



**TRUE TO OUR MOTTO:**

High Quality, High Reliability,  
High Competence!

# Overland Concrete Supply

## 2026 Catalog



# Table of Contents

Company Profile .....	4	<a href="#">Two Hole Anchor</a> .....	19
Safety Guide .....	5	<a href="#">Sandwich Panel Anchor</a> .....	20
<a href="#">Lifting &amp; Handling</a> .....	6	<a href="#">Tech Erection Anchors with Shear Plate</a> .....	21
<a href="#">Common Hoisting Methods for Prefabricated Building Components</a> .....	6	<a href="#">Forged Erection Anchors with Shear Plate</a> .....	22
<a href="#">Horizontal Hoisting of Concrete Components</a> .....	6	<a href="#">Insulated Panel Anchor</a> .....	23
<a href="#">Vertical Hoisting of Concrete Components</a> .....	7	<a href="#">Forged Insulated Panel Anchor Plate Anchor</a> .....	24
<b>Plate Anchor Hoisting System</b> .....	8	<a href="#">1 Ton L Anchor</a> .....	25
<a href="#">Y Erection Anchor</a> .....	9	<a href="#">T-Bar Anchor</a> .....	26
<a href="#">U Erection Anchor</a> .....	10	<a href="#">Forged Erection Anchors with Shear Bar</a> .....	27
<a href="#">Spread Anchor</a> .....	11	<a href="#">Recess Members for Erection Anchor</a> .....	28
<a href="#">1T Split Foot Erection Anchor</a> .....	12	<a href="#">Ring Clutch</a> .....	29
<a href="#">Split Foot Erection Anchor</a> .....	13	<a href="#">Cable Ring Clutch</a> .....	32
<a href="#">Split Foot Erection Anchor with Shear Plate</a> .....	14	<a href="#">Plate Anchor Hoisting System</a> .....	34
<a href="#">Erection Head Anchor</a> .....	15	<b>Spherical Head Lifting Anchor System</b> .....	36
<a href="#">Tech Anchor</a> .....	16	<b>.39</b>	
<a href="#">Tech Erection Anchor</a> .....	17	<a href="#">Spherical Head Lifting Anchor</a> .....	40
<a href="#">Forged Erection Anchor</a> .....	18	<a href="#">Eye Anchor</a> .....	42
		<a href="#">Recess Member</a> .....	44
		<a href="#">Lifting Eye</a> .....	46

<a href="#">T-bar Hoisting System</a> .....	48	<a href="#">Steel Wet Set Handle</a> .....	67
<b>Insert Systems</b> .....	<b>49</b>	<a href="#">R-Anchor</a> .....	68
<a href="#">Thin Slab Coil Insert</a> .....	50	<a href="#">Shear Bar</a> .....	69
<a href="#">Straight Loop Coil Insert</a> .....	50	<b>Threaded Lifting System</b> .....	<b>70</b>
<a href="#">Flared Loop Ferrule Insert</a> .....	51	<a href="#">Steel Core Lifting Loop</a> .....	71
<a href="#">Thin Slab Ferrule Insert</a> .....	51	<a href="#">Steel Core Lift Loop</a> .....	72
<a href="#">Wing Wall Ferrule Insert</a> .....	52	<a href="#">Connector Loop Box</a> .....	75
<a href="#">EXP. Coil Ferrule Insert</a> .....	53	<a href="#">Straight and Flat Pipe Hoisting System</a> .....	76
<a href="#">Exp. Coil Insert</a> .....	53	<a href="#">Lifting Wavy Tail Anchor</a> .....	78
<a href="#">Flared Wing Ferrule Insert</a> .....	54	<a href="#">Lifting Socket Rod Anchor</a> .....	79
<a href="#">Flared Loop Coil Insert</a> .....	54	<a href="#">Lifting Socket Plate Anchor</a> .....	81
<a href="#">Straight Loop Ferrule Insert</a> .....	55	<a href="#">Lifting Socket Foot Anchor</a> .....	83
<a href="#">Flared Thin Slab Coil Insert</a> .....	56	<a href="#">Lifting Socket With Cross-drilled Hole</a> .....	85
<a href="#">Flared Thin Slab Coil Insert and Bolt Selection</a> .....	57	<a href="#">Grouting Sleeve Series</a> .....	86
<a href="#">Single Swivel Lift Plate</a> .....	59	<a href="#">Metal Continuous High Chair Upper</a> .....	88
<b>V-Bar Hoisting System</b> .....	<b>60</b>	<a href="#">Introduction To Production Process and Testing Equipment</a> .....	89
<a href="#">V-bar Hoisting</a> .....	61	<a href="#">Quality Assurance System</a> .....	90
<a href="#">Utility Anchor Recess Member</a> .....	63		
<a href="#">V Utility Anchor</a> .....	65		

## Company Profile



### **OVERLAND CONCRETE SUPPLY COMPANY**

Overland Concrete Supply Company (Abbr. OCS) was founded in Saint Louis, Missouri on 2018 with two manufacturing factories in Shandong, China and one manufacturing factory in Vietnam. Our sales, customer service, engineering and warehousing are throughout North America.

With the expertise we have in precision machining, OCS specializes in custom accessories specific to the precast and prestressed industries. Our global manufactures bring high quality and low-cost products that directly send to our U.S. Customers with no middlemen required, and with exceptional customer service and expert advice guaranteed. To this day OCS continues to prepare and position itself to be on the cutting edge and the leader in the marketplace.

As one of the earliest and largest professional manufacturers of precast building components and accessories, with over 70+ engineers in house, we have professional knowledge and rich experience in the production of building components and accessories.

### **Proud Member Of**



## Safety Guide

Products in this manual are intended for use by trained professionals only. Improper handling may result in serious personal injury. Before using any product, please review all technical and safety information carefully to ensure the safety of all personnel involved.

### 1 Product Wear

All products are subject to wear and tear over time, which can reduce their performance. Always inspect materials carefully to determine whether they remain suitable and safe for continued use.

### 2 Product Load

According to the different types and sizes of lifting accessories, their bearing capacity and use methods vary greatly. All product information should be carefully checked to ensure that appropriate accessories are used correctly.

### 3 Impact Load

Experienced professionals should often evaluate the lifting and transportation methods of prefabricated components. During the handling process, the extreme impact or acceleration load transmitted to the lifting system will affect the performance of lifting accessories.

### 4 Do not change the product

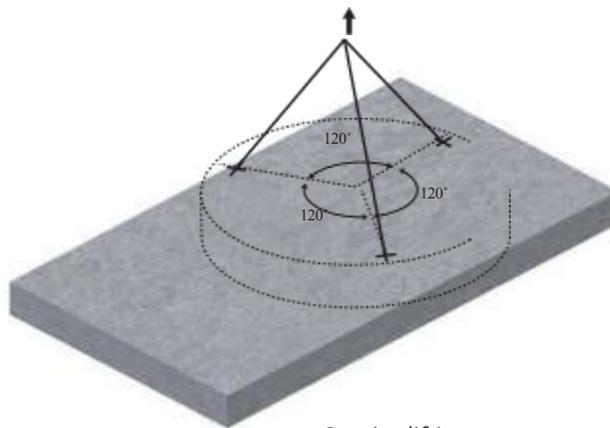
Products in this manual must not be altered in any way, including modification or welding. All items should be inspected by trained professionals to verify their performance and to address any signs of damage before use.

# Lifting & Handling

## Common Hoisting Methods for Prefabricated Building Components

### Horizontal Hoisting of Concrete Components

- 1 For small precast panels, a three-point lifting configuration helps maintain a balanced center of gravity. With the anchor rods positioned  $120^\circ$  apart, the load is evenly distributed across all lifting points, ensuring stable and controlled handling (As shown below figure).



3 point lifting

- 2 Four-point hoisting: It needs to be planned in advance to ensure that the load is evenly distributed. There are usually the following hoisting methods (As shown in figures below).

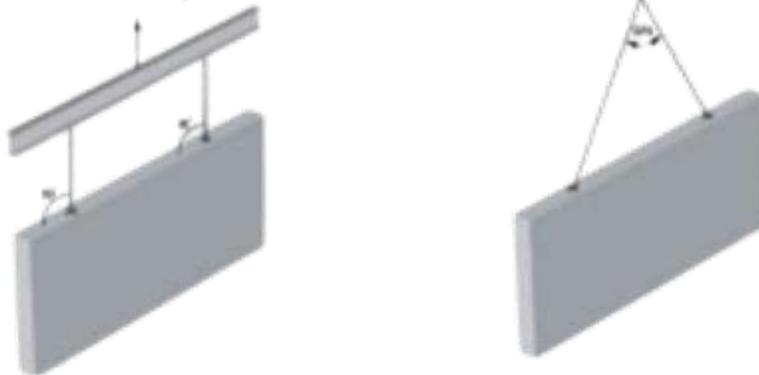


- 3 Hoisting at eight o'clock indicates the lifting direction or sling angle corresponding to the "8 o'clock" position on a clock face. Proper alignment at this position ensures safe load distribution and stability during hoisting (As shown in the figures below).

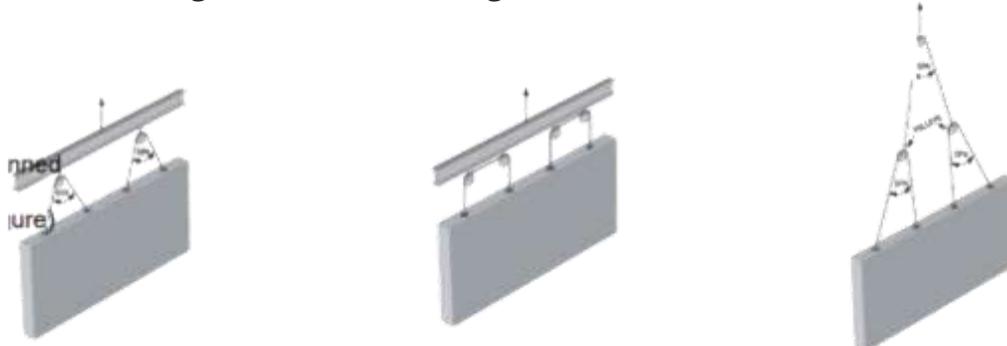


### Vertical Hoisting of Concrete Components

- 1 Two-point lifting is the simplest method for balancing loads, providing straightforward and stable lifting for most applications (As shown in the figures below).

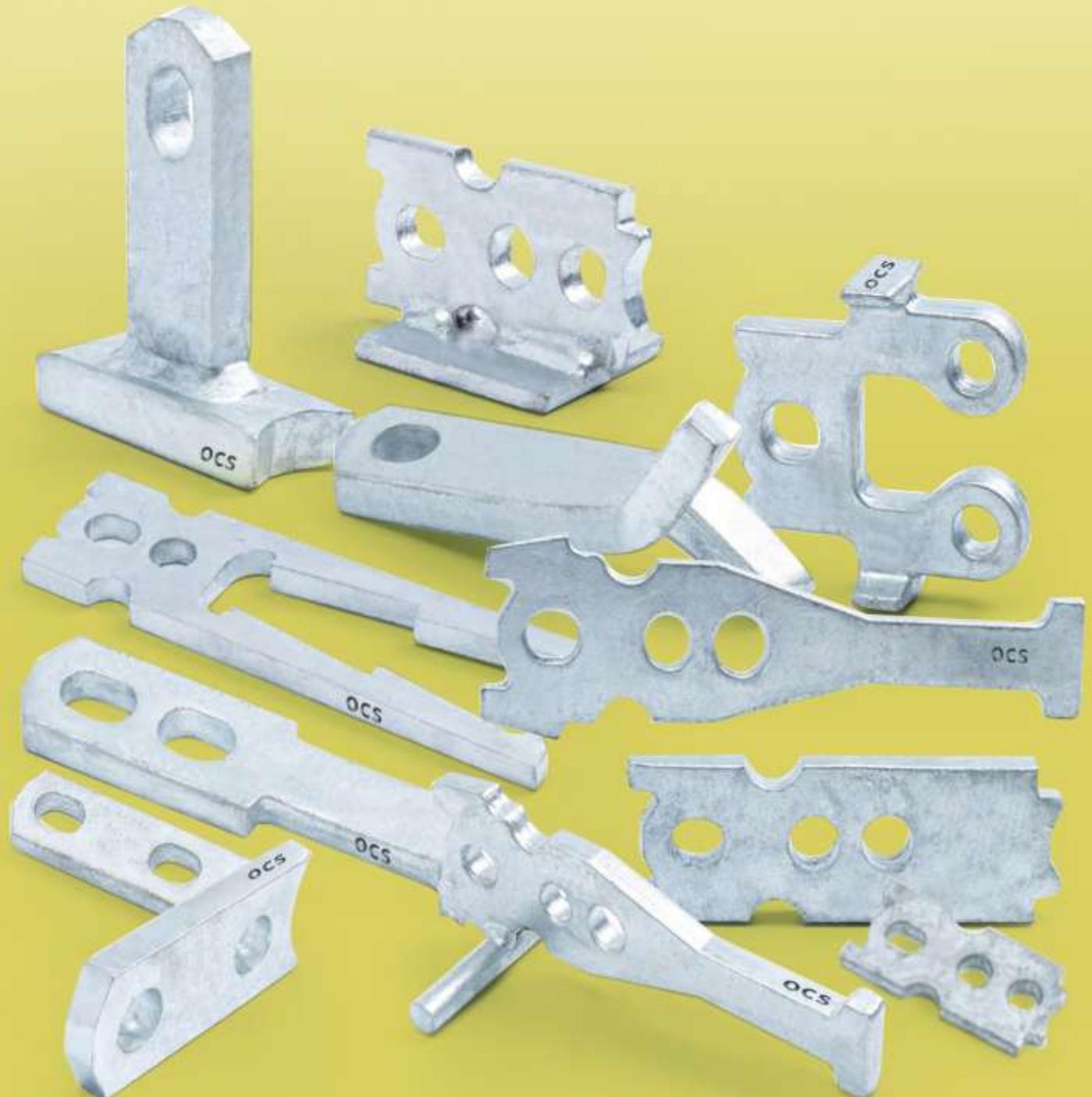


- 2 The four-point lifting requires careful planning to ensure the load is evenly distributed across all lifting points for safe and stable handling (As shown in the figures below).

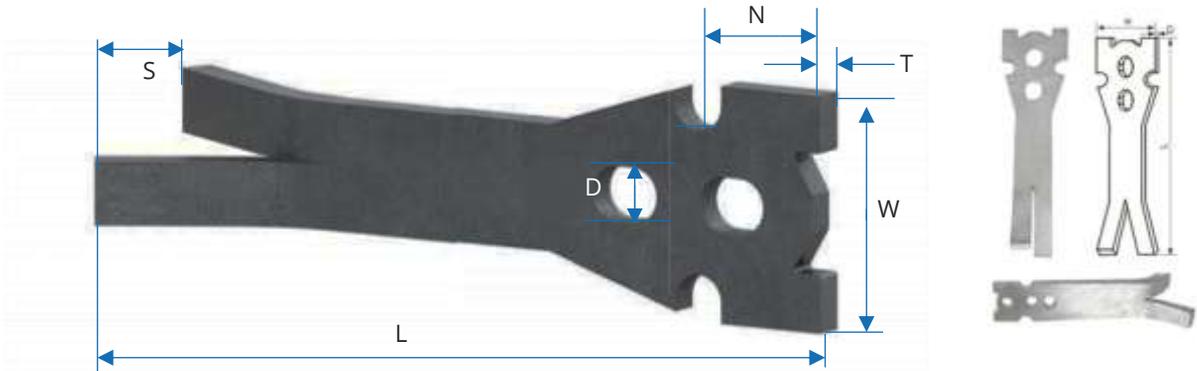




# Plate Anchor System



## Y Erection Anchor



This product is ideal for hoisting and transferring thick-walled concrete components from horizontal to vertical, this anchor safely transfers all applied loads to the concrete, helping prevent damage or cracking. It is usually used with additional reinforcement, also two semicircular notches on the longitudinal side of the erection anchor are used to fix the diagonal tensile reinforcement.

### Dimensions

Ton	Item ID	L	T	W	D	N	S
12.5T	MPA-MA-12.5-500	19-5/8"	3/4"	5-7/8"	1-3/8"	3-1/2"	3-1/8"
17T	MPA-MA-17-500	19-5/8"	1"	5-7/8"	1-3/8"	3-1/2"	3-1/8"
22T	MPA-MA-22-500	19-5/8"	1-1/8"	5-7/8"	1-3/8"	3-1/2"	3-1/8"

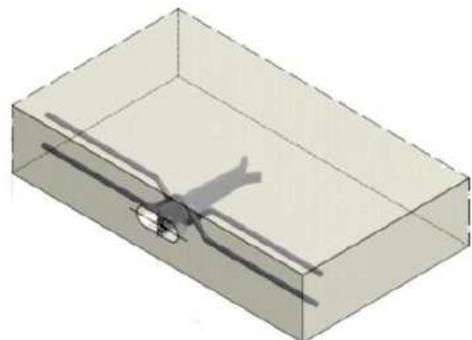
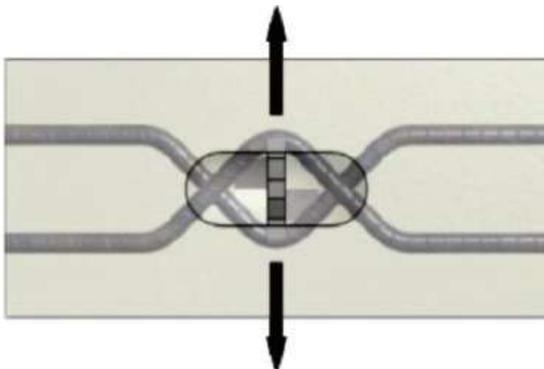
### Capacities

Ton	Minimum panel Thickness	2.66:1 SWL* Shear w/ Shear Bar (LBS)	4:1 SWL Shear w/ Shear Bar (LBS)	Minimum Edge Distance	Minimum Anchor Spacing
12T	10"	15,846	10,538	30"	60"
17T	12"	21,551	14,332	36"	72"
22T	14"	27,890	18,547	36"	72"

### Main purpose:

Used when thin-walled concrete members are lifted from horizontal to vertical.

1. Material Q345D/ST52-3;
2. AKV -20°C ≥28;
3. Surface mill/Zinc/HDG.



## U Erection Anchor



This product is specially designed for thick-walled precast components. Because of its asymmetric structure, it can only bear the load in one direction. The additional reinforcement and erection anchor must be installed at position correctly.

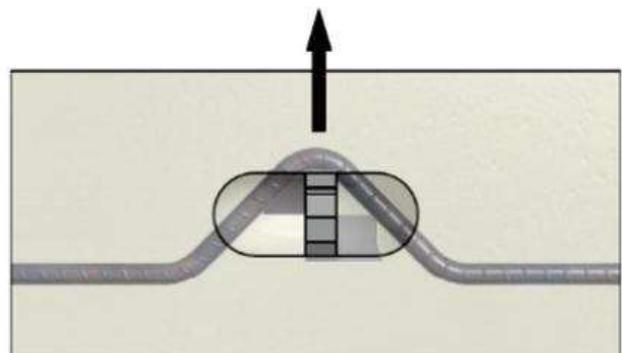
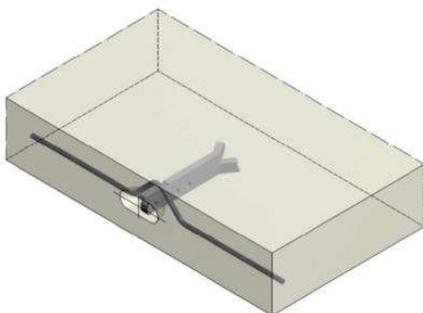
### Characters

Ton	Item ID	Size	L	T	W	S
2.5T	MPA-MA-1.4-200	1.4T	7-7/8"	1/4"	2-1/6"	2-3/4"
2.5T	MPA-MA-2.5-230	2.5T	9-1/20"	2/5"	2-1/6"	2-3/4"
5T	MPA-MA-4-270	4T	10-5/8"	1/2"	2-3/4"	3-3/8"
5T	MPA-MA-5-290	5T	11-4/9"	3/5"	2-3/4"	3-3/8"
10T	MPA-MA-7.5-320	7.5T	12-2/3"	5/8"	3-4/5"	4-1/2"
10T	MPA-MA-10-390	10T	15-1/3"	4/5"	3-4/5"	4-1/2"
26T	MPA-MA-12.5-500	12.5T	19-2/3"	4/5"	5-3/4"	6-1/4"
26T	MPA-MA-17-500	17T	19-2/3"	11/12"	5-3/4"	6-1/4"
26T	MPA-MA-22-500	22T	19-2/3"	1-5/7"	5-3/4"	6-1/4"

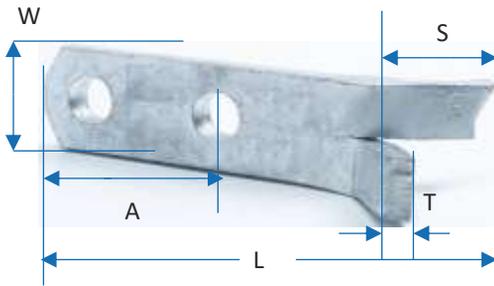
1. Material Q345D/ST52-3;
2. AKV -20°C ≥28);
3. Surface mill/Zinc/HDG.

### Main purpose:

Used when thin-walled concrete members are lifted from horizontal to vertical.



## Spread Anchor



The load range of this type of anchor is from 14KN to 220KN, which is a relatively favorable lifting method for thin-walled and large-sized prefabricated components. This type of plate is designed with an additional reinforcement added together.

### Characters

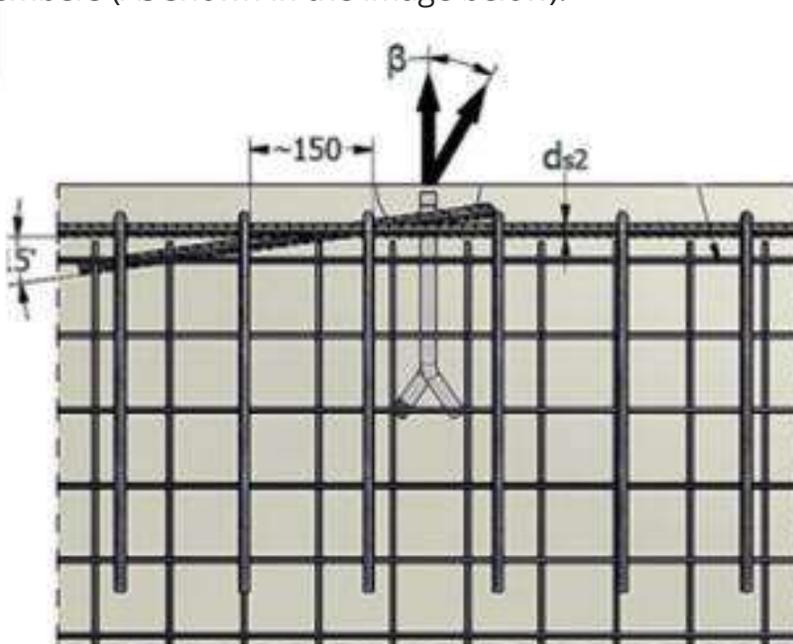
Ton	Item ID	L	W	T	S	A
1	MPA-MS-1-120	4-3/4"	1-1/4"	3/16"	2-3/4"	N/A
2	MPA-MS-2-140	5-1/2"	1-1/4"	3/8"	2-3/4"	N/A
4	MPA-MS-4-160	6-1/4"	1-1/2"	5/8"	3-3/8"	N/A
8	MPA-MS-8-280	11"	2-1/2"	3/4"	4-1/2"	5"
22	MPA-MS-22-500	19-5/8"	3-1/2"	1-3/16"	6-1/4"	9-7/8"

### Main purpose:

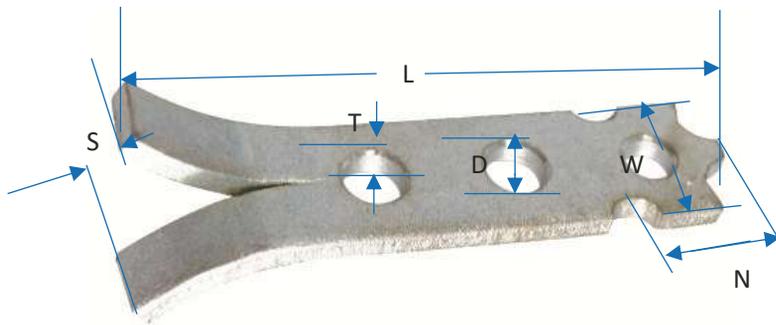
Used when thin-walled concrete members are lifted from horizontal to vertical.

1. Material Q345D/ST52-3;
2. AKV -20°C ≥28J;
3. Surface mill/Zinc/HDG.

It is used for the installation of stiffeners in the area of thin-walled members (As shown in the image below).



## IT Split Foot Erection Anchor



The load of this erection anchor is usually required to be 12.5KN. When making concrete members, the erection anchor needs to be reinforced with a reinforcing bar.

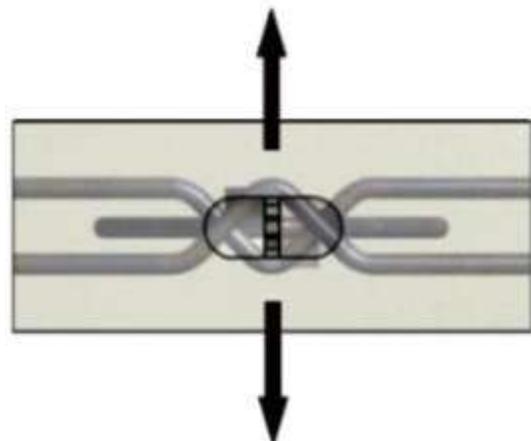
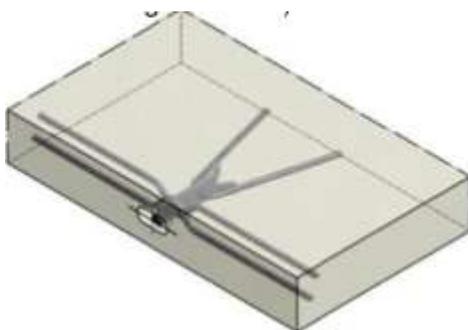
### Characters

Ton	Item ID	L	T	W	D	N	S
1	MPA-MU-1.25-125	4-15/16"	1/4"	1-3/16"	7/16"	3/4"	1-3/4"

1. Material Q345D/ST52-3;
2. AKV  $-20^{\circ}\text{C} \geq 28\text{J}$ ;
3. Surface mill/Zinc/HDG.

### Main purpose:

Demoulding, lifting thin plates, concrete pipes etc.



## Split Foot Erection Anchor

This product is ideal for hoisting and transferring thin-walled concrete components from horizontal to vertical, this anchor safely transfers all applied loads to the concrete, helping prevent damage or cracking. This anchor requires a shear bar for proper installation, and a tension bar is typically needed to achieve higher load capacities. Available in 2 T, 4 T, and 8 T capacities, with a hot-dipped galvanized finish for durability. Impact-resistant, maintaining performance even in freezing temperatures.



### Characters

Ton	Item ID	Ring Clutch System	L	T	W	HD	N	S
2T	MPA-ME-2-200	2T-3T	8"	3/8"	2"	5/8"	1-13/16"	2-3/4"
4T	MPA-ME-4-265	4T-6T	10-1/2"	5/8"	2-1/2"	3/4"	2-1/2"	3-3/8"
8T	MPA-ME-8-325	8T-12T	12-13/16"	3/4"	3-3/4"	1"	3-1/8"	5"



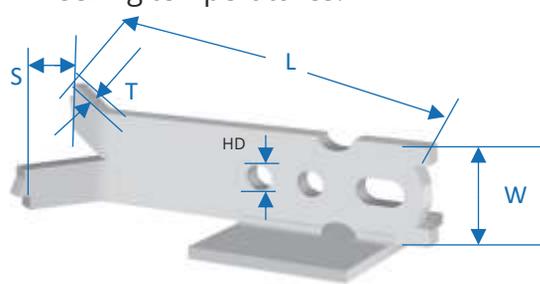
### Main purpose:

- Horizontal to vertical edge lifting;
- Handling of thin-walled precast elements;
- Impact resistant.

Tension bars provide a simple and economical method for increasing tension capacity.

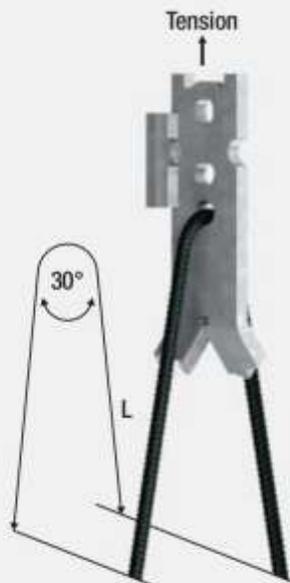
## Split Foot Erection Anchor with Shear Plate

This product is ideal for hoisting and transferring thin-walled concrete components from horizontal to vertical, this anchor safely transfers all applied loads to the concrete, helping prevent damage or cracking. The attached shear plate replaces the shear bar, increases shear capacity and reduces minimum panel thickness. A tension bar is typically needed to achieve higher load capacities. Available in 2 T, 4 T, and 8 T capacities, with a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.



### Characters

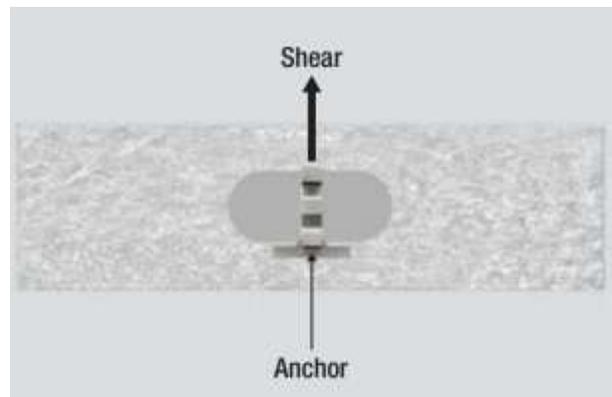
Ton	Item ID	Ring Clutch System	L	T	W	S	HD
2T	MAP-EA-SP-2	2T-3T	8"	3/8"	2"	2-3/4"	5/8"
4T	MAP-EA-SP-4	4T-6T	10-1/2"	5/8"	2-1/2"	3-3/8"	3/4"
8T	MAP-EA-SP-8	8T-12T	12-13/16"	3/4"	3-3/4"	5"	1"



Tension Bars provide a simple and economical method to increase tension capacity.

### Main purpose:

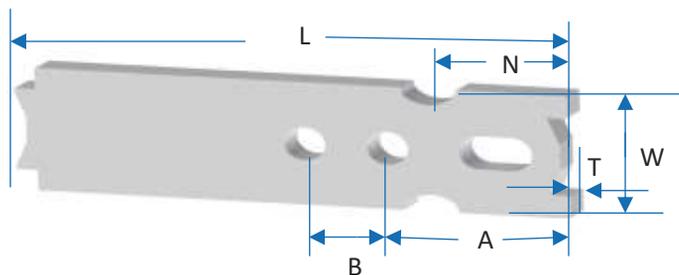
- Horizontal to vertical edge lifting;
- Handling of thin-walled precast elements;
- Impact resistant.



For anchors without tension bars, the minimum spacing must be at least twice the corner distance

## Erection Head Anchor

This product is ideal for hoisting and transferring thin-walled concrete components from horizontal to vertical, this anchor safely transfers all applied loads to the concrete, helping prevent damage or cracking. The shear capacities below require a shear bar. A tension bar is typically needed to achieve higher load capacities. Available in 2 T, 4 T, and 8 T capacities, with a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.



### Characters

Ton	Item ID	Ring Clutch System	L	W	T	A	B	N
2T	MAP-EHA-2	2T-3T	4-1/4"	2"	3/8"	2-3/8"	1/32"	1-13/16"
4T	MAP-EHA-4	4T-6T	7-7/16"	2-1/2"	5/8"	3-3/16"	1/16"	2-1/2"
8T	MAP-EHA-8	8T-12T	13-1/4"	3-3/4"	3/4"	4"	1-3/4"	3-1/8"

### Main purpose:

- Horizontal to vertical edge lifting;
- Handling of thin-walled precast elements;
- Impact resistant.



## Tech Anchor

Tech Anchor are designed with a unique foot design that allows the anchors to fit in congested reinforcing areas, commonly used to “back strip” panels from forms. The anchors also have a secondary reinforcing hole that can be used if required. With a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.

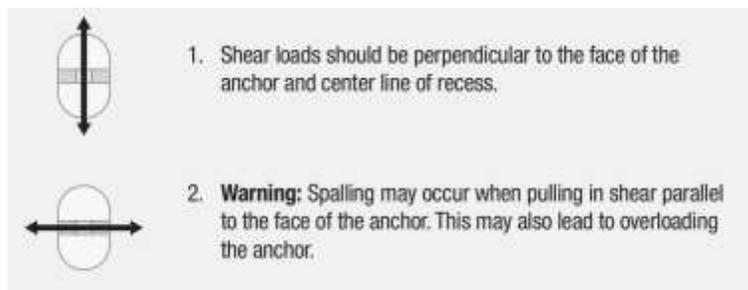


### Characters

Ton	Item ID	Size	L	T	W
2T	MAP-TAN-2	2T	4-23/25"	39/100"	1-13/50"
4T	MAP-TAN-4	4T	5-43/100"	63/100"	1-1/2"

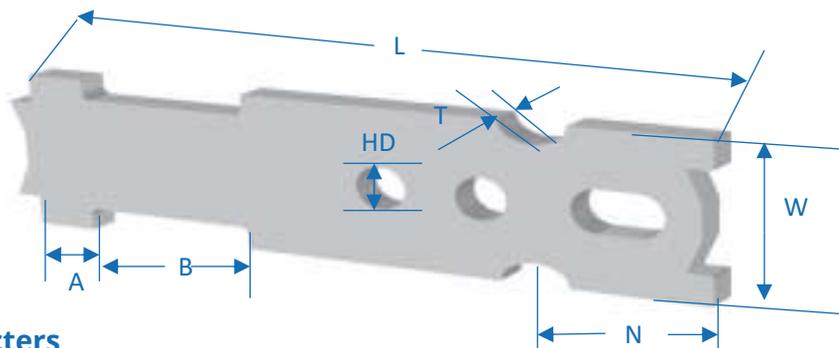
### Main purpose:

- Allows the anchors to fit in congested reinforcing areas;
- Impact resistant.



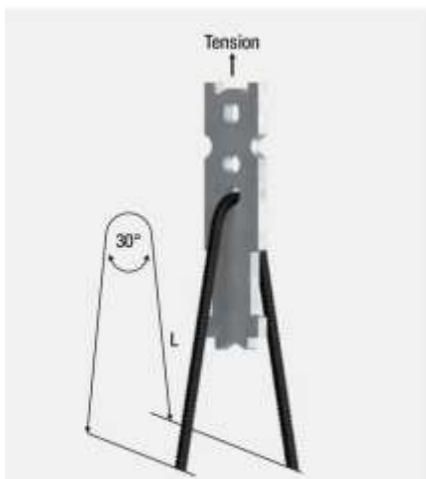
## Tech Erection Anchor

This product is ideal for hoisting and transferring thin-walled concrete components from horizontal to vertical, this anchor safely transfers all applied loads to the concrete, helping prevent damage or cracking. The shear bar is required with this anchor. A tension bar is typically needed to achieve higher load capacities. Available in 2 T, 4 T, and 8 T capacities, with a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.



### Characters

Ton	Item ID	Ring Clutch System	L	T	W	HD	A	B	N
2T	MAP-TEAN-2	2T-3T	8-11/16"	3/8"	2"	5/8"	5/8"	2-5/8"	1-13/16"
4T	MAP-TEAN-4	4T-6T	10-7/16"	5/8"	2-1/2"	3/4"	3/4"	2-5/8"	2-1/2"
8T	MAP-TEAN-8	8T-12T	13-1/2"	3/4"	3-3/4"	1"	1"	3-5/8"	3-1/8"



### Main purpose:

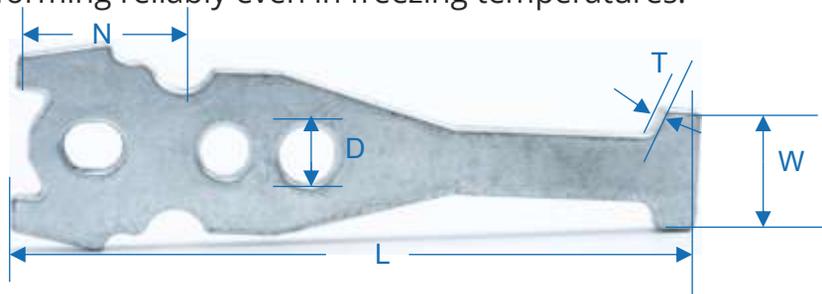
- Horizontal to vertical edge lifting;
- Handling of thin-walled precast elements.

\*Tension Bars provide a simple and economical method for increasing tension capacity;

\*For anchors without tension bars, the minimum spacing must be at least twice the corner distance.

## Forged Erection Anchor

This product is ideal for hoisting and transferring thin-walled concrete components from horizontal to vertical, this anchor safely transfers all applied loads to the concrete, helping prevent damage or cracking. The shear bar is required with this anchor. A tension bar is typically needed to achieve higher load capacities. Available in 2 T, 4 T, and 8 T capacities, with a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.

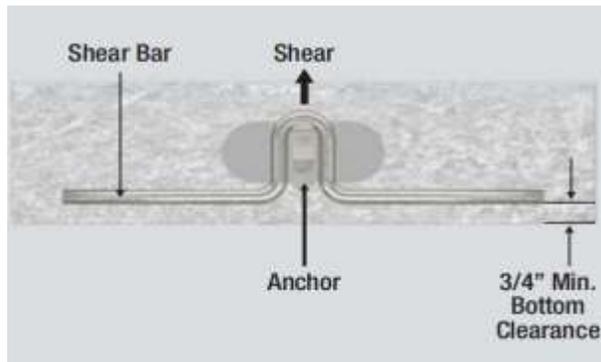
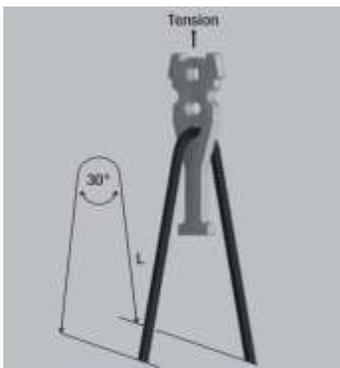


### Characters

Ton	Item ID	Ring Clutch System	L	T	W	D	N
3T	MAP-SFEA-3	2T-3T	8"	3/8"	2-3/8"	5/8"	1-13/16"
6T	MAP-SFEA-6	4T-6T	10-1/2"	5/8"	3-3/16"	7/8"	2-1/2"
12T	MAP-SFEA-12	8T-12T	12-1/2"	3/4"	3-3/4"	1-3/16"	3-1/8"

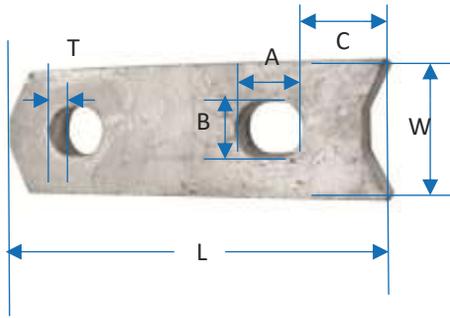
### Main purpose:

- Horizontal to vertical edge lifting;
- Handling of thin-walled precast elements;
- Prevent the ring clutch from coming in contact and spalling the concrete;
- Impact resistant.



Tension Bars provide a simple and economical method to increase tension capacity.

## Two Hole Anchor



This product is applied to the installation of reinforcing bars of beams and walls. This type of plate anchor is not suitable for floors, stairs or other components without sufficient space for reinforcement.

The reinforcement in the concrete is realized by reinforcement, which must be installed in the second hole at the bottom of the slab.

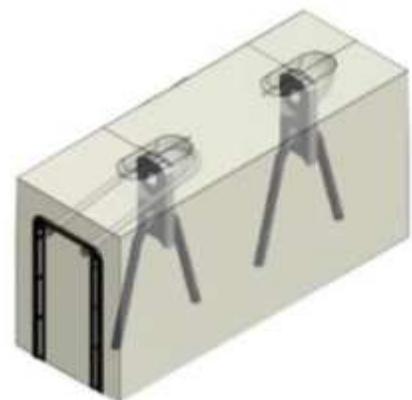
### Characters

Ton	Item ID	L	T	W	A	B	C
2T	MPA-M2-2-100	4"	3/8"	1-1/4"	3/4"	9/16"	7/8"
4T	MPA-M2-4-120	5-1/2"	5/8"	1-1/2"	7/8"	11/16"	15/16"
8T	MPA-MZ-8-180	7"	3/4"	2-1/2"	1/3/16"	1"	1-7/16"
22T	MPA-MZ-22-300	11-3/4"	1-3/16"	3-1/8"	1/3/16"	1-3/8"	2-7/16"

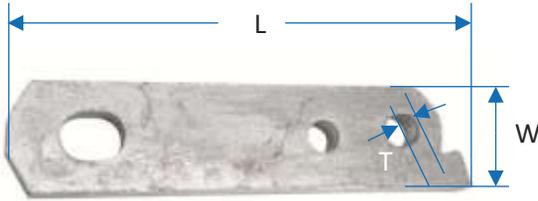
1. Material Q345D/ST52-3;
2. AKV -20°C ≥28j;
3. Surface mill/Zinc/HDG.

### Main purpose:

It is used for the installation of stiffeners in the area of thin-walled members (As shown in the figures below).



## Sandwich Panel Anchor



### Main purpose:

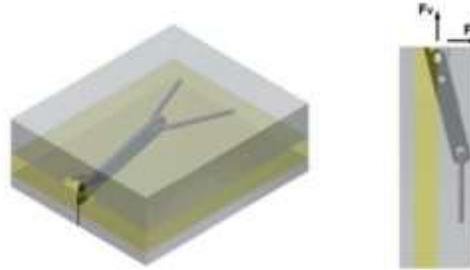
Demoulding, lifting thin plates, concrete pipes etc.

1. Material Q345D/ST52-3;
2. AKV -20°C ≥28J;
3. Surface mill/Zinc/HDG.

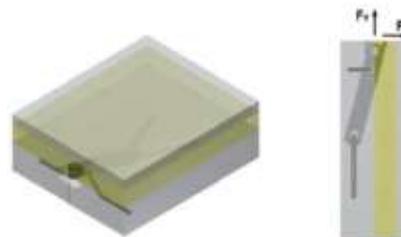
### Characters

Ton	Item ID	Size	L	T	W
2.5T	MPA-MX-2.5-250	2.5T	10-5/8"	1/3"	1-1/2"
5T	MPA-MX-5-300	5T	11-7/8"	5/8"	2-1/3"
10T	MPA-MX-7.5-350	7.5T	13-3/4"	5/8"	3-1/6"
10T	MPA-MX-10-350	10T	13-3/4"	4/5"	3-1/6"
26T	MPA-MX-17-400	17T	15-3/4"	1"	3-14/15"

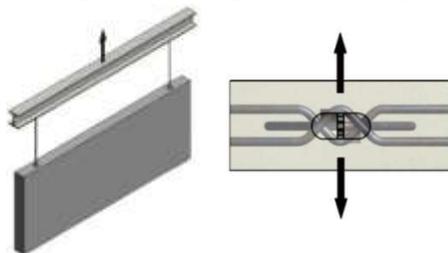
- 1 When the installation hole of the plate anchor is inclined downward, the reinforcing rid shall be installed as shown in the figures on the right.



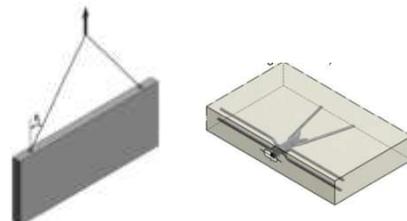
- 2 When the mounting hole of this product inclines upward, the reinforcing rib shall be installed as shown in the figures right.



- 3 When using this type of product for lifting and transportation, it is recommended to use the lifting beam, so as to avoid the damage of components during lifting, advancing and placing.

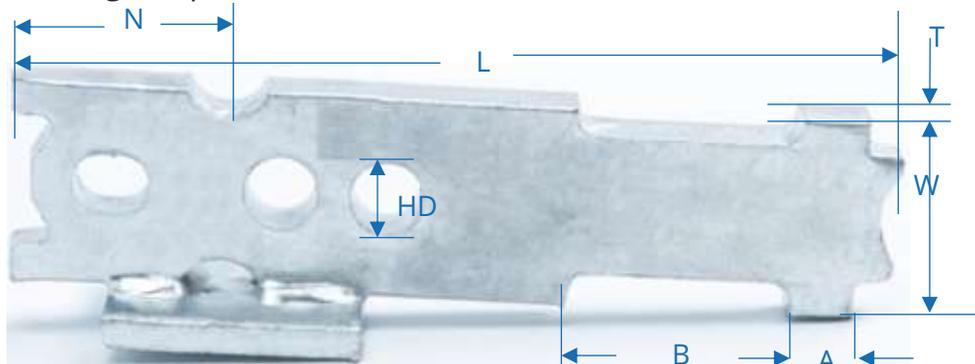


- 4 Diagonal loads are not permitted. Maximum allowable lifting angle is 30°.



## Tech Erection Anchors with Shear Plate

This product is ideal for hoisting and transferring thin-walled concrete components from horizontal to vertical, this anchor safely transfers all applied loads to the concrete, helping prevent damage or cracking. A tension bar is typically needed to achieve higher load capacities. Available in 2 T, 4 T, and 8 T capacities, with a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.

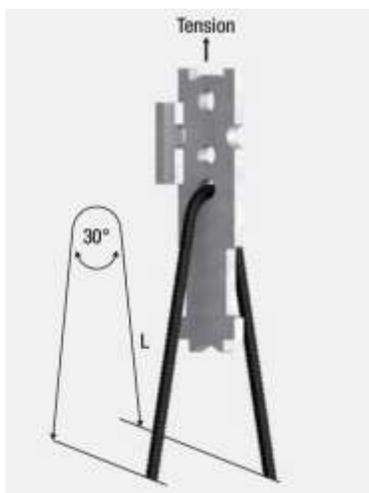


### Characters

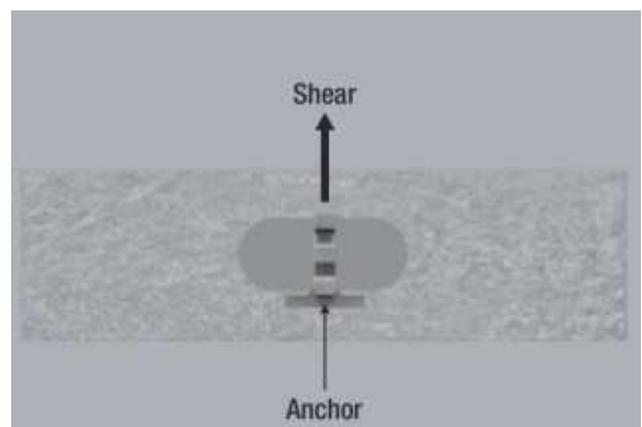
Ton	Item ID	Ring Clutch System	L	T	W	HD	A	B	N
2T	MAP-TEAN-SP-2	2T-3T	8-11/16"	3/8"	2"	5/8"	5/8"	2-5/8"	1-13/16"
4T	MAP-TEAN-SP-4	4T-6T	10-7/16"	5/8"	2-1/2"	3/4"	3/4"	2-5/8"	2-1/2"
8T	MAP-TEAN-SP-8	8T-12T	13-1/2"	3/4"	3-3/4"	1"	1"	3-5/8"	3-1/8"

### Main purpose:

- Horizontal to vertical edge lifting;
- Handling of thin-walled precast elements.

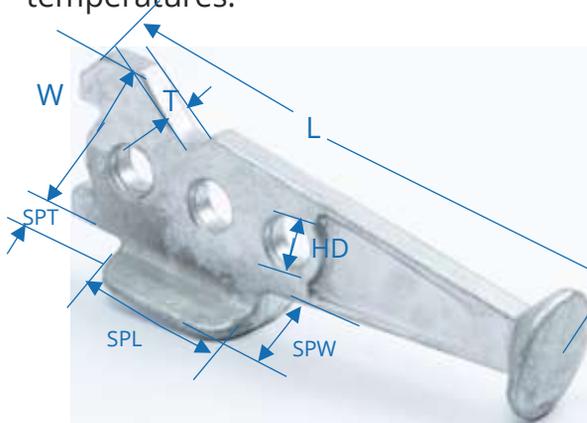


- Tension Bars provide a simple and economical method for increasing tension capacity;
- For anchors without tension bars, the minimum spacing must be at least twice the corner distance.



## Forged Erection Anchors with Shear Plate

This product is ideal for hoisting and transferring thin-walled concrete components from horizontal to vertical, this anchor safely transfers all applied loads to the concrete, helping prevent damage or cracking. The unique shear bar design of this anchor replaces the standard large shear plate, with a welded shear bar to minimize the interference with prestressed strands or reinforcing. With a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.

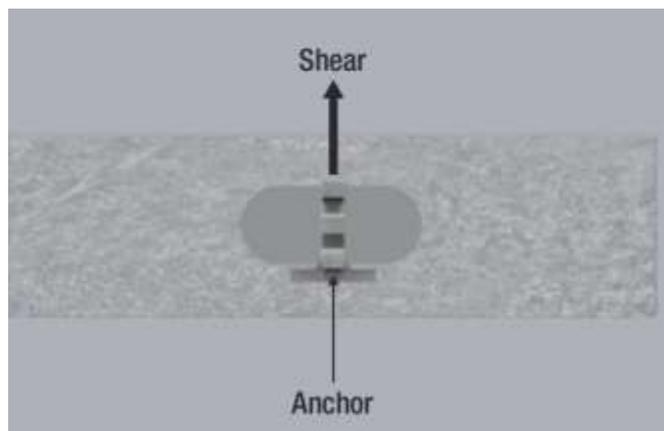
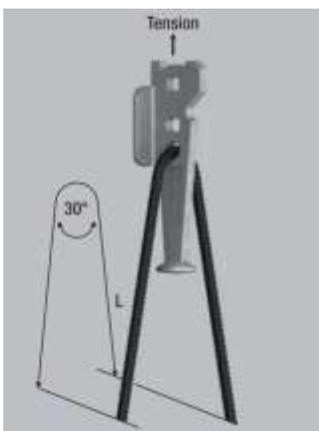


### Main purpose:

- Horizontal to vertical edge lifting;
- Handling of thin-walled precast elements;
- Prevent the ring clutch from coming in contact and spalling the concrete;
- Impact resistant etc.

### Characters

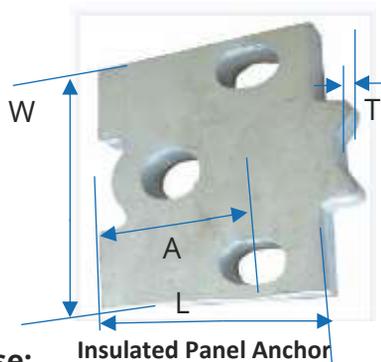
Ton	Item ID	Ring Clutch System	L	T	W	HD	SPW	SPL	SPT
3T	MAP-SFEA-SP-3	2T-3T	8"	3/8"	2-5/16"	5/8"	2-1/2"	3-1/2"	7/16"
6T	MAP-SFEA-SP-6	4T-6T	10-1/2"	5/8"	2-15/16"	7/8"	3-1/8"	4"	1/2"
12T	MAP-SFEA-SP-12	8T-12T	12-3/4"	3/4"	4-1/4"	1-3/16"	3-1/4"	4"	1/2"



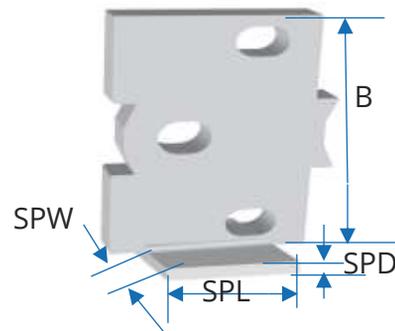
Tension Bars are required for Forged Erection Anchor to achieve tension values.

## Insulated Panel Anchor

This product is good for edge-hoisting insulated panels effectively, which spans the insulation and connects the exterior and interior wythes, distributing the shear and tension loads through the added reinforcement. With a very small profile, product can minimize the disruption of the insulation during installation. Product supports each wythe during the erection process, decreasing the shear stress on the insulated panel tie system. Reinforcement is required as shown in the details below. Products use the standard 4T-10T Lifting Clutches and accessories. With a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.



Insulated Panel Anchor



Insulated Panel Anchor  
w/ Shear Plate

**Main purpose:**

1. Edge-lift insulated panels;
2. Distributing the shear and tension loads through the added reinforcement;
3. Decreasing the shear stress on the insulated panel tie system.

Material: Zinc;  
Surface: Hot-dipped galvanized.

### Characters (Insulated Panel Anchor)

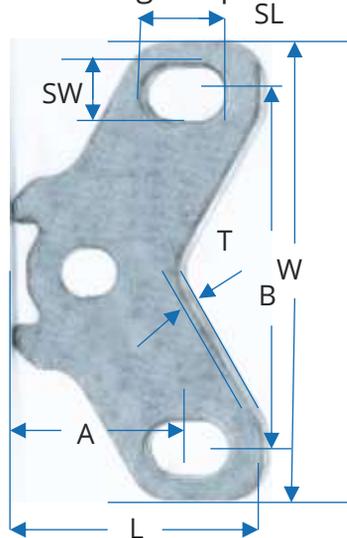
Ton	Item ID	L	T	W	A	B	Ultimate Mechanical in Tension (LBS)
4T	MPA-PA-4	3-1/4"	5/8"	6"	1-13/16"	4/3/8"	32000
8T	MPA-PA-8	4-3/4"	3/4"	6"	3-1/2"	4/3/8"	64000
10T	MPA-PA-10	4-3/4"	3/4"	7"	3-3/8"	4/3/8"	80000
10T	MPA-PA-10EX	4-3/4"	3/4"	8"	3-3/8"	5-1/2"	80000

### Characters (Insulated Panel Anchor w/ Shear Plate)

Ton	Item ID	L	T	W	A	B	SPW	SPL	SPD
4T	MAP-PA-SP-4	3-1/4"	5/8"	4"	2-5/16"	2-3/8"	3"	2"	1/4"
8T	MAP-PA-SP-8	4-3/4"	3/4"	6"	3-1/2"	4-3/8"	3-1/2"	3"	3/8"
10T	MAP-PA-SP-10	4-3/4"	3/4"	7"	3-3/8"	4-3/8"	8"	3"	1/2"
10T	MAP-PA-SP-10EX	4-3/4"	3/4"	8"	3-3/8"	5-1/2"	8"	3"	1/2"

## Forged Insulated Panel Anchor

This product is good for edge-hoisting insulated panels effectively, which spans the insulation and connects the exterior and interior wythes, distributing the shear and tension loads through the added reinforcement. With a very small profile, product can minimize the disruption of the insulation during installation. Product supports each wythe during the erection process, decreasing the shear stress on the insulated panel tie system. Reinforcement is required. with a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.

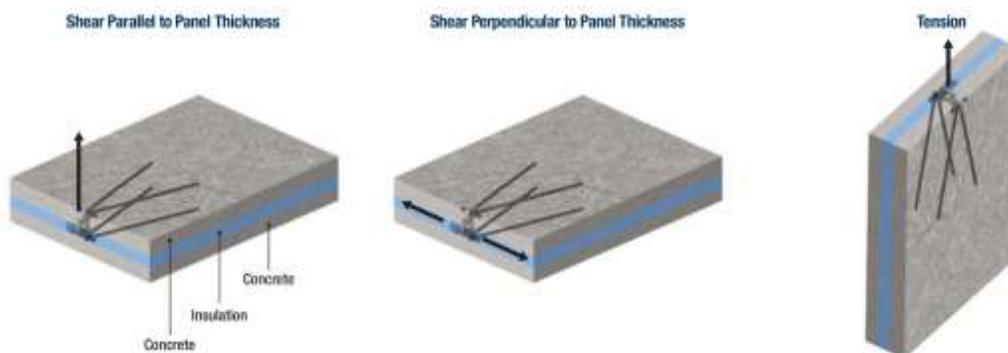


### Main purpose:

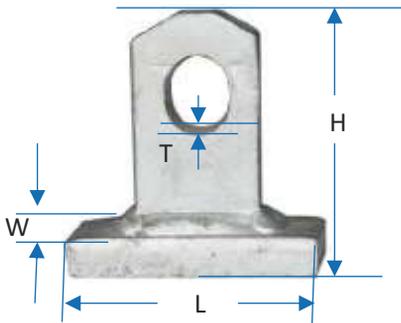
Edge-lift insulated panels efficiently and economically. insulation and connects the exterior and interior wythes, decreasing the shear stress on the insulated panel tie system, Impact resistant etc.

### Characters

Ton	Item ID	Ring Clutch System	L	T	W	A	B	SL	SW
6T	MAP-FIPA-6	4T-6T	3-15/16"	5/8"	7"	2-3/4"	5-3/8"	1-3/16"	13/16"
9T	MAP-FIPA-9	8T-12T	4-3/16"	3/4"	5-3/4"	2-3/4"	3-3/4"	1/1/2"	15/16"
12T	MAP-FIPA-12	8T-12T	4-13/16"	3/4"	7"	3-3/16"	5"	1-3/16"	1-1/8"
12T	MAP-FIPA-12EX	8T-12T	5"	3/4"	8"	3-7/16"	6"	1-3/16"	1-1/8"



## Plate Anchor



The load range of this product is from 14KN to 100KN. It is mainly used for demoulding, hoisting thin plates, concrete pipes etc. The concrete strength of all hoisting components must reach 20 MPa.

This product must be arranged with reinforcing bars crosswise according to the reinforcement length of concrete.

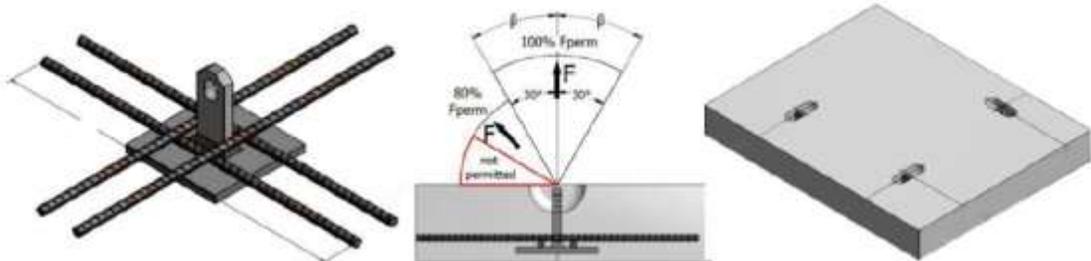
### Characters

Ton	Item ID	Ring Clutch System	H	T	W	L
2T	MPA-MP-2.5-55	2T-3T	2-1/4"	3/8"	1-1/4"	3-3/4"
4T	MPA-MP-5-76	4T-6T	3"	5/8"	1-1/2"	3"
4T	MPA-MP-5-90	4T-6T	3-1/2"	5/8"	1-1/2"	3"
4T	MPA-MP-5-110	4T-6T	4-3/8"	5/8"	1-1/2"	3-7/8"
8T	MPA-MP-10-158	8T-12T	6-1/4"	3/4"	2-1/2"	5"
8T	MPA-MP-10-180	8T-12T	7-1/8"	3/4"	2-1/2"	5"

### Main purpose:

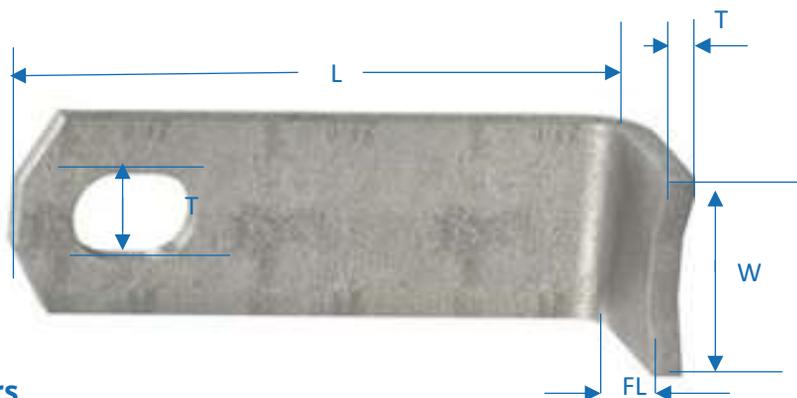
Demoulding, lifting thin plates, concrete pipes etc.

1. Material Q345D/ST52-3;
2. AKV -20°C ≥28J;
3. Surface mill/Zinc/HDG.



## 1 Ton L Anchor

L-Anchors are designed for back-stripping and edge hoisting in thicker panels, these versatile anchors are commonly used in slabs/panels due to the capacities and low cost. By maintaining the minimum edge distances (1.5 x anchor length) these anchors can handle shear loads equal to the tension loads listed when installed in the face of concrete. With a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.



### Characters

Ton	Item ID	Ring Clutch System	L	T	W	FL
1T	MAP-LAN-1	2T-3T	4"	3/16"	1-1/4"	1-7/16"

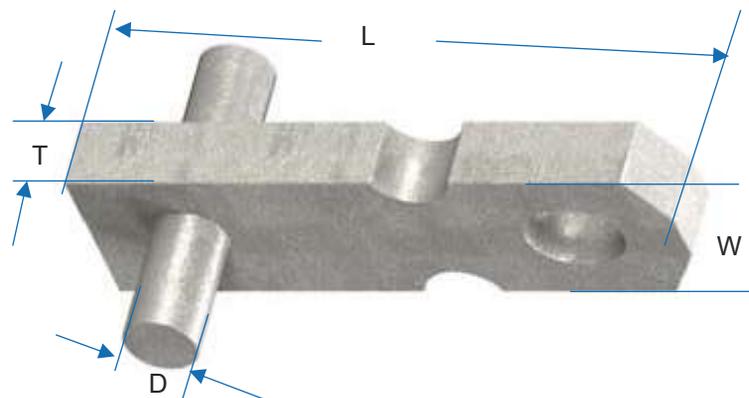
### Main Purpose:

- Back-stripping And Edge Lifting In Thicker Panels;
- Handle Shear Loads Equal To The Tension Loads Listed;
- Impact Resistant.



## T-Bar Anchor

T-Bar Anchor is designed to maximize tension capacities by using a solid steel bar, placed horizontally through the bottom of the anchor. The compact design comes in a variety of lengths and may be “wet-set”, further improving the versatility and the ease of use. A 3/8” minimum coverage at the bottom of the anchor is recommended. Designed for surface applications, used to “back-strip” panels from forms. Shear capacity allows T-Bar Anchors to be used for rotation to vertical. with a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.

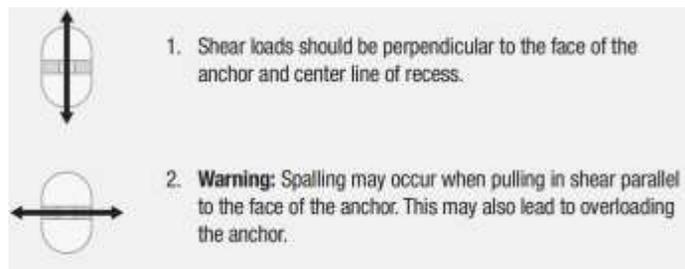


### Characters

Ton	Item ID	Ring Clutch System	L	T	W	D
2T	MAP-TBAN-2	2T-3T	4"	3/8"	1-1/4"	1/2"
4T	MAP-TBAN-4-08	4T-6T	4-1/4"	5/8"	1-1/2"	5/8"
4T	MAP-TBAN-4-33	4T-6T	5-1/4"	5/8"	1-1/2"	5/8"
4T	MAP-TBAN-4-59	4T-6T	6-1/4"	5/8"	1-1/2"	5/8"
4T	MAP-TBAN-4-84	4T-6T	7-1/4"	5/8"	1-1/2"	5/8"

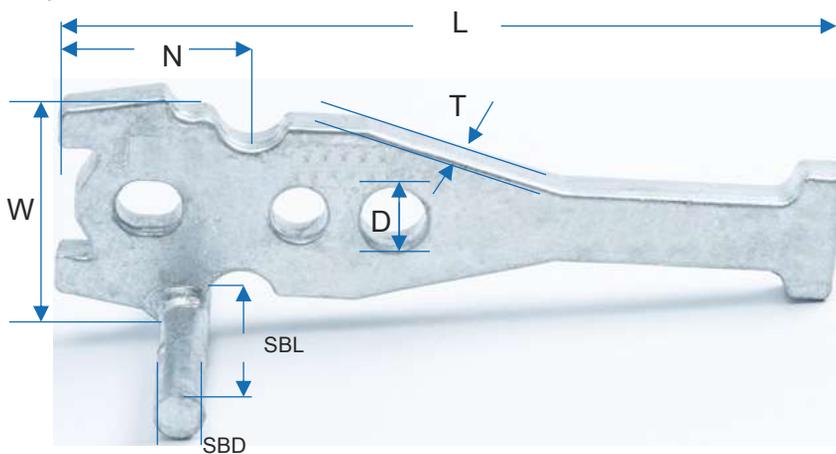
### Main purpose:

- Maximize tension capacities;
- Rotation to vertical;
- Impact resistant.



## Forged Erection Anchors with Shear Bar

This product is ideal for hoisting and transferring thin-walled concrete components from horizontal to vertical, this anchor safely transfers all applied loads to the concrete, helping prevent damage or cracking. The unique shear bar design of this anchor replaces the standard large shear plate, with a welded shear bar to minimize the interference with prestressed strands or reinforcing. With a hot-dipped galvanized finish for corrosion resistance. Impact-resistant, performing reliably even in freezing temperatures.



Also available with a dual shear bar

### Characters

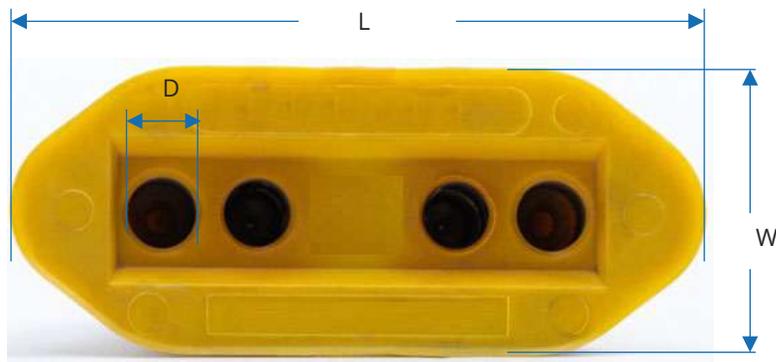
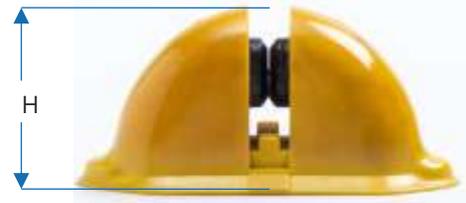
Ton	Item ID	Ring Clutch System	L	T	W	D	N	SBD	SBL
6T	MAP-SFEA-SB-6	4T-6T	10-1/2"	5/8"	3-5/8"	7/8"	2-1/2"	5/8"	6"
6T	MAP-SFEA-SB-6S	4T-6T	10-1/2"	5/8"	4-1/8"	7/8"	2-1/2"	5/8"	6"

Tension Bars provide a simple and economical method for increasing tension capacity.



Unique design minimizes interference with prestressed strand and reinforcing.  
Welded shear bar design allows sufficient concrete consolidation under the anchor.

## Recess Members for Erection Anchor



### Characters

Ton	Item ID	W	L	H	D	Plate Thickness	Color
2.5T	OS-EARM-2.5T-YEL	1-11/16"	4-11/16"	1-7/8"	3/8"	0.393"	Yellow
5T	OS-EARM-5T-ORA	2-1/16"	5"	2-7/16"	3/8"	0.630"	Orange
10T	OS-EARM-10T-GRE	3-1/16"	7-7/16"	3-1/4"	1/2"	0.787"	Green
26T	OS-EARM-26T	4-7/16"	9-3/16"	4-5/8"	1/2"	1.181"	Black

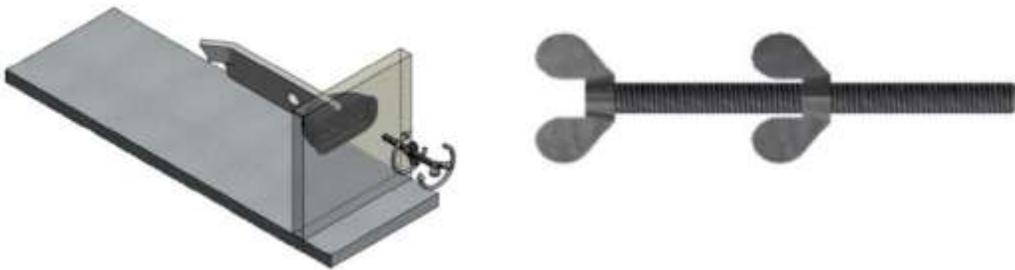
### Main purpose:

PU mold (Groove shaper) is used to make groove cavity in the concrete around the herringbone plate.

## Usage Method

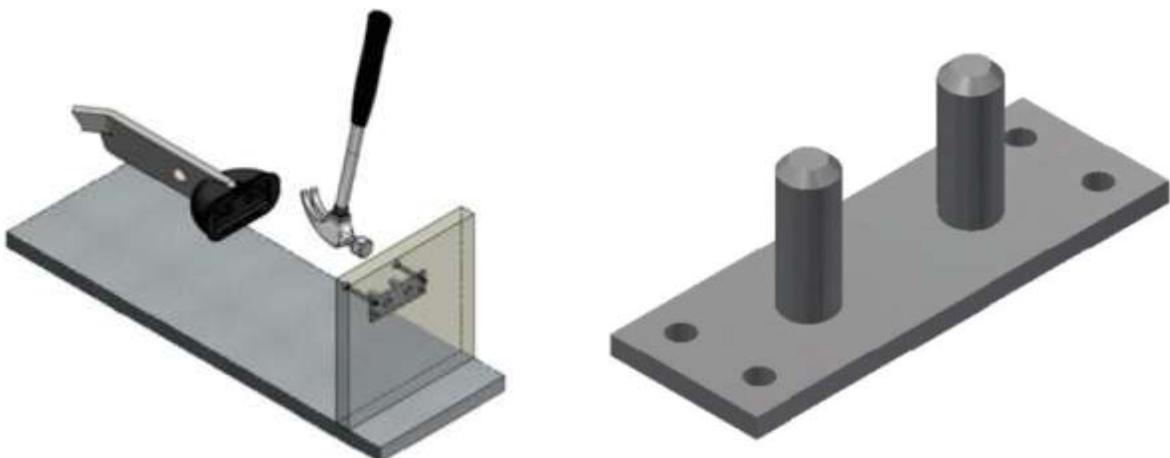
According to the use environment, the PU module can be divided into the following four types:

- 1 When casting concrete components using wooden or steel formwork, the PU formwork must be used together with the designated fixing screws. Pre-drill the required through-holes at the marked positions on the formwork.  
Assemble the herringbone plate with the PU formwork, then insert the fixing screws through the predrilled holes and tighten them into the threaded holes of the PU formwork. This ensures the formwork is securely positioned and properly installed (As shown in the figures below).

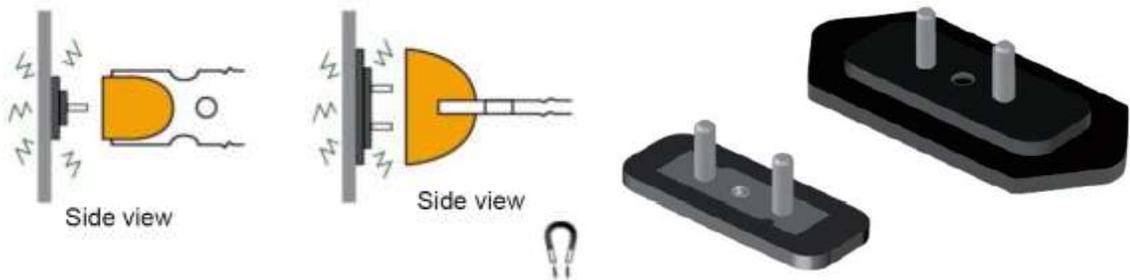


(Use a fixed wing nut at one end of the screw, and use an adjustable wing nut in the middle to fix the PU mold on the template)

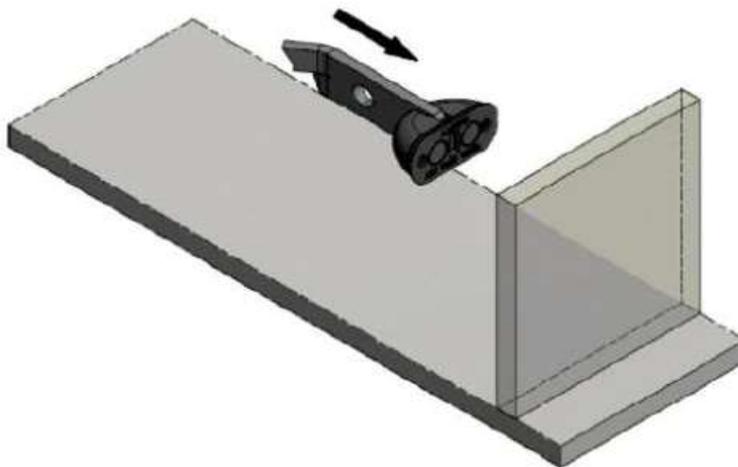
- 2 When wooden formwork is used for casting concrete components, the PU formwork must be used together with the fixed plate. Position the fixed plate at an appropriate location on the wooden formwork and secure it using iron nails or screws. Assemble the herringbone plate and the PU formwork as a unit, then mount the assembly onto the fixed base of the fixed plate to complete the installation (As shown in the figures below).



- 3 When steel formwork is used, the **PU formwork** must be paired with a **magnetic fixing plate**. The magnetic plate provides strong holding force and must be positioned at the predetermined location on the steel formwork. For optimal magnet adhesion, the formwork surface must be clean, flat, and free of concrete residue. Pre-assemble the herringbone plate and PU formwork, then install the assembly onto the magnetic fixing plate. Apply a thin layer of grease to the magnetic plate to facilitate removal after casting (As shown in the figures below).

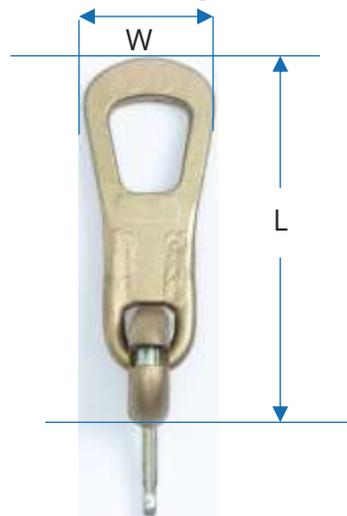


- 4 If drilling into the steel formwork is not possible, a **magnetic PU mold** can be used instead. The magnetic PU mold has strong holding force and can be installed at the required position on the steel formwork. Pre-assemble the herringbone plate and PU mold before installation (As shown in the figure below).



## Ring Clutch

The ring clutch consists of a **bail, clutch, and curved bolt handle**. For installation, rotate the curved bolt to the open position and insert the clutch into the anchor recess. To secure the connection, rotate the bolt handle until it makes firm contact with the panel surface, ensuring the clutch is fully locked onto the anchor.



### Characters

Load Class (Tons)	Item ID	L	W
2-3T	RL-Ring Cluch-2.5T	10-5/16"	3-3/4"
4-6T	RL-Ring Cluch-5T	13-1/4"	4-7/16"
8-12T	RL-Ring Cluch-10T	16-1/2"	5-1/2"

Load Class (Tons)	Item ID	Safe Working Load KN	Ultimate Tensile Requirement KN
2.5T	RingCluch-2.5T	24.5	122.5
5T	RingCluch-5T	49	245
10T	RingCluch-10T	98	490
26T	RingCluch-26T	230	1150

### Main purpose:

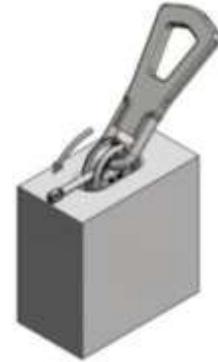
The flat rod sling (quick hook connector) is composed of the flat rod sling head and the lifting ring, which must be visually inspected before use. The sling head and the lifting ring must not have any visible cracks and bending deformation.

## Usage Method

- 1 Put the sling head into the groove of the herringbone plate in the concrete so that the opening part faces the head of the herringbone plate (As shown in the right figures).



- 2 Move the pin bolt to the position shown in the figure below by hand, and then remove the lifting appliance after the end of use (As shown in the right figures).



- 3 Remove the sling after use (As shown in the right figures).

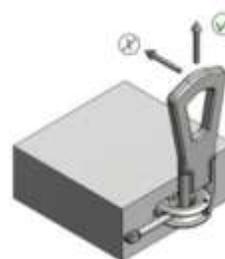


## Points to Note

- 1 The sling may be loaded in any direction within the allowable load range of the herringbone plate. Due to the wire rope's inclination, the maximum permitted diagonal tension angle is  $60^\circ$  (As shown in the right figures).

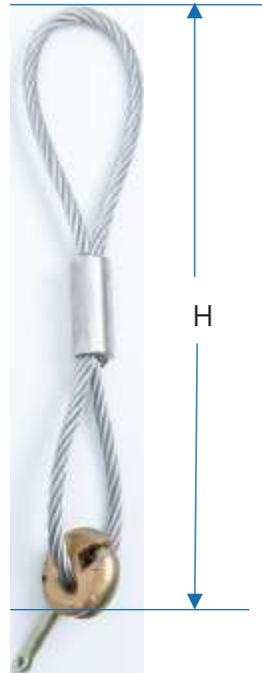


- 2 The sling may be loaded in any direction within the allowable load range of the herringbone plate. Due to the inclination of the wire rope, the maximum permitted diagonal tension angle is  $60^\circ$  (As shown in the right figures).



## Cable Ring Clutch

The Cable Ring Clutch assembly consists of a cable, swage, clutch body and curved bolt handle. To install, rotate the curved bolt to the opened position and insert the clutch into the recess. To lock onto the anchor, rotate the curved bolt handle until the handle contacts the panel surface.



### Characters

Load Class (Tons)	Item ID	Name	H (Height)
2-3T	RL-RCWC-2T	Ring Clutch W/wire Cable	23-3/4"
4-6T	RL-RCWC-5T	Ring Clutch W/wire Cable	25-1/2"
8-12T	RL-RCWC-10T	Ring Clutch W/wire Cable	33-1/2"
12.5-22T		Ring Clutch W/wire Cable	62"

Load Class (Tons)	Item ID	Name	Safe Working Load (KN)
1.25T	RCWC-1.25T	Ring Clutch W/wire Cable	12.4
2T	RCWC-2T	Ring Clutch W/wire Cable	24.5
5T	RCWC-5T	Ring Clutch W/wire Cable	49
10T	RCWC-10T	Ring Clutch W/wire Cable	98

### Main purpose:

The difference between the wire rope sling and the flat rod sling (quick hook connector) is that the suspension ring is replaced by a flexible wire rope ring, which is used in the same way as the flat rod sling.

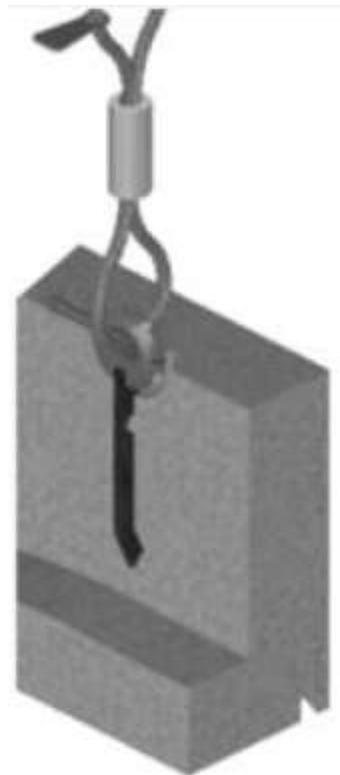
## Usage Method

### Ring Clutch W/Wire Cables

- 1 Before using the wire rope, check it. The details are as follows.
- 2 The steel wire rope shall not be knotted and the steel wire shall not be broken.
- 3 The free layer on the surface of the free length of the wire rope is not allowed to be loose, flattened and scratched.
- 4 No more than 4 steel wire breaks are allowed in the pressure bearing area of the inner ring of the wire rope.
- 5 The wire rope and its joints shall not be damaged or gradually worn. If there are many broken steel wires, it is mandatory to scrap the wire rope sling.

#### **Matters to pay attention:**

Examples of application of wire rope slings (As shown in the right figure).



## Plate Anchor Hoisting System

The plate anchor hoisting system includes three parts: plate anchor, recess former and ring clutch. The plate anchor has different load levels, sizes and models to choose from. It is designed and made of high-performance materials under strict quality control to ensure that it meets the highest Plate Anchor Hoisting System possible safety requirements and can be used in most lifting methods.

### Plate Anchor system



### Plate Anchor



### Ring Clutch



### Rubber Member

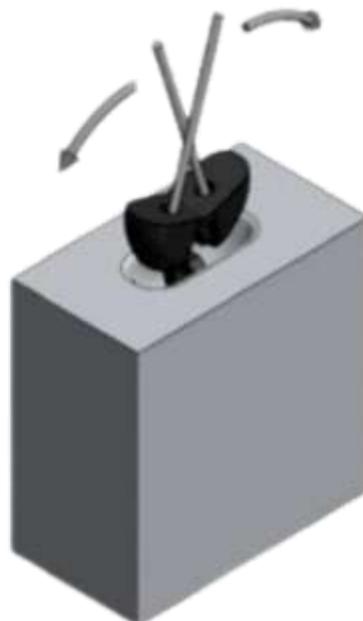


## Usage Method

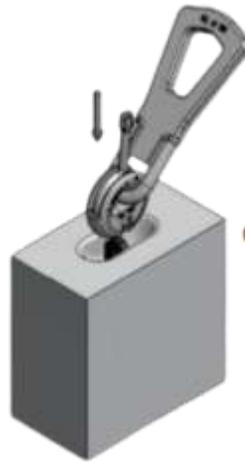
- 1 Before making concrete components, the plate anchor and recess former must be installed at the predetermined position of the formwork in advance (As shown in Usage method the below figure).



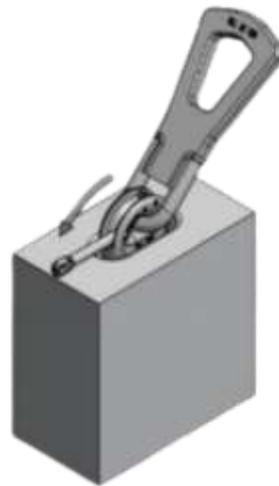
- 2 Before making concrete components, the plate anchor and recess former must be installed at the predetermined position of the formwork in advance (As shown in the below figure).



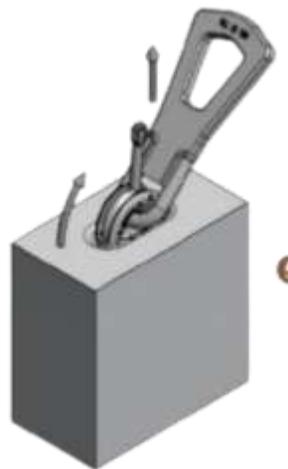
- 3 Install the ring clutch before lifting (As shown in the right figure).



- 4 Lock the ring clutch (As shown in the right figure).



- 5 Remove the sling after lifting (As shown in the right figure).



**Note:**

*For the application of wire rope slings, please refer to the use method of the above slings.*

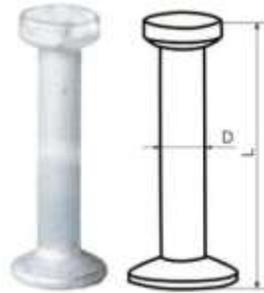
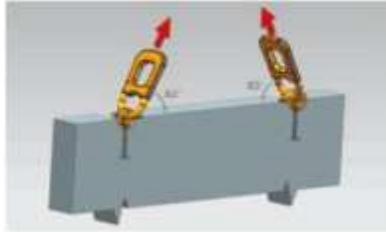


# Spherical Head Lifting Anchor System



## Spherical Head Lifting Anchor

The T-bar system is a quick-connection lifting system with lifting load ranging from 1.3 to 32 tons. The system structure includes T-bar, spreader and rubber mold, which is used to lift precast concrete beams, thick floors, wallboards and concrete pipes.



Material:  
CM490\20Mn2\S.S\Q34  
5D/ST52-3

Surface mill/Zinc/HDG

### Characters

Item	Item No	Size	L	D
1	OS-SHLA-1.3T-35	1.3T	1-1/3"	2/5"
2	OS-SHLA-1.3T-45	1.3T	1-3/4"	2/5"
3	OS-SHLA-1.3T-50	1.3T	1-19/20"	2/5"
4	OS-SHLA-1.3T-55	1.3T	2-1/6"	2/5"
5	OS-SHLA-1.3T-60	1.3T	2-1/3"	2/5"
6	OS-SHLA-1.3T-65	1.3T	2-1/2"	2/5"
7	OS-SHLA-1.3T-85	1.3T	3-1/3"	2/5"
8	OS-SHLA-1.3T-120	1.3T	4-3/4"	2/5"
9	OS-SHLA-1.3T-240	1.3T	9-1/2"	2/5"
10	OS-SHLA-2.5T-55	2.5T	2-1/6"	1/2"
11	OS-SHLA-2.5T-65	2.5T	2-1/2"	1/2"
12	OS-SHLA-2.5T-70	2.5T	2-3/4"	1/2"
13	OS-SHLA-2.5T-75	2.5T	2-19/20"	1/2"
14	OS-SHLA-2.5T-85	2.5T	3-1/3"	1/2"
15	OS-SHLA-2.5T-90	2.5T	3-1/2"	1/2"
16	OS-SHLA-2.5T-120	2.5T	4-3/4"	1/2"
17	OS-SHLA-2.5T-140	2.5T	5-1/2"	1/2"
18	OS-SHLA-2.5T-170	2.5T	6-2/3"	1/2"
19	OS-SHLA-2.5T-210	2.5T	8-1/4"	1/2"
20	OS-SHLA-2.5T-240	2.5T	9-1/2"	1/2"
21	OS-SHLA-2.5T-280	2.5T	11"	1/2"
22	OS-SHLA-5T-65	5T	2-1/2"	4/5"
23	OS-SHLA-5T-75	5T	2-19/20"	4/5"
24	OS-SHLA-5T-85	5T	2-1/2"	4/5"

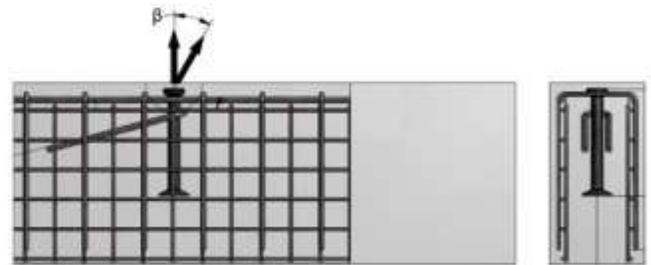
Item	Item No	Size	L	D
25	OS-SHLA-5T-90	5T	3-1/2"	4/5"
26	OS-SHLA-5T-95	5T	3-3/4"	4/5"
27	OS-SHLA-5T-110	5T	4-1/3"	4/5"
28	OS-SHLA-5T-120	5T	4-3/4"	4/5"
29	OS-SHLA-5T-140	5T	5-1/2"	4/5"
30	OS-SHLA-5T-170	5T	6-2/3"	4/5"
31	OS-SHLA-5T-180	5T	7"	4/5"
32	OS-SHLA-5T-240	5T	9-1/2"	4/5"
33	OS-SHLA-5T-480	5T	18-8/9"	4/5"
34	OS-SHLA-10T-115	10T	4-1/2"	1-1/10"
35	OS-SHLA-10T-120	10T	4-3/4"	1-1/10"
36	OS-SHLA-10T-135	10T	5-1/3"	1-1/10"
37	OS-SHLA-10T-150	10T	5-8/9"	1-1/10"
38	OS-SHLA-10T-170	10T	6-2/3"	1-1/10"
39	OS-SHLA-10T-180	10T	7"	1-1/10"
40	OS-SHLA-10T-220	10T	8-5/8"	1-1/10"
41	OS-SHLA-10T-200	10T	7-7/8"	1-1/10"
42	OS-SHLA-10T-250	10T	9-7/8"	1-1/10"
43	OS-SHLA-10T-340	10T	13-1/3"	1-1/10"
44	OS-SHLA-10T-680	10T	26-3/4"	1-1/10"
45	OS-SHLA-20T-200	20T	7-7/8"	1-1/2"
46	OS-SHLA-20T-250	20T	9-7/8"	1-1/2"
47	OS-SHLA-20T-500	20T	19-5/8"	1-1/2"
48	OS-SHLA-32T-700	32T	27-1/2"	1-11/12"

## Usage Method

- 1 The design load capacity of this T-bar is between 13KN and 320KN. Spherical Head Lifting Anchor Usage method: The T-bar of the same load series has different lengths. The Longer T-bar is used to install in a narrow space or an environment with low concrete strength. The load on the T-bar will be transferred to the concrete through the round foot of the bar (As shown in the right figure).



- 2 For inclined lifting, additional reinforcing steel bars need to be installed in the opposite direction of the force bearing load. The inclined reinforcing steel bars must be installed close to the groove and in full contact with the T-shaped bar. The concrete strength should be at least 15 Mpa, and the inclined angle B of lifting should Not exceed 30 °. In the case of inclined lifting of beams and wallboards, the T-shaped bar needs to be reinforced with steel bars (As shown in the figure right).



### Points to Note

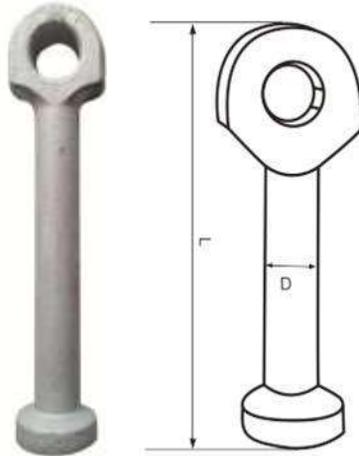
The T-shaped rod must be used in conjunction with the rubber mold. When the concrete is poured, the rubber mold will fix the T-shaped rod at the designated position. During inclined lifting, the sling will lean against the concrete so that the horizontal load can be directly transferred to the concrete, so no additional reinforcement is required when lifting large components. When lifting thin-walled components, in order to absorb the transverse tension, additional steel reinforcement is required at the embedded part of the T-bar (As shown in the below figure).

- 3 Installation of T-bar in flat plate (As shown in the below figures).



## Eye Anchor

It is mainly used as a thin element of roof beam or double-T beam, Usage method and suitable for lightweight concrete components.



1. Material: CM490\Q345D\ST52-3
2. Surface mill/Zinc/HDG

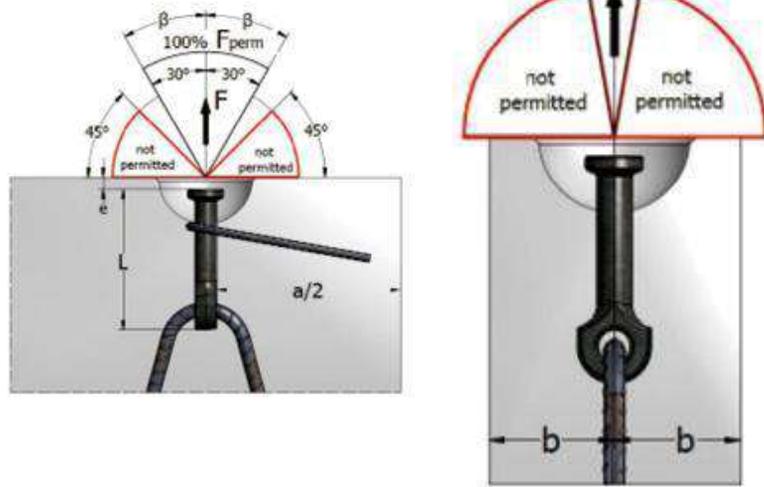
### Characters

Ton	Part Name	Item ID	L	D
1.3T	Eye Anchor	OS-EA-1.3T-65	2-9/16"	3/8"
2.5T	Eye Anchor	OS-EA-2.5T-90	3-1/2"	9/16"
5T	Eye Anchor	OS-EA-5T-120	4-3/4"	3/4"
10T	Eye Anchor	OS-EA-10T-180	7-1/16"	1-1/8"
20T	Eye Anchor	OS-EA-20T-250	9-7/8"	1-9/16"

- 1 There is a round hole at the end of this O-shaped rod, which can be used to place reinforcement bars, so that it can obtain good tension in small components. For lightweight prefabricated members, such as prestressed beams, since all loads have been transferred to the concrete members, the reinforcing steel bar should be in direct contact with the hole bottom of the O-shaped bar during installation. It is necessary to use this kind of steel bar in reinforcement. If there is no such reinforcement, do not use this type of O bar. For inclined lifting, additional inclined reinforcement must be used (As shown in the right figure).



- 2 In the case of inclined lifting, its additional stiffeners (As shown in the figures right).

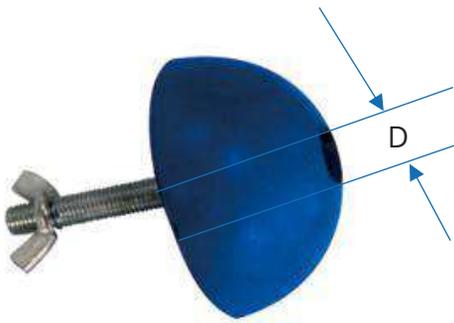


### Points to Note

- 1 The reinforcement must be bent to an internal angle of 30°
- 2 The head is formed into a hook, which can shorten the reinforcement as required (As shown in the figure below).
- 3 The diagonal reinforcement must be installed in the position opposite to the load direction, the diagonal reinforcement must be as close as possible to the groove and completely fit the T-bar (As shown in the figure below).



## Recess Member



### Main purpose:

The T-bar rubber mold is used to position the T-bar embedded in the concrete member, so that a groove cavity is formed in the concrete member.

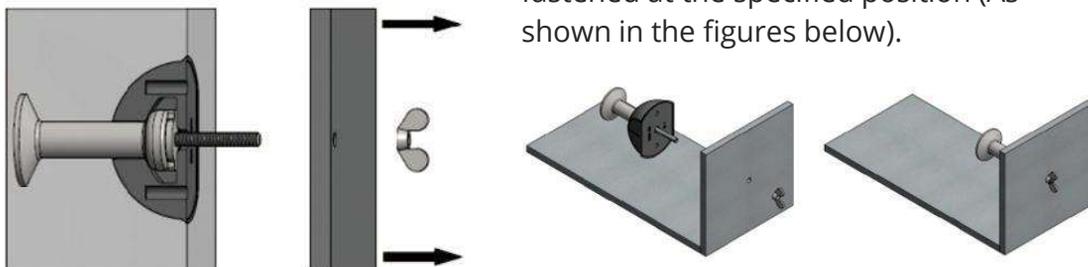
### Characters

Ton	Item ID	D	Color
1.3T	OS-SHLARM-1.3T	0.393"	Blue
2.5T	OS-SHLARM-2.5T	0.551"	Yellow
5T	OS-SHLARM-5T	0.787"	Blue
10T	OS-SHLARM-10T	1.102"	Yellow
20T	OS-SHLARM-20T	1.575"	Black
32T	OS-SHLARM-32T	1.969"	Black

### Usage Method

Installation and removal of rubber mold.

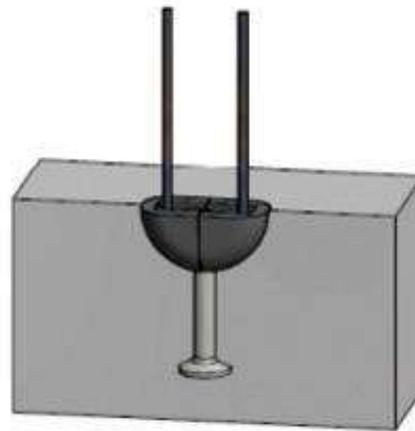
- 1 If the formwork can only be moved sideways, the rubber formwork shall be used with threaded rod and fixed plate (As shown in the below figures).
- 2 The fixed plate with threaded rod and T-shaped rod must be installed in the groove of the open rubber mold. The rubber mold is installed on the template with wing nuts, and then the nuts are fastened, and then the rubber mold is fastened at the specified position (As shown in the figures below).



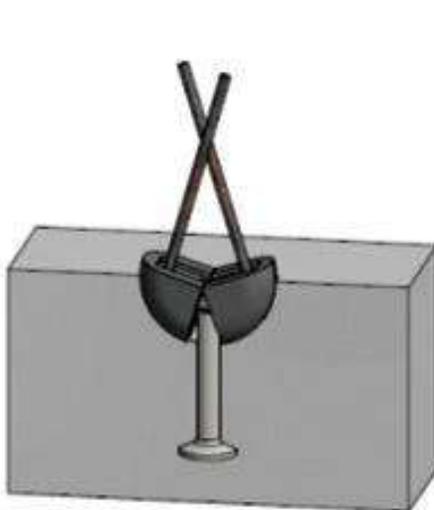
- 3 The state of T-shaped bar after pouring (As shown in the figure below).



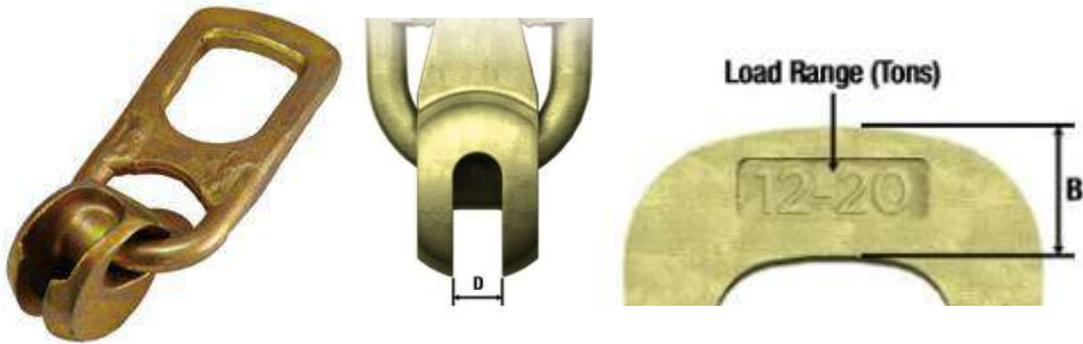
- 4 Dismantle the rubber mold: place two reinforcements into the rubber mold hole (As shown in the figure below).



- 5 After pouring, remove the rubber formwork after the concrete component has solidified. When removing the rubber formwork, insert two reinforcements into the hole and pry them out through shearing action. The above operations cannot be removed with a hammer, otherwise the groove will be damaged and the safety hazard will be caused (As shown in the figures below).



## Lifting Eye



### Characters

Load Class (Tons)	Item ID	Descriptions	D (Max.)	B (Min.)
1-1.3T	OS-LE-1.3T	1T Lift Eye	0.51"	0.55"
1.5-2.5T	OS-LA-2.5T	2T Lift Eye	0.71"	0.69"
3-5T	OS-LA-5T	4T Lift Eye	0.97"	1.10"
6-10T	OS-LA-10T	8T Lift Eye	1.28"	1.42"
12-20T	OS-LA-20T	20T Lift Eye	1.87"	2.21"

### Main purpose:

This type of sling is used as an additional device for use with T-shaped rods, and is used for lifting and transporting prefabricated concrete components. Before use, the specifications of the sling must be checked according to the load requirements.

### Usage Method

- 1 Put the lifting appliance in a proper position.
- 2 Rotate the shackle until the opening corresponds to the head of the T-bar (As shown in the below figure).
- 3 The shackle rotates to the locked position (As shown in the below figure).



- 4 Push the front end of the shackle onto the concrete structure for lifting (As shown in the below figure).

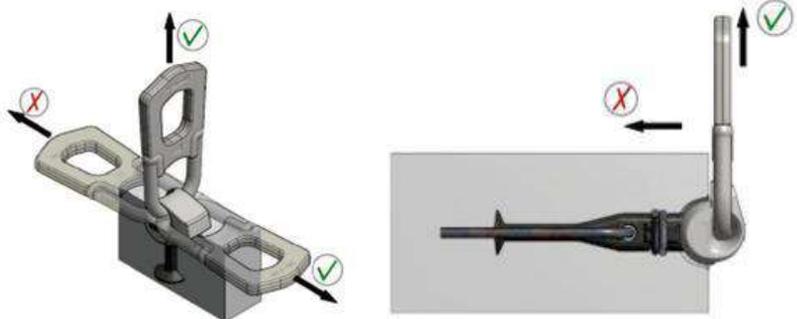


- 5 The lifting appliance is separated from the T-bar after lifting (As shown in the below figure).

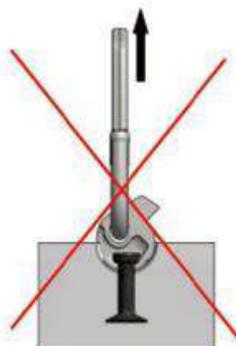


### Points to Note

- 1 The direction of the sling must be consistent with the direction of the load (As shown in the right figures).



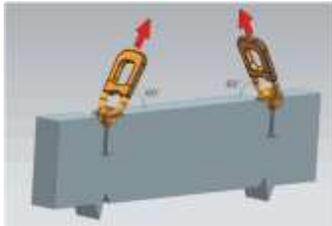
- 2 If the shackle is not fully closed, lifting is not allowed (As shown in the right figure).



## T-Bar Hoisting System

The T-bar system is a quick-connection lifting system with lifting load ranging from 1.3 to 32 tons. The system structure includes T-bar, spreader and rubber mold, which is used to lift precast concrete beams, thick floors, wallboards and concrete pipes.

**Precast T-bar system**



**Eye Anchor**



**Recess member**

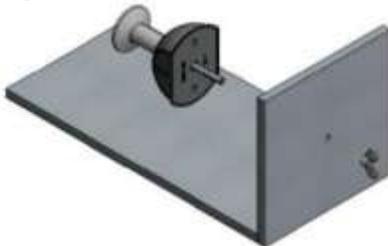


**Lifting eye**

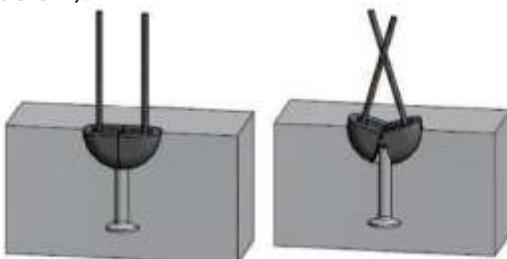


### Usage Method

- 1 Before making concrete components, install the rubber mold and T-shaped bar together in advance, and then install the rubber mold on the fixed position of the template with wing Usage method nuts (As shown in the figure below).



- 2 After pouring, remove the rubber formwork after the concrete component has solidified. When removing the rubber formwork, insert two reinforcements into the hole and pry them out through shearing action. The above operations cannot be removed with a hammer, otherwise the groove will be damaged and the safety hazard will be caused (As shown in the figures below).



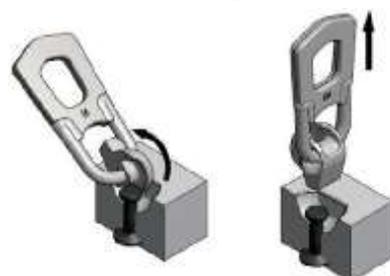
- 3 Installation procedure of lifting appliance before lifting (As shown in the figures below).



- 4 Working state during hoisting (As shown in the figure below).



- 5 After lifting, the lifting appliance is separated from the T-bar (As shown in the figures below).





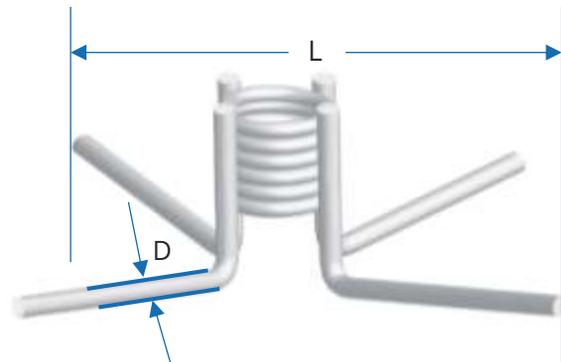
# Insert System



## Thin Slab Coil Insert

Specially designed for lifting and handling thin prefabricated components, with a bottom clearance of 3/4 inch to collect the rated load (As shown in the right figure).

Thin Slab Coil Insert is designed for lifting and handling thin precast. Inserts should have 3/4" minimum clearance off the bottom face to obtain the rated loads.



Standard finish is plated.

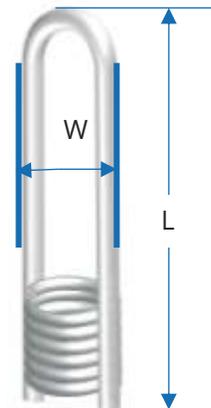
### Characters

Item ID	Spring Size	Spring Circles	L	D	Load Class
CI-LCI-3480	3/4"	7	7-1/8"	0.327"	≥80.1KN
CI-LCI-10111	1"	7	9-3/8"	0.327"	≥111.2KN

## Straight Loop Coil Insert

The Straight Loop Ferrule Insert is typically used to attach a precast wall panel to a building frame, as well as to provide attachment of other structural elements that may be required. Available in 1/2", 5/8", 3/4" and 1" sizes. Standard finish is plated.

**Plated inserts are not designed for use with hot dip galvanized bolts, due to thread engagement.**



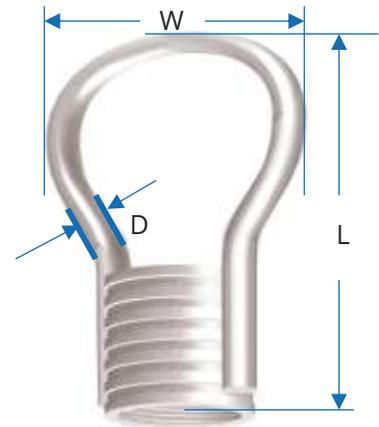
### Characters

Item ID	Bolt Dimeter	L	W	Insert Ultimate Mechanical Load Tension (LBS)
CI-SLC-1240	1/2"	4"	1-5/16"	9,000
CI-SLC-1264	1/2"	6"	1-7/16"	14,400
CI-SLC-3464	3/4"	4"	1-11/16"	15,000
CI-SLC-3480	3/4"	6"	1-7/8"	18,000
CI-SLC-1080	1"	6"	2-3/16"	18,000

## Flared Loop Ferrule Insert

Made by soldering a looped strut to a closed-end ferrule, this product is commonly used to make structural connections and to suspend pipes and other mechanical equipment. Available in 3/8", 1/2", 5/8", 3/4", 7/8" and 1" sizes. Standard finish is plated.

**Plated inserts are not designed for use with hot dip galvanized bolts, due to thread engagement.**



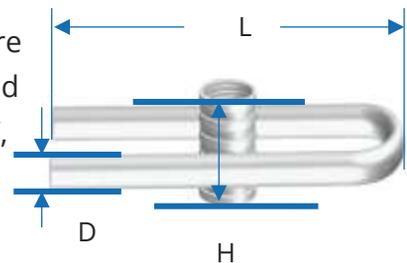
### Characters

Item ID	Size	L	W	D	Insert Ultimate Mechanical Load Tension (LBS)
CI-FLI3840	3/8"-16-UNC	2-3/4"	1-1/2"	14/25"	≥9000
CI-FLI1240	1/2"-13-UNC	2-3/4"	1-5/8"	9/16"	≥9000
CI-FLI5840	5/8"-11-UNC	3-1/2"	2-1/8"	13/16"	≥9000
CI-FLI3466	3/4"-10-UNC	3-1/2"	2-1/4"	13/16"	≥15000
CI-FLI7880	7/8"-9-UNC	6"	3-3/8"	2"	≥18000
CI-FLI1080	1"-8-UNC	6"	3-3/8"	2-1/8"	≥18000

## Thin Slab Ferrule Insert

The Thin Slab Ferrule Insert is designed for use where the depth of embedment is limited and where limited capacity is required in tension. Available in 1/4", 1/2", 5/8" and 3/4" sizes. Standard finish is plated.

**Plated inserts are not designed for use with hot dip galvanized bolts, due to thread engagement.**



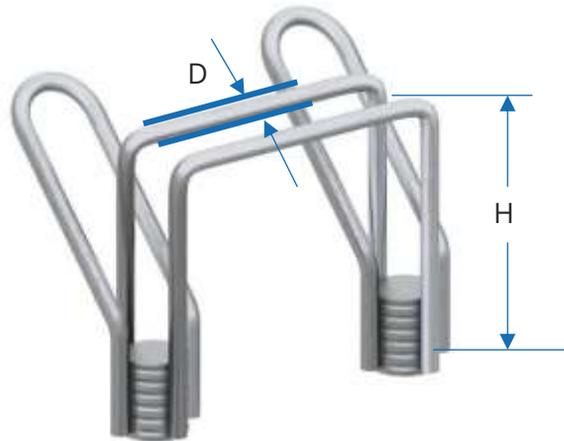
### Characters

Item ID	Size	L	H	D	Tension (LBS)
CI-TSF-146	1/4"-20-UNC	4"	1-1/4"	0.256"	≥450
CI-TSF-1212	1/2"-13-UNC	4"	1-3/8"	0.256"	≥900
CI-TSF-5813	5/8"-11-UNC	4"	1-5/8"	0.256"	≥1000
CI-TSF-3421	3/4"-10-UNC	4"	1-5/8"	0.256"	≥1600

## Wing Wall Ferrule Insert

Fabricated for a precast concrete retaining wall which forms a wing wall for a precast concrete culvert unit, the Wing Wall Anchor supports a concrete footer projecting laterally from the wing wall into the back-filled soil behind the wing wall.

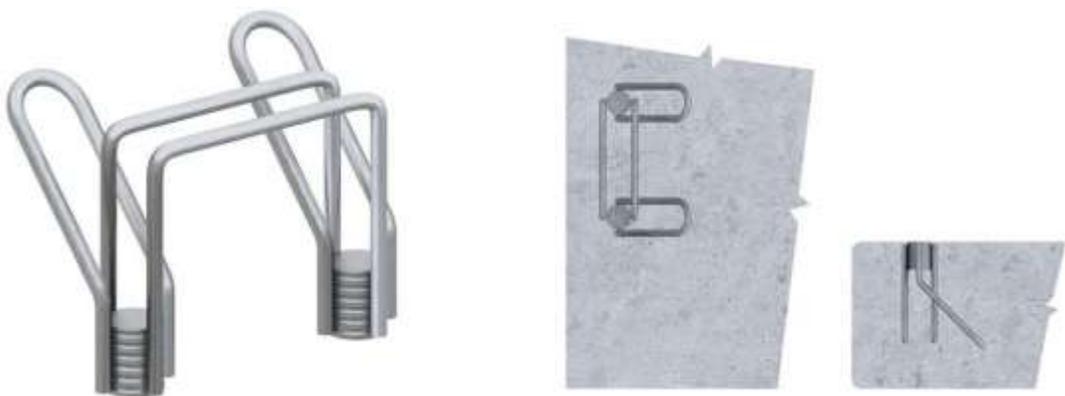
**Standard finish is plated. Plated inserts are not designed for use with hot dip galvanized bolts, due to thread engagement.**



### Characters

Item ID	Threads	H	Bolt Diameter	Insert spacing	D
CI-WWFI-10210	1"-8-UNC	6"	1"	6"	0.375"
CI-WWFI-10210EX	1"-8-UNC	8"	1"	6"	0.375"

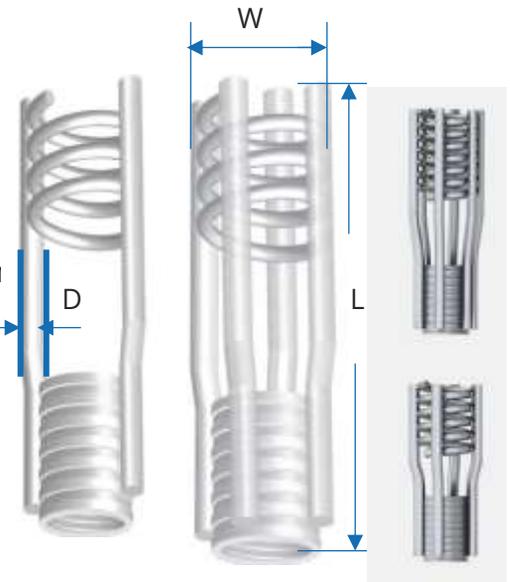
Plated inserts are not designed for use with hot-dipped galvanized bolts.



## Expanded Coil Ferrule Insert

The Expanded Coil Ferrule Insert is a high-strength, highly versatile insert available for numerous precast concrete applications. It is available in 3/4", 1", 1-1/4" and 1-1/2" bolt diameters. The insert is constructed with a NC threaded ferrule, shaped struts (two, four or six depending on model) and an expanded wire coil. This efficient design increases the shear cone surface area thus increasing the load capacity of the insert.

**Standard finish is plated. Plated inserts are not designed for use with hot dip galvanized bolts, due to thread engagement.**



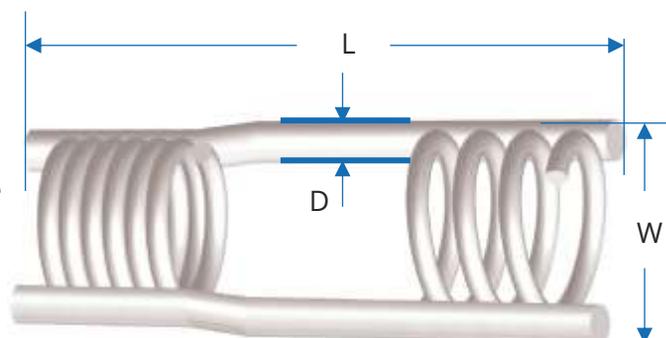
### Characters

Item ID	Size	L	W	D	Number of Struts
CI-ECF-3480	3/4"-10-UNC	4-3/4"	2-1/8"	0.375"	2
CI-ECF-10111	1"-8-UNC	5-3/4"	2-3/4"	0.440"	2
CI-ECF-10177	1-1/4"-7-UNC	7-3/4"	3"	0.440"	4
CI-ECF-10266	1-1/2"-6-UNC	9-3/4"	3-3/8"	0.440"	6

## Expanded Coil Insert

The Expanded Coil Inserts are designed with an expanded pitch coil at the end, which distributes the applied loads over a large area of concrete. **Standard finish is plated.**

Inserts must be set back 1/2" from concrete surface and have sufficient coil penetration by lifting bolt.

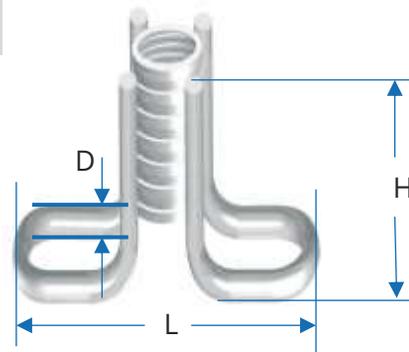


### Characters

Item ID	Spring Size	Spring Circle	L	W	D	Load Class
CI-ECI-3480	3/4"	7	4-1/2"	2-1/8"	0.374"	≥80.1KN
CI-ECI-10111	1"	7	5-1/2"	2-3/4"	0.441"	≥111.3KN

## Flared Wing Ferrule Insert

Use where precast panel thickness is limited. This insert offers better tension loads than other thin slab inserts.

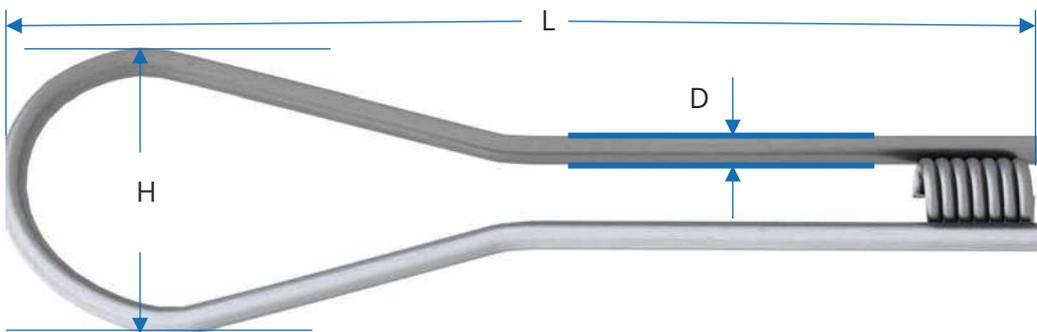


### Characters

Item ID	Thread Size	L	H	D	Insert Ultimate Mechanical Capacity(LBS)
CI-TSF-1240	1/2"-13-UNC	4-1/2"	1-7/8"	0.256"	≥9,000
CI-TSF-3480	3/4"-10-UNC	5-1/8"	2-7/16"	0.327"	≥18,000
CI-TSF-3480EX	3/4"-10-UNC	5-1/8"	3-5/8"	0.327"	≥18,000
CI-TSF-1080	1"-8-UNC	5-9/16"	2-7/16"	0.327"	≥18,000

## Flared Loop Coil Insert

- 1 Inserts must be set back 1/2" from concrete surface and have sufficient coil penetration by lifting bolt.
- 2 Coil thread manufactured per manufacture specification.

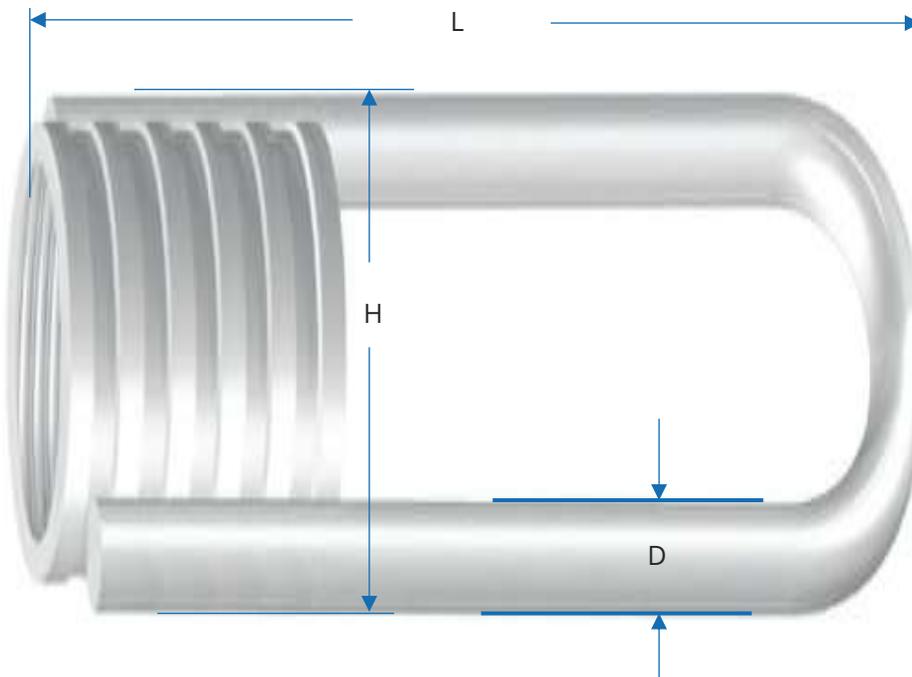


### Characters

Item ID	Spring size	Spring circles	L	H	D	Load Class
CI-FLC-1264	1/2"	8	12"	6"	0.327"	≥64.1KN
CI-FLC-3480	3/4"	7	12"	6"	0.374"	≥80.1KN

## Straight Loop Ferrule Insert

With its simple design and fabrication, the Straight Loop Coil Insert is highly efficient for use as a bolted connection. Standard finish is plated.

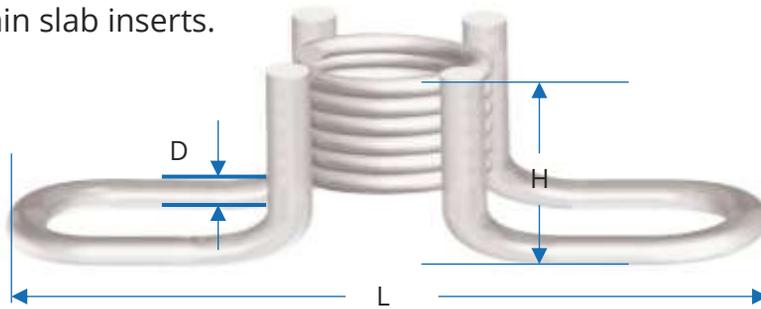


### Characters

Item ID	Size	L	H	D	Load Class
CI-SLF-1240	1/2"-13-UNC	4.126"	1.20"	0.256"	≥40.1KN
CI-SLF-1264	1/2"-13-UNC	6.126"	1.20"	0.327"	≥64.1KN
CI-SLF-5840	5/8"-11-UNC	4.126"	1.387"	0.256"	≥40.1KN
CI-SLF-5866	5/8"-11-UNC	6.126"	1.529"	0.327"	≥66.8KN
CI-SLF-3466	3/4"-10-UNC	4.126"	1.654"	0.327"	≥66.8KN
CI-SLF-3480	3/4"-10-UNC	6.126"	1.748"	0.374"	≥80.1KN
CI-SLF-1080	1"-8-UNC	6.126"	2.123"	0.374"	≥80.1KN

## Flared Thin Slab Coil Insert

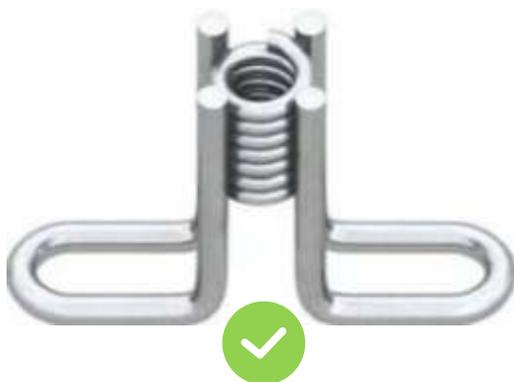
Use where precast panel thickness is limited. This insert offers better tension loads than other thin slab inserts.



### Characters

Item ID	Spring size	Spring circles	L	H	D	Load Class
CI-FTSC-1236	1/2"	7	4-11/16"	1-3/4"	0.256"	≥36.5KN
CI-FTSC-3445	3/4"	7	5-1/4"	2-5/16"	0.327"	≥45.4KN
CI-FTSC-3480	3/4"	7	5-1/4"	3-1/2"	0.327"	≥80.1KN
CI-FTSC-1063	1"	6	5-11/16"	2-5/16"	0.327"	≥63.2KN
CI-FTSC-10111	1"	7	5-11/16"	4-1/2"	0.327"	≥111.2KN

**Note:** When using Coil Inserts for lifting and handling only 4 Strut Inserts should be used in 3/4" or larger diameters. The below images show 2 Strut Inserts for illustration purposes only. Although 2 Strut Inserts can be used, they require straight tension loading, no angled loading. Coil bolts, nuts, rods and inserts should not be mixed from different suppliers as there is no industry standard for coil threads.



**4 Strut Insert for lifting & handling**

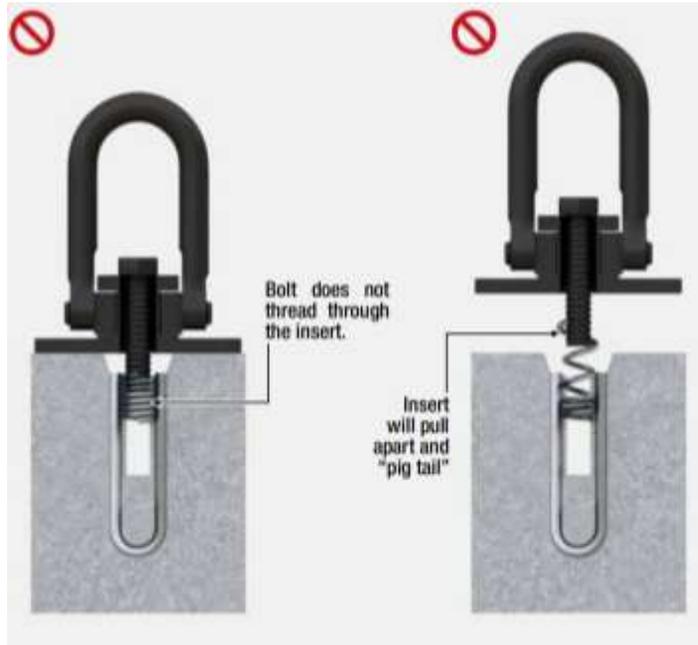


**2 Strut Insert are not typically recommended for lifting & handling (tension only)**

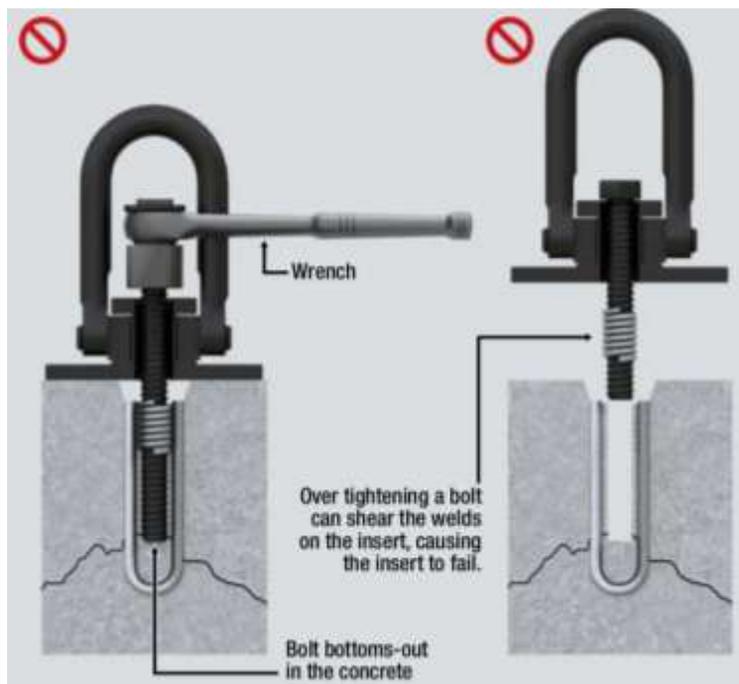
## Flared Thin Slab Coil and Bolt Selection

### Bolt too short or worn

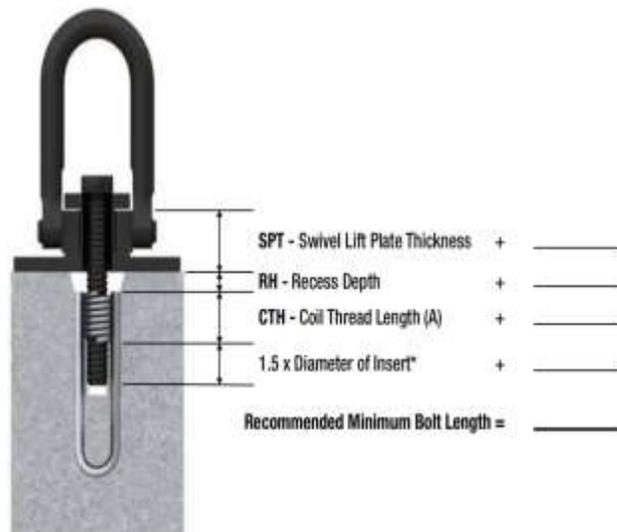
When bolts are too short they will only engage part of the Coil threads, often leading to “pig tailing”. Worn bolts typically wear down in a tapered orientation and can also cause the insert to “pig tail”.



### Bolt too long

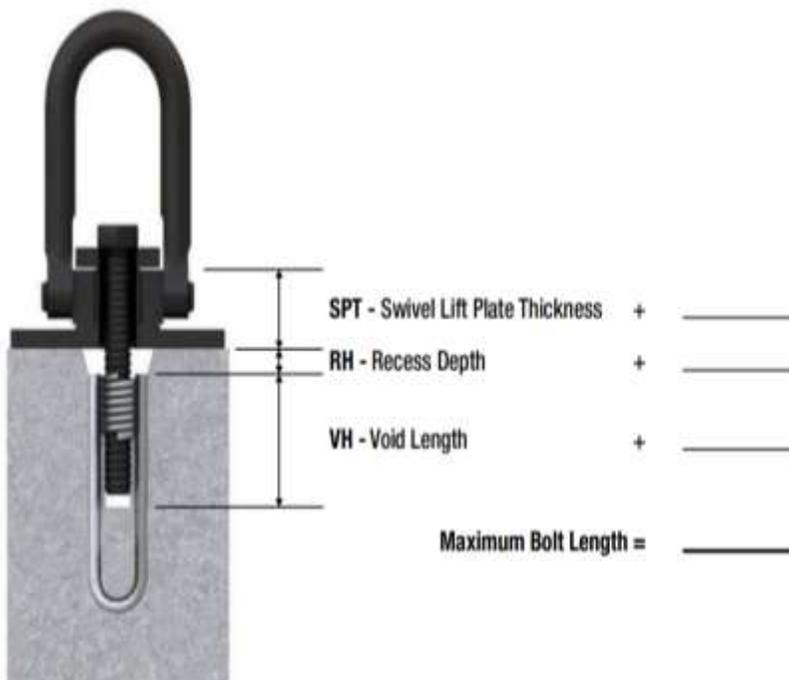


## Recommended Minimum Bolt Length



\*1.5 x bolt diameter is recommended to compensate for worn threads at the end of bolt.  
 \*0.5 x bolt diameter may be used for new bolts or bolts that have been verified to have proper thread height.

## Maximum Bolt Length



## Single Swivel Lift Plate

This lifting plate is manufactured from forged steel and is intended to work with a single embedded lifting insert for both panel-face and edge-lift operations. Its rated Safe Working Load can be maintained when the plate sits fully supported on a clean, level concrete surface and a washer is placed beneath the bolt head during installation. The unit is engineered exclusively for use with bolts in 3/4-inch or 1-inch diameters.



### Characters

Item ID	Ton	Bolt diameter	L	W
RL-SSLP-1	4.5T	1"	8-1/8"	5"
RL-SSLP-34	3T	3/4"	8-1/8"	5"

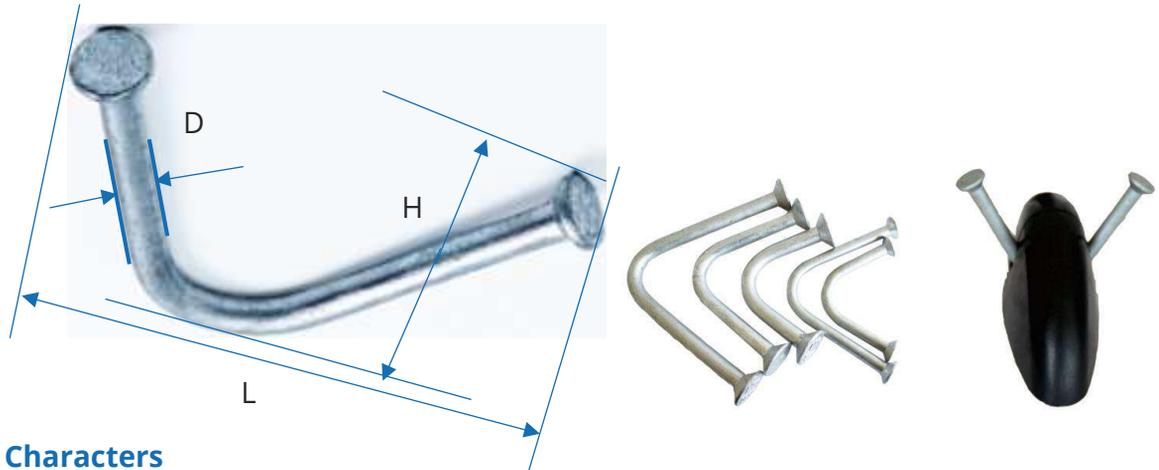


# V-bar Hoisting System



## V-Bar Hoisting System

The V-shaped rod lifting system includes V-shaped rod and rubber mold.

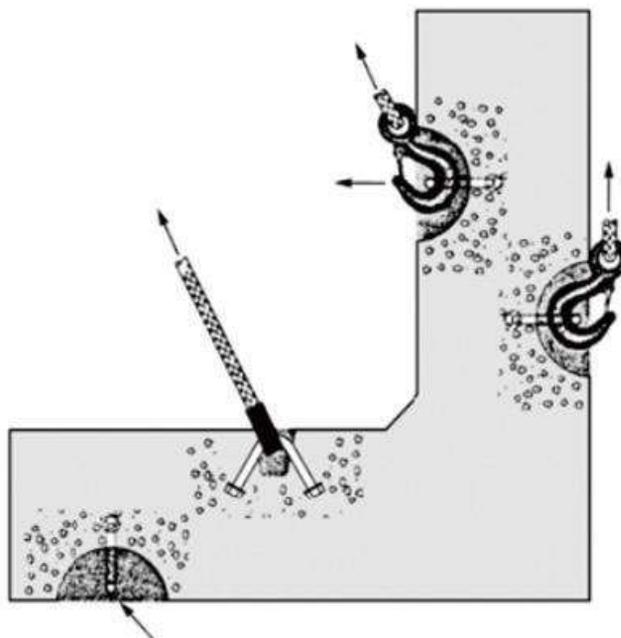


### Characters

Diameter	Part Name	Item ID	Color
0.551"	Utility Anchors	OS-UA-4UA444	Black
0.669"	Utility Anchors	OS-UA-5UA444	Black

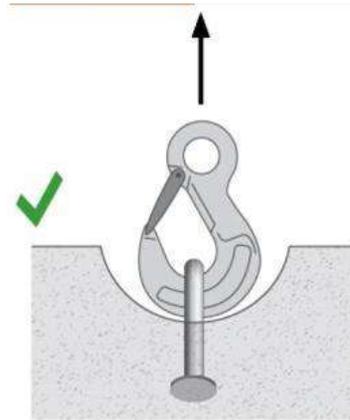
### Usage Method

The placement of "V-shaped rod" in prefabricated concrete members depends on the structural shape of prefabricated components (As shown in the figure below).

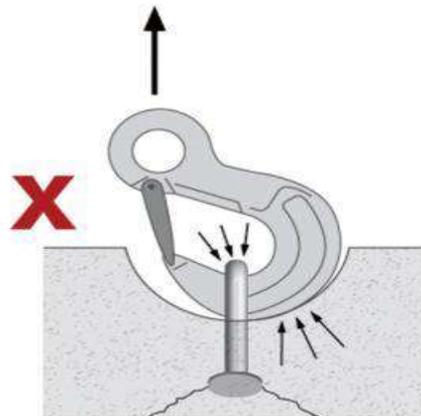


## Points to Note

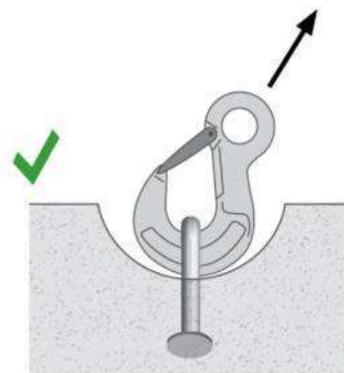
- 1 The hook shall not touch the concrete component (As shown in the right figure).



- 2 The latch of the hook should be opposite to the load direction (As shown in the right figure).

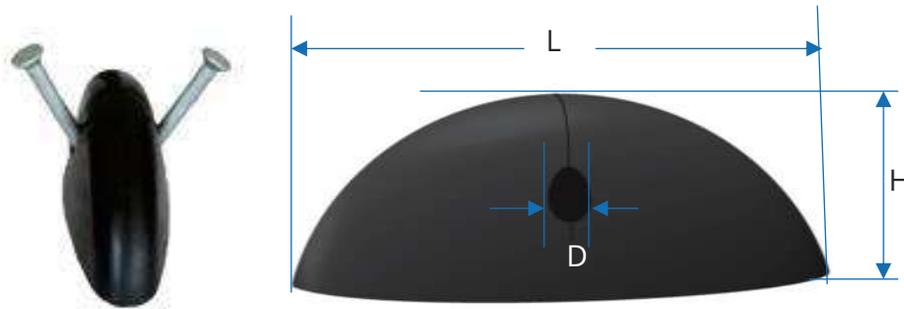


- 3 If the hook contacts the concrete under the V-bar, the hook will pry the concrete. This may cause bending or fracture of the V-bar (As shown in the right figure).



## Utility Anchor Recess Member

The rubber mold (groove shaper) is used to create a groove cavity in the concrete around the V-shaped rod.



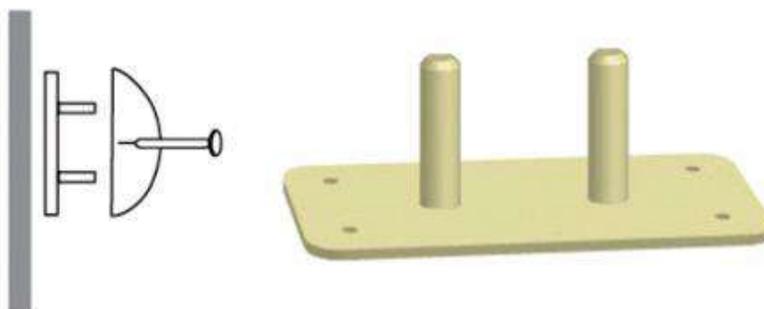
### Characters

Hole D	Item ID	H	L	D
0.444"	OS-UARM-12V-BLA	3-1/2"	9-3/4"	3"
0.671"	OS-UARM-17V-BLA	3-1/2"	9-3/4"	3"
0.551"	OS-UARM-14V-BLA	3-1/2"	9-3/4"	3"
0.709"	OS-UARM-18V-BLA	3-1/2"	9-3/4"	3"

### Usage Method

The rubber mold can be divided into the following four types.

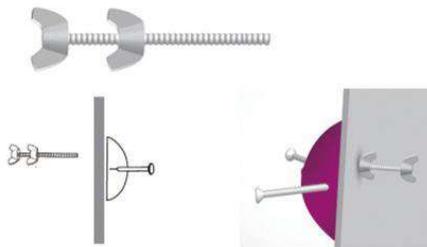
- 1 When used with reusable fixed plate, the fixed plate shall be nailed or welded to the predetermined position of the steel formwork, then the rubber formwork and V-shaped rod shall be assembled, and then installed on the fixed plate (As shown in the below figures).



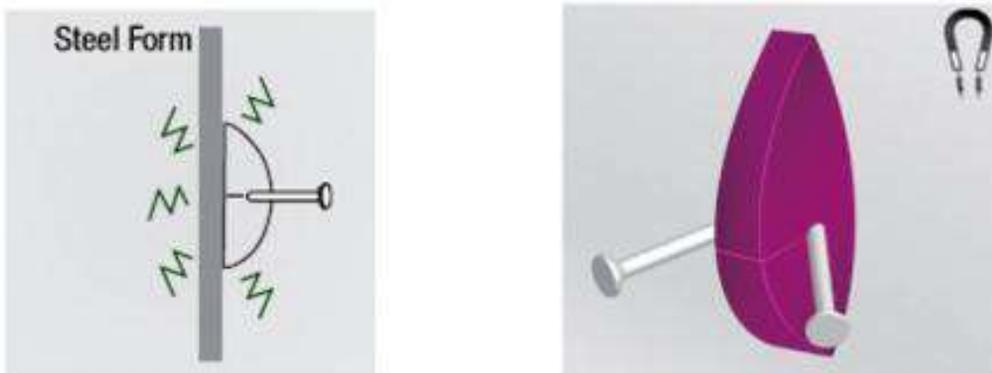
- 2 When used with the magnetic fixing plate, it is necessary to place the fixing plate nail on the predetermined position of the steel template (screws need to be installed to facilitate the removal of the magnetic fixing plate), then assemble the rubber mold and V-shaped rod, and then install the fixing plate (As shown in the below figures).



- 3 When used with fixed screw, it is necessary to drill through holes in the predetermined position of the template, then assemble the rubber mold and V-shaped rod, and then screw the screw into the rubber mold through the holes on the template (As shown in the below figures).

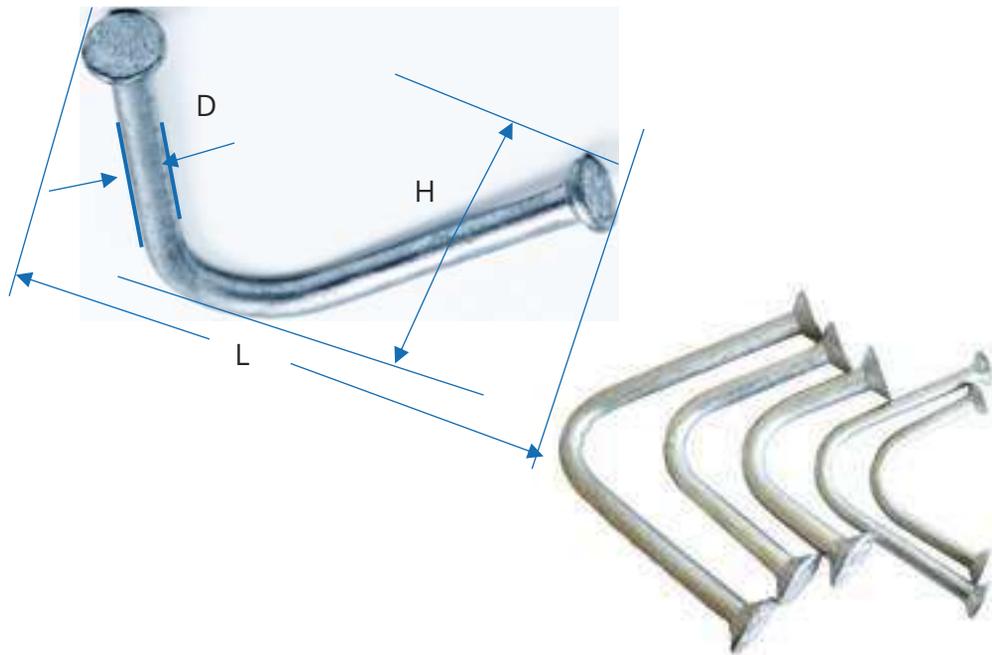


- 4 In the case that the steel formwork cannot be drilled, magnetic rubber mold can also be used. The magnetic rubber mold has strong adsorption force and can be installed at the predetermined position of the steel formwork. Before installing the V-shaped rod and rubber mold, they must be pre-assembled together (As shown in the below figures).



## V Utility Anchor

The V-shaped pole is easy to install without special lifting tools and is applicable to any refabricated concrete member.

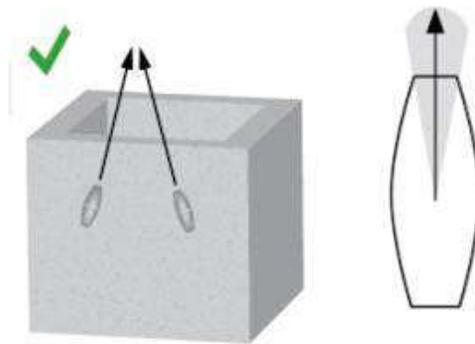


### Characters

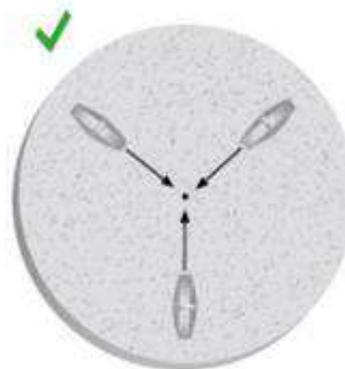
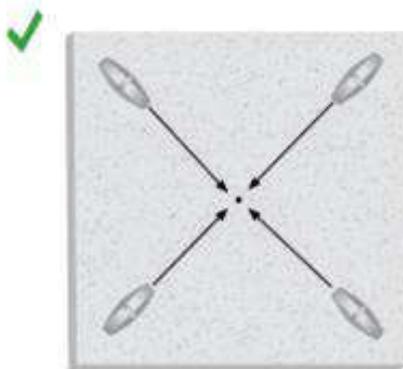
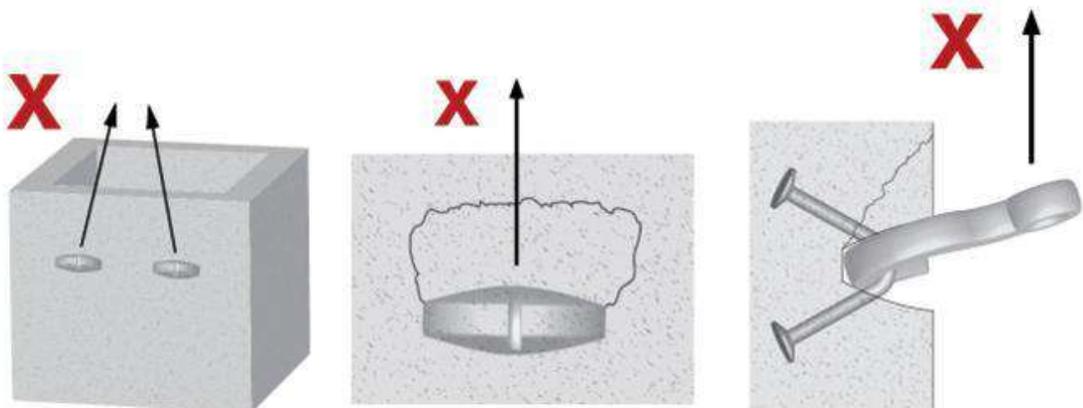
Item ID	Safe Working Load KN	Ultimate Tensile Requirement KN	D	H	L
OS-4UA444	14.25	57	0.444"	3-1/8"	5-1/4"
OS-5UA444	17.25	69	0.444"	3-3/4"	6"
OS-6UA444	19.75	79	0.444"	4-3/4"	7-1/4"
OS-5UA671	20.25	81	0.671"	3-3/4"	6-1/4"
OS-6UA671	32.5	130	0.671"	4-3/4"	7-1/2"
OS-8UA671	48.25	193	0.671"	6-3/4"	9-3/4"
OS-4CA14	15.5	62	0.551"	3-1/8"	6-1/4"
OS-5CA14	24.5	98	0.551"	3-3/4"	8-1/4"
OS-6CA14	29	116	0.551"	4-3/4"	10-9/16"
OS-5CA18	26.75	107	0.709"	3-3/4"	8-5/8"
OS-6CA18	32.5	130	0.709"	4-3/4"	9-1/16"
OS-8CA18	48.25	193	0.709"	6-3/4"	12-3/8"

## Points to Note

- 1 The direction of the sling must be consistent with the center line of the V-shaped bar, which will make the hook fit correctly and prevent the hook from contacting with the side edge of the groove, otherwise the V-shaped bar will pry and fall off (As shown in the figures right).

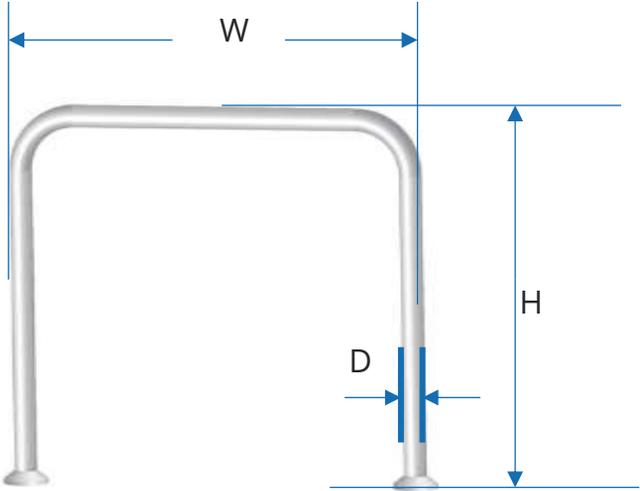


- 2 Do not make the groove perpendicular to the direction of the rigging, which will cause excessive load on the hook and V-bar, which will cause peeling, bending and failure (As shown in the figures below).



# Steel Wet Set Handle

Steel Wet set handle is designed for lifting of small concrete products by hand.

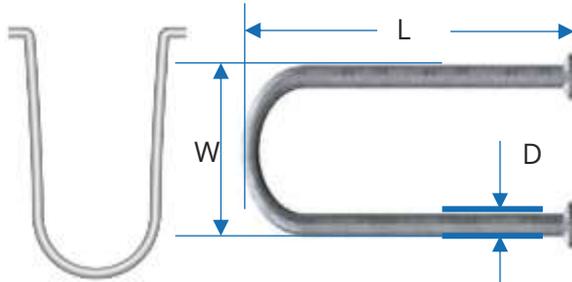


**Characters**

Item ID	Ultimate Tensile Requirement (LBS)	D	H	W
OS-SWSH-9	500	1/4"	4-1/4"	4-3/8"

## R-Anchor

The R-Anchor System is specially designed to be used in both recessed applications for retaining wall blocks and protruding from the concrete for small slabs. Standard finish is hot-dipped galvanized.



### Characters

Item ID	Ultimate Tensile Requirement (LBS)	D	L	W
OS-RAN-83	≥6,400	1/4"	6"	2-11/16"
OS-RAN-133	≥12,800	5/16"	6-1/2"	2-5/8"
OS-RAN-133EX	≥18,760	3/8"	7"	2-3/4"
OS-RAN-28	≥30,000	7/16"	9"	3-1/2"
OS-RAN-201	≥30,000	7/16"	11"	3-1/2"

Pulling sideways on one leg may reduce the capacity of the anchor.

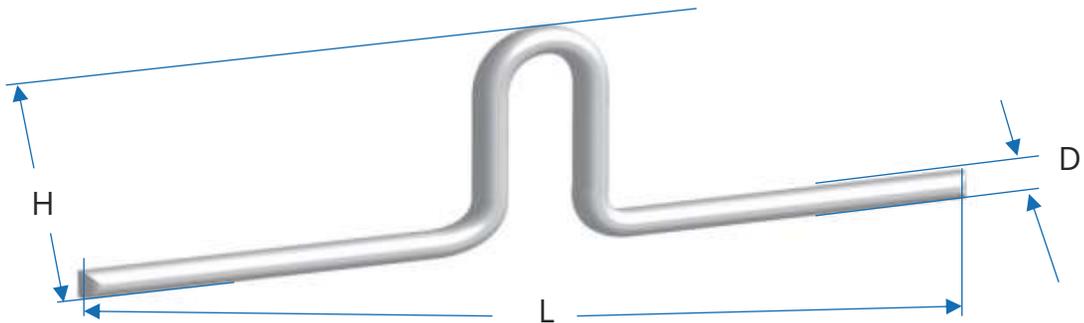


For lifting and handling of thin slabs, design needs to ensure slab is properly reinforced to prevent flexural stresses from cracking slab.



## Shear Bar

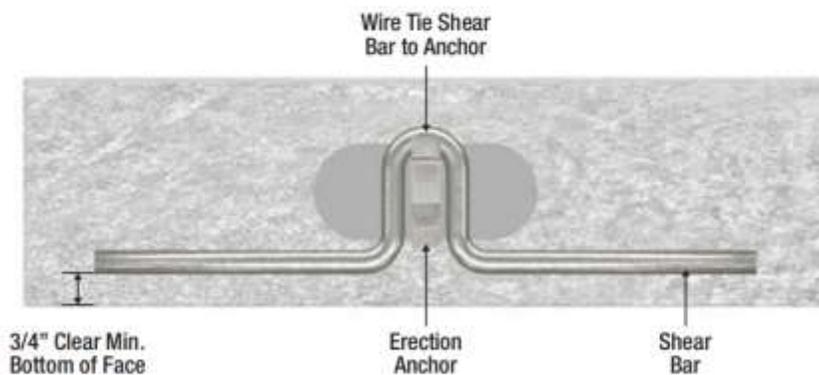
Shear Bar is used to increase the shear capacity of the Erection Anchor in thin panels. It fits over the anchor at the cutout & secures it tightly.



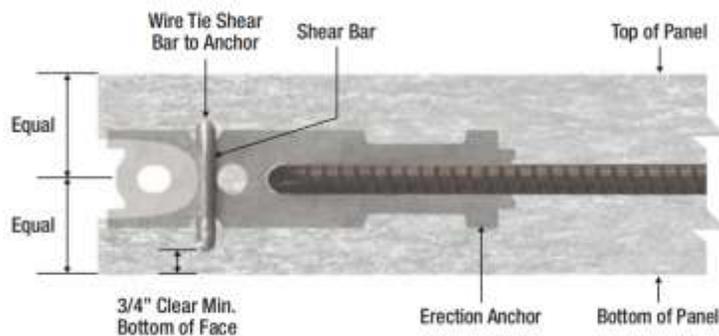
### Characters

Ton	Item ID	H	L	D	Weight (LBS)
2T	OS-SB-2	2-1/2"	14-3/4"	1/2"	0.98

#### End View



#### Side View



Tension Bars provide a simple and economical method to increase tension capacity.

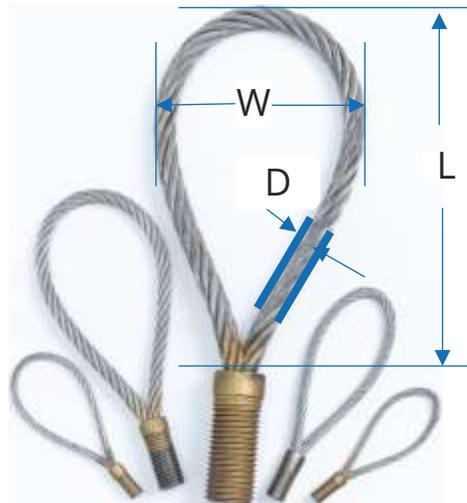


# Threaded Lifting System



## Steel Core Lifting Loop

1/8" Lifting Loops are commonly used in small risers and small precast products. Flexible wire design allows for easy installation and usage.



### Characters

Load Class (Tons)	Item ID	D	L
0.5	RL-LLO-500	0.236"	6.102"
1.2	RL-LLO-1200	0.315"	6.496"
2.0	RL-LLO-2000	0.394"	8.268"
2.5	RL-LLO-2500	0.472"	10.039"
4.0	RL-LLO-4000	0.630"	11.811"
6.3	RL-LLO-6300	0.709"	13.386"
8.0	RL-LLO-8000	0.787"	16.535"
12.5	RL-LLO-12500	1.024"	21.654"

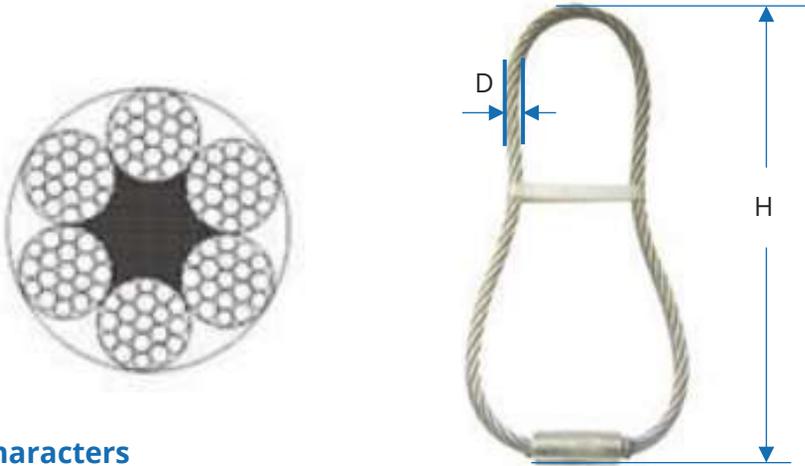
### Notes:

- Pre-galvanized wire provides limited corrosion resistance;
- Corrosion will reduce Lift Loop capacity;
- Above capacities are based upon mechanical testing.

## Steel Core Lift Loop

### Main Purpose

It is mainly used for hoisting precast concrete components.



### Characters

Item ID	D	Colour	H	SWL	3:1 SWL		4:1 SWL	
					Material	Ultimate Tensile $\geq$ KN	Material	Ultimate Tensile $\geq$ KN
OS-LL2-800	1/4"	White	7-1/2"	0.8	6*19W+FC	23.5	6*19W+I WS	31.3
OS-LL2-1200	3/10"	Red	8-3/5"	1.2	6*19W+FC	35.5	6*19W+I WS	47
OS-LL2-1600	1/3"	Purple	9-1/4"	1.6	6*19W+FC	47.06	6*19W+I WS	62.7
OS-LL2-2000	1/3"	Light green	10"	2.0	6*19W+FC	58.8	6*19W+I WS	78.4
OS-LL2-2500	2/5"	Brown	11"	2.5	6*19W+FC	73.5	6*19W+I WS	98
OS-LL2-4000	1/2"	Dark green	13"	4.0	6*19W+FC	117.6	6*19W+I WS	156.8
OS-LL2-5200	3/5"	Yellow	15-3/20"	5.2	6*19W+FC	152.9	6*19W+I WS	203.9
OS-LL2-6300	3/5"	None	15-3/20"	6.3	6*19W+FC	185.3	6*19W+I WS	247
OS-LL2-8000	7/10"	None	17"	8.0	6*19W+FC	235.3	6*19W+I WS	313.7
OS-LL2-10000	4/5"	None	18-1/2"	10.0	6*19W+FC	294.1	6*19W+I WS	392.2
OS-LL2-12500	7/8"	None	20"	12.5	6*19W+FC	367.6	6*19W+I WS	490.2
OS-LL2-16000	1-1/50"	None	22"	16.0	6*19W+FC	470.5	6*19W+I WS	627.4
OS-LL2-20000	1-1/10"	None	24"	20.0	6*19W+FC	588.2	6*19W+I WS	784.3
OS-LL2-25000	1-1/4"	None	26-1/3"	25.0	6*19W+FC	735.9	6*19W+I WS	980.4
OS-LL2-28000	1-2/5"A	None	26-7/10"	28.0	6*19W+FC	823.5	6*19W+I WS	1098
OS-LL2-32000	1-2/5"B	None	30-1/3"	32.0	6*19W+FC	941.1	6*19W+I WS	1254.9
OS-LL2-37000	1-3/5"	None	37-2/5"	37.0	6*19W+FC	1088.2	6*19W+I WS	1450.9
OS-LL2-42000	1-7/10"A	None	39-1/3"	42.0	6*19W+FC	1235.3	6*19W+I WS	1640
OS-LL2-42000	1-7/10"B	None	43-1/3"	42.0	6*19W+FC	1235.3	6*19W+I WS	1640
OS-LL2-52000	1-9/10"A	None	47-1/5"	52.0	6*19W+FC	1529.4	6*19W+I WS	2039.2

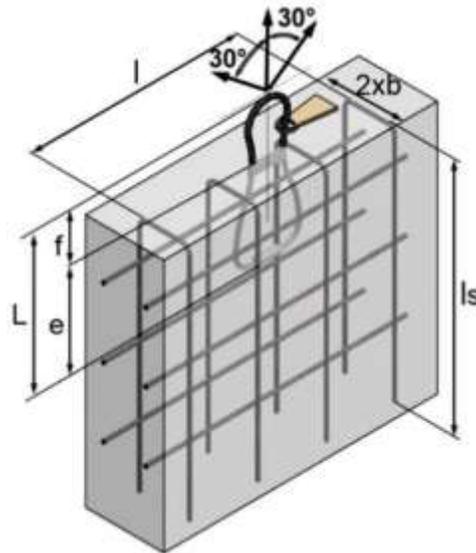
## Usage Method

- 1 A relatively large edge distance shall be reserved during the installation of wire rope slings;
- 2 After the installation of concrete components, the protruding steel wire rope can be cut off, but the end of the cut off must be properly rust-proof;
- 3 During inclined lifting, the wire rope sling needs additional reinforcement;
- 4 When selecting the wire rope sling, it is necessary to consider the lifting angle, the influence factors of lifting, and the adhesion to the formwork;
- 5 The wire rope sling must be installed at the position and direction of the expected load;
- 6 The wire rope sling should be fixed on the support of the formwork so that  $\frac{2}{3}$  of the rings can be poured in and  $\frac{1}{3}$  of the rings can be exposed outside the formwork;
- 7 The wire rope sling should be fixed on the support of the formwork so that  $\frac{2}{3}$  of the rings can be poured in and  $\frac{1}{3}$  of the rings can be exposed outside the formwork;
- 8 During the storage of prefabricated concrete members, the wire rope sling shall avoid stretching or bending;
- 9 Before use, check whether the wire rope sling is in good condition and free of broken, crushed or scattered wire rope.

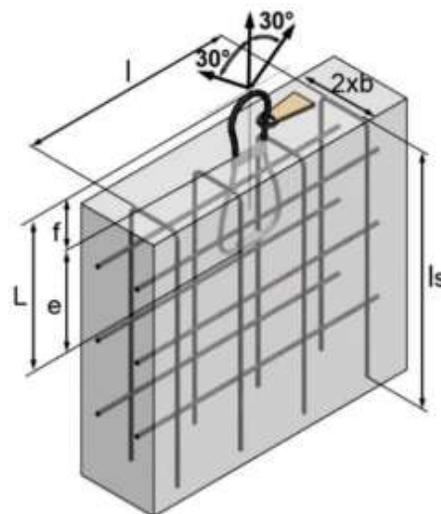
The wire rope sling is suitable for use and hoisting with various sizes of straight and flat pipes with threads, and is suitable for most occasions, especially on-site operations.

According to the different sizes of prefabricated concrete members, there are usually two kinds of embedded installation methods for steel wire sling.

- 1 Longitudinal installation and embedment (As shown in the figure right).

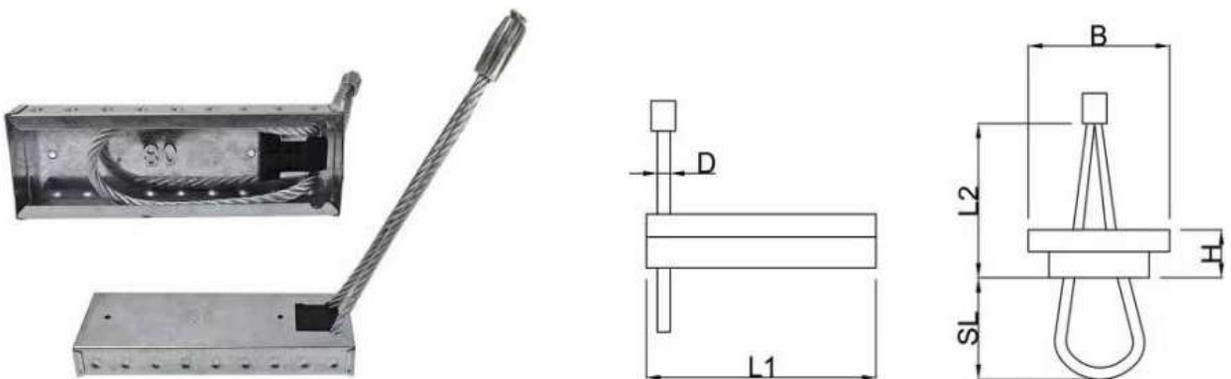


- 2 Horizontal installation and embedment method (As shown in the figure below).



## Connector Loop Box

The core function of Connector Loop Box is to channel the lifting force safely and orderly into the interior of the component, making it a pivotal element for both safety and efficiency in prefabricated construction.

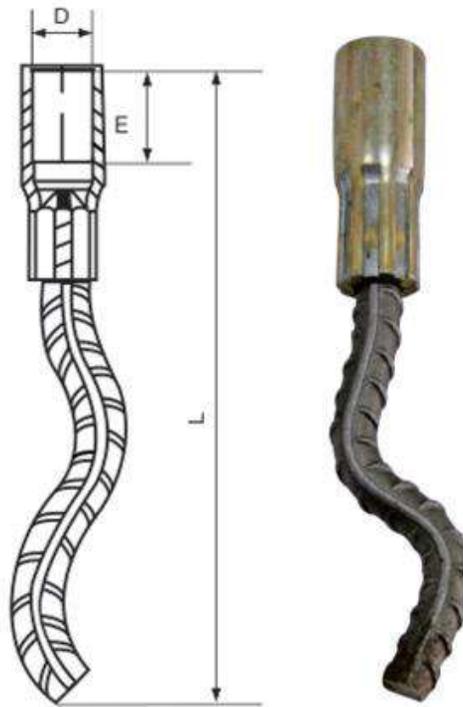


### Characters

Item ID	L1	L2	SL	H	B	D	Weight/KG
CL-A1	6.3"	6.69"	2.36"	0.79"	1.97"	0.24"	0.15
CL-A2	6.3"	6.69"	3.15"	0.79"	1.97"	0.24"	0.17
CL-A3	6.3"	7.09"	3.94"	0.79"	1.97"	0.24"	0.20
CL-A4	6.3"	7.28"	4.72"	0.79"	1.97"	0.24"	0.23

## Lifting Wavy Tail Anchor

It is mainly used for hoisting prefabricated components with medium thickness.

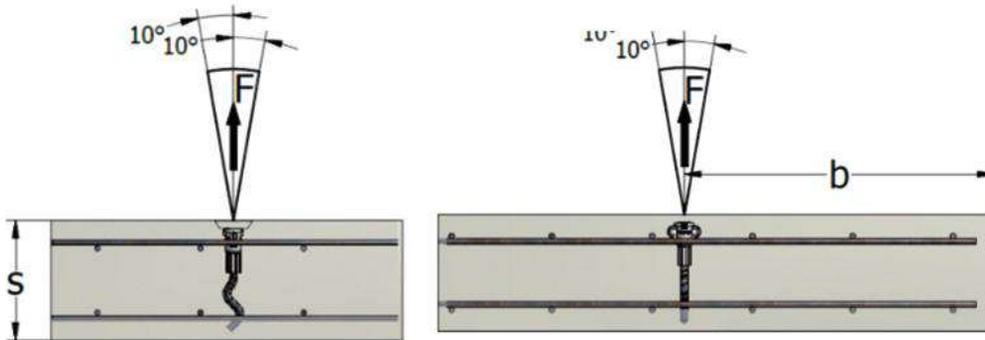


### Characters

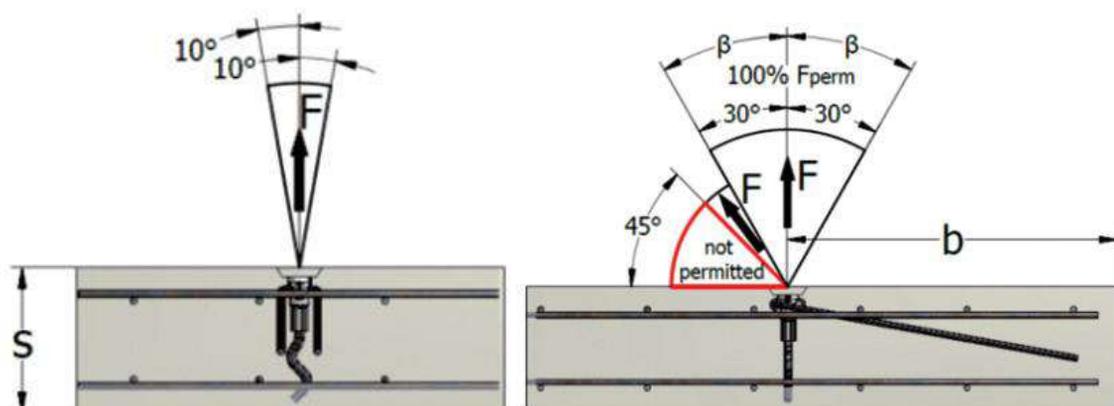
Item ID	D	E	L
LWTA-M12-135	5/8"	5/6"	5-1/3"
LWTA-M14-170	2/3"	1"	6-2/3"
LWTA-M16-215	4/5"	1-1/8"	8-1/2"
LWTA-M18-235	1"	1-1/3"	9-1/4"
LWTA-M20-258	1-1/20"	1-1/3"	10-1/6"
LWTA-M24-360	1-1/4"	1-5/7"	14-1/6"
LWTA-M30-450	1-3/5"	2-1/4"	17-5/7"
LWTA-M36-570	1-4/5"	2-5/8"	22-5/11"
LWTA-M42-620	2-1/8"	2-19/20"	24-5/12"

## Usage Method

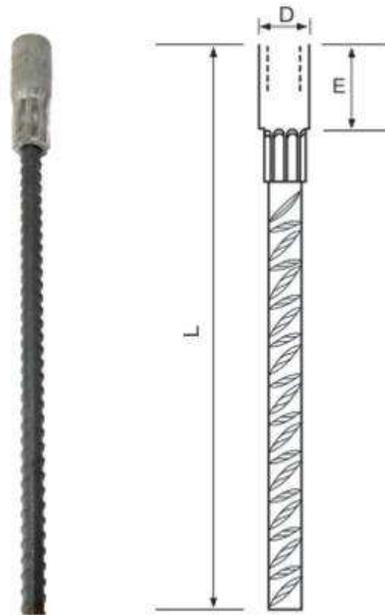
- 1 When lifting angle  $\beta \leq 10^\circ$ , no additional reinforcement is required (As shown in the figures below).



- 2 Lifting angle when lifting  $10^\circ \leq \beta \leq 45^\circ$ , additional reinforcement is required (The installation direction of diagonal reinforcement must be opposite to the direction of load) (As shown in the figures below).



## Lifting Socket Rod Anchor

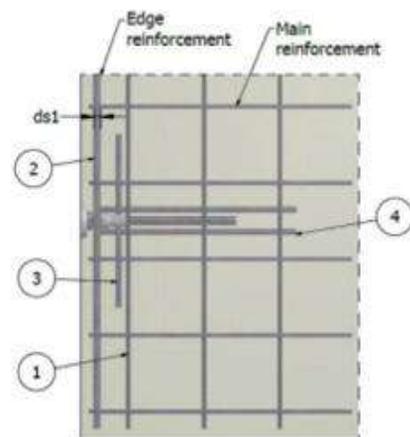
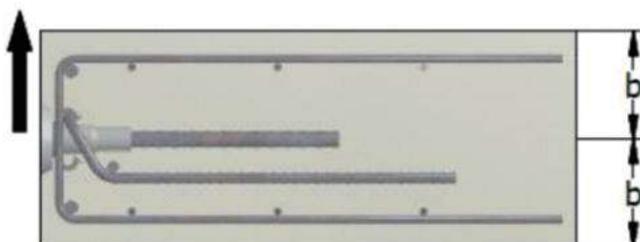


### Characters

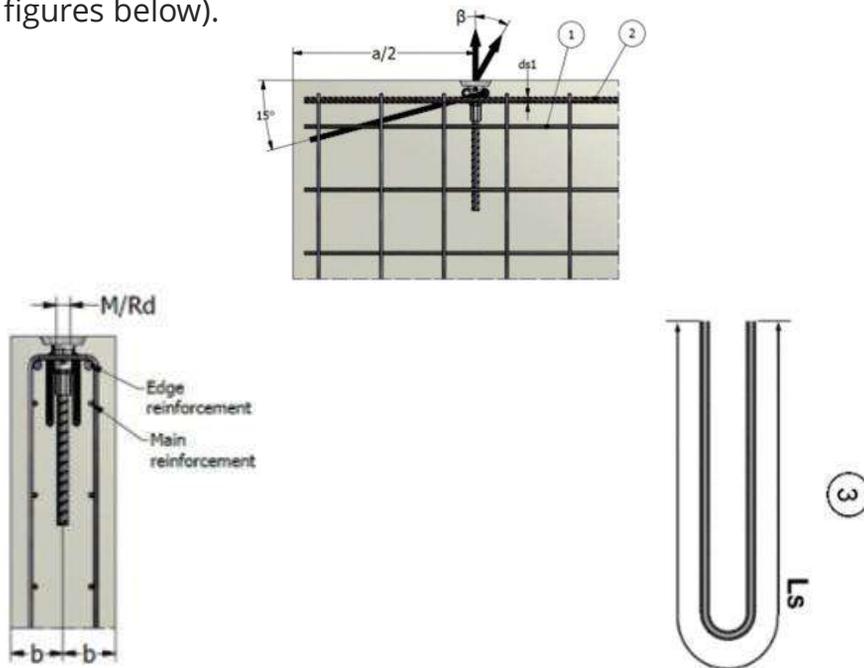
Item ID	D	E	L
LSRA-M12*300	4/7"	7/8"	11-7/8"
LSRA-M12*400	5/6"	1-1/6"	15-3/4"
LSRA-M12*520	1-1/20"	1-1/3"	20-1/2"
LSRA-M12*540	1-1/4"	1-5/8"	21-1/4"
LSRA-M12*700	1-5/9"	2-1/4"	27-1/2"
LSRA-M12*800	1-7/8"	2-5/9"	31-1/2"
LSRA-M12*920	2-1/6"	2-19/20"	36-1/4"
LSRA-M12*1100	2-5/8"	3-1/2"	43-1/3"

### Usage Method

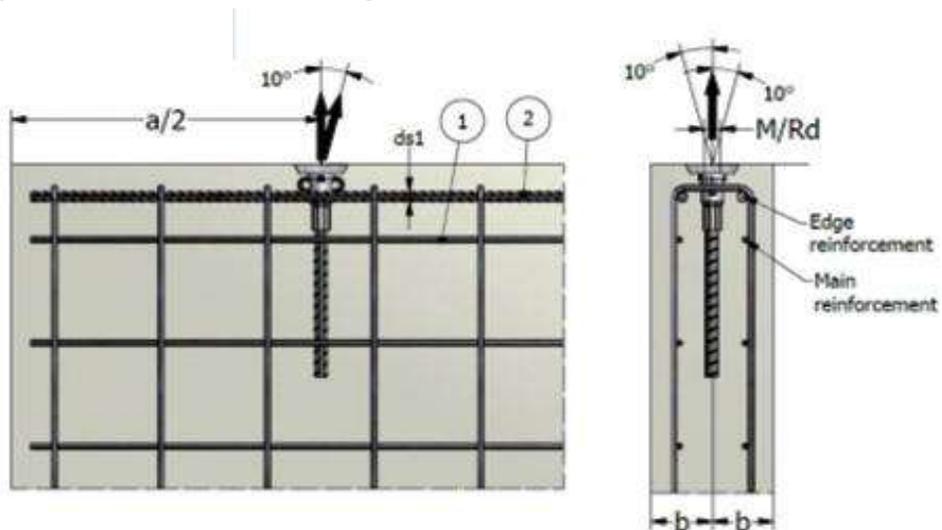
- The threaded bushing and base plate of this straight pipe are fully welded, so the fittings installed with this straight pipe can achieve effective sealing, and the lifting angle is recommended as  $\beta \leq 30^\circ$ .



- 2 When the inclined lifting angle is  $\leq 45^\circ$ , additional oblique reinforcement is required (The installation direction of the oblique reinforcement must be opposite to the direction of the load) (As shown in the figures below).

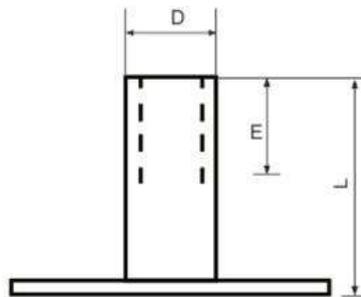


- 3 When the tilt lifting angle is  $90^\circ$ , additional reinforcement is required (As shown in the figures below).



## Lifting Socket Plate Anchor

Suitable for lifting large area roof and sheet.



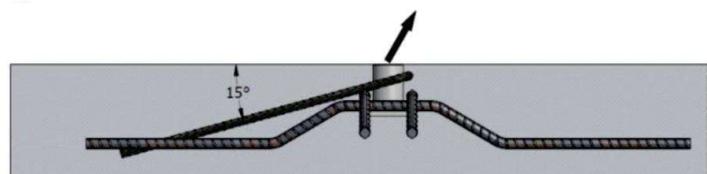
### Characters

Item ID	D	E	L
LSPA-M12*46-50*50	3/5"	6/7"	1-13/16"
LSPA-M12*400-60*80	5/6"	2/3'	2-1/8"
LSPA-M12*520-80*100	1-1/15"	1-3/8"	2-5/6"
LSPA-M12*540-100*130	1-2/9"	1-9/13"	3-6/13"
LSPA-M12*700-130*130	1-4/7"	2-1/5"	3-6/7"

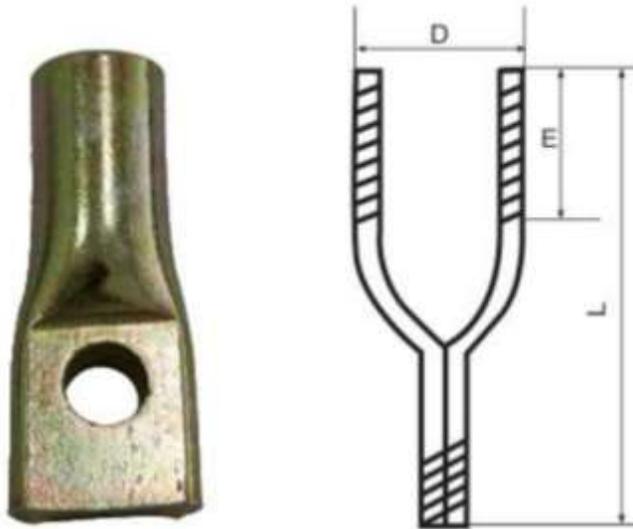
- 1 When making concrete components, this straight pipe needs reinforcement (As shown in the figure below).



- 2 When subjected to oblique load, diagonal stiffeners need to be installed (The installation direction of diagonal stiffeners is opposite to the direction of the load).



This type of flat pipe is applicable to the lifting of thin concrete components, which is a very economical lifting method. This type of flat pipe is not applicable to the inclined lifting operation.



### Characters

Item ID	D	E	L
LSFEA-M12*60	3/5"	7/8"	2-1/3"
LSFEA-M16*80	4/5"	1-1/20"	3-1/4"
LSFEA-M20*90	1-1/10"	1-1/3"	3-1/2"
LSFEA-M24*100	1-1/4"	1-7/10"	3-9/10"
LSFEA-M30*135	1-3/5"	2-1/5"	5-1/3"

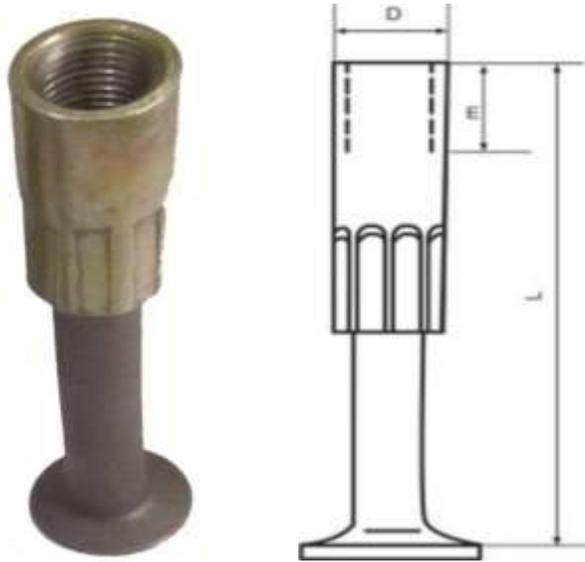
### Usage Method

The bottom of this flat tube is designed with a round hole, which can place reinforcing steel bars to obtain good tensile force in small components (As shown in the figure right).



## Lifting Socket Foot Anchor

It is mainly used for shallow-layer embedded components without reinforcement at the tail. If there is a tilt angle in the lifting state, additional reinforcement is required, and the tilt angle cannot exceed 30°. When the lifting has to turn or tilt, special tilt reinforcement must be used. Generally, in the concrete unit, there must be standard grid reinforcement in the concrete unit. This structure is composed The reinforcement method applicable to the panel. (As shown in the figure below) of threaded bushing and standard bolt, as well as conventional bolt and threaded bushing.

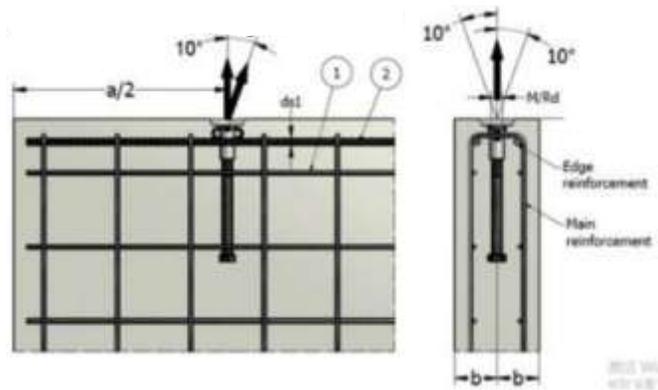


### Characters

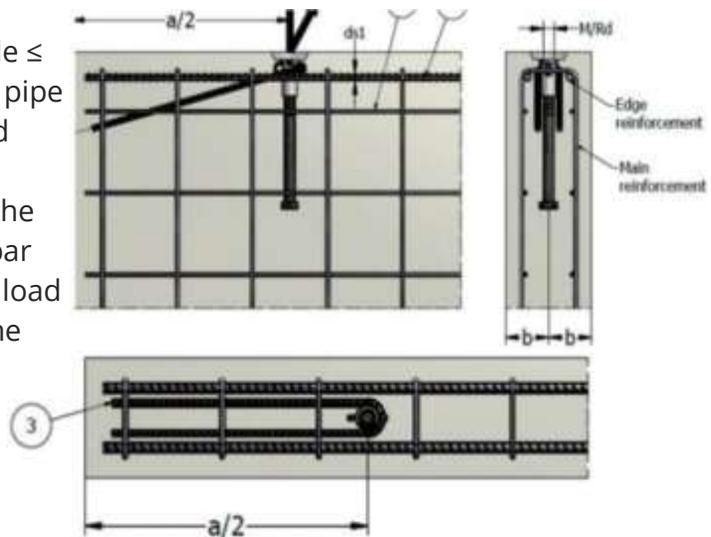
Item ID	D	E	L
LSFA-M12*70	7/8"	1-1/4"	2-3/4"
LSFA-M12*130	7/8"	1-1/4"	5-1/10"
LSFA-M12*90	1-1/20"	1-2/5"	3-1/2"
LSFA-M12*140	1-1/20"	1-2/5"	5-1/2"
LSFA-M12*200	1-1/20"	1-2/5"	7-4/5"
LSFA-M12*125	1-1/3"	1-3/5"	4-9/10"
LSFA-M12*258	1-1/3"	1-3/5"	10-1/6"
LSFA-M12*140	1-7/10"	1-9/10"	5-1/2"
LSFA-M12*325	1-7/10"	1-9/10"	12-4/5"
LSFA-M12*185	2-1/5"	2-3/10"	7-7/28"
LSFA-M12*400	2-1/5"	2-3/10"	15-3/4"
LSFA-M12*475	2-3/5"	2-3/5"	18-7/10"
LSFA-M12*550	2-19/20"	2-19/20"	21-3/5"
LSFA-M12*575	3-1/2"	3-1/2"	22-5/8"
LSFA-M12*630	3-8/9"	3-8/9"	24-4/5"

## Usage Method

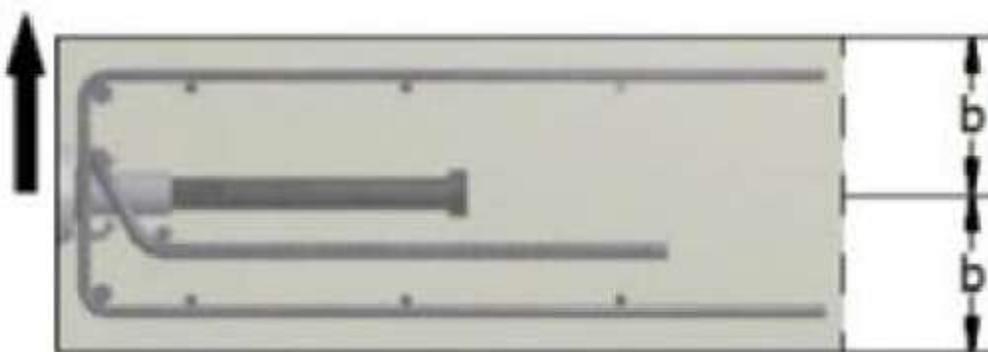
- 1 If the inclination angle of axial load is  $\leq 10^\circ$ , conventional installation and reinforcement methods shall be adopted (As shown in the figures right).



- 2 If the inclined lifting angle  $\leq 45^\circ$  is used, the straight pipe needs additional inclined reinforcement, and the installation direction of the inclined reinforcement bar must be opposite to the load direction (As shown in the figures right).

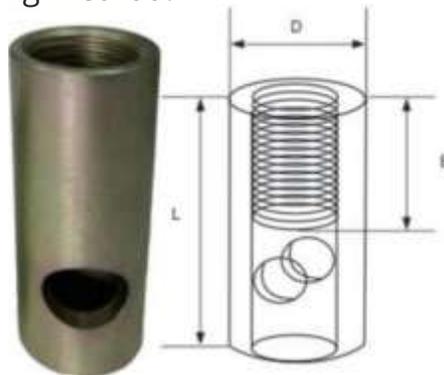


- 3 If the inclined lifting angle is  $90^\circ$ , the straight pipe needs additional reinforcement (As shown in the figure below).



## Lifting Socket With Cross-drilled Hole

The main purpose is applicable to the hoisting of thin concrete components, which is a conventional hoisting method, not applicable to the inclined hoisting method.



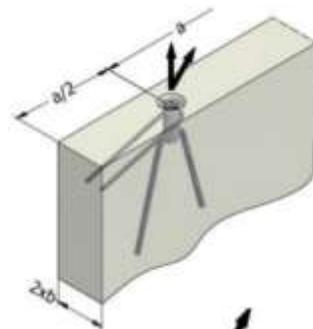
### Characters

Item ID	D	E	L
LSC-M12-040	0.59"	0.87"	1.57"
LSC-M16-047	0.83"	1.06"	1.85"
LSC-M20-067	1.06"	1.38"	2.64"
LSC-M24-077	1.22"	1.69"	3.03"
LSC-M30-105	1.57"	2.20"	4.13"
LSC-M36-125	1.85"	2.68"	4.92"
LSC-M42-145	2.13"	2.95"	5.71"
LSC-M52-195	2.68"	3.82"	7.68"

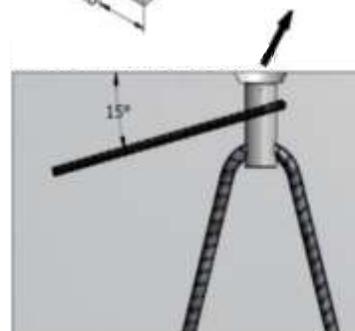
- 1 The round hole at the end of this model can provide good tension (As shown in the figure right).



- 2 The reinforcement method applicable to the panel (As shown in the figure right).

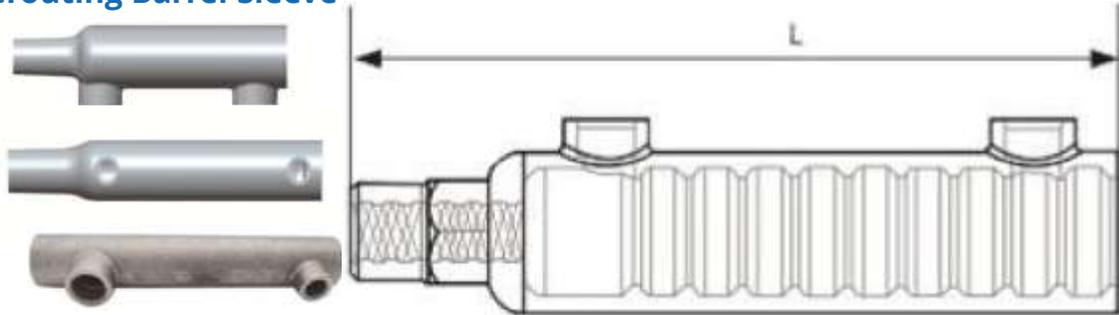


When the stressed load has an inclined angle, the inclined reinforcement must be added, and the installation direction of the reinforcement must be opposite to the direction of the stressed load (As shown in the figure right).



## Grouting Sleeve Series

### Grouting Barrel Sleeve



The grouting sleeve, also known as the grouting sleeve for reinforcement connection, is a combination of sleeve, matching grouting material and reinforcement. When connecting the reinforcement, the quick-drying no-shrinkage grouting material is injected, and the binding bite between the materials is used to connect the reinforcement and the sleeve. This product has the advantages of reliable performance, wide applicability and easy installation. The grouting sleeve connection technology is in engineering practice a new type of steel structure connection resulting from the needs of the site and the development of technology. The appearance of this connection method makes up for the traditional steel structure connection method and makes up for the shortcomings of welding and bolt connection, so it has been rapidly developed and applied, and is applicable to the reinforced concrete structure engineering, steel structure engineering, bridge engineering, offshore oil exploration platform engineering, offshore wind power tower and other fields.

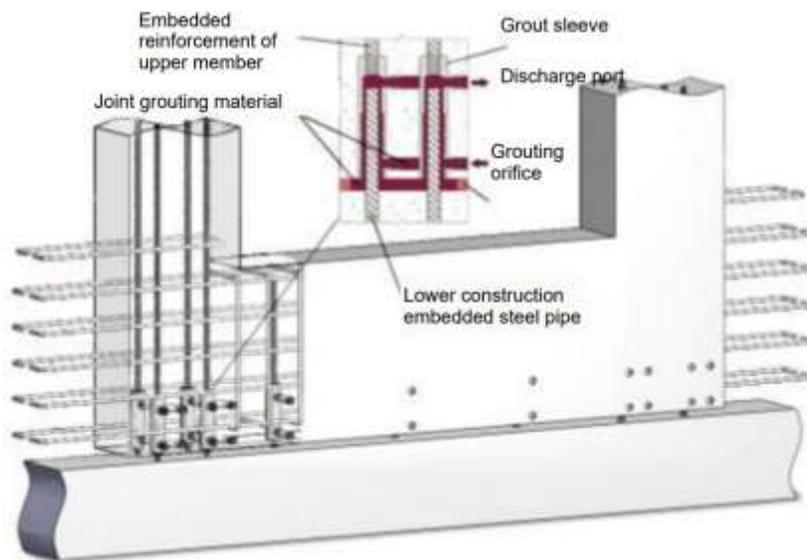
### Characters

Item ID	Ultimate Tensile Requirement (KN)	L
Rebar 12	79	7.76"
Rebar 16	140.8	9.45"
Rebar 20	219.9	11.42"
Rebar 25	343.7	14.17"
Rebar 32	562.9	17.52"

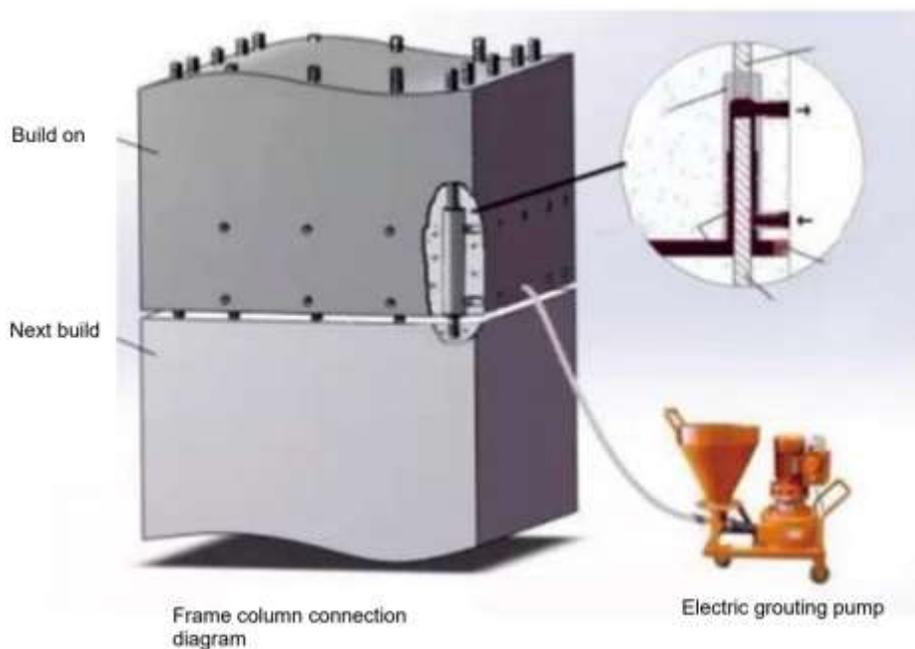
## Usage Method

Three use scenarios of grouting sleeve (As shown in the figure below).

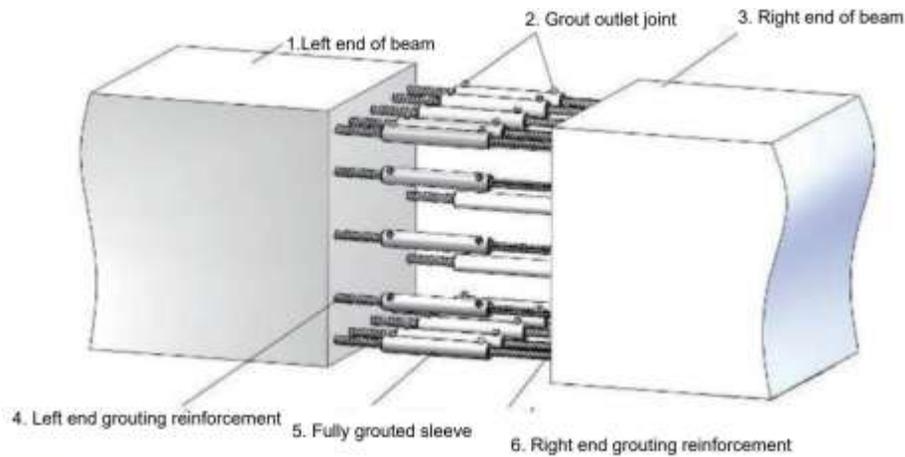
- 1 Applicable to precast concrete shear wall.



- 2 Suitable for precast concrete frame columns.

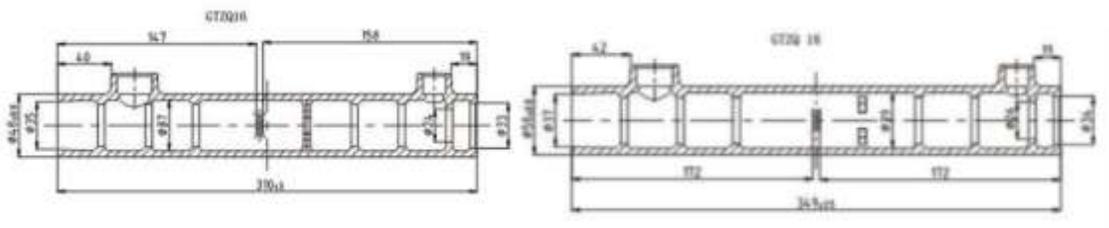


**3** It is applicable to precast concrete frame beams.



**Construction Process**

Wallboard hoisting in place → base treatment → grouting cavity sealing → grouting construction preparation → preparation of joint slurry → inspection of joint slurry → grouting in → overflow of grouting material → stop grouting → plug rubber plug grouting material → remove the plug of grouting discharge pipe on the component → final inspection → sleeve connection test.



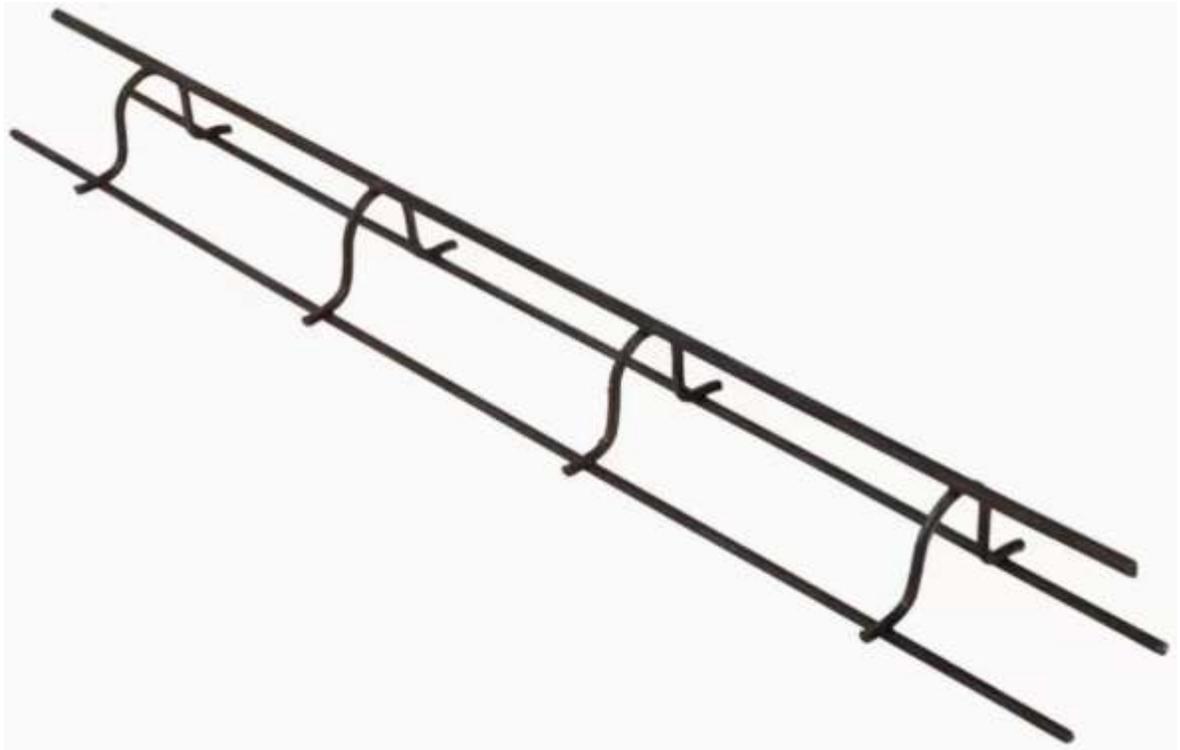
**Qualification Certificate**

The grouting sleeve of our company has passed the inspection of the National Construction Engineering Quality Supervision and Inspection Center and obtained relevant honorary certificates.



## Metal Continuous High Chair Upper

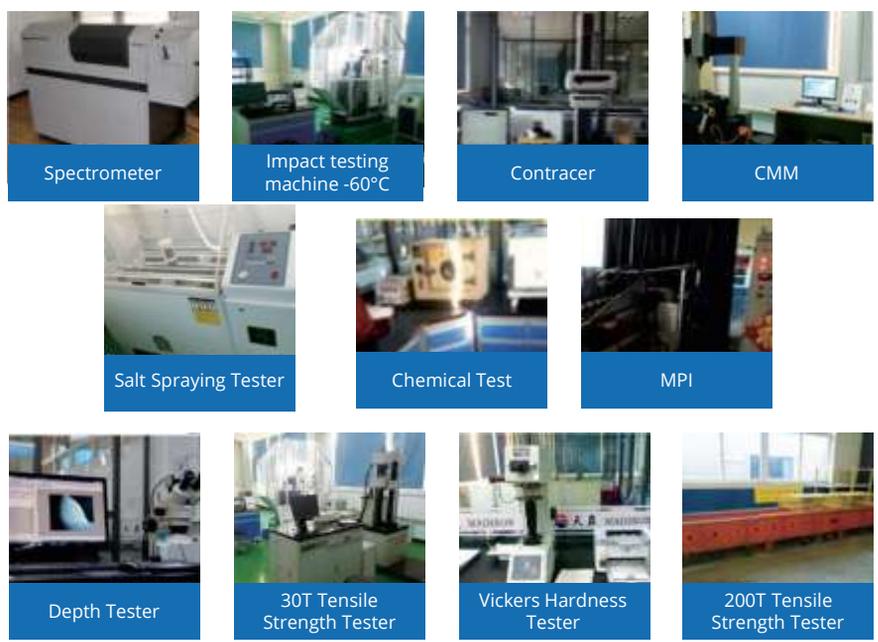
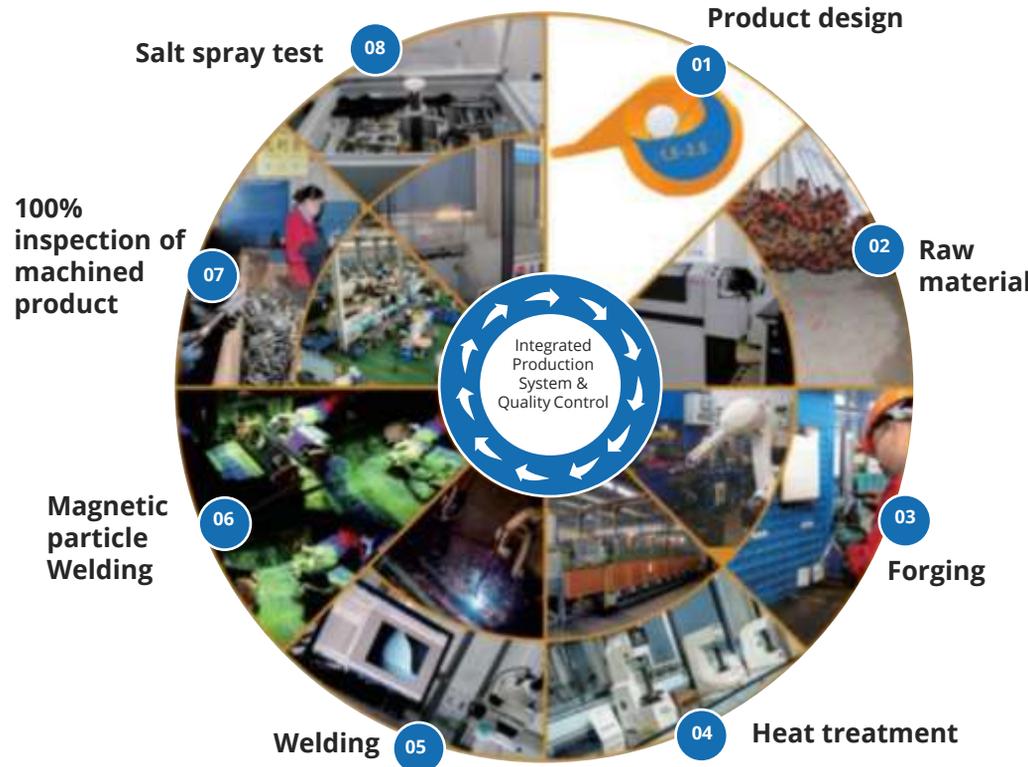
This component is a specialized, high-strength metal support system used in reinforced concrete construction (primarily for slabs, foundations, and raft).



Item ID	Spec
MCHCU-1	2"
MCHCU-2	2-1/2"
MCHCU-3	3"
MCHCU-4	3-1/2"
MCHCU-5	4"
MCHCU-6	4-1/2"
MCHCU-7	5"
MCHCU-8	5-1/2"
MCHCU-9	6

# Introduction to Production Process and Testing Equipment

The products in this manual are only used by trained professional, otherwise serious personal injury may occur. Before using any products in this manual, please take time to understand all technical and safety information to ensure the safety of workers.



# Quality Assurance System

## QA System

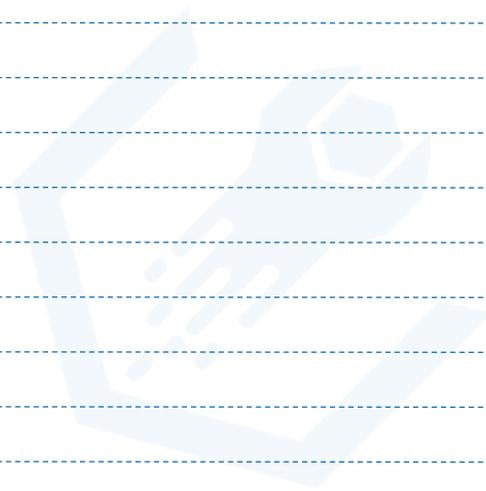
"Quality is our Business" and "Zero defect" is permanent pursuit.

- 1 Year 2003, certified by ISO9001
- 2 Year 2004, certified by IATF 16949
- 3 Year 2010, certified by ISO14001
- 4 Year 2016, certified by CE

Management and quality control integrate with world trend.







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