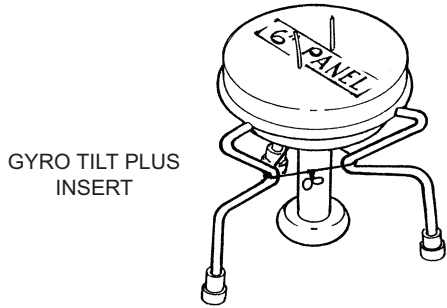


# Concrete Tilt-Up

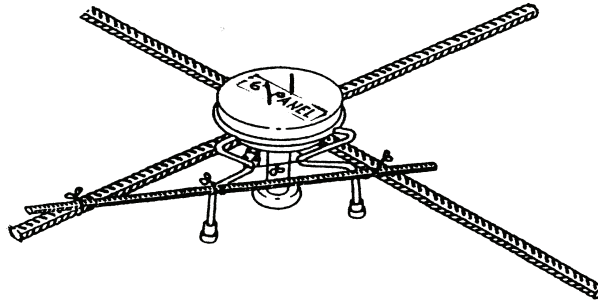
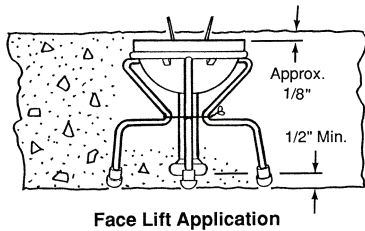
## Gyro Tilt Plus™ System



### T-49 Gyro Tilt Plus™ Face Lift Insert



The Dayton/Richmond T-49 Gyro Tilt Plus Face Lift Insert is a 3/4" diameter insert manufactured from high quality steel. The hot forged head is engaged by the system hardware. The insert assembly is complete with plastic void and plastic protected wire base. The insert assembly is easily positioned and tied to the rebar mat and requires no special orientation.



T-49 Gyro Tilt Plus™ Face Lift Insert Selection Chart

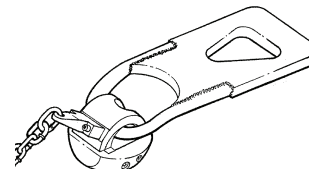
Structural Panel Thickness	5"	5-1/2"	6"	6-1/4"	6-1/2"	7	7-1/4"	7-1/2"	8"
Gyro Tilt Plus™ Anchor Length	3-3/4"	4-1/4"	4-3/4"	4-3/4"	5-1/4"	5-3/4"	5-3/4"	6-1/4"	6-3/4"
Insert Safe Working Load (Lbs.)	8,000	10,000	12,000	12,000	13,000	15,000	15,000	15,000	16,000

**Warning!** SWL provides a safety factor of approximately 2 to 1 in 2,500 PSI weight concrete.

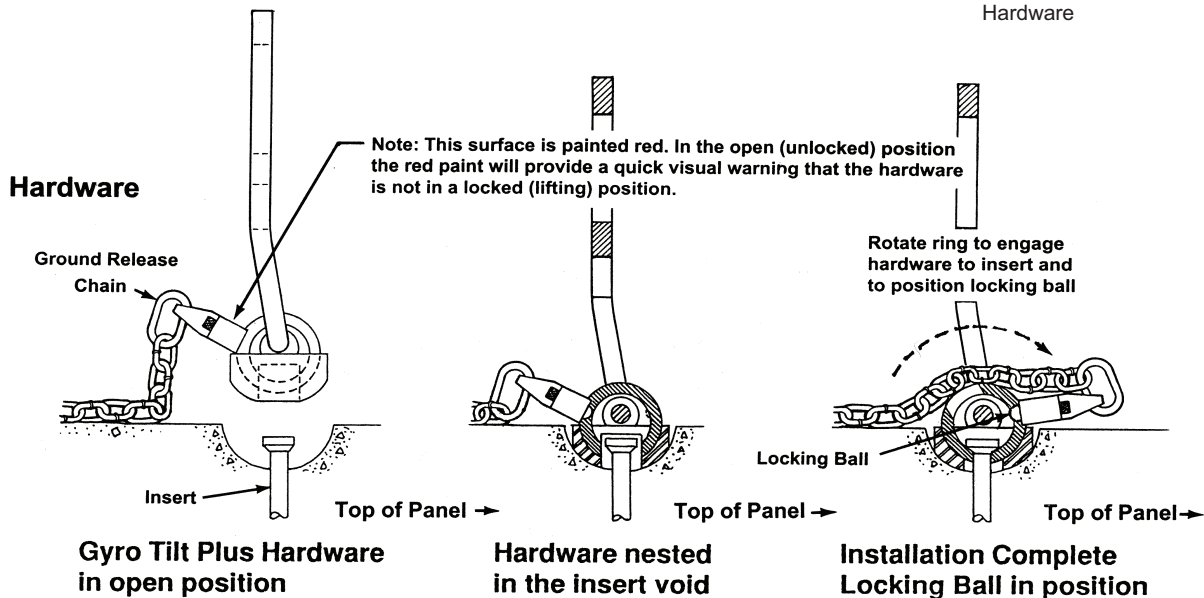
**Note:** Special inserts are available sized for panel thicknesses other than those listed in the chart above.

### T-50 Gyro Tilt Plus™ Hardware

The Dayton/Richmond T-50 Gyro Tilt Plus Hardware is designed to accomplish the task of lifting and handling tilt-up panels quickly and efficiently. High safe working load, ease of operation and positive ground release provide tilt-up effectiveness.



T-50 Gyro Tilt Plus™  
Hardware

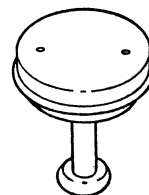


# Concrete Tilt-Up



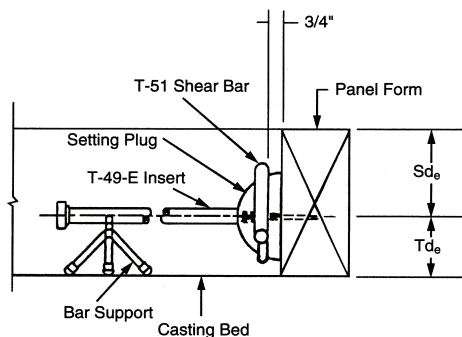
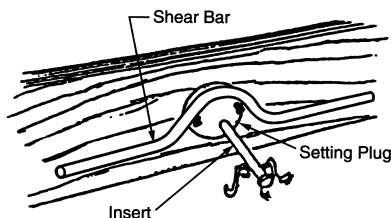
## T-49-E Gyro Tilt Plus Edge Lift Insert

The Dayton/Richmond T-49-E Gyro Tilt Plus Edge Lift Insert is the same basic insert as the face lift insert, but is furnished without the wire base. This allows the plastic void to be nailed directly to the panel form. Standard T-49-E insert is 3/4" x 9-1/2", other lengths are available on request.



T-49-E Gyro Tilt Plus Edge Lift Insert

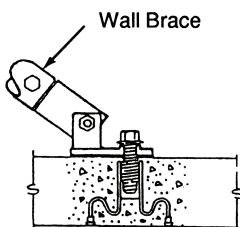
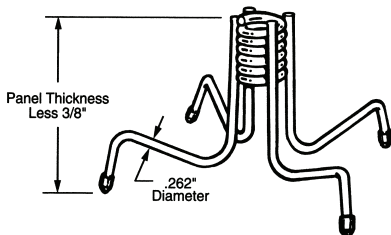
### Edge Lift Insert Installation



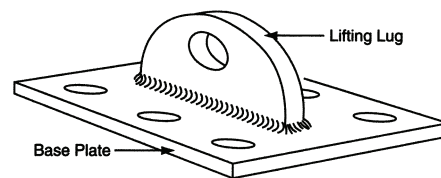
$S_{de}$  = Minimum edge distance in the direction of applied shear load.  
 $T_{de}$  = Minimum edge distance for tension loading.

## T-6-A Brace Anchor

The Dayton/Richmond T-6-A Brace Anchor is a 3/4" diameter coil insert designed to be easily positioned and tied into the rebar mat of a tilt-up panel. The T-6-A anchor is available with plastic dipped, plastic tipped or stainless steel feet with a T-21 or T-22 locator plug factory installed.

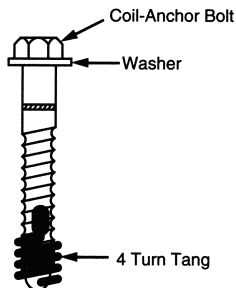


## T-75 Special Drill-In Lift Plate



## T-13 Coil-Anchor

The Dayton/Richmond T-13 Coil-Anchor is a drill-in expansion anchor designed for use in the floor slabs of tilt-up buildings to attach and anchor wall braces. Each T-13 plug includes the bolt, one cut washer and one tang. Available in 3/4" diameter x 4-1/2" or 6" lengths as specified.



The tension safe working load (SWL), as well as the maximum brace load per T-13 Coil-Anchor is shown below:

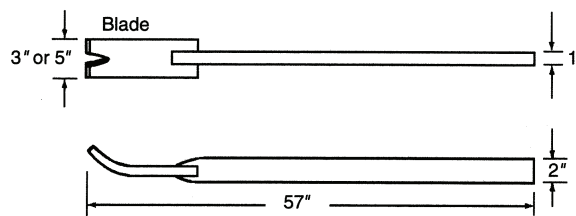
Floor Slab Thickness	Maximum Brace Load	SWL Tension Per Anchor	Minimum Torque Per Anchor
6" or thicker	9,000 lbs.	10,400 lbs.	200 ft. lbs.

**Notes:** Safe working loads are based on an approximate factor of safety of 2:1. This assumes a minimum slab compressive strength of 2,500 PSI and a properly installed T-13 anchor as detailed above.

Number of T-13 Drill-In Expansion Anchors	Tension or Shear Safe Working Load
4 Bolts (2 per each side)	8,500 lbs.
6 Bolts (3 per each side)	15,000 lbs.

**Note:** Insert SWL's are based on approximately a 2 to 1 factor of safety. Lift plate develops approximately a 5 to 1 factor of safety based on a maximum SWL of 15,000 lbs.

## A-95 Dayton Bar

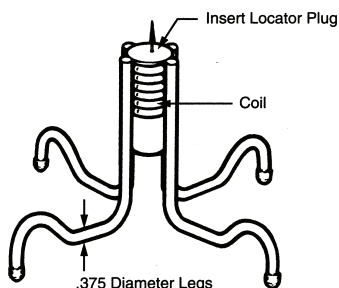


Division 3

# Concrete Tilt-Up



## T-1 Single Pickup Insert



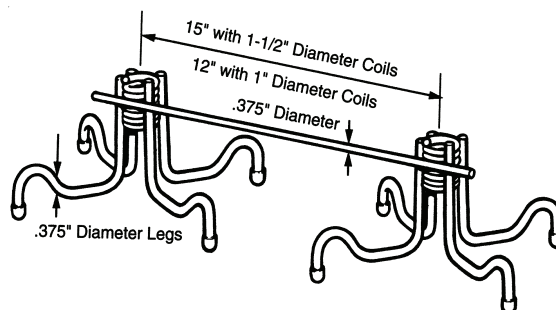
Available in 3/4" or 1" dia. For use as a strongback insert.

### Panel Thickness and Safe Working Load Per Insert (Lbs.)

Coil Bolt Diameter	4"	5"	5-1/2"	6"	7"	8"
1-1/4	4,200	7,000	8,400	10,200	12,000	13,500
1-1/2	4,700	7,800	9,400	11,200	12,500	14,000

SWL provides a factor of safety of approximately 2 to 1 in 2,500 PSI concrete.

## T-2 Double Pickup Insert



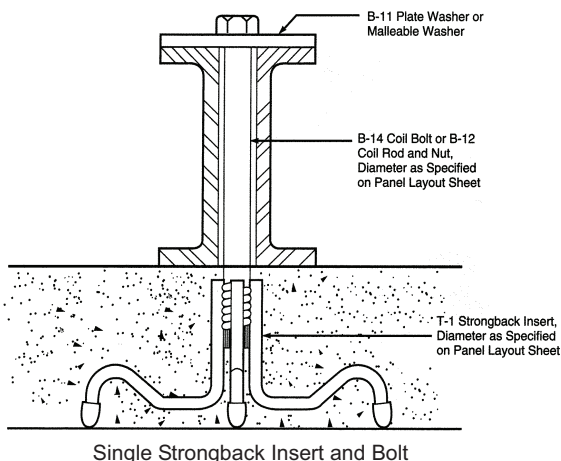
### Panel Thickness and Safe Working Load Per Insert (Lbs.)

Coil Diameter	4"	5"	5-1/2"	6"	7"	8"
1	5,400	8,100	9,400	10,800	13,500	16,000
1-1/2	-	-	-	12,600	15,000	18,000

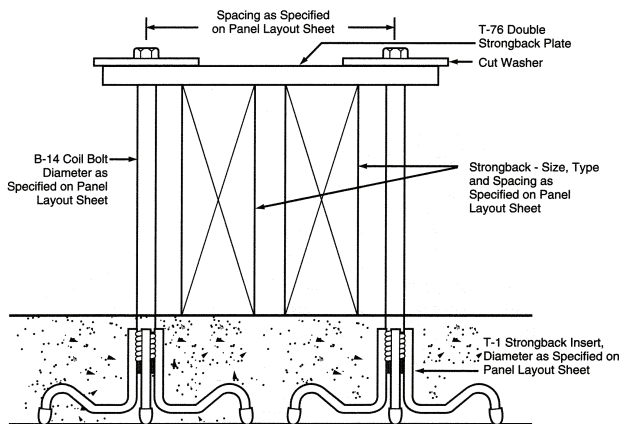
SWL provides a factor of safety of approximately 2 to 1 in 2,500 PSI concrete.

Division 3

## Strongback Attachment



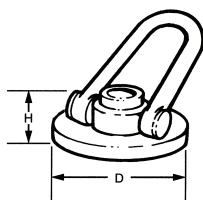
Single Strongback Insert and Bolt



Double Strongback Insert and Bolt

## T-26 Double Swivel Lifting Plate

The T-26 Double Swivel Lifting Plate is designed to be used with 1", 1-1/4" and 1-1/2" diameter coil bolts and to permit a full 360° horizontal plane rotation and 180° vertical plane rotation. The duo swivel feature is designed for use with a single bolt to engage a single lifting insert. Safe working load for the 1" unit is approximately 9,000 pounds and for the 1-1/4" and 1-1/2" units, approximately 13,500 pounds.



## T-12 Swivel Lifting Plate

The Dayton/Richmond T-12 Swivel Lifting Plate consists of a heavy steel casting and a drop-forged ball that is pinned to allow a full 180° swivel. The T-12 lift plate is available in two styles. The lighter unit is designed for 1" bolt diameter and the heavier unit for 1-1/4" and 1-1/2" bolt diameters. 1" bushings are available for the heavy unit, allowing it to be used with the smaller bolt.



# Concrete Tilt-Up

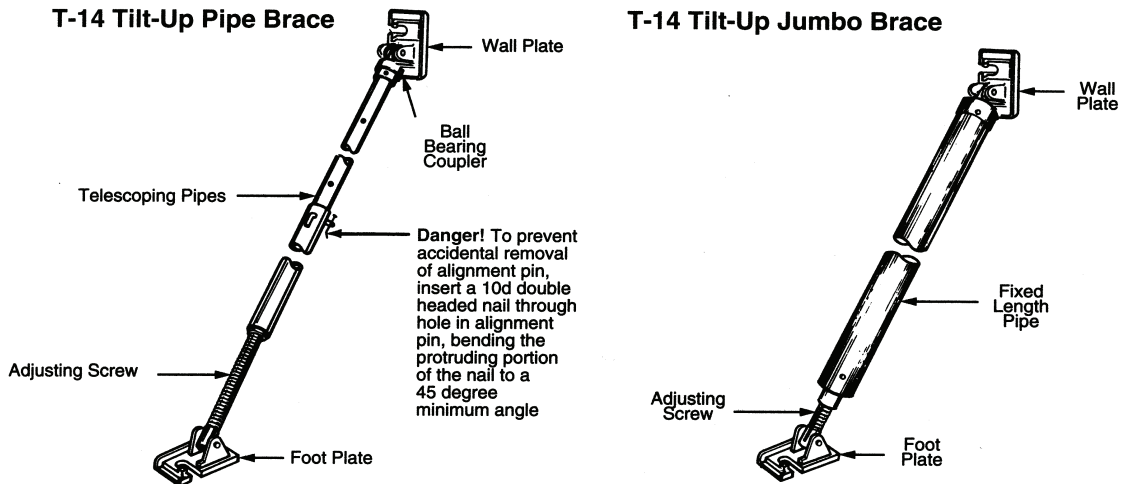


## T-14 Tilt-Up Wall Braces

The Dayton/Richmond T-14 Tilt-Up Wall Braces are all steel, heavy-duty wall braces designed to quickly and easily align and brace tilt-up wall panels. Rough adjustment of the T-14 braces is easily accomplished by telescoping the pipes to the nearest incremental hole.

Final adjustment is then achieved by simply turning the brace on the stationary stud. Dayton/Richmond wall braces are available in numerous sizes to provide a continuous range of tilt-up panel heights of fifty feet or more. Refer to the chart below for additional information.

Division 3

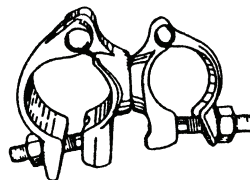


Tilt-Up Pipe Brace Selection Chart

Type	Description	Minimum & Maximum Brace Length
T-14, B2	Regular Pipe Brace	13'-0" to 20'-6"
T-14, B-4	Heavy Duty Regular Pipe Brace	14'-6" to 23'-6"
T-14, B-5	Heavy Duty Long Pipe Brace	22'-6" to 39'-0"
T-14, B-6	Short Pipe Brace	10'-0" to 14'-0"
T-14, B-8	Jumbo Brace	22'-0" Fixed Length
T-14, B-9	Jumbo Brace with 5'-0" Extension	27'-0" Fixed Length
T-14, B-10	Jumbo Brace with 10'-0" Extension	32'-0" Fixed Length
T-14, B-11	Tru-Ilt Brace	25'-6" to 40'-0"
T-14, B-12	Jumbo 5-1/2"	32'-0" Fixed Length

## T-17 Swivel Coupler

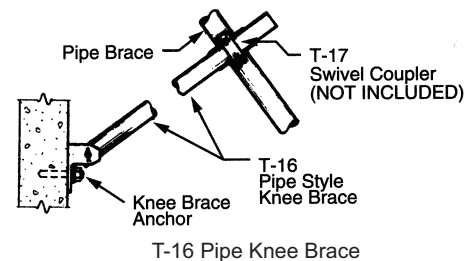
The Dayton/Richmond T-17 Swivel Coupler is designed to attach standard 1-1/2" diameter knee braces to 2" or 2-1/2" diameter wall braces.



T-17 Swivel Coupler

## T-16 Pipe Knee Brace

The Dayton/Richmond T-16 Pipe Knee Brace is an all steel, 1-1/2" diameter knee brace available in 10'-6" and 14'-6" lengths. The T-16 knee brace is used in conjunction with the T-17 Swivel Coupler to add strength and stability to standard wall braces.



# Concrete Tilt-Up



**DAYTON/RICHMOND**  
CONCRETE ACCESSORIES  
A DAYTON SUPERIOR COMPANY

## T-66 Tilt Bracket™

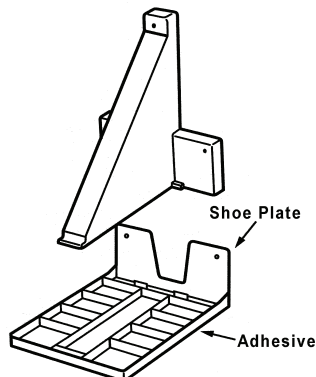
### Tilt-Up Forming System

The Tilt Bracket™ Forming System consists of light-weight, reusable plastic brackets and an adhesive backed shoe plate. The bracket snaps into the shoe plate that is held firmly to the casting slab by the adhesive base.

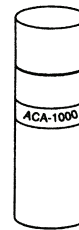
The bracket is available in three sizes and can be utilized to fasten vertical or battered form members.

The smaller size is 4-7/8" high for 4-7/8" to 6-7/8" forming members. The mid size is 7" high for 7" to 9" forming members and the large size is 9-3/8" high for members 9-3/8" to 12".

The system is easy to use and requires no drilling or hole patching.



T-66 Tilt Bracket™

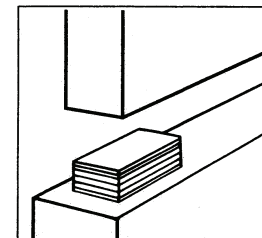


T-68 ACA-1000  
Construction  
Spray Adhesive

## Vers-A-Shim®

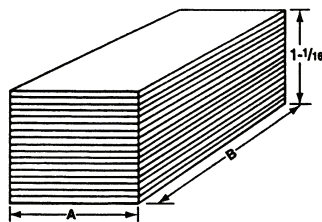
### High Impact Plastic Shims

Vers-A-Shims® are molded from an engineered copolymer plastic material which combines high compression strength and superior load bearing surface contact characteristics. They assure accurate placement of precast and pre-stressed concrete walls, floors, architectural and structural concrete members.



## Vers-A-Packs®

- Pre-assembled packages of shims designed for precise placing of large load bearing precast units.
- Eliminates correction of elastometric drift.
- Can be compressed sufficiently at post tensioning to allow load transfer to the grout.
- 17 pieces; 1/16" thick, heat-sealed together on adjacent sides.
- Peel off shims in 1/16" increments to obtain the correct height adjustment.

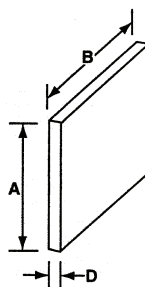


Catalog No.	A	B	Packs/ Ctn.
SP33VS	3	3	50
SP44VS	4	4	50
SP46VS	4	6	50
SP55VS	5	5	25
SP66VS	6	6	20

Special sizes available.

## Shim Strips

- Assures accurate placing and leveling of pre-cast panels, tilt-up walls, structural and architectural components.
- Has excellent stability, eliminates rust, stained concrete, etc.
- Less expensive and more versatile than steel.
- Convenient thicknesses, lengths and widths.
- Will not rust, rot, stain or leach concrete
- Available in convenient thicknesses, lengths and widths which permit precise leveling and alignment.



Catalog No.	A	B	D	Std. Pkg.
PC6216			1/16	500
PC6218	6	2	1/8	500
PC6214			1/4	250
PC4216			1/16	1M
PC4218	4	2	1/8	1M
PC4214			1/4	500
PC4416			1/16	500
PC4418	4	4	1/8	500
PC4414			1/4	250
PC3316			1/16	1M
PC3318	3	3	1/8	1M
PC3314			1/4	500
PC2216			1/16	1M
PC2218	2	2	1/8	1M
PC2214			1/4	1M

Other sizes available.

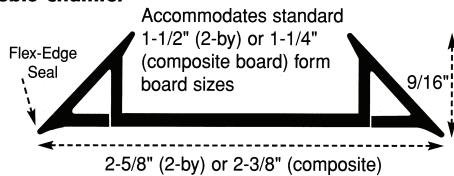
Division 3

# Concrete Tilt-Up

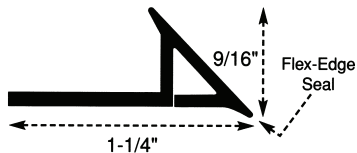
## Chamfers

The Victory Bear single- and double-chamfers are ideal for use in tilt-up and precast construction to create chamfered contours along the finished edges of wall sections. The chamfers are designed to support standard 1.5" (2-by) or 1.25" (form board) wood sizes and are available in single- and double-chamfer configurations. Victory Bear chamfers are manufactured from nonstick PVC and will add dollars to your bottom line by reducing your installation and overall costs.

### Double Chamfer



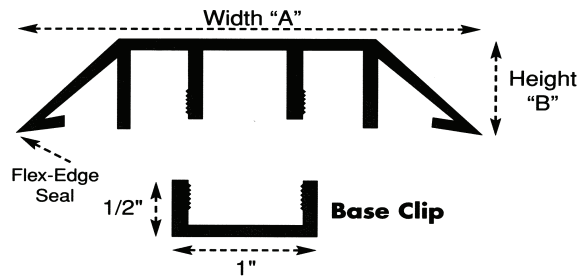
### Single Chamfer



**VICTORY BEAR PRODUCTS**  
*Building Solutions*

## Rustication

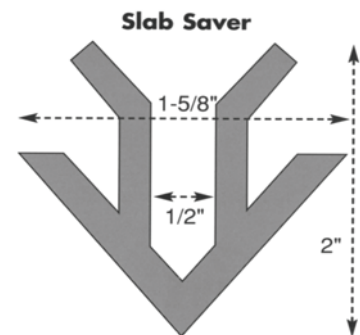
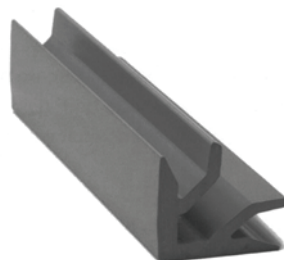
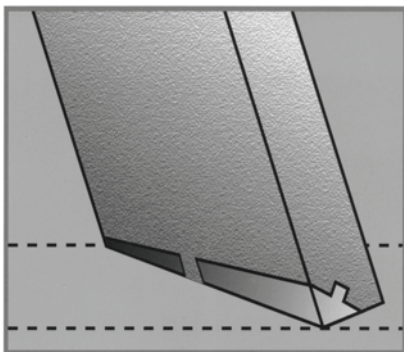
Victory Bear rustications form smooth, clean rustication bands (reveals) in concrete walls. They are manufactured from nonstick PVC for long life and easy clean-up.



Part Name	Height "B"	Width "A"	Chamfer Angle	Pieces		Std. Lengths
				Per Box	Weight Lb/LF	
<b>Standard Height</b>						
2.5 Rustication	.75"	2.5"	45°	36	0.19	12'
3.5 Rustication	.75"	3.5"	45°	16	0.27	12'
5.5 Rustication	.75"	5.5"	45°	14	0.40	12'
11.5 Rustication	.75"	11.5"	45°	6	1.00	12'
<b>Low Profile Height</b>						
2LP Rustication	.5"	2"	60°	42	0.15	12'
3LP Rustication	.5"	3"	60°	35	0.22	12'
<b>Base Clip</b>						
Part Name	Pieces		LF Per Box	Std. Lgth.		
	Per Box	Wt. Lb/LF				
Base Clip	60	0.07	720	12'	* Be sure to order 1' of base clip for each 1' of rustication.	
Base ClipLP	60	0.065	720	12'		

## Slab Savers

Victory Bear Slab Savers are a great way to protect concrete floors when tilting up poured walls. Slab savers are made from rigid, durable PVC and will not scratch valuable new floors.



TOLL FREE 800-892-7224  
800-821-7735

**ca** construction  
anchors, inc.

LOCAL 816-525-3640  
FAX 816-525-4533

# Concrete Tilt-Up

## **Super-Lift III**

The Complete Tilt-Up System

The Burke Super-Lift III Tilt-Up Insert (patented) with a maximum lifting capacity of 22,400 lbs. (2.0:1 factor of safety) is capable of safely lifting more than any other tilt-up insert in the marketplace. The Burke Super-Lift III Insert is sold assembled and ready to use with void-former and base attached. See Engineering Data Sheet for working loads in various panel thicknesses. An oval void requires minimum patching. The Burke Super-Lift III Insert also has notches for rebar typing. An easy to use Burke Double Bar (patented) is available for double insert requirements.

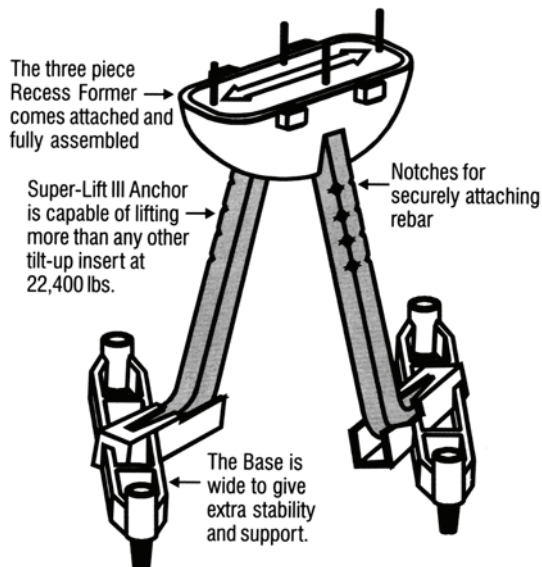


### Super-Lift III Insert

Working Loads In Lbs.-In. 2500 PSI Concrete, 2.5:1 Safety Factor

Item Number	Conc. Thick. In.	Face Tension	Face Shear
45SL3050	5"	7,400	12,800
45SL3052	5-1/4"	7,930	12,970
45SL3055	5-1/2"	8,470	13,150
45SL3060	6"	9,540	13,500
45SL3062	6-1/4"	10,230	14,470
45SL3065	6-1/2"	10,920	15,440
45SL3070	7"	12,290	17,380
45SL3072	7-1/4"	12,750	18,030
45SL3075	7-1/2"	13,210	18,690
45SL3080	8"	14,140	20,000
45SL3085	8-1/2"	15,460	21,870
45SL3090	9"	16,790	22,420
45SL3092	9-1/4"	17,450	22,420
45SL3095	9-1/2"	18,110	22,420
45SL3097	9-3/4"	18,770	22,420
45SL3100	10"	19,440	22,420
45SL3105	10-1/2"	20,760	22,420
45SL3110	11"	22,090	22,420
45SL3112	11-1/4"	22,420	22,420
45SL3115	11-1/2"	22,420	22,420
45SL3120	12"	22,420	22,420

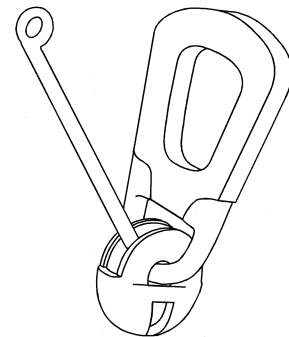
### Super-Lift III Insert



Division 3

### Meadow Burke Super-Lift Ring Clutch

The Burke Super-Lift III Clutch (patented) has a safe lifting capacity of 22,400 lbs. (5:1 factor of safety). The industry proven Burke clutch assembly was developed with a high strength casting and a forged handle which has been lengthened, to make for safer lifts and easier ground releases. The oval cross section prevents clutch rotation during handling, lifting and release. The Burke Super-Lift III Clutch is sold with chain and lanyard attached ready for jobsite use. There are no moving parts to bind against the concrete during engagement and release. The Burke Super-Lift III Clutch and Burke Super-Lift III Insert combine to provide the strongest, simplest and safest lifting system available in the market today.



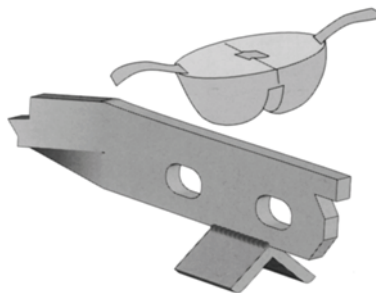
# Concrete Tilt-Up

## Super-Lift III

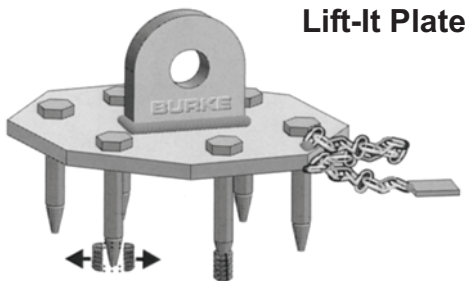
The Complete Tilt-Up System

The Burke Super-Lift III Edge Lift Insert (patent pending), specially engineered for use with the Burke Super-Lift III Clutch, gives the contractor a "no spall" solution to edge lifting panels. The attached shear plate reduces jobsite labor and the chance of installing an insert without a shear bar. The insert comes complete with a disposable void. Easy to install, the Burke Edge Lift Insert Void may be easily nailed to wooden forms.

### Super-Lift III Edge Lift Insert

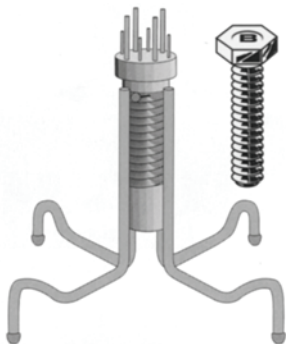


Division 3



**Lift-It Plate**

The Burke Super Lift-It Plate has been designed by Burke Engineering for the Burke Super-Lift III load range to provide a safe method for lifting a panel which has a misplaced or displaced insert. The plate comes complete with six 3/4" diameter taper bolts, gage chained to the plate and instructions for use. The Burke Lift-It Plate has been designed with the contractor in mind.



### B-75 Wall Brace Insert

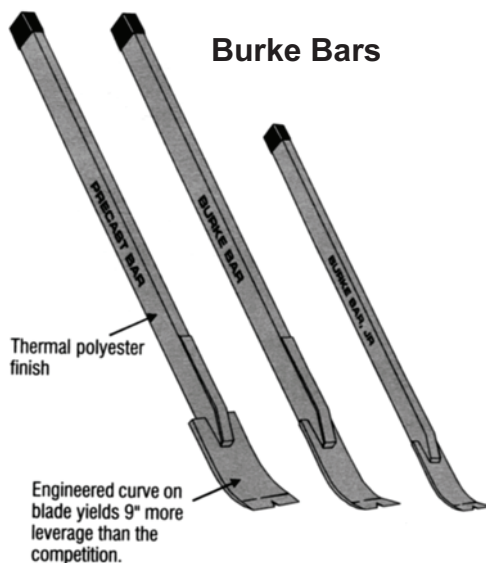
The Burke Super Brace Insert with the Burke E-See Cap (patented) for easy location is specifically designed to be used when casting tilt-up panels. The Burke Super Brace Insert comes either for casting with the brace side up or inverted for the brace side down. Also available is the Burke 3/4" x 4" Coil Bolt for making the brace connection.

3/4" diameter coil insert height is 1/2" less than panel thickness. Available in 1/2" increments from 5" through 12".

### Super Patches

The Burke Super Patch (patented) is the modern method to permanently and aesthetically cover insert holes on tilt-up panels. There's no need to waste time and money-consuming mortar-mix patches when Burke Super Patch can do the same job in less time, with unskilled labor, and at a lower overall cost. The Burke Super Patch is available for Burke Super-Lift III Inserts and also Burke Super-Lift III Super Brace Inserts. They both are gray with concrete-texture finish which allows blending into the panel surface.

Super Patch / 7" Diameter  
B-75 Patch / 3" Diameter



**Burke Bars**

Thermal polyester finish

Engineered curve on blade yields 9° more leverage than the competition.



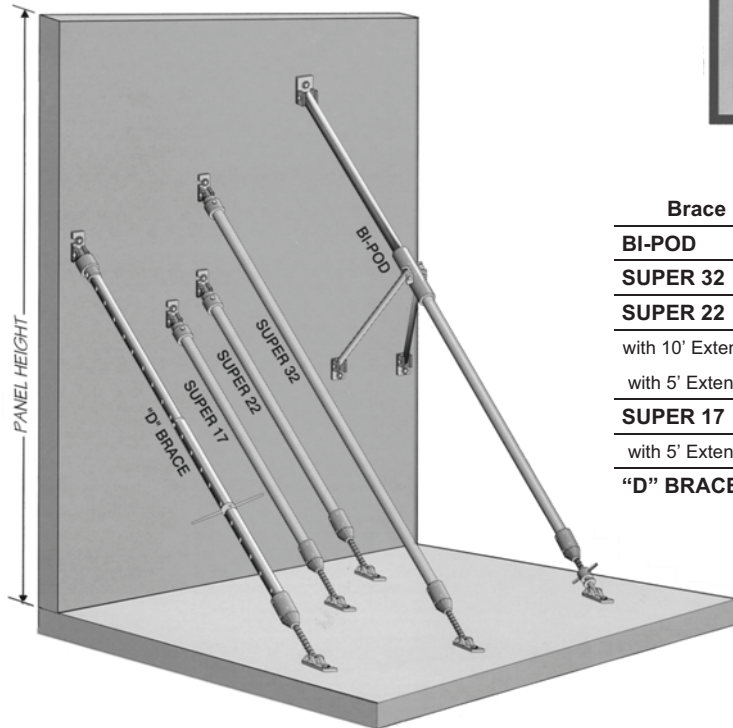
# Concrete Tilt-Up

**Super-Lift III**

The Complete Tilt-Up System

**BURKE  
BRACES**

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Brace	Nominal Brace Length	Range Of Panel Height	Ultimate Strength (Lbs.)
<b>BI-POD</b>	32', 42'-6"	31' to 65'	11,000
<b>SUPER 32</b>	32'	31' to 46'	13,000
<b>SUPER 22</b>	22'	17' to 31'	11,000
with 10' Extension	32'	31' to 46'	5800
with 5' Extension	27'	31' to 40'	8850
<b>SUPER 17</b>	17'	9' to 25'	13,000
with 5' Extension	22'	17' to 31'	11,000
<b>"D" BRACE</b>	14' to 20'	9' to 29'	VARIABLES

- **Super Braces are Strong and Light.**
- **Greater Strength means fewer Braces and fewer Inserts.**
- **Bi-Pod Eliminates Knee Braces and Cross Lacing**

## Engineering

In addition to designing the Super-Lift III components, Burke Engineering has incorporated the features of Super-Lift III in their analysis for tilt-up erection engineering. Burke's engineers use state-of-the-art computer analysis and innovative techniques to minimize the panel lifting stresses, keeping added erection reinforcing to a minimum, saving you time and money. Burke has over 3,000,000 panels safely lifted. Burke provides computer-generated scaled panel drawings that are accurate, with all information clearly shown. The cable and spreader bar lengths are shown on each detail sheet to eliminate guesswork and increase safety. Brace requirements and dimensions are also on each panel detail to speed layout and reduce field error. The erection engineering can be customized to fit your project needs and erection preferences. Burke Engineering continues to be the "Tilt-Up Technology Leader."

