Swift Lift® System

The Swift Lift System is a quick connect-disconnect system that allows precast concrete elements to be handled repeatedly, with speed, safety and economy. It is a non-welded system and void of threaded connections. The quality, reusable Swift Lift Lifting Eye's heavy duty construction will provide years of good service.

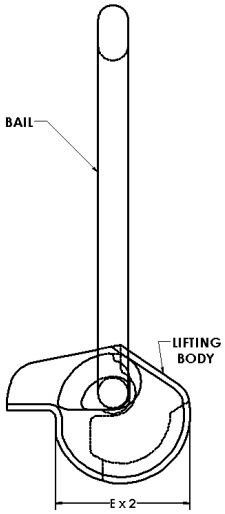
The Swift Lift System is available with safe load ratings of 1, 2, 4, 8 and 20 tons. Each component is clearly marked with its maximum safe working load. The System is extremely versatile and can be utilized for vertical and diagonal pulls. It can be used to lift concrete elements from a horizontal to a vertical position without the aid of a tilting table.

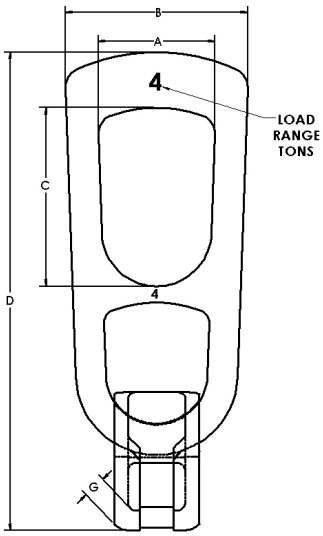
P50 Swift Lift® Universal Lifting Eye

The Swift Lift Universal Lifting Eye (P50) consists of a flat-sided, spherical lifting body and a high strength bail. The lifting body has a T-shaped slot that permits rapid attachment and release of the head on Swift Lift Anchors.

The design of the P50 Universal Lifting Eye permits the bail to freely rotate 180˚, while the complete lifting eye may rotate through a 360˚ arc. This design feature allows precast concrete elements to be turned, tilted and/or rotated under load.

Dayton Superior does not recommend the use of this lifting eye for edge lifting of thin precast concrete panels.





P50 Swift Lift Universal Lifting Eye Dimensions

Rated Load Tons	A	B	C	D	E x 2	H
1	2.9"	1.7"	2.8"	7.5"	2.20"	1.26"
2	3.5"	2.3"	3.3"	9.0"	2.68"	1.65"
4	4.6"	2.8"	3.5"	11.0"	3.46"	2.26"
8	6.3"	3.3"	4.4"	15.6"	4.40"	2.90"
20	7.3"	4.6"	5.9"	20.4"	5.98"	4.35"

The rated load provides a factor of safety of approximately 5 to 1 (ultimate to rated load).

P50 Inspection and Maintenance

The P50 Universal Lifting Eye may be subjected to wear, misuse, overloading and other factors that can affect the lifting eye's rated load. Therefore, it is imperative that the lifting eye be user-inspected at least once a month to determine its general condition and degree of wear.

During the user's monthly inspection, the lifting eye should be checked for evidence of heat application. If evidence of heat application is found, the unit must be scrapped. Check for a bent or twisted bail and discard all units found to have these flaws. Also, check to make certain that the bail rotates freely in all directions.

At least once every three months, dimensions "F" and "G" on each unit should be checked. The upper limits are shown in the chart. If either of these limits is exceeded, the P50 Universal Lifting Eye must be removed from service and destroyed.

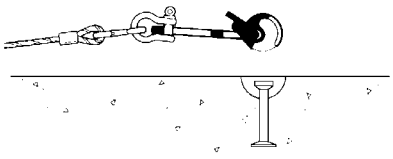
The proper method for scrapping a lifting eye is to cut through the bail with a cutting torch to render the unit useless as a lifting device.

No repairs or welding to the P50 Swift Lift Universal Lifting Eye are permitted.

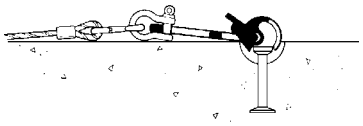
Limiting Dimensions on P50 Swift Lift Universal Lifting Eye

Rated Load (Tons)	F Maximum Width	G Minimum Thickness
1	0.56"	0.22"
2	0.76"	0.23"
4	1.02"	0.31"
8	1.31"	0.47"
20	1.86"	0.71"

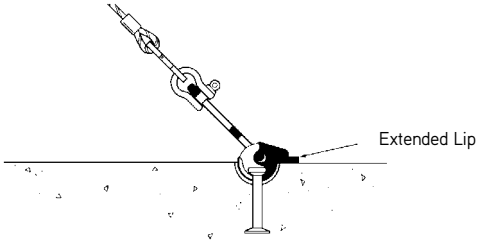
How to Use the P50 Swift Lift Universal Lifting Eye



1. To install the P50 lifting eye, hold the unit upside down with the T-shaped slot directly over the head of the Swift Lift anchor.

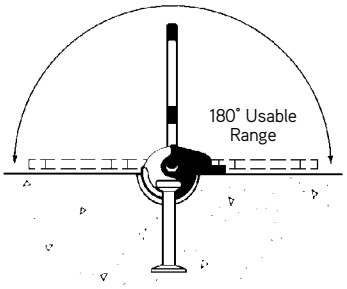


2. Lower the lifting eye down onto the anchor until the T slot engages the head of the anchor.

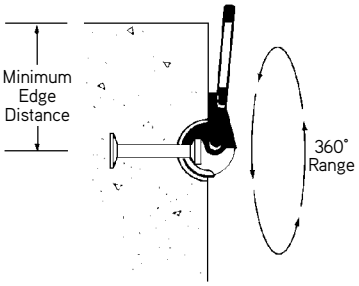


3. Rotate the lifting eye until the extended lip of the body touches the horizontal surface of the concrete.

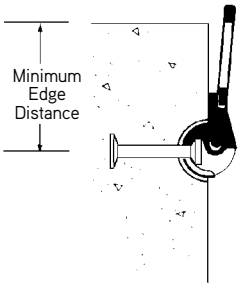
Note: Prior to lifting a precast element, apply an initial cable tension to make sure that the bail and body of the lifting eye are aligned in the direction of the cable pull.



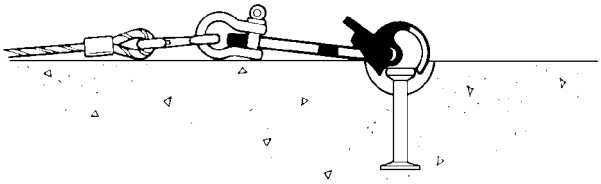
The bail of the P50 lifting eye can move through a 180° usable range.



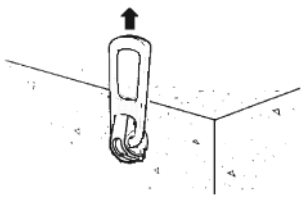
The main body of the lifting eye has a 360° rotational range.



The P50 lifting can be safely used with the T-shaped slot facing away from or toward the direction of the applied load.



To disengage the lifting eye, the crane hook is lowered and the body removed by rotating the extended lip upward.



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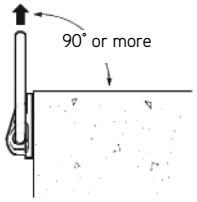

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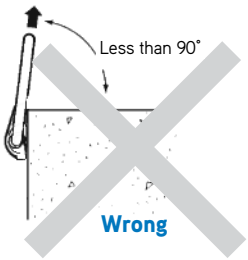


Wrong

Dos and Don'ts of the P50 Swift Lift Universal Lifting Eye

Prior to lifting a precast element, apply an initial cable tension to make certain that the bail and body of the lifting eye are aligned in the direction of the cable pull.

When applying the initial cable tension on edge lift applications, make sure that the cables are at a 90° angle (or larger) to the surface of the precast element.

Warning: Do not allow the crane lines to form an angle less than 90° during an edge lift application. This condition can bend the lifting eye bail and could lead to a premature failure.

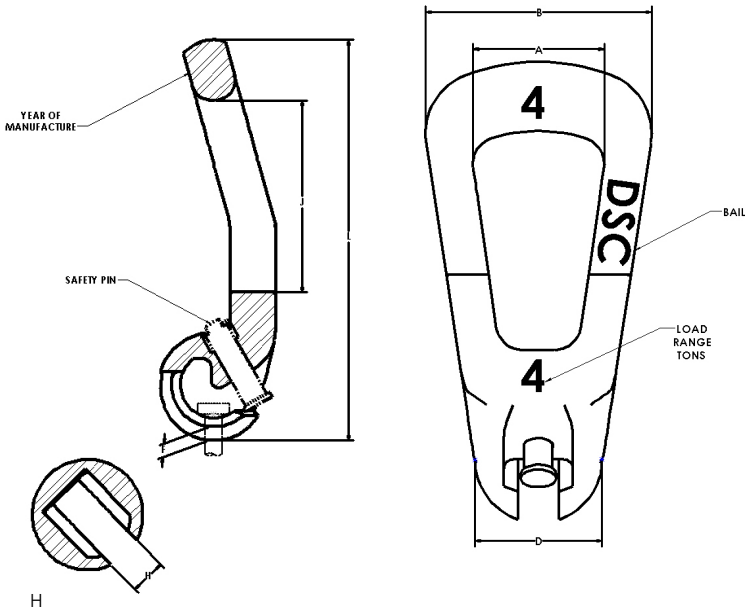
Warning: The crane line and bail of the lifting hardware must be turned in the direction of the cable forces before the lifting operation begins. The crane line must not be allowed to apply a sideward force on the bail. This condition is dangerous and could lead to premature failure of the hardware or insert.

Warning: Do not modify, weld or alter in any way the Swift Lift Universal Lifting Eye.

P51 Swift Lift® Lifting Eye

The P51 Swift Lift Lifting eye is a high quality, high strength steel casting. Its ball-shaped lower end fits into the void formed in the concrete and engages the spherical head of the anchor. Attachment to the anchor head can only be made when the lifting eye is positioned with its front face toward the concrete. In the working position, release is impossible. Accidental disengagement is prevented by a gravity-action safety pin that must be raised before the Lifting Eye can be removed.

The P51 Swift Lift Lifting Eye is available with safe working loads of 1, 2, 4 and 8 tons. It is extremely versatile in use, being suitable for vertical pull or diagonal pull. The Lifting Eye rotates freely (360°) about the vertical axis of the anchor. Each unit is clearly marked with its MAXIMUM safe working load.



P51 Swift Lift Lifting Eye Dimensions

Rated Load Tons	A	B	D	J	L
2	2.63	4.53	2.36	3.74	8.43
4	3.02	5.13	2.83	4.96	10.35
8	3.53	5.98	3.70	5.60	12.87

Safe Working Load provides a factor of safety of approximately 5 to 1.

Inspection and Maintenance

While appreciable wear does not normally occur, the P51 Swift Lift Lifting Eye may be subjected to wear, misuse, overloading and other factors that may affect the lifting eye's rated load. Therefore, the user must inspect lifting eyes at least once a month to determine general condition, degree of wear and any evidence of heat application.

If evidence of heat application is found, the unit must be destroyed. In addition, check to make certain that the bail is not bent or twisted. Destroy all units that have a bent or twisted bail.

Limiting Dimensions on P51 Swift Lift Lifting Eye

Rated Load (Tons)	H (Maximum)
2	0.759"
4	1.034"
8	1.310"

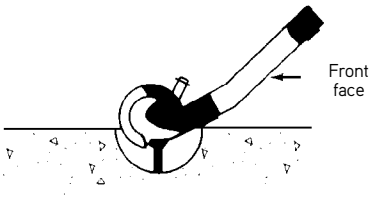
Check the safety pin; missing pins must be replaced. Make sure the safety pin is in good condition and moves freely at all times. At least once every three months, dimension "G" on each unit should be checked. The upper limits are shown in the chart. If either of these limits is exceeded, the Swift Lift Lifting Eye must be removed from service and destroyed.

The proper method to use in destroying a lifting eye is to cut through the bail with a cutting torch. Other than replacing the safety pin, no repairs to the P51 Swift Lift Lifting Eye are permitted. In particular, welding is not permitted.

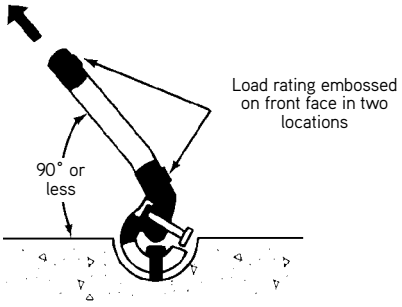
How to Install The P51 Swift Lift® Lifting Eye

To engage the P51 Swift Lift Lifting Eye on the head of the Swift Lift Anchor, position the P51 Swift Lift Lifting Eye so that the front face is toward the concrete, then raise the Swift Lift Lifting Eye into the working position and engage the lifting hook. The safety pin will drop into position to prevent accidental release of the Swift Lift Lifting Eye.

For inclined pulls, the front face of the P51 Swift Lift Lifting Eye, which indicates the rated load of the lifting eye, must always be facing away from the concrete surface. This must be checked immediately before the lifting operation begins.

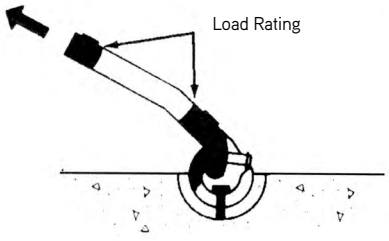


Initial positioning of the P51 Swift Lift Lifting Eye onto the Swift Lift Anchor



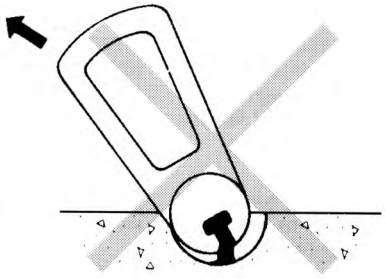
Working position for lifting of a precast concrete element

Warning: If the P51 Swift Lift Lifting Eye is used when its relative position is 90° or 180° from its correct position, the P52 Swift Lift Anchor will be overloaded and may result in a premature failure.



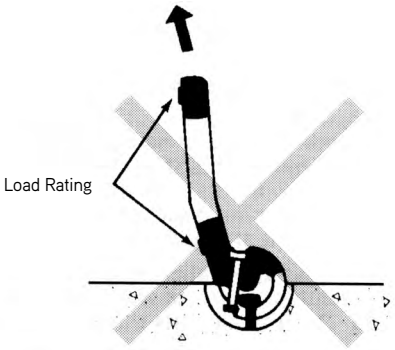
Correct position
(Normal position)

Right



Incorrect position
(90° out of position)

Wrong



Incorrect position
(180° out of position)

Wrong

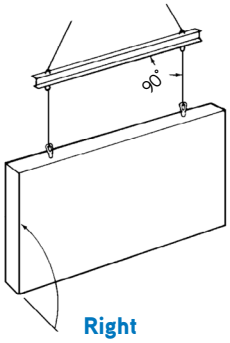
Note: Do not use the lifting eye in this manner as it could bend and/or break the safety pin, allowing the lifting eye to pull off the Swift Lift Anchor. Never use lifting eye without a safety pin in place.

How to use the P51 Swift Lift® Lifting Eye

When the P51 Swift LIft Lifting Eye's position is changed from a diagonal pull to a vertical pull relative to the anchor axis, all movements are permissible, even with simultaneous rotation.

If the Swift Lift Anchor is positioned in a relatively thin panel, movement of the P51 Swift Lift Lifting Eye under load from the vertical to an inclined position relative to the axis of the anchor (such as laying down a panel with edge inserts as shown in 1 below) is NOT PERMITTED due to excessive friction. This friction causes binding of the ball end of the P51 Swift Lift Lifting Eye, and when the friction is overcome, the resultant sudden movement causes high impact stresses on the surrounding concrete. As an aid in reducing friction, apply a soap solution to the void formed by the recess plug.

The above maneuver can be accomplished when the proper rigging is used. The fleet angle between the slings must be between 90˚ and 120˚. In this manner, precast concrete shapes can be placed from the vertical to the horizontal.



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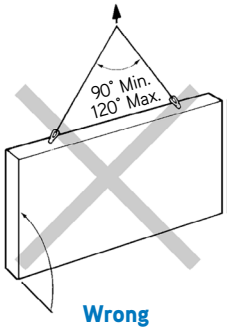
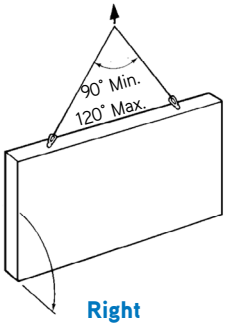


Wrong

1. Maneuvering from horizontal to vertical with edge anchors



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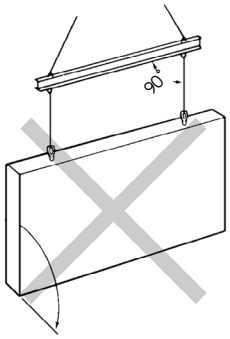
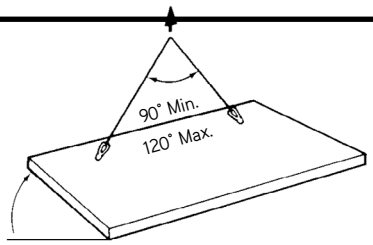


Wrong

2. Maneuvering from vertical to horizontal with edge anchors
   Note: To reduce friction between the Swift Lift Lifting Eye and the concrete, apply a soap solution to the cavity formed by the recess plug.



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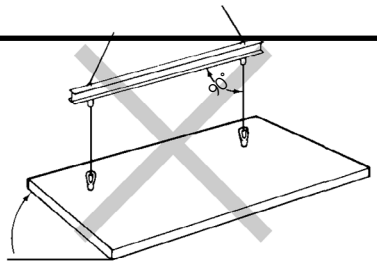
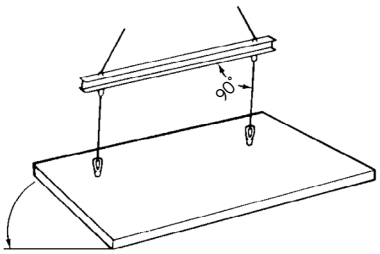


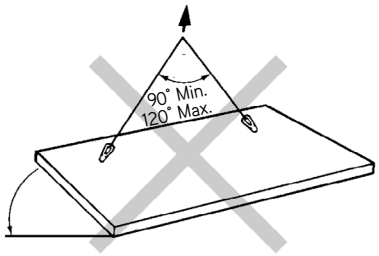
Wrong

3. Maneuvering from horizontal to vertical with face anchors
   Note: To reduce friction between the Swift Lift Lifting Eye and the concrete, apply a soap solution to the cavity formed by the recess plug.



Right

4. Maneuvering from vertical to horizontal with face anchors



Wrong

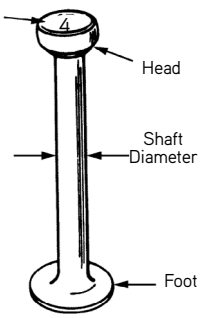
P52 Swift Lift® Anchor

The P52 Swift Lift Anchor is hot forged from carbon steel. The formed head provides spherical seating that the Lifting Eye engages, while a disc-shaped foot is embedded in the concrete.

Due to its being a forged part, the Swift Lift Anchor does not depend on welds or thread engagement to develop its safe working load. Forging provides maximum safety with its advantageous material structure. This allows the anchor to easily meet the OSHA requirement of a 4 to 1 factor of safety.

In addition to the carbon steel anchors, Type 304 or 316 Stainless Steel Swift Lift Anchors are available on special order. Use stainless steel anchors when maximum protection against corrosion is required.

For safety, refer to the P52 Swift Lift Anchor Selection Table to determine the actual safe working load of an individual anchor. The MAXIMUM safe working load is clearly visible on the head of the anchor for easy recognition of the appropriate hardware and accessories for-use with each Swift Lift Anchor.



Caution: The Swift Lift Anchor is designed to be used with Dayton Superior components. Failure to use this combination may result in concrete spalling or premature failure.

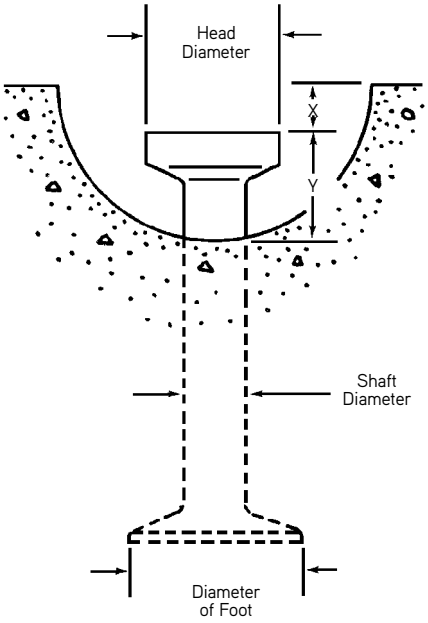
To Order:

Specify: (1) quantity, (2) name, (3) system size, (4) length

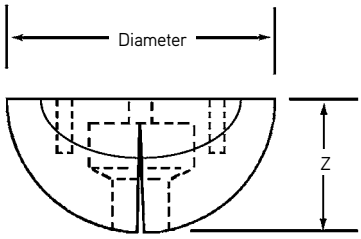
Example:

200, P52 Swift Lift Anchors, 4 ton, 9-1/2" long

P52 Swift Lift Anchor and Recess Plug Dimensions



P52 Swift Lift Anchor



Swift Lift Round Recess Plug

Swift Lift Round Recess Plug Dimensions

Swift Lift Anchor	Diameter of Recess Plug	Dimension Z
1 Ton	2-7/16"	1-3/16"
2 Tons	3-5/16"	1-7/16"
4 Tons	4"	1-13/16"
8 Tons	5"	2-5/16"
20 Tons	6-3/8"	3-1/8"

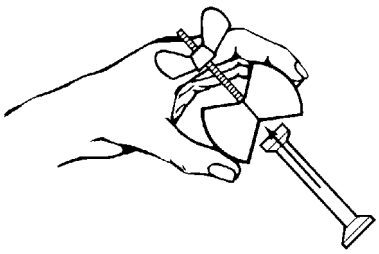
Note: The diameter of the narrow recess plug is the same as the diameter of the round recess plug.

P52 Swift Lift Anchor Dimensions

Swift Lift Anchor	Dimension X	Dimension Y	Shaft Diameter	Foot Diameter	Head Diameter
1 Ton	5/16"	7/8"	3/8"	1"	11/16"
2 Tons	7/16"	1-1/16"	9/16"	1-3/8"	1-1/32"
4 Tons	9/16"	1-5/16"	3/4"	1-7/8"	1-11/32"
8 Tons	9/16"	1-5/8"	1-3/32"	2-5/8"	1-7/8"
20 Tons	9/16"	2-5/8"	1-1/2"	3-3/4"	2-3/4"

How to Install P56 and P56PL Recess Plugs on P52 Anchors

Grasp the recess plug firmly across the top diameter of the plug. Application of pressure by the thumb and fingers on the outer edge of the plug will cause the plug to open up to allow insertion of the anchor.

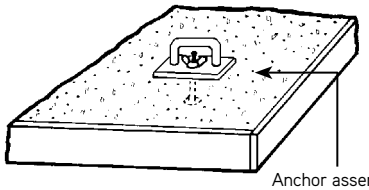


"Wet Setting" P52 Swift Lift Face Lift Anchors

When a Swift Lift anchor is to be positioned in the top surface of a flat precast section, wet setting the anchor is best done immediately after the concrete has been placed.

The anchor/recess plug assembly is attached to a small template board and pressed into the fresh concrete until the template board lies flush on the surface of the concrete.

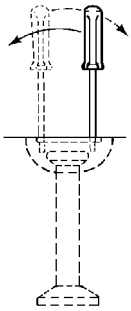
Light vibration of the fresh concrete will assure proper embedment and anchorage.



Anchor assembly attached to template board

Recess Plug Removal

Swift Lift recess plugs provide two holes in the top surface that are used in the removal process. Insert two screw drivers or steel rods into the holes and simply lever the two across the plug for easy removal.



Selecting the Proper Swift Lift Anchor

Determination of the required rated load and length of a P52 Swift Lift Anchor is based on the actual maximum load that is transferred to the anchor. In most cases, a flat slab can be handled with the anchors properly located in the face of the flat slab. The anchors should normally be the maximum length that can be accommodated in the slab's structural thickness, allowing at least 1/2" clearance between the anchor and the casting bed. Dimension tables and safe working load charts, contained herein, will aid in the selection of the proper anchor. Keep in mind that the safe working load of an anchor is a function of several factors:

1. The effective concrete thickness
2. Actual edge distance
3. Concrete compressive strength at time of lift
4. Anchor length
5. In some applications, the use of a shear bar

P52 Swift Lift® Anchor Tensile and Shear Capacity

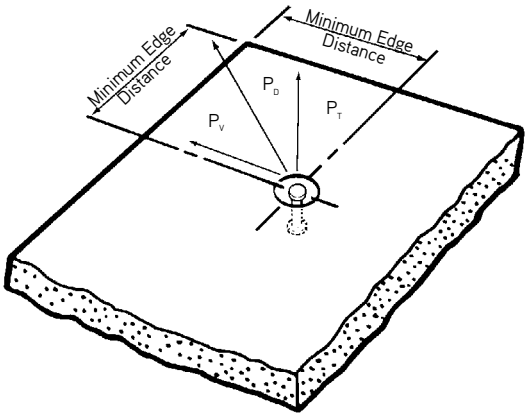
When anchors are used in the face of thin concrete elements

The following table lists the P52 Swift Lift Anchors that are currently manufactured. Other sizes and lengths are available on special order. However, the sizes and lengths of anchors shown will handle the majority of flat precast concrete elements.

When the P52 Swift Lift Anchor is properly embedded in normal weight concrete, the tabulated working loads are applicable for any direction of load. This applies even if the direction of load is parallel to the axis of the anchor, perpendicular to it or at any other angle.

Minimum distance between anchors is twice the minimum edge distance.

It is critical to remember that in order to obtain the safe working loads listed in the table below, the normal weight concrete must have obtained the minimum concrete strength shown, prior to initial load application.



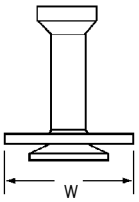
Capacity x Length	SWL at Concrete Strength			Minimum Edge Distance
	1600 psi	3500 psi	5000 psi	
1 ton x 2-5/8 in	1,149 lbs	1,700 lbs	2,000 lbs	8 in
1 ton x 3-3/8 in	1,705 lbs	2,000 lbs	2,000 lbs	10 in
1 ton x 4-3/4 in	2,000 lbs	2,000 lbs	2,000 lbs	10 in
1 ton x 8 in	2,000 lbs	2,000 lbs	2,000 lbs	10 in
1 ton x 9-1/2 in	2,000 lbs	2,000 lbs	2,000 lbs	10 in
2 ton x 2-3/4 in	1,420 lbs	2,100 lbs	2,510 lbs	8 in
2 ton x 3-3/8 in	1,960 lbs	2,900 lbs	3,466 lbs	10 in
2 ton x 4-3/4 in	2,704 lbs	4,000 lbs	4,000 lbs	10 in
2 ton x 5-1/2 in	4,000 lbs	4,000 lbs	4,000 lbs	13 in
2 ton x 6 in	4,000 lbs	4,000 lbs	4,000 lbs	13 in
2 ton x 6-3/4 in	4,000 lbs	4,000 lbs	4,000 lbs	13 in
2 ton x 11 in	4,000 lbs	4,000 lbs	4,000 lbs	14 in
4 ton x 2-1/2 in	1,420 lbs	2,100 lbs	2,510 lbs	8 in
4 ton x 3 in	1,902 lbs	2,811 lbs	3,360 lbs	8 in
4 ton x 3-1/2 in	2,427 lbs	3,589 lbs	4,290 lbs	10 in
4 ton x 3-3/4 in	2,704 lbs	4,000 lbs	4,780 lbs	12 in
4 ton x 4-1/4 in	3,313 lbs	4,900 lbs	5,856 lbs	13 in
4 ton x 4-3/4 in	3,921 lbs	5,800 lbs	6,932 lbs	14 in
4 ton x 5-1/2 in	5,003 lbs	7,400 lbs	8,000 lbs	17 in
4 ton x 5-3/4 in	5,341 lbs	7,900 lbs	8,000 lbs	17 in
4 ton x 7-1/8 in	7,591 lbs	8,000 lbs	8,000 lbs	20 in
4 ton x 9-1/2 in	8,000 lbs	8,000 lbs	8,000 lbs	17 in
4 ton x 14 in	8,000 lbs	8,000 lbs	8,000 lbs	18 in
4 ton x 19 in	8,000 lbs	8,000 lbs	8,000 lbs	20 in
8 ton x 4-3/4 in	4,327 lbs	6,400 lbs	7,649 lbs	16 in
8 ton x 5-1/4 in	4,631 lbs	6,850 lbs	8,187 lbs	16 in
8 ton x 6-3/4 in	7,572 lbs	11,200 lbs	13,386 lbs	21 in
8 ton x 8-7/8 in	9,500 lbs	14,500 lbs	16,000 lbs	24 in
8 ton x 10 in	12,800 lbs	16,000 lbs	16,000 lbs	24 in
8 ton x 13-3/8 in	16,000 lbs	16,000 lbs	16,000 lbs	24 in
8 ton x 26-3/4 in	16,000 lbs	16,000 lbs	16,000 lbs	27 in
20 ton x 10 in	16,905 lbs	25,000 lbs	29,880 lbs	24 in
20 ton x 19-3/4 in	27,044 lbs	40,000 lbs	40,000 lbs	31 in

SWL's Provide a factor of safety of approximatley 4 to 1 in normal weight concrete. Safe Working Load is based on anchor setback from face of concrete "X" dimension, as shown on page 26.

P52W Swift Lift® Anchor

The P52W Swift Lift Anchors are the shortest 2-ton and 4-ton Swift Lift Anchors available and have been specially modified. A Type W Plain Washer is placed on the anchor's foot and welded in position. This modification has been made in order to increase the Safe Working Load of these short Swift Lift Anchors in thin precast concrete elements.

Safe Working Load provides a factor of safety of approximately 4 to 1.



To Order:

Specify: (1) quantity, (2) name, (3) system size.

Example:

200, P52W Swift Lift Anchors, 2 ton.

Swift Lift Anchor Tons x Length	Safe Working Load	Minimum Concrete Strength	Minimum Thickness	W
2 tons x 2-3/4"	3,700 lbs.	3,500 psi	5"	2-1/2"
4 tons x 3-3/4"	5,700 lbs.	3,500 psi	5"	2-3/4"

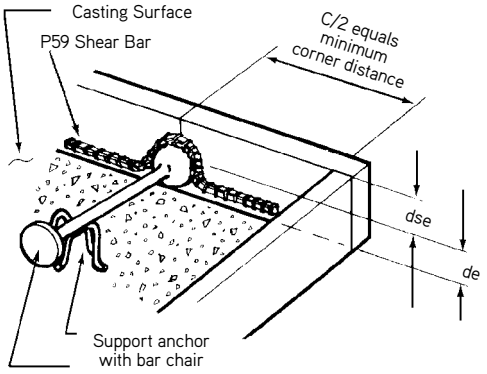
P52 Swift Lift Anchors for Edge Lifting

The P52 Swift Lift Anchors and P51 Swift Lift Lifting Eyes are useful for raising precast concrete panels from their horizontal casting position to a vertical position for handling and shipping. When Swift Lift Anchors are used in thin precast panels and under shear loading conditions, a special shear bar must be used.

The applied shear load tends to bend the anchor, allowing the lifting eye to apply load to the thin concrete section above the recess plug. A properly installed shear bar captures the applied load and transfers it deeper into the concrete.

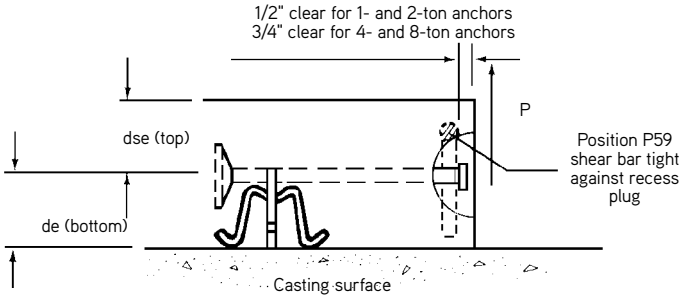
When raising precast panels from a horizontal position to a vertical position, always check both shear and tension safe working loads. In order to develop the anchor's shear safe working load, the minimum spacing between Swift Lift Anchors is two times the corner distance listed.

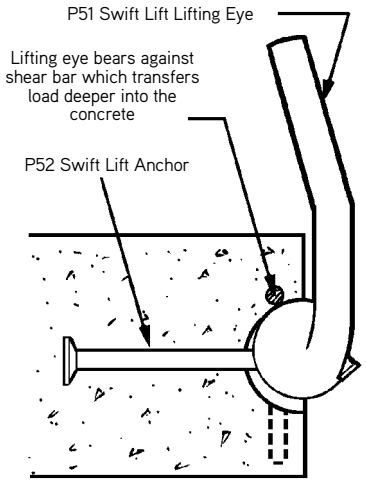
Note: Properly installed shear bars are required to develop Safe Working Loads shown. 2 x de equals effective wall thickness for tensile loads.



P52 Swift Lift Anchor

Note: See Shear Bar Table on page 30.



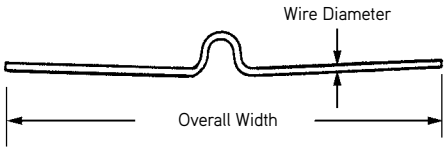


Section View of Swift Lift Assembly

P59 Swift Lift® Shear Bar
P59 Swift Lift® Smooth Wire Shear Bar

Dayton Superior Swift Lift Shear Bars (P59) are utilized when edge lifting precast elements. The shear bar is secured tightly to the recess plug and at the time of lift helps to transfer the shear load deeper into the concrete. The P59 Smooth Wire Shear Bar is designed to snap into the built-in clips on the P54 recess plug. The standard shear bar is fabricated from rebar and must be securely wired tightly to the Swift Lift recess plugs.

P59 Swift Lift Shear Bar



P59 Swift Lift Smooth Wire Shear Bar
2-Ton and 4-Ton
When used with P54 Throw-Away Recess Plug

To Order:

Specify: (1) quantity, (2) name, (3) system size.

Example:

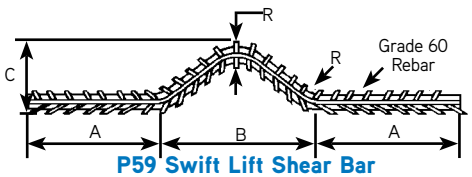
200, P59 Swift Lift Shear Bars, 4-Ton.

Anchor Safe Working Load	Shear Bar Type	Overall Width	Minimum Anchor Length	Wall Thickness	Minimum Corner Distance	Safe Working Load
1	Rebar	19"	4-3/4"	5'	15"	1,750 lbs.
1	Rebar	19"	4-3/4"	5-1/2"	16"	2,000 lbs.
1	Wire	19"	4-3/4"	6"	17"	2,000 lbs.
2	Wire	24"	6-3/4"	5'	15"	1,750 lbs.
2	Wire	24"	6-3/4"	5-1/2"	16"	2,200 lbs.
2	Wire	24"	6-3/4"	6"	17"	2,600 lbs.
2	Wire	24"	6-3/4"	7'	19"	2,700 lbs.
2	Wire	24"	6-3/4"	8"	21"	2,800 lbs.
4	Wire	30"	9-1/2"	5-1/2"	16"	2,100 lbs.
4	Wire	30"	9-1/2"	6"	17"	2,200 lbs.
4	Wire	30"	9-1/2"	7"	19"	2,600 lbs.
4	Wire	30"	9-1/2"	8"	21"	2,800 lbs.
8	Rebar	34"	13-3/8"	8"	19"	5,600 lbs.
8	Rebar	34"	13-3/8"	9"	21"	6,700 lbs.
20	Rebar	40"				

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

P59 Shear Bar Dimensions

Anchor Rated Load (Tons)	A	B	C	R	Rebar Size
1	7" 178 mm	5" 127 mm	2-1/2" 64 mm	1" 25 mm	#4 #10M
2	9" 229 mm	7" 178 mm	3" 76 mm	1-7/16" 37 mm	#4 #10M
4	10" 254 mm	9" 229 mm	3-3/4" 95 mm	1-3/4" 44 mm	#4 #10M
8	12" 305 mm	10" 254 mm	3-3/4" 95 mm	2-1/4" 57 mm	#6 #20M
20	15" 380 mm	10" 254 mm	4-1/2" 76mm	3" 76 mm	#8

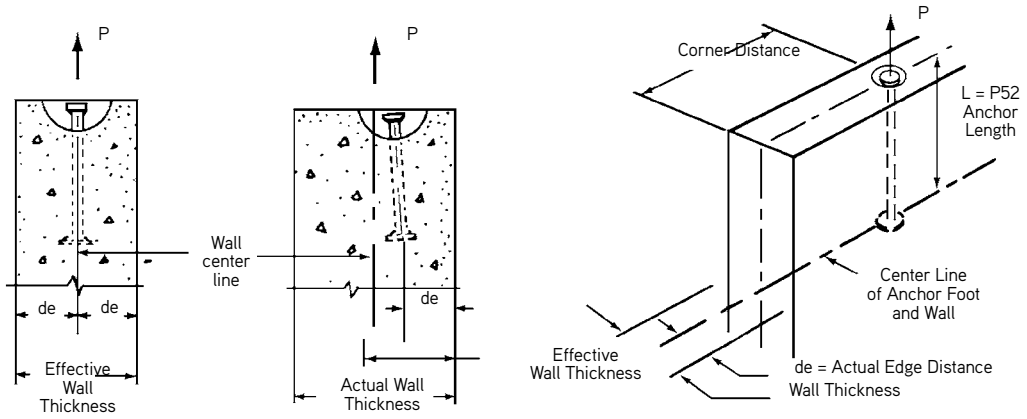


P59 Swift Lift Shear Bar

P52 Swift Lift® Anchor in Thin Walls

The P52 Swift Lift Anchors, listed below, must be located the minimum distance away from a corner with the anchor foot being positioned at the center line of the wall. The anchor head location may be off center, however, any eccentricity of the foot will result in a reduction of the safe working load. When the anchor foot is not positioned at the center line of the wall, the effective wall thickness is equal to twice the actual edge distance.

To develop the safe working load of the P52 Swift Lift Anchor, the minimum spacing between two anchors is six times the anchor length.



Swift Lift® Anchor Effective Tensile Capacity in Thin Walls

Swift Lift Anchor Ton x Length	Effective Wall Thicness 2 de	Actual Edge Distance de	Tensile Safe Working Load per Anchor Actual Corner Distance				
			6"	12"	18"	24"	30"
1 Ton x 4-3/4" Long	2-1/2"	1-1/4"	900 lbs.	1,100 lbs.	1,200 lbs.	1,200 lbs.	1,200 lbs.
	2-3/4"	1-3/8"	1,000 lbs.	1,200 lbs.	1,300 lbs.	1,300 lbs.	1,300 lbs.
	3"	1-1/2"	1,100 lbs.	1,300 lbs.	1,400 lbs.	1,400 lbs.	1,400 lbs.
	3-1/2"	1-3/4"	1,200 lbs.	1,600 lbs.	1,600 lbs.	1,600 lbs.	1,600 lbs.
	4"	2"	1,450 lbs.	1,800 lbs.	1,900 lbs.	1,900 lbs.	1,900 lbs.
	4-1/2"	2-1/4"	1,600 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.
1 Ton x 9-1/2" Long	2-1/2"	1-1/4"	1,300 lbs.	1,700 lbs.	1,900 lbs.	1,900 lbs.	1,900 lbs.
	2-3/4"	1-3/8"	1,400 lbs.	1,900 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.
	3"	1-1/2"	1,500 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.
	3-1/2"	1-3/4"	1,800 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.
	4"	2"	2,000 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.
	4-1/2"	2-1/4"	2,000 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

Swift Lift® Anchor Effective Tensile Capacity in Thin Walls

Swift Lift Anchor Tons x Length	Effective Wall Thickness 2de	Actual Edge Distance de	Tensile Safe Working Load Per Anchor				
			Actual Corner Distance				
			8"	12"	18"	24"	30"
2 Tons x 6-3/4" Long	3"	1-1/2"	1,500 lbs.	1,700 lbs.	2,000 lbs.	2,000 lbs.	2,000 lbs.
	3-1/4"	1-5/8"	1,600 lbs.	1,900 lbs.	2,100 lbs.	2,200 lbs.	2,200 lbs.
	3-1/2"	1-3/4"	1,700 lbs.	2,000 lbs.	2,300 lbs.	2,300 lbs.	2,300 lbs.
	4"	2"	2,000 lbs.	2,300 lbs.	2,600 lbs.	2,700 lbs.	2,700 lbs.
	5"	2-1/2"	2,500 lbs.	2,900 lbs.	3,300 lbs.	3,400 lbs.	3,400 lbs.
	6"	3"	3,000 lbs.	3,500 lbs.	4,000 lbs.	4,000 lbs.	4,000 lbs.
2 Tons x 11" Long	3"	1-1/2"	1,900 lbs.	2,300 lbs.	2,700 lbs.	3,000 lbs.	3,200 lbs.
	3-1/4"	1-5/8"	2,100 lbs.	2,500 lbs.	3,000 lbs.	3,300 lbs.	3,500 lbs.
	3-1/2"	1-3/4"	2,200 lbs.	2,700 lbs.	3,200 lbs.	3,500 lbs.	3,700 lbs.
	4"	2"	2,500 lbs.	3,100 lbs.	3,700 lbs.	4,000 lbs.	4,000 lbs.
	5"	2-1/2"	3,200 lbs.	3,900 lbs.	4,000 lbs.	4,000 lbs.	4,000 lbs.
	6"	3"	3,800 lbs.	4,000 lbs.	4,000 lbs.	4,000 lbs.	4,000 lbs.

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

Swift Lift Anchor Tons x Length	Effective Wall Thickness 2de	Actual Edge Distance de	Tensile Safe Working Load Per Anchor				
			Actual Corner Distance				
			10"	16"	24"	30"	42"
4 Tons x 9-1/2" Long	3-3/4"	1-7/8"	2,500 lbs.	3,000 lbs.	3,300 lbs.	3,400 lbs.	3,500 lbs.
	4"	2"	2,600 lbs.	3,200 lbs.	3,500 lbs.	3,700 lbs.	3,800 lbs.
	5"	2-1/2"	3,300 lbs.	4,000 lbs.	4,400 lbs.	4,600 lbs.	4,700 lbs.
	6"	3"	4,000 lbs.	4,800 lbs.	5,300 lbs.	5,500 lbs.	5,700 lbs.
	7"	3-1/2"	4,700 lbs.	5,600 lbs.	6,200 lbs.	6,500 lbs.	6,600 lbs.
	8"	4"	5,300 lbs.	6,400 lbs.	7,000 lbs.	7,400 lbs.	7,600 lbs.
4 Tons x 19" Long	3-3/4"	1-7/8"	3,500 lbs.	4,300 lbs.	4,900 lbs.	5,300 lbs.	5,800 lbs.
	4"	2"	3,800 lbs.	4,600 lbs.	5,300 lbs.	5,700 lbs.	6,200 lbs.
	5"	2-1/2"	4,700 lbs.	5,700 lbs.	6,600 lbs.	7,100 lbs.	7,800 lbs.
	6"	3"	5,700 lbs.	6,900 lbs.	7,900 lbs.	8,000 lbs.	8,000 lbs.
	7"	3-1/2"	6,600 lbs.	8,000 lbs.	8,000 lbs.	8,000 lbs.	8,000 lbs.
	8"	4"	7,600 lbs.	8,000 lbs	8,000 lbs.	8,000 lbs.	8,000 lbs.

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

Swift Lift® Anchor Effective Tensile Capacity in Thin Walls

Swift Lift Anchor Tons x Length	Effective Wall Thickness 2de	Actual Edge Distance de	Tensile Safe Working Load Per Anchor				
			Actual Corner Distance				
			12"	18"	24"	36"	45"
8 Tons x 13-3/8" Long	4-3/4"	2-3/8"	4,000 lbs.	4,800 lbs.	5,400 lbs.	6,000 lbs.	6,100 lbs.
	5"	2-1/2"	4,200 lbs.	5,100 lbs.	5,700 lbs.	6,300 lbs.	6,400 lbs.
	6"	3"	5,100 lbs.	6,100 lbs.	6,800 lbs.	7,500 lbs.	7,600 lbs.
	7"	3-1/2"	5,900 lbs.	7,100 lbs.	8,000 lbs.	8,800 lbs.	8,900 lbs.
	8"	4"	6,800 lbs.	8,100 lbs.	9,100 lbs.	10,100 lbs.	10,200 lbs.
	10"	5"	8,500 lbs.	10,200 lbs.	11,400 lbs.	12,600 lbs.	12,700 lbs.
	12"	6"	10,200 lbs.	12,200 lbs.	13,700 lbs.	15,100 lbs.	15,200 lbs.
8 Tons x 26-3/4" Long	4-3/4"	2-3/8"	5,800 lbs.	7,000 lbs.	8,000 lbs.	9,600 lbs.	11,200 lbs.
	5"	2-1/2"	6,100 lbs.	7,400 lbs.	8,500 lbs.	10,100 lbs.	11,800 lbs.
	6"	3"	7,300 lbs.	8,900 lbs.	9,500 lbs.	12,100 lbs.	14,100 lbs.
	7"	3-1/2"	8,500 lbs.	10,300 lbs.	11,800 lbs.	14,200 lbs.	16,000 lbs.
	8"	4"	9,700 lbs.	11,800 lbs.	13,500 lbs.	16,000 lbs.	16,000 lbs.
	10"	5"	12,100 lbs.	14,800 lbs.	16,000 lbs.	16,000 lbs.	16,000 lbs.
	12"	6"	14,500 lbs.	16,000 lbs.	16,000 lbs.	16,000 lbs.	16,000 lbs.

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

Swift Lift Anchor Tons x Length	Effective Wall Thickness 2de	Actual Edge Distance de	Tensile Safe Working Load Per Anchor				
			Actual Corner Distance				
			10"	16"	24"	30"	42"
20 Tons x 19-3/4" Long	6-1/2"	3-1/4"	6,200 lbs.	7,500 lbs.	9,400 lbs.	10,300 lbs.	11,500 lbs.
	7"	3-1/2"	6,700 lbs.	8,100 lbs.	10,100 lbs.	11,100 lbs.	12,400 lbs.
	8"	4"	7,600 lbs.	8,900 lbs.	11,500 lbs.	12,600 lbs.	14,200 lbs.
	10"	5"	9,500 lbs.	11,600 lbs.	14,400 lbs.	15,800 lbs.	17,700 lbs.
	12"	6"	11,500 lbs.	14,000 lbs.	17,300 lbs.	19,000 lbs.	22,000 lbs.
	14"	7"	13,400 lbs	16,300 lbs.	20,100 lbs.	22,100 lbs.	24,800 lbs.

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

To recalculate the safe working load when the anchor is used in a lower strength concrete, multiply the tabulated Safe Working Load by the following reduction factors:

Concrete Strength	Reduction Factor
2,000 psi	.66
2,500 psi	.74
3,000 psi	.81
3,500 psi	.88
4,000 psi	.94
4,500 psi	1.00

Swift Lift® Anchor Effective Tensile Capacity

When anchors are used in groups and in thin walls

Swift Lift Anchor Tons x Length	Effective Wall Thickness 2de	Actual Edge Distance de	Tensile Safe Working Load Per Anchor				
			Actual Spacing Between Anchors				
			18"	24"	30"	36"	48"
2 Tons x 6-3/4" Long	3"	1-1/2"	1,200 lbs.	1,500 lbs.	1,800 lbs.	1,900 lbs.	2,000 lbs.
	3-1/4"	1-5/8"	1,300 lbs.	1,700 lbs.	1,900 lbs.	2,100 lbs.	2,200 lbs.
	3-1/2"	1-3/4"	1,400 lbs.	1,800 lbs.	2,100 lbs.	2,300 lbs.	2,400 lbs.
	4"	2"	1,600 lbs.	2,100 lbs.	2,400 lbs.	2,600 lbs.	2,700 lbs.
	5"	2-1/2"	2,000 lbs.	2,600 lbs.	3,000 lbs.	3,200 lbs.	3,400 lbs.
	6"	3"	2,500 lbs.	3,100 lbs.	3,600 lbs.	3,900 lbs.	4,000 lbs.
2 Tons x 11" Long	3"	1-1/2"	1,300 lbs.	1,700 lbs.	2,000 lbs.	2,300 lbs.	2,900 lbs.
	3-1/4"	1-5/8"	1,400 lbs.	1,800 lbs.	2,200 lbs.	2,500 lbs.	3,100 lbs.
	3-1/2"	1-3/4"	1,500 lbs.	1,900 lbs.	2,400 lbs.	2,700 lbs.	3,300 lbs.
	4"	2"	1,700 lbs.	2,200 lbs.	2,700 lbs.	3,100 lbs.	3,800 lbs.
	5"	2-1/2"	2,100 lbs.	2,800 lbs.	3,400 lbs.	3,900 lbs.	4,000 lbs.
	6"	3"	2,600 lbs.	3,400 lbs.	4,000 lbs.	4,000 lbs.	4,000 lbs.

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

Swift Lift Anchor Tons x Length	Effective Wall Thickness 2de	Actual Edge Distance de	Tensile Safe Working Load Per Anchor				
			Actual Spacing Between Anchors				
			18"	24"	36"	48"	60"
4 Tons x 9-1/2" Long	3-3/4"	1-7/8"	1,600 lbs.	2,000 lbs.	2,800 lbs.	3,300 lbs.	3,500 lbs.
	4"	2"	1,700 lbs.	2,200 lbs.	3,000 lbs.	3,600 lbs.	3,800 lbs.
	5"	2-1/2"	2,100 lbs.	2,700 lbs.	3,800 lbs.	4,500 lbs.	4,700 lbs.
	6"	3"	2,500 lbs.	3,300 lbs.	4,600 lbs.	5,400 lbs.	5,700 lbs.
	7"	3-1/2"	3,000 lbs.	3,900 lbs.	5,300 lbs.	6,300 lbs.	6,700 lbs.
	8"	4"	3,400 lbs.	4,400 lbs.	6,100 lbs.	7,200 lbs.	7,600 lbs.
4 Tons x 19" Long	3-3/4"	1-7/8"	1,600 lbs.	2,200 lbs.	3,200 lbs.	4,100 lbs.	5,000 lbs.
	4"	2"	1,700 lbs.	2,300 lbs.	3,400 lbs.	4,400 lbs.	5,300 lbs.
	5"	2-1/2"	2,200 lbs.	2,900 lbs.	4,300 lbs.	5,500 lbs.	6,600 lbs.
	6"	3"	2,600 lbs.	3,500 lbs.	5,100 lbs.	6,600 lbs.	8,000 lbs.
	7"	3-1/2"	3,100 lbs.	4,100 lbs.	6,000 lbs.	7,700 lbs.	8,000 lbs.
	8"	4"	3,500 lbs.	4,500 lbs.	6,800 lbs.	8,000 lbs.	8,000 lbs.

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

Swift Lift® Anchor Effective Tensile Capacity

When anchors are used in groups and in thin walls

Swift Lift Anchor Tons x Length	Effective Wall Thickness 2de	Actual Edge Distance de	Tensile Safe Working Load Per Anchor				
			Actual Spacing Between Anchors				
			12"	18"	24"	36"	45"
8 Tons x 13-3/8" Long	4-3/4"	2-3/8"	2,800 lbs.	3,600 lbs.	4,800 lbs.	5,300 lbs.	5,300 lbs.
	5"	2-1/2"	2,900 lbs.	3,800 lbs.	5,000 lbs.	5,600 lbs.	5,600 lbs.
	6"	3"	3,500 lbs.	4,500 lbs.	6,000 lbs.	6,700 lbs.	6,700 lbs.
	7"	3-1/2"	4,100 lbs.	5,300 lbs.	7,100 lbs.	7,800 lbs.	7,800 lbs.
	8"	4"	4,700 lbs.	6,000 lbs.	8,100 lbs.	8,900 lbs.	8,900 lbs.
	10"	5"	5,900 lbs.	7,500 lbs.	10,100 lbs.	11,200 lbs.	11,200 lbs.
	12"	5-1/2"	6,500 lbs.	8,300 lbs.	11,000 lbs.	12,300 lbs.	12,300 lbs.
8 Tons x 26-3/4" Long	4-3/4"	2-3/8"	2,900 lbs.	3,800 lbs.	5,600 lbs.	7,200 lbs.	8,500 lbs.
	5"	2-1/2"	3,100 lbs.	4,000 lbs.	5,900 lbs.	7,600 lbs.	9,000 lbs.
	6"	3"	3,700 lbs.	4,800 lbs.	7,100 lbs.	9,100 lbs.	10,800 lbs.
	7"	3-1/2"	4,300 lbs.	5,700 lbs.	8,300 lbs.	10,600 lbs.	12,500 lbs.
	8"	4"	4,900 lbs.	6,500 lbs.	9,400 lbs.	12,100 lbs.	14,300 lbs.
	10"	5"	6,100 lbs.	8,100 lbs.	11,800 lbs.	15,100 lbs.	16,000 lbs.
	12"	5-1/2"	6,700 lbs.	8,900 lbs.	13,000 lbs.	16,000 lbs.	16,000 lbs.

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

Swift Lift Anchor Tons x Length	Effective Wall Thickness 2de	Actual Edge Distance de	Tensile Safe Working Load Per Anchor				
			Actual Spacing Between Anchors				
			10"	16"	24"	30"	42"
20 Tons x 19-3/4" Long	6-1/2"	3-1/4"	4,300 lbs.	5,200 lbs.	6,800 lbs.	8,300 lbs.	10,200 lbs.
	7"	3-1/2"	4,700 lbs.	5,600 lbs.	7,400 lbs.	8,900 lbs.	11,000 lbs.
	8"	4"	5,400 lbs.	6,300 lbs.	8,400 lbs.	10,200 lbs.	12,600 lbs.
	10"	5"	6,700 lbs.	7,900 lbs.	10,500 lbs.	12,700 lbs.	15,700 lbs.
	12"	6"	8,000 lbs.	9,500 lbs.	12,600 lbs.	15,300 lbs.	18,900 lbs.
	14"	7"	9,300 lbs.	11,100 lbs.	14,700 lbs.	17,800 lbs.	22,000 lbs.

Safe Working Load provides a factor of safety of approximately 4 to 1 in 4,500 psi normal weight concrete.

To recalculate the safe working load when the anchor is used in a lower strength concrete, multiply the tabulated Safe Working Load by the following reduction factors:

Concrete Strength	Reduction Factor
2,000 psi	.66
2,500 psi	.74
3,000 psi	.81
3,500 psi	.88
4,000 psi	.94
4,500 psi	1.00

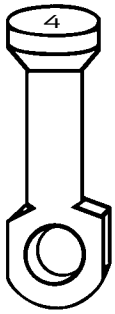
P53 Swift Lift® Eye Anchor

Use with P60 Tension Bar

The Dayton Superior Swift LIft Eye Anchor (P53) is similar to the P52 anchor but has an eye at the foot to accept P60 Tension Bars. The P53 anchor is used primarily in thin sections, thin panels of lightweight concrete or shapes that must be handled at concrete compressive strengths below 2,000 psi. P53 anchors are available in 1, 2, 4, 8 and 20-ton capacities and each has its load rating embossed on the head.

To Order:
Specify: (1) quantity, (2) name, (3) system size, (4) length.

Example:
200, P53 Swift Lift Eye Anchors, 4 ton, 9-1/2" long.

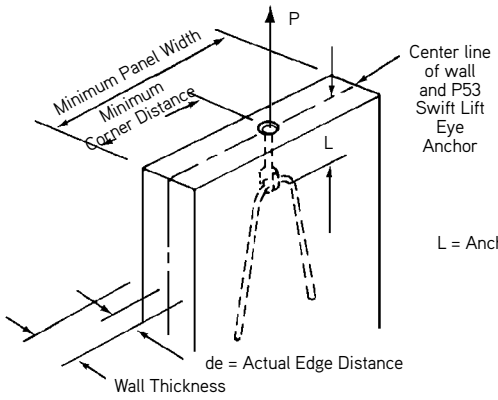


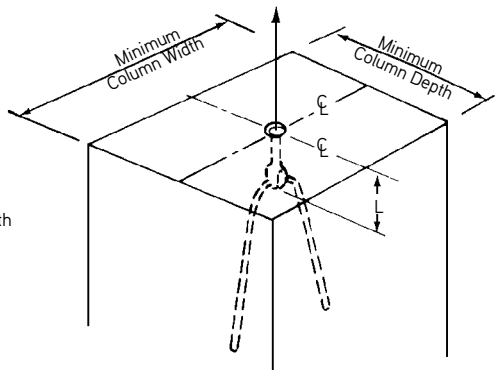
P53 Swift Lift Eye Anchor

P53 Swift Lift Eye Anchor for Lifting and Handling

The P53 Swift Lift Eye Anchor is designed for use with the P60 Tension Bar placed through the eye of the anchor. This combination of Swift Lift Eye Anchor and P60 Tension Bar allows the anchor's full rated tensile load to be developed in thin, narrow wall applications. The anchor should be located at the center line of the wall. When two or more anchors are required, the minimum spacing between anchors must be equal to the minimum panel width.

The combination of P53 Swift Lift Eye Anchor and P60 Tension Bar is an excellent system to use for lifting, handling and setting precast columns.





P53 Swift Lift Eye Anchor Selection Table

Anchor Rated Load (tons)	Anchor Length L	Minimum Thickness or Depth de	Actual Edge Distance de	Minimum Corner Distance	Minimum Panel Width	Tensile Safe Working Load per Anchor* (lbs.)
1	2-1/2"	3"	1-1/2"	8"	16"	2,000
2	3-1/2"	3"	1-1/2"	4"	8"	4,000
4	4-3/4"	3-3/4"	1-7/8"	5"	10"	8,000
8	7-1/16"	4-3/4"	2-3/8"	7"	14"	16,000
20	9-7/8"	6-3/8"	3-3/16"	8-1/2"	17"	40,000

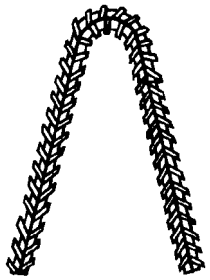
* Safe Working Load provides a factor of safety of approximately 4 to 1 in 2,000 psi normal weight concrete. The P53 Eye Anchor must be used in conjunction with the P60 Tension Bar in order to develop its published rated working loads.

Note: Contact Dayton Superior Technical Service Department for safe working loads when the P53 Eye Anchor is used with straight lengths of rebar.

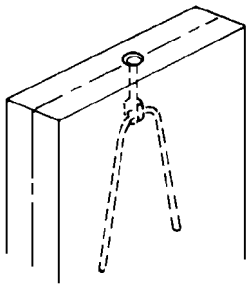
P60 Swift Lift® Tension Bar

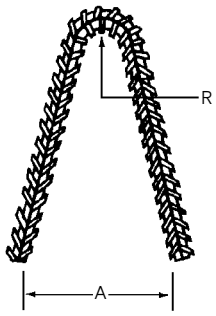
For use with P53

The Dayton Superior Swift Lift Tension Bar (P60) is designed to be used with the P53 Eye Anchor in order for the eye anchor to develop its published rated working loads.

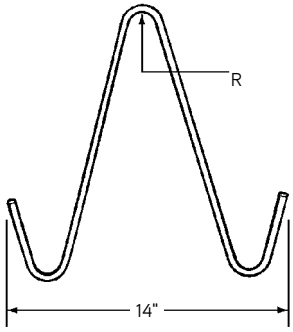


P60 Swift Lift Tension Bar





P60 Rebar Style



P60 Wire Style
1-Ton Anchor

Anchor Tonnage	Tension Bar (Gr. 60)	Dimension A*		Radius R	Overall Rebar Cut Length					
		Std.	Max.		2000 psi	2500 psi	3000 psi	3500 psi	4000 psi	5000 psi
1	.306 Wire	14"	--	3/4"	40"					
2	#3	5"	7-1/2"	1-1/8"	32"	29"	27"	24"	23"	21"
4	#5	6-1/4"	10"	1-7/8"	53"	48"	43"	40"	38"	34"
8	#6	9-1/2"	15"	2-1/4"	63"	57"	52"	48"	45"	40"
20	#9	12-1/12"	20"	4-3/4"	116"	104"	94"	88"	82"	74"

**Dimension A will be standard unless specified through MTO, up to the maximum dimension listed*

To Order:

Specify: (1) quantity, (2) name, (3) anchor size, (4) concrete strength

Example:

200, P60 Swift Lift Tension Bar, 8 ton anchor, 3500psi concrete

Design Notes:

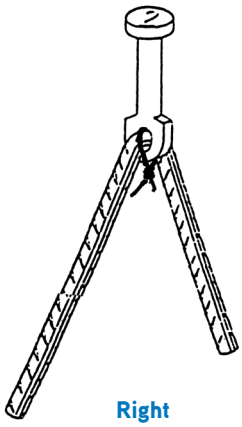
1. Development length of deformed bars and deformed wires in tension are calculated based on the ACI 318-14, Section 25.4.2
2. All development length calculations are based on the "normal weight" concrete
3. All Tension bar length calculations are based on Grade 60 rebar, plain carbon-steel with minimum 60 ksi yield strength

P60 Swift Lift® Tension Bar Installation

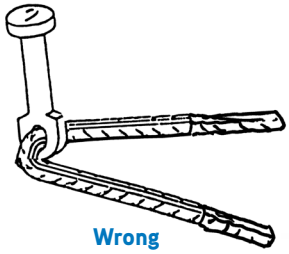
The proper installation of a tension bar is as follows:

1. Place the tension bar through the eye of the anchor in such a manner that the tension bar contacts the bottom of the eye.
2. Make certain the legs of the tension bar are equal on either side of the anchor.
3. Wire the tension bar into position so that the tension bar stays in contact with the bottom of the eye. (See sketch below.)

DO NOT attempt to use field-bent bars as a replacement for the Dayton Superior P60 Tension Bar. Field bending may result in an improperly shaped tension bar, an incorrect radius and/or a cracked bar. A problem such as this can cause the field-bent tension bar to fail prematurely.



Right

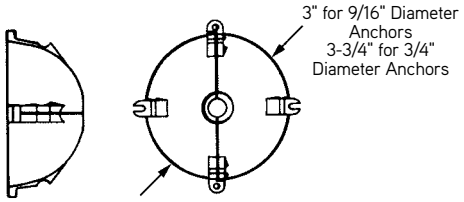


Wrong

P54 Swift Lift® Throw-Away Recess Plug

The Dayton Superior P54 Recess Plug is fabricated from high-density polyethylene plastic in two sizes (2-ton and 4-ton) to accommodate the P52 Swift Lift Anchor. The two-piece design snaps together around the head of the anchor to securely grasp the anchor. Tabs on the recess plug provide a convenient method to nail the assembly to the form. Built-in retainers allow a P59 Shear Bar to clip to the recess plug and be held in correct position. The P54 recess plug is designed to properly position the anchor below the surface of the concrete. This allows easy patching of the recess and prevents surface staining from exposed steel.

Warning: The P54 recess plug is designed to be used with the P52 insert and P59 shear bar combination. Failure to use these components in this combination may result in concrete spalling and/or premature failure.



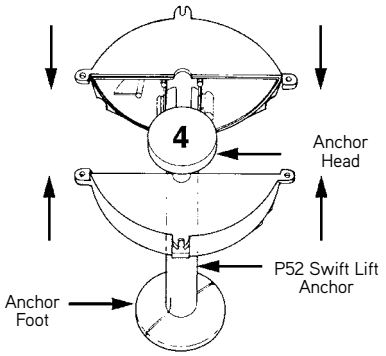
P54 Swift Lift Recess Plug

To Order:

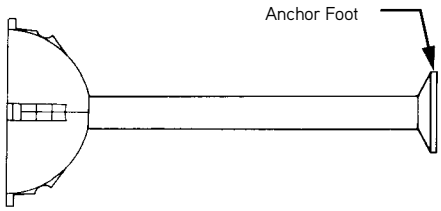
Specify: (1) quantity, (2) name, (3) anchor size.

Example:

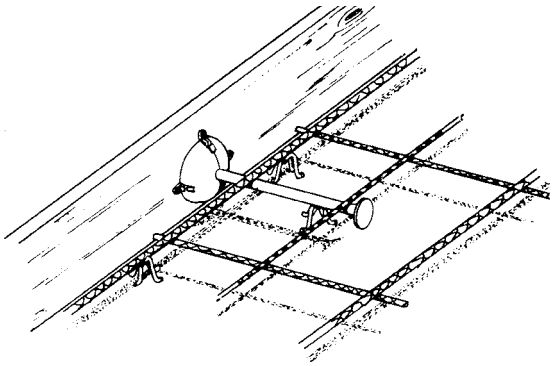
200, P54 Swift Lift Recess Plugs, 4-ton anchor.



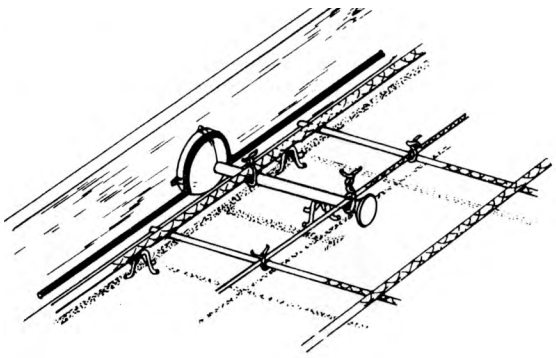
1. Assemble the P54 Recess Plug by placing the head of the P52 Swift-Lift Anchor inside two halves of the recess plug. Then snap the two halves together. It is very difficult to assemble the unit with the foot of the anchor inside the P54 Recess Plug and still get the two halves to close together correctly. If the two halves of the P54 Recess Plug do not fit closely together, it could be because the anchor is in upside down. In such a case, reverse the anchor and try again.



2. A correctly assembled P54 Recess Plug and P52 Swift Lift Anchor.



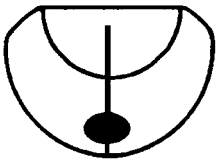
3. Attach the assembled P54 Recess Plug and anchor to the form work in its predetermined location with the recess plug seam in the vertical position. Use common (not double headed) nails in the upper three tabs of the recess plug. The plug and anchor assembly can also be attached to the form work by using a 2-ton stud and wingnut if desired. Provide bar supports around the anchor, as shown, to prevent displacement during the casting process.



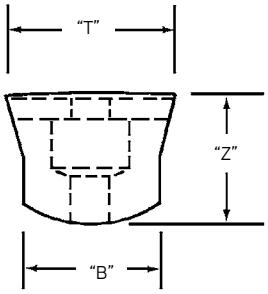
4. Slip the preformed shear bar on the P54 Recess Plug, as shown. The receiving tabs of the P54 Recess Plug will correctly position the shear bar. Usually, additional support wiring is not needed to hold the shear bar in place. However, prudent users will provide an additional wire tie or two, to make certain the shear bar will not dislodge during concrete placement. Wire tie the P52 Swift-Lift Anchor to reinforcing steel, as shown.

P56 Swift Lift® Narrow Recess Plug

The Dayton Superior P56 Swift Lift Narrow Recess Plug is designed for use in thin-wall conditions, such as the top edge of highway safety barriers. The recess plug is bolted to the form using a P63 stud and P64 wing nut combination and it correctly positions the anchor below the surface of the concrete. P56 recess plugs are fabricated from nitrile butadiene and are ideal for conditions requiring temperature or oil resistance.



P56 Swift Lift
Narrow Recess Plug



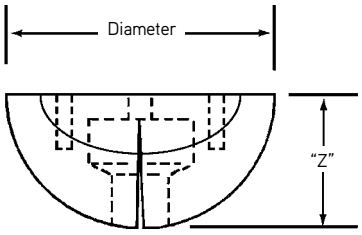
P56 Swift Lift
Narrow Recess Plug

To Order:

Specify: (1) quantity, (2) name, (3) anchor size.

Example:

200, P56 Swift Lift Narrow Recess Plugs, 4-ton anchor.



P56 Swift Lift Narrow Recess Dimensions

Swift Lift Anchor	Diameter of Recess Plug	Dimension "Z"	Dimension "T"	Dimension "B"
1	2-3/8"	1-3/16"	1-21/32"	1-11/32"
2	3"	1-7/16"	2-1/32"	1-23/32"
4	3-3/4"	1-13/16"	2-3/4"	2-9/32"
8	4-3/4"	2-5/16"	3-11/32"	2-15/16"
20	6-3/8"	3-1/8"	4-15/16"	4-7/16"

Note: The diameter of the narrow recess plug is the same as the diameter of the round recess plug.

P56R Swift Lift® Round Recess Plug

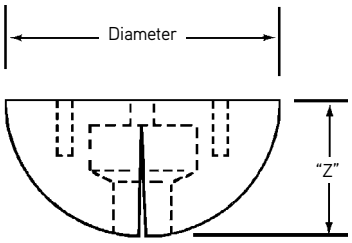
The Dayton Superior P56R Swift Lift Round Recess Plug is fabricated from nitrile butadiene and ideal for use in conditions requiring temperature or oil resistance. The plug must use the P63R Attachment Stud and P66R Attachment Nut. This plug can not be attached to the form with either a Holding Plate or Magnetic Setting Plate. Dimensions of the recess plug are slightly smaller than the standard P56 PL urethane plug. This recess is available by special order.

P56R Swift Lift Round Recess Plug

Swift Lift Round Recess Plug Dimensions

Swift Lift Anchor	Diameter of Recess Plug	Depth "Z"
1	2.375	1.188
2	2.918	1.514
4	3.661	1.875
8	4.659	2.375
20 Tons	6.375	3.063

Note: The diameter of the narrow recess plug is the same as the diameter of the round recess plug.

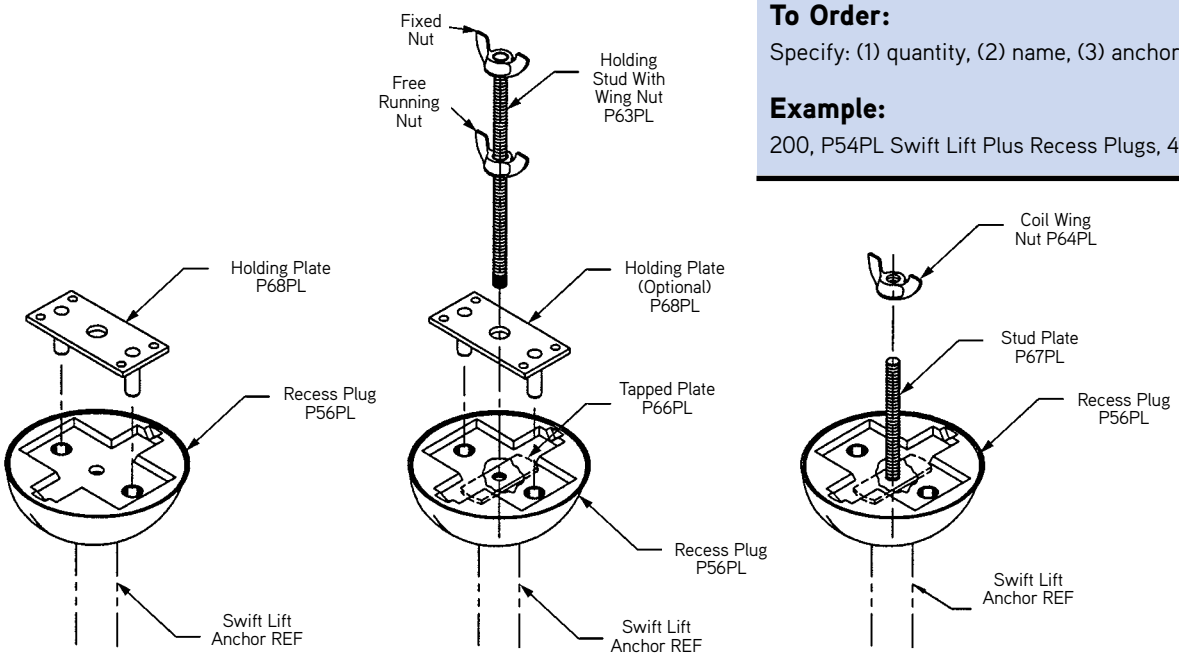


P56PL Swift Lift® Plus Recess Plug

The Dayton Superior P56PL Swift Lift Plus Recess Plug is manufactured from high-grade elastomeric, thermal set urethane to provide improved tear, heat and chemical resistance. The versatile, reusable plug utilizes a variety of accessories to provide installation and stripping ease in many different applications. P56PL recess plugs are available for 1, 2, 4 and 8-ton system sizes. See dimensions of P56PL Recess Plug in P52 information.

P56PL Swift Lift Plus Recess Plug

P56 PL Attachment Methods



P56PL Swift Lift Plus Recess Plug Typical Installations

To Order:

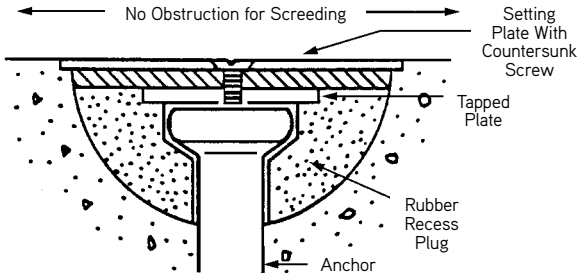
Specify: (1) quantity, (2) name, (3) anchor size.

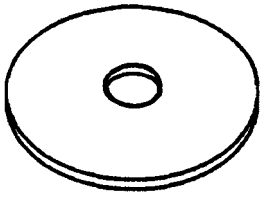
Example:

200, P54PL Swift Lift Plus Recess Plugs, 4-Ton anchor.

P61 Swift Lift® Setting Plate, P62 Countersunk Screw

The Dayton Superior P61 Swift Lift Setting Plate and P62 Countersunk Screw combination provide an easy method of placing a Swift Lift Anchor into the surface of a flat panel without obstructing the screeding process. The P61 setting plate is available in two sizes, a 4" unit for use with 4-ton anchors and a 5" unit for use with 8-ton anchors. The P62 screw is available in two sizes to match the setting plates. The 4-ton setup uses a 3/4" long, 5/16" – 18 NC thread screw and the 8-ton setup uses a 3/4" long, 7/16" – 14 NC thread screw.





P61 Swift Lift Setting Plate

P62 Swift Lift Countersunk Screw

To Order:

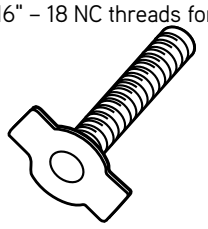
Specify: (1) quantity, (2) name, (3) anchor size.

Example:

200, P61 Swift Lift Setting Plates and 200, P62 Countersunk Screws for 4-ton anchors.

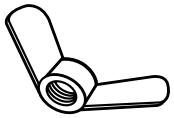
P63 Swift Lift® Stud, P64 Swift Lift Wing Nut

The Dayton Superior P63 Swift Lift Stud and P64 Wing Nut combination is used to set P56 Narrow Recess Plugs. Available in two sizes, 5/16" – 18 NC threads for use with the 1-ton anchor and 7/16" – 14 NC threads for use with 2, 4, 8 and 20-ton P56 anchors.



P63 Swift Lift Stud

Note: The P63 Stud and P64 Wing Nut are not interchangeable with the P56PL Recess Plug accessories.



P64 Swift Lift Wing Nut

To Order:

Specify: (1) quantity, (2) name, (3) size.

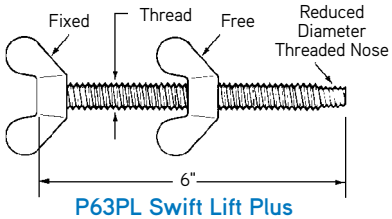
Example:

200, P63 Swift Lift Studs and 200 P64 Swift Lift Wing Nuts, 7/16" dia.

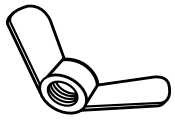
P63PL Swift Lift® Plus Holding Stud, P64PL Swift Lift Plus Wing Nut

The Dayton Superior P63PL Swift Lift Plus Holding Stud is a 3/8" diameter, coil threaded stud with a fixed wing nut and a free-running wing nut used with the P66PL threaded plate to quickly attach the P56PL recess plug to the formwork. The holding stud is inserted through the form and threaded into the threaded plate. Complete the anchor installation by screwing the free-running wing nut tightly against the form.

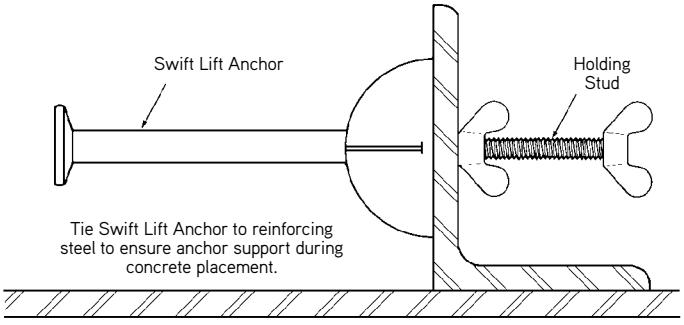
The P64PL Wing Nut has 3/8" diameter coil thread and is available as a replacement nut for the P63PL Holding Stud.



P63PL Swift Lift Plus Holding Stud



P64PL Swift Lift Plus Wing Nut



To Order:

Specify: (1) quantity, (2) name.

Example:

200, P63PL Swift Lift Plus Holding Studs.

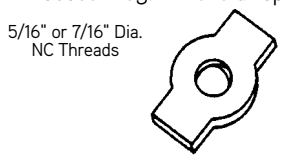
P63R Attachment Stud with Wing Nuts

The Dayton Superior P63R Attachment Stud with Wing Nuts is a metric threaded stud used to quickly attached the P56R Swift Lift Round Recess Plug to almost any type of formwork. This is accomplished by inserting the stud through the form and threading it onto the attachment nut. The installation is completed by tightening the free running nut against the form.

Tons	Thread	L
1	M8	6-9/16" 160mm
2, 4 or 6	M10	6-9/16" 160mm

P66 Swift Lift® Tapped Plate

The Dayton Superior Swift Lift Tapped Plate (P66) is tapped for either a 5/16" or 7/16" diameter NC thread and used to install the P56 Narrow Recess Plug. This is a replacement plate only; it can be used with the P63 Stud or with NC bolts supplied by others.



P66 Swift Lift Tapped Plate

To Order:
Specify: (1) quantity, (2) name, (3) thread size.

Example:
100, P66 Swift Lift Tapped Plate, 7/16" dia. NC thread.

P66R Attachment Nut

The Dayton Superior P63R Attachment Stud with Wing Nuts is a metric threaded stud used to quickly attached the P56R Swift Lift Round Recess Plug to almost any type of formwork. This is accomplished by inserting the stud through the form and threading it onto the attachment nut. The installation is completed by tightening the free running nut against the form.

P66PL Swift Lift® Plus Threaded Plate, P67PL Swift Lift® Plus Stud Plate, P68PL Swift Lift® Plus Holding Plate

The Dayton Superior P66PL Swift Lift Plus Threaded Plate, P67PL Stud Plate and P68PL Holding Plate are working parts used to install the P56PL Recess Plug in various applications. These working parts are available in 1, 2, 4 and 8-ton system sizes.

P66PL Swift Lift Plus Threaded Plate

P67PL Swift Lift Plus Stud Plate

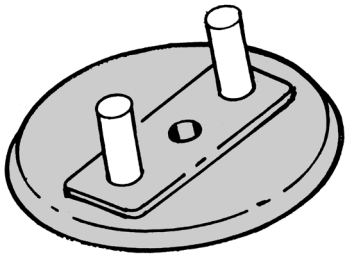
P68PL Swift Lift Plus Holding Plate

To Order:
Specify: (1) quantity, (2) name, (3) system size.

Example:
100, P66PL Swift Lift Plus Threaded Plate, 4-ton system.

P69 Swift Lift® Magnetic Setting Plate

The Dayton Superior P69 Swift Lift Magnetic Setting Plates are available to firmly set P56PL Recess Plugs in metal, precast concrete forms. The reusable magnetic setting plate eliminates holes drilled in the metal forms for anchor setting purposes.



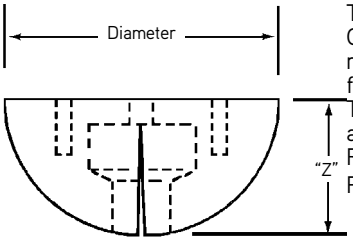
P69 Swift Lift Magnetic Setting Plate

NOTE: One piece recess plug with magnets imbedded in top available, contact DSC Customer Service.

To Order:
Specify: (1) quantity, (2) name, (3) system size.

Example:
20, P69 Swift Lift Magnetic Setting Plates, 4-ton system.

P104S Magnetic One Piece Swift Lift® Recess



The Dayton Superior P104S Magnetic OnePiece Swift Lift Recess is a urethane recess plug with magnets embedded in the face for easy attachment to metal forms. This provides the precaster the option for a one-piece unit versus P56PL Swift Lift Recess Plug and P69 Magnetic Setting Plate. It is available in 2, 4 and 8-ton sizes.

To Order:
Specify: (1) quantity, (2) name, (3) system size.

Example:
20, P104 Magnetic OnePiece Swift Lift Magnetic Recess, 8-ton system.