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QUALITY ASSURANCE AND UNPARALLELLED 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.
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.

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.

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:

<table>
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<th>Weld life</th>
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<tr>
<td>Bushing Strength</td>
<td>Bracing Construction</td>
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The following several pages is a glimpse of how we took others’ weaknesses and made them our strengths.
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.

**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

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

~ Hand welds tested for quality assurance

~ Robotics ensure quality and consistency

~ Continuous welds around perimeter provide longer concrete form life
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.

5” CHANNEL BRACE

~ Aluminum tube to control deflection, “ridges” on bracing provide additional strength and dent resistance.

~ Serrated for ease of use

~ 5” fully enclosed brace, eliminates concrete accumulation inside the brace

BOXED BRACE

~ 1 x 2 Tube Brace

~ Serrated for ease of use

~ Tube is fully enclosed eliminating concrete build-up

(Available in metric sizes.)
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.

(Available in metric sizes.)
The 6/12 hole pattern allows the contractor to easily accomplish 12” jumps.

~ 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.

(Available in metric sizes.)
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.
Is weight an issue with your forms? The Super Light panel is the form for you. Consistent care increases the longevity of this panel.

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.

**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.
* 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.)
Accurate, Reliable…

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
~ Face sheet .156 - thickest aluminum face sheet available in the industry
  - also available with .125 face sheet
~ 24” X 96” weighs 64# ~ 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.

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.

SIDERAIL
* 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.

Our radius forms are also available in smooth, textured and VertiBrick patterns.
SMOOTH TEXTURE VERTIBRICK

BRICK CONCRETE FORMS

WWW.WALLTIES.COM
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

~ VertiBrick is also available in metric sizes

**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.
~ 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.
~ 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.
~ Weighs less than 7 lbs. per square foot fully assembled.

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.

The Gang Adapter allows contractors to easily transition to handset panels by using the standard pin and wedge.
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.

The Aligner Waler Angle - this piece is made to match desired gang lengths and is used to ensure the system is straight. The Gang Adapter allows for the Waler Angle at the top and the bottom of the form.

The waler piece is built with lightweight aluminum and measures 3” x 3” x 1/2”.

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

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)

ISC 4 X 4
6 x 6 and 8 x 8 also available

ISC 4 X 6
Ideal when wall thickness changes occur at the corner

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.

Mitered to fit and give a true brick look.
Specify brick type

Aluminum angle also available to create OSC with smooth forms.
OSC ATTACHMENT (“W”)

Different wall thicknesses are easily achieved by utilizing different size fillers or different size attachments to form an OSC.

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.

HINGED OUTSIDE CORNER (HOSC)
Specify wall thickness
Eliminates as many as 13 pieces per corner when compared to using two fillers and 45° angle clips.

Different wall thicknesses are easily achieved by utilizing different size fillers for OSC.
**ISC 4 X 4 w/WALL THICKNESS CHANGE OPTION**
Face sheet holes allow ISC to be used for 2” wall thickness changes.

**OFFSET ISC**
The offset ISC is one of WTF's most versatile corners, it can be used as a standard ISC or for various offsets using different size fillers.

**ADJUSTABLE OFFSET ISC**

<table>
<thead>
<tr>
<th>ADJUSTABLE OFFSET ISC</th>
<th>BRICK ADJUSTABLE OFFSET ISC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: The Adjustable Offset is a one piece ISC. One pair to accomplish offset.</td>
<td>The Adjustable Offset ISC is used for a variety of different offsets without the need for different sized fillers. Standard offsets are 6”-14” on 2” increments. Also available in smooth and textured brick. See also Adjustable Pilaster Form (see page #26.)</td>
</tr>
</tbody>
</table>
**COLLAPSIBLE CORNER**

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

**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 custom sizes.

**FIXED 45° ISC**

Ideal when you consistently have 45° corners and do not need the added flexibility provided by the HISC (see page #22).

**FIXED 45° OSC**

Specify wall thickness - nominal or full

Also available in Fixed 30° for ISC and OSC.
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.

Also available with 8”

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**

Attaches to top of forms with pin and wedge, aligner clamp with 5/8” pin, vise-grips or “C” clamp.

Specify depth

**SLIPOVER BRICKLEDGE FORMS**

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

Available in sizes up to 24” wide

**DENVER BRICKLEDGE FORMS**

Just as its name implies, this was originally designed for the Denver area. It’s perfect for allowing adjustment to your brickledge depth.

Available in heights up to 48”

**GREEN BAY BRICKLEDGE FORMS**

Simply rest on top of tie and secure with aluminum ledge clamp.

Rest on tie
ASSORTED CONCRETE FORMS

STOOP SET

Stoop set includes 2 arms and 2 stoop bottoms.

Specify hole pattern, projection and overall height.

Used to create support for porches and air conditioner pads.

Standard projections available:
- 22”
- 46”

Pin holes allow end of wall applications.

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

Full height pilaster.

Tapered pilaster.

ADJUSTABLE PILASTER FORMS

Allows for various pilaster sizes utilizing different size fillers.

Also available in brick.

(See also Adjustable Offset ISC Corner page #23)
**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**

Wall Barrier Forms built to contractor specifications.
The Wall Barrier Forms use Breakback Ties.
(see page #39)

**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.

Forms for Hollow Column applications also available.

**SQUARE ADJUSTABLE COLUMN**

Achieves multiple widths, for both square or rectangular columns.

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

**ASSORTED CONCRETE FORMS**

WWW.WALLTIES.COM
**JUMP FILLERS**

These fillers are built with holes on 1” or 2” centers to allow a contractor to easily achieve different elevation changes.

Standard sizes of jump filler:
- 6”
- 8”
- 10”
- 12”

Other sizes available.

Specify hole pattern.

**OFFSET ENDBAR PANEL**

Commonly used in confinement systems (see page#73)

Also available with a 4” offset for brickledge applications.

**ALUMINUM CONTROL JOINT**

Creates a tapered 1 1/2” x 1” control joint within wall.

Attaches to the WTF form with pins.

**ALUMINUM CHAMFER STRIP**

Attaches to the WTF form with flathead pins to create a 3/4” x 3/4” chamfer for top of walls and square column.

Specify hole pattern.

**LAYDOWN FORMS**

The WTF 36” x 48” Laydown Panel allows a contractor to lay the forms either direction. This form is not designed to be put on the bottom of stacked forms.

In addition, WTF manufactures forms with tie slots to allow for laydown applications.

WTF has perfected several methods for laydown application utilizing standard forms (see page #45)
## DECK COMPONENTS

### LEDGER

#### STANDARD LEDGER
The ledger handles the transition from wall to deck. Available in 6” x 4” or 8” x 4”. Also available in different lengths.

Also available in standard, full and nominal.

#### CROWN MOLD LEDGER
The crown mold ledger provides a decorative crown molding in concrete. Available in 8” x 4” size.

Both Ledger utilizes deck slide clamp for attachment. (see page # 50)

### DECK PANELS

To accommodate overhead usage, deck panels are built with the .115 face sheet to reduce weight, with attached hardware for ease of installation.

The siderail has a small miter which allows for ease in stripping.

### DROP HEAD DECK BEAM ASSEMBLY

*Patent #6,513,785*

#### BEAM BAR
Jack post comes equipped with adjustable screw.

#### BEAM

#### DROP HEAD BEAM / DROP HEAD JACK POST

#### 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.

Deck beam fully assembled

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.

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

Deck Slide Clamp (see page #50)

This process is continued until all deck panels are in place.

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.
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.

Adjustable Camlock

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.
Concrete Forms Products and Accessories

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Wall-Ties & Forms, Inc. always recommends that when using or installing our products that all OSHA guidelines and regulations be followed and that our products be used exclusively for their specifically intended purposes and uses.
STANDARD PINS AND WEDGES

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

**STANDARD PINS**

Our round, tapered pins have a milled wedge slot. The shank is designed to eliminate pin sag and improve ease of stripping. Pins are made from steel and heat-treated for long life.

250/bucket

Product #SPI10000000000

~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 #SWE10000000000

**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
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.)

Product #SPI20000000000

For smooth wall applications. Brick application requires filler or ISC at location.

**FLATHEAD PIN**

**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”, 1½”, 2”

Product #SPI01152000000

**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” ~ SPI03000000000
4” ~ SPI04000000000
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.

**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.

CONCRETE FORMS PRODUCTS & ACCESSORIES
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.

STANDARD STEEL WALER

Standard waler brackets are top notch 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

ADJUSTABLE STEEL WALER BRACKET

WTF adjustable waler bracket is one of our newest innovations.

Adjacent 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 #SWA02040000000
- 2 x 6 ~ Product #SWA02060000000

COMBINATION STEEL WALER

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

Available in:
- 2” x 3” ~ Product #SWA2300000090
- 2” x 4” ~ Product #SWA2400000090
- 2” x 6” ~ Product #SWA2600000090
- 2” x 8” ~ Product #SWA2800000090

Overlap 24” at waler joint to ensure proper alignment.

WTF Aluminum Waler Board (see page #38)
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 #SWA23000000099
2” x 4” ~ Product #SWA24000000099
2” x 6” ~ Product #SWA26000000099

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” ~ Product #AWA26000000000

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 #SWA10000000000

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.

Specify hole pattern:
6/12 ~ Product #AWA10000000010
8/8 ~ Product #AWA10000000020

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

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

Vertically:

Note: 2” x 4” lumber is used on both sides of bracket
ALUMINUM WALER BOARD

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. (see page #36)

SCAFFOLD BRACKET WALER COMBINATION

Our standard scaffold easily attaches to the top of form providing a walkway for additional safety. Standard section receives two 2” x 10” pieces of lumber along with a 2” x 4” or 2” x 6” waler board.

Other sizes available upon request.

Specify size of waler board:
2” x 4” ~ Product #SBK00240002800
2” x 6” ~ Product #SBK00260002800

Note: Kicker board attaches to the base of scaffold bracket.

SCAFFOLD BRACKET

Wall-Ties’ scaffold and post can accommodate a safety rail around the wall. A 2” x 4” slips into post holder and is attached with two nails. Easily attaches to the top of form providing a stable platform for yourself and your crew.

2” x 4” ~ Product #SBK00240002890
2” x 6” ~ Product #SBK00260002890

Also used in Footing Form Application
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

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
8” - 10” Available in Single, Double or Triple Notch
Specify Nominal or Full
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).
3 ft. Wide Forming System

THE PLACEMENT CHARTS

6/12 HOLE PATTERN

Tie Maximum Load - 7,200#

Conditions that affect lateral concrete pressure:

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

NOTE: Wall-Ties & Forms recommends stacking on the bottom for speed.
3 ft. Wide Forming System

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”.

NOTE: Wall-Ties & Forms recommends stacking on the bottom for speed.

WWW.WALLTIES.COM
2 ft. Wide Forming System

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

WWW.WALLTIES.COM
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”.

WWW.WALLTIES.COM

THE PLACEMENT CHARTS
**SPECIALTY WALL TIES**

**REUSABLE ALUMINUM BAR 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**
This tie is used to incorporate foam insulation. Designed with a specific breaking point for clean break off the insulation to eliminate thermal bleeding. It also has a notch to hold the I-Section in place, which eliminates any foam notching which is required in other insulating systems. Breakback is determined by thickness of foam.

**I-SECTION**
The I-Section along with the insulation tie ensures that insulation stays in place for concrete placement. Also provides an additional attaching point.

Patent #5,987,830
See page #58
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**

Wire base ties are used in laydown form applications. Drive wedges through raised loops to secure base tie through rail.

Maximum wall height: 36”
Maximum tie spacing: 24”
Up to 20” ~ Specify Nominal or Full

**BASE TIE PIN (SILVER BULLET)**

For laydown applications ONLY! Base tie pins hold tie in place at the base of the form.

Maximum wall height: 36”
Maximum tie spacing: 24”
Product #API10000000000

**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
**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.

Once concrete is poured and cured Blockout is removed for installation of Pier.
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.

---

**BLOCKOUTS**

**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.

**ALUMINUM BLOCKDOWNS**

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

Specify nominal or full, width and depth.
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.

ALL STEEL ADJUSTABLE BLOCKDOWN

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

Specify nominal or full 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”.

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.

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.
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 #SCL9000000000
Aluminum Product #ACL9000000000

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 #SCL4500000000

ALUMINUM CAP CLIP

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

Product #ACL1000000000

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.

4"~Product #SBK0400000000
6"~Product #SBK0600000000

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 #SBK0600000000

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
**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.

Parapet Brackets are also available to offset same height forms.

**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 #SCP12000000000

**SHORT**

For use when stacking and endbar holes do not line up.
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

---

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

Product # AOT20000000000

---

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 # ABR00000005300

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.

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

Product # SOT40000000000

---

Used to strip panels from top of wall. Ideal for brick-faced forms.

Product # SPU10000000000

---

Designed to remove panels from ground level.

Product # SOT10000000000

---

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 # SBR10000000000
## ESSENTIAL extras

### Wire Ties

<table>
<thead>
<tr>
<th>Length</th>
<th>Product #</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 ½”</td>
<td>SWT55000000000</td>
<td>5,000 per roll</td>
</tr>
<tr>
<td>7”</td>
<td>SWT65000000000</td>
<td></td>
</tr>
<tr>
<td>8”</td>
<td>SWT80000000000</td>
<td></td>
</tr>
</tbody>
</table>

### Tie Twister

Used to tie wire ties quickly and easily. Works with any size wire tie.

- Product #SOT30000000000

### TIE BREAKER BAR

Vertically breaks ties quickly and easily without gouging the wall.

- Product #SOT15000000000

### Tie Breaker Bar

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

### ROD SUPPORT

- Single: Product #SR01000000000
- Double: Product #SR02000000000

### Bolts

Foundation bolts, 100 per bag

<table>
<thead>
<tr>
<th>Size</th>
<th>Product #</th>
</tr>
</thead>
<tbody>
<tr>
<td>½” x 8”</td>
<td>SB00508000000</td>
</tr>
<tr>
<td>½” x 10”</td>
<td>SB00510000000</td>
</tr>
<tr>
<td>½” x 10” Galvanized</td>
<td>SB0G510000000</td>
</tr>
</tbody>
</table>

Also available with nut and washer. Additional sizes available.

### Hurricane Strap

3,500# - Product #SB00530000000

### 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
- FOOTING CHUTE TRUNK Product #CUF12000000000
- FOOTING CHUTE HOPPER Product #CUF11000000000

Can be modified for use with skid loader mounted 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 #APO1000000000

### EXTENDED BOARD
Designed with an extended handle for ease of use.

Product #APO1100000000
WTF smooth flow aluminum chute is durable and lightweight. Our chutes are made of extruded heavy gauge aluminum and reinforced with cross beams and secured attachment chain.

Available sizes: 6’ - 24’ on 2’ increments
The aluminum chute weighs less than 5 lbs. per foot which makes it easy to handle by a single worker.

Flare added for ease of use.

Available sizes:
8’ - 26’ on 2’ increments

Chutes for special applications also available.

ALUMINUM PUDDLE STICK

Used to assist in the consolidation and flow of concrete.

Made of lightweight aluminum tube. It will not splinter or break.

Available in 12’ length ~
Product #AOT3000000000

POURING SHOVEL

Fabricated with lightweight aluminum and made to drag concrete inside forms.

Product #APO1200000000

Specify wall thickness
“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

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).

Ready to use - Available in:
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
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.

Heavy Tube construction allows minimal bracing. This allows for easier form storage and removal. Because of lighter construction many form baskets in the industry require additional side bracing. This type of basket construction can create additional labor when removing or storing forms.

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.

<table>
<thead>
<tr>
<th>LAYDOWN FILLER BASKET</th>
<th>STANDUP FILLER BASKET</th>
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<tr>
<td><img src="image1" alt="Laydown Filler Basket" /></td>
<td><img src="image2" alt="Standup Filler Basket" /></td>
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48” stacker basket also available.

*Note: Has four straps

FILLER BEDS

WTF custom designs filler beds around the customer’s truck and forms.
**WTF INSULATION**

**INSULATION TIE**

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 are 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

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**FOAM**

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**

The F Section is used at corner transitions, window and door openings, top of concrete wall, deck, and structural slab to create additional attaching points and a termite barrier.

Patent #5,987,830

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**I-SECTION**

The I-Section is used when small insulation fillers are needed. The I-Section ensures that insulation stays in place for concrete placement. Also provides an additional attaching point.

Patent #5,987,830

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**T-SECTION**

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 treatments.

Sold in 2 1/2” lengths

---

**WTF INSULATION PROCESS**

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

Outside form is put into place.
When testing the adhesion between the insulation and poured in place concrete with no retainers used, the conversion rate is 1,150 lbs. per square feet.

Our system is so versatile and inexpensive to use, unlike ICF’s where 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.

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
DECO 20 SEAL™

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 CLEAR™

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

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

SEE ICC Evaluation Services Legacy Report #93-04.

5 gal. spray tank ~ Product #SPRA1000000062
DECO 20 DAMPPROOF™

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 PLATON’s 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.

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

Platon Speedclips – Box of 325 (for 5 rolls)
#WATR0000140000

Platon Plugs – bag of 250
#WATR0000110000

Platon Washers – bag of 65
#WATR0000120000

Platon Moulding – 6’6” strip
#WATR0000130000

National Evaluation Service Report #NER 514
**WTF WINDOW MOLD**

One-piece window mold allows use of the following three window systems.

Various sizes available
Specify wall thickness

Other window molds and window systems available including Pour in Place Windows.

Collapsible window mold available
Patent Pending

Window mold is designed to hang from ties.

Can also be built to allow attachment to forms with nails.

**WTF VINYL EXTERIOR MOUNT WINDOW**

Available sizes:

- 2814
- 2818
- 4036
- 4040
- 5040
- 6040

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

Also available with:

- Window grids
- Low E
- Argon filled
**WTF VINYL EXTERIOR MOUNT WINDOW**

Available sizes:
- 2814
- 2818
- 4036
- 4040
- 5040
- 6040

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.

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

Meets NFRC 100 certification

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 louveres.

**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**

Vent Buck extensions also available.
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

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

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-in-place 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.

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.
Our panels have been field-tested for over 20 years 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).
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:

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.

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

Column and footing design in one placement.
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.

- **BOX CULVERT**
We provide cost efficient solutions to complex 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.
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.
WTF has designed Post & Beam Systems for many applications in the International and Domestic markets.

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

Deck System may be incorporated into the Post & Beam System (see page #29-30).

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)

Decorative Cantilever Beams and Deck available.
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

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

Radius Form (see page #14)
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.

Built to meet Pool Dealer specifications!
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.
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 event 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.

1. Wall Forms: After placing a reinforced structural slab for the home, aluminum forms (8’ plus tall) are erected creating 4” reinforced concrete walls with 2” of insulation on the exterior and 6” concrete floor/ceiling.

2. Electrical: Electrical boxes, conduit, plumbing, and mechanical sleeves are cast in place.

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.

To induce Wall-Ties & Forms, Inc. (Seller) to permit ________________________________ (Buyer) to purchase goods on credit (open account), Buyer represents and warrants that the following information is true and correct and agrees that Seller may rely upon the same as continuing to be true until notified in writing to the contrary by Buyer: (Fill out completely and, if faxed, please forward original.)

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<th>Owner or Officer</th>
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References: Please list your current major suppliers (at least three). Give only names of those you buy from on open account. Please do not list subcontractors or revolving credit accounts. For maximum credit, please include your most recent financial statement.

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Buyer certifies that the above information is true and correct and agrees to pay for all goods purchased in compliance with the terms of the Seller. Unless otherwise agreed to in writing, said terms are that all goods are to be paid in full 30 calendar days after the invoice date. If default be made in payment when due, the entire outstanding account balance, plus interest at the rate of 1.5% per month (18% per annum thereon, together with reasonable attorney's fee and all costs of collection that Seller may reasonably incur in the enforcement of the obligation. Seller and Buyer agrees that this contract is entered into at Shawnee, Kansas. Buyer expressly consents to venue, at Seller's option, exclusively in the District Court of Johnson County, Kansas. Buyer authorizes Seller to investigate from time to time Buyer's credit background through credit reporting agencies and references listed herein, and for all references to release any and all information. Buyer releases Seller from all liabilities resulting from any information released or obtained. Buyer acknowledges that Seller is under no obligation to sell goods to Buyer on open account or otherwise and such sales are at Seller's sold discretion.

________________________________________________ _____________________________________
FULL NAME OF COMPANY                          SIGNATURE

_________________________                                  _____________________________________
DATE                           NAME AND TITLE

CONTINUING PERSONAL GUARANTEE
(If a corporation is applying for credit, this guarantee must be signed by a corporate officer(s).)

For and in consideration of selling any goods or materials to the above Buyer on account, or otherwise, by Wall-Ties & Forms, Inc., (Seller) I/We hereby, jointly and severally, absolutely and unconditionally guarantee the credit account, debt or obligation of the above named Buyer. This is a continuing guarantee and shall continue so long as credit is extended or the account, debt or obligation is open. I/We expressly waive notice of default, diligence, resort to security, any obligation to proceed first against debtor or any other guarantor, and joinder of debtor or other guarantors. I/We further agree to pay all attorney's fees, and costs and other expenses incurred in enforcement of the underlying obligation and this guarantee and agree that in the event of litigation, suit may be brought in the District Court of Johnson County, Kansas, at Seller's option. I acknowledge that this guarantee is binding upon me/us personally regardless of any corporate or other title I/we may affix or write next to my/our name(s) and/or signature(s).

Dated this ________day of _________20____

_____________________________________
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.
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
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