

# MANHOLE LIFT SYSTEM

System for precast concrete production



Press-Seal Corporation can provide customized design guidelines to the precaster for the use of the lift system with their particular product line and for its theoretical load capacity for both tensile and shear forces.

## What It Is

A safe and easy method of placing precast concrete structures in the field with customized design guidelines to fit any producer's processes.

## Design Criteria

- The lift inserts are designed in accordance with ASTM C 890 for four times the maximum load.
- Each lift eye is designed, rated and tested to a lift capacity of 3,600 pounds (1640 kg) with a factor of safety of five.
- The maximum weight of a product for a two-lift eye system is 7,200 pounds (3280 kg).

## CAUTION:

The precaster is advised that the Lift System is designed to be used only with concrete that has achieved 4000 psi (11,730 kg/sq. cm) minimum concrete compressive strength. Also, lift insert positioning is critical for the safe and successful performance of this system. As a service to its customers, Press-Seal can recommend insert locations and maximum lift capacity for the system based on the product's geometric configuration and material properties. When supplied, these designs will incorporate appropriate safety factors for lifting devices.

Obtaining critical manufacturing strengths and tolerances, however, is beyond the capability and responsibility of Press-Seal Corporation.

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# MANHOLE LIFT SYSTEM

## Design Criteria

### Installation Instructions

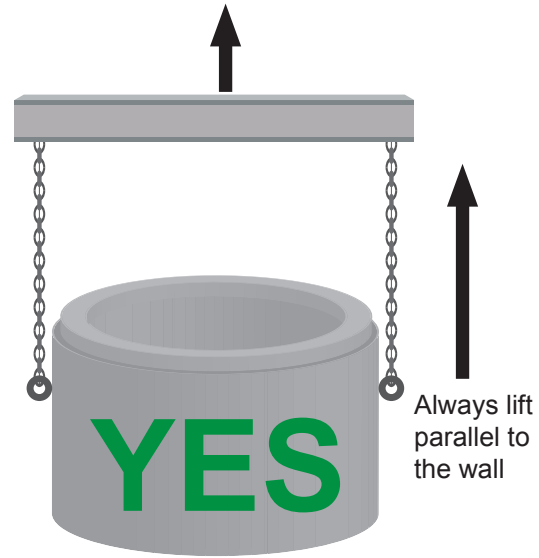
- Insert a lift eye into each insert.
- Turn the lift eye 90 degrees to the vertical position to lock it in place.
- Place hooks in lift eyes and lift.

### Design Criteria

Manhole components are delivered to the field with all inserts installed and positioned for quick lifting and installation.

The lift system works best when inserts are placed perpendicular to the wall with the lift parallel to the wall. This method insures a safe lift and does not damage the product. Special designs can be provided for product made with more than two lift inserts.

### DO'S AND DON'TS



**Spreader Bar Lift**



**Single Point Lift**



**Not Permitted**



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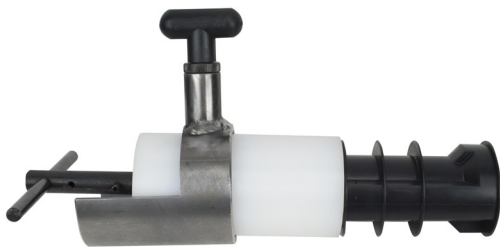
## Design Components

### Assembly Instructions

The manufacturing process is fast and simple with a Manhole Lift System:

1. Place plastic insert over the assembly fixture.
2. Lock insert onto fixture.
3. Install the combined fixture and insert through collar into form.
4. Place concrete in form and consolidate.
5. Remove fixture from collar.
6. Remove form from product.

Insert is now an integral part of the manhole and can be used for installation as soon as minimum required concrete strength is reached.



### Components

For production of a single hole and to actually lift



Lift eye fixture



Molded insert



Mounting collar



Spring collar pin



Ductile iron lift eye

### Mounting Collar Option

Mounting collar can have spring loaded collar pins on either side depending on producer's process's.



Mounted to allow concrete to bleed by



Mounted to allow concrete to collect in bottom

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