

Installer's Pocket Guide

Guía de Bolsillo
Para el Instalador

SIMPSON

Strong-Tie

®



S-C-INSTALL19

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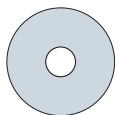
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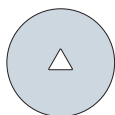
Connectors: Types of Nail Holes

Conectores: Tipos de Agujeros de Clavo



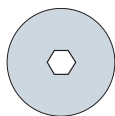
Round
Redondo

- **Purpose:**
To fasten a connector.
- **Fill Requirements:**
Always fill, unless otherwise noted.
- **Propósito:**
Para fijar un conector.
- **Requisitos para Llenar:**
Llénelo siempre, salvo que se indique lo contrario.



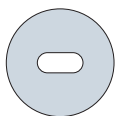
Triangular

- **Purpose:**
To increase a connector's strength or to achieve maximum strength.
- **Fill Requirements:**
When the Designer specifies max. nailing.
- **Propósito:**
Para aumentar la fuerza de un conector o para lograr una fuerza máxima.
- **Requisitos para Llenar:**
Llénelo cuando el diseñador lo especifica clavado "Máx."



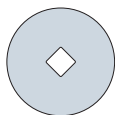
Hexagonal
Hexágono

- **Purpose:**
To fasten a connector to concrete or masonry.
- **Fill Requirements:**
Always fill when fastening a connector to concrete or fastening a connector with masonry screws.
- **Propósito:**
Para fijar un conector a concreto o mampostería.
- **Requisitos para Llenar:**
Siempre llénelo al fijar un conector a concreto o al fijar un conector con tornillos de mampostería.



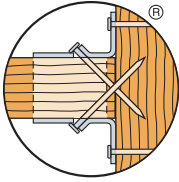
Obround
Alargado

- **Purpose:**
To make fastening a connector in a tight location easier.
- **Fill Requirements:**
Always fill, unless otherwise noted.
- **Propósito:**
Para fijar un conector en una locación apretada con el fin de facilitar el trabajo.
- **Requisitos para Llenar:**
Llénelo siempre, salvo que se indique lo contrario.



Diamond
Diamante

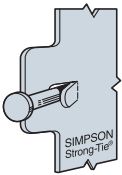
- **Purpose:**
To temporarily fasten a connector to make installing it easier.
- **Fill Requirements:**
None.
- **Propósito:**
Para fijar temporalmente un conector, con el propósito de facilitar su instalación.
- **Requisitos para Llenar:**
Ninguno.



Double-Shear Nailing

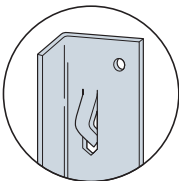
Clavado de Doble Penetración

- **Purpose:**
Installed into the joist and header, to distribute the load through two points on each joist nail for greater strength. Must use full-length nail unless 2½" nail approved by Designer.
- **Fill Requirements:**
Always fill.
- **Propósito:**
Instalado en la vigueta y la cabecera, para distribuir la carga a través de dos puntos en cada clavo de vigueta para mayor resistencia. Debe usar un clavo de largo completo a menos que un clavo de 2½" esté aprobado por el diseñador.
- **Requisitos para Llenar:**
Llénelo siempre.



DO NOT use short (1½") nails for double-shear nailing.

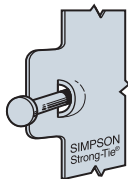
NO usen los clavos cortos de 1½" para uso de doble penetración.



Speed Prongs

Dientes Rápidos

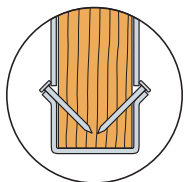
- **Purpose:**
To temporarily position and secure the connector for easier and faster installation.
- **Fill Requirements:**
None.
- **Propósito:**
Se usan para colocar el conector y fijarlo temporalmente, con el fin de facilitar y hacer más rápida su instalación.
- **Requisitos para Llenar:**
Ninguno.



Dome Nailing

Clavado
con Cúpula

- **Purpose:**
To guide the nail into the joist and header at a 45° angle.
- **Fill Requirements:**
Always fill.
- **Propósito:**
Con este dispositivo se guían el clavo en lavigueta y la viga cabezal en ángulo de 45°.
- **Requisitos para Llenar:**
Llénelo siempre.



Positive-Angle Nailing

Clavado
Efectivo
en Ángulo

- **Purpose:**
To use when wood splitting may occur, and to speed installation.
- **Fill Requirements:**
Always fill.
- **Propósito:**
Se usa cuando la madera puede rajarse o abrirse y con el propósito hacer más rápida la instalación.
- **Requisitos para Llenar:**
Llénelo siempre.

QUESTIONS?

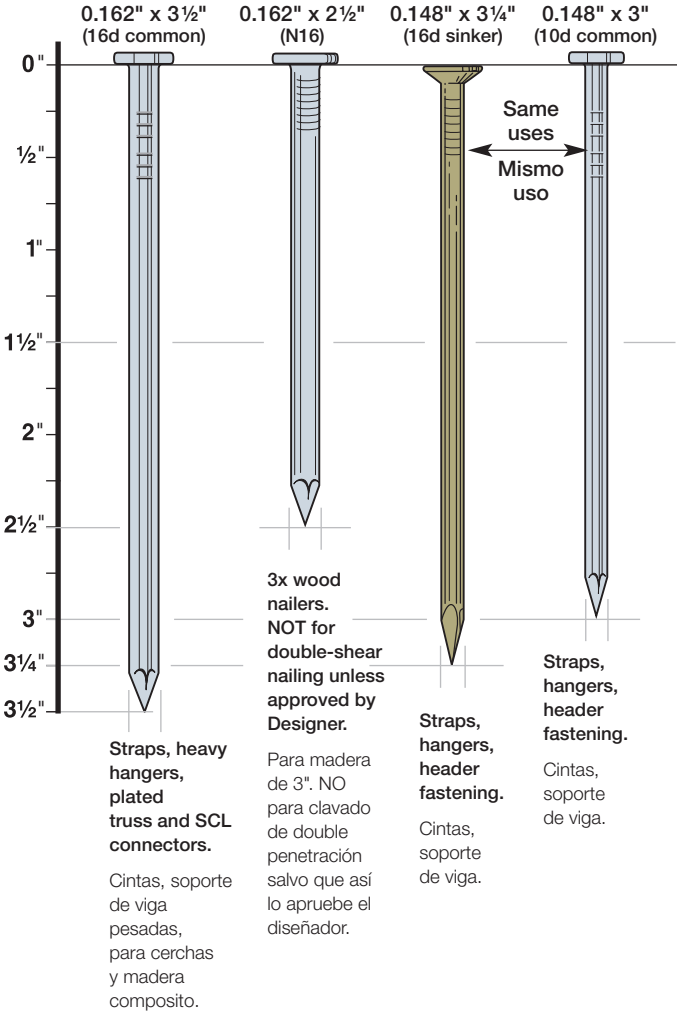
¿PREGUNTAS?

(800) 999-5099 or visit strongtie.com

The information in this guide shows contractors how our Simpson Strong-Tie® products should be correctly installed. It is not intended for use by Designers. It is important that users of this guide also follow any installation guidelines specified by the Designer and refer to the current Simpson Strong-Tie *Wood Construction Connectors* catalog for other crucial installation information.

Esta guía tiene como objetivo servir como herramienta de referencia rápida para facilitar la correcta instalación de los productos Simpson Strong-Tie®. Es importante que los usuarios sigan todas las pautas de instalación especificadas por el diseñador y consulten el catálogo de *Conectores para Construcciones de Madera* de Simpson Strong-Tie para obtener más información importante sobre la instalación.

Fasteners/Clavos



Fasteners/Clavos

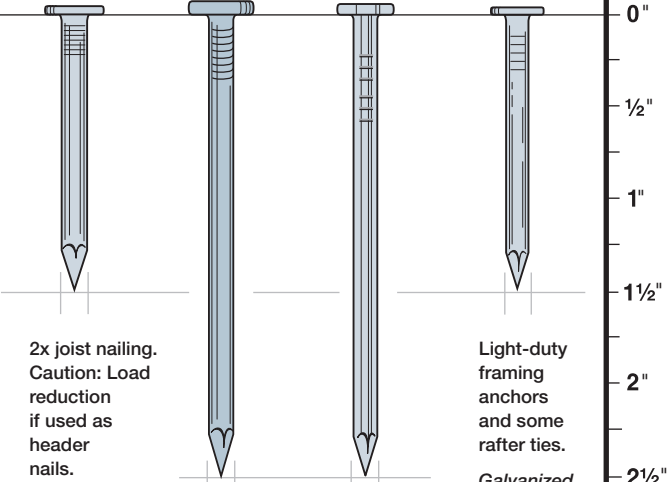


0.148" x 1 1/2"
(N10)

0.148" x 2 1/2"

0.131" x 2 1/2"
(8d common)

0.131" x 1 1/2"
(N8)



2x joist nailing.
Caution: Load reduction if used as header nails.

Galvanized nail shown.

Clavado de vigas 2x.
Cuidado: Reduce la capacidad si se usa en la viga cabezal.

Se muestra un clavo galvanizado.

Collated 3x wood nailers. NOT for double-shear nailing unless approved by Designer.

Para madera de 3". NO para clavado de double penetración salvo que así lo apruebe el diseñador.

Rafter ties.
"Clips" de huracán.

Light-duty framing anchors and some rafter ties.

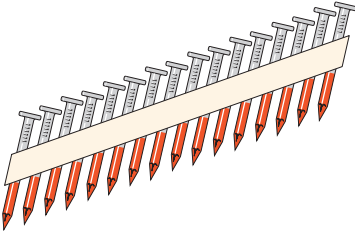
Galvanized nail shown.

Conectores ligeros y "clips" de huracán.

Se muestra un clavo galvanizado.

When using stainless-steel connectors, use ring-shank stainless-steel nails of the same size. When using ZMAX®/ hot-dip galvanized connectors, use fasteners galvanized per ASTM A153.

Cuando use conectores de acero inoxidable, use clavos de acero inoxidable de vástago de anillo del mismo tamaño. Cuando use conectores galvanizados por inmersión en caliente/ZMAX®, use sujetadores galvanizados según ASTM A153.

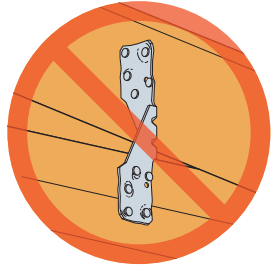


Power-driven collated nails can be used only if:

1. Correct diameter and length
2. Correct quantity is installed
3. The power tool has a hole location feature (finds the hole)
4. Nails are not overdriven

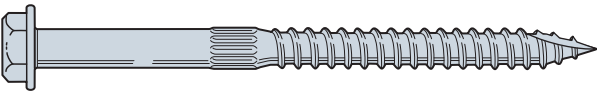
Sólo se pueden utilizar clavos estructurales para pistola si:

1. Diámetro y largo correctos
2. La cantidad correcta está instalada
3. La herramienta eléctrica tiene una función de ubicación de orificio (encuentra el orificio)
4. Los clavos no están demasiado ajustados



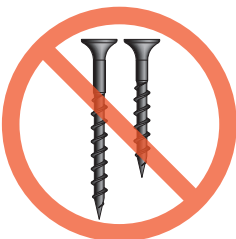
**Do Not Overdrive Nails.
Do Not Drive Nails Through Connectors.**

No Se Mete Demasiado.
No Se Puede Hacer Agujeros Con Maquina.



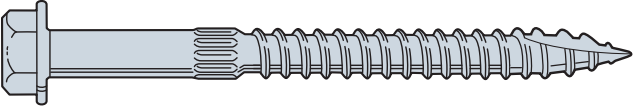
Strong-Drive SD Connector screws are designed to replace nails in many popular Simpson Strong-Tie connectors. See strongtie.com/sd for information.

Los tornillos para conectores SD Strong-Drive están diseñados para reemplazar los clavos en los conectores de Simpson Strong-Tie más populares. Consulte strongtie.com/sd para obtener más información.



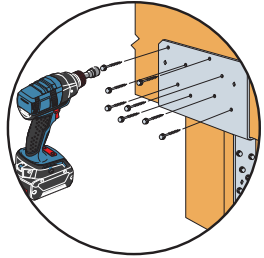
Common screws, such as wood and drywall screws, may NOT be used to replace NAILS in connectors.

NO se puede usar tornillos comunes, tales como tornillos para madera y panel yeso, en vez de CLAVOS en conectores.



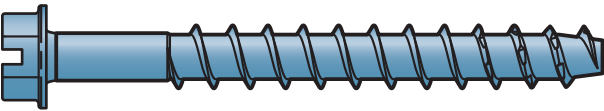
Some connectors install with the 1/4" Strong-Drive® SDS Heavy-Duty Connector screw

1. Install with 3/8" hex socket or nut driver
2. Predrilling generally not required
3. Do not substitute with lag screws



Algunos conectores se instalan con el 1/4" Strong-Drive® SDS Heavy-Duty Connector screw.

1. Instalar con un destornillador de casquillo hexagonal o de tuercas de 3/8"
2. Generalmente no es necesario efectuar perforaciones previas
3. No sustituir con tirafondos



Titen® 2 Hex-Head Masonry Screw
Diameter: 3/16", 1/4"

Tornillo Para Mampostería
Diámetro: 3/16", 1/4"

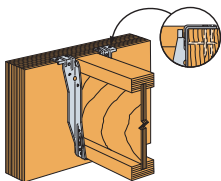


Bolt
Diameter: 1/2", 5/8", 3/4", 7/8", 1"

Pernos
Diámetro: 1/2", 5/8", 3/4", 7/8", 1"

Top Flange Hangers

Soportes Con Ala Superior

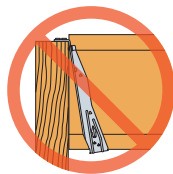


Flush Framing



Hanger over-spread

Soporte demasiado abierto

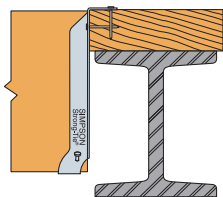


Hanger not plumb

Soporte fuera de plomo

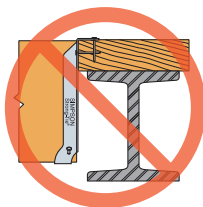
Wood Nailers

Listones Clavadores De Madera



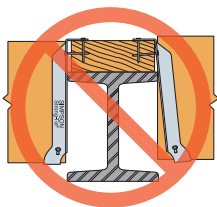
Correct attachment

Montaje correcto



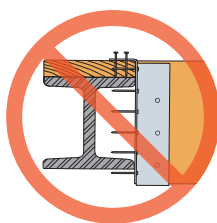
Nailer too wide

Listón clavador muy ancho



Nailer too narrow

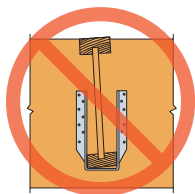
Listón clavador muy estrecho



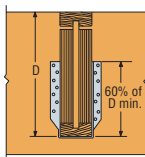
Nailer too thin or wrong hanger for the application

Clavadora demasiado delgada o soporte incorrecto para la aplicación

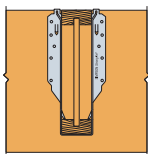
Prevent Rotation/Evitar La Rotación



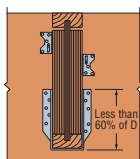
No Rotation Resistance



Rotation Prevented by
Hanger Height
(web stiffeners required)



Rotation Prevented by
Lateral Flange Support



Rotation Prevented by
Lateral Support
(clips or blocking)

Toenailing/Clavado En Diagonal

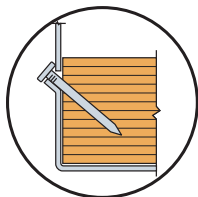


Do not toenail I-joists before installing top flange or face-mount hangers

No clave en ángulo las viguetas 'I' antes de montar los soportes *(con o sin ala superior)*

Positive-Angle Nailing

Clavado Efectivo En Ángulo



Correct nailing
approx. 45° angle

Clavado correcto
aproximadamente
a 45°



Nail too long

Clavos demasiado
largos

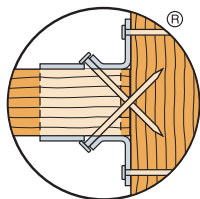


Nail at wrong angle

Clavado con un
ángulo incorrecto

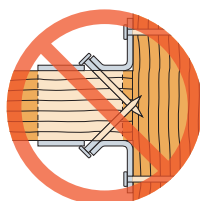
Double-Shear Nailing

Clavado De Doble Penetración



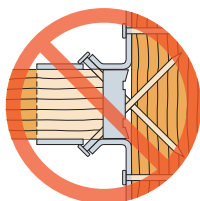
Must use full-length nail unless 2½" nail approved by Designer.

Debe usar un clavo de largo completo a menos que un clavo de 2½" esté aprobado por el diseñador.



Shorter nails may not be used as double-shear nails.

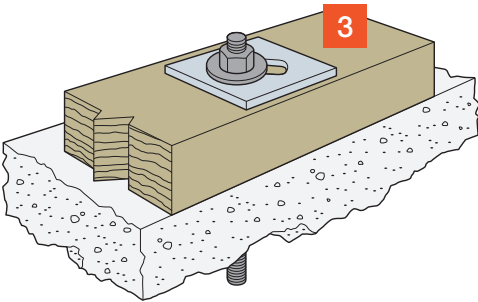
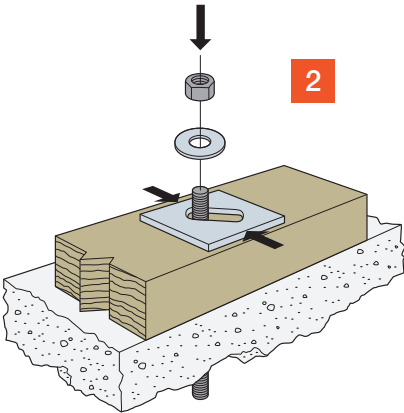
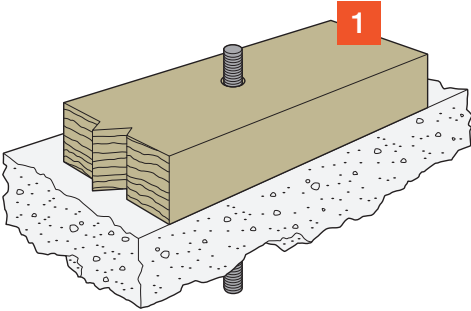
No se pueden utilizar clavos más cortos como clavos de doble penetración.

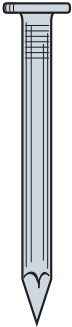


No gaps larger than ⅛".

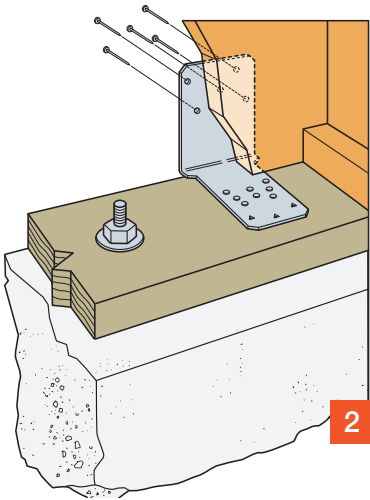
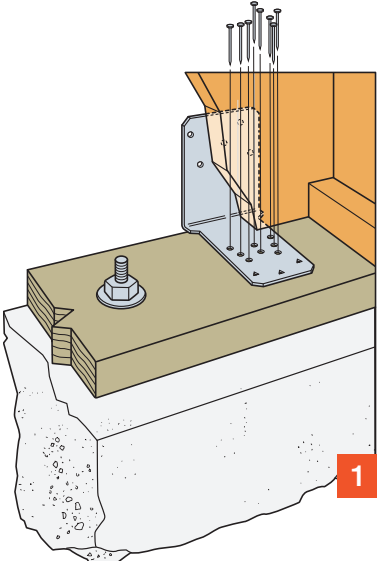
No hay espacios mayores a ⅛".

BPS-LBPS

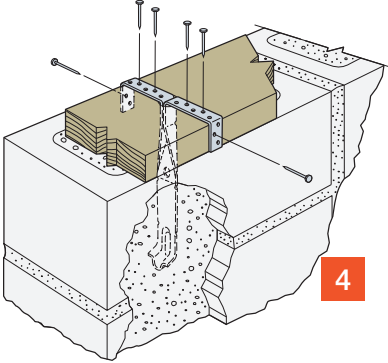
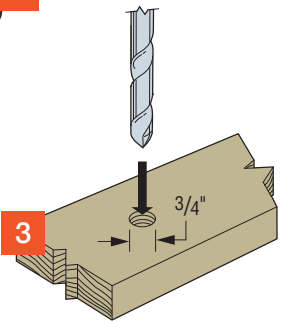
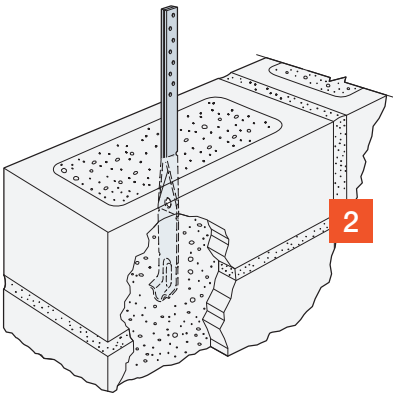
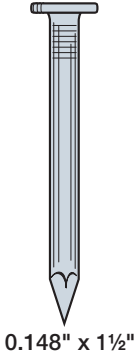
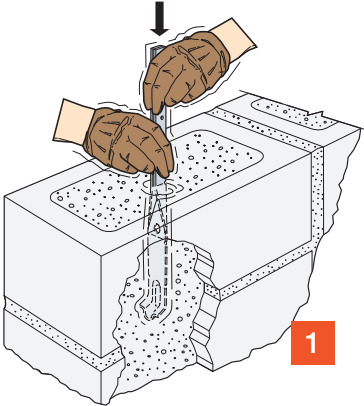


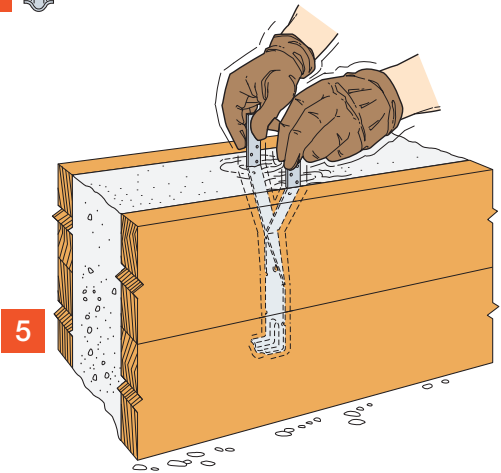
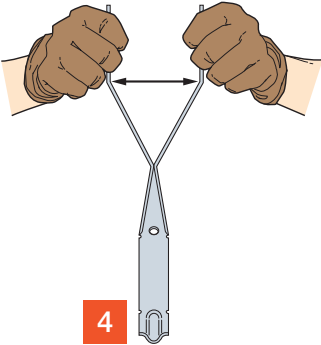
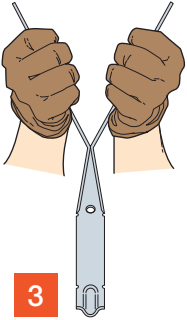
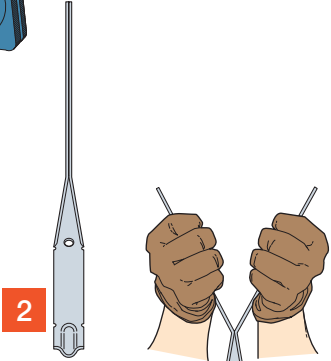
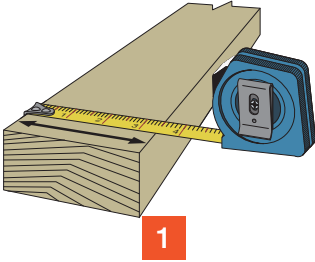


0.148" x 1½"

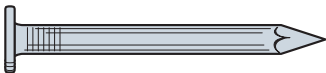
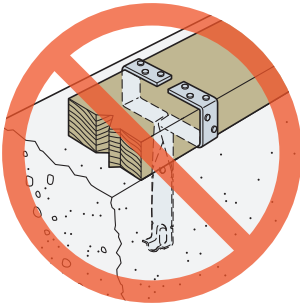
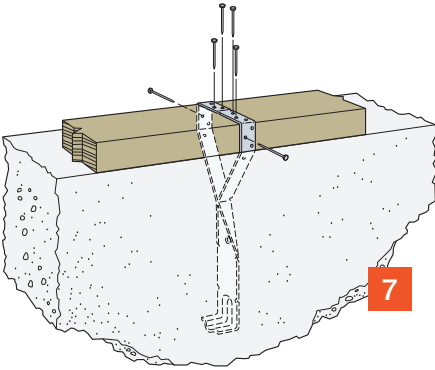
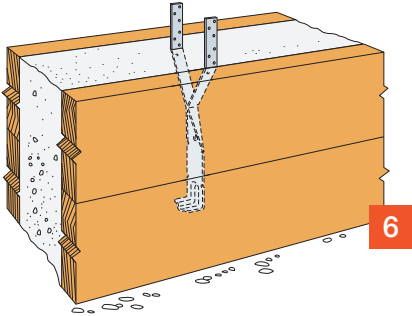


MAB – Block/Bloque



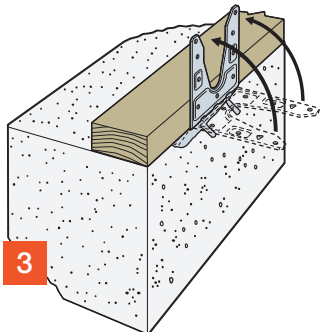
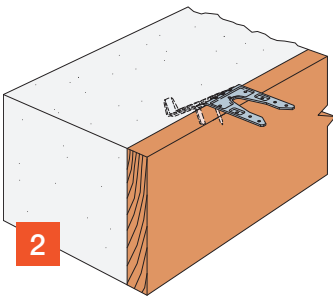
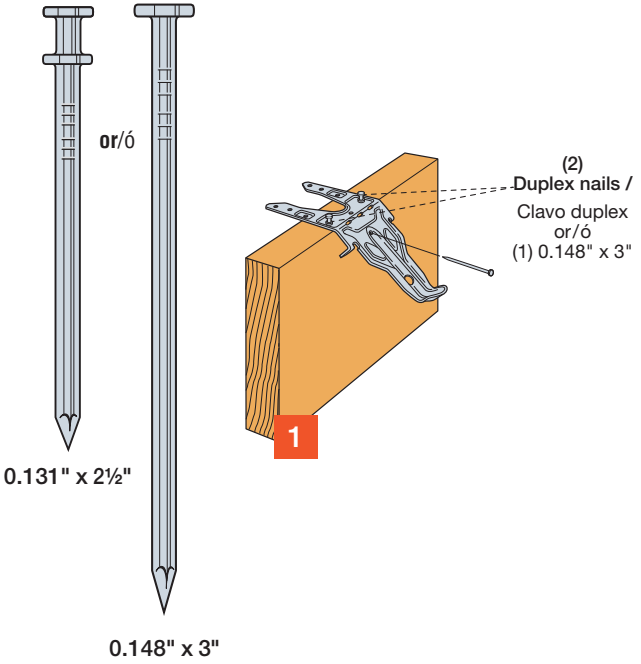


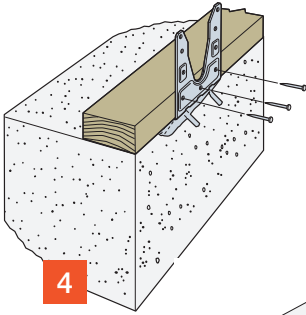
MAB – Concrete/Concreto



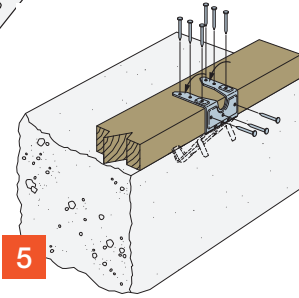
0.148" x 1½"

Forming Encofrado



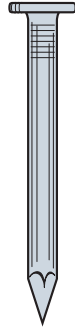


4



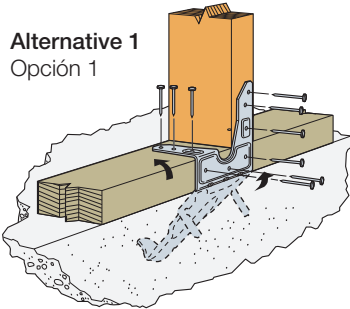
5

Connector
Conector



0.148" x 1½"

Alternative 1 Opción 1



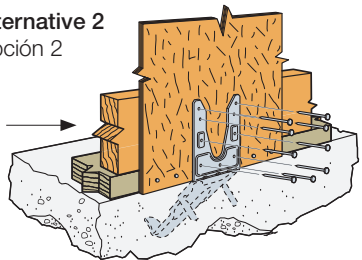
Reduced loads apply;
check with Designer.

Se aplican cargas reducidas;
consulte al diseñador.

Alternative 2 Opción 2

Blocking required attached to
sill with A35Z (not shown) or
per Designer.

Se debe adjuntar un
bloqueo al larguero con
A35Z (no se muestra) o
según indicaciones del
diseñador.

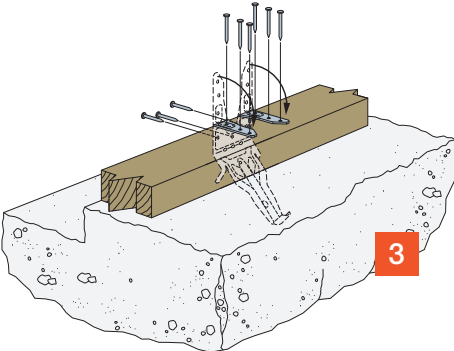
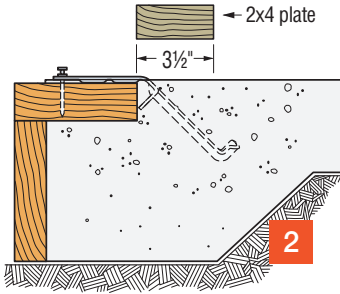
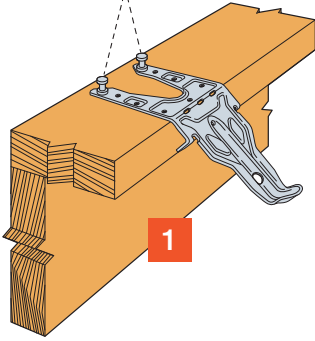


Reduced loads apply; check with Designer
before nailing over sheathing.

Se aplican cargas reducidas; consulte al
diseñador antes de clavar sobre el relleno.

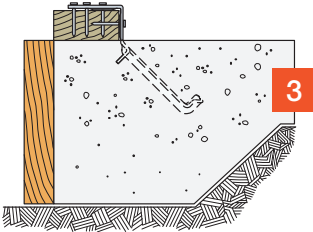
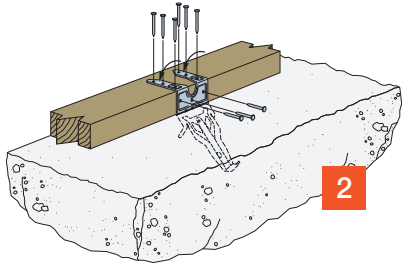
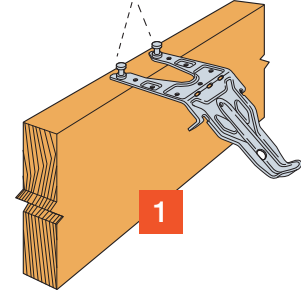
Brick-Ledge Installation Instalación Sobre Cornisa de Ladrillos

(2) Duplex nails / Clavo duplex



Inside-the-Mudsill Installation Instalación en Solera

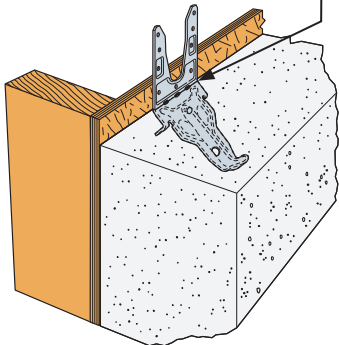
(2) Duplex nails / Clavo duplex

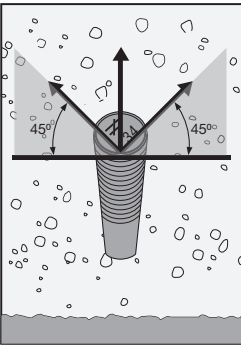
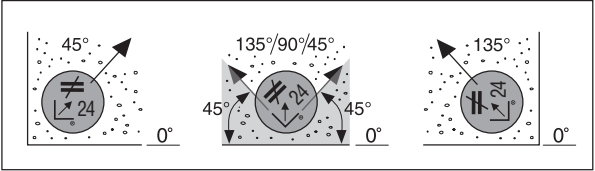
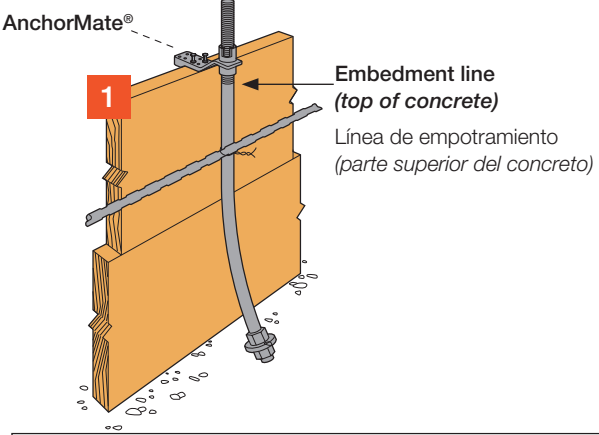


**Embedment line
(top of concrete)**

Línea de
empotramiento
(parte superior
del concreto)

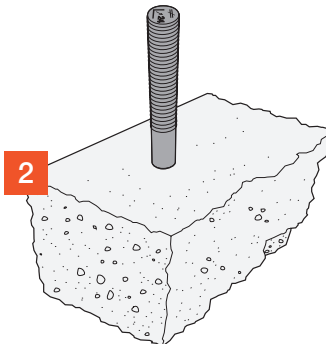
MASAP
similar

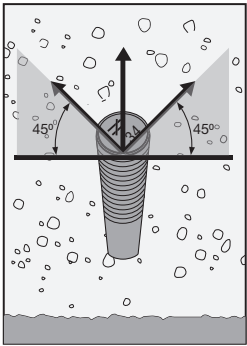
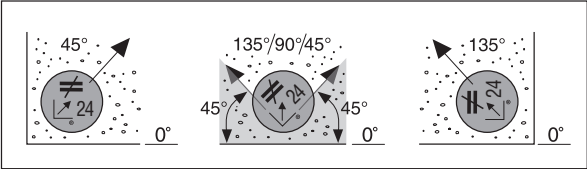
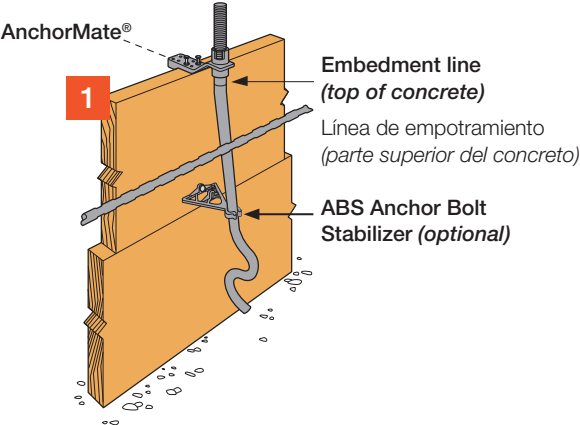




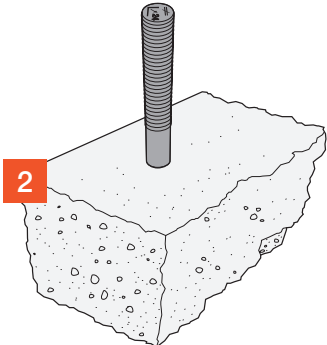
Install a minimum 45°
from either edge.

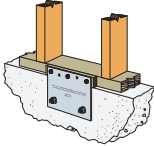
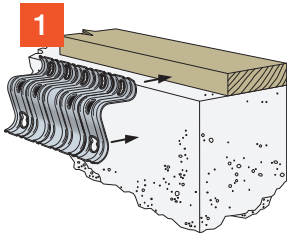
Instalar a mínimo 45°
de cada cara.



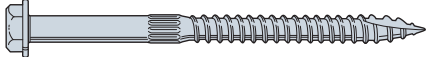
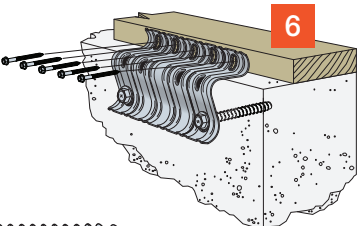
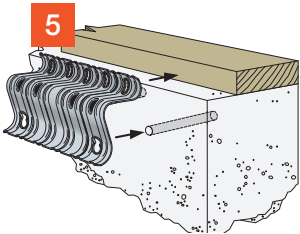
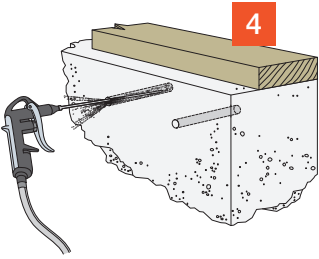
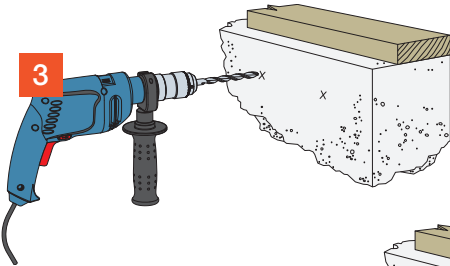
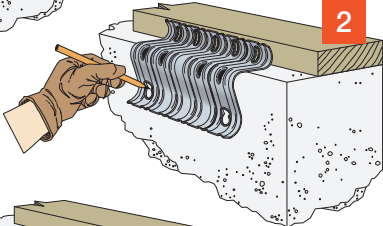


Install 45° from either edge.
Instalar 45° de cada cara.

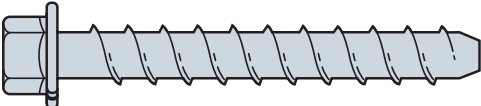




Same installation for FRFP

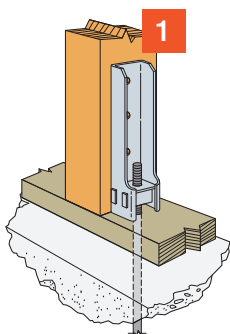


1/4" x 3" SDS Heavy-Duty Connector Screw (included)

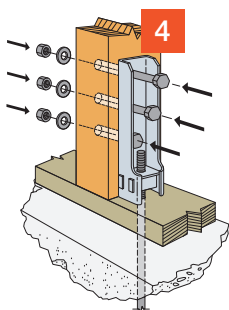
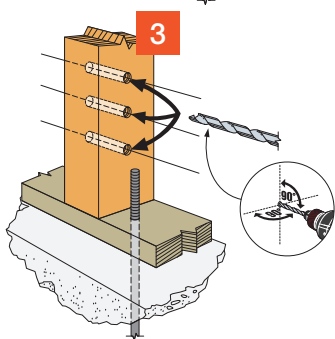
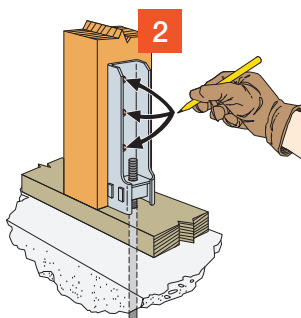


Holdowns and Tension Ties

HD

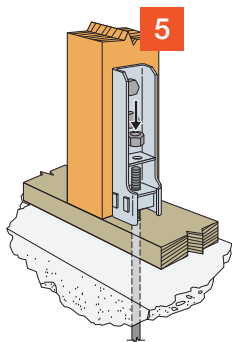


Model No./ N.º de Modelo	Bolt Diameter/ Diámetro del Perno Torneado
HD3B	5/8"
HD5B	3/4"
HD7B	3/4"
HD9B	7/8"
HD12	1"
HD19	1"



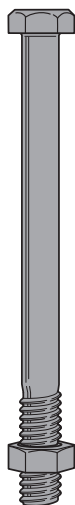
Bolts shall be installed with the nut and washer on the opposite side of the holdown.

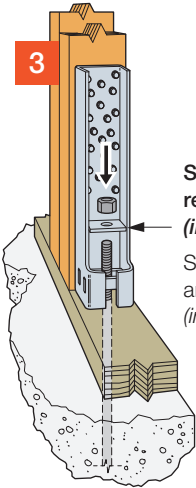
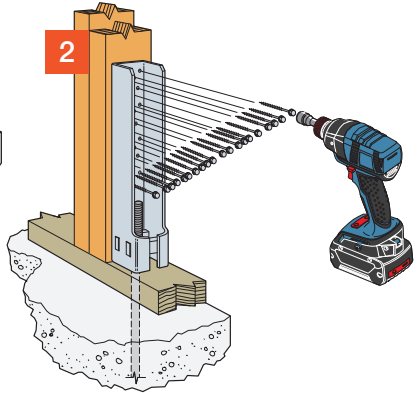
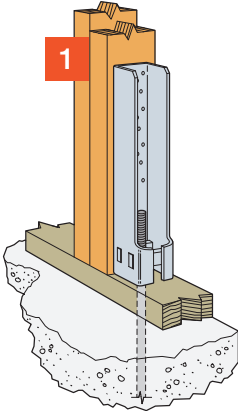
Se deben instalar los pernos con la tuerca y la arandela en lado opuesto del amarre.



Bolt holes must be a minimum of 1/32" and a maximum of 1/16" larger than bolt diameter.

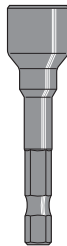
Los orificios para los pernos deben ser al menos 1/32" y como máximo 1/16" más grandes que el diámetro del perno.





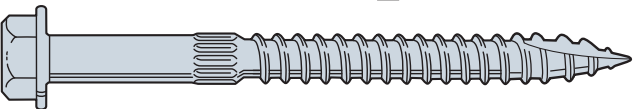
Square washer
required
(included).

Se requiere una
arandela cuadrada
(incluida).

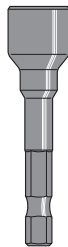
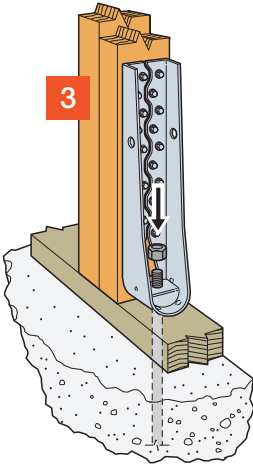
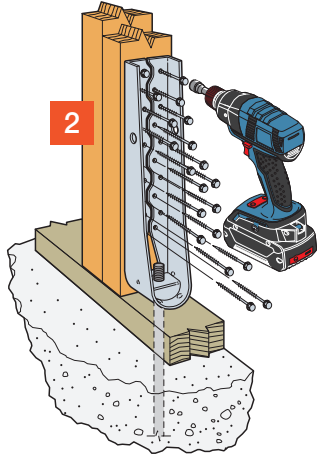
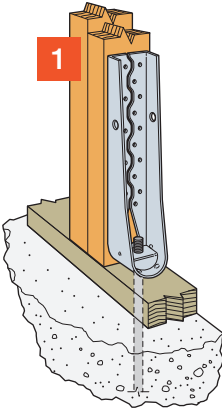


Use $\frac{3}{8}$ " driver.

Use un
destornillador
de $\frac{3}{8}$ ".

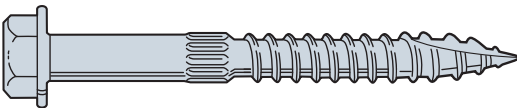


1/4" x 3" Strong-Drive® SDS HEAVY-DUTY CONNECTOR Screw
(included/incluida)



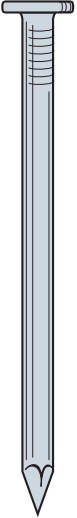
Use $\frac{3}{8}$ " driver.

Use un
destornillador
de $\frac{3}{8}$ ".

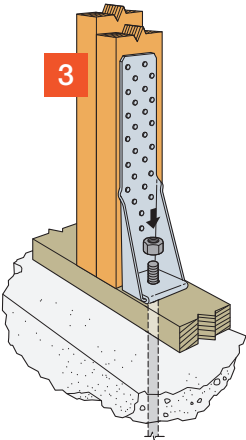
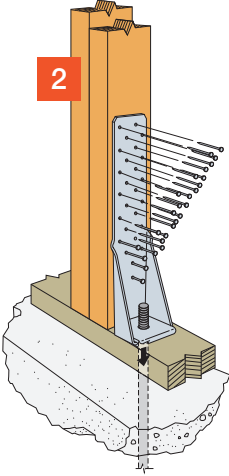
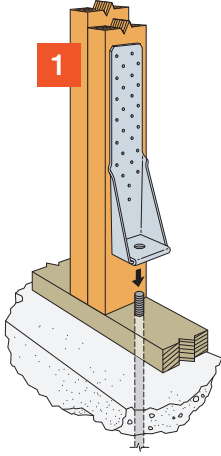


$\frac{1}{4}$ " x $2\frac{1}{2}$ " Strong-Drive® SDS HEAVY-DUTY CONNECTOR Screw
(included/incluida)

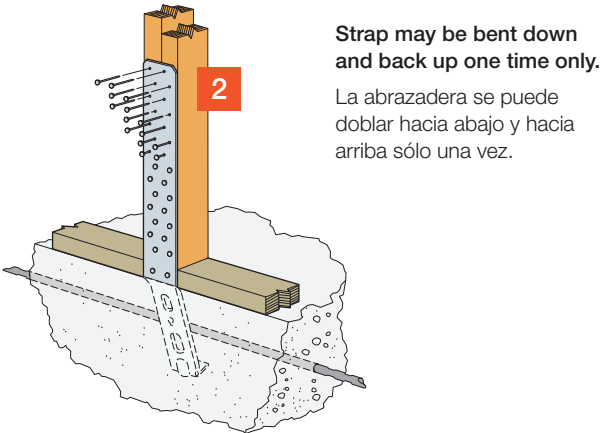
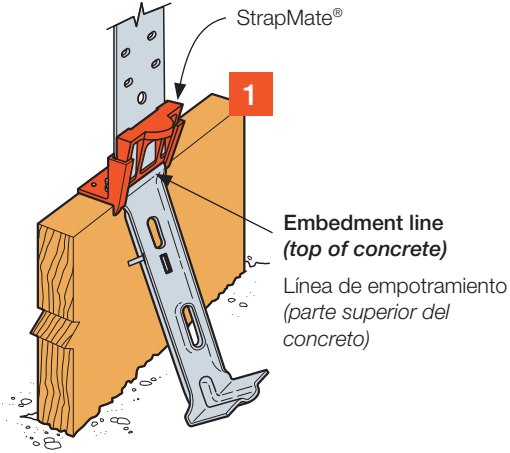
HTT4
HTT5



0.162" x 2 1/2"

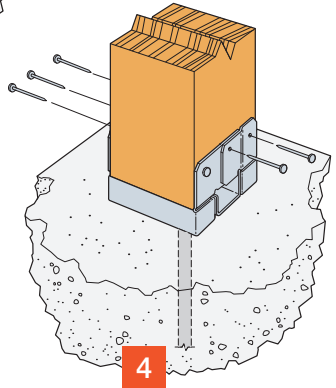
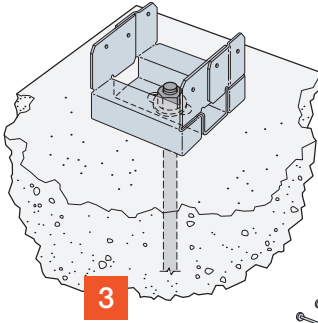
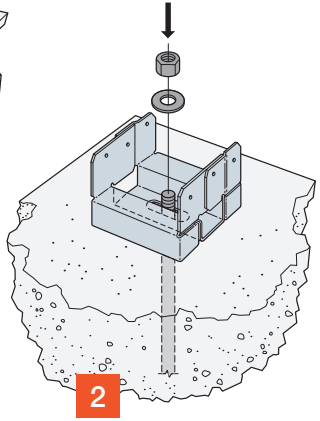
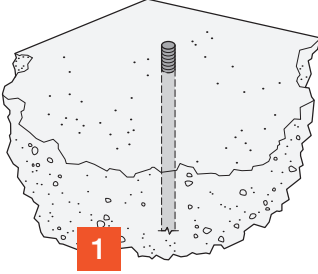


LSTHD/STHD



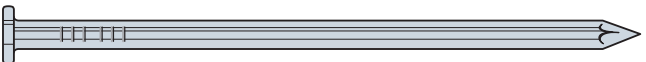
16d Sinker
0.148" x 3 1/4"

ABA



If using an adhesive anchor, see pages 106–107 for instructions.

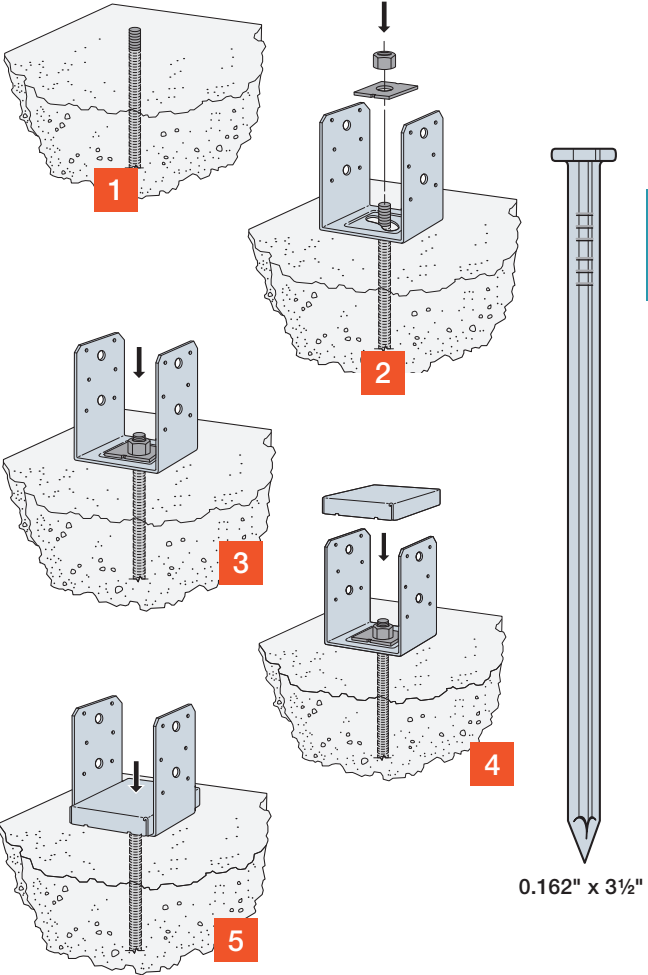
Si utiliza un anclaje adhesivo, consulte las instrucciones de las páginas 106–107.



0.162" x 3½" — ABA46, ABA46R, ABA66, ABA66R

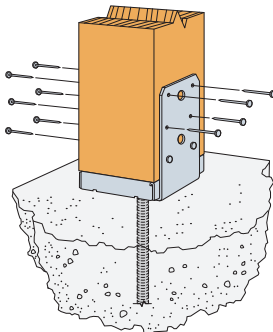


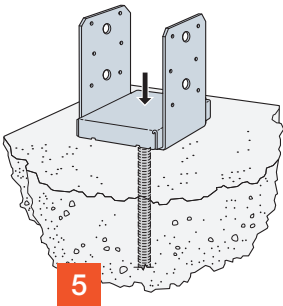
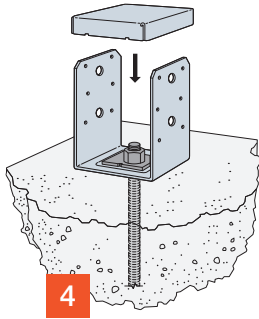
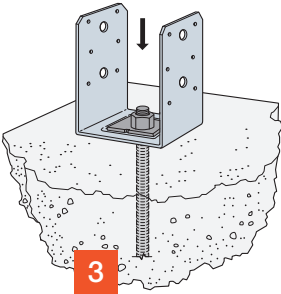
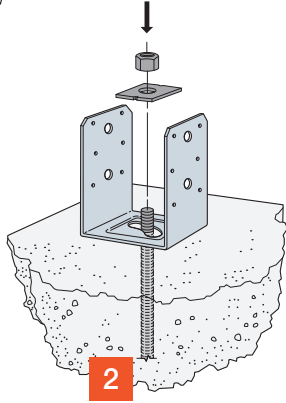
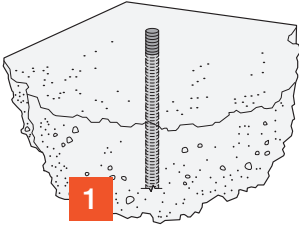
0.148" x 3" — ABA44, ABA44R



If using an adhesive anchor, see pages 106–107 for instructions.

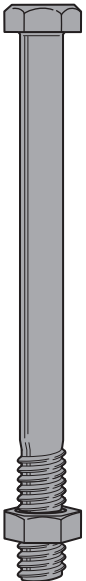
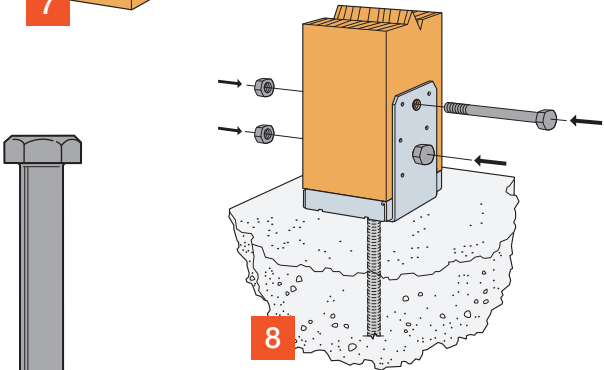
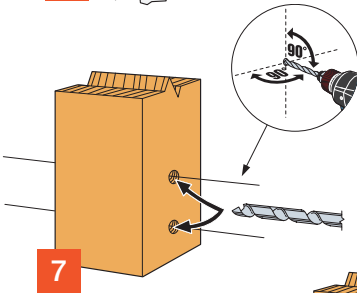
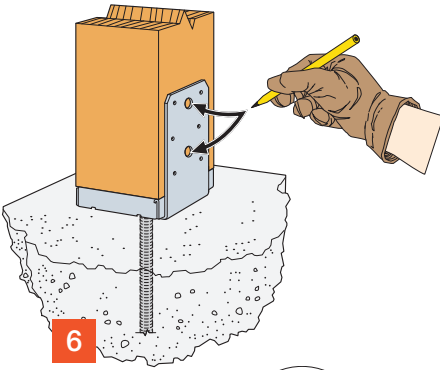
Si utiliza un anclaje adhesivo, consulte las instrucciones de las páginas 106–107.





If using an adhesive anchor, see pages 106–107 for instructions.

Si utiliza un anclaje adhesivo, consulte las instrucciones de las páginas 106–107.

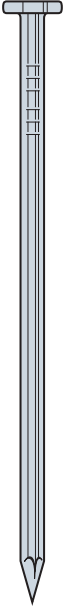


Bolt Diameter: 1/2"
Length:
ABU44/ABU46 = 4 1/2"
ABU66 = 6 1/2"

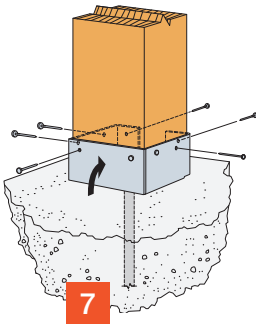
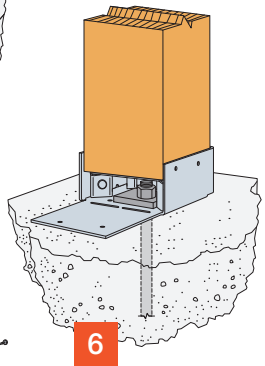
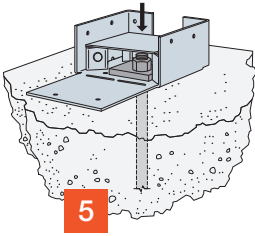
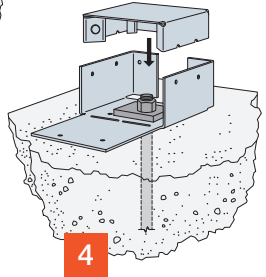
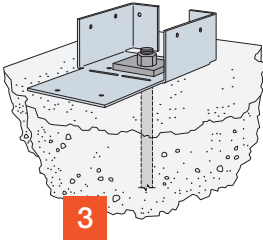
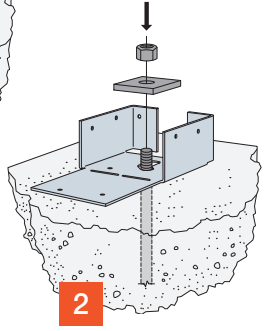
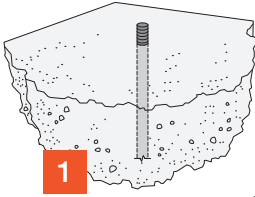
Bolt holes must be a minimum of 1/32" and a maximum of 1/16" larger than bolt diameter.

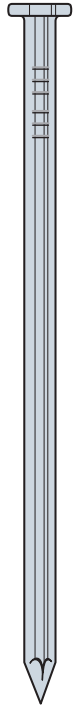
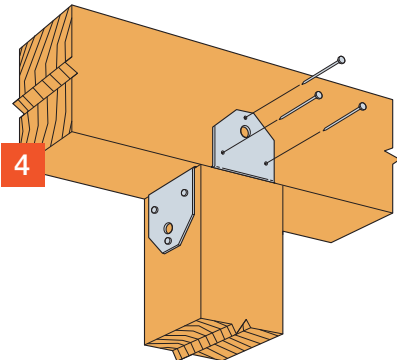
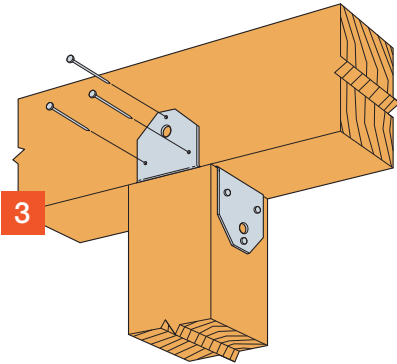
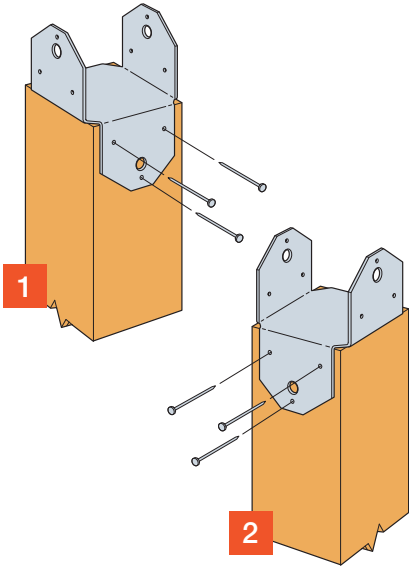
Perno Torneado
Diámetro: 1/2"
Largo:
ABU44/ABU46 = 4 1/2"
ABU66 = 6 1/2"

Los orificios para los pernos deben ser al menos 1/32" y como máximo 1/16" más grandes que el diámetro del perno.



0.148" x 3"

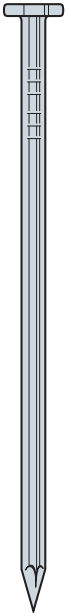




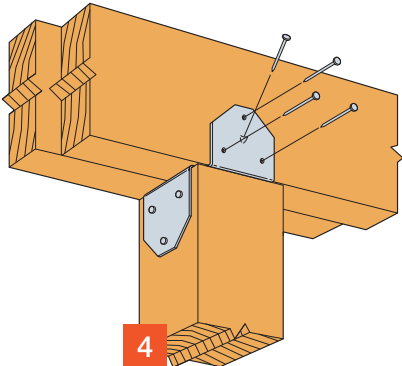
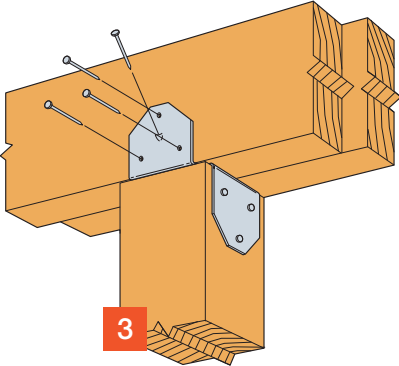
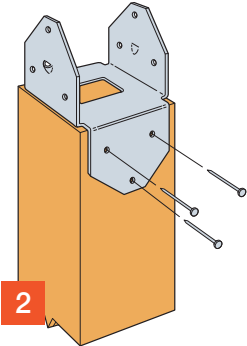
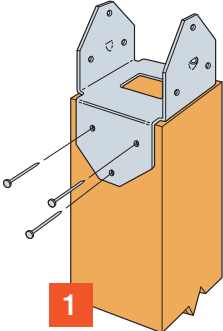
0.162" x 3 1/2"



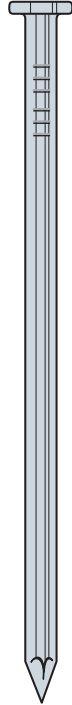
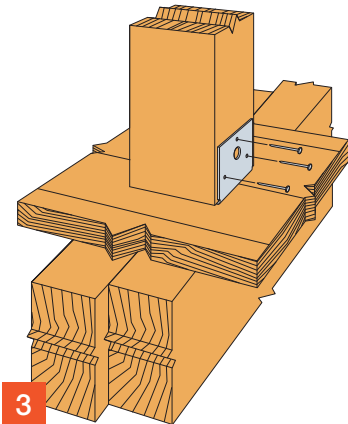
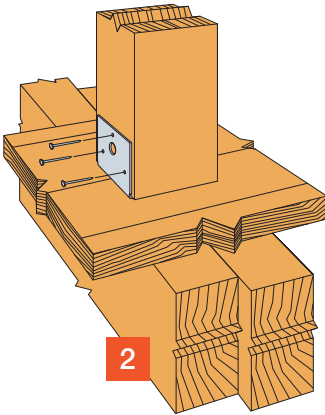
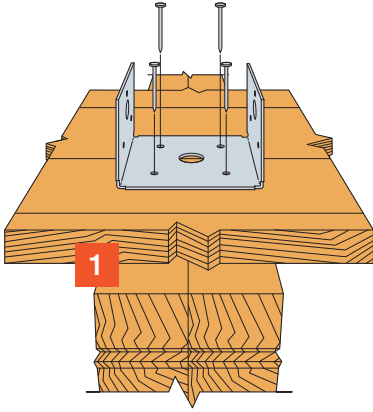
BCS2-2/4



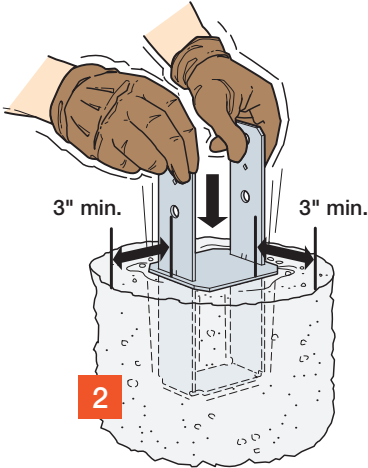
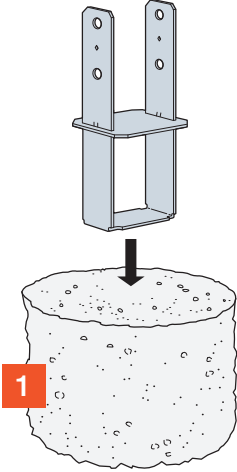
0.148" x 3"



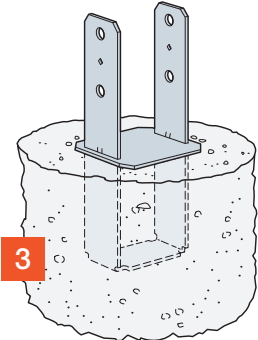
BC40

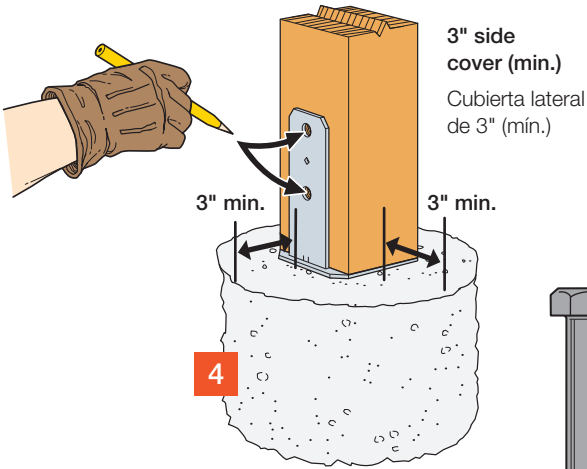


0.162" x 3 1/2"

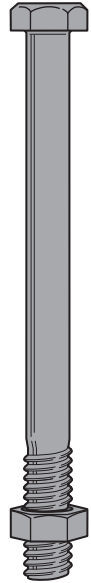
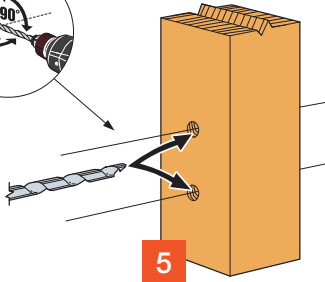


3" side
cover (min.)
Cubierta lateral
de 3" (mín.)





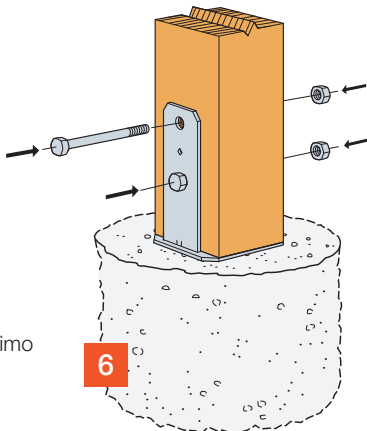
Model No. / N.º de Modelo	Bolt Size / Tamaño del Perno
CB44	5/8" x 4 1/2"
CB46	5/8" x 4 1/2"
CB48	5/8" x 4 1/2"
CB64	5/8" x 6 1/2"
CB66	5/8" x 6 1/2"
CB68	5/8" x 6 1/2"
CB86	3/4" x 8 1/2"
CB88	3/4" x 8 1/2"
CB1010	3/4" x 10 1/2"
CB1012	3/4" x 10 1/2"
CB1212	3/4" x 11 1/2"

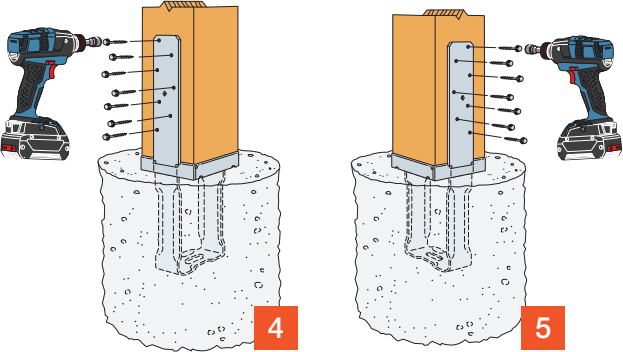
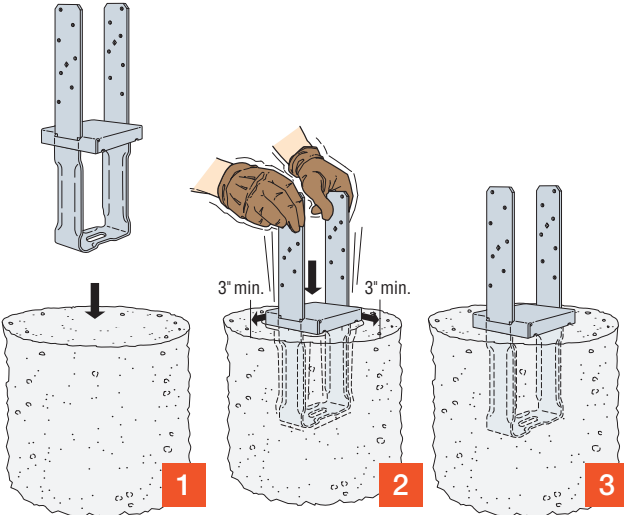


Bolt
Perno

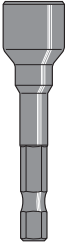
Bolt holes must be a minimum of 1/32" and a maximum of 1/16" larger than bolt diameter.

Los orificios para los pernos deben ser al menos 1/32" y como máximo 1/16" más grandes que el diámetro del perno.



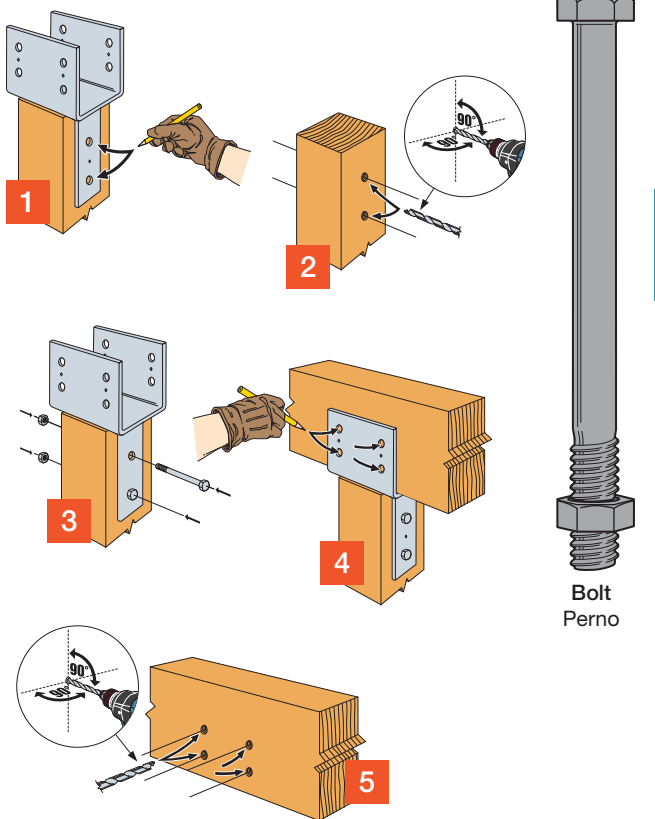


**1/4" x 2" Strong-Drive®
SDS HEAVY-DUTY CONNECTOR Screw**

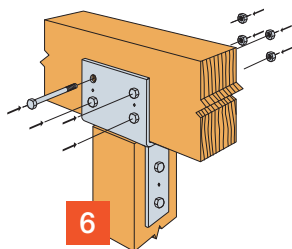


Use 3/8" driver.

Use un
destornillador
de 3/8".

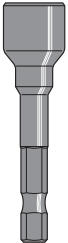
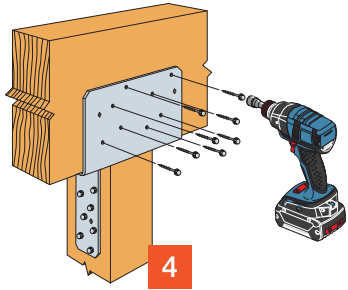
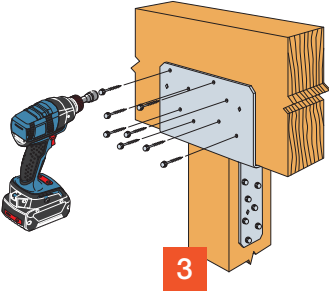
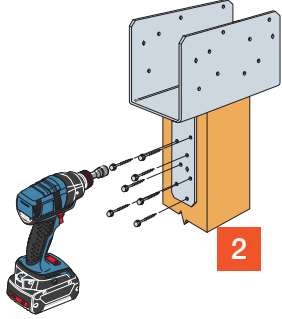
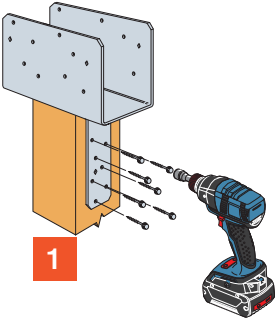


Beam or Column Width Ancho de Dintel o de Columna	Bolt Size Tamaño del Perno Torneado	
	Diameter Diámetro	Length Longitud
3 1/8"	5/8"	4 1/2"
3 1/2"	5/8"	4 1/2"
5 1/8"	3/4"	6 1/2"
5 1/2"	5/8"	6 1/2"
6 3/4"	3/4"	8"
7"	3/4"	8"
7 1/2"	3/4"	8 1/2"
8 3/4"	3/4"	10"
9 1/2"	3/4"	10 1/2"



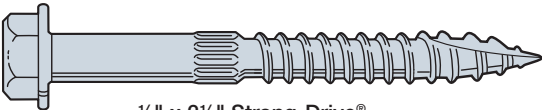
Bolt holes must be a minimum of 1/32" and a maximum of 1/16" larger than bolt diameter.

Los orificios para los pernos deben ser al menos 1/32" y como máximo 1/16" más grandes que el diámetro del perno.

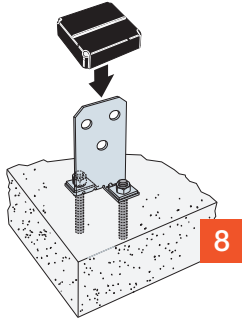
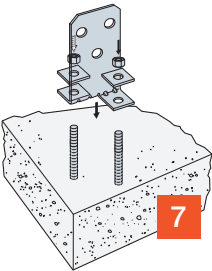
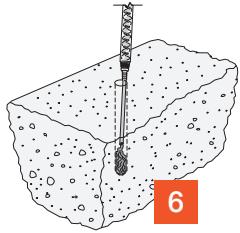
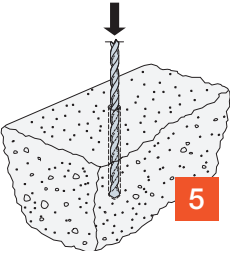
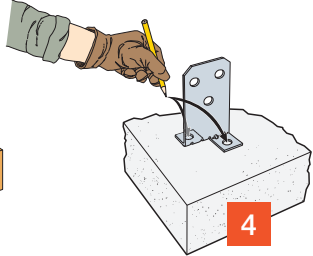
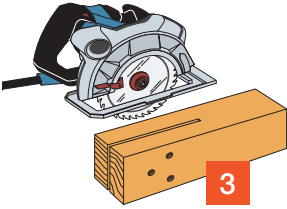
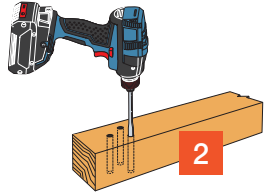
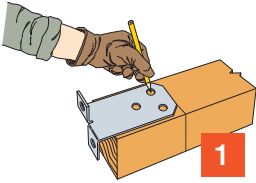


Use $\frac{3}{8}$ " driver.

Use un destornillador de $\frac{3}{8}$ ".

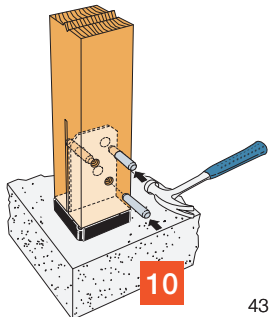
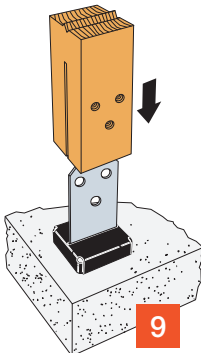


$\frac{1}{4}$ " x $2\frac{1}{2}$ " Strong-Drive®
SDS HEAVY-DUTY CONNECTOR Screw

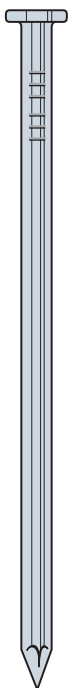


If using an adhesive anchor, see pages 106–107 for instructions.

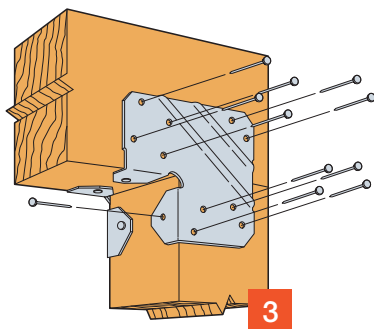
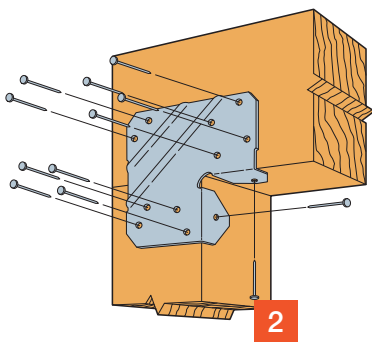
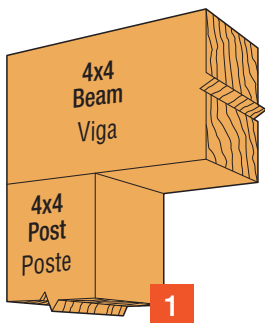
Si utiliza un anclaje adhesivo, consulte las instrucciones de las páginas 106–107.

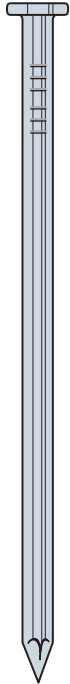
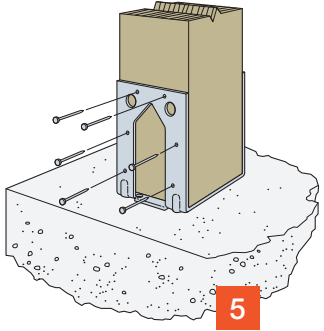
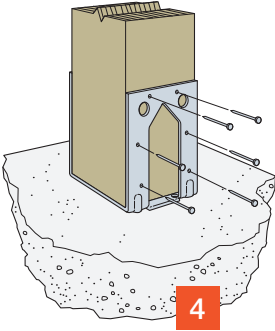
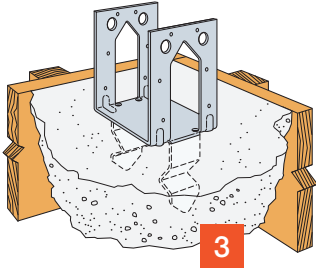
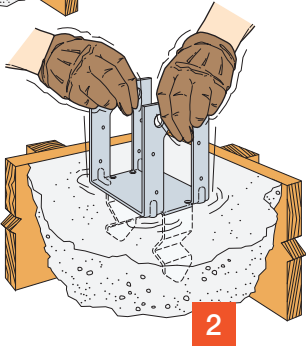
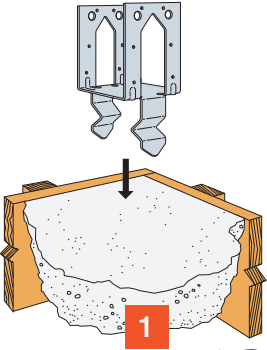


LCE4



0.162" x 3 1/2"

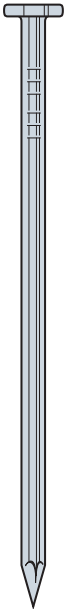
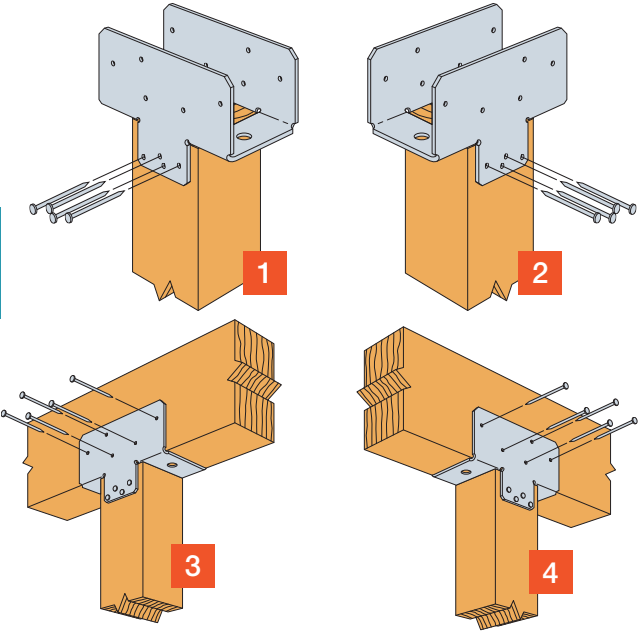




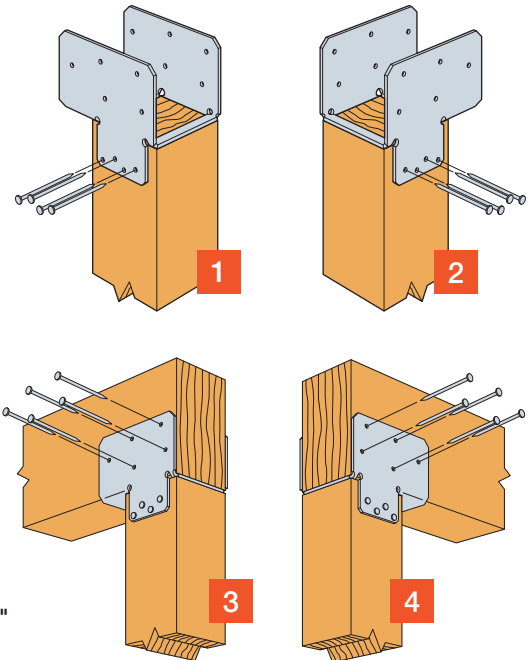
0.162" x 3 1/2"



PCZ/EPCZ

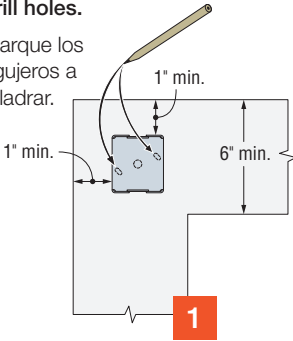


0.148" x 3"



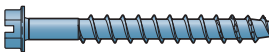
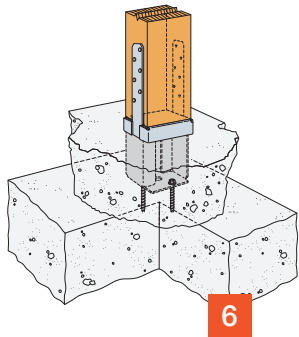
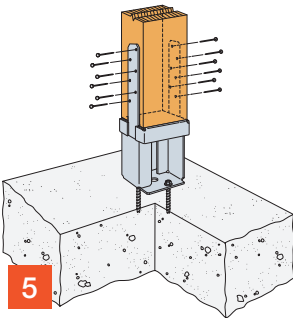
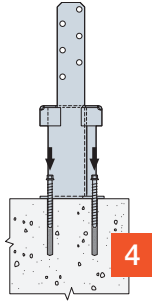
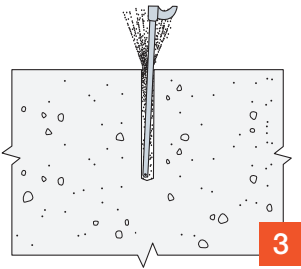
Mark drill holes.

Marque los agujeros a taladrar.



Drill $\frac{1}{4}$ "-diameter hole $\frac{1}{2}$ " deeper than Titen[®].

Perdore un agujero de $\frac{1}{4}$ " de diámetro a una profundidad de $\frac{1}{2}$ " mayor que el Titen[®].

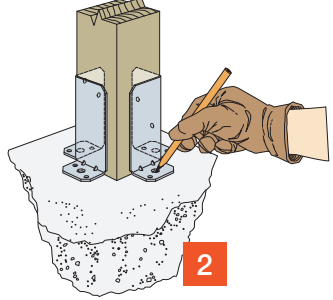
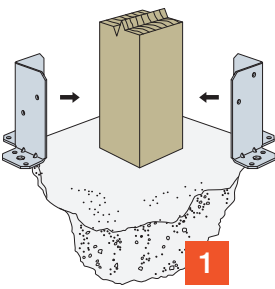


For installation in concrete, use Titen[®] 2 masonry screw $\frac{1}{4}$ " x $1\frac{1}{4}$ ".

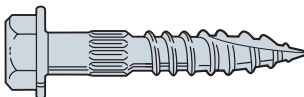
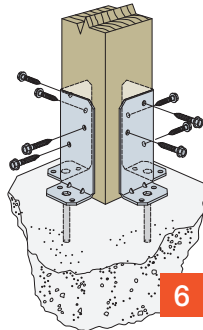
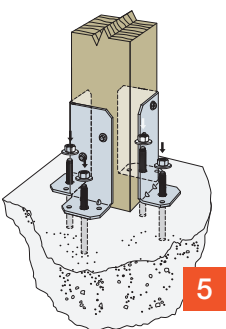
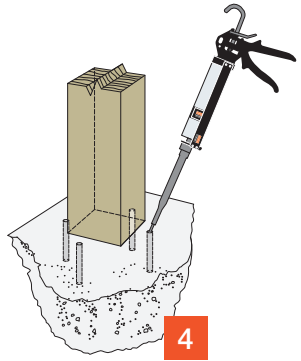
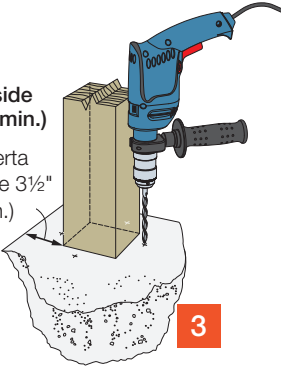
Para instalaciones en concreto, utilice Titen de $\frac{1}{4}$ " x $1\frac{1}{4}$ ".



0.148" x 3"



3½" side cover (min.)
Cubierta lateral de 3½" (mín.)

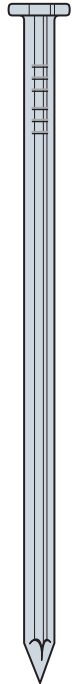
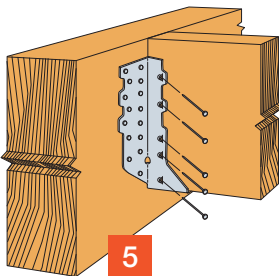
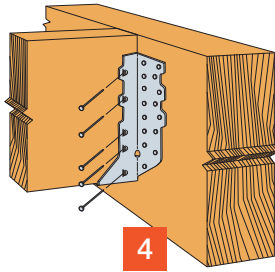
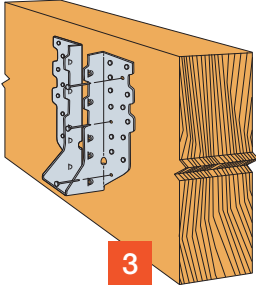
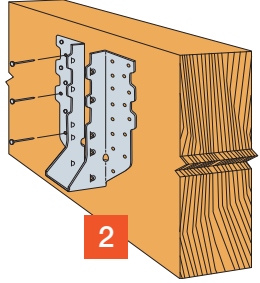
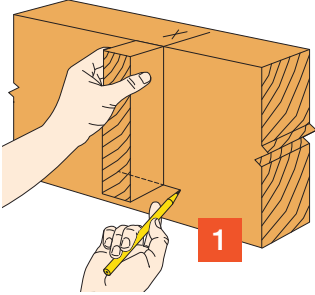


¼" x 1½" Strong-Drive®
SDS HEAVY-DUTY CONNECTOR Screw

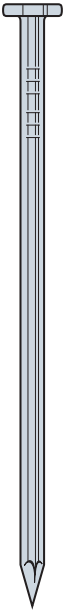
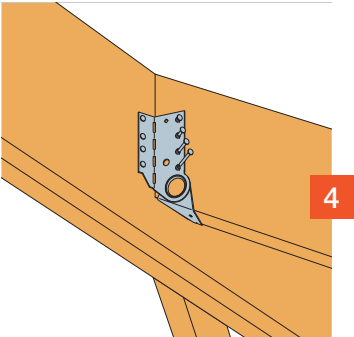
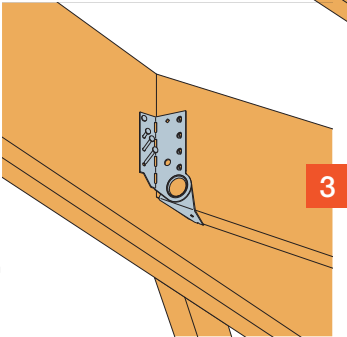
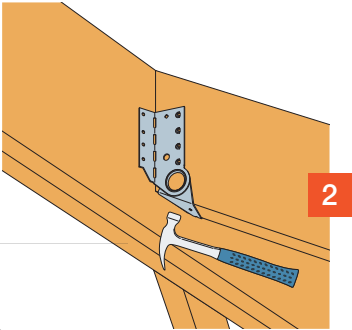
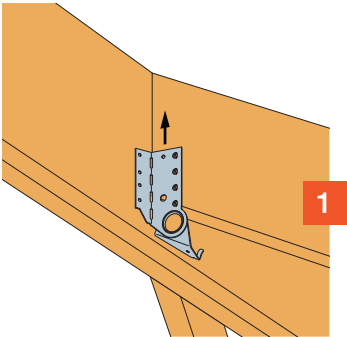
Solid Sawn Joist Hangers

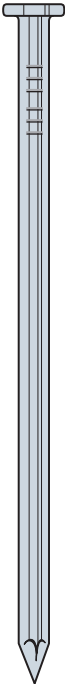
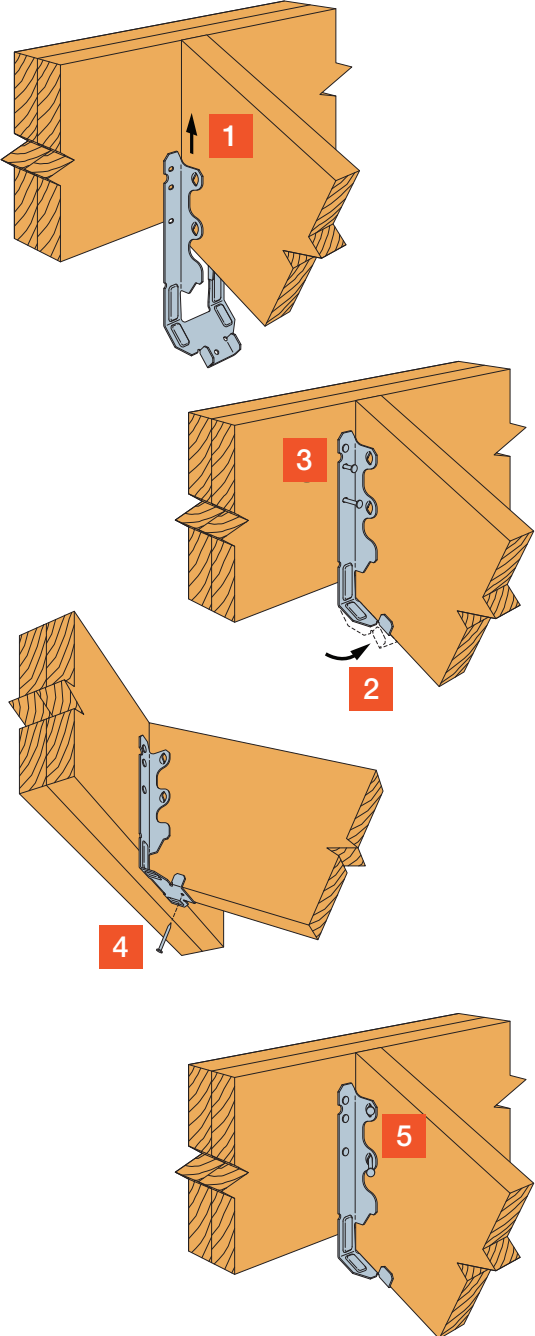


HUS

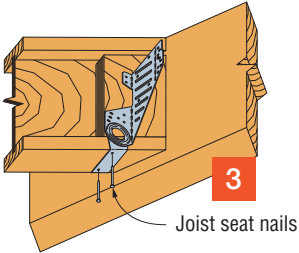
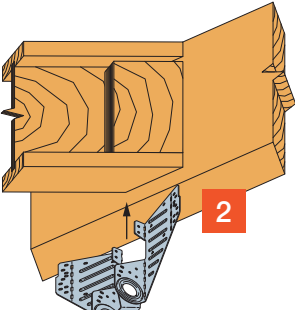
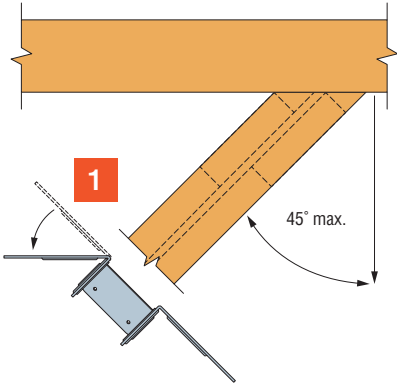


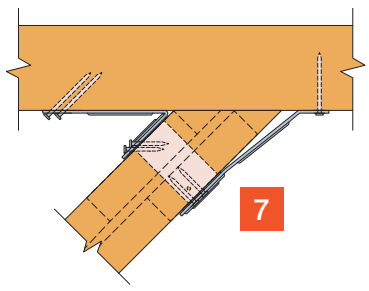
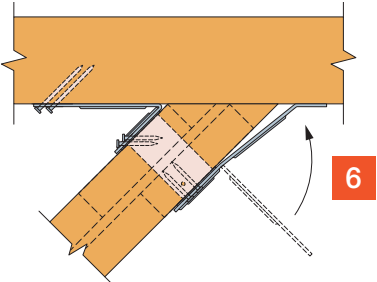
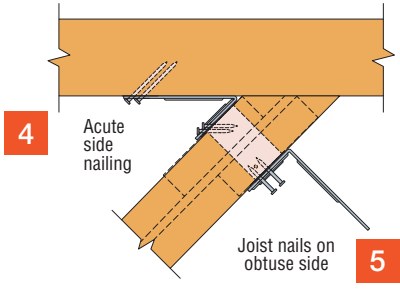
0.162" x 3 1/2"





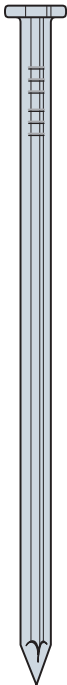
0.162" x 3 1/2"





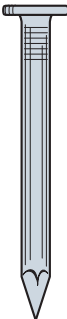
Model No.	Fasteners	
	Face (in.)	Joist (in.)
LSSR1.81Z	0.148 x 2½	0.148 x 1½
LSSR2.1Z		
LSSR2.37Z		
LSSR2.56Z	0.162 x 2½	0.162 x 2½
LSSR210-2Z		
LSSR410Z		

Header
Viga Cabezal

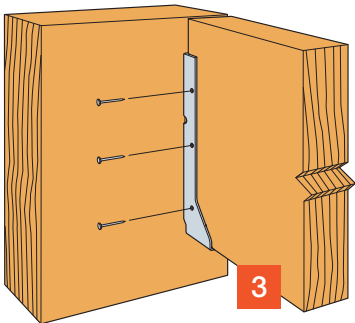
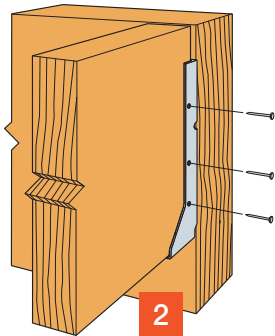
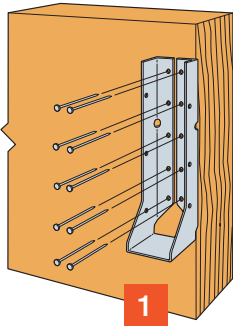


0.162" x 3 1/2"

Joist
Viga



0.148" x 1 1/2"

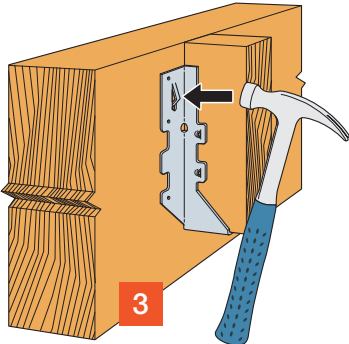
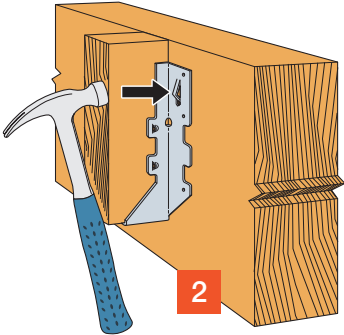
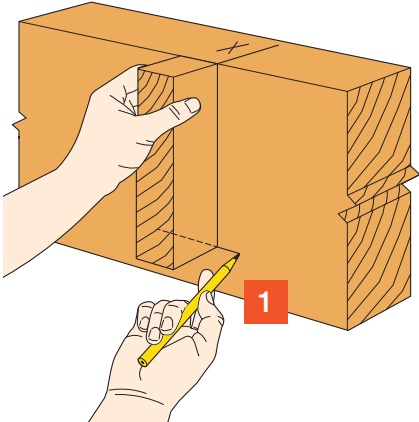


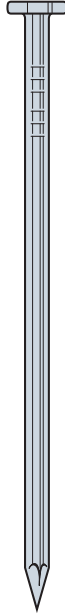
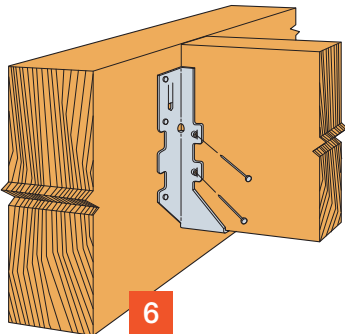
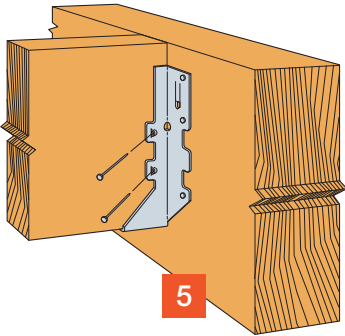
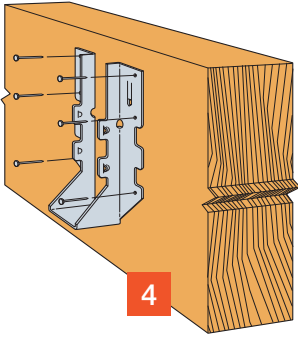
Upgrade your coiled strap.



Our new high-performance CSHP coiled strap is easy to install with a standard pneumatic framing nailer.

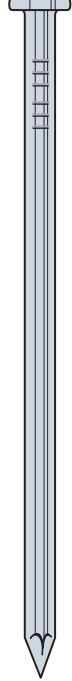
Visit go.strongtie.com/cshp
or call (800) 999-5099.





0.148" x 3"
for single 2x.

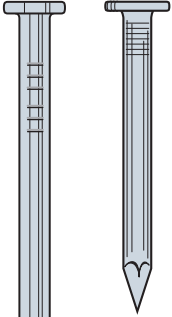
0.148" x 3"
para
un solo 2x.



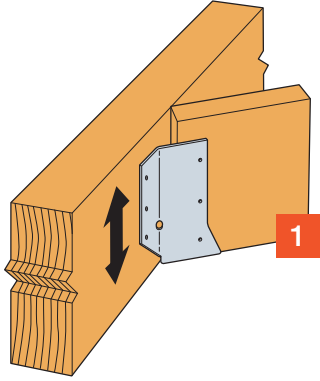
0.162" x 3½"
**for all
others.**

0.162" x 3½"
para
los demás.

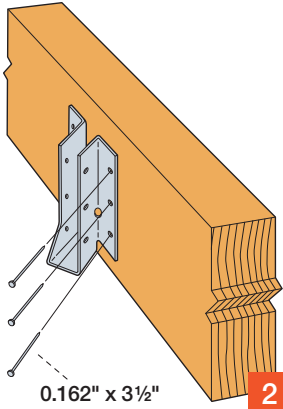
SUR/L



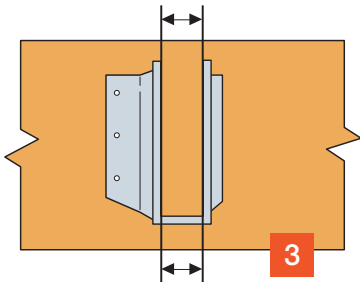
0.148" x 1½"

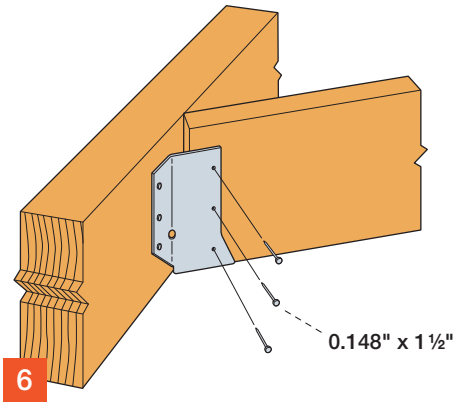
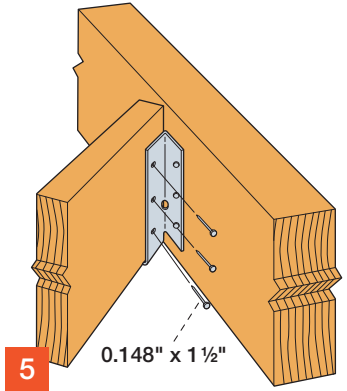
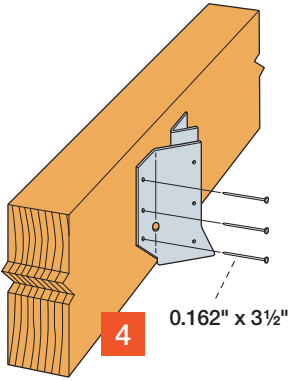


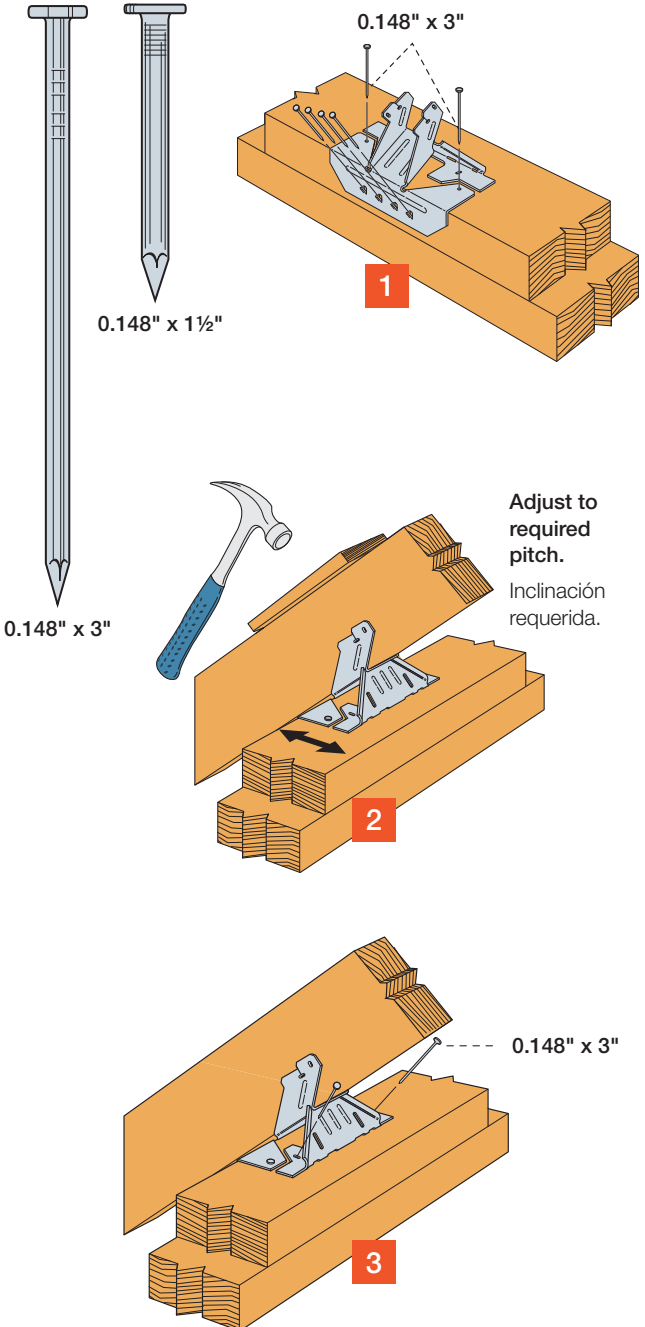
0.162" x 3½"

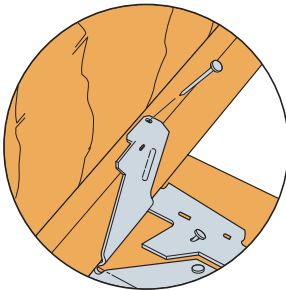
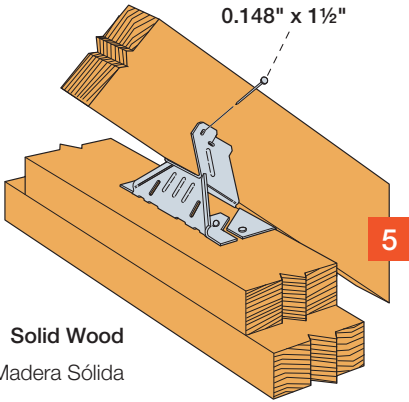
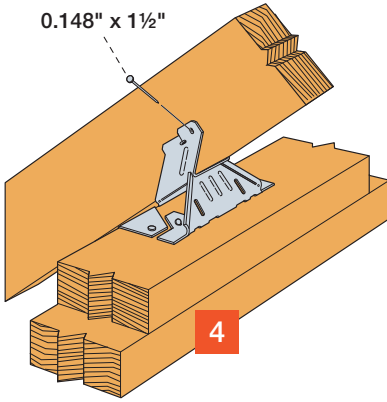


0.162" x 3½"







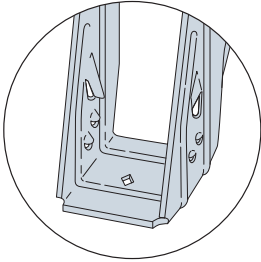


I-Joist
Vigueta

Engineered Wood and Structural Composite Lumber Connectors

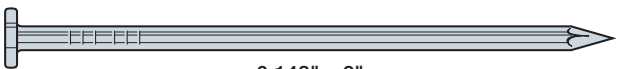
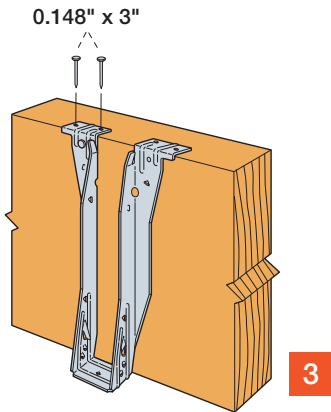
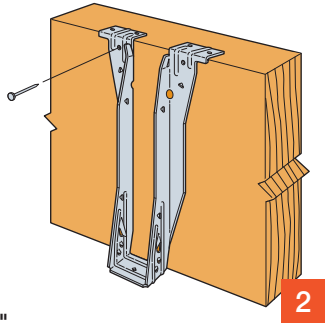
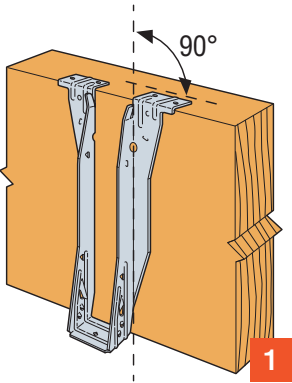


ITS

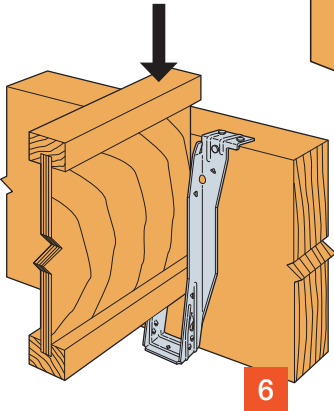
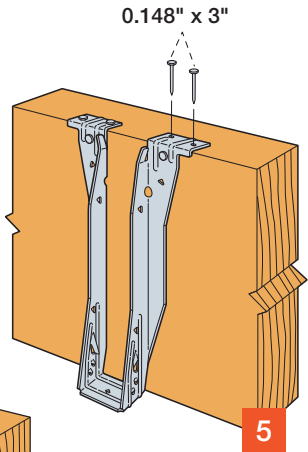
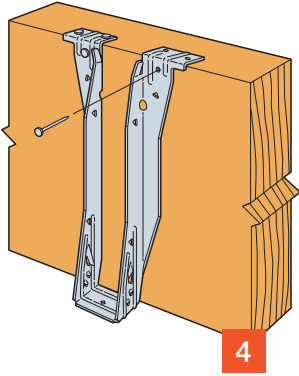


The Strong-Grip™ seat allows the I-joist to “snap” in securely — no joist nails needed.

El asiento Strong-Grip™ permite que la viga 'I' “encaje” con firmeza; no se necesitan clavos para vigas.

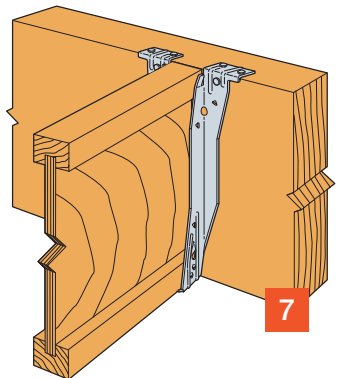


0.148" x 3"



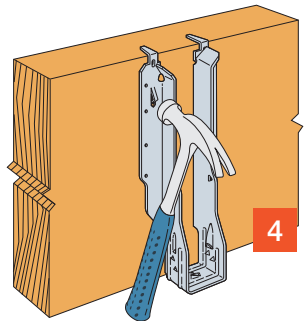
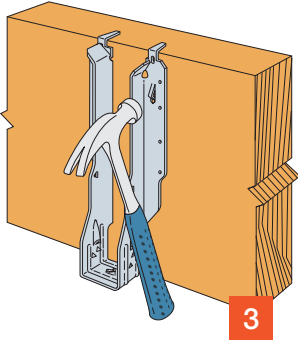
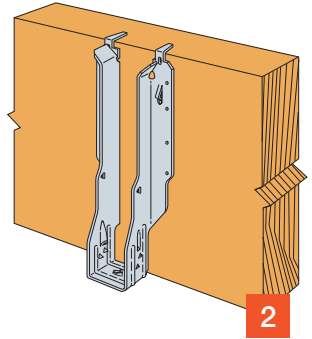
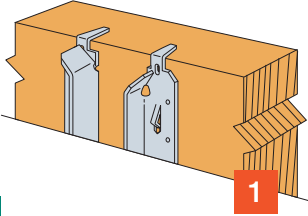
No nails required in joist.

No es necesario clavar
clavos en la viga.

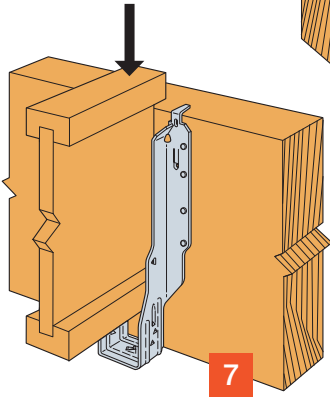
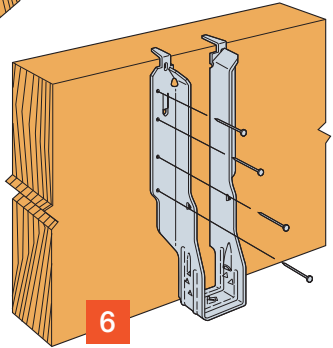
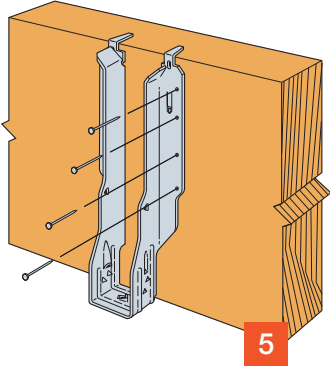


The Strong-Grip™ seat allows the I-joist to “snap” in securely — no joist nails needed.

El asiento Strong-Grip™ permite que la viga en ‘I’ “encaje” con firmeza; no se necesitan clavos para vigas.

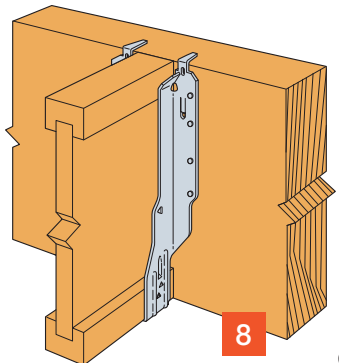


0.148" x 3"

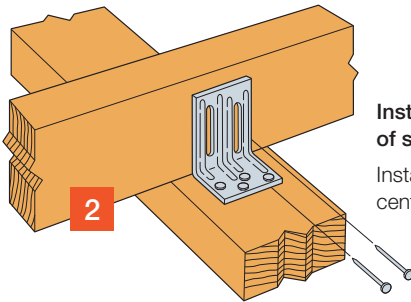
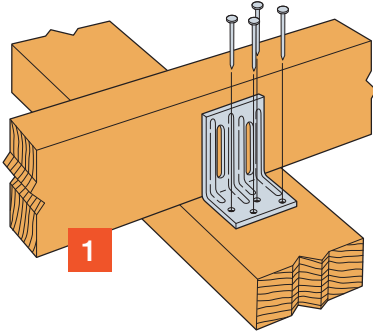


No nails required in joist.

No es necesario clavar
clavos en la viga.



DTC

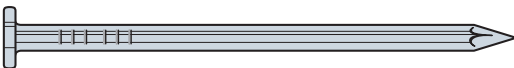


Install nail in center of slot.

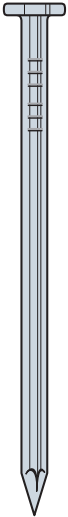
Instale el clavo en el centro de la ranura.

Truss nails not driven flush.

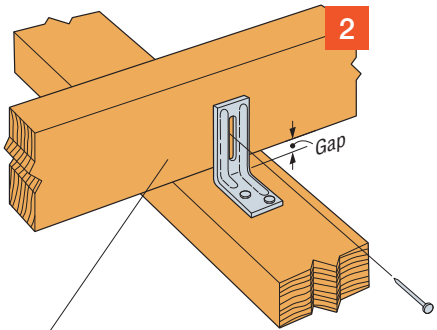
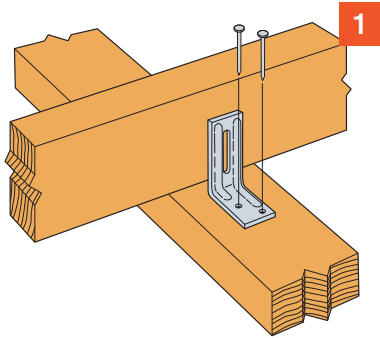
Los clavos de la cercha no deberían asentarse contra el conector.



0.131" x 2½"



0.131" x 1½"

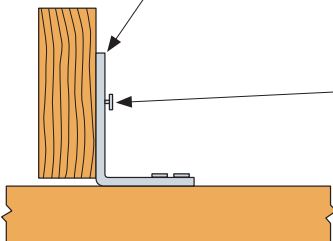


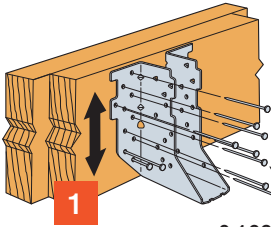
Install nail in center of slot.

Instale el clavo en el centro de la ranura.

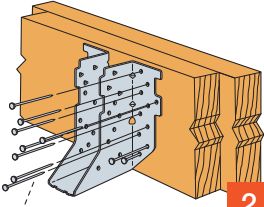
Truss nails not driven flush.

Los clavos de la cercha no deberían asentarse contra el conector.

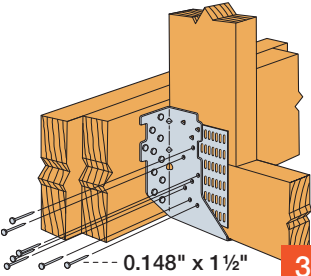




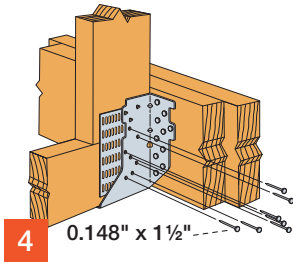
0.162" x 3 1/2"



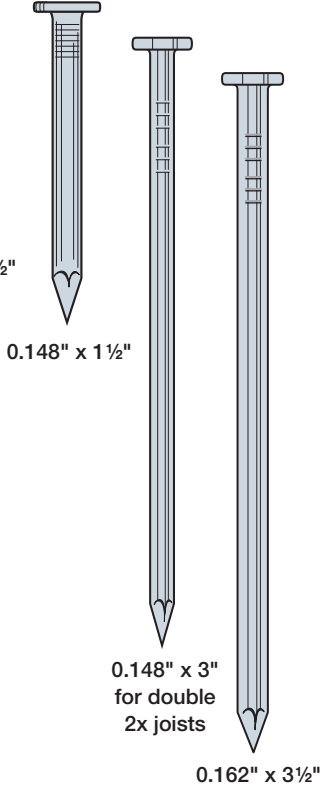
0.162" x 3 1/2"



0.148" x 1 1/2"



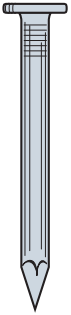
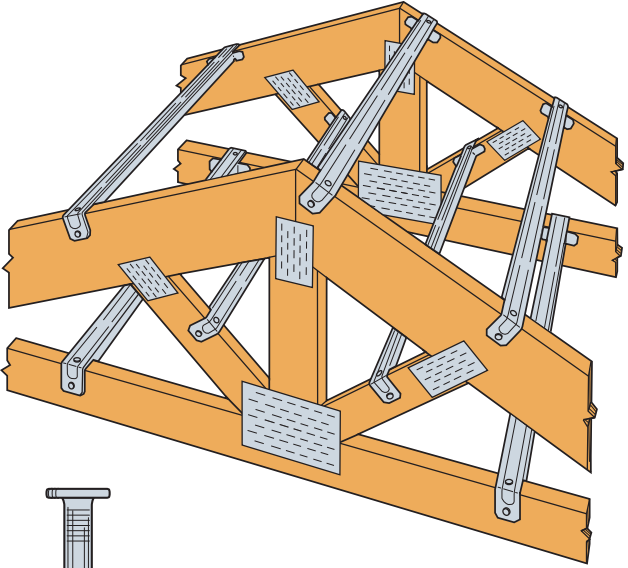
0.148" x 1 1/2"



For double truss, use
0.148" x 3" nails into trusses.

Para cerchas dobles, use clavos
10d x 3" insertados en las cerchas.

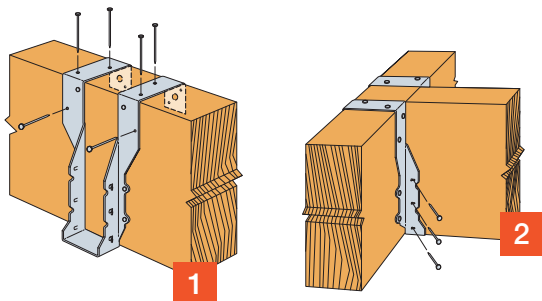
TSBR



0.148" x 1½"



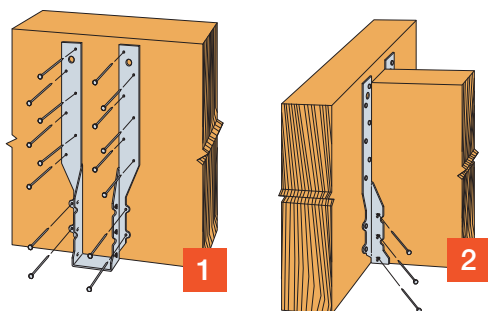
Top-Mount Condition / Condición de Montaje Superior



Install joist nails both sides.

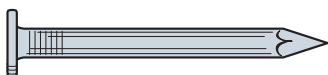
Instale clavos para vigas a ambos lados.

Face-Mount Condition / Condición de Montaje Sobre Cara

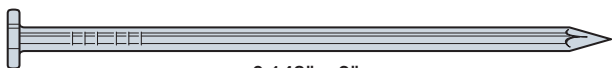


Install joist nails both sides.

Instale clavos para vigas a ambos lados.



0.148" x 1 1/2"



0.148" x 3"

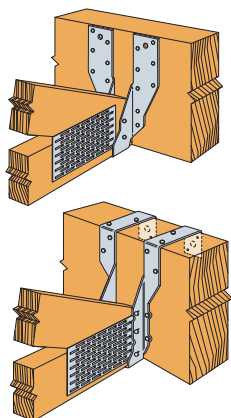


0.162" x 3 1/2"

Installation on Solid Header

Instalación Sobre Viga Cabezal Sólida

Model Modelo	Top and Face Encima and Cara	Joist Vigueta
THA29	(16) 0.148" x 3"	(4) 0.148" x 3"
THA213	(14) 0.148" x 3"	(4) 0.148" x 3"
THA413		
THA218	(18) 0.148" x 3"	(4) 0.148" x 3"
THA218-2	(22) 0.162" x 3 1/2"	(6) 0.162" x 3 1/2"
THA418		
THA422		
THA222-2		
THA422-2		
THA426	(30) 0.162" x 3 1/2"	(6) 0.162" x 3 1/2"

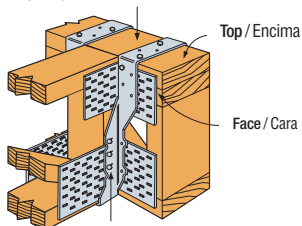


Installation on Truss

Instalación Sobre Cercha

Nail Location Ubicación de Los Clavos	Qty/Nail Cant./Clavo
Top/Encima	(4) 0.162" x 3 1/2"
Face/Cara	(4) 0.162" x 3 1/2"
Joist Vigueta	Fill all holes with 0.162" x 3 1/2" Llene todos los orificios con clavos 0.162" x 3 1/2"

Double 2x4 top chord min.
Viga superior doble de 2x4 como mínimo



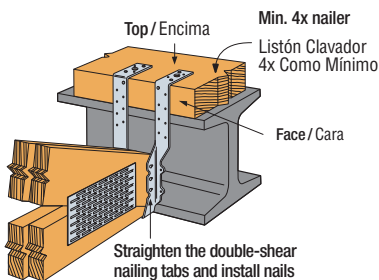
Straighten the double-shear nailing tabs and install nails straight.

Enderece las pestañas de clavado de doble penetración e instale los clavos rectos.

Installation on Nailer

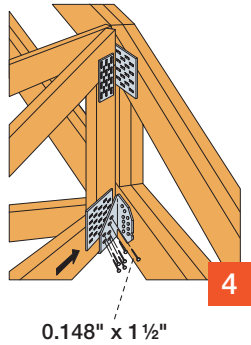
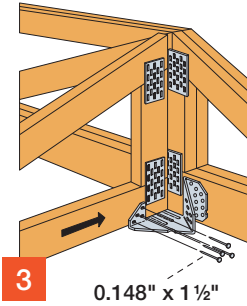
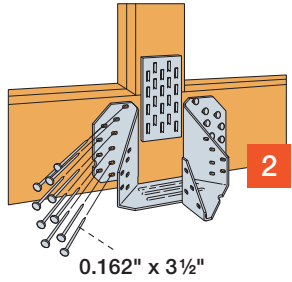
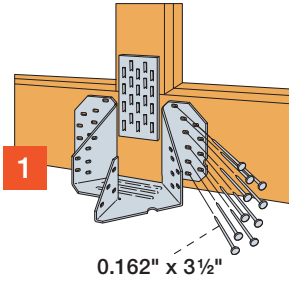
Instalación en Listón Clavador

Nail Location Ubicación de Los Clavos	4x Nailer / Listón Clavador 4x
Top/Encima	(4) 0.162" x 3 1/2"
Face/Cara	(4) 0.162" x 3 1/2"
Joist Vigueta	Fill all holes with 0.162" x 3 1/2" Llene todos los orificios con clavos 0.162" x 3 1/2"



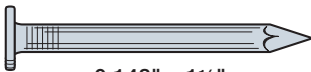
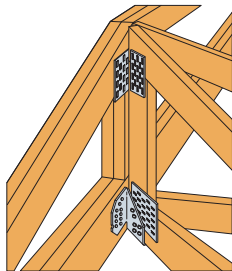
Straighten the double-shear nailing tabs and install nails straight into the joist.

Enderece las pestañas de clavado de doble penetración e instale los clavos rectos en la viga.

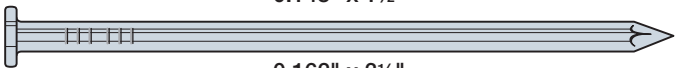


Left-hand hip
installation similar.

Similar a la instalación
'izquierda' de cumbre.

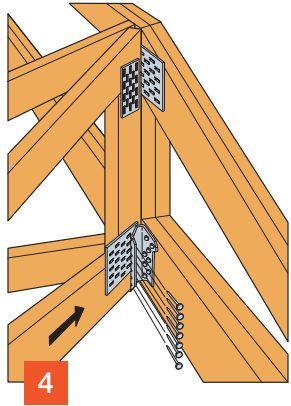
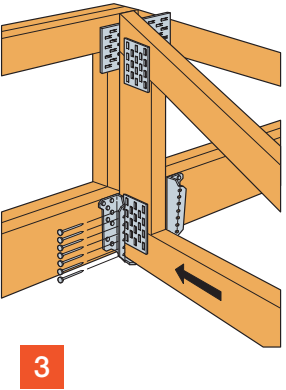
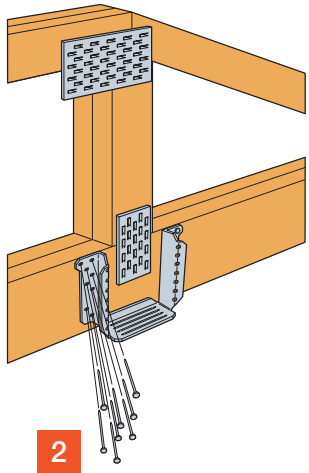
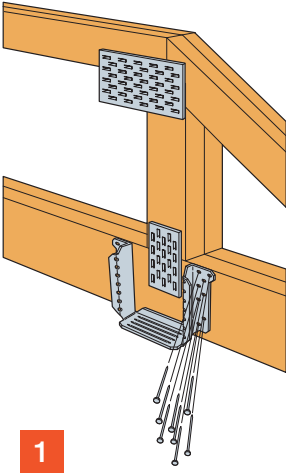


0.148" x 1½"



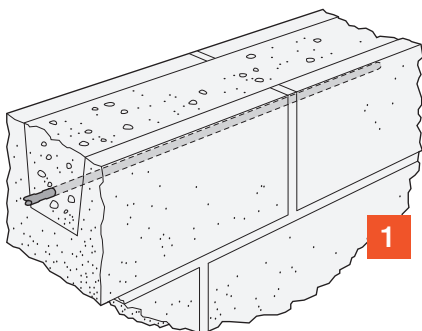
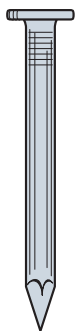
0.162" x 3½"

THJU



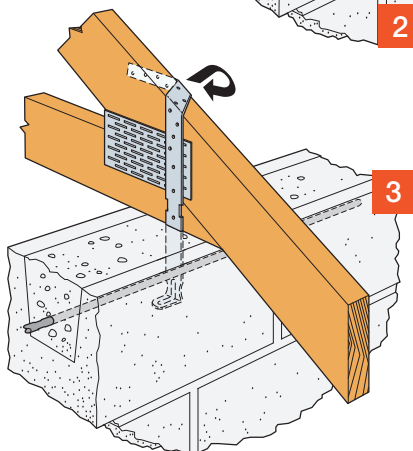
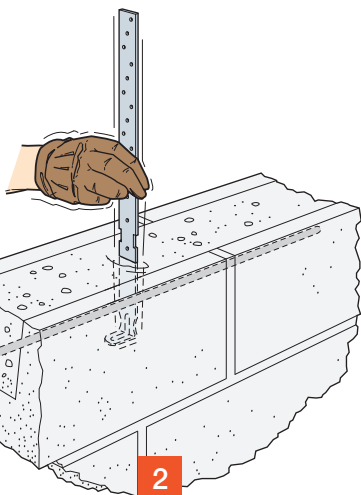
0.148" x 3"

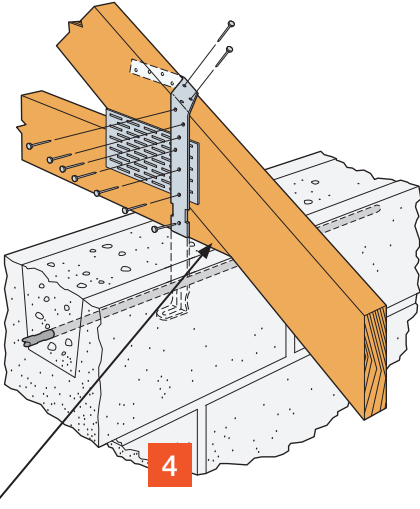
HETA/META



0.148" x 1½"
Quantity per
Designer.

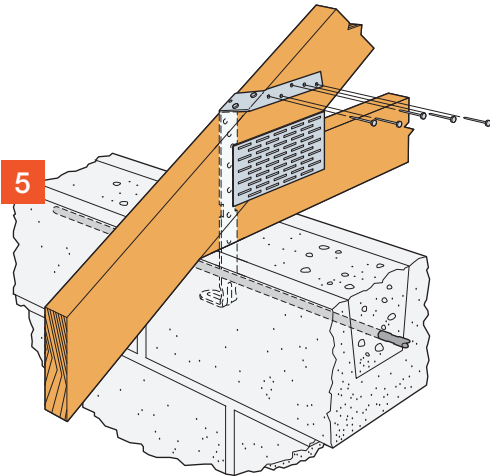
Cantidad
según
indicaciones
del diseñador.

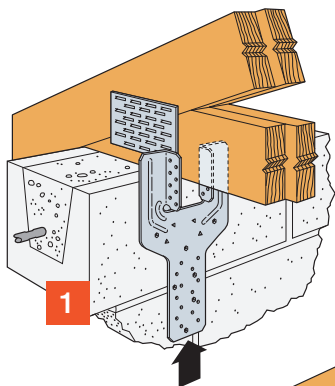




Moisture barrier not shown (typ.)

La barrera contra la humedad no se muestra (típ.)



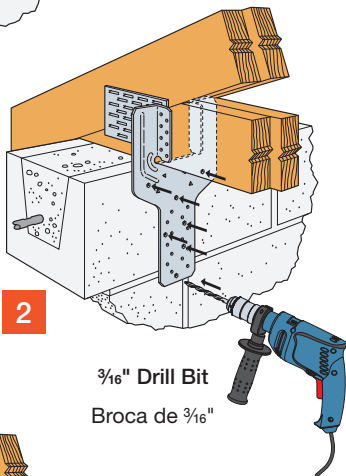


Fill  holes with
Titen® 2 masonry screws.

Llene los orificios
con tornillos para
mampostería Titen®.

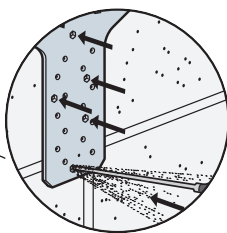
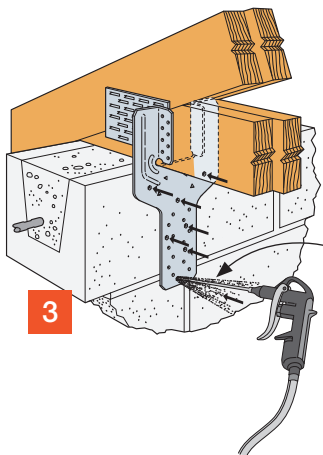
**LGT2 shown. LGT3
and LGT4 similar.**
For wood-to-wood
connections using
the LGT, visit
strongtie.com.

Se muestra LGT2.
Similar a LGT3 y LGT4.
Para conexiones de
madera a madera
usando el LGT, visite
strongtie.com.



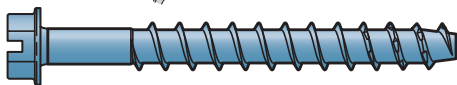
3/16" Drill Bit

Broca de 3/16"



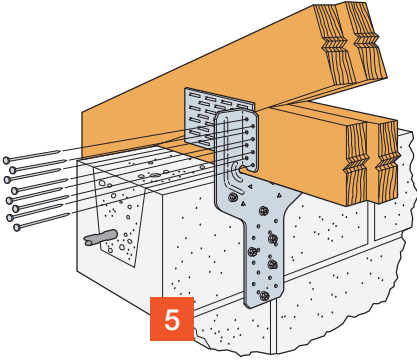
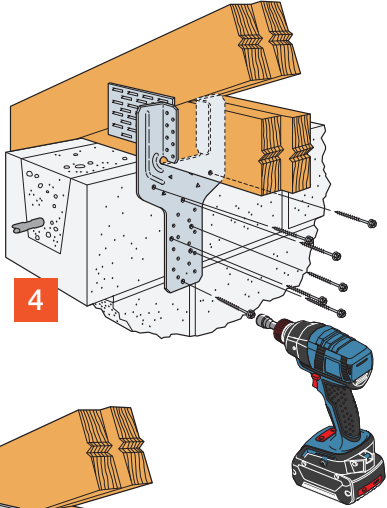
Compressed Air

Aire Comprimido



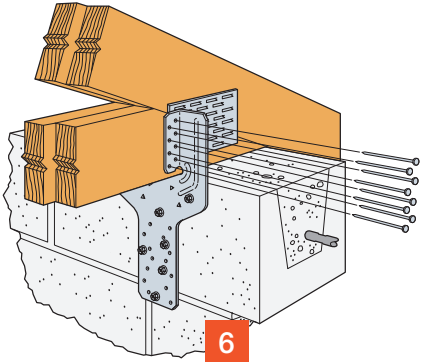
Titen 2 Masonry Screw / Tornillo para mampostería (1/4" x 2 1/4")
For installation in concrete, use Titen 2 1/4" x 1 3/4".

Para instalaciones en concreto, utilice Titen 2 de 1/4" x 1 3/4".

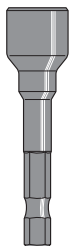
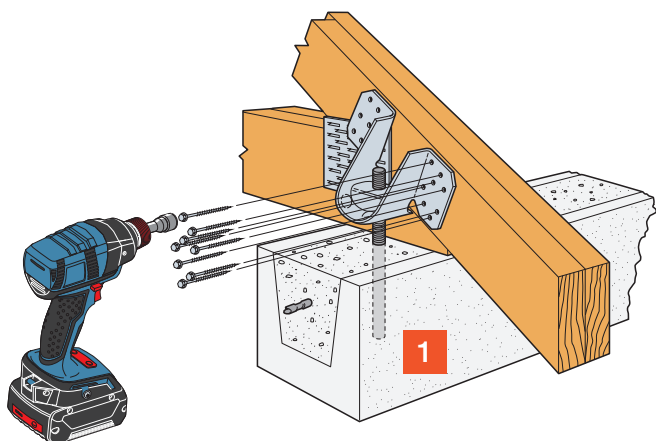


LGT2 shown. For
installation of
LGT3/LGT4, see
strongtie.com.

Se muestra LGT2.
Para la instalación
de LGT3/ LGT4,
consulte
strongtie.com.



0.148" x 3/4"

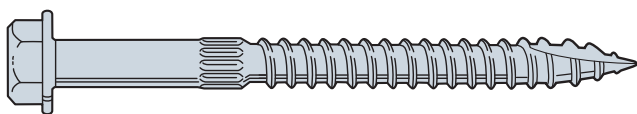


Use $\frac{3}{8}$ " driver.

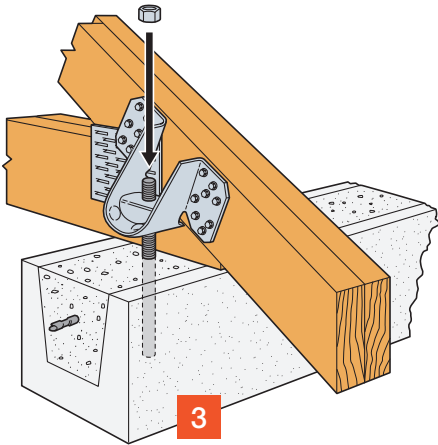
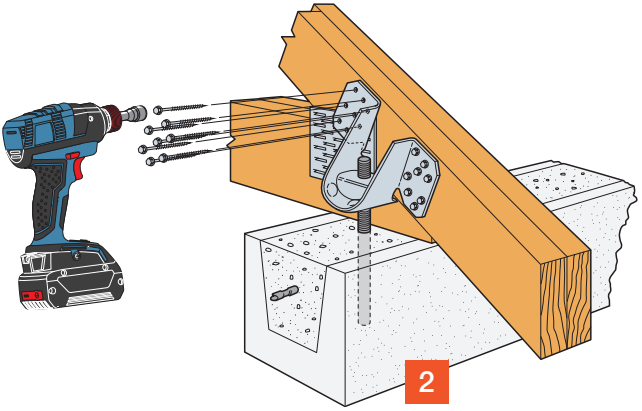
Use un
destornillador de
 $\frac{3}{8}$ ".

If using an adhesive anchor, see
pages 106–107 for instructions.

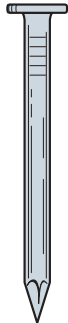
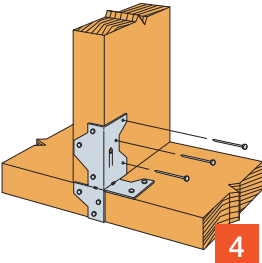
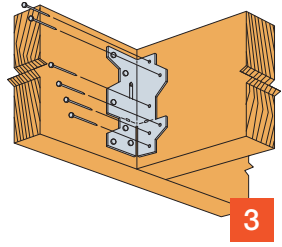
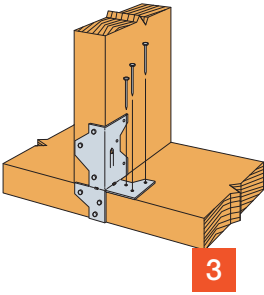
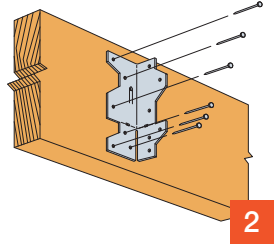
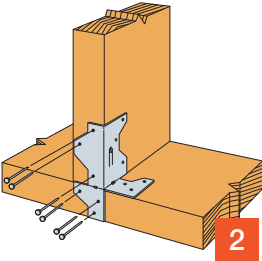
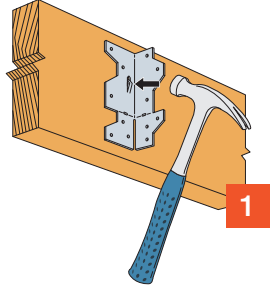
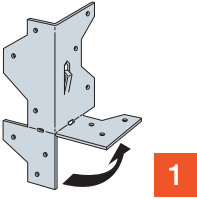
Si utiliza un anclaje adhesivo,
consulte las instrucciones de las
páginas 106–107.



$\frac{1}{4}$ " x 3" Strong-Drive® SDS HEAVY-DUTY CONNECTOR Screw

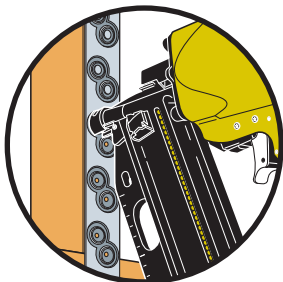
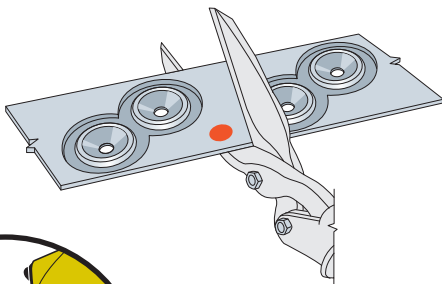


A35



0.131" x 1 1/2"

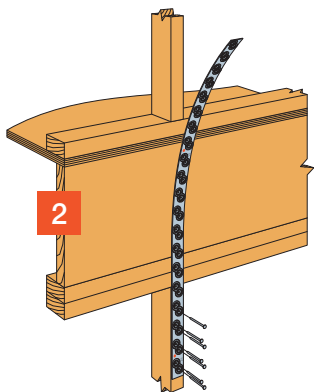
1



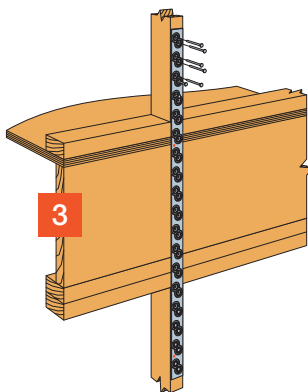
See strongtie.com/cshp for framing nailer use.

Consulte strongtie.com/cshp para el uso de clavadoras para entramados.

2

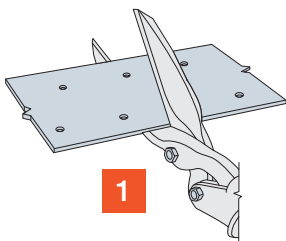
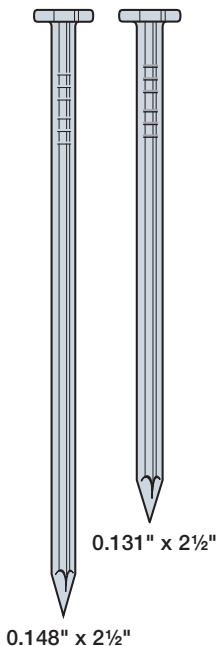


3



Model / Modelo	Lumber Species / Especies de Madera					
	Douglas Fir-Larch / Southern Pine			Spruce-Pine-Fir / Hem-Fir		
	End Length / Largo del Extremo	Cut Length / Largo a Cortar	Total Fasteners / Total de Clavos	End Length / Largo del Extremo	Cut Length / Largo a Cortar	Total Fasteners / Total de Clavos
CSHP18	10"	Clear Span (Luz) + 20"	(16) 0.131" x 2½"	11"	Clear Span (Luz) + 22"	(18) 0.131" x 2½"
	9"	Clear Span (Luz) + 18"	(14) 0.148" x 2½"	10"	Clear Span (Luz) + 20"	(16) 0.148" x 2½"
CSHP20	8"	Clear Span (Luz) + 16"	(12) 0.131" x 2½"	9"	Clear Span (Luz) + 18"	(14) 0.131" x 2½"
	8"	Clear Span (Luz) + 16"	(12) 0.148" x 2½"	8"	Clear Span (Luz) + 16"	(12) 0.148" x 2½"

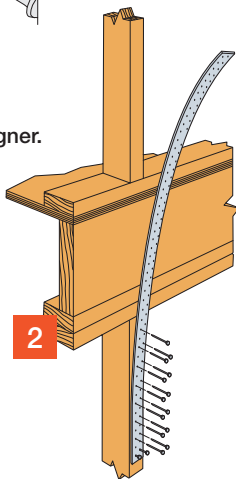
CS/CMST14



CS14
Shown
Mostrado

Quantity per Designer.

Cantidad según indicaciones del diseñador.



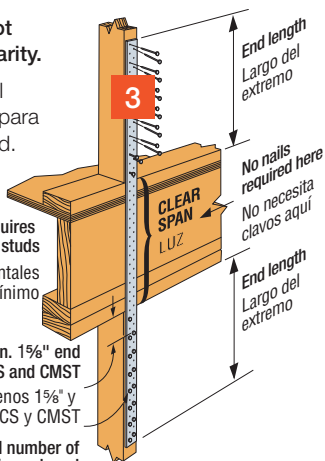
Sheathing not shown for clarity.

No muestra el revestimiento para mayor claridad.

CMST requires minimum (2) 2x studs
CMST requiere puntales de (2) 2x como mínimo

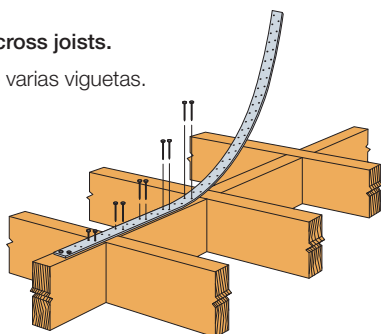
Provide min. 1 5/8" end distance for CS and CMST
Dejar al menos 1 5/8" y distancia para CS y CMST

Equal number of specified nails in each end
Igual cantidad de clavos especificados en cada extremo



Across joists.

Sobre varias viguetas.



Sheathing not shown for clarity.

No muestra el revestimiento para mayor claridad.

Model / Modelo	Lumber Species / Especies de Madera					
	Douglas Fir-Larch / Southern Pine			Spruce-Pine-Fir / Hem-Fir		
	End Length / Largo del Extremo	Cut Length / Largo a Cortar	Total Fasteners / Total de Clavos	End Length / Largo del Extremo	Cut Length / Largo a Cortar	Total Fasteners / Total de Clavos
CS14 CS14-R	16"	Clear Span (Luz) + 32"	(30) 0.131" x 2½"	19"	Clear Span (Luz) + 38"	(36) 0.131" x 2½"
	15"	Clear Span (Luz) + 30"	(26) 0.148" x 2½"	16"	Clear Span (Luz) + 32"	(30) 0.148" x 2½"
CS16 CS16-R	13"	Clear Span (Luz) + 26"	(22) 0.131" x 2½"	15"	Clear Span (Luz) + 30"	(26) 0.131" x 2½"
	11"	Clear Span (Luz) + 22"	(20) 0.148" x 2½"	13"	Clear Span (Luz) + 26"	(22) 0.148" x 2½"
CS20 CS20-R	9"	Clear Span (Luz) + 18"	(14) 0.131" x 2½"	9"	Clear Span (Luz) + 18"	(16) 0.131" x 2½"
	7"	Clear Span (Luz) + 14"	(12) 0.148" x 2½"	9"	Clear Span (Luz) + 18"	(14) 0.148" x 2½"
CMST12	39"	Clear Span (Luz) + 79"	(86) 0.148" x 2½"	44"	Clear Span (Luz) + 89"	(98) 0.148" x 2½"
	33"	Clear Span (Luz) + 68"	(74) 0.162" x 2½"	38"	Clear Span (Luz) + 77"	(84) 0.162" x 2½"
CMST14	30"	Clear Span (Luz) + 61"	(66) 0.148" x 2½"	34"	Clear Span (Luz) + 70"	(76) 0.148" x 2½"
	26"	Clear Span (Luz) + 52"	(56) 0.162" x 2½"	30"	Clear Span (Luz) + 61"	(66) 0.162" x 2½"
CMSTC16	20"	Clear Span (Luz) + 41"	(50) 0.148" x 3¼"	25"	Clear Span (Luz) + 50"	(58) 0.148" x 3¼"

Note: Install half of the total fasteners in each end of strap.
Clear Span = Luz

Nota: Instale la mitad de la cantidad total de sujetadores en cada extremo del fleje.

H1 – Rafter/Cabrio

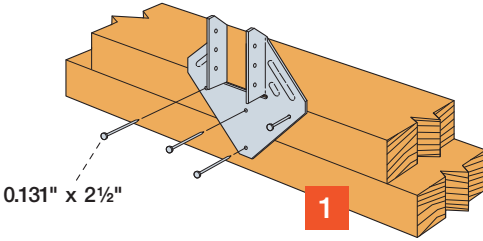
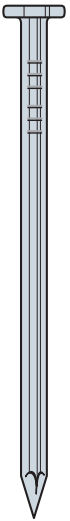
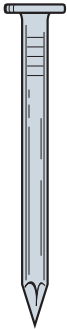


Plate
Placas

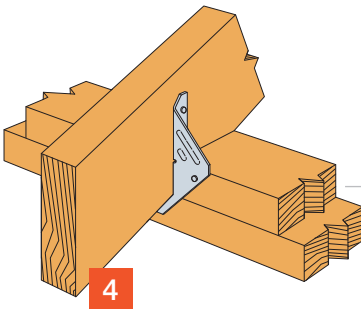
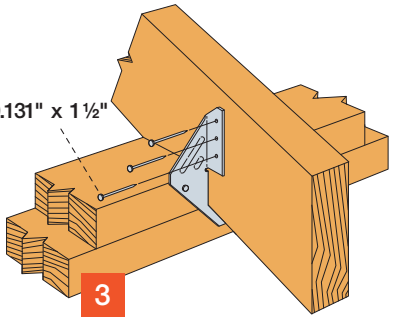
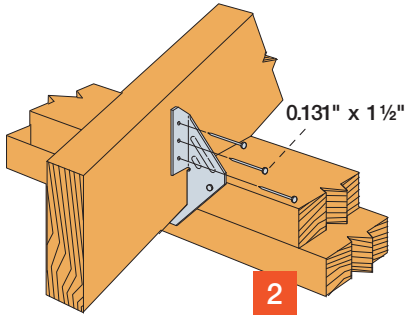
Rafter
Cabrio



0.131" x 2 1/2"



0.131" x 1 1/2"



H1 Reversed

H1 Invertido

H1 – Truss/Viga

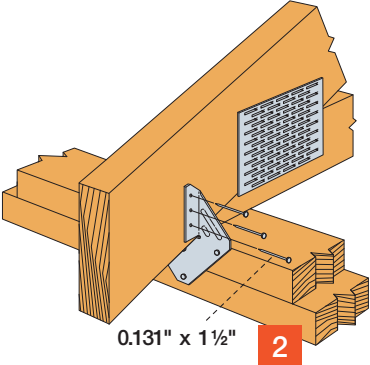
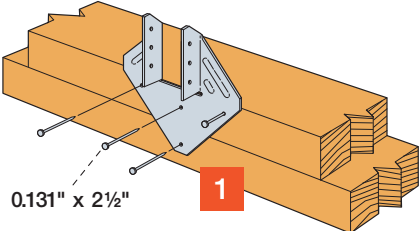
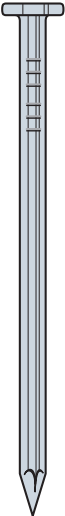


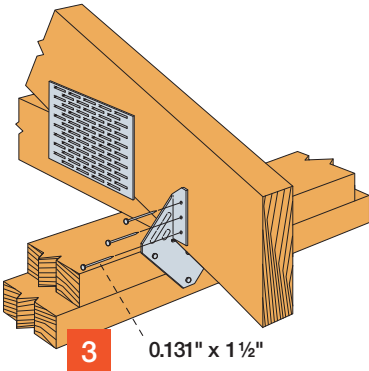
Plate
Placas



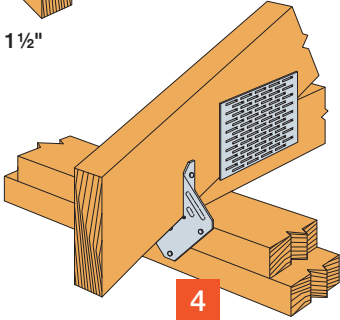
Truss
Viga

0.131"x1½"

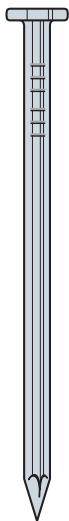
0.131" x 2½"



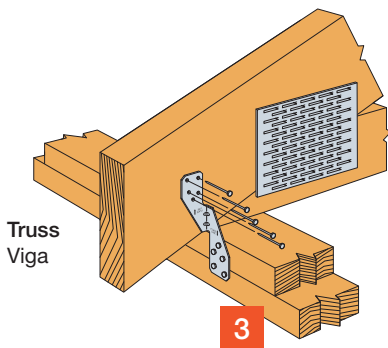
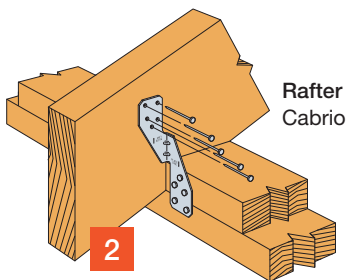
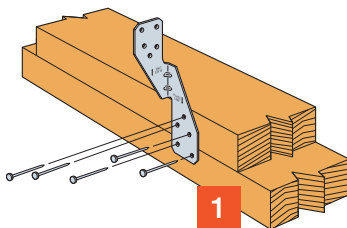
H1 Reversed
H1 Invertido



H2.5A



0.131" x 2½"

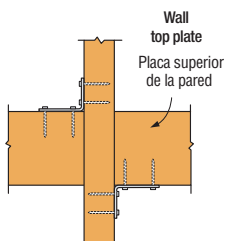


Installations in Pairs

Both connectors shall be same model.

Instalaciones en Pares

Ambos conectores deben ser del mismo modelo.

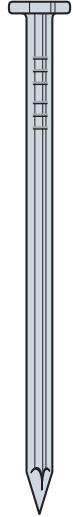
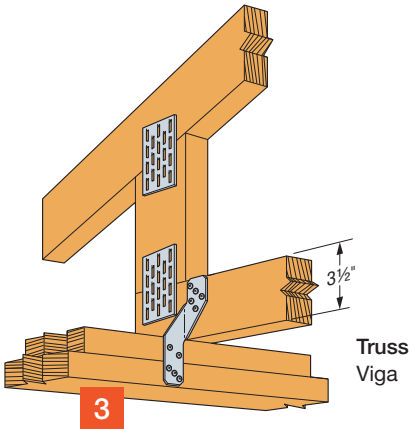
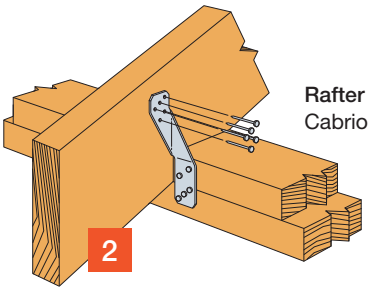
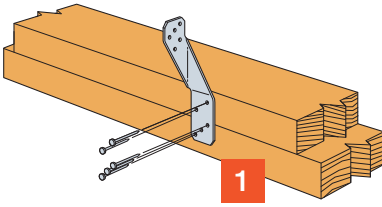


Plan View
Vista de Planta

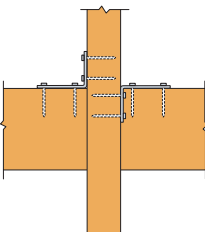
Install diagonally across from each other for minimum 2x truss.

Instale diagonalmente uno respecto del otro para dejar una cercha de 2x como mínimo.

H2.5T



0.131" x 2 1/2"

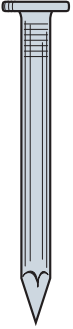


Plan View
Vista de Planta

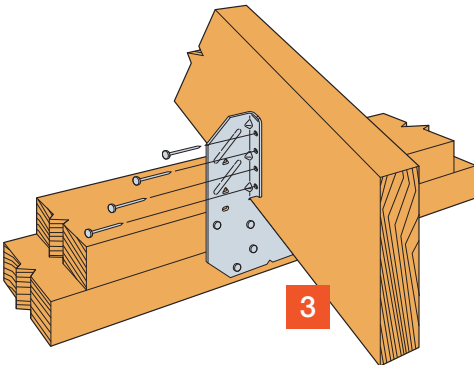
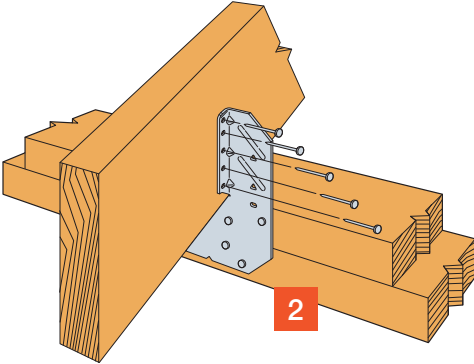
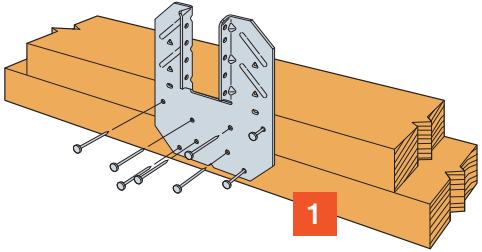
Products can be on the same side of the wall provided they are configured as shown.

Los productos se pueden instala a ambos lados de la pared siempre que se configuren como se muestra.

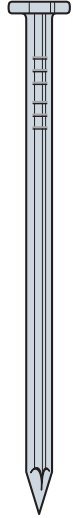
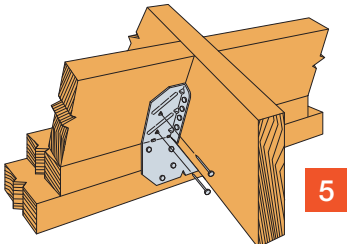
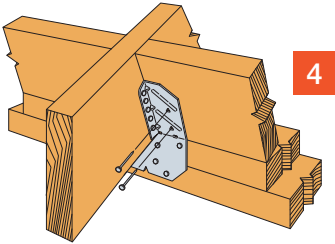
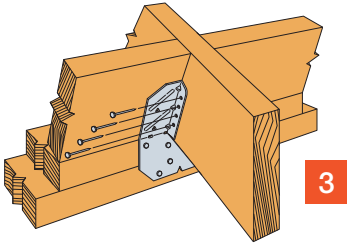
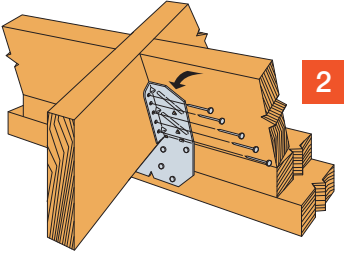
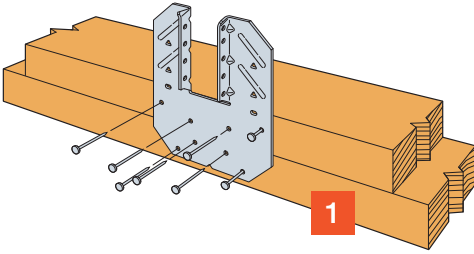
H10A – Rafter/Cabrio



0.148" x 1 1/2"

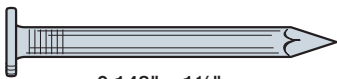
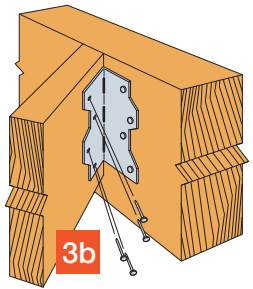
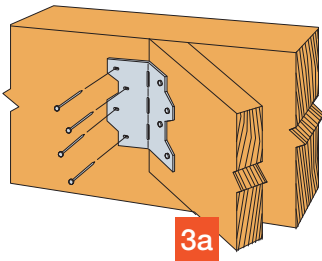
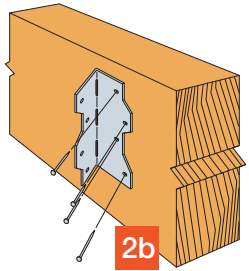
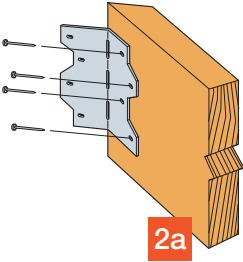
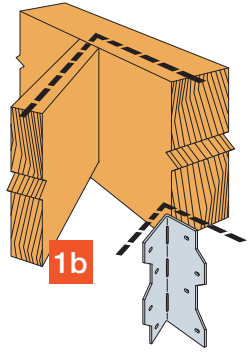
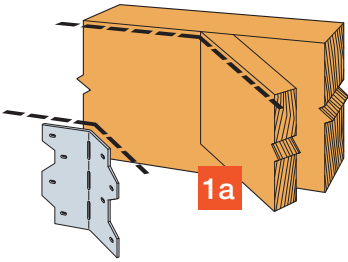


H10A – Blocking/Entramado

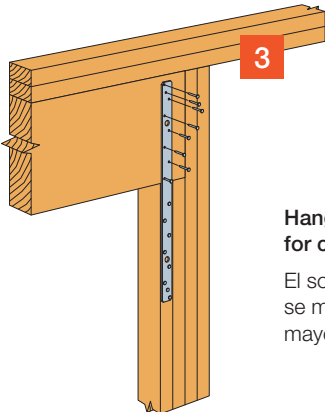
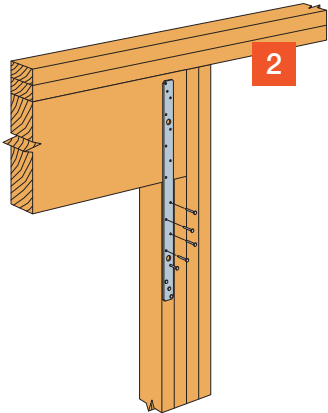
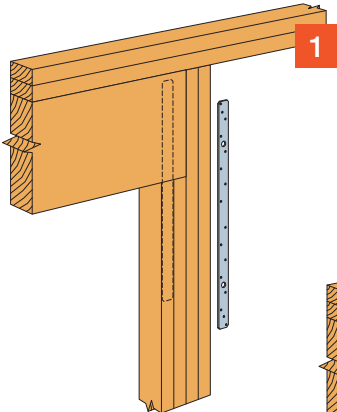


0.131" x 2½"



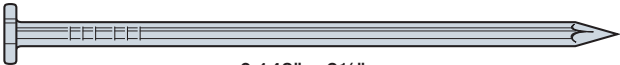


0.148" x 1 1/2"



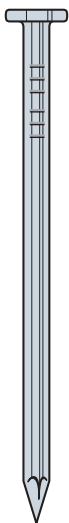
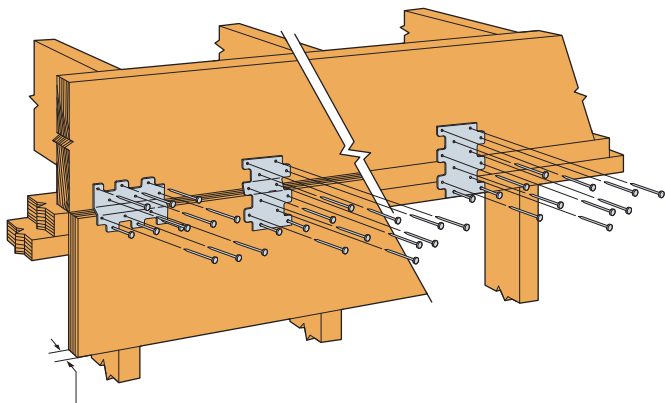
Hanger not shown for clarity.

El soporte colgante no se muestra para ofrecer mayor claridad.

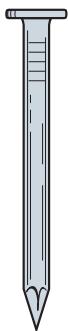


0.148" x 2½"

LTP4/LTP5



0.131" x 2½"



0.131" x 1½"

Fasteners:

LTP4

No sheathing: 0.131" x 1½"

Over sheathing (⅜" thick max.): 0.131" x 2½"

LTP5

No sheathing: 0.131" x 1½"

Over sheathing (½" thick max.): 0.131" x 2½"

Sujetadores:

LTP4

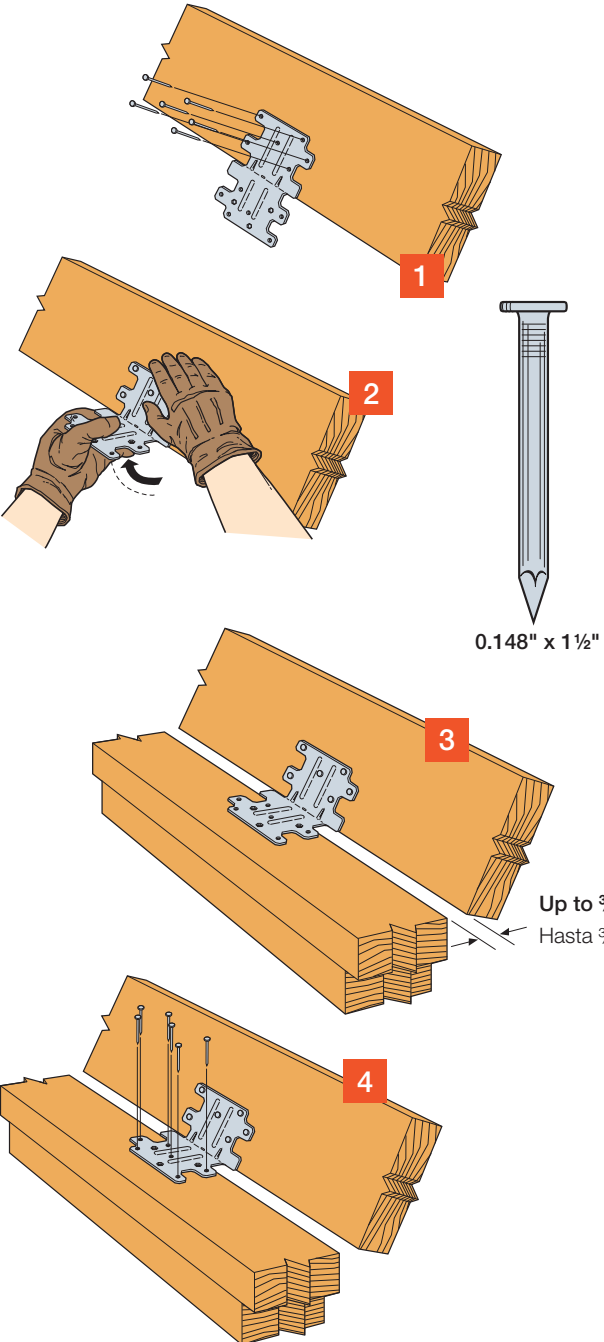
Sin relleno: 0.131" x 1½"

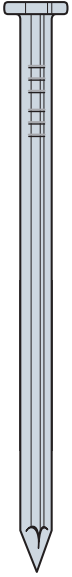
Sobre relleno (⅜" de espesor máx.): 0.131" x 2½"

LTP5

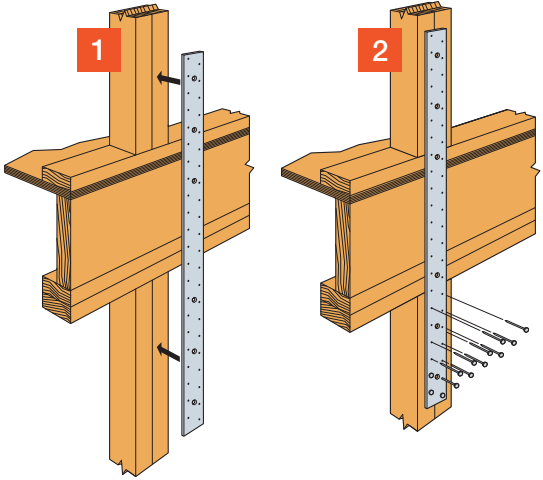
Sin relleno: 0.131" x 1½"

Sobre relleno (½" de espesor máx.): 0.131" x 2½"

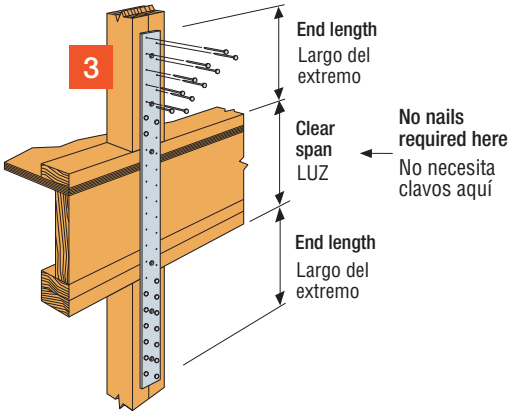


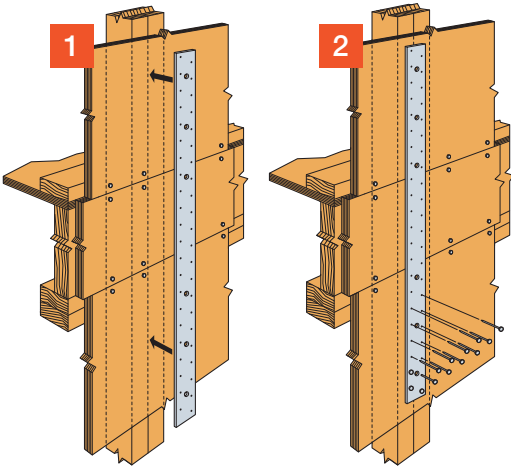


0.162" x 2½"

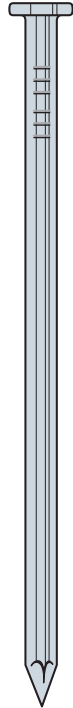


No Sheathing / Sin Relleno

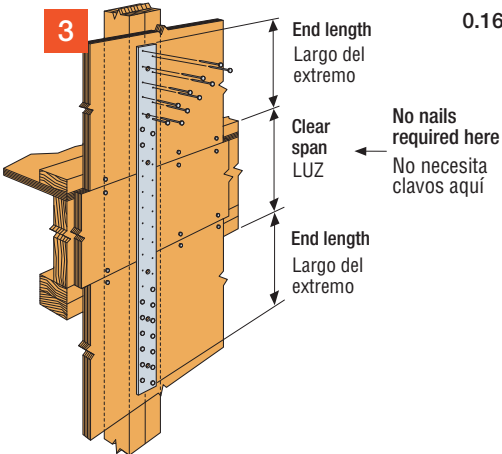


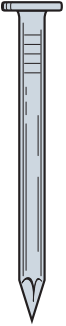


With Sheathing / Con Relleno

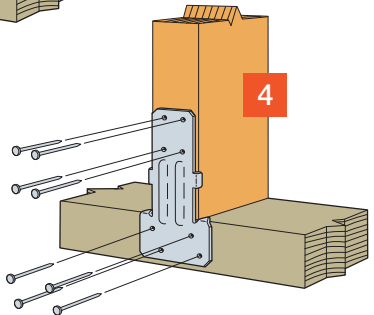
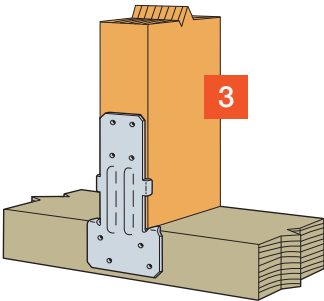
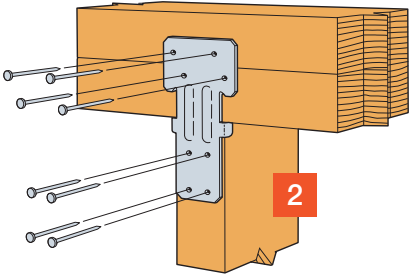
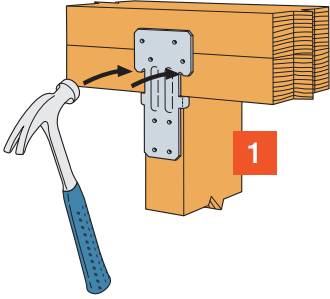


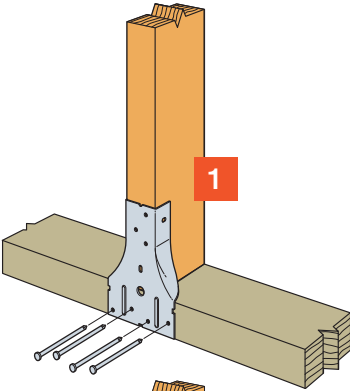
0.162" x 3 1/2"



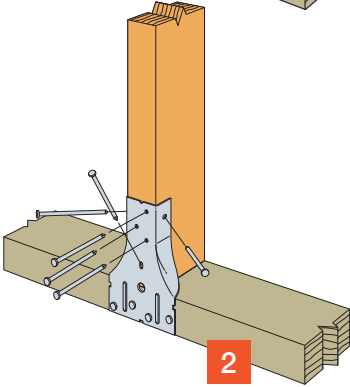


0.131" x 1½"

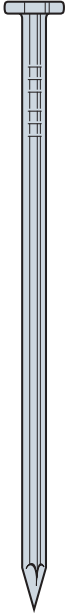




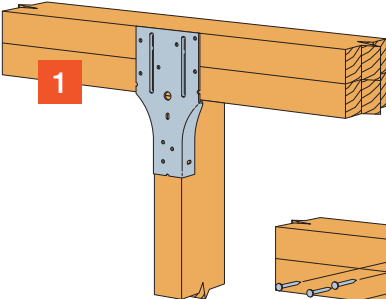
1



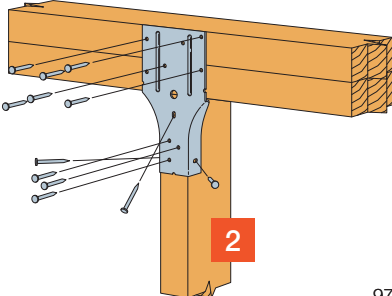
2



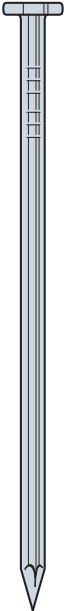
0.148" x 3"



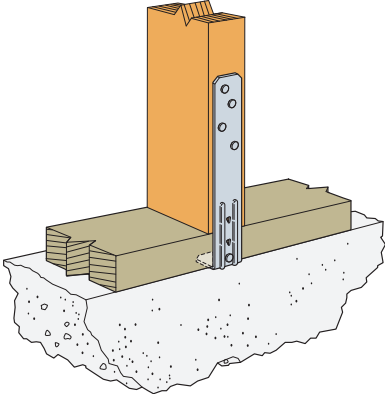
1



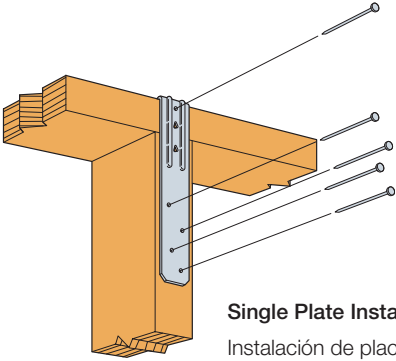
2



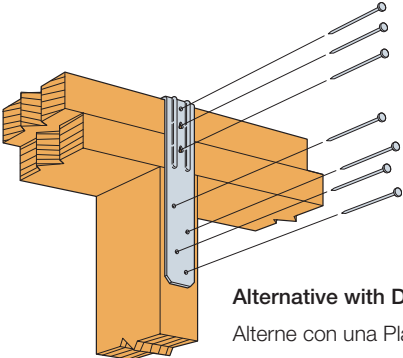
0.148" x 3"



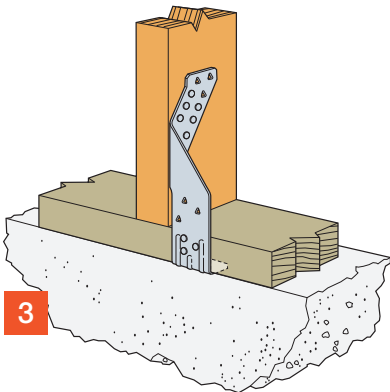
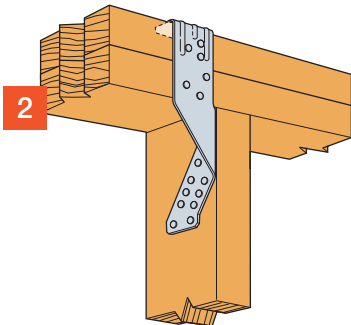
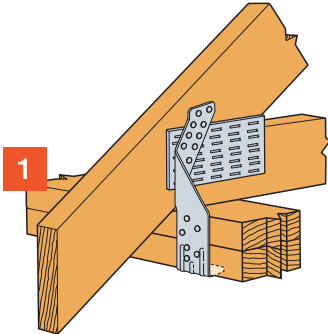
Installation on Mudsill
Instalación sobre Durmientes



Single Plate Installation
Instalación de placa sencilla

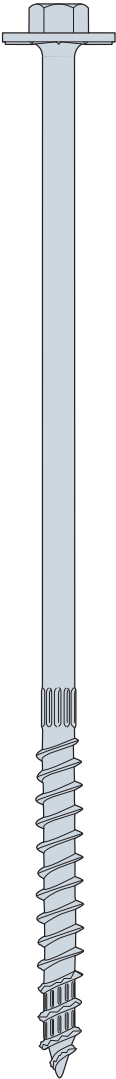


Alternative with Double Top Plate
Alternativa con una Placa Superior Doble

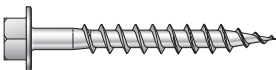
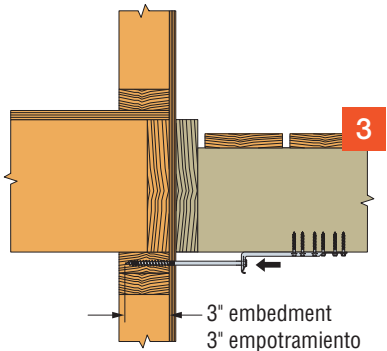
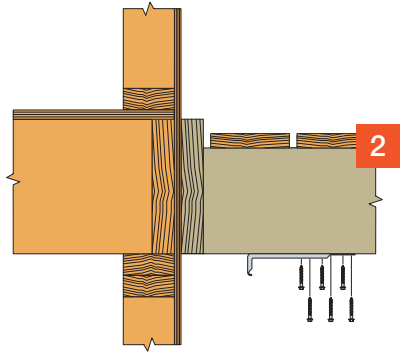
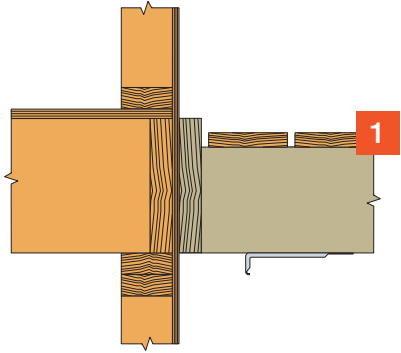


0.148" x 3"

DTT1Z

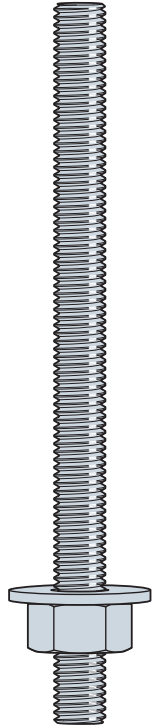
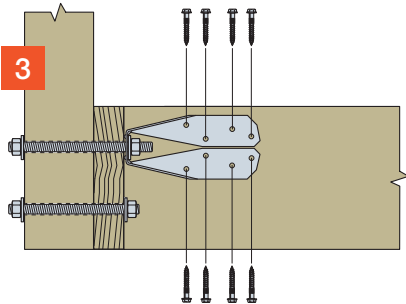
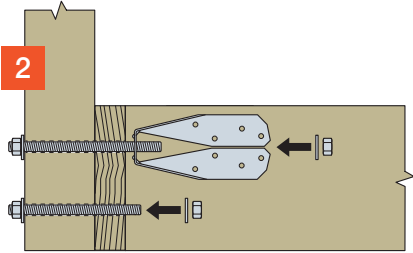
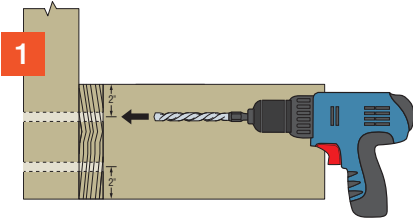


Strong-Drive®
SDWH TIMBER-HEX
HDG Screw

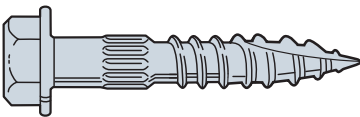


#9 x 1 1/2"
Strong-Drive
SD CONNECTOR Screw

DTT2Z



Threaded Rod

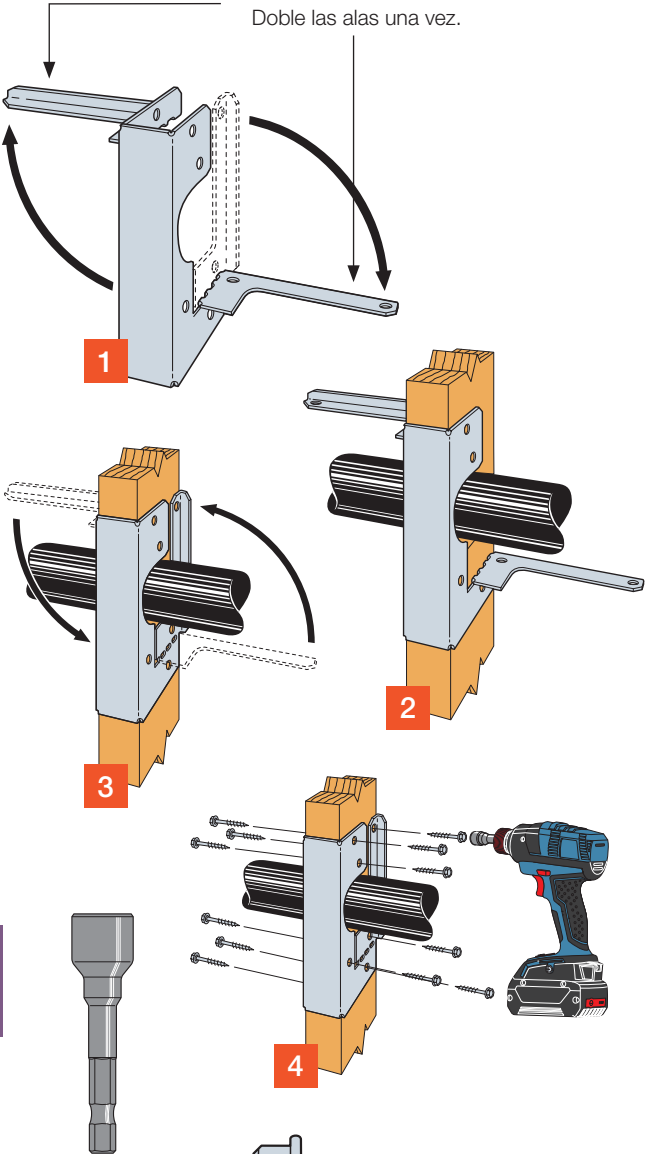


1/4" x 1 1/2" Strong-Drive®
SDS HEAVY-DUTY CONNECTOR Screw

HSS

Bend flanges one time only.

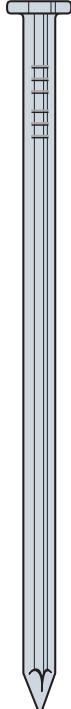
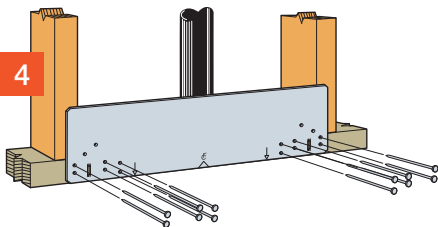
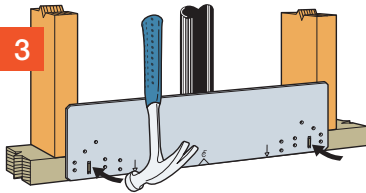
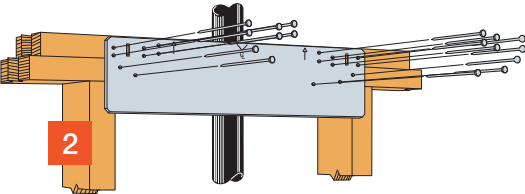
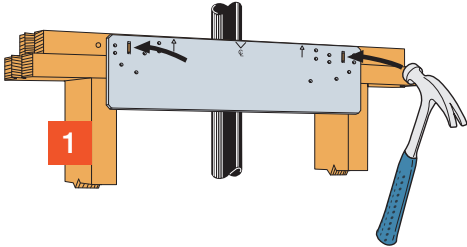
Doble las alas una vez.



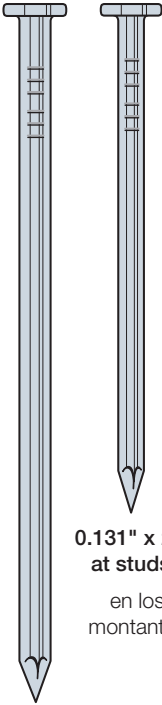
Use $\frac{3}{8}$ " driver.

Use un
destornillador
de $\frac{3}{8}$ ".

$\frac{1}{4}$ " x $1\frac{1}{2}$ " Strong-Drive®
SDS HEAVY-DUTY CONNECTOR Screw

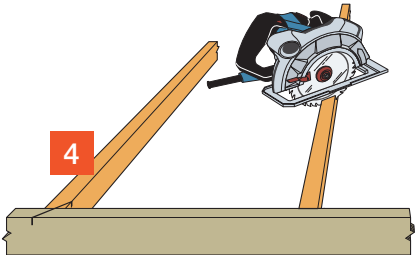
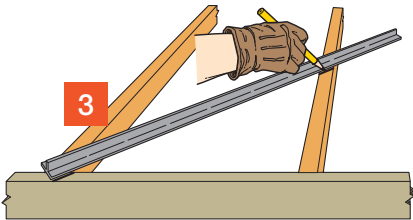
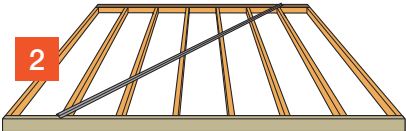
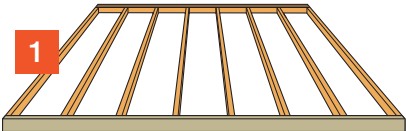


0.162" x 3 1/2"

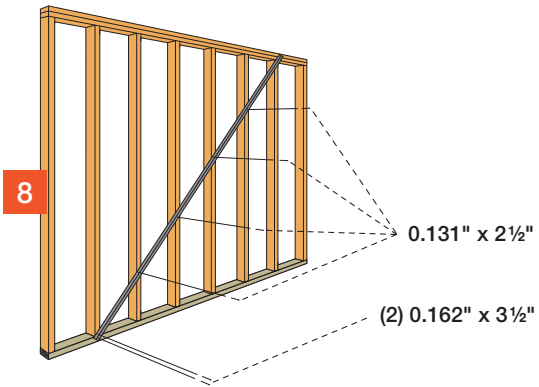
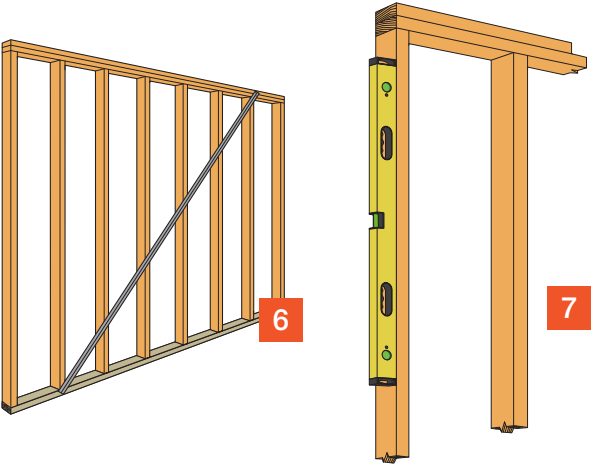
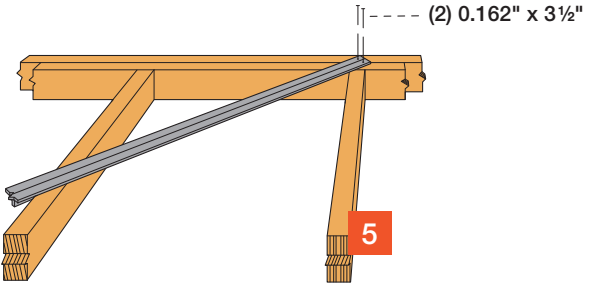


0.131" x 2½"
at studs /
en los montantes

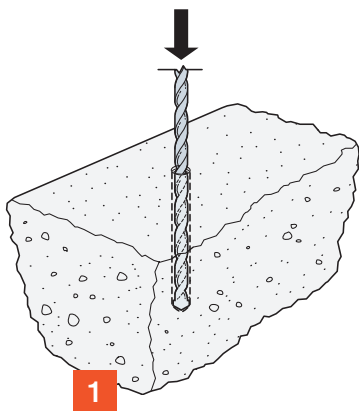
0.162" x 3½"
at plates /
en las soleras



Cut ⅝" kerf.
Corte un corte
de ⅝".

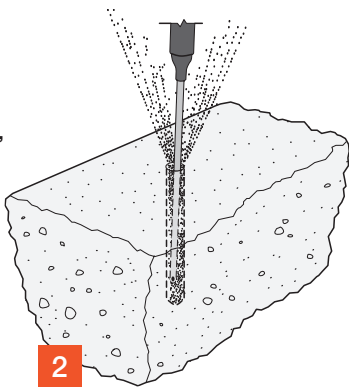


Adhesive Anchoring / Anclaje Adhesivo (AT-XP®, SET-3G®, and SET-XP®)



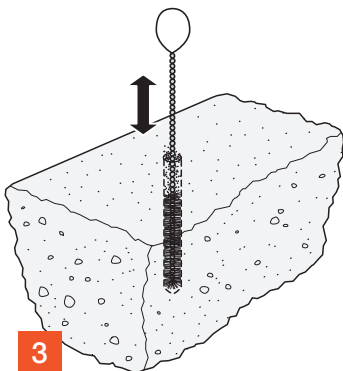
Compressed air (80 psi min.),
4 seconds (min.) — AT-XP,
SET-XP
2 seconds (min.) — SET-3G

Aire comprimido (80 psi mín.),
4 segundos (mín.) — AT-XP,
SET-XP
2 segundos (mín.) — SET-3G



Nylon brush
4 cycles (min.) — AT-XP,
SET-XP
Wire brush
2 seconds (min.) — SET-3G

Cepillo de nylon
4 ciclos (mín.) — AT-XP,
SET-XP
Cepillo de alambre
2 segundos (mín.) — SET-3G

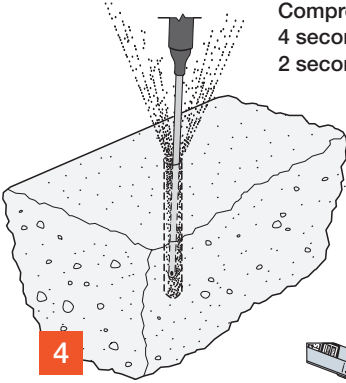


Adhesive Anchoring

Anclaje Adhesivo

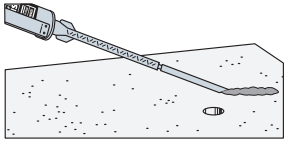
SIMPSON

Strong-Tie



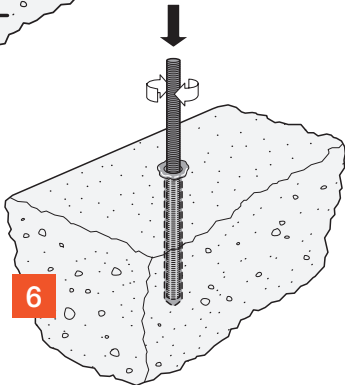
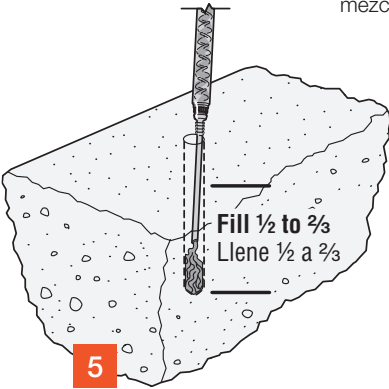
Compressed air (80 psi min.),
4 seconds (min.) — AT-XP, SET-XP
2 seconds (min.) — SET-3G

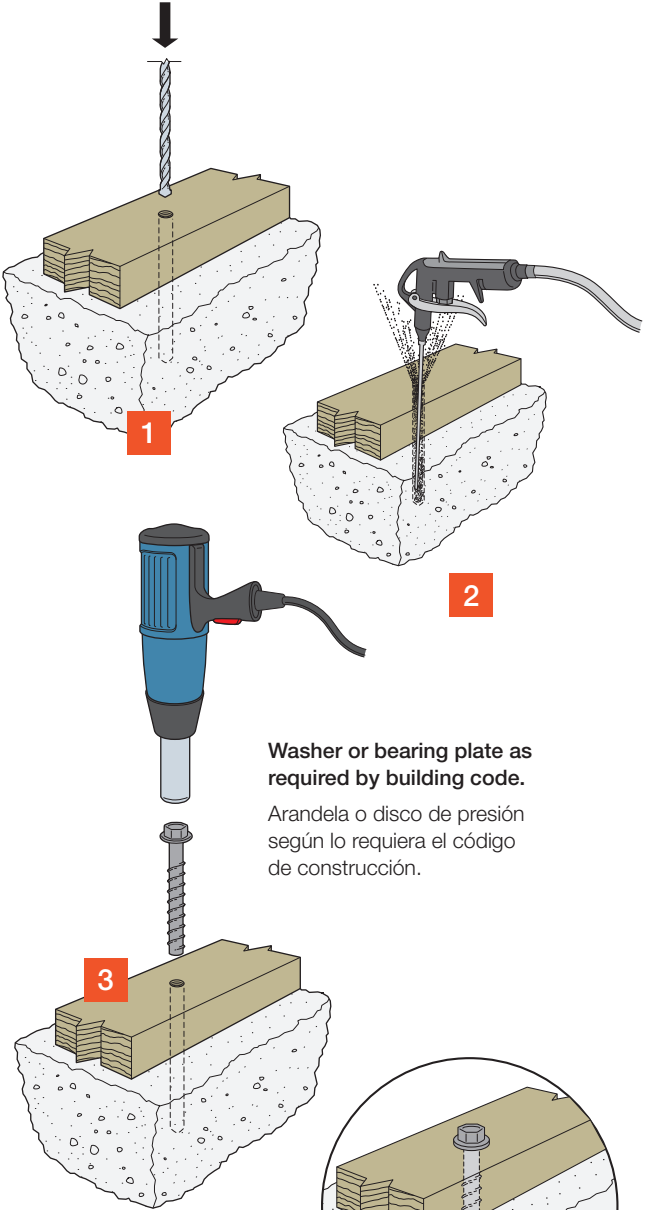
Aire comprimido (80 psi mín.),
4 segundos (mín.) — AT-XP,
SET-XP
2 segundos (mín.) — SET-3G



Dispense until mixed properly
(uniform color).

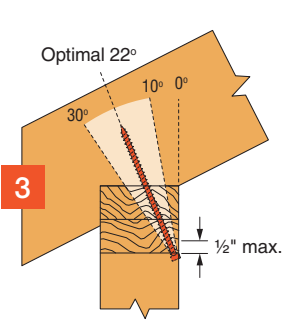
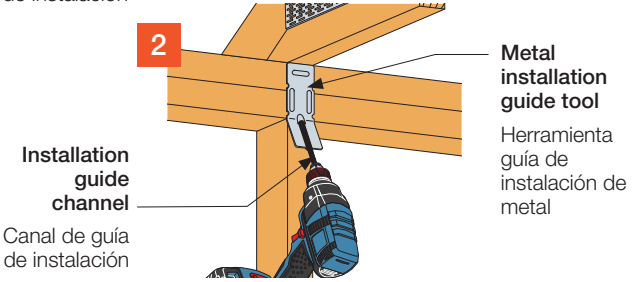
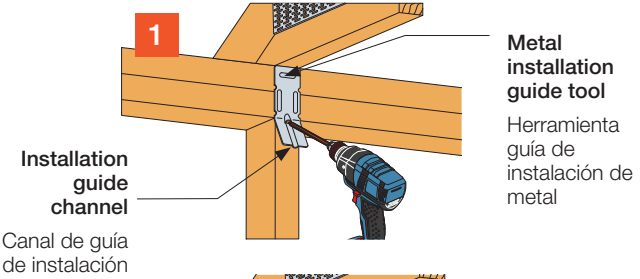
Suministre hasta que esté bien
mezclado (color uniforme).





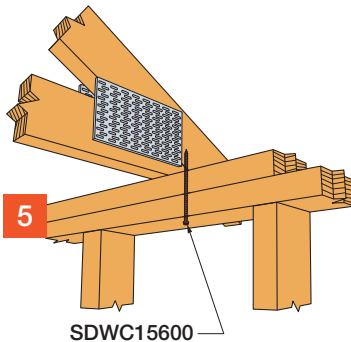
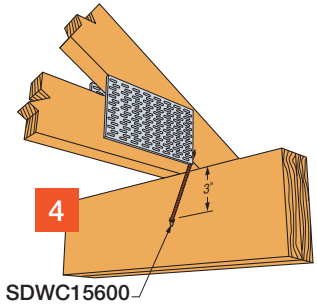
Strong-Drive® SDWC Truss Screw

Note: SDWC Truss screws can also be installed using the Quik Stik™ Rafter and Truss Fastening System.



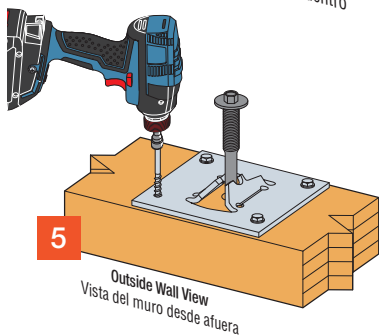
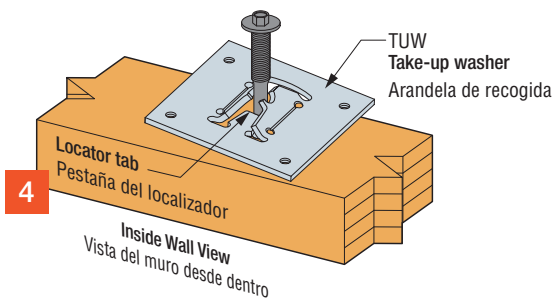
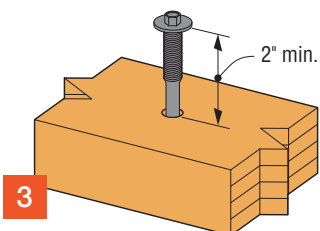
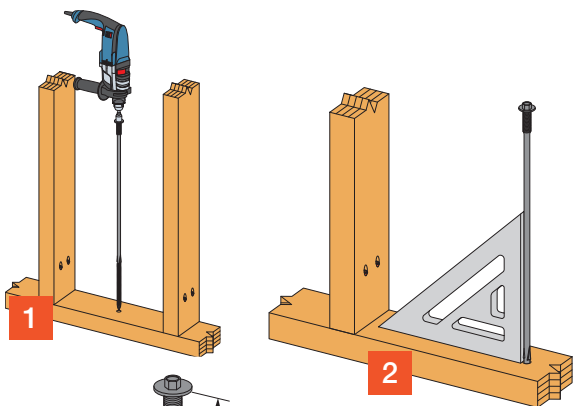
Installation angle limit

Límite de ángulo para instalación



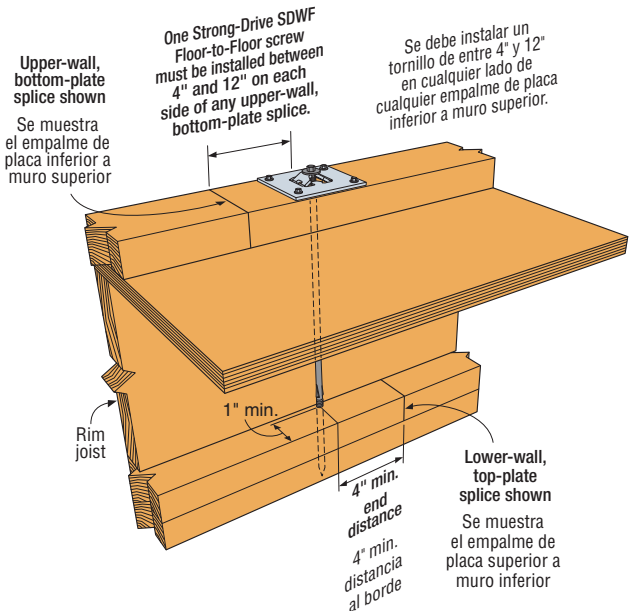
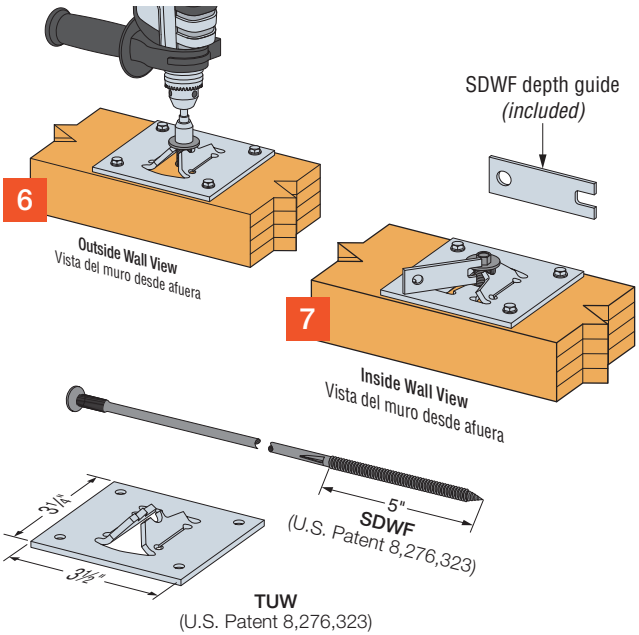
Strong-Drive® SDWF Floor-to-Floor Screw

SIMPSON
Strong-Tie®



#9 x 2½" Strong-Drive
SD Connector Screw

Strong-Drive® SDWF Floor-to-Floor Screw



Typical Strong-Drive SDWF FLOOR-TO-FLOOR and TUW Installation

We now have a web version of this installer's guide.



Check it out at strongtie.com/installersguide

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