remove concrete spillage from the formwork is required. Failure to properly clean excess concrete from the formwork will result in increased cleaning costs.

Stripping and Dismantling Formwork

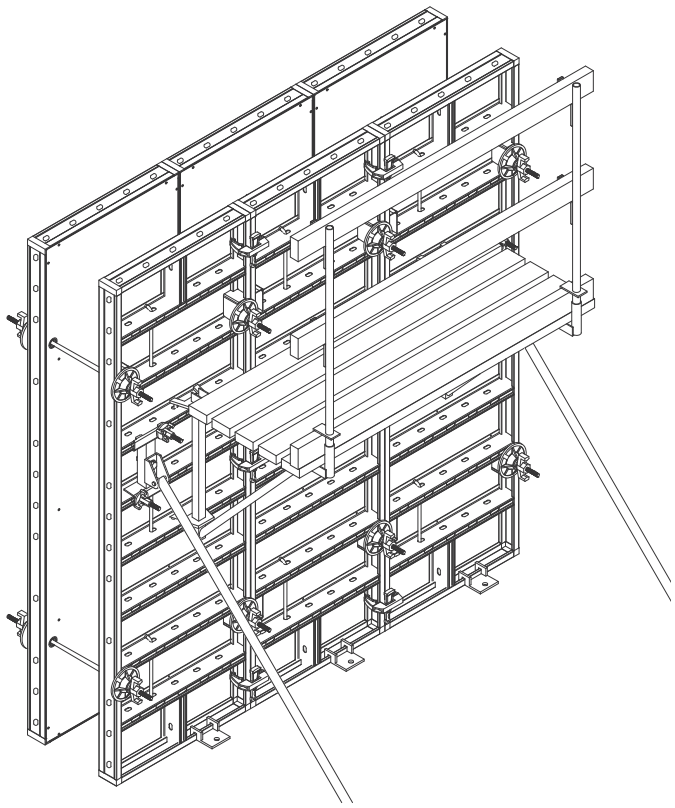
Concrete formwork and/or shoring should not be stripped until the concrete has reached the proper design strength as specified by the contract documents or until the fresh concrete can support itself.

1. Plan and locate a logical starting point for your formwork stripping operation. Careful consideration should be given to the impact of formwork removal on adjacent formwork and adjacent job site operations.

2. Begin stripping the formwork by dismantling the walkway bracket system.

3. Continue the operation by working on the unbraced side of the wall. Remove all formwork ties. Careful consideration should be given to removing formwork ties and the impact it may have on unbraced sections of wall. Refrain from hammering formwork ties from the concrete. Hammering the ends of formwork ties will cause damage and reduce productivity.

4. Begin removing clamps from panels in a repetitious manner. Remove clamps from the panel joint, while maintaining support of the unbraced / unclamped panel. Place loose hardware in logical transportation bins and stack formwork panels and fillers in like groups of ten.



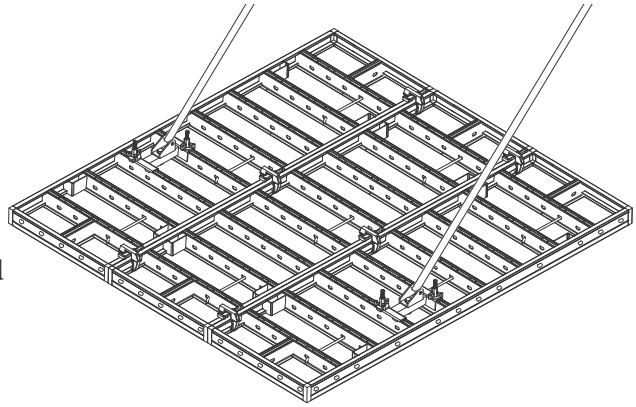
Crane Handling Formwork Gang Assemblies

Productivity can greatly be increase by assembling the formwork on the ground and crane shifting the equipment into final position. Careful consideration must be given to this practice, as crane time is typically at a premium rate on the job site.

1. Plan and locate a stable and level area for your assembly operation. This area should be within reach of the crane. It is recommended that assembly take place on a flat area such as a concrete slab or an area fitted with 2" x 6" lumber sleepers. Level sleepers should be located at all horizontal panel joints to provide a level surface to clamp adjacent panels together.

2. Place panels face down closely aligning panel joints. Connect panels together with the proper number of clamps at each panel joint. Information on clamp requirements can be found on pages 14 to 16.

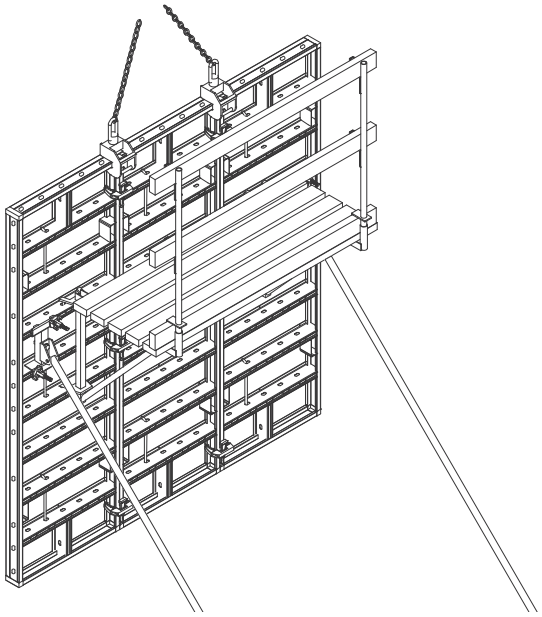
3. Once your panels are clamped together, continue the operation by installing your walkway brackets, guardrail posts, lumber planks and lumber rails.



4. Continue the operation by attaching your bracing components. The Solo Form brace is telescopic and therefore can easily be moved as part of the formwork assembly.

Pipe Brace I	(7'-6" to 14'-0")
Pipe Brace II	(14'-0" to 21'-0")
Pipe Brace III	(22'-0" to 39'-0")

5. Prior to moving the formwork, tag lines should be installed on the formwork assembly. Tag lines are required to keep the job site personnel safe and productive.



6. In order to lift the formwork assembly, crane hooks must be used. The Solo Crane Hook has a safe working load of 1600 lb. Crane Lifting devices should only be installed at a common panel joints, picking off of the frame profile alone will result in damage and potential injury.

7. Formwork assemblies should be shifted into position and secured to the footer by affixing the formwork brace and formwork panel to the footer. The formwork assembly should be plumbed prior to setting the next section of formwork.

Crane Handling Formwork Gang Assemblies

Closing the Wall

Now that you have set the first face of your wall, it is time to tie your rebar and set any required imbeds, sleeves and/or box outs.

8. Plan and locate a logical starting point for continuing your formwork erection. Typically the best place to start the formwork operation is in a corner. Place the first formwork assembly in the proper location and secure the assembly by placing ties thru the tie holes, be sure to affix tie nuts to the ties on both sides of the wall. Next, secure the base of the formwork assembly to the footer.

9. Take the time to plumb the first gang. Locate the second gang and secure the panel joints with the proper amount of wedge clamps. The wedge clamp should first be 'seated' on the panel joint and then driven tight with a hammer. The maximum size hammer allowed for clamp connections is 28 oz.

10. Continue erecting the formwork in this manner until your formwork operation is complete. Careful attention should be given to installing the proper amount of formwork ties. Failure to install the proper number of ties will result in formwork failure.

11. Careful consideration should be given to areas that have increased pressures on panel joints, such as outside corners, panel joints immediately adjacent to outside corners and panel joints immediately adjacent to formwork bulkheads. Follow the instructions on pages 14 to 16 for safely addressing these areas of concern.

Concrete Placement

The Solo Form Clamp System is design to withstand 1500 pounds per square foot of concrete pressure as defined by ACI-347. Exceeding 1500 pounds per square foot of concrete pressure will result in damage and potential form failure. Form failure can result in injury and costly repair.

Careful attention should be paid to mix design, weather conditions and vibration.
Controlling concrete pressure is the responsibility of the contractor.

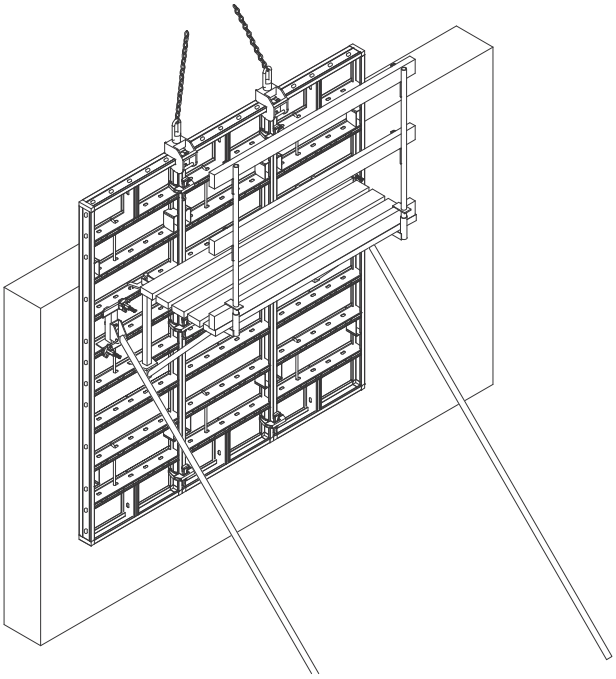
Immediately following concrete placement, every effort to remove concrete spillage from the formwork is required. Failure to properly clean excess concrete from the formwork will result in increased cleaning costs.

Crane Handling Formwork Gang Assemblies

Stripping and Dismantling

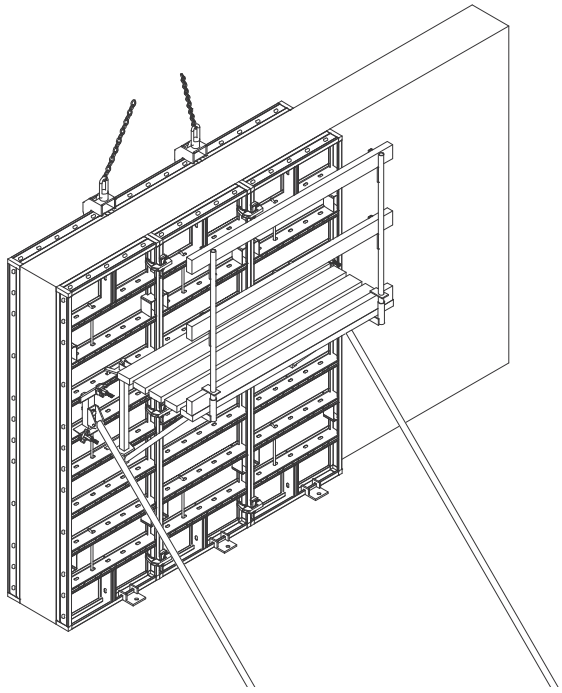
Concrete formwork and/or shoring should not be stripped until the concrete has reached the proper design strength as specified by the contract documents or until the fresh concrete can support itself.

1. Plan and locate a logical starting point for your formwork stripping operation. Careful consideration should be given to the impact of formwork removal on adjacent formwork and adjacent jobsite operations. Secure the crane to the formwork assembly you will strip first. Be sure to use the proper crane lifting device. Specific instructions on the proper use of the crane handling device is outlined in the next section of this application guide.



2. Begin the stripping operation by working on the unbraced side of the wall.Remove all formwork ties. Careful consideration should be given to removing formwork ties and the impact it may have on unbraced sections
of wall. Refrain from hammering formwork ties from the concrete. Hammering the ends of formwork ties will cause damage
and reduce productivity.

3. Begin removing clamps at the formwork assembly joints. Remove clamps from the panel joint, while maintaining support of the unbraced / unclamped panel. Place loose hardware in logical transportation bins and stack formwork panels and fillers in like groups of ten.

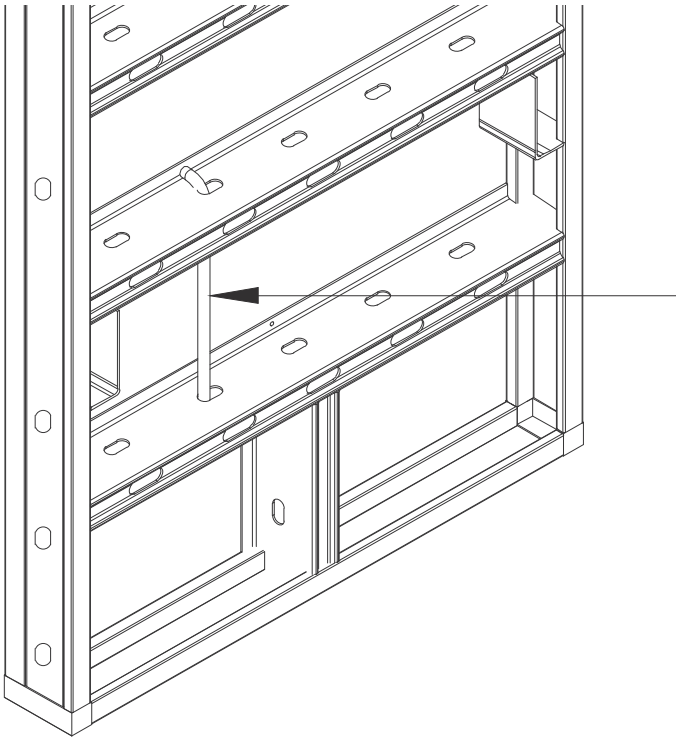


4. Break the bond between the concrete and the formwork by use of wedges and pry bars. Never attempt to break the bond between the concrete and the formwork with a crane. Attempts to break the bond with a crane may result in serious injury.

5. Continue to repeat this pattern until all of your formwork has been cycled to the next location.

Climbing Rod Handle

Note: Panels must be properly secured and braced before personal use of climbing rod.
Climbing rods exceed OSHA requirements for safety.



Climbing Rod Handle
On all 30", 24", 4'x8' & 8'x8' panels and are used to tie off personnel

Warning:
Climbing rods are not to be used for crane handling. Use proper lifting devices for transportation or panel movement.

SureBuilT
Concrete Forms & Accessories

Climbing Rods

The Solo Form panel is designed with climbing rods to make accessing the formwork safe and productive. Consistent horizontal rib orientation makes climbing the form easy, and with tie off points every 3' feet in height, safety is a built in feature with the Solo Form Clamp System!

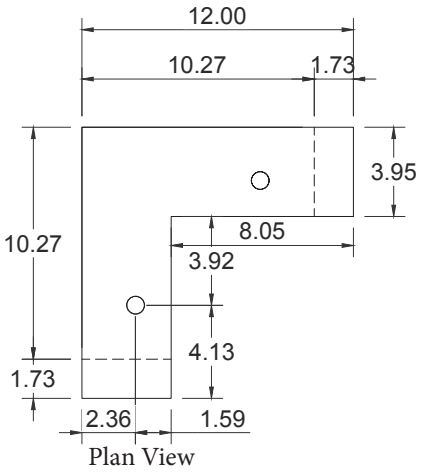
- All 30", 24", 4'x8' & 8'x8' panels are fabricated with climbing rods.
- 8' panel has 3 climbing rods.
- The climbing rods exceed OSHA standards.

Inside Corners

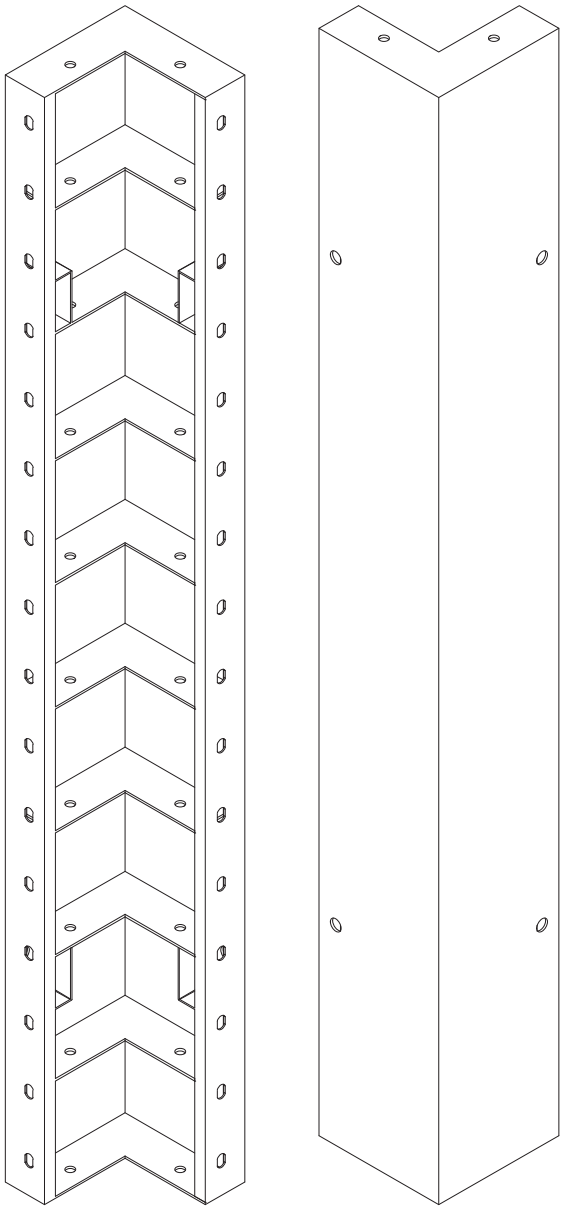
Solo Form 12” x 12” Inside Corners are both boltable and clampable.

12”x12” Inside Corners		
Part No.	Description	Weight Ea.
SBSF08ISC	12”x12”x8’ Inside Corner	177.0 lb
SBSF06ISC	12”x12”x6’ Inside Corner	133.0 lb
SBSF04ISC	12”x12”x4’ Inside Corner	90.0 lb

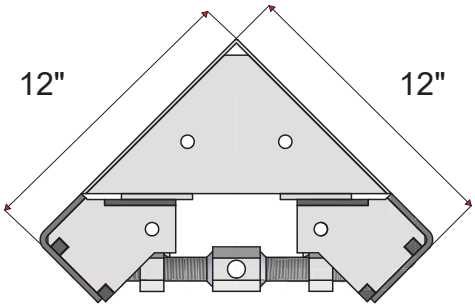
Special Sizes by Request

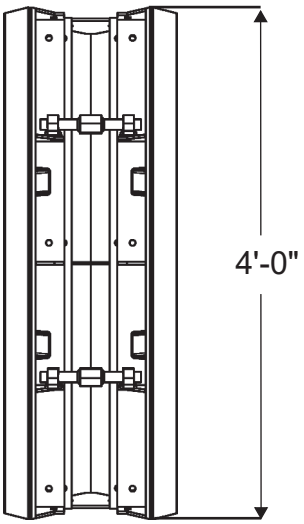


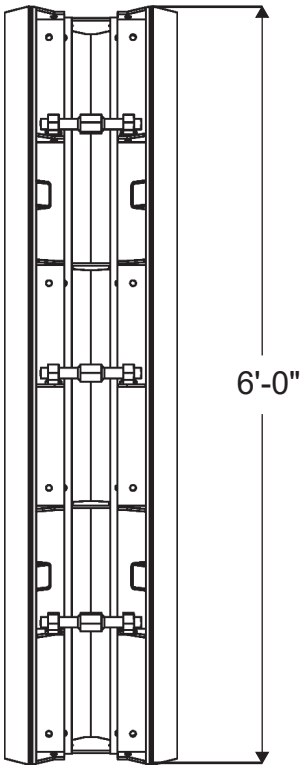
Plan View

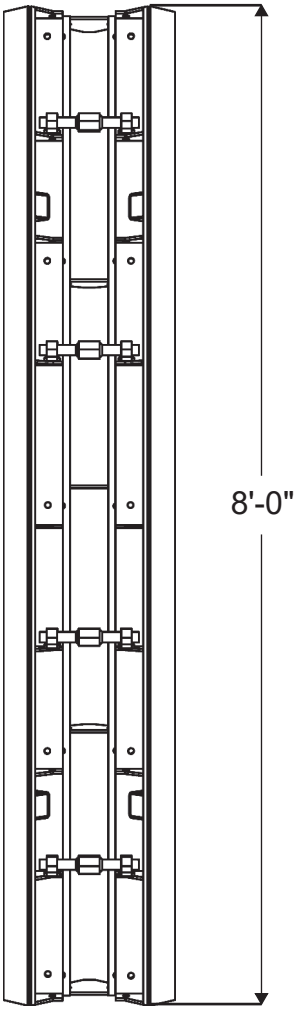


12”x12” Inside Stripping Corners		
Part No.	Description	Weight Ea.
SBSF04ISC	12”x12”x4’ INS. STRIPPING CORNER	161.0 lb
SBSF06ISC	12”x12”x6’ INS. STRIPPING CORNER	236.0 lb
SBSF08ISC	12”x12”x8’ INS. STRIPPING CORNER	311.0 lb







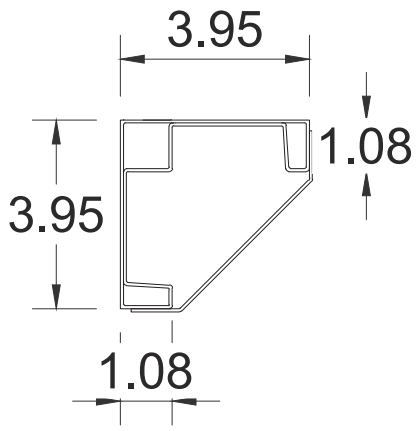


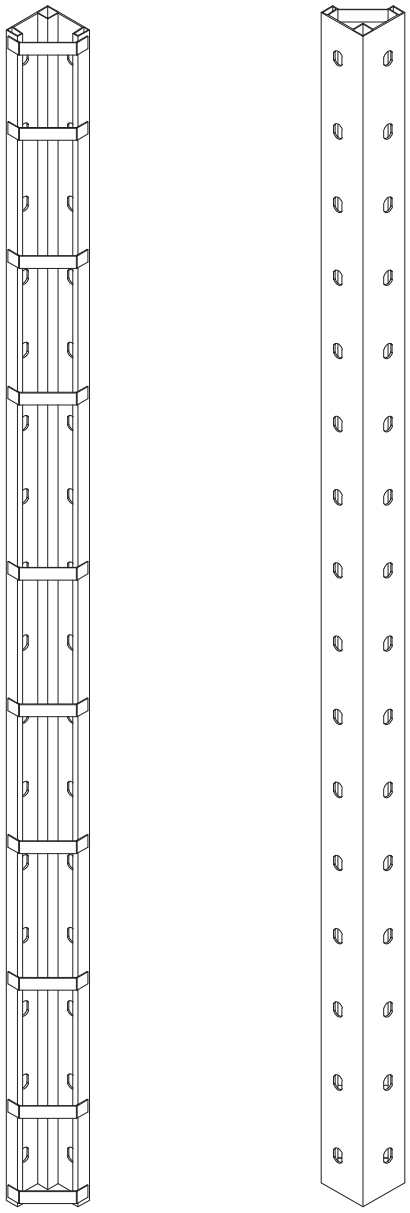
Outside Corners

Solo Form Outside Corners are both boltable and clampable.

Outside Corners		
Part No.	Description	Weight Ea.
SBSF08OSC	8’ Outside Corner	68.0 lb
SBSF06OSC	6’ Outside Corner	51.0 lb
SBSF04OSC	4’ Outside Corner	34.0 lb

Special Sizes by Request



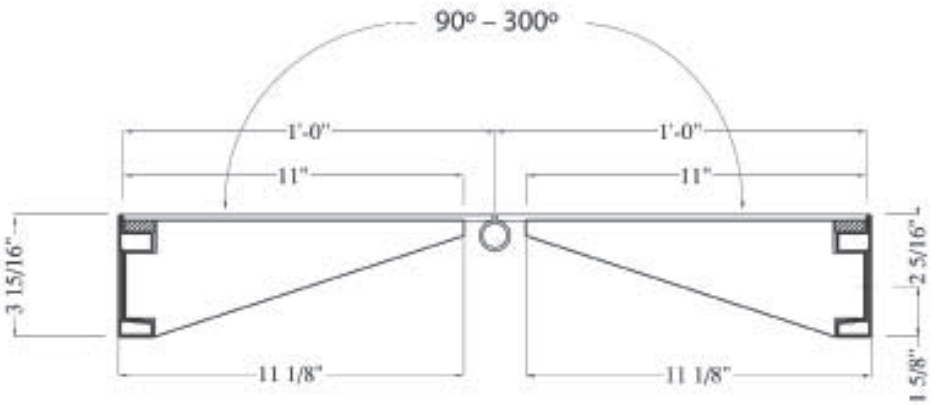


Inside Hinge Corners

Solo Form 12" x 12" Inside Hinge Corners have the ability to rotate from 90° to 300°. The inside hinge corners are both boltable and clampable.
Note: Clamps can be offset side to side to allow for tighter closure.

Inside Hinge Corners		
Part No.	Description	Weight Ea.
SBSF08IHC	8' Inside Hinge Corner	240.0 lb
SBSF06IHC	6' Inside Hinge Corner	180.0 lb
SBSF04IHC	4' Inside Hinge Corner	120.0 lb

Special Sizes by Request

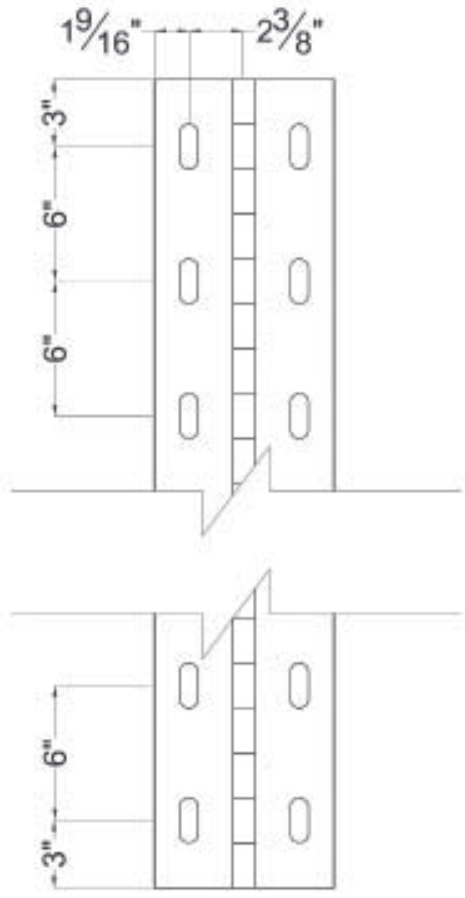


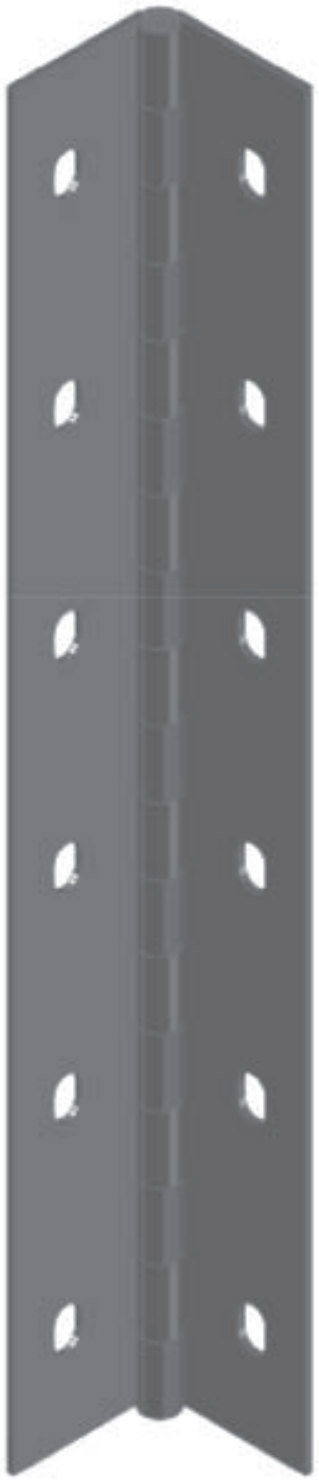
Outside Hinge Corners

Solo Form Outside Hinge Corners have the ability to rotate from 90° to 300°.
The outside hinge corners are boltable.
Note: Bolt locations from side to side can be offset to allow for tighter closure.

Outside Hinge Corners		
Part No.	Description	Weight Ea.
SBSF08OHC	8' Outside Hinge Corner	54.0 lb
SBSF06OHC	6' Outside Hinge Corner	48.0 lb
SBSF04OHC	4' Outside Hinge Corner	27.0 lb

Special Sizes by Request





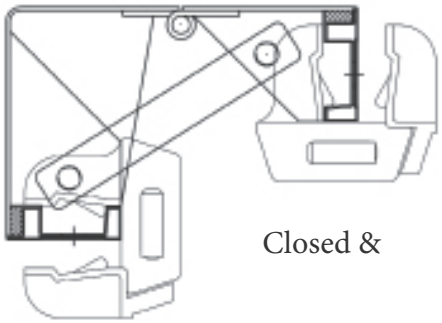
Pilaster Form Corner

Solo Form Pilaster Forms are 8" x 12". They are designed to pivot and retract approximately 3/4" allowing the form to be stripped after pouring. It comes with pilaster corner locking bars that lock the corner assembly into the 90° position. Removing the pilaster locking bar allows the corner to hinge.

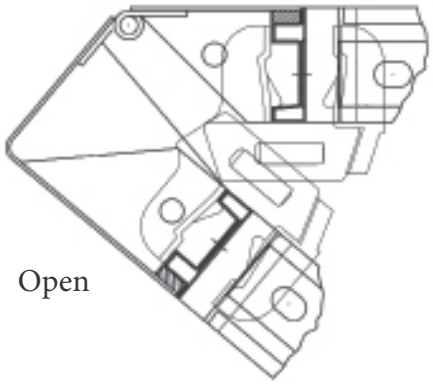
Pilaster Form Corner		
Part No.	Description	Weight Ea.
SBSF08PFC	8' Pilaster Form Corner	196.0 lb
SBSF06PFC	6' Pilaster Form Corner	156.0 lb
SBSF04PFC	4' Pilaster Form Corner	100.0 lb

Special Sizes by Request

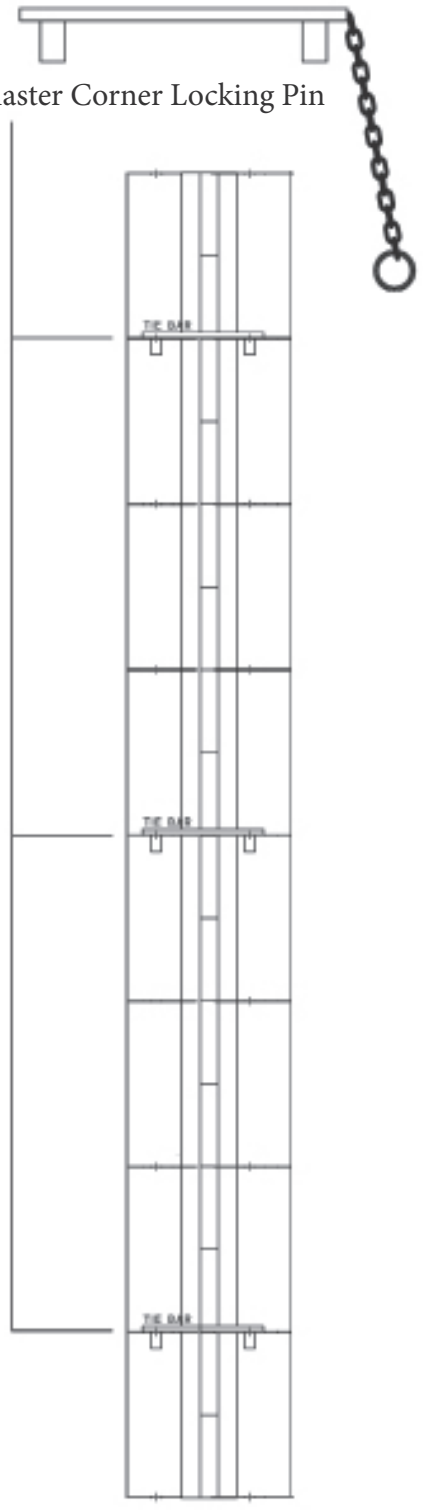
Note: Stagger horizontal clamp locations to allow more degree of pivot swing



Closed &



Open

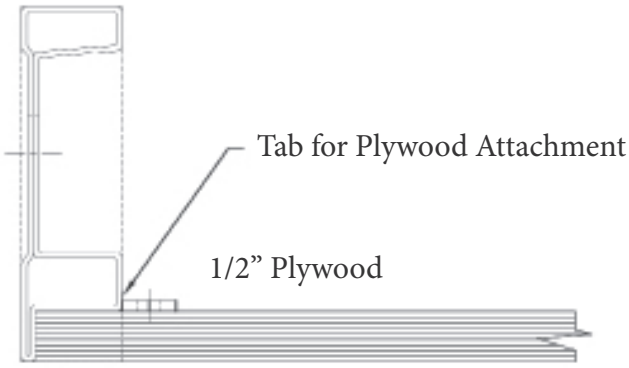


Filler Tubes

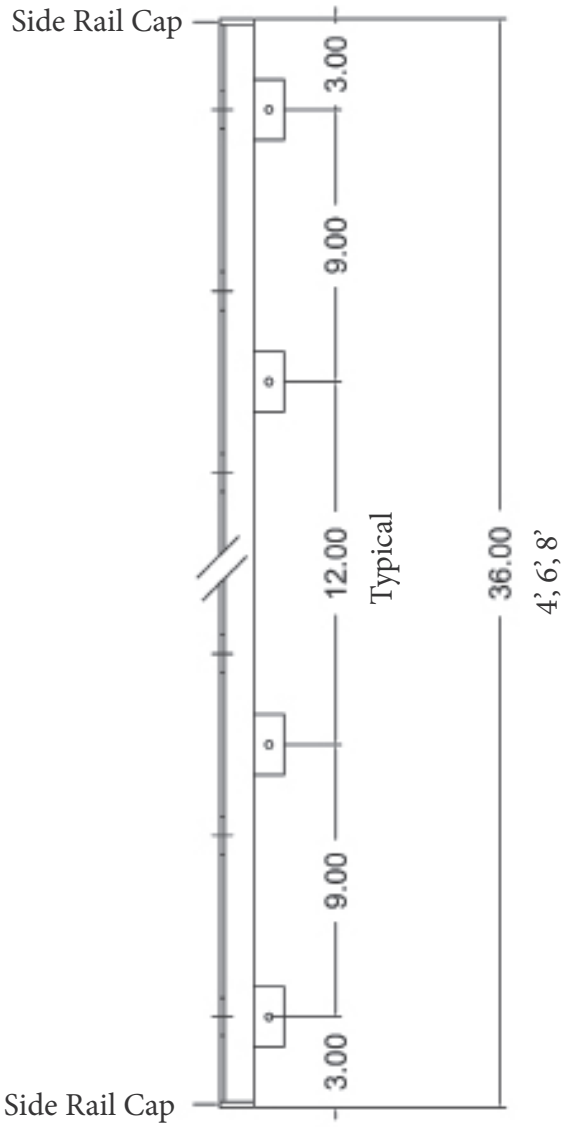
The Solo Form filler tube allows for fast and economical fabrication of jobsite fillers.

Filler Tubes		
Part No.	Description	Weight Ea.
SBSF08FR	8’ Filler Tube	20.0 lb
SBSF06FR	6’ Filler Tube	15.0 lb
SBSF04FR	4’ Filler Tube	11.0 lb

Special Sizes by Request



Attach Wood with pop rivets, screws or carriage bolts



Transition Adapter

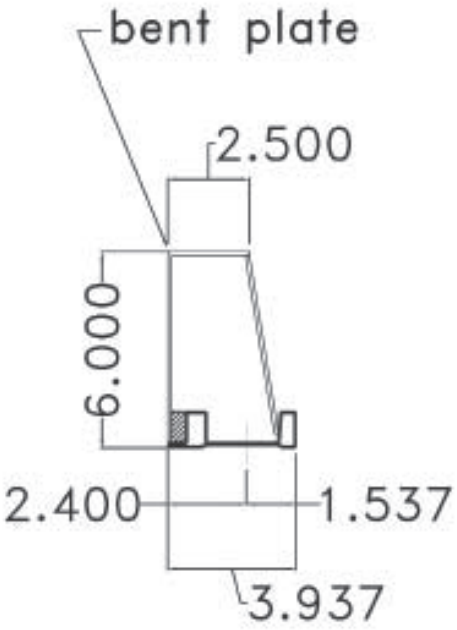
Easy transition from Solo Form to Solo Form-Ply system.

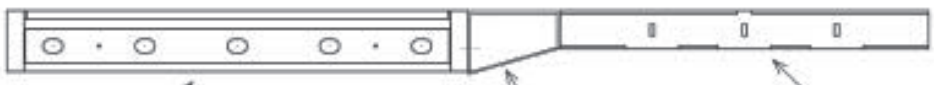
Transition Adapter		
Part No.	Description	Weight Ea.
SBSF08TA	8' Transition Adapter	64.0 lb
SBSF06TA	6' Transition Adapter	48.0 lb
SBSF04TA	4' Transition Adapter	32.0 lb

Special Sizes by Request

Wedge Bolts
to Solo Form-Ply

Clampable &
Boltable to
Solo Form





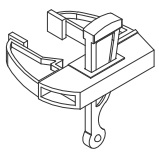
Solo Form Panel

Adapter Panel

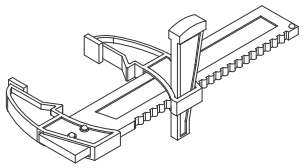
Solo Form-Ply

System Components

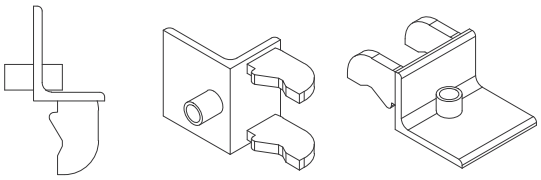
Solo Form Hardware		
Part No.	Description	Weight
SBSFWWB	Walkway Bracket	26.0 lb
SBSFGRP	Guard Rail Post	8.0 lb
SBSFTGRB	Top Guard Rail Bracket	16.0 lb
SBSFTC	Tying Claw	5.0 lb
SBSFTTB	Top Tie Bracket	1.8 lb
SBSFSCC	Crane Hook	10.0 lb
SBSFCS	Connecting Screw 15mm x 12”	2.0 lb
SBSFFC	Footing Clip	1.8 lb
SBSFWC	Wedge Clamp	5.0 lb
SBSFAWC	Adjustable Wedge Clamp	9.2 lb



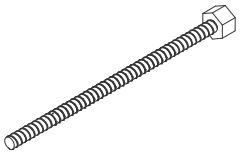
Wedge Clamp



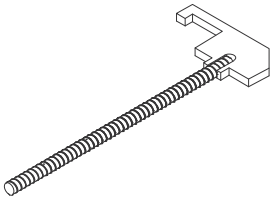
Adjustable Clamp



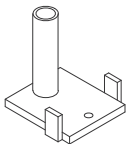
Tying Claw



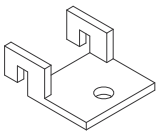
Connecting Screw



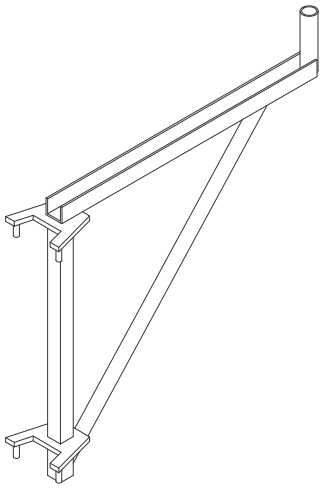
Tomahawk Bolt



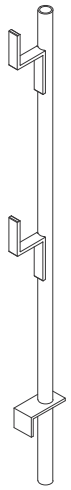
Top Tie Bracket



Footing Clip



Walkway Bracket

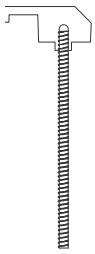


Guard Rail Post

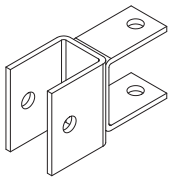
System Components

Solo Form Hardware		
Part No.	Description	Weight
SBUP1MFG	Pipe Brace 7'6" - 13'0"	95.0 lb
SBUP4MFG	Pipe Brace 14'0" - 23'6"	130.0 lb
SBUP5MFG	Pipe Brace 22'6" - 39'0"	200.0 lb
SBSFBB	Brace Bracket	4.0 lb
SBSFW04	4' Stacking Waler	40.0 lb
SBSFPTHP	Plastic Tie Hole Plug	-
SBETT3534115MM	Taper Tie 15mm x 35" (3/4" - 1")	4.5 lb
SBETT4134115MM	Taper Tie 15mm x 41" (3/4" - 1")	5.25 lb
SBETT4934115MM	Taper Tie 15mm x 49" (3/4" - 1")	8.0 lb
SBETT5734115MM	Taper Tie 15mm x 57" (3/4" - 1")	9.5 lb
SBETT6534115MM	Taper Tie 15mm x 65" (3/4" - 1")	12.0 lb
SBESB1915	She-Bolt 15mm x 19"	2.5 lb
SBCP15MM	Swivel Tie Nut 15mm 5"x5"	3 lb
SBER15MMWNW	Fixed Tie Nut 15mm - 4" diameter	2.1 lb
SBSFHHB	Hammer Head Bolt 15mm	1.0 lb

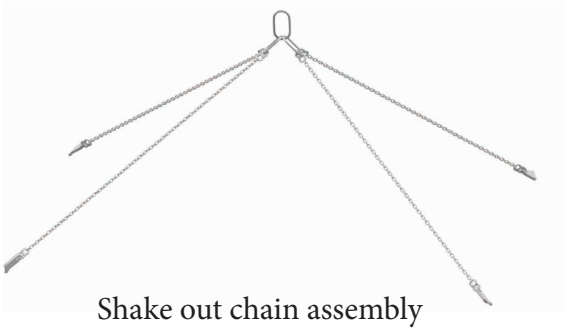
Hammer Head Bolt



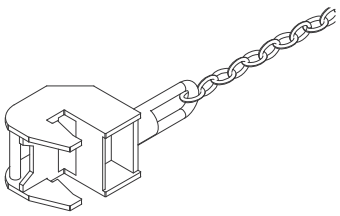
Tomahawk Bolt



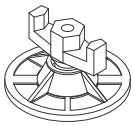
Brace Bracket



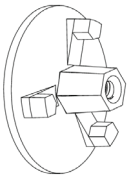
Shake out chain assembly



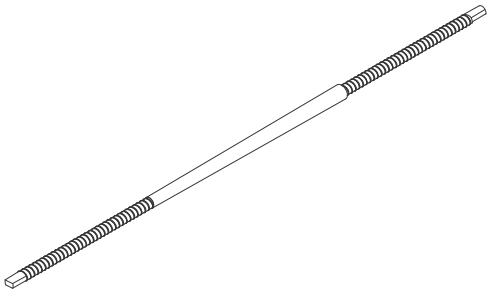
Swivel Crane Clamp



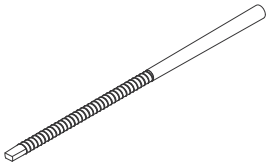
5" Swivel Tie Nut



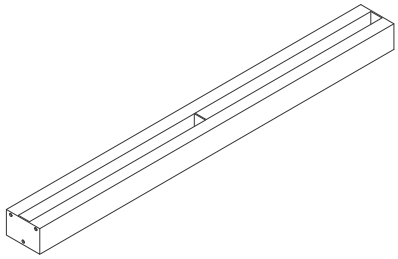
4" Fixed Tie Nut



Euro Taper Tie



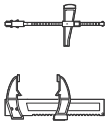
Euro She Bolt



4' Stacking Waler

SOLO Plan, Elevations, & Sections - Legend

SOLO Adjustable Clamp



SOLO Clamp

SOLO Combi-Plate 100 x 140 mm

SOLO Combi-Plate 120 mm

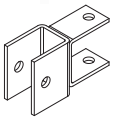
SOLO Connecting Bolt

SOLO Foot Plate

SOLO Top Tie Bracket

SOLO Tying Claw

SOLO Brace Bracket



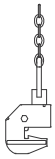
SOLO Hammer Head Bolt

SOLO Tomahawk Bolt

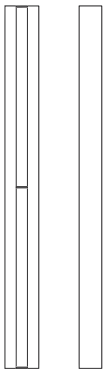
SOLO She-Bolt

SOLO Taper Tie

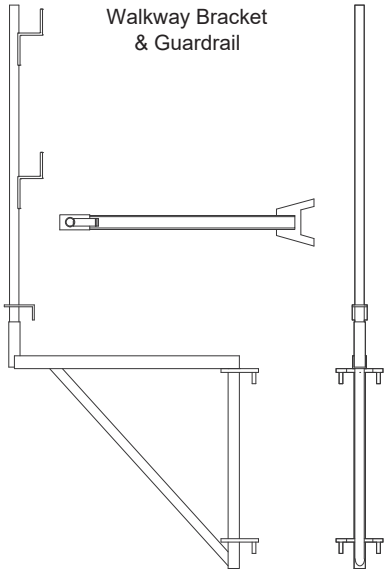
SOLO Swivel Crane Clamp



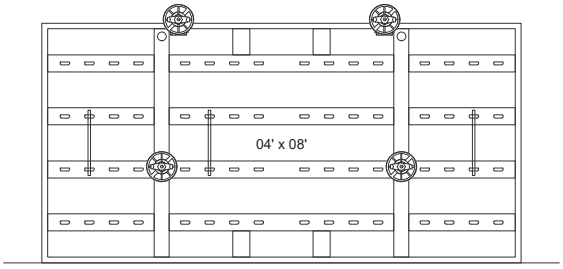
SOLO 4' Stacking Waler

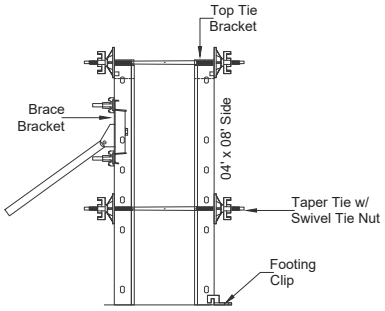


SOLO Walkway Bracket & Guardrail

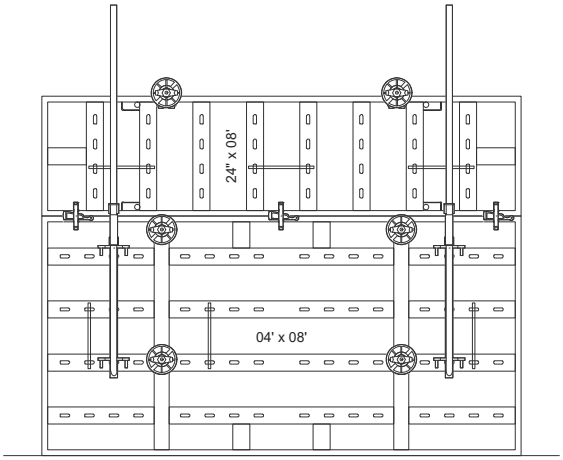


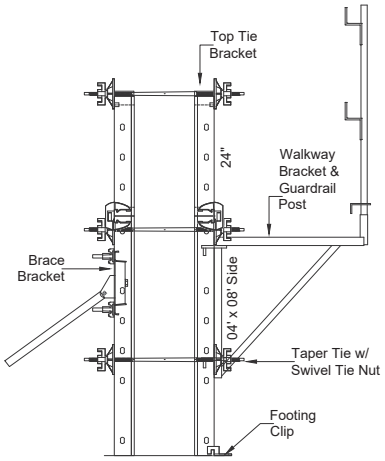
Typical Big Panel Gang - 4’, 6’, 8’



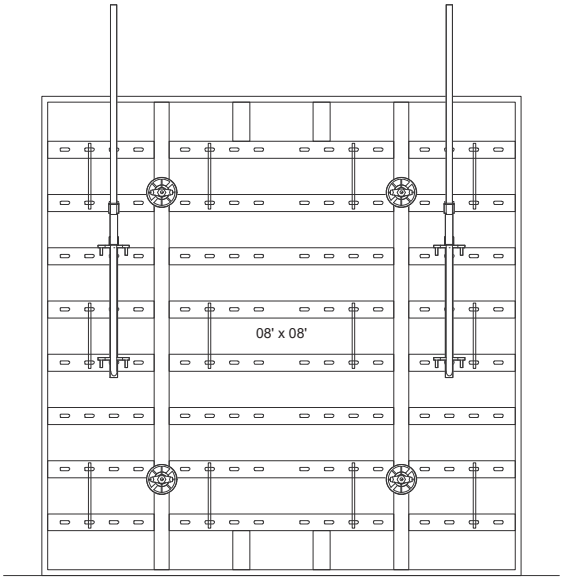


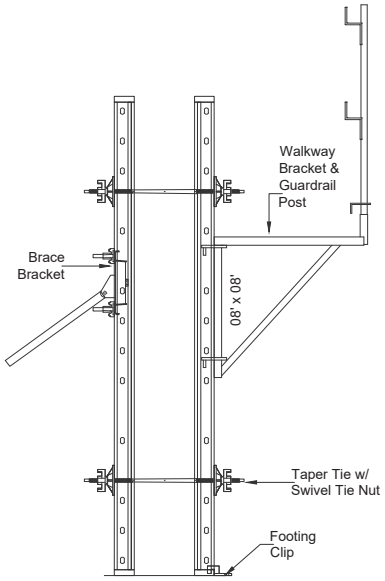
4’ Gang





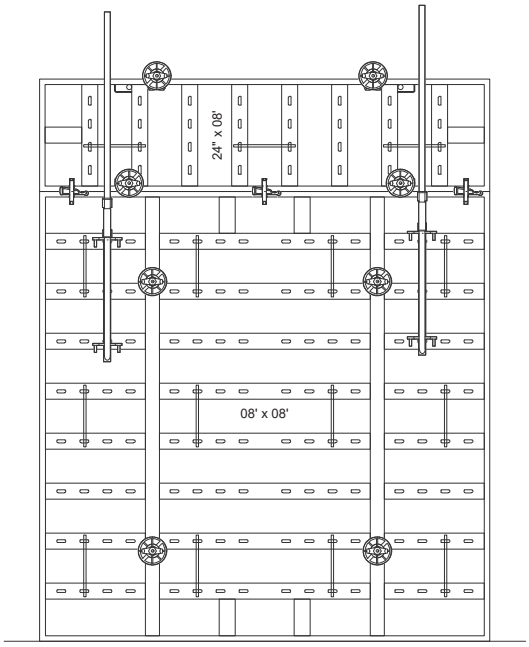
6’ Gang

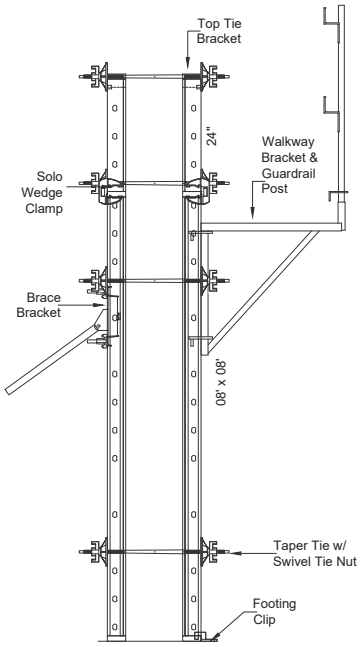




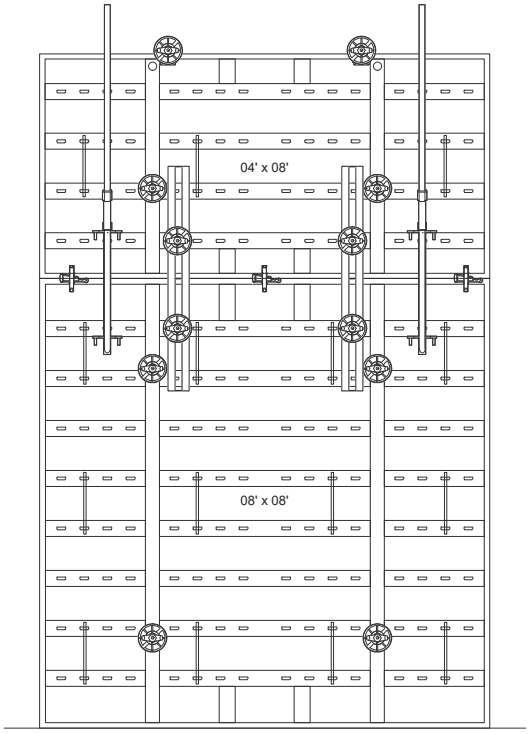
8’ Gang

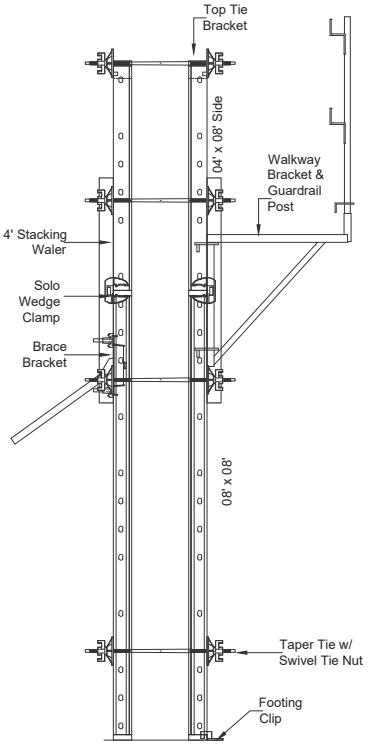
Typical Big Panel Gang - 10’, 12’





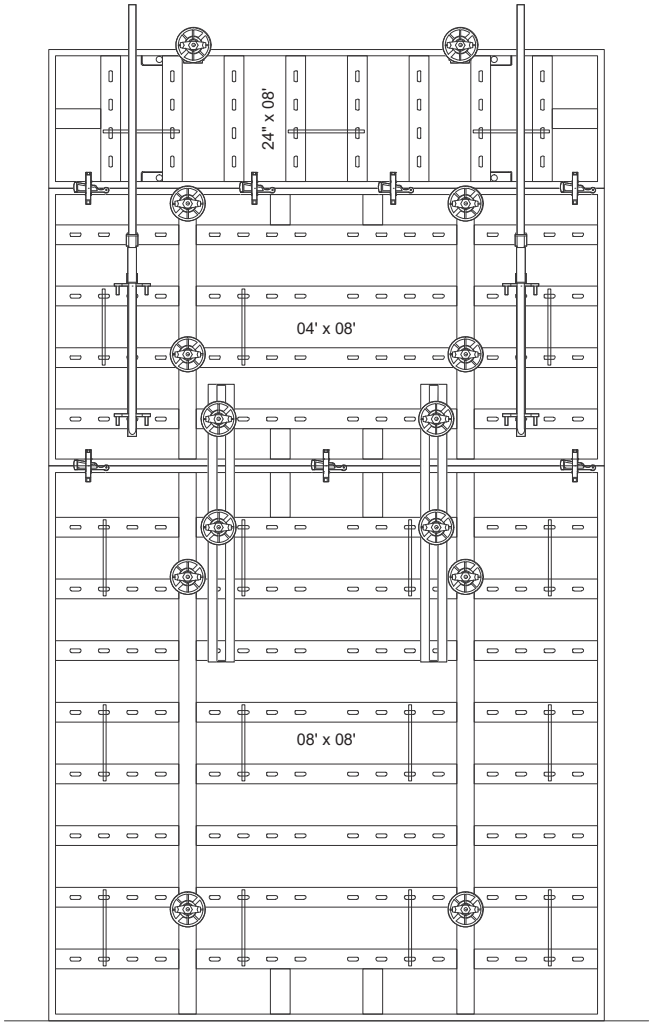
10’ Gang



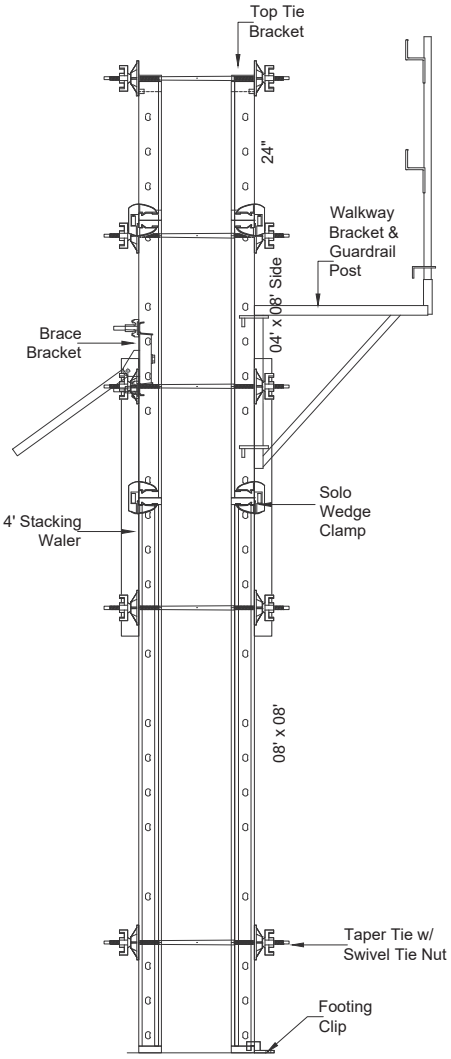


12’ Gang

Typical Big Panel Gang - 14’

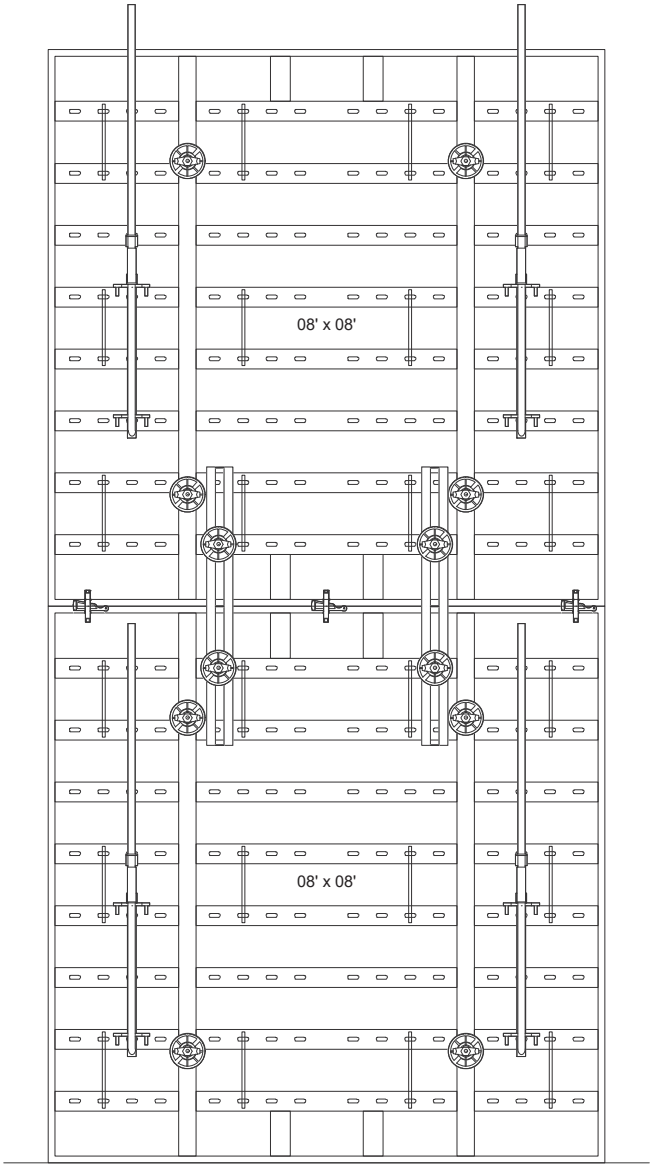


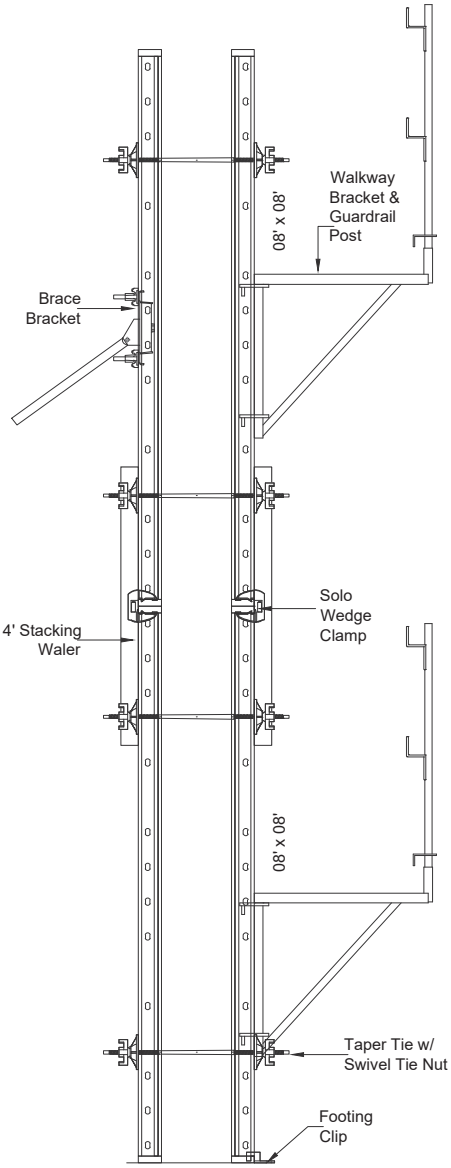
14’ Gang



Typical Big Panel Gang 16’

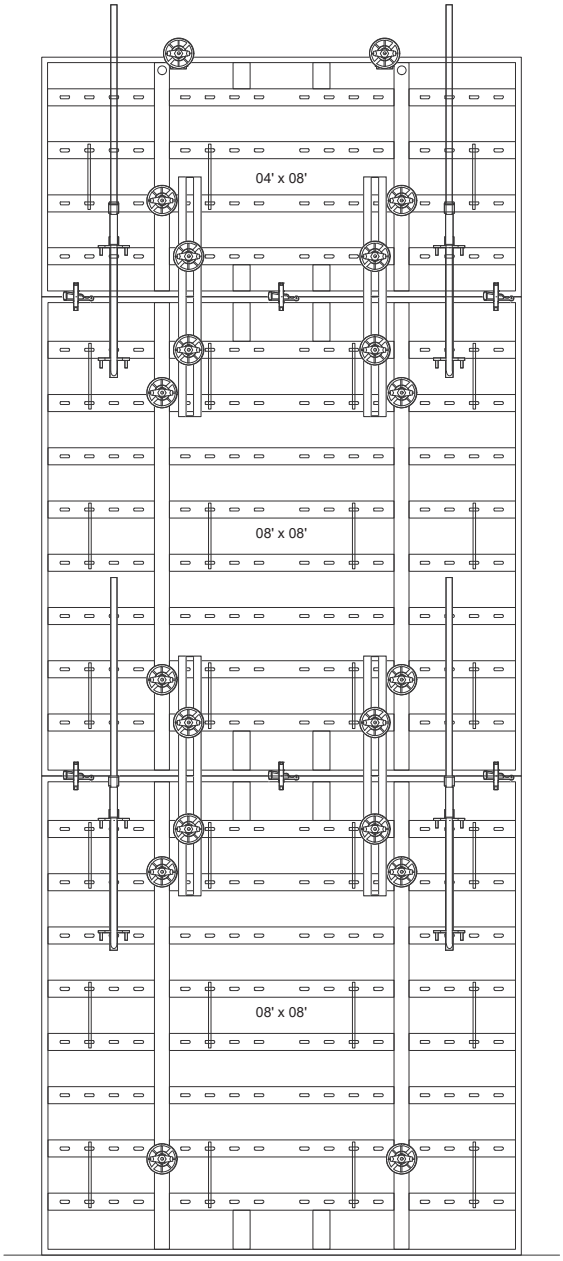
16’ Gang



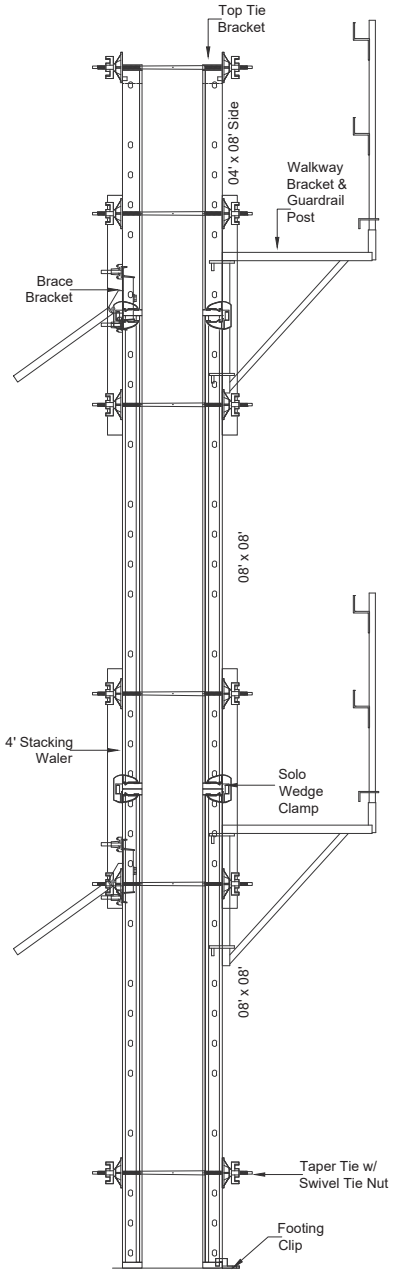


16’ Gang

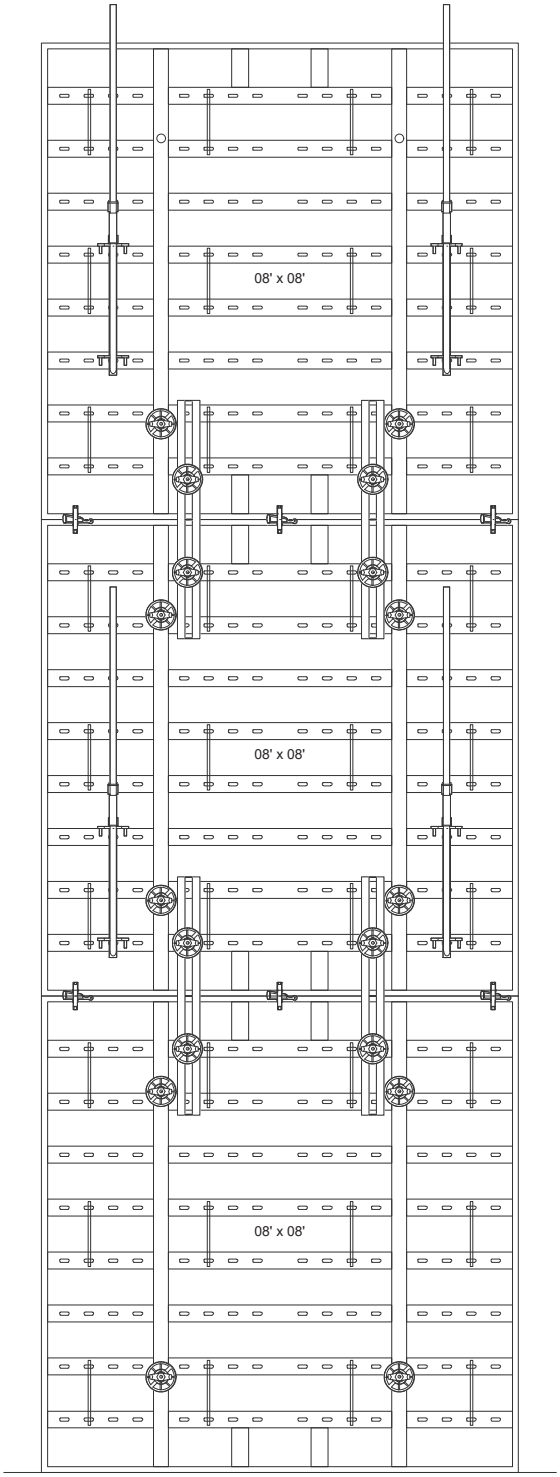
Typical Big Panel Gang - 20’



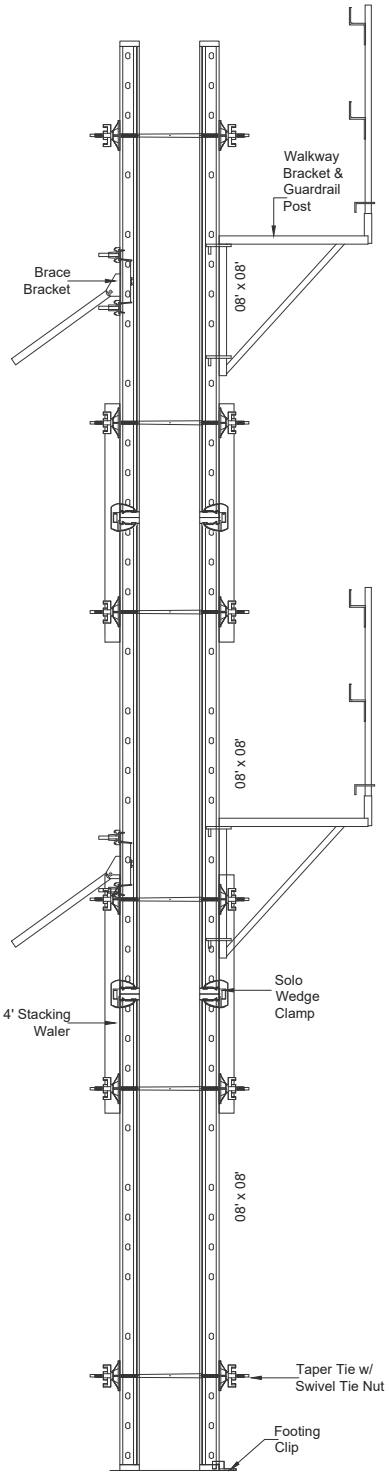
20’ Gang



Typical Big Panel Gang - 24’



24’ Gang



Outside Corner Conditions

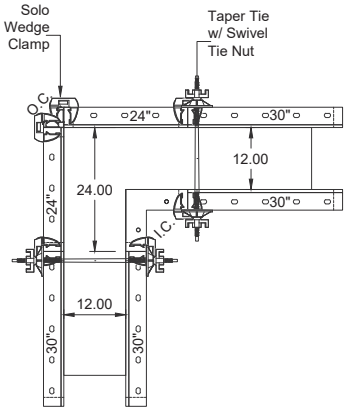
90° Corners

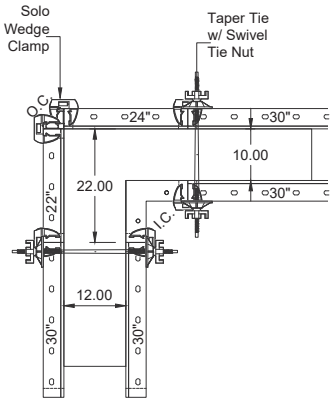
There are a number of ways to form 90 degree corners. The Flexible 90 Degree Inside Corner would be used in most inside corner applications that require a right angle. The outside corner panels can be made up of standard panels and fillers or a multi-purpose panel.

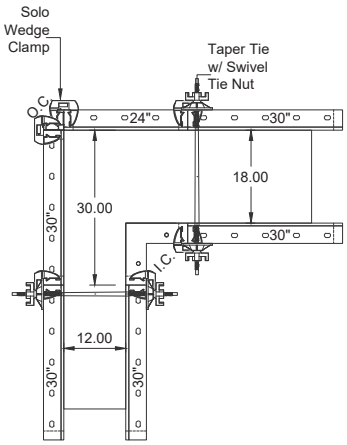
Standard Panels

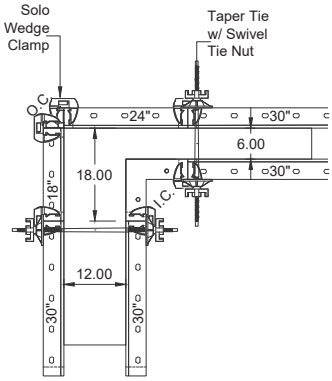
In order to use standard panels or fillers for the outside formwork, you will need to have rigid outside corner angle available on the job site. The panel or filler dimension will be dictated by the wall thickness, plus the rigid corner thickness of 12". For example, the 90 degree inside corner face is 12" wide, when added to a 12" wall, you would conclude a 24" outside filler panel is required. In order to lock the outside corner panels in place, you will require an outside corner. Pay careful attention to the details given on areas of increased formwork pressure.

90° Corner With Outside Corner & Panels

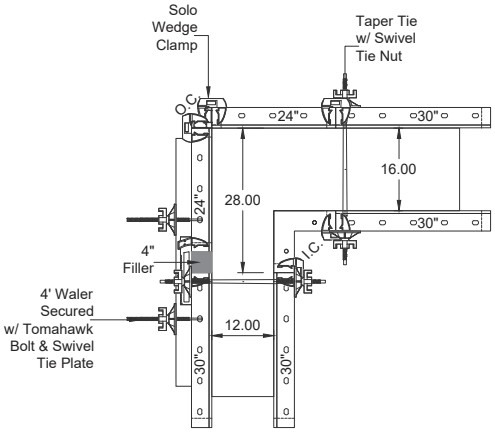


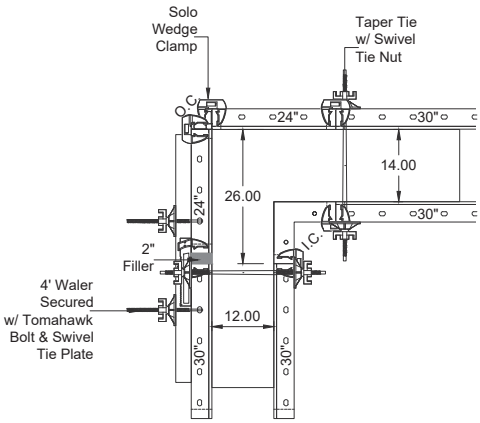






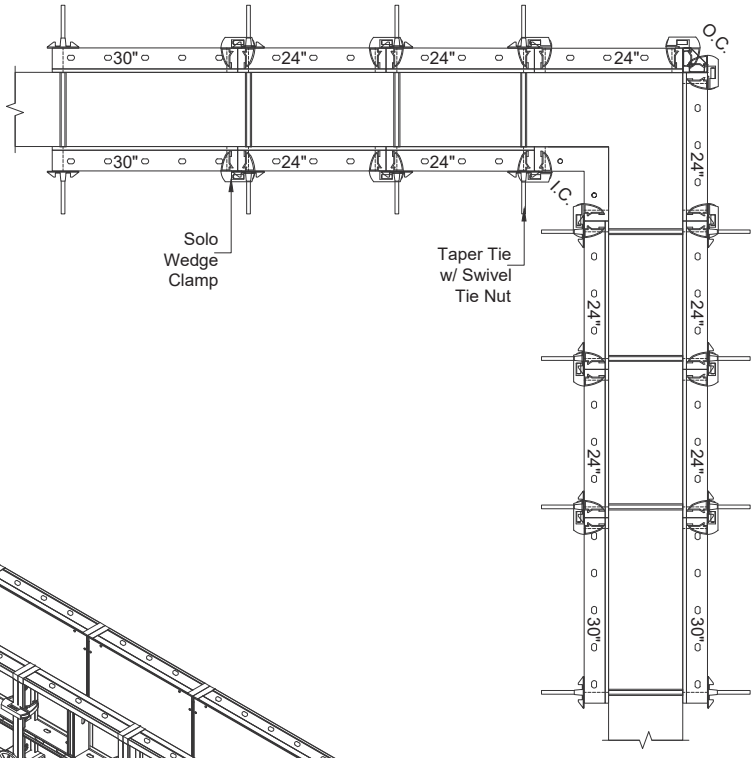
90° Corner With Outside Corner, Panels & Fillers

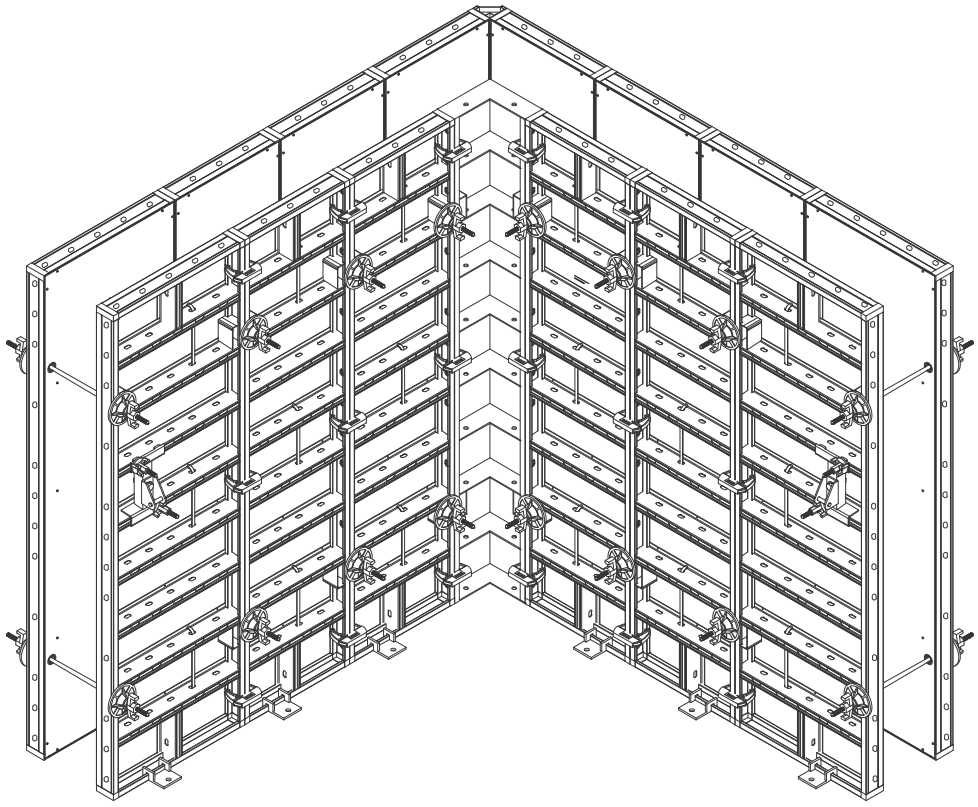




90º Inside Corner Detail

The Solo Form Inside Corner is designed to be rugged and easy to use. The all steel construction will stand up to years of job site use. Our inside corner is 12” x 12” and makes forming corner applications a snap! It is designed to remain a rigid corner, until the steel lock-in bars are released. Once the lock-in bars are released, the corner can achieve a 1° draft. This flexible feature allows for easy stripping in corner locations.

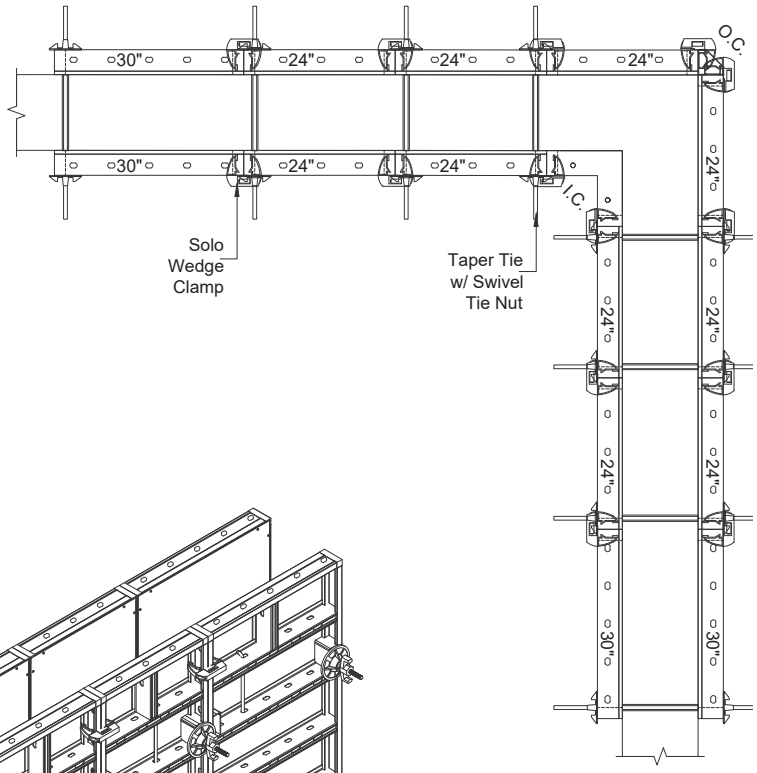


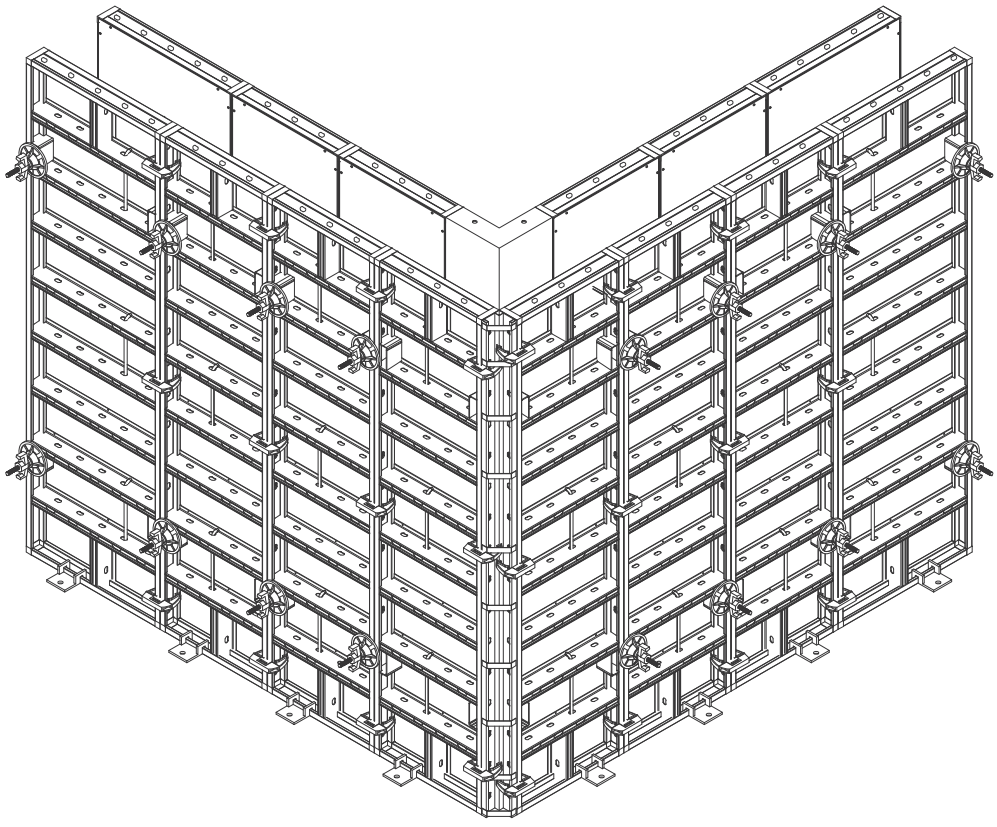


90º Outside Corner Detail

The outside corner angle is made entirely of steel. It requires a clamped connection, but can also be bolted along the entire length of the corner. Please pay careful attention to the details given on areas of increased formwork pressure.

Be advised that as walls increase in thickness, transferable loads increase at the corners. Please see pages 14 to 16 for clamping details.





Hinged Corner Application

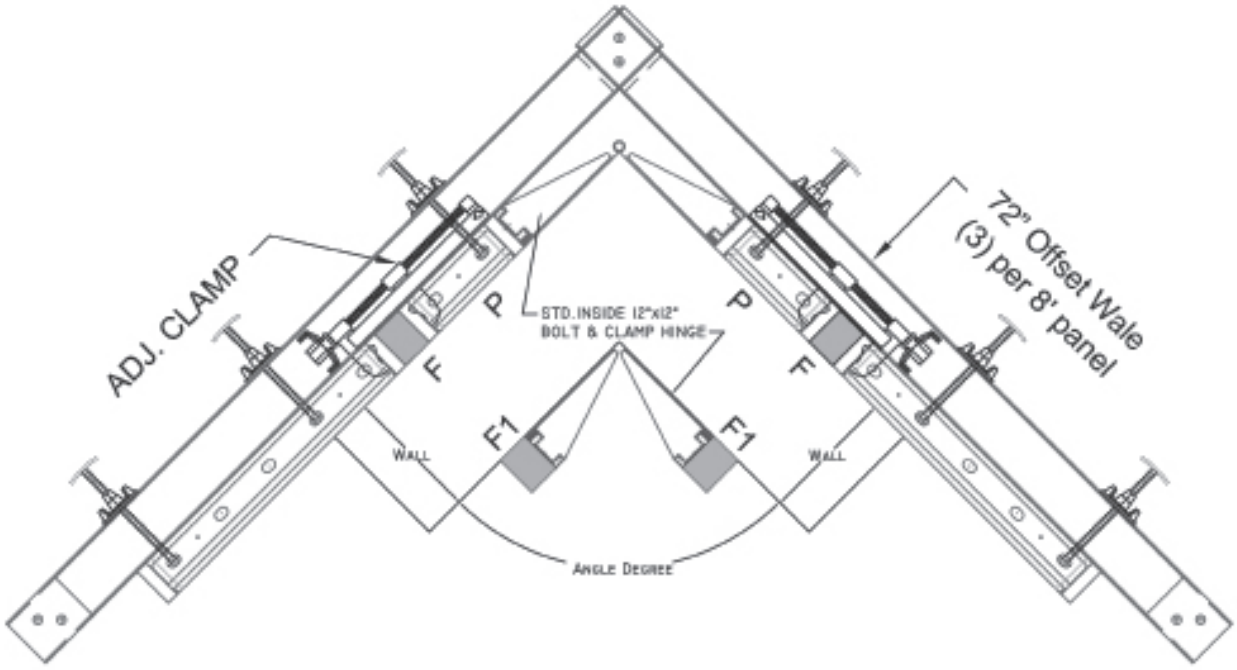


Table No. 1 - with 12" Hinge Inside and Outside

Wall / Angle	8"			10"			12"			14"			16"			24"		
Panel/Filler	F	P	F1	F	P	F1	F	P	F1	F	P	F1	F	P	F1	F	P	F1
120°	4-5/8"	–	–	5-3/4"	–	–	–	12"	5"	–	12"	4"	–	12"	2-3/4"	1-7/8"	12"	–
135°	3-5/16"	–	–	4-1/8"	–	–	5"	–	–	5-13/16"	–	–	–	8"	1-3/8"	–	10"	–
150°	2-1/8"	–	–	2-11/16"	–	–	3-3/16"	–	–	3-3/4"	–	–	4-5/8"	–	–	6-7/16"	–	–

Wall - Wall Width P - Panel Width F - Filler Outside F1 - Filler Inside

Hinged Corner Application

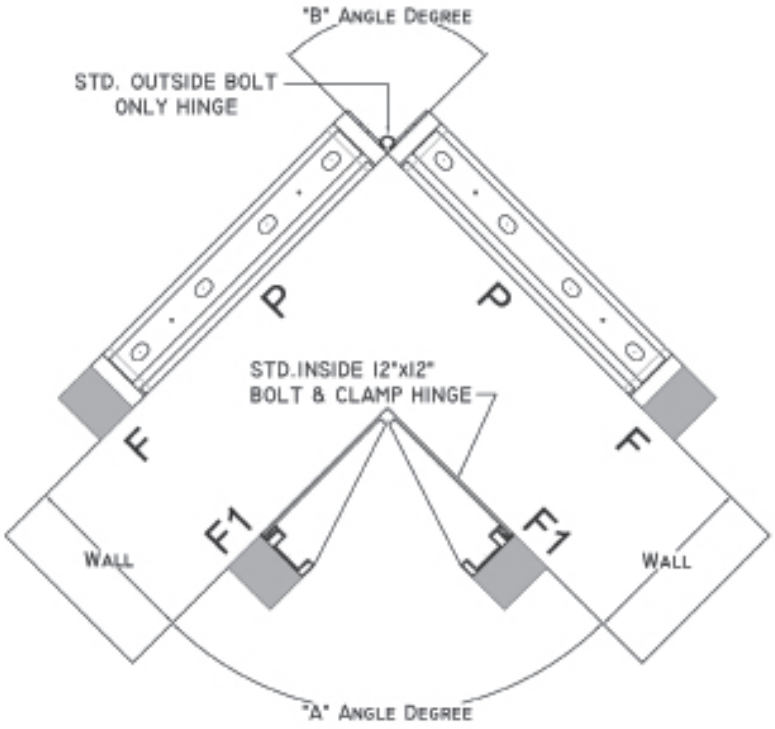


Table No. 2 - with 12" Hinge Inside and Standard Hinge Outside

Wall / Angle		8"			10"			12"			14"			16"			24"		
A	B	F	P	F1	F	P	F1	F	P	F1	F	P	F1	F	P	F1	F	P	F1
120°	60°	4-5/8"	12"	–	–	18"	1/4"	–	24"	5"	–	24"	4"	–	24"	2-3/4"	1-7/8"	24"	–
135°	45°	–	18"	2-11/16"	–	18"	1-7/8"	–	18"	1"	–	18"	3/16"	5/8"	18"	–	–	22"	–
150°	30°	2-1/8"	12"	–	2-11/16"	12"	–	3-3/16"	12"	–	3-3/4"	12"	–	4-5/16"	12"	–	7/16"	18"	–

Wall - Wall Width P - Panel Width F - Filler Outside F1 - Filler Inside A - Angle Degree Inside B - Angle Degree Outside

Acute & Obtuse Corner

Acute Angles

On outside hinge corner wales should be positioned to add strength to the corner.

Forms 9'0" - 8'0" 4 Wales

Forms 6'0" - 3'0" 2 Wales

Notes:

A wood block might be required to fix hinge position.

See pages 19-20 about additional clamp requirement.

Obtuse Angles

On both the outside and inside hinge wales should be positioned to add strength to the corner.

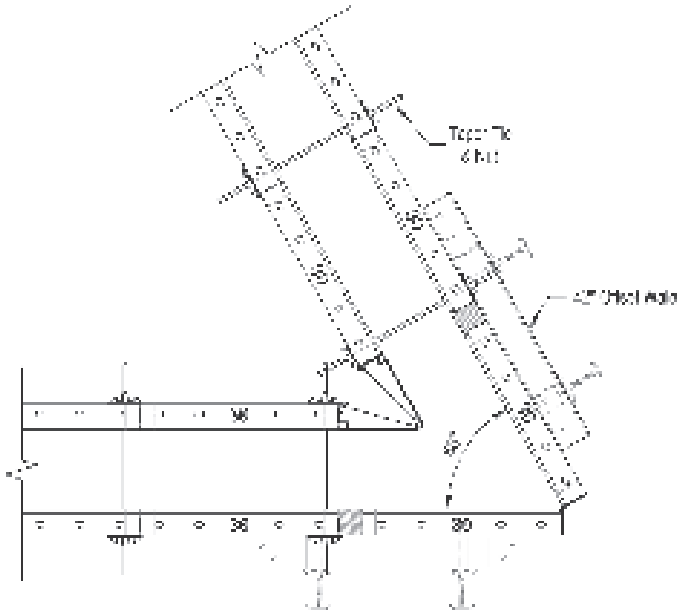
Forms 9'0" - 8'0" 4 Wales

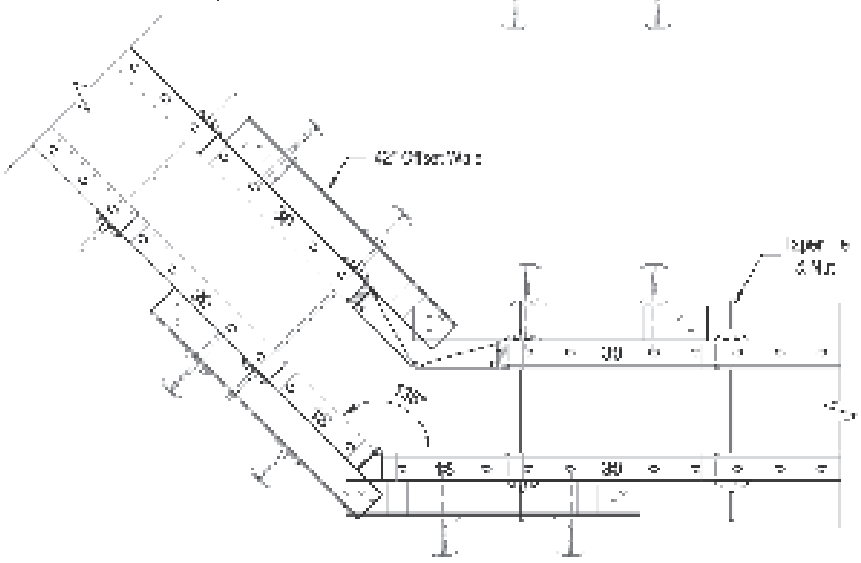
Forms 6'0" - 3'0" 2 Wales

Notes: A wood block might be required to fix hinge position.

See pages 19-20 about additional clamp requirement.

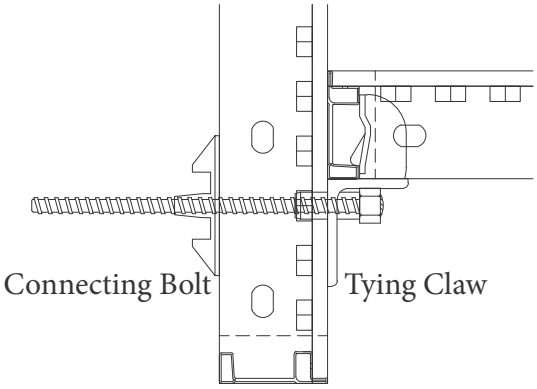
All specific applications should be evaluated by the Solo Form technical group.

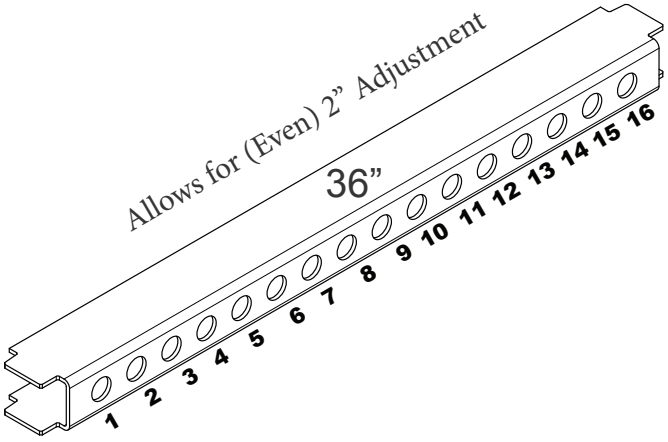


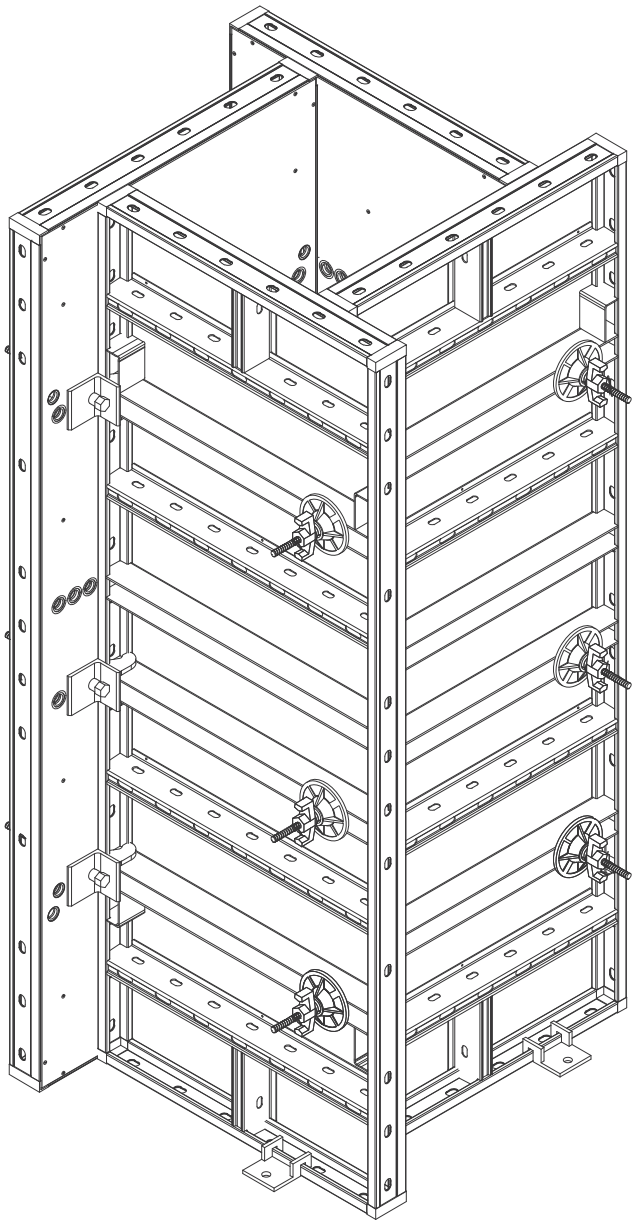


Column Forming With 36” Multi-purpose Panels

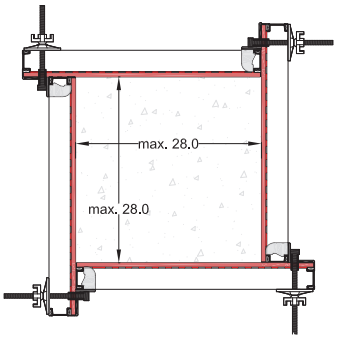
Panel Connection		
Panel Height	# of Tying Claws	All Cross Members Adjustable for Position-ing
8’ - 0”	3	
6’ - 0”	2	
5’ - 0”	2	
4’ - 0”	2	
3’ - 0”	2	

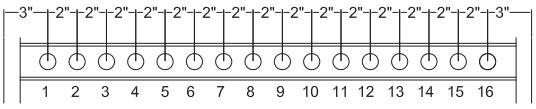






(Even) Hole Locations for Corner Assembly

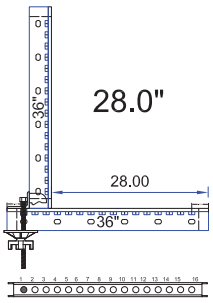




Even Direction Dimensions

Multi-Purpose Tie Hole Locations Allow For 2" Incremental Changes for Wall and Column Forming.

See page 51 for Corner Application Details and Examples.



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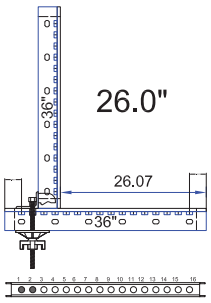

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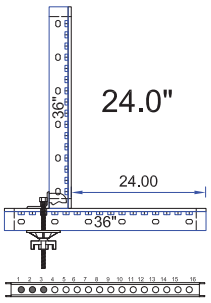

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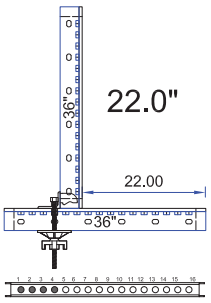

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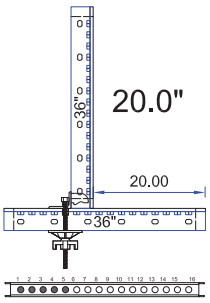

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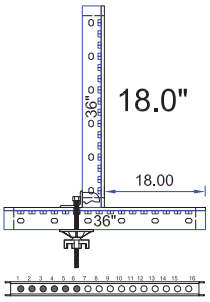

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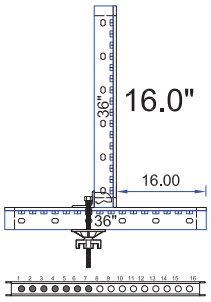

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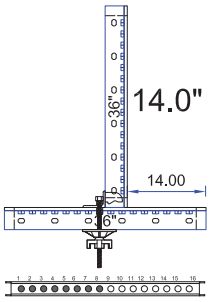

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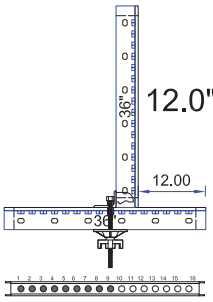

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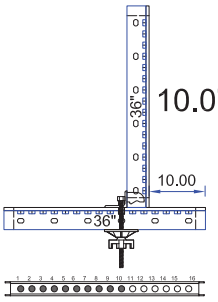

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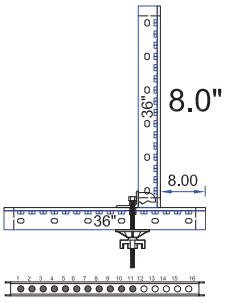

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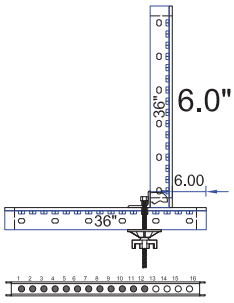

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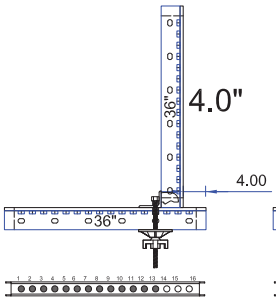

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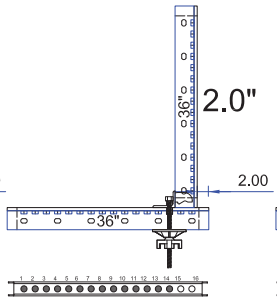

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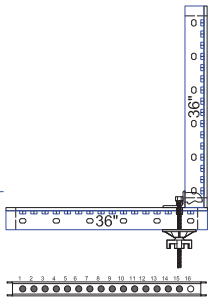


Hole No.15

Multi-Purpose Panel Corner Conditions

90° Corners

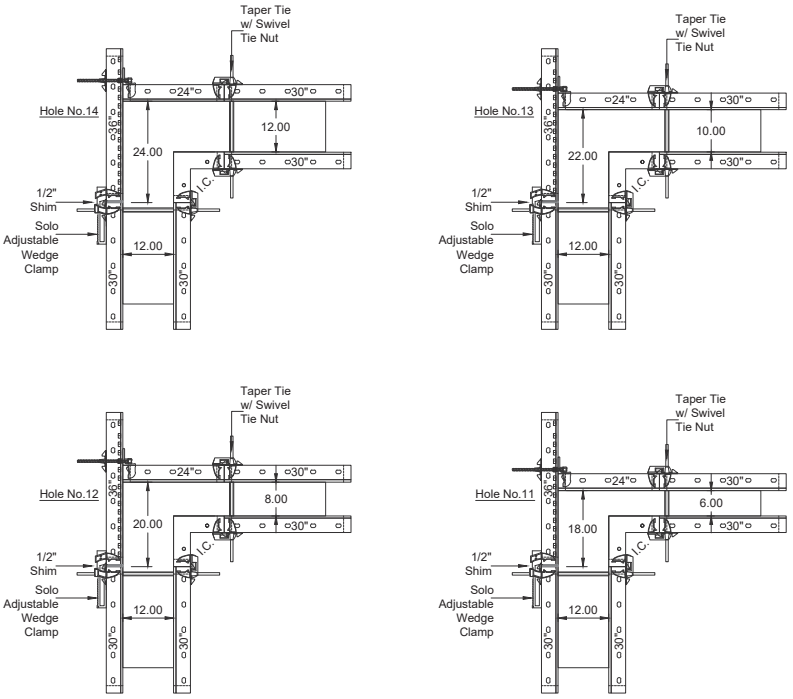
There are a number of ways to form 90 degree corners. The Flexible 90 Degree Inside Corner would be used in most inside corner applications that require a right angle. The outside corner panels can be made up of standard panels and fillers or a multi-purpose panel.

Multi-Purpose Panels

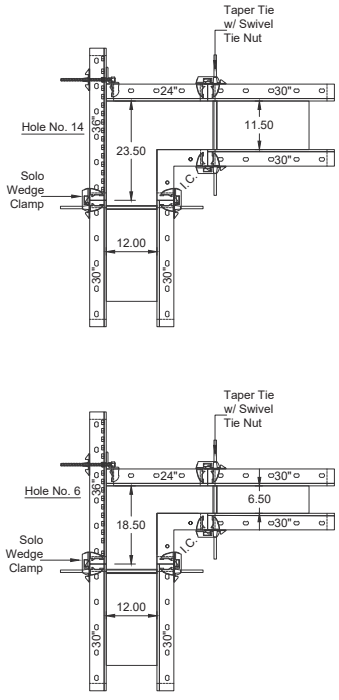
The Multi-Purpose (MP) Panel is pre-punched on 2" centers, which allows different wall thicknesses to be achieved by bolting thru the face sheet of the Multi-Purpose Panel with our Tying Claw.

Bi-directional hole placement means (MP) Panel Tie Hole Locations Allow for (Even) tying Locations in one direction and (Odd) in the other direction. The Multi-Purpose Panel can fit most wall thicknesses. With the use of shims, 1/2" Incremental Changes enable for even more precise wall and column forming.

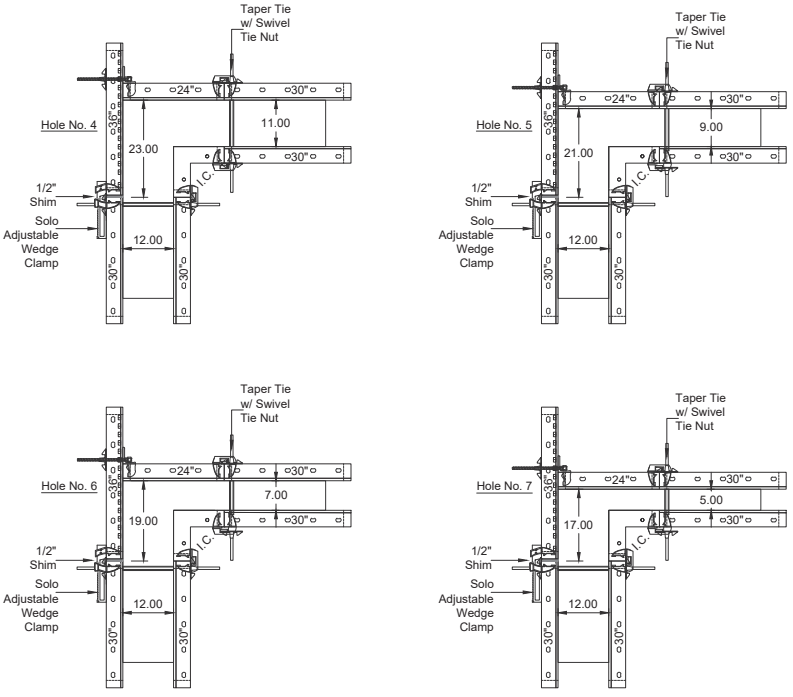
90° Corner w/ MP Panels On (Even) Dimensions



90° Corner w/ MP Panels On (1/2") Dimensions



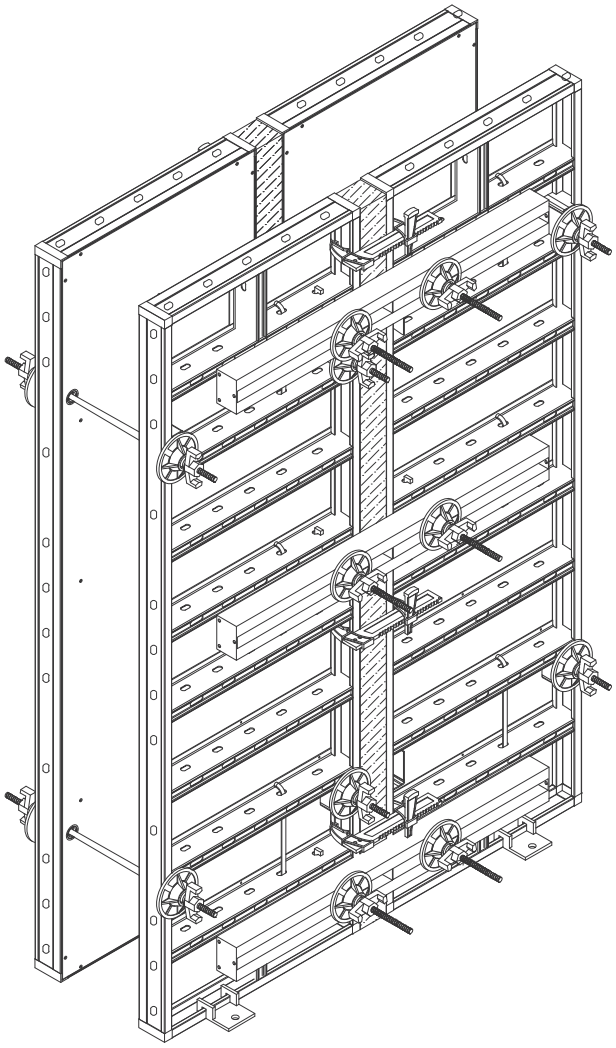
90° Corner w/ MP Panels On (Odd) Dimensions

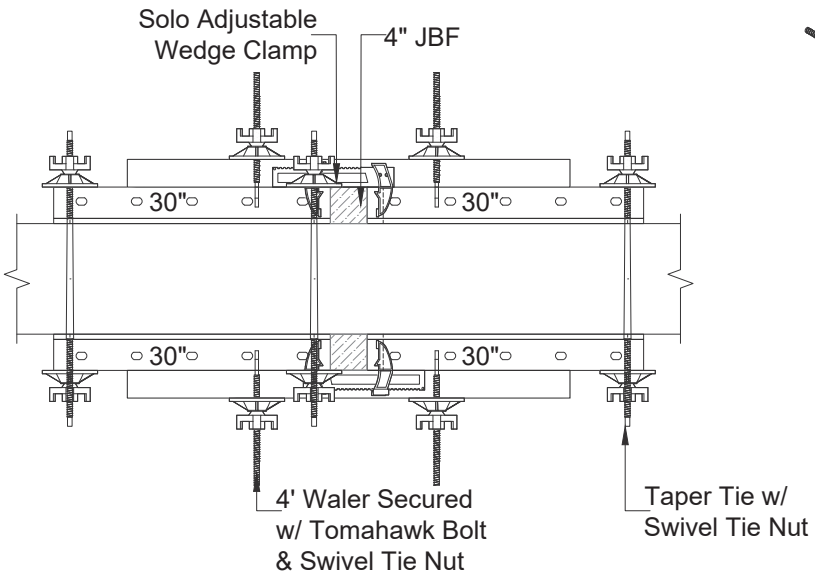


Longitudinal Fillers

4” Job Built Fillers

For job built fillers that are 0-4.75” the contractor can use an adjustable clamp.



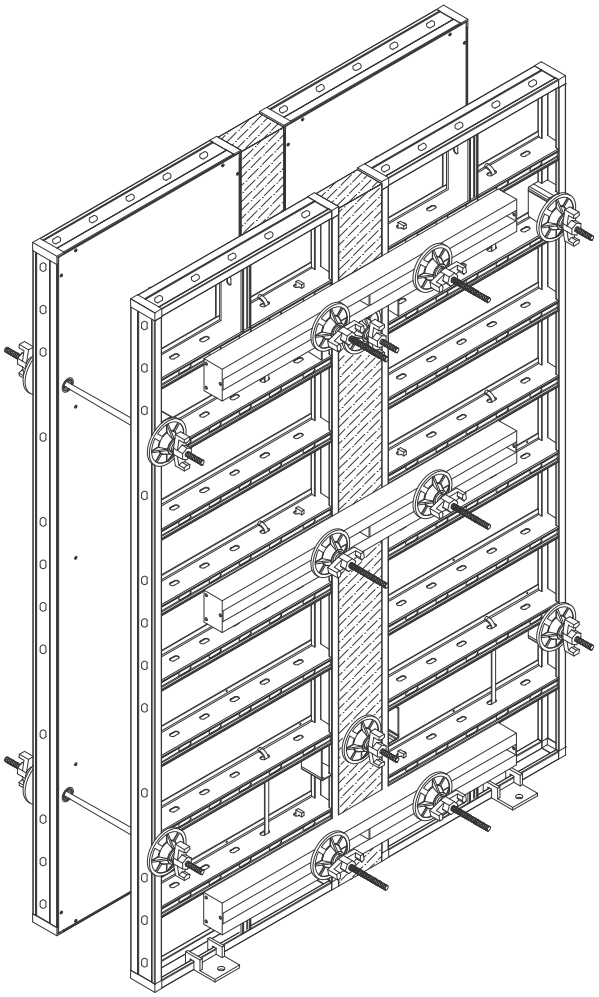


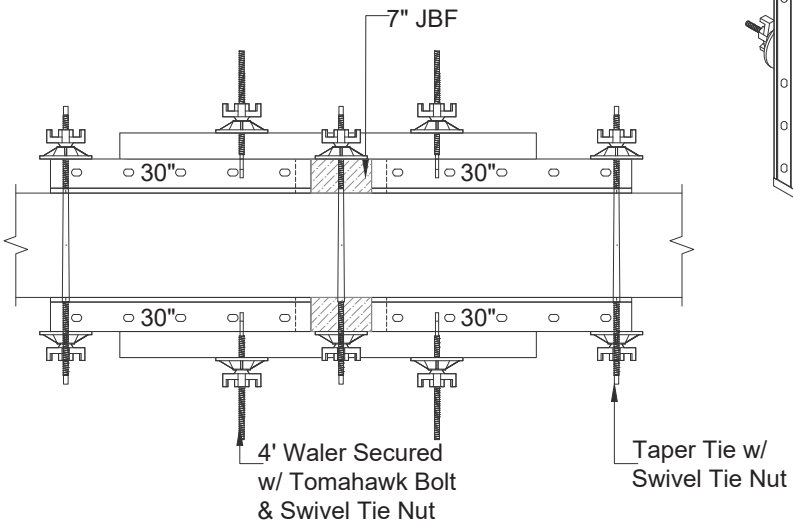
Longitudinal Fillers

Using Wood Blocking

For job built wood fillers there are two approaches. For fillers 0” to 6” the contractor can use the adjustable clamp and back it up with wales or he could drill 13/16” holes and bolt a wood filler using 3/4” coil rod bolts and nuts.

Note: Minimum of 4” using adjustable clamps or bolts requires the same amount of connection as shown on page 14 to 16.





Bulkhead Forming Walls

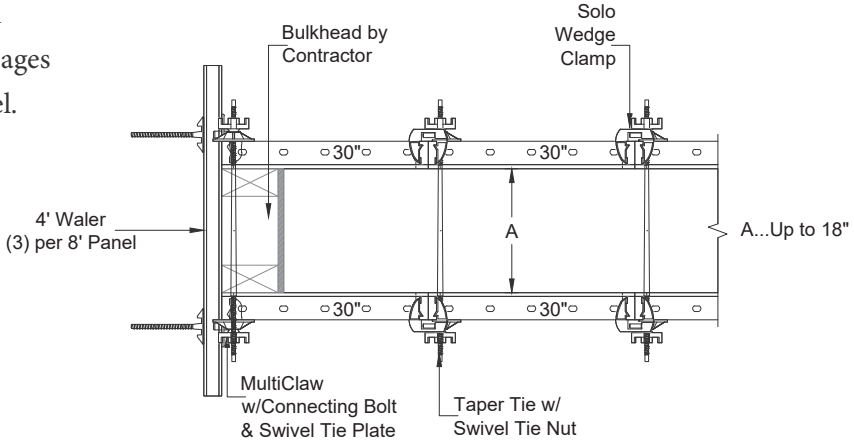
Bulkheads can be built in a number of ways.
Here are a few of the standard approaches:

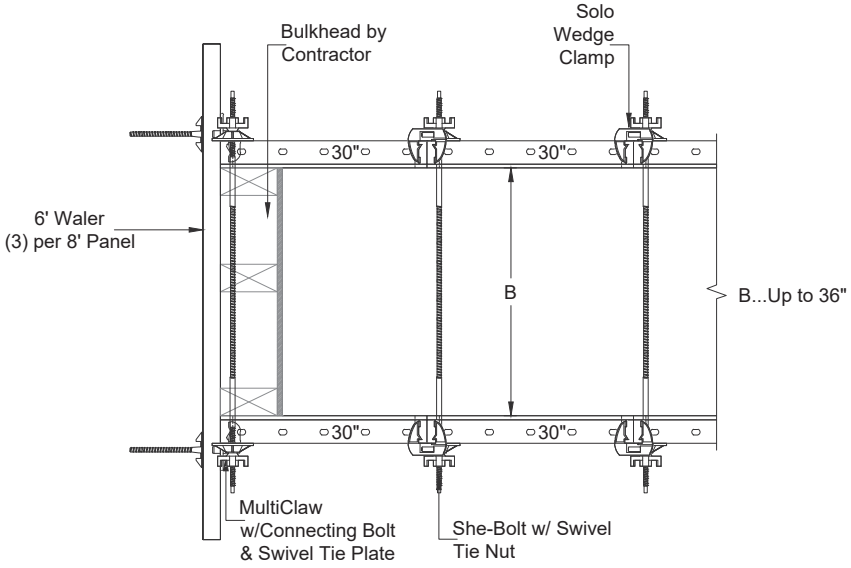
1. Utilizing an outside corner on each side of the wall and clamping in the appropriate filler size for the bulkhead.

2. Utilize job site material and build your own bulkhead from plywood and lumber. Please note that you will require a tie in the tie hole directly adjacent to the bulkhead to resist lateral forces.

3. Utilizing the SOLO Multi-Purpose panel, you can accommodate various wall thickness. Please see pages 50 to 51 for proper use of the Multi-Purpose panel.

Bulkhead



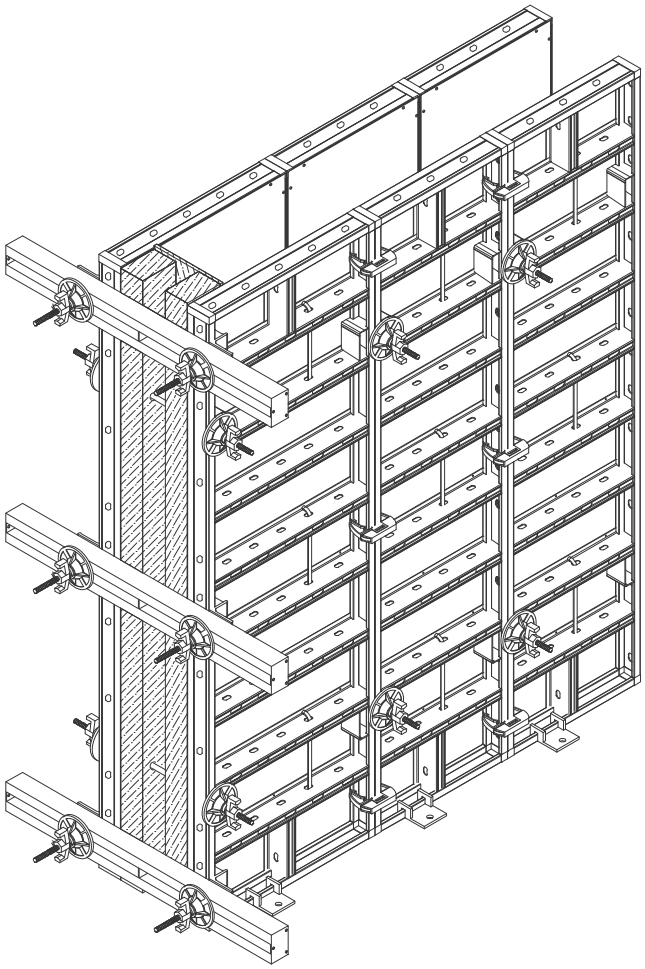


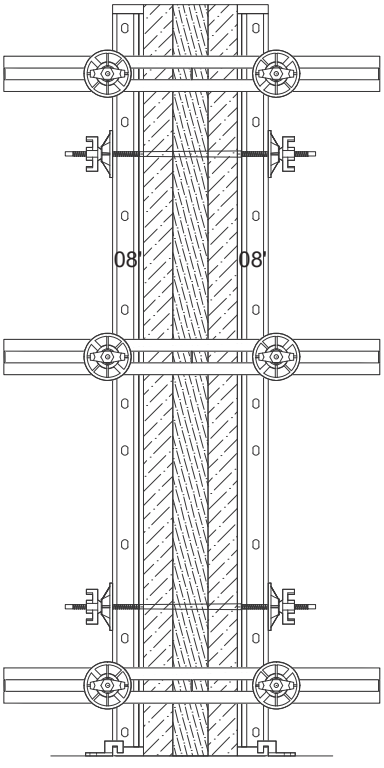
Bulkhead Channel Walls

Bulkhead wale channels are placed across the end of the forms to hold wooden bulkhead system. There are two sizes of channels: 42” offset wale and 72” offset double wales. When used with Tying Claw, Connecting bolt, and Swivel Tie Nut 15mm and attached to side rails of the form a rigid wale end is made.

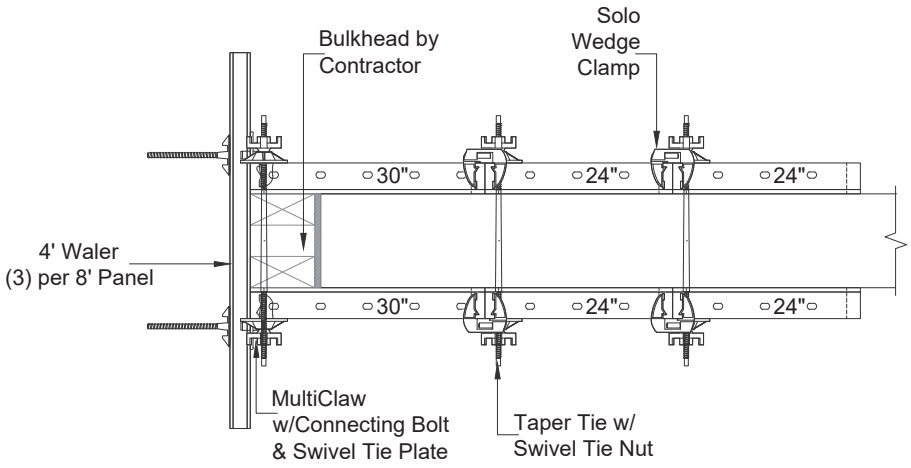
For walls:

8’ tall 16” wide 3 wales required
8’ tall 16”-24” wide 4 wales required
8’ tall 24”-30” wide 5 wales required



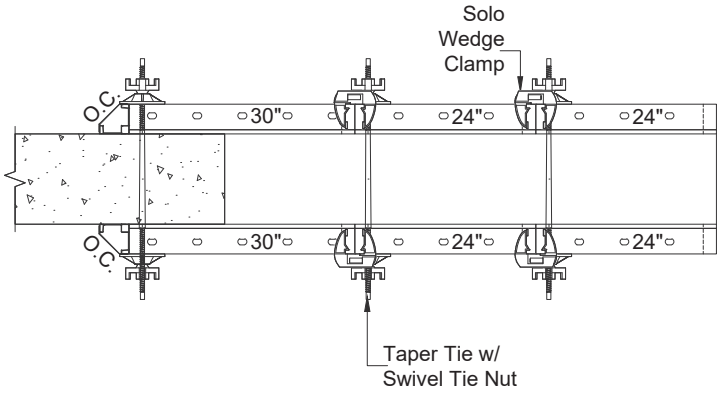


End View

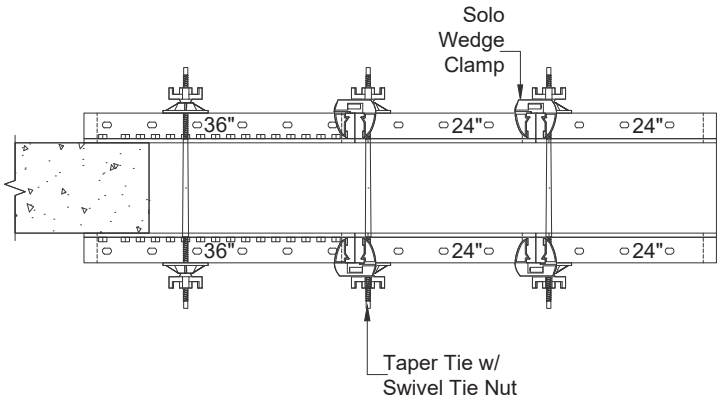


Connecting to Existing or Previous Pour

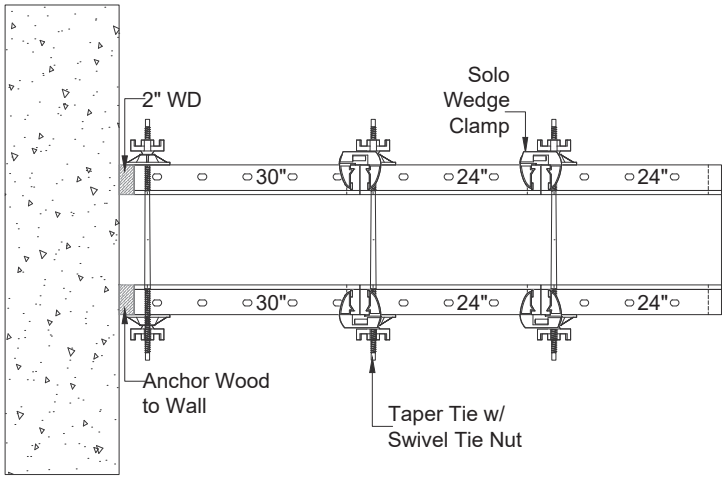
Fasten through existing tie hole locations.



Overlap the previous pour and tie through the Solo Form multi-purpose panel.

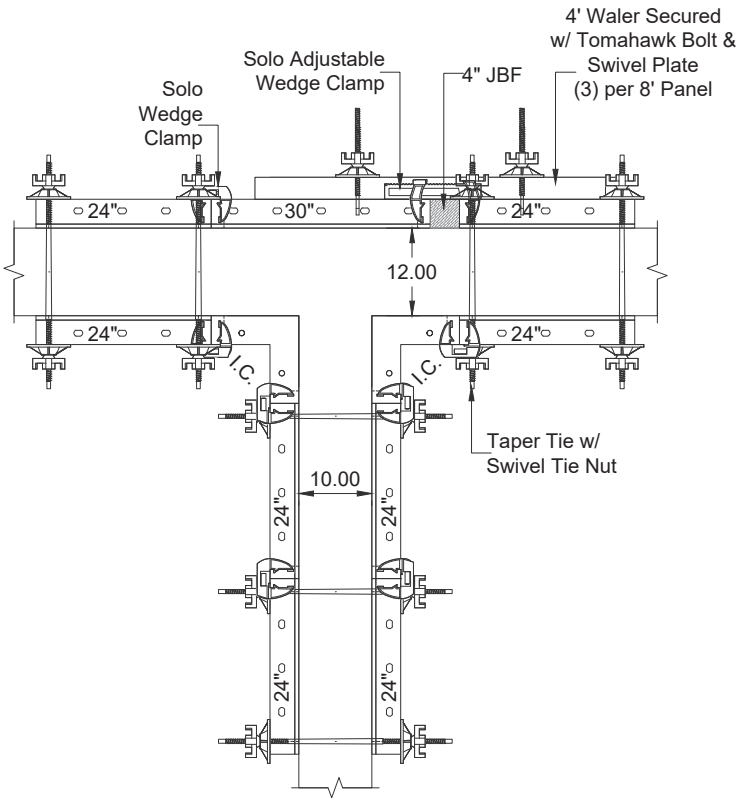


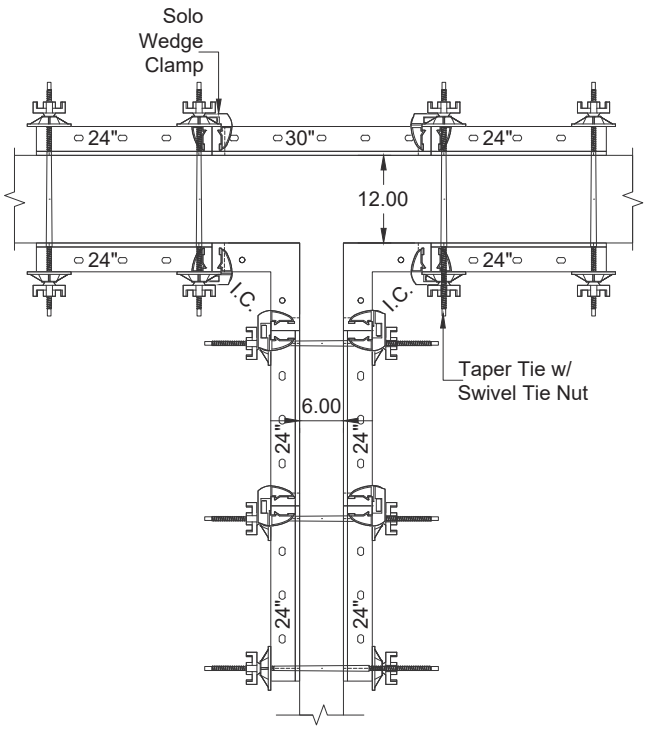
Anchor Solo Form panel to existing concrete wall.



Typical T-Wall Intersection Details

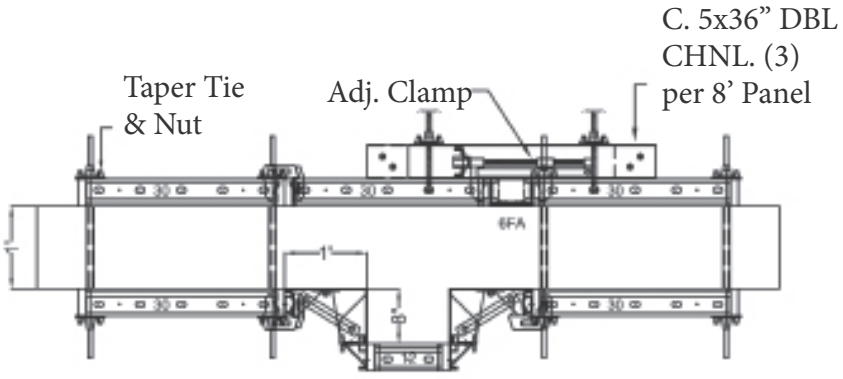
Typical T-Wall intersections can be formed using the 12” x 12” Inside Corner and the appropriate opposing panel and ties. If a filler panel or wood filler is required to make up the dimension, then it is necessary to wale the joint. In each application of this nature, please refer questions to your SOLO technical representative.



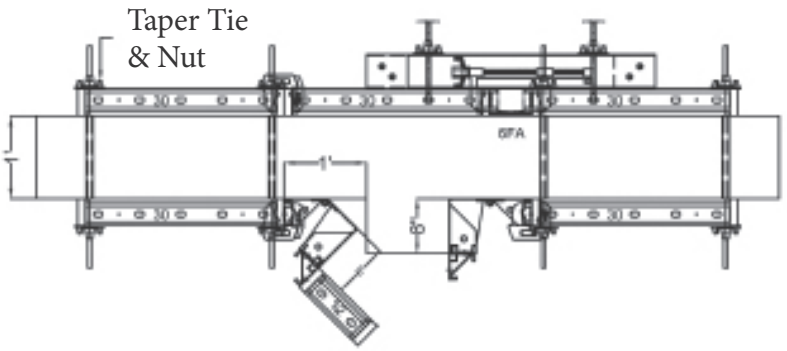


Pilaster Corners

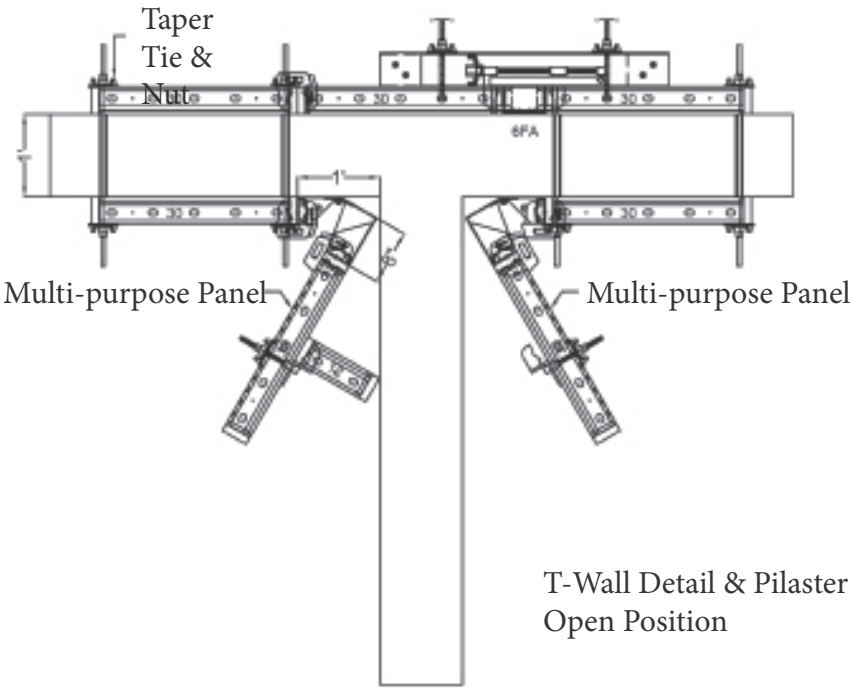
Pilaster details can be formed fast and economical. The pilaster corner is designed to be used in conjunction with standard panels or the multi-purpose panel. The form is designed to hinge on one side and rotate around the hinge point. Rotation is allowed to happen due to the unique rolled face of the inside corner. This rotation provides relief of 3⁄4". The pilaster form dimensions are 12" x 8". The 8" side goes on the pilaster face. Careful attention should be paid to inserting the pilaster locking bars prior to concrete placement.



Pilaster Detail
Closed & Locked Position



Pilaster Detail
Open Position

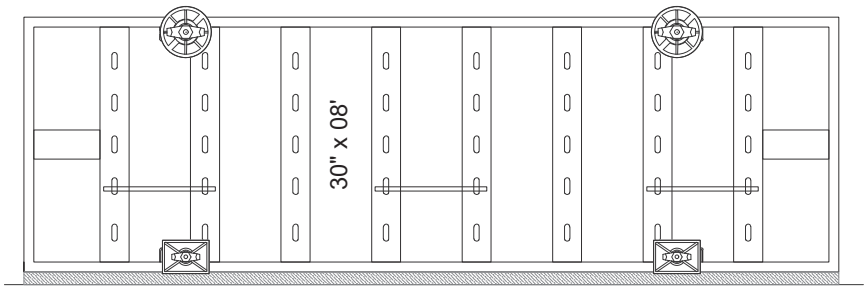


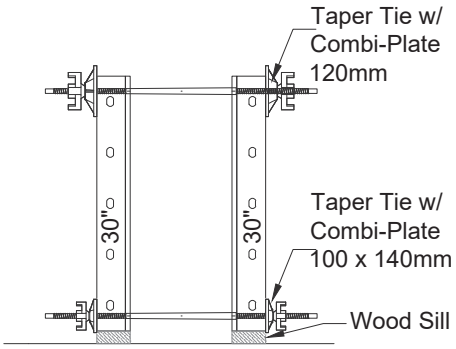
T-Wall Detail & Pilaster
Open Position

Horizontal Panel Forming

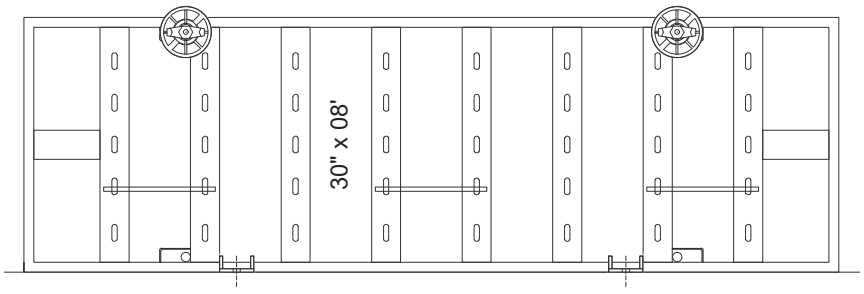
- By laying panels on there sides, short walls, footings, and base mats can be formed using Solo Form.
- Through the use of the footing clip as a base anchor and tying across the top of the formwork, a variety of forming applications can be accomplished.
- Note: Two ties and two footing clips are required per panel. The top tie bracket or existing tie hole can be used depending on pour height.

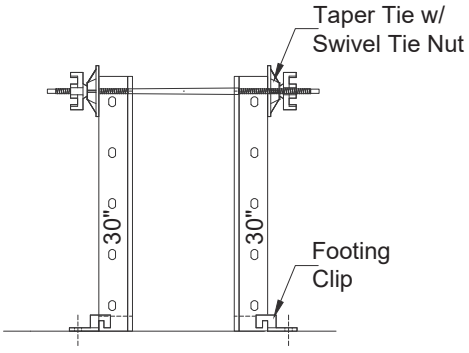
Tying Top & Bottom for Single layer Formwork:





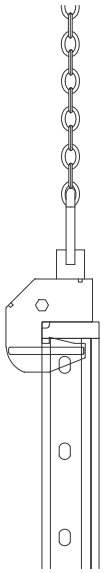
Tying Top & Footing Clip Bottom for Single layer Formwork:





Crane Lifting

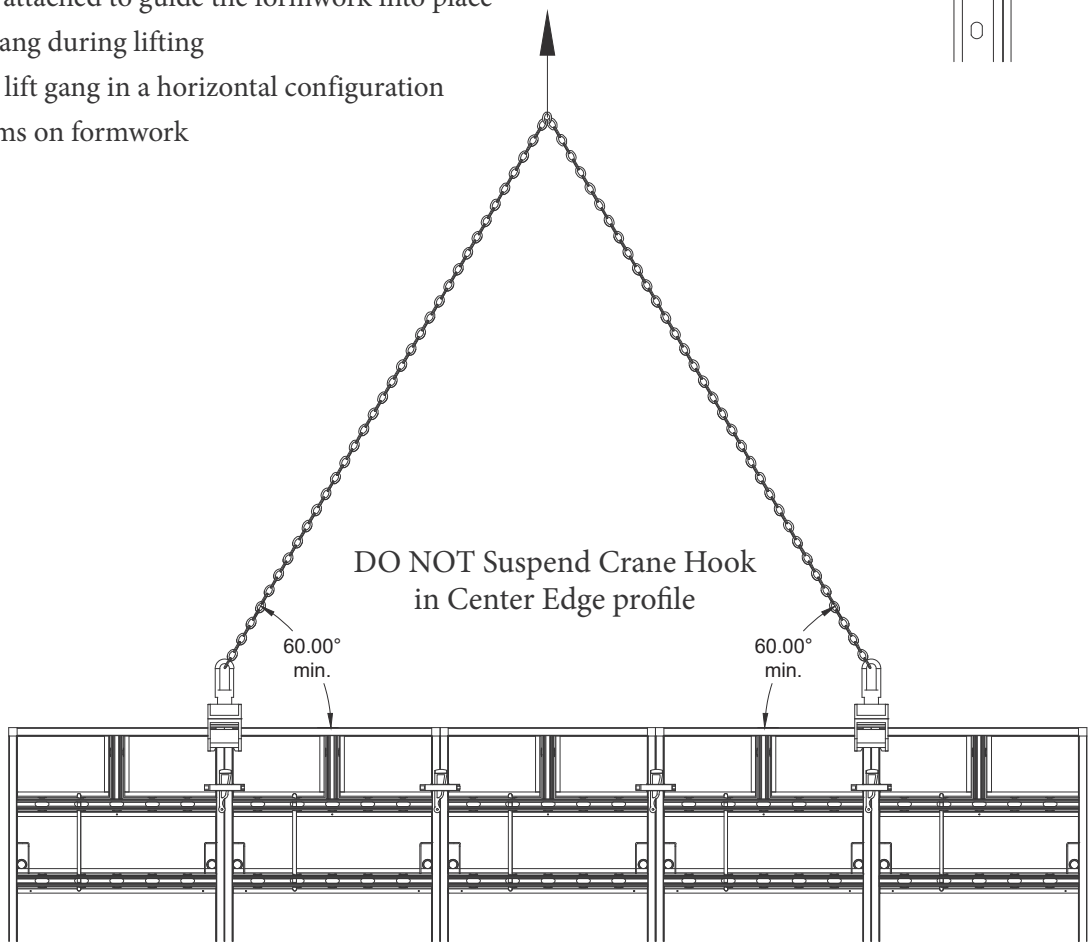
The crane hook is designed to lift only Solo Form panels and fillers. This crane hook locks into place and must be manually release from the form by releasing the spring loaded latch. The maximum allowable working load on each crane hook is 1600 pounds.



Always attach the crane hook to the panel joint to prevent any movement of the crane hook. When panels are on their side, the crane hook may be placed over the cross member location.

Make sure to balance the crane hook locations and keep the lifting lines above the 60 degree minimum angle.

- All lifting hardware must be tested and maintained by the contractor
- All gangs must have a tag line attached to guide the formwork into place
- Never stand under or near a gang during lifting
- Never use a the crane hook to lift gang in a horizontal configuration
- Never fly gangs with loose items on formwork



Notes

Notes

Articulated Waler – Radius forming from 20’ to 180’, with 3/4” plywood, aluminum or wood beams, and an adjustable waler.

Bar Support – Wire slab bolsters and high chairs, with optional epoxy-coat, plastic-dip, plastic-tip or plate, to meet almost any slab requirement.

Bridge Deck – Overhang brackets and hangers provide an efficient deck forming solution for precast concrete or steel I-beam bridge structures.

Coil Ties – 2-Strut and 4-Strut designs, in standard and heavy-duty capacities, with optional cones, waterseals or custom combination, for job-built forming.

Euro Rod – 15mm and 20mm taper ties, she-bolts, inner ties, washers and wing nuts compatible with European-brand forming systems.

Floor Dowels – Plates, sleeves, baskets and joint nosings for high-performance concrete floors.

Pipe Braces – Contractor-preferred braces, with rated capacities and lengths ranging from 7’6” to 62’6”, for almost any forming application.

Precast – Inserts, anchors, connectors and lifting systems for efficient precast concrete production.

Self-Riser – Integrated hydraulic system for multi-story building cores that virtually eliminates crane time.

Shoring – A conventional 10K load/leg system, with base plates, cross braces, screw jacks and U-heads, for productive deck support.

Snap Ties – Ties and brackets, with ¾” plywood and 2x4 lumber, create a simple and effective plywood forming system.

Staybox – A pre-engineered and pre-assembled rebar keyway that simplifies forming at wall and deck intersections.

Stud Rail – A reinforced column-to-deck connection that reduces shearing, transfers load further into the slab and eliminates column capitals.

SureCurve™ – Concrete tanks and curved walls quickly take shape with this flexible and reusable gangform system.

SurePly™ – An industry-recognized handset system, with more than 80 standard panel and filler sizes, for almost any forming application.

Tilt-Up – A start-to-finish system of lifting inserts, plates and hardware for tilt-up panel construction.

Walers – Double channel walers align panels, carry taper tie loads and maximize the surface area of almost any gang.

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