FIXLIFT SYSTEM
CATALOG 2020

PRECAST

LIFTING SYSTEM

FIXING SYSTEM

BUILDING MATERIAL

FIXLIFT

We Fix, We Lift, We Build!

FIXLIFT Systems

INTRODUCTION

FIXLIFT is the brand of a foreign investment company registered in China under the name of LeVrai Co Ltd, it's owned by a foreign investor who’s committed to the production quality of precast concrete accessories.

LeVrai company was established in 2016, with the staff that has more than 10 years of experience on the production of precast lifting and fixing system. FIXLIFT has already contributed successfully in the European and Middle Eastern markets as participants in most of precast construction projects.

CONTENTS

Lifting Socket

Manufactured from either high grade precision steel tube in zinc plated finish or stainless steel tube. The sockets are supplied with an (Rd) round thread as standard. FixLift Precast lifting sockets are designed to offer high load bearing capabilities in both axial and shear loading instances. Please refer to figure 3 and table 4 for exact dimensions and load bearing capabilities.

When using tubular lifting sockets, additional reinforcement through the cross hole must always be utilized. Please refer to Installation Instructions for use with tubular and flat end lifting sockets.

Ensure lifting devices are fully threaded into the socket before lifting commences.

Minimum concrete strength should be 20.0N/mm$_2$ unless otherwise stated.

Thread (Rd / M)	Length (mm)	D (mm)	e (mm)	g (mm)	SWL (Kg)
Rd 12	40	15	22	8	500
Rd 16	54	21	27	13	1200
Rd 20	69	27	35	15.5	2000
Rd 24	78	31	43	18	2500
Rd 30	103	39.5	56	22.5	4000
Rd 36	125	47	68	27.5	6300
Rd 42	145	54	80	32	8000
Rd 52	195	67	100	40	12500

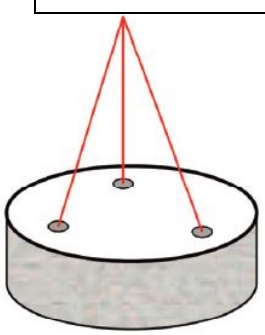
Flat End Lifting Socket

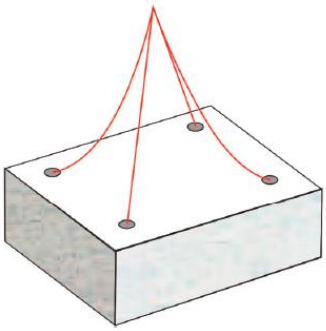
Manufactured from either high grade precision steel in zinc plated finish or stainless steel. The sockets are supplied with a metric (M) thread as standard. Flat End Lifting Sockets provide a cost-effective alternative to Tubular Lifting Sockets. They are used in the same manner and utilize identical cross hole reinforcement and lateral reinforcement as the Tubular Lifting Sockets.

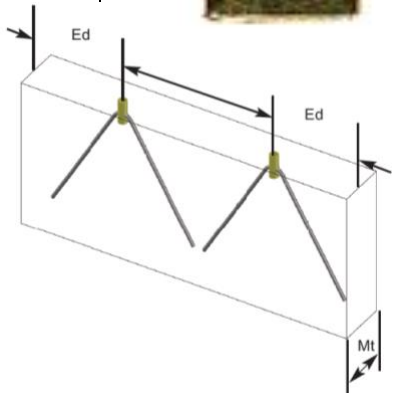
Ensure lifting devices are fully threaded into the socket before lifting commences.

Minimum concrete strength should be 20.0N/mm$_2$ unless otherwise stated.

Thread (Rd / M)	Length (mm)	D (mm)	SWL (Kg)
Rd 12	60	15	500
Rd 16	80	21	1200
Rd 20	95	27	2000
Rd 24	100	31	2500
Rd 30	135	39.5	4(







Wavy Tailed Lifting Socket

Manufactured from either high grade precision steel in zinc plated finish or stainless steel, and are supplied with an (Rd) round thread as standard.

Ensure lifting devices are fully threaded into the socket before lifting commences.
Minimum concrete strength should be 20.0N/mm$_2$ unless otherwise stated.

Thread (Rd / M)	Length (mm)	Bar Dia (mm)	SWL (Kg)
Rd 12	108	8	500
Rd 12	137	8	500
Rd 16	167	12	1200
Rd 16	216	12	1200
Rd 20	187	16	2000
Rd 20	257	16	2000
Rd 24	240	16	2500
Rd 24	360	16	2500
Rd 30	300	20	4000
Rd 30	450	20	4000
Rd 36	380	25	6300
Rd 36	570	25	6300
Rd 42	450	28	8000
Rd 42	620	28	8000
Rd 52	880	32	12500

Flat Plate Lifting Socket

Flat Plate Lifting Sockets are ideal for shallow precast concrete units. The height of these sockets allows them to be placed in the shallow dimension of slab and terrace units. These sockets must be used with additional reinforcement to transfer loads into the surrounding concrete. **Ensure lifting devices are fully threaded into the socket before lifting commences.**
Minimum concrete strength should be 20.0N/mm$_2$ unless otherwise stated.

Thread (Rd / M)	Length (mm)	SWL (Kg)
Rd 12	30	500
Rd 16	35	1200
Rd 20	47	2000
Rd 24	54	2500
Rd 30	72	4000
Rd 36	84	6300
Rd 42	98	8000
Rd 52	117	12500

Crown Foot Anchor

Crown Foot Anchor are machined from solid rod. The turning process used provides the threaded socket section and foot anchorage point in one solid unit. This integral foot provides anchorage and transmits loads into the surrounding concrete, meaning for lifts up to and including 12.5 degrees no further reinforcement is required. They are ideally suited for manufacturing and lifting shallow slab units.

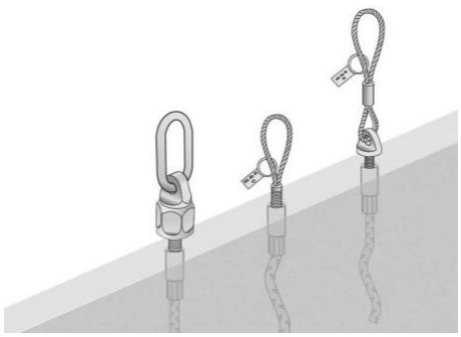
Ensure lifting devices are fully threaded into the socket before lifting commences.
Minimum concrete strength should be 20.0N/mm$_2$ unless otherwise stated.

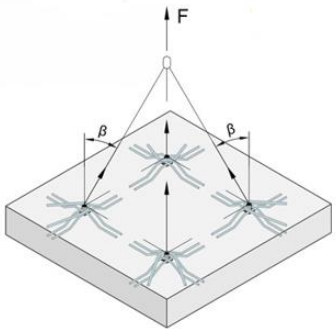
Thread (Rd / M)	Length (mm)	SWL (Kg)
Rd 12	60	500
Rd 16	80	1200
Rd 20	100	2000
Rd 24	115	2500
Rd 30	150	4000

Threaded Lifting Loop

Threaded Lifting Loops are suitable to be used with all sizes of threaded lifting sockets. They are economical and can be used in most applications. Threaded Lifting Loops are not suitable for turning or pitching. They can be reused, but only after inspection. Threaded Lifting Loops should only be attached to the concrete unit and used after the concrete strength has reached 20.0 N/mm$_2$. Threaded Lifting Loops are ideally suited to axial lifting procedures, but can be used up to and including angled lifts of 30 degrees. Lifting Loops are manufactured from zinc plated steel wire rope with a precision bright steel threaded portion. See figure 26 and table 24 for Lifting Loop dimensions. Please note Threaded Lifting Loops will be supplied plastic tag.

Thread (Rd / M)	Length (mm)	SWL (Kg)
12	155	500
16	155	1200
20	215	2000
24	255	2500
30	300	4000
36	340	6300
42	425	8000
52	550	12500





Swivel Lifting Eye

With the Swivel Lifting Eye, precast concrete units can be safely lifted utilizing lifting points in their sides. Units can also be safely tilted from the horizontal to the vertical plane and vice versa. The pressure plate with its large cross-sectional area generates an even distribution of pressure over a large surface area of concrete. The Swivel Lifting Eye's special swiveling component automatically adapts to the direction of the inclined lifting forces. The safe working load of the Swivel Lifting Eye is valid for lifts along the axis of the thread through to lifts perpendicular to its axis. The Swivel Lifting Eye is specifically designed for inclined lifting operations of angles up to 90 degrees, for instance when tilting up units or lifting from the sides. Unlike more conventional lifting loops, the swiveling component safely allows for any correction in the sling angle without tightening or loosening of thread inside the socket. In more conventional lifting loops this correction in the sling angle can lead to loops not being threaded into the socket correctly as they unwind to correct the angle.

Thread (Rd / M)	Length (mm)	SWL (Kg)
12	118	500
16	130	1200
20	146	2000
24	163	2500
30	187	4000
36	205	6300

Cast in Loop

Cast in Lifting Loops are one of the most economic lifting systems available to the precast concrete manufacturer. They are designed for lifting precast concrete units where the lifting points side will be hidden from view once it is installed in its final position. Lifting equipment, such as crane hooks can be attached directly onto these loops without the need for any other lifting devices.

Cast in Loops are manufactured from galvanized mild steel rope. They have a swaged connecting ferrule and a colour coded tag that clearly identifies the safe working load along with the manufacture's logo. The tag is designed not to slide down the loop during casting and should remain visible at all times.

Cast in Loops are not designed for multi-use applications and should only be used for a single cycle from production to final installation. When storing concrete units, care should be taken to avoid bending, so that the cable does not kink. These loops should be examined for cuts, nicks or excessive corrosion prior to lifting.

Minimum concrete strength should be 20.0N/mm$_2$ unless otherwise stated.

Size	Length (mm)	Rope Dia (mm)	Tag Colour	SWL (Kg)
0.8 Ton	200	6	White	800
1.2 Tom	220	7	Red	1200
1.6 Ton	235	8	Purple	1600
2.0 Ton	255	9	Light Green	2000
2.5 Ton	280	10	Charcoal	25000
4.0 Ton	330	12	Dark Green	4000
5.2 Ton	385	14	Orange	5200
6.3 Ton	385	16	Blue	6300
8.0 Ton	430	18	Light Grey	8000
10.0 Ton	470	20	Pink	10000
12.5 Ton	510	22	Yellow	12500
16.0 Ton	560	26	Lilac	16000
20.0 Ton	610	28	Ochre	20000
25.0 Ton	670	25	Brown	25000

Flat End Fixing Socket

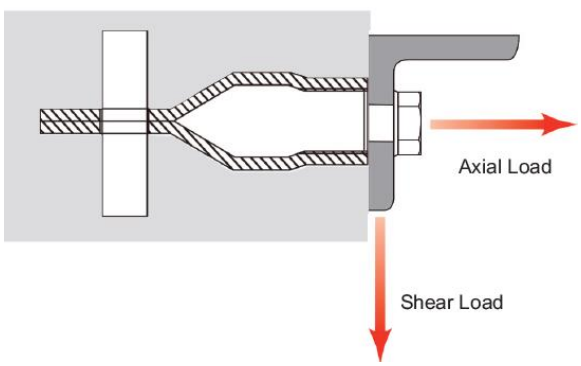
Flat End Fixing Sockets are designed for quick and easy connection of precast units with generous placement tolerances. These sockets should only be used where on site fixing tolerances are sufficiently flexible.
The socket is manufactured from either high grade precision steel tube with a zinc plated finish, or a stainless steel grade A2 tube (Grade 304). The socket is supplied
with a flat end with a punched hole to accommodate additional reinforcement. Please note that additional anchorage reinforcement does not increase the maximum safe working load of the socket.
Please note these sockets are not suitable for lifting operations.

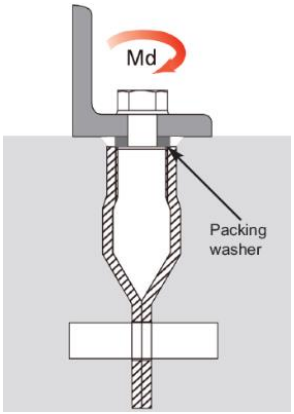
Size	Thread Dia (M)	Length (mm)	SWL (Kg)
M8*50	M8	50	200
M10*50	M10	50	350
M12*60	M12	60	500
M12*70	M12	70	500
M16*80	M16	80	700
M16*100	M16	100	800
M16*120	M16	120	1200
M20*100	M20	100	1250
M20*120	M20	120	1400
M24*120	M24	120	1800

Fixing Socket with Cross Pin

Fixing Sockets with Cross Pin are designed for quick and easy connection of precast units with generous placement tolerances. These sockets should only be used where on site fixing tolerances are sufficiently flexible. The socket is manufactured from either high grade precision steel tube with a zinc plated finish, or a stainless steel grade A2 tube (Grade 304). It incorporates a cross pin which alleviates the requirement of additional reinforcement, making it ideal for use in shallow elements.
Please note these sockets are not suitable for lifting operations

Size	Thread Dia (M)	Length (mm)	SWL (Kg)
M8*50	M8	50	200
M10*60	M10	60	350
M12*60	M12	60	500
M16*80	M16	80	700
M16*100	M16	100	800
M20*100	M20	100	1250
M24*120	M24	120	1800





Angled Fixing Sockets

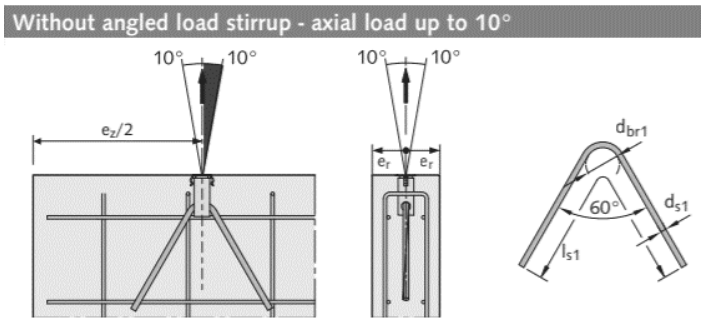
Angled Fixing Sockets are designed for quick and easy connection of precast units with generous placement tolerances. These sockets should only be used where onsite fixing tolerances are sufficiently flexible.
The socket is manufactured from either high grade precision steel tube with a zinc plated finish, or a stainless steel grade A2 tube (Grade 304). The socket is supplied with the flat end bent perpendicular to its axis. This provides a means of anchoring the socket into the concrete and negates the need for additional reinforcement.
Please note these sockets are not suitable for lifting operations.

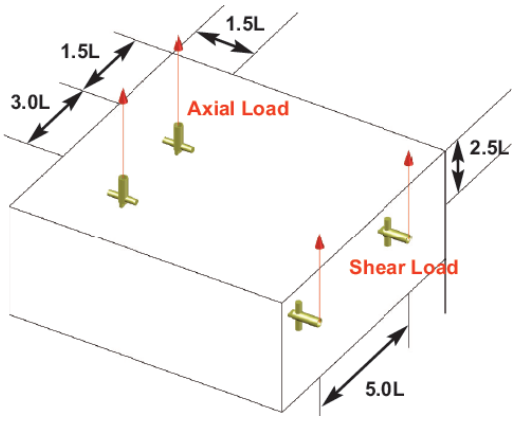
Size	Thread Dia (M)	Length (mm)	SWL (Kg)
M8*30	M8	30	180
M12*45	M12	45	400
M12*70	M12	70	800
M16*60	M16	60	950
M16*100	M16	100	1300
M20*70	M20	70	1200
M20*100	M20	100	1600
M24*80	M24	80	1600

Solid Rod Fixing Socket with Crossbar

Machined from solid rod and offering a heavy wall construction, in either a zinc plated finish or stainless steel grade 304. This socket offers higher fixing capacities than its equivalent thread diameter standard fixing socket.
Whilst the crossbar does not increase the fixing capacity of the Solid Rod Fixing Socket it offers improved anchorage in cracked or honeycombed concrete. The minimum design strength for surrounding concrete should be 30 N/mm2.
Please note these sockets are not suitable for lifting operations.

Size	Thread Dia (M)	Length (mm)	SWL (Kg)
M10*60	M10	60	600
M12*75	M12	75	900
M16*75	M16	75	1700
M16*100	M16	100	1700
M20*75	M20	75	2300
M20*100	M20	100	2300
M24*100	M24	100	3000





Solid Rod Fixing Socket

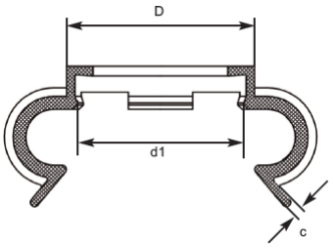
Machined from solid rod and offering a heavy wall construction, this socket offers higher fixing capacities than its equivalent thread diameter standard fixing socket.
Always use with reinforcement.

Size	Thread Dia (M)	Length (mm)	SWL (Kg)
M10*60	M10	60	600
M12*75	M12	75	900
M16*75	M16	75	1700
M16*100	M16	100	1700
M20*75	M20	75	2300
M20*100	M20	100	2300
M24*100	M24	100	3000

Plastic Data Clip

Used to ensure lateral reinforcement is fixed correctly to the socket. Also provides a clear indication of the socket thread diameter and D safe working load

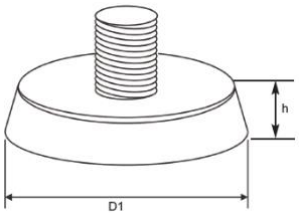
Thread (Rd / M)	D (mm)	d1 (mm)	c (mm)
12	18.5	15.5	1.5
16	25.5	21.5	1.5
20	31.5	27.5	1.5
24	33.5	31.5	1.5
30	44.5	40.5	2.0
36	52.5	47.5	2.0
42	59.5	54.5	2.0
52	73	67.5	2.0



Plastic Nailing Plate-Standard

Designed to hold Threaded Sockets against the formwork whilst leaving a recess for the Threaded Lifting Loop.

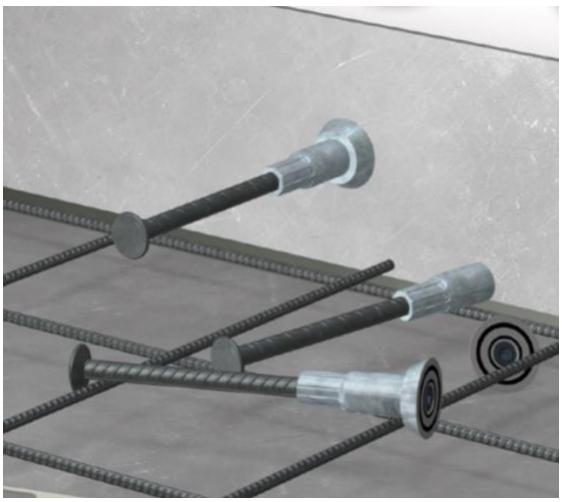
Size	Thread Dia (M)	D1 (mm)	h (mm)
M12	M12	55	10
M16	M16	55	10
M20	M20	55	10
M24	M24	55	10
M30	M30	70	10
M36	M36	70	10

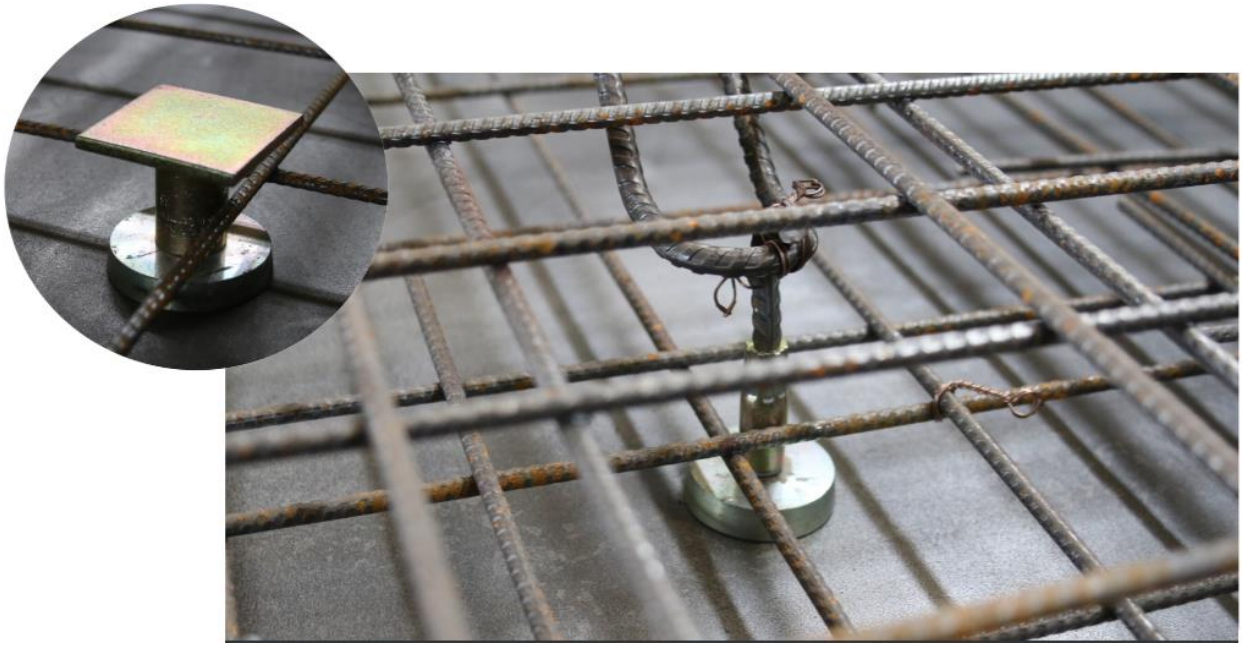


Magnetic Holding Nailing Plate

Durable magnetic system designed to fix cast-in sockets to steel formwork.

Size	Width (mm)	Thickness (mm)
M12	60	10
M16	60	10
M20	60	10
M24	80	10
M30	80	10
M36	110	10





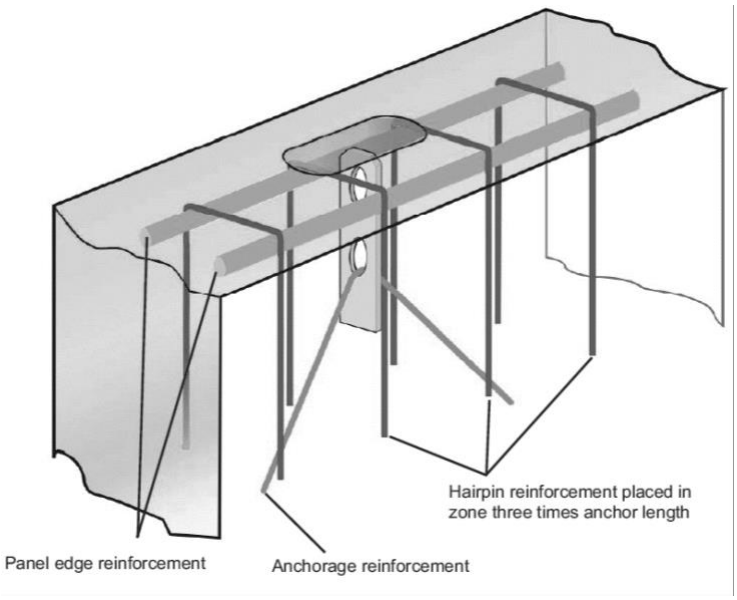
Two Hole Anchor

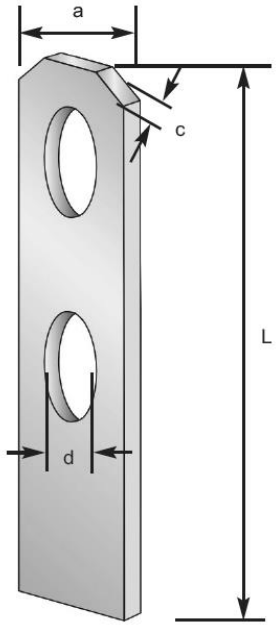
Used in lightweight concrete units and thin panels. The Transport Anchor is anchored to concrete by additional reinforcement through the spare hole. **Always use with reinforcement.**

Designed specifically for transportation only of narrow precast concrete units where the ability to turn units is not required.

Surface Treatment is Black Finished or Zinc Plated.

Size	Length (mm)	Width (mm)	Thickness (mm)	Hole Dia (mm)
2.5 Ton	90	30	10	14
4.0 Ton	120	40	12	18
5.0 Ton	120	40	15	18
7.5 Ton	160	60	16	26
10.0 Ton	170	60	20	30



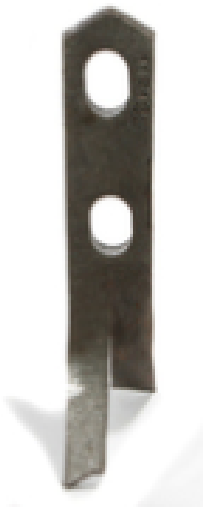


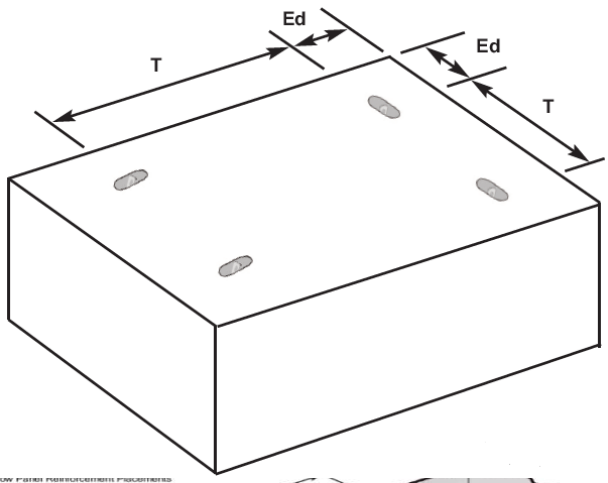
Size	L (mm)	a (mm)	c (mm)	d (mm)
2.5 Ton	90	30	10	14
4.0 Ton	120	40	12	18
5.0 Ton	120	40	15	18
7.5 Ton	160	60	16	26
10.0 Ton	170	60	20	30

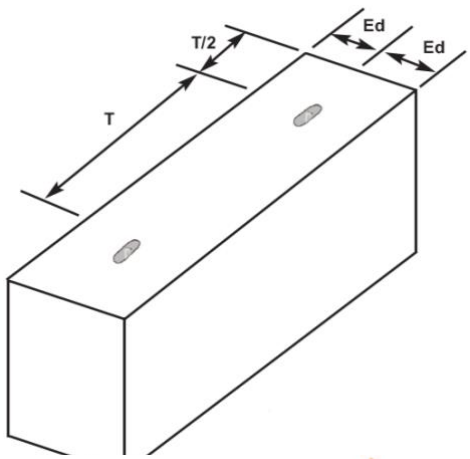
Spread Anchor

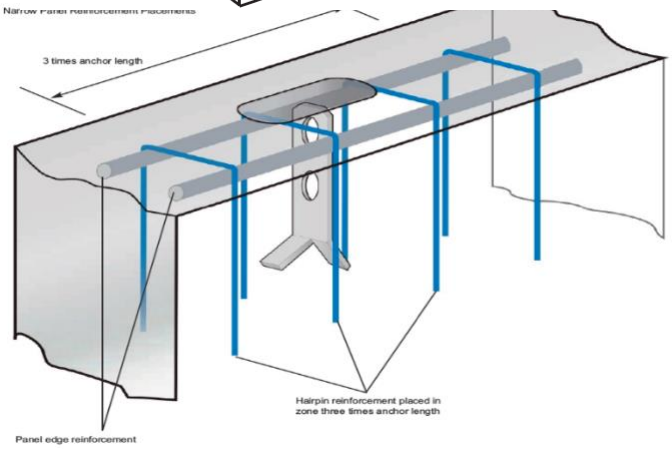
The Spread Anchor is suitable for lifting both narrow wall type units and slab units. In certain applications it can be utilized without the need for further reinforcement.

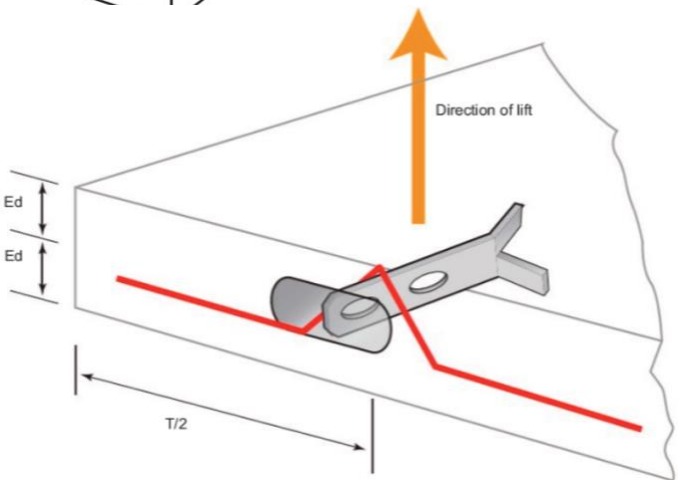
Size	Length (mm)	Width (mm)	Thickness (mm)	Hole Dia (mm)
2.5 Ton	150	30	10	14
5.0 Ton	180	40	15	18
5.0 Ton	240	40	15	18
5.0 Ton	400	40	15	18
7.5 Ton	260	60	16	27
7.5 Ton	300	60	16	27
7.5 Ton	420	60	16	27
10.0 Ton	300	60	20	27
10.0 Ton	370	60	20	27











Erection Anchor

Used for erecting and turning precast units in both directions.

Size	Length (mm)	Width (mm)	Thickness (mm)	Hole Dia (mm)
2.5 Ton	230	55	10	14
5.0 Ton	290	70	15	18
7.5 Ton	320	95	15	27
10.0 Ton	390	95	20	27

Flat Foot Anchor

For use on very shallow precast concrete units.
Always use with reinforcement.

Size	Length (mm)	Width (mm)	Thickness (mm)	Hole Dia (mm)
1.4 Ton	65	30	6	14
2.5 Ton	75	30	15	14
5.0 Ton	125	40	15	18

Ring Clutch

The Ring Clutch is an all cast item specially designed not only to fit the Spread Anchor of its related safe working load but also to match the pocket created by the corresponding capacity Rubber Former. In this way, one can be assured that no two lifting capacities can be utilized in the lifting process. The Ring Clutches are individually tested and come uniquely stamped with a corresponding lifting test certificate.

Size	Length (mm)	SWL (Kg)
2.5 Ton	259	700-2500
5.0 Ton	325	3000-5000
10.0 Ton	431	5300-10000

Combination Ring Clutch

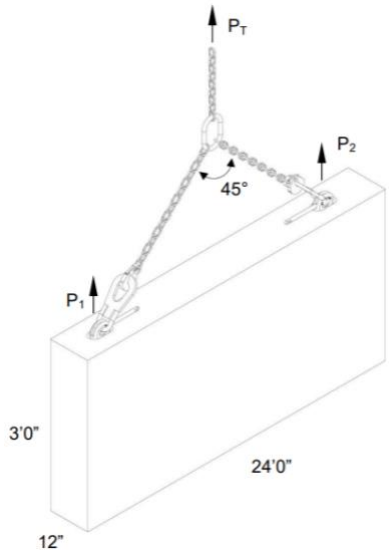
The Spread Anchor Combination Ring Clutch is similar in specification to the standard Spread Anchor Ring Clutch, but supplied with a wire rope lifting chain. The wire rope offers greater flexibility when lifting elements with edges that may come into contact with the clutches chain link. Minimizing the potential cosmetic damage of the concrete.

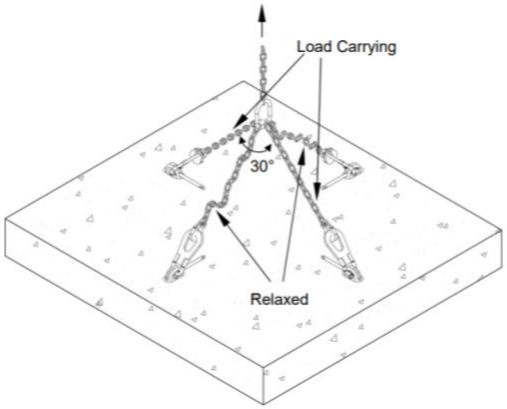
Size	SWL (Kg)
2.5 Ton	700-2500
5.0 Ton	3000-5000
10.0 Ton	5300-10000

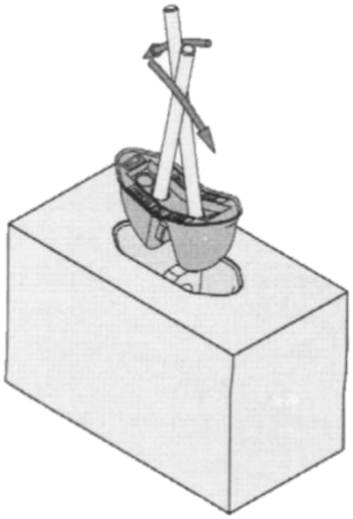
Rubber Recess Former

The Rubber Former is designed to hold the Spread Anchor in position and leave a recess for the Ring Clutch.

Size	SWL (Kg)	Width (mm)	Length (mm)	Height (mm)
2.5 Ton	1400-2500	43	104	45
5.0 Ton	3000-5000	49	126	59
10.0 Ton	5300-10000	67	188	85
26.0 Ton	12500-26000	112	233	121



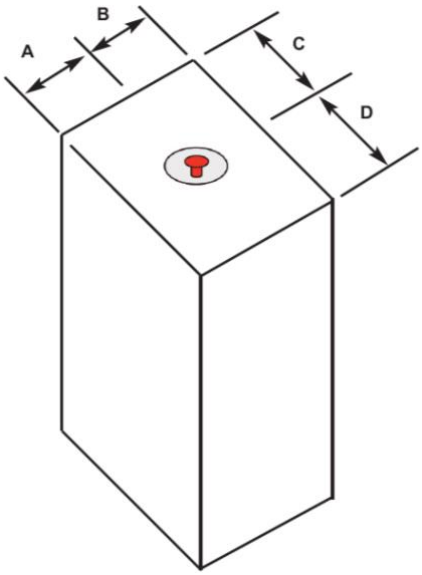


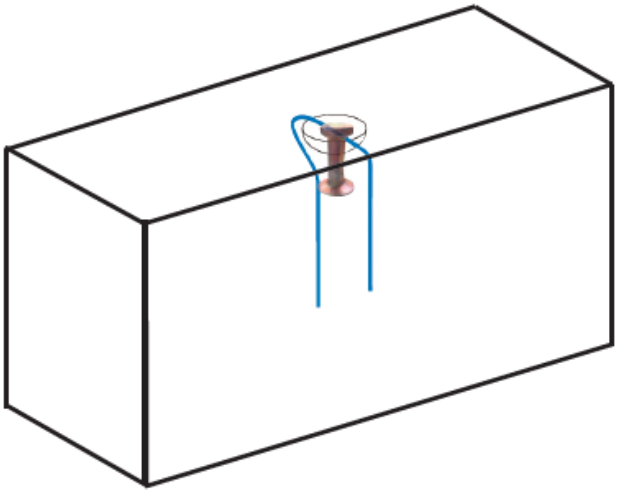


Spherical Head Anchor

Pin Anchor Lifting System provides a safe and trusted method of lifting precast concrete products, the system is offered in several load groups ranging from 1.3 tonnes to 32.0 tonnes. Each size range is manufactured in such a way as to ensure only items specific to a particular load group can be used together, thus ensuring that components from different load groups cannot be inadvertently interchanged.
The Pin Anchors are available in various load ratings and lengths to ensure an anchor can be selected with performance characteristics specific to the lift being considered. The system is suitable for all aspects of precast concrete production and is ideally suited for demolding, lifting, loading and turning procedures.

Size	SWL (Kg)	Length (mm)
1.3 Ton	1300	35,40,50,55,65,85,120
2.5 Ton	2500	45, 55, 65, 70, 85, 100, 120, 140, 170, 180, 210, 280
5.0 Ton	5000	65, 75, 80, 85, 95, 100, 110, 120, 140, 150, 160, 170, 180, 240, 340
7.5 Ton	75000	85, 95, 100, 120, 140, 150, 160, 165, 200, 300, 540
10.0 Ton	10000	85, 100, 110, 115, 120, 135, 150, 170, 200, 220, 250, 340, 650, 680
15.0 Ton	15000	140, 150, 165, 200, 210, 300, 400, 480
20.0 Ton	20000	165, 200, 250, 340, 500, 1000
32.0 Ton	32000	175, 280, 500, 700, 1200





Spherical Double Head Anchor

With more automation called for in the rapid production of pipe units, the Spherical Double Head Anchor facilitates the placement of lifting points by an automated process. It can be used in conjunction with the steel recess former. Use should be in accordance with the general pin anchor guidance.
The capability of the surrounding concrete to withstand lifting loads should always be considered before lifting commences

Size	SWL (Kg)	Length (mm)
1.3 Ton	1300	55, 85, 120
2.5 Ton	2500	55, 85, 110, 120, 170, 240
5.0 Ton	5000	75, 80, 120, 240

Lifting Clutch

Standard lifting clutch which can be used with the full range of Spherical Head Anchor.

Size	SWL (Kg)	Length (mm)
1.3 Ton	1300	165
2.5 Ton	2500	205
5.0 Ton	5000	240
7.5-10.0 Ton	10000	346
15.0-20.0 Ton	20000	520
32.0 Ton	32000	590

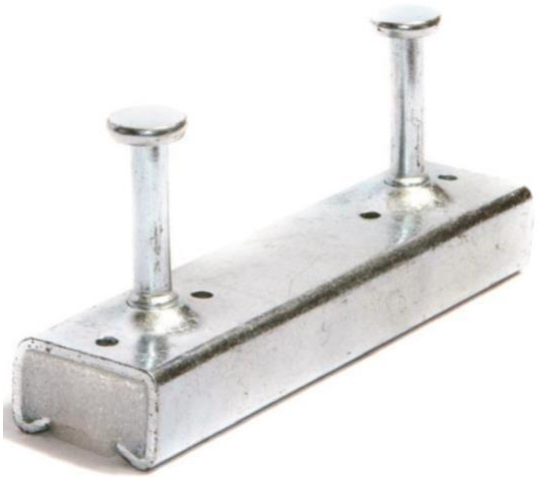
Round Recess Former with Holding Rod

Used to position Spherical Head Anchor and form a recess for the clutch.

Size	SWL (Kg)
1.3 Ton	1300
2.5 Ton	2500
5.0 Ton	5000
7.5 Ton	7500
10.0 Ton	10000
15.0 Ton	15000
20.0 Ton	20000
32.0 Ton	32000

Cold Rolled Channel

Our Cast In Channels are cold rolled with swaged anchorage studs. They are used extensively to provide accurate and reliable connections to almost any precast or in concrete structure. The channel is supplied with an integral polythene void former infill material which prevents concrete or grout entering the channel. Once the shuttering is removed the polythene void former is removed by hand to expose the rolled channels, which are then ready to accept the T-Bolts appropriate to the size of channel and depth of item being fixed to the channel. The slotted nature of the system means it can readily accommodate any minor deviations in tolerances of follow on fixtures. The system is available in either Hot Dip Galvanized or finish.



APPLICATIONS

Wall Connections

Pipe Systems

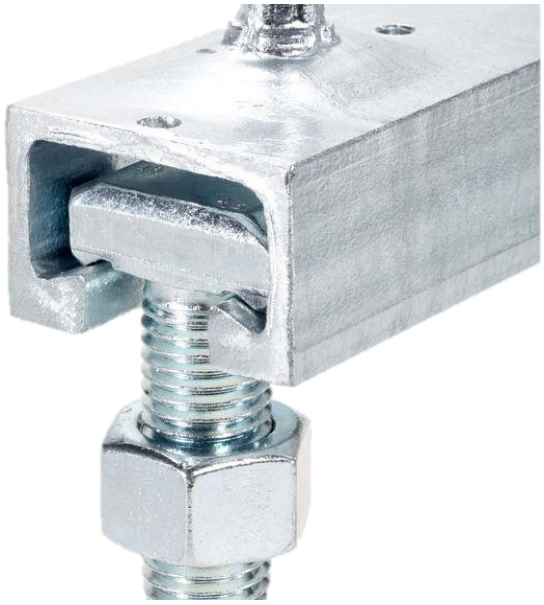
Stadium Seats

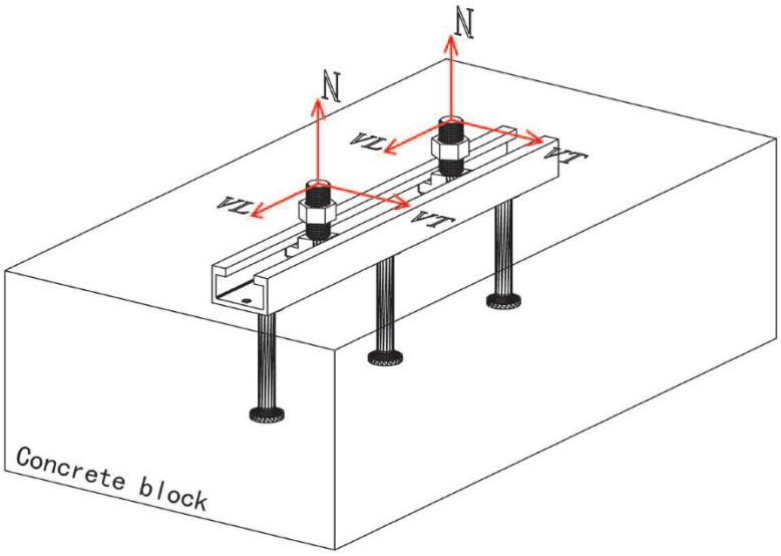
Profile	Length (mm)
72/49	Based on request
54/33	Based on request
49/30	Based on request
40/25	Based on request
38/17	Based on request
28/15	Based on request

Cast in Channel T-Bolts

Our T-Bolts are specifically designed for use with the appropriate channel section. They are available galvanized, with a grade 8.8 or 4.6 electroplated finish as standard as well as a stainless-steel version.

Profile	Thread (M)	Preferred Length (mm)
72/49	20	100
72/49	20	80
54/33	16	80
54/33	16	50
49/30	16	80
49/30	16	50
40/25	16	80
40/25	16	50
38/17	12	100
38/17	12	50
28/15	10	90
28/15	10	50





Rebar Identification Caps

Designed with high visibility to identify projecting reinforcement bars.

Bar Dia （mm)	Pack Size
8-16 mm	250
16-32 mm	250

Steel Chamfer

Steel chamfer can be used on timber and steel molds. It can be placed free standing or welded into place.

Size	Length (m)
10*10	4 meters
15*15	4 meters
20*20	4 meters
25*25	4 meters

Magnetic Steel Chamfer

Size	Length (m)
10*10	On Request
15*15	On Request
20*20	On Request
25*25	On Request

Plastic Shim Pad

Designed for packing during the erection of precast concrete units.

Thickness (mm)	Dimensions (mm)
2	70*70
3	70*70
5	70*70
7	70*70
9	70*70
10	70*70
15	70*70
20	70*70

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