



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header 5

List View

General Information [Contact](#) [Default Values](#) [Discount](#) [Document Information](#) [Clarification Request](#)

Procurement Folder: 1864368

Procurement Type: Central Purchase Order

Vendor ID: 000000182029

Legal Name: FORM TECH CONCRETE FORMS INC

Alias/DBA:

Total Bid: \$142,802.45

Response Date: 02/16/2026

Response Time: 13:05

Responded By User ID: gjividen

First Name: Gary

Last Name: Jividen

Email: gjividen@formtechinc.com

Phone: 304-722-6804

SO Doc Code: CRFQ

SO Dept: 0803

SO Doc ID: DOT2600000059

Published Date: 1/30/26

Close Date: 2/17/26

Close Time: 13:30

Status: Closed

Solicitation Description: Formwork for Concrete Walls

Total of Header Attachments: 5

Total of All Attachments: 5



Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Solicitation Response

Proc Folder: 1864368
Solicitation Description: Formwork for Concrete Walls
Proc Type: Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2026-02-17 13:30	SR 0803 ESR02162600000004835	1

VENDOR
000000182029
FORM TECH CONCRETE FORMS INC

Solicitation Number: CRFQ 0803 DOT2600000059
Total Bid: 142802.4500000000116415321826 **Response Date:** 2026-02-16 **Response Time:** 13:05:41
Comments:

FOR INFORMATION CONTACT THE BUYER
John W Estep
304-558-2566
john.w.estep@wv.gov

Vendor		
Signature X	FEIN#	DATE

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Formwork For 72'x140' Building	1.00000	EA	142802.450000	142802.45

Comm Code	Manufacturer	Specification	Model #
30191800			

Commodity Line Comments: PRICE IS VALID UNTIL 3/11/26

Extended Description:
SEE ATTACHED PRICING PAGE - ATTACHMENT A, FOR ACTUAL COST

Formwork for Concrete Walls
ATTACHMENT A - PRICING PAGE (ATT A)

Vendor Name : **FORMTECH CONCRETE FORMS,INC.**

Vendor Instructions: Please provide a price for all Contract Items listed below. **Qualifying bids will be evaluated based on the sum of the bid totals to determine the low bid Vendor that meets specifications. This is a single-vendor award one (1) time purchase contract.**

Contract Item #	Est. Qty	Description	Unit Of Measure	Bid Price
1	1	Formwork for 72' x 140' building with 13' tall and 16" thick walls plus one (1) additional complete set of formwork wedge bolts.	EA	\$142,802.45



Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Centralized Request for Quote
Miscellaneous

Proc Folder: 1864368			Reason for Modification:
Doc Description: Formwork for Concrete Walls			
Proc Type: Central Purchase Order			
Date Issued	Solicitation Closes	Solicitation No	Version
2026-01-30	2026-02-17 13:30	CRFQ 0803 DOT2600000059	1

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Customer Code: 00000182029

Vendor Name : FORMTECH CONCRETE FORMS,INC.

Address : 161

Street : INDUSTRIAL ROAD

City : SAINT ALBANS

State : WV **Country :** USA **Zip :** 25177

Principal Contact : GARY JIVIDEN

Vendor Contact Phone: (304)722-6804 **Extension:**

FOR INFORMATION CONTACT THE BUYER

John W Estep
304-558-2566
john.w.estep@wv.gov

Vendor
Signature X *Gary Jividen* **FEIN#** 383179533 **DATE** 2-16-26

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION**REQUEST FOR QUOTATION:**

The West Virginia Purchasing Division is soliciting bids on behalf of the West Virginia Division of Highways to establish a contract for the onetime purchase of the Formwork for Concrete Walls for use for WVDOH projects throughout the state of West Virginia. Per the Bid Requirements, Specifications, Terms and Conditions attached to this solicitation

INVOICE TO

DIVISION OF HIGHWAYS
MAINTENANCE DIVISION
1900 KANAWHA BLVD E,
BLDG 5 RM A350
CHARLESTON WV
US

SHIP TO

DIVISION OF HIGHWAYS
WVDOH SUBSTATION
646 RT 20 SOUTH
BUCKHANNON WV
US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Formwork For 72'x140' Building	1.00000	EA	\$142,802.45	\$142,802.45

Comm Code	Manufacturer	Specification	Model #
30191800	SYMONS-DAYTON SUPERIOR		STEEL-PLY HANDSET

Extended Description:

SEE ATTACHED PRICING PAGE - ATTACHMENT A, FOR ACTUAL COST

SCHEDULE OF EVENTS

<u>Line</u>	<u>Event</u>	<u>Event Date</u>
1	Tech Questions due by 10:00am	2026-02-06

	Document Phase	Document Description	Page 3
DOT2600000059	Final	Formwork for Concrete Walls	

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
08/22/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services South, Inc. Atlanta GA Office Three Ravina Drive 22nd Floor Atlanta GA 30346 USA	CONTACT NAME: PHONE (A/C. No. Ext): (866) 283-7122 FAX (A/C. No.): (800) 363-0105 E-MAIL ADDRESS:														
INSURED White Cap Supply Holdings, LLC 2451 Industry Avenue Doraville GA 30360 USA	<table><tr><td>INSURER(S) AFFORDING COVERAGE</td><td>NAIC #</td></tr><tr><td>INSURER A: National Union Fire Ins Co of Pittsburgh</td><td>19445</td></tr><tr><td>INSURER B: AIU Insurance Company</td><td>19399</td></tr><tr><td>INSURER C:</td><td></td></tr><tr><td>INSURER D:</td><td></td></tr><tr><td>INSURER E:</td><td></td></tr><tr><td>INSURER F:</td><td></td></tr></table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: National Union Fire Ins Co of Pittsburgh	19445	INSURER B: AIU Insurance Company	19399	INSURER C:		INSURER D:		INSURER E:		INSURER F:	
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INSURER C:															
INSURER D:															
INSURER E:															
INSURER F:															

COVERAGES **CERTIFICATE NUMBER:** 570115054673 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS														
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> <input type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER:			1729031	10/31/2024	10/31/2025	<table><tr><td>EACH OCCURRENCE</td><td>\$2,000,000</td></tr><tr><td>DAMAGE TO RENTED PREMISES (Ea occurrence)</td><td>\$1,000,000</td></tr><tr><td>MED EXP (Any one person)</td><td>\$10,000</td></tr><tr><td>PERSONAL & ADV INJURY</td><td>\$2,000,000</td></tr><tr><td>GENERAL AGGREGATE</td><td>\$10,000,000</td></tr><tr><td>PRODUCTS - COMP/OP AGG</td><td>\$6,000,000</td></tr><tr><td></td><td></td></tr></table>	EACH OCCURRENCE	\$2,000,000	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$1,000,000	MED EXP (Any one person)	\$10,000	PERSONAL & ADV INJURY	\$2,000,000	GENERAL AGGREGATE	\$10,000,000	PRODUCTS - COMP/OP AGG	\$6,000,000		
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PRODUCTS - COMP/OP AGG	\$6,000,000																				
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			4594496 AOS 4594497 MA	10/31/2024	10/31/2025	<table><tr><td>COMBINED SINGLE LIMIT (Ea accident)</td><td>\$5,000,000</td></tr><tr><td>BODILY INJURY (Per person)</td><td></td></tr><tr><td>BODILY INJURY (Per accident)</td><td></td></tr><tr><td>PROPERTY DAMAGE (Per accident)</td><td></td></tr><tr><td>PIP - FL</td><td>\$10,000</td></tr></table>	COMBINED SINGLE LIMIT (Ea accident)	\$5,000,000	BODILY INJURY (Per person)		BODILY INJURY (Per accident)		PROPERTY DAMAGE (Per accident)		PIP - FL	\$10,000				
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BODILY INJURY (Per accident)																					
PROPERTY DAMAGE (Per accident)																					
PIP - FL	\$10,000																				
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION						<table><tr><td>EACH OCCURRENCE</td><td></td></tr><tr><td>AGGREGATE</td><td></td></tr></table>	EACH OCCURRENCE		AGGREGATE											
EACH OCCURRENCE																					
AGGREGATE																					
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N	N/A	WC049154473 AOS WC049154475 WI	10/31/2024	10/31/2025	<table><tr><td><input checked="" type="checkbox"/> PER STATUTE</td><td><input type="checkbox"/> OTHER</td><td></td></tr><tr><td>E.L. EACH ACCIDENT</td><td></td><td>\$1,000,000</td></tr><tr><td>E.L. DISEASE-EA EMPLOYEE</td><td></td><td>\$1,000,000</td></tr><tr><td>E.L. DISEASE-POLICY LIMIT</td><td></td><td>\$1,000,000</td></tr></table>	<input checked="" type="checkbox"/> PER STATUTE	<input type="checkbox"/> OTHER		E.L. EACH ACCIDENT		\$1,000,000	E.L. DISEASE-EA EMPLOYEE		\$1,000,000	E.L. DISEASE-POLICY LIMIT		\$1,000,000		
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E.L. DISEASE-EA EMPLOYEE		\$1,000,000																			
E.L. DISEASE-POLICY LIMIT		\$1,000,000																			

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

State of WV
1900 Kanawha Blvd., Bldg. 5
Charleston WV 25305 USA

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Services South Inc.

Holder Identifier :

570115054673

Certificate No :





ADDITIONAL REMARKS SCHEDULE

Page _ of _

AGENCY Aon Risk Services South, Inc.		NAMED INSURED White Cap Supply Holdings, LLC	
POLICY NUMBER See Certificate Number: 570115054673			
CARRIER See Certificate Number: 570115054673	NAIC CODE	EFFECTIVE DATE:	

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: ACORD 25 **FORM TITLE:** Certificate of Liability Insurance

Insured Continued:

white Cap Supply Holdings, LLC
 white Cap Supply Holdings II, LLC
 white Cap, L.P.
 Construction Supply Holdings, LLC
 Construction Supply Acquisition Parent, LLC
 Construction Supply Acquisition, LLC
 Ram Tool & Supply Co., LLC
 Ram Tool & Supply Co. of Texas, LLC
 Diamond Tool & Fasteners, LLC
 Brock White Company LLC
 Border Construction Specialties LLC
 Stetson Building Products LLC
 SBP Acquisition LLC
 CSG Corporate Acquisition, LLC
 CW-MA Holdings, Inc.
 Carter-Waters LLC
 Williams Equipment And Supply Company
 Williams Equipment And Supply Company of Louisiana
 All-Tex Supply, Inc.
 Titan Construction Supply, Inc.
 Best Materials, LLC
 Masonpro, Inc.
 Kenseal Construction Products, LLC
 white Cap Management, LLC
 white Cap, L.P. dba Tri-Supply and Equipment
 Valley Cash & Carry, Inc.
 white Cap, L.P. fka HD Supply Construction Supply, Ltd.
 white Cap Supply, L.P.
 Tri Boro Construction Supply
 Form Tech Holdings, Inc.
 Form Tech Intermediate Holdings, Inc.
 Form Tech Concrete Forms, Inc.
 Reno Hardware and Supply Inc
 Brownco Mfg. & Sales, LLC.
 Construction Materials Inc.
 Crimson Steel Supply, LLC
 Bend Construction Supply Inc.
 National Ladder and Scaffold Co.
 WWJ Rebar LLC
 Rebar Solutions
 B and R Reinforcing Inc.
 Jobsite Supply, Inc.
 ERSO Construction Supply
 Triumph Geo-Synthetic, Inc
 Valley Supply, Inc
 TOOFast Supply
 Midstream Supply & Rental
 Site Supply, Inc
 National Ladder and Contractors ClothingKris-Con
 Kris-Con
 American Contractor Supply, LLC
 Reinforcing Concepts Inc



PURCHASE PROPOSAL

161 INDUSTRIAL RD.
ST ALBANS, WV 25177
(304) 722-6804

Visit Our Website: www.formtechinc.com

ORDER DATE: 2/17/2026
PROPOSAL # JW26021601
SALES REP.: JAYSON WOLFORD
PHONE: (304) 722-6804
EMAIL: JAYSON.WOLFORD@WHITECAP.COM

FormTech proposes to furnish the following items for the above project in accordance with the following prices / Terms and Conditions. The customer agrees to the price and Terms and Conditions upon acceptance of this proposal.

This proposal is ONLY valid for 15 days from the above date and shall not be binding until it has been signed by both parties.

CUSTOMER: WVDOT- FORMWORK FOR CONCR
ATTENTION:
PHONE:
JOB NAME: 72'X140' SALT SHED FORMWORK
ADDRESS: 646 WV-20
BUCKHANNON, WV 26201

ESTIMATED SHIP DATE: 3/15/2026
F.O.B.: SHIPPING POINT
TERMS: OPEN

JOB DESCRIPTION

FORMWORK PURCHASE - STEEL-PLY HANDSET FORMING SYSTEM TO FORM (1) 72'X140' X 13'H X 16" THICK SALT SHED IN (1) ONE POUR. EQUIPMENT LIST BELOW, HAS ADDED EXTRA WEDGE BOLTS, (2) ROWS OF SCAFFOLD BRACKETS, (3) ROWS OF TURNBUCKLE BRACES, 16' LAMINATED SCAFFOLD PLANK, (3) ROWS OF 2X6 WALERS AND (2100) 16" HD S-PANEL TIES

FTCF shall provide SYMONS STEEL-PLY HANDSET system for PURCHASE for the following amount:

FORMWORK PURCHASE: **\$135,282.45 PER 28 DAYS**
PRO-RATED PER DAY
AFTER FIRST 28-DAY
CYCLE

WALL TIES: \$2,520.00
ESTIMATED FREIGHT: \$5,000.00
1 Truck(s) Total to Deliver, ~\$5000.00ea.

Closing Statement / Notes

- o Rental systems are quoted FOB shipping point, unless otherwise indicated.
- o Contractor will need to unload/load truck at jobsite with equipment (ie. Skid Steer, Forklift, etc.).
- o Any additional gear (ADD ON) not included in the BOM on the next page, will be subjected to a **minimum** of 1 day lead time. Depending on the add-on, more days will be needed.
- o When returning gear to FormTech, contractor will need to band or wrap the forms and hardware to pallets or bins provided by FormTech.
- o Stamped drawings by a Professional Engineer can be provided at additional costs.
- o Contractor to furnish dimensional lumber for wood sills and plates.
- o Contractor to furnish 3/4" plywood for any job built fillers.
- o Shortages and damages will be billed at Symons list prices.
- o Steel-Ply Patching hole/gouges/fractures <2" diameter in plywood - \$4.00 per hole/gouge/fracture
- o Steel-Ply Four or more holes/gouges/fractures or any damages >2" diameter - full plywood replacement at \$3.95/sf.
- o Equipment shall be classified as damaged beyond repair if there are holes or cuts in the steel frames or other steel components. Bent frames will also be classified as damaged beyond repair. Equipment damaged beyond repair will be billed at standard list price.
- o See attached Terms and Conditions sheet attached to this proposal.

Accepted By:
Sign

Accepted By:
Print

Date Signed:

ESTIMATED TOTAL \$142,802.45

Freight will be charged if FormTech schedules a truck to deliver to or return from a jobsite or warehouse. If not quoted in price, reach out to salesman for a freight quote.

Sales Tax and/or Use Tax not included in above quote. Please provide a tax exempt certificate or direct pay permit if applicable at time of signed agreement to avoid charges.

Do You Need More?

FormTech also carries these items below and more! Call your sales representative if you need any items below. The more we can throw on the truck for you, the better!

2" x 4" x 16' / 2" x 6" x 16' Lumber
BB, MDO, HDO, CDX, Film Face Plywood
3/4" and 1" Wood Chamfer
Sure-Kote / Nox-Crete Form Releases
Vinyl / Hydrophillic Waterstops
Column Forms (Plastic / Steel / Fiberglass)
Curb Forms (Steel / Plastic)

1/2", 3/4", 1", 15mm Euro Coil Rod
#4, #5, #6 (20' Sticks) Rebar
"Stayform" Metal Rib Sheets
16D Duplex Nails / Chamfer Nails
Drop-In / Coil with Tang Concrete Anchors
1/4" Pencil Rod (20' Sticks / 100# Rolls)
Safety Equipment (Harness, YoYos, SRLs)

FormTech
Locations

Detroit, MI
975 Ladd Rd
Walled Lake, MI 48390
(248) 344-8260

Cleveland, OH
20801 Miles Rd
N. Randall, OH 44128
(216) 692-0497

Pittsburgh, PA
2850 Kramer Rd
Gibsonia, PA 15044
(412) 331-4500

Charleston, WV
161 Industrial Rd
St. Albans, WV 25177
(304) 722-6804

Charlotte, NC
1000 Thomasboro Rd
Charlotte, NC 28208
(704) 395-9910

Raleigh, NC
115 Pettfinder Ln
Raleigh, NC 27603
(919) 833-0911

Charleston, SC
7377 Peppermill Ln
N. Charleston, SC 29418
(843) 628-3434

[illegible]



Visit Our Website: www.formtechinc.com

RENTAL PROPOSAL

161 INDUSTRIAL RD.
ST ALBANS, WV 25177
(304) 722-6804

ORDER DATE: 2/17/2026
PROPOSAL # JW26021601
SALES REP.: JAYSON WOLFORD
PHONE: (304) 722-6804
EMAIL: JAYSON.WOLFORD@WHITECAP.COM

TERMS AND CONDITIONS

AGREEMENT OF LEASING: Customer ("Lessee") hereby agrees to lease from Form Tech Concrete Forms, Inc. ("Lessor"), at the rental rates described, and subject to the conditions herein contained, the items described in the Proposal, herein called the "Equipment." Equipment also includes the items which are actually leased and delivered to Lessee.

THE RENTAL PERIOD: The "Rental Period" shall commence immediately upon the date of the shipment to Lessee and cease on the date that Lessor takes receipt of the Equipment returned from Lessee. **RENTAL CHARGES:** Rental Equipment is invoiced at a rental rate that is a percentage of the Manufacturer's Suggested Retail Price (MSRP) as published by Symons Corp. and/or Dayton-Superior. The MSRP used will be that which is in effect at the time of shipping. The price(s) quoted in the Proposal is approximate and is based on a preliminary understanding of Lessee's general needs for equipment to be leased. Lessee understands that the final invoiced price(s) to Lessee is subject to itemization of the exact Equipment actually ordered by and delivered to Lessee.

- A) The minimum (sometimes referred to as monthly or initial) Rental Period is 28 days (4 Weeks).
- B) Rental Charges are pro-rated to a daily rate for any rental period beyond the initial 28 day (4 Week) minimum.
- C) Rental Charges are not subject to any adjustments due to any non-working time (down-time) during the Rental Period.
- D) Additional equipment requested that is not specifically covered in this Agreement shall be subject to the same Rental Charges and terms and conditions contained herein.
- E) Rental Charges do not include wood or lumber of any kind, unless otherwise noted, except that which is part of a pre-fabricated panel or item.
- F) Rental Charges do not include applicable state or local sales and/or use taxes, nor any related transportation charges.
- G) Payments are due from Lessee within 30 days of the date of the invoice.

SINGLE JOBSITE USE: Lessee shall not move the Equipment from one jobsite to another without prior written consent of the Lessor. Absent prior written consent as herein described, the parties agree that the Equipment will be deemed to have been provided only to the initial, approved jobsite for the entire Rental Period, and that applicable lease charges for the Equipment may be allocated fully to that jobsite.

TRANSPORTATION CHARGES: In addition to all rental and purchase charges, Lessee agrees to pay all related transportation charges to and from Lessee's specified jobsite or warehouse destination. It is agreed that all shipments are FOB Shipping Point. Shipments will be billed at the applicable tariff rate in effect at the time of shipment. All carriers will be considered agents of the Lessee. All arrangements for the return of equipment to Lessor are the responsibility of the Lessee. Lessee is responsible for all waiting, loading and unloading time.

- A) Lessee agrees to pay any applicable fuel surcharges, or demurrage (waiting time) charges as they relate to Lessee's shipment or return.
- B) Lessee is responsible for all loading and unloading of equipment at Lessee's specified destination.
- C) Lessee understands and agrees that, as a service to Lessee, Lessor will make trucking arrangements on behalf of Lessee for shipments and returns of rental equipment. Lessor will make every effort to assist Lessee in regards to scheduling deliveries or returns, but shall not be subject to any backcharges or offsets by Lessee for loss or damage arising from transportation scheduling issues and other circumstances beyond Lessor's reasonable control.

CREDIT CARD PAYMENTS: FOR ANY LEASE TRANSACTION ON WHICH LESSEE USES A CREDIT CARD (OR DEBIT CARD) FOR PAYMENT OF ALL OR ANY PART OF THE LEASE OBLIGATIONS FOR A RENTAL PERIOD, LESSEE HEREBY AUTHORIZES LESSOR TO CHARGE ANY ADDITIONAL UNPAID LEASE RENTALS AND OTHER PROPER CHARGES FROM THE SAME CREDIT CARD (OR DEBIT CARD), AND TO TAKE SUCH ACTION WITH THE APPLICABLE CREDIT CARD COMPANY AS WILL EFFECTUATE PAYMENT TO THE LESSOR FOR SUCH UNPAID LEASE RENTALS AND OTHER PROPER CHARGES.

PURCHASE OPTION: If not in default of any of the terms and conditions hereof, and subject to the written concurrence of Lessor, Lessee may purchase some or all of the Equipment. If Lessor agrees, the purchase price and any terms will be decided upon and formalized in writing for signature by authorized representatives of each party, at the time of purchase.

SHORTAGE AND DAMAGE CHARGES: Lessee assumes all responsibility for the equipment while it is in Lessee's possession. Upon completion of use, Lessee will return equipment to Lessor in the same condition it was received, reasonable wear through careful use excepted.

- A) Equipment not returned, or returned but "damaged beyond repair," will be billed at the current MSRP as published by Symons Corp. and/or Dayton-Superior. The determination of "damaged beyond repair" will be made solely by Lessor.
- B) Any damaged items deemed "repairable" by Lessor will be repaired in such a manner as deemed necessary in Lessor's sole discretion. Lessor shall be entitled to collect all such damage charges from Lessee. Charges will be billed based on Lessor's current repair schedule, a copy of which is available from Lessor upon request.
- C) Shortage items and quantities will be determined using Lessor's Shipping/Return documents and corresponding Rental Reports. In all cases, Lessor's documents will be used to determine final shortage charges.

INDEMNITY: It is understood and agreed that except for Lessor's sole negligence, Lessee shall indemnify and hold Lessor harmless, to the fullest extent allowed by applicable laws, against any and all claims, demands, liabilities, losses, damages, and injuries of whatsoever kind or nature, including but not limited to personal injury and property damage, and all fees, costs and expenses, including attorney fees, relating to or in any way arising out of ordering, acquisition, delivery, installation, possession, maintenance, use, operation, control, loss, damage, destruction, return, surrender, sale, or other disposition of the Equipment or any part thereof. In other words, even if Lessor is negligent in part, Lessee shall nevertheless indemnify Lessor as provided above. This indemnity shall not be affected by any termination of the Lease, or of the Rental Period with respect to any Equipment.

USE OF EQUIPMENT. Lessee warrants that it is familiar with the safe erection and dismantling procedures of the Equipment, and agrees to use Equipment in conformity with safe practice, applicable standards and in compliance with the requirements of OSHA, and all other applicable legal requirements.

- A) Layout drawings and/or printed instructions provided by Lessor are supplied only as a service to Lessee to conceptually illustrate the assembly of the Equipment. Such documents are not intended to be fully directive nor cover the engineering details of the Equipment inasmuch as Lessor does not control jobsite assembly or procedures, or the grade or quality of materials supplied by others. It is the responsibility of the Lessee to integrate Lessor's design drawings into composite drawings suitably complete for construction purposes, consistent with safe practices and overall project objectives.
- B) Lessee shall immediately remove from service any of the Equipment that ceases to fit, connect, or operate properly, or becomes damaged or defective in any way.
- C) Lessee shall not intermingle, connect, or use Lessor's supplied Equipment in conjunction with functionally equivalent components of others since such components may not be safe due to improper fit or connection, or load capacities.
- D) No Equipment shall be sublet by Lessee and Lessee shall not transfer or assign the Equipment to any other person or entity whatsoever throughout the duration of this Agreement.
- E) Title to Equipment is, and shall remain, in Lessor throughout the duration of this Agreement.

TERMINATION OF THE AGREEMENT: Should the Lessee commit any material breach of any provision hereof, the Lessor may, without notice, terminate this Agreement, take immediate possession of the Equipment without becoming liable for trespass, and recover all rental due, full damages for any injury to, and all fees, costs, and expenses, including attorney fees, incurred in recovering the Equipment. Lessee consents to any re-entry and repossession of the Equipment by Lessor in these circumstances.

ATTORNEY FEES: In the event that Lessor shall employ an attorney (a) in connection with any matter relating to the parties' performance under this Agreement, or to its interpretation; (b) to commence suit to recover the leased Equipment; (c) to collect any indebtedness due under this Agreement as herein provided; (d) to enforce any provision contained herein; and/or (e) to defend or respond, formally or informally, to any claim, action, proceeding, or demand made by Lessee or any third party, or for any other reason relating to this Agreement, the Equipment, or the relationship between the parties, Lessee agrees to pay or reimburse Lessor for all of its reasonable attorney fees, together with any costs and expenses incurred.

INSPECTION PRIVILEGES: The Equipment is leased to Lessee in an "as is" condition. Lessee has been afforded the opportunity to carefully inspect and test the Equipment. Upon departure of the Equipment from the premises of Lessor, it shall be conclusively presumed that Lessee has, in fact, examined the Equipment and has found it to be in good working order.

DISCLAIMER/LIMITATION OF LIABILITY AND WARRANTIES: LESSOR MAKES NO WARRANTIES, EXPRESS OR IMPLIED, AS TO THE EQUIPMENT'S MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. LESSEE ACCEPTS THE EQUIPMENT "AS IS." Lessee's sole remedy for any failure of, or defect in the Equipment shall be the termination of the rental charges at the time of failure, provided the Equipment is returned to Lessor within forty-eight (48) hours from the discovery of the defect. Lessor shall not be responsible to Lessee or to any agent or employee of Lessee or to any other party for any loss, including but not limited to any personal injury or property damage, or for any special, indirect or consequential damages whatsoever, including but not limited to loss of profits, extra labor costs, delays or any other claims arising out of or resulting from the rental of this Equipment, its operation or use, any loss of use, breakdown, malfunctioning or any defect in or failure of the Equipment.

MISCELLANEOUS:

- A) This Agreement is (and is intended to be) a Lease, and Lessee does not acquire hereby any right, title, or interest in or to the Equipment, except the right to use the same under the terms hereof.
- B) Lessee shall never at any time during the term of this Lease be or become the agent of the Lessor, and Lessor shall not be responsible for the acts or omissions of Lessee or its agents.
- C) Time is of the essence hereof.
- D) Lessee agrees to pay Lessor interest at the rate of eighteen (18) percent per annum, or the maximum rate permitted by law, on all sums not paid by Lessee to Lessor when due.
- E) Lessor's rights and remedies under this Lease shall be in addition to any other rights and remedies available in law or equity. Lessor's failure to enforce strictly any of the provisions of this Lease shall not be construed as a waiver thereof or as excusing Lessee of future performance.
- F) The invalidity of any portion of this Lease shall not effect the force and effect of the remaining valid portions thereof.
- G) This Agreement contains the fully integrated agreement of the parties, and shall not be amended or altered in any manner unless such amendment or alteration is in writing and executed by both parties in writing.

ACCEPTANCE: LESSEE AGREES THAT ITS ACCEPTANCE OF THIS AGREEMENT, INCLUDING THE TERMS AND CONDITIONS HEREOF, IS EVIDENCED BY THE SIGNATURE OF ITS REPRESENTATIVE ON THIS PROPOSAL, WHO LESSEE REPRESENTS TO LESSOR IS AUTHORIZED TO SIGN ON LESSEE'S BEHALF AND TO BIND LESSEE'S INTERESTS, AND/OR BY



**PERFORM
WITH
PRECISION™**

**STEEL-PLY®
FORMING SYSTEM**

**CONCRETE
CONSTRUCTION
SOLUTIONS**

BROCHURE





The Steel-Ply forming system is a pre-engineered, factory-built, reusable concrete forming system. It may be used in handset or gang form applications, for commercial or residential structures. The Steel-Ply forming system can form walls of almost any shape or size, with accessories for special structures and details. This system is more productive and economical than job-built plywood formwork or other forming methods.

Steel-Ply Saves Time

The Steel-Ply forming system saves time because it is easy to set up and strip. No measuring, sawing, drilling, or nailing is required. Minimal training is needed, so workers are quickly up to maximum efficiency. The only tool required for setup and stripping is a hammer.

Steel-Ply Saves Materials

Unlike job-built formwork, which must be tailored for each specific pour, the Steel-Ply forming system comes in a variety of standard sizes which can be combined to form virtually any dimension. Steel-Ply panels and fillers are made of specially laminated plywood mounted on rugged steel frames. They can be used up to 200 times before being re-plyed.

Quality, Consistency and Safety

No matter what the application, the same basic components and methods are used. Labor performance becomes consistent and predictable, and the laminated plywood panels and tight-fitting side rails produce a high quality concrete surface. This engineered system is designed and manufactured with a known strength factor, a major consideration for jobsite safety.

Superior Service

The complete Steel-Ply forming system is available through a worldwide network of Symons Branches, Dealers and Distributors. Each Branch and Distributor is staffed with Symons representatives who are trained and experienced in concrete forming. These representatives can work with you to develop detailed formwork layout drawings which show component placement and reuse cycles. This includes a complete bill of materials to ensure that all essential elements are available when the job starts.

On-the-job crew training, application consultation, Safety Sheets and Application Guides are also available. This extra assistance helps crews work rapidly, efficiently, and safely during the project.

Rent or Purchase

All standard panel sizes and most accessories are available for rental or purchase. This is especially advantageous if you have an unusually large or unique job where purchasing a system is not practical. Another option is to buy the basic panels and accessories and rent some of the specialized components as the need arises.

Let a Dayton Superior representative prepare an analysis to determine if the rental or purchase of the Steel-Ply forming system is appropriate for the specific application.





System Design

Steel-Ply panels and fillers are constructed from a rugged steel frame. The side rail of the form is rolled exclusively for Symons and has a minimum yield stress of 55,000 psi. Crossmembers have a minimum yield stress of 60,000 psi and are located at one foot centers on all panels and fillers.

Symons special 1/2" 100/30 High Density Overlay (HDO) plywood provides a smooth finish. Each piece is edge sealed to repel moisture and prevent delamination. With proper care, contractors can expect up to 200 reuses before plywood replacement.

Steel-Ply requires little training because it has no top or bottom, left or right, and can be used vertically or horizontally. Dado slots at crossmembers simplify tie placement. Slots for hardware attachment are located between crossmembers.

All Steel-Ply components combine to provide a 1000 psf rated system with a predictable safety factor over the service life of the form.

The complete Steel-Ply system consists of over 100 standard panel and filler sizes. Panel and filler heights range from 3' to 10', in 1' increments. Panel widths are 24" and filler widths range from 4" to 22", in 2" increments. A 5" wide filler and steel 1", 1 1/2", and 2" fillers are also available. Wedge Bolts connect panels, fillers and ties in one simple operation.

Steel-Ply is also available in metric sizes. Panel and filler heights range from 60 cm to 300 cm in 30 cm increments. Panel widths are 60 cm and filler widths range from 10 cm to 55 cm in 5 cm increments.

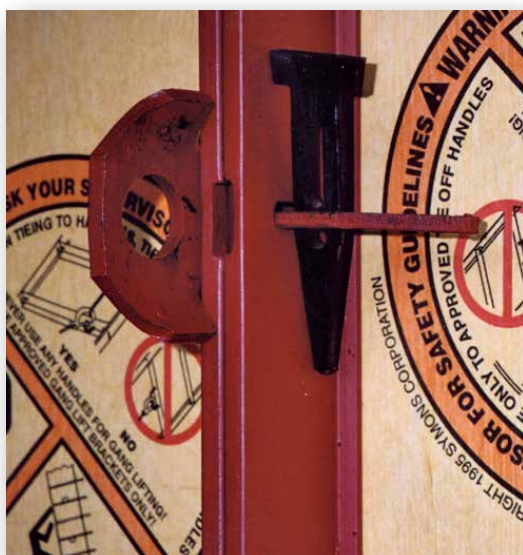
Quick-Hook Handle

The Steel-Ply panel is also available with a patented Quick-Hook Handle design. This exclusive design meets the Occupational Safety and Health Administration (OSHA) requirement for fall protection (Subpart M).

The Quick-Hook Handle is integral to the panel design with staggered locations between the crossmembers. This provides convenient climbing and attachment points for personal safety equipment. This design improves worker safety without any reduction in productivity.

The same Quick-Hook Handle is used to carry the panel. The design provides enough clearance for hands, but does not interfere with panel stacking for storage.

When a Quick-Hook Handle is not accessible, the installation of Safety Eyes on any Steel-Ply panel allows easy attachment of personal safety equipment. Safety Eyes are attached to vertical side-rails to provide safe climbing points on gang form applications.

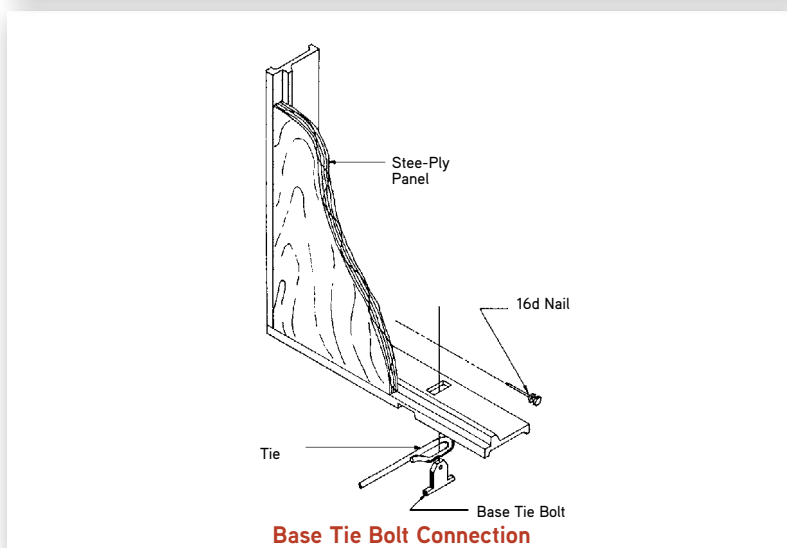




Typical Wedge Bolt Connection



Long Bolt Connection



Base Tie Bolt Connection

For productive setting and stripping of forms, Symons offers a variety of connecting hardware.

Wedge Bolts

Two identical Wedge Bolts function as a lock-bolt set, one as a connecting bolt, the other as a clamping wedge. At typical siderail-to-siderail connections, the loop end of the tie is positioned in dado slots and is secured by the same Wedge Bolts.

For typical walls, form connecting Wedge Bolts are only required at standard tie connection positions. Additional Wedge Bolts are utilized at other positions for attachment of walers, scaffold brackets or other accessory components.

Long Bolts

The Long Bolt is designed to be used with the 1", 1½" and 2" Steel Filler. The long connecting bolt is punched with two ¼" holes to accommodate a 16d nail to be used to shorten the bolt for Steel Fillers. A vertical Wedge Bolt secures the two panels and filler through the adjoining side rails.

Adjustable Long Bolts

The Adjustable Long Bolt is designed to allow two steel fillers to be used side-by-side. It can accommodate up to a 3" combination (i.e. two 1½" steel fillers, or a 1" with a 2" steel filler).

Base Tie Bolts

The Base Tie Bolt secures a tie to an endrail or a siderail resting on a footing. It also can be used in situations where panels butt against an existing vertical surface.

Symons has the largest selection of standard and special ties in the industry. Wire ties and flat ties are used for standard Steel-Ply tie spacing, and reusable load-gathering She-Bolts and Taper Ties are used for wider tie spacing.

S-Panel Ties

The S-Panel Tie, or wire tie, is the most commonly used tie for commercial and industrial structures. The standard breakback for the S-Panel Tie is 1", with other breakbacks available upon request. The S-Panel Tie can be manufactured to almost any length, with optional cones and water resistant washers to meet job specifications.

X-Flat Ties

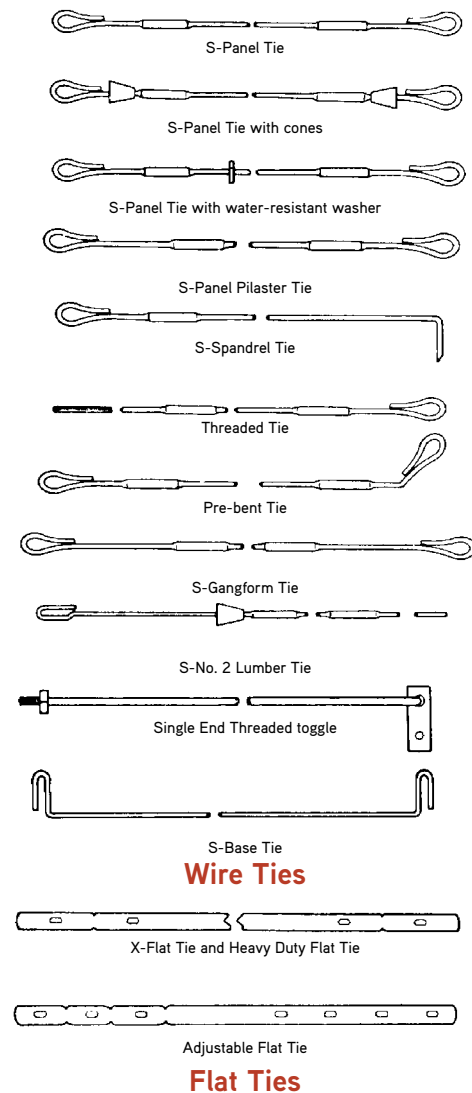
X-Flat Ties are commonly used for residential foundations when the 1" standard breakback is not required. The end of the tie extends beyond the back of the form for quick inspection of tie location.

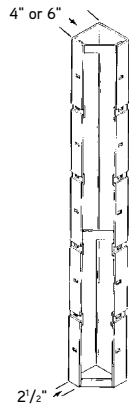
Threaded Ties

The Threaded Tie provides adjustment advantages for battered walls. Threaded Ties have a special thread design to gain maximum strength using the maximum diameter thread possible with Symons standard wire tie.

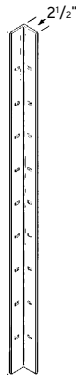
S-Base Tie

The S-Base Tie has an upturned loop at each end which projects up through the bottom rail. Wedge Bolts are inserted through the loop end to secure the tie and panel. The S-Base Ties are used for small retaining walls or against existing walls.





Inside Corner



Outside Corner

Inside and Outside Corners

Inside and Outside Corners are all-steel corners that lock adjoining forms together to make a 90° angle.

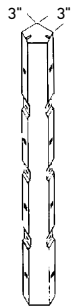
Standard Inside Corners have a face dimension of 4"x4" or 6"x6". Each Inside Corner is manufactured with reinforcing straps to maintain 90°. Dadoes are placed 12" O.C. for tie connection and slots are placed 12" O.C. for connecting hardware.

Bay Corners

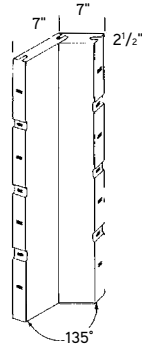
Inside Bay Corners opposite Outside Bay Corners form a 135° angle.

The Inside Bay Corner has a 3"x3" face dimension, and the Outside Bay Corner has a 7"x7" face dimension. Ties connect at adjoining panel joints to complete this forming detail.

Bay Corners can also be used horizontally to form wall haunches and "Y" walls.



Inside Bay Corner



Outside Bay Corner

Hinged Corners

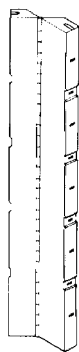
The Inside Hinged Corner may be used to form inside corners down to a 45° angle. The Outside Hinged Corner forms outside corners from 135° down to a 5° angle.

In most wall applications, Inside Hinged Corners are used opposite Outside Hinged Corners. Always insert connecting Wedge Bolts toward the adjoining panels so that the angle will not be restricted.

Corners must always be adequately waled, braced and blocked as required.

45° Bay Corner Bracket

The 45° Bay Corner Bracket (Patent #5,044,601) can be used in place of the 7"x7" Bay Corner. Two appropriately sized fillers are connected to form the outside 135° angle.



Inside Hinged Corner



Outside Hinged Corner

The strength of the panel design makes a waler necessary for alignment only, it is not a structural part of the formwork. Only one row of 2"x4" walers on each tier of panels is required, with a variety of time and material saving attachment options available to increase your productivity.

One-Piece Waler Bracket

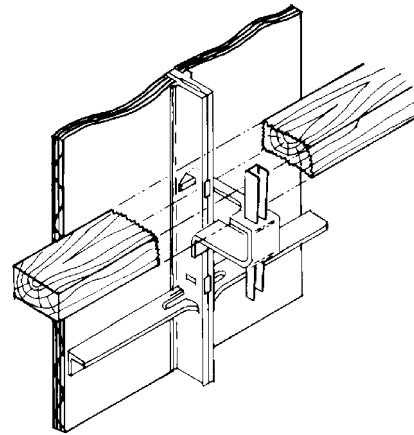
The One-Piece Waler Bracket is fast and simple to install. Just insert the Waler Bracket into any siderail hole not being used for ties, place a single or double 2"x4" piece of lumber on top of the bracket, and drop the attached wedge into position. No additional hardware is needed.

Z-Tie Holder

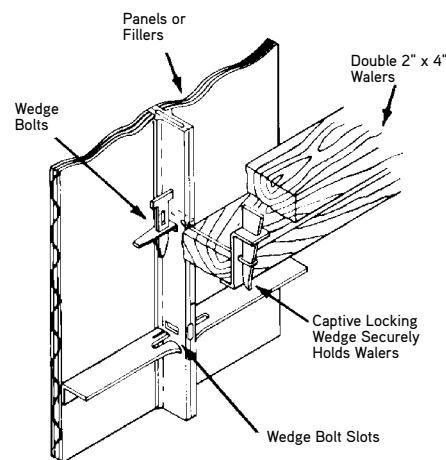
The Waler Tie and Z-Tie Holder combination is another method of attaching walers. Waler Ties are available in two lengths to secure double 2"x4" or double 2"x6" lumber walers. Once the Waler Tie is fastened with Wedge Bolts, the lumber is positioned and the Z-Tie Holder is used to complete the assembly.

Strongbacks

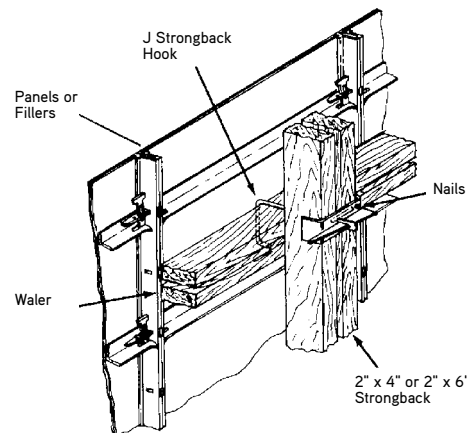
Strongbacks are vertical alignment members that are placed at 90° to walers. The Strongbacks are used to align the walers and are commonly placed at 8' O.C. Strongbacks can be doubled 2"x4", 2"x6" or 2"x8" lumber secured with J-Strongback Hooks.



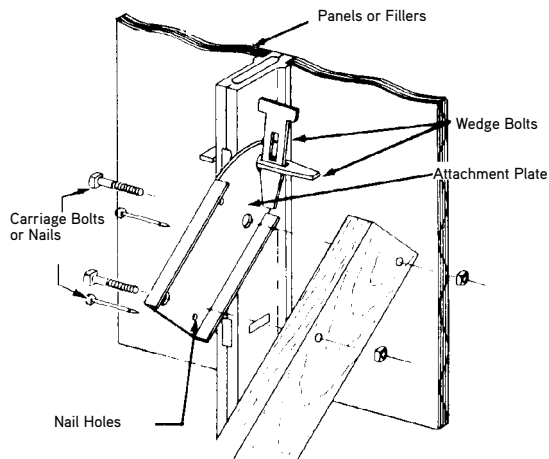
One Piece Waler Bracket Attachment



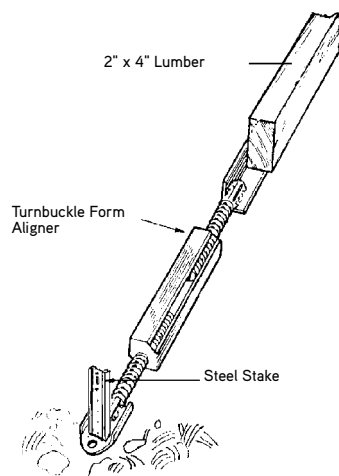
Z-Tie Holder Attachment



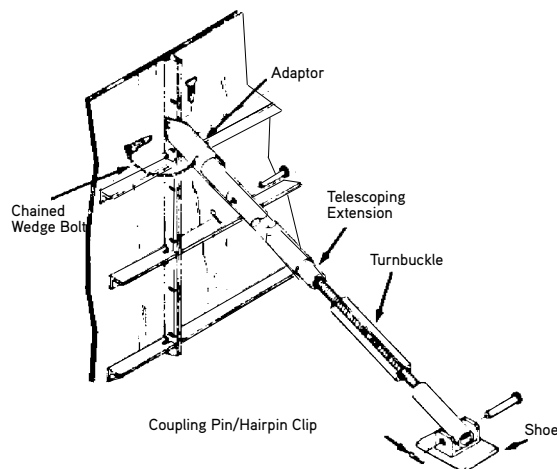
Strongback Attachment



Attachment Plate Connection



Adjustable Turnbuckle Form Aligners



Pipe Form Aligner

Aligners are required to position forms, they are not intended to be used as bracing or to resist concrete pressure.

Attachment Plate

The Attachment Plate can be bolted or nailed to 2" x 4" lumber. Aligners are quickly attached or removed from the forms with standard connecting hardware.

Turnbuckle

Turnbuckles allow for 6" length adjustment. The Turnbuckle is attached with nails to lumber and anchored before final adjustments are made. The end of the Turnbuckle contains a large slot to accommodate a Steel Stake.

Pipe Form Aligner

The Pipe Form Aligner eliminates the use of lumber and allows adjustments from 13'-4" to 20'-9". The top end of the Pipe Form Aligner uses a Steel-Ply Adapter Plate which connects to the Steel-Ply panel. The bottom of the Pipe Form Aligner requires a Pipe Form Aligner Shoe for anchoring a $\frac{3}{4}$ " diameter concrete anchor or a Steel Stake.

Pier Cap Braces

Pier Cap Braces are available in two turnbuckle lengths and two extension tubes. Used in conjunction with the Pipe Form Aligner Shoe and the Steel-Ply Adapter Plate, they provide an adjustment range from 5'-9" to 14'-4".

Brace Kicker Bracket

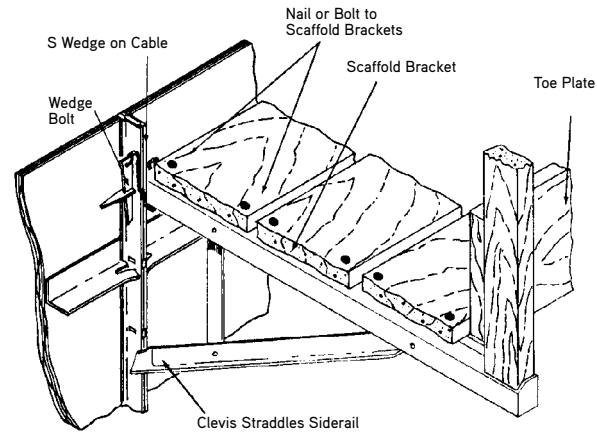
The Brace Kicker Bracket has two holes for connecting an aligner and a kicker. It is used in place of the Pipe Form Aligner Shoe if a kicker is desired.

Scaffold Bracket

Scaffold Brackets are installed where one or more levels of work platform are required for personal safety. The maximum safe load of the Scaffold Bracket is 500 lbs. (4 to 1 safety factor).

The Scaffold Bracket comes with a wedge and cable attachment for quick assembly.

Note: Do not use Scaffold Brackets to support cantilevered concrete soffit forms, or for temporary storage of construction equipment or material.



Scaffold Bracket Attachment

Filler Angle

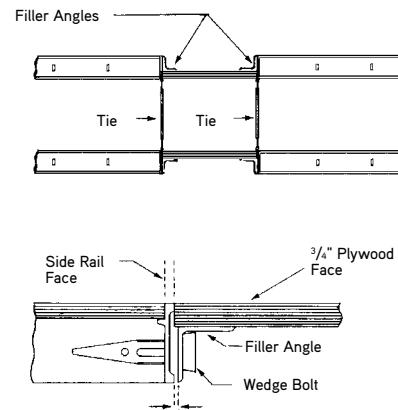
Filler Angles provide a means to construct a custom size filler with $\frac{3}{4}$ " plywood that can be connected to the side rails of adjoining Steel-Ply forms.

These Filler Angles are recommended where reinforcing steel, pipes, or other penetrations must protrude through the form face.

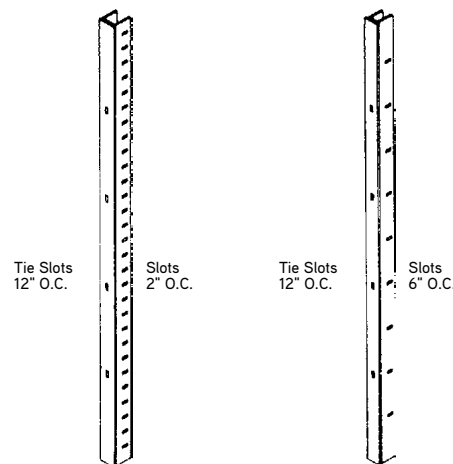
Steel Filler

Steel Fillers are cold-formed U-shaped steel. The 1" and $1\frac{1}{2}$ " steel fillers are punched with connecting slots at 6" O.C. A Long Bolt passes through the steel filler to grip adjoining panel side rails.

The 2" Steel Filler has connecting slots at 2" O.C. It is used to "step" forms in 2" increments. This steel filler reduces the need to build up under forms when step footings or changing wall elevations occur.

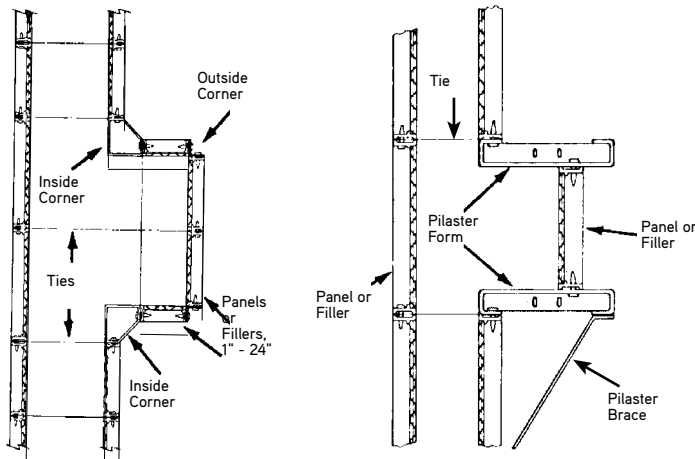


Filler Angle Attachment



2" Steel Filler

1" or $1\frac{1}{2}$ " Steel Filler



**Pilaster Formed with
Standard Steel-Ply Components**

**Pilaster Formed with
Adjustable Pilaster Form**

Pilaster

Pilasters of almost any dimension are formed quickly and easily using standard Steel-Ply panels or fillers with Inside Corners and Outside Corners.

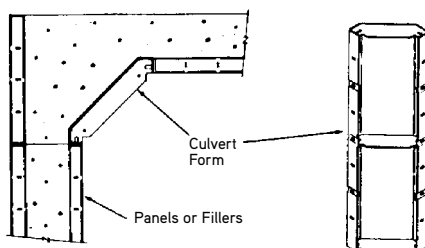
Adjustable Pilaster Form

An Adjustable Pilaster Form is available to form standard pilasters from 1" to 12" deep in 1" increments. The Pilaster Form eliminates Inside and Outside Corners and the need for having specific size fillers on hand. The Pilaster Brace eliminates lumber bracing to maintain right angles.



Culvert Form

Reusable steel Culvert Forms come in chamfers sizes of 6"x6", 9"x9" and 12"x12". The Culvert Form permits monolithic pouring of the walls and elevated slab of culvert structures. The Culvert Form can also be used to make chamfered corners in vertical walls.



**Culvert Form
Attached to Panels**



Double Duty Lift Bracket

The Double Duty Lift Bracket provides an attachment point for rigging and handling gangs. A vertical capacity of 2000 lbs. (5 to 1 safety factor) meets OSHA requirements.

Application drawings show locations and numbers of Double Duty Lift Brackets per gang.

Note: Do not break a gang form loose from a wall by lifting or tugging backwards with the Double Duty Lift Bracket.

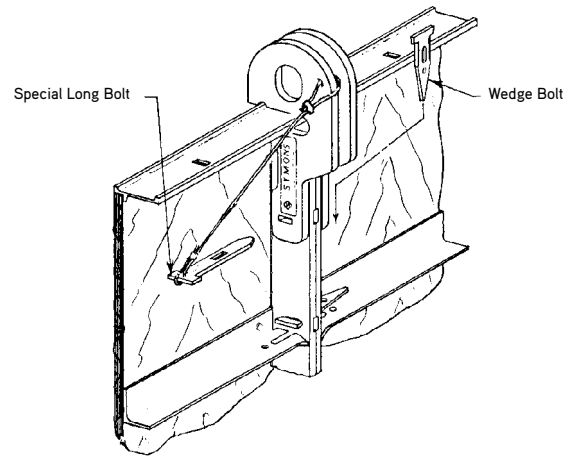
Waler Lift Bracket

The Waler Lift Bracket is an alternative device for lifting gangs. A vertical capacity of 4000 lbs. (5 to 1 safety factor) meets OSHA requirements.

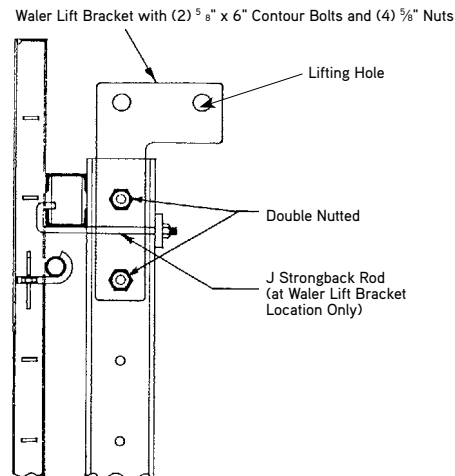
Note: Only vertical loads can be imposed at lift holes for the Waler Lift Bracket. A Lift Beam with vertical drop lines connected to Waler Lift Brackets must be used.

Column Lift Corner

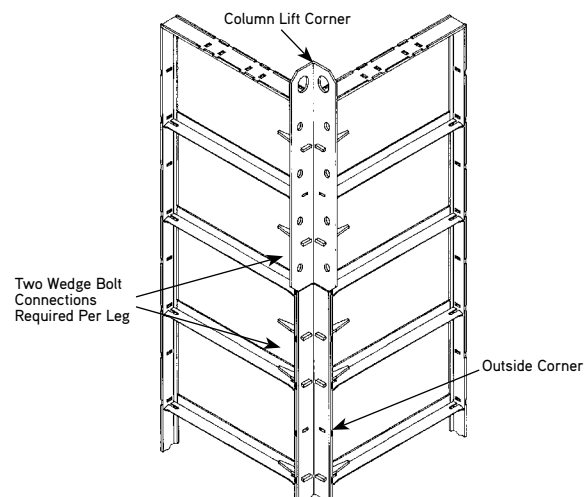
The Column Lift Corner can be used as the outside corner in the top two feet of ganged columns. The Column Lift Corner extends 4" above the column and is secured with Wedge Bolts. Two Column Lift Corners are required per column. The Column Lift Corner has a safe load capacity of 2000 lbs.



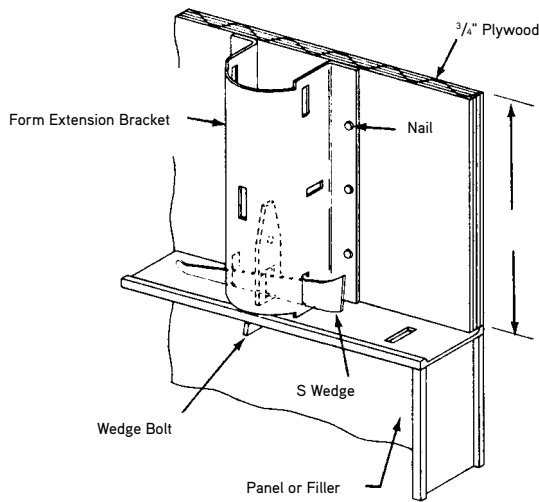
Double Duty Lift Bracket Attachment



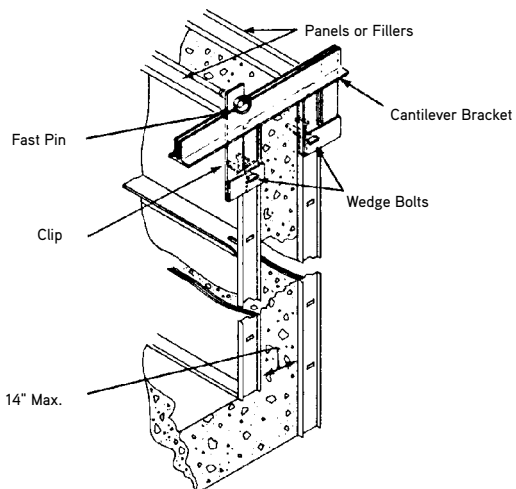
Waler Lift Bracket Attachment



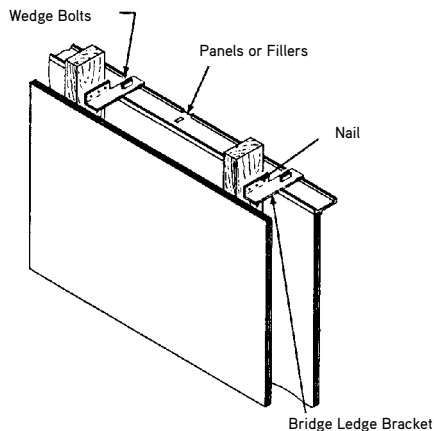
Column Lift Corner Attachment



Form Extension Bracket Attachment



Cantilever Bracket Attachment



Brick Ledge Bracket Attachment

Form Extension Bracket

The Form Extension Bracket is a convenient means to extend the height of a standard panel an additional 3" to 12" for straight or curved walls. The bracket is designed to be used with 3/4" plywood and attached with a Wedge Bolt. The bolt comes up from the top rail of the panel below and is locked in with an S-Wedge. A slot in the center of the bracket allows for Waler attachment.

Cantilever Bracket

The Cantilever Bracket is used to suspend a form on the opposite side of the wall. This allows different elevations at the bottom of forms so that a base slab can be monolithically poured with the wall. Maximum capacity is 700lbs. Maximum spacing must not exceed panel length when forms are horizontal, and must not exceed 8'-0" when panels are vertical.

Brick Ledge Bracket

The Brick Ledge Bracket is used to form brick ledges and support various framed boxouts. The bracket is attached to panels or fillers with Wedge Bolts. The bracket spans the wider side of a 2" x 4" piece of lumber to create the offset needed.

Bulkhead Forming

Keyway Forms come in 3', 4', 5', 6' and 8' lengths. When bolted to Bulkhead Bars, they produce a keyway and hold the waterstop in position.

Bulkhead bars can be used for forming bulkheads in walls 4" to 24" wide. Standard Wedge Bolts attach the bars to the siderails of panels and fillers.

Bulkheads can also be formed by using Outside Corners and a panel or filler.

Haunch Forming

Haunch Brackets provide an ideal way to form haunches or corbels, without any additional lumber support.

The Haunch Bracket connects easily with Steel-Ply® panels and is designed to support 3/4" plywood. Slots make securing walers a simple operation.

Footing Corner Bracket

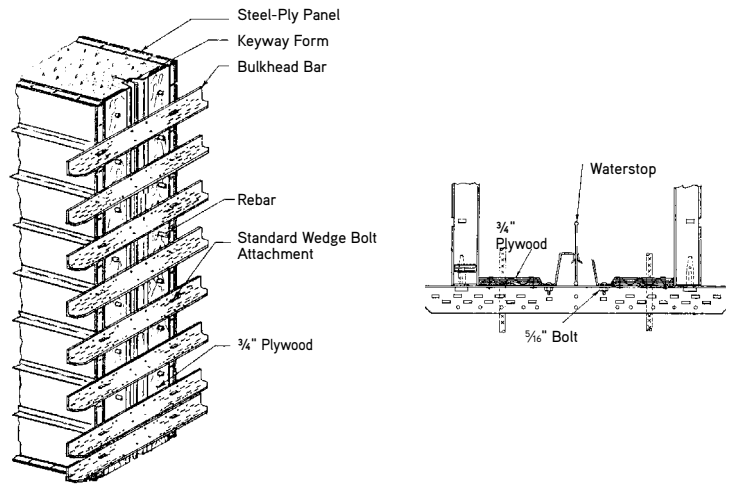
Forming footings, pads and slabs is made easy with the Footing Corner Bracket. Attached at the top and bottom of each corner, Footing Corner Brackets hold the panels firmly. A wide range of dimensions in 2" increments is possible.

Stake Plate

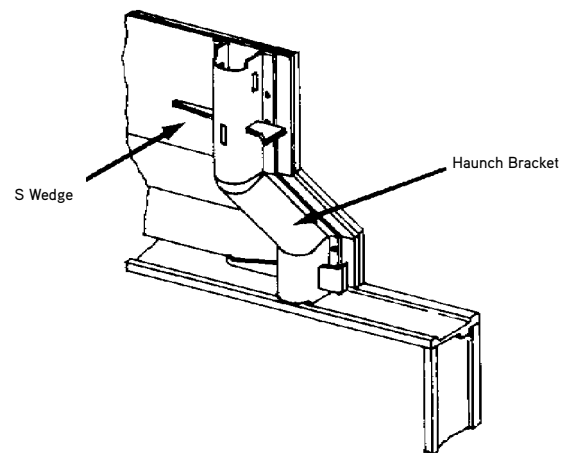
Stake Plates are positioned along the top edge of the Steel-Ply for Steel Stakes. The Stake Plates are typically located midway between Steel-Ply crossmembers and endrails to provide access for a stake puller.

Beam Pocket

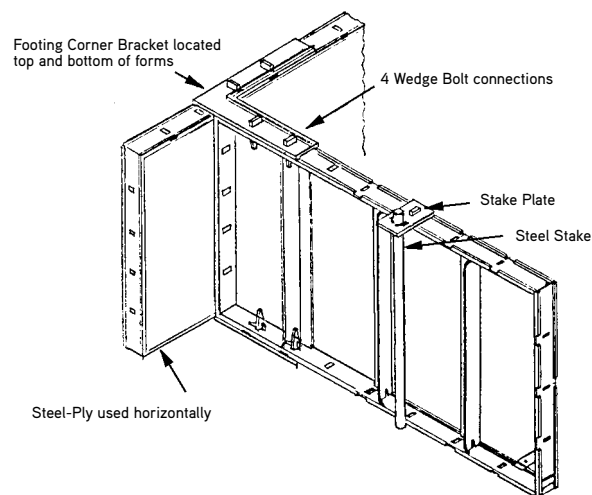
The Beam Pocket is a reusable tapered steel boxout that leaves a void pocket at the top of the foundation wall for steel or wooden beams. The standard 6" x 8" x 4" deep size comes with a handle for easy carrying and removal.



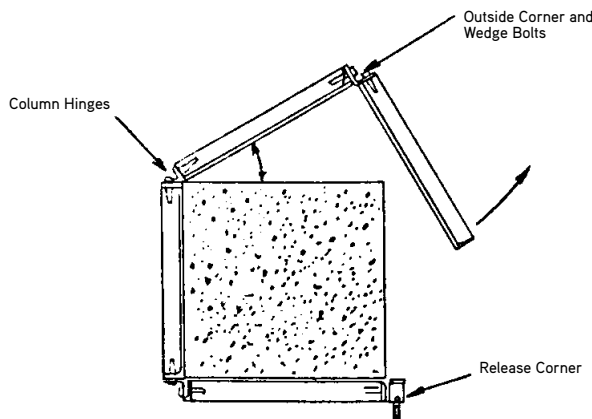
Bulkhead Assembly



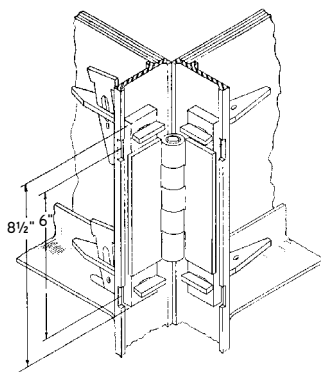
Haunch Bracket Attachment



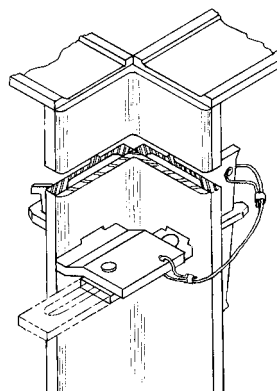
Footing Corner Bracket Attachment



Stripping a Column with a Hinged Corner

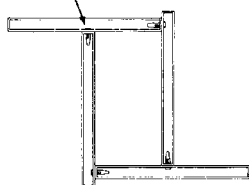


**Column Hinge
Corner Attachment**



**Quick Column
Hardware Attachment**

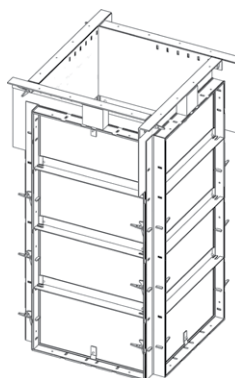
Note: Wedge bolts pass through plywood at selected crossmember slots



**Typical Adjustable
Column Form Application**



Column Filler Angle



**Adjustable
Column Extender**

Column forming

Outside Corners and panels or fillers can be combined to form square or rectangular columns.

Column Hinge

The Column Hinge helps set and strip Steel-Ply column forms efficiently. Column formwork can be handled as a single unit that is "closed" around reinforcing steel and "opened" after concrete is placed. Repetitive concrete column designs become very productive.

Quick Column Hardware

The Quick Column Hardware is used with the Column Hinge for even faster column forming. The hardware attaches to the Steel-Ply Outside Corner opposite the Column Hinge to provide a fast closure and release. Everything remains connected to the column formwork for maximum productivity.

Adjustable Column Form

The Adjustable Column Form is for columns up to 30" square, in 1" increments (except 28" and 29" increments). For columns 27" or less, panels are placed in an overlapping manner. In these instances, 3/4" holes are drilled through the plywood at the appropriate connection bolt slot in the crossmember for the hardware.

Column Filler Angle

The Column Filler Angle is used with 3/4" plywood to extend the top of a column 10" to 24" wide. It is placed in a run-by configuration when column dimensions are under 24".

Adjustable Column Extender

Steel plate assemblies overlap Steel-Ply forms to extend columns 2" to 12". They are used in a run-by configuration for column thicknesses from 10" to 22". The top angle of the plates have nail holes for connecting to deck plywood to facilitate monolithic deck and column pours.

Productive System

Gang forms are easily assembled on the ground and then moved into place. Stripping the unit as a gang eliminates rebuilding. This saves time and material, increases production, and reduces costs.

The lightweight Steel-Ply design is ideal for gangforming. At just 8 lbs. per square foot, including hardware, Walers and Strongbacks, gang form size is limited only by crane capacity.

Gang Form Bolt

Gang Form Bolts and Wedge Bolts are used to connect panels and gang form ties. The patented Steel-Ply Gang Form Bolt connects panel siderails and gang form ties in a single operation. This longer end allows you to break the ties back and strip the gang without disassembling the forms.

Waler

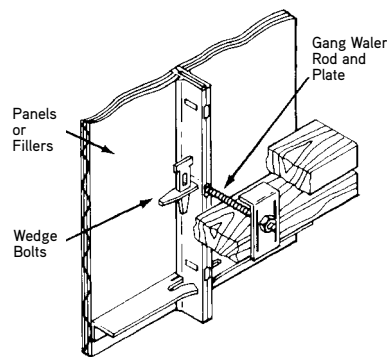
Walers are placed 18" from the top and bottom of the gang, with one Waler for each tier of panels. These Walers align forms within the gang. Walers are assembled using 2" x 4" or 2" x 6" lumber with Gang Waler Rods, Waler Plates, and 1/2" Contour Nuts for a secure connection.

Strongback

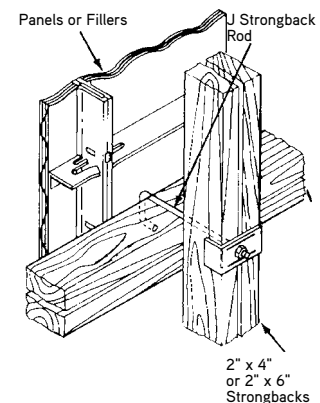
The same time and material advantages in waling with the Steel-Ply Forming System are also present in the use of Strongbacks which are needed only to align the Walers. They are usually placed at 8' centers, but spacing depends on the specific job conditions.

Steel-Ply Gang Filler

The Steel-Ply Gang Filler increases productivity by reducing the number of ties required in conventional gangforming. This 2" steel filler features preset tie hole locations for reusable 15mm Taper Ties (1" to 3/4"), She Bolts or Tie Rods with 15mm Tie Nuts to secure the tie.



Walers Align Forms



Strongbacks Align Walers





The most economical and productive way to gangform with Steel-Ply forming system is to use the load-gathering technique. Steel walers and strongbacks “gather” the load of the panels and high-capacity ties are installed through the panels and Walers. The load is transferred to the ties from the walers.

The strength and rigidity of the Steel-Ply system allows ties to be placed farther apart than in conventional gang forming. Fewer ties saves labor when setting, stripping and patching, and increases tie placement adaptability.

“Y” Walls

Load-gathered Steel-Ply reduces the number of ties, saving labor and material for typical “Y” walls. Standard Inside and Outside Corners and a Cantilever Bracket form trough walls. Inside and Outside Bay Corners and 45° Walers are combined with Walers and Waler Splices to form “Y” walls.

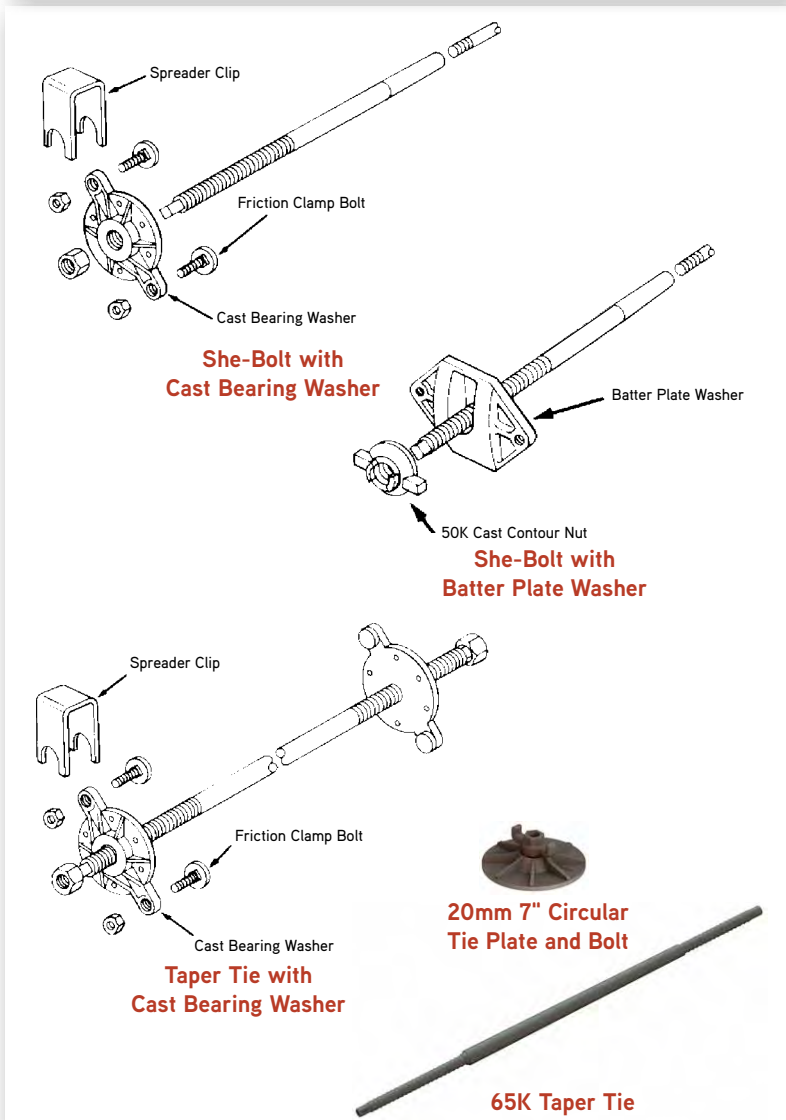
Heavy Duty Ties

Symons supplies 50 Kip She-Bolts or Taper Ties when 5" walers are used. The strength of these ties, combined with the load-gathering ability of the Steel-Ply panels and Walers, permit 4'x5' tie spacing in most gang form applications. Using fewer ties with each gang reduces overall labor and material costs. 85 Kip She-Bolts and 96 Kip Taper Ties are used with 8" walers.

65 Kip She-Bolts and Taper Ties are used with 5" or 8" Walers.

Spreader Clips

Spreader Clips are used with Taper Ties or She-Bolts. It is a U-shaped plate that fits over the Cast Bearing Washer and hex nut, preventing inward movement of the gang. A tie with Spreader Clips near the bottom of the forms and one tie with Spreader Clips near the top of the form prevents inward movement and maintains the desired wall thickness.



Maxi-Waler Steel Channel

The Maxi-Waler System uses double 3" steel channels attached to Steel-Ply at 2' O.C. vertical spacing. The channel serves as both load-gathering member and aligner for the gang. "L" Washers and 8" Gang Waler Rods secure the steel channels to the forms for a positive connection.

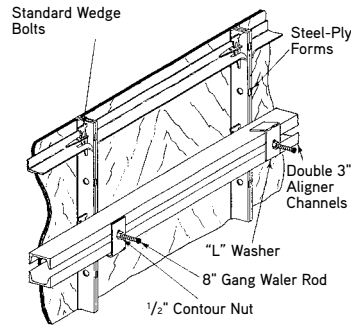
Vertical Walers

The Maxi-Waler System uses double channel steel walers to transfer the load from the 3" channels. J-Strongback Rods and Plate Washers connect to the 3" channels at specific vertical locations. To prevent slippage, Panel Waler Connectors and Clip Angles are bolted to the Waler at two connection sites. Walers are spaced at 4' centers for maximum form design utilization.

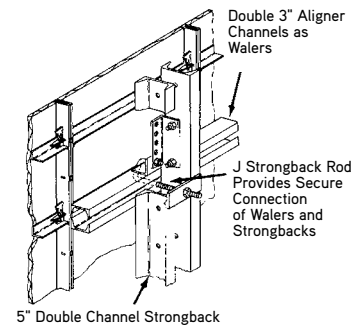
5" and 8" Steel Walers

For maximum form design utilization, Symons offers 5" and 8" waler sizes. Tie areas of up to 32 square feet can be achieved, resulting in fewer ties per pour and less tie patching.

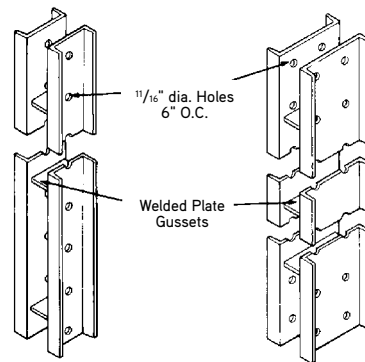
The 5" and 8" walers are available in standard lengths of 4', 8' 10', 12' and 16'. The 5" walers are also available in a 6' length.



3" Steel Channels Gather Loads and Make Alignments



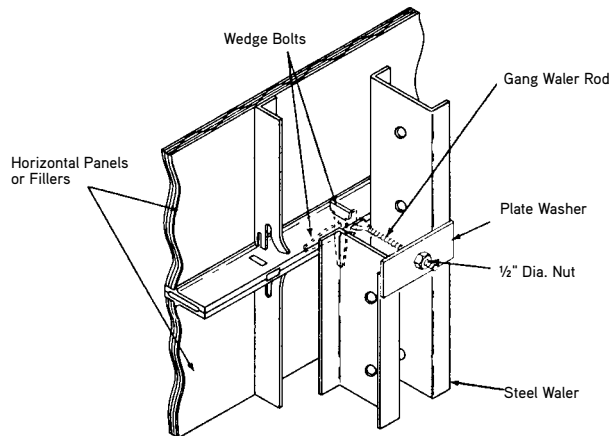
Double Channel Steel Waler Used as a Strongback



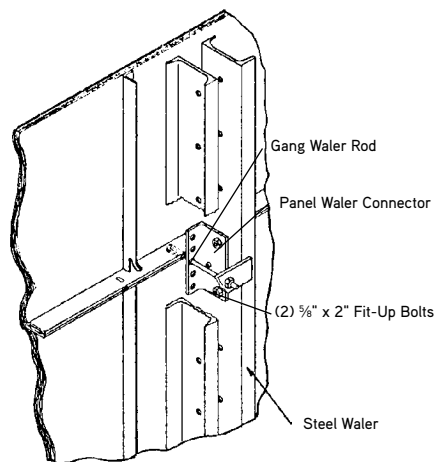
5" Waler

8" Waler

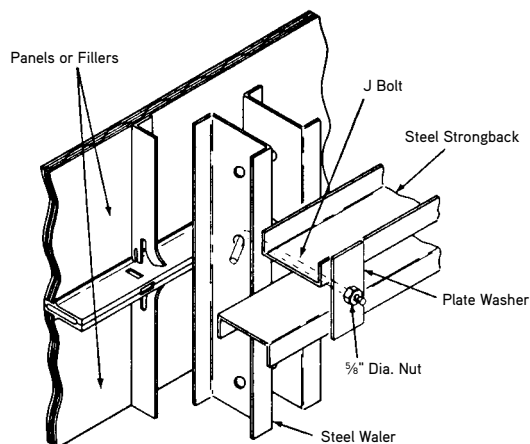




Typical Waler Connection



Panel Waler Connection



5" Versiform Walers Used as a Steel Strongback

Horizontal Steel-Ply Gangs

Horizontal Steel-Ply gang forms utilize vertical steel walers. This permits the use of high capacity Taper Ties or She-Bolts.

Horizontal Steel-Ply gangs are assembled using 6' and 3' panels in a "brick" pattern layout.

Waler Connection

Steel walers are easily connected with 8" Gang Waler Rods, Plate Washers and 1/2" diameter Contour Nuts. Walers are placed 18" from gang ends and at 3' O.C. spacing.

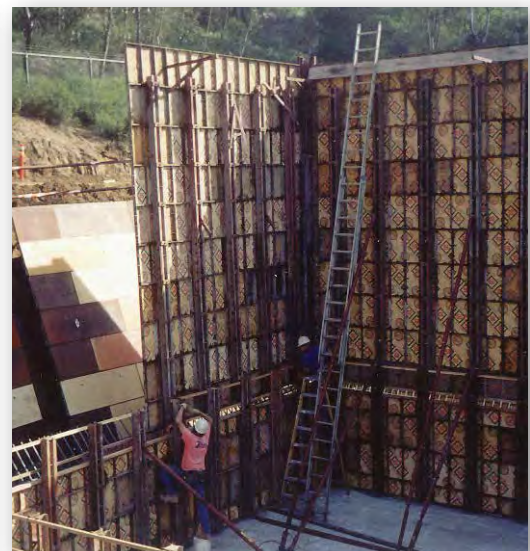
Panel Waler Connector

To prevent waler slippage, a Panel Waler Connector is attached through the Gang Waler Rod and bolted to the walers.

Panel Waler Connectors can also connect the horizontal Strongbacks to vertical steel Walers.

Strongback

5" Walers used as Strongbacks provide stiffness and horizontal alignment to the gang. These Walers are attached with 8 1/2" J-Bolts, Plate Washers and 5/8" Contour Nuts. Strongbacks are usually placed at the top and bottom of each gang.



Double Hinged Fillers

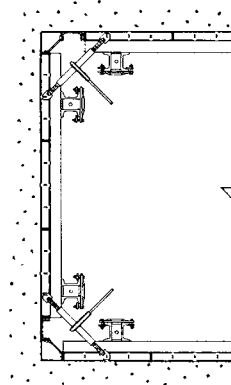
Double Hinged Fillers allow gangs for core walls and elevator shafts to be set, stripped, lifted and reset quickly. Minimal crane time is needed because they make all four sides of the gang into one movable unit.

The Double Hinged Filler is designed with two hinge points to permit inward movement when a Turnbuckle connection is retracted. After positioning the gang for the next pour, the Turnbuckles return the gang form to the rectangular shape.

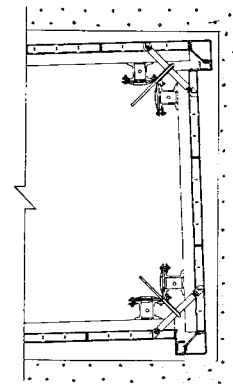
Steel Walers and Strongbacks are used with high capacity She-Bolts or Taper Ties for higher productivity.

Multi Shear Wall Bracket

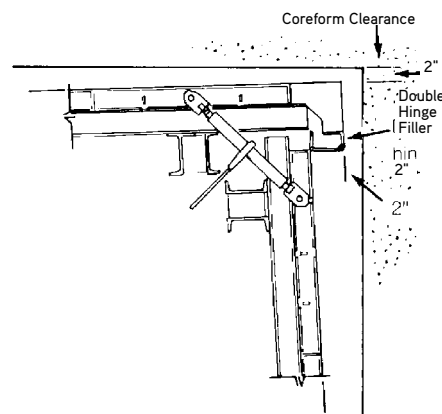
The Multi Shear Wall Bracket supports ganged forms for multiple lifts. Used with the Guide Bracket to position gangs snug against the wall, the Multi Shear Wall Bracket can support 3,000 lbs.



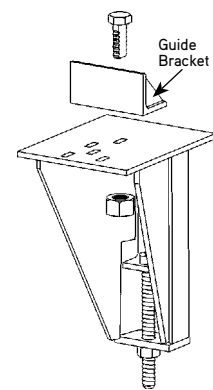
**Core Wall Forms
in the Pouring Position**



**Core Wall Forms
in the Stripping Position**



**Double Hinged Filler
with 90° Inside Corner**



Multi Shear Wall Bracket

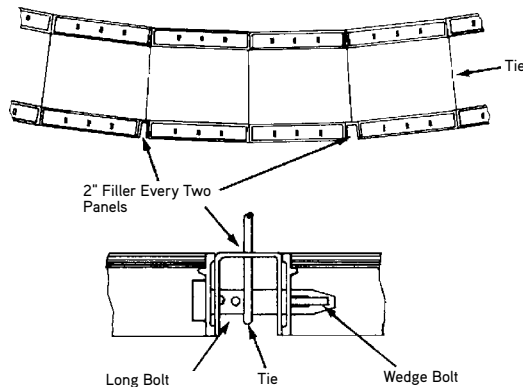


Curved Walls

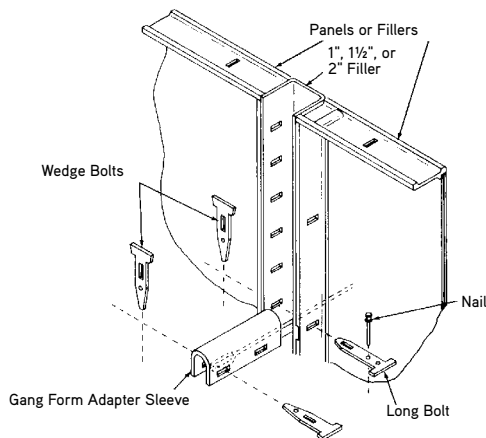
The Steel-Ply forming system can be used more efficiently than conventional job-built forms for curved walls or tank structures. Two foot wide panels readily form curved walls down to a 15' inside radius (30' diameter). Standard fillers can be used to form smaller radius walls, for example 8" fillers are used to form a 5' radius. One inch, 1½" and 2" Fillers adapt to radius walls easily with no "cut-up" construction. A simple program is used to calculate the number and sizes of panels and filler needed. A layout will show where every piece is located on the curved wall.

In most cases, Walers and Strongbacks are needed only on walls higher than 10'. Only the inside wall formwork needs to be braced, saving time and materials.

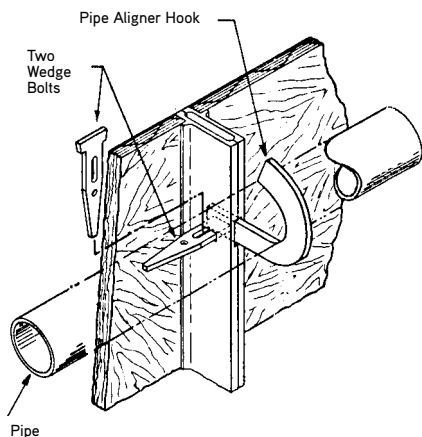
On high walls that need Walers and Strongbacks, special Waler Brackets can be used. Brackets for 2" x 4" or 2" x 6" lumber and Pipe Walers are available for fast Waler attachment. No blocking or shimming is needed.



Curved Wall Forms Using Steel-Ply



Gang Form Adapter Sleeve Attachment



Typical Pipe Alignment



Transitions from Sym-Ply® to Steel-Ply

Wedge Bolts allow quick and easy connection between Steel-Ply and Sym-Ply. This combination allows contractors who own one or the other system to rent the other as needed.

Transitions from Steel-Ply to Max-A-Form® or Flex-Form®

Steel-Ply panels and fillers connect directly to Max-A-Form and Flex-Form with Wedge Bolts. This combination provides the strength and gang forming advantages of the all-steel systems with Steel-Ply versatility for details.

Attached Hardware Option

Residential and other repetitive handset jobs are perfect applications for the time-saving attached hardware feature. In this system, panels are supplied with the connecting Drop Bolts and Slide Bolts already attached. Since connecting bolts are already attached at the tie locations, workers immediately know where to position each tie.

An attached Hardware Kit is also available for contractors who wish to retrofit Steel-Ply panels and fillers they already own.

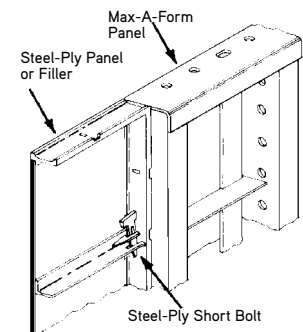
Beam Pocket

The Beam Pocket is a reusable tapered steel boxout that leaves a void pocket at the top of the foundation wall for steel or wooden beams. The standard 6"x8"x4" deep size comes with a handle for easy carrying and removal.

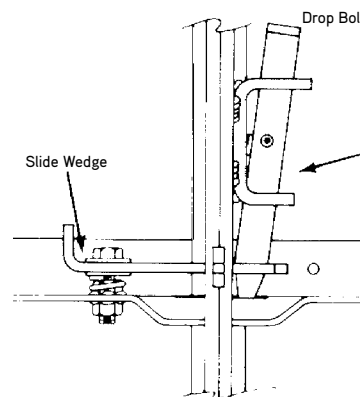
For more information on Symons forming systems: www.daytonsuperior.com/forming or call 1-800-800-7966.



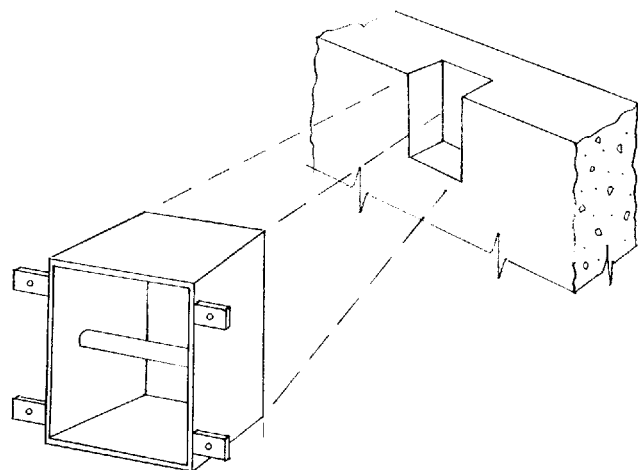
Sym-Ply to Steel-Ply Transition



Steel-Ply to Max-A-Form Transition



Attached Hardware in the Locked Position



Beam Pocket for Foundation Void

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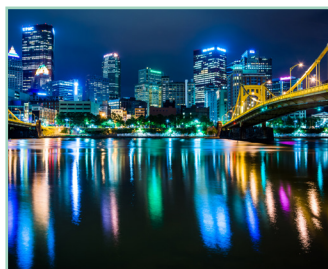
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