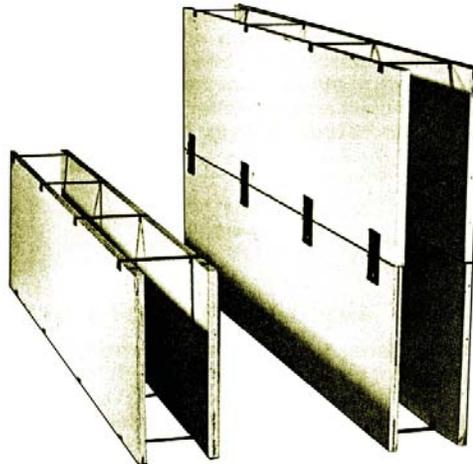




Waterless Plywood Form System

Products & Installation Instructions



Metal Products For The Construction Industry

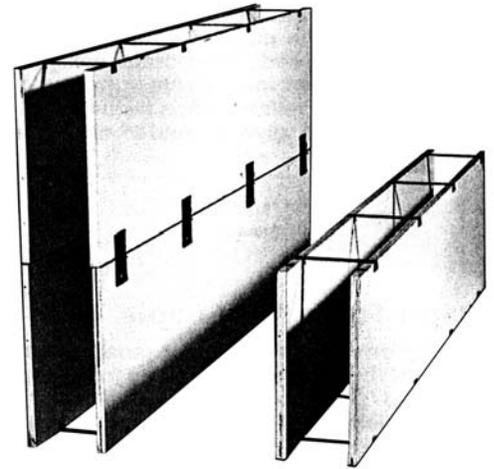


RAP-I-FORM 1 1/8" Waterless Plywood Form System

This is the only forming system that is specifically designed to meet the needs of the foundation wall contractor. It is the HDO plywood's strength, stability and hard smooth surface that provides the durable foundation wall system that makes it so appealing to builders throughout the country. In addition, all of the materials and hardware used in this system can be worked with ordinary hand tools and standard carpentry skills.

The nature of HDO plywood is such that on site preparation is possible without the complicated re-working of the basic forming system. In effect, RAP-I-FORM has taken the labor cost of form preparation and handling out of foundation wall construction.

The key to the RAP-I-FORM system is a form clip that fits over the top and under the bottom of the plywood. On the job, form clips are laid out on a pre-poured footing and spaced approximately two feet apart. HDO plywood, cut into 2' x 8' sheets, is then set into the form clip. Top clips are then applied to hold the top of the form in place, and the foundation wall is poured.



RAP-I-FACTS

The initial cost of RAP-I-FORM forming system is 50% less than competitive systems when used with 1 1/8" HDO plywood.





RAP-I-FACTS

The **RAP-I-FORM** system eliminates the need to drill panels, fabricate inside and outside corners, or the labor of handling forming lumber such as walers and base plates.



Cost Savings: The **RAP-I-FORM** system costs a fraction of other concrete forming systems. Plus, the time you'll save on the setting and stripping of forms assures you that you'll be using the most cost effective system on the market.

Versatility: You can use the **RAP-I-FORM** system to form anything from slab on-grade foundations to complete basements, and all without purchasing extra hardware.

Flexibility: The **RAP-I-FORM** system can be used with 1 1/8" HDO plywood, 3/4" HDO plywood, or regular dimension lumber. Hardware is readily available for all three types of forming materials. Change your elevations, wall heights and wall thicknesses quickly and easily.

Simplicity: You and your crew won't need extensive training to use the **RAP-I-FORM** system. Most contractors can learn to use the system in less than a day.

Availability: The **RAP-I-FORM** has an extensive dealer network throughout the United States. For a dealer near you, please call one of our offices.

Accuracy: The **RAP-I-FORM** clips and Flat Stacking Ties are fabricated to exact wall sizes. This ensures you of a consistent wall size throughout the pour.

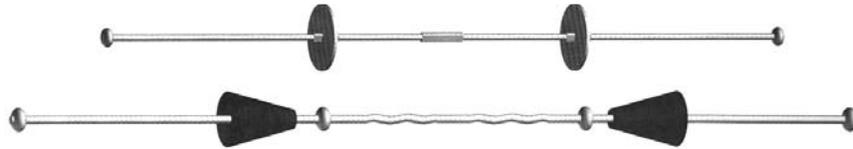
Durability: Most HDO plywood panels, when used with reasonable care, will give you up to 300 pours with the **RAP-I-FORM** system.

Form Clip 5" To 24"



Used to spread and hold the top and bottom of form set-up during pour. The top clips are removed during stripping and saved for next job. May be used with 3/4" or 1 1/8" plywood and 2" dimension lumber.

Metal Washer Snap Tie



"Short End"
 3/4" Plywood = 4 3/4" Ends
 1 1/8" Plywood = 5 1/8" Ends

"Long End"
 3/4" Plywood = 8 1/4" Ends

"Stubbie"
 3/4" Plywood = 1 1/4" Ends
 1 1/8" Plywood = 1 5/8" Ends

100 Ties Per Box
 Maximum allowable load including a safety factor of 2.0 is 2250 lbs.

Round Stakes - 3/4" & 7/8"



Standard Lengths

12", 18", 24", 30", 36", 42", 48"

10 Stakes Per Bundle - 60 Bundles Per Pallet

Stake Puller

Pull all round, square or flat stakes without adjustments. Our puller has easy-to-use three position base and three position handle.



Metal Key Way

Meets both ACI and PCA recommendations for the design of tongue and groove key joint in concrete flat work. Available with interlocking stakes.



3 1/2", 5 1/2" or 7 1/2"



Key Way Stakes: 12", 15", 18", 24"

Filler Pan

Galvanized filler sheets are used on the interior of walls to compensate for odd wall lengths and eliminate the cutting of panels. The outside panels are allowed to run by at the corners.



Ready Vent - Gray or Black



8" x 16" poured in place foundation vent
ABS Plastic

With or without 2 doors
 For wall sizes: 6", 8", 10", 12"

Flat Stacking Tie



The patented *Flat Stacking Tie* provides support through the horizontal joints between the plywood panels. Breakback after stripping is accomplished with a horizontal hammer blow.

Maximum allowable load including a safety factor of 2.0 is 1500 lbs.

Stiffback Tie



Used to stiffen and align the walls by utilizing 2" x 4" vertical stiffbacks where applicable. Used in conjunction with our standard wedges.

Maximum allowable load including a safety factor of 2.0 is 1500 lbs.

Round Snaptie Wedge

Used to take up and secure flat snapties to the panels. The wedge is secured with a vertical hammer blow and is released during stripping with a reverse hammer action.



Flat Snaptie Wedge

Used to take up and secure flat snapties to the panels. The wedge is secured with a vertical hammer blow and is released during stripping with a reverse hammer action.



Cardboard Pier Pad Box

Designed for forming concrete pier pads used in residential post & beam construction.

Available in:

- 18" x 18" x 8"
- 24" x 24" x 8"
- 24" x 24" x 12"



RAP-I-FORM's Waterless Plywood Form System is designed for the poured wall contractor who is engaged in a variety of concrete wall forming.

RAP-I-FORM is an excellent wall forming system for low wall conditions such as stem walls, crawl spaces, grade beams, curbing and cisterns.

The **RAP-I-FORM** system can also be used for high wall applications, such as basements and retaining wall foundations for residential and light commercial form work.

This makes **RAP-I-FORM** ideal for the wall contractor who has a high volume of work requiring a forming system that is versatile, economical and fast.



“Stick Forming”

VS.

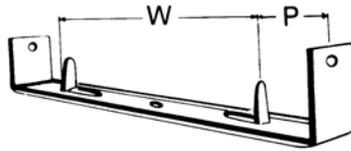


“Waterless Forming”

A system that is inexpensive, versatile and easy to use.



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W = Wall Thickness
P = Panel Thickness

INSTALLATION INSTRUCTIONS

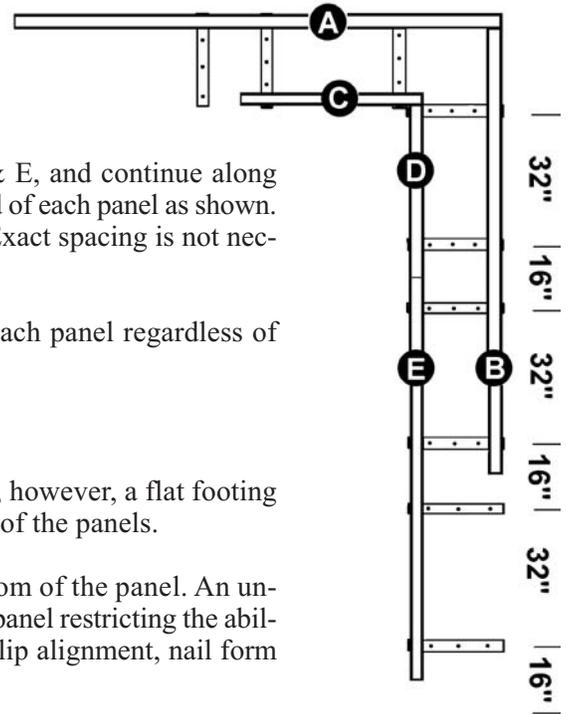
1. Chalk building line on footing
2. Place clips on building line.
3. Set panels A & B and secure at corner. Then set panels C, D, & E, and continue along building line, making sure to place clips top and bottom 4-8" from end of each panel as shown. If desired, clips on joints may be nailed after placement of panel. (Exact spacing is not necessary.)

CAUTION: Always make certain there is a clip to hold the end of each panel regardless of where the panel joint may be.

PRENAILING OF CLIPS: will cause incorrect spacing and loss of time.

NOTE: With the Rap-I-Form system a level footing is not necessary, however, a flat footing surface will speed the form setting process and simplify alignment of the panels.

It is also imperative that the form clip be fully engaged to the bottom of the panel. An un-level footing could allow the form clip to drop below the edge of the panel restricting the ability of the form clip to capture the form panel. To correct the form clip alignment, nail form clip securely to the bottom of the form panel.



Rap-I-Form clips are available for virtually any wall thickness and can be used with either plywood or dimensional lumber. The table below shows the most common combinations of wall and panel thicknesses which are stocked for immediate shipment.

W. Wall Thickness	FOR IMMEDIATE SHIPMENT				CLIP SPACING		Shipping Weight Per Box of 100 Clips			
	P. Panel Thickness		Pours to 24" Height	Pours to 32" Height	3/4"	1-1/8"	1-5/8"	2-1/4"		
4"	3/4"	1-1/8"	24" MAX	16" MAX	26#	31#				
5-5/8"		1-1/8"	"	"		41#				
6"	3/4"	1-1/8"	1-5/8"	"	36#	41#				
7-5/8"	3/4"	1-1/8"	1-5/8"	2-1/4"	"	46#	49#	61#		
8"	3/4"	1-1/8"	1-5/8"	2-1/4"	"	46#	51#	61#		
9"	3/4"	1-1/8"	1-5/8"	2-1/4"	"	51#	56#	66#		
10"	3/4"	1-1/8"	1-5/8"	2-1/4"	"	51#	58#	68#		
11-5/8"		1-1/8"	2-1/4"	"		66#		76#		
12"	3/4"	1-1/8"	1-5/8"	2-1/4"	"	66#	68#	76#	81#	
14"	3/4"	1-1/8"	1-5/8"	"	"	75#	77#	86#		
15"	3/4"	1-1/8"	1-5/8"	"	"	80#	84#	96#		
16"	3/4"	1-1/8"	1-5/8"	"	"	85#	89#	106#		

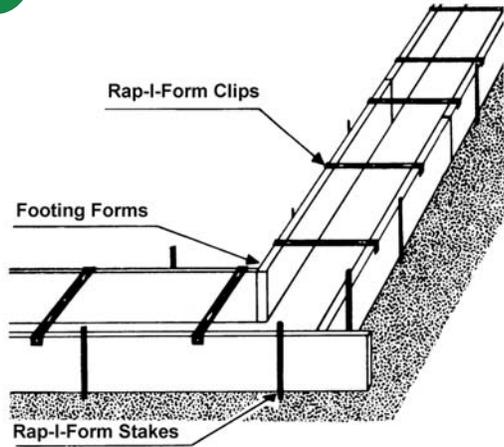
3/4" or 1 1/8" panel size is for reversible plywood panels.

1 5/8" size is for dimensional lumber.

2 1/4" size is for 5/8" plywood on a 2 x 4 frame.

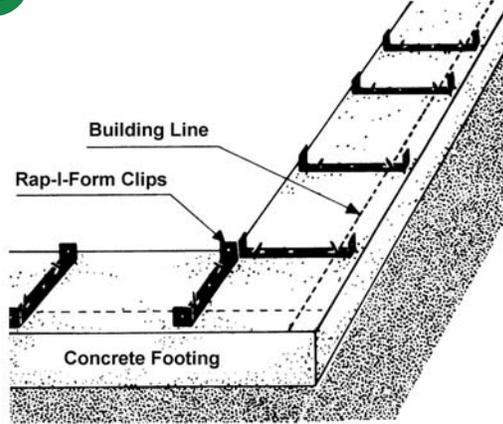
Rap-I-Form shall not be responsible or liable for form failures where maximum clip spacing or recommended rate of pour has been exceeded. The clip spacings and rates of pour listed are the maximum permissible for each size clip.

1



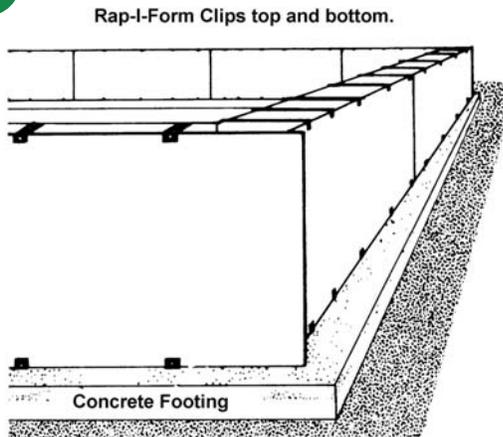
Footing forms in position using Rap-I-Form Clips & Stakes.

2



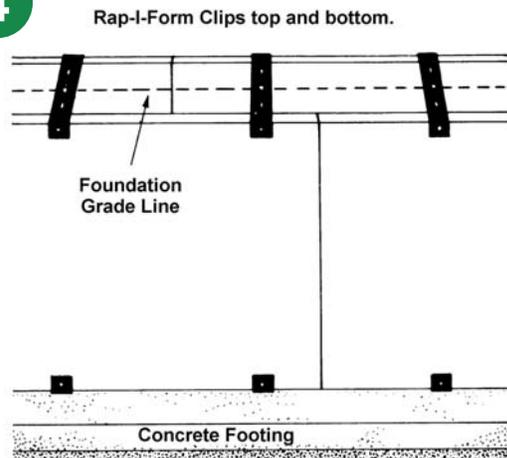
Rap-I-Form Clips placed on building line, ready to set panels. Nail corner clips.

3



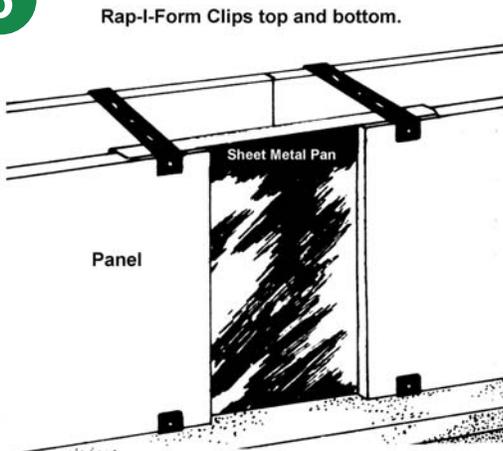
Panel held by Rap-I-Form clips top and bottom, ready for grade, final alignment check and pouring concrete.

4

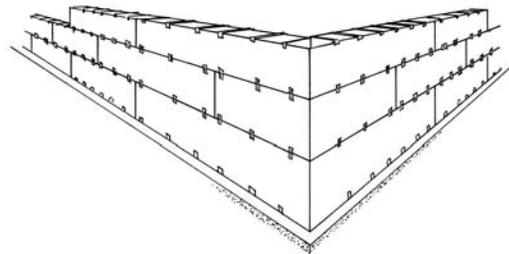


Proper clip spacing on joint, showing natural off-set of panel from a corner start. Use same spacing top and bottom.

5



Sheet metal pan held in place by Rap-I-Form clips. Pan eliminates cutting of inside panels and provides starting point for stripping.



2000# tie spacing data

POURING TEMPERATURES	50° FAHR.						70° FAHR.					
	2 Ft.	3 Ft.	4 Ft.	5 Ft.	6 Ft.	8 Ft.	2 Ft.	3 Ft.	4 Ft.	5 Ft.	6 Ft.	8 Ft.
Rate of pour ft. of height per hour	2	3	4	5	6	8	2	3	4	5	6	8
Concrete pressure per sq. ft. of forms	450#	600#	750#	900#	1050#	1350#	350#	450#	550#	650#	750#	950#
Tie Spacing	24"	20"	16"	14"	12"	12"	24"	20"	18"	16"	12"	12"

*These tables are based on Hand Spading of Concrete; if mechanical vibration is used, decrease rate of pour or increase number of ties.

*Note: The tie spacings listed are the maximum permissible spacings for the listed temperatures and rates of pour. Rap-I-Form shall not be responsible or liable for form failures where the maximum Tie Spacing or recommended rate of pour listed above has been exceeded.



Waterless Plywood Form System



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