

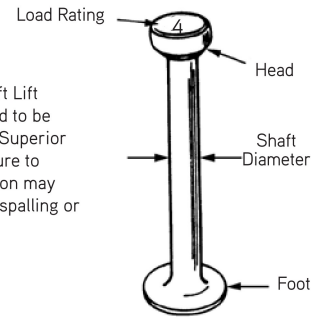
## P52 Swift Lift® Anchor

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.

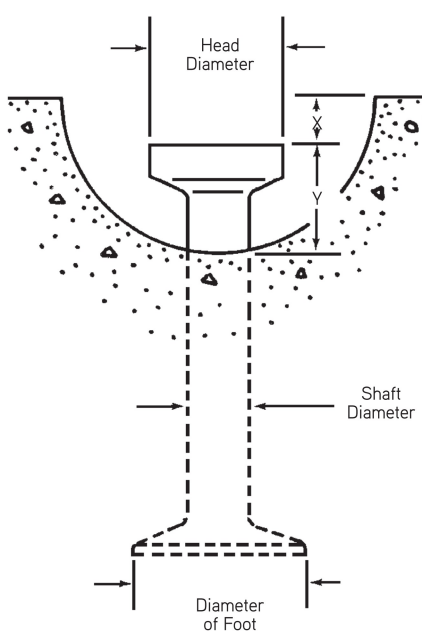
### To Order:

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

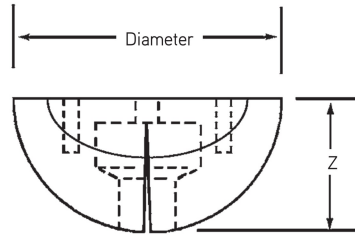
### Example:

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"

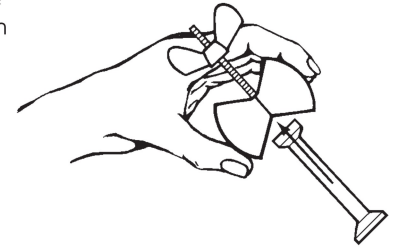
**Note:** The diameter of the narrow recess plug is the same as the diameter of the round recess plug.

### 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.

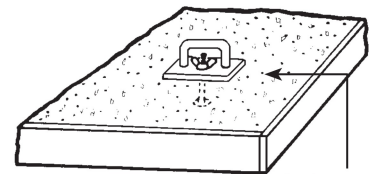


## “Wet Setting” P52 Swift Lift Face Lift Anchors

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.

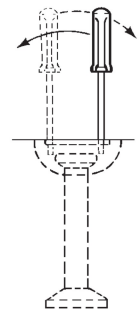
Light vibration of the fresh concrete will assure proper embedment and anchorage.



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

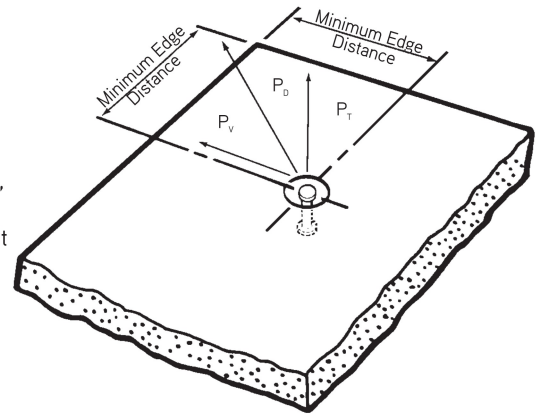
### When anchors are used in the face of thin concrete elements

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.

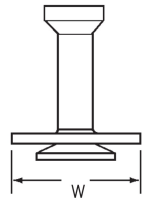


Capacity x Length	SWL at Concrete Strength			Minimum Edge Distance
	1600 psi	3500 psi	5000 psi	
1 ton x 2-5/8 in	1,149 lbs	1,700 lbs	2,000 lbs	8 in
1 ton x 3-3/8 in	1,705 lbs	2,000 lbs	2,000 lbs	10 in
1 ton x 4-3/4 in	2,000 lbs	2,000 lbs	2,000 lbs	10 in
1 ton x 8 in	2,000 lbs	2,000 lbs	2,000 lbs	10 in
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 approximately 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.



Swift Lift® System

**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"

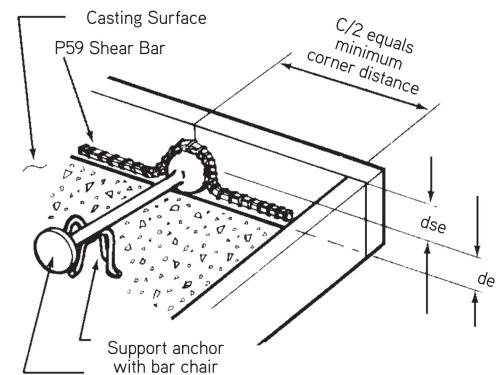
## P52 Swift Lift Anchors for Edge Lifting

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.

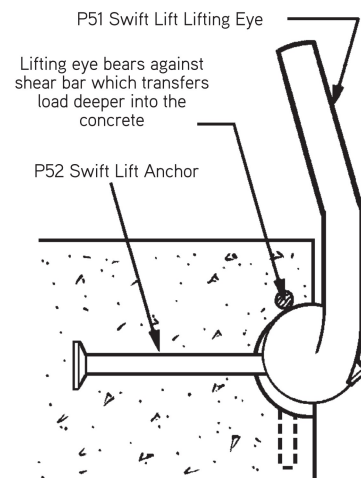
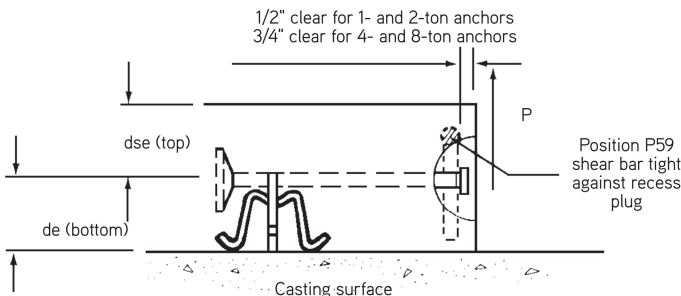
When raising precast panels from a horizontal position to a vertical position, always check both shear and tension safe working loads. In order to develop the anchor's shear safe working load, the minimum spacing between Swift Lift Anchors is two times the corner distance listed.

**Note:** Properly installed shear bars are required to develop Safe Working Loads shown.  $2 \times d_e$  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**