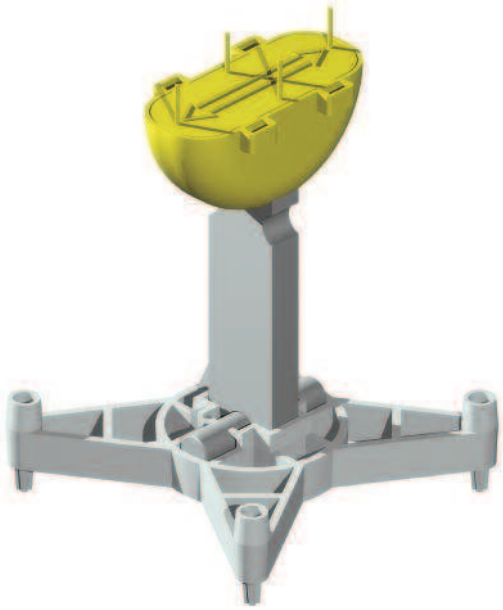
MEADOW BURKE SUPER-LIFT SYSTEM

· SAFE
· SIMPLE
· SPEEDY
· SPALL-FREE

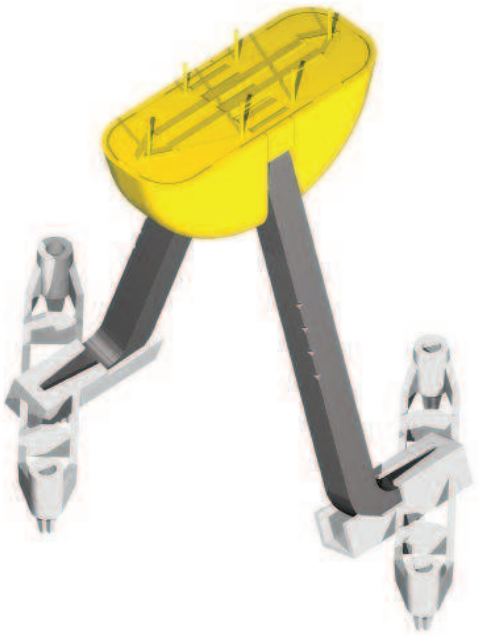
Meadow Burke has gotten down to basics and produced one of the safest and simplest lifting systems on the market today. Quick and efficient panel erection requires a lifting system that carries out its work in minimum time with very little fuss. Super-Lift continues Meadow Burke's pioneering work in ground release systems. Not only does the system provide quick release, but it also speeds up insert engagement.

Meadow Burke has reduced all that to one quick, simple motion. Just lower the bolt and you're ready to lift. The key is Super-Lift's rugged lifting unit.

Meadow Burke Super-Lift Ring Clutch



Meadow Burke Super-Lift II



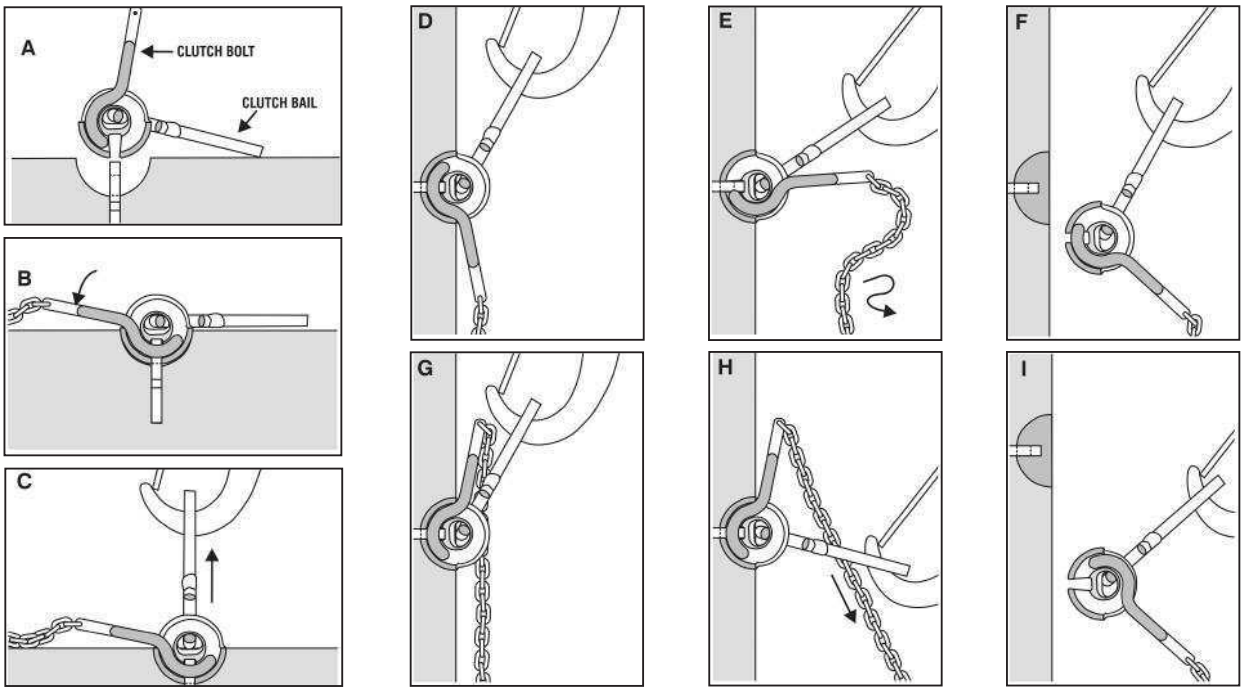
Meadow Burke Super-Lift III
"The Latest in Tilt-up Insert Design"

SOLID SPALL-FREE LIFTING UNIT

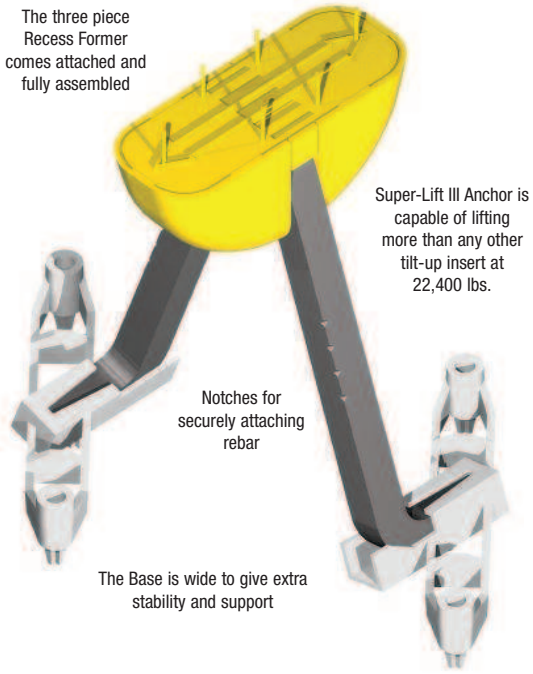
Meadow Burke's Super-Lift unit has been working on jobsites in Europe and North America for over three decades. Super-Lift is so simple it has only two moving parts; one sturdy Clutch Bail that follows the flow of the lift, and one sliding clutch bolt that creates a secure union between the lifting unit and the insert (A). Super-Lift's trouble-free operation allows you to simply lower the long unit into the recess and push the clutch bolt lever down towards the surface of the panel (B). The curve section of the clutch bolt passes through the eye of the anchor and locks the unit into place. A quick visual inspection of the long lever tells the crane crew immediately whether all lifting units are secure and ready to lift (C).

Here are some of the things you won't have to do:
- No adjustments
- No bolts to tighten
- No shimming or bearing pads to place under lifting unit

The panel is ready to be erected once the rigging is tightened. The ring clutch mechanism will not release the insert once the slings have been tightened to a minimum of 400 lbs. (181 kg). As soon as the panel erection begins, the friction lock makes the bolt virtually immovable. This security is backed up by the shackle which prevents the bolt from sliding back as the panel rises to 90° There are two ways of rigging the ring clutch, handle down and handle up. Handle down is primarily used on taller panels because the worker doesn't have to get so far from the bottom of the panel. The crane hook is lowered a little and then the lanyard is "whipped"upward (E). This causes the chain to raise up and release the handle from the insert and pop the entire clutch out of the void (F). In the second or handle up release the rigging has to be completely slackened and lowered before it is possible to release the panel (H). Once the crane operator has lowered the rigging, a quick, even tug on the lifting unit rope will slide the bolt out of the eye of the insert and release the lifting unit from the panel (I). The lifting unit engages the insert without contacting the exposed sur face of the panel. It's the perfect lifting unit for exposed aggregate surfaces. There's no bearing pad to lay down, and no chance of compression spalls caused by surface-bearing equipment. All contact is limited to the recess. The use of 1/2" (13 mm) or larger exposed aggregate on the top face is not recommended since it may interfere with the proper functioning of the ring clutch unit.



SUPER-LIFT III INSERT



SUPER-LIFT III SIMPLIFIES INSTALLATION, MINIMIZES LABOR TIME

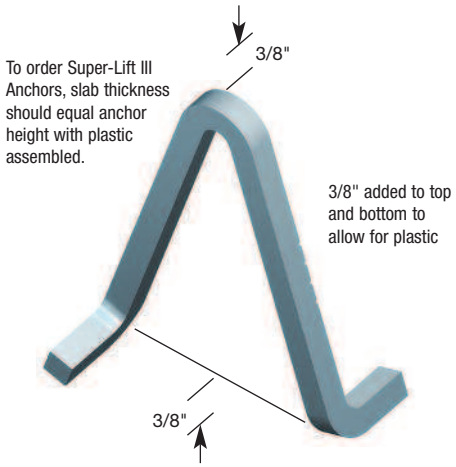
The Meadow Burke Super-Lift III insert module is the latest generation of innovative Meadow Burke lifting systems for tilt-up construction. It is a dependable combination of three economical parts: a two-part sturdy base, a high strength steel anchor and a three-part, snap-together recess former.

SUPER-LIFT III ANCHOR

Super-Lift III Anchor is made of high strength, low alloy steel. The shape of the anchor is engineered for maximum strength and economy. The head at the top of the anchor accepts the sliding clutch bolt of the lifting unit for a safe, secure engagement. Super-Lift III insert modules are manufactured in heights ranging from 5" (127 mm) to 12" (3.5 mm) are 1/2" (12.7 mm) increments. Also available upon request in 1/4" increments. As the anchor gets longer, its load capacity increases until the tensile strength of the material is reached. Notches on the sides of the anchor aid in wiring the anchor to rebar. Do not weld the anchor to rebar. Welding may cause embrittlement.

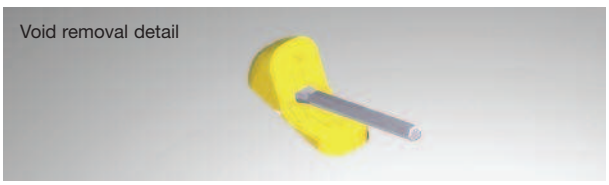
BASE

The Super-Lift III base gives stable support for sturdy anchor footing. Rebar slips easily over the extended legs. The Super-Lift III foot slips securely in to the center of each base. The rugged plastic base has been engineered to resist bending and twisting if accidentally trampled by workers. The neutral colored leg tips will be virtually invisible on the surface of the erected panel. Base extensions are available for the use with form liners or to adjust for thicker panels.



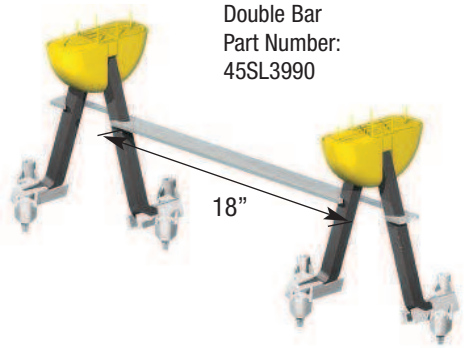
RECESS FORMER

The Super-Lift III Recess Former fits firmly over the head of the anchor to create a recess that accepts the lifting unit's ring clutch. The precise fit prevents concrete leaking into the recess. The patented latch prevents the recess former from dislodging or tipping as concrete is poured around it. The top of the recess former has an indicator arrow for proper alignment. Six locator antennae clearly signal the presence of the insert in concrete. The springy antennae will not interfere with screeding. Once the insert has been located, simply chip away the thin plane of concrete covering the top of the recess former. Drive a large chisel between the apex of the anchor and the edge of the hinge all the way to the bottom of the recess former. Using the insert as leverage, pry the chisel towards the center of the void. This will break the latch and begin to reverse hinge the void former. Once one half is free of the concrete, reverse the chisel direction to "pop" the remaining half out of the void. One simple operation leaves a smooth clean recess for the lifting unit.



MEADOW BURKE INSERTS: LOAD DATA FOR SELECTED PANEL THICKNESSES

The minimum edge distance required to centerline of nearest insert void is 18" to obtain the listed loads. Reduce loads by the ratio of the concrete densities for lightweight concrete.



Super-Lift III Insert

WORKING LOADS IN LBS. IN 2500 PSI CONCRETE, 2.5:1 SAFETY FACTOR			
Item Number	Conc. Thick. in inches	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

2 Super-Lift III Inserts w/Double Bar

WORKING LOADS IN LBS. IN 2500 PSI CONCRETE, 2.5:1 SAFETY FACTOR			
Item Number	Conc. Thick. in inches	Face Tension	Face Shear
45SL3050	5"	14,800	25,600
45SL3052	5-1/4"	15,860	25,940
45SL3055	5-1/2"	16,940	26,300
45SL3060	6"	19,080	27,000
45SL3062	6-1/4"	20,460	28,940
45SL3065	6-1/2"	21,840	30,880
45SL3070	7"	24,580	32,000
45SL3072	7-1/4"	25,500	32,000
45SL3075	7-1/2"	26,420	32,000
45SL3080	8"	28,280	32,000
45SL3085	8-1/2"	30,920	32,000
45SL3090	9"	32,000	32,000
45SL3092	9-1/4"	32,000	32,000
45SL3095	9-1/2"	32,000	32,000
45SL3097	9-3/4"	32,000	32,000
45SL3100	10"	32,000	32,000
45SL3105	10-1/2"	32,000	32,000
45SL3110	11"	32,000	32,000
45SL3112	11-1/4"	32,000	32,000
45SL3115	11-1/2"	32,000	32,000
45SL3120	12"	32,000	32,000

The safety factor to be applied to a particular product is a variable, depending on the degree of hazard or risk involved in the application of that product. In tilt-up construction various conditions can often increase the loadings as well as the degree of risk involved. Adhesion of the panel to the casting surface, jerking of the panel during lift, use of a crane not adequate for the job, bouncing of the wall panel after it has been lifted, handling the panel more than anticipated, transporting panel over rough surfaces, under or over booming, etc., all have high risk factors. Safety factors should be increased accordingly by the user to reduce these risks.

SUPER-LIFT INSERT INSTALLATION

The insert shall be located as shown on Meadow Burke Engineering's panel erection details with the arrow on the yellow void former pointing towards the top of the panel, unless noted otherwise on the details. Be certain the Void Former is pushed onto the insert with the latch inside the void former secure and tight. Allow at least 13" from the center of the insert to the nearest obstruction above it to insure Ring Clutch handle closes completely. The rebar surrounding the insert should be fully supported and the insert should be securely wired to the rebar using the notches provided on the outside corners of the insert's steel bar. Care should be taken not to move or jar the inserts once concrete is placed and proper vibration for concrete consolidation is required. After the concrete has hardened or set for 24 hours, remove the plastic void former and any debris in the void using the method described on page 28. Inspect the insert to insure it is perpendicular to the concrete. It can not be used if it is tipped more than 10 degrees in any direction or protrudes above the surface of the concrete. Be careful not to damage the curved surfaces of the void as the lifting unit must bear on them. If the curved surfaces are damaged, the void must be reconstructed before using the insert. With the void former installed, reform the void using a non-ferrous, non-shrink grout. Allow the grout to harden until it reaches a compressive strength equal to the panel's strength. Figures 1 & 2 illustrate this point.

BURKE SUPER-LIFT INSPECTION

Install the Super-Lift Ring Clutch into the void and engage the handle toward the top of the panel. The handle should drop freely without forcing. The handle must rotate down flat on the panel with the underside of the tip of the handle no more than 3/4" above the panel surface (See Figure 3). With the handle engaged, pull the bail perpendicular to the panel surface to ensure there is at least 1/8" movement between the clutch and insert. While pulling on the bail, rotate it toward the top of the panel until it strikes the handle, making sure the clutch bears on the concrete at the top end of the void (See Figure 4). If any of the inspections cannot be completed, remove the Ring Clutch and reconstruct or chip out concrete as necessary to permit proper installation. Repeat the inspection procedure. After the above inspection is complete, attach the crane cable and lift.

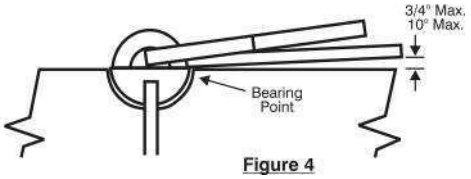
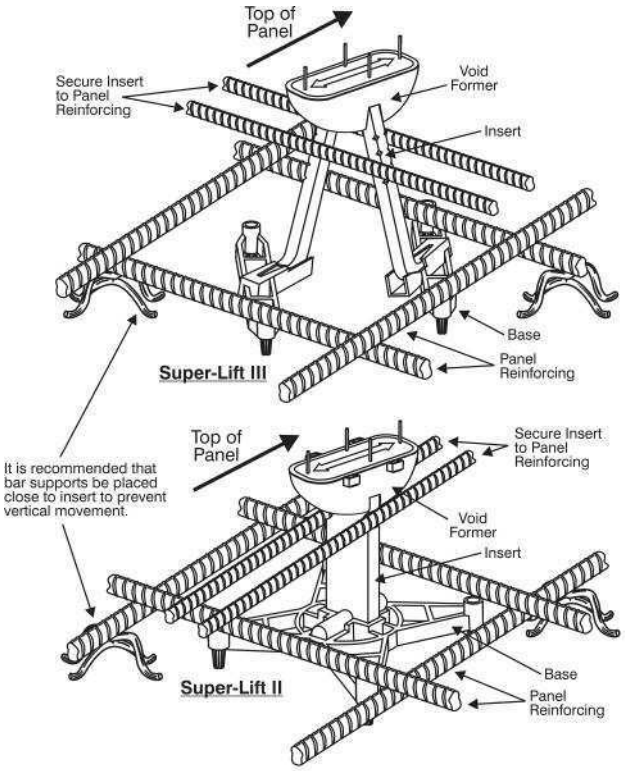


Figure 4



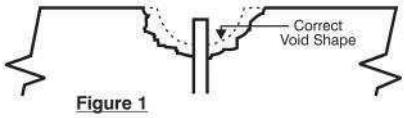


Figure 1

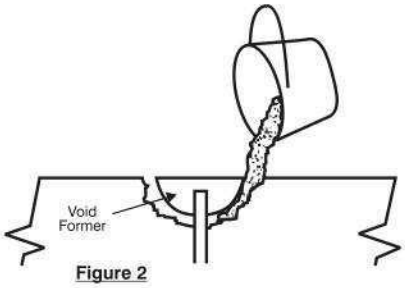


Figure 2

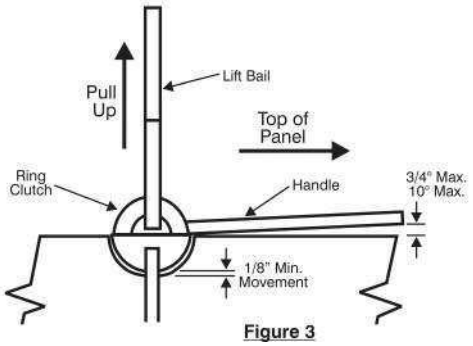


Figure 3