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QUALITY ASSURANCE AND UNPARALLELED SERVICE

Quality control extends beyond our manufacturing plant. We are actively engaged in custom design and engineering to improve our product line. We constantly re-evaluate our products, and regularly consult with contractors, builders, and distributors. We also conduct on-site training and inspections to ensure our clients' success.

Listening to your needs and providing solutions has been the hallmark of our business since day one. We design products that meet your requirements and demands, not ours. Special applications and custom design are a challenge, not a problem. That's why we lead the industry in developing solutions through new designs.

Consider the quality...It's the impression you leave

Beautiful Face...

"What attracted me to these concrete forms is the inset face sheet. It gives the forms strength to keep from



bending at the corner. Yet they give you a beautiful face. They are light enough that one man can carry a 3' x 9' concrete form so I need fewer people to unload, set and strip. We've discovered we can have all three sides of an impossible triangle - good, fast and profitable."

----Larry Swearingin, Lawson, MO

Quality Workmanship...

"Over the last 30 years I have purchased and used concrete forms from several different



manufacturers. All aspects of the Wall-Ties & Forms' forming equipment, from manufacture to on-the-job use, is superior to any other concrete forming system I have used."

----Chris Surritte, Raleigh, NC.

Innovation...

"In over 30 years in the concrete equipment supply business it is my experience that WTF is the most



innovative company in the concrete form industry. Their ability and willingness to design around customer needs is second to none."

----John Hess, Belleville, IL



Wall-Ties & Forms, Inc. manufactures products in over a 100,000 sq. ft. facility located in Bonner Springs, KS. WTF utilizes advanced robotics, fiber optics, and the latest in computer technology to produce the best quality product at a competitive price.



WHY CONSIDER WTF CONCRETE FORMS?

LABOR SAVINGS

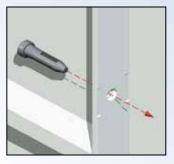
Lightweight Aluminum

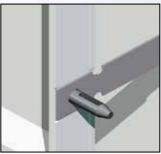
The concrete forms are made of lightweight aluminum which allows the largest components to be hand carried.



Simplicity

Simple Tie, Pin, and Wedge system is used to set the concrete forms. This allows unskilled labor to be quickly trained in the use of the equipment. (see page #33). Also available is the WTF Attached Pin (see page #35).





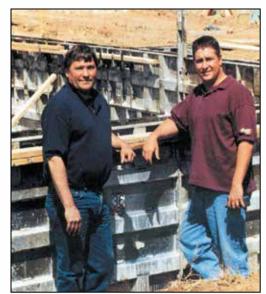




Speed

The system is fast. It is not uncommon for a contractor to double or triple the output of their concrete form crews when they convert from a wood faced form system to WTF forms.

Faster production, cost efficiency, and more attractive walls caused Tom Schreivogel and his son-in-law, Brian Hladik, to abandon wood forms for concrete forms. "The handwriting was on the wall," says Schreivogel.





WHY CONSIDER WTF CONCRETE FORMS?

LONG LIFE OF CONCRETE FORMS

OUR DESIGNS REVOLUTIONIZED THE INDUSTRY!

WTF is committed to engineering and manufacturing the best, strongest, most durable concrete forming systems available in the marketplace. The key to our success and your satisfaction is our strict adherence to a basic business principle: Products are designed and built to fit your needs.

Dear Ross & Orval,

Minimal Maintenance

With minimal maintenance, it is not unusual for a contractor to get 1,000, 2,000 or as many as 3,000 uses with the WTF concrete form.

> They have held up better than any other aluminum forms I have They have held up better than any other aluminum forms I have observed and there is no doubt in my mind that Wall-Ties are the best built forms on the market today. Many of my competitors were envious of the way my forms held together and how they only in the day I traded were envious or me way my torms near together and now they continued to pour attractive brick faced walls to the day I traded

conunued to pour auracuve brick taced wans to the day t trade them to Carroll. I'm sure they are still pouring good walls for I purchased the textured brick wall forms again but went to the 9 foot forms as that is what my home builders are asking for You can count on me as one of Carroll & Wall-Ties satisfied You can count on me as one of Carroll & Wall-Ties satisfied customers. Your equipment has treated me right and your service is excellent.

R-Way Concrete - Redi-Mix
POLINED ENSINENT WALLS - BRICK DESIGN
DENNIS FLOOTHOUSE SHOW SECTION
105 N. 19TH STREET-P.O. BOX 231-ADEL IOWA 50003

This letter is in reference to the set of textured aluminum wall

then I have poured approximately 150 walls per year using those forms. This comes to a total of approximately 2700 total pours.

My forms had minimal maintenance and have many more pours left in them. I traded these forms to your distributor Carroll

forms I purchased from Wall-Ties 18 years ago. Since

Distributing three months ago. I received approximately

What I had paid you for the equipment 18 years ago.

Dennis L. Richards, President

Longevity

The increased longevity of our

forms was accomplished by examining the weaknesses of other form systems and making them our strengths. WTF founders repaired many forms and discovered four common weaknesses. We then designed our forms to

improve or solve those weaknesses. When looking at concrete form systems, there are four areas to evaluate before making your form purchase decision:

> Face Sheet Protection Weld life **Bushing Strength Bracing Construction**

The following several pages is a glimpse of how we took others' weaknesses and made them our strengths.



FACE SHEET PROTECTION



Face sheet protection is a critical area in determining life of the concrete form. Face sheet peel is a common problem because many manufacturers simply overlap the siderail with the face sheet. Over time the face sheet with a thickness of .090 to .125 will pull away from the siderail adversely affecting the concrete wall appearance and ultimately decreasing form life.

WTF solved this problem by inventing the Inset Face Sheet. Because the face sheet is inset, it is not only protected by the siderail, but the weld is also much closer to the face sheet edge. This innovation provides for a much stronger concrete form.

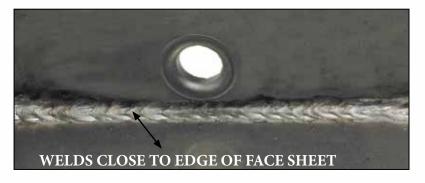
THICKENED ENDBAR

Unique feature of WTF forms is the endbar design that allows standard pin and wedge to tighten when stacking concrete forms.



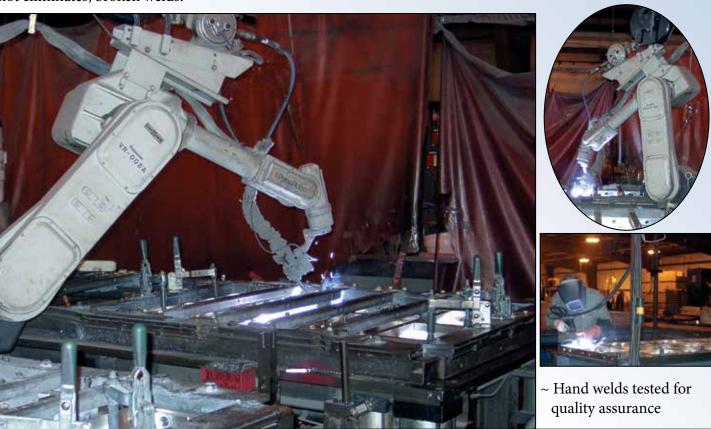
WTF Total Perimeter Inset Method:

- ~ Ensures stronger bond with welds closer to the edge of face sheet
- ~ Prevents damage and wear to edges
- ~ Provides uniform wall appearance

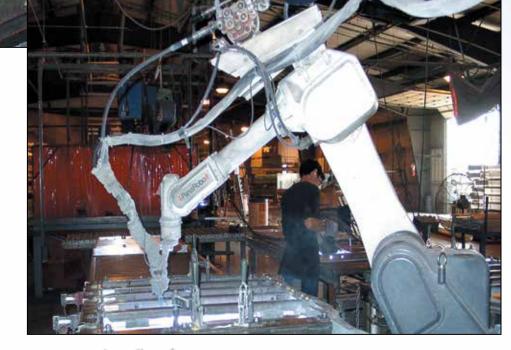


WELD LIFE

WTF has extended the life of welds by using a state-of-the-art robotics welding system on full panels. These panels receive the most concrete placement pressure. A soft alloy weld wire is utilized in the weld process. This ensures greater flexibility without sacrificing strength when the concrete form is in use. This greatly reduces, if not eliminates, broken welds.



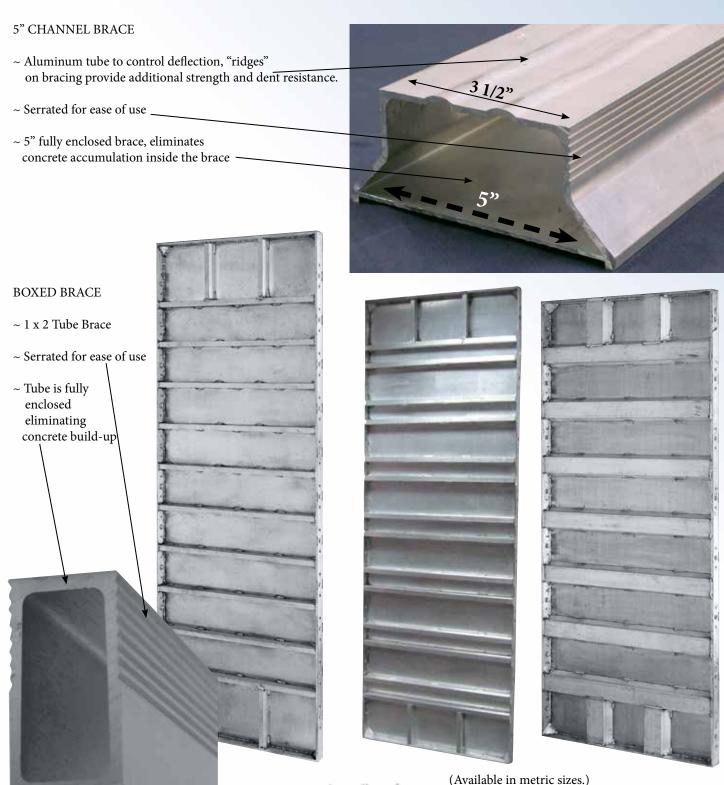
- ~ Robotics ensure quality and consistency
- ~ Continuous welds around perimeter provide longer concrete form life





BRACING CONSTRUCTION

Bracing construction is extremely important to avoid weight gain through concrete accumulation under the horizontal brace. Concrete accumulation can occur when there is an open hat section. Weight gain shortens form life and increases the likelihood of back injuries. By enclosing the hat section, WTF ensures no accumulation of concrete, subsequently, no weight gain. WTF braces are serrated to simplify carrying and using of the concrete forms.



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STANDARD AND SPECIALTY CONCRETE FORMS

8-8 / 8-24

This hole pattern makes the 8-8 / 8-24 ideal in markets converting from block to poured walls. This allows the contractor to easily accomplish 8" jumps.

- ~ Widths from 36" 1"
- ~ Heights up to 120"
- ~ Standard face sheet thickness .125
- ~ Also available in .115
- ~ Brace is a 1 x 2 tube
- ~ 36" x 96", .125 thickness weighs 84#
- ~ 36" x 108", .125 thickness weighs 90

7" spacing between horizontal braces

TOTAL PERIMETER INSET FACE SHEET

- * Prevents damage and wear to face sheet edges.
- * Superior weld penetration achieved by placing weld near the edge of the face sheet.
- * Increases overall strength and life of panel without leaving unsightly seams.
- * Corner gussets added to reinforce corner.

BRACING

- * "Boxed" design makes it impossible for concrete to enter and accumulate inside brace.
- * Ends are welded on sides and tops to strengthen the form and ensure concrete cannot enter brace.
- * Extruded Braces are serrated to prevent slipping and aid in handling, yet will not accumulate concrete.



SIDERAIL

- * Heavy duty extruded aluminum extends life of panel.
- * Dual contact for ease of alignment.
- * Notch for inset face sheet strengthens panel.

BUSHINGS

- * Heat treated, plated steel bushing insure maximum strength.
- * Two point wedge contact allows for easy release of wedges.

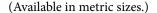


-WELDING

- * Continuous weld around concrete form, including over top of bracing.
- * Full panels are welded with computerized Robot to ensure consistency and quality.
- * Certified Quality Control Program.

THICKENED ENDBAR

Unique feature of WTF forms is the endbar design that allows standard pin and wedge to tighten when stacking concrete forms.







The 6/12 hole pattern allows the contractor to easily accomplish 12" jumps.

- \sim Available in widths from 36" 1" and heights up to 120"
- ~ Standard face sheet thickness .125
- ~ Also available in .115
- ~ 36" x 96", .125 thickness weighs 93#
- ~ 36" x 108", .125 thickness weighs 102#

TOTAL PERIMETER INSET FACE SHEET

- * Prevents damage and wear to face sheet edges.
- * Superior weld penetration achieved by placing weld near the edge of the face sheet.
- * Increases overall strength and life of panel without leaving unsightly seams
- * Corner gussets added to reinforce corner.

BRACING

- * 5" channel with shim design makes it impossible for concrete to enter and accumulate inside brace.
- * Ends are welded on sides and tops to strengthen the form and ensure concrete cannot enter brace.
- * Extruded Braces are serrated to prevent slipping and aid in handling, yet will not accumulate concrete.

SIDERAIL

- * Heavy duty extruded aluminum extends life of panel.
- * Dual point contact for ease of alignment.
- * Notch for inset face sheet strengthens panel.

BUSHINGS

- * Heat treated, plated steel bushing insure maximum strength.
- * Two point wedge contact allows for easy release of wedges.

WELDING

- * Continuous weld around form, including over top of bracing.
- * Full panels are welded with computerized Robot to ensure consistency and quality.
- * Certified Quality Control Program.

THICKENED ENDBAR

* Unique feature of WTF forms is the endbar design that allows standard pin and wedge to tighten when stacking concrete forms.



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(Available in metric sizes.)





7" spacing between horizontal braces

Every Panel is Built to Last...

In addition to the 6-12 we offer 6-12 Double Bracing. This upgrade is constructed with a double 1 x 2 tube providing less weight, easier handling and more nailing area. This form has the durability for any project residential or lite commercial.

- ~ Widths from 36" 1"
- ~ Heights up to 120"
- ~ 1 x 2 Tube Brace
- ~ Standard face sheet thickness .125
- ~ Also available in .115
- ~ 36" x 96", .125 thickness weighs 91#
- ~ 36" x 108", .125 thickness weighs 100#

TOTAL PERIMETER INSET FACE SHEET

- * Prevents damage and wear to face sheet edges.
- * Superior weld penetration achieved by placing weld near the edge of the face sheet.
- * Increases overall strength and life of panel without leaving unsightly seams.
- * Corner gussets added to reinforce corner.



BRACING

- * "Boxed" design makes it impossible for concrete to enter and accumulate inside brace.
- * Ends are welded on sides and tops to strengthen the form and ensure concrete cannot enter brace.
- * Extruded Braces are serrated to prevent slipping and aid in handling, yet will not accumulate concrete.

SIDERAIL

- * Heavy duty extruded aluminum extends life of panel.
- * Dual point contact for ease of alignment.
- * Notch for inset face sheet strengthens panel.

BUSHINGS

- * Heat treated, plated steel bushing insure maximum strength.
- * Two point wedge contact allows for easy release of wedges.

WELDING

- * Continuous weld around form, including over top of bracing.
- * Full panels are welded with computerized Robot to ensure consistency and quality.
- * Certified Quality Control Program.

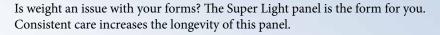
THICKENED ENDBAR

* Unique feature of WTF forms is the endbar design that allows standard pin and wedge to tighten when stacking concrete forms.









Available in:

- ~ 36" x 120" weighs only 90#
- ~ 36" x 108" weighs only 81#
- ~ 36" x 96" weighs only 73#

TOTAL PERIMETER INSET FACE SHEET

- * Prevents damage and wear to face sheet edges.
- * Superior weld penetration achieved by placing weld near the edge of the face sheet.
- * Increases overall strength and life of panel without leaving unsightly seams.
- * Backbone added for reduction in pillowcasing.
- * Corner gussets added to reinforce corner.
- * Striker pads for protection of .094 face sheet.



BRACING

- * Ends are welded on sides and tops to strengthen the form and ensure concrete cannot enter brace.
- * Three convexed "ridges" on bracing provide additional strength.

► SIDERAII

- * Heavy duty extruded aluminum extends life of panel.
- * Dual point contact for ease of alignment.
- * Notch for inset face sheet strengthens panel.

► BUSHINGS

- * Heat treated, plated steel bushing insure maximum strength.
- * Two point wedge contact allows for easy release of wedges.

WELDING

- * Continuous weld around form, including over top of bracing.
- * Certified Quality Control Program.

THICKENED ENDBAR

* Unique feature of WTF forms is the endbar design that allows standard pin and wedge to tighten when stacking concrete forms.



(Available in metric sizes.)







Because this form is engineered for minimal deflection and pillowcasing, it is ideal for commercial applications requiring the flattest possible wall surface. This is accomplished by manufacturing the form 24" wide with a .156 face sheet. This form is built with the 8" hole pattern. The Commercial Form is used in the SecureTech Building System, as well as the WTF International Mass Housing System.

- ~ Width 24" ~ Heights up to 144" ~ 1 x 2 Tube Brace
- \sim Face sheet .156 thickest aluminum face sheet available in the industry
 - also available with .125 face sheet
- \sim 24" X 96" weighs 64# \sim 24" x 108" weighs 71# (Available in metric sizes.)

TOTAL PERIMETER INSET FACE SHEET

- * Prevents damage and wear to face sheet edges.
- * Superior weld penetration achieved by placing weld near the edge of the face sheet.
- * Increases overall strength and life of panel without leaving unsightly seams.
- * Corner gussets added to reinforce corner.

BRACING

- * "Boxed" design makes it impossible for concrete to enter and accumulate inside brace.
- * Ends are welded on sides and tops to strengthen the form and ensure concrete cannot enter brace.
- * Extruded Braces are serrated to prevent slipping and aid in handling, yet will not accumulate concrete.



SIDERAIL

- * Heavy duty extruded aluminum extends life of panel.
- * Dual point contact for ease of alignment.
- * Notch for inset face sheet strengthens panel.

BUSHINGS

- * Heat treated, plated steel bushing insure maximum strength.
- * Two point wedge contact allows for easy release of wedges.

WELDING

- * Continuous weld around form, including over top of bracing.
- * Full panels are welded with computerized Robot to ensure consistency and quality.
- * Certified Quality Control Program.

THICKENED ENDBAR

* Unique feature of WTF forms is the endbar design that allows standard pin and wedge to tighten when stacking concrete forms.







Having been involved in several international mass housing projects, we know first-hand the fast and rigorous pace of these projects. This form is built with 20cm or 15-30cm hole patterns. Evolving from these experiences is the best concrete forming system available today.

- Standard Width 60cm
- ~ Heights up to 300cm
- ~ Face sheet 4mm used on all standard wall panels
- ~ 60cm x 2.40m weighs 29.1kg ~ 60cm x 2.70m weighs 32.3kg
- ~ 25mm x 48mm Tube Brace

Special sizes and shapes available!

TOTAL PERIMETER INSET FACE SHEET

- * Prevents damage and wear to face sheet edges.
- * Superior weld penetration achieved by placing weld near the edge of the face sheet.
- * Increases overall strength and life of panel without leaving unsightly seams.
- * Backbone added for reduction in pillowcasing.
- * Corner gussets added to reinforce corner.
- * 4mm aluminum face sheet.





- * Ends are welded on sides and tops to strengthen the form and ensure concrete cannot enter brace.
- * Three convexed "ridges" on bracing provide additional strength.

SIDER AII

- * Heavy duty extruded aluminum extends life of panel.
- * Dual point contact for ease of alignment.
- * Notch for inset face sheet strengthens panel.
- * 20cm hole spacing.

BUSHINGS

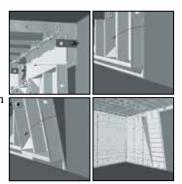
- * Heat treated, plated steel bushing insure maximum strength.
- * Two point wedge contact allows for easy release of wedges.

➤ WELDING

- * Continuous weld around form, including over top of bracing.
- * Certified Quality Control Program.

→ THICKENED ENDBAR

* Unique feature of WTF forms is the endbar design that allows standard pin and wedge to tighten when stacking concrete forms.

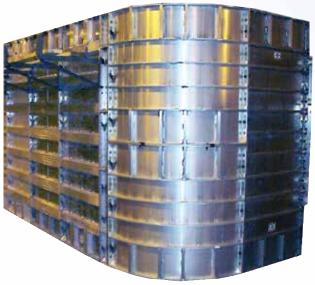


Available with the stripping angle when utilized with poured deck applications. The stripping angle is for ease of form removal.





Easily stacked to obtain desired wall height and can be purchased in multiple piece corner sets. Available in heights of 12", 24", 36" and 48".





A 90° turn with a 6", 24", or 48" radius produces a more decorative appearance than a standard 90° corner.







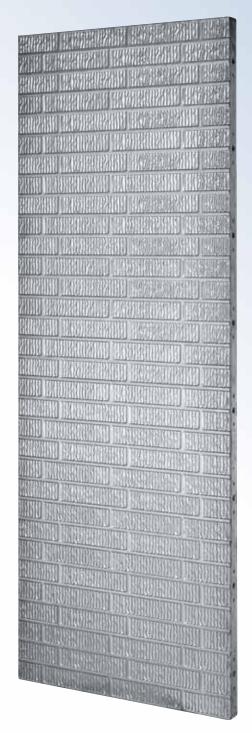
SMOOTH

TEXTURED

VERTIBRICK









Designed For Those Who Want More Choices

Looks like brick...Feels like brick... WTF's natural "brick-look" forms leave a lasting impression. Residential or commercial applications can easily be painted or two-toned for a decorative look. Forms are compatible to pouring brick on one side and a smooth wall on the other.

Smooth Brick, Textured Brick and VertiBrick

All our brick forms give you a deep brick design providing a realistic finished look.

- ~ Width 36" 1"
- ~ Heights up to 108"
- ~ Available in any hole pattern

6-12

8-8

8-24



BRACING

- * "Boxed" design makes it impossible for concrete to enter and accumulate inside brace.
- * Ends are welded on sides and tops to strengthen the form and ensure concrete can not enter brace.

SIDERAIL

- * Heavy duty extruded aluminum extends life of panel.
- * Exposed corners are mitered to reduce the accumulation of concrete.

BUSHINGS

- * Heat-treated and plated bushings are held in place by heavy duty ¼ inch solid steel plated rivets.
- * Crowned bushing allows for easy release of wedges.
- * Bushings increase strength of siderail, not weaken it like swedged bushings.
- * Rivets are countersunk into siderail to reduce accumulation of concrete and make cleaning easier

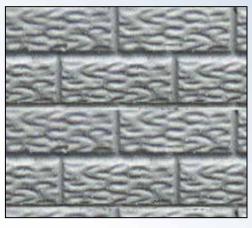
WELDING

- * Continuous weld around form, over top of bracing.
- * Certified Quality Control Program.





SMOOTH BRICK



TEXTURED BRICK



VERTIBRICK



(Patent #6, 523,323)

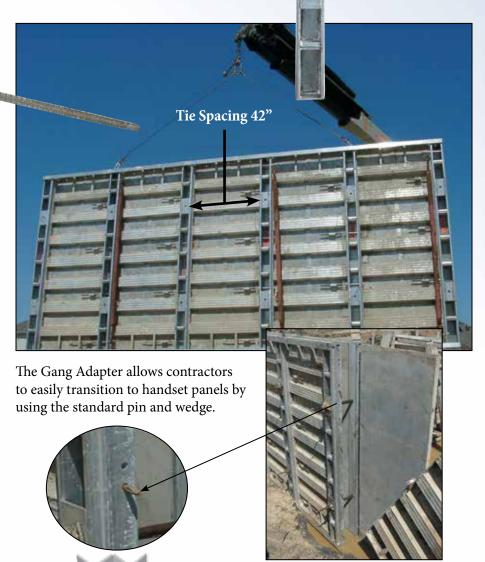
WWW.WALLTIES.COM

- ~ 6" wide and less than 5 1/2" deep when fully assembled.
- ~ Has a permanent waler built into the top and bottom of the system (Patent Pending).
- ~ Uses a tapered reusable cone with a rod tie.
- ~ Available in Smooth, Smooth Brick, Textured Brick and VertiBrick.
- ~ Attached wall braces, rod ties, and scaffold brackets are stored on the form.
- ~ Simple system assembly.
- \sim 6-12 and 8-24 hole pattern included in the siderail to allow for use of fillers and corners.
- ~ Uses only 2 ties up to 10' tall. The ties are spaced on 42" intervals vertically.
- ~ Dry tie available for top of form on 10' and above forms.
- \sim Weighs less than 7 lbs. per square foot fully assembled.

The WTF Gang Adapter enables a contractor to create gangs utilizing 36" wide aluminum forms.



The WTF Gang Adapter allows contractors to easily gang aluminum forms together. The system can be used for 8', 9' and 10' walls and requires only two ties at the gang adapter.

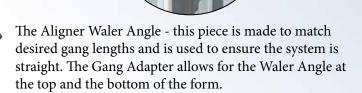


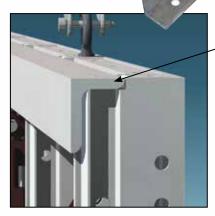


Assembly of the system is very simple requiring few tools. The adapters are attached to the wall panels using locking nuts and bolts provided by WTF.

An 8" bolt is utilized to attach the gang adapter to forms on both sides.

A 2" bolt is provided for attachment to a single form at the end of the gang.





Once assembled the gang weighs less than 7 lbs. per square foot.



The waler piece is built with light-weight aluminum and measures 3" x 3" x 1/2".



Scaffold brackets attach easily and require no loose hardware. Various types and sizes available.





Amazingly Large, Fast Forming...

Just as its name implies, these forms are built large. The WTF Big Panel is ideal for repetitive tall wall construction -

Available in:

- ~ 8' x 8'
- ~ 8' x 9'
- ~ 8' x 10' plus various size fillers and corners
- ~ Face Sheet Thickness of .156 to provide flat walls
- ~ Weighs 7 lbs per square foot including all accessories and bracing
- ~ Panels are only 4 3/4" deep













Side Rail allows the attachment of WTF handset forms using a standard Pin and Wedge.





- ~ Utilizes a one piece outside corner
- ~ Brace and accessories are stored on the form
- ~ Uses a tapered reusable cone with rod tie
- ~ AW Clamp is also a Waler piece



Agricultural project with a 2" offset in wall







Big Panels stacked to achieve a 16' wall on a commercial project.

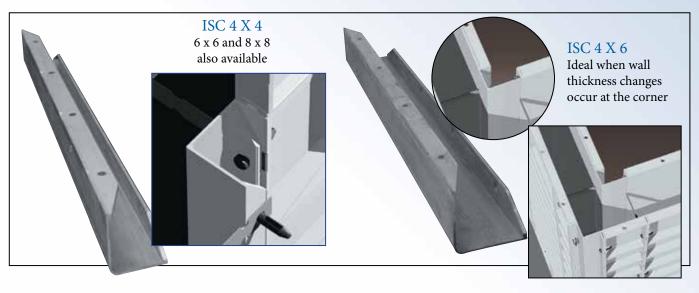


CORNER CONCRETE FORMS

STANDARD CORNERS

- ~ All corners available up to 144"
- ~ All corners available in brick patterns
- ~ Specify Nominal or Full

INSIDE CORNERS (ISC)



OUTSIDE CORNERS (OSC)

ONE-PIECE OSC

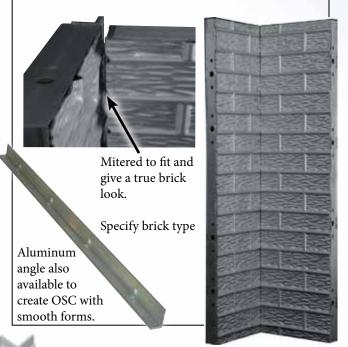
When compared to using a "W" (see page #22) and two fillers, a 96" tall One-Piece OSC eliminates as many as 18 pieces per corner.





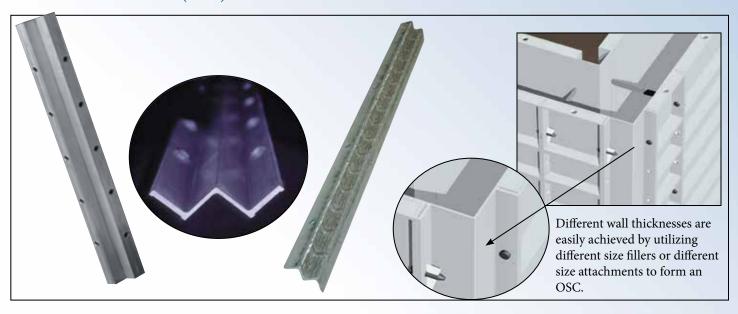
OSC BRICK WITH ATTACHED ANGLE

When compared to using a brick attachment, this method eliminates as many as 9 pieces per corner.





OSC ATTACHMENT ("W")



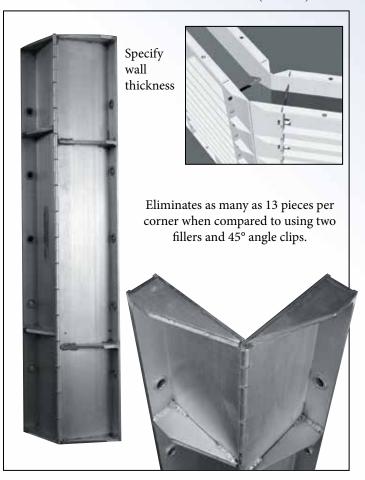
SPECIALTY CORNERS

- ~ All corners available up to 144"
- ~ Specify Nominal or Full

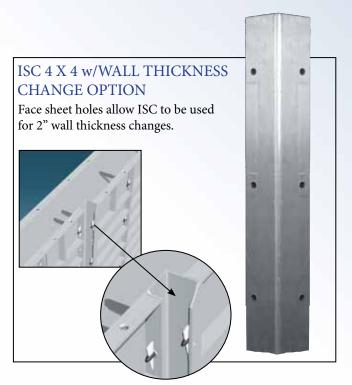
HINGED INSIDE CORNER (HISC)

The HISC can be used across from standard fillers utilizing the 45° angle clip (see page #49) or the HOSC to create an angled corner for bay window applications. Different wall thicknesses are easily achieved by utilizing different size fillers for OSC.

HINGED OUTSIDE CORNER (HOSC)

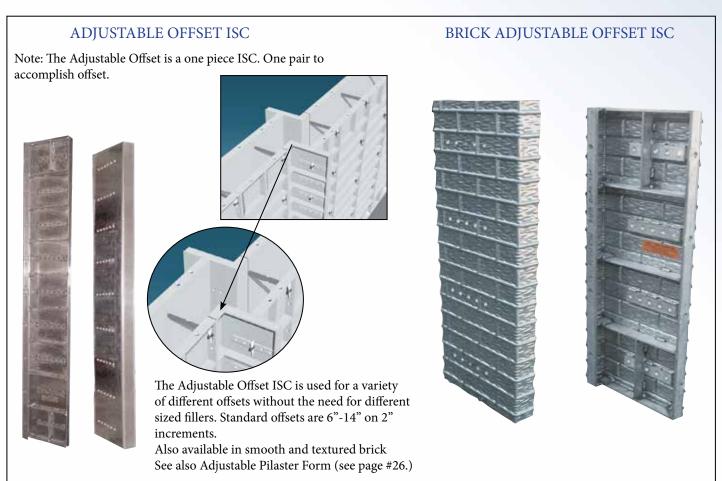








ADJUSTABLE OFFSET ISC





COLLAPSIBLE CORNER

The Collapsible ISC is ideal for core wall applications. It works well with WTF Gang Adapter, and Big Panel Systems.

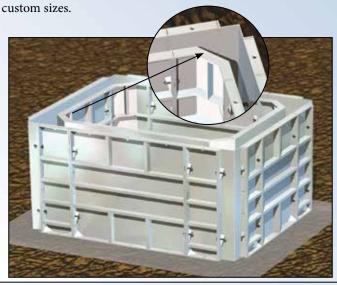


Gang Adapter (see page #17-18) Big Panel Systems (see page #19-20)



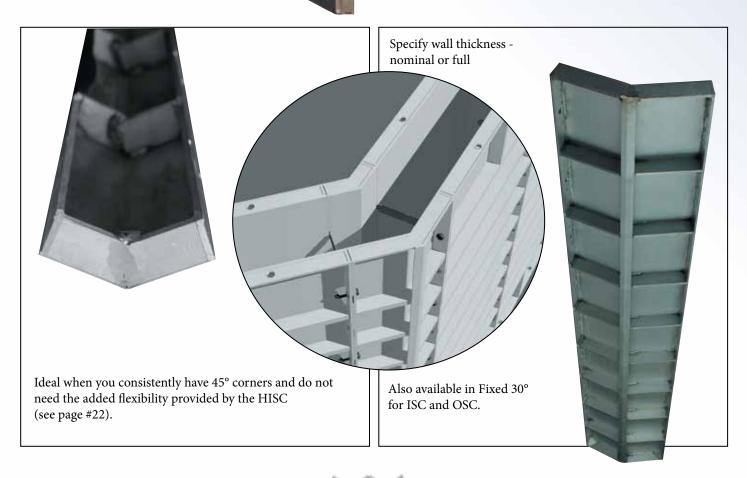
DIAGONAL ISC

The Diagonal ISC is designed to provide the chamfered corner required in many box culverts and tunnels. This is also used in various Linered Swimming Pool applications. Available in



FIXED 45° ISC

FIXED 45° OSC





BRICKLEDGE CONCRETE FORMS

Our aluminum brickledge forms are used when adding a brickledge around the outside of a foundation wall.

6" X 6" PLATE BRACKET with 4" SLOT

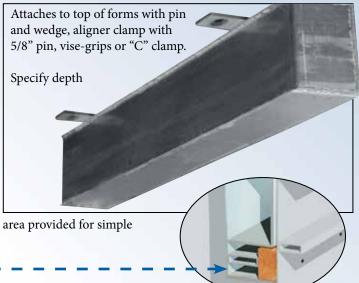
Attaches to top of forms with pin and wedge, aligner clamp with 5/8" pin, vise-grips or "C" clamp. Provides more opportunity to align with holes at end rails due to the slotted plates.



Brickledge over 17" in depth has a nailer area provided for simple attachment to the form.

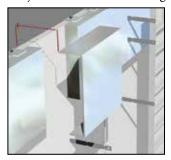
This eliminates creeling problems.

LUG BRACKET with 1" OBROUND HOLE



SLIPOVER BRICKLEDGE FORMS

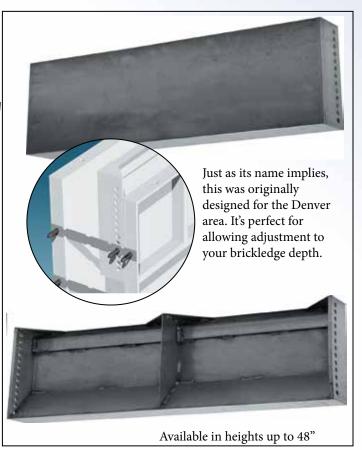
Available in steel or aluminum. Slipover brickledge forms are used to create various sized brickledge fillers. Used is conjunction with Plate of Lug Bracket Brickledge.



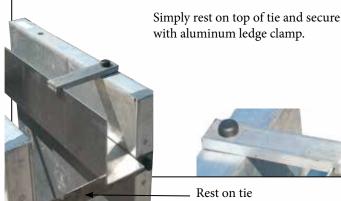


Available in sizes up to 24" wide

DENVER BRICKLEDGE FORMS



GREEN BAY BRICKLEDGE FORMS

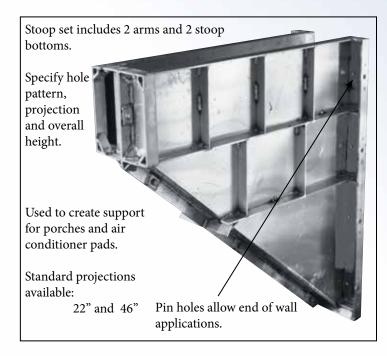




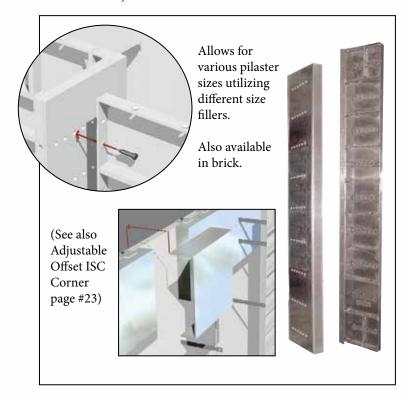
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ASSORTED CONCRETE FORMS

STOOP SET



ADJUSTABLE PILASTER FORMS



PILASTER FORMS

Used for long wall applications to create additional strength in the concrete wall. Specify hole pattern and pilaster height, width and depth.

FIXED PILASTER FORMS









Tapered pilaster.

ROUND COLUMN FORMS

The WTF Round Column Forms are easily stackable to achieve various column heights and nest for simplicity of transportation.

Available in heights from 12" to 120"

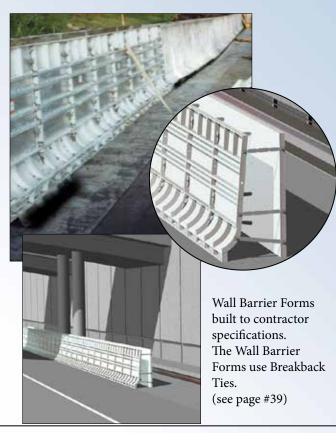


Larger sizes available upon request.



Diameter sizes available: 10", 12", 14", 16", 18", 20", 22", 24"

WALL BARRIER FORMS



LARGE COLUMN FORMS

Large Column Forms built to contractor specifications, while the maximum height is 48" the forms are easily stacked to create the desired height.



SQUARE ADJUSTABLE COLUMN

Achieves multiple widths, for both square or rectangular columns.



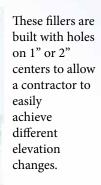
Available in smooth or brick textured, up to 144" in height.



JUMP FILLERS

OFFSET ENDBAR PANEL

ALUMINUM CONTROL JOINT



Standard sizes of jump filler:

6" 8" 10"

10 12"

Other sizes available.

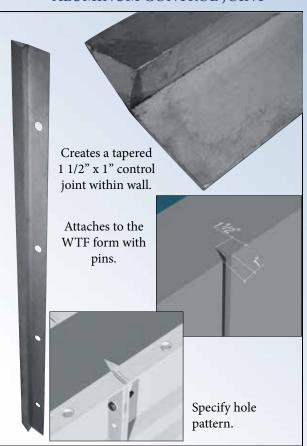
Specify hole pattern.

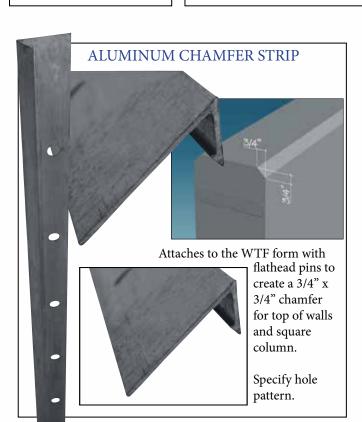


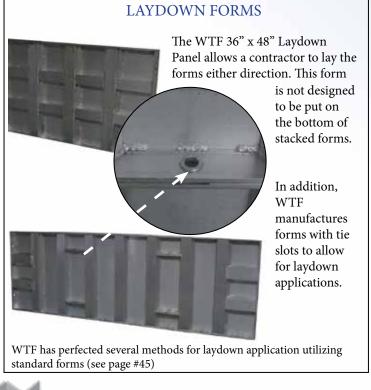
Commonly used in confinement systems (see page#73)



Also available with a 4" offset for brickledge applications.

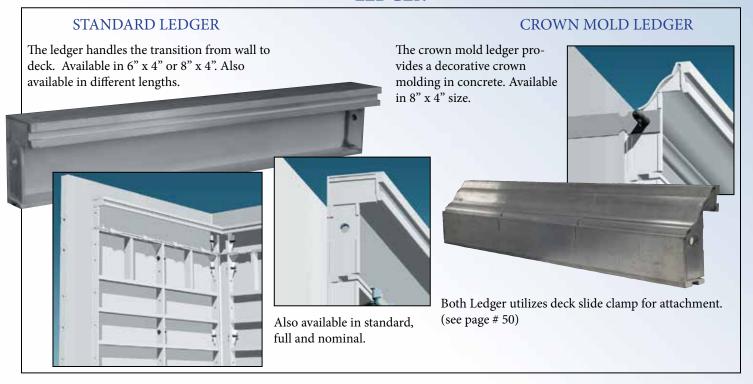




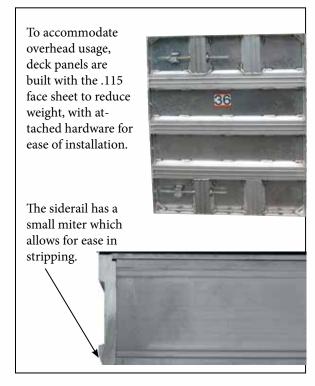


DECK COMPONENTS

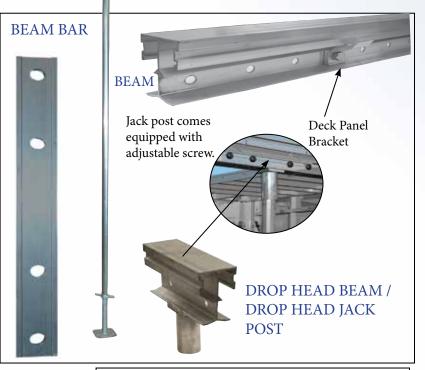
LEDGER



DECK PANELS



DROP HEAD DECK BEAM ASSEMBLY Patent #6,513,785





STEEL HEAD/ BEAM SUPPORT

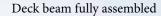


Accepts 4 x 4 aluminum beam or wood for additional deck support.

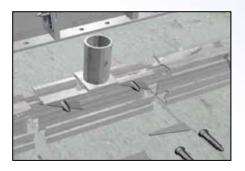
DECK ASSEMBLY

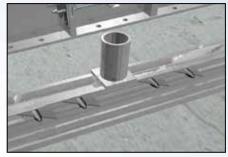
The Deck Assembly is designed for the most efficient cycling of the forming system once structure achieves minimum design strength.

The drop head, beam bars, and beams are assembled using standard pins and wedges.



The jack posts are put into place.



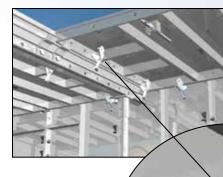




The Drop Head Deck Beam Assembly is then lifted and put into the desired location.



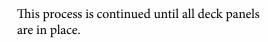
The first deck panel is connected to the deck beam assembly and ledger utilizing the deck slide clamp.



Deck Slide Clamp

(see page #50)

An adjustable screw is provided to allow for any adjustments needed in the deck.





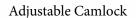


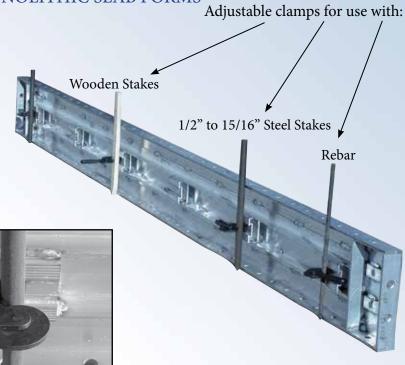
Once the concrete is placed and at minimum required strength, the deck beam assembly and deck panels can be disassembled, leaving the drop head in place for the required time.



MONOLITHIC SLAB FORMS

The versatile concrete slab form is made of lightweight high strength aluminum. This allows for a long lasting, easily portable form that is simple to assemble. In slab uses, a simple windmill method is used to create outside corners. Inside and outside corner forms are available for more complex slab applications as well as footing uses. Also available in brick patterns.





Available in lengths up to 12' and heights of 4", 6", 8", 10", or 12".



MONOLITHIC SLAB/STEMWALL FORMS

Commonly used:

- 1. In areas of slab construction with high water tables.
- 2. Slabs with garage elevation changes.
- 3. When stemwalls are used for tunnel form alignment.





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STANDARD PINS AND WEDGES

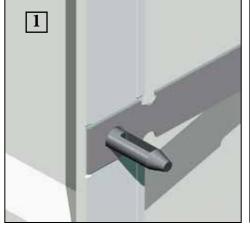
We offer a wide variety of pins and wedges designed to increase efficiency no matter what application.

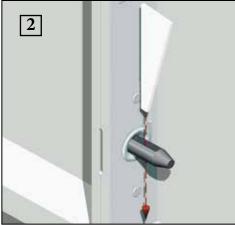


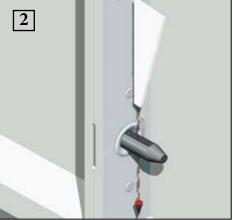


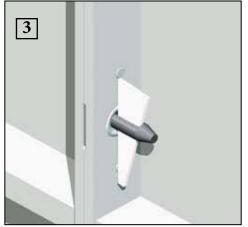
~Typical connection with pin and straight wedge~

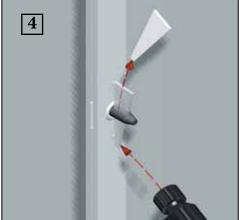
WEDGES











STRAIGHT

Wedges are used with pins to tighten adjoining forms. Securing the tie and form in place.

250/bag Product #SWE1000000000

CURVED

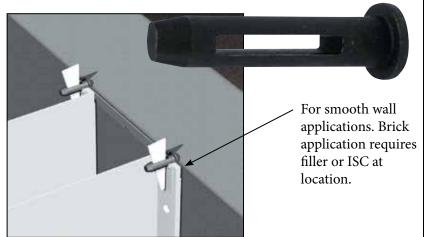
Curved wedges have the same function as straight wedges but the curved shape allows for easy insertion and less risk of damage to face of form.

250/bag Product #SWE20000000000

SPECIALTY PINS

The flathead pin is used when pinning through a single rail or when placing concrete against an existing wall. Also used in laydown applications, such as 36" x 96" panel, to pour a 36" tall concrete wall. (See laydown application on page #45 for specific example.)

FLATHEAD PIN



Product #SPI20000000000

COMBINATION FILLER PIN

This pin passes completely through 2" aluminum fillers and connects adjoining panels with a wedge. To convert to either 1" or 1½" filler simply insert duplex nail in the appropriate hole.



Combination with head - 1, $1\frac{1}{2}$, 2



STRAIGHT FILLER PIN

These pins pass through appropriate size fillers and are connected to adjoining panels with wedges.





Straight filler pins

Product #

1" ~ SPI01000000000

2" ~ SPI02000000000

3" ~ SPI0300000000

4" ~ SPI0400000000

6" ~ SPI06000000000

PAX PIN

Pax pin is slightly longer than our standard pin. Used with pax forms and special applications.



Product #SPI30000000000

CURVED PIN

The curved pin is used in special corner and radius applications.



Product #SPI40000000000



ATTACHED HARDWARE

Factory installed permanent pin system.

When forms are outfitted with attached hardware, wedging is only required at top and bottom pin.



Available on 36" to 10" fillers, however, most contractors typically have it installed on 36" wide forms only.

LONG AWAY

Long away pins are used on top and bottom pinholes of form where rod must pass through vertical braces. Can be retracted and loose pins used.



Available for panels 36" - 16" wide Product #SPI50000000000

SHORT AWAY

Short away pins are used on all holes except top and bottom holes on 36" - 16" wide panels. Can be retracted and loose pins used.

Product #SPI51000000000

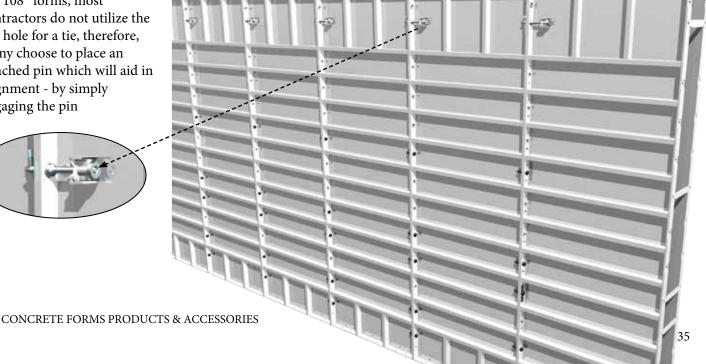
SHORT AGAINST

The short against pin is popular among contractors using 9' forms. Pins are attached at the top hole where tie placement is not necessary for alignment Short against pins are also used on fillers 15" - 10" wide. These pins cannot be retracted in order to use loose pins.

Product #SPI52000000000

On 108" forms, most contractors do not utilize the top hole for a tie, therefore, many choose to place an attached pin which will aid in alignment - by simply engaging the pin





WALER BRACKETS

WTF steel waler brackets can be used with standard wood boards or aluminum channels. Brackets attach directly to the forms to straighten the wall and minimize the need for additional bracing. In most residential construction,

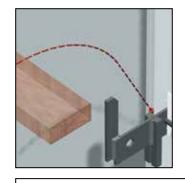
one row of walers at the top of the wall is usually sufficient.



Wall-Brace

attachment hole







STANDARD STEEL WALER

Standard water brackets are top noten to provide a fast and efficient attachment directly to the form

panel. Used with smooth aluminum, smooth brick, and VertiBrick forms.

Available in: 2" x 3" ~ Product #SWA23000000000

2" x 4" ~ Product #SWA24000000000

2" x 6" ~ Product #SWA26000000000

2" x 8" ~ Product #SWA28000000000

COMBINATION STEEL WALER

Combination waler bracket features combination holes. To be used with textured brick or smooth forms.

2" x 3" ~ Product #SWA23000000090

Available in:

2" x 4" ~ Product #SWA2400000090

2" x 6" ~ Product #SWA2600000090

2" x 8" ~ Product #SWA28000000090



ADJUSTABLE STEEL WALER BRACKET

WTF adjustable waler bracket is one of our newest innovations.



Adjustable steel waler bracket is designed to use with the WTF aluminum waler board. May also be used with 2" x 4" or 2" x 6" lumber.

Available in: 2 x 4 ~ Product #SWA0204000000

2 x 6 ~ Product #SWA0206000000

Wall Brace attachment hole

~Tightening of waler board~



~Removal of waler board~





Overlap 24" at waler joint to ensure proper alignment

WTF Aluminum Waler Board (see page #38)



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LOCKING WALER WITH PIN

LOCKING WALER WITH PIN

The locking feature on this waler bracket ensures a good connection. The pin is attached with a flange that overlaps both siderails. No loose hardware!

Available in:

2" x 3" ~

Product #SWA2300000099 2" x 4"

- ~ Product #SWA2400000099 2" x 6"
- ~ Product #SWA2600000099



Not to be used in tie location.

VERTICAL WALER

When stacking forms, vertical waling may be necessary to prevent creeling. This bracket is used in conjunction with 2" x 4" lumber. It is used on the side opposite of the waler bracket. Saves time when stacking by eliminating the need to stagger or stack short and tall forms.

Product #SWA1000000000



Note: 2" x 4" lumber is used on both sides of bracket

ALUMINUM WALER

Aluminum waler brackets are designed to be used with a three hole tie at the top of the wall. Simply insert over the three hole tie. This bracket does not require loose pins or wedges.

Available in:

2" x 4" ~

Product #AWA24000000000

2" x 6" ~

WWW.WALLTIES.COM

Product #AWA26000000000



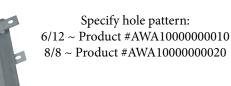




Note: When utilized with the WTF tie, stripping is accomplished by striking downward with a 2" x 4" from the top of the wall.

VERTICAL STIFFENER

Used in much the same manner as the vertical waler. Vertical stiffeners are faster than vertical walers because there is no lumber required. Used on opposite side of the wall from walers. Saves time when stacking by eliminating the need to stagger or stack short and tall forms.







SCAFFOLD BRACKET WALER COMBINATION

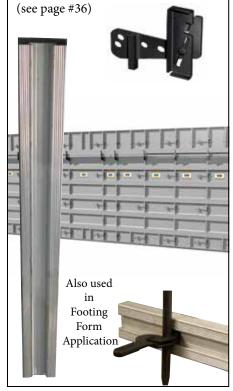


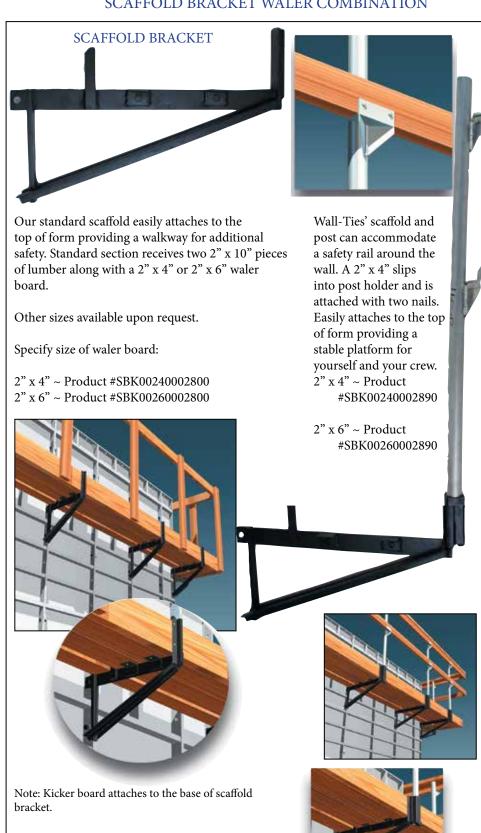
While the traditional waler board is made of wood, the aluminum waler board is being used more and more because of the consistent dimensions and long life it provides. Can be used in place of 2" x 4" or 2" x 6" lumber.

Lengths: 150" ~ Product #AWA35000001200 300" ~ Product #AWA35000002400

Note:

This can be used with most waler brackets. However, the aluminum waler board was designed with the adjustable steel waler bracket in mind.



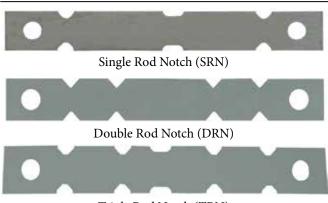




STANDARD WALL TIES

WTF ties are manufactured to meet the requirements of today's various pouring methods. They are made of cold rolled steel. We continually perform quality control testing to ensure that all of our ties yield a minimum pull strength of 7,200#.

TWO HOLE



Triple Rod Notch (TRN)

4" Single Notch only 6" Single or Double Notch 8", 9", 10", 12" Available in Single, Double or Triple Notch Specify Nominal or Full Unlimited tie length available

THREE HOLE



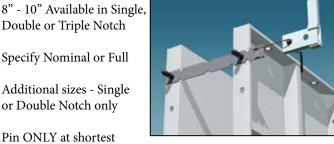
Three Hole Tie: Used at top of form with the aluminum waler brackets

4" - 6" Single Notch only 6" - 8" Single or Double Notch

Double or Triple Notch

Additional sizes - Single or Double Notch only

Pin ONLY at shortest length (ex: DO NOT USE an 8" - 10" tie as a 10" tie)



FOUR HOLE COMBINATION TIES



Single Rod Notch - any length Specify Nominal or Full

Ties available in metric sizes

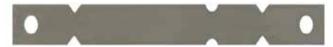
ROUND END TIES

Available in 6" SRN, 8" TRN, 10" TRN



Specify Nominal or Full

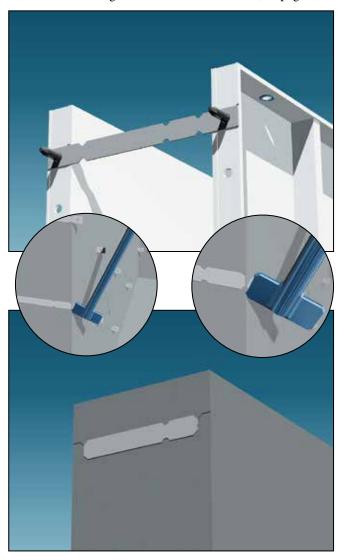
BREAKBACK TIES



Breakback ties are vertical break ties designed to break back into the wall at specified dimensions.

¾" - Standard Breakback Other depths available Any length Specify Nominal or Full

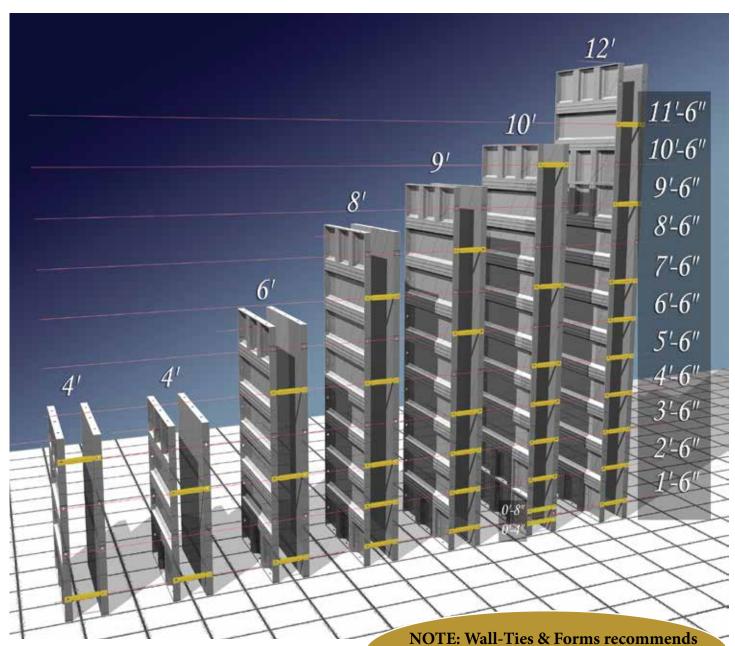
Breaking ties is accomplished by striking downward with hammer or utilizing the WTF Tie Breaker Bar (see page #52).





THE PLACEMENT CHARTS

6/12 HOLE PATTERN

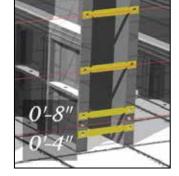


Tie Maximum Load - 7,200#

Conditions that affect lateral concrete pressure:

- 1. Height of the wall
- 5. Weight of concrete
- 2. Fill rate
- 6. Slump of concrete
- 3. Temperature
- 7. Vibration of concrete
- 4. Type of concrete (chemical additives)

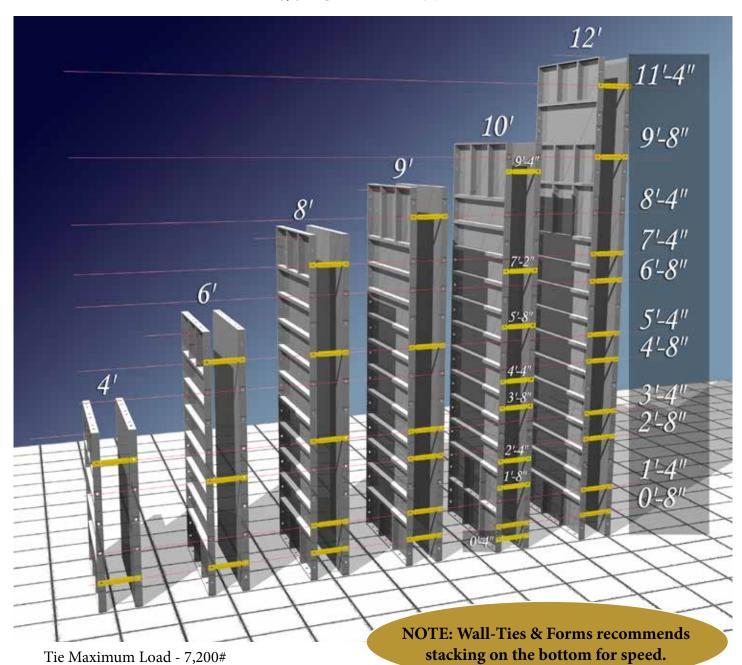




stacking on the bottom for speed.

THE PLACEMENT CHARTS

8/8 HOLE PATTERN

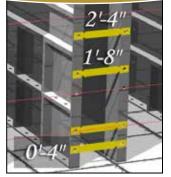


Be certain to meet all OSHA requirements including fill rate

**OSHA safety requirements will not be exceeded if:

- 1. Fill rate does not exceed 8'0"/hour.
- 2. Tie is used in every hole on walls over 8'0".

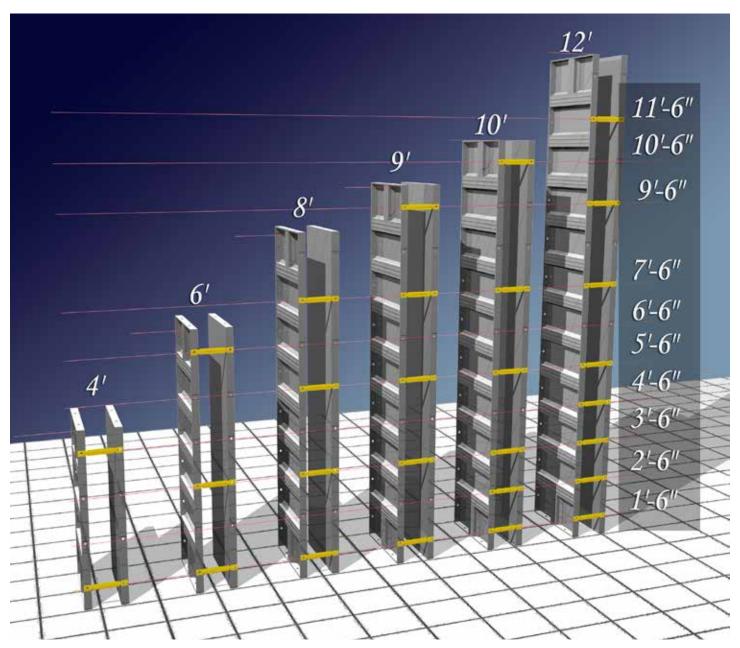




THE PLACEMENT CHARTS

THE PLACEMENT CHARTS

6/12 HOLE PATTERN



Tie Maximum Load - 7,200#

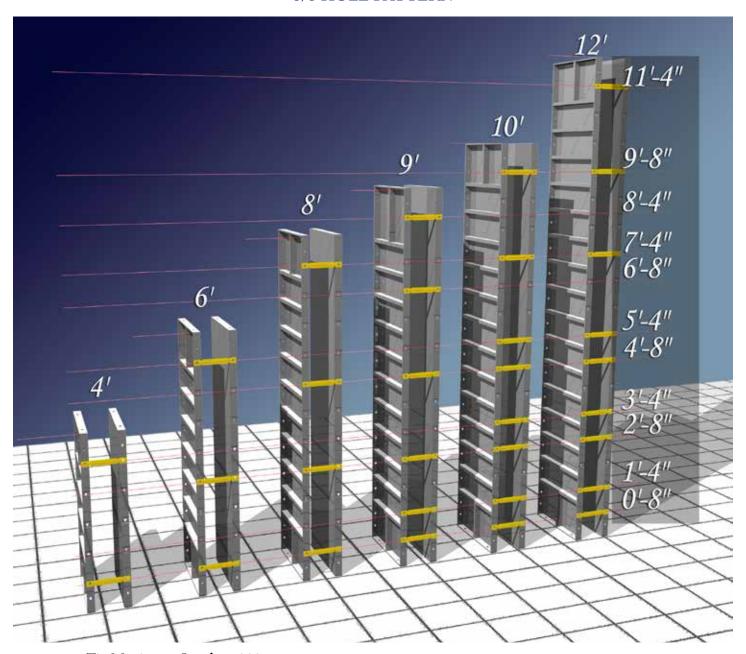
Be certain to meet all OSHA requirements including fill rate

- ** OSHA safety requirements will not be exceeded if:
- 1. Fill rate does not exceed 8'0"/hour.
- 2. Tie is used in every hole on walls over 8'0".



THE PLACEMENT CHARTS

8/8 HOLE PATTERN



Tie Maximum Load - 7,200#

Be certain to meet all OSHA requirements including fill rate

- ** OSHA safety requirements will not be exceeded if:
- 1. Fill rate does not exceed 8'0"/hour.
- 2. Tie is used in every hole on walls over 8'0".



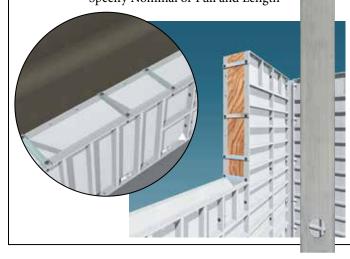
SPECIALTY WALL TIES



Reusable aluminum bar ties are used as bulkhead bars as well as top spreaders for laydown applications. May be used with the standard pin and wedge. These can be used as brickledge bars to nail wooden brickledge to top of forms.

3/8" x 1 ½" x wall thickness to 12" Single or Combination

2" x 2" x 3/8" x wall thickness greater than 12" Specify Nominal or Full and Length



REUSABLE WALL TIES

Designed without rod notches and break-offs so they can be easily removed from a wall and reused. This is designed for markets with very low labor costs.



Maximum tie size is 8"

Specify Nominal or Full

(Available in metric sizes)

TIE SLEEVE

The tie sleeve is used with the reusable pull tie. This sleeve allows for tie removal.

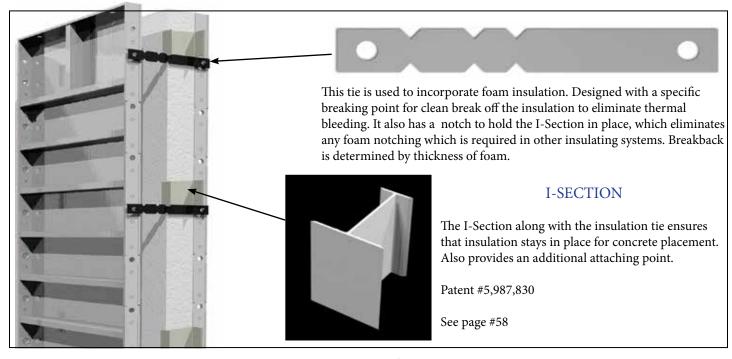




Tie sleeves available from WTF in various lengths.

SPECIALTY WALL TIES

INSULATION TIE



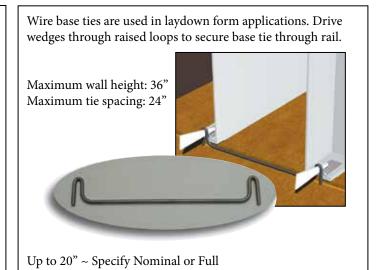
LAYDOWN APPLICATIONS

WTF has many form designs that allow the form to be laid on its side. The 36x48 laydown (see page #28) has additional bracing to allow for this use. For customers with forms that are not designed to be laid on their side WTF has perfected hardware for this application. We recommend the following guidelines.

FLAT STEEL U-TIE

For laydown applications ONLY! Not to be used in close trench conditions where stripping requires pulling top of form down toward ground. No pins or wedges required. Maximum wall height: 36" Maximum tie spacing: 24" Up to 36" ~ Specify Nominal or Full

WIRE BASE TIE



BASE TIE PIN (SILVER BULLET)

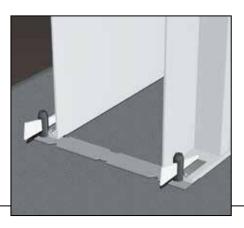


FLATHEAD PIN



The flathead pin is used in laydown applications with standard ties. Can also be used when pouring a concrete wall against an existing structure (see page #34). This pin is the only design used in laydown applications in walls over 36" tall.

Product #SPI20000000000

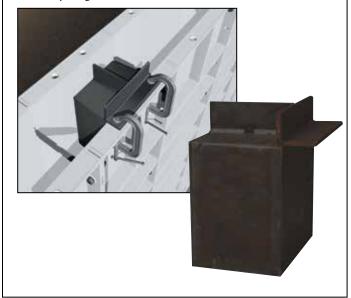


BLOCKOUTS

BEAM BLOCKS

Heavyweight beam block ready to attach to your form with a simple "C" clamp. For use with a standard 8" deep I-beam. Other sizes available.

Order by height, width and front to back.



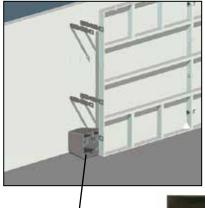
45° BEAM BLOCKS

The 45° degree blockout is used to create beam void for use of beams in bay areas.



Heavyweight beam block ready to attach to your form with a simple "C" clamp. For use with a standard 8" deep I-beam. Other sizes available.

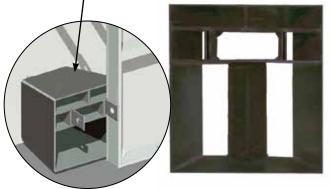
DRAIN TILE BLOCKOUT



Drain Tile Blockout allows ease of installation of Drain Tile.

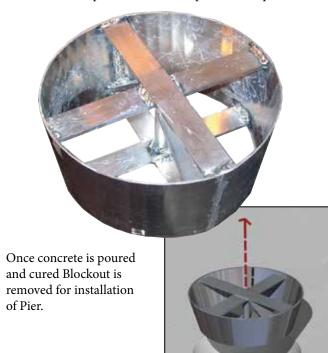
Specify size and hole pattern.

Available in steel or aluminum



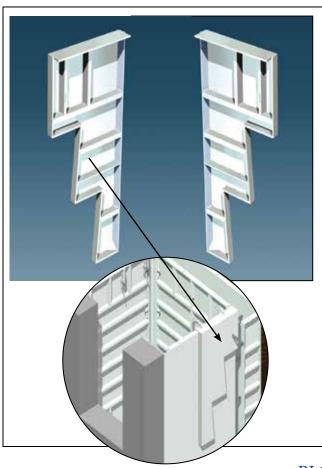
PIER BLOCKOUT

Pier Blockout is placed on Pier Pad prior to slab pour.





BLOCKOUTS



Egress Step Blockout allows for step ledges to be poured in place for concrete Egress Bays. Treated lumber is affixed and used for steps.



The Concrete Egress Bay can be placed at time of foundation pour or as a secondary operation.

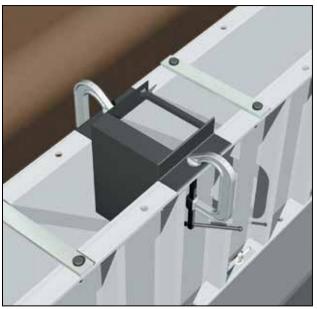
Specify riser height, tread depth and hole pattern.

BLOCKDOWNS

STEEL BLOCKDOWNS

One-piece specific width steel blockdowns create bulkheads for forming garage door openings, access holes, or other specific depth blockdowns. Can be "C" clamped into position.





Specify nominal or full, width and depth.

ALUMINUM BLOCKDOWNS

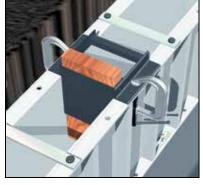
Lightweight aluminum provides ease in handling for those jobs that need fast and easy placement. "C" clamp to top of the wall.



ALL STEEL DENVER BLOCKDOWN

Our one-piece steel blockdown is used with lumber to form garages or other blockdown applications of various depths. Can be used for depths of 4" to 16".





Specify nominal or full, depth, and wall thickness

TWO-PIECE STEEL ADJUSTABLE BLOCKDOWN

Our two-piece steel blockdown is used with lumber to form garages or other blockdown applications of various widths and depths. Can be used for depths of 4" to 16".



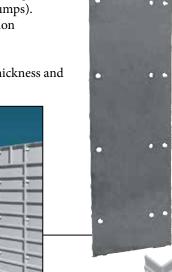


BLOCKOFFS

Aluminum bulkhead plates are designed for blocking off wall ends or to bridge over dig from basement to garage (jumps). Available in single or combination widths x height.

Specify Nominal or Full, wall thickness and hole pattern.

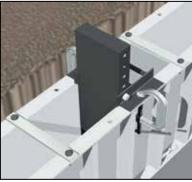




ALL STEEL ADJUSTABLE BLOCKDOWN

The adjustable blockdown allows for depths of 8"-12" and 14"-24".



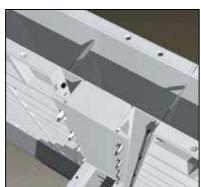


Specify nominal or full and wall thickness

BLOCKOFF/BLOCKBACK

The blockoff/blockback combination is used for blocking off wall ends. It can also be used to blockback a nominal or full corner, usually at a "T" wall where the height drops. Can be turned around and used as a blockoff.







SPECIAL APPLICATION HARDWARE

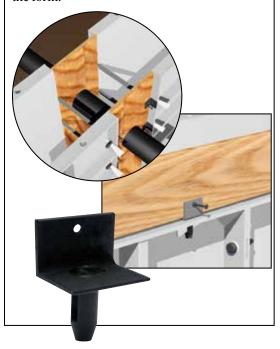
90° ANGLE CLIP

Versatile 90° angle clip can be a substitute for full length outside corner angle to create an outside corner using fillers.

Steel Product #SCL90000000000 Aluminum Product #ACL90000000000

CAP/FILLER BRACKET

Cap/filler brackets are used in conjunction with lumber to add height to a wall. The cap filler bracket pin is inserted into the top of the form and the lumber is then nailed to the bracket. May also be used to construct job site plywood fillers when you need an extra filler or where you need to pass a pipe or other object through the form.



45° ANGLE CLIP



Our 45° angle clip with rotating pins will affix two filler panels to form outside corner opposite a hinged inside corner.

Can form 35° to 55°, depending upon the tightness of wedges.

Product #SCL45000000000

SADDLE BRACKET



Unique brackets that allow another option for brickledge. The brackets pin onto the top rail of the lower form and allows the next stacked forms to be inset 4 inches or 6 inches.

4"~Product #SBK0400000000 6"~Product #SBK06000000000

ALUMINUM CAP CLIP



The aluminum cap clip is designed to create a cap with 2"x12" lumber.

Product #ACL10000000000

BRICKLEDGE BAR



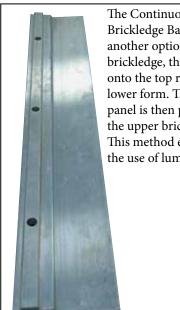
The Brickledge Bar permits another option for brickledge. The brackets pin onto the top rail of the lower form, then wood is nailed to under side of bracket. Upper panel is then placed on top of brickledge bar to create a 4" brickledge.

Product #AOT0000000001



CONCRETE FORMS PRODUCTS & ACCESSORIES

CONTINUOUS BRICKLEDGE BAR

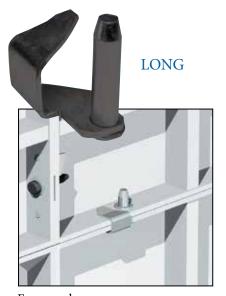


The Continuous Brickledge Bar permits another option for brickledge, the bar pins onto the top rail of the lower form. The upper panel is then placed to the upper brickledge. This method eliminates the use of lumber.

ALIGNER CLAMPS

Aligner clamp with 5/8" pin, ¾" gap is used to pin aluminum brickledge to top of forms. Also used to pin top rail to bottom rail in stacking and cap form applications.

Product #SCP10000000000





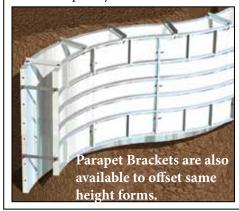
WINDOW CLAMP

The window clamp is used at the top of the wall when a drop-in window buck is used. This clamp ensures that the window buck maintains a tight fit.

Product #SCP13000000000

PARAPET BRACKET

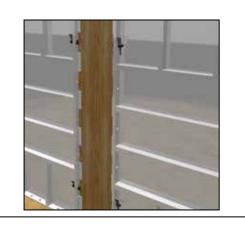
The Parapet Bracket is used in suspending the formwork on one side of the wall from the opposite side. This is commonly used in concrete pool systems.



PLYWOOD ADAPTER

The plywood adapter allows the contractor to produce a filler using 1/2" or 3/4" plywood.

Specify hole pattern and plywood thickness.



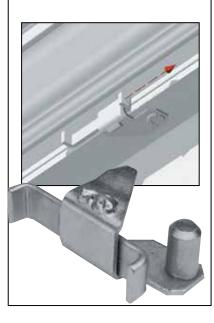
DECK SLIDE CLAMP

The deck slide clamp is used with the WTF ledger system. Works with both the straight ledger and the crown mold ledger. The deck slide clamp pin is placed through the end bar hole into the ledger slot and then the slide is engaged.

Product #SCP120000000000









WALL ALIGNER

This practical tool creates movement of wall when prying against footing. Permits one-person leverage to move forms and square corners. The heavy-duty steel chain is attached to the pin on the bottom of the form.

Leverage end is heat-treated for extended life.

Also available with hook for chain adjustment.

Product # AOT10000000000

STRING LINE ATTACHMENT

String line attachment is clamped to the top of the OSC and is used to align the wall.

Product #SOT20000000000



ALUMINUM WALL BRACE

Available in the following sizes:

13'6" - Ideal for 9' tall walls Product #ABR00000013600

10'6" - Ideal for 8' tall walls Product #ABR00000010600

5'3" - Ideal for 4' tall walls Product #ABR0000005300

FORM & CORNER PULLER

Used to strip panels from top of wall. Ideal for

brick-faced forms.

#SPU10000000000

Product

in the following sizes: | Our h

Our hand punch will add random pinholes with just a little punch. Holes can be added to side or end rails quickly in the field.

ALUMINUM WALL BRACE

Shipped with one 11/16" die set. Other die sets available Handles sold separately.



Product #SOT40000000000

TURNBUCKLES

This tool is for moving the wall after forms are set.

Product #AOT20000000000



SIDERAIL PULLER

Designed to remove panels from ground level.

Product #SOT10000000000

TURNBUCKLES

The turnbuckle allows adjustment without moving brace. Easily attached to either lumber or metal pipe to manipulate wall braces that pin to the form.

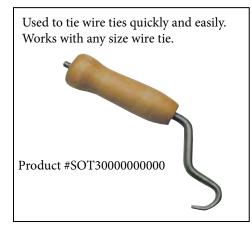
Product # SBR100000000000



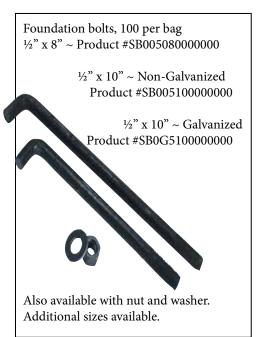
WIRE TIES

5 ½"~Product #SWT55000000000 7" ~Product #SWT65000000000 8" ~Product #SWT80000000000 5,000 per roll

TIE TWISTER

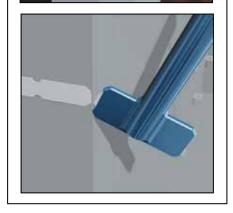


BOLTS



TIE BREAKER BAR





HURRICANE STRAP



ROD SUPPORT

Designed to hold rebar in position while placing concrete in footings.





SLIDE HAMMER

Used to strip ledger and to break ties in crown mold ledger applications. The slide hammer is used to ease the stripping process of crown molding and wall panels under a deck. Also used to vertically break crown molding ties.

Product #SOT10000000000





POURING ACCESSORIES

5 GALLON SPRAY TANKS

Compact 5 gallon hand tank allows for easy application to forms. Lightweight stainless steel with 4' hose and gun.

Replacement parts are available.

5 gallon tank w/Cresset .80015 tip ~Product #SPRA1000000061

5 gallon tank w/Regular .4005 tip ~Product #SPRA1000000062



60 GALLON SPRAY TANKS

Our 60 gallon spray tank comes complete with a 100' hose and a 4' wand.

When ordering please specify spray tip size.

Replacement parts are available.

60 gallon tank w/ Cresset tip ~Product #SPRA1100000000

60 gallon tank w/ Regular tip ~Product #SPRA1400000000



*Spray tanks
should not be filled over 2/3 full.
Both tanks are designed with safety filler caps.

FOOTING CHUTE

Hooks quickly and easily onto a ready-to-mix chute. The WTF 5' vinyl tube trunk allows direct flow in cumbersome areas. Splashing and overspills are greatly reduced, making it ideal for concrete placement in footings, piers, and flatwork.

FOOTING CHUTE COMPLETE

Product #CUF1000000000

FOOTING CHUTE CLAMP

Product #CUF13000000000



concrete buckets.

POURING BOARDS

STANDARD BOARD

Lightweight, totally aluminum board constructed with "L" shaped bracket on back that slips over the top of the form. Naturally helps reduce spillage and removal of form oil off panels at discharge locations. Directs uniform flow of concrete during placement.

Product #APO10000000000



EXTENDED BOARD

Designed with an extended handle for ease of use.

Product #APO11000000000



CONCRETE CHUTES



ALUMINUM PUDDLE STICK



POURING SHOVEL





RELEASE AGENTS

"I've tried other release agents, but I've never been more satisfied with WTF Form Release from Wall-Ties. In the past I've had trouble keeping my forms clean, but with this product I can spray my forms while they're still in the baskets. It's easy to use, one light spray and my forms stay clean for numerous pours."

Bill Curth William G. Curth, Inc.





"As a second generation poured wall constructor, I have used a variety of release agent oils. WTF Form Release uses less oil per foundation keeping my cost per wall the same as some of the cheapest oils. I don't have to clean my forms after using WTF Form Release. It is the best oil and best value."

Paul Dusselier Raymore, MO

Many contractors

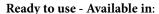
find that applying Release Agent to forms while still in the basket saves a step in form setup and creates labor savings.

WTF Form Release Agent

WTF Form Release is a mineral based release agent that has been used for many years. It applies at low and high ambient temperatures and it exceeds all state and federal VOC regulations.

Advantages: WTF Form Release permits easy stain-free removal of forms, formliners, pallets, etc. from hardened concrete. It:

- ~ Cuts form clean-up time up to 70% when properly applied.
- ~ Can reduce bugholes on concrete surfaces.
- ~ Does not interfere with adhesion of caulk, architectural coatings, paint, sealers, and curing compounds on cured concrete surfaces when properly applied.
- ~ Works superbly on aluminum forms.
- ~ Can be applied in sub-freezing or very hot temperatures.
- ~ Reduces incidences of skin rashes to an absolute minimum.
- ~ Can produce both high visual impact (CCS 2) and typical concrete surfaces (CCS 3, CCS 4, CCS 5).



5 Gal. Pail ~ Product #CMCR7270000005

WTF Form Seasoning Aluminum Form Conditioner

"Seasons" new aluminum forms before first use. Reduces reaction with new aluminum and concrete.

WTF Form Seasoning oxidizes the aluminum surface to reduce reaction.

- ~ Conditions forms even at 45°F.
- ~ Is not as messy as "liming".
- ~ Removes residual oils.
- ~ Is biodegradable.

Available in: 5 Gal. Pail ~ Product #CMCR7280000005







MATERIAL HANDLING EQUIPMENT

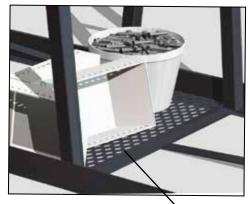
FULL PANEL BASKETS

If you have invested money in a quality crane truck, now may be the time to invest in quality material handling equipment.

In the past two decades we have proven to be the leader and innovator of material handling baskets.

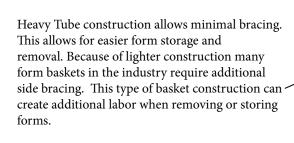
WTF designs and manufactures the highest quality form baskets in the industry.

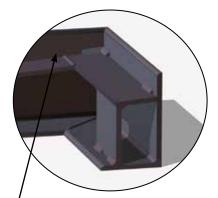
WTF builds heavy duty baskets. Each full panel basket is equipped with two 2"x12' nylon straps with a ratchet handle and four wear pads. The capacity of the forms held in each basket is determined by your crane's lifting capacity. When ordering please specify lifting bell or loop.



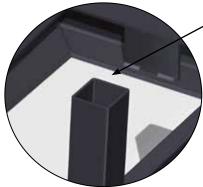
Expanded metal is placed in center of basket to allow for storage of accessories needed on the job site.

Safety Chains are also included in A-Frame Baskets.





The Baskets are built with a taper at the base to add additional stability to forms being stored.

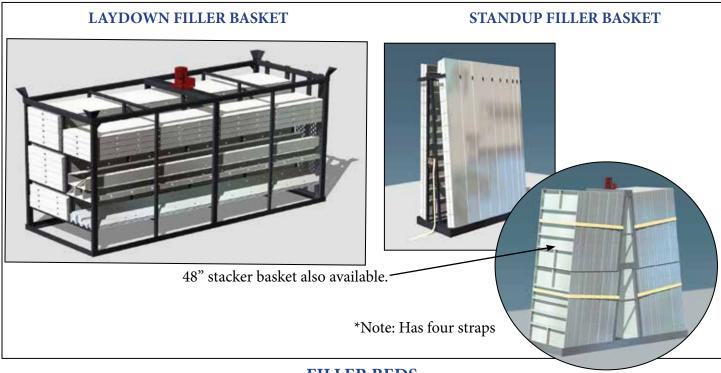




MATERIAL HANDLING EQUIPMENT

FILLER BASKETS

A wide variety of different basket designs are available. These include the Laydown Filler Basket and the Standup Filler Basket. WTF designs the baskets to accommodate the equipment of the contractor.



FILLER BEDS



WTF custom designs filler beds around the customer's truck and forms.

WTF INSULATION

INSULATION TIE FOAM

The insulation tie is used in conjunction with the WTF Housing System. This tie has a 5/16" breakback on one side of the tie. Once the tie is broken, the breakback allows plaster to be applied directly, and will be consistent with the foam in the plaster process. These ties our designed with a specific breaking point so there is a clean break off and will break easily behind the insulation to eliminate thermal bleeding. It also has a notch to hold the I-Section in place, which eliminates any foam notching which are required in other insulating systems.

Product #TTSP0400002101



WTF utilizes a 2 lb. density PerformGuard® EPS, a termite resistant expanded polystyrene insulation.

- ~ Resistant to termite damage
- ~ Resistant to carpenter ant damage
- ~ Non-toxic, safe to handle
- ~ Incorporates EPA registered material
- ~ Meets code requirements for ground contact use
- ~ Cost effective

Various sizes available



F-SECTION

used at corner

slab to create

barrier.

Patent #5,987,830

transitions, window

and door openings,

top of concrete wall,

deck, and structural

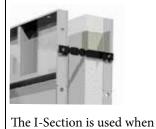
additional attaching

points and a termite

The F Section is



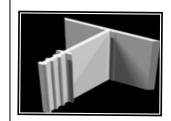




small insulation fillers are needed. The I-Section ensures that insulation stays in place for

concrete placement. Also provides additional





The T-Section is utilized in 36" wide insulation applications (such as foundations). It is placed in the center of insulation to create additional attaching points for exterior wall

Sold in 2 1/2" lengths

T-SECTION



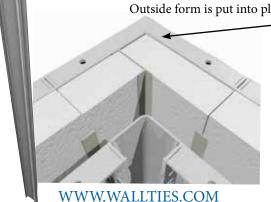
Patent #5,987,830

WTF INSULATION PROCESS



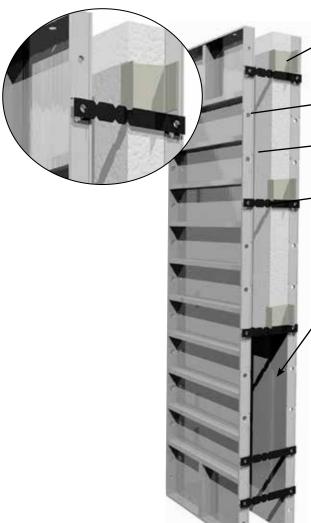
Insulation is begun at the corner utilizing the WTF F-Section.

Outside form is put into place.





WTF INSULATION



I-Section

8-8 Standard Form

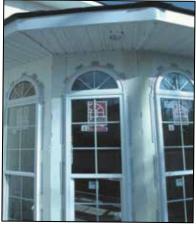
4" PerformGuard

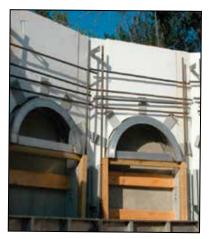
8" Breakback Tie

Our systems is so versatile and inexpensive to use, unlike ICF's were you have no choice but to insulate every wall and every section of the wall.



The process is then continued throughout the wall. Fillers will need to be sized for appropriate locations and "T" walls. Once the setting is complete, concrete can be placed.





Once the concrete work is complete, the F, I and T Sections can be utilized as attaching points for various external finishes.



When testing the adhesion between the insulation and poured in place concrete with no retainers used, the conversion rate is 1,150 lbs. of pull per square feet. Wall-Ties & Forms recommends PerformGuard® EPS, a (registered) trademark of AFM Corporation. *Tested against termites and carpenter ants. Manufacturer has specific species on file. PerformGuard is not a barrier system. Insects may enter through other access areas. AFM products are produced exclusively by Partner Plants in AFM Corporation. Performed, and AFM are registered trademarks of AFM Corporation.

**Protected under U.S. Patents No. 5,194,323 and No. 5,720,108. Other U.S. and Foreign Patents Pending.

©2001 AFM Corporation Perform Guard®



WATERPROOFING AND DAMPPROOFING PRODUCTS

DECO 20 SEALTM

DECO 20 SEAL is a code approved waterproof gray coating. The product will bridge cracks and stop water that is under hydrostatic pressure. DECO 20 SEAL is used with an airless sprayer to waterproof the exterior of poured concrete, pre-cast, or masonry block foundation walls. DECO Tie Patch replaces tar patching products used to seal tie ends.

- ~ NO SPECIAL CLOTHES OR RESPIRATORS NEEDED FOR APPLICATION
- ~ WATER CLEAN UP
- ~ CAN BE PAINTED
- ~ CAN WATERPROOF THE ENTIRE WALL TOP TO **BOTTOM**
- ~ NO GRADE LINE PROBLEMS
- ~ CAN APPLY TO DAMP WALLS
- ~ MANUFACTURER'S WARRANTY

Available in:

DECO 20 Seal-55 gal. drum #DECO2020000000 DECO 20 Seal-5 gal. pail #DECO2010000000 DECO Tie Patch-1 gal. pail #DECO0500001000



"SEE ICC Evaluation Services Research Report #1416.

DECO 20 CLEARTM



SEE ICC Evaluation Services Legacy Report #93-04.



Lightweight stainless steel hand held tank with 4' hose and gun.

5 gal. spray tank ~ Product #SPRA1000000062

DECO 20 CLEAR is a code approved penetrating sealer. The product is primarily used to dampproof the exterior of poured concrete, pre-cast, or masonry block foundation walls. DECO 20 CLEAR can also be applied to the inside of existing walls to stop moisture penetration.

- ~ NO SPECIAL CLOTHES OR RESPIRATORS NEEDED FOR APPLICATION
- ~ NO VOC'S MEANS NO SOIL CONTAMINATION
- ~ SPRAYER AND HANDS CLEAN UP WITH WATER
- ~ CAN BE PAINTED OR COATED
- ~ CAN BE APPLIED TO DAMP WALLS
- ~ CAN BE APPLIED TO THE COMPLETE FOUNDATION WALL
- ~ NO GRADE LINE PROBLEMS ASSOCIATED WITH TAR
- ~ DRYS CLEAR WITHIN 2 HOURS, NO BACKFILL **INTERRUPTIONS**
- ~ APPLY WITH HAND SPRAYER, NO EXPENSIVE **EQUIPMENT**
- ~ FAST APPLICATION SAVES TIME
- ~ MANUFACTURER'S WARRANTY

Available in:

5 gal. pail ~ Product #DECO2000000000



CONCRETE FORMS PRODUCTS & ACCESSORIES

WATERPROOFING AND DAMPPROOFING PRODUCTS

DECO 20 DAMPPROOFTM

DECO 20 Dampproof Coating is an emulsion material for dampproofing of concrete and masonry block foundation walls. DECO 20 Dampproof Coating is a special formulated coating designed for the environmental requirements in the dampproofing industry. DECO 20 Dampproof Coating contains no mineral spirits or petroleum products. DECO 20 Dampproof Coating meets EPA and OSHA requirements for clean air.

- ~ Can be applied directly to damp walls and top of foundation walls
- ~ No grade-line problems associated with tar
- ~ Only one application required
- ~ Dries gray, no odor
- ~ Surface cure within 24 hours
- ~ Can be painted over coating
- ~ Airless sprayer applied
- ~ Continuous coating, eliminates seams
- ~ Tested by SGS U.S. Testing Co., Inc.
- ~ Technical assistance available



PLATON FOUNDATION PROTECTOR

Eliminate leakage callbacks with this performance proven, environmentally friendly HDPE membrane.

Double Leakage Protection

- 1. Platon provides a Permanent Barrier
 The uniquely dimpled, 24-mil, high density polyethylene membrane provides a waterproof barrier from finished grade to the footing drain. The wall can shift, crack and settle over time without affecting PLATONs performance.
- 2. Platon provides Drainage (Only if needed)
 The dimples create a ¼" air gap behind the membrane. If punctured, any water leaking by flows to the footing drain, not into the basement.
- 3. For Triple Leakage Protection (the ultimate) install PLATON over DECO 20 SEAL.



National Evaluation Service Report #NER 514



Features and Benefits Ordering Information

New Speedclip Installation is twice as fast and three times stronger than "plug and washer" installations.

All weather installation makes scheduling easy. Platon can be hand nailed (green concrete) while the forming crew is on the job-site stripping forms.

No additional protection needed.

Exceptional (¼"+) crack bridging ability.

Overlap 6" horizontally for deep foundations to 16'.

Use under slab instead of 6-mil poly (which gets brittle over time) for a permanent moisture barrier.

Platon Membrane – 65'6" rolls x 8' rolls (525 sq. ft) #WATR0000100000

.....

(for 5 rolls) #WATR0000140000

Platon Speedclips – Box 0f 325

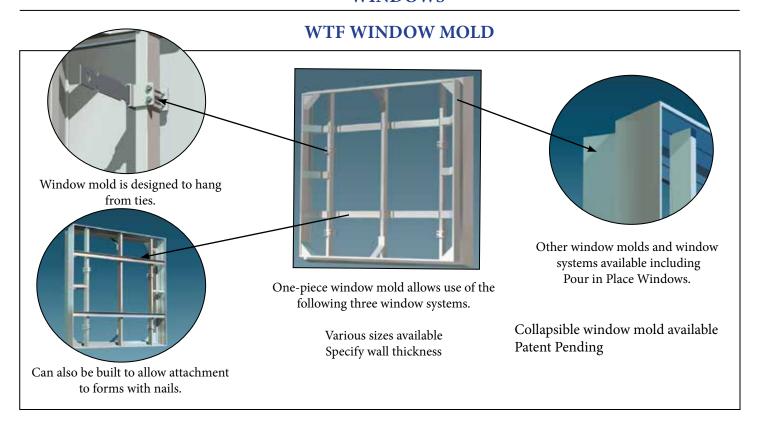
Platon Plugs – bag of 250 #WATR0000110000

Platon Washers – bag of 65 #WATR0000120000

Platon Moulding – 6'6" strip #WATR0000130000



WINDOWS



WTF VINYL EXTERIOR MOUNT WINDOW



2814 2818 4036

4040

6040

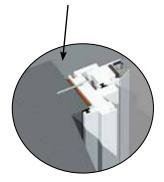
5040



Also available with:

- ~ Window grids
- ~ Low E
- ~ Argon filled

Window is installed using tapcons and caulk. The window is mounted from the exterior of the wall.



Window well and well clips available

This window is made of vinyl and is double glazed. Also includes screen.

Meets NFRC 100 certification



WTF VINYL EXTERIOR MOUNT WINDOW

Available sizes:

2814

2818

4036

4040

5040

6040

Also available with:

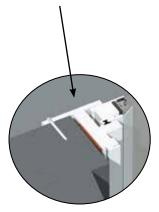
- ~ Window grids
- ~ Low E
- ~ Argon filled



This window is made of vinyl and is double glazed. Also includes screen.

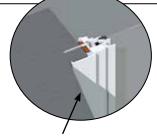
Meets NFRC 100 certification

Window is installed using tapcons and caulk. The window is mounted from the exterior of the wall.

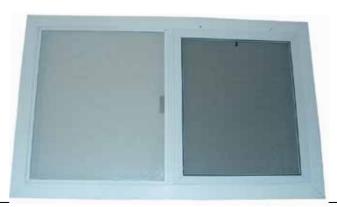


Window well and well clips available

EXTERIOR/WHITE PAINTED ALUMINUM WINDOW



Window is installed using tapcons and caulk. The window is mounted from the exterior of the wall.



Available in single glaze

Available sizes: 2814 2818

BUCKO VENTS

Constructed of painted steel. Manufactured with sloping sills to fit most wall thicknesses. This buck stands on its own strength, no auxiliary bracing needed during pour. Complete with screen and adjustable louvre's.



FOUNDATION VENTS

Our foundation vents are die cast, all metal, and open to the outside. The foundation vent is placed with the WTF Reusable Steel Buck.



VENT BUCKS





STAY IN PLACE WINDOW BUCK/FRAME

ENERGY EFFICIENT WINDOW

- · Easy care
- · Insulated
- · No condensation or frost build-up
- · Clean appearance

STEEL SAFETY-GRATE ······

- · Provides security and protection from debris and fall-ins
- · Lightweight for quick and easy escape







- · Strong 1" profile 18 gauge white painted steel
- . Double-ribbed, extra strength corners reduce bracing needs.
- . Now available in one piece up to 60"







HIGH-GRADE STEEL EGRESS LADDER

- · Provided where needed for quick and easy emergency escape
- · "Sure-step" rungs provide slip resistant use



EASY ASSEMBLY

- · Well mounts easily and directly to Buck frame using ¼" case hardened screws
- · No drilling required
- · No wedge anchors required
- · Simple, yet durable mounting saves time and money

BUCK FRAME ······

- · Heavy-duty galvanized steel
- · Extra strength 3" profile
- · Precision engineered, non-welded corner joints
- · Rust and corrosion free



EASY-BUCK



Buck frames are manufactured from 18 gauge galvanized steel and feature a precision engineered 3" profile, offering superior strength and lifetime durability. Corners are constructed by an advanced non-welded manufacturing process, eliminating potential points of weakness and areas for rust formation.

INSULATED VINYL OR MILL FINISH WINDOW



Made of attractive white vinyl, Easy-Buck insulated windows are not only clean in appearance and easy to care for, they provide an increased insulation (R) value, greatly reducing heat-loss and completely eliminating condensation and frost formation.

EASY WELL



The Well is made from heavy duty 18 gauge white painted steel. It features a 1" profile with expertly designed double-ribbed corners for added strength, reducing the need for extra bracing.

SAFETY-GRATE



Strong enough to stand on, yet light enough to push off for emergency escape, the safety grate shields windows from flying debris, and more importantly, provides protection for individuals from accidental missteps.

(see page #47 for pour-inplace Egress Well.)





While WTF forms can be used for an infinite number of concrete forming applications, the following systems are areas WTF has received industry recognition as the world leader.

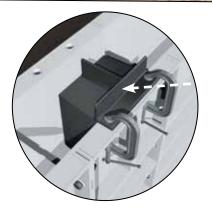


Foundation Systems

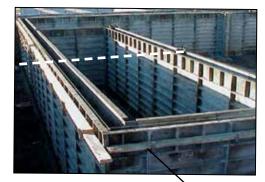
As the premier manufacturer and distributor of concrete forming products, Wall-Ties & Forms has developed the Foundation System for contractors specializing in concrete foundation work. Regardless of the application, from simple structures to the most complex custom homes, our Foundation System will meet your needs.



The key to your success in the competitive foundation construction industry is profitability. We know that lower costs and higher profits are determined by productivity. That's why we designed our foundation wall forming system to be fast and easy to use. WTF equipment is lightweight, and incredibly durable ensuring years of on-the-job use.



Beam Block (see page #46)



The WTF Foundation System comes with all the equipment you need to form and pour concrete walls in virtually any configuration. You won't find a more versatile system in the marketplace.

Hole Patterns Available:

6-12

8-8

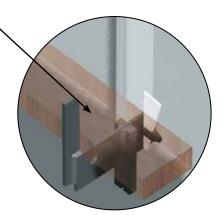
8-24

Other hole patterns available upon request

Full Panels 36" wide

Fillers 35" - 1" wide in 1" increments

Largest selection of smooth and brick-faced forms available in the market today.



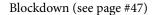
Steel Waler Bracket (see page #36)

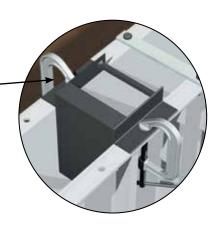


Foundation Systems



Blockoff/Blockback (see page #48)









In addition to the Foundation System WTF offers unique and innovative form designs for Crawl Space applications.



- ~Our panels have been field-tested for over 20 year and stand up to rugged daily use.
- ~They're stronger, lighter and have more surface area than wood-component panels.
- ~Uncomplicated pin, wedge and flat tie assembly makes on-site placement and stripping fast and easy.
- ~Our tough, sturdy aluminum forms are easy to transport, handle and set.

All these factors increase your bottom line!



Crawl Space Systems

Round Column (see page #27).



- 1. Panels are available in smooth or brick design.
- 2. Laydown Panels are recommended for low crawl space heights, greatly reducing time and labor required for installation.
- 3. Forms for columns are available in a wide range of sizes and shapes including circular as shown here.

Cast in place Vents are available and installed prior to concrete pouring thereby reducing installation costs.





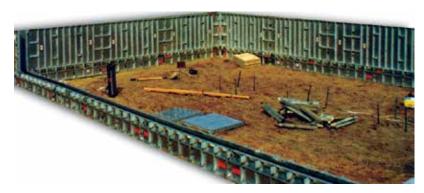


Smooth Brick Forms (see page #16).



Crawl Space Systems





4. The WTF Crawl Space System is designed to suit the customers requirements.

Specially designed system for integrated wall and footing construction is one of our latest innovations. The systems allows for the monolithic concreting of footings and walls resulting in:







9' Sections allow for fast setup and tear down. (see page #28).



- A. Reduced construction time and labor cost.
- B. Less susceptibility to water leaks because footing/wall joints are eliminated.
- C. Simplified inspection process in many cases.



Column and footing design in one placement.





Precast Concrete Form Systems

With over 20 years of providing form solutions for precast professionals, WTF Precast Form Systems are ideal for many precast challenges. WTF lightweight modular forms can create an infinite number of size and shaped precast concrete structures including but not limited to the following.





WWW.WALLTIES.COM



forming problems by giving you:

- 1. Simple to use form systems.
- 2. Heavy duty, yet lightweight forms.
- 3. Long lasting, low maintenance system.
- 4. A form system that will help you produce higher quality end products.





MODULAR JUNCTION BOX

Agricultural Systems

Wall-Ties & Forms has served the agricultural community for over two decades and our commitment to providing the best concrete forming system grows each year. WTF's innovative design, long lasting products, ease of setup and speed of construction assure that you won't be confined by inferior or restrictive products. Whatever size or shape you need to produce, whatever type of enclosure you want to build, the Wall-Ties' Agricultural Systems has a confinement system for farm related operations that will meet your specific demands.

Animal Confinement Systems

The Wall-Ties' Animal Confinement System contains everything you need to pour a concrete walled pit for sewage storage. Our design uses a double-punched end bar to produce an offset ledge to support the slats.

WTF Animal Confinement concrete forms can be designed for use both horizontally and vertically to produce varying wall heights and odd-sized confinement pens. Whether specific requirements call for Deep Pit construction with an 11' pump-out pit or Shallow Pit construction with a 1' deep holding tank, Wall-Ties Systems' concrete forms do the job pour after pour.



Water Storage Systems



Standard flat panels from Wall-Ties & Forms produce round, square or rectangular tanks, regardless of size. The basic Water Confinement System can be configured to fit any job site and meet any contractor need. All the legendary aspects of WTF Agricultural Series forms - speed of construction, reusable forms, minimal maintenance and the simplicity of the system - are contained in the Water Confinement System.



"Speed of construction, reusable forms, minimal maintenance and the simplicity of the system - are contained in the Water Confinement System."

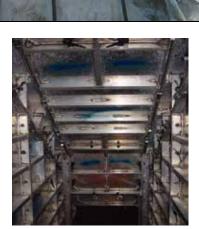


Concrete Forms Step Systems

The WTF Concrete Steps are custom built to the customers specifications.

- * Residential Steps
- * Commercial Steps
- * Available in open or closed tread Steps

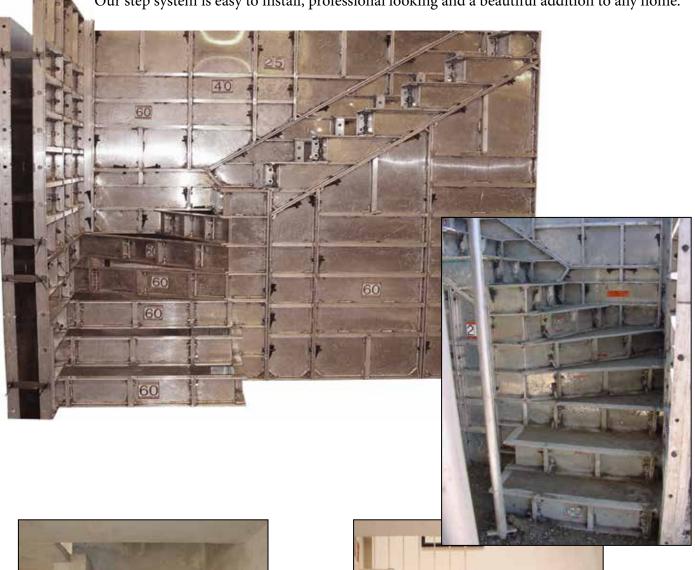






Concrete Forms Step Systems

Our step system is easy to install, professional looking and a beautiful addition to any home.





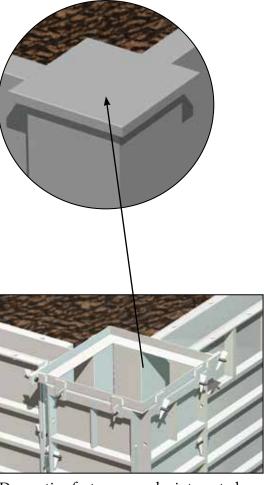


Concrete Fence Systems



WTF Fence System is designed for ease of use with minimal maintenance. Our systems offer flexibility and a wide variety of designs. Facesheets are available in Smooth, Smooth Brick, Textured Brick and Vertibrick designs. Walls are designed to integrate with columns, column spacings are adjustable with the use of fillers.





Decorative features may be integrated with the system reducing finishing time and cost.



Post & Beam Systems

WTF has designed Post & Beam Systems for many applications in the International and Domestic markets. Deck System may be incorporated into the Post & Beam System (see page #29-30).

Our Post and Beam Forms are optimally designed to produce variable concrete sections, keeping forming costs to a minimum. The design process is centered around the customers needs by providing the following options:

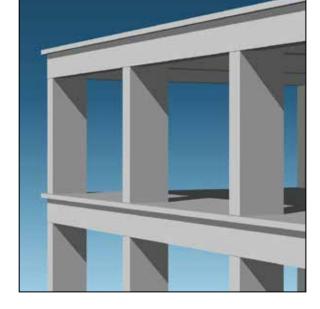
- 1. Combination of any structural members: Post, Beam, Walls and Deck
- 2. Blocked-out areas for Beam interconnection
- 3. Fixed or adjustable Post & Beams
- 4. Arched Beams and Round Columns available.



Decorative Cantilever Beams and Deck available.



Beams are designed with drop head jack post to enable stripping of forms once minimum required strength is achieved. The drop head stays in place until design strength is reached. (see page #29-30)





Swimming Pool & Spa Systems

After many years of product engineering, evaluation, consultation with installers, and on-site inspections, Swim-crete Pool Products, a division of Wall-Ties & Forms, Inc. continues with our revolution in vinyl liner and all-concrete pool construction. We are ready to explain the simplicity of the system and show you how unskilled labor and readily available materials can cut costs and building time while allowing your customer a better product. We know you'll be impressed by the ease of construction utilizing the Swim-crete system as well as the number of possible configurations available.

Vinyl Liner Pool Construction

Swim-crete vinyl lined concrete walled pools are assured to have more strength and durability than current traditional methods. Utilizing the Swim-crete Swimming Pool System you'll do more pool installations each year. Additional profit gain is guaranteed because you take the forms home when you're finished, not leaving them buried in someone's back yard! The advantages of Swim-crete Pool Systems are numerous:

- 1. You set, pour and strip in 24 hours
- 2. Integrated steps
- 3. No expensive pool kits
- 4. Over 100 different pool configurations



EXCAVATION



SETTING FORMS



CONCRETE STEPS



FIBERGLASS STEPS

Swim-crete's vinyl liner swimming pools can easily be designed to also construct all-concrete swimming pools.



PLACING CONCRETE

Radius Form (see page #14)







FORM REMOVAL



Swimming Pool & Spa Systems

All-Concrete Pool & Spa Construction

The Swim-crete all-concrete pool system gives the gunite pool installers another option ensuring faster and more efficient construction. Swim-crete's all-concrete pool system is designed utilizing a monolithic pouring process for the swimming pool floor and walls.

These are the advantages offered over the gunite method:

- 1. The simplicity of the system enables unskilled labor to be easily trained.
- 2. Forming equipment is virtually maintenance free and it is not unusual to have a life span of a 2,000 pours or more.
- 3. Smooth wall finish upon stripping of forms reduces plastering materials and finishing time.
- 4. The design flexibility allows a concrete pool dealer to also install concrete wall vinyl liner pools.



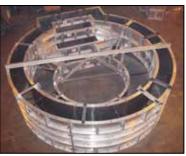


















Burial Chamber Forms



WTF was approached to design and manufacture a concrete forming system for multiple burial chambers in the Philippines. The final product is a concrete forming system that allowed the contractor to build eighty burial chambers or crypts per day using two sets of forms.

This system is designed for multi-story use, a total of eight stories in this particular project. This enabled the owner to maximize the use of the land.





Each chamber is formed using a 4-piece panel set and 2 to 3 end block-offs. The concrete forms are designed to minimize the use of ties. Ties are used only on the outside end walls.





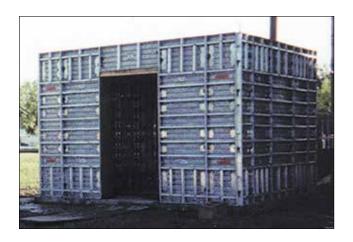
WTF Safe Room/Concrete Forming System

Texas Tech researchers collaborated with FEMA on the development of safe rooms, drawing on 25 years of field research. Their work has included studies of the performance of buildings following dozens of tornadoes throughout the United States and laboratory testing on the performance of building materials and systems when impacted by airborne debris. These shelters are designed to provide near absolute protection to you and your family from the high winds expected during tornadoes and hurricanes and from associated flying debris, such as wood studs, that tornadoes and hurricanes usually create.





Properly constructed concrete safe rooms will withstand up to an F5 tornado. Living proof: May 3, 1999 Del City, Oklahoma - this master bedroom closet, a concrete safe room, protected the owner and her family from an F5 tornado with winds in excess of 260mph.



The WTF Safe Room System incorporates wall, ledger and deck forms to create the desired size of safe room which enables the contractor to pour a monolithic structure that meets FEMA guidelines. This system was designed to meet contractor specifications. The Insulation System may also be incorporated into safe room structures. Safe rooms can be built detached or incorporated into the design of a home. Above ground shelters offer easy access for all ages and anyone with special needs.





Concrete Housing System

Strength

In independent tests simulating 250 mile-per-hour ground level wind speeds equal to the strongest tornadoes and hurricanes, concrete walls consistently outperformed wood- and steel-framed walls for 1) stopping flying debris, the greatest hazard to homeowners during this life-threatening 2) withstand collapsing and structure damage. Researchers under the direction of Ernst Kiesling, Ph.D., P.E. Professor of Civil Engineering, Wing Engineering Research Center at Texas Tech University concluded that walls built with wood or steel



studs lack the strength and mass to resist the impact of wind-driven debris, while concrete walls consistently stood up to the test.

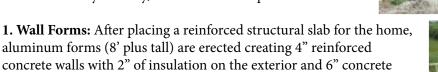
In various strength tests, concrete proved two to four times stronger than the maximum wind load and five to nine times stronger than the maximum earthquake load - bending strength considerably greater than the standards required by the Uniform Building Code.

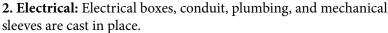
In countless fire wall tests, concrete has proven itself as one of the most fire- and heat-resistant construction materials. Unlike wood or steel, concrete does not burn, soften, or bend, so concrete structures are most likely to remain standing through a fire.

Unlike wood framing, concrete is not susceptible to rotting wood or damage by insects, like termites, that can cost thousand of dollars to treat or repair.

Rock Solid: The SecureTech Construction Process

SecureTech state-of-the-art construction technology allows your builder to cost efficiently create a home that is structurally safe, secure, low maintenance, low insurance cost, environmentally friendly, comfortable and quiet.





3. Pouring Concrete: Concrete is poured into the wall and deck forms. In just one day, the reinforced concrete is sufficiently cured and forms are removed. Work begins on the second level if a two-story structure. Walls, ceilings, and stairs are placed monolithically.

4. Interior Wall: Because the finished interior concrete walls and ceiling are so flat and smooth, drywall is not needed. Walls and ceilings are plastered, sanded, touched up, and painted.

5. Exterior and Roof: The exterior can be finished with stucco, brick, or other commonly used siding materials. The roof is conventionally framed of dimensional lumber or wood or steel trusses atop the concrete deck that forms the first or second level's ceiling. This allows architectural flexibility in roof design while keeping the wood or steel used for the roof framing outside of the home's fire-resistant thermal concrete envelope.











6. Finished Product: A beautiful new SecureTech built home.

floor/ceiling.



Wall-Ties & Forms, Inc.

4000 Bonner Industrial Drive Shawnee, Kansas 66226 USA Telephone: (913) 441-0073 Fax: (913) 441-0076

Toll Free: (800) 444-9692

Credit Application

is true and correct and agrees that writing to the contrary by Buyer: (1	Fill out completely and, if fa	xed, please forward original.)
Firm Name		Phone No
Office Address		Fax No
City		Zip Code
Mailing Address		Type of Business
City		Zip Code
Name of Parent Company if subsidiary _		
Contractor's License No		
License in what name.		
E-mail:		
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Operating as a Corporation Partner State of Incorporation or Organization: _ Branch Address In business since Owner or Officer Residence Address	Bank Phone No C Title Social Security No Title	☐ Individual ☐ hecking Account No

References: Please list your current major suppliers (at least three). Give Please do not list subcontractors or revolving credit accounts. For maximum statement.	
Name Address Phone N	No. Account No.
1	
2	
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4	
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Buyer certifies that the above information is true and correct and agrees terms of the Seller. Unless otherwise agreed to in writing, said terms are the invoice date. If default be made in payment when due, the entire out per month (18% per annum thereon, together with reasonable attorney incur in the enforcement of the obligation. Seller and Buyer agrees that expressly consents to venue, at Seller's option, exclusively in the District Seller to investigate from time to time Buyer's credit background throug and for all references to release any and all information. Buyer releases released or obtained. Buyer acknowledges that Seller is under no obligation and such sales are at Seller's sold discretion.	e that all goods are to be paid in full 30 calendar days after tstanding account balance, plus interest at the rate of 1.5% is fee and all costs of collection that Seller may reasonably this contract is entered into at Shawnee, Kansas. Buyer Court of Johnson County, Kansas. Buyer authorizes is credit reporting agencies and references listed herein, Seller from all liabilities resulting from any information
FULL NAME OF COMPANY	SIGNATURE
DATE	NAME AND TITLE
CONTINUING PERSONAL (IF A CORPORATION IS APPLYING FOR CREDIT, THIS GUA OFFICER(S).)	RANTEE MUST BE SIGNED BY A CORPORATE
For and in consideration of selling any goods or materials to the above Inc., (Seller) I /We hereby, jointly and severally, absolutely and uncondit of the above named Buyer. This is a continuing guarantee and shall cont or obligation is open. I/We expressly waive notice of default, diligence, r debtor or any other guarantor, and joinder of debtor or other guarantors and other expenses incurred in enforcement of the underlying obligation litigation, suit may be brought in the District Court of Johnson County, guarantee is binding upon me/us personally regardless of any corporate name(s) and/or signature(s).	tionally guarantee the credit account, debt or obligation tinue so long as credit is extended or the account, debt resort to security, any obligation to proceed first against s. I/We further agree to pay all attorney's fees, and costs on and this guarantee and agree that in the event of Kansas, at Seller's option. I acknowledge that this
Dated thisday of20	
	GUARANTOR SIGNATURE / ALSO PRINT
The signature on this Credit Application, if transmitted by facsimile machine, will be acceptable and binding as if it were in the original.	GUARANTOR SIGNATURE / ALSO PRINT GUARANTOR SIGNATURE / ALSO PRINT

Wall-Ties & Forms is pleased to endorse the Concrete Foundations Association. . .

The Concrete Foundations Association was established in 1974 by a dedicated group of foundation contractors and suppliers for the expressed purpose of improving the quality and acceptance of cast-in-place concrete foundations. The group was originally called the Poured Concrete Wall Contractors Association but the name was changed in 1990 to encompass the full spectrum of concrete foundation construction.

The Concrete Foundation Association (CFA) provides promotional materials, educational seminars, opportunities for networking, technical and informative meetings for members. The CFA also publishes a newsletter to keep its members abreast of important developments in the industry and to inform them of progress on Board activities and committees.

The CFA also represents the interests of its members and the industry on several code and regulatory bodies. One of these entities is The American Concrete Institute (ACI). ACI is the recognized organization for the development of standards, guidelines, and design methods for the concrete industry.





For More Information on the CFA Call 800-444-9692



Presenting Our Latest Innovations...

Split Block & Ashlar Formwork

