SureBuilT
Concrete Forms & Accessories

Precast Forming and Accessories

Table of Contents

Product specifications are subject to change without notice.

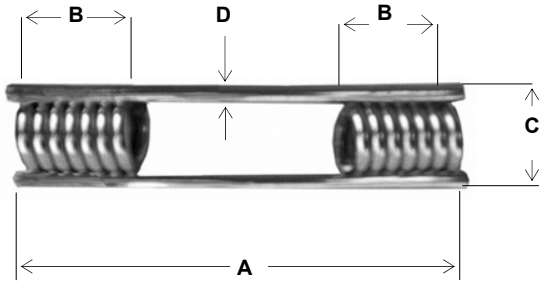
Product specifications are subject to change without notice.

Coil Inserts

Product specifications are subject to change without notice.

Coil Tie 2-Strut

- Used in situations when the ends of the tie be placed away from the face of the wall.
- Coils are welded to medium carbon steel wire struts for a consistently safe weld.
- Safe Working Load (SWL) based on 1/2” setback from face of concrete.
- Other sizes and finishes available on request.



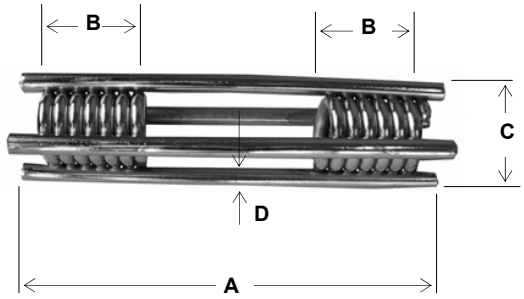
Coil Tie 2-Strut*							
P/N	Length (A)	Coil Length (B)	Insert Width (C)	Wire Dia. (D)	Bolt Dia	Min Edge Distance**	Tension***
SBSCT346	6”	1-3/4”	1-5/8”	.375	3/4”	8”	4,500 lbs
SBSCT347	7”	1-3/4”	1-5/8”	.375	3/4”	8”	4,500 lbs
SBSCT348	8”	1-3/4”	1-5/8”	.375	3/4”	8”	4,500 lbs
SBSCT349	9”	1-3/4”	1-5/8”	.375	3/4”	8”	4,500 lbs
SBSCT3410	10”	1-3/4”	1-5/8”	.375	3/4”	8”	4,500 lbs
SBSCT016	6”	2-1/16”	2-1/16”	.440	1”	8”	6,000 lbs
SBSCT017	7”	2-1/16”	2-1/16”	.440	1”	8”	6,000 lbs
SBSCT018	8”	2-1/16”	2-1/16”	.440	1”	8”	6,000 lbs
SBSCT019	9”	2-1/16”	2-1/16”	.440	1”	8”	6,000 lbs
SBSCT0110	10”	2-1/16”	2-1/16”	.440	1”	8”	6,000 lbs
SBSCT1146	6”	2-1/16”	2-1/2”	.440	1-1/4”	10”	7,500 lbs
SBSCT1147	7”	2-1/16”	2-1/2”	.440	1-1/4”	10”	7,500 lbs
SBSCT1148	8”	2-1/16”	2-1/2”	.440	1-1/4”	10”	7,500 lbs
SBSCT1149	9”	2-1/16”	2-1/2”	.440	1-1/4”	10”	7,500 lbs
SBSCT1140	10”	2-1/16”	2-1/2”	.440	1-1/4”	10”	7,500 lbs

* *2-Strut inserts are not recommended for edge lifts.*
** *Use additional tension bar if edge distance is less than the minimum specified.*
*** *Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Product specifications are subject to change without notice.

Coil Tie 4-Strut

- Used with heavy crane-handled forms or precast concrete segments.
- Coils are welded to medium carbon steel wire struts for a consistently safe weld.
- Safe Working Load (SWL) based on 1/2” setback from face of concrete.
- Other sizes and finishes available on request.



HD Coil Tie 4-Strut								
P/N	Length (A)	Coil Length (B)	Insert Width (C)	Wire Dia. (D)	Bolt Dia	Min Edge Distance**	Tension*	Shear*
SBHCT3464S	6”	2-1/16”	1-5/8”	.375	3/4”	8”	6,000 lbs	6,000 lbs
SBHCT3474S	7”	2-1/16”	1-5/8”	.375	3/4”	8”	6,000 lbs	6,000 lbs
SBHCT3484S	8”	2-1/16”	1-5/8”	.375	3/4”	8”	6,000 lbs	6,000 lbs
SBHCT3494S	9”	2-1/16”	1-5/8”	.375	3/4”	8”	6,000 lbs	6,000 lbs
SBHCT34104S	10”	2-1/16”	1-5/8”	.375	3/4”	8”	6,000 lbs	6,000 lbs
SBHCT0164S	6”	2-1/16”	2-1/16”	.375	1”	10”	9,000 lbs	9,000 lbs
SBHCT0174S	7”	2-1/16”	2-1/16”	.375	1”	10”	9,000 lbs	9,000 lbs
SBHCT0184S	8”	2-1/16”	2-1/16”	.375	1”	10”	9,000 lbs	9,000 lbs
SBHCT0194S	9”	2-1/16”	2-1/16”	.375	1”	10”	9,000 lbs	9,000 lbs
SBHCT01104S	10”	2-1/16”	2-1/16”	.375	1”	10”	9,000 lbs	9,000 lbs
SBHCT11464S	6”	3”	2-1/2”	.440	1-1/4”	15”	13,500 lbs	12,000 lbs
SBHCT11474S	7”	3”	2-1/2”	.440	1-1/4”	15”	13,500 lbs	12,000 lbs
SBHCT11484S	8”	3”	2-1/2”	.440	1-1/4”	15”	13,500 lbs	12,000 lbs
SBHCT11494S	9”	3”	2-1/2”	.440	1-1/4”	15”	13,500 lbs	12,000 lbs
SBHCT114104S	10”	3”	2-1/2”	.440	1-1/4”	15”	13,500 lbs	12,000 lbs

* *Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*
** *Use additional tension bar if edge distance is less than the minimum specified.*

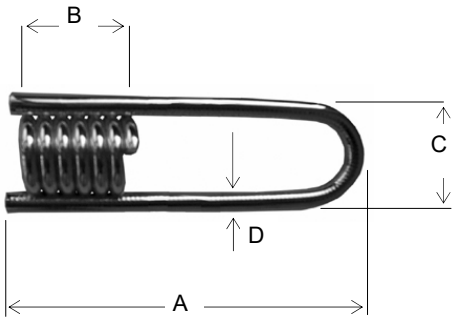
HD Coil Tie 6-Strut								
P/N	Insert Length (A)	Coil Length (B)	Insert Width (C)	Wire Dia. (D)	Bolt Dia	Min Edge Distance*	Tension**	Shear**
SBHCT11486S	8”	3”	2-1/2”	.440	1-1/4”	16”	20,000 lbs	20,000 lbs
SBHCT11496S	9”	3”	2-1/2”	.440	1-1/4”	16”	20,000 lbs	20,000 lbs
SBHCT114106S	10”	3”	2-1/2”	.440	1-1/4”	16”	20,000 lbs	20,000 lbs
SBHCT114116S	11”	3”	2-1/2”	.440	1-1/4”	16”	20,000 lbs	20,000 lbs
SBHCT114126S	12”	3”	2-1/2”	.440	1-1/4”	16”	20,000 lbs	20,000 lbs

* *Use additional tension bar if edge distance is less than the minimum specified.*
** *Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Product specifications are subject to change without notice.

Coil Insert - Loop

- Helix coils are electrically welded to the struts resulting in a consistently safe weld
- Struts fabricated from medium carbon steel (available in stainless steel SS304 and SS216)
- SWL based on 1/2” setback from face of concrete



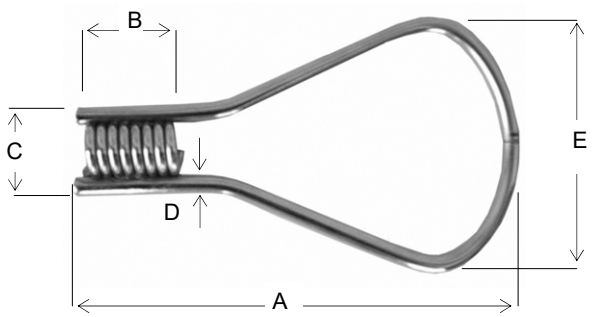
Coil Insert - Loop*							
P/N	**Insert Length (A)**	**Coil Length (B)**	**Insert Width (C)**	**Wire Dia. (D)**	**Bolt Dia**	**Min Edge Distance**	**Tension****
SBCIL124	4”	1-3/16”	1-5/16”	.225	1/2”	8”	2,250 lbs
SBCIL126	6”	1-3/16”	1-3/8”	.306	1/2”	8”	3,600 lbs
SBCIL344	4”	1-5/8”	1-5/8”	.306	3/4”	8”	3,750 lbs
SBCIL346	6”	1-5/8”	1-7/8”	.375	3/4”	8”	4,500 lbs
SBCIL14	4”	2”	2-1/16”	.375	1”	8”	3,750 lbs
SBCIL16	6”	2”	2-1/16”	.375	1”	8”	4,500 lbs
SBCIL18	8”	2”	2-1/16”	.375	1”	8”	4,500 lbs

* *1/2” Coil Insert - Loop are not recommended for edge lifts.*
** *Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Product specifications are subject to change without notice.

Coil Insert - Flare

- Develops load in low strength concrete better than straight loops
- Develops load over a greater area of concrete than other inserts.
- Struts fabricated from medium carbon steel wire (available in stainless steel SS304 and SS216)
- Helix coils are electrically welded to the struts resulting in a consistently safe weld
- SWL based on 1/2” setback from face of concrete



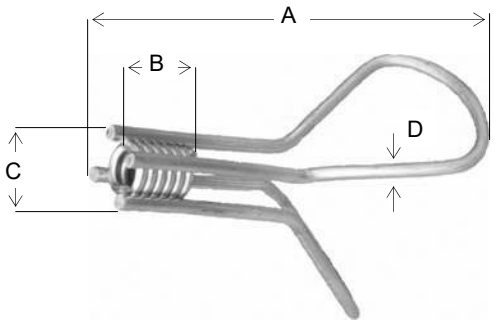
Coil Insert - Flare*							
P/N	**Insert Length (A)**	**Coil Length (B)**	**Insert Width (C)**	**Wire Dia. (D)**	**Loop Width (E)**	**Bolt Dia**	**Tension****
SBCIF346	6”	1-3/4”	1-3/4”	.375	3-1/2”	3/4”	4,750 lbs
SBCIF349	9”	1-3/4”	1-3/4”	.375	5-1/2”	3/4”	4,750 lbs
SBCIF19	9”	2-1/16”	2”	.375	5-1/2”	1”	4,750 lbs
SBHCIF19	9”	2-1/16”	2-1/2”	.440	5-3/4”	1”	8,000 lbs
SBCIF112	12”	2-1/16”	2”	.375	5-1/2”	1”	4,750 lbs
SBHCIF112	12”	2-1/16”	2-1/2”	.440	5-3/4”	1”	8,000 lbs
SBCIF114	12”	2-5/16”	2-1/2”	.375	5-3/4”	1-1/4”	4,750 lbs
SBHCIF114	12”	2-5/16”	2-1/2”	.440	5-3/4”	1-1/4”	8,000 lbs
SBCIFL1212	12”	2-5/16”	2-3/4”	.440	5-3/4”	1-1/2”	8,000 lbs

* *Coil Insert - Flare is not recommended for edge lifts.*
** *Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Product specifications are subject to change without notice.

Coil Insert - Double Flare

- Primarily used for lifting precast sections
- Greater capacity than the single loop
- Second loop welded to same coil for extra strength
- Gives 2X the cross-sectional area of embedment while increasing shear cone surface area
- Gap between the two loops allows for the straddling of reinforcing steel.
- Minimum edge distance is 15 inches
- SWL based on 1/2” setback from face of concrete

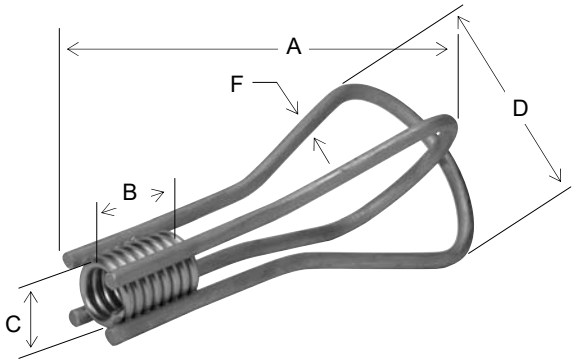


Coil Insert - Double Flare							
P/N	**Insert Length (A)**	**Coil Length (B)**	**Coil Dia. (C)**	**Wire Dia. (D)**	**Loop Dia.**	**Bolt Dia.**	**Tension***
SBCIDF112	12”	2-1/16”	2-1/16”	.375	5-1/2”	1”	9,500 lbs
SBHCIDF112	12”	2-1/16”	2-1/4”	.440	5-3/4”	1”	13,500 lbs
SBCIDF11412	12”	2-1/16”	2-5/16”	.375	5-3/4”	1-1/4”	9,500 lbs
SBHCIDF11412	12”	2-1/16”	2-1/2”	.440	5-3/4”	1-1/4”	13,500 lbs
SBCIDF11212	12”	2-3/8”	2-9/16”	.375	5-3/4”	1-1/2”	9,500 lbs
SBHCIDF11212	12”	2-3/8”	2-3/4”	.440	5-3/4”	1-1/2”	13,500 lbs

** Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Coil Insert - Criss Cross

- Primarily used for lifting precast sections
- More compact allowing for use in tighter situations
- Minimum edge distance is 15 inches
- SWL based on 1/2” setback from face of concrete



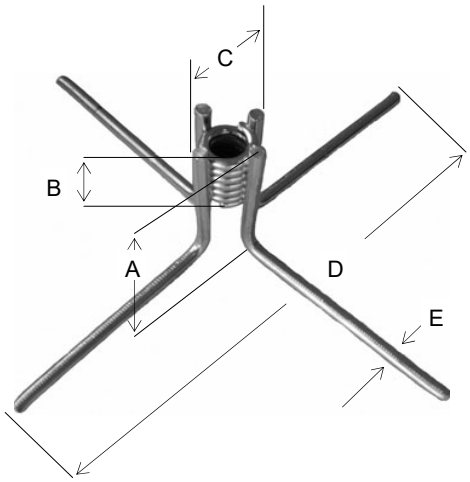
Coil Insert - Criss Cross							
P/N	**Insert Length (A)**	**Coil Length (B)**	**Coil Dia. (C)**	**Wire Dia. (D)**	**Loop Dia. (D)**	**Bolt Dia.**	**Tension***
SBCICC11238	12-3/8”	2-1/16”	2-1/16”	.375	5-1/2”	1”	9,500 lbs
SBHCICC11212	12-1/2”	2-1/16”	2-1/4”	.440	5-3/4”	1”	13,500 lbs
SBCICC1141238	12-3/8”	2-1/16”	2-5/16”	.375	5-3/4”	1-1/4”	9,500 lbs
SBHCICC1141212	12-1/2”	2-1/16”	2-1/2”	.440	5-3/4”	1-1/4”	13,500 lbs
SBCICC1121238	12-3/8”	2-3/8”	2-9/16”	.375	5-3/4”	1-1/2”	9,500 lbs
SBHCICC1121212	12-1/2”	2-3/8”	2-3/4”	.440	5-3/4”	1-1/2”	13,500 lbs

** Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Product specifications are subject to change without notice.

Coil Insert - L-Leg

- Composed of a four strut insert
- Available in bolt diameters of 3/4 to 1-1/2 inches
- Struts fabricated from medium carbon steel wire
- Helix coils are electrically welded to the struts resulting in a consistently safe weld
- SWL based on 1/2” setback from face of concrete

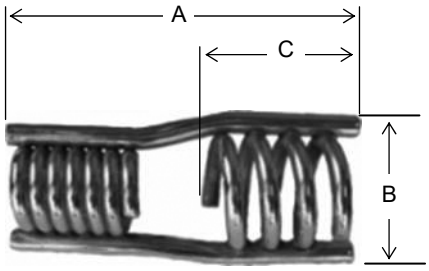


Coil Insert - L-Leg								
P/N	Insert Height (A)	Coil Length (B)	Coil Dia. (C)	Leg Length (D)	Wire Dia. (E)	Bolt Dia.	Min Edge Distance	Tension*
SBCILL343	3”	1-3/4”	1-5/8”	7-1/8”	.306	3/4”	9”	2,500 lbs
SBCILL14	4”	2-1/16”	1-7/8”	9-1/2”	.306	1”	12”	3,500 lbs
SBCILL1144	4”	2-1/16”	2-1/4”	9-3/4”	.375	1-1/4”	12”	4,000 lbs
SBCILL1124	4”	2-1/16”	2-1/2”	10”	.375	1-1/2”	12”	4,000 lbs

** Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Coil Insert - Open Coil

- Designed to give additional load strength in concrete without increasing the depth of the anchor
- Available in plain steel or electro-galvanized
- Available with 2, 4 or 6 struts
- Accompanying washers are available
- SWL based on 1/2” setback from face of concrete



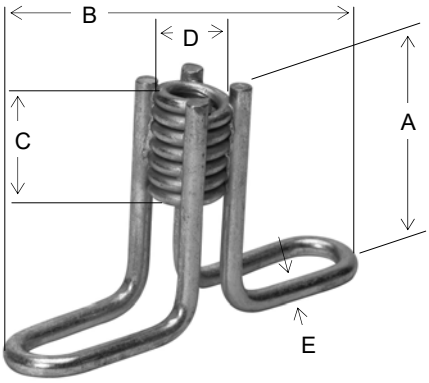
Coil Insert - Open Coil									
P/N	Insert Height (A)	Coil Dia. (B)	Coil Length (C)	Wire Dia	Struts*	Bolt Dia.	Min Edge Distance**	Tension***	Shear***
SBCIOC34412	4-1/2”	2-1/8”	1-1/2”	.375	2	3/4”	6”	4,250 lbs	4,250 lbs
SBCIOC1512	5-1/2”	2-1/2”	2-1/4”	.440	2	1”	7”	6,250 lbs	6,250 lbs
SBCIOC1712	7-1/2”	2-3/4”	2-3/4”	.440	4	1”	10”	10,000l bs	12,000 lbs
SBCIOC114712	7-1/2”	3”	2-3/4”	.440	4	1-1/4”	10”	12,000 lbs	12,000 lbs
SBCIOC114912	9-1/2”	3”	3-5/8”	.440	6	1-1/4”	12”	16,000 lbs	16,000 lbs
SBCIOC1112912	9-1/2”	3-3/8”	3-5/8”	.440	6	1-1/2”	12”	16,000 lbs	16,000 lbs

** 2-Strut inserts are not recommended for edge lifts.*
*** Use additional tension bar if edge distance is less than the minimum specified.*
**** Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Product specifications are subject to change without notice.

Coil Insert - Thin Slab

- Designed for use in small sections or thin slabs where larger inserts will not fit
- Used for small loads only
- Fixing plate available
- SWL based on 1/2” setback from face of concrete



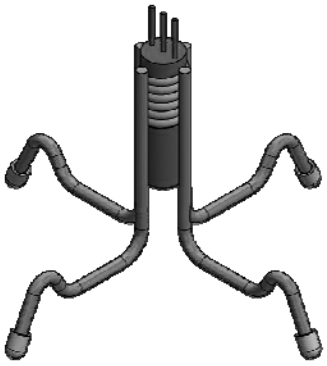
Coil Insert - Thin Slab*								
P/N	**Insert Height (A)**	**Insert Width (B)**	**Coil Length (C)**	**Coil Dia (D)**	**Wire Dia (E)**	**Bolt Dia**	**Min Edge Distance**	**Tension****
SBCITS12214	2-1/4”	4-1/8”	1-1/8”	1-1/4”	.225	1/2”	4”	950 lbs
SBCITS34214	2-1/4”	5”	1-5/8”	1-5/8”	.306	3/4	5”	2,000 lbs
SBCITS34312	3-1/2”	6”	2”	2”	.306	3/4”	6”	3,400 lbs
SBCITS1212	2-1/2”	6”	2”	2”	.306	1”	5”	2,000 lbs
SBCITS1412	4-1/2”	6”	2”	2”	.306	1”	8”	4,750 lbs

* *Recommended for thin slabs only. Limited load capacity.*
** *Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Product specifications are subject to change without notice.

Pick-Up Insert

- Used for stripping and handling precast segments
- Swivel Lift Plates are recommended for lifting.
- Plastic feet to minimize surface corrosion
- Fractional sizes available on request
- Minimum distance from segment edge is 12”



Pick-Up Insert with Plug*							
P/N	Insert Height	Coil Size	Wire Dia.	Panel Thickness	Min Edge Distance	Tension**	Shear**
SBPUI344	4”	3/4”	0.375	4”	12”	2,270 lbs	4,539 lbs
SBPUI345	5”	3/4”	0.375	5”	12”	3,442 lbs	5,400 lbs
SBPUI346	6”	3/4”	0.375	6”	12”	4,766 lbs	5,400 lbs
SBPUI347	7”	3/4”	0.375	7”	12”	6,228 lbs	5,400 lbs
SBPUI348	8”	3/4”	0.375	8”	12”	7,820 lbs	5,400 lbs
SBPU14	4”	1”	0.375	4”	12”	2,270 lbs	4,539 lbs
SBPU15	5”	1”	0.375	5”	12”	3,442 lbs	5,520 lbs
SBPU16	6”	1”	0.375	6”	12”	4,766 lbs	5,520 lbs
SBPU17	7”	1”	0.375	7”	12”	6,228 lbs	5,520 lbs
SBPU18	8”	1”	0.375	8”	12”	7,820 lbs	5,520 lbs
SBPU1144	4”	1-1/4”	0.375	4”	12”	2,270 lbs	4,539 lbs
SBPU1145	5”	1-1/4”	0.375	5”	12”	3,442 lbs	5,520 lbs
SBPU1146	6”	1-1/4”	0.375	6”	12”	4,766 lbs	5,520 lbs
SBPU1147	7’	1-1/4”	0.375	7”	12”	6,228 lbs	5,520 lbs
SBPU1148	8”	1-1/4”	0.375	8”	12”	7,820 lbs	5,520 lbs
SBPU1124	4’	1-1/2”	0.375	4”	12”	2,270 lbs	4,539 lbs
SBPU1125	5”	1-1/2”	0.375	5”	12”	3,442 lbs	5,520 lbs
SBPU1126	6”	1-1/2”	0.375	6”	12”	4,766 lbs	5,520 lbs
SBPU1127	7”	1-1/2”	0.375	7”	12”	6,228 lbs	5,520 lbs
SBPU1128	8”	1-1/2”	0.375	8”	12”	7,820 lbs	5,520 lbs

* *Not recommended for edge or end of concrete segments.*
** *Safe Working Load (SWL) based on a 4:1 safety factor in 3,000 psi concrete.*

Product specifications are subject to change without notice.

Locator Plug

- Two-piece plastic design snaps together within coil
- Plug creates void for subsequent bolt engagement
- Antenna identifies plug location at concrete surface

Locator Plug		
P/N	**Description**	**Length Below Coil**
SBLP34	Locator Plug 3/4” Coil	1-1/2”
SBLP1	Locator Plug 1” Coil	1-5/8”
SBP114	Locator Plug 1-1/4” Coil	1-3/4”

Threaded Plug

Threaded plugs can be used with coil inserts and anchors to keep the threads clean during concrete placement.

Threaded Plug	
P/N	**Description**
SBTPPC38	Threaded Plug 3/8" (10)
SBTPPC12	Threaded Plug 1/2" (13)
SBTPPC58	Threaded Plug 5/8" (16)
SBTPPC34	Threaded Plug 3/4" (19)

Setting Plug

Setting plugs are used to position and fasten inserts to forms. The nail hole through the center of the plug provides access and quick attachment.

Setting Plug—Plastic	
P/N	**Description**
SBPSP12	Setting Plug 1/2”x2-1/2” Plastic
SBPSP34	Setting Plug 3/4”x3-3/4” Plastic
SBPSP1	Setting Plug 1”x5” Plastic

Setting Plug—Steel with Magnet	
P/N	**Description**
SBGB100126CR	Setting Plug 1/2”x6” wMagnet
SBGB100346CR	Setting Plug 3/4”x6” wMagnet
SBGB10016CR	Setting Plug 1”x6” wMagnet
SBGB1001146CR	Setting Plug 1-1/4”x6” wMagnet

Product specifications are subject to change without notice.

Coil Rod

The most common uses for Coil Rod in precast concrete operations include:

- Anchors
- Coil Tie combination for variable wall thickness
- External tie method for corner or column forms

Coil Rod		
P/N	**Description**	**Load Rating***
SBCR12	Coil Rod 1/2” x 12’	9,000 lbs
SBCR58	Coil Rod 5/8” x 12’	12,000 lbs
SBCR34	Coil Rod 3/4” x 12’	18,000 lbs
SBCR78	Coil Rod 7/8” x 12’	24,000 lbs
SBCR1	Coil Rod 1” x 12’	38,000 lbs
SBCR114	Coil Rod 1-1/4” x 12’	56,000 lbs
SBCR112	Coil Rod 1-1/2” x 12’	68,000 lbs

* *Load rating based on 2:1 safety factor.*

Coil Rod Coupler

The coupler is used to maintain the load rating when joining two lengths of coil rod. The coupler is tapped from each end, providing a stop at the center to indicate full thread engagement.

Coil Rod Coupler				
P/N	**Description**	**Length**	**Dia**	**Load Rating***
SBCRC12	Coil Rod Coupler 1/2”	2-3/4”	1/2”	9,000 lbs
SBCRC58	Coil Rod Coupler 5/8”	3-1/4”	5/8”	12,000 lbs
SBCRC34	Coil Rod Coupler 3/4”	3-1/4”	3/4”	18,000 lbs
SBCRC78	Coil Rod Coupler 7/8”	4-1/4”	7/8”	24,000 lbs
SBCRC1	Coil Rod Coupler 1”	4-1/2”	1”	38,000 lbs
SBCRC114	Coil Rod Coupler 1-1/4”	5-3/4”	1-1/4”	56,000 lbs
SBCRC112	Coil Rod Coupler 1-1/2”	7”	1-1/2”	68,000 lbs

* *Load rating based on 2:1 safety factor.*

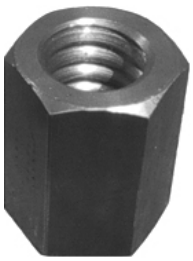
Product specifications are subject to change without notice.

Coil Nut

Coil Bolt					
P/N	**Description**	**Height**	**Width at Flats**	**w/Single Nut***	**w/Double Nut***
SBCN12	Coil Nut 1/2”	1/2”	7/8”	6,000 lbs	9,000 lbs
SBCN58	Coil Nut 5/8”	5/8”	1”	8,000 lbs	12,000 lbs
SBCN34	Coil Nut 3/4”	3/4”	1-1/8”	9,000 lbs	18,000 lbs
SBCN78	Coil Nut 7/8”	7/8”	1-3/8”	15,000 lbs	24,000 lbs
SBCN1	Coil Nut 1”	1”	1-5/8”	24,000 lbs	38,000 lbs
SBCN114	Coil Nut 1-1/4”	1-1/4”	2”	36,000 lbs	56,000 lbs
SBCN112	Coil Nut 1-1/2”	1-1/2”	2-3/8”	47,500 lbs	68,000 lbs
SBCN12HH	Coil Nut 1/2” Heavy Hex	1”	7/8”	9,000 lbs	--
SBCN58HH	Coil Nut 5/8” Heavy Hex	1-1/4”	1”	12,000 lbs	--
SBCN34HH	Coil Nut 3/4” Heavy Hex	1-1/2”	1-1/8”	18,000 lbs	--
SBCN78HH	Coil Nut 7/8” Heavy Hex	1-3/4”	1-3/8”	24,000 lbs	--
SBCN1HH	Coil Nut 1” Heavy Hex	2”	1-5/8”	38,000 lbs	--
SBCN114HH	Coil Nut 1-1/4” Heavy Hex	2-1/2”	2”	56,000 lbs	--
SBCN112HH	Coil Nut 1-1/2” Heavy Hex	3”	2-3/8”	68,000 lbs	--

** Load rating based on 2:1 safety factor.*

Coil Nut



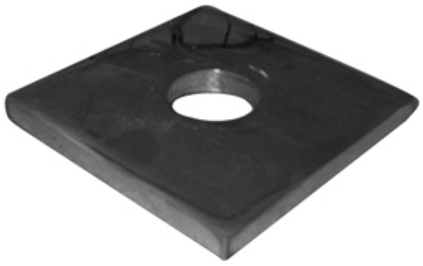
Coil Nut - Heavy Hex

Flat Washer

Flat washers are used with all sizes of coil rod. The washers are designed to provide adequate bearing at walers or form joints.

Flat Washer*			
P/N	**Description**	**Bolt Size**	**Rating***
SBFW1434916	Flat Washer 1/4”x4”x3” with 9/16” hole	1/2”	1,800 lbs
SBFW14451316	Flat Washer 1/4”x4”x5” with 13/16” hole	3/4”	2,700 lbs
SBFW12551116	Flat Washer 1/2”x5”x5” with 1-1/16” hole	1”	7,200 lbs
SBFW12551516	Flat Washer 1/2”x5”x5” with 1-5/16” hole	1-1/4”	10,800 lbs
SBFW34551916	Flat Washer 3/4”x5”x5” with 1-9/16” hole	1-1/2”	15,000 lbs

** Load rating based on double waler channel at 2:1 safety factor.*

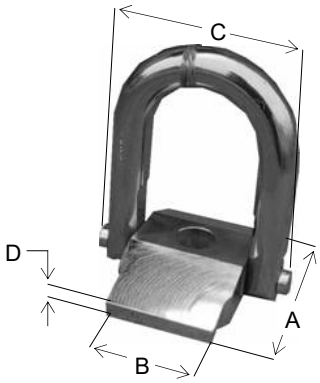


Flat Washer

Product specifications are subject to change without notice.

Swivel Lift Plate

- Designed for attaching to any type of single lift insert
- Available in 3/4” and 1” coil bolt sizes

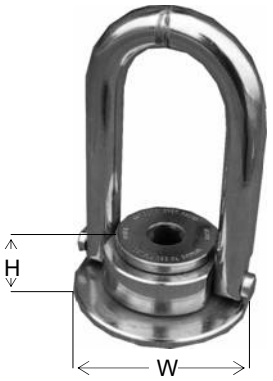


Swivel Lift Plate							
P/N	A	B	C	D	Bolt Dia.	Min Bolt Length	Tension*
SBSLP34	5”	2-5/8”	5-1/8”	5/8”	3/4”:	4”	7,000 lbs
SBSLP1	5”	2-5/8”	5-1/8”	5/8”	1”	5”	10,000 lbs

** Load rating based 5:1 safety factor.*

Double Swivel Lift Plate

- Permits rotation of the bail in the direction of the rigging and applied loading
- Bail portion of the lift plate rotates a full 360° in horizontal plane and will also swivel 180° in a vertical plane



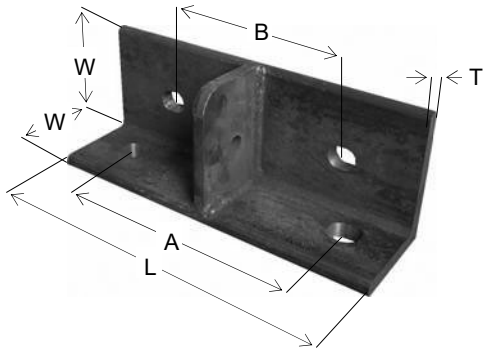
Double Swivel Lift Plate					
P/N	H	W	Bolt Dia	Min Bolt Length*	Tension**
SBDSLP34	1-1/2”	5”	3/4	4-1/2”	7,000 lbs
SBDSLP1	2”	5”	1	5”	10,000 lbs
SBDSLP114	2-3/4”	7”	1-1/4	6”	15,000 lbs
SBDSLP112	2-3/4”	7”	1-1/2	6”	20,000 lbs

* *Minimum 150ksi bolt required.*
** *Load rating based 5:1 safety factor.*

Product specifications are subject to change without notice.

Lift Angle Bracket

The Lift Angle Bracket is generally used for face lifting tilt-up panels, but it can also be used for edge lift conditions when the panel thickness is 6” or greater. Cut washers are required under the head of each bolt.

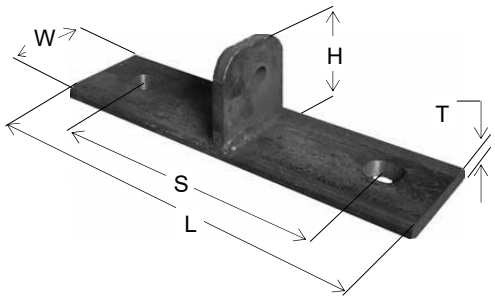


Lifting Angle								
P/N	A	B	L	T	W	Bolt Dia.	Min Bolt Length	Tension*
SBLAB1	12”	-	21”	3/4”	6”	1”	4”	12,000 lbs
SBLAB114	-	15”	21”	3/4”	6”	1-1/4”	4”	18,000 lbs
SBLAB112	-	15”	21”	3/4”	6”	1-1/2”	4”	18,000 lbs

** Load rating based 5:1 safety factor.*

Edge Lift Plate

The Edge Lifting Plate is designed to be used with either the double edge or double end pick-up insert. Minimum coil bolt length to be used is 4”. Cut washers are required for each bolt.

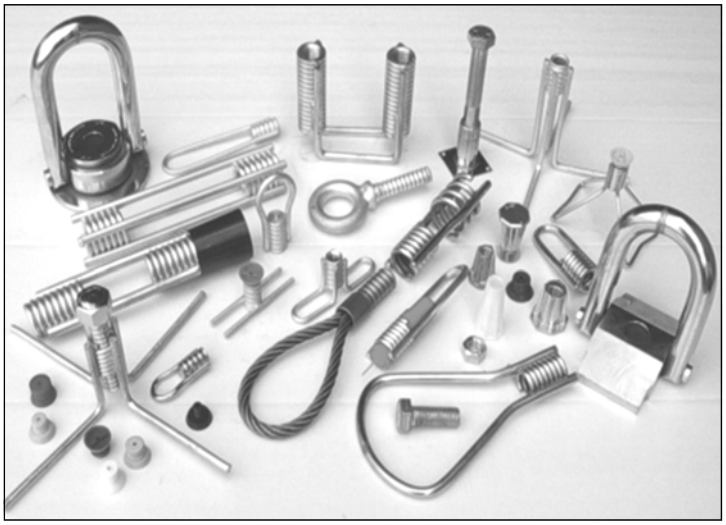


Edge Lifting Plate								
P/N	H	L	S	T	W	Bolt Dia.	Min Bolt Length	Tension*
SBELP34	5-1/2”	18”	12”	1”	4”	3/4”	4”	8,800 lbs
SBELP1	5-1/2”	18”	12”	1”	4”	1”	4”	8,800 lbs

** Load rating based 5:1 safety factor.*

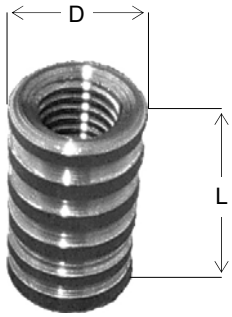
Product specifications are subject to change without notice.

Ferrule Inserts



Product specifications are subject to change without notice.

Ferrule

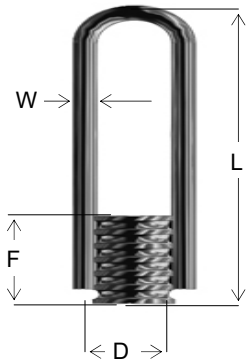


The ferrule is made from solid bar stock and available in all bolt diameters. The bottom end of the ferrule is closed to prevent concrete from entering. The minimum bolt engagement for a ferrule is the bolt diameter plus 1/8" inch. Ferrules accept NC threaded bolts or rod. Bolt lengths are important because ferrules are closed at the bottom end.

A ferrule may be substituted in a coil product (see previous section). Ferrules and coils (of same diameter) will have the same load capacities.

Ferrule Only					
P/N	**Description**	**Diameter (D)**	**Length (L)**	**Threads**	**Maximum Engagement**
SBFO38PL	Ferrule Only 3/8"	9/16"	1-1/4"	16/inch	3/4"
SBFO12PL	Ferrule Only 1/2"	11/16"	1-3/8"	13/inch	1"
SBFO58PL	Ferrule Only 5/8"	7/8"	1-5/8"	11/inch	1-1/8"
SBFO34PL	Ferrule Only 3/4"	1"	1-5/8"	10/inch	1-1/8"
SBFO78PL	Ferrule Only 7/8"	1-3/8"	1-5/8"	9/inch	1-1/8"
SBFO1PL	Ferrule Only 1"	1-3/8"	1-5/8"	8/inch	1-1/8"

Ferrule Insert - Loop



Ferrule Inserts are designed to permanently attach a precast panel to a building frame or as a mechanical connection for electrical trays, pipe hangers, sprinkler systems or other suspended items. Ferrules accept NC threaded bolts or rod. Bolt lengths are important because ferrules are closed at the bottom end.

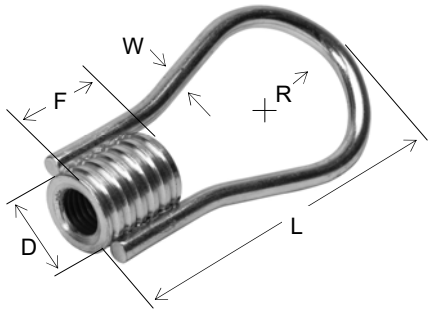
Ferrule Insert - Straight Loop							
P/N	**Diameter (D)**	**Ferrule (F)**	**Length (L)**	**Wire (W)**	**Bolt Dia**	**Min Edge Distance**	**Tension***
SBFIL124	11/16"	1-3/8"	4-1/8"	.225	1/2"	5"	3,000 lbs
SBFIL126	11/16"	1-3/8"	6-1/8"	.306	1/2"	8"	4,000 lbs
SBFIL584	7/8"	1-5/8"	4-1/8"	.225	5/8"	5"	3,000 lbs
SBFIL586	7/8"	1-5/8"	6-1/8"	.375	5/8"	8"	5,000 lbs
SBFIL344	1"	1-5/8"	4-1/8"	.225	3/4"	5"	3,000 lbs
SBFIL346	1"	1-5/8"	6-1/8"	.375	3/4"	9"	5,000 lbs
SBFIL786	1-3/8"	1-5/8"	6-1/8"	.375	7/8"	9"	5,000 lbs
SBFIL16	1-3/8"	1-5/8"	6-1/8"	.375	1"	9"	5,000 lbs
SBFIL18	1-3/8"	1-5/8"	8-1/8"	.375	1"	9"	6,000 lbs

** Safe Working Load (SWL) based on 3:1 safety factor in 3,000 psi concrete with 1/2" set-back from surface.*

Product specifications are subject to change without notice.

Ferrule Insert - Flare

The Flared Loop is designed to permanently attach a precast panel to a building frame or as a mechanical connection for electrical trays, pipe hangers, sprinkler systems or other suspended items. Ferrules accept NC threaded bolts or rod. Bolt lengths are important because ferrules are closed at the bottom end.

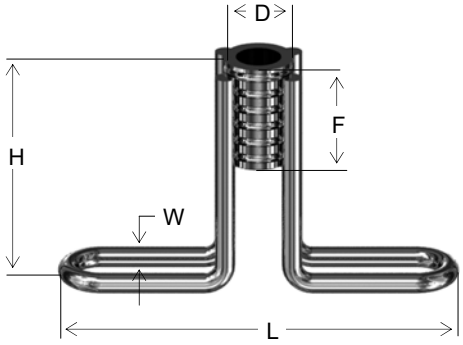


Ferrule Insert - Flare*								
P/N	Diameter (D)	Ferrule (F)	Length (L)	Radius (R)	Wire (W)	Bolt Dia	Min Edge Distance	Tension**
SBFIF38234	9/16”	1-1/4”	2-3/4”	9/16”	.243	3/8”	5”	2,000 lbs
SBFIF12234	11/16”	1-3/8”	2-3/4”	9/16”	.243	1/2”	5”	2,000 lbs
SBFIF58312	7/8”	1-5/8”	3-1/2”	13/16”	.262	5/8”	5”	2,300 lbs
SBFIF34312	1”	1-5/8”	3-1/2”	13/16”	.262	3/4”	5”	2,400 lbs
SBFIF786	1-1/4”	1-5/8’	6”	1-3/8”	.375	7/8”	8”	5,300 lbs
SBFIF16	1-3/8”	1-5/8”	6”	1-3/8”	.375	1”	8”	5,300 lbs

* *Ferrule Insert - Flared Loop is not recommended as a lifting insert.*
** *Safe Working Load (SWL) based on 3:1 safety factor in 3,000 psi concrete with 1/2” set-back from surface.*

Ferrule Insert - Wing

The Wing Loop is designed for a limited concrete clearance when other inserts will not fit. The insert provides more capacity than standard inserts of the same height.



Ferrule Insert - Wing*								
P/N	Diameter (D)	Ferrule (F)	Height (H)	Length (L)	Wire (W)	Bolt Dia	Min Edge Distance	Tension**
SBFIW12134	11/16”	1-3/8	1-3/4”	4-1/2”	.225	1/2”	5”	1,200 lbs
SBFIW582716	7/8”	1-5/8	2-7/16”	4-3/4”	.306	5/8”	6”	2,500 lbs
SBFIWI342716	1”	1-5/8	2-7/16”	4-7/8”	.306	3/4”	6”	2,650 lbs
SBFIW34358	1-3/8”	1-5/8	3-5/8”	4-7/8”	.306	3/4”	8”	4,500 lbs
SBFIW12716	1-3/8”	1-5/8	2-7/16”	5-1/8”	.375	1”	6”	4,500 lbs
SBFIW1458	1-3/8”	1-5/8	4-5/8”	5-1/8”	.375	1”	9”	6,500 lbs

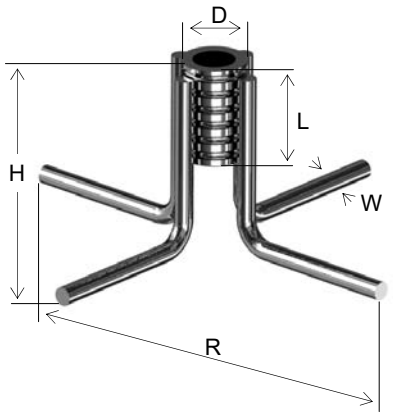
* *Ferrule Insert - Flared Loop is not recommended as a lifting insert.*
** *Safe Working Load (SWL) based on 3:1 safety factor in 3,000 psi concrete with 1/2” set-back from surface.*

Product specifications are subject to change without notice.

Ferrule Insert - L-Leg

The L-Leg is designed to permanently attach a precast panel to a building frame or as a mechanical connection for electrical trays, pipe hangers, sprinkler systems or other suspended items.

Ferrules accept NC threaded bolts or rod. Bolt lengths are important because ferrules are closed at the bottom end.



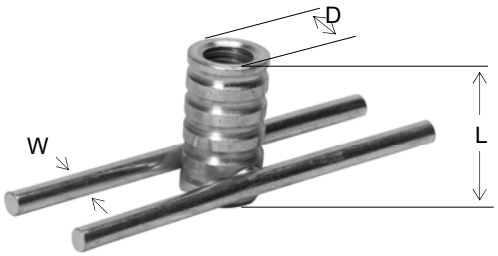
Ferrule Insert - L-Leg*								
P/N	Diameter (D)	Height (H)	Length (L)	Leg Length (R)	Wire Dia (W)	Bolt Dia	Min Edge Distance	Tension**
SBFILL34318	1”	3-1/8”	1-5/8”	7”	.306	3/4”	7”	3,500 lbs
SBFILL1418	1-3/8”	4-1/8”	1-5/8”	9-1/2”	.306	1”	9”	4,500 lbs

* *When used as a lifting insert, the Safe Working Load (SWL) must be calculated on 4:1 safety factor*
** *Safe Working Load (SWL) based on 3:1 safety factor in 3,000 psi concrete with 1/2” set-back from surface.*

Ferrule Insert - Thin Slab

The Thin Slab 2-Struct is designed for limited concrete clearance when no other insert type will fit. The 4” strut lengths are welded near the bottom of the ferrule.

Note: The capacity of this insert is limited and the working load should never be exceeded.



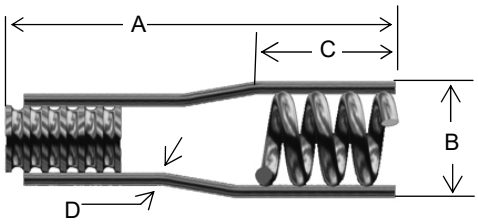
Ferrule Insert - Thin Slab					
P/N	Diameter (D)	Length (L)	Wire Dia (W)	Bolt Dia	Tension*
SBFITS38114	9/16”	1-1/4”	.261	3/8”	450 lbs
SBFITS12138	11/16”	1-3/8”	.261	1/2”	900 lbs
SBFITS58158	7/8”	1-5/8”	.261	5/8”	1,000 lbs
SBFITS34158	1”	1-5/8”	.261	3/4”	1,600 lbs
SBFITS78158	1-3/8”	1-5/8”	.261	7/8”	1,600 lbs
SBFITS1158	1-3/8”	1-5/8”	.261	1”	1,600 lbs

* *Safe Working Load (SWL) based on 3:1 safety factor in 3,000 psi concrete with 1/2” set-back.*

Product specifications are subject to change without notice.

Ferrule Insert - Open Coil

- Designed to develop higher load capacities without increasing depth of insert
- Adequate vibration is necessary to assure concrete surrounds the open coil



Ferrule Insert - Open Coil									
P/N	**Length (A)**	**Coil Dia (B)**	**Coil (C)**	**Wire Dia (W)**	**Struts**	**Bolt Dia**	**Min Edge Distance**	**Tension***	**Shear***
SBFIOC34458	4-5/8”	2-1/8”	1-1/2	.375	2	3/4” NC	6”	4,250 lbs	4,250 lbs
SBFIOC78618	6-1/8”	2-1/2”	2-1/4	.375	2	7/8” NC	7”	5,000 lbs	5,000 lbs
SBFIOC1558	5-5/8”	2-1/2”	2-1/4	.440	2	1” NC	7”	6,250 lbs	6,250 lbs
SBFIOC1758	7-5/8”	2-3/4”	2-3/4	.440	4	1” NC	10”	10,000 lbs	12,000 lbs
SBFIOC114758	7-5/8”	3”	2-3/4	.440	4	1-1/4” NC	10”	12,000 lbs	12,000 lbs
SBFIOC114958	9-5/8”	3”	3-5/8	.440	6	1-1/4” NC	12”	16,000 lbs	16,250 lbs
SBFIOC112958	9--5/8”	3-3/8”	3-5/8	.440	6	1-1/2” NC	12”	16,000 lbs	16,250 lbs

** Safe Working Load (SWL) based on 4:1 safety factor in 3,000 psi concrete with 1/2” set-back from surface.*

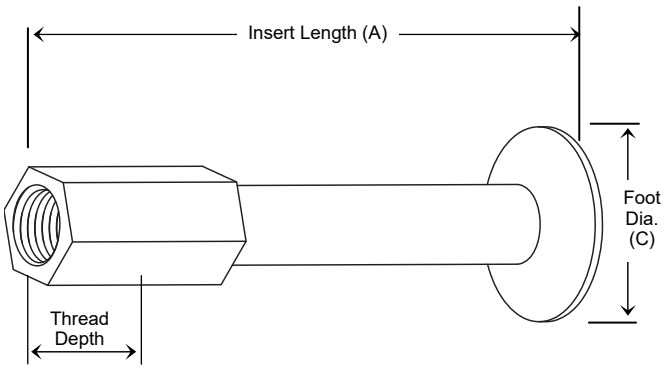
Product specifications are subject to change without notice.

Ductile Ferrule Insert

The Ductile Ferrule Insert provides additional load strength in concrete segments. These inserts can be used for lifting, handling and mounting structural concrete components.

The foot creates a large shear area in the concrete. Couplers, bolts and nuts can be supplied in round or hex versions. Use with the Double Swivel Lift Plate for maximum capacity.

Also available in coil thread, example SBDC1125.

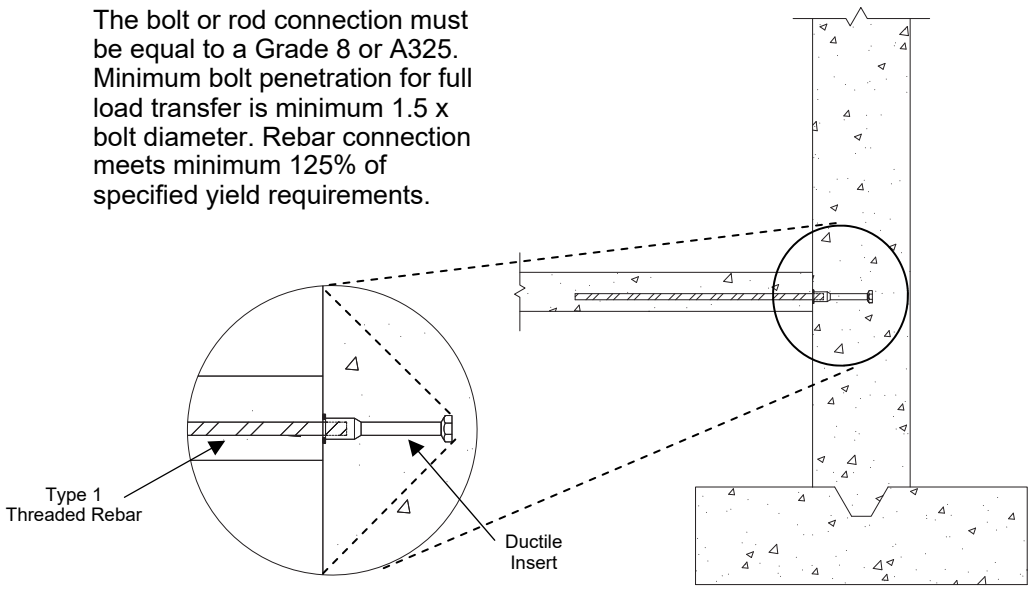


Ductile Insert*						
P/N	**Length (A)**	**Foot Dia. (C)**	**Thread Depth**	**Bolt Dia**	**Min Edge Distance**	**Ultimate****
SBDFI125	5”	1	7/8”	1/2” NC	8”	18,000 lbs
SBDFI586	6”	1-1/4	1”	5/8” NC	10”	24,000 lbs
SBDFI347	7”	1-1/2	1-1/4”	3/4” NC	12”	34,600 lbs
SBDFI78712	7-1/2”	1-3/4	1-3/8”	7/8” NC	15”	43,000 lbs
SBDFI18	8”	2	1-1/2”	1” NC	16”	59,000 lbs
SBDFI11810	10”	2-1/4	1-3/4”	1-1/8”	20”	75,500 lbs
SBDFI11412	12”	2-1/2	2”	1-1/4”	24”	96,000 lbs

* *When used as a lifting insert, the Safe Working Load (SWL) must be calculated using a 4:1 safety factor. When used as a permanent connection, the Safe Working Load (SWL) must be calculated at 3:1 safety factor. When used as a temporary connection, the Safe Working Load (SWL) must be calculated at 2:1 safety factor.*

** *Ultimate strength based on 3,500 psi concrete.*

The bolt or rod connection must be equal to a Grade 8 or A325. Minimum bolt penetration for full load transfer is minimum 1.5 x bolt diameter. Rebar connection meets minimum 125% of specified yield requirements.

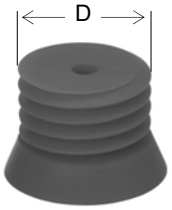


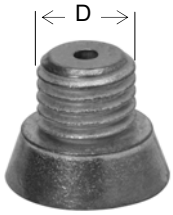
Product specifications are subject to change without notice.

Threaded Plug - Plastic and Zinc

The Threaded Plug is designed to be threaded into a ferrule to keep concrete out and bolt holes clean.

It may also be used to attach the ferrule insert to the inside of a form by pre-nailing the plug to the form.





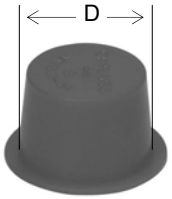
NC Threaded Plug—Plastic	
P/N	**Dia (D)**
SBTPP14	1/4” NC
SBTPP38	3/8” NC
SBTPP12	1/2” NC
SBTPP58	5/8” NC
SBTPP34	3/4” NC

NC Threaded Plug—Zinc	
P/N	**Dia (D)**
SBTPZ14	1/4” NC
SBTPZ38	3/8” NC
SBTPZ12	1/2” NC
SBTPZ58	5/8” NC
SBTPZ34	3/4” NC

Plastic Plug

The Plastic Plug is designed to be pushed into the open end of a ferrule to keep concrete and bolt holes clean.

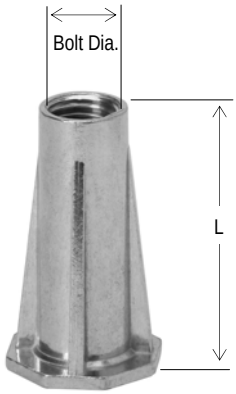
It may also be used to attach the ferrule insert to the inside of a form by pre-nailing the plug to the form.



Plastic Plug	
P/N	**Dia (D)**
SBPPPC38	3/8”
SBPPPC12	1/2”
SBPPPC58	5/8”
SBPPPC34	3/4”
SBPPPC1	1”

Product specifications are subject to change without notice.

Precast Concrete Insert - Steel

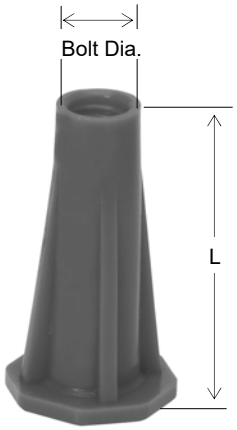


- Threaded precast concrete insert
- Made from corrosion resistant zinc alloy
- Foot creates large shear cone in thin panels

NC Precast Concrete Insert - Steel				
P/N	**Bolt Dia.**	**Length (L)**	**Threads**	**Safe Working Load***
SBPCIS14112	1/4”	1-1/2”	20/in	575 lbs
SBPCIS381	3/8”	1”	16/in	1,025 lbs
SBPCIS38138	3/8”	1-3/8”	16/in	1,200 lbs
SBPCIS12112	1/2”	1-1/2”	13/in	1,225 lbs
SBPCIS12278	1/2”	2-7/8”	13/in	2,025 lbs
SBPCIS581116	5/8”	1-11/16”	11/in	1,575 lbs
SBPCIS58278	5/8”	2-7/8”	11/in	2,500 lbs
SBPCIS3411116	3/4”	1-11/16”	10/in	1,725 lbs
SBPCIS34278	3/4”	2-7/8”	10/in	3,125 lbs

** Safe Working Load (SWL) based on 3:1 safety factor in 3000 psi concrete.*

Precast Concrete Insert - Plastic



- Threaded precast concrete insert
- Corrosion resistant plastic
- Foot creates large shear cone in thin panels

NC Precast Insert - Plastic			
P/N	**Bolt Dia.**	**Length (L)**	**Tension***
SBPCIP38	3/8”	1-1/2”	600 lbs
SBPCIP12134	1/2”	1-3/4”	1,100 lbs
SBPCIP12234	1/2”	2-3/4”	1,880 lbs
SBPCIP58	5/8”	3”	2,250 lbs
SBPCIP34	3/4”	3”	2,800 lbs

** Safe Working Load (SWL) based on 3:1 safety factor in 3000 psi concrete.*

Product specifications are subject to change without notice.

Ring-Lift System

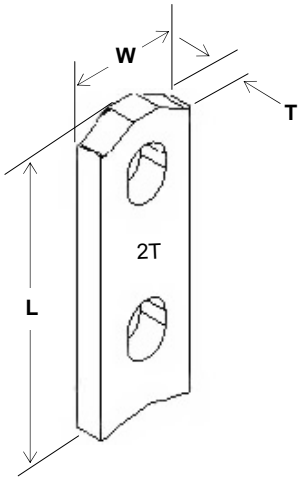
Product specifications are subject to change without notice.

Two-Hole Anchor

The Two-Hole Anchor is used for stripping panels from tilt tables and handling panels. The anchor is also appropriate for high-tension loads that cannot be held with other anchors or panels constructed of lightweight concrete.

The full safe working load of the Two-Hole Anchor can be achieved in a thin slab or with low concrete strength by using a Tension Bar (see below). The wider distribution of shear forces allows for the raising thin or low compressive strength panels.

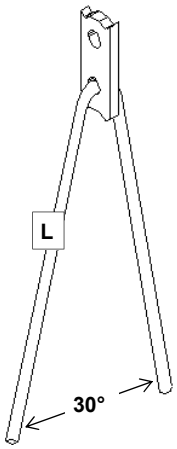
Available in black, galvanized (G) and hot-dip galvanized (HDG) finish.



Two-Hole Anchor						
P/N	Tons	Clutch ID	Length (L)	Width (W)	Thickness (T)	Tension*
SBTHA2T384	2T	2-2.5T	4”	1-1/4”	3/8”	4,000 lbs
SBTHA4T584	4T	4-5T	4”	1-1/2”	5/8”	8,000 lbs
SBTHA8T347	8T	8-10T	7”	2-1/2”	3/4”	16,000 lbs

Tension Bar

The Tension Bar is used with the Erection Anchor to distribute tension loads into the precast segment.



Tension Bar Length (L) Requirement*					
P/N	Load	Rebar	Concrete Strength		
			2,000 psi	3,000 psi	5,000 psi
SBTB2T	2-2.5T	#4	2-9”	2’-6”	1’-8”
SBTB4T	4-5T	#5	3’-6”	3’-0”	2’-2”
SBTB8T	6-8-10T	#6	5’-6”	4’-6”	3’-3”

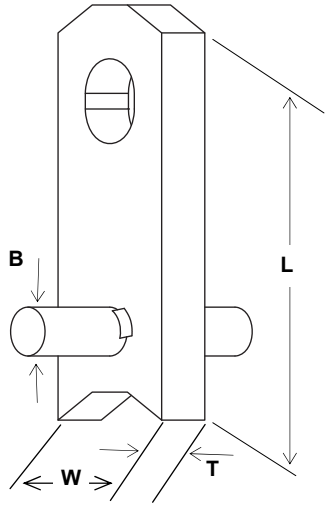
* *Minimum reinforcing length (L) needed to develop the full strength of the anchor.*

Product specifications are subject to change without notice.

T-Bar Anchor

The T-Bar Anchor can be placed at the face, back or edge of precast panels to allow for back-stripping and rotation from horizontal-to-vertical.

Available in black, galvanized (G) and hot-dip galvanized (HDG) finish.



T-Bar Anchor*							
P/N	Tons	Length (L)	Width (W)	Thickness (T)	Bar Dia (B)	Minimum Panel	Tension and Shear**
SBTBA2T434	2T	4"	1-1/4"	3/8"	1/2"	4-3/4"	4,000 lbs
SBTBA2T578	2T	5-1/2"	1-1/4"	3/8"	1/2"	5-7/8"	4,000 lbs
SBTBA4T458	4T	4-1/4"	1-1/2"	5/8"	1/2"	4-5/8"	5,500 lbs
SBTBA4T518	4T	4-3/4"	1-1/2"	5/8"	1/2"	5-1/8"	7,100 lbs
SBTBA4T558	4T	5-1/4"	1-1/2"	5/8"	1/2"	5-5/8"	8,000 lbs
SBTBA4T618	4T	5-3/4"	1-1/2"	5/8"	1/2"	6-1/8"	8,000 lbs
SBTBA4T658	4T	6-1/4"	1-1/2"	5/8"	1/2"	6-5/8"	8,000 lbs
SBTBA4T718	4T	6-3/4"	1-1/2"	5/8"	1/2"	7-1/8"	8,000 lbs
SBTBA4T758	4T	7-1/4"	1-1/2"	5/8"	1/2"	7-5/8"	8,000 lbs
SBTBA4T818	4T	7-3/4"	1-1/2"	5/8"	1/2"	8-1/8"	8,000 lbs
SBTBA8T1112	8T	6-1/8"	2-1/2"	3/4"	3/4"	11-1/2"	8,900 lbs
SBTBA8T1134	8T	11-1/8"	2-1/2"	3/4"	3/4"	11-3/4"	16,000 lbs

* *Minimum edge or opening distance equals 4x embedded depth.*
** *Safe Working Load based on a safety of 4: 1 in 3,500 psi concrete.*
Handling panels requires sufficient sling or cable length., Sling angle inclination factors apply.

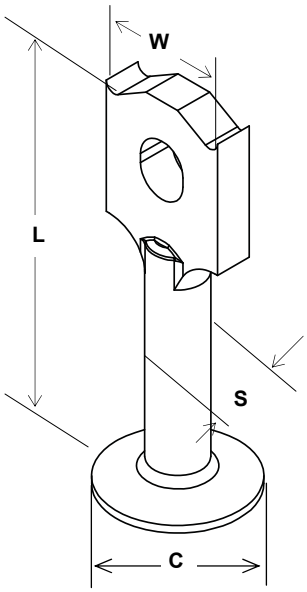
Product specifications are subject to change without notice.

Foot Anchor

The drop-forged Foot Anchor handles most face lifting applications by developing a shear cone. The strong forged metal ensures structural integrity for consistently safe lifts.

The foot develops a high-tension, high-capacity shear cone in concrete slabs. It is available in many sizes and can handle most face lifting applications.

For reduced edge distance, spacing or low strength concrete, add additional rebar around the anchor.



Foot Anchor*								
P/N	Tons	Clutch	Length (L)	Width (W)	Shaft (S)	Foot Dia (C)	Min Edge Distance**	Tension and Shear***
SBRFA25312G	2.5T	2-2.5T	3-1/2”	1-5/16”	1/2”	1-1/2”	6”	3,900 lbs
SBRFA25512G	2.5T	2-2.5T	5-1/2”	1-5/16”	1/2”	1-1/2”	10-1/2”	4,510 lbs
SBRFA25612G	2.5T	2-2.5T	6-1/2”	1-5/16”	1/2”	1-1/2”	11”	5,000 lbs
SBRFA5312G	5T	4-5T	3-1/2”	1-13/16”	3/4”	2-1/4”	6”	4,400 lbs
SBRFA5512G	5T	4-5T	5-1/2”	1-13/16”	3/4”	2-1/4”	10-1/2”	8,500 lbs
SBRFA5712G	5T	4-5T	7-1/2”	1-13/16”	3/4”	2-1/4”	12-1/2”	9,000 lbs
SBRFA5912G	5T	4-5T	9-1/2”	1-13/16”	3/4”	2-1/4”	16”	11,000 lbs
SBRFA10512G	10T	8-10T	5-1/2”	2-5/8”	1-1/8”	2-7/8”	10”	8,800 lbs
SBRFA107G	10T	8-10T	7”	2-5/8”	1-1/8”	2-7/8”	12”	12,500 lbs
SBRFA1010G	10T	8-10T	10”	2-5/8”	1-1/8”	2-7/8”	17”	22,000 lbs

* *Minimum spacing distance of 4x anchor depth.*
** *Minimum edge distance of 2x embedded anchor depth.*
*** *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*

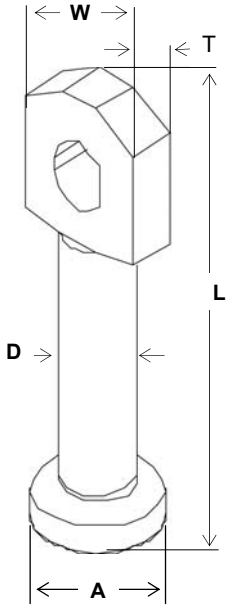
Product specifications are subject to change without notice.

Uni-Anchor

The Uni-Anchor is used for back stripping and all types of face lifting. The foot designed for handling large anchoring forces in concrete.

The wider distribution of shear forces created by the Uni-Anchor allows for very thin-walled panels and concrete units that must be handled at low compressive strength.

Each anchor is produced in compliance with a quality control system and each batch is sampled and tested for safety.

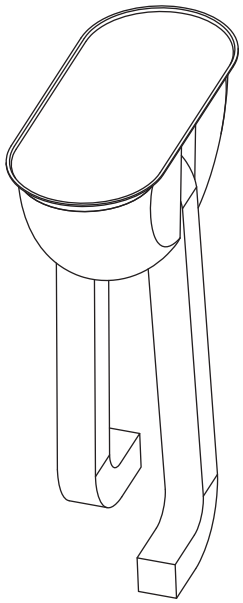


Uni –Anchor								
P/N	**Tons**	**Clutch ID**	**Shaft Dia. (D)**	**Length* (L)**	**Width (W)**	**Thickness (T)**	**Foot Dia. (A)**	**Tension****
SBRUA34512G	4T	4-5T	3/4”	5-1/2”	1-1/2”	5/8”	1.417”	6,000 lbs

* *Minimum reinforcing length (L) needed to develop the full strength of the anchor.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*

Product specifications are subject to change without notice.

Straight Leg Insert



The Straight Leg Insert is designed for back-shipping and rotating segments using standard Ring-Lift hardware.

The L-shaped legs are designed for handling large anchoring forces in concrete segments. The insert can be further reinforced by adding rebar over the feet.

Each insert includes a one-time disposable plastic void former. An optional reusable steel void former is also available.

A wide-leg design, plastic feet, and galvanized finish are also available.

Available in black, galvanized (G) and hot-dip galvanized (HDG) finish.

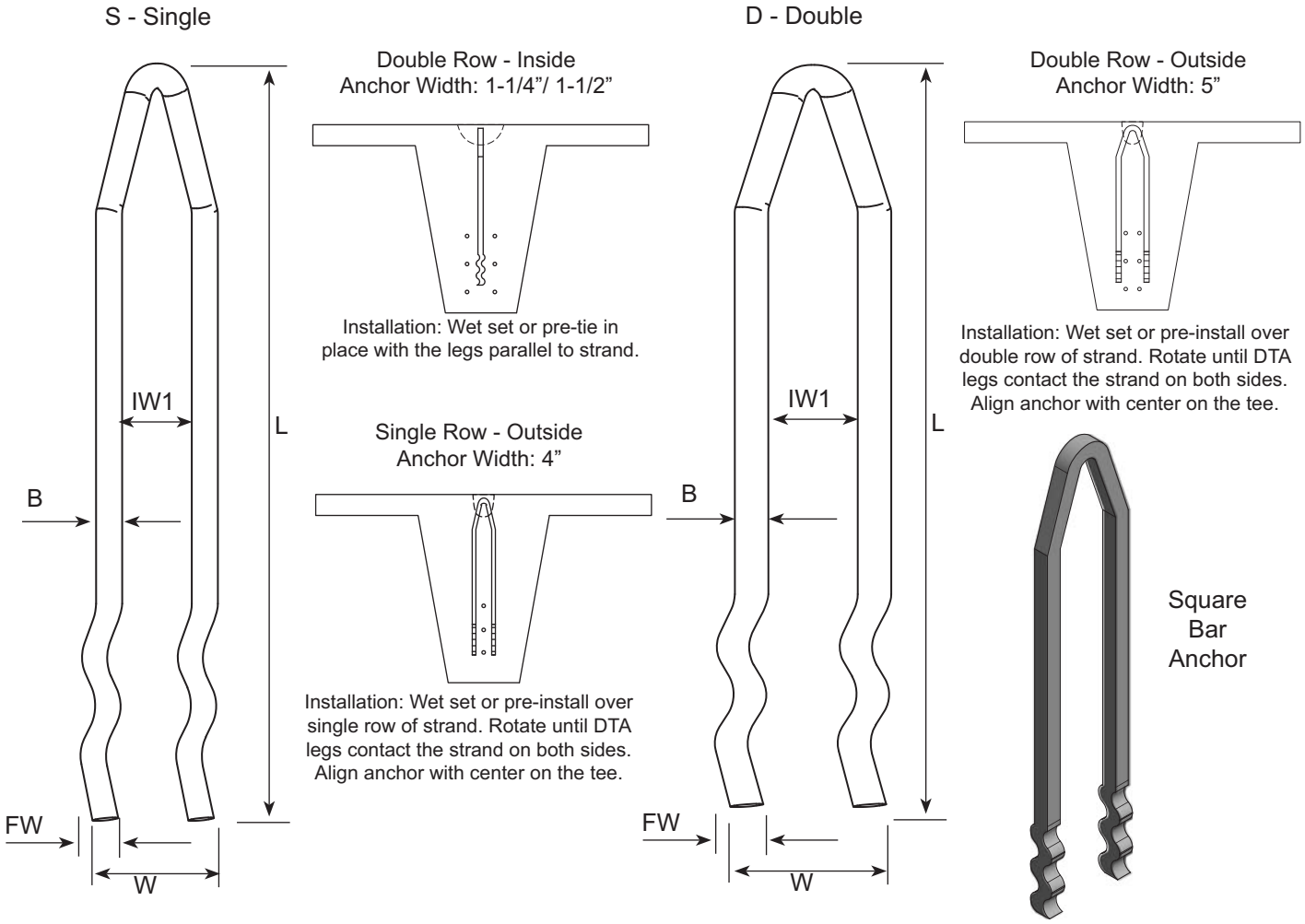
Straight Leg Insert					
P/N	**Tons**	**Clutch ID**	**Height**	**Leg Thickness**	**Tension***
SBRSL2.5T312	2.5T	2-2.5T	3-1/2”	3/8”	3,900 lbs
SBRSL2.5T512	2.5T	2-2.5T	5-1/2”	3/8”	4,600 lbs
SBRSL5T312	5T	4-5T	3-1/2”	1/2”	4,400 lbs
SBRSL5T412	5T	4-5T	4-1/2”	1/2”	6,200 lbs
SBRSL5T512	5T	4-5T	5-1/2”	5/8”	8,000 lbs
SBRSL5T912	5T	4-5T	9-1/2”	5/8”	11,000 lbs
SBRSL10T512	10T	8-10T	5-1/2”	3/4”	8,800 lbs
SBRSL10T7	10T	8-10T	7”	3/4”	12,500 lbs
SBRSL10T9	10T	8-10T	9”	3/4”	20,000 lbs
SBRSL10T12	10T	8-10T	12”	3/4”	22,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete. Based on full embedment, edge distance 1.5x height, and spacing 3x embedded depth.*

Product specifications are subject to change without notice.

Double Tee Anchor

The Double Tee Anchor is designed for lifting single or double tee precast concrete segments. The anchor is recessed to eliminate the removal costs associated with other lifting schemes. The design uses 5/8” square or 3/4” round bar for the 8T anchor and 3/4” square or 7/8” round bar for the 10T anchor. The wavy end of the anchor ensures proper engagement in the surrounding concrete.

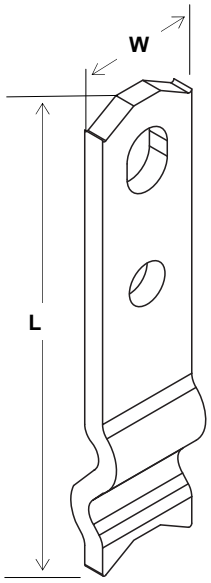


Single and Double Tee Anchor*							
P/N	**Tons**	**Thickness (B)**	**Width (FW)**	**Length (L)**	**Width (W)**	**Capacity****	**Ultimate**
SBDTA8T23 (S/D)	8T	3/4" Ø	1-1/4”	23”	5” (D) / 4” (S)	16,000 lbs	64,000 lbs
SBDTA10T23 (S/D)	10T	3/4" x 3/4”	1-1/2”	23”	5” (D) / 4” (S)	22,000 lbs	88,000 lbs

* *Available in Single (S) and Double (D). Optional zinc finish.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 6,000 psi concrete. Based on minimum coverage of 3/4” from side of foot to edge of concrete and minimum spacing of 9” from end of beam.*

Product specifications are subject to change without notice.

Wavy Tail Anchor



The Wavy Tail Anchor is ideal for lifting pipes, tanks and other thin-wall concrete segments. The 2.5T Ring-Lift lifting hardware

The embedded tensile strength of the Wavy Tail Anchor in a slim wall section is noted below. The anchor must be in the center of the segment. Always secure the anchor to the reinforcing or form to maintain the position during concrete placement.

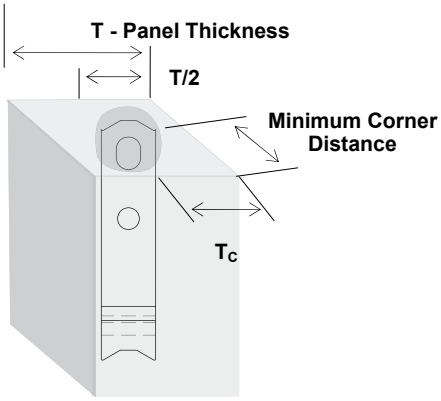
Wavy Tail Anchor					
P/N	**Tons**	**Clutch ID**	**Length (L)**	**Width (W)**	**Capacity***
SBWTA14434	1T	2-2.5T	4-3/4”	1-1/4”	2,000 lbs

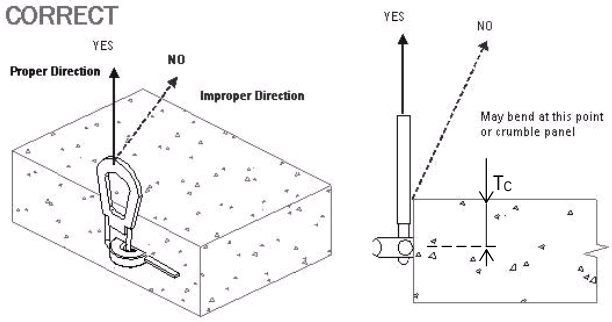
* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete. Shear capacities are based on lifter casting bearing against concrete.*

Note: *When used as a “back-stripping” anchor, the minimum corner distance is 1.5x the anchor length and the minimum distance between adjacent anchors is 3x the anchor length.*

Wavy Tail Anchor (Length 4-3/4”) Capacity					
Panel Thickness (T)	**T / 2**	**T_C**	**Shear***	**Tension***	
				8”	**12”**
4”	2”	1.375”	403 lbs	1,400 lbs	1,600 lbs
5”	2-1/2”	1.875”	450 lbs	1,700 lbs	2,000 lbs
5 1/2”	2-9/16”	1.925”	550 lbs	2,000 lbs	2,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete. Minimum corner distance is 1.5x anchor length and minimum spacing is 3x anchor length.*





Proper Lifting Procedure

Product specifications are subject to change without notice.

Plate Anchor

The Plate Anchor is used for face- and back-lifts of thin-walled segments. The low profile and wide, flat base provide excellent anchorage.

The welded horizontal plate at the bottom develops high pull-out strength in stripping, handling and erecting segments.

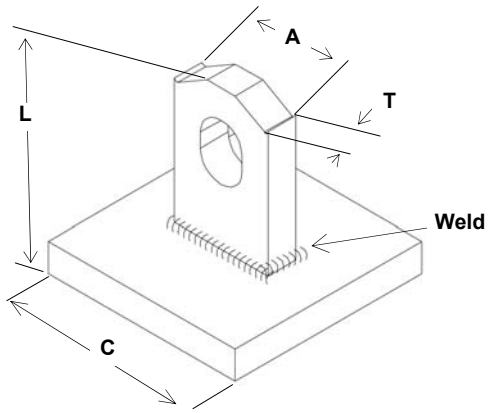


Plate Anchor*									
P/N	**Tons**	**Clutch ID**	**Length (L)**	**Wlidth (A)**	**Thickness (T)**	**Plate (C)**	**Min Edge Distance***	**Shear****	**Tension*****
SBRPA38214G	2T	2-2.5T	2-1/4”	1-1/4”	3/8”	2-1/2”	4-1/2”	1,100 lbs	1,100 lbs
SBRPA583G	4T	4-5T	3”	1-1/2”	5/8”	3”	6”	3,800 lbs	3,500 lbs
SBRPA58312G	4T	4-5T	3-1/2”	1-1/2”	5/8”	3”	7”	4,700 lbs	4,700 lbs
SBRPA58438G	4T	4-5T	4-3/8”	1-1/2”	5/8”	4”	8”	5,200 lbs	5,200 lbs
SBRPA34512G	8T	8-10T	5-1/2”	2-1/2”	3/4”	4”	12”	6,350 lbs	6,350 lbs
SBRPA34718G	8T	8-10T	7-1/8”	2-1/2”	3/4”	4”	15”	10,000 lbs	10,000 lbs

* *Minimum edge distance is 2x embedded depth.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 3,000 psi concrete.*
Allowable shear face loads equal to or greater than unreinforced tension loads for anchors located at the minimum edge distance.
*** *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*

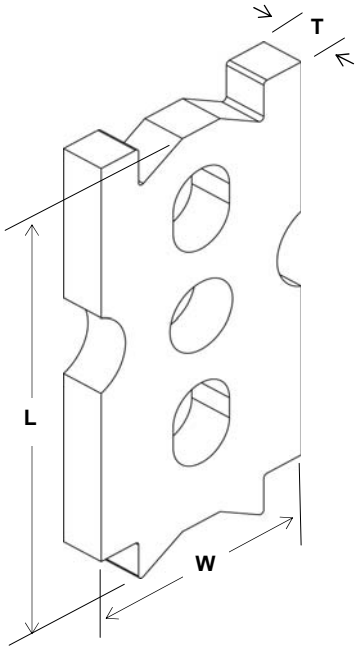
Product specifications are subject to change without notice.

Erection Anchor

The Erection Anchor combines reinforcing capabilities with spall-free performance. It is ideal for an A-frame, tilt table or whenever the lift is not straight up.

While the shear capacity is less than a standard erection anchor because of the shorter length, the full safe working load can be achieved in thin slabs by using a reinforcement Tension Bar through the second hole.

The Erection Anchor head is equal to a standard erection anchor because of the length. The convex sides build better strength without any more material.



Erection Anchor						
P/N	**Tons**	**Clutch ID**	**Length (L)**	**Width (W)**	**Thickness (T)**	**Tension w/ Tension Bar**
SBDEA384G	2T	2-2.5T	4”	2”	3/8”	4,000 lbs
SBDEA587G	4T	4-5T	7”	2-1/2”	5/8”	8,000 lbs
SBDEA5876TG	6T	8-10T	7”	3-1/2”	5/8”	12,000 lbs
SBDEA347G	8T	8-10T	7”	3-1/2”	3/4”	16,000 lbs
SBDEA341312G	8T	8-10T	13-1/2”	3-1/2”	3/4”	16,000 lbs

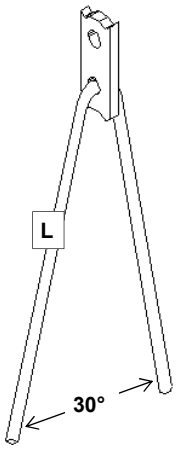
* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*

Tension Bar

The Tension Bar is used with the Erection Anchor to distribute tension loads into the precast segment.

Tension Bar Length (L) Requirement*					
P/N	**Load**	**Rebar**	**Concrete Strength**		
			2,000 psi	**3,000 psi**	**5,000 psi**
SBTB2T	2-2.5T	#4	2-9”	2’-6”	1’-8”
SBTB4T	4-5T	#5	3’-6”	3’-0”	2’-2”
SBTB8T	6-8-10T	#6	5’-6”	4’-6”	3’-3”

* *Minimum reinforcing length (L) needed to develop the full strength of the anchor.*



Product specifications are subject to change without notice.

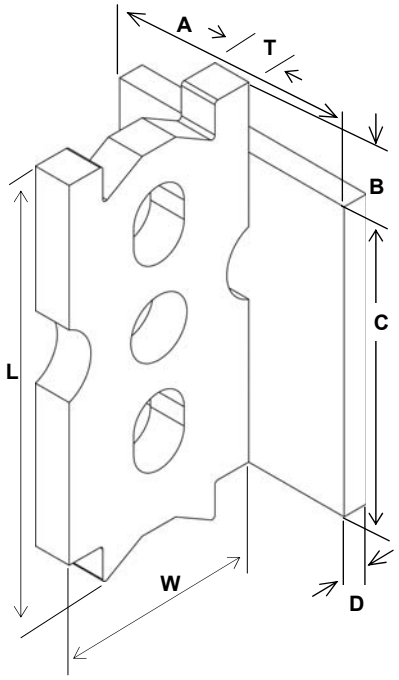
Erection Anchor with Shear Plate

The Erection Anchor combines reinforcing capabilities with spall-free performance. It is ideal for an A-frame, tilt table or whenever the lift is not straight up.

While the shear capacity is less than a standard erection anchor because of the shorter length, the full safe working load can be achieved in thin slabs by using a reinforcement Tension Bar through the second hole.

The Erection Anchor head is equal to a standard erection anchor because of the length. Convex sides build better strength without any added material.

The shear plate replaces the need for a shear bar making it easier to install.



Erection Anchor with Shear Plate										
P/N	Tons	Clutch ID	Anchor Dimension			Plate Dimension				Tension with Tension Bar*
			Length (L)	Width (W)	Thick (T)	Width (A)	Position (B)	Length (C)	Thick (D)	
SBDEA384SPG	2T	2-2.5T	4”	2”	3/8”	2-1/2”	3/4”	3”	1/4”	4,000 lbs
SBDEA38425TSPG	2.5T	2-2.5T	4”	2”	3/8”	2-1/2”	3/4”	3”	1/4’7”	5,000 lbs
SBDEA587SPG	4T	4-5T	7”	2-1/2”	5/8”	2-1/2”	1-1/4”	3”	3/8”	8,000 lbs
SBDEA347SPG	8T	8-10T	7”	3-1/2”	3/4”	3”	1-5/8”	3-1/2”	3/8”	16,000 lbs
SBDEA341312SPG	8T	8-10T	13-1/2”	3-1/2”	3/4”	3”	1-5/8”	3-1/2”	3/8”	16,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*

Note: *There is load data on the following pages. If higher loads are desired, then a Tension Bar should be placed through the lower hole of the anchor. Consult the Tension Bar chart for rebar length, diameter and bend angle.*

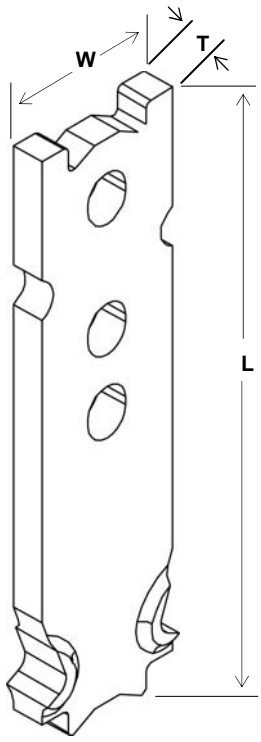
Product specifications are subject to change without notice.

Erection Anchor with Shear Plate Load Table						
P/N	**Tons**	**Clutch ID**	**Panel Thickness**	**Shear Load* With Shear Plate Transport Value**	**Shear Load* with Shear Plate Tilt-Up Value****	**Tension Load* with Tension Bar**
SBDEA3842TSPG	2T x 4”	2-2.5T	3-1/2” min	1,325 lbs	1,990 lbs	4,000 lbs
SBDEA3842TSPG	2T x 4”	2-2.5T	4”	1,525 lbs	2,290 lbs	4,000 lbs
SBDEA3842TSPG	2T x 4”	2-2.5T	5”	1,525 lbs	2,290 lbs	4,000 lbs
SBDEA3842TSPG	2T x 4”	2-2.5T	6”	1,750 lbs	2,630 lbs	4,000 lbs
SBDEA3842TSPG	2T x 4”	2-2.5T	7”	1,900 lbs	2,850 lbs	4,000 lbs
SBDEA3842TSPG	2T x 4”	2-2.5T	8”	2,075 lbs	3,120 lbs	4,000 lbs
SBDEA5874TSPG	4T x 7”	4-5T	5-1/2” min	2,025 lbs	3,045 lbs	8,000 lbs
SBDEA5874TSPG	4T x 7”	4-5T	6”	2,250 lbs	3,380 lbs	8,000 lbs
SBDEA5874TSPG	4T x 7”	4-5T	7”	2,600 lbs	3,900 lbs	8,000 lbs
SBDEA5874TSPG	4T x 7”	4-5T	8”	3,000 lbs	4,500 lbs	8,000 lbs
SBDEA5874TSPG	4T x 7”	4-5T	9”	3,375 lbs	5,075 lbs	8,000 lbs
SBDEA5874TSPG	4T x 7”	4-5T	10”	3,750 lbs	5,630 lbs	8,000 lbs
SBDEA3413128TSPG	8T x 13-1/2”	8-10T	7-1/2” min	4,010 lbs	6,030 lbs	16,000 lbs
SBDEA3413128TSPG	8T x 13-1/2”	8-10T	8”	4,010 lbs	6,030 lbs	16,000 lbs
SBDEA3413128TSPG	8T x 13-1/2”	8-10T	9”	4,120 lbs	6,190 lbs	16,000 lbs
SBDEA3413128TSPG	8T x 13-1/2”	8-10T	10”	4,280 lbs	6,430 lbs	16,000 lbs
SBDEA3413128TSPG	8T x 13-1/2”	8-10T	11”	4,420 lbs	6,645 lbs	16,000 lbs
SBDEA3413128TSPG	8T x 13-1/2”	8-10T	12”	4,550 lbs	6,845 lbs	16,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor with full embedment, reinforcement and 3,500 psi concrete.*
** *Tilt-Up values can be used for shear if an anchor is used only once for erecting the panel.*

Product specifications are subject to change without notice.

X-Foot Erection Anchor



The X-Foot Erection Anchor is designed for horizontal to vertical edge lifts and shear rotation of thin-walled units.

The specially designed head has two “ears” at the top protect against spalling. These ears hug either side of the ring clutch, restricting its rotation during lateral pulls. As a result, lateral forces are transmitted directly to the edges of the anchor instead of the concrete.

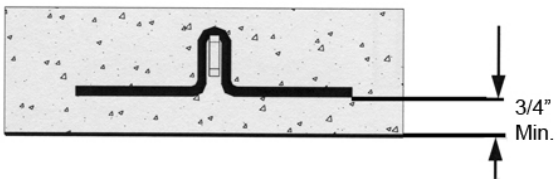
The body of the Erection Anchor is shaped to allow full reinforcement for secure support. Because of the stress caused by the shear lift of a thin panel, reinforcement is necessary in the direction of the lift.

The full safe working load can be achieved in thin slabs or when there is low concrete strength by using a Tension Bar in the second hole.

X-Foot Erection Anchor						
P/N	**Tons**	**Clutch ID**	**Width (W)**	**Length (L)**	**Thickness (T)**	**Tension***
SBSFEA2TG	2T	2-2.5T	2”	8”	3/8”	4,000 lbs
SBSFEA4TG	4T	4-5T	2-1/2”	9-1/2”	5/8”	8,000 lbs
SBSFEA8TG	8T	8-10T	3-1/2”	13-1/2”	3/4”	16,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*

Shear Bar



The Shear Bar is used with the Erection Anchor to distribute tension loads into the precast segment. The bar is stronger, less expensive, and easier to use than fabricated rebar.

Shear Bar				
P/N	**Tons**	**Clutch ID**	**Height**	**Min Panel Thickness**
SBSB2T	2T	2-2.5T	2-1/2”	4”
SBSB4T	4T	4-5T	3-5/16”	5-1/2”
SBSB8T	8T	8-10T	4-15/16”	7-1/2”

Note: *During rotation the sling angle should be perpendicular to the surface. While the panel is being rotated on its edge, the load can usually be factored by 0.5. During this phase of the lift, the anchors are not bearing the full weight of the panel. The rated loads and minimum panel thicknesses can be found in the accompanying table. Once the panel has been rotated to vertical, the tension lift is initiated.*

Product specifications are subject to change without notice.

X-Foot Erection Anchor Load Table					
Tons	**Clutch ID**	**Panel Thickness**	**Shear Load with Shear Bar**	**Tension Load w/o Tension Bar**	**Tension Load with Tension Bar**
2T x 8”	2-2.5T	4” min	1,490 lbs	3,190 lbs	4,000 lbs
2T x 8”	2-2.5T	5”	2,110 lbs	3,900 lbs	4,000 lbs
2T x 8”	2-2.5T	5-1/2”	2,130 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	6”	2,520 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	7”	2,870 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	8”	3,160 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	9”	3,420 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	10”	3,640 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	11”	3,840 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	12”	4,000 lbs	4,000 lbs	4,000 lbs
4T x 9-1/2”	4-5T	5-1/2” min	2,670 lbs	4,970 lbs	8,000 lbs
4T x 9-1/2”	4-5T	6”	2,990 lbs	5,170 lbs	8,000 lbs
4T x 9-1/2”	4-5T	7”	3,170 lbs	6,030 lbs	8,000 lbs
4T x 9-1/2”	4-5T	8”	3,430 lbs	6,910 lbs	8,000 lbs
4T x 9-1/2”	4-5T	9”	3,650 lbs	7,750 lbs	8,000 lbs
4T x 9-1/2”	4-5T	10”	3,860 lbs	8,000 lbs	8,000 lbs
4T x 9-1/2”	4-5T	11”	3,930 lbs	8,000 lbs	8,000 lbs
4T x 9-1/2”	4-5T	12”	4,010 lbs	8,000 lbs	8,000 lbs
8T x 13-1/2”	8-10T	7-1/2” min	4,010 lbs	7,220 lbs	16,000 lbs
8T x 13-1/2”	8-10T	8”	4,010 lbs	7,690 lbs	16,000 lbs
8T x 13-1/2”	8-10T	9”	4,120 lbs	8,640 lbs	16,000 lbs
8T x 13-1/2”	8-10T	10”	4,280 lbs	9,580 lbs	16,000 lbs
8T x 13-1/2”	8-10T	11”	4,420 lbs	10,610 lbs	16,000 lbs
8T x 13-1/2”	8-10T	12”	4,550 lbs	11,680 lbs	16,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor with full embedment, reinforcement and 3,500 psi concrete.*

Product specifications are subject to change without notice.

X-Foot Erection Anchor with Shear Plate

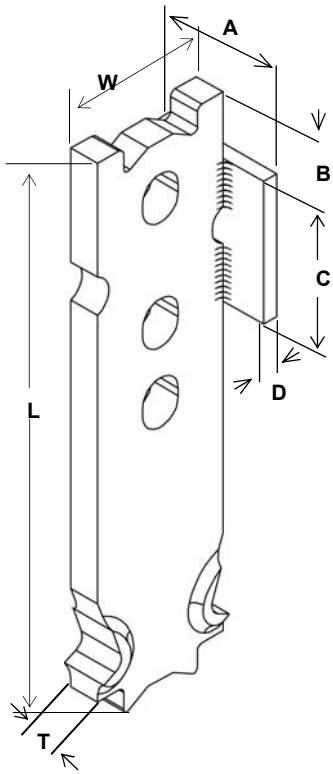
The X-Foot Erection Anchor with Shear Plate is designed for horizontal-to-vertical edge lifts and shear rotation of thin-walled units.

The welded shear plate replaces the need for a shear bar, reducing the number of components needed and making it easier to install. No special ring clutch is necessary,

The specially designed head has two “ears” at the top protect against spalling. These ears hug either side of the ring clutch, restricting its rotation during lateral pulls. As a result, lateral forces are transmitted directly to the edges of the anchor instead of the concrete.

The body of the Erection Anchor is shaped to allow full reinforcement for secure support. Because of the stress caused by the shear lift of a thin panel, reinforcement is necessary in the direction of the lift.

The full safe working load can be achieved in thin slabs or when there is low concrete strength by using a Tension Bar in the second hole.



X-Foot Erection Anchor w/ Shear Plate										
P/N	Tons	Clutch ID	X-Foot Dimension			Shear Plate Dimension				Tension
			Width (W)	Length (L)	Thickness (T)	Width (A)	From Top (B)	Length (C)	Thickness (D)	
SBSFEA2TPG	2T	2-2.5T	2”	8”	3/8”	2-1/2”	3/4”	3”	1/4”	4,000 lbs
SBSFEA4TPG	4T	4-5T	2-1/2”	9-1/2”	5/8”	2-1/2”	1-1/4”	3”	3/8”	8,000 lbs
SBSFEA8TPG	8T	8-10T	3-1/2”	13-1/2”	3/4”	3”	1-5/8”	3-1/2”	3/8”	16,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*

Note: *During rotation the sling angle should be perpendicular to the surface. While the panel is being rotated on its edge, the load can usually be factored by 0.5. During this phase of the lift, the anchors are not bearing the full weight of the panel. The rated loads and minimum panel thicknesses can be found in the accompanying table. Once the panel has been rotated to vertical, the tension lift is initiated.*

Product specifications are subject to change without notice.

X-Foot Erection Anchor w/ Shear Plate Load Table					
Tons	**Clutch ID**	**Panel Thickness**	**Shear Load with Shear Plate**	**Tension Load w/o Tension Bar**	**Tension Load with Tension Bar**
2T x 8”	2-2.5T	3-1/2” min	1,490 lbs	2,640 lbs	4,000 lbs
2T x 8”	2-2.5T	4”	1,940 lbs	3,190 lbs	4,000 lbs
2T x 8”	2-2.5T	5”	2,110 lbs	3,900 lbs	4,000 lbs
2T x 8”	2-2.5T	5-1/2”	2,130 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	6”	2,520 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	7”	2,870 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	8”	3,160 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	9”	3,420 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	10”	3,640 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	11”	3,840 lbs	4,000 lbs	4,000 lbs
2T x 8”	2-2.5T	12”	4,000 lbs	4,000 lbs	4,000 lbs
4T x 9-1/2”	4-5T	4” min	1,800 lbs	3,400 lbs	8,000 lbs
4T x 9-1/2”	4-5T	5-1/2”	2,670 lbs	4,970 lbs	8,000 lbs
4T x 9-1/2”	4-5T	6”	2,990 lbs	5,170 lbs	8,000 lbs
4T x 9-1/2”	4-5T	7”	3,170 lbs	6,030 lbs	8,000 lbs
4T x 9-1/2”	4-5T	8”	3,430 lbs	6,910 lbs	8,000 lbs
4T x 9-1/2”	4-5T	9”	3,650 lbs	7,750 lbs	8,000 lbs
4T x 9-1/2”	4-5T	10”	3,860 lbs	8,000 lbs	8,000 lbs
4T x 9-1/2”	4-5T	11”	3,930 lbs	8,000 lbs	8,000 lbs
4T x 9-1/2”	4-5T	12”	4,010 lbs	8,000 lbs	8,000 lbs
8T x 13-1/2”	8-10T	7” min	4,010 lbs	7,100 lbs	16,000 lbs
8T x 13-1/2”	8-10T	7-1/2”	4,010 lbs	7,220 lbs	16,000 lbs
8T x 13-1/2”	8-10T	8”	4,010 lbs	7,690 lbs	16,000 lbs
8T x 13-1/2”	8-10T	9”	4,120 lbs	8,640 lbs	16,000 lbs
8T x 13-1/2”	8-10T	10”	4,280 lbs	9,580 lbs	16,000 lbs
8T x 13-1/2”	8-10T	11”	4,420 lbs	10,610 lbs	16,000 lbs
8T x 13-1/2”	8-10T	12”	4,550 lbs	11,680 lbs	16,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor with full embedment, reinforcement and 3,500 psi concrete.*

Product specifications are subject to change without notice.

Mitered X-Foot Erection Anchor with Shear Plate

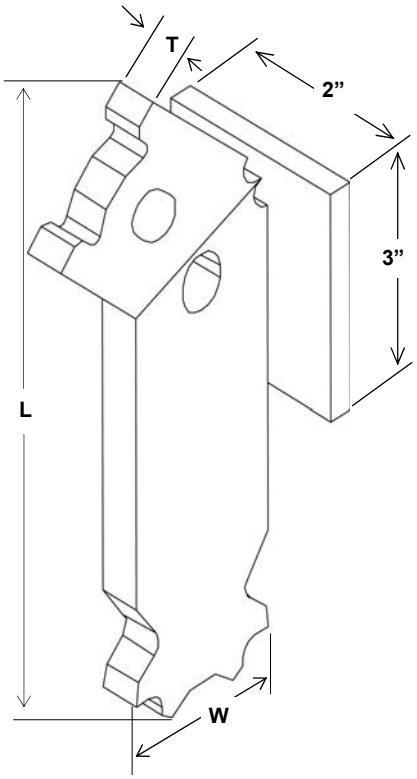
When the lifting edge is beveled at a 45° angle, the mitered X-Foot Erection Anchor with Shear Plate is needed.

The factory miter the concrete design and the and shear plate eliminates the need for any shear reinforcement. This makes it easier to install. No special clutch is necessary.

The specially designed head has two “ears” at the top protect against spalling. These ears hug either side of the ring clutch, restricting its rotation during lateral pulls. As a result, lateral forces are transmitted directly to the edges of the anchor instead of the concrete.

The body of the Erection Anchor is shaped to allow full reinforcement for secure support. Because of the stress caused by the shear lift of a thin panel, reinforcement is necessary in the direction of the lift.

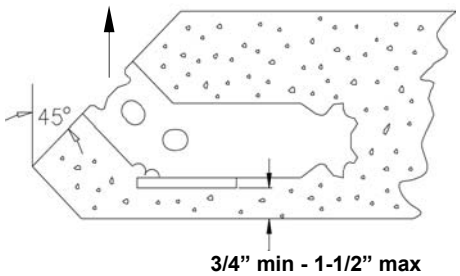
The full safe working load can be achieved in thin slabs or when there is low concrete strength by using a Tension Bar in the second hole.



X-Foot Erection Anchor w/ 45° Miter and Shear Plate *								
P/N	Tons	Clutch ID	Width (W)	Length (L)	Thickness (T)	Panel Thickness	Shear**	Tension** w/Tension Bar
SBSFEA2TMTRSPG	2T	2-2.5T	2”	8-1/2”	3/8”	6-1/2”	2,150 lbs	3,400 lbs
SBSFEA4TMTRSPG	4T	4-5T	2-1/2”	11-1/8”	5/8”	8”	3,500 lbs	5,400 lbs
SBSFEA8TMTRSPG	8T	8-10T	3-3/4”	13-3/4”	3/4”	8” min	3,500 lbs	6,200 lbs

* *The concrete panel will not hang plumb when using the mitered anchor. Do not exceed the safe working load.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*

Note: *To install the X-Foot Erection Anchor with 45° Miter and Shear Plate, position the anchor a minimum of 3/4” and a maximum of 1-1/2” clear of the casting bed. After the anchor has been fastened in place, tension reinforcement may be added as needed. After the concrete has set, removal of the edge form and recess member will expose the head of the anchor for attachment of the lifting eye.*

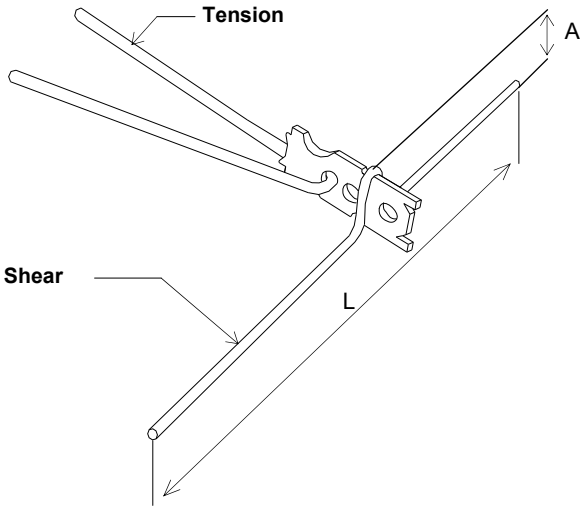


Product specifications are subject to change without notice.

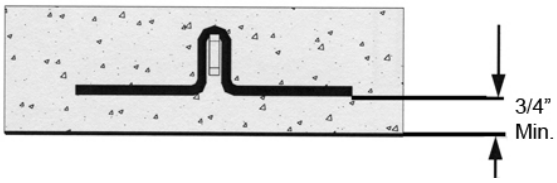
Shear Bar

The Shear Bar is used with the X-Foot Erection Anchor to distribute tension loads into the precast segment. The bar is stronger, less expensive, and easier to use than fabricated rebar.

The Shear Bar provides economical reinforcement for the X-Foot Erection Anchor during the rotation phase of edge lifts. The loop on the shear bar fits over the anchor to spread shear stress over a wide area and deep into the concrete.



Shear Bar					
P/N	**Tons**	**Clutch ID**	**Height (A)**	**Length (L)**	**Min Panel Thickness**
SBSB2T	2T	2-2.5T	2-1/2”	13-7/8”	4”
SBSB4T	4T	4-5T	3-5/16”	13-7/8”	5-1/2”
SBSB8T	8T	8-10T	4-15/16”	13-7/8”	7-1/2”

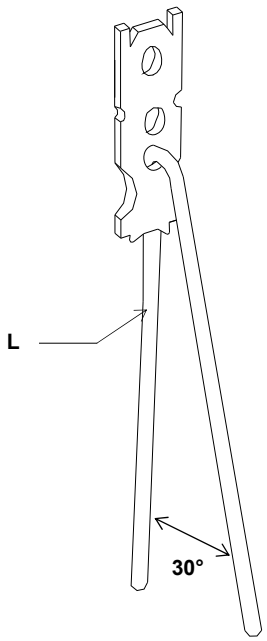


Tension Bar

The Tension Bar is used with the X-Foot Erection Anchor to distribute tension loads into the precast segment.

Tension Bar Length (L) Requirement*					
P/N	**Load**	**Rebar**	**Concrete Strength**		
			2,000 psi	**3,000 psi**	**5,000 psi**
SBTB2T	2T	#4	2-9”	2’-6”	1’-8”
SBTB4T	4T	#5	3’-6”	3’-0”	2’-2”
SBTB8T	8T	#6	5’-6”	4’-6”	3’-3”

* *Minimum reinforcing length (L) needed to develop the full strength of the anchor.*



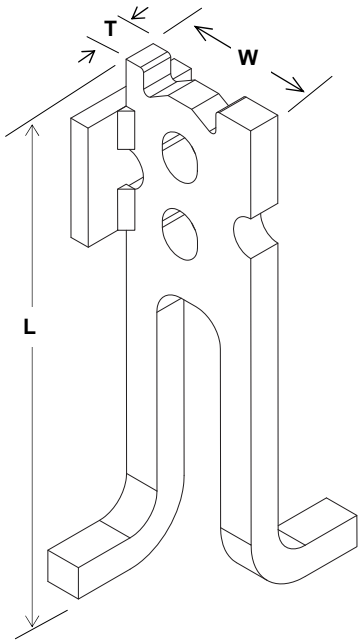
Product specifications are subject to change without notice.

Straight Leg Erection Anchor with Shear Plate

The Straight Leg Erection Anchor is ideal for horizontal-to-vertical edge lifts and shear rotation of thin-walled segments. The anchor is easier to install because the shear plate eliminates the need for an added shear bar.

Two steel “ears” on the head of the anchor provides protection against spalling. The ears hug the Ring-Lift hardware, restricting rotation during lateral pulls. The lateral forces are transmitted to the edges of the anchor instead of the concrete.

The shape of the Straight Leg Erection Anchor allows full reinforcement support and spall-free rotation during handling.



Straight Leg Erection Anchor with Shear Plate								
P/N	**Tons**	**Width (W)**	**Thickness (T)**	**Length (L)**	**Panel Thickness**	**Shear* w/o Shear Bar**	**Tension* w/o Tension Bar**	**Tension* w/ Tension Bar**
SBSLE2TSPG	2T	2-3/8”	3/8”	8”	4” (min)	1,800 lbs	3,190 lbs	4,400 lbs
					5”	2,000 lbs	3,900 lbs	4,400 lbs
					5-1/2”	2,400 lbs	4,000 lbs	4,400 lbs
					6”	2,800 lbs	4,000 lbs	4,400 lbs
					7”	3,300 lbs	4,400 lbs	4,400 lbs
					8”	3,600 lbs	4,400 lbs	4,400 lbs
					9”	3,800 lbs	4,400 lbs	4,400 lbs
					10”	4,000 lbs	4,400 lbs	4,400 lbs
					11”	4,200 lbs	4,400 lbs	4,400 lbs
					12”	4,400 lbs	4,400 lbs	4,400 lbs
SBSLE4TSPG	4T	3-1/16”	5/8”	10-1/2”	5-1/2” (min)	3,100 lbs	4,970 lbs	8,800 lbs
					6”	3,200 lbs	5,170 lbs	8,800 lbs
					7”	3,700 lbs	6,030 lbs	8,800 lbs
					8”	4,000 lbs	6,910 lbs	8,800 lbs
					9”	4,300 lbs	7,750 lbs	8,800 lbs
					10”	4,600 lbs	8,000 lbs	8,800 lbs
					11”	5,000 lbs	8,800 lbs	8,800 lbs
					12”	5,000 lbs	8,800 lbs	8,800 lbs
SBSLE8TSPG	8T	3-5/8”	3/4”	13-1/2”	7-1/2” (min)	4,300 lbs	7,500 lbs	20,000 lbs
					8”	4,500 lbs	7,690 lbs	20,000 lbs
					9”	5,000 lbs	8,640 lbs	20,000 lbs
					10”	5,500 lbs	9,580 lbs	20,000 lbs
					11”	6,200 lbs	11,500 lbs	20,000 lbs
					12”	6,900 lbs	13,200 lbs	20,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete. Based on full embedment and added reinforcement as noted.*

Product specifications are subject to change without notice.

Drop-Forged Foot Erection Anchor

The Drop-Forged Foot Erection Anchor has a specially designed shape that make it easier to install without reducing the load capacity for concrete edge lifts.

The protrusions or “ears” at the top of the anchor restrict rotation during lifting, protecting the concrete from spalling. The body is shaped to allow for full panel reinforcement, providing support during lifting. The integrated foot eliminates the need for an additional shear bar, simplifying the anchor installation.

During panel rotation, the sling angle should always be perpendicular to the surface or the anchors will not be bearing the full weight of the panel.

Once the panel has been rotated to vertical, the tension is initiated. During this phase, the drop-forged foot at the bottom of the anchor, develops a tension load.

Drop-Forged Foot Erection Anchor*						
P/N	**Anchor**	**Lifter**	**Width**	**Length**	**Plate**	**Tension****
SBDFFEA5TG	5 Ton	4-5 Ton	3-1/2”	10”	2-1/2”x3”	11,000 lbs
SBDFFEA10TG	10 Ton	8-10 Ton	4-1/2”	12-1/2”	3”x4”	22,200 lbs

* *Anchor is designed to match the capacity of the 5-Ton and 10-Ton Ring-Lift hardware.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*

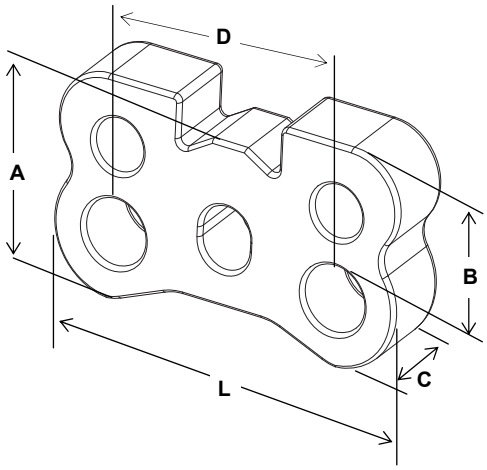
Product specifications are subject to change without notice.

Drop-Forged Foot Erection Anchor Load Table						
Anchor	**Lifter**	**Panel Thickness**	**Shear Load (no Shear Bar) Transport Value***	**Shear Load (no Shear Bar) Tilt-Up Value****	**Tension Load w/o Tension Bar***	**Tension Load With Tension Bar*****
5 Ton	4-5 Ton	5-1/2" min	2,950 lbs	4,020 lbs	5,750 lbs	11,000 lbs
5 Ton	4-5 Ton	6"	3,200 lbs	4,200 lbs	7,200 lbs	11,000 lbs
5 Ton	4-5 Ton	7"	3,400 lbs	4,670 lbs	8,000 lbs	11,000 lbs
5 Ton	4-5 Ton	8"	3,800 lbs	5.454 lbs	10,200 lbs	11,000 lbs
5 Ton	4-5 Ton	9"	4,400 lbs	6,212 lbs	11,000 lbs	11,000 lbs
5 Ton	4-5 Ton	10"	4,800 lbs	6,818 lbs	11,000 lbs	11,000 lbs
5 Ton	4-5 Ton	11"	5,200 lbs	7,272 lbs	11,000 lbs	11,000 lbs
5 Ton	4-5 Ton	12"	6,100 lbs	7,575 lbs	11,000 lbs	11,000 lbs
10 Ton	8-10 Ton	7-1/2" min	4,600 lbs	6,363 lbs	17,500 lbs	22,000 lbs
10 Ton	8-10 Ton	8"	4,800 lbs	6,666 lbs	17,500 lbs	22,000 lbs
10 Ton	8-10 Ton	9"	5,450 lbs	7,272 lbs	18,000 lbs	22,000 lbs
10 Ton	8-10 Ton	10"	6,100 lbs	7,878 lbs	19,000 lbs	22,000 lbs
10 Ton	8-10 Ton	11"	6,800 lbs	8,333 lbs	20,000 lbs	22,000 lbs
10 Ton	8-10 Ton	12"	7,600 lbs	8,787 lbs	22,000 lbs	22,000 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*
** *Tilt-Up Value can be used for shear if an anchor is used only once for erecting the panel.*
*** *Given full embedment, reinforcement and minimum compressive strength, the anchor should achieve pullout strength equal to the maximum tension strength with a Tension Bar. panel.*

Product specifications are subject to change without notice.

HD Sandwich Panel Erection Anchor



By delivering an even load distribution to both sides of a sandwich panel, the Sandwich Panel Erection Anchor transfers the highest loads on panel edge without shear bars.

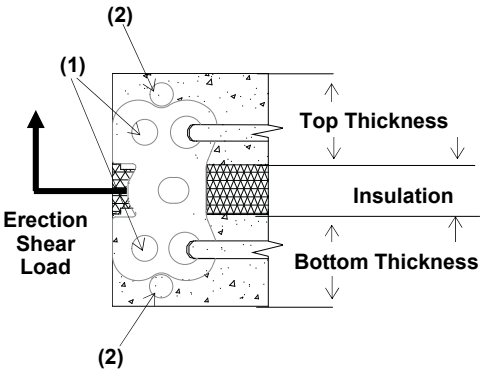
The anchor is easy to install and the design absorbs shear loads without spalling concrete. Additional shear reinforcement can be added if necessary to increase the shear capacity.

Given full embedment, reinforcement, and a minimum compressive strength of 4,500 psi, the 8T Sandwich Panel Erection Anchors will achieve a pullout strength equal to the ultimate strength when reinforced with two #6 x3'-6" long bent bars.

HD Sandwich Panel Erection Anchor							
P/N	Tons	Clutch ID	Dimensions				
			L	A	B	C	D
Plasma-Cut HD Sandwich Panel Erection Anchor 8T							
SBPCSPEA346G	8T	8-10T	6"	3-3/4"	2-29/32"	3/4"	4"
Drop-Forged HD Sandwich Panel Erection Anchor 10T							
SBDFSPEA346G	10T	8-10T	6"	3-3/4"	2-29/32"	3/4"	4"

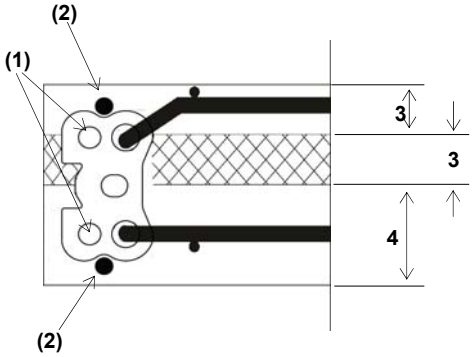
HD Sandwich Panel Erection Anchor for 9" Panel (3"x3"x3")				
Tons	Tension	Shear Parallel to Thickness*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness**
8T	17,600 lbs	5,700 lbs	4,200 lbs	9,400 lbs
10T	20,000 lbs	5,700 lbs	4,200 lbs	10,500 lbs

* *Safe Working Load (SWL) based on 2.66:1 safety factor.*
** *Safe Working Load based on 4:1 safety factor with 24" rebar #5 through holes (1.).*
(2) Additional shear bar can be placed alongside anchor to increase loading.



HD Sandwich Panel Erection Anchor for 10" Panel (4"x3"x3")				
Tons	Tension	Shear Parallel to Thickness*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness**
8T	17,600 lbs	7,200 lbs	4,800 lbs	10,500 lbs
10T	20,000 lbs	7,200 lbs	4,800 lbs	10,500 lbs

* *Safe Working Load (SWL) based on 2.66:1 safety factor.*
** *Safe Working Load based on 4:1 safety factor with 24" rebar #5 through holes (1).*
(2) Additional shear bar can be placed alongside anchor to increase loading.



***Notes**:*
1 The 4:1 safety factor is used with precast work and normally requires no increases except for cable magnification. Additional increases due to unusual live loads or cable magnification may be required for some applications.
2. The 2.66:1 safety factor, is a 2:1 safety factor, which is commonly used when back shipping, increased 33% to compensate for initial bond and impact. Additional increases due to unusual live loads or cable magnification may be required for some applications.

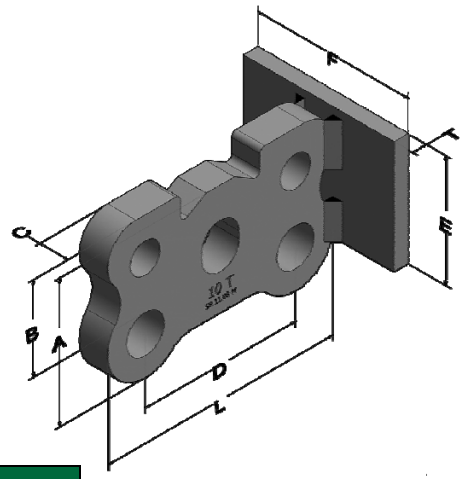
Product specifications are subject to change without notice.

HD Sandwich Panel Erection Anchor wShear Plate

By delivering an even load distribution to both sides of a sandwich panel, the Sandwich Panel Erection Anchor with Shear Plate transfers the highest loads on panel edge without shear bars.

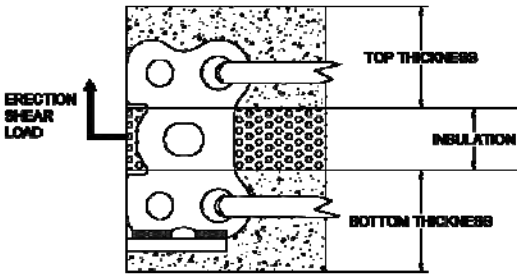
The anchor is easy to install and the design absorbs shear loads without spalling concrete. Additional shear reinforcement can be added if necessary to increase the shear capacity.

Given full embedment, reinforcement, and a minimum compressive strength of 4,500 psi, the 10T Sandwich Panel Erection Anchors will achieve a pullout strength equal to the ultimate strength when reinforced with two #6 x3'-6" long bent bars.



HD Sandwich Panel Erection Anchor wShear Plate									
P/N	Tons	Clutch ID	Dimensions						
			L	A	B	C	D	E	F
Plasma-Cut HD Sandwich Panel Erection Anchor wShear Plate 8T									
SBPCSPEA346SPG	8T	8-10T	6"	3-3/4"	2-29/32"	3/4"	4"	3"	3-1/2"
Drop-Forged HD Sandwich Panel Erection Anchor wShear Plate 10T									
SBDFSPEA346SPG	10T	8-10T	6"	3-3/4"	2-29/32"	3/4"	4"	3"	3-1/2"

HD Sandwich Panel Erection Anchor wShear Plate for 9" Panel (3"x3"x3")				
Tons	Tension	Shear Parallel to Thickness*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness**
8T	17,600 lbs	5,700 lbs	4,200 lbs	9,400 lbs
10T	20,000 lbs	5,700 lbs	4,200 lbs	10,500 lbs



* *Safe Working Load (SWL) based on 2.66:1 safety factor.*
** *Safe Working Load based on 4:1 safety factor with 24" rebar #5 through holes.*

HD Sandwich Panel Erection Anchor wShear Plate for 10" Panel (4"x3"x3")				
Tons	Tension	Shear Parallel to Thickness*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness**
8T	17,600 lbs	5,700 lbs	4,200 lbs	9,400 lbs
10T	20,000 lbs	7,200 lbs	4,800 lbs	10,500 lbs

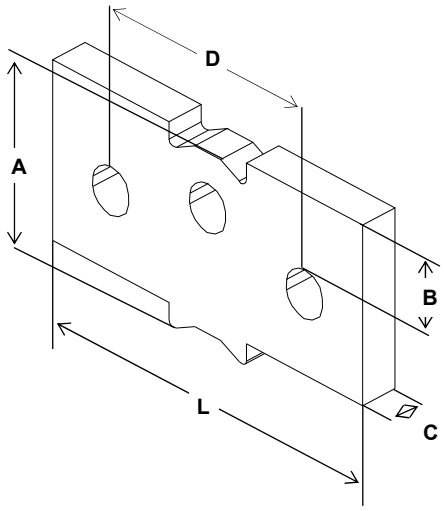
* *Safe Working Load (SWL) based on 2.66:1 safety factor.*
** *Safe Working Load based on 4:1 safety factor with 24" rebar #5 through holes.*

Product specifications are subject to change without notice.

Sandwich Panel Erection Anchor

By delivering an even load distribution to both sides of a sandwich panel, the Sandwich Panel Erection Anchor eliminates the need for special lifting devices.

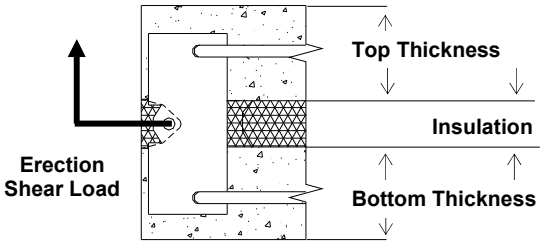
This easy-to-install anchor eliminates the need for special spreader bars, distributes the load evenly and absorbs shear loads without spalling concrete.



Sandwich Panel Erection Anchor							
P/N	Ton	Clutch ID	L	A	B	C	D
SBSPEA586G	4T	4-5T	6”	3-1/2”	1-3/8”	5/8”	3-3/4”
SBSPEA346G	8T	8-10T	6”	3-3/4”	2-29/32”	3/4”	4’

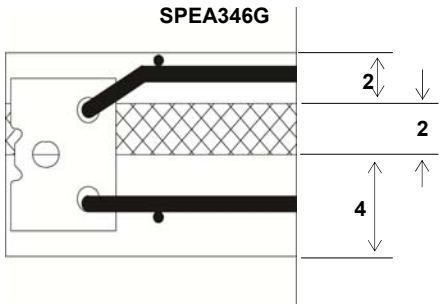
Sandwich Panel Erection Anchor for 8” Thickness (3”x2”x3”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
4T	8,000 lbs	4,500 lbs	8,000 lbs
8T	16,000 lbs	5,170 lbs	9,400 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*
** *Safe Working Load (SWL) based on 2.66:1 safety factor in 3,500 psi concrete.*



Sandwich Panel Erection Anchor for 8” Thickness (4”x2”x2”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
4T	8,000 lbs	4,950 lbs	8,000 lbs
8T	16,000 lbs	5,200 lbs	10,500 lbs

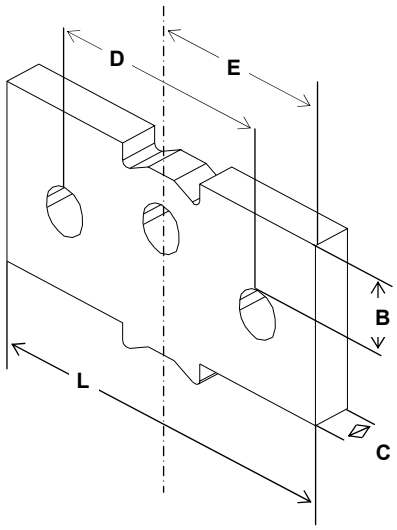
* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*
** *Safe Working Load (SWL) based on 2.66:1 safety factor in 3,500 psi concrete.*



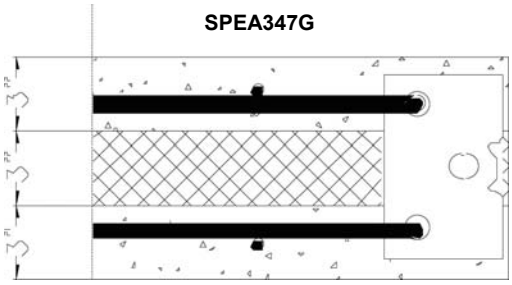
***Notes**:*
1. The 4:1 safety factor is used with precast work and normally requires no increases except for cable magnification.
*2. Given full embedment, reinforcement, and a minimum compressive strength of 3,300 psi, the **4-5 ton Sandwich Panel Erection Anchors** should achieve a pullout strength equal to their Ultimate Mechanical Strength if reinforced with (2) #3 x2'-6" long bent.*
*3. Given full embedment, reinforcement, and a minimum compressive strength of 4,500 psi, the **8-10 ton Sandwich Panel Erection Anchors** should achieve a pullout strength equal to their Ultimate Mechanical Strength if reinforced with (2) #5 x3'-6" long bent.*
4. The 2.66:1 safety factor, is a 2:1 safety factor, which is commonly used when back shipping, increased 33% to compensate for initial bond and impact. Additional increases due to unusual live loads or cable magnification may be required for some applications.

Product specifications are subject to change without notice.

Sandwich Panel Erection Anchor - 8 Ton							
P/N	Panel Thickness	Levels	L	B	C	D	E
SBSPEA346G	8”	3x2x3	6”	3”	3/4”	3-3/4”	3”
SBSPEA346G	8”	4x2x2	6”	3”	3/4”	3-3/4”	4”
SBSPEA347G	9”	3x3x3	7”	3”	3/4”	5”	3-3/4”
SBSPEA348G	10”	3x4x3	8”	3”	3/4”	6”	4-3/4”
SBSPEA34812G	10”	3x4x3	8-1/2”	3”	3/4”	6”	4-3/4”
SBSPEA34812G	10”	4x3x3	8-1/2”	3”	3/4”	6”	4-3/4”
SBSPEA34812G	10”	3x3x4	8-1/2”	3”	3/4”	6”	4-3/4”
SBSPEA34834G	12”	6x3x3	8-3/4”	2-7/8”	3/4”	6-1/4”	5-3/4”
SBSPEA34834G	12”	3x3x6	8-3/4”	2-7/8”	3/4”	6-1/4”	5-3/4”

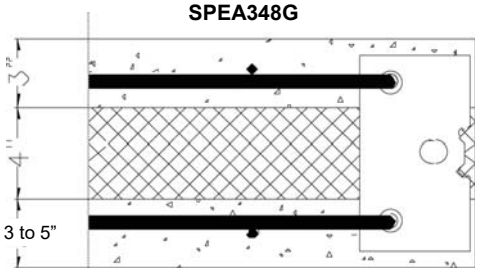


SPEA347G



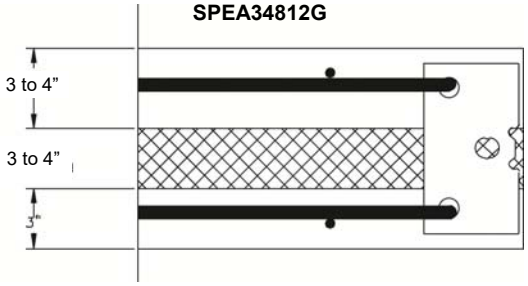
Sandwich Panel Erection Anchor for 9” Thickness (3”x3”x3”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
8T	16,000 lbs	5,170 lbs	9,400 lbs

SPEA348G



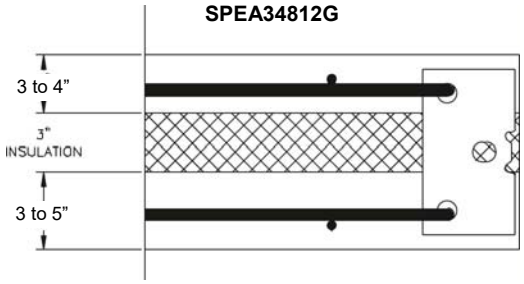
Sandwich Panel Erection Anchor for 9” Thickness (3”x4”x3”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
8T	16,000 lbs	5,170 lbs	9,400 lbs

SPEA34812G



Sandwich Panel Erection Anchor for 10” Thickness (4”x3”x3”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
8T	16,000 lbs	5,170 lbs	9,400 lbs

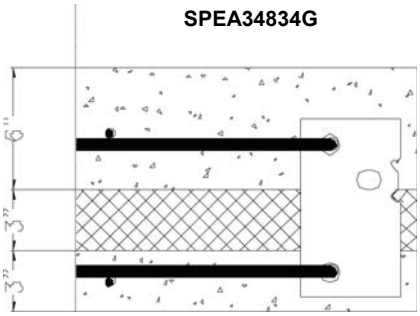
SPEA34812G



Sandwich Panel Erection Anchor for 10” Thickness (3”x3”x4”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
8T	16,000 lbs	5,200 lbs	10,500 lbs

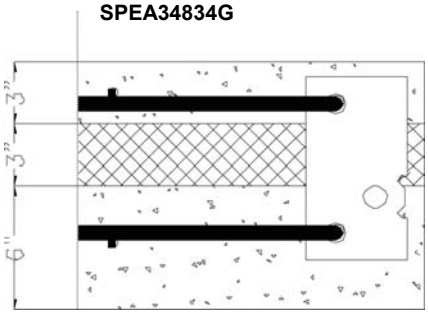
Product specifications are subject to change without notice.

SPEA34834G



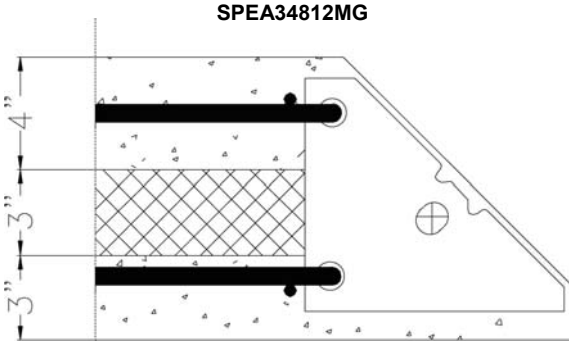
Sandwich Panel Erection Anchor for 12" Thickness (6"x3"x3")			
Tons	**Tension***	**Shear Parallel to Thickness****	**Shear Perpendicular to Thickness***
8T	16,000 lbs	5,170 lbs	10,900 lbs

SPEA34834G



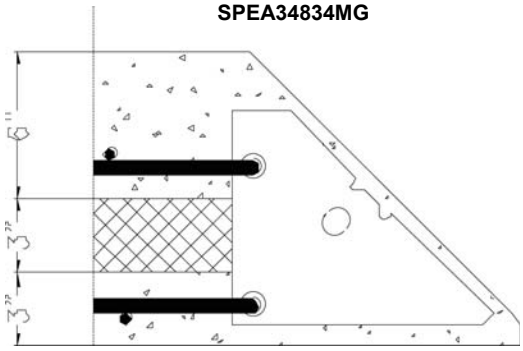
Sandwich Panel Erection Anchor for 12" Thickness (3"x3"x6")			
Tons	**Tension***	**Shear Parallel to Thickness****	**Shear Perpendicular to Thickness***
8T	16,000 lbs	5,400 lbs	11,500 lbs

SPEA34812MG



Mitered Sandwich Panel Erection Anchor For 10" Thickness (4"x3"x3")			
Tons	**Tension***	**Shear Parallel to Thickness****	**Shear Perpendicular to Thickness***
8T	16,000 lbs	5,170 lbs	9,400 lbs

SPEA34834MG



Mitered Sandwich Panel Erection Anchor For 12" Thickness (6"x3"x3")			
Tons	**Tension***	**Shear Parallel to Thickness****	**Shear Perpendicular to Thickness***
8T	16,000 lbs	5,170 lbs	11,500 lbs

* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*
** *Safe Working Load (SWL) based on 2.66:1 safety factor in 3,500 psi concrete.*

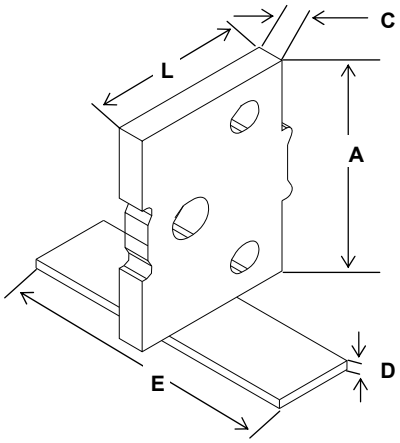
***Notes**:*
1. *The 4:1 safety factor is used with precast work and normally requires no increases except for cable magnification.*
2. *Given full embedment, reinforcement, and a minimum compressive strength of 3,300 psi, the **4-5 ton Sandwich Panel Erection Anchors** should achieve a pullout strength equal to their Ultimate Mechanical Strength if reinforced with (2) #3 x2'-6" long bent.*
3. *Given full embedment, reinforcement, and a minimum compressive strength of 4,500 psi, the **8-10 ton Sandwich Panel Erection Anchors** should achieve a pullout strength equal to their Ultimate Mechanical Strength if reinforced with (2) #5 x3'-6" long bent.*
4. *The 2.66:1 safety factor, is a 2:1 safety factor, which is commonly used when back shipping, increased 33% to compensate for initial bond and impact. Additional increases due to unusual live loads or cable magnification may be required for some applications.*

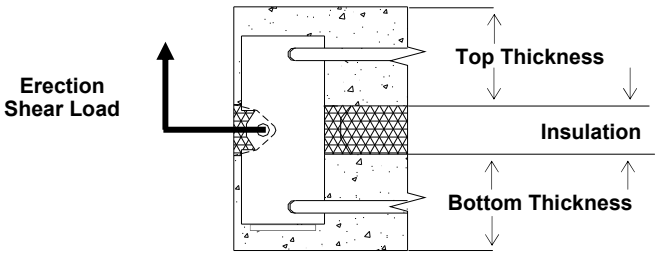
Product specifications are subject to change without notice.

Sandwich Panel Erection Anchor with Shear Plate

By delivering an even load distribution to both sides of a sandwich panel, the Sandwich Panel Erection Anchor eliminates the need for special lifting devices.

This easy-to-install anchor eliminates the need for special spreader bars, distributes the load evenly and absorbs shear loads without spalling concrete.





Sandwich Panel Erection Anchor with Shear Plate							
P/N	Tons	Clutch ID	Anchor			Plate	
			(A)	(L)	(C)	(D)	(E)
SBSPEA586SPG	4T	4-5T	6”	3-1/2”	5/8”	3/8”	3”x3”
SBSPEA346SPG	8T	8-10T	6”	3-3/4”	3/4”	3/8”	3”x4”

Sandwich Panel Erection Anchor with Shear Plate for 8” Thickness (3”x2”x3”)		
Tons	Erection Shear**	Tension*
4T	4,800 lbs	8,000 lbs
8T	5,300 lbs	16,000 lbs

Sandwich Panel Erection Anchor with Shear Plate for 9” Thickness (3”x3”x3”)		
Tons	Erection Shear**	Tension*
4T	5,100 lbs	8,000 lbs
8T	5,700 lbs	16,000 lbs

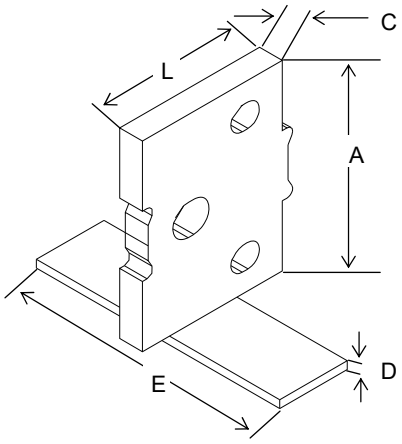
Sandwich Panel Erection Anchor with Shear Plate for 10” Thickness (3-1/2”x2”x3-1/2”)		
Tons	Erection Shear**	Tension*
4T	5.500 lbs	8,000 lbs
8T	6,500 lbs	16,000 lbs

Sandwich Panel Erection Anchor with Shear Plate for 12” Thickness (4”x4”x4”)		
Tons	Erection Shear**	Tension*
4T	5,800 lbs	8,000 lbs
8T	7,200 lbs	16,000 lbs

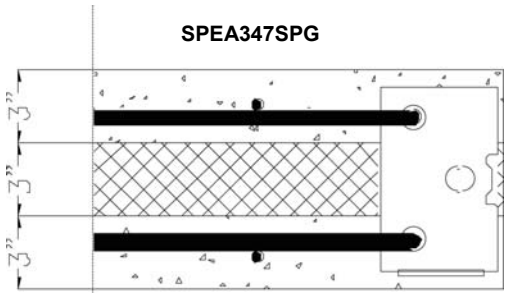
* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*
** *Safe Working Load (SWL) based on 2.66:1 safety factor in 3,500 psi concrete.*

Product specifications are subject to change without notice.

Sandwich Panel Erection Anchor with Shear Plate—8 Ton								
P/N	Panel	Level	L	A	B	C	D	E
SBSPEA346SPG	8”	3”x2”x3”	6”	4-3/4”	3”	3/4”	3-3/4”	3”
SBSPEA346SPG	8”	4”x2”x2”	6”	4-3/4”	3”	3/4”	3-3/4”	4”
SBSPEA347SPG	9”	3”x3”x3”	7”	4-3/4”	3”	3/4”	5”	3-3/4”
SBSPEA348SPG	10”	3”x4”x3”	8”	4-3/4”	3”	3/4”	6”	4-3/4”
SBSPEA34812SPG	10”	3”x4”x3”	8-1/2”	4-3/4”	3”	3/4”	6”	4-3/4”
SBSPEA34812SPG	10”	4”x3”x3”	8-1/2”	4-3/4”	3”	3/4”	6”	4-3/4”
SBSPEA34812SPG	10”	3”x3”x4”	8-1/2”	4-3/4”	3”	3/4”	6”	4-3/4”
SBSPEA34834SPG	12”	6”x3”x3”	8-3/4”	5”	2-7/8”	3/4”	6-1/4”	5-3/4”
SBSPEA34834SP2G	12”	3”x3”x6”	8-3/4”	5”	2-7/8”	3/4”	6-1/4”	5-3/4”

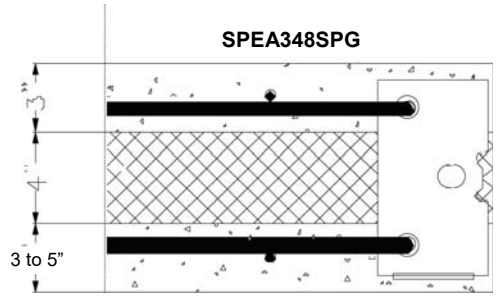


SPEA347SPG



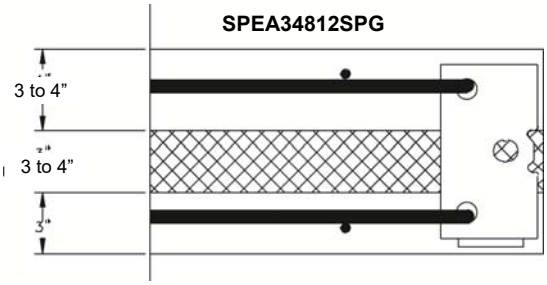
Sandwich Panel Erection Anchor with Shear Plate for 9” Thickness (3”x3”x3”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
8T	16,000 lbs	5,700 lbs	9,400 lbs

SPEA348SPG



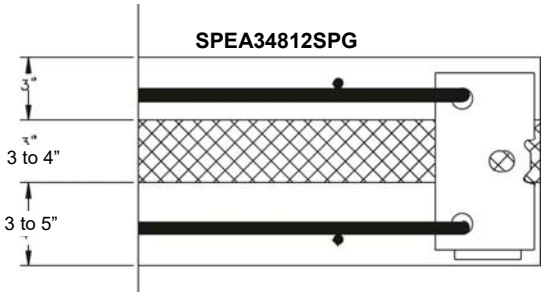
Sandwich Panel Erection Anchor with Shear Plate for 10” Thickness (3”x4”x3”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
8T	16,000	5,700 lbs	9,400 lbs

SPEA34812SPG



Sandwich Panel Erection Anchor with Shear Plate for 10” Thickness (4”x3”x3”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
8T	16,000 lbs	5,700 lbs	10,500 lbs

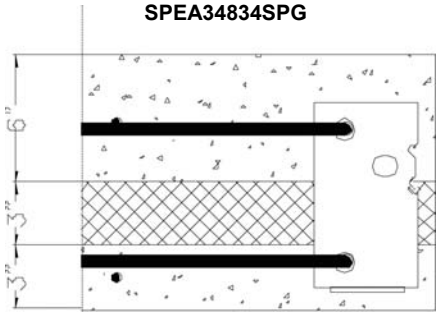
SPEA34812SPG



Sandwich Panel Erection Anchor with Shear Plate for 10” Thickness (3”x3”x4”)			
Tons	Tension*	Shear Parallel to Thickness**	Shear Perpendicular to Thickness*
8T	16,000 lbs	5,700 lbs	10,500 lbs

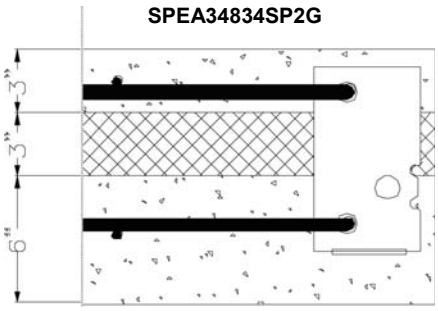
Product specifications are subject to change without notice.

SPEA34834SPG



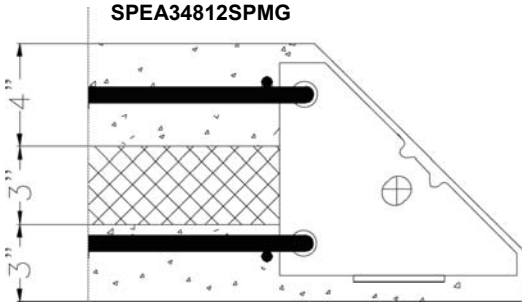
Sandwich Panel Erection Anchor with Shear Plate for 12” Thickness (6”x3”x3”)			
Tons	**Tension***	**Shear Parallel to Thickness****	**Shear Perpendicular to Thickness***
8T	16,000 lbs	5,700 lbs	11,500 lbs

SPEA34834SP2G



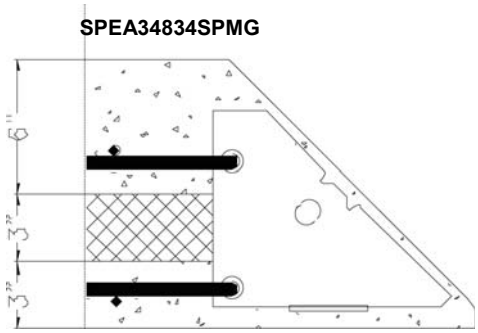
Sandwich Panel Erection Anchor with Shear Plate for 12” Thickness (3”x3”x6”)			
Tons	**Tension***	**Shear Parallel to Thickness****	**Shear Perpendicular to Thickness***
8T	16,000 lbs	7,200 lbs	11,500 lbs

SPEA34812SPMG



Mitered Sandwich Panel Erection Anchor with Shear Plate for 10” Thickness (4”x3”x3”)			
Tons	**Tension***	**Shear Parallel to Thickness****	**Shear Perpendicular to Thickness***
8T	16,000 lbs	5,400 lbs	9,400 lbs

SPEA34834SPMG



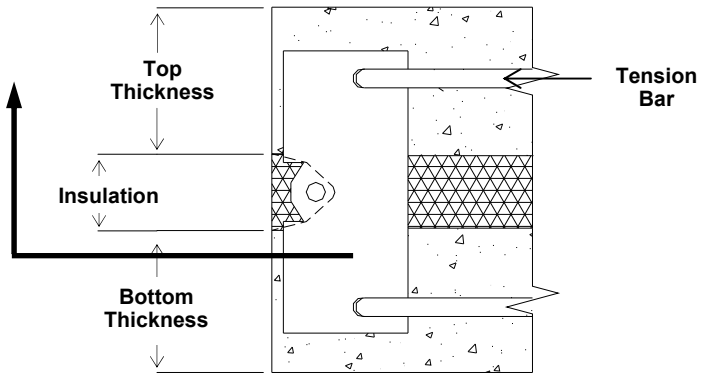
Mitered Sandwich Panel Erection Anchor with Shear Plate for 12” Thickness (6”x3”x3”)			
Tons	**Tension***	**Shear Parallel to Thickness****	**Shear Perpendicular to Thickness***
8T	16,000 lbs	5,400 lbs	9,400 lbs

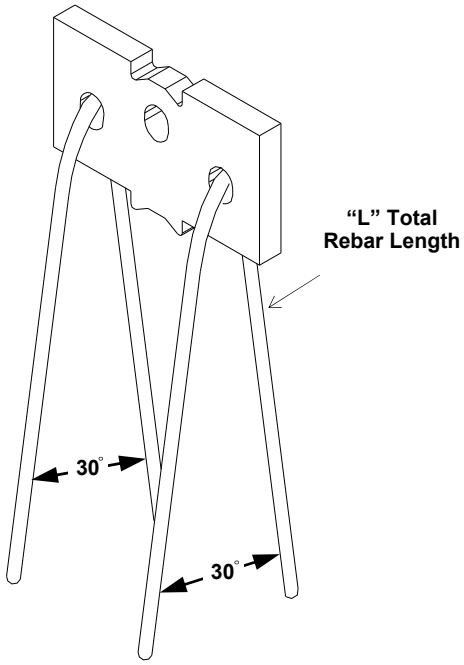
* *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete.*
** *Safe Working Load (SWL) based on 2.66:1 safety factor in 3,500 psi concrete.*

Product specifications are subject to change without notice.

Tension Bar for Sandwich Panel Erection Anchor

- Easy to use
- Cost efficient
- Distributes tension loads into the precast element
- Can be used with a variety of anchors





Placement of
Tension Bars

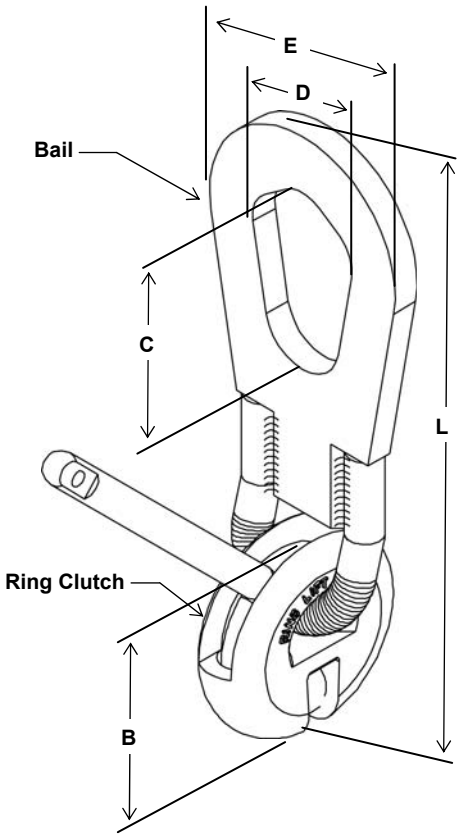
Sandwich Panel Erection Anchor Reinforcement*								
Tons	Panel Thickness	Panel Thickness			Reinforcement Required			
		Bottom Thickness	Insulation	Top Thickness	Rebar Size	Rebar Length	Bend Req. Bottom	Bend Req.
4T	8"	3"	2"	3"	#3	2'-6"	No	No
4T	8"	4"	2"	2"	#3	2'-6"	No	Yes
4T	6"	2"	2"	2"	#3	7'-0"	Yes	Yes
8T	8"	3"	2"	3"	#5	3'-6"	No	Yes
8T	8"	4"	2"	2"	#5	5'-6"	No	Yes

** Capacity based on 4:1 safety factor in 4,500 psi concrete.*

Product specifications are subject to change without notice.

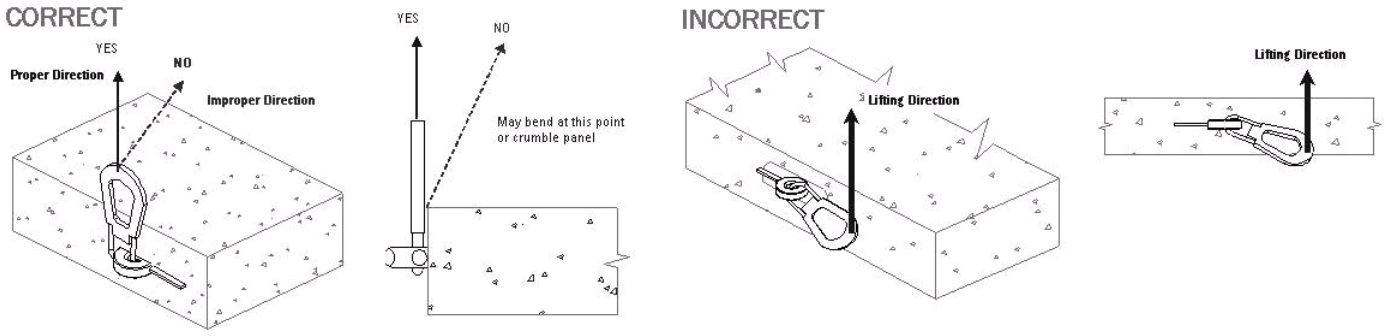
Ring-Lift Lifter

- Configured with a curved and interlocking clutch body
- Bolt and a high-strength bail
- Attaches quickly and lifts smoothly
- Ring clutch rotates and locks onto anchor head
- Standard bail rotates 180° for spall-free lifting
- Once in locking position, the Ring Clutch cannot be released
- Capacity rated in metric tons
- All Lifters marked with individual ID number (per OSHA)



Ring-Lift Lifter*							
P/N	Tons	Load Range	L	B	C	D	E
SBRL25T	2.5T	2-2.5T	10-15/16”	3-1/8”	3-1/16”	2-5/32”	3-3/4”
SBRL5T	5T	3-5T	12-31/32”	4-1/16”	3-15/16”	2-15/32”	4-19/32”
SBRL10T	10T	8-10T	17-3/8”	5-7/8”	5-1/4”	3-3/8”	6-11/32”

** Capacity based on 5:1 safety factor.*



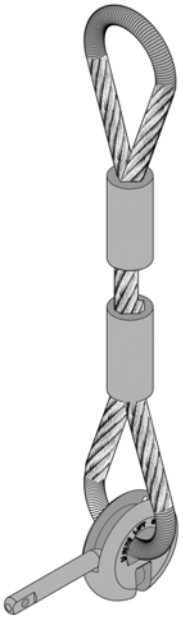
Note: *The bail, if positioned below the ring clutch, as shown, may lock itself in a position preventing free movement of the unit. In this position the bail might bend during lift. As the panel is lifted the clutch may bend. As the panel reaches a more vertical position the clutch will unlock itself resulting in an impact load.*

Product specifications are subject to change without notice.

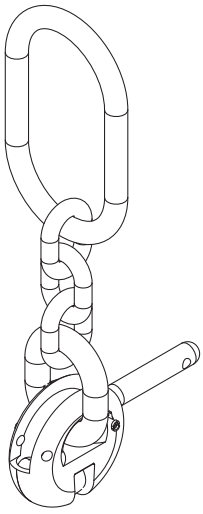
Cable Lifter

A length of chain or cable, attached to a standard Ring-Lift Lifter, simplifies difficult “rotate-to-vertical” situations. Once in the locking position and supporting the full load, the ring clutch cannot be inadvertently released.

Both the Chain Lifter and Cable Lifter attach quickly and lift smoothly. The capacity of the Chain Lifter and Cable Lifter are designed to match the standard Ring-Lift Lifter rating, based on a 5:1 safety factor.



Ring-Lift Cable Lifter



Ring-Lift Chain Lifter

Ring-Lift Cable Lifter				
P/N	**Clutch ID**	**Load Range**	**Total Length**	**Loop Length**
SBRLCL25T	2.5T	2-2.5 Tons	24-1/2”	7”
SBRLCL5T	5T	4-5 Tons	26-1/2”	9”
SBRLCL10T	10T	8-10 Tons	37-1/2”	10-1/2”

** Capacity based on 5:1 safety factor.*

Ring-Lift Chain Lifter			
P/N	**Clutch ID**	**Load Range**	**Total Length**
SBRLCHL25T	2.5T	2-2.5 Tons	14-1/2”
SBRLCHL5T	5T	4-5 Tons	18”
SBRLCHL10T	10T	8-10 Tons	29-1/2”

** Capacity based on 5:1 safety factor.*

Ring-Lift Lifter Safety Inspection Guidelines

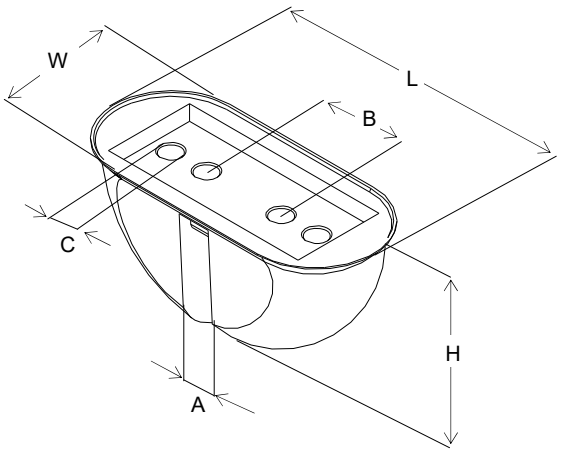
1. Inspection - Always inspect newly purchased/received Lifters. Always inspect Lifters before each application. Always inspect the overall appearance for bends, kinks or other obvious damage.

2. Maintenance - Always inspect Lifters for bends, kinks, stress fractures, extreme wear or missing components after each application. Always check the bail and handle for smooth rotation from the closed to open position. Chain links should be inspected for weld fractures and cables should be inspected for raveling/ruptures.

3. Damage - If the chain, cable, crimp, or lifter is damaged, then it must be immediately segregated/removed from service. Any replacement part must be an equivalent (or larger) size and capacity. It should be replaced, tested and certified for load equal to 5 times the rated load.

Product specifications are subject to change without notice.

Recess Former - Reusable Urethane



The Recess Former is used with any of the Ring-Lift anchors. It provides a fast and accurate void, with a consistent shape for smooth lifter attachment. The former is made with a durable urethane for easy stripping and reusability.

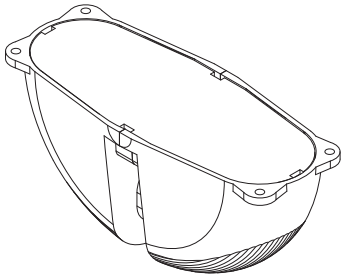
A former is used when a hole in the formwork is undesirable. A mounting plate with four 3/16" diameter holes is used to fasten the anchor and former to the formwork by nailing, screwing, welding, or taping.

The anchor and former are attached to the mounting plate by sliding the assembly over the two protruding pins on the plate.

Recess Former - Reusable Urethane								
P/N	**Clutch ID**	**Load Range**	**Length (L)**	**Height (H)**	**Wlidth (W)**	**Slot (A)**	**Spacing (B)**	**Hole Dia (C)**
SBRLF1T	2.5T	1T	3-3/4”	1-15/16”	1-11/16”	3/16”	1-1/16”	0.406”
SBRLF2T	2.5T	2T-2.5T	3-3/4”	1-15/16”	1-11/16”	3/8”	1-1/16”	0.406”
SBRLF5T	5T	4T-5T	4-7/8”	2-1/4”	2-3/16”	5/8”	1-3/8”	0.406”
SBRLF10T	10T	8T-10T	6-1/2”	3-1/4”	3-1/2”	3/4”	1-15/16”	0.406”

Each former has two optional connections; one coil thread and one NC thread.

Recess Former - Disposable Plastic



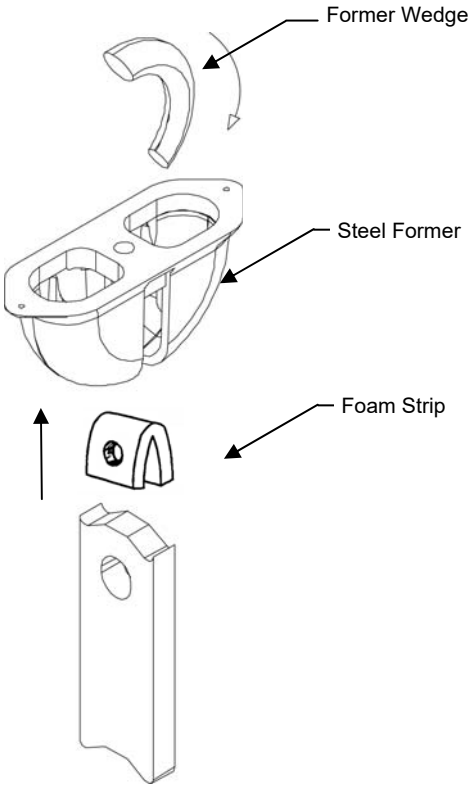
The Recess Former is used with any of the Ring-Lift anchors. It provides a fast and accurate void, with a consistent shape for smooth lifter attachment. The former is made with a durable urethane for easy stripping and reusability

Recess Former—Disposable Plastic			
P/N	**Clutch ID**	**Load Range**	**Color**
SBRLDF2T	2.5T	2T-2.5T	Green
SBRLDF4T	5T	4T-5T	Orange
SBRLDF8T	10T	8T-10T	Blue

Product specifications are subject to change without notice.

Recess Former - Reusable Steel

- Use with Ring-Lift anchors
- Fast, accurate installation that forms consistent shape around the anchor for better lifter attachment



Recess Former - Reusable Steel*		
P/N	**Capacity**	**Clutch ID**
SBRLSFH2T	2T	2T
SBRLSFH4T	4T	5T
SBRLSFH8T	8T	10T

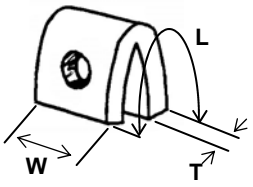
* *Complete Recess Former assembly.*

Steel Wedge Only*		
P/N	**Capacity**	**Clutch ID**
SBRLSFW2T	2T	2T
SBRLSFW4T	4T	5T
SBRLSFW8T	8T	10T

* *Used to lock anchor in place.*

Foam Strip Only					
P/N	**Capacity**	**Clutch ID**	**L**	**W**	**T**
SBRLFS2T	2T	2.5T	3”	2”	1/4”
SBRLFS4T	4T	5T	4”	2-1/2”	1/4”
SBRLFS8T	8T	10T	6”	3”	1/4”

* *Used to lock Steel Wedge and anchor in place.*

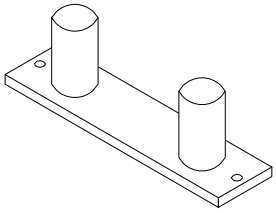


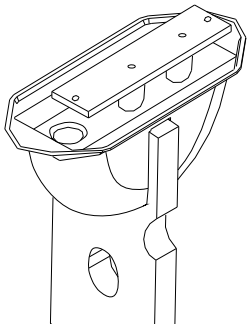
Product specifications are subject to change without notice.

Mounting Plate

- Two pins align the Recess Former
- Allows for easy stripping and multiple reuse

Mounting Plate			
P/N	Capacity	Clutch ID	Pin Diameter
SBRFFP12T	2T	2.5T	0.406”
SBRFFP34T	4T	5T	0.406”
SBRFFP68T	8T	10T	0.406”





Mounting Plate on Recess Former

Magnet Plates

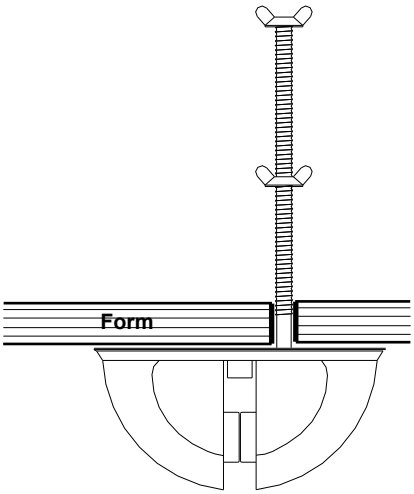
- Reusable magnet for fastening transport anchors
- Magnet securely holds the lifting device
- Easily attached to any location along forming side rail
- Can be quickly removed, repositioned and reused

Magnet Plate		
P/N	Capacity	Clutch ID
SBGB4049	2T-2.5T	2.5T
SBGB4050	4T-5T	5T
SBGB4051	8T-10T	10T

Mounting Bolt and Wing Nut

Fastens Recess Former and Mounting Plate to form face.

Mounting Bolt and Wing Nut				
P/N	Capacity	Clutch ID	L	Coil Thread
SBAFR3863812TC	1T	2.5T	6-3/8”	3/8“
	2T	2.5T	6-3/8”	3/8“
	4T	5T	6-3/8”	3/8“
SBAFR12638810TC	8T	10T	6-3/8”	1/2“



Product specifications are subject to change without notice.

Product specifications are subject to change without notice.

Uni-Lift System

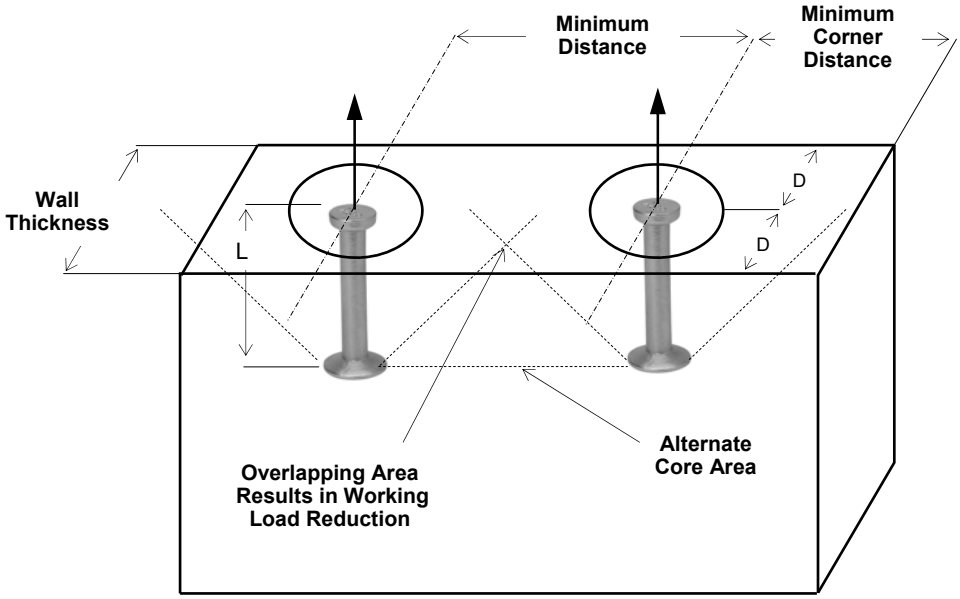
Product specifications are subject to change without notice.

Uni-Lift Anchor

The steel Uni-Lift Anchor remains ductile at low temperatures, making this anchor safe to use, even in freezing conditions. Each anchor is clearly marked for size and capacity.

The large, specially-formed head, provides more contact area, yet still fits most existing and commonly used lifting hardware. Anchors are sampled, examined and tested for conformance to specifications.

When using Uni-Lift Anchors in a face lift application, the capacity is determined by the full shear cone, the mechanical strength of the anchor, or in some cases, induced stresses.



Uni-Lift Anchor Thin-Wall Installation:

Uni-Lift Anchors in thin wall applications must be properly positioned to avoid reduced load capacities. Anchors must be accurately positioned along the center line of the wall using spacers or rebar ties.

The Safe Working Load (SWL) tension (see table) is based on two or more anchors in thin walls, where the spacing between anchors is less than 4 x L, and the minimum corner distance is 2 x L (L= anchor length).

As with all Uni-Lift Anchor applications, the anchor must be located along the center line. The critical wall thickness will be 2 x L and the SWL must be reduced to that wall thickness.

When multiple anchors are used in thin walls, caution must be exercised to prevent anchor shear cones from overlapping. Using a spacing of 4L between anchors will prevent overlap and maximize tensile capacity (see table).

Proper positioning is extremely important. If the Uni-Lift Anchor foot is not in center, the SWL must be reduced to the critical wall thickness. Multiply the table values by the reduction factor to determine the allowable load.

Product specifications are subject to change without notice.

Uni-Lift Anchor*									
P/N	Anchor Size	Former Size	Lifter Size	T x Length	Capacity	Safe Working Load (SWL) in Concrete**			
						@ 1,500 psi	@ 2,500 psi	@ 3,500 psi	@ 5,000 psi
SBULA382.5G	1T	1T	1-1.3T	1T x 2-1/2”	2,000 lbs	1,658 lbs	2,000 lbs	2,000 lbs	2,000 lbs
SBULA383.375G				1T x 3-3/8”	2,000 lbs	2,000 lbs	2,000 lbs	2,000 lbs	2,000 lbs
SBULA384.75G				1T x 4-3/4”	2,000 lbs	2,000 lbs	2,000 lbs	2,000 lbs	2,000 lbs
SBULA9162.187G	2T	1.5-2T	1.5-2.5T	2T x 2-3/16”	4,000 lbs	1,559 lbs	2,013 lbs	2,382 lbs	2,847 lbs
SBULA9162.5				2T x 2-1/2”	4,000 lbs	1,803 lbs	2,328 lbs	2,754 lbs	3,292 lbs
SBULA9162.75				2T x 2-3/4”	4,000 lbs	2,006 lbs	2,590 lbs	3,065 lbs	3,663 lbs
SBULA9163.375G				2T x 3-3/8”	4,000 lbs	2,546 lbs	3,286 lbs	3,888 lbs	4,000 lbs
SBULA9164.75G				2T x 4-3/4”	4,000 lbs	3,874 lbs	4,000 lbs	4,000 lbs	4,000 lbs
SBULA9165.5G				2T x 5-1/2”	4,000 lbs	4,000 lbs	4,000 lbs	4,000 lbs	4,000 lbs
SBULA9166.75G				2T x 6-3/4”	4,000 lbs	4,000 lbs	4,000 lbs	4,000 lbs	4,000 lbs
SBULA91611G				2T x 11”	4,000 lbs	4,000 lbs	4,000 lbs	4,000 lbs	4,000 lbs
SBULA343.75G	4T	4T	3-5T	4T x 3-3/4”	8,000 lbs	3,201 lbs	4,133 lbs	4,890 lbs	5,844 lbs
SBULA344.25G				4T x 4-1/4”	8,000 lbs	3,697 lbs	4,773 lbs	5,647 lbs	6,749 lbs
SBULA344.75G				4T x 4-3/4”	8,000 lbs	4,216 lbs	5,443 lbs	6,440 lbs	7,697 lbs
SBULA345.5G				4T x 5-1/2”	8,000 lbs	5,036 lbs	6,502 lbs	7,693 lbs	8,000 lbs
SBULA347.125G				4T x 7-1/8”	8,000 lbs	6,974 lbs	8,000 lbs	8,000 lbs	8,000 lbs
SBULA349.5G				4T x 9-1/2”	8,000 lbs	8,000 lbs	8,000 lbs	8,000 lbs	8,000 lbs
SBULA3413.375G				4T x 13-3/8”	8,000 lbs	8,000 lbs	8,000 lbs	8,000 lbs	8,000 lbs
SBULA1184.75G	8T	8T	6-10T	8T x 4-3/4”	16,000 lbs	4,478 lbs	5,781 lbs	6,840 lbs	8,175 lbs
SBULA1186.75G				8T x 6-3/4”	16,000 lbs	6,807 lbs	8,788 lbs	10,398 lbs	12,428 lbs
SBULA11810G				8T x 10”	16,000 lbs	11,233 lbs	14,501 lbs	16,000 lbs	16,000 lbs
SBULA11813.375G				8T x 13-3/8”	16,000 lbs	16,000 lbs	16,000 lbs	16,000 lbs	16,000 lbs
SBULA1129.875G	16T	20T	12-20T	16T x 10”	40,000 lbs	11,770 lbs	15,196 lbs	17,980 lbs	21,490 lbs
SBULA11215G				16T x 15-3/4”	40,000 lbs	22,657 lbs	29,250 lbs	34,609 lbs	40,000 lbs
SBULA11219.625G				16T x 20”	40,000 lbs	35,983 lbs	40,000 lbs	40,000 lbs	40,000 lbs
SBULA211G	25T	32T	25-32T	25T x 9-7/8”	50,000 lbs	12,286 lbs	15,861 lbs	18,767 lbs	22,431 lbs
SBULA220G				25T x 19-5/8”	50,000 lbs	32,691 lbs	42,204 lbs	49,936 lbs	50,000 lbs

* *Minimum distance between anchors is 4x the embedded depth. Minimum edge distance is 1.5x the embedded depth.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,500 psi concrete.*

Product specifications are subject to change without notice.

1 Ton Anchor*							
Ton x Length	Critical Wall Thickness	Actual Edge Thickness	Actual Corner Distance**				
			6 in.	12 in.	18 in.	24 in.	30 in.
1 Ton x 4-3/4"	2-1/2"	1-1/4"	1,000 lbs	1,200 lbs	1,300 lbs	1,300 lbs	1,300 lbs
	2-3/4"	1-3/8"	1,100 lbs	1,300 lbs	1,400 lbs	1,400 lbs	1,400 lbs
	3"	1-1/2"	1,200 lbs	1,400 lbs	1,600 lbs	1,600 lbs	1,600 lbs
	3-1/2"	1-3/4"	1,400 lbs	1,700 lbs	1,800 lbs	1,800 lbs	1,800 lbs
	4"	2"	1,600 lbs	1,900 lbs	2,000 lbs	2,000 lbs	2,000 lbs
	4-1/2"	2-1/4"	1,800 lbs	2,000 lbs	2,000 lbs	2,000 lbs	2,000 lbs

* *Minimum distance between anchors is 4x the embedded depth. Minimum edge distance is 1.5x the embedded depth.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,500 psi concrete.*

2 Ton Anchor*							
Ton x Length	Critical Wall Thickness	Actual Edge Thickness	Actual Corner Distance**				
			6 in.	12 in.	18 in.	24 in.	30 in.
2 Ton x 6-3/4"	3"	1-1/2"	1,700 lbs	1,800 lbs	2,000 lbs	2,200 lbs	2,200 lbs
	3-1/4"	1-5/8"	1,900 lbs	2,000 lbs	2,200 lbs	2,400 lbs	2,400 lbs
	3-1/2"	1-3/4"	2,000 lbs	2,200 lbs	2,400 lbs	2,600 lbs	2,600 lbs
	4"	2"	2,300 lbs	2,500 lbs	2,700 lbs	3,000 lbs	3,000 lbs
	5"	2-1/2"	2,900 lbs	3,100 lbs	3,400 lbs	3,700 lbs	3,700 lbs
	6"	3"	3,500 lbs	3,700 lbs	4,000 lbs	4,000 lbs	4,000 lbs

* *Minimum distance between anchors is 4x the embedded depth. Minimum edge distance is 1.5x the embedded depth.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,500 psi concrete.*

4 Ton Anchor*							
Ton x Length	Critical Wall Thickness	Actual Edge Thickness	Actual Corner Distance**				
			10 in.	15 in.	20 in.	24 in.	30 in.
4 Ton x 9-1/2"	3-3/4"	1-7/8"	2,900 lbs	3,200 lbs	3,400 lbs	3,500 lbs	3,800 lbs
	4"	2"	3,100 lbs	3,400 lbs	3,600 lbs	3,800 lbs	4,000 lbs
	5"	2-1/2"	3,800 lbs	4,300 lbs	4,600 lbs	4,800 lbs	5,100 lbs
	6"	3"	4,600 lbs	5,200 lbs	5,500 lbs	5,700 lbs	6,100 lbs
	7"	3-1/2"	5,400 lbs	6,000 lbs	6,400 lbs	6,700 lbs	7,200 lbs
	8"	4"	6,200 lbs	6,900 lbs	7,300 lbs	7,600 lbs	8,000 lbs

* *Minimum distance between anchors is 4x the embedded depth. Minimum edge distance is 1.5x the embedded depth.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,500 psi concrete.*

Product specifications are subject to change without notice.

8 Ton Anchor*							
Ton x Length	Critical Wall Thickness	Actual Edge Thickness	Actual Corner Distance**				
			10 in.	15 in.	20 in.	24 in.	30 in.
8 Ton x 6-3/4”	4-3/4”	2-3/8”	3,000 lbs	3,300 lbs	3,600 lbs	3,700 lbs	3,700 lbs
	5”	2-1/2”	3,200 lbs	3,500 lbs	3,800 lbs	3,900 lbs	3,900 lbs
	6”	3”	3,800 lbs	4,200 lbs	4,600 lbs	4,700 lbs	4,700 lbs
	7”	3-1/2”	4,500 lbs	4,900 lbs	5,400 lbs	5,500 lbs	5,500 lbs
	8”	4”	5,100 lbs	5,600 lbs	6,100 lbs	6,200 lbs	6,500 lbs
	10”	5”	6,300 lbs	6,900 lbs	7,500 lbs	7,700 lbs	7,700 lbs

* *Minimum distance between anchors is 4x the embedded depth. Minimum edge distance is 1.5x the embedded depth.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,500 psi concrete.*

8 Ton Anchor*							
Ton x Length	Critical Wall Thickness	Actual Edge Thickness	Actual Corner Distance**				
			12 in.	18 in.	24 in.	36 in.	45 in.
8 Ton x 13-3/8”	5”	2-1/2”	4,500 lbs	5,500 lbs	5,900 lbs	6,500 lbs	7,000 lbs
	6”	3”	5,500 lbs	6,500 lbs	7,100 lbs	7,800 lbs	8,000 lbs
	7”	3-1/2”	6,500 lbs	7,600 lbs	8,300 lbs	9,100 lbs	10,000 lbs
	8”	4”	7,300 lbs	8,700 lbs	9,500 lbs	10,800 lbs	11,500 lbs
	10”	5”	9,100 lbs	11,000 lbs	12,000 lbs	13,500 lbs	14,000 lbs
	12”	6”	11,000 lbs	13,000 lbs	14,200 lbs	16,000 lbs	16,000 lbs

* *Minimum distance between anchors is 4x the embedded depth. Minimum edge distance is 1.5x the embedded depth.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,500 psi concrete.*

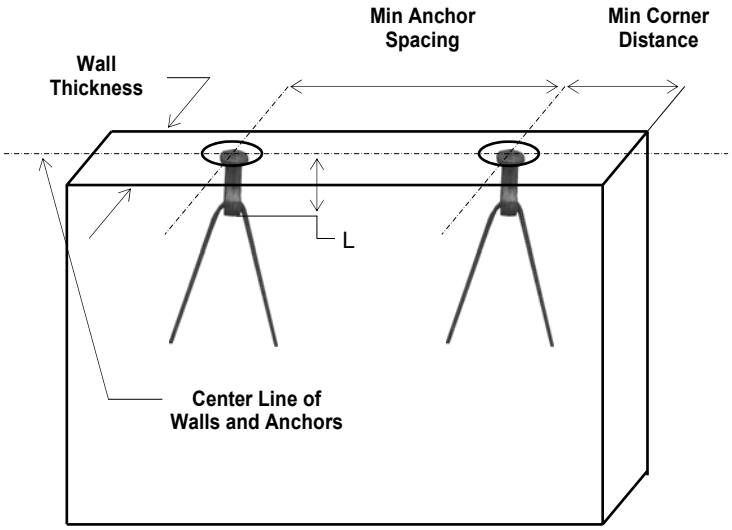
10 Ton Anchor*							
Ton x Length	Critical Wall Thickness	Actual Edge Thickness	Actual Corner Distance**				
			12 in.	18 in.	24 in.	36 in.	45 in.
16 Ton x 19-5/8”	6-1/2”	3-1/4”	7,000 lbs	9,000 lbs	10,500 lbs	11,500 lbs	12,200 lbs
	7”	3-1/2”	8,000 lbs	10,000 lbs	11,500 lbs	12,500 lbs	13,200 lbs
	8”	4”	9,200 lbs	11,200 lbs	13,000 lbs	14,400 lbs	15,100 lbs
	10”	5”	11,500 lbs	14,300 lbs	16,000 lbs	18,000 lbs	19,000 lbs
	12”	6”	14,000 lbs	17,300 lbs	20,000 lbs	21,500 lbs	22,800 lbs
	14”	7”	16,200 lbs	20,200 lbs	23,000 lbs	25,000 lbs	26,600 lbs

* *Minimum distance between anchors is 4x the embedded depth. Minimum edge distance is 1.5x the embedded depth.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,500 psi concrete.*

Product specifications are subject to change without notice.

Uni-Eye Anchor with Rebar

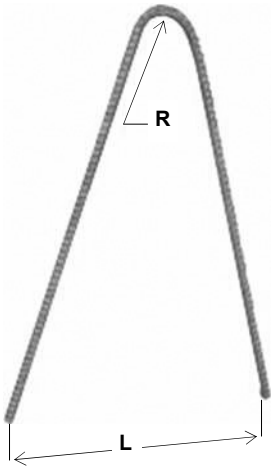
The Uni-Eye Anchor with Rebar is used in conjunction with the segment reinforcing. A bar is installed through the anchor to develop deep tensile action. This combination allows anchors to develop greater working loads when used in thin concrete wall sections.



Uni-Eye Anchor with Rebar						
P/N	Load Rating	Length (L)	Min Panel Thickness	Min Corner Distance	Min Anchor Spacing*	Tension w/ Rebar**
SBULEA1TG	1T	2-5/8”	3”	8”	16”	2,000 lbs
SBULEA2TG	2T	3-1/2”	3”	4”	8”	4,000 lbs
SBULEA4TG	4T	4-3/4”	4”	6”	12”	8,000 lbs
SBULEA8T434G	8T	4-3/4”	5”	8”	16”	16,000 lbs
SBULEA8TG	8T	7-1/8”	5”	8”	16”	16,000 lbs
SBULEA16TG	16T	9-7/8”	6-1/2”	10”	18”	32,000 lbs
SBULEA25TG	25T	12”	7-7/8”	12”	24”	50,000 lbs

* *Anchors must be centered when installed. Deviation will result in a reduced Safe Working Load..*
** *Safe Working Load (SWL) based on 4:1 safety factor with Tension Bar in 2,000 psi concrete minimum.*

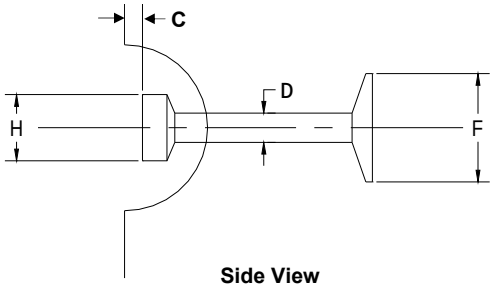
Tension Bar				
Load Rating	Rebar Grade 60	Overall Length	Spread (L)	Bending Radius (R)
1T	#3	36”	12”	3/4”
2T	#3	24”	6”	1-1/4”
4T	#5	24”	7”	2”
8T	#6	48”	9”	2-1/2”
16T	#8	86”	12”	3”
25T	#10	100”	16”	4”



Product specifications are subject to change without notice.

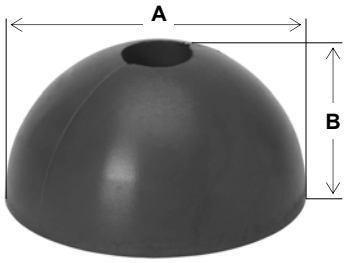
Recess Former

This Recess Former has a threaded hole plate located in the top for installation of a threaded stud that can be removed before form stripping. After removing the threaded stud, the concrete element is removed from the forms with the stripping anchors. The reusable urethane Recess Former can then be removed to expose the anchor.



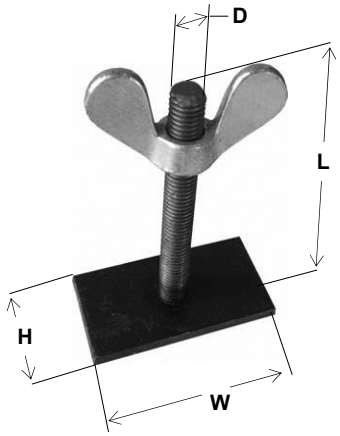
Side View

Recess Former							
P/N	Anchor Size	Shank (D)	Head (H)	Foot (F)	Cover (C)	Width (A)	Height (B)
SBRRF1T	1T	3/8”	11/16”	1	3/8”	2-3/8”	1-3/16”
SBRRF2T	2T	9/16”	31/32”	1-3/8	7/16”	3”	1-9/16”
SBRRF4T	4T	3/4”	1-11/32”	2	9/16”	3-3/4”	1-7/8”
SBRRF8T	8T	1-1/8”	1-7/8”	2-3/4	9/16”	4-3/4”	2-5/16”
SBRRF16T	16T	1-1/2”	2-3/4”	3-7/8	9/16”	6-3/8”	3-1/8”
SBRRF25T	25T	2”	3-15/32”	5-5/16	9/16”	8”	4”



Mounting Bolt and Wing Nut with Plate

Supplied as part of rubber former with permanent threaded stud. Available as a replacement part. Made with NC threads and welded to plate at bottom of stud.



Mounting Bolt and Wing Nut with Plate						
P/N	Anchor Size	Clutch ID	Length (W)	Bolt (D)	Width (W)	Height (H)
SBFP1TWN	1T	1.3T	6-3/8”	5/16-18 NC	1.187”	0.500”
SBFP2TWN	2T	2.5T	6-3/8”	5/16-18 NC	1.500”	0.781”
SBFP4TWN	4T	5T	6-3/8”	5/16-18 NC	1.875”	1.000”
SBFP8TWN	8T	10T	6-3/8”	3/8-16 NC	2.343”	1.187”
SBFP16TWN	16T	15-20T	6-3/8”	1/2-13 NC	3.031”	1.562”
SBFP25TWN	25T	32T	6-3/8”	5/8-11 NC	3.031”	1.562”

Recess Former with Mounting Bolt and Wing Nut

Rubber recess former with wing nut has a permanent threaded stud with one wing nut to tighten securely against form. The threaded stud is not removable and the form must be stripped before the anchor can be exposed for lifting

Product specifications are subject to change without notice.

Mounting Plate

The Mounting Plate is used to accurately position the Recess Former and anchor in the precast form.

Mounting Plate Only			
P/N	**Anchor Size**	**Clutch ID**	**Bolt Dia**
SBUFFP1T	1T	1.3T	5/16-18 NC
SBUFFP2T	2T	2.5T	5/16-18 NC
SBUFFP4T	4T	5T	5/16-18 NC
SBUFFP8T	8T	10T	3/8-16 NC
SBUFFP16T	16T	15-20T	1/2-13 NC
SBUFFP25T	25T	32T	5/8-11 NC

Magnet Plate and Recess Former

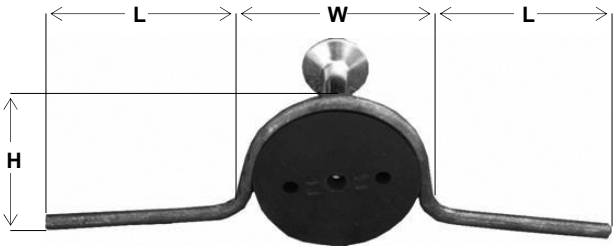
- Reusable magnet for fastening anchors
- Magnet securely holds the lifting device
- Easily attached to any location along steel forming side rail
- Can be quickly removed, repositioned and reused

Magnet Plate and Former	
P/N	**Anchor Size**
SBGB5011	2T
SBGB5012	4T
SBGB5014	8T

Product specifications are subject to change without notice.

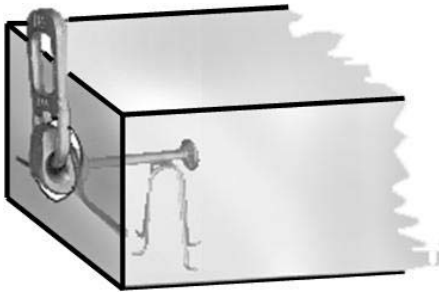
Edge-Lift Shear Bar

When lifting a panel with an anchor in the panel edge from horizontal to vertical, Edge-Lift Shear Bars must be used. Without shear bars the load will likely bend the anchor head, allowing the Lifter to apply the load to the concrete above the anchor, which is very weak. The shear bars transfer a portion of the load back into the anchor and lower concrete area.



Edge-Lift Shear Bar				
P/N	**Anchor Size**	**Length (L)**	**Width (W)**	**Height (H)**
SBUSB1T	1T	8”	2-3/8”	3-11/16”
SBUSB2T	2T	8”	3”	4”
SBUSB4T	4T	12”	3-3/4”	5-5/8”
SBUSB8T	8T	14”	4-3/4”	7-3/8”

Edge-Lift Shear Bar Load					
Anchor Size	**Min. Anchor Length**	**Min. Wall Thickness**	**Top Edge Distance**	**Min Corner Distance**	**Shear***
2T	6-3/4”	4”	2-1/2”	18”	3,000 lbs
	6-3/4”	5”	3”	24”	3,200 lbs
	6-3/4”	6”	3-1/2”	24”	3,500 lbs
4T	9-1/2”	6”	3-1/2”	24”	3,500 lbs
	9-1/2”	7”	4”	24”	4,000 lbs
8T	13-3/8”	7”	4”	24”	4,500 lbs
	13-3/8”	8”	4-1/2”	24”	5,000 lbs



* *Safe Working Load (SWL) based on 4:1 safety factor in 4,500 psi concrete.*

Product specifications are subject to change without notice.

Uni-Lift Lifter

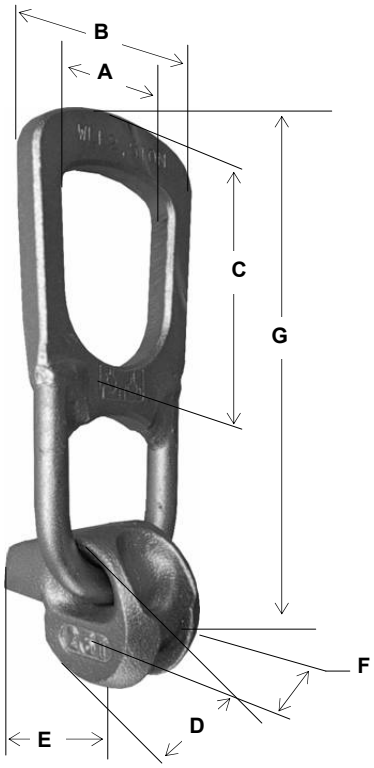
The Uni-Lift Lifter is specially-designed with a T-shaped slot that captures the anchor head.

The bail is a solid steel plate with a large hole to attach a cable clevis. The bail rotates from front to back in the lifting body. This action is an advantage over other systems as rigging does not need to be reversed when rotating a panel up and down.

All Uni-Lift Lifters are proof loaded to 2.5x the Safe Working Load (SWL) and marked with an individual ID number in compliance with OSHA regulations.

SureBuilt recommends regular inspection to identify excessive wear, damage, loading, misuse, modification or other factors which may affect lifting performance.

Under no circumstances should user modify, heat, weld or grind any part of the lifting hardware.



Uni-Lift Lifter									
P/N	**Lifter ID**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**Capacity***
SBUL1.3T	1-1.3 T	1.87”	2.95”	2.80”	2.20”	2.17”	1.30”	6.48”	2,850 lbs
SBUL2.5T	2-2.5 T	2.52”	3.86”	3.35”	2.68”	2.76”	1.65”	8.09”	5,500 lbs
SBUL5T	3.0-5.0 T	2.76”	4.65”	3.45”	3.46”	3.39”	2.24”	9.33”	11,000 lbs
SBUL10T	6.0-10.0 T	3.74”	10.24”	4.76”	4.41”	4.61”	2.87”	13.72”	22,000 lbs
SBUL20T	12.0-20.0 T	4.65”	7.32”	5.91”	5.98”	6.10”	4.33”	17.36”	44,000 lbs
SBUL32T	25.0-32.0 T	6.89”	10.59”	7.44”	7.68”	8.43”	6.02”	22.99”	70,000 lbs

* *Safe Working Load (SWL) based on 5:1 safety factor in 3,500 psi concrete.*

Product specifications are subject to change without notice.

Easy-Lift System

Product specifications are subject to change without notice.

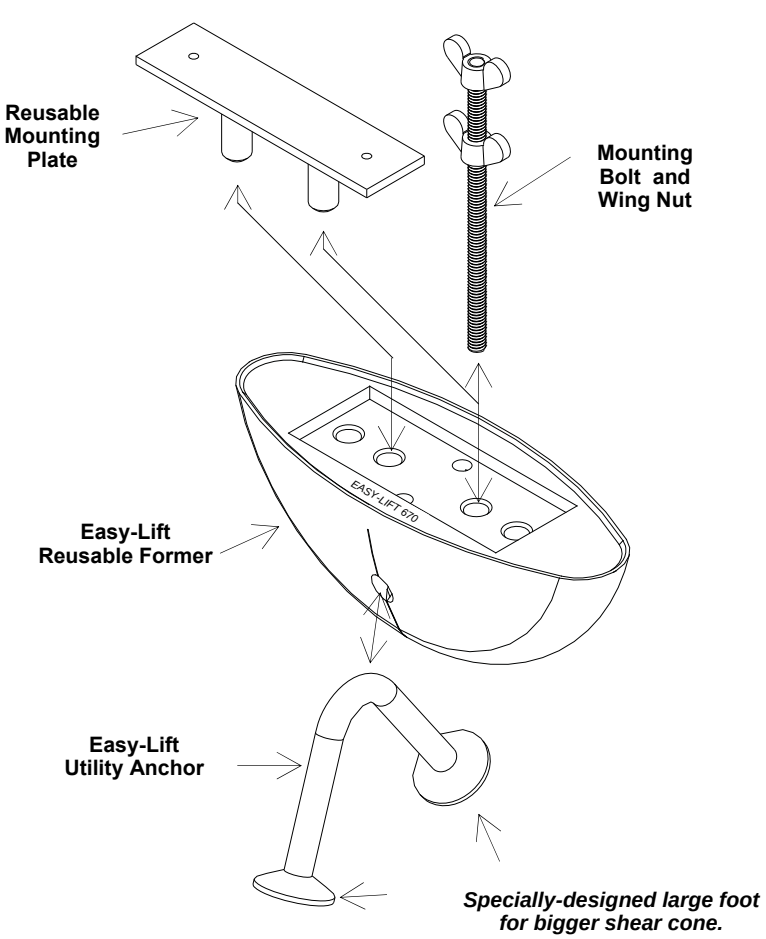
Easy-Lift System

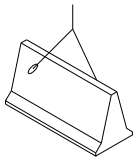
- Economical alternative for stripping, handling, and setting panels
- Versatile system - applicable to any precast element, can be used as pulling iron or lifting and pulling iron.
- High strength - Up to 6 Tons (12,000 lb) Tension SWL with an approximate 4:1 safety factor.
- Easy to install and use. Utilizes reusable rubber recess former - one size plug fits all anchor sizes.
- Used with a standard hook or clevis - no special lifting hardware required.
- Eliminates “through holes” in the precast element.

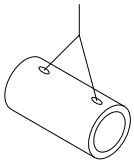
The Easy Lift Utility Anchor Lifting System is designed to economically simplify the lifting and handling of precast concrete elements. Its economics, ease of use and versatility will be a welcome addition to your precast operations.

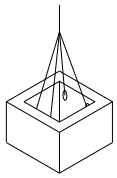
The Easy Lift can be utilized for removing the precast elements from their forms, handling the elements in the precast yard, loading for shipment and unloading and placement at the job site - all without any special lifting equipment or hardware. Use a standard hook or clevis to connect to the Utility Anchor for a safe lift.

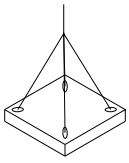
An added benefit is a design feature that enables the unit to be used effectively as a pulling iron.




Barriers


Pipe


Boxes


Slabs

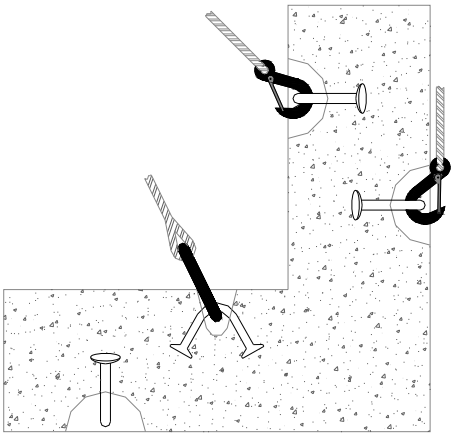
Caution: *It is recommended when installing anchors to align recess formers with intended loading direction of cables (see drawing).*

Product specifications are subject to change without notice.

Easy-Lift Anchor Placement

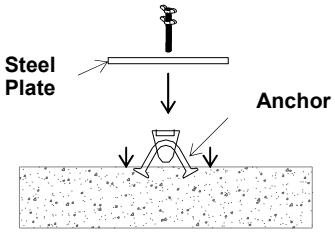
Placement of the Easy Lift anchor is dependent on the structural shape of the precast unit and/or the precast manufacturer's preference.

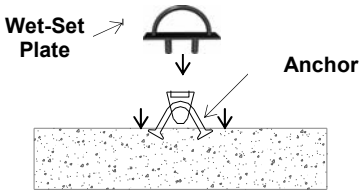
The anchors are not designed for thin edge installations. Always maintain minimum edge distances and adjust anchor capacities if concrete strengths other than those noted in the capacity chart are encountered.



Wet-Setting

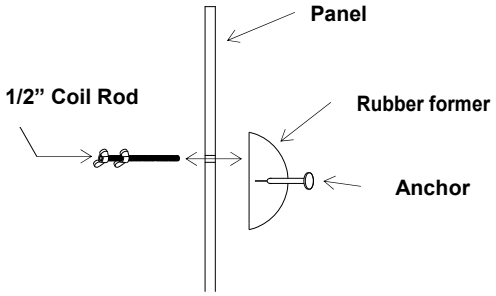
1. Assemble Easy Lift anchor with steel plate and nut and bolt assembly OR assemble Easy Lift anchor with wet-set plate inserted into holes.
2. Use duct tape to seal cavities in the setting plug.
3. Work the assembly down into the wet concrete until the top surface of the plug is flush with the surface of the concrete or use floating plate.





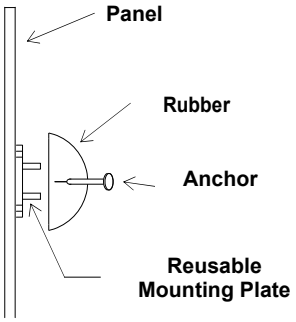
Through-Form Setting

1. Assemble recess former and Easy Lift anchor.
2. Insert holding coil rod through panel and line up former.
3. Finger tighten the holding rod and lock in place with the corresponding wing nut.



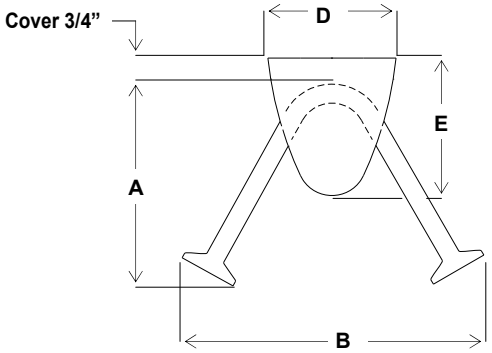
In-Form Setting

1. Assemble recess former and Easy Lift anchor.
2. Affix reusable mounting plate (nail, weld or double-sided tape) to form.
3. Push former onto the holding plate firmly against the panel.



Product specifications are subject to change without notice.

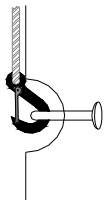
Easy-Lift Utility Anchor



The Easy-Lift Utility Anchor is an efficient and economical way to handle precast segments. The 0.450 and 0.670 legs, in combination with the slab thickness, provide the necessary capacity for typical concrete shapes.

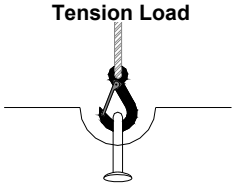
The anchor is always used in combination with a Recess Former. The former creates a void in the concrete for subsequent hooking and handling.

Easy-Lift Utility Anchor							
P/N	Thickness	A*	B	F	G	Shear**	Tension**
SBUA450318	4”	3-1/8”	5.281	0.450	1.375	1,800 lbs	1,200 lbs
SBUA450334	4-1/2”	3-3/4”	6.000	0.450	1.375	6,500 lbs	3,000 lbs
SBUA450434	5-1/2”	4-3/4”	7.122	0.450	1.375	8,000 lbs	4,000 lbs
SBUA450634	8”	6-3/4”	9.375	0.450	1.375	9,000 lbs	5,000 lbs
SBUEL4	4”	3-1/8”	5.300	0.670	1.340	2,500 lbs	2,000 lbs
SBUEL412	4-1/2”	3-3/4”	6.800	0.670	1.340	7,500 lbs	4,800 lbs
SBUEL512	5-1/2”	4-3/4”	7.400	0.670	1.340	10,000 lbs	7,200 lbs
SBUEL8	8”	6-3/4”	10.000	0.670	1.340	13,500 lbs	12,000 lbs



Shear Load

Tension Load



* *Minimum edge distance in any direction is 2x anchor height.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,000 psi concrete*

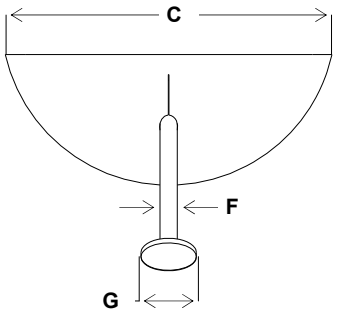
Note: *When the Easy-Lift Utility Anchor is used as a pulling iron, the SWL can be increased by 33%.*

Easy-Lift Recess Former - Urethane

The Recess Former is used with any of the Ring-Lift anchors. It provides a fast and accurate void, with a consistent shape for smooth lifter attachment. The former is made with a durable urethane for easy stripping and reusability.

A former is used when a hole in the formwork is undesirable. A mounting plate with four 3/16" diameter holes is used to fasten the anchor and former to the formwork by nailing, screwing, welding, or taping.

The anchor and former are attached to the mounting plate by sliding the assembly over the two protruding pins on the plate.



Easy-Lift Recess Former					
P/N	Anchor Dia.	Color	C	D	E
SBUAF450	.450	Orange	8”	3”	3-1/4”
SBUELF670	.670	Green	10”	3”	3-1/4”
SBELF670L	.670	Black	10”	3”	3-1/4”

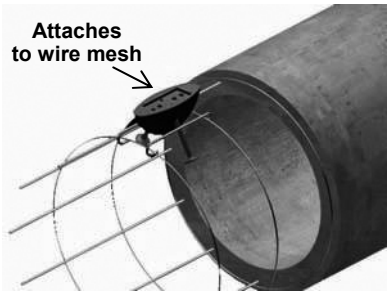
Product specifications are subject to change without notice.

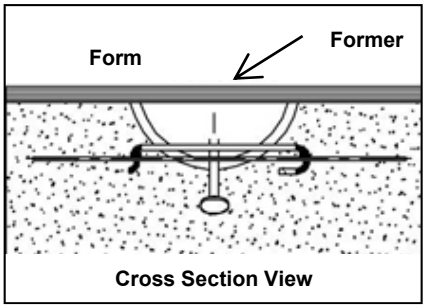
Easy-Lift Utility Anchor with Snap Wires

- Easily attaches to wire mesh for side or vertical mounting
- Ideal for handling concrete pipes
- Available in .670 or .450 wire diameter
- Use with Easy Lift 670 green or 450 orange rubber former

Easy-Lift Utility Anchor with Snap Wire							
P/N	**Thickness**	**A***	**B**	**F**	**G**	**Shear****	**Tension****
SBUA450318SW	4”	3-1/8”	5.281	0.450	1.375	1,800 lbs	1,200 lbs
SBUA450334SW	4-1/2”	3-3/4”	6.000	0.450	1.375	6,500 lbs	3,000 lbs
SBUA450434SW	5-1/2”	4-3/4”	7.122	0.450	1.375	8,000 lbs	4,000 lbs
SBUA450634SW	8”	6-3/4”	9.375	0.450	1.375	9,000 lbs	5,000 lbs
SBUEL4SW	4”	3-1/8”	5.300	0.670	1.340	2,500 lbs	2,000 lbs
SBUEL412SW	4-1/2”	3-3/4”	6.800	0.670	1.340	7,500 lbs	4,800 lbs
SBUEL512SW	5-1/2”	4-3/4”	7.400	0.670	1.340	10,000 lbs	7,200 lbs
SBUEL8SW	8”	6-3/4”	10.000	0.670	1.340	13,500 lbs	12,000 lbs

* *Minimum edge distance in any direction is 2x anchor height.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,000 psi concrete*





Product specifications are subject to change without notice.

Mounting Plate

- Two pins align the Recess Former
- Allows for easy stripping and multiple reuse

Mounting Plate	
P/N	**Type**
SBRFFP68T	Form Attachment
SBWRFFP68T	Wet-Set Plate

Mounting Plate

Wet-Set Plate

Magnet Plate

- Reusable magnet for fastening transport anchors
- Magnet securely holds the lifting device
- Easily attached to any location along forming side rail
- Can be quickly removed, repositioned and reused

Magnet Plate	
P/N	**Length**
SBGB4055	10”

Mounting Bolt and Wing Nuts

Fastens Recess Former and Mounting Plate to form face.

Mounting Bolt and Wing Nuts*		
P/N	**Thread (D)**	**Length**
SBAFR12638810TC	1/2” Coil	6-3/8”

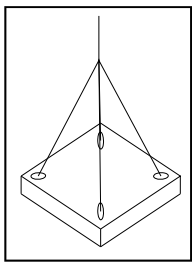
Product specifications are subject to change without notice.

Easy-Lift Anchor 500

Applications
- Ideal for flat concrete segments (ex. railroad crossings)
- Suitable for wet-setting and through-form setting

Features
- High-strength and quality material
- Compatible with reusable Easy-Lift Former 500

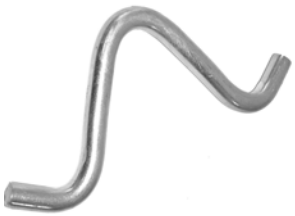
Benefits
- Can be placed in panels with thickness of 5” and up
- Galvanized finish for corrosion protection
- Small 2” wide void, no patching needed
- Handle with standard hook or clevis



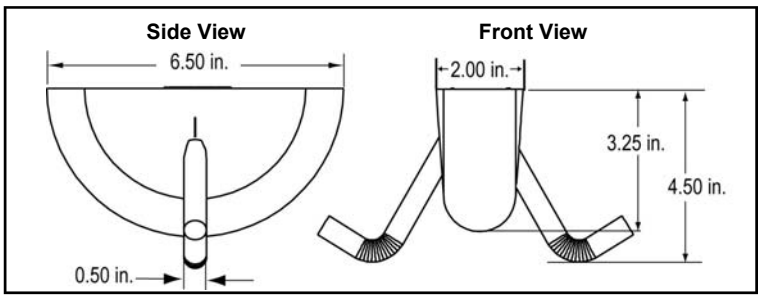
Designed for handling flat precast segments

Easy-Lift Anchor 500				
P/N	**Wire Dia**	**Width**	**Length**	**Tension**
SBELA500	1/2”	3”	4-1/2”	3,500 lbs

* *Minimum edge distance in any direction is 2x anchor height.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 3,500 psi concrete*



Recess Former - Anchor 500				
P/N	**Wire Dia**	**Width**	**Length**	**Color**
SBELF500	1/2”	2”	6-1/2”	Blue

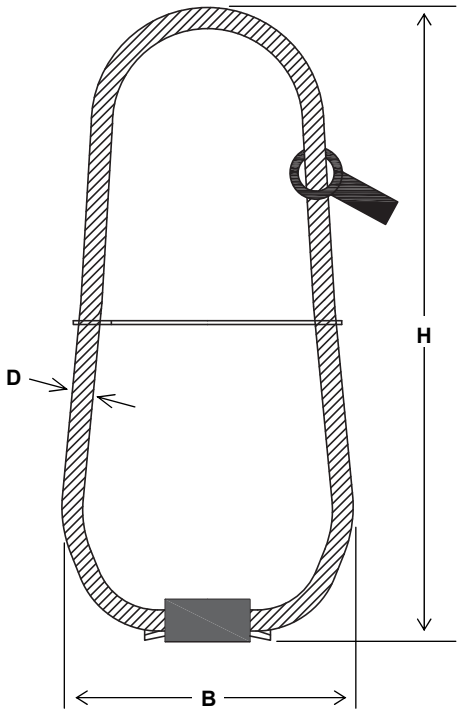


Product specifications are subject to change without notice.

Cable Loop Anchor

The Cable Loop Anchor is an efficient and economical method for handling precast concrete, including beams, ballast and walls.

- Ideal for precast concrete units with unexposed sides after lifting
- Capacities from 0.8 tons to 25 tons
- Protruding loops can be cut off or covered in concrete

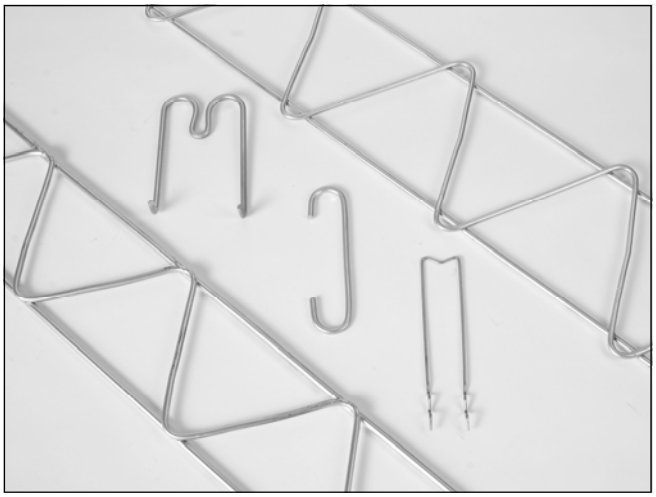


Cable Loop Anchor*							
P/N	**Load**	**Length**	**B**	**H**	**D**	**Tag Color**	**Tension****
SB8WRA	0.8 Tons	21”	3-3/4”	8”	0.236”	White	1,600 lbs
SB12WRA	1.2 Tons	24”	4”	9”	0.276”	Red	2,400 lbs
SB16WRA	1.6 Tons	26”	5”	10”	0.315”	Purple	3,200 lbs
SB20WRA	2.0 Tons	31”	5-1/4”	12”	0.354”	Green	4,000 lbs
SB25WRA	2.5 Tons	32-1/2”	5-1/2”	13”	0.394”	Dark grey	5,000 lbs
SB40WRA	3.8 Tons	37”	6-1/2”	14-1/2”	0.472”	Yellow	7,600 lbs
SB50WRA	5.0 Tons	38”	7”	15”	0.551”	Dark blue	10,000 lbs
SB63WRA	6.3 Tons	44”	9-1/4”	16-1/2”	0.630”	Light blue	12,600 lbs
SB80WRA	8.0 Tons	51”	9-1/4”	19”	0.709”	Light grey	16,000 lbs
SB99WRA	9.9 Tons	55-1/2”	10-1/4”	21”	0.787”	Pink	19,800 lbs
SB120WRA	12.0 Tons	60”	11”	23”	0.866”	Black	24,000 lbs
SB160WRA	16.0 Tons	71”	12-3/4”	26”	1.024”	Brown	32,000 lbs
SB180WRA	18.0 Tons	79”	15”	29-1/2”	1.102”	Orange	36,000 lbs
SB250WRA	25.0 Tons	89’”	15-3/4”	33-1/2”	1.260”	Tan	50,000 lbs

* *Recommended embedment is 2/3H to develop full working load.*
** *Safe Working Load (SWL) based on 4:1 safety factor in 4,000 psi concrete*

Product specifications are subject to change without notice.

Accessories



Product specifications are subject to change without notice.

Anchor Rail HD

The durable steel Anchor Rail HD provides a connecting channel in reinforced concrete. The channel is included in the forming plans and foam-filled to protect it during concrete placement. The foam is easily removed before positioning the subsequent anchors.

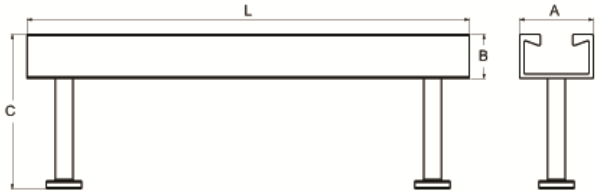
T-Straps and Bolt Straps fit into the Anchor Rail HD channel and move anywhere along the length of the rail. The straps are used to anchor pipe supports, electrical chases and mechanical equipment. The channel and straps support loads up to 3,750 lbs at a 3:1 safety factor.

The galvanized Anchor Rail HD resists corrosion and withstands concrete shrinkage or movement. It is ideal for installation in concrete compression and tensile stress areas.

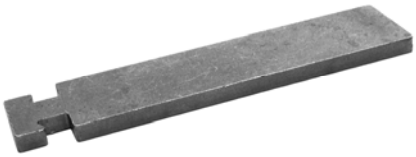
Anchor Rail HD - Properties					
Load	**Capacity**	**SWL***	**Wind**	**Min Edge** Perpendicular**	**Min Edge** Parallel**
Pull-Out	11,250 lbs	3,750 lbs	5,000 lbs	3”	4”
Shear	11,950 lbs	4,000 lbs	4,000 lbs	3”	4”

** Safe Working Load (SWL) based on 2:1 safety factor.*
*** Additional reinforcement required when rail is placed close to edges or openings.*

Anchor Rail HD - Dimensions				
P/N	**A**	**B**	**C**	**D**
SBARHD8G	2”	1-1/2”	5-1/4”	8”



T-Strap - Galvanized*			
P/N	**Width**	**Length**	**Thickness**
SBARTS8G	2”	8”	3/8”
SBARTS10G	2”	10”	3/8”
SBARTS12G	2”	12”	3/8”



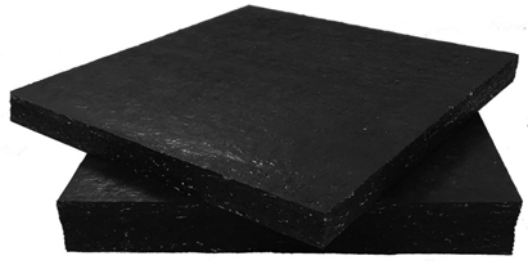
** Strap must be installed by certified welder.*
** Strap must be at right angle to meet capacity.*

Bolt-Strap—Galvanized*			
P/N	**Width**	**Length**	**Thickness**
SBARTRS8G	2”	8”	3/8”
SBARTRS10G	2”	10”	3/8”
SBARTRS12G	2”	12”	3/8”

** Strap must be at right angle to meet capacity.*

Product specifications are subject to change without notice.

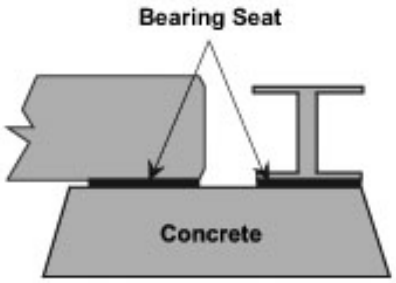
Bearing Pad



A unique combination of compressive strength, tear resistance, and cold weather flexibility makes this an exceptional material for concrete-to-concrete and concrete-to-steel bearing pads.

Typical applications for the Bearing Seat include precast concrete seats, shims, bumpers and isolators. The material is available in lengths up to 48”, widths up to 48”, and thicknesses from 1/4” to 1”, to meet project specifications.

Bearing Pad Properties		
Property	**Test Method**	**Value**
Hardness (Shore A)	ASTM D-2240	80 ±5
Tensile Strength	ASTM D-2240-412 Die C	1,000 psi (±10%)
Compression - Maximum Strength		10,000 psi
Compression - Initial Cracking		40%
Tear Strength	ASTM D-624 Die B	400 psi Minimum (±10%)
Heat Aging - Change in Tensile	ASTM D-573	25% Maximum
Heat Aging - Change in Elongation	ASTM D-573	25% Maximum
Heat Aging - Change in Hardness	ASTM D-471	10 Points Maximum
Oil Swell (increase in volume)	ASTM D-471	120% Maximum

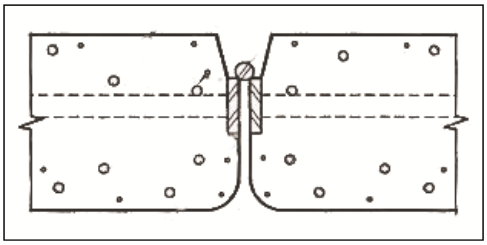


Product specifications are subject to change without notice.

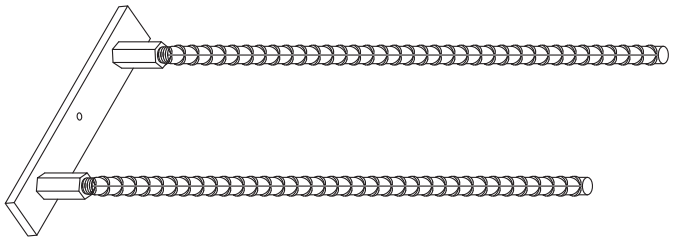
Chord Connector

The Chord Connector assembly is tied to rebar at a pre-engineered location, positioning the steel plate at the edge of a precast element for later welding.

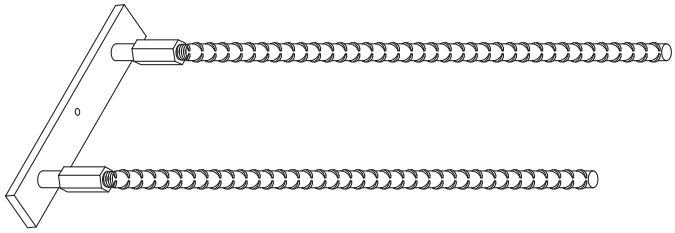
The plates of adjoining precast elements are welded together to reinforce the structure. The minimum weld length is 7” using a 3/8”x8” weld slug, in accordance with American Welding Society (AWS) standards.



The Chord Connector is suitable for end-to-end and edge-to-edge welding in single tees, double tees and other precast elements.



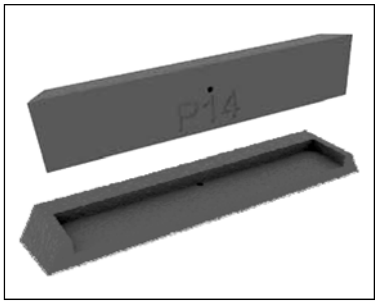
Chord Connector without stud.

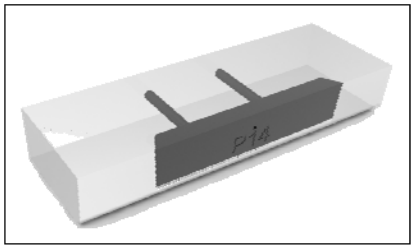


Chord Connector with stud.

Chord Connector and Former (sold separately)				
P/N	**Description**	**Rebar**	**Coupler**	**Capacity***
SBCC12212	Chord Connector 1/2”x2”x12”	#6 x30”	3/4” NC x2-1/2”	47,500 lbs
SBCC12212SS	Chord Connector 1/2”x2”x12” SS	#6 x30”	3/4” NC x2-1/2”	47,500 lbs
SBCC12212F	Chord Connector Former	- -	- -	- -

** Capacity based on 5,000 psi concrete. Placement location must be approve by Engineer of Record (EOR).*





Reusable rubber former to accurately position Chord Connector in precast form.

Product specifications are subject to change without notice.

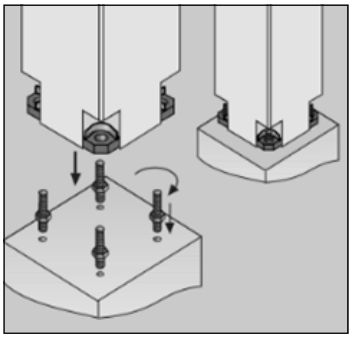
Column Base Connector

The pre-engineered assembly provides a moment connection at column-to-base and column-to-column locations. This bolted connection eliminates the need for temporary bracing and saves time.

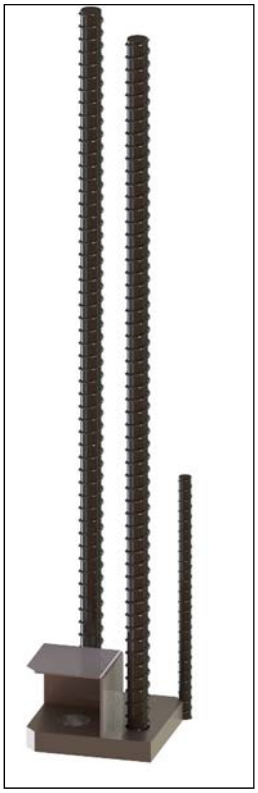
The Column Base Connector is designed for common anchor bolt sizes. An integrated box-out provides access at each bolt location. The plate and rebar are matched to load specifications.

Each Column Base Connector includes a steel plate (Grade 50) and rebar (A706) welded in accordance with American Welding Society (AWS) standards. An optional galvanized finish is also available.

Once the columns have been positioned and bolted, the column base must be grouted to provide bearing for the engineered load.



Site construction moves quickly when columns are positioned and bolted into place. Column base should be grouted as soon as possible after installation.



Column Base Connector				
	SBCBC34	**SBCBC1**	**SBCBC114**	**SBCBC112**
Base Plate	3-1/2”x3-1/2”	4”x4”	5”x5”	7”x7”
Plate Thickness	3/4”	1-1/4”	1-3/4”	2”
Hole Size	1-1/8”	1-3/8”	1-3/4”	2:
Rebar size/length	#5 x33”	#6 x42”	#8 x52”	#9 x70”
Shear (lbs)	9,500	17,000	27,000	47,000
Tension (lbs) *	19,000	34,000	54,000	95,000
Anchor bolt size	3/4”x16”	1”x17”	1-1/4”x20”	1-1/2”x30”
Anchor bolt F1554	Grade 55	Grade 55	Grade 55	Grade 90

** Tension based on 6,000 psi concrete.*

Product specifications are subject to change without notice.

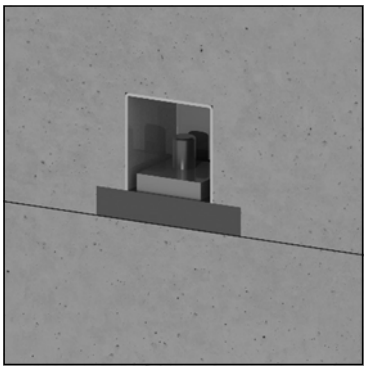
Wall Base Connector

The pre-engineered assembly provides a moment connection at wall-to-base and wall-to-wall locations. This bolted connection eliminates the need for temporary bracing and panel welding, saving time.

The Wall Base Connector is designed for common anchor bolt sizes. An integrated box-out provides access at each bolt location. The plate and rebar are matched to load specifications.

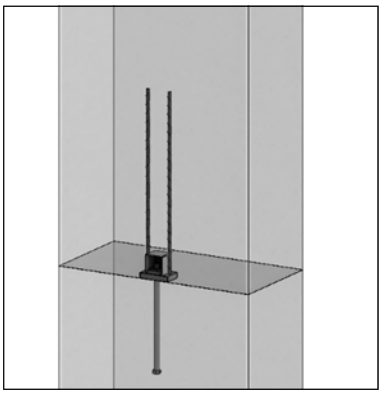
Each Wall Base Connector includes a steel plate (Grade 50) and rebar (A706) welded in accordance with American Welding Society (AWS) standards. An optional galvanized finish is also available.

Once the wall panels have been positioned and bolted, the base must be grouted to provide bearing for the engineered load.



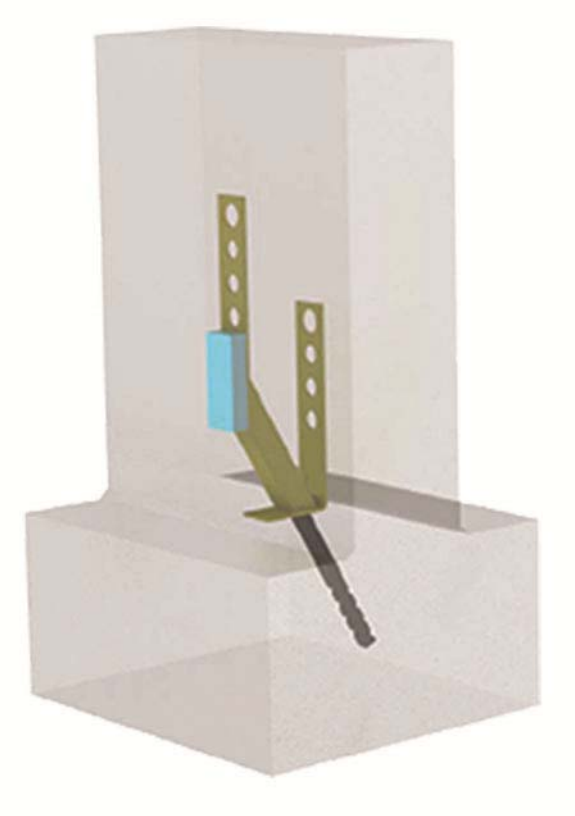
Wall Base Connector				
	SBCBC34	**SBCBC1**	**SBCBC114**	**SBCBC112**
Base Plate	3-1/2”x3-1/2”	4”x4”	5”x5”	7”x7”
Plate Thickness	3/4”	1-1/4”	1-3/4”	2”
Hole Size	1-1/8”	1-3/8”	1-3/4”	2:
Rebar size/length	#5 x33”	#6 x42”	#8 x52”	#9 x70”
Shear (lbs)	9,500	17,000	27,000	47,000
Tension (lbs) *	19,000	34,000	54,000	95,000
Anchor bolt size	3/4”x16”	1”x17”	1-1/4”x20”	1-1/2”x30”
Anchor bolt F1554	Grade 55	Grade 55	Grade 55	Grade 90

** Tension based on 6,000 psi concrete.*



Product specifications are subject to change without notice.

Slant Anchor



The Slant Anchor assembly connects tilt-up or precast panels to the foundation. The assembly includes a load-rated Slant Anchor, foam Void Former, high-strength Ductile Bar and prepackaged Flowable Grout.

The Slant Anchor is integral to panel design and planning. The anchors are positioned and reinforced in each panel during concrete forming operations. The foam Void Former covers the connection sleeve during concrete placement.

Once a completed concrete panel is ready for installation, the foam Void Former is removed. The connection sleeve is now visible and accessible for subsequent anchoring.

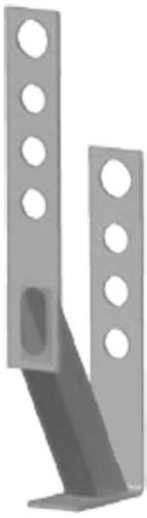
Each concrete panel is positioned on the foundation and braced. A hole is drilled into the foundation footing using the connection sleeve as a guide.

The hole is then partially grouted, the Ductile Bar inserted, and the remaining grout used to fill the sleeve. This grouted connection anchors the panel without welding or bolting.

The working load of the Slant Anchor is 9,000 lbs for uplift, horizontal and shear forces, at a 3:1 safety factor. This meets the tensile strength requirements of ACI-318-14 section 16.2.4.3 (b).

Slant Anchor Assembly*			
P/N	**Type**	**Panel Width**	**Finish**
SBTSAC	Standard	7” minimum	Painted
SBPSAC	Slim	5-1/2” to 7”	Painted

** Assembly includes anchor, void former, ductile bar and grout.*



Standard type

Slim type

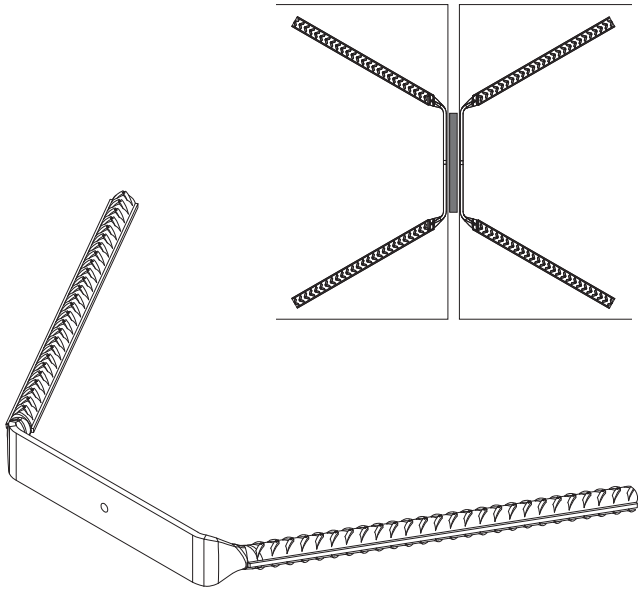
Product specifications are subject to change without notice.

Edge Connector

The Edge Connector is a rebar-winged embed designed for precast or tilt-up concrete applications. The rebar “wing” is tied into the panel reinforcing steel, with the “flat” positioned at the panel edge for later welding.

The rectangular “flat” on the Edge Connector provides for a thicker, more reliable, field welding surface between adjoining precast panels. The rectangular shape exhibits greater weld strength, with less variability, compared to typical round slugs.

The Edge Connector exhibits excellent performance in Horizontal Shear, Tension and Vertical Shear, making it suitable for precast or tilt-up concrete applications, including parking garage floors, roof slabs, bridge decks and industrial walls.



Edge Connectors are used to weld adjacent precast segments.

Edge Connector					
P/N	**Description**	**Type**	**Horizontal Shear***	**Tension***	**Vertical Shear***
SBEC4R	Edge Connector #4 w/1” Flange	A706	16,520 lbs	7,210 lbs	3,020 lbs
SBEC4RSS	Edge Connector #4 w/1” Flange	2304SS	18,960 lbs	9,340 lbs	3,020 lbs
SBEC5R	Edge Connector #5 w/1” Flange	A706	27,680 lbs	11,740 lbs	6,390 lbs
SBEC5RSS	Edge Connector #5 w/1” Flange	2304SS	32,670 lbs	12,590 lbs	6,390 lbs

** Ultimate load capacities.*

Edge Connector Former	
P/N	**Description**
SBECF4	Edge Connector Former #4 1” (Red)
SBECF5	Edge Connector Former #5 1-1/2” (Blue)

Plastic former accurately positions Edge Connector in form.

Product specifications are subject to change without notice.

Wire Truss

A precast sandwich panel consists of a bottom layer of concrete, a middle layer of insulation, and a top layer of concrete. The Wire Truss connects these layers into a single, composite unit that is far more energy-efficient than a solid, concrete-only panel.

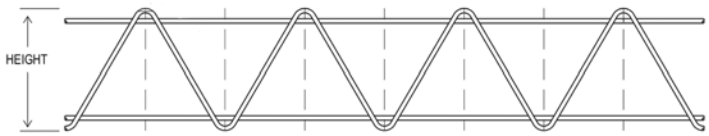
Wire Truss has the resiliency to expand and contract with the independent thermal-induced movements of the inner and outer concrete layers. This maintains the integrity of the panel and minimizes any thermal transfer between layers.

The design of the concrete and insulation layers will establish the overall panel thickness and truss spacing. The panel thickness will indicate the height of the Wire Truss. The truss spacing will determine the quantity needed.

Wire Truss is used to connect the bottom and top concrete layers in a precast "sandwich" panel.

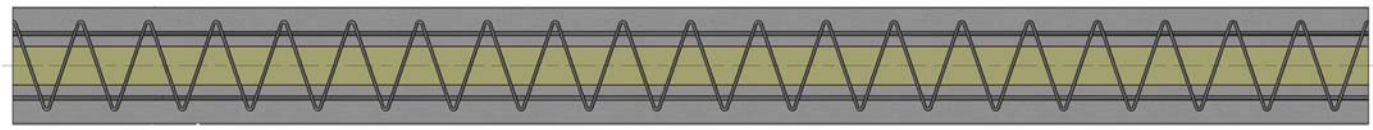
Wire Truss*	
P/N	**Description**
SBWT610M	Wire Truss 6"x10'
SBWT710M	Wire Truss 7"x10'
SBWT710M	Wire Truss 8"x10'
SBWT910M	Wire Truss 9x10'

***** *Consult SureBuilt Engineering for design calculations.*



Top Wire Dia		Diagonal Wire Dia		Bottom Wire Dia	
Min	**Max**	**Min**	**Max**	**Min**	**Max**
0.225	0.306	0.192	0.243	0.225	0.306

The zig-zag wire is welded at the intersections of the top and bottom wires.



Wire Truss is easy to install. The truss can be pre-set or wet set with foam insulation. The insulation is placed between the lengths of truss, then sandwiched between the inside and outside concrete panels.

Installation

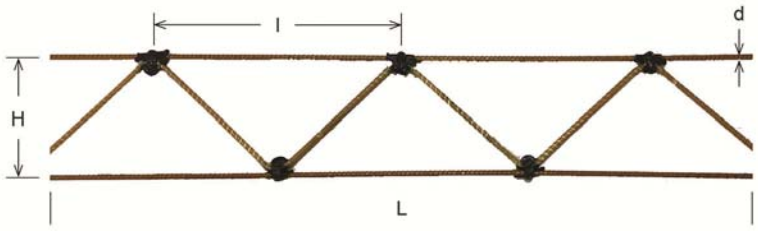
1. Position bottom mesh, rebar and/or pre-stressed cables in the form and tie in wire truss at pre-determined spacing.
2. Place "bottom" concrete and raise wire truss to a vertical position. About 2/3 of the truss should be exposed.
3. Install the insulation board strips between the wire truss, pressing the board in and around the diagonal wires.
4. Position top mesh, rebar and or pre-stressed cables and tie to wire truss. Place "top" concrete to complete panel.

Product specifications are subject to change without notice.

FRP Truss

The truss develops strength and rigidity from a fiber-reinforced design. Two parallel rods are attached top and bottom to a zig-zag rod with plastic connectors at every intersection. Foam insulation is placed between lengths of truss, connecting the top and bottom concrete.

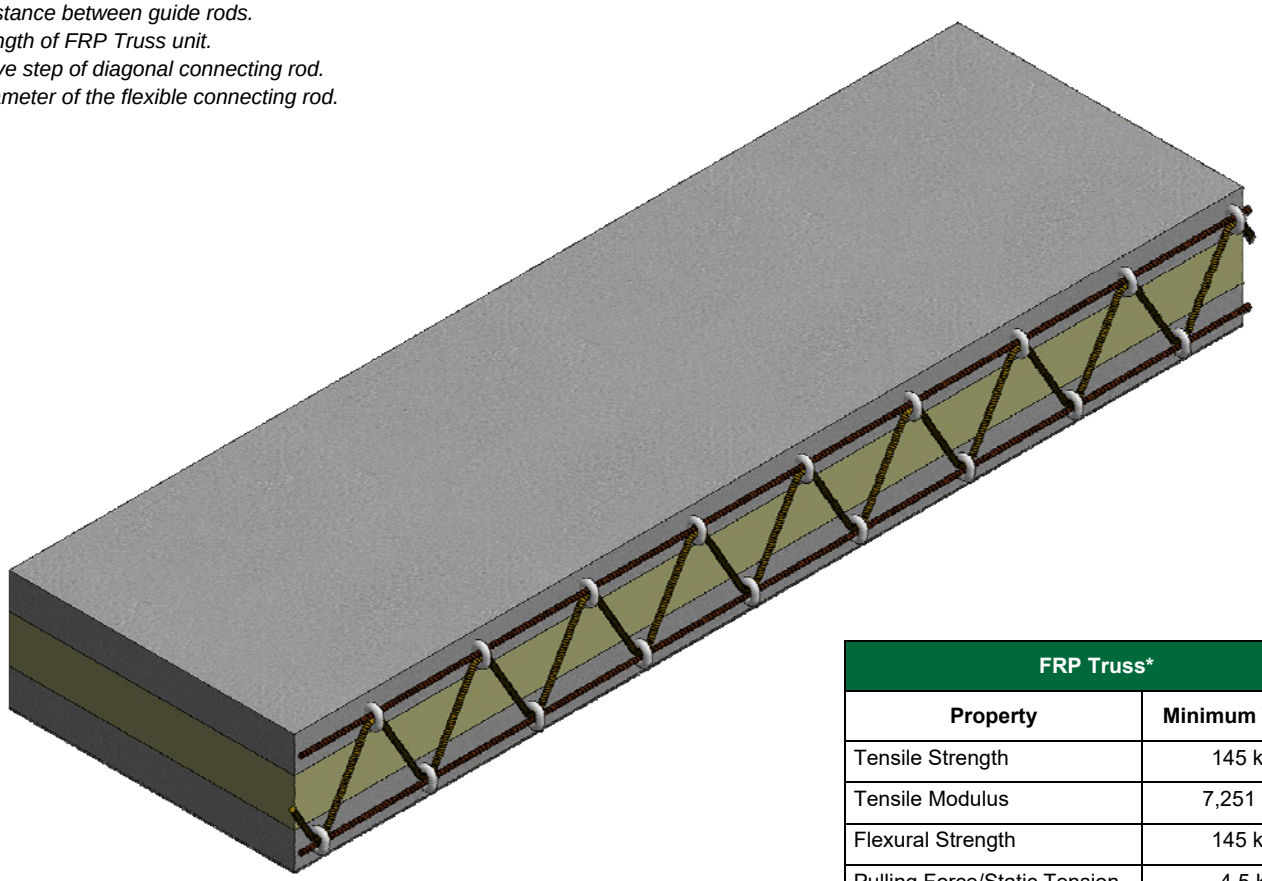
The fiber-reinforced material improves the thermal efficiency of “sandwich” panels and reduces cold bridging. The truss shape provides composite action between the top and bottom concrete, supporting all working loads, including stripping, handling and installing tilt-up panels.



Two parallel rods are attached top and bottom to a zig-zag rod with plastic connectors at every intersection.

FRP Truss*					
P/N	**Description**	**H**	**L**	**l**	**d**
SBFRPT710	FRP Truss 7”x10’	7”	10’	8”	3/16”
SBFRPT810	FRP Truss 8”x10’	8”	10’	8”	3/16”
SBFRPT910	FRP Truss 9”x10’	9”	10’	8”	3/16”

H - Distance between guide rods.
L - Length of FRP Truss unit.
l - Wave step of diagonal connecting rod.
d - Diameter of the flexible connecting rod.



FRP Truss*	
Property	**Minimum Value***
Tensile Strength	145 ksi
Tensile Modulus	7,251 ksi
Flexural Strength	145 ksi
Pulling Force/Static Tension	4.5 K

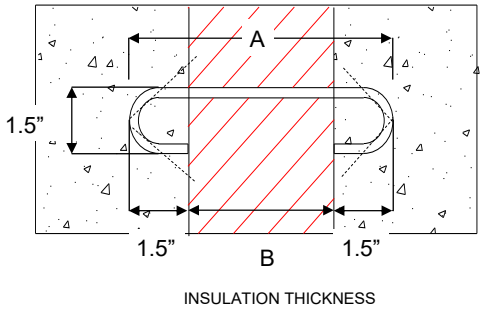
***** *No safety factors applied.*

Product specifications are subject to change without notice.

C-Connector

The C-Connector is used in insulated precast concrete sandwich panels. The connectors are attached to the rigid insulation at the required spacing, then the assembly is placed and finished as part of the panel.

The wire (3 ga) C-Connector has an erection shear value of 440 lbs and tension value of 580 lbs (based on a safety factor of 3:1 in 3,000 psi concrete). The minimum spacing around panel edges and openings is 12”.

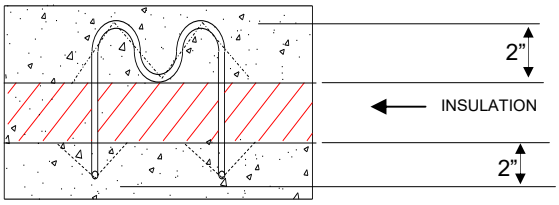


C-Connector		
P/N	**A**	**B**
SBCC31	3”	1”
SBCC41	4”	1”
SBCC42	4”	2”
SBCC53	5”	3”
SBCC63	6”	3”
SBCC73	7”	3”
SBCC83	8”	3”

M-Connector

The M-Connector is used in insulated precast concrete sandwich panels. The connectors are attached to the rigid insulation at the required spacing, then the assembly is placed and finished as part of the panel.

The wire (3 ga) M-Connector has an erection shear value of 880 lbs and tension value of 1,100 lbs (based on a safety factor of 3:1 in 3,000 psi concrete). The minimum spacing around panel edges and openings is 12”.



M-Connector	
P/N	**Length**
SBMC53G	5”
SBMC63G	6”
SBMC73G	7”
SBMC83G	8”

Product specifications are subject to change without notice.

H Chair

Lightweight plastic supports for rebar.

Slab-on-Grade Chair	
P/N	**Description**
SBSH100	H Chair 1”
SBSH150	H Chair 1-1/2”
SBSH200	H Chair 2”
SBSH250	H Chair 2-1/2”
SBSH300	H Chair 3”
SBSH350	H Chair 3-1/2”
SBSH400	H Chair 4”
SBSH450	H Chair 4-1/2”
SBSH500	H Chair 5”
SBSH550	H Chair 5-1/2”
SBSH600	H Chair 6”
SBSH650	H Chair 6-1/2”

Uni Chair

Straddle lower level rebar and support upper mats.

Uni Chair with Ring	
P/N	**Description**
SBUC6-6.5R	Uni Chair 6:6-1/2” with Ring
SBUC7-7.5R	Uni Chair 7:7-1/2” with Ring
SBUC8-8.5R	Uni Chair 8:8-1/2” with Ring
SBUC9-9.5R	Uni Chair 9:9-1/2” with Ring

Slab-on-Grade Chair

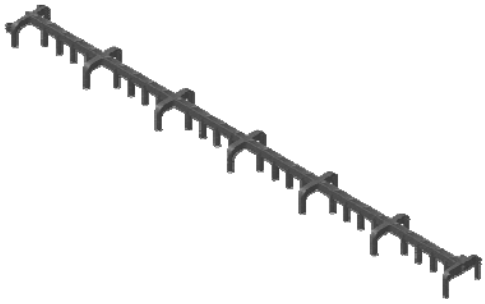
Integrated sand plate for support and stability.

Slab-on-Grade Chair	
P/N	**Description**
SBPCC1112	Slab-on-Grade Chair 1:1-1/2”
SBPCC2212	Slab-on-Grade Chair 2:2-1/2”
SBPCC3312	Slab-on-Grade Chair 3:3-1/2”
SBPCC4412	Slab-on-Grade Chair 4:4-1/2”

Product specifications are subject to change without notice.

Slab Bolster

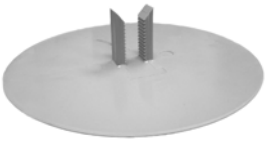
Plastic slab bolster with end lock.



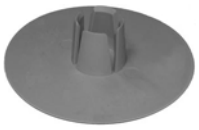
Plastic Slab Bolster (5’ length)	
P/N	**Description**
SBSB34AP	Slab Bolster 3/4” Plastic
SBSB1AP	Slab Bolster 1” Plastic
SBSB112AP	Slab Bolster 1-1/2” Plastic
SBSB2AP	Slab Bolster 2” Plastic

Patch Caps

Caps are used to cover lifting and bracing insert holes.



SBRLPC22KP



SBPATCHCAPBI

Patch Caps	
P/N	**Description**
SBRLPC22KP	Patch Cap (5/8” Square Insert)
SBPATCHCAPBI	Patch Cap (3/4” Square Insert)

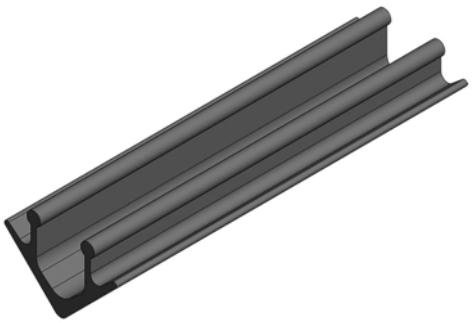
Shims

Plastic shims provide quick adjustment when installing panels on slightly uneven footings. Each pack contains six 4”x6” shims with an overall thickness of 1-1/16”. There are three 1/4”, two 1/8” and one 1/16” shims (8,000 psi minimum).

Shim Pack	
P/N	**Description**
SBSHIMPK	Shim Pack Set (6 pieces)

Edge Protector

These are a great way to protect concrete segments during handling and installation. Edge Protectors are made from rigid, durable PVC and prevent damage to concrete edges.

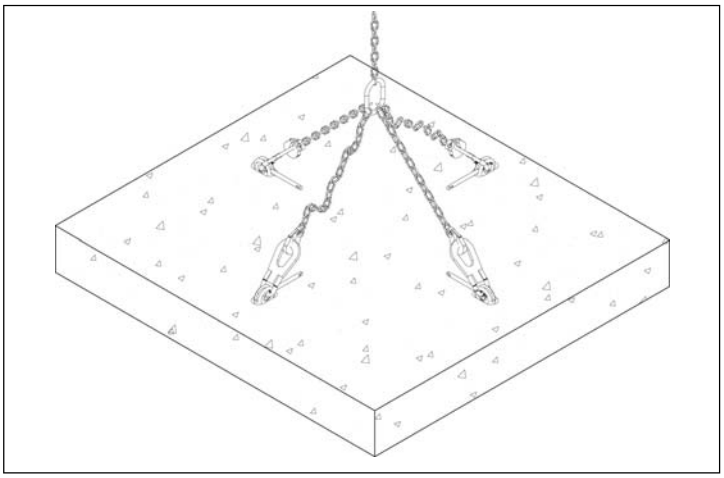


Edge Protector	
P/N	**Description**
SBSEP24	Slab Edge Protector 24”

Product specifications are subject to change without notice.

Product specifications are subject to change without notice.

Safety



Coatings and Finishes

Products manufactured by SureBuilt can be supplied in several different coatings or finishes to meet your specific environment requirements. The standard finish will be supplied when a finish/coating is not specified on an order.

Plain
Uncoated steel commonly referred to as Plain, Black, Basic or Raw steel. Will corrode or rust when exposed in the environment.

Mechanical Plating
An effective means of applying zinc, tin, or other ductile metals or mixtures of ductile metals to metal substrates - usually steel. In the mechanical plating process, impact energy is transferred from a rotating open - ended oblique barrel through glass beads, resulting in the cold-welding of fine metal dust particles to the substrate. The resulting deposit is slightly porous, matte in finish, and provides corrosion protection to the articles so plated without introducing hydrogen embrittlement into the part. It is widely used to provide corrosion protection.

Electroplating
Can be a bright shiny or sometimes dull finish, generally .0002 to .001 inches thick zinc finish. Degree of corrosion protection will vary and is often dependent on the severity of the particular environment. SureBuilt electro-plated products comply with the ASTM B-633 standard.

ASTM B-633 Electroplate Coating of Zinc on Steel		
Service Condition	**Exposure**	**Coating Thickness**
SC-4	Very Severe	0.0010 in
SC-3	Severe	0.0005 in
SC-2	Moderate	0.0003 in
SC-1	Mild	0.0002 in

***Warning*:** Any steel of significant high strength or high carbon is susceptible to hydrogen embrittlement during the electroplating process and must be baked after the coating is completed to drive out excessive hydrogen.

Hot-Dip Galvanized (HDG)
Semi-bright to a very dull finish, much heavier coating than the electroplating process. HDG provides a higher degree of corrosion protection than electroplating, but is not suitable for threaded products or any tight-fitting items. SureBuilt HDG protected products comply with ASTM A-123 or ASTM A-153 standards.

ASTM A-123 - Used for products that are fabricated from rolled, pressed, punched and forged steel shapes, plate, bar, wire or strips 0.125 inch thick and heavier. Zinc finish thickness will vary from 0.002 to 0.005 inches thick.

ASTM A-153 - A coating process for iron and steel products that utilizes a spinning technique to remove excess zinc. Bolts may be processed under this ASTM specification. Coating will vary in thickness from 0.002 to 0.006 inches depending on the “class” specified by the user.

ASTM A-123 Hot-Dip Galvanizing (HDG) on Iron and Steel		
Product Type	**Product Thickness**	**Coating Thickness**
Wire	0.142” to 0.186” dia.	0.002 in
Wire	0.187” to 0.249” dia.	0.003 in
Wire	0.250” dia. or larger	0.004 in
Steel or Plate	0.030” to 0.062” thick	0.002 in
Steel or Plate	0.063” to 0.124” thick	0.003 in
Steel or Plate	0.125” or thicker	0.004 in

Product specifications are subject to change without notice.

ASTM A-153 Hot-Dip Galvanizing (HDG) on Iron or Steel Hardware		
Product Type	**Product Thickness**	**Coating THickness**
Casting	A	0.004 in
Steel—3/16” and thicker	B1	0.004 in
Steel—3/16” and thicker	B2	0.003 in

Epoxy Coating
A slick, shiny epoxy coating applied to a finished product by means of the electrostatic or fluidized bed method. Coating thickness will vary from .005 inches to .012 inches. Epoxy coatings are very effective corrosion protection in hostile environments such as around or over salt water, or high chemical contaminated areas.

Stainless Steel
Stainless steel offers high corrosion resistance in any environment. Type 304 stainless steel is generally used (unless otherwise specified) by SureBuilt. It is non-magnetic and can be painted without special preparation.

Caution: Corrosion may occur on exposed metal products when architectural precast members are etched or acid washed. The amount of corrosion will be dependent on the acidity of the wash and/or the type of chemicals used.

Safe Guarding Against Embrittlement

Carbon steels, cold-worked steels and heat treated steels are susceptible to embrittlement in both electroplating and hot-dip galvanizing operations. Any severely cold-worked steel must be stress-relieved from strain aging by baking prior to electro-plating or hot-dip galvanizing.

Warning: Products manufactured from high carbon steel that is electro-plated or hot-dip galvanized must be properly heat treated to minimize embrittlement. Failure to properly heat treat these products may compromise their safe working loads and result in a premature failure of the product.

***Warning*:** Any steel of significant high strength or high carbon is susceptible to hydrogen embrittlement during the electroplating process and must be baked after the coating is completed to drive out excessive hydrogen.

Applicable ASTM documents:

ASTM A-143 "Safe Guarding Against Embrittlement"
ASTM A-153 "Zinc Coating (hot dip) on Iron and Steel Hardware"
ASTM A-165 "Electro-Deposited Coatings of Cadmium on Steel"
ASTM B-633 "Electro-Deposited Coatings of Zinc"

Example Coating Specifications:

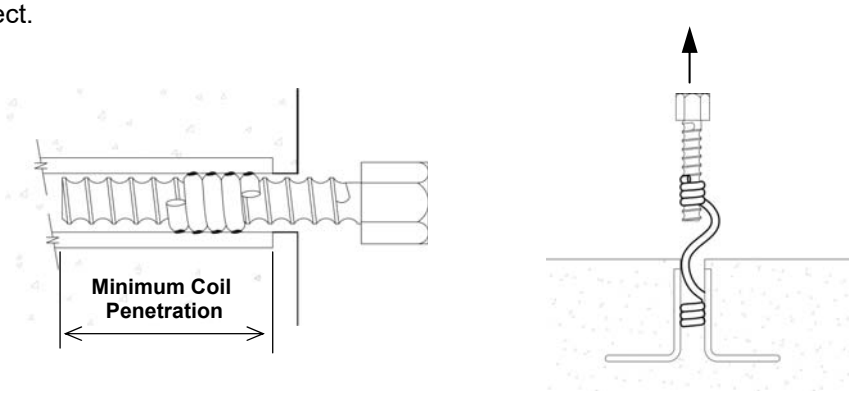
Electro-Plate - "Electro-Plate to ASTM B-633 Specification. Service Condition SC-4. Provide embrittlement relief, if necessary."

Hot Dip Galvanize - "Hot Dip Galvanize to ASTM A-153, Class A. Provide embrittlement relief, if necessary."

Product specifications are subject to change without notice.

Coil Bolt Penetration

The most common type of insert failure is caused by the lack of sufficient bolt penetration through the coil. Under load, inadequate bolt penetration will cause the upper part of the coil to “unwind” and pull out. This is commonly referred to as the "corkscrew" effect.



Coil Bolt Considerations:

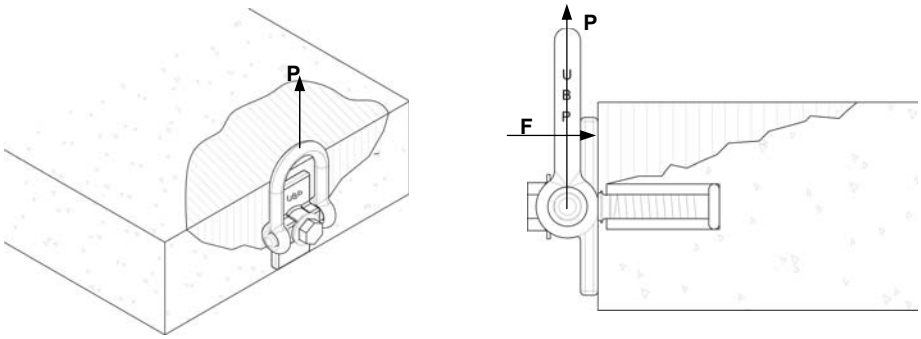
1. Failure to properly tighten a coil bolt can result in the inability of the coil bolt to fully penetrate the coil of the insert.
2. Excessive insert setback in the concrete can result in the inability of the coil bolt to fully penetrate the coil of the insert.
3. Worn threads on a coil bolt will render the bolt ineffective and will result in inadequate thread engagement.
4. A coil bolt of inadequate length to fully penetrate the Insert coil will produce a corkscrew type of failure. The insert coil cannot carry the required load when only partially engaged.
5. Reference the Minimum Coil Penetration Table on page 24.

Caution: *Coil bolts should be periodically inspected and replaced for wear or bending. Worn or bent bolts should be discarded immediately. Never use a worn or bent bolt and never attempt to straighten a bent bolt.*

Edge Lifting

When an insert/anchor is located in the edge of a concrete panel for the purpose of lifting and handling of the panel, the concrete on the topside of the insert/anchor will carry the entire applied load unless special provisions are implemented. The upward force on an insert, from the bolt and compressive force from the lifting plate, combine to quickly overload the concrete on the topside of the insert/anchor. The loss of the concrete above the insert/anchor can result in the insert breaking and loss of the panel.

One means of increasing edge lift capacity is to strengthen the concrete over the insert with shear bars or stirrup assemblies. This process will reinforce the concrete, preventing total loss of the concrete and allow the insert/anchor to remain in the panel. Always use the proper style and capacity insert/anchor for edge lifting. Never use a two-strut insert. A properly selected insert/anchor will not break if the concrete above it fails. This will allow the panel to be positioned with only minor patching required.



Product specifications are subject to change without notice.

Lifting Hardware

All lifting hardware is subject to wear, abuse, bending, overloading, alterations and corrosion. The user must continually inspect the item to determine its usable condition. If the product shows any problem or is not in good working condition, then the item should be discarded or returned for repair and/or service. The frequency of inspection is determined by how often the product is used, length of use and the environment in which it is used.

Example:
When the Double Swivel Lift Plate (SBDSLP1) with 1” bolt diameter is pulled at an angle producing 3,000 lbs. vertical load and 3,000 lbs. horizontal load, then the following information applies:

V = (2e/d) H = 1.0 (3,000) = 3,000 lbs. additional load on the insert due to the horizontal force component.

Total applied load = P_T

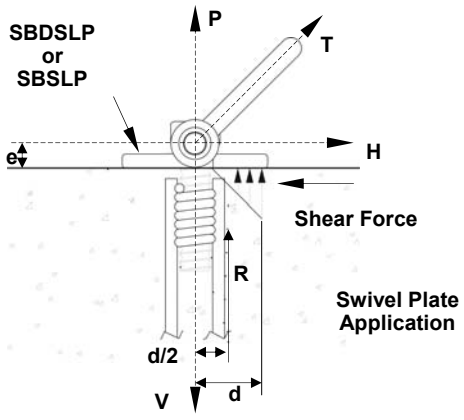
P_T = Vertical component load + (2e/d) H
P_T = 3,000 + 3,000 = 6,000 lbs. Total Tension Load

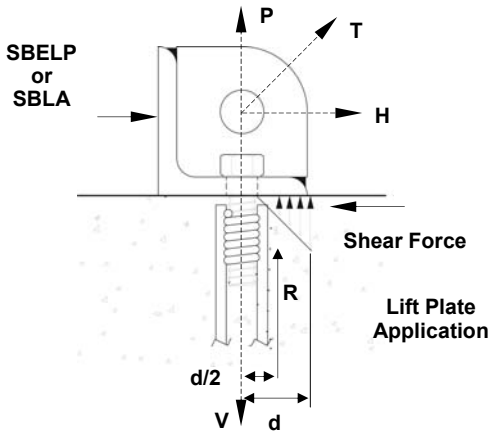
An insert with a Safe Working Load (SWL) greater than 6,000 lbs. is required.

Lifting Hardware		
P/N	**Bolt Dia**	**(2e/d)**
SBSLP34	3/4”	0.67
SBSLP1	1”	0.67
SBDSLP1	1”	1.00
SBDSLP114	1-1/4”	0.75
SBDSLP112	1-1/2”	0.75
SBELP34	3/4”	3.00
SBELP1	1”	3.00
SBLA1	1”	2.00
SBLA114	1-1/4”	2.00
SBLA112	1-1/2”	2.00

Lifting Plates

When using a Lifting Plate in conjunction with cast-in-place inserts, a combination of forces with small lever arms become factors of concerned. Reference the sketches shown below. Dimension "d” is an assumed constant subject to the location of "R", the resultant force exerted by the reaction of the plate on the concrete.





Lifting Plate considerations:
1. If the lifting plate is loosely tightened, the location of "R" will be at the extreme edge/corner of the plate and "d" becomes the plate width divided by 2.
2. If the lifting plate is properly tightened with the attachment bolt, then the generally accepted stress pattern will be triangular or trapezoidal.
3. During initial and low loads the "R" force moves from the toe of the plate towards the center of the plate. As the load increases, the plate attempts to flex. The maximum movement is most likely at the midpoint of the plate, between the bolt centerline and the toe of the plate. Taking a conservative approach, "d divided by 2" is the theoretical location of the "R" force, resulting in a higher load added to the vertical component load.

Product specifications are subject to change without notice.

4. Using basic equations, a pair of force couples must be equal to zero:
   H(e) = V(d/2) and V = (2e/d)H
   V = vertical force on the insert.
   H =horizontal force on the lifting plate.

Lifting Plate example:
When the Double Swivel Lift Plate (SBDSLP1) with a 1" bolt diameter is pulled at an angle producing 3,000 lbs .vertical load and 3,000 lbs. horizontal load, then the following information applies:

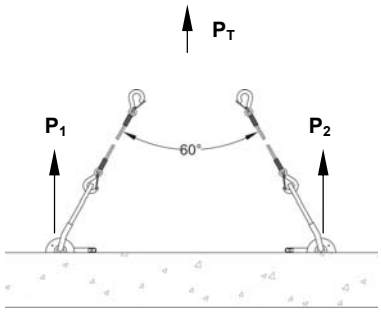
V = (2e/d) H = 1.0 x 3,000 = 3,000 lbs. additional load on the insert due to the horizontal force component.
Total applied load = P_T
P_T = Vertical component load + (2e/d) H
P_T = 3,000 + 3,000 = 6,000 lbs. Total Tension Load

In this example, an insert with a safe working load greater than 6,000 lbs. must be used.

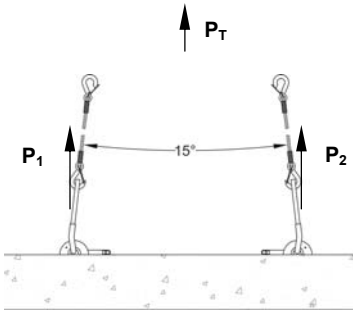
Inclined slings:
When rigging is selected where the sling lines are inclined, it is important to measure the angle b (beta). The angle will cause an increase in the anchor loading due to the horizontal force components.

Reference the sketched examples:
1. The angle is 60° and from the table below, the load factor is 1.16.
   Therefore, P1 load = 1.16 x weight of the concrete element divided by 2.
2. The angle is 15° and from the table below, the load factor is 1.01.
   Therefore, P1 load = 1.01 x weight of the concrete element divided by 2.

Sling Angle Load Factors								
Sling Angle b	120°	105°	90°	75°	60°	45°	30°	15°
Load Factor	2.00	1.64	1.41	1.26	1.16	1.08	1.04	1.01



b = 60°
60° Sling Angle



b = 15°
15° Sling Angle

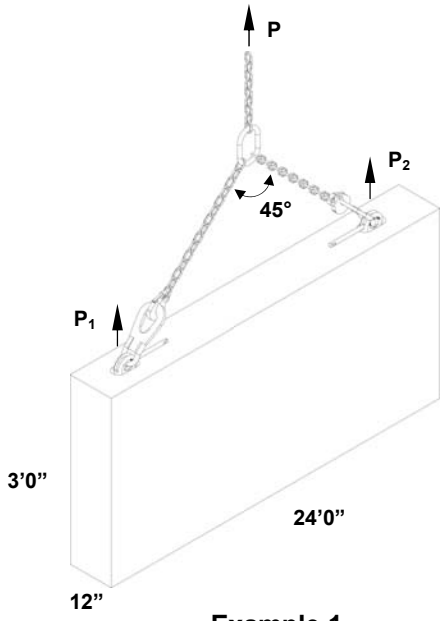
Product specifications are subject to change without notice.

Example 1 - Two-part chain slings:
Determine the anchor load, anchor size and concrete psi required for a rectangular concrete beam 12” deep, 3’ wide and 24’ long. The beam has form adhesion at the bottom surface only and a sling angle of 45°.

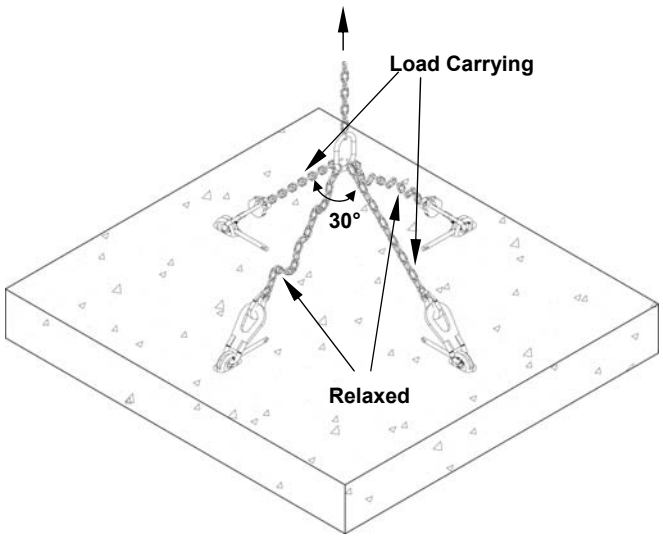
Concrete dead weight	= 12” /12” x 3’ x 24’ x 150 lbs.	= 10,800 lbs.
Form adhesion (steel form)	= 12” /12” x 24’ x 25 lbs.	= 600 lbs.
Total Load (P_T)		= 11,400 lbs.

Now apply the load factor for the 45° sling angle and realizing that
$P1 = P2 = P_T$ then P1 = 11,400/2 x 1.08 = 6,156 lbs. per anchor

To adequately lift the beam would require an anchor like the 4 ton Two-Hole Anchor (P/N SBTHA584) with Tension Bar rated at 8,000 lbs. SWL in 3,000 psi concrete.



Example 1



Example 2

Example 2 - Four slings attached at slab corners:
When four fixed length slings are used to lift and handle a concrete element, often one of the slings will be longer than the rest. This will force two of the embedded anchors to carry the total load and the other two anchors to do little more than keep the slab balanced.

Determine the anchor load, anchor size and concrete psi required for a slab 12’ x 11’ x 16” using a sling incline angle of 30° and having form adhesion at the bottom surface only.

Concrete dead weight	= 12’ x 11’ x 16”/12” x 150 lbs.	= 26,400 lbs.
Form adhesion (steel form)	= 12’ x 11’ x 20 lbs.	= 2,640 lbs.
Total Load (P_T)		= 29,040 lbs.

P1 = 29,040/2 (only two anchors working) x 1.04 per anchor = 15,100 lbs. per anchor

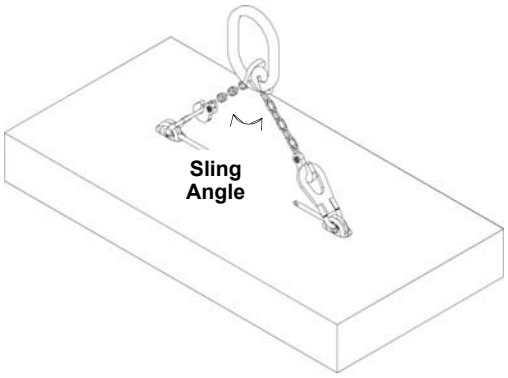
To adequately lift and handle, the example slab would require an anchor like the 10 ton x 10” Ring-Lift Anchor (P/N SBDFFA3410) rated at 20,000 lb SWL in 3,500 psi concrete.

Product specifications are subject to change without notice.

Sling Angle Factor

Additional forces come to bear on an anchor from oblique pulls caused by the sling angle. As the angles increases, the cable load increases and transfers an even larger load to the anchor. Angles greater than 90° are not safe and must not be used. To calculate the load on the anchor, refer to the accompanying table. Move across the table to the sling angle being used and multiply the corresponding magnification factor by the dead load of the precast element.

Sling Angle Factor								
Sling Angle b	120°	105°	90°	75°	60°	45°	30°	15°
Load Factor	2.00	1.64	1.41	1.26	1.16	1.08	1.04	1.01



Note: *Additional factors to consider include sling length, crane type and jobsite conditions. Additional impact factors may apply.*

Concrete Strength Adjustment Factors

To convert the allowable tension load for an unreinforced anchor from listed concrete strength of 3,500 psi to a greater or lesser concrete strength, multiply 3,500 psi by the factor indicated in the table.

Note: *These factors are for use with tension applications only. Do not use these factors for shear applications without consulting with SureBuilt to make sure there are no other limitations.*

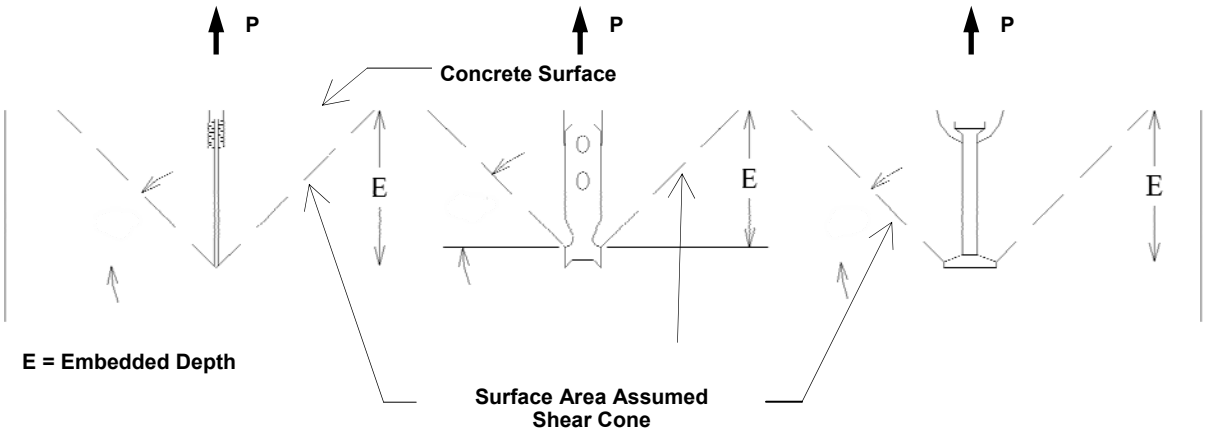
Note: *To maintain the needed 4:1 safety factor the new value must be less than 25% of the listed ultimate mechanical value of the selected anchor.*

Concrete Strength Adjustment Factors	
To Increase For Greater Concrete Strength	
Convert From	**Multiply By**
3,500 psi to 4,000 psi	1.07
3,500 psi to 4,500 psi	1.13
3,500 psi to 5,000 psi	1.19
To Decrease For Lesser Concrete Strength	
Convert From	**Multiply By**
3,500 psi to 3,000 psi	0.92
3,500 psi to 2,500 psi	0.84
3,500 psi to 2,000 psi	0.75

Product specifications are subject to change without notice.

Concrete Shear Cone

The shear cone is that area of concrete around the anchor that withstands the stress during lifting.



Typical Wire Sizes and Strengths					
Nominal Wire Dia (inches)	**Wire Grade**	**AISI and SAE Number**	**Approximate Min Yield Tension**	**Approximate Min Ultimate Tension**	**Approximate Min Shear**
0.440	MHC	1040	13,000 lbs	15,000 lbs	10,200 lbs
0.375	LC	1018	8,250 lbs	9,350 lbs	6,360 lbs
0.375	LC	1008	6,500 lbs	8,250 lbs	5,700 lbs
0.306	LC	1018	5,400 lbs	6,200 lbs	4,240 lbs
0.306	LC	1008	4,400 lbs	5,450 lbs	3,750 lbs
0.283	LC	1018	4,700 lbs	5,400 lbs	6,650 lbs
0.262	LC	1008	2,700 lbs	3,500 lbs	2,400 lbs
0.223	MHC	1035	3,400 lbs	4,000 lbs	2,708 lbs
0.218	LC	1008	2,100 lbs	2,800 lbs	1,870 lbs

Product specifications are subject to change without notice.

Product specifications are subject to change without notice.

Bar Support – Wire slab bolsters and high chairs, with optional epoxy-coat, plastic-dip, plastic-tip or plate, to meet almost any slab requirement.

Bridge Deck – Overhang brackets and hangers provide an efficient deck forming solution for precast concrete or steel I-beam bridge structures.

Coil Ties – 2-Strut and 4-Strut designs, in standard and heavy-duty capacities, with optional cones, waterseals or custom combination, for job-built forming.

Dowels – Plates, sleeves, baskets and joint nosings for high-performance concrete floors.

Euro Rod – 15mm and 20mm taper ties, she-bolts, inner ties, washers and wing nuts compatible with European-brand forming systems.

Metal Rib – Leave-in-place, expanded galvanized mesh to form footings, bulkheads, grade beams, pier caps and blindside walls.

Pipe Braces – Contractor-preferred braces, with rated capacities and lengths ranging from 7'6" to 62'6", for almost any forming application.

Precast – Inserts, anchors, connectors and lifting systems for efficient precast concrete production.

Self-Riser – Integrated hydraulic system for multi-story building cores that virtually eliminates crane time.

Shoring – A conventional 10K load/leg system, with base plates, cross braces, screw jacks and U-heads, for productive deck support.

Snap Ties – Ties and brackets, with ¾" plywood and 2x4 lumber, create a simple and effective plywood forming system.

Staybox – A pre-engineered and pre-assembled rebar keyway that simplifies forming at wall and deck intersections.

Stud Rail – A reinforced column-to-deck connection that reduces shearing, transfers load further into the slab and eliminates column capitals.

SurePly™ – An industry-recognized handset system, with more than 80 standard panel and filler sizes, for almost any forming application.

Tilt-Up – A start-to-finish system of lifting inserts, plates and hardware for tilt-up panel construction.

Walers – Double channel walers align panels, carry taper tie loads and maximize the surface area of almost any gang.

SureBuilT
Concrete Forms & Accessories

840 South 25th Ave
Bellwood, IL 60104
708-493-9569
www.surebuilt-usa.com

MADE IN USA