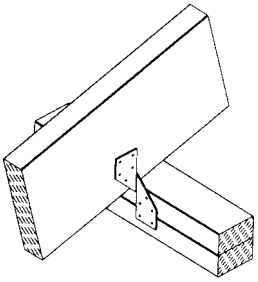
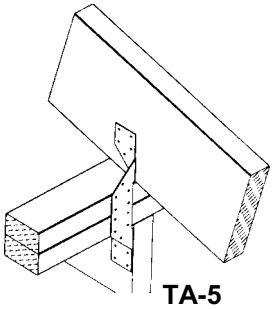
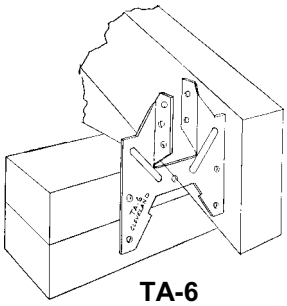
WIND ANCHORS



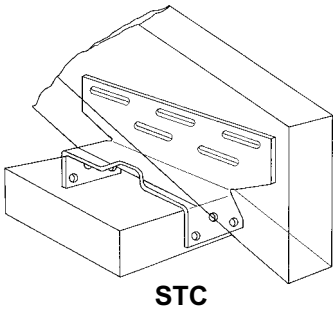
TA-4



TA-5



TA-6



STC

TA-4 Truss Anchor attaches to double wall plate. May be used back to back for greater uplift value. Available as TA-4N (packaged with nails).

TA-5 Truss Anchor ties a truss to wall plate and stud.

TA-6 Truss Anchor provides high uplift rating. Attaches to double wall plate. Truss flanges formed in opposite directions to accept 8d nails.

FA-1 Framing Anchor ties a truss to single wall plate. Available right or left hand. Must use same hand for back to back installation. Nails included.

STC anchor scissor trusses while permitting the truss to move outward reducing wall buckle. The STC base reduces friction 20%. Slotted holes allow a full 1" movement and the formed lip retains the truss during nailing. Heavy-duty 16 gauge galvanized steel. Made for nominal 4", 6" and 8" wall plates.

MATERIAL: 18 ga. FINISH: Galvanized G60

CLEVELAND TRUSS ANCHORS

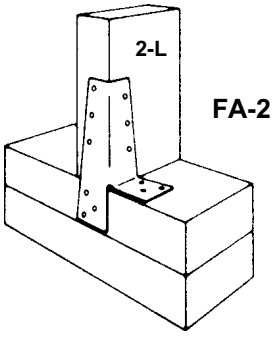
Part Number	Uplift Max.*	Nail Schedule			Gauge	Width	Height
		Truss	Plate	Stud			
TA-4	430	(4) 8d x 1-1/4"	(4) 8d x 1-1/4"	—	18	1-1/2"	5-3/4"
TA-5	400	(4) 8d	(2) 8d	(4) 8d	18	1-1/2"	10-1/2"
TA-6	550	(5) 8d	(5) 8d	—	18	4	4-7/8"
STC-4	500	(4) 8d	(5) 8d	—	16	3-1/2"	3-9/16"
STC-6	500	(5) 8d	(6) 8d	—	16	5-1/2"	3-9/16"
STC-8	500	(5) 8d	(6) 8d	—	16	7-1/4"	3-9/16"
FA-1	315	(3) 8d x 1-1/4"	(3) 8d x 1-1/4"	—	18	1-1/2"	4-3/4"
FA-2	315	(3) 8d x 1-1/4"	(3) 8d x 1-1/4"	—	18	1-1/2"	4-3/4"
FA-3	630	(3) 8d x 1-1/4"	(3) 8d x 1-1/4"	—	18	1-1/2"	4-3/4"

*Uplift has been increased 33% for wind. No further increase allowed

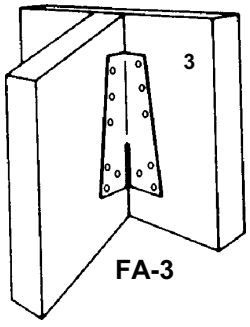
Code Report: BOCA, ICBO, SBCCI No. NER 464

FRAMING ANCHORS

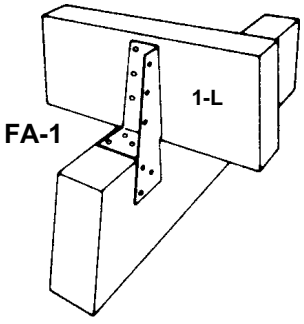
Framing Anchors are designed for proper nail location to avoid splitting. They solve many framing conditions where a better than toenail connection is desired. FA-1, FA-2 and FA-3 are4-3/4" high with 15/16" x 15/16" top angle and 1-1/2" x 1-1/2" lower flanges. Tabs are 1-1/2" long. Special 11 gauge x 1-1/4“ nails packed in all cartons. FA-1 and FA-2 are available in right or left hand. Packed 100 per carton including nails. MATERIAL: 18 ga. FINISH: Galvanized G60.



FA-2



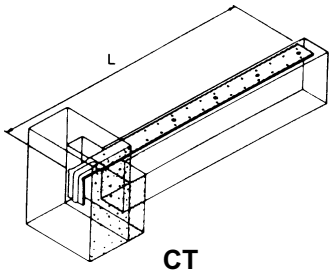
FA-3



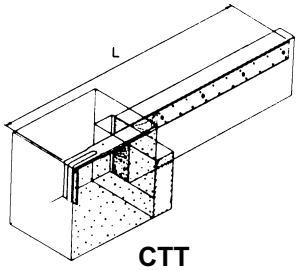
FA-1

CONCRETE TIES

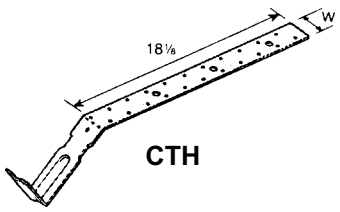
Concrete Ties provide wind and seismic anchorage.



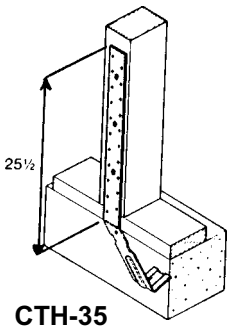
CT



CTT



CTH



CTH-35

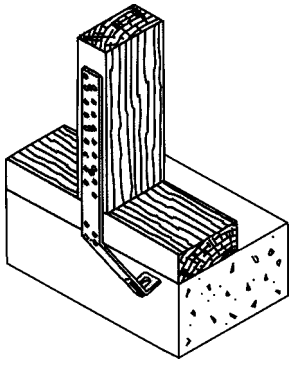
Part Number	Steel Gauge	Dimensions	Fastener Schedule		Minimum Embed.	Allowable Loads (lbs.)			
			Nails	Bolts		Nails		Bolts	
						133%	160%	133%	160%
CT-18	12	2-1/16 x 18-1/2	(12) 16d	(2) 1/2	4	2240	2690	1235	1485
CT-23	12	2-1/16 x 23-3/4	(18) 16d	(3) 1/2	4	3360	3435	1790	2150
CT-28	12	2-1/16 x 29	(24) 16d	(4) 1/2	4	3435	3435	2260	2710
CT-35	12	2-1/16 x 35	(24) 16d	(4) 1/2	4	3435	3435	2260	2710
CTT-18	12	2-1/16 x 18-1/2	(8) 16d	(2) 1/2	4	1495	1790	1235	1485
CTT-23	12	2-1/16 x 23-3/4	(14) 16d	(3) 1/2	4	2615	3135	1790	2150
CTT-28	12	2-1/16 x 29	(20) 16d	(4) 1/2	4	3435	3435	2260	2710
CTT-35	12	2-1/16 x 35	(24) 16d	(4) 1/2	4	3435	3435	2260	2710
CTH-28	10	2-1/16 x 29	(24) 16d	(4) 1/2	6	4705	5645	3240	3885
CTH-35	10	2-1/16 x 35	(30) 16d	(4) 1/2	6	5695	5695	3240	3885

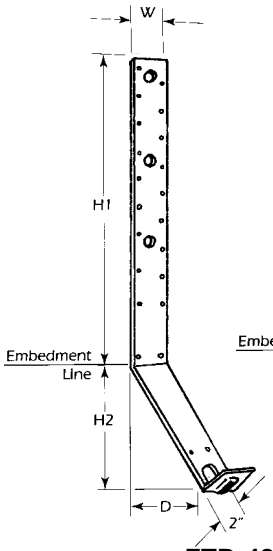
Duration of load increases of 33% and 60% are listed. Further increases are not allowed. Bolt and Nail loads are not additive. Allowable loads are predicated on: parallel to grain bolt loading; main member thickness of 3" for CT and 3-1/2" for CTH, and 2" nail penetration; concrete embedment of 4" for CT and 6" for CTH.

MATERIAL: 12 ga. and 10 ga.
FINISH: Galvanized G60 and black copolymer paint.

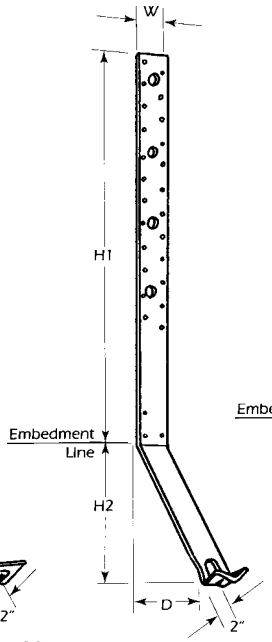
FOUNDATION TIES

Foundation Ties provide deep embedment in concrete footings for anchorage of wood members.
MATERIAL: 12 ga. and 10 ga.
FINISH: Galvanized G60.

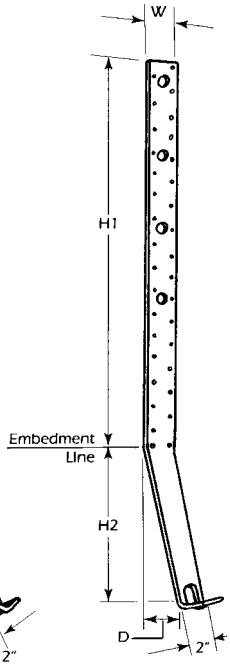




FTD-42



FTHD

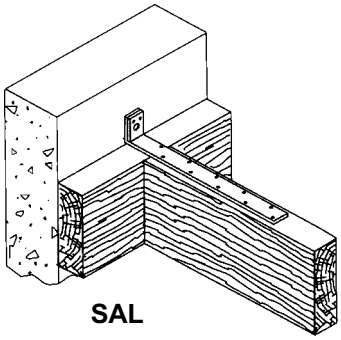


FTHD-22
FTHD-222

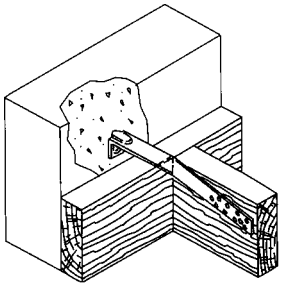
Part Number	Steel Gauge	Dimensions				Fastener Schedule		Minimum Embed.	Allowable Loads (lbs.)			
		W	H1	H2	D	Nails	Bolts		Nails		Bolts	
									133%	160%	133%	160%
FTD-42	12	2-1/16	16-5/8	6	6	(18) 16d	(3) 1/2	6	3360	3435	1790	2150
FTHD	12	2-1/16	24-3/4	9-1/4	10-1/4	(22) 16d	(4) 1/2	8	3435	3435	2260	2710
FTHD-22	10	2-1/16	24-3/4	10	6-1/4	(24) 16d	(4) 1/2	10	4705	5645	3240	3885
FTHD-222	10	2	29-1/2	11	6-1/4	(24) 16d	(4) 1/2	14	4320	4320	3770	3770

STRAP ANCHORS

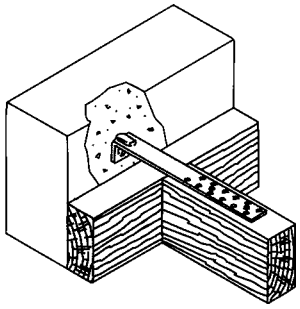
Strap Anchors secure joists, beams and studs to concrete walls and footings to resist wind and seismic forces. Designed primarily for new construction, they are also used for upgrade of existing structures.

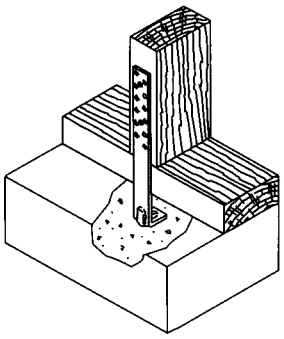


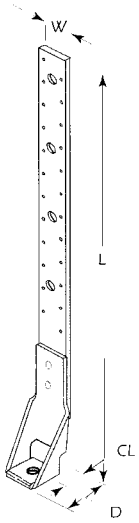
SAL



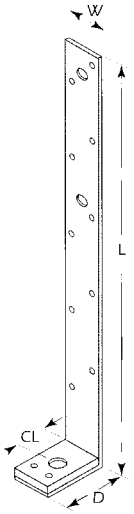
SAPT





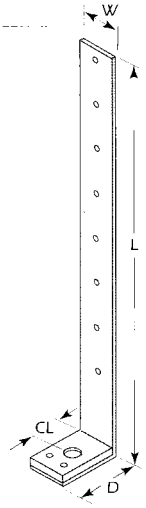


SAM 20B

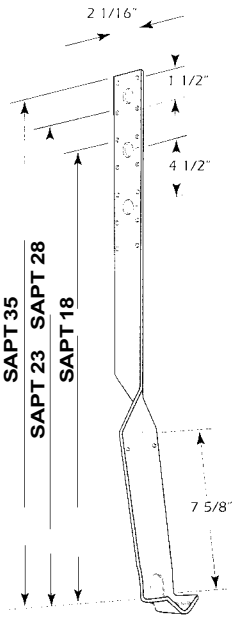


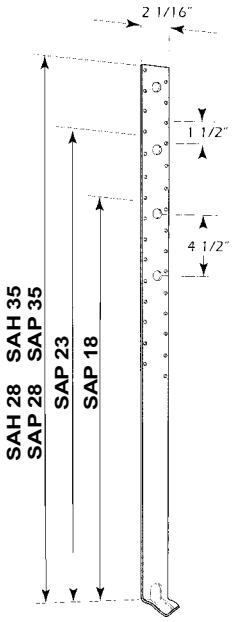
SAL 20B

SAL 20



SAL 19





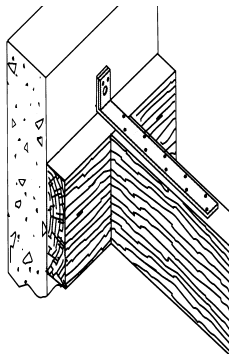
Part Number	Steel Gauge		Dimensions				Nail Spacing	Fastener Schedule			Allowable Loads (lbs.)			
								Anchor Bolts	Straps		Nuts		Bolts	
	Strap	Plate	W	L	D	CL			Nails	Bolts	133%	160%	133%	160%
SAL 19	16	3	3-1/4	22-1/4	3	1-1/2	2-1/2	(1) 3/4	(8) 10d	—	1205	1390	—	—
SAL 20	12	3	2	20	3	1-1/2	3-3/4	(1) 1/2	(10) 10d	—	1865	1910	—	—
SAL 20B	12	3	2	20	3	1-1/2	3-3/4	(1) 3/4	(10) 10d	(2) 1/2	1865	1910	1230	1480
SAM 27B	10	3	2-1/16	27	2-3/4	1-5/8	1-1/2	(1) 3/4	(24) 16d	(4) 1/2	3745	3745	2375	2850

Duration of load increases of 33% and 60% are listed. Further increases are not allowed. Bolt and nail loads are not additive.

MATERIAL: See chart.
FINISH: Galvanized G60 and black copolymer paint.

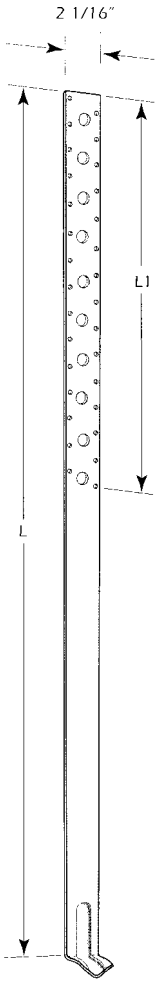
Part Number	Steel Gauge	Dimensions	Fastener Schedule		Minimum Embed.	Allowable Loads (lbs.)			
						Nuts		Bolts	
			Nails	Bolts		133%	160%	133%	160%
SAP 18	12	2-1/16 x 18-1/2	(12) 16d	(2) 12	4	2240	2690	1235	1485
SAP 23	12	2-1/16 x 23-3/4	(18) 16d	(3) 1/2	4	3360	3435	1790	2150
SAP 28	12	2-1/16 x 29	(24) 16d	(4) 1/2	4	3435	3435	2260	2710
SAP 35	12	2-1/16 x 35	(24) 16d	(4) 1/2	4	3435	3435	2260	2710
SAPT 18	12	2-1/16 x 18-1/2	(8) 16d	(2) 1/2	4	1495	1790	1235	1485
SAPT 23	12	2-1/16 x 23-3/4	(14) 16d	(3) 1/2	4	2615	3135	1790	2150
SAPT 28	12	2-1/16 x 29	(20) 16d	(4) 1/2	4	3435	3435	2260	2710
SAPT 35	12	2-1/16 x 35	(24) 16d	(4) 1/2	4	3435	3435	2260	2710
SAH 28	10	2-1/16 x 29	(24) 16d	(4) 1/2	6	4705	5645	3240	3885
SAH 35	10	2-1/16 x 35	(30) 16d	(4) 1/2	6	5695	5695	3240	3885

FOUNDATION TIES



Foundation Ties are especially designed for anchorage in crawl spaces. They provide a positive anchorage to footings for wind and seismic loadings.

MATERIAL: 12 ga. and 10 ga.
FINISH: Galvanized G60.



FT

Part No.	Dimensions		Nail Uplift Values and Schedules for RIM Joist Sizes Below											
			2 x 8			2 x 10			2 x 12			2 x 14		
	L	L1	Nails	Uplift 133%	Uplift 160%	Nails	Uplift 133%	Uplift 160%	Nails	Uplift 133%	Uplift 160%	Nails	Uplift 133%	Uplift 160%
FT 41	38-1/4	17-5/8	(8) 10d x 1-1/2	1065	1280	(10) 10d x 1-1/2	1335	1600	(14) 10d x 1-1/2	1865	2220	(16) 10d x 1-1/2	2135	2220
FT 51	48-1/4	22-1/8	(8) 10d x 1-1/2	1065	1280	(10) 10d x 1-1/2	1335	1600	(14) 10d x 1-1/2	1865	2200	(16) 10d x 1-1/2	2135	2220
FT 61	58-1/4	22-1/8	(8) 10d x 1-1/2	1065	1280	(10) 10d x 1-1/2	1335	1600	(14) 10d x 1-1/2	1865	2220	(16) 10d x 1-1/2	2135	2220
FT 71	68-1/4	22-1/8	(8) 10d x 1-1/2	1065	1280	(10) 10d x 1-1/2	1335	1600	(14) 10d x 1-1/2	1865	2200	(16) 10d x 1-1/2	2135	2220

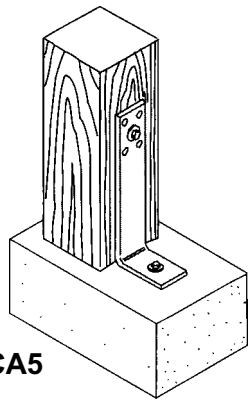
Part No.	Dimensions		Bolt Uplift Values and Schedules for RIM Joist Sizes Below											
			2 x 8			2 x 10			2 x 12			2 x 14		
	L	L1	Nails	Uplift 133%	Uplift 160%	Nails	Uplift 133%	Uplift 160%	Nails	Uplift 133%	Uplift 160%	Nails	Uplift 133%	Uplift 160%
FT 41	38-1/4	17-5/8	(2) 1/2	535	645	(3) 1/2	765	915	(4) 1/2	935	1125	(6) 1/2	1140	1370
FT 51	48-1/4	22-1/8	(2) 1/2	535	645	(3) 1/2	765	915	(4) 1/2	935	1125	(6) 1/2	1140	1370
FT 61	58-1/4	22-1/8	(2) 1/2	535	645	(3) 1/2	765	915	(4) 1/2	935	1125	(6) 1/2	1140	1370
FT 71	68-1/4	22-1/8	(2) 1/2	535	645	(3) 1/2	765	915	(4) 1/2	935	1125	(6) 1/2	1140	1370

Duration of load increases of 33% and 60% are listed; further increases are not allowed. Bolt and nail allowable loads are not additive. Bolt values are for perpendicular to grain loading. Nails are 10d x 1-1/2" (diameter 0.148").
Fc=2000 PSI minimum for concrete.

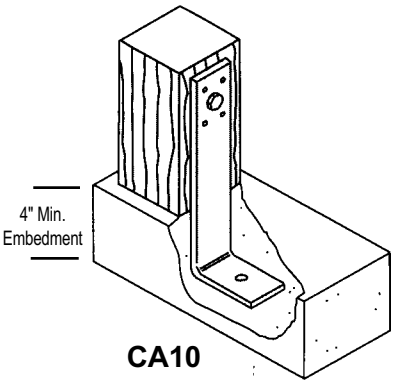
CONCRETE ANGLES

Concrete Angles provide a fast and economical anchorage to concrete footers and foundations. The CA-5 is for use with expansion shields or other approved anchors. The CA-10 is for direct embedment in concrete.

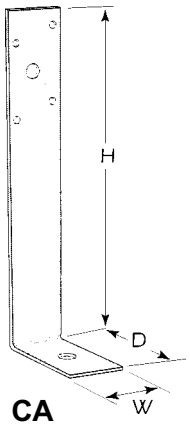
MATERIAL: 12 ga.
FINISH: Galvanized G60.



CA5



CA10

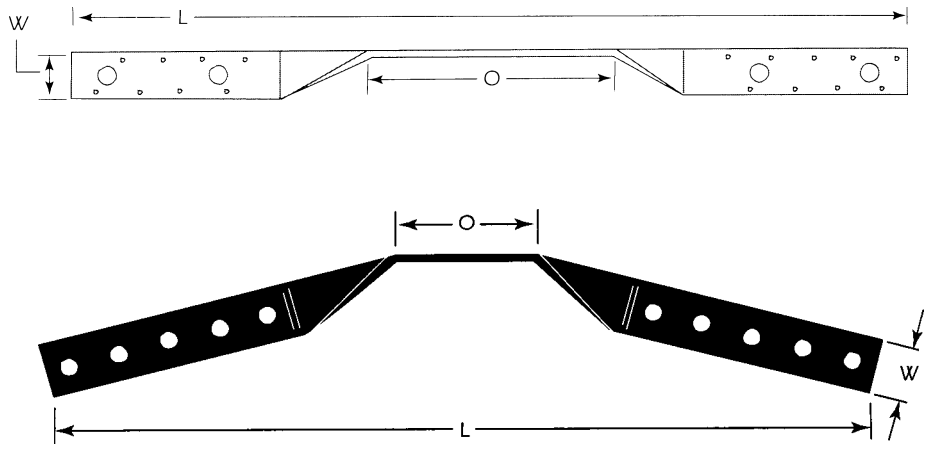


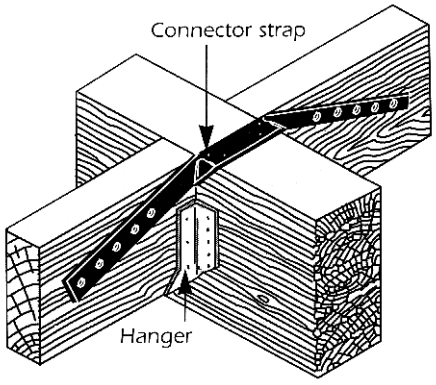
CA

Part Number	Steel Gauge	Dimensions			Fastener Schedule		Allowable Loads (lbs.)	
		D	W	H	Nails	Bolts	Nails	Bolts
CA-5	12	2	2	5	(4) 16d	(1) 1/2	540	490
CA-10	12	2-1/4	2	10-1/2	(4) 16d	(1) 1/2	540	1110

Allowable nail and bolt loads are not additive. Galvanized.

LATERAL CONNECTOR STRAPS





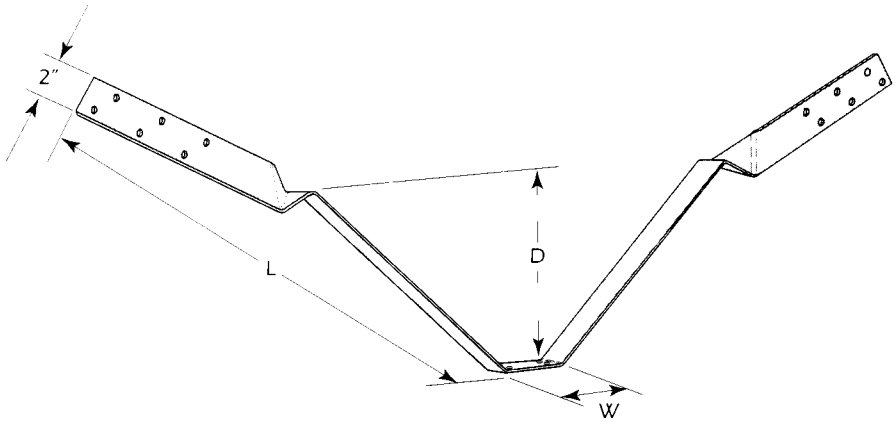
Lateral Connector Straps prevent separation of purlins from beams and girders under seismic loading.

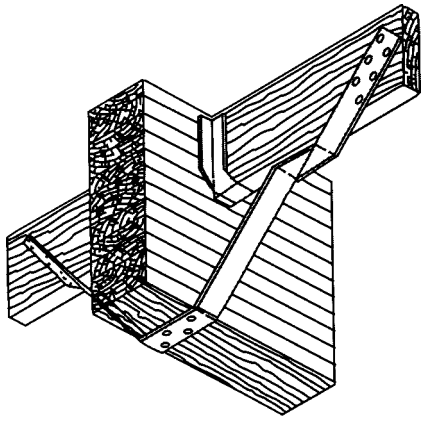
Part Number	Steel Gauge	Dimensions			Fastener Schedule		*Allowable Loads	
		W	L	O	Nails	Bolts	133% Nails	133% Bolts
LCS-34	7	2	34	9	(22) 16d	(4) 3/4	1975	3830
LCS-36	11	2	36	9	(28) 16d	—	2520	—
LCS-45	7	2	45	19-1/2	(22) 16d	(4) 3/4	1975	3830
LCSF-1	3	3	26	9	—	(2) 3/4	—	2420
LCSF-2	3	3	32	9	—	(4) 3/4	—	4845
LCSF-3	3	3	38	9	—	(6) 3/4	—	6905
LCSF-4	3	3	44	9	—	(8) 3/4	—	8620
LCSF-5	3	3	50	9	—	(10) 3/4	—	9930

Seismic duration of load increases of 33% are listed; no additional increases are allowed. Nail and bolt values are not additive.
Minimum member widths are: bolts: 3", nails 2".

MATERIAL: 11 ga., 7 ga. and 3 ga.
FINISH: Black copolymer paint.

KNEE BRACE STRAPS





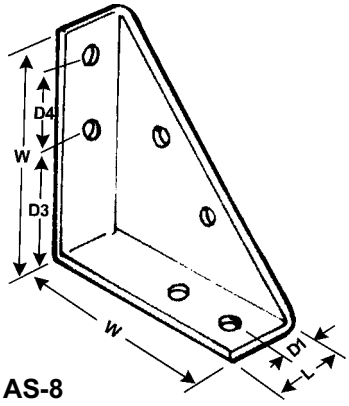
Knee Brace Straps counteract lateral movement and torquing of beams and girders under seismic loading. They are easily attached to members during or after construction.

Seismic duration of load increases are listed; no additional increases are allowed.

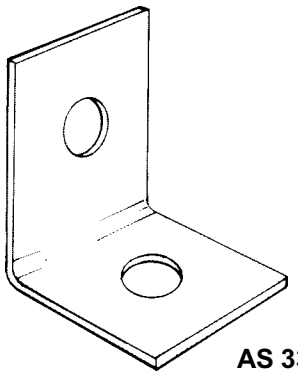
MATERIAL: 12 ga.
FINISH: Galvanized G60.

Part Number	Dimensions			Fastener Schedule		Allowable Loads (lbs.)				
	D	W	L	Beam	Joist	100%	115%	125%	133%	160%
KBS-5	10 - 15 Beam Depth	3-1/4	28-5/16	(4) N-4	(12) N4	1050	1210	1315	1400	1680
KBS-7	15 - 22 Beam Depth	5-1/4	39-5/16	(6) N-4	(12) N4	1050	1210	1315	1400	1680
KBS-8	22-1/2 - 28-1/2 Beam Depth	5-1/4	45-5/16	(6) N-4	(12) N4	1050	1210	1315	1400	1680
KBS-10	28-1/2 x 36 Beam Depth	6-7/8	56-5/16	(6) N-4	(12) N4	1050	1210	1315	1400	1680
KBS-12	36 - 42 Beam Depth	6-7/8	68-5/16	(6) N-4	(12) N4	1050	1210	1315	1400	1680

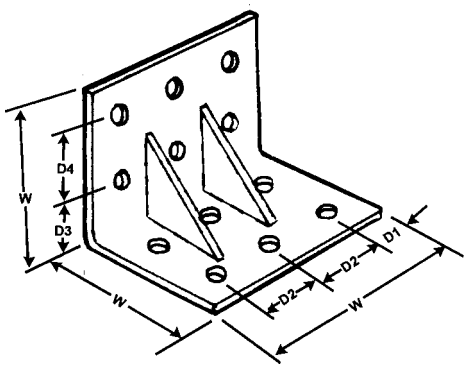
ANGLE STIFFENERS



AS-8
AS-9



AS 33, 35
AS 33S, AS 35S
with gusset



AS 55, AS 57,
AS 55S, AS 575
with gusset

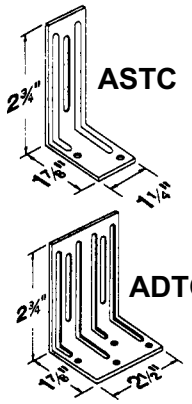
Angle Stiffeners improve the rigidity of any 90° wood connection. They develop the full allowable capability of bolts. Angle stiffeners also function as heavy-duty truss tie-downs. Because of the wide range of allowable loads for bolts when loaded parallel and perpendicular to grain, and at intermediate angles, load values are not listed. These can be obtained from National Design Specification for Wood Construction, published by American Forest and Paper Association.

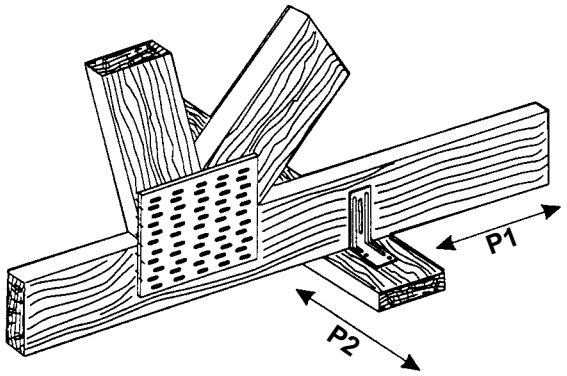
MATERIAL: 7 ga. and 3 ga. ASTM A36. FINISH: Black copolymer paint.

Part Number	Gauge	Dimensions						Bolts	Strut Plates
		W	L	D1	D2	D3	D4		
AS-8	7	8-1/8	2-11/16	1-11/32	—	4-3/8	2 1/2	(4) 5 /8	1
AS-9	3	9-5/16	3	1-1/2	—	4-13/16	3	(4) 3/4	1
AS-33	7	3-1/4	2-1/2	1-1/4	—	2	—	(2) 5/8	—
AS-35	7	3-1/4	5	1-1/4	2-1/2	2	—	(4) 5/8	—
AS-35S	7	3-1/4	5	1-1/4	2-1/2	2	—	(4) 5/8	1
AS-37	7	3-1/4	7-1/2	1-1/4	2-1/2	2	—	(6) 5/8	—
AS-37S	7	3-1/4	7-1/2	1-1/4	2-1/2	2	—	(6) 5/8	2
AS-43	3	4-1/4	3	1-1/2	—	2-3/4	—	(2) 3/4	—
AS-46	3	4-1/4	6	1-1/2	3	2-3/4	—	(4) 3/4	—
AS-46S	3	4-1/4	6	1-1/2	3	2-3/4	—	(4) 3/4	1
AS-48	3	4-1/4	9	1-1/2	3	2-3/4	—	(6) 3/4	—
AS-49S	3	4-1/4	9	1-1/2	3	2-3/4	—	(6) 3/4	2
AS-53	3	5-3/4	2-1/2	1-1/4	—	2	2-1/2	(4) 5/8	—
AS-55	3	5-3/4	5	1-1/4	2-1/2	2	2-1/2	(8) 5/8	—
AS-55S	3	5-3/4	5	1-1/4	2-1/2	2	2-1/2	(8) 5/8	1
AS-57	3	5-3/4	7-1/2	1-1/4	2-1/2	2	2-1/2	(12) 5/8	—
AS-57S	3	5-3/4	7-1/2	1-1/4	2-1/2	2	2-1/2	(12) 5/8	2
AS-73	3	7-1/4	3	1-1/2	—	3	3	(4) 3/4	—
AS-76	3	7-1/4	6	1-1/2	3	3	3	(8) 3/4	—
AS-76S	3	7-1/4	6	1-1/2	3	3	3	(8) 3/4	1
AS-79	3	7-1/4	9	1-1/2	3	3	3	(12) 3/4	—
AS-79S	3	7-1/4	9	1-1/2	3	3	3	(12) 3/4	2
AS-4TS	3	4-1/4	6	1-1/8	3-3/4	3-1/4	—	(2) 3/4*	2
AS-6TS	3	6-1/4	6	1-1/8	3-3/4	5-1/4	—	(2) 3/4*	2
AS-14TS	3	13-3/4	6	1-1/8	3-3/4	12-3/4	—	(2) 3/4*	2

*Plus (4) 1/2" anchor bolts.

INTERIOR LIFT ANCHOR



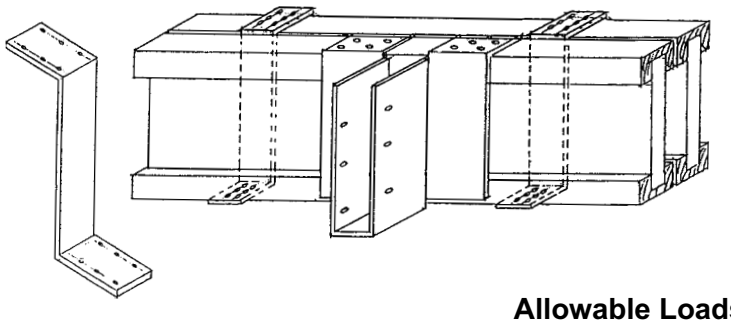


Interior Lift Anchors provide lateral support for interior non-load bearing walls. Slots permit bottom chords to lift without lifting walls.

MATERIAL: 20 ga.
FINISH: Galvanized G60.

Part Number	Description	Fasteners		Allowable Loads 133% and 160%	
		Wall	Truss	P1	P2
ASTC	Truss Clip Single	(2) 8d	(1) 8d	80	50
ADTC	Truss Clip Double	(4) 8d	(2) 8d	120	200

LOAD SHARE CLIP



Designed for point loads on floor trusses, open joists, and engineered wood beams.
By transferring load from the bottom chord or flange to the top chord or flange of adjacent girder plies, the load is shared equally and applied in the manner in which the girder was designed. Overstress of plated joints or glue-lines is eliminated.
Available for all standard member widths and depths.

MATERIAL: 18 ga. and 16 ga. FINISH: Galvanized G60.

Allowable Loads (SPF)

2 x 3 Flange	1390# Normal	(8) 10d x 1-1/2 Nails
2 x 4 Flange	1980# Normal	(12) 10d x 1-1/2 Nails

Load Share Clip=LSC

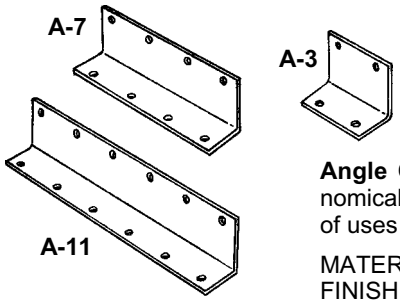
Floor/Truss	
Part Number	Size
LSC3512	3.50/12.00
LSC3514	3.50/14.00
LSC3516	3.50/16.00
LSC3518	3.50/18.00
LSC3520	3.50/20.00
LSC3522	3.50/22.00
LSC3524	3.50/24.00
Open Joist	
LSC2593	2.50/9.37
LSC2511	2.50/11.88
LSC2513	2.50/13.00
LSC2516	2.50/16.00
LSC3593	3.50/9.37
LSC3511	3.50/11.88
LSC35i3	3.50/13.00
LSC3516	3.50/16.00

I-Beam	
Part Number	Size
LSC1592	1.50/9.25
LSC1595	1.50/9.50
LSC1511	1.50/11.88
LSC1514	1.50/14.00
LSC1516	1.50/16.00
LSC1518	1.50/18.00
LSC1792	1.75/9.25
LSC1795	1.75/9.50
LSCl711	1.75/11.88
LSC1714	1.75/14.00
LSC1716	1.75/16.00
LSCl718	1.75/13.00
LSC2310	2.31/10.00
LSC2311	2.31/11.88
LSC2312	2.31/12.00
LSC2314	2.31/14.00
LSC2316	2.31/16.00
LSC2318	2.31/18.00

I-Beam (cont.)	
Part Number	Size
LSC2592	2.50/9.25
LSC2593	2.50/9.37
LSC2595	2.50/9.50
LSC25115	2.50/11.50
LSC25118	2.50/11.88
LSC2512	2.50/12.50
LSC2513	2.50/13.00
LSC2514	2.50/14.00
LSC2516	2.50/16.00
LSC2518	2.50/18.00
LSC2520	2.50/20.00
LSC2610	2.68/10.00
LSC2611	2.68/11.25
LSC2612	2.68/12.00
LSC2614	2.68/14.00
LSC2616	2.68/16.00
LSC2618	2.68/18.00
LSC2620	2.68/20.00
LSC3192	3.12/9.25

I-Beam (cont.)	
Part Number	Size
LSC3195	3.12/9.50
LSC3110	3.12/10.00
LSC3111	3.12/11.12
LSC31118	3.12/11.88
LSC3112	3.12/12.00
LSC3114	3.12/14.00
LSC3116	3.12/16.00
LSC3118	3.12/18.00
LSC3592	3.50/9.50
LSC3593	3.50/9.37
LSC3595	3.50/9.50
LSC35112	3.50/11.25
LSC35115	3.50/11.50
LSC35118	3.50/11.88
LSC35120	3.50/12.00
LSC35125	3.50/12.50
LSC3513	3.50/13.00
LSC3514	3.50/14.00
LSC3516	3.50/16.00

ANGLE CLIPS



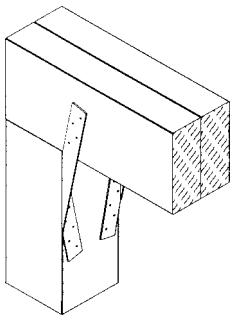
Angle Clips are strong, economical connectors. Hundreds of uses for five sizes.

MATERIAL: 16 ga.
FINISH: Galvanized G60.

Model	Size	Design Load	Nails*	Pieces Per Carton
A-3	2-1/2 x 1-1/2 x 3"	225	(4) 10d	100
A-5	2-1/2 x 1-1/2 x 5"	340	(6) 10d	100
A-7	2-1/2 x 1-1/2 x 7"	450	(8) 10d	50
A-9	2-1/2 x 1-1/2 x 9"	565	(10) 10d	50
A-11	2-1/2 x 1-1/2 x 11"	675	(12) 10d	50

***N-26 nails available (10d x 1-1/2).**

TWIST STRAPS



Twist Straps secure crossing members. Can hold up or tie down intersections. Generally used in pairs. Half RH and half LH in each carton.

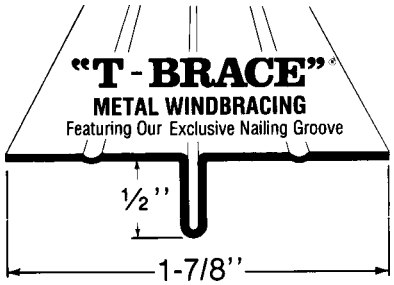
MATERIAL: 16 ga.
FINISH: Galvanized G60.

Style	Steel Size	Nails*	Design** Load	Pieces Per Carton
TS-10	#16 ga. x 1-1/4 x 9-5/8	(8) 16d	540	50
TS-12	#16 ga. x 1-1/4 x 11-5/8	(10) 16d	675	50
TS-14	#16 ga. x 1-1/4 x 13-5/8	(12) 16d	810	50

****Design load assumes half the nails at each end of load. Values can be increased for short term loads and doubled if used in pairs.**
***N-8 nail (1-3/4" lg.) can be substituted for 16 d. See page 2.**

T-BRACE WINDBRACING

Lowest Cost and Most Efficient Method to Brace Walls

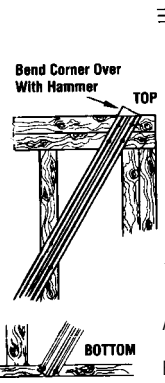


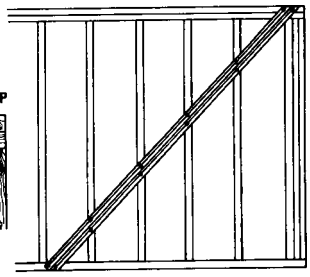
Designed to give 8' walls the required code bracing to prevent racking. Quicker to install than 1 x 4 let-in wood bracing. Use T-9 for 60° angle and T-11 for 45° angle. Packed 20 pieces per carton.

MATERIAL: 20 ga.
FINISH: Galvanized.

Part Number	Length	Nails Schedule	
		Plates	Studs
TS-9	9'3"	(2) 16d	(1) 8d
TS-11	11' 3-5/8"	(2) 16d	(1) 8d

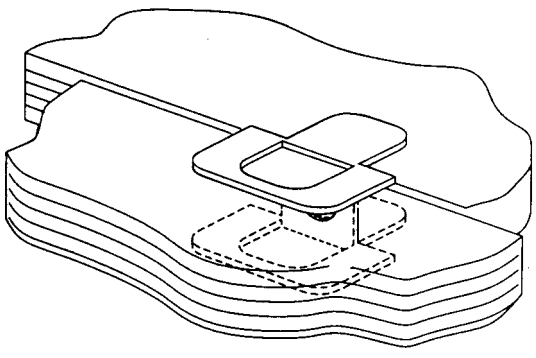
Code Reports: BOCA #78-78
SBCCI #80109, DADE CTY #84-0515.3
FHA/HUD material release 1043

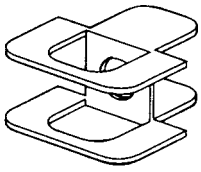




INSTALLATION INSTRUCTIONS:
A. Use the "T-Brace"® as a straight edge to mark studs and plates.
B. Saw a 1/2" deep kerf along the marked line.
C. Insert base of "T" in kerf and nail along grooves in face of "T-Brace"®.

PLYWOOD CLIPS





Used in place of wood blocking on roof sheathing of plywood or waferboard.
MATERIAL: Steel or aluminum.

PHC Steel
20 ga. galv. ASTM A446

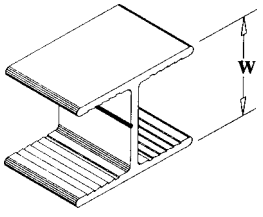
Part Number	Description
PHC-438	7/16"
PHC-469	15/32"
PHC-500	1/2"
PHC-625	5/8"
PHC-750	3/4"

250 pcs / carton

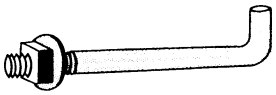
PWC Aluminum
Alloy 6061-T6

Part Number	Size
PWC-375	3/8"
PWC-438	7/16"
PWC-469	15/32"
PWC-500	1/2"
PWC-625	5/8"

250 pcs / carton



ANCHOR BOLT



For anchoring sills to masonry walls. 2" thread one end. Opposite end bent 1-1/2" on inside. Nuts and washers included.

MATERIAL: 1/2" and 3/8" Diam. round bar stock.
FINISH: Mill.

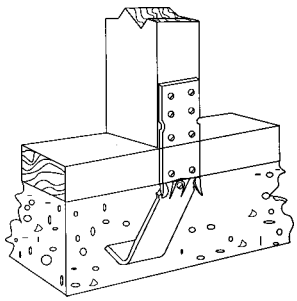
Part Number	Size	Part Number	Size
AB-6	1/2 x 6	AB-14	1/2 x 14
AB-8	1/2 x 8	AB-16	1/2 x 16
AB-10	1/2 x 10	AB-18	1/2 x 18
AB-12	1/2 x 12		
FB-6	3/8 x 6	FB-10	3/8 x 10
FB-8	3/8 x 8	FB-12	3/8 x 12

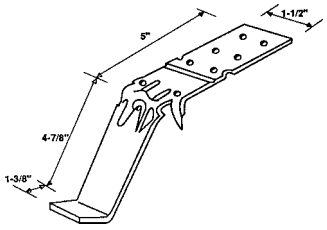
Packaged 50 pcs / carton

MUDSILL ANCHOR

Anchors mudsill and/or stud to slab or footer. Hammer prongs into form before pour or MS-10 can be positioned after pour. Easy to screed concrete and wrap around sill or nail to stud. Excellent 1100 lb. uplift rating.

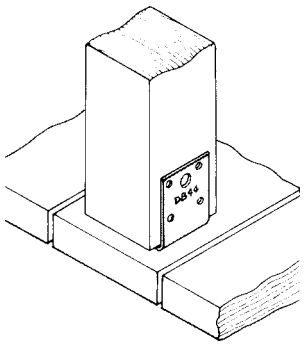
MATERIAL: 16 ga. FINISH: Galvanized.





Part Number	Fasteners		Design Loads (lbs.)			
					Perpendicular to Plate	
	Side	Top	Uplift	Parallel to Plate	Toward Anchor	Away from Anchor
MS-10	(2) 10d x 1-1/2"	(6) 10d x 1-1/2"	1118	1106	781	1000

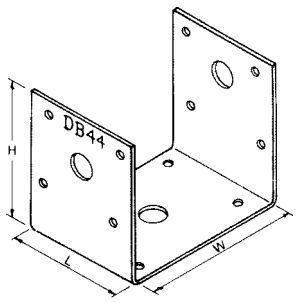
DECK BRACKET



DB Deck Brackets are handy for light-duty connections as a base or cap. Anchors rail posts to deck or cross members to beam. Four sizes in stock. Special sizes made to order.

MATERIAL: 18 ga. FINISH: Galvanized.

Part Number	Post Size	W	L	H	Nails		Lateral Loads Lbs.
					Base	Sides	
DB-34	Dbl. 2 x 4	3-1/8	2-1/2	3-1/4	(4) 16d	(8)10d	540
DB-44	4 x 4	3-9/16	2-1/2	3	(4) 16d	(8)10d	540
DB-46	4 x 6	5-9/16	2-1/2	3	(4) 16d	(8)16d	540
DB-66	6 x 6	5=9/16	4-1/2	3-1/8	(4) 16d	(12)16d	540

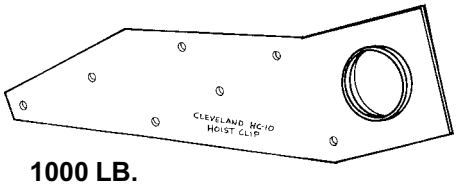


DB

HOIST CLIP

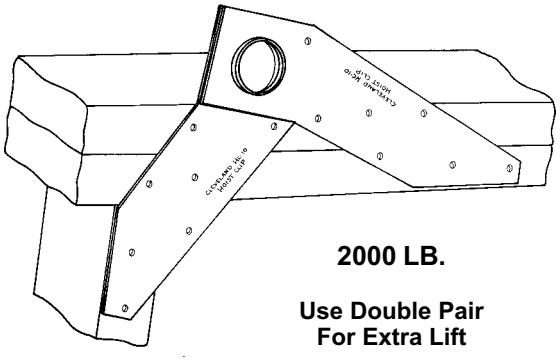
HC-10 Hoist Clip attaches to wall panels for overhead crane lifting. Offset design avoids interference when a roof truss locates over the stud. HC-10 installs three ways; to a stud with double plate; a stud with single plate; or a double plate only.

MATERIAL: 14 ga. FINISH: Galvanized G60.



1000 LB.

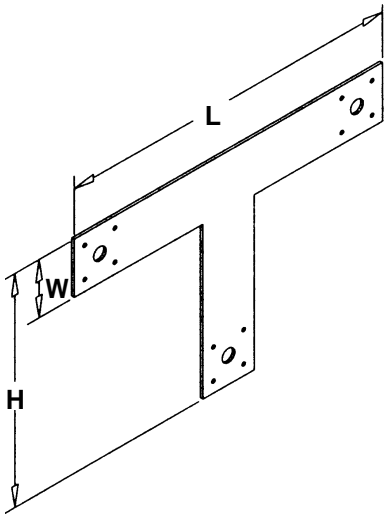
1000 lb. LIFT RATING REINFORCED HOLE. (6) 16d COMMON OR DUPLEX NAILS

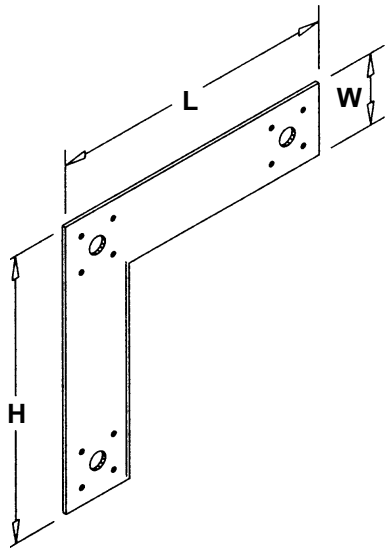


2000 LB.

Use Double Pair For Extra Lift

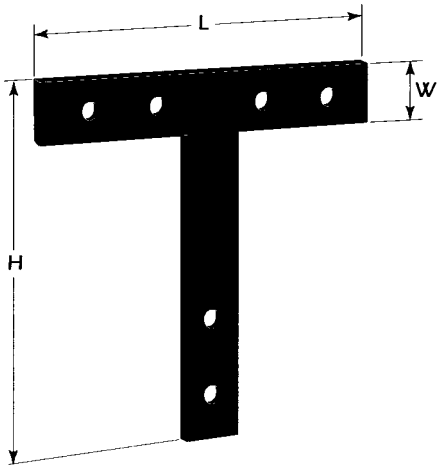
TEES & ELLS

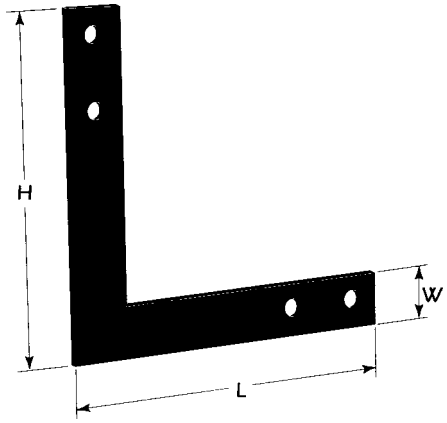




Part Number	Gauge	Dimensions			Fasteners	
		H	L	W	Bolts	Nails
TEE-6	14	5	6	1-1/2	(3) 1/2	(12) 16d
TEE-8	14	8	8-1/2	2	(3) 1/2	(12) 16d
TEE-12	14	8	12	2	(3) 1/2	(12) 16d
TEE-16	14	11	15-3/4	3	(3) 1/2	(12) 16d
TEE-12/12	14	12	12	2	(3) 1/2	(12) 16d
ELL-6	14	6	6	1-1/2	(2) 1/2	(8) 16d
ELL-8	14	8	8	3	(2) 1/2	(8) 16d
ELL-12/12	14	12	12	2	(3) 1/2	(12) 16d

MATERIAL: 14 ga.
FINISH: Galvanized G60





Note: Although Tees & Ells provide stiffness to joints, they should not be used as moment-resisting connectors, nor as substitutions for X and K bracing.

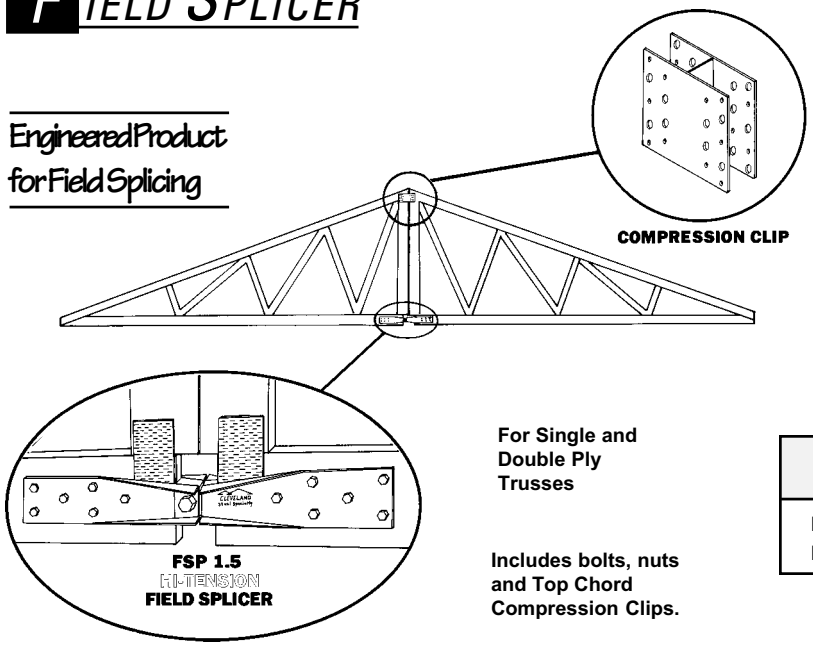
MATERIAL: 7 ga.

Part Number	Gauge	Dimensions			Fasteners
		H	L	W	Bolts
TEE-12H	7	12	12	2-1/2	(4) 5/8
TEE-16H	7	16	16-1/4	2-1/2	(6) 5/8
ELL-12H	7	12	12	2-1/2	(5) 5/8
ELL-16H	7	16	16	2-1/2	(7) 5/8

FINISH: Black copolymer paint.
OPTION:Hot-dip galvanized, available as a special order.

FIELD SPLICER

Engineered Product for Field Splicing



For Single and Double Ply Trusses

Includes bolts, nuts and Top Chord Compression Clips.

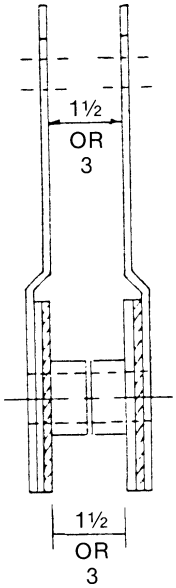
HI-TENSION FIELD SPLICER

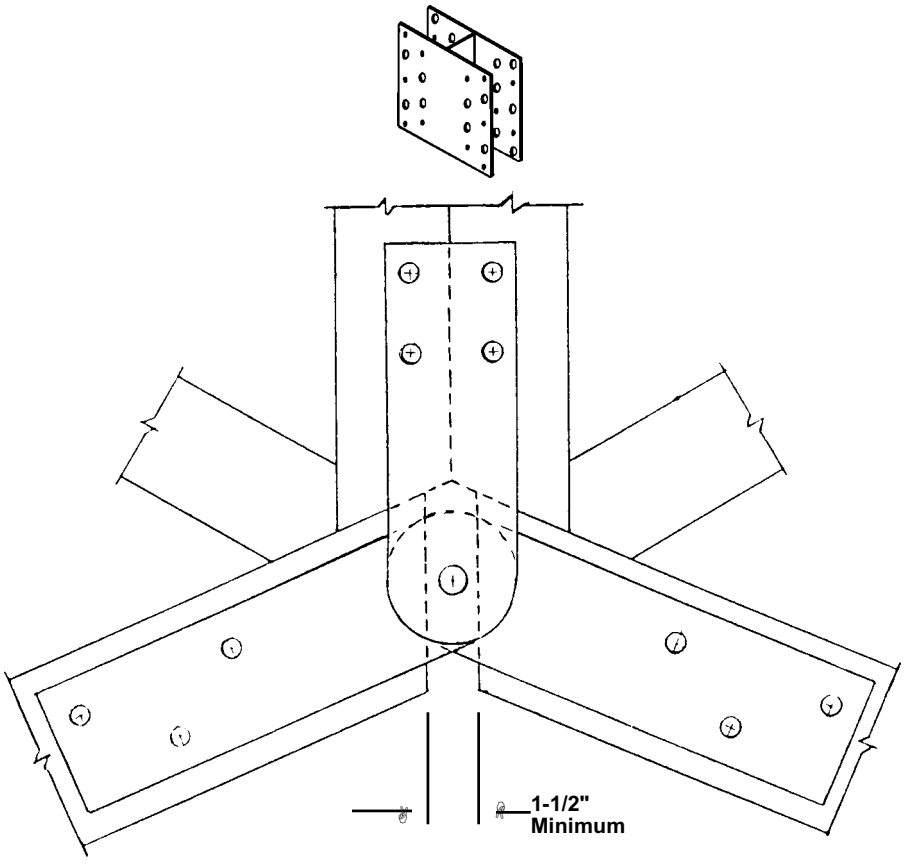
FSP Splicer has been laboratory tested in tension for use on single and double ply mono pitch trusses. Consult the factory for use with scissor trusses. The Compression Clip was designed to align the Top Chord in compression. Each clip has a tension rating of 1,400 lbs. with S.Y.P. for short term wind conditions.

MATERIAL: 7 ga. and 3 ga.
FINISH: Black copolymer paint.

Part Number	Tension Rating	
	S.Y.P.	S.P.F.
FSP 1.5 (Single Ply)	10,380 lbs.	7,920 lbs.
FSP 3.0 (Double Ply)	15,650 lbs.	12,090 lbs.

FIELD SPLICER FOR SCISSORS TRUSSES





SCISSORS TRUSS FIELD SPLICER

Part Number	Tension Rating			
	S.Y.P.		S.P.F.	
	Tens. Web.	Bot. Chord	Tens. Web.	Bot. Chord
SFPS 1.5 (Single Ply)	2,880 lbs.	4,320 lbs.	2,200 lbs.	3,300 lbs.
SFPS 3.0 (Double Ply)	4,700 lbs.	7,050 lbs.	4,180 lbs.	6,270 lbs.

HIGHER LOADS CAN BE ATTAINED WITH CUSTOM VERSIONS THAT INCREASE BOLT QUANTITIES AND DIAMETERS.

TRUSS SPACER

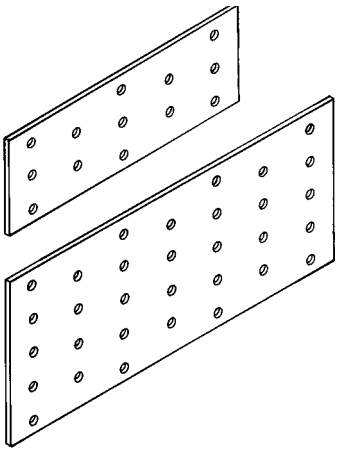
ACCURATE - QUICK - ECONOMICAL

Truss Spacers speed the placing of roof trusses, eliminates need to cut and remove spacer blocks. End flanges accurately locate each truss top and bottom chords at 24" center to center spacing. **WARNING: Not to be used as bracing.** TSP-24 has no structural value. Wood bracing must be added in accordance with truss manufacturers recommendation.

TSP-24 50 pcs / bundle

MATERIAL: 18 ga. FINISH: Galvanized.

TIE PLATES

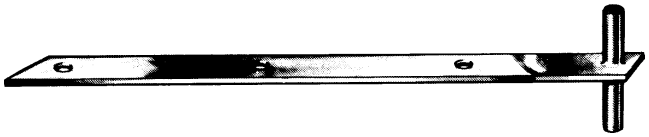


Tie Plates have many applications. Nail onto intersection walls, mend weak sections and use as splice plates. Holes for 8d nails. Other sizes available on special order.

MATERIAL: 20 ga.
FINISH: Galvanized.

Part Number	Width x Length	Holes
TP-15	1-13/16" x 5"	13
TP-37	3-1/8" x 7"	32

JOIST ANCHORS

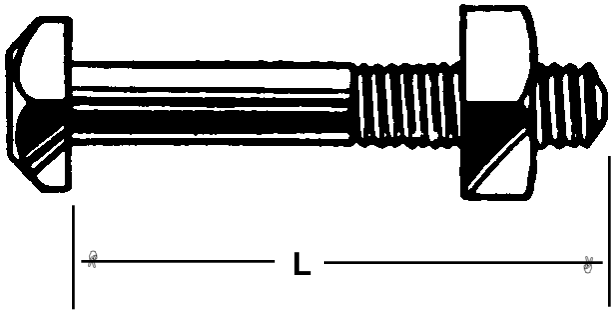


Joist Anchor No. T18A, T18B and T24 normally used every fourth joist to anchor end of joist to masonry wall. No. T40 and T48 are used on 8 foot centers to anchor joists to parallel masonry wall. Pins are 1/2 x 5 welded in place. Bulk packed, plain finish, other finishes available. Special sizes made to order.

T-ANCHORS
for end & side wall anchoring

Part Number	Size (inches)	Hole Spacing	Wt. per 100
T18A	3/16 x 1 x 18	3" centers	125 lbs.
T18B	1/14 x 1-1/4 x 18	3" centers	190 lbs.
T24	3/16 x 1 x 24	6" centers	156 lbs.
T40	3/16 x 1 x 40	16" centers	241 lbs.
T48	1/14 x 1-1/4 x 48	16" centers	460 lbs.

BOLTS-NUTS-WASHERS



Part Number	Nut Size
NT-50	1/2"-13NC Hex Nut
NT-63	5/8"-11NC Hex Nut
NT-75	3/4"-10NC Hex Nut

Part Number	Washers
WA-50	1/2" Flat
WA-50	5/8" Flat
WA-75	3/4" Flat
WA-75G	3/4" O.G.

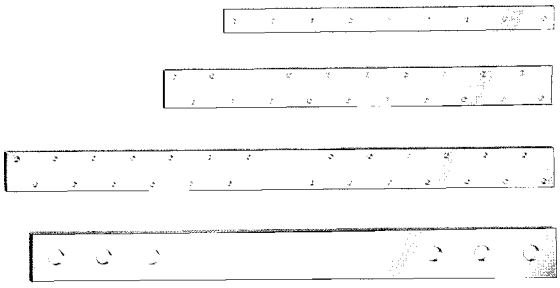
Bolt Lengths for Girder Trusses	
1-Ply	3.0"
2-Ply	4.5"
3-Ply	6.0"
4-Ply	7.5"
5-Ply	9.0"

Part Number	Bolt Size
BT 50-3.0	1/2"-13NC x 3" Hex Hd.
BT 50-4.5	1/2"-13NC x 4-1/2" Hex Hd.
BT 50-6.0	1/2"-13NC x 6" Hex Hd.
BT 50-7.5	1/2"-13NC x 7-1/2" Hex Hd.
BT 50-9.0	1/2"-13NC x 9" Hex Hd.
BT 50-10.5	1/2"-13NC x 10-1/2" Hex Hd.
BT 63-3.0	5/8"-11NC x 3" Hex Hd.
BT 63-4.5	5/8"-11NC x 4-1/2" Hex Hd.
BT 63-6.0	5/8"-11NC x 6" Hex Hd.
BT 63-7.5	5/8"-11NC x 7-1/2" Hex Hd.
BT 63-9.0	5/8"-11NC x 9" Hex Hd.
BT 63-10.5	5/8"-11NC x 10-1/2" Hex Hd.
BT 75-3.0	3/4"-10NC x 3" Hex Hd.
BT 75-4.5	3/4"-10NC x 4-1/2" Hex Hd.
BT 75-6.0	3/4"-10NC x 6" Hex Hd.
BT 75-7.5	3/4"-10NC x 7-1/2" Hex Hd.
BT 75-9.0	3/4"-10NC x 9" Hex Hd.

Available in 6, 8, and 10 bolt packages (3/4f diameter) for Bucket Hangers. Add “P” to nomenclature, i.e., PBT 75-3.0. Includes washers and nuts.

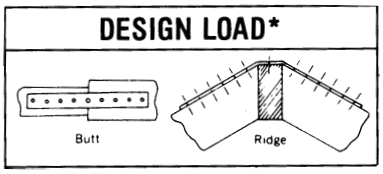
MATERIAL: A 325 FINISH: Plain
OPTION: Hot-dip galvanized, zinc or stainless steel are available as a special order.

STRAP TIES



Strap Ties are used for butt joints, ridge ties, post and beam connections. Can anchor studs to sill, rafters to plate and frame over girders. Convenient sizes with shear values charted.

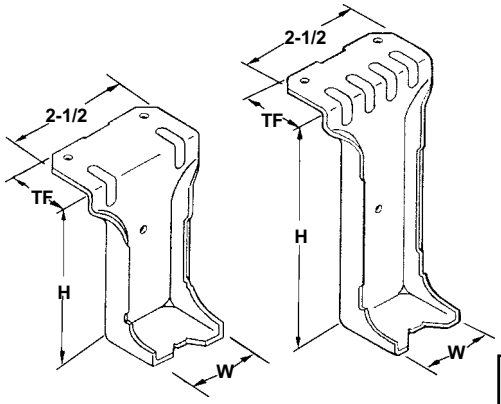
MATERIAL: See chart.
FINISH: Galvanized G60 or black copolymer paint.



***Design load assumes half of nails on each side of load and allows no value for center hole(s).**
Bolt loads can double with strap on each side.

Part Number	Material Gauge & Size	Fasteners Nails / Bolts	Design Load	
			Normal Floor 100%	Wind / Seismic 133%
S-2009	20 ga. x 1-1/4 x 9	(8) 10d	448	597
S-2012	20 ga. x 1-1/4 x 12	(10) 10d	560	746
S-2015	20 ga. x 1-1/4 x 15	(12) 10d	672	895
S-2018	20 ga. x 1-1/4 x 18	(14) 10d	784	1045
S-2021	20 ga. x 1-1/4 x 21	(16) 10d	896	1194
S-2024	20 ga. x 1-1/4 x 24	(18) 10d	1008	1343
S-1617	16 ga. x 1-1/4 x 17	(8) 16d	530	706
S-1621	16 ga. x 1-1/4 x 21	(10) 16d	665	886
S-1618	16 ga. x 1-1/4 x 18	(16) 16d	1070	1426
S-1620	16 ga. x 1-1/4 x 20	(18) 16d	1200	1600
S-1206	12 ga. x 1-1/2 x 6	(8) 16d	564	752
S-1209	12 ga. x 1-1/2 x 9	(8) 16d	564	752
S-1211	12 ga. x 1-1/2 x 11-1/2	(8) 16d	564	752
S-1217	12 ga. x 1-1/2 x 18	(8) 16d	564	752
S-1223	12 ga. x 1-1/2 x 24	(8) 16d	564	752
S-1230	12 ga. x 1-1/2 x 30	(8) 16d	564	752
SB-1217	12 ga. x 2-1/2 x 17	(6) 1/2q	2250	3000
SB-1223	12 ga. x 2-1/2 x 23	(6) 1/2q	2250	3000
SB-1230	12 ga. x 2-1/2 x 30	(6) 1/2q	2250	3000
SB-1242	12 ga. x 2-1/2 x 42	(8) 1/2q	3345	4460
SB-1246	12 ga. x 2-1/2 x 46	(10) 1/2q	4350	5800
SB-0721	7 ga. x 2-1/2 x 21-1/2	(6) 5/8q	3360	4480
SB-0727	7 ga. x 2-1/2 x 27	(6) 5/8q	3360	4480
SB-0325	1/4 x 3 x 25-1/2	(6) 3/4q	4290	5720
SB-0330	1/4 x 3 x 30-1/2	(6) 3/4q	4290	5720

AFN PANEL HANGERS



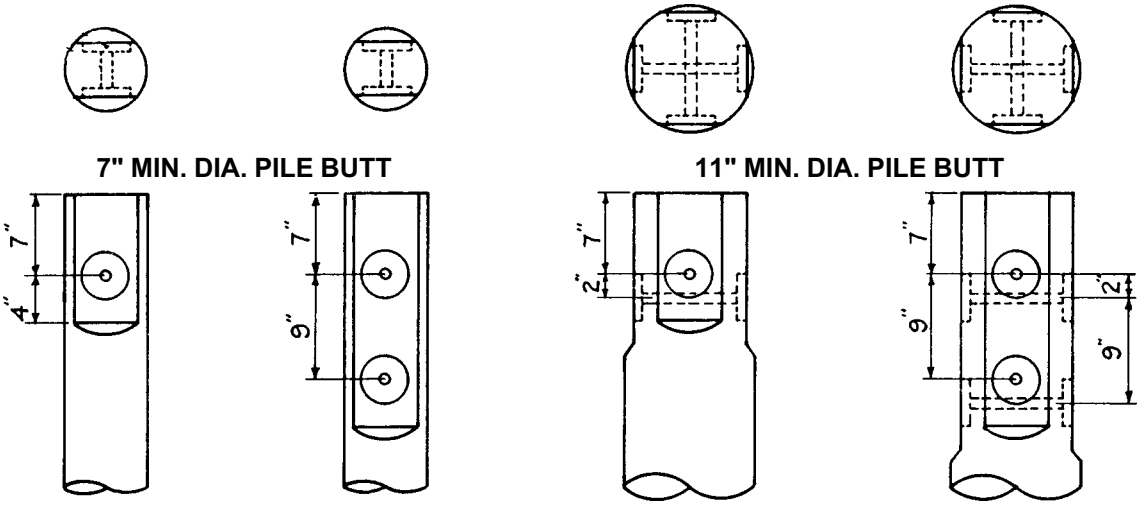
AFN series panel hangers are used in panelized wood roof systems to connect the 2x4 or 2x6 stiffeners to the purlins. The precision formed grippers on each side of the panel hanger are pressed into the wood providing a high-strength connection without the use of nails.

CODE ACCEPTANCE: ICBO accepted: See Evaluation Report No. 4531.

MATERIAL: 18 ga.
FINISH: Galvanized.

Part Number	Joist Size	Dimensions			Header Fasteners	Allowable Loads
		W	H	TF		Roof (125)
AF24N	2 x 4	1-9/16	3-3/8	1-1/8	(2) 8d	660
AF26N	2 x 6	1-9/16	5-3/8	1-1/8	(2) 8d	660

SHEAR PLATE DESIGN SUGGESTIONS



UPLIFT

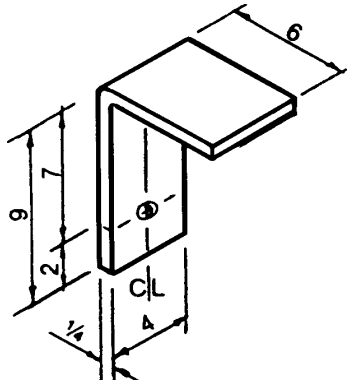
SHEAR PLATE DESIGN LOADS (7/8q BOLT)			
2 Shear Plates	**4 Shear Plates (Vertical)**	**4 Shear Plates (Transverse)**	**8 Shear Plates**
Group “B” Wet Use 7,716 lbs.	Group “B” Wet Use 15,432 lbs.	Group “B” Wet Use 15,432 lbs.	Group “B” Wet Use 30,864 lbs.
Group “C” Wet Use 6,430 lbs.	Group “C” Wet Use 12,860 lbs.	Group “C” Wet Use 12,860 lbs.	Group “C” Wet Use 25,720 lbs.
Group “B” Dry Use 9,214 lbs.	Group “B” Dry Use 18,428 lbs.	Group “B” Dry Use 18,428 lbs.	Group “B” Dry Use 36,856 lbs.
Group “C” Dry Use 7,678 lbs.	Group “C” Dry Use 15,356 lbs.	Group “C” Dry Use 15,356 lbs.	Group “C” Dry Use 30,712 lbs.

DESIGN NOTES:

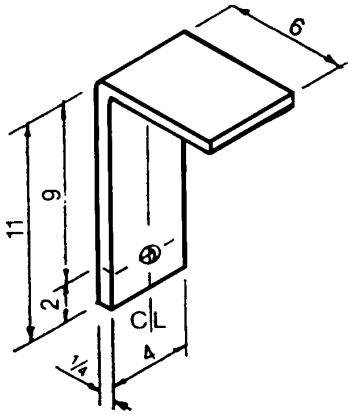
1. Tabular values are intended as a guide, and should be checked by the design engineer for conformance with current edition of N.D.S.*
2. A 33-1/3% Duration of Load increase is included.
3. Typical Group “B” species include Douglas Fir-Larch and Southern Yellow Pine.
4. Typical Group “C” species include Hem-Fir and Spruce-Pine-Fir.
5. Applicable load adjustment factors are: Load Duration, Wet Service, Temperature, Group Action, Geometry, Penetration and Metal Side Plates.
6. Shear plates are 4" diameter, SP4S.
7. Slab cuts should be parallel, plumb, and a minimum of 5-1/2" in width.
8. Shear plate daps to be made with Tool 304S.

*“National Design Specification for Wood Construction” published by American Forest & Paper Association, Washington, D.C.

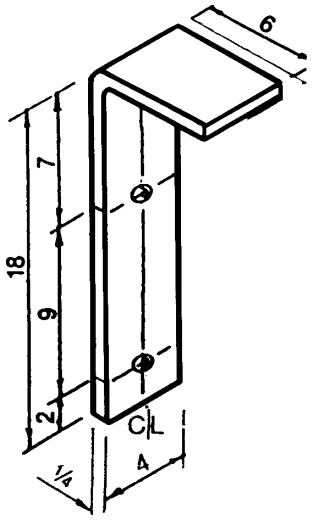
PILE CAP CONNECTORS



PCC-1



PCC-2

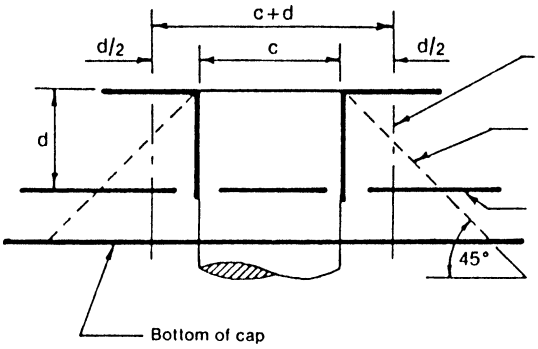


PCC-3

All bolt holes 15/16" diameter.
Custom connectors are available as a special order.

SUGGESTED CONCRETE DESIGN PROCEDURES

Analysis by the Portland Cement Association for the development of connector design value in pullout strength in concrete cap.

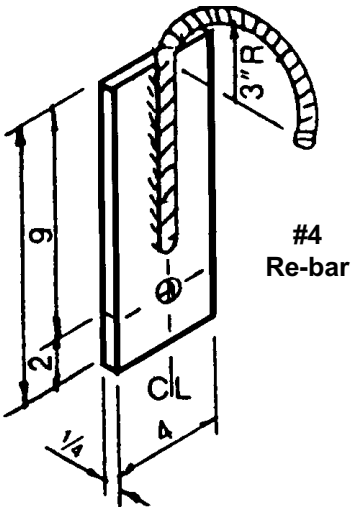


Critical section assumed by ACI code, section 1207.

Plane of failure assumed when cone is pulled out of concrete.

Bottom re-bars in concrete cap.

NOTE: In addition to shear in plain concrete, stirrups or other re-inforcing may be used to develop pull-out strength.



#4 Re-bar

PCC-4

EXAMPLE: Given:

V = 9,214# (allowable uplift load for 2 connector plates to pile)
d = 7-1/2" c = 10-1/2"
b_o = o (c + d) 1/2
= 3.14 x 18 x 0.5 = 28.2"

$V_c = \frac{V}{b_o d}$ = unit shear stress in concrete

V = total load
d = depth to reinforcing steel
c = pile diameter

Solve:

$V_c = \frac{V}{b_o d} = \frac{9,214}{28.2 \times 7.5} = 43.6$ psi

V_c = allowable for concrete
= 100 psi.

b_o = o (c + d) = circumference at critical section

NOTE ABOUT b_o: Where only two plates are used, b_o might be assumed to be equivalent to one half a full circumference, or some other fraction thereof. The quantity b_o should be established through experience and engineering judgment.