



SIMPSON

Strong-Tie

®

**INSTALLER'S
POCKET
GUIDE**

**GUÍA DE
BOLSILLO PARA
EL INSTALADOR**

S-C-INSTALL16

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.

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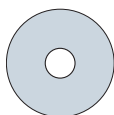
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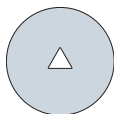
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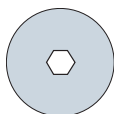
ROUND
REDONDO

- **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 MAX 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."

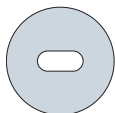


HEXAGONAL
HEXÁGONO

- **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.

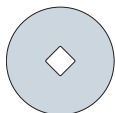
Connectors: Types of Nail Holes

Conectores: Tipos de Agujeros de Clavo



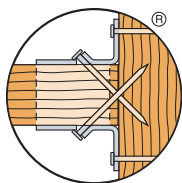
OBROUND
ALARGADO

- **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.



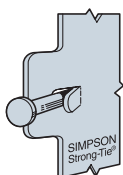
DIAMOND
DIAMANTE

- **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.



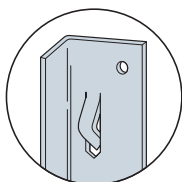
DOUBLE-SHEAR NAILING CLAVADO DE DOBLE PENETRACIÓN

- **Purpose:**
Installed into the joist and header, distributing the load through two points on each joist nail for greater strength. Must use full length nail.
- **Fill Requirements:**
Always fill.
- **Propósito:**
Para lograr mayor fuerza, los clavos penetran a la viga y la viga cabecal, así distribuyendo la carga entre las dos puntas de cada clavo.
- **Requisitos para Llenar:**
Llénelo siempre.



DO NOT use short (1 1/2") nails for double-shear nailing.

NO usen los clavos cortos de 1 1/2" para uso de doble penetración.

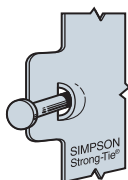


SPEED PRONGS DIENTES RÁPIDOS

- **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.

Connectors: Types of Nail Holes

Conectores: Tipos de Agujeros de Clavo



DOMED NAILING

U.S. Patent No.

5,603,580

CLAVADO CON CÚPULA

Patente de EE.UU.

No. 5,603,580

- **Purpose:**

To guide the nail into the joist and header at a 45° angle.

- **Fill Requirements:**

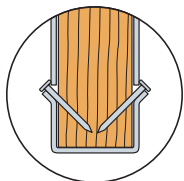
Always fill.

- **Propósito:**

Con este dispositivo se guía 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:**

Provided when wood splitting may occur, and to speed installation.

- **Fill Requirements:**

Always fill.

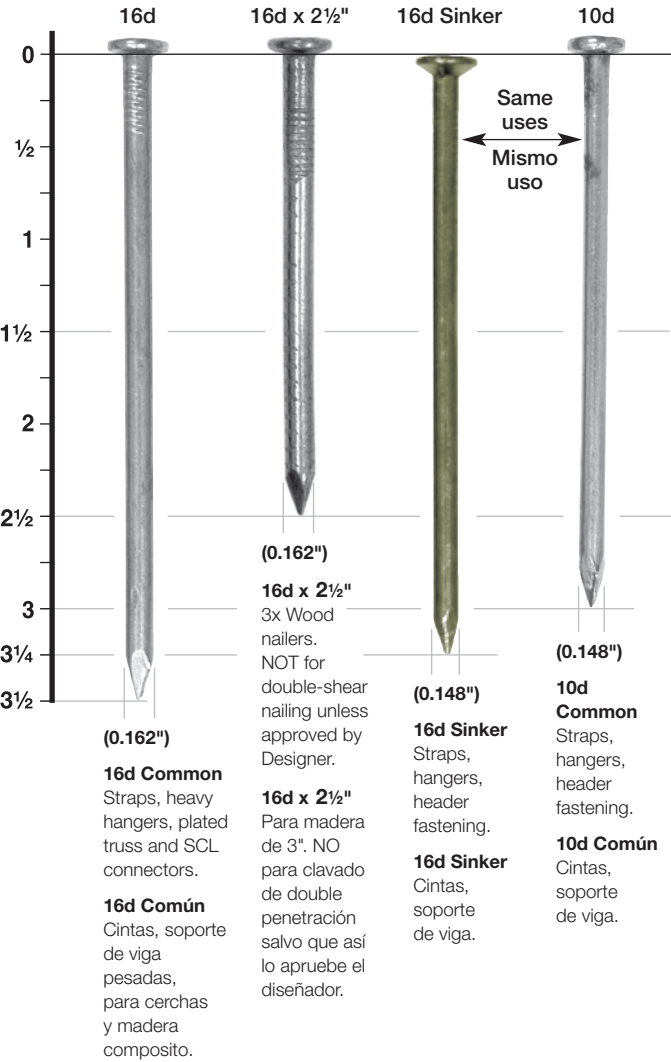
- **Propósito:**

Se usa cuando la madera puede rajarse o abrirse y con el propósito hacer más rápida la instalación.

- **Requisitos para Llenar:**

Llénelo siempre.

Fasteners/Clavos



10d x 1½"



(0.148")

10d x 1½"

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

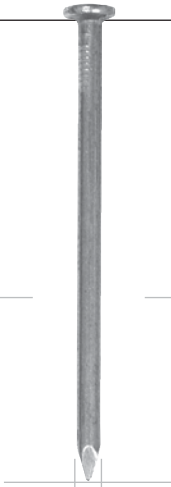
Galvanized nail shown.

10d x 1½"

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

Se muestra un clavo galvanizado.

8d



(0.131")

8d Common
Rafter ties.

8d Común
"Clips" de huracán.

8d x 1½"



(0.131")

8d x 1½"

Light-duty framing anchors and some rafter ties.

Galvanized nail shown.

8d x 1½"

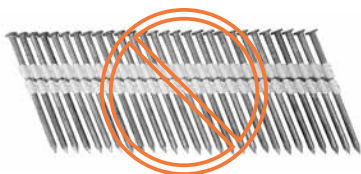
Conectores ligeros y "clips" de huracán.

Se muestra un clavo galvanizado.



When using stainless-steel connectors, use stainless-steel fasteners. When using ZMAX®/hot-dip galvanized connectors, use fasteners galvanized per ASTM A153.

Al usar los conectores del acero inoxidable, utilice los sujetadores del acero inoxidable. Al usar conectores ZMAX®/HDG galvanizados, utilicen los sujetadores galvanizados por ASTM A153.



Framing nail-gun nails can only be used if:

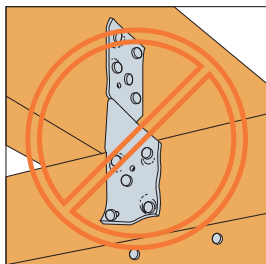
1. Correct diameter and length
2. Correct quantity is installed
3. Driven with a hole location tool (finds the hole) or by hand

NOTE: .121 may NOT be used to replace 10d or 16d nails.

Sólo se pueden utilizar clavos estructurales para pistola si:

1. Tengan diámetro y tamaño correcto
2. Se instala la cantidad correcta
3. Usan maquina que encuentre el agujero, o se clavan a mano

NOTA: NO se pueden utilizar clavos 121 como sustitutos de clavos 10d o 16d.



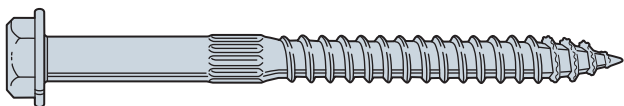
**DO NOT OVERDRIVE
NO SHOOTING-THRU
CONNECTORS**

**NO SE METE
DEMASIADO
NO SE PUEDE
HACER AGUJEROS
CON MAQUINA**



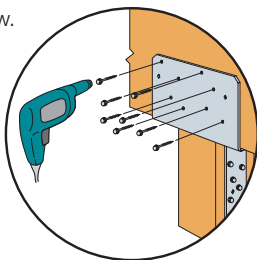
Common screws, such as wood and drywall screws, may NOT be used to replace NAILS in connectors.

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



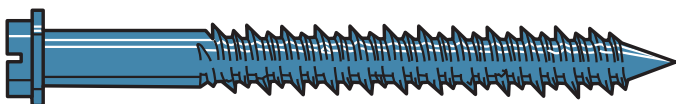
Some connectors install with the Simpson Strong-Tie® Strong-Drive® 1/4" SDS HEAVY-DUTY CONNECTOR screw.

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



Algunos conectores se instalan con el Simpson Strong-Tie® Strong-Drive® 1/4" 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® Masonry Screw
Diameter: 3/16", 1/4"

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

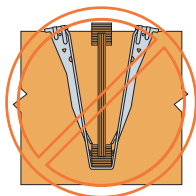


Machine Bolt
Diameter: 1/2", 5/8", 3/4", 7/8", 1"

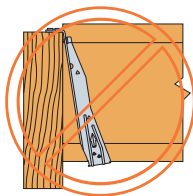
Pernos
Diámetro: 1/2", 5/8", 3/4", 7/8", 1"

TOP FLANGE HANGERS

SOPORTES CON ALA SUPERIOR



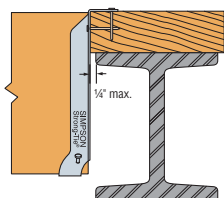
Hanger over-spread
Soporte demasiado abierto



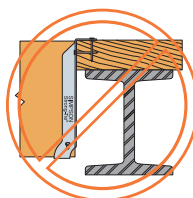
Hanger not plumb
Soporte fuera de plomo

WOOD NAILERS

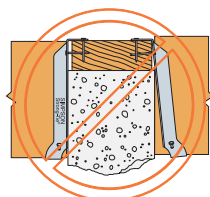
LISTONES CLAVADORES DE MADERA



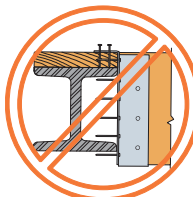
Correct attachment
Montaje correcto



Nailer too wide
Listón clavador muy ancho

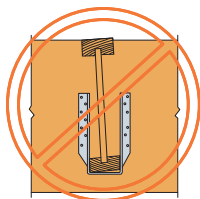


Nailer too narrow
Listón clavador muy estrecho



Nailer too thin
Listón clavador demasiado delgado

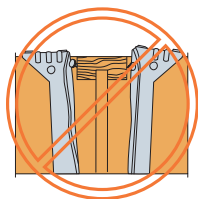
PREVENT ROTATION / EVITAR LA ROTACIÓN



Shorter hanger with no web stiffener results in rotation

Un soporte colgante más corto sin de entramado permitirá la rotación

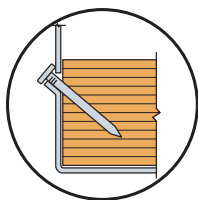
TOE-NAILING / CLAVADO EN DIAGONAL



Do not toe-nail 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)

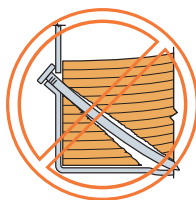
POSITIVE ANGLE NAILING CLAVADO EFECTIVO EN ÁNGULO



Correct nailing
approx. 45° angle
Clavado correcto
aproximadamente
a 45°

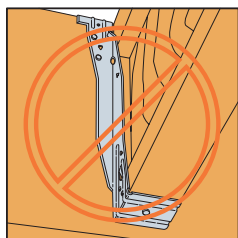


Nail at wrong angle
Clavado con un
ángulo incorrecto



Nail too long
Clavos demasiado
largos

ITS/IUS HANGERS / SOPORTES DE ITS/IUS

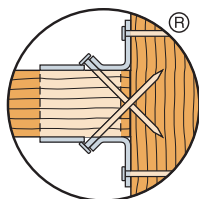


DO NOT make your own holes
NO HAGA sus propios agujeros

DO NOT nail seat hole,
#8 wood screw is OK

NO clave en los agujeros del conector,
tornillos para madera #8 es aceptable

DOUBLE-SHEAR NAILING CLAVADO DE DOBLE PENETRACIÓN



Double-shear nailing must use full length 10d or 16d common nails

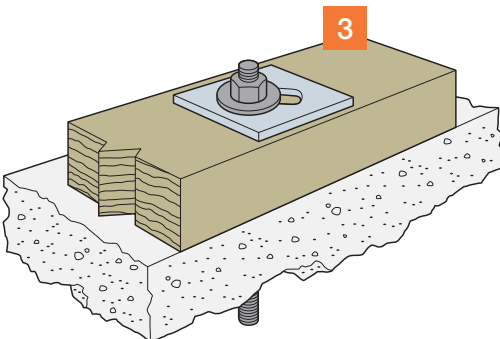
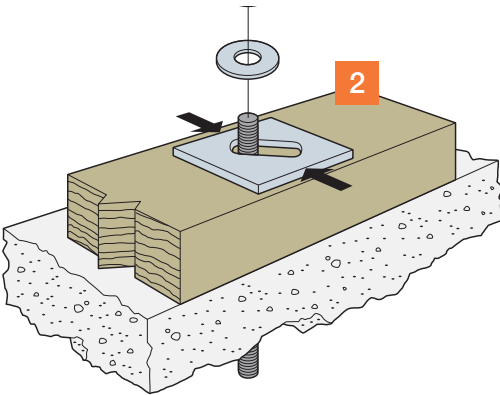
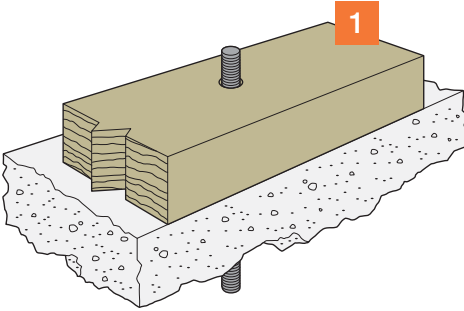
Al trabajar con clavado de doble penetración, se deben emplear clavos comunes 10d o 16d de longitud normal

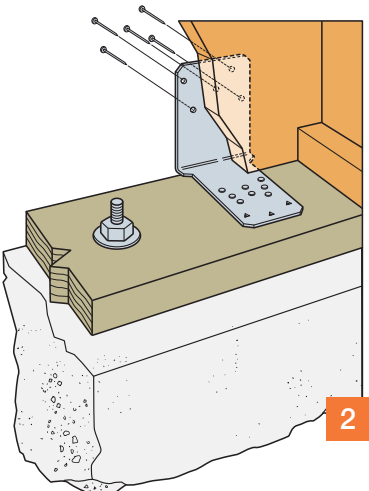
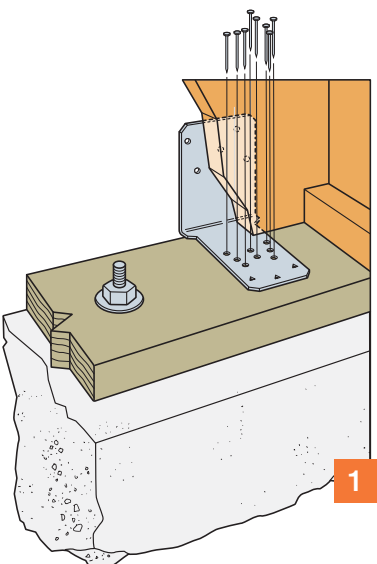
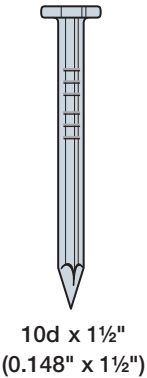


Shorter nails may not be used as double-shear nails

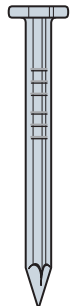
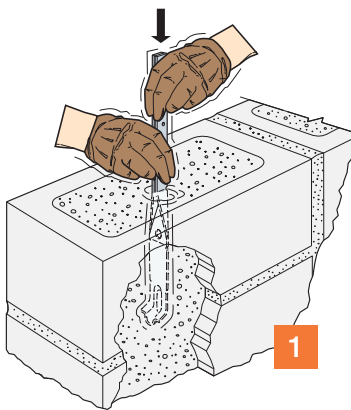
No se pueden utilizar clavos más cortos como clavos de doble penetración

BPS-LBPS

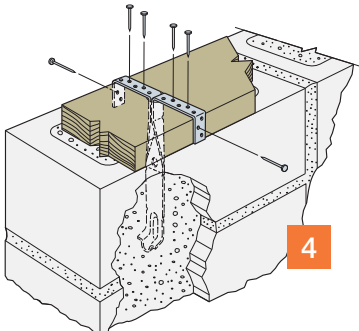
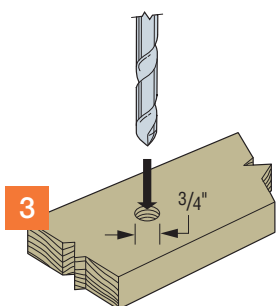
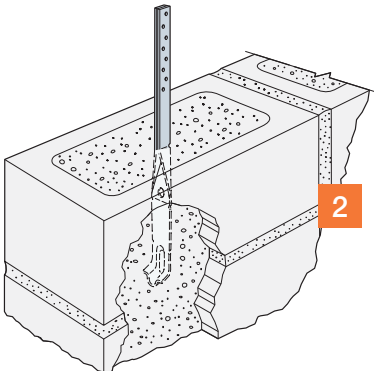


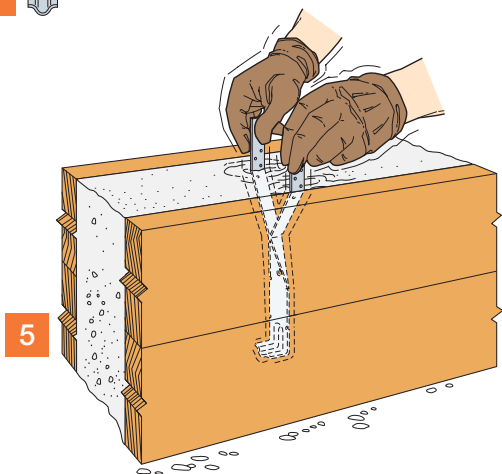
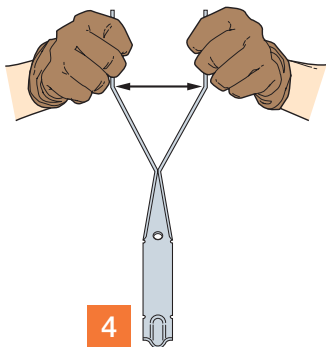
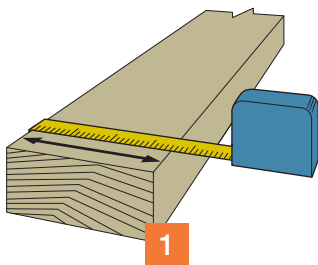


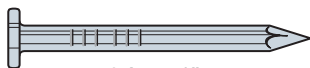
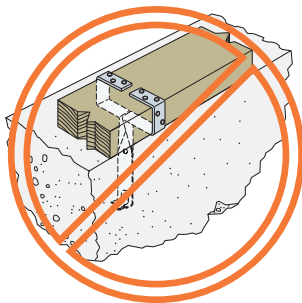
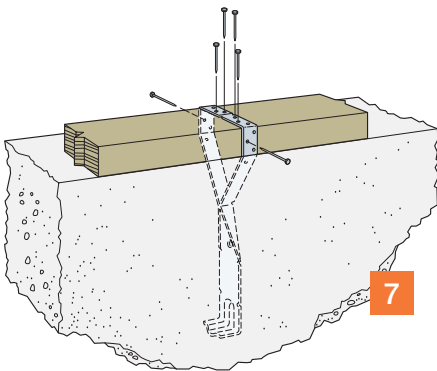
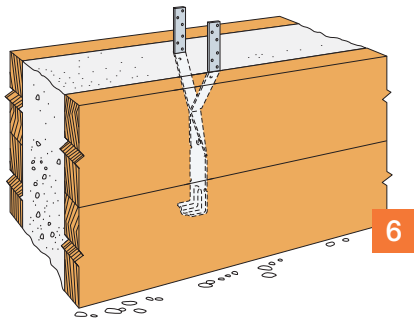
MAB – Block/Bloque



10d x 1 1/2"
(0.148" x 1 1/2")

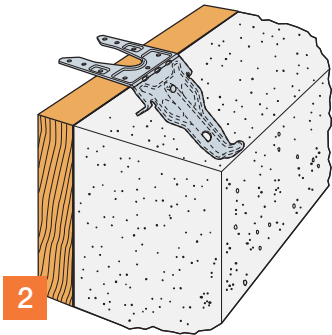
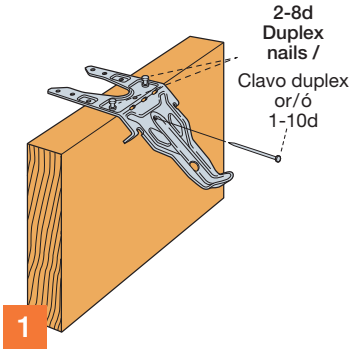
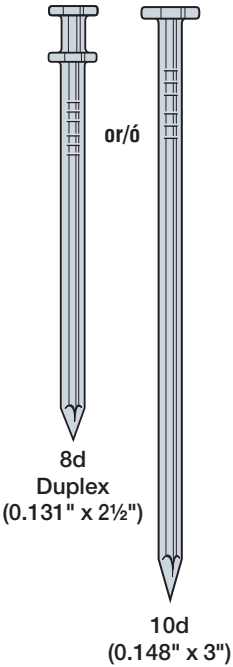




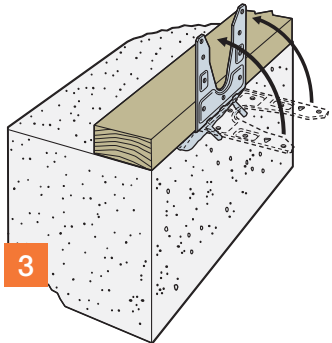
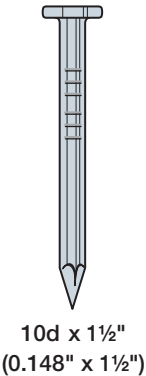


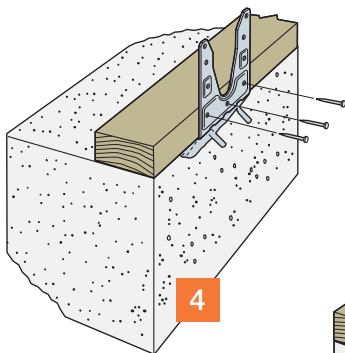
10d x 1½"
(0.148" x 1½")

Forming Encofrado

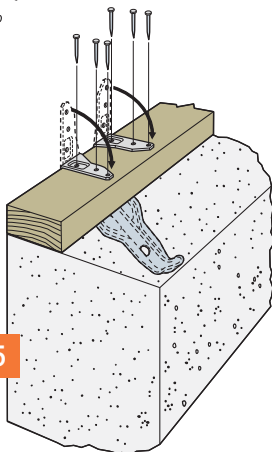


Connector Conector



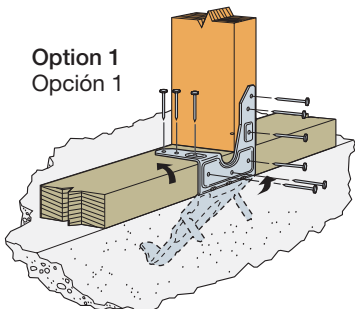


4



5

Option 1 Opción 1



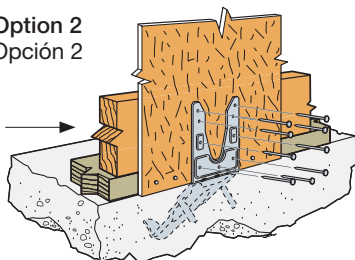
Reduced loads apply,
check with Designer.

Se aplican cargas reducidas;
consulte al diseñador.

Option 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.

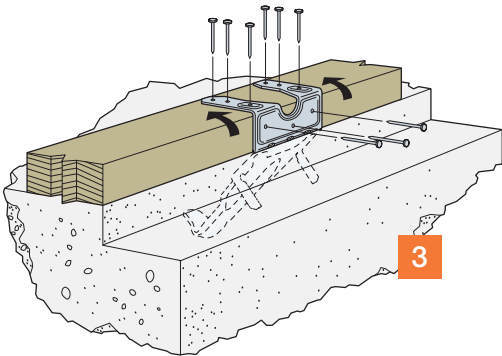
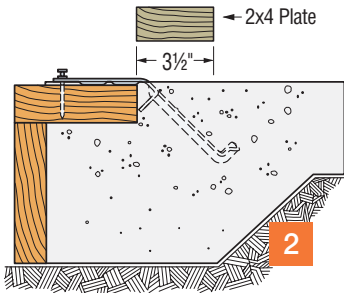
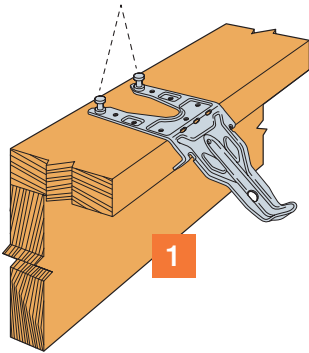


Reduced loads apply, check with Designer
before nailing over sheathing.

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

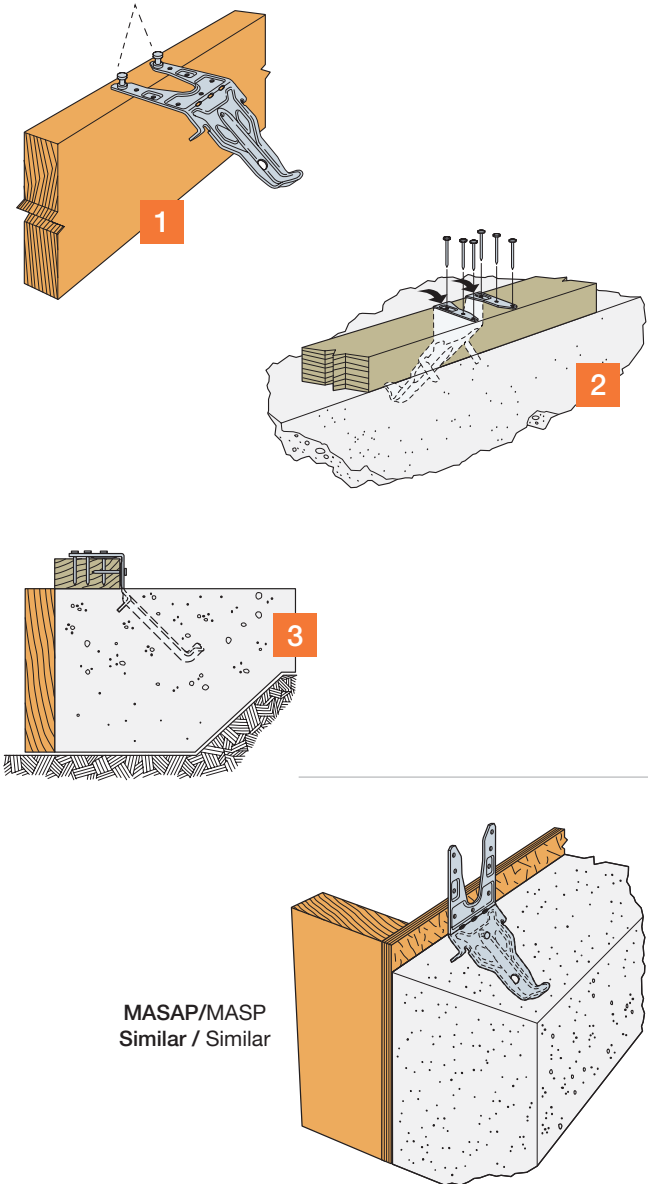
Brick-Ledge Installation Instalación Sobre Cornisa de Ladrillos

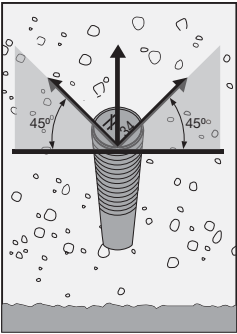
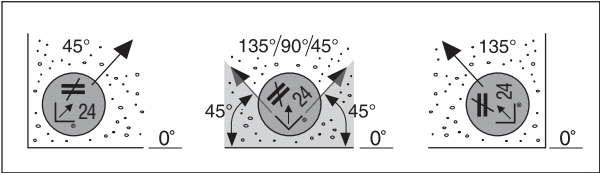
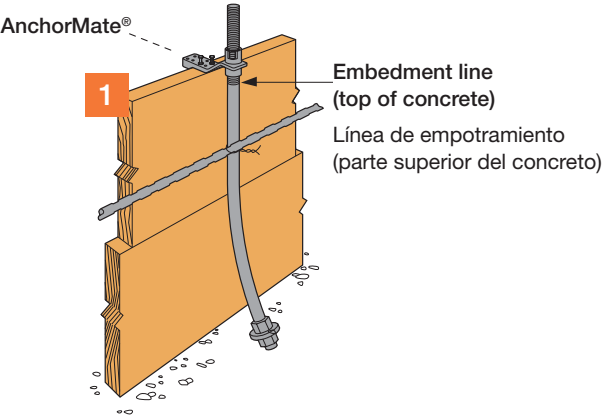
2-8d Duplex nails / Clavo duplex or/ó 1-10d



Inside-the-Mudsill Installation Instalación en Solera

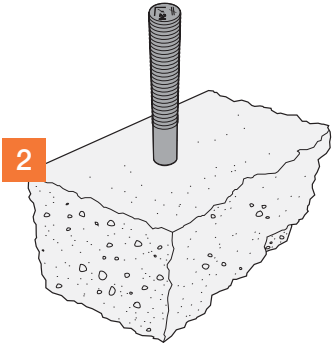
2-8d Duplex nails / Clavo duplex or/ó 1-10d

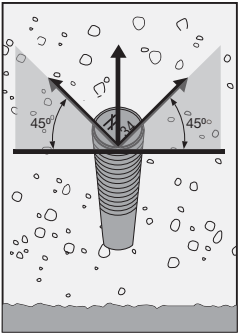
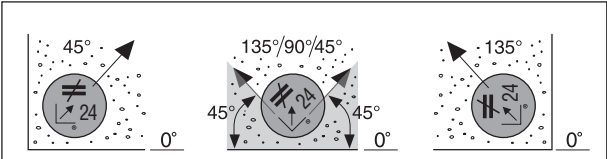
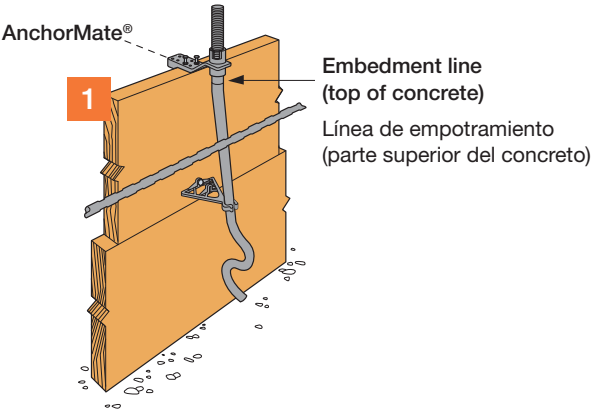




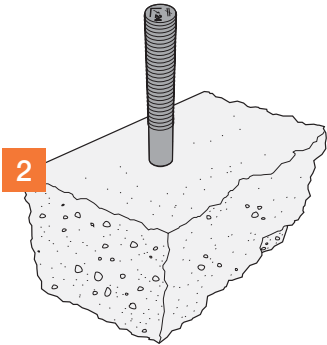
Install a minimum 45°
from either edge.

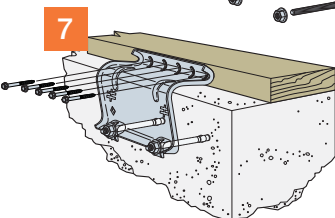
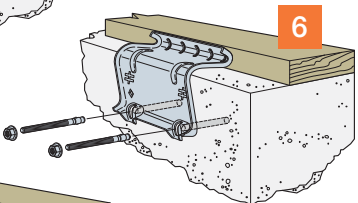
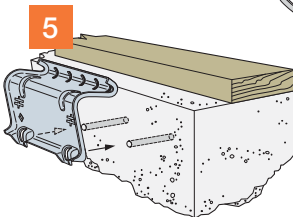
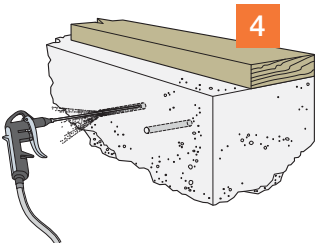
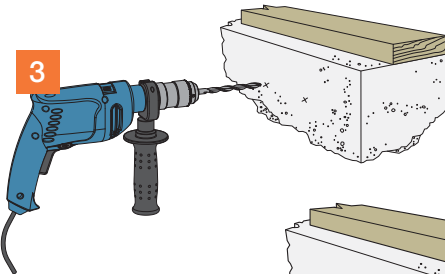
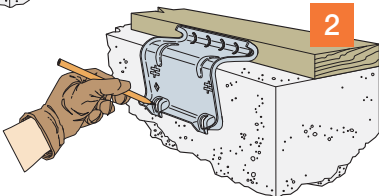
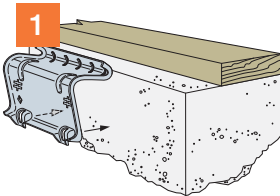
Instalar a mínimo 45°
de cada cara.





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

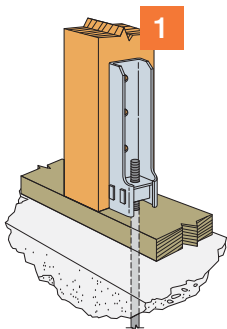




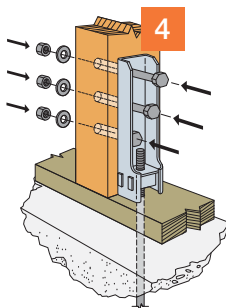
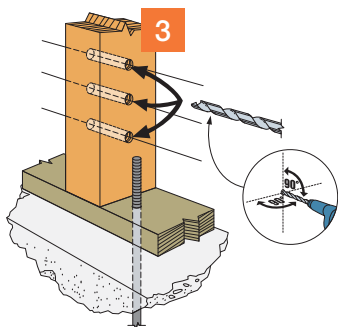
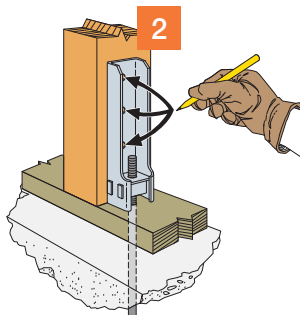
Holdowns & Tension Ties

SIMPSON
Strong-Tie

HD

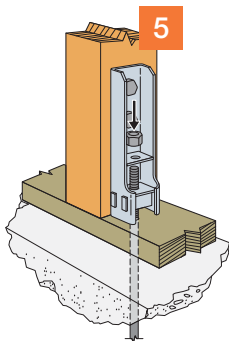


Model No. / N.º de Modelo	Machine Bolt Diameter / Diámetro del Perno Torneado
HD3B	5/8"
HD5B	3/4"
HD7B	3/4"
HD9B	7/8"
HD12	1"
HD19	1"



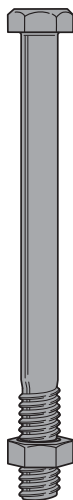
Machine Bolt
Diameter: 1/2"
Length:
ABU44/ABU46 = 4 1/2"
ABU66 = 6 1/2"

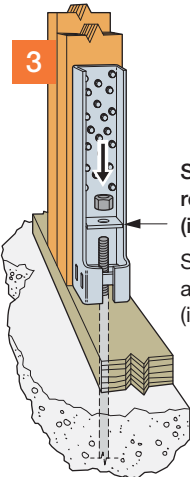
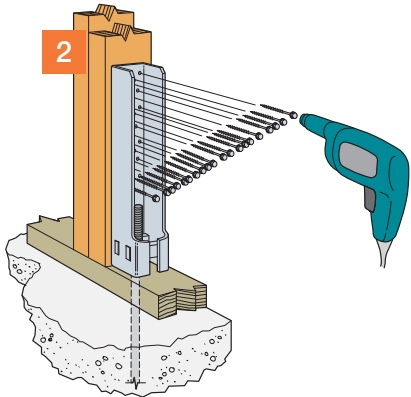
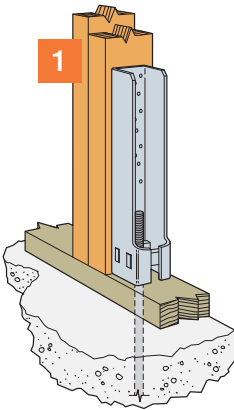
Perno Torneado
Diámetro: 1/2"
Largo:
ABU44/ABU46 = 4 1/2"
ABU66 = 6 1/2"



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

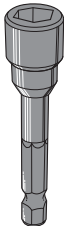
Los orificios para
los pernos deben
ser al menos 1/32" y
como máximo 1/16"
más grandes que el
diámetro del perno.





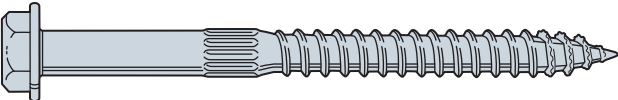
Square washer
required
(included).

Se requiere una
arandela cuadrada
(incluida).

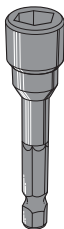
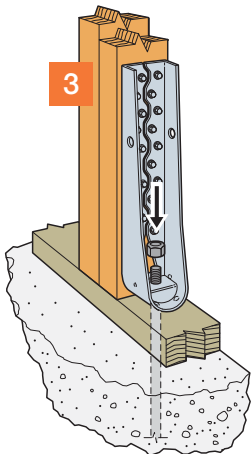
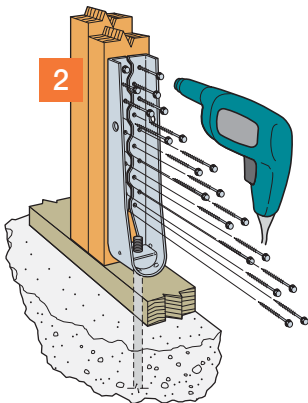
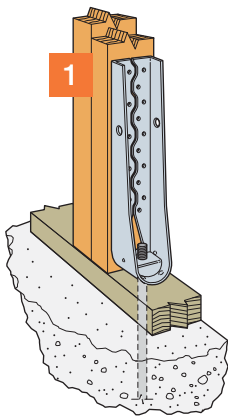


Use $\frac{3}{8}$ " driver.

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

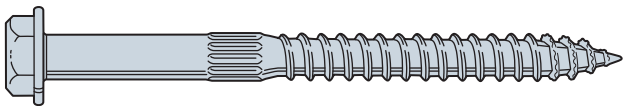


1/4" x 3" Strong-Drive® SDS HEAVY-DUTY CONNECTOR Screw
(Included / Incluida)



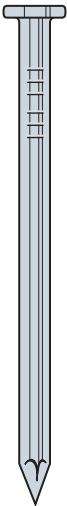
Use $\frac{3}{8}$ " driver.

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

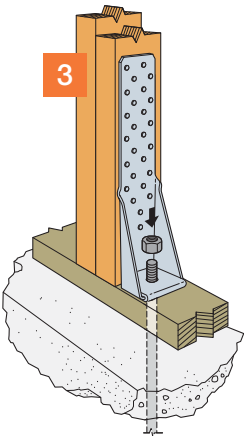
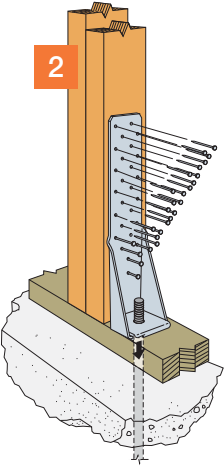
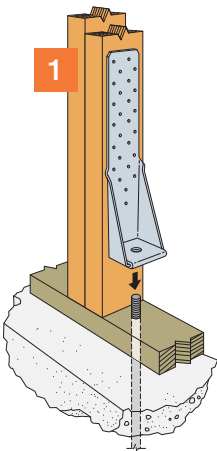


1/4" x 2 1/2" Strong-Drive® SDS HEAVY-DUTY CONNECTOR Screw
(Included / Incluida)

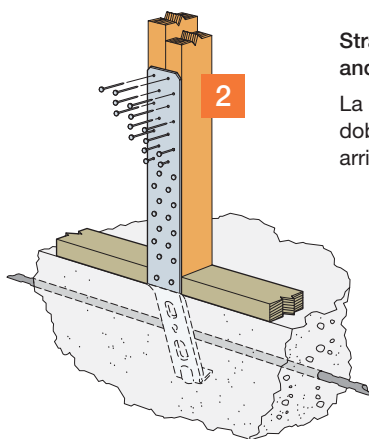
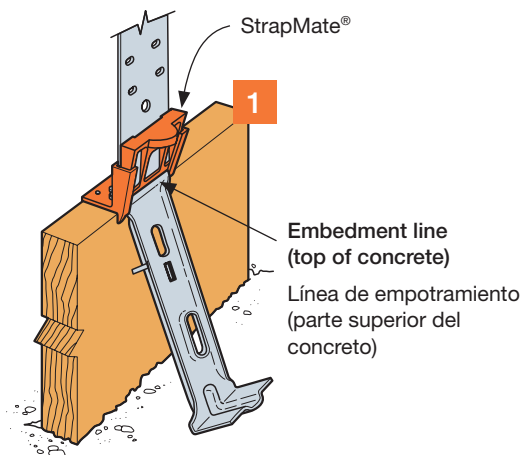
HTT4
HTT5



16d x 2½"
(0.162" x 2½")



STHD – w/StrapMate®



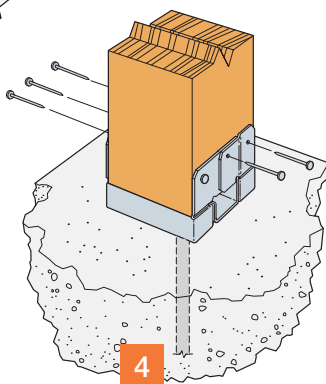
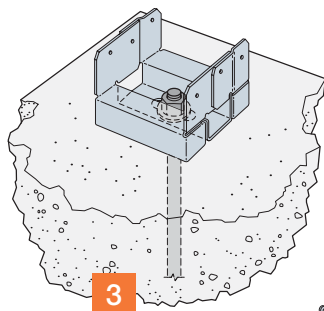
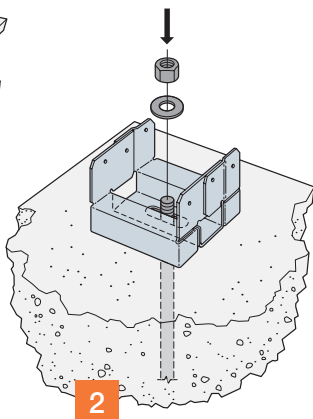
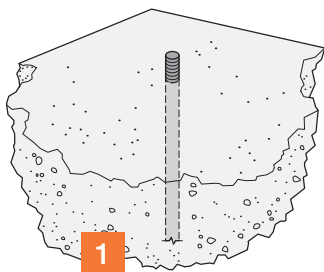
Strap may be bent down
and back up one time only.

La abrazadera se puede
doblar hacia abajo y hacia
arriba sólo una vez.



16d Sinker
(0.148" x 3 1/4")

ABA

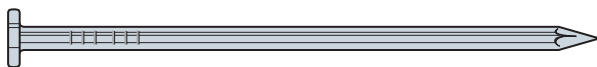


If using an adhesive anchor, see pages 103–104 for instructions.

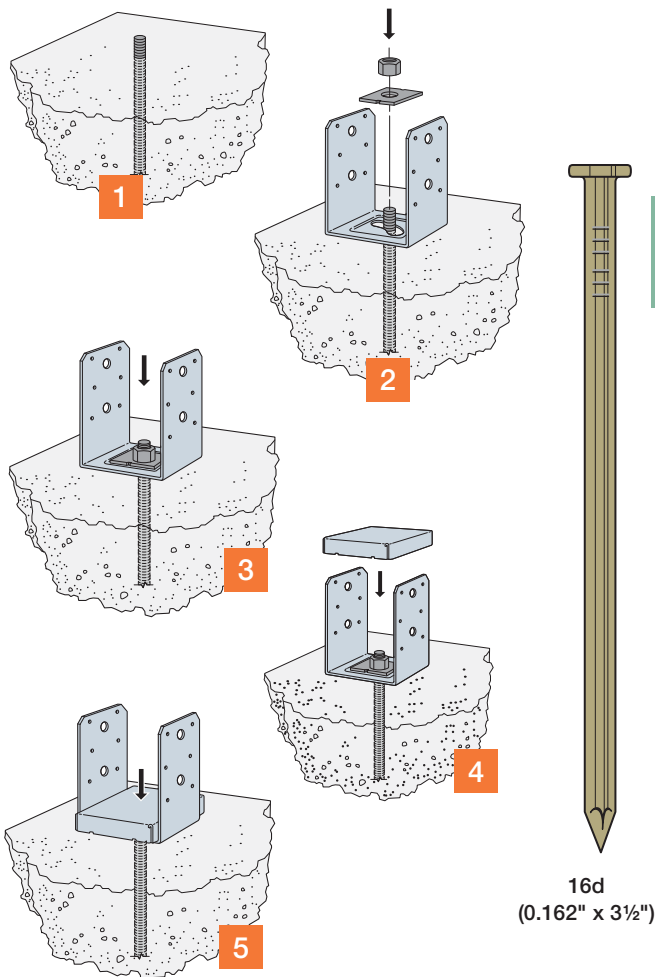
Si utiliza un anclaje adhesivo, consulte las instrucciones de las páginas 103–104.



16d (0.162" x 3½") – ABA46, ABA46R, ABA66, ABA66R

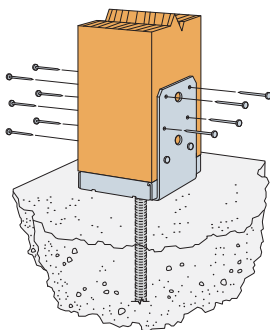


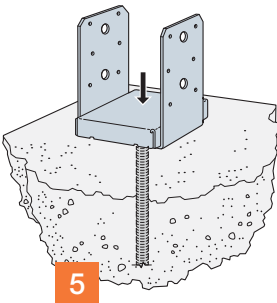
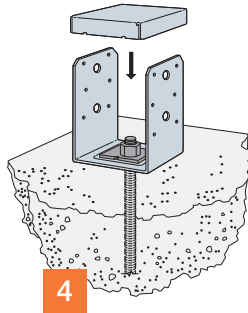
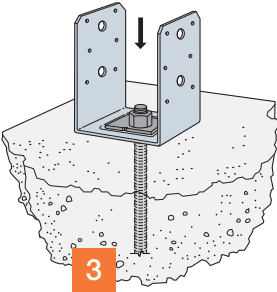
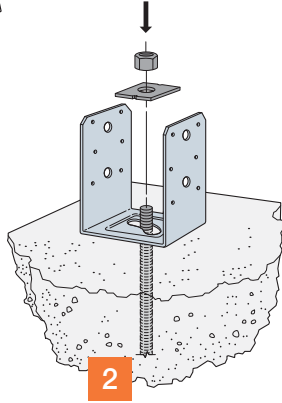
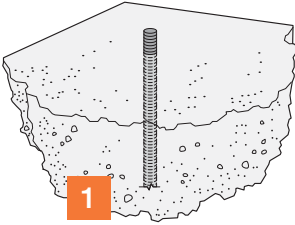
10d (0.148" x 3") – ABA44, ABA44R



If using an adhesive anchor, see pages 103–104 for instructions.

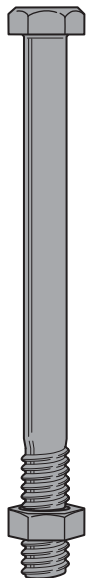
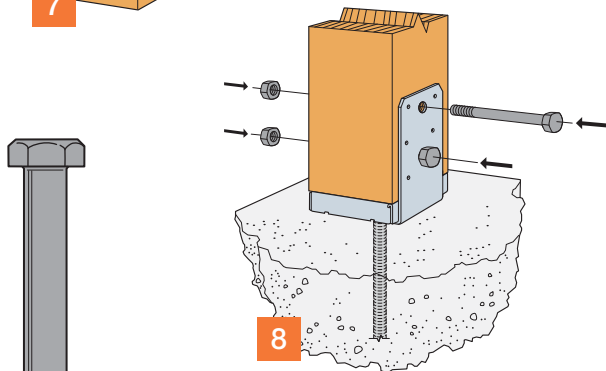
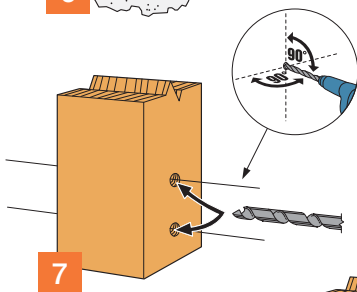
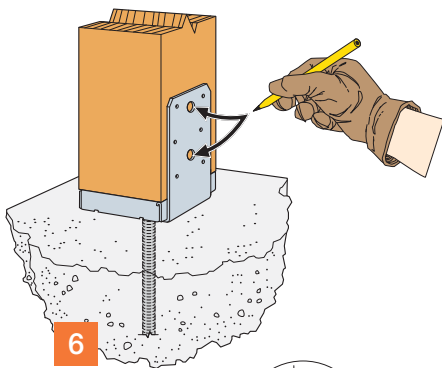
Si utiliza un anclaje adhesivo, consulte las instrucciones de las páginas 103–104.





If using an adhesive anchor, see pages 103–104 for instructions.

Si utiliza un anclaje adhesivo, consulte las instrucciones de las páginas 103–104.

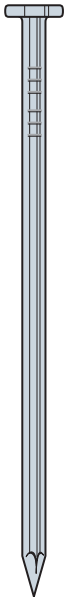


Machine Bolt
Diameter: $\frac{1}{2}$ "
Length:
ABU44/ABU46 = $4\frac{1}{2}$ "
ABU66 = $6\frac{1}{2}$ "

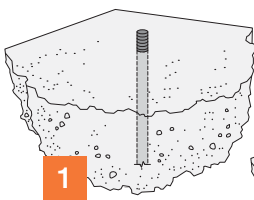
Bolt holes must be a minimum of $\frac{1}{32}$ " and a maximum of $\frac{1}{16}$ " larger than bolt diameter.

Perno Torneado
Diámetro: $\frac{1}{2}$ "
Largo:
ABU44/ABU46 = $4\frac{1}{2}$ "
ABU66 = $6\frac{1}{2}$ "

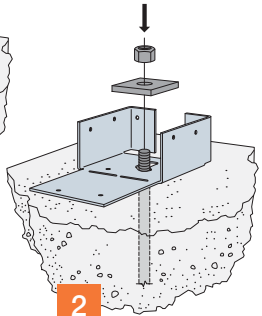
Los orificios para los pernos deben ser al menos $\frac{1}{32}$ " y como máximo $\frac{1}{16}$ " más grandes que el diámetro del perno.



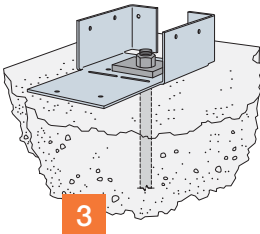
10d
(0.148" x 3")



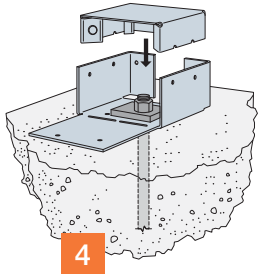
1



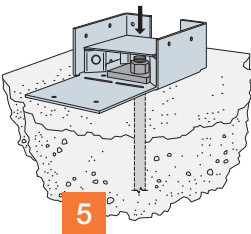
2



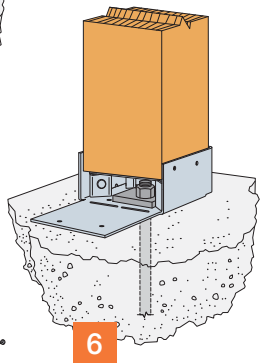
3



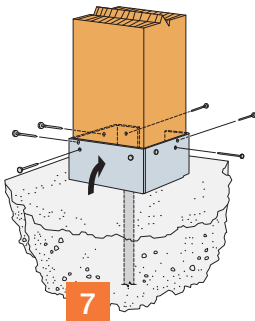
4



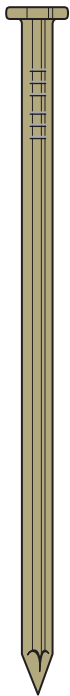
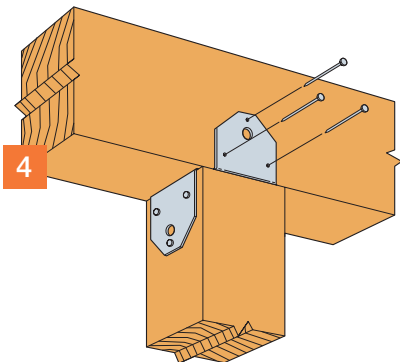
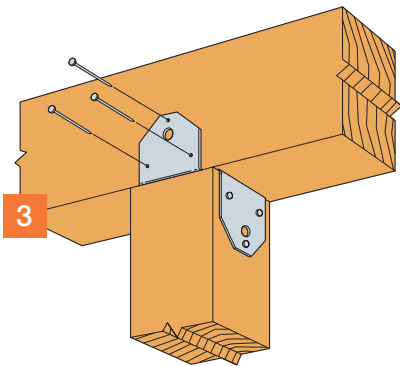
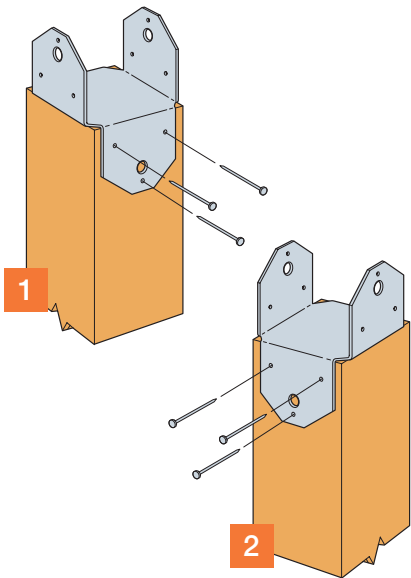
5



6

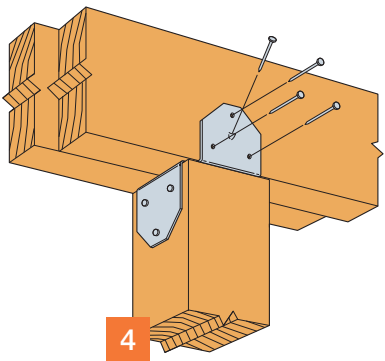
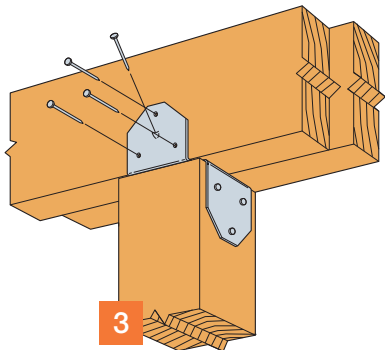
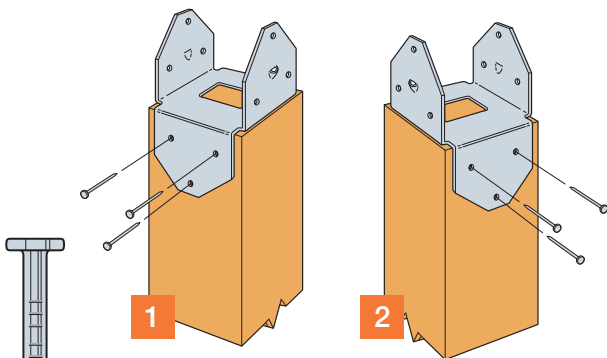


7

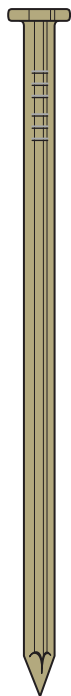
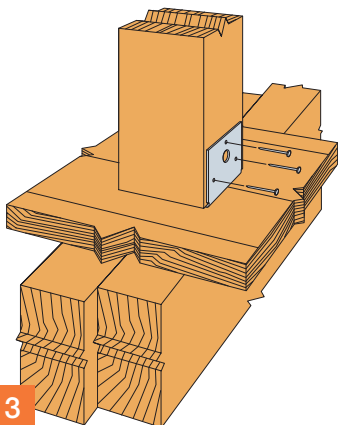
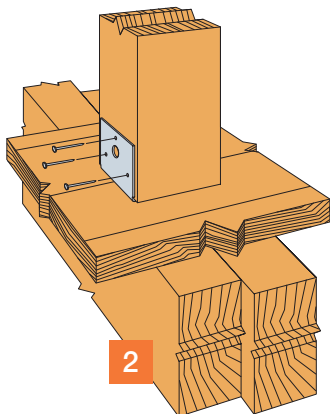
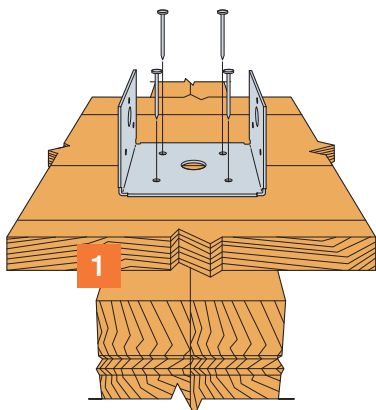


16d
(0.162" x 3½")

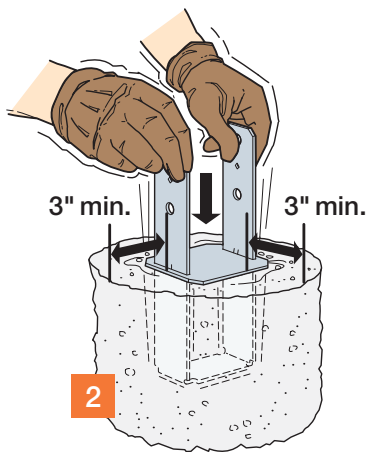
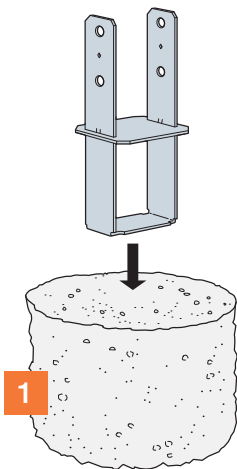
BCS2-2/4



10d
(0.148" x 3")

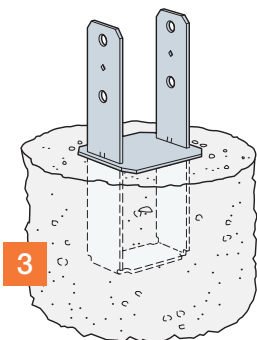


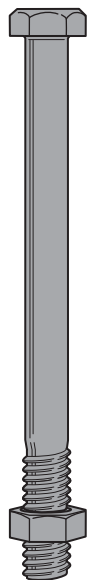
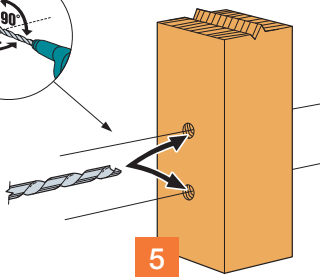
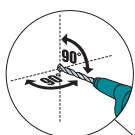
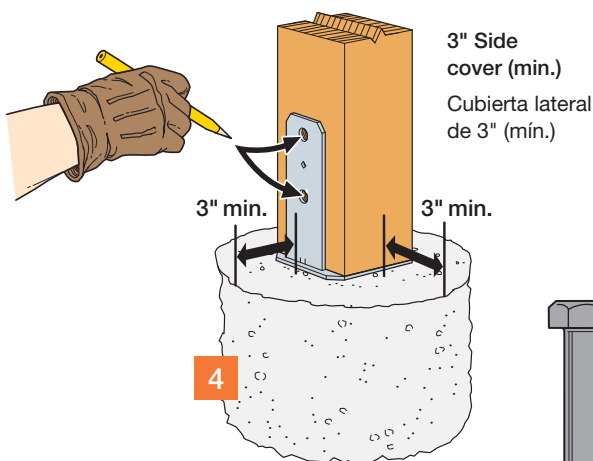
16d
(0.162" x 3½")



3" Side
cover (min.)

Cubierta
lateral de
3" (mín.)



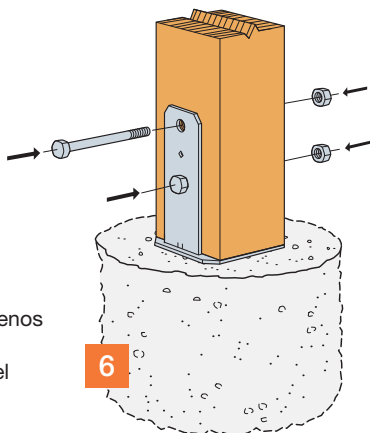


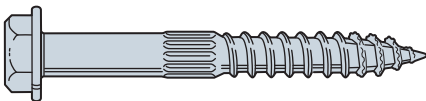
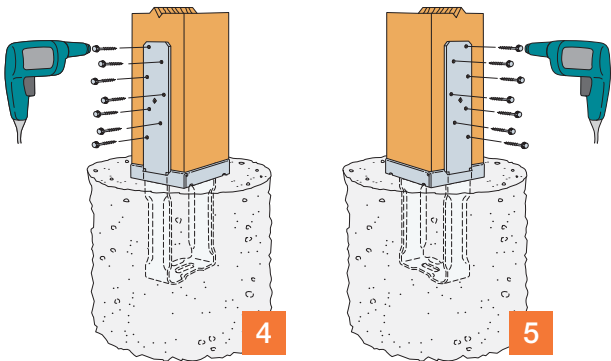
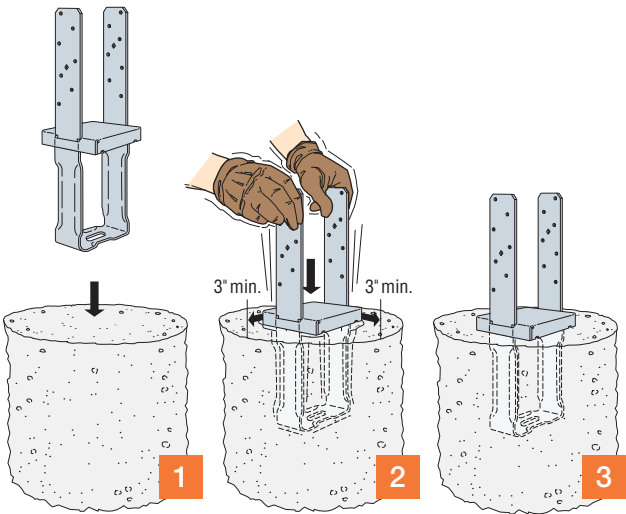
Machine Bolt
Perno

Model No. / N.º de Modelo	Machine 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 4 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"

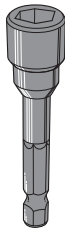
Bolt holes must be a minimum of 1/32" and a maximum of 1/16" larger than bolt diameter.

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



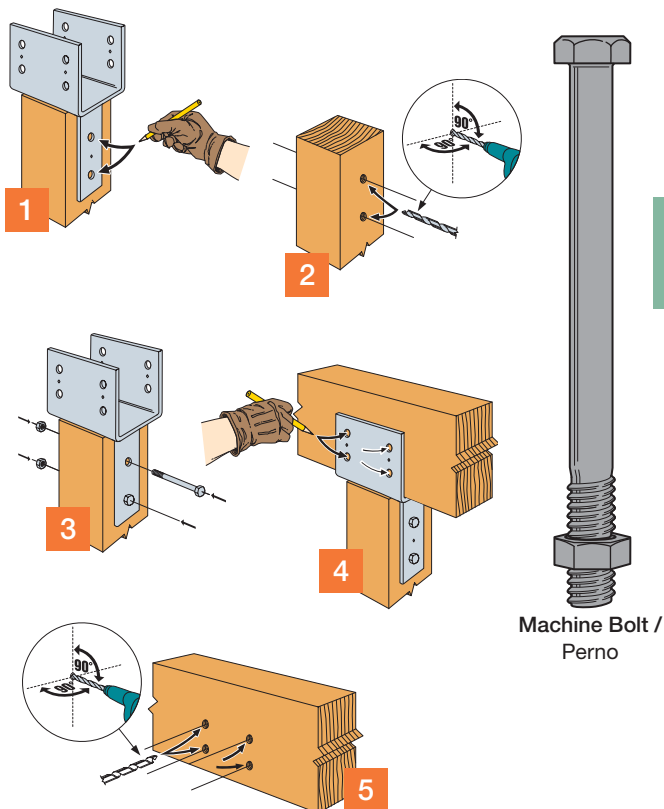


**1/4" x 2" Strong-Drive®
SDS HEAVY-DUTY CONNECTOR Screw**

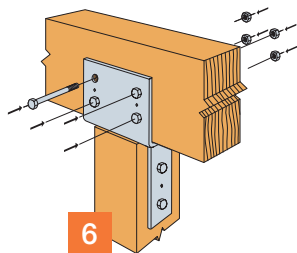


Use 3/8" driver.

Use un
destornillador
de 3/8".

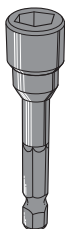
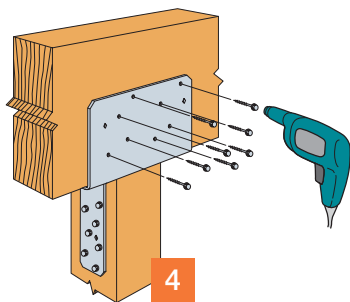
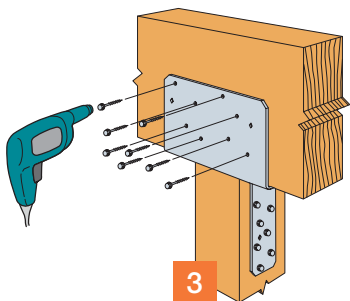
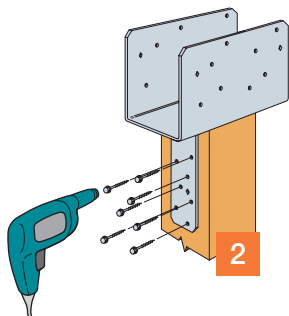
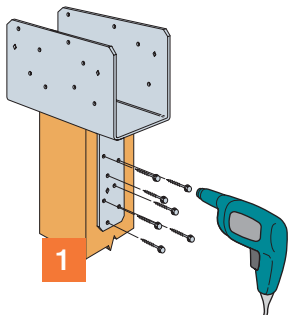


Beam or Column Width Ancho de Dintel o de Columna	Machine Bolt Size Tamaño del Perno Torneado	
	Diameter Diámetro	Length Longitud
3 1/8"	5/8"	4 1/2"
3 1/2"	5/8"	4 1/2"
5 1/8"	3/4"	6 1/2"
5 1/2"	5/8"	6 1/2"
6 3/4"	3/4"	8"
7"	3/4"	8"
7 1/2"	3/4"	8 1/2"
8 3/4"	3/4"	10"
9 1/2"	3/4"	10 1/2"



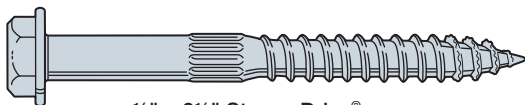
Bolt holes must be a minimum of 1/32" and a maximum of 1/16" larger than bolt diameter.

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

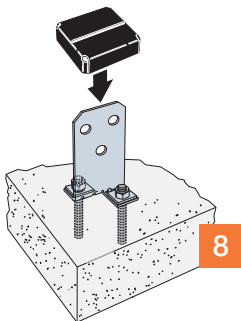
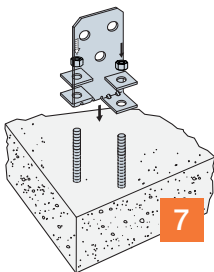
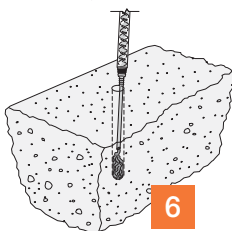
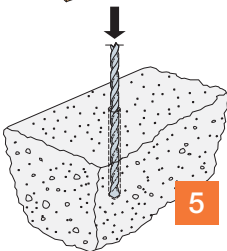
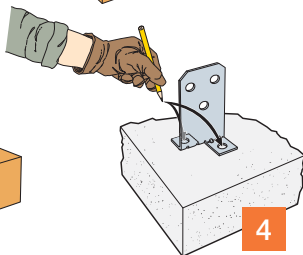
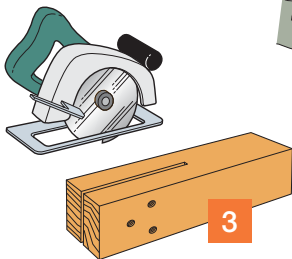
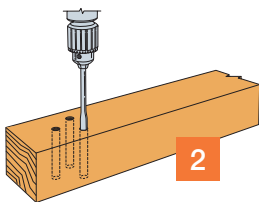
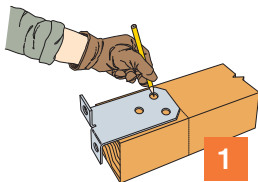


Use $\frac{3}{8}$ " driver.

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

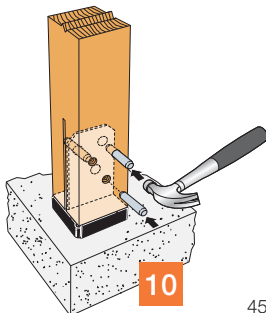
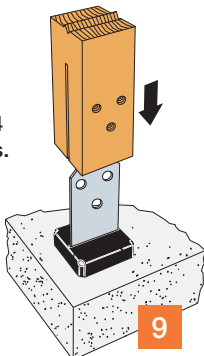


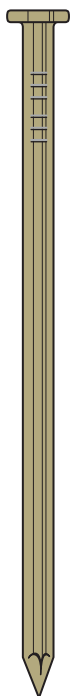
$\frac{1}{4}$ " x $2\frac{1}{2}$ " Strong-Drive®
SDS HEAVY-DUTY CONNECTOR Screw



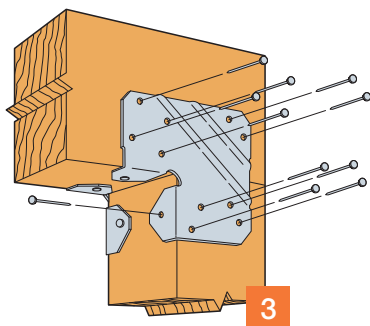
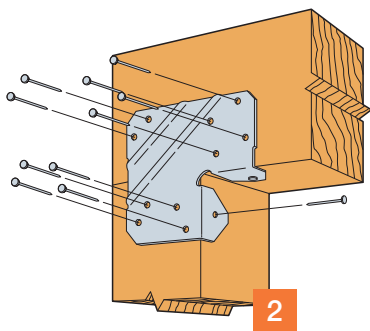
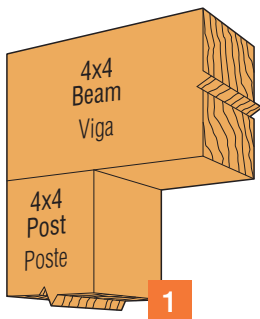
If using an adhesive anchor, see pages 103–104 for instructions.

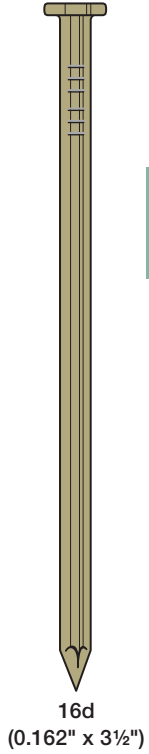
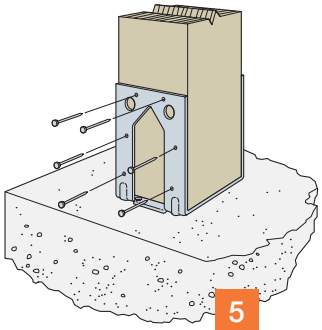
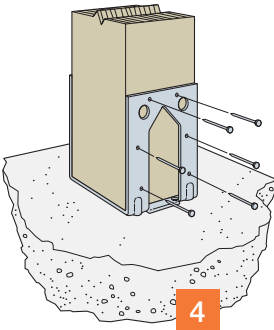
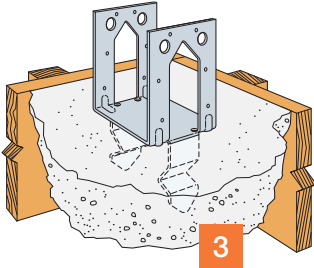
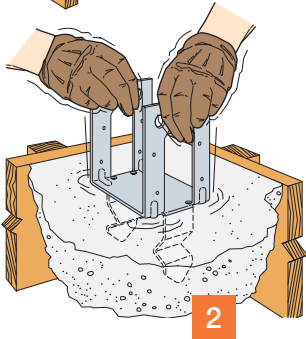
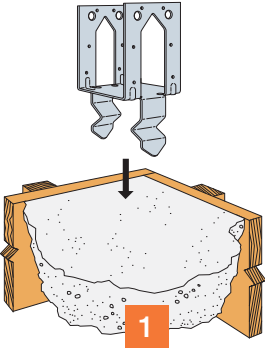
Si utiliza un anclaje adhesivo, consulte las instrucciones de las páginas 103–104.



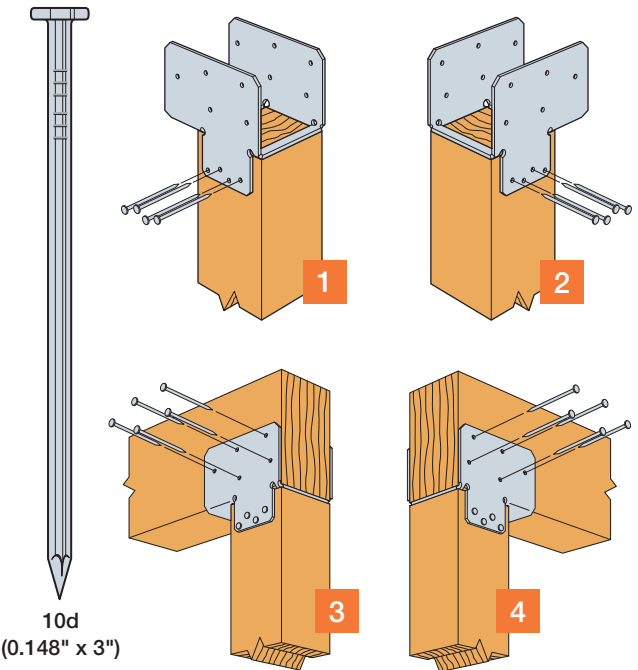
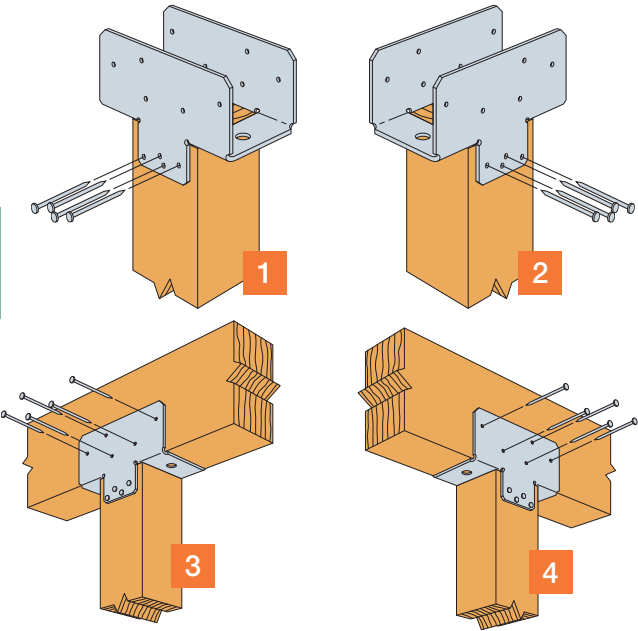


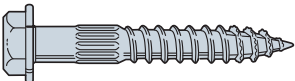
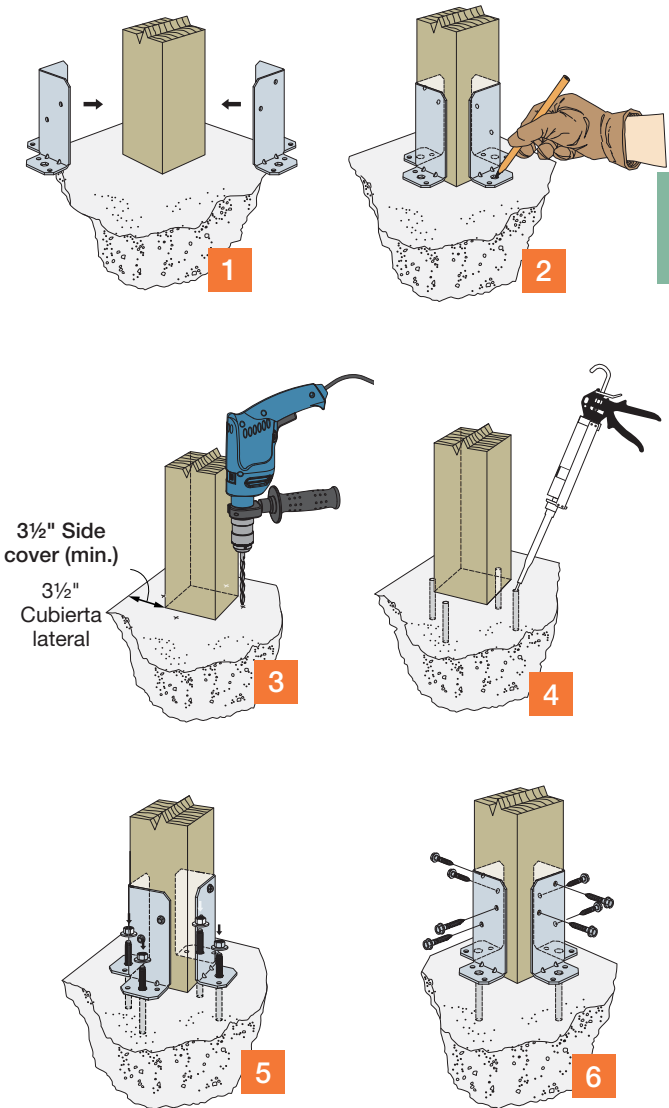
16d
(0.162" x 3 1/2")





PCZ/EPZ

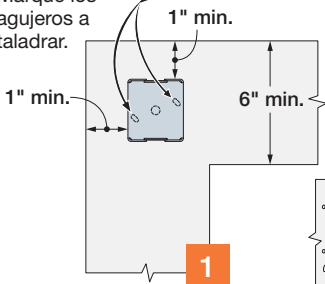




1/4" x 1 1/2" Strong-Drive®
SDS HEAVY-DUTY CONNECTOR Screw

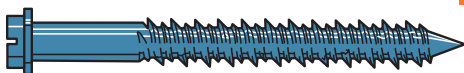
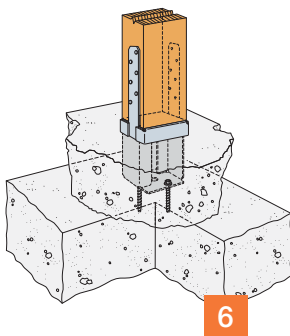
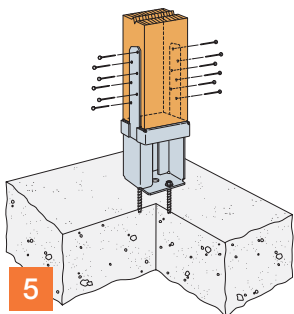
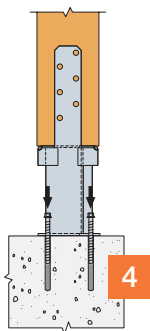
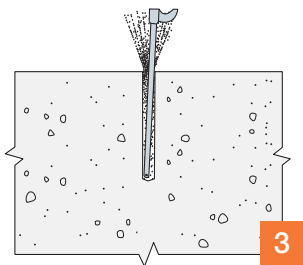
Mark
drill holes.

Marque los
agujeros a
taladrar.



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

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



Titen® Masonry Screw/Tornillo para mampostería ($\frac{1}{4}$ " x $1\frac{1}{4}$ ")
For installation in concrete, use Titen $\frac{1}{4}$ " x $1\frac{1}{4}$ ".

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

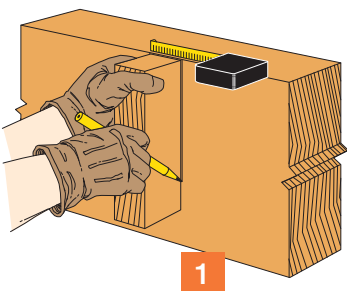


10d (0.148" x 3")

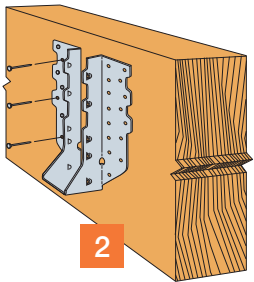
Solid Sawn Joist Hangers



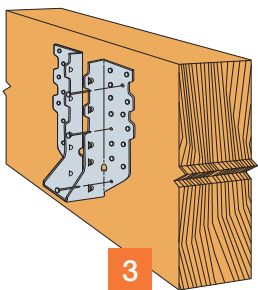
HUS



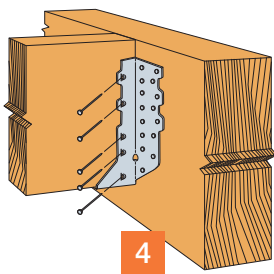
1



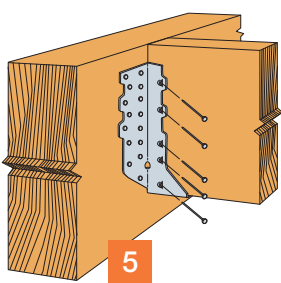
2



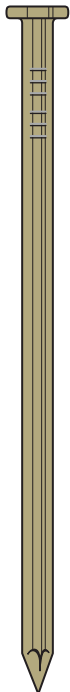
3



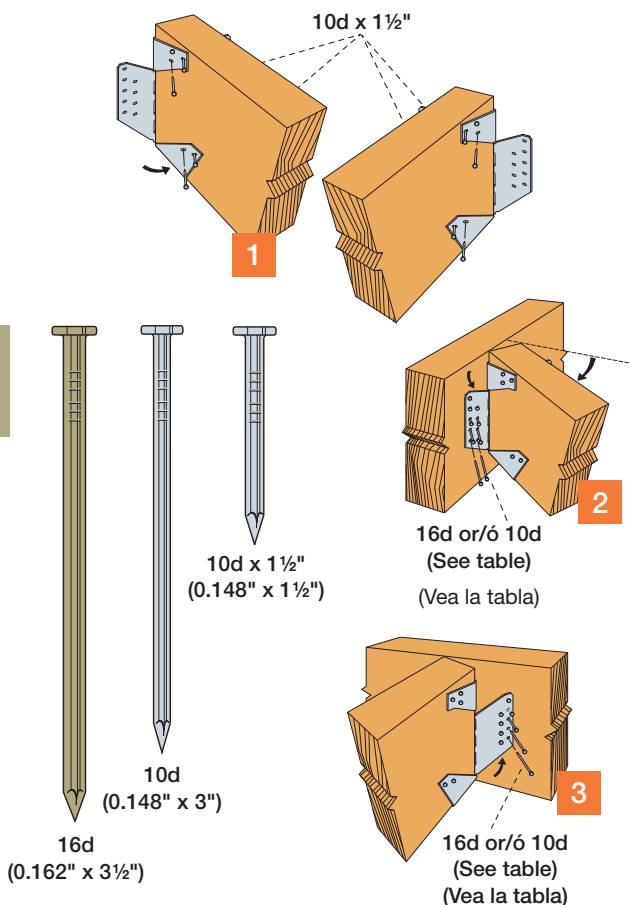
4



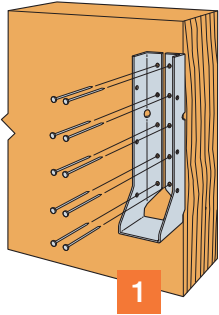
5



16d
(0.162" x 3½")

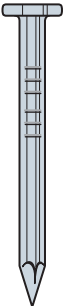
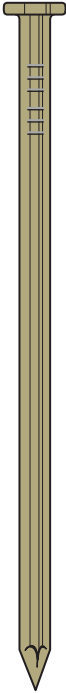


Joist Width (in.) Ancho de Vigueta	Model Modelo	Nails / Clavos	
		Face / Cara	Joist / Viga
Sloped Only Hangers / Sólo Conectores Sesgados			
1½	LSSU28	10-10d	5-10dx1½
1½	LSSU210	10-10d	7-10dx1½
2½	LSSUH310	18-16d	12-10dx1½
3	LSSU210-2	18-16d	12-10dx1½
3½	LSSU410	18-16d	12-10dx1½
Skewed Hangers or Sloped and Skewed Conectores Sesgados o Con Sego y Pendiente			
1½	LSSU28	9-10d	5-10dx1½
1½	LSSU210	9-10d	7-10dx1½
2½	LSSUH310	14-16d	12-10dx1½
3	LSSU210-2	14-16d	12-10dx1½
3½	LSSU410	14-16d	12-10dx1½

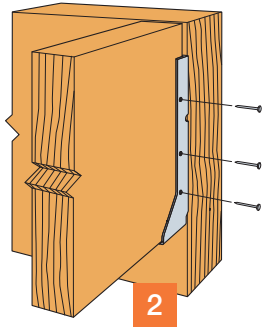


Header
Viga cabezal

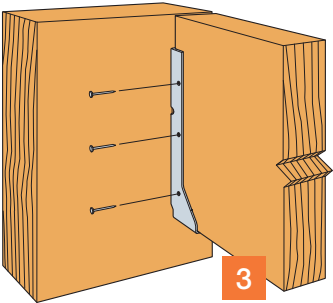
Joist
Viga

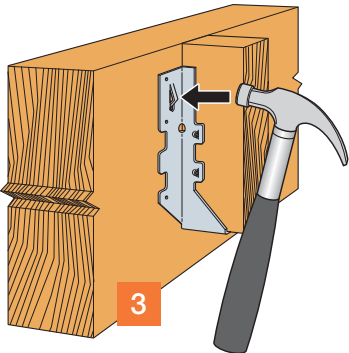
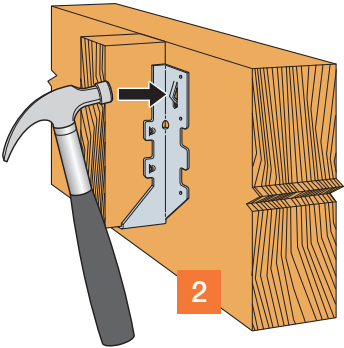
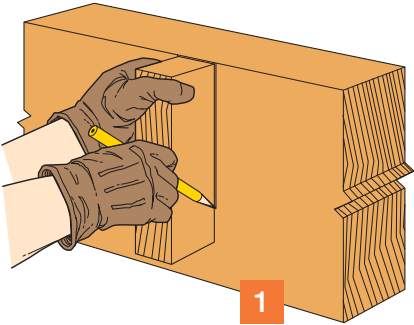


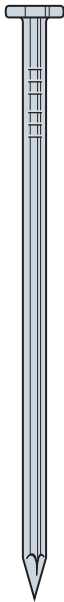
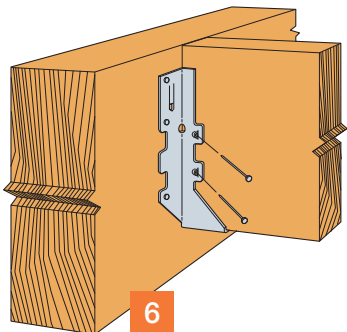
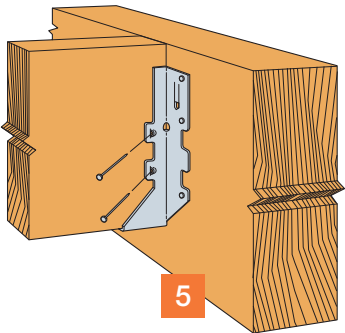
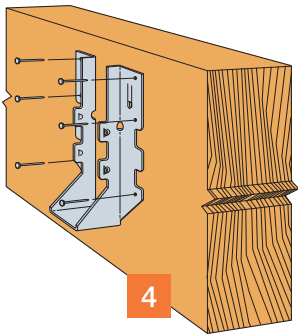
10d x 1 1/2"
(0.148" x 1 1/2")



16d
(0.162" x 3 1/2")

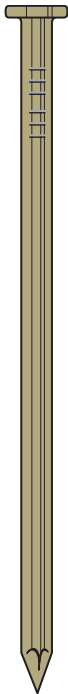






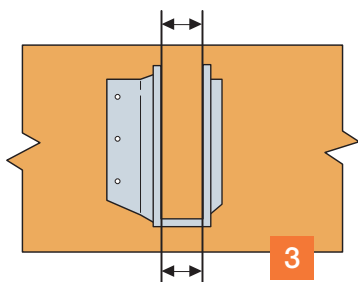
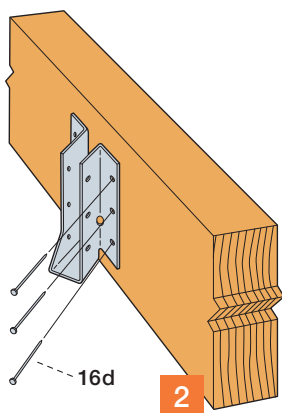
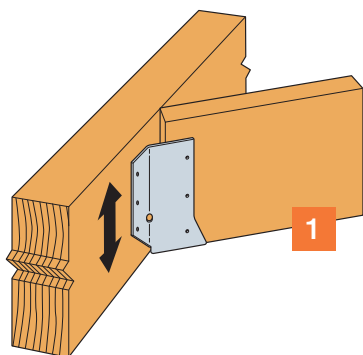
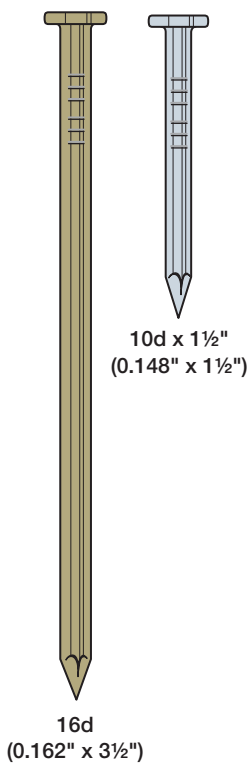
10d for
single 2x.

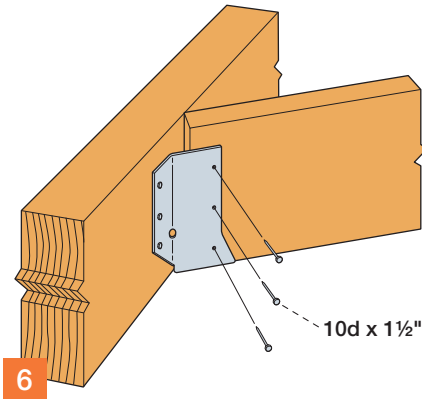
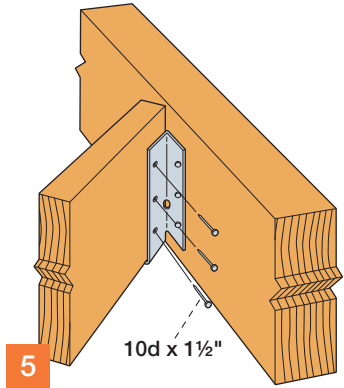
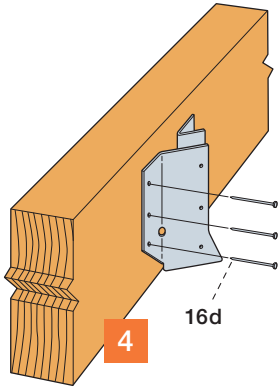
10d para
un solo 2x
(0.148" x 3").

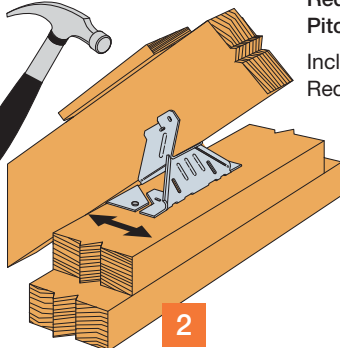
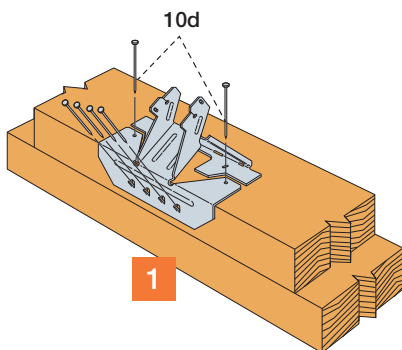
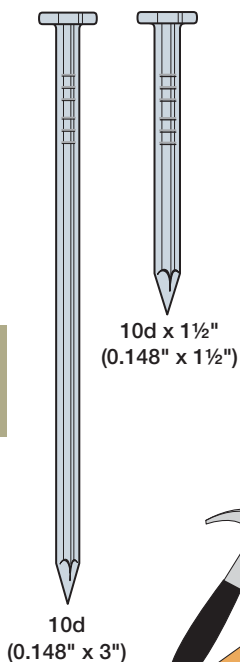


16d for
all others.

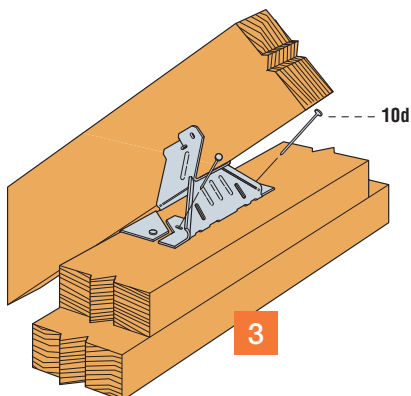
16d para
los demás
(0.162" x 3½").

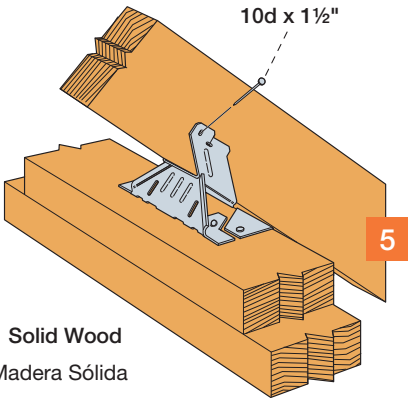
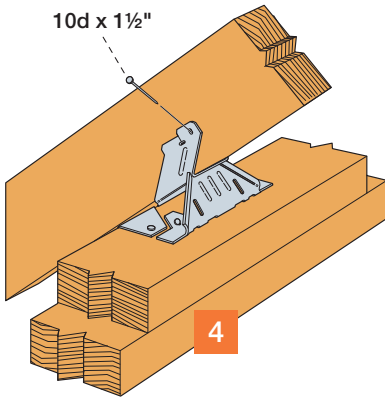




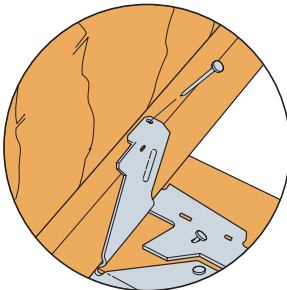


Adjust to
Required
Pitch.
Inclinación
Requerida.



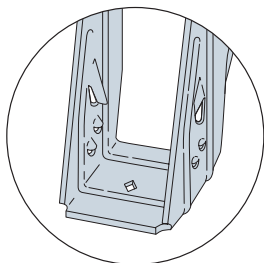


Solid Wood
Madera Sólida



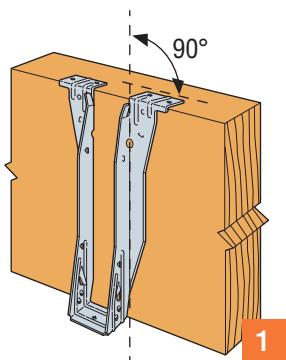
I-Joist
Vigueta

ITS



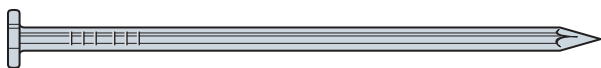
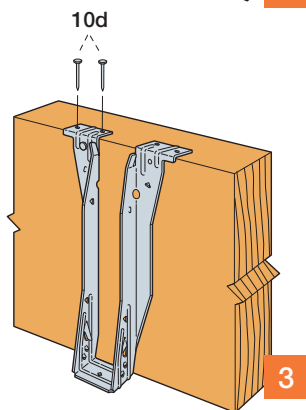
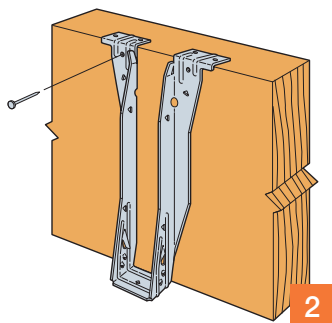
The Strong-Grip™ seat allows the I-joist to “snap” in securely — no joist nails needed.

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

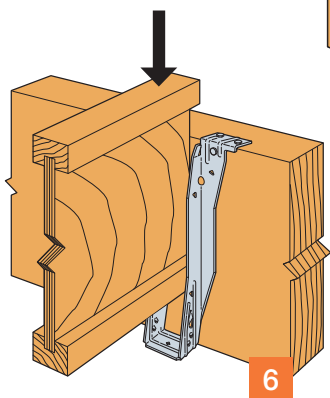
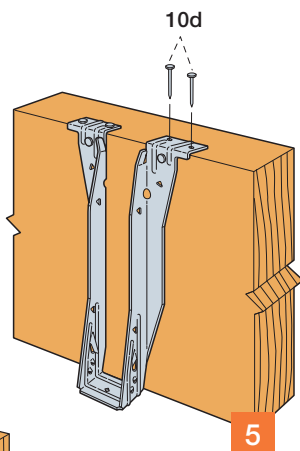
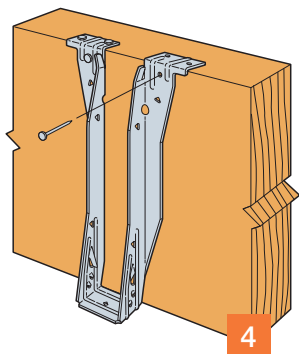


See pages 12–14 for more information.

Vea las páginas 12–14 para más información.

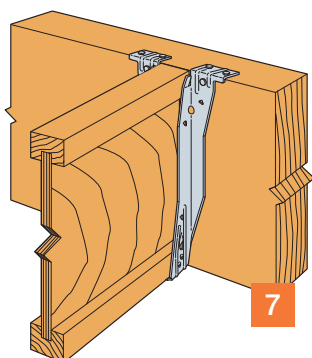


10d
(0.148" x 3")



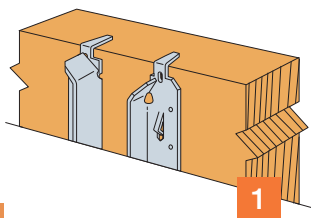
No nails required in joist.

No es necesario clavar
clavos en la viga.

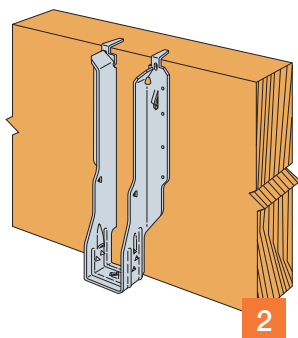


The Strong-Grip™ seat allows the I-joist to “snap” in securely – no joist nails needed.

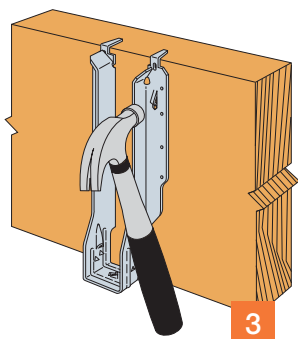
El asiento Strong-Grip™ permite que la viga en ‘I’ “encaje” con firmeza; no se necesitan clavos para vigas.



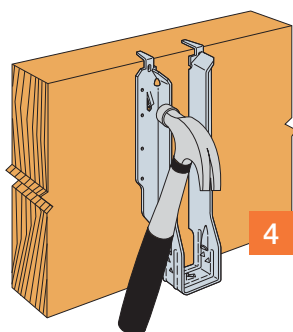
1



2



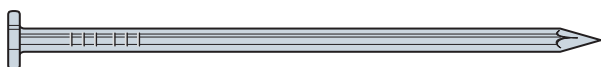
3



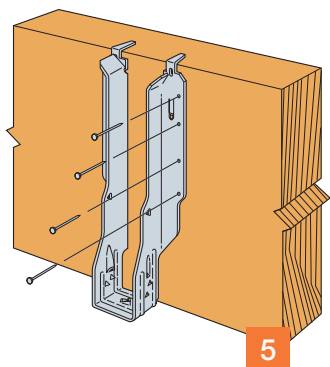
4

See pages 12–14 for more information.

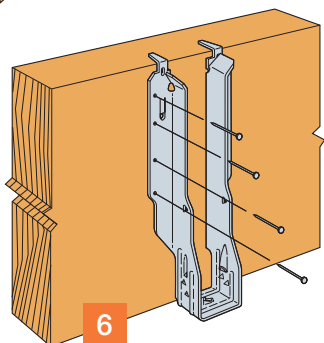
Vea las páginas 12–14 para más información.



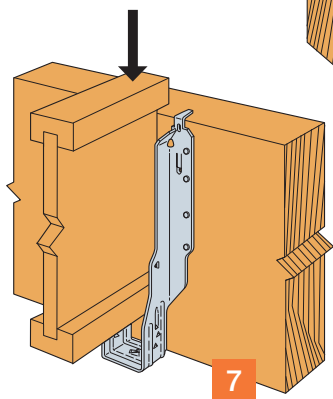
10d
(0.148" x 3")



5



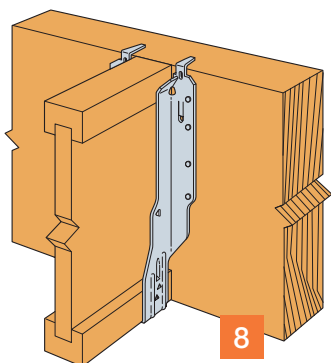
6



7

No nails required in joist.

No es necesario clavar
clavos en la viga.

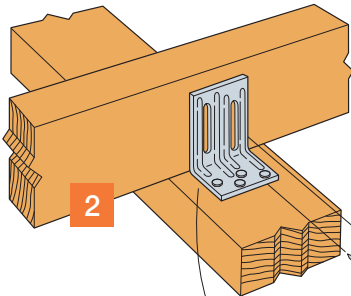
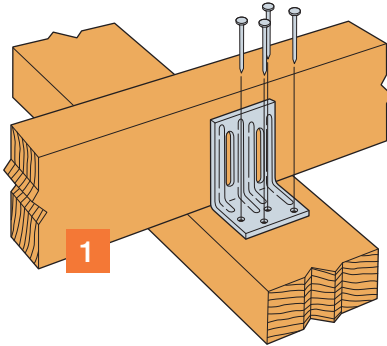


8

Plated Truss Connectors



DTC

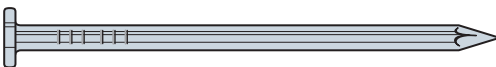


Install nail in center of slot.

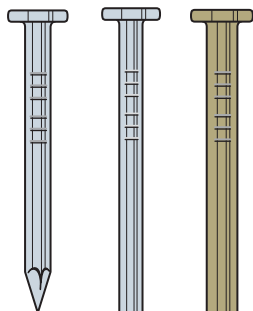
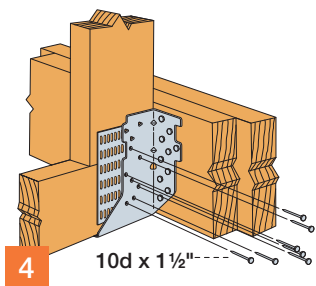
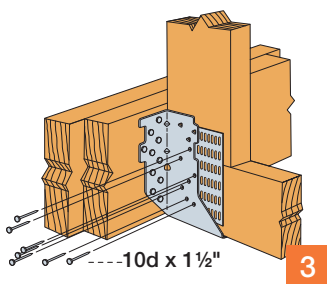
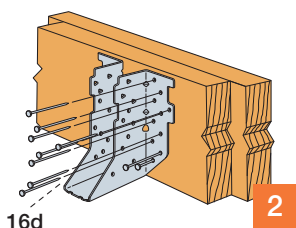
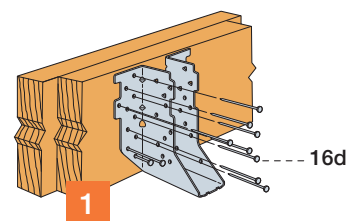
Instale el clavo en el centro de la ranura.

Truss nails not driven flush.

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



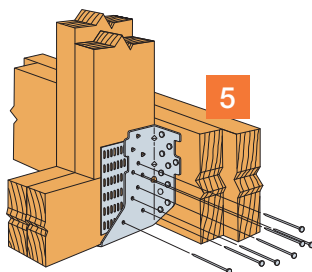
8d
(0.131" x 2½")



10d x 1 1/2"
(0.148" x 1 1/2")

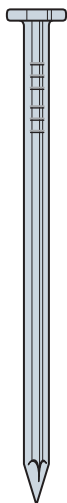
10d
(0.148" x 3")
For double
2x joists

16d
(0.162" x 3 1/2")

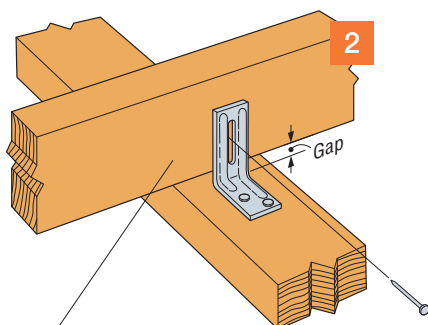
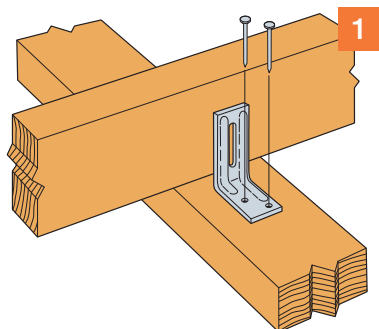


For double truss, use
10d x 3" nails into trusses.

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



8d
(0.131" x 1½")

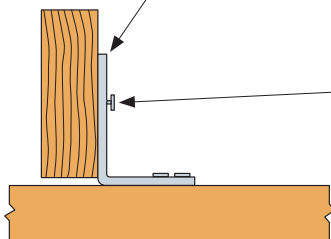


Install nail in center of slot.

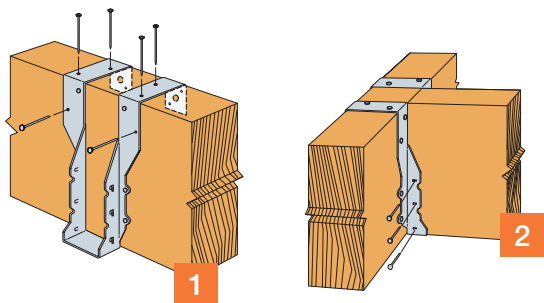
Instale el clavo en el centro de la ranura.

Truss nails not driven flush.

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



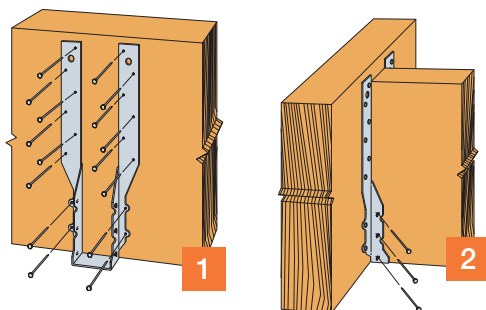
Top-Mount Condition / Condición de Montaje Superior



Install joist nails both sides.

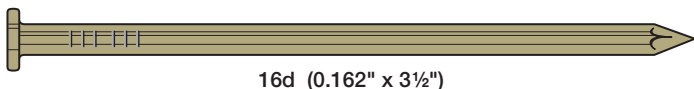
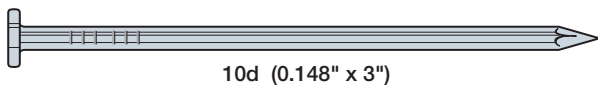
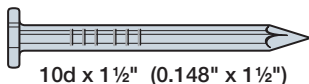
Instale clavos para vigas a ambos lados.

Face-Mount Condition / Condición de Montaje Sobre Cara



Install joist nails both sides.

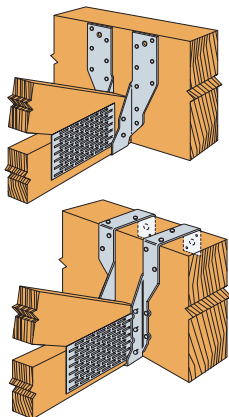
Instale clavos para vigas a ambos lados.



Installation on Solid Header

Instalación Sobre Viga Cabezal Sólida

Model Modelo	Top & Face Encima & Cara	Carried Member Miembro Soportado
THA29	16-10d	4-10d
THA213	14-10d	4-10d
THA413		
THA218	18-10d	4-10d
THA218-2	22-16d	6-16d
THA418		
THA422		
THA222-2		
THA422-2	30-16d	6-16d
THA426		

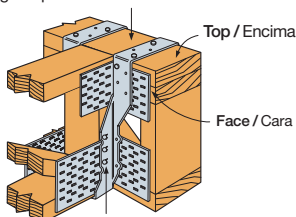


Installation on Truss

Instalación Sobre Cercha

Nail Location Ubicación de Los Clavos	Qty / Nail Cant./Clavo
Top / Encima	4-16d
Face / Cara	4-16d
Carried Member Miembro soportado	Fill all holes with 16d Llene todos los orificios con clavos 16d

Double 2x4 Top Chord Min.
Viga Superior Doble de 2 x 4 Como Mínimo



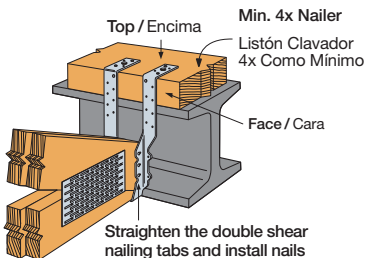
Straighten the double shear nailing tabs and install nails straight.

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

Installation on Nailer

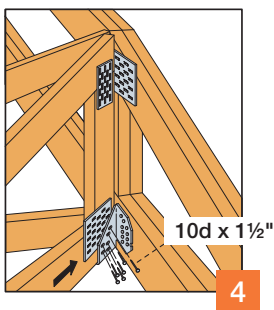
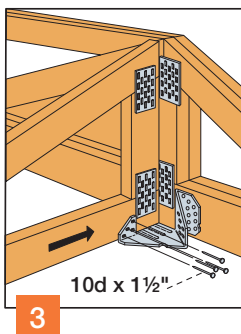
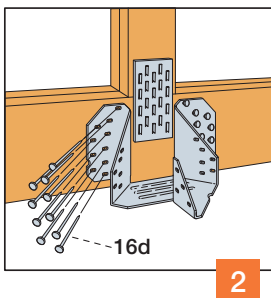
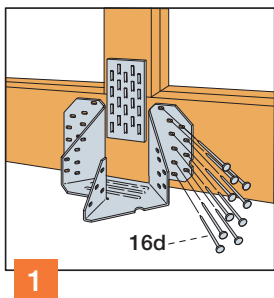
Instalación en Listón Clavador

Nail Location Ubicación de Los Clavos	4x Nailer / Listón Clavador 4x
Top / Encima	4-16d
Face / Cara	4-16d
Carried Member Miembro soportado	Fill all holes with 16d Llene todos los orificios con clavos 16d.



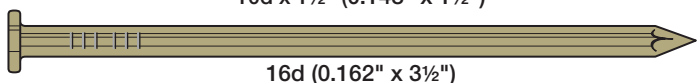
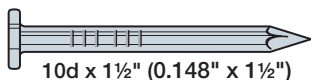
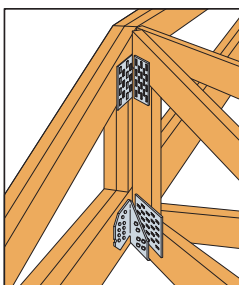
Straighten the double shear nailing tabs and install nails straight into the joist.

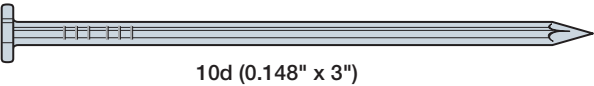
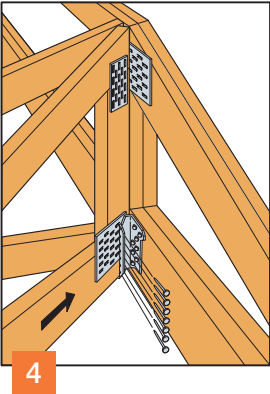
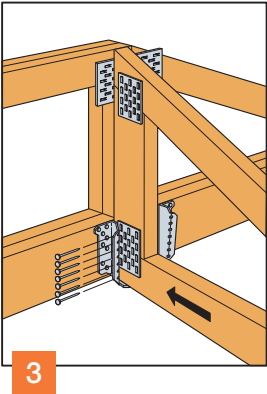
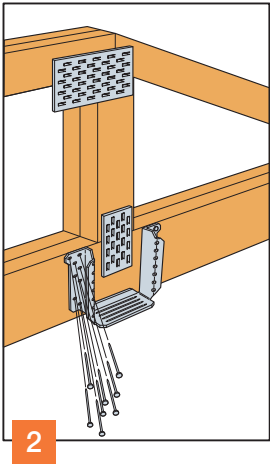
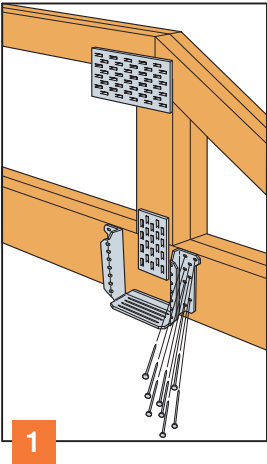
Enderece las pestañas de clavado de doble penetración e instale los clavos rectos en la viga.

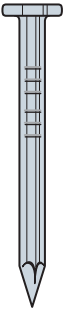
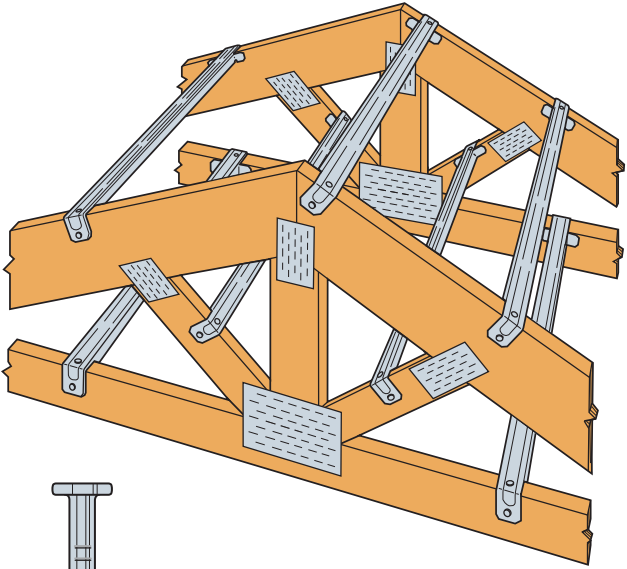


Left hand hip
installation similar.

Similar a la instalación
'izquierda' de cumbre.



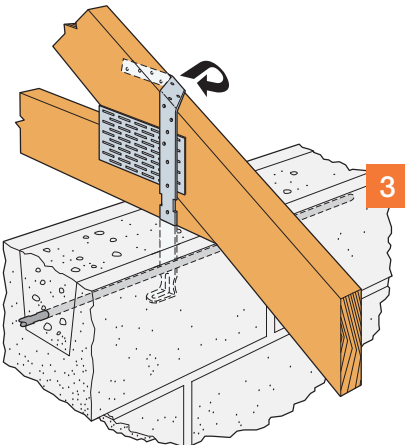
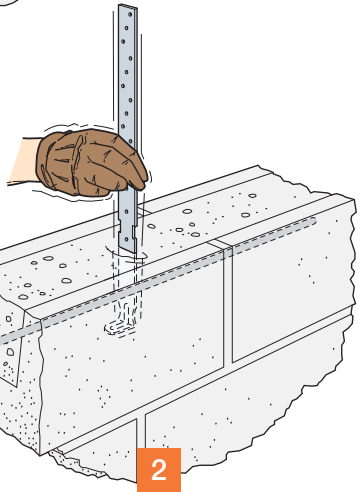
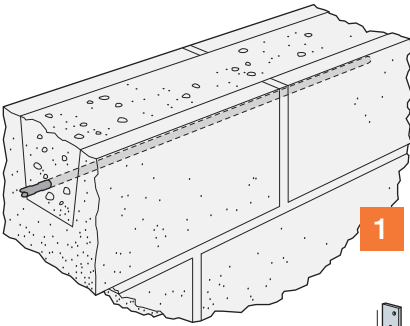


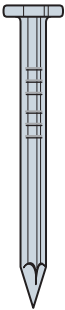
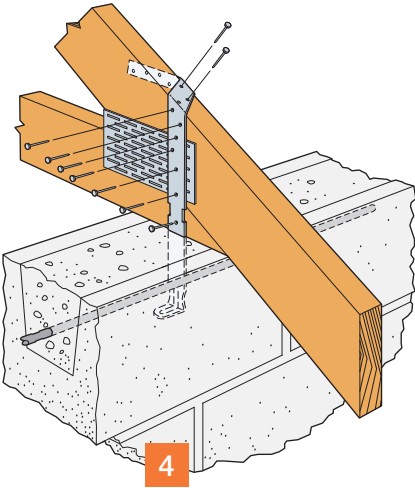


10d x 1½"
(0.148" x 1½")



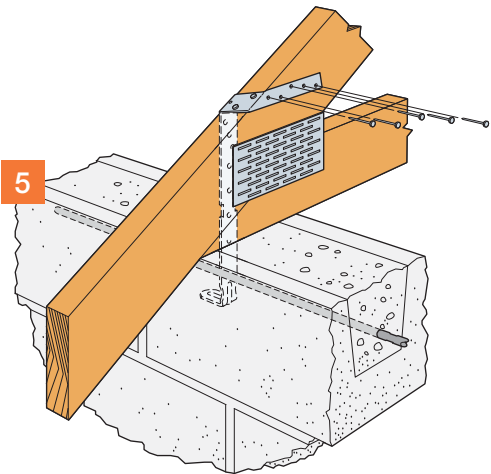
HETA

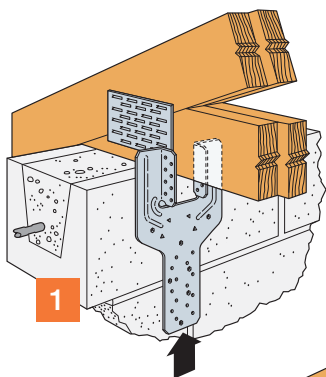




10d x 1½"
(0.131" x 1½")
Quantity per
Designer.

Cantidad
según
indicaciones
del diseñador.



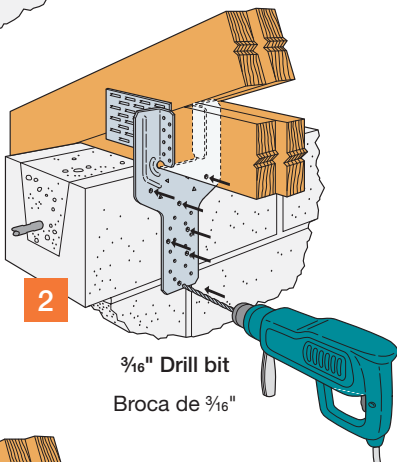


Fill  holes with
Titen® masonry screws.

Llene los orificios  con tornillos para
mampostería Titen®.

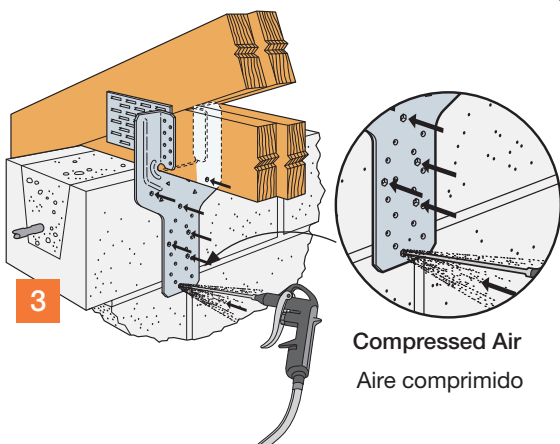
LGT2 shown. LGT3
and LGT4 similar.
For wood-to-wood
connections using
the LGT, visit
www.strongtie.com.

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



$\frac{3}{16}$ " Drill bit

Broca de $\frac{3}{16}$ "



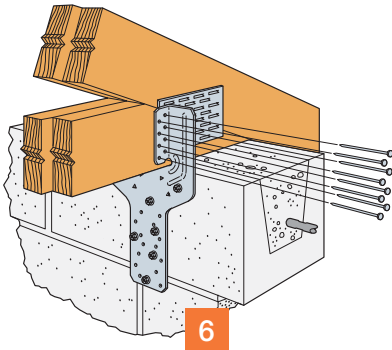
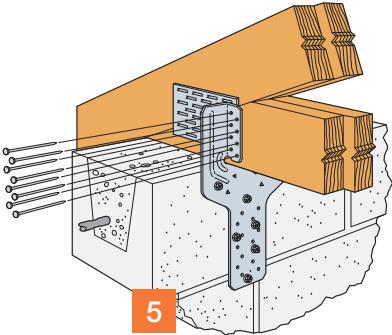
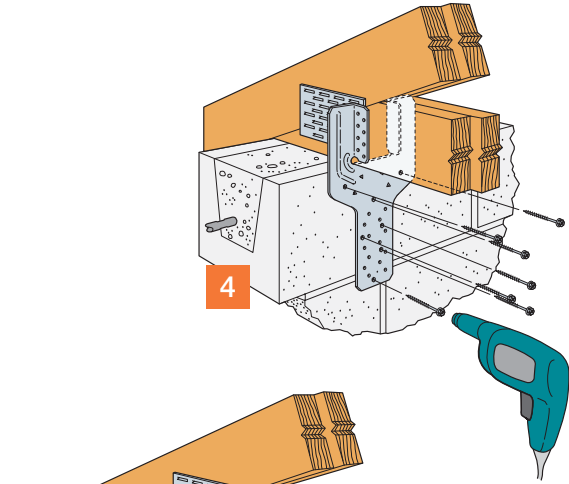
Compressed Air

Aire comprimido

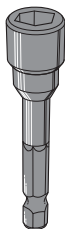
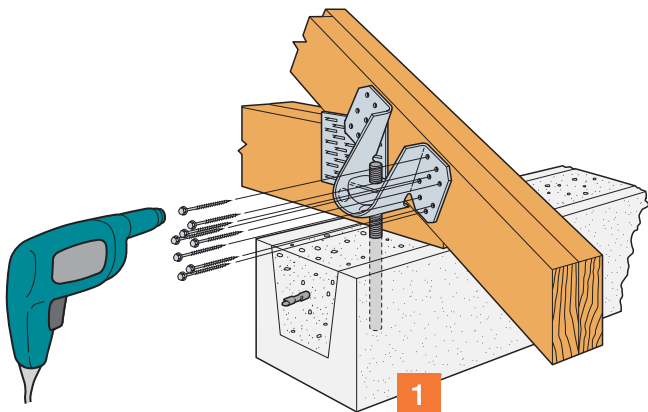


Titen® Masonry Screw/Tornillo para mampostería ($\frac{1}{4}$ " x $2\frac{1}{4}$ ")
For installation in concrete, use Titen $\frac{1}{4}$ " x $1\frac{3}{4}$ ".

Para instalaciones en concreto, utilice Titen de $\frac{1}{4}$ " x $1\frac{3}{4}$ ".



16d Sinker
(0.148" x 3 1/4")

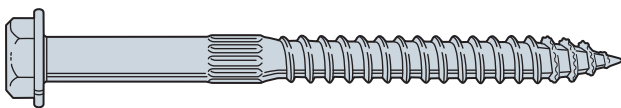


Use $\frac{3}{8}$ " driver.

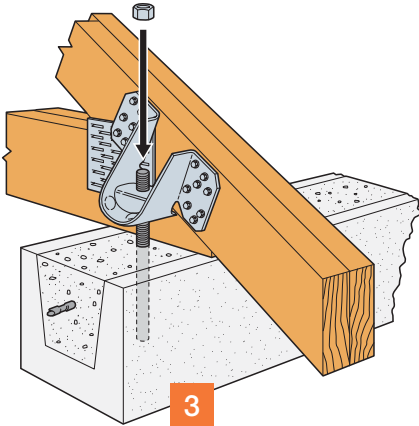
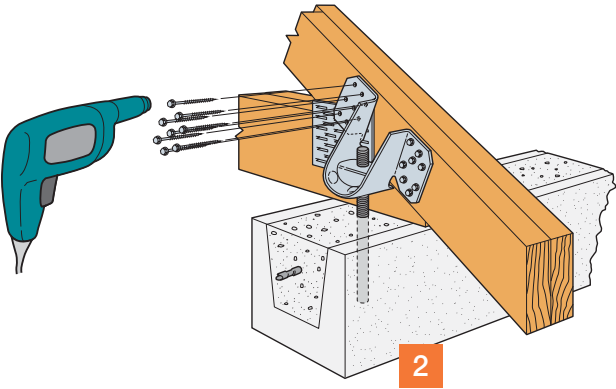
Use un
destornillador
de $\frac{3}{8}$ ".

If using an adhesive anchor, see
pages 103–104 for instructions.

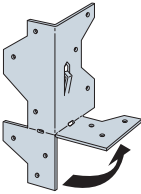
Si utiliza un anclaje adhesivo,
consulte las instrucciones de las
páginas 103–104.



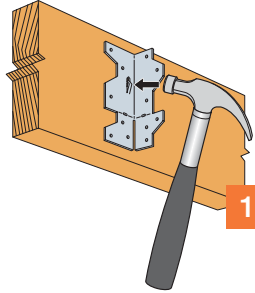
$\frac{1}{4}$ " x 3" Strong-Drive® SDS HEAVY-DUTY CONNECTOR Screw



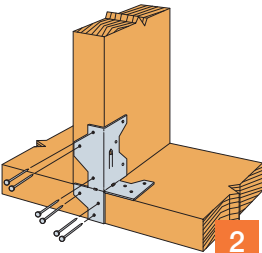
A35



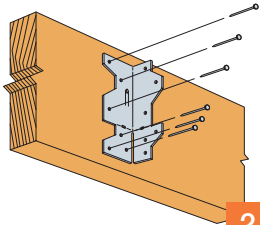
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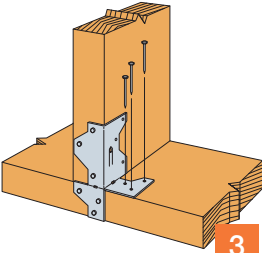
1



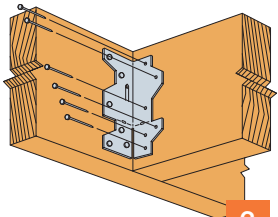
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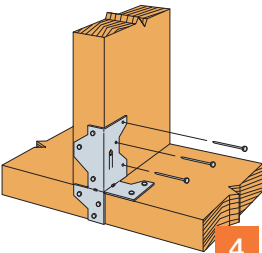
2



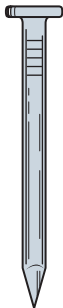
3



3



4

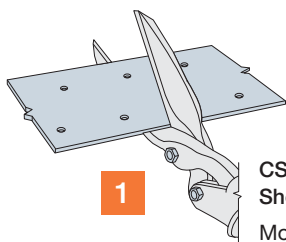


8d x 1 1/2
(0.131" x 1 1/2")

CS/CMST14



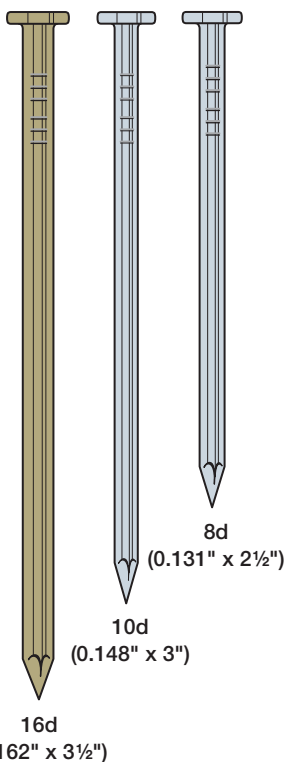
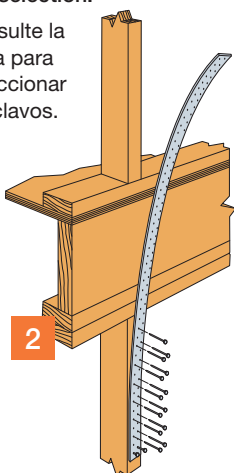
SIMPSON
Strong-Tie



CS14
Shown
Mostrado

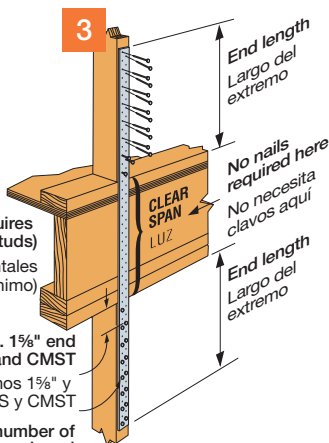
See chart for nail selection.

Consulte la
tabla para
seleccionar
los clavos.



Sheathing not shown for clarity.

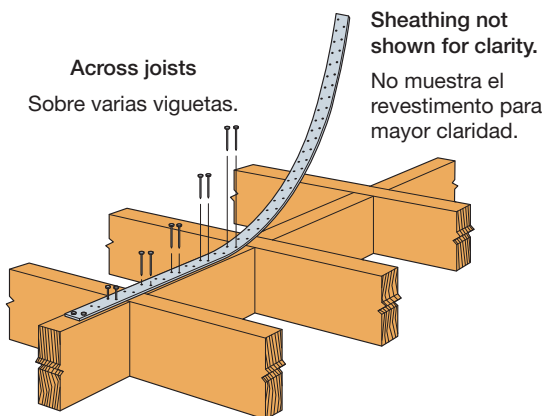
No muestra el
revestimiento para
mayor claridad.



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

Provide min. 1 $\frac{5}{8}$ " end distance for CS and CMST
Dejar al menos 1 $\frac{5}{8}$ " y distancia para CS y CMST

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



Model / Modelo	Lumber Species / Especies de Madera					
	Douglas Fir-Larch / Southern Pine			Spruce-Pine-Fir / HemFir		
	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"	30-8d	19"	Clear Span (Luz)+38"	36-8d
	15"	Clear Span (Luz)+30"	26-10d	16"	Clear Span (Luz)+32"	30-10d
CS16 CS16-R	13"	Clear Span (Luz)+26"	22-8d	14"	Clear Span (Luz)+28"	26-8d
	11"	Clear Span (Luz)+22"	20-10d	12"	Clear Span (Luz)+24"	22-10d
CS18S CS18S CS18-R	11"	Clear Span (Luz)+22"	18-8d	12"	Clear Span (Luz)+30"	22-8d
	9"	Clear Span (Luz)+18"	16-10d	10"	Clear Span (Luz)+24"	18-10d
CS20 CS20-R	9"	Clear Span (Luz)+18"	14-8d	9"	Clear Span (Luz)+18"	16-8d
	6"	Clear Span (Luz)+16"	12-10d	8"	Clear Span (Luz)+16"	14-10d
CS22 CS22-R	6"	Clear Span (Luz)+16"	14-8d	8"	Clear Span (Luz)+20"	14-8d
	5"	Clear Span (Luz)+14"	12-10d	7"	Clear Span (Luz)+18"	12-10d
CMST14	30"	Clear Span (Luz)+60"	66-10d	34"	Clear Span (Luz)+76"	76-10d
	26"	Clear Span (Luz)+52"	56-16d	30"	Clear Span (Luz)+66"	66-16d

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

SIMPSON

Strong-Tie

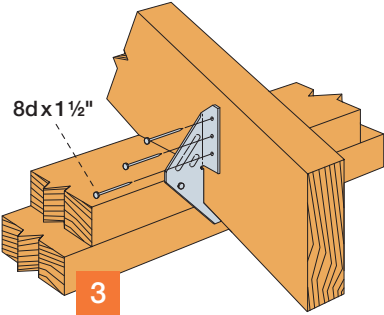
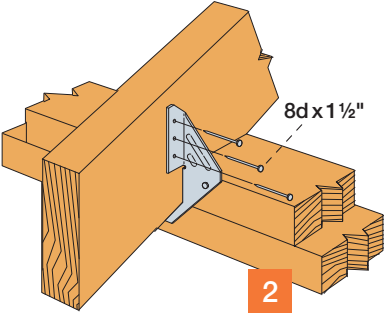
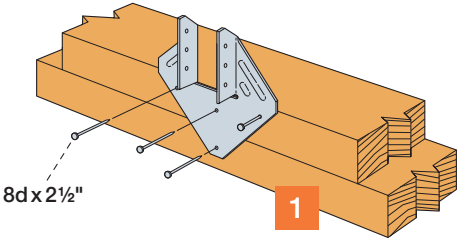
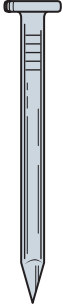
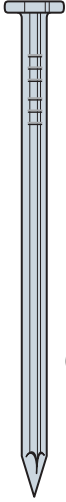


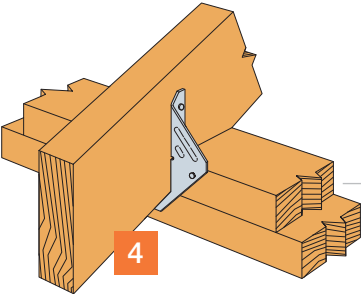
Plate
Placas

Rafter
Cabrio



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

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



H1 Reversed

H1 Invertido

H1 – Truss/Viga

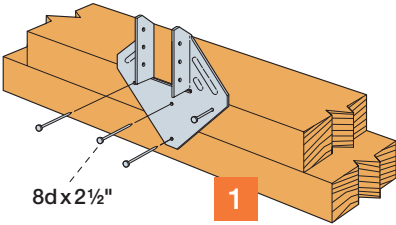
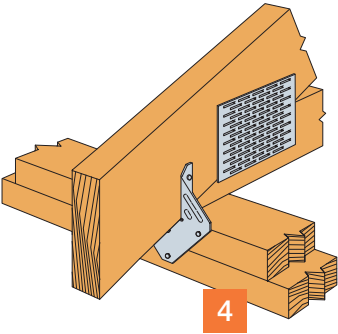
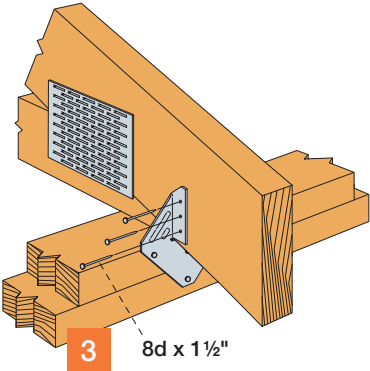
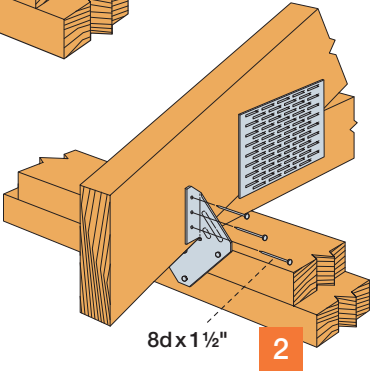
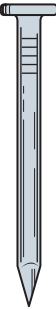
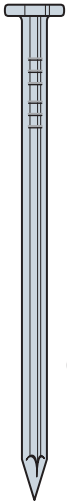


Plate
Placas

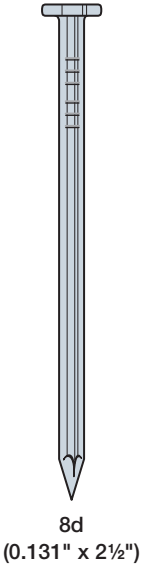
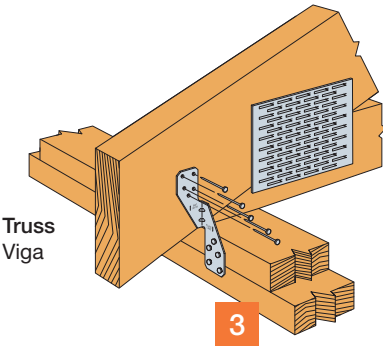
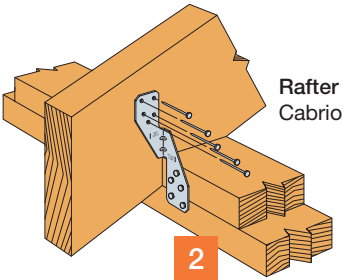
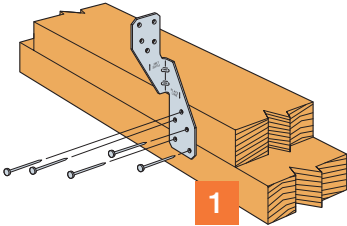
Truss
Viga



H1 Reversed

H1 Invertido

H2.5A

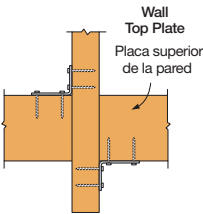


Installations in Pairs

Both connectors shall be same model.

Instalaciones en Pares

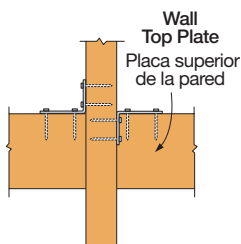
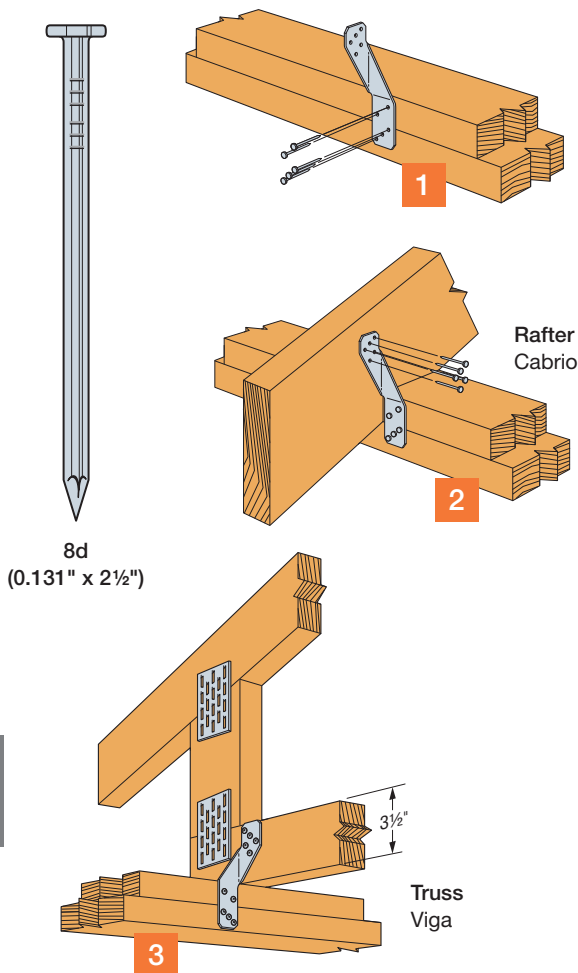
Ambos conectores deben ser del mismo modelo.



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

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

Plan View
Vista de Planta



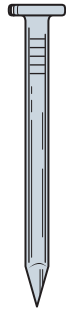
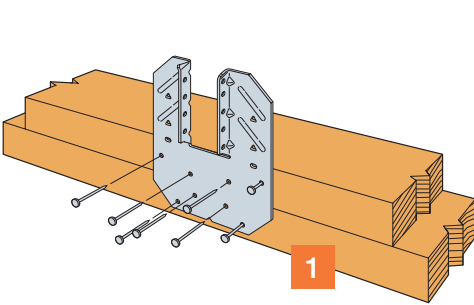
Products can be on the same side of the wall provided they are configured as shown.

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

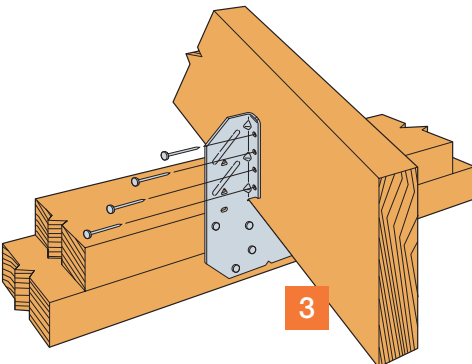
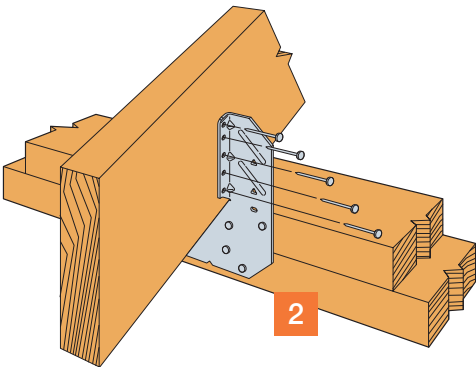
Plan View / Vista de Planta

H10A – Rafter/Cabrio

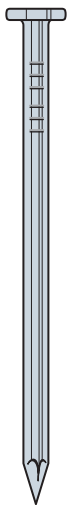
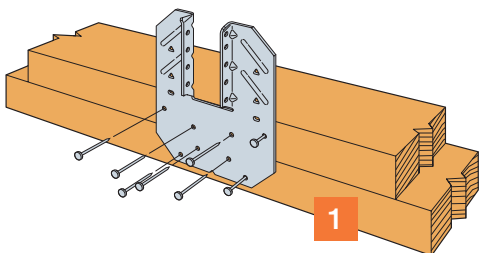
SIMPSON
Strong-Tie



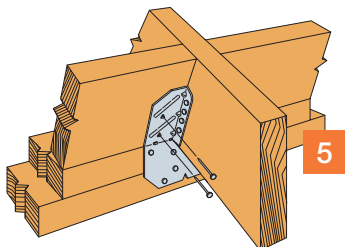
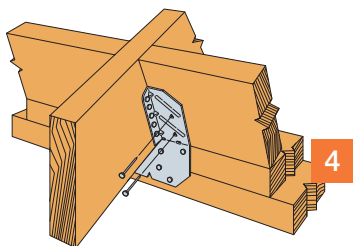
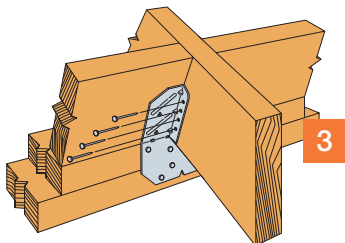
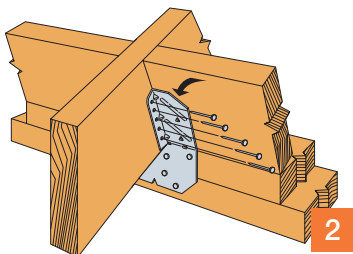
10d x 1 1/2"
(0.148" x 1 1/2")

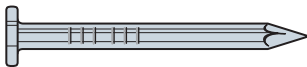
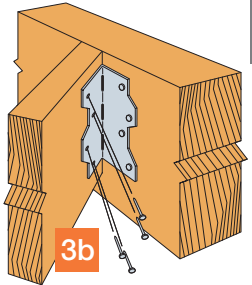
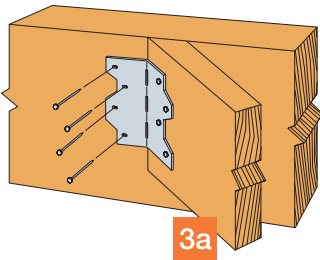
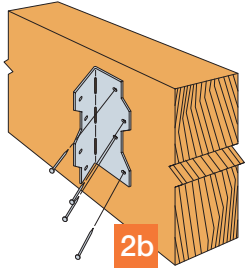
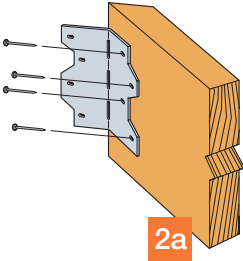
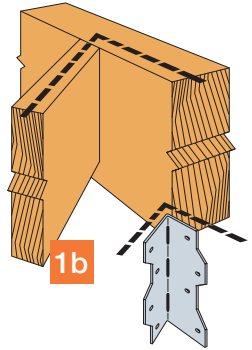
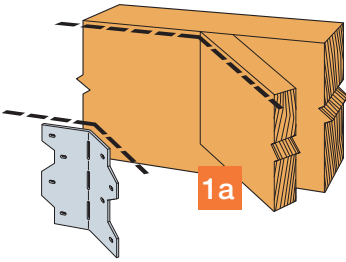


H10A – Blocking/Entramado

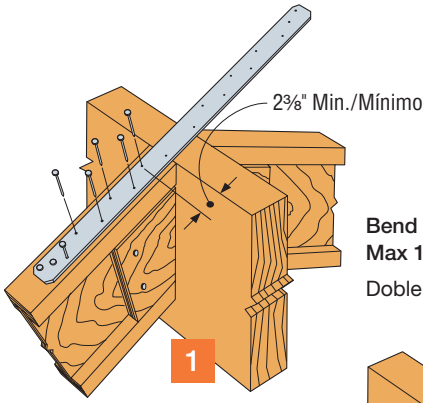


8d
(0.131" x 2½")

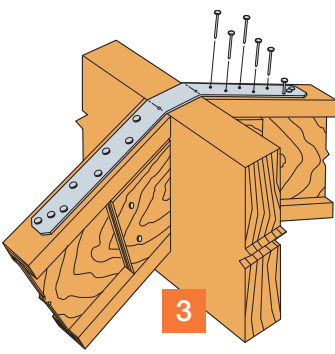
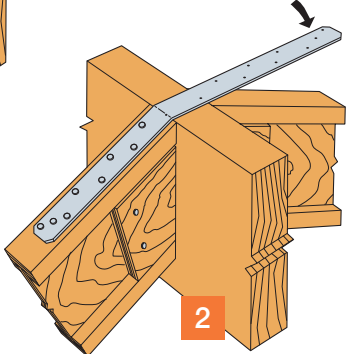




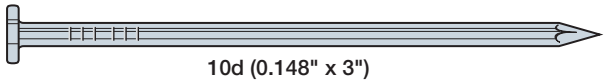
10d x 1 1/2"
(0.148" x 1 1/2")



Bend strap one time only.
Max 12/12 joist pitch.
Doble las alas una vez.

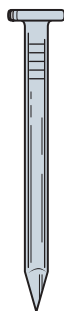
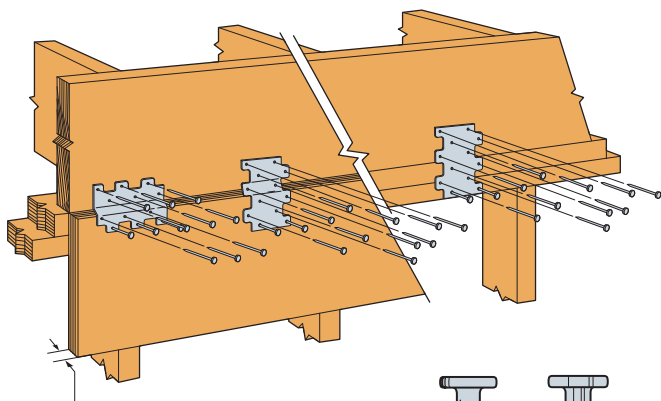


Hanger not shown
for clarity.
El soporte colgante no
se muestra para ofrecer
mayor claridad.

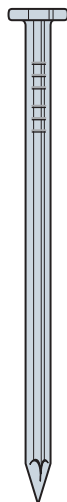


10d x 1 1/2" (0.148" x 1 1/2")
For I-joist installation only.

Sólo para instalación de vigas en 'I'.



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



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

FASTENERS:

LTP4

No sheathing: 8d x 1 1/2"

Over sheathing (3/8" thick max.): 8d x 2 1/2"

LTP5

No sheathing: 8d x 1 1/2"

Over sheathing (1/2" thick max.): 8d x 2 1/2"

SUJETADORES:

LTP4

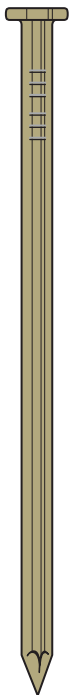
Sin relleno: 8d x 1 1/2"

Sobre relleno (3/8" de espesor máx.): 8d x 2 1/2"

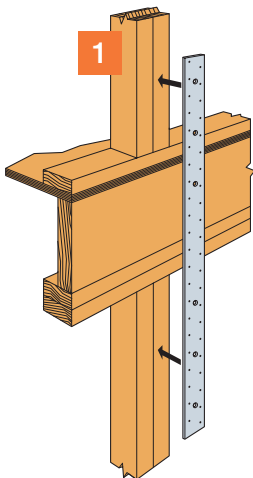
LTP5

Sin relleno: 8d x 1 1/2"

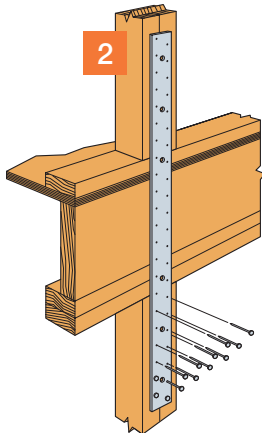
Sobre relleno (1/2" de espesor máx.): 8d x 2 1/2"



16d
(0.162" x 3 1/2")

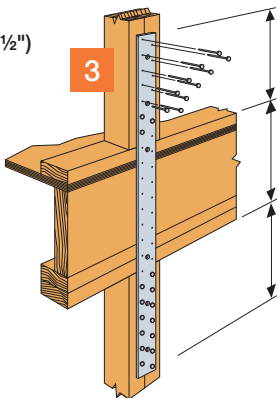


1



2

No sheathing / Sin relleno



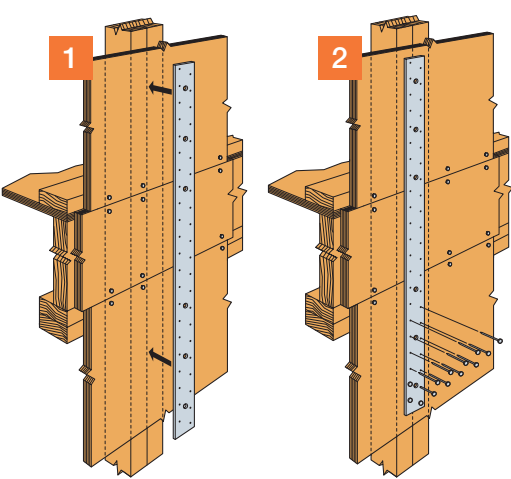
3

End Length
Largo Del
Extremo

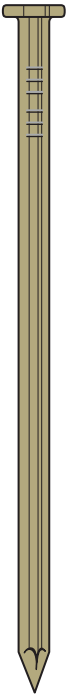
CLEAR
SPAN
LUZ

No nails
required here
No necesita
clavos aquí

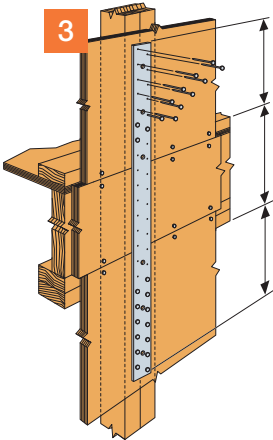
End Length
Largo Del
Extremo



With sheathing / Con relleno



16d
(0.162" x 3½")

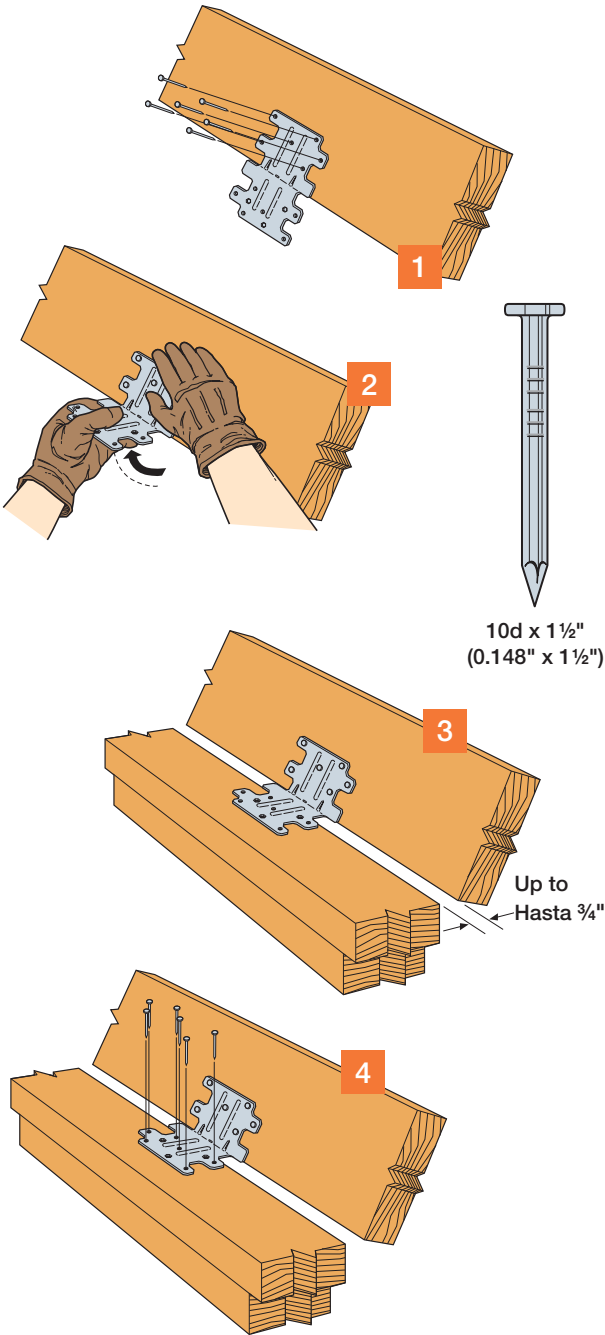


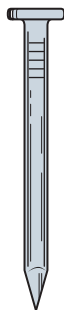
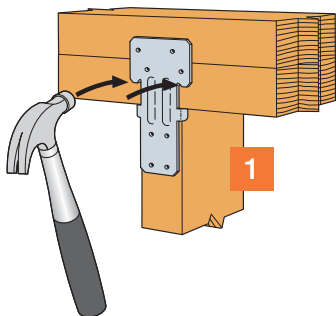
End Length
Largo Del
Extremo

CLEAR
SPAN
LUZ

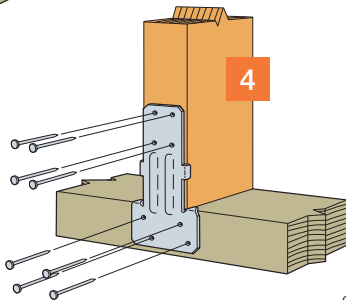
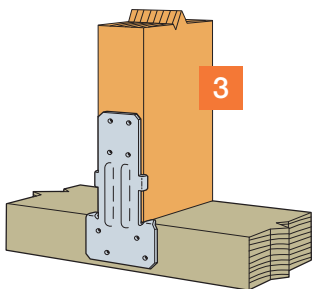
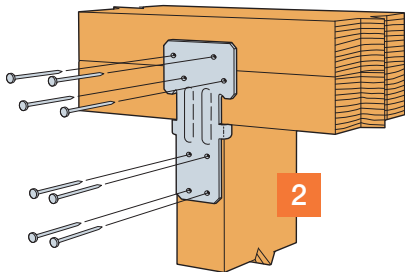
End Length
Largo Del
Extremo

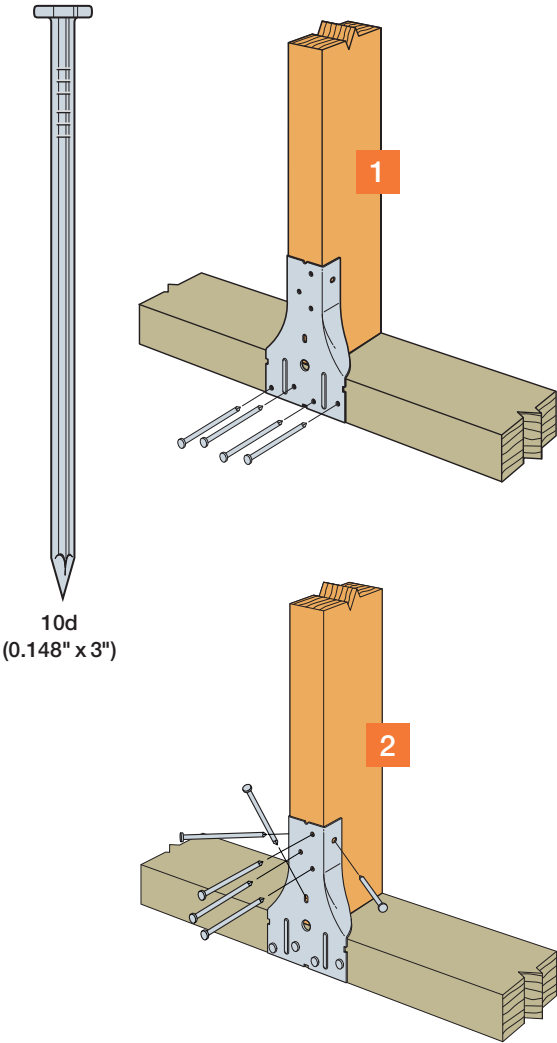
No nails
required here
No necesita
clavos aquí

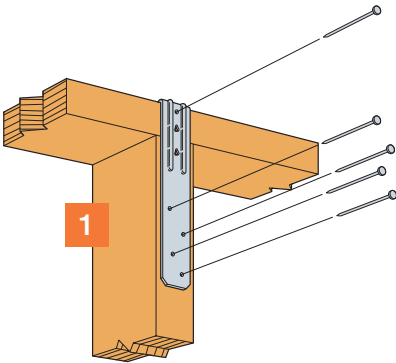




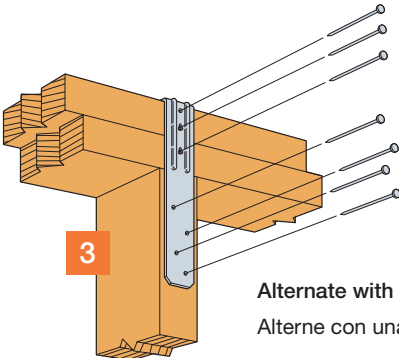
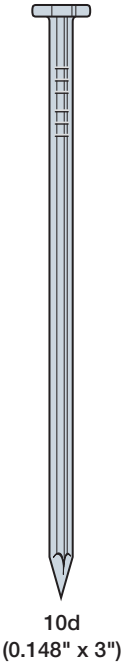
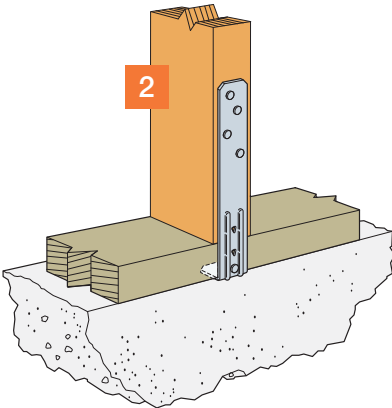
8d x 1½"
(0.131" x 1½")



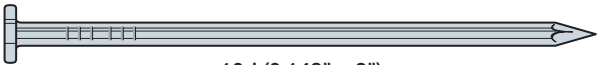
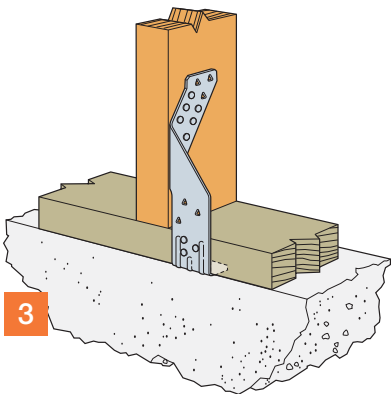
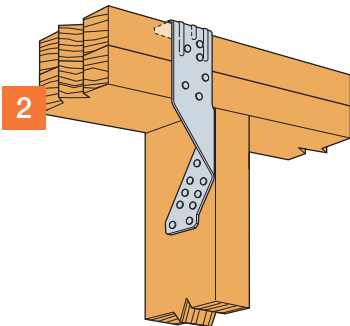
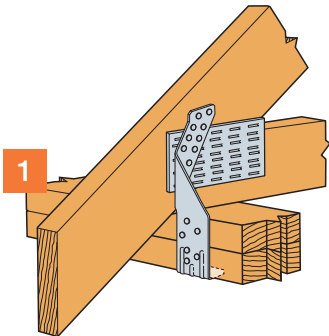




Installation on mudsill / bottom plate similar.
Instalación sobre durmientes / soleras similar.

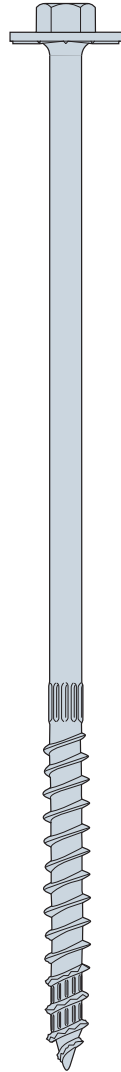
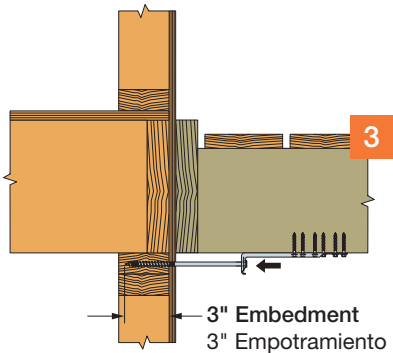
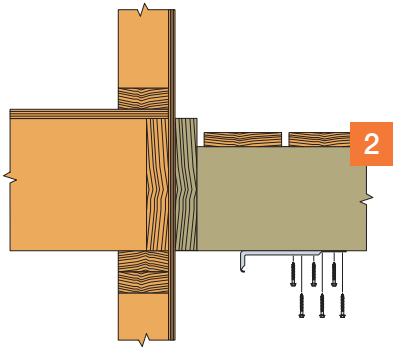
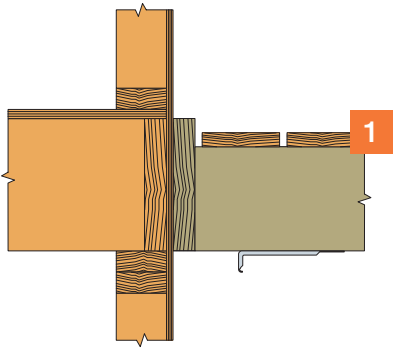


Alternate with double top plate.
Alterne con una placa superior doble.

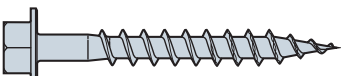


10d (0.148" x 3")

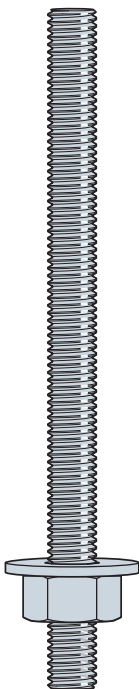
DTT1Z



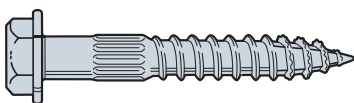
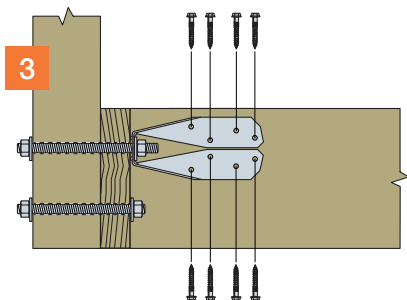
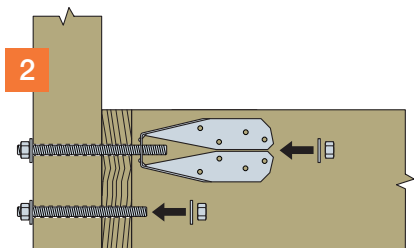
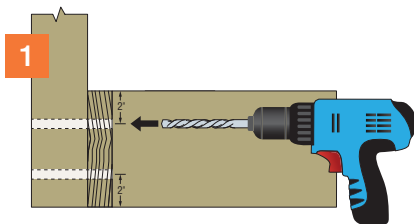
Strong-Drive®
SDWH TIMBER-HEX
HDG Screw



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



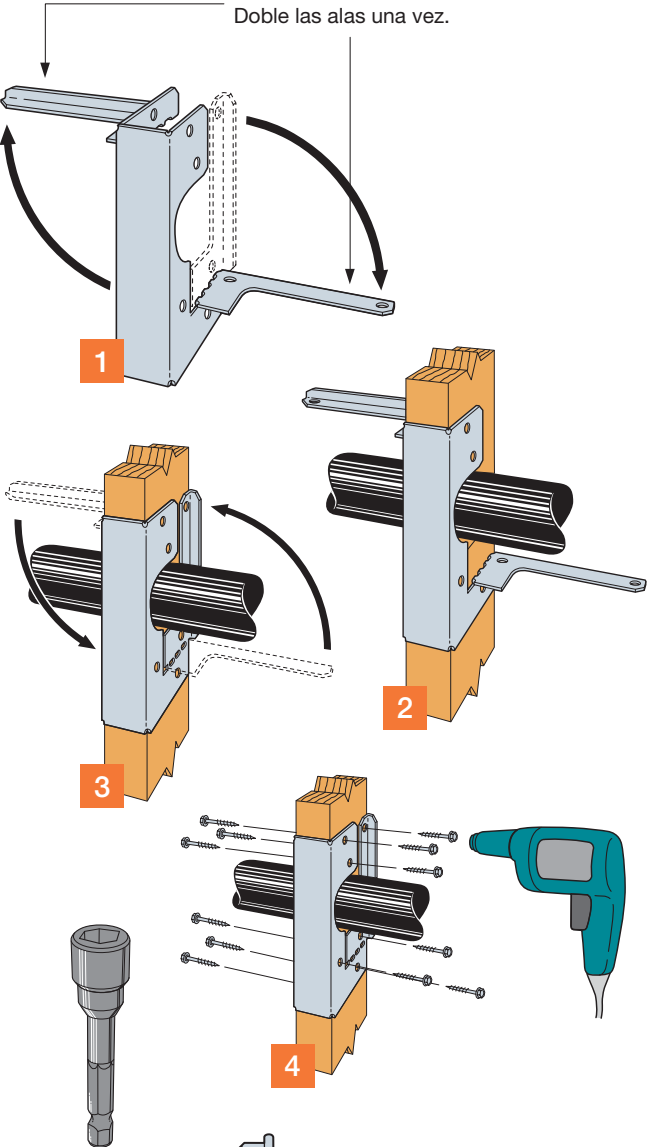
Threaded Rod



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

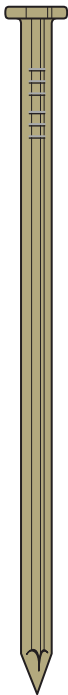
HSS

Bend flanges one time only.
Doble las alas una vez.

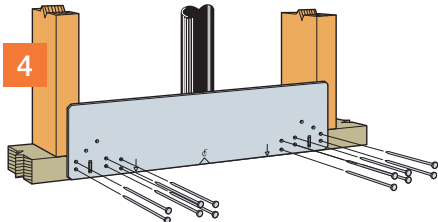
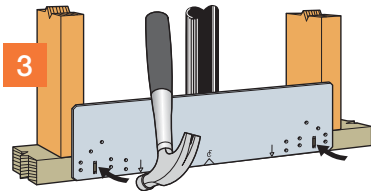
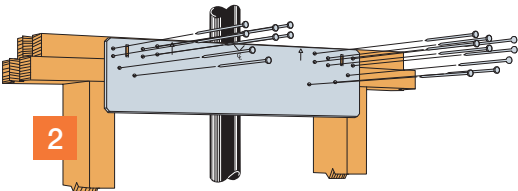
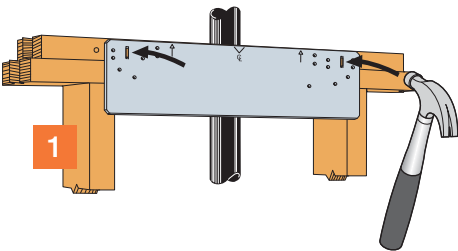


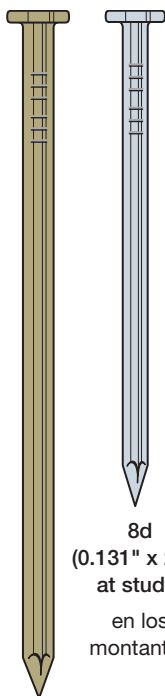
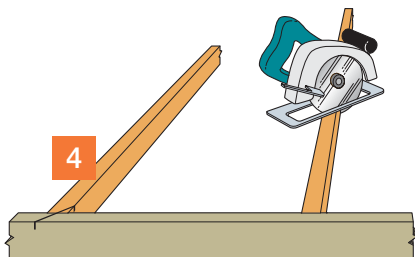
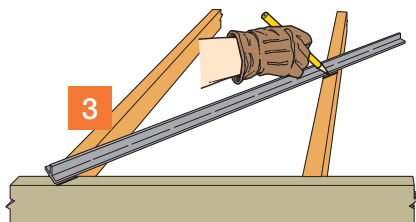
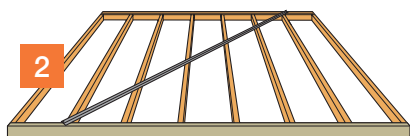
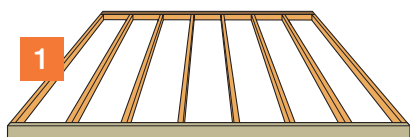
Use $\frac{3}{8}$ " driver.
Use un
destornillador
de $\frac{3}{8}$ ".

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



16d
(0.162" x 3½")



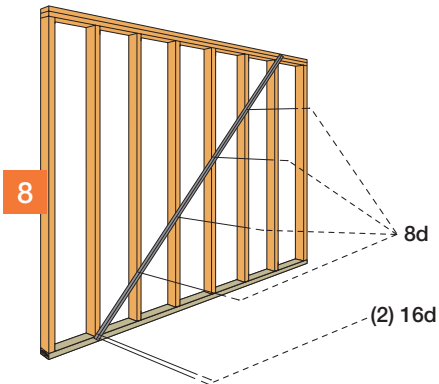
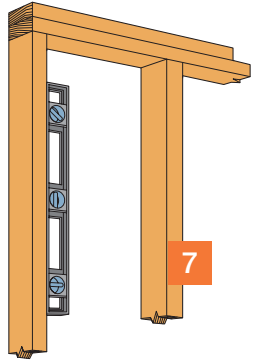
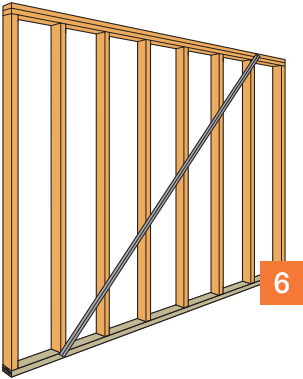
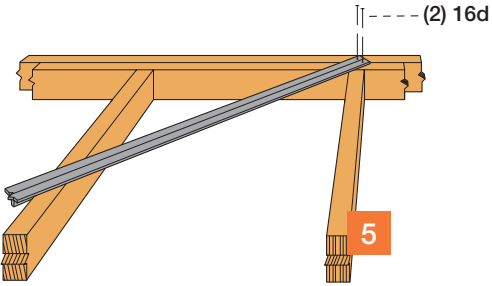


8d
(0.131" x 2½")
at studs/
en los
montantes

16d
(0.162" x 3½")
at plates/
en las soleras

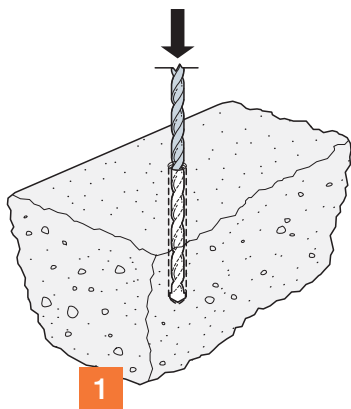
Cut ⅝" kerf.

Corte un corte
de ⅝".



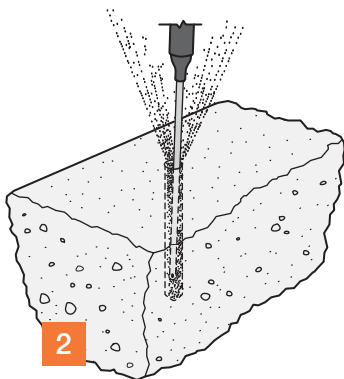
Adhesive Anchoring (AT-XP® & SET-XP®)

Anclaje Adhesivo



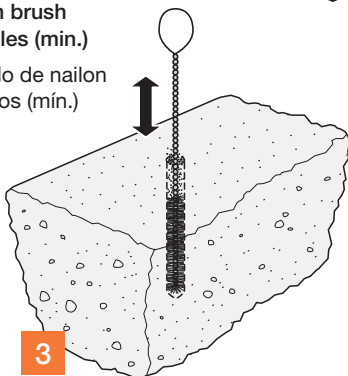
Compressed air
(80 psi min.),
4 seconds (min.)

Aire comprimido
(80 psi mín.),
4 segundos (mín.)



Nylon brush
4 cycles (min.)

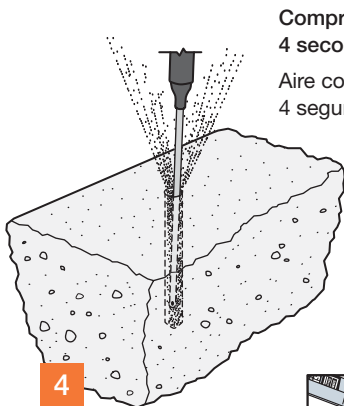
Cepillo de nailon
4 ciclos (mín.)



Adhesive Anchoring

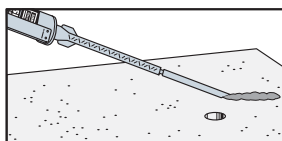
Anclaje Adhesivo

SIMPSON
Strong-Tie



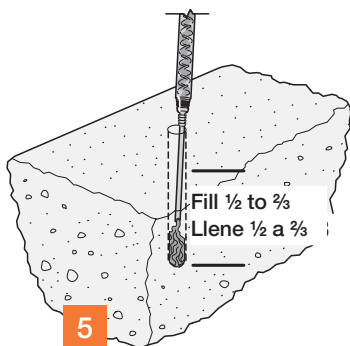
Compressed air (80 psi min.),
4 seconds (min.)

Aire comprimido (80 psi mín.),
4 segundos (mín.)

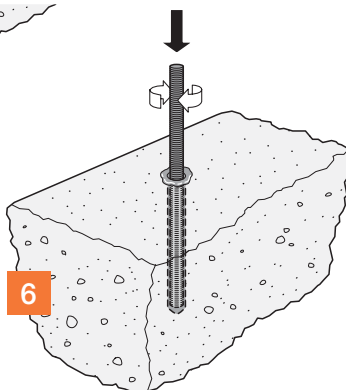


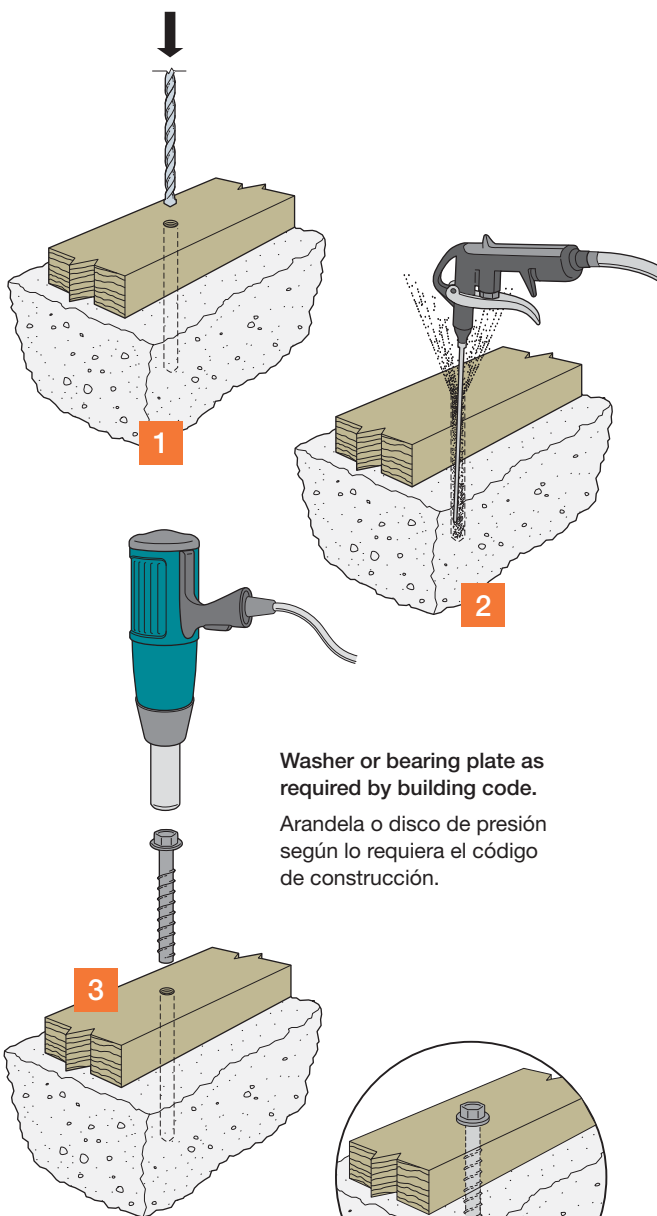
Dispense until uniform color

Aplique hasta lograr un color
uniforme.



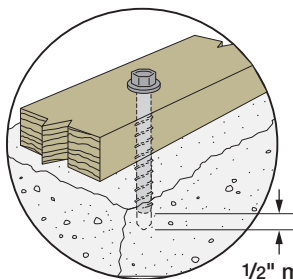
Fill $\frac{1}{2}$ to $\frac{2}{3}$
Llene $\frac{1}{2}$ a $\frac{2}{3}$





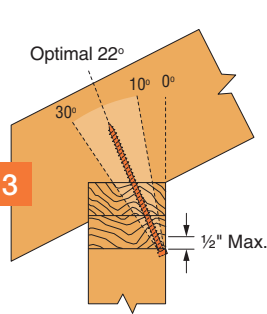
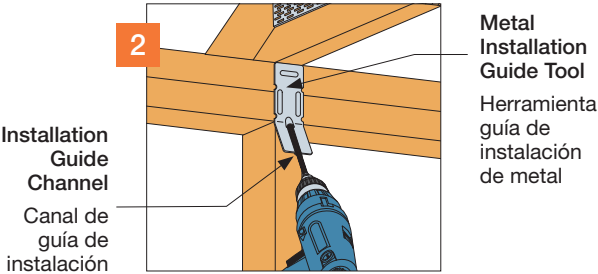
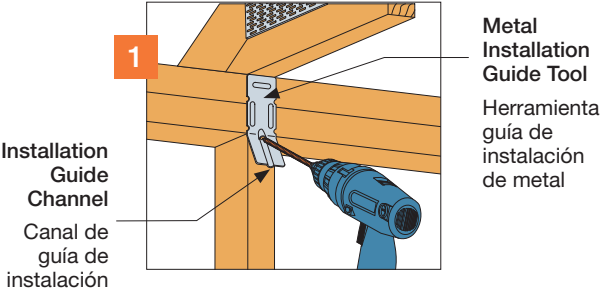
Washer or bearing plate as required by building code.

Arandela o disco de presión según lo requiera el código de construcción.

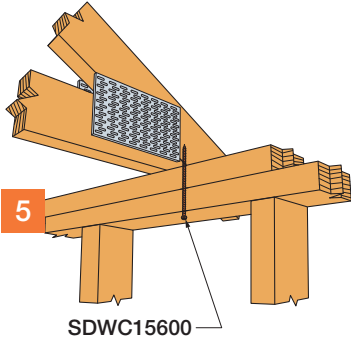
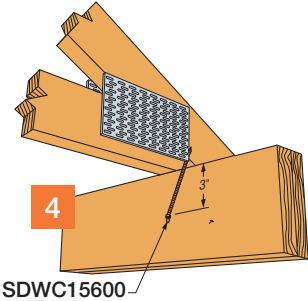


1/2" min.

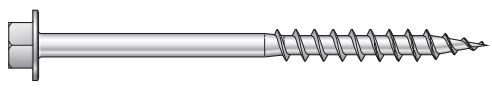
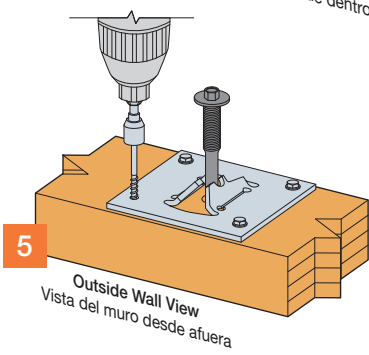
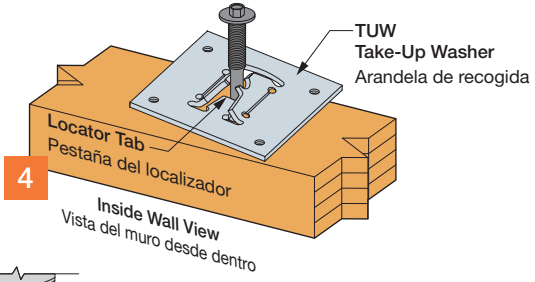
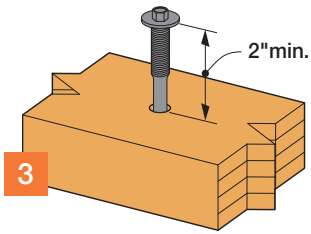
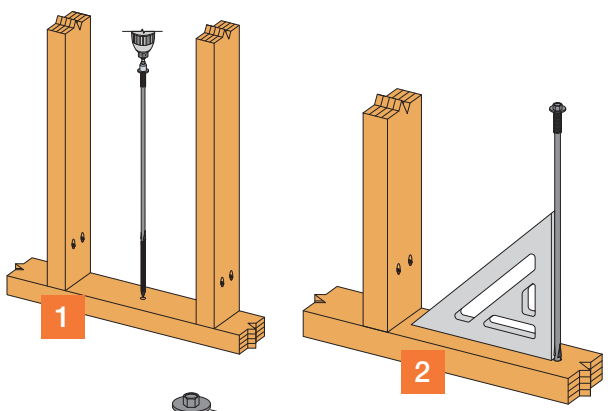
Strong-Drive® SDWC Truss Screw



Installation Angle Limit
Límite de ángulo para instalación



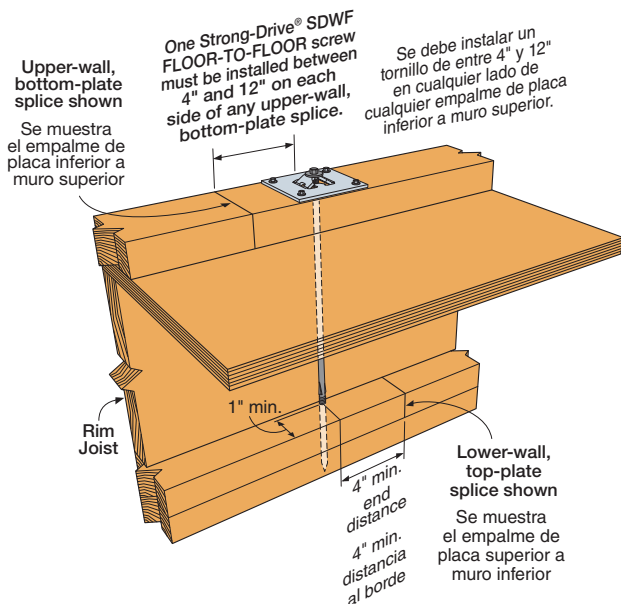
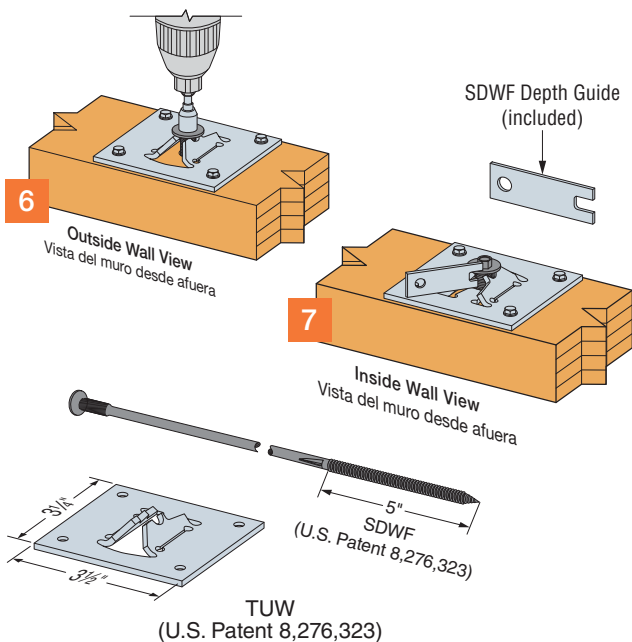
Strong-Drive® SDWF Floor-to-Floor Screw



SD #9 x 2 1/2"

Strong-Drive® SDWF Floor-to-Floor Screw

SIMPSON
Strong-Tie



Typical Strong-Drive® SDWF FLOOR-TO-FLOOR and TUV Installation



Every day we work hard to earn your business, blending the talents of our people with the quality of our products and services to exceed your expectations. This is our pledge to you.

Nos esforzamos fuerte diariamente combinando el talento de nuestro personal con la calidad de nuestros productos y servicios excediendo sus expectativas para tenerlo a usted como cliente. Este es nuestro compromiso para con usted.

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