

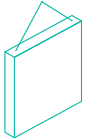
Ancon[®]

Ancon Unilift Lifting Systems

For the Precast Concrete Industry



COMPLIANT
AS 3850.1:2024



Lifting & Bracing
Precast Lifting

Leviat®

A CRH COMPANY

We imagine, model and make engineered products and innovative construction solutions that help turn architectural visions into reality and enable our construction partners to build better, safer, stronger and faster.

Leviat is a world leader in connecting, fixing, lifting and anchoring technology.

From the build of new schools, hospitals, homes and infrastructure, to the repair and maintenance of heritage structures, our engineering skills are making a difference around the world.

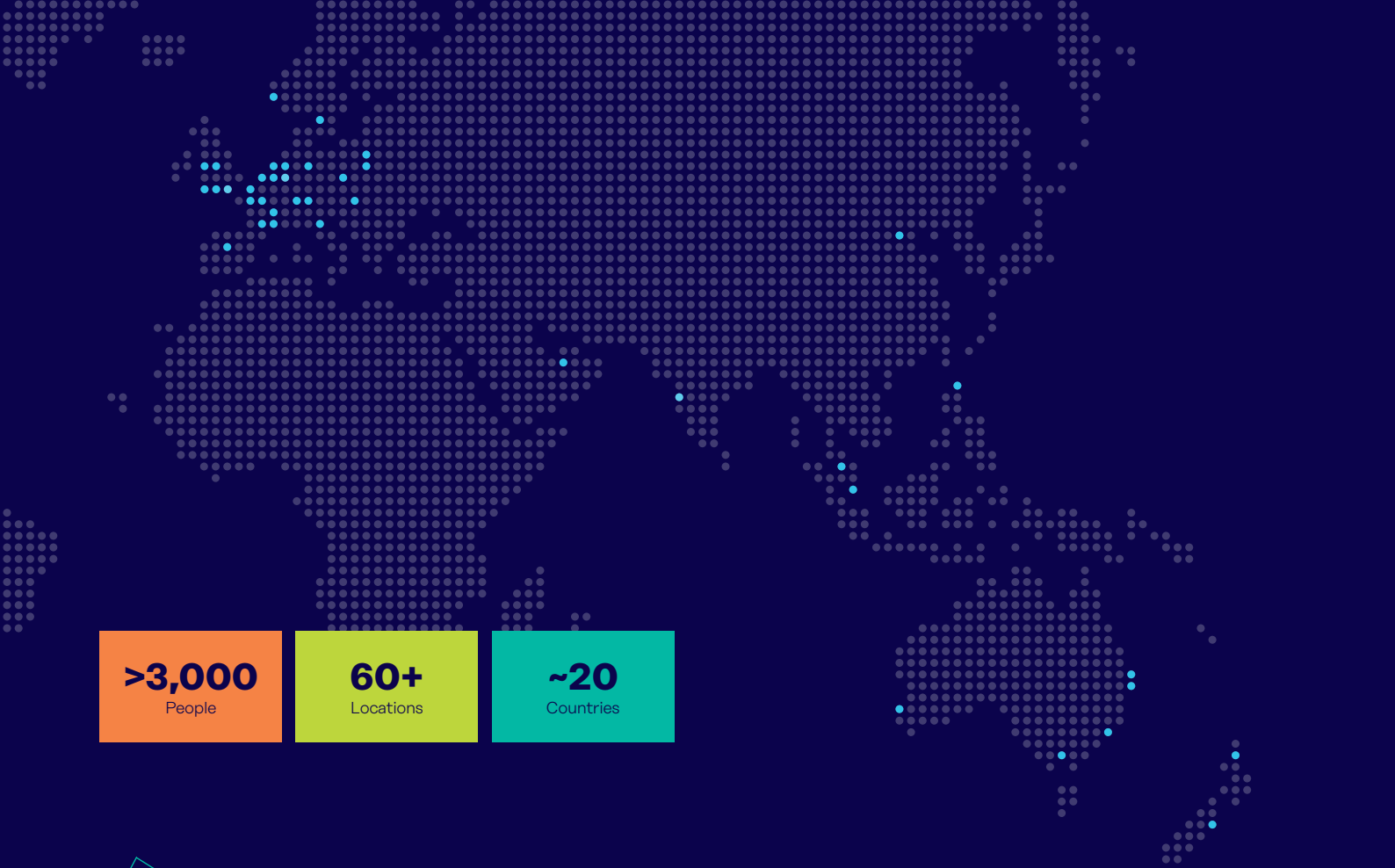
We provide technical design assistance at every stage of a project, from initial planning to installation and beyond.

Our technical support services range from simple product selection through to the development of a fully customised project-specific design solution.

Every promise we make locally, has the commitment and dedication of our global team behind it. We employ almost 3,000 people at 60 locations across North America, Europe and Asia-Pacific, providing an agile and responsive service worldwide.

Leviat, a CRH company, is part of the world's leading building materials business.

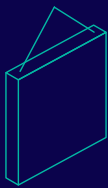




>3,000
People

60+
Locations

~20
Countries

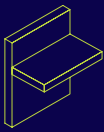


Lifting & Bracing

Systems for the safe and efficient transportation, lifting and temporary bracing of cast concrete elements and tilt-up panels before permanent structural connections are made.

- Precast Lifting
- Tiltup Lifting
- Bracing & Anchorage

Other areas of expertise:



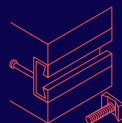
Structural Connections

Systems to form robust, efficient connections, and continuity of concrete reinforcement as necessary, between walls, slabs, columns, beams and balconies, providing structural integrity as well as enhanced thermal and acoustic performance.



Façade Support & Restraint

Systems for the safe and thermally-efficient fixing of the external building envelope, including brick and natural stone, insulated sandwich panels, curtain walling and suspended concrete façades, and also the repair and strengthening of existing masonry installations.



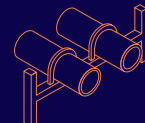
Anchoring & Fixing

Systems for fixing secondary fixtures to concrete, including anchor channels, bolts and inserts; also tension rod systems for roofs and canopies.



Formwork & Site Accessories

Non-structural accessories that complement our engineered solutions and help keep your construction environment operating safely and efficiently, including moulds for casting standard and special concrete elements and construction essentials such as reinforcing bar spacers.



Industrial Technology

Mounting channels, pipe clamps and other versatile framing systems that provide safe fixing in a wide range of industrial applications.

Leviat product ranges:

Ancon | Aschwanden | Connolly | Halfen | Helifix | Isedio | Meadow Burke | Modersohn | Moment | Plaka | Scaldex | Thermomass

Ancon Unilift Lifting Systems

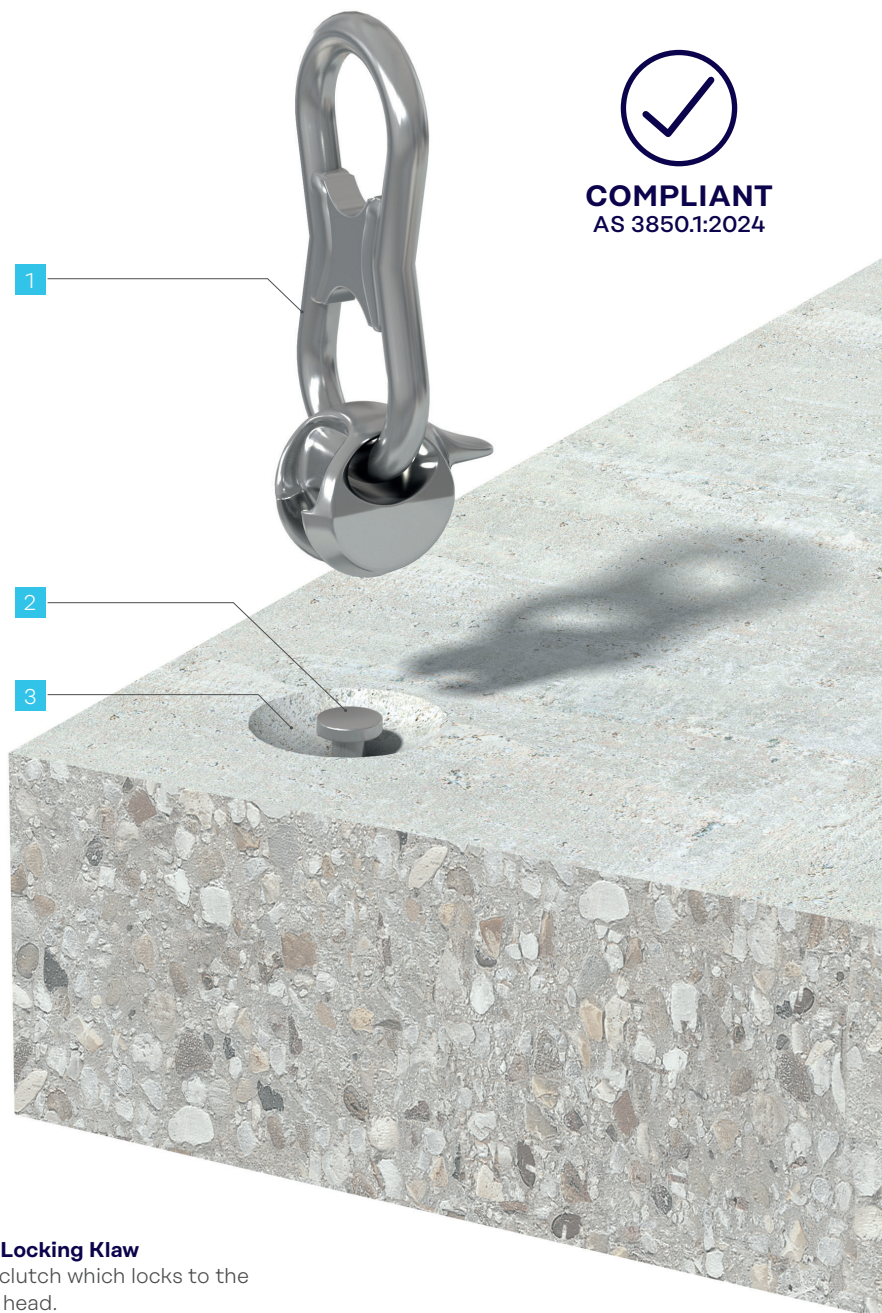
Ancon Unilift Systems

Ancon Unilift is the ideal lifting and handling system for a wide variety of precast concrete products, particularly in civil engineering applications. The system is typically used for lifting panels, pipes, pits, manholes, road barriers, bridge beams, planks, sound walls, culverts etc.

The Ancon Unilift Lifting System consists of a range of lifting anchors, clutches and recess formers used for the safe, fast and efficient handling of a wide range of precast concrete items during manufacture, transport and installation. Ancon Unilift components are available in 6 load classes with working loads reaching from 1.3t - 32t.

Ancon Unilift CA Cone Anchors and Ancon Unilift RA Reo Anchors are forged headed anchors that are cast into the concrete. Recess formers create a spherical recess around the anchor head. Ancon Unilift LK Locking Klaws engage with the anchor head and transfer the lifting loads safely into the anchor. Ancon Unilift components of different load groups are not interchangeable for maximum safety.

- Ancon Locking Klaw can be connected with the tail towards the load and the tail away from the load preventing unsafe situations caused by mis-engagement.
- Standard load classes of 1.3, 2.5, 5, 10, 20 and 32 tonnes available.
- Fast, efficient handling of products in the factory, during transport and on the job-site.
- Unique, patented design of the Ancon Unilift Locking Klaw prevents disconnection between clutch and anchor.
- Easy to train operators how to use the system with minimal supervision.
- Components of different load groups are not interchangeable for maximum safety.
- Ancon Unilift Locking Klaws and Anchors exceed the requirements for lifting systems in AS 3850.1 : 2024 - Prefabricated Concrete Elements.
- Anchors are hot-dip galvanised for superior corrosion resistance.



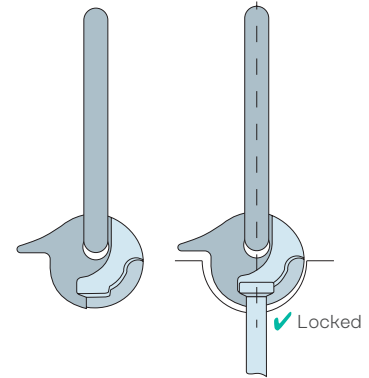
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- 1 Ancon Locking Klaw**
Safety clutch which locks to the anchor head.
- 2 Anchor**
Forged anchor set below the concrete surface.
- 3 Recess**
Formed in the concrete by a recess former to permit attachment of the Ancon Locking Klaw to the anchor head.

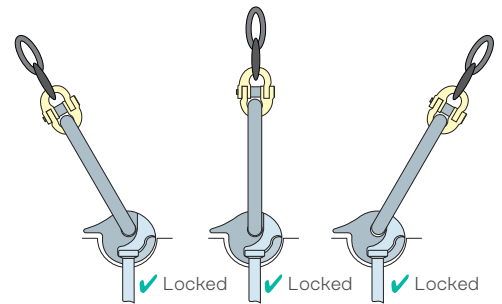
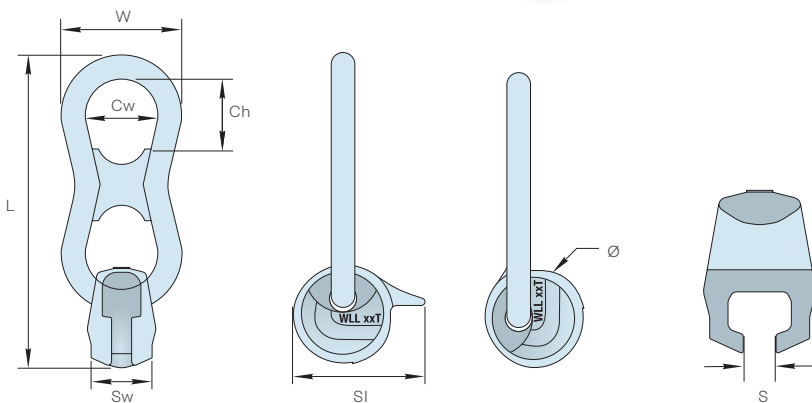
Ancon Unilift Locking Claw

These strong, safe, lightweight clutches suit all spherical head lifting anchors. They protect against dangerous disconnection where there is a risk of fouling, which is a common problem when lowering precast drainage products into confined spaces like trenches. They also help to safely rotate civil prefabricated concrete units.

Ancon Unilift Locking Claws are the strongest clutches on the market. Their capacity exceeds the factor of safety of 4.0 for lifting clutches as specified in AS 3850. 1 :2024, table 2.1.



Ancon Locking Well interlocks with the Anchor Head.



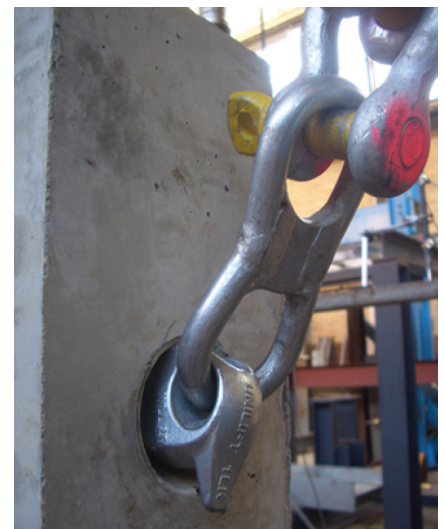
Unique design ensures safe engagement for all load directions.

Working Load Limits

WLL	Annual Proof Load kN	Nominal WLL Anchor	Part Code
2	24	1.3	01LK
3	36	2.5	02LK
5	60	5	05LK
10	120	10	10LK
20	240	20	20LK
32	384	32	32LK

Part Codes and Nominal Dimensions

Part Code	Dimensions (mm)							
	L	W	Ch	Cw	Sw	SI	Ø	S
01LK	170	66	44	40	33	72	56	11
02LK	215	85	59	52	42	88	68	16
05LK	270	110	62	70	57	113	88	22
10LK	365	145	83	90	73	144	112	31
20LK	550	176	155	76	110	195	152	43
32LK	850	286	291	166	155	233	182	55



A 5 tonne remote release Ancon Locking Claw is also available which is ideal for tilt-up construction.

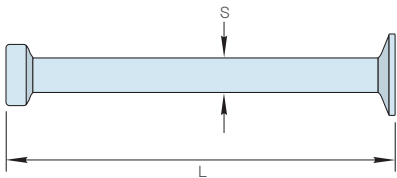
Product Description	Part Code
5 Tonne Remote Release	05LKRR

Ancon Unilift Lifting Systems

Cone Anchors

This classic spherical-headed, forged foot anchors are the first choice for most applications. They are manufactured from hot-dip galvanized, forge, high impact strength construction steel. Genuine Ancon Unilift anchors are stamped with a 'U' on the head, as well as load class and length.

The Working Load Limit (Load Class) of Ancon Unilift CA Cone Anchors is based on a factor of safety of 3.0. This exceeds the working load limit factor FoS for cast-in-lifting inserts of 2.25 as specified in AS 3850.1:2024 - table 2.1.



Part Codes, Dimensions and Pack Size

Load Class (Tonnes)	Dimensions (mm)		LK Locking Klaw	Part Code	Quantity Per Bag
	L	S			
1.3	35	10	01LK	CA01035	200
	45	10	01LK	CA01045	200
	55	10	01LK	CA01055	200
	65	10	01LK	CA01065	200
	85	10	01LK	CA01085	100
	120	10	01LK	CA01120*	100
	240	10	01LK	CA01240	50
2.5	55	14	02LK	CA02055	100
	65	14	02LK	CA02065	100
	75	14	02LK	CA02075	100
	85	14	02LK	CA02085*	50
	120	14	02LK	CA02120*	50
	170	14	02LK	CA02170*	25
	280	14	02LK	CA02280	25
5.0	75	20	05LK	CA05075	50
	95	20	05LK	CA05095	50
	120	20	05LK	CA05120*	25
	150	20	05LK	CA05150	25
	170	20	05LK	CA05170*	25
	240	20	05LK	CA05240*	20
	340	20	05LK	CA05340	10
10.0	95	28	10LK	CA10095	10
	120	28	10LK	CA10120	10
	150	28	10LK	CA10150*	10
	200	28	10LK	CA10200*	10
	340	28	10LK	CA10340*	5
20.0	200	39	20LK	CA20200*	1
	340	39	20LK	CA20340*	1
	500	39	20LK	CA20500	1
32.0	500	50	32LK	CA32500	1
	700	50	32LK	CA32700	1

Notes: *Type 316 stainless steel anchors in stock, other sizes on request.



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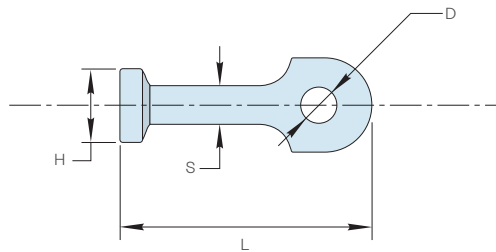
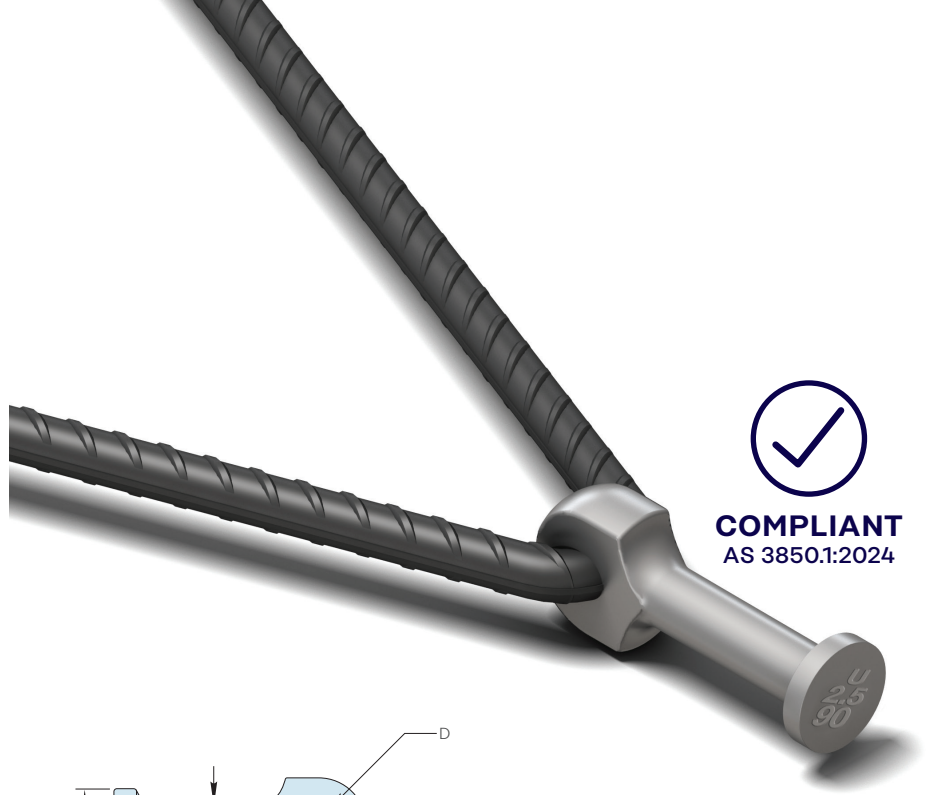
Ancon Unilift RA Reo (Eye) Anchors

Ancon Unilift RA Reo Anchors are used with a hanger bar, also known as a tension bar, where the concrete is too weak for a cone anchor. They are ideal for thin panels and other applications where the concrete cone developed by traditional foot anchors is insufficient to provide the working load limit of the anchor.

The bar is threaded through the hole in the anchor and embedded deep in the concrete. Like Ancon Unilift CA Cone Anchors they are manufactured from hot-dip galvanised, forged, high impact strength construction steel, and are stamped with Ancon Unilift "U", the load class and length.

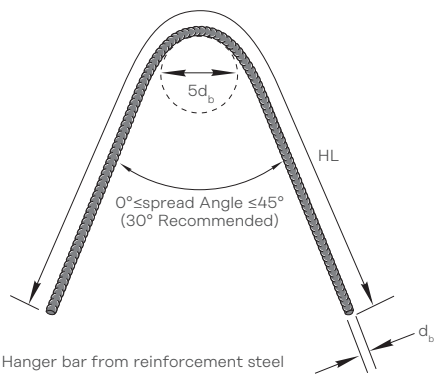
The Working Load Limit (Load Class) of Ancon Unilift RA Reo Anchors is based on a factor of safety of 3.0. This exceeds the working load limit factor FoS for cast-in-lifting inserts of 2.25 as specified in AS 3850.1:2024.

The cut lengths for the hanger bar given in the table are suitable for 15MPa to 40MPa concrete strength and calculated in accordance with AS 3600:2018 - Concrete Structures based on a FoS of 2.25.

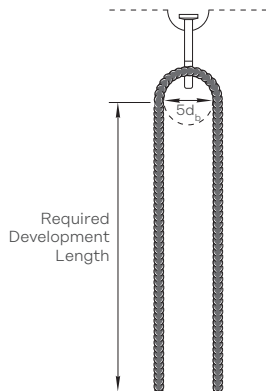


Load Class (Tonnes)	L (mm)	Part Code	S (mm)	H (mm)	D (mm)	Hanger Bar Size	Hanger Bar Length (mm) Concrete Strength					
							15MPa	20MPa	25MPa	30MPa	35MPa	40MPa
1.3	50	RA01050	10	19	12	N10	370	330	300	300	300	300
	65	RA01065										
2.5	65	RA02065	14	26	14.5	N12	560	490	450	450	450	450
	90	RA02090										
5.0	120	RA05120	20	36	20	N16	850	750	680	660	660	660
10.0	180	RA10180	28	47	27	N20	1300	1200	1000	1000	1000	1000
20.0	250	RA20250	39	70	39	N28	2000	1800	1600	1500	1400	1400
32.0	300	RA32300	50	88	47	N36	2700	2400	2200	2000	1900	1800

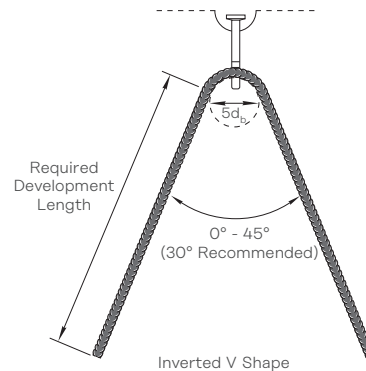
*A minimum of concrete cover equal to 3db has been considered around the hanger bar in the development length calculation.



Hanger bar from reinforcement steel



Parallel shape legs (Inverted U Shape)



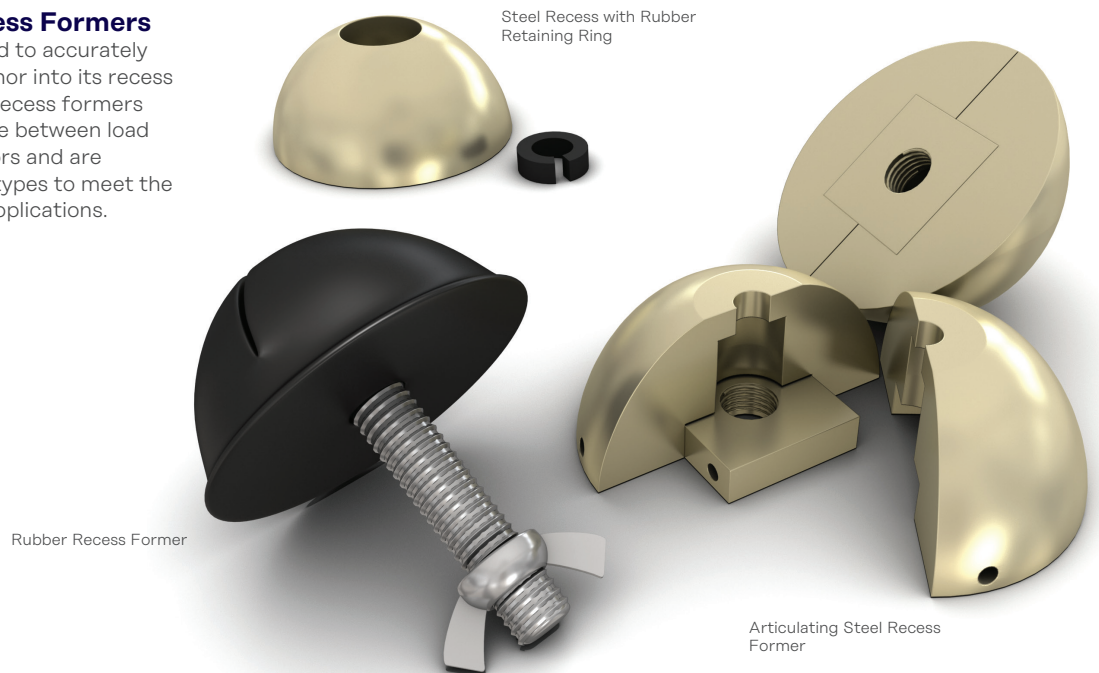
Inverted V Shape

Hanger Bar spread angle is recommended to be 30° however, it can vary from 45° to 0° with the same specified HL values in the table. The hanger bar legs can be bent to a cog or a hook shape after half of the development length as per AS3600:2018 requirements with internal bent diameter of 5d_b.

Ancon Unilift Lifting Systems

Ancon Unilift Recess Formers

These products are used to accurately and reliably set the anchor into its recess in the concrete panel. Recess formers are non-interchangeable between load groups to minimise errors and are available in a variety of types to meet the demands of different applications.



Rubber Recess Former

Our most economical recess former, used for a wide variety of applications. Made from a hard, yet flexible, oil resistant rubber, they are ideal for attachment to steel and timber forms as well as floats for top surface installation. Supplied complete with attachment bolt and wing nut.

Unilift / Anchor WLL (Tonne)	Colour	Diameter (mm)	Fixing Bolt Thread	Part Code
1.3	Blue	66	M8	RRF01
2.5	Yellow	80	M12	RRF02
5.0	Black	100	M12	RRF05
10.0	Yellow	128	M12	RRF10
20.0	Black	170	M16	RRF20
32.0	Black	236	M16	RRF32

Steel Recess with Rubber Retaining Ring

Featuring a replaceable rubber retaining ring, these steel recess formers offer a long service life and are an economical alternative to rubber recesses for production precasting.

Unilift / Anchor WLL (Tonne)	Diameter (mm)	Recess Part Code	Fixing Bolt Thread	Rubber Ring Part Code
1.3	60	SRF01	M8	RR01
2.5	74	SRF02	M10	RR02
5.0	94	SRF05	M12	RR05
10.0	130	SRF10	M12	RR10

Articulated Steel Recess Former

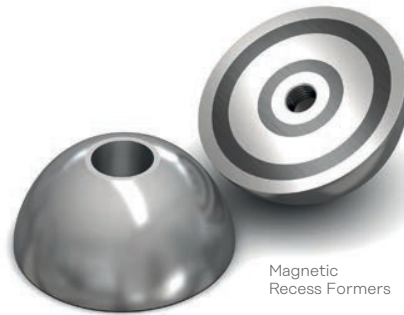
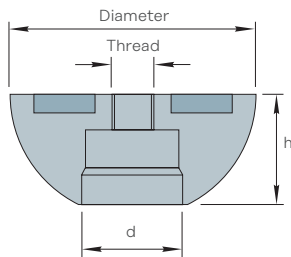
These products are similar in action to the semi-spherical rubber recess, but are manufactured from steel, offering a long service life for production precasting.

Unilift / Anchor WLL (Tonne)	Diameter (mm)	Fixing Bolt Thread	Part Code
1.3	60	M10	SRF01A
2.5	75	M10	SRF02A
5.0	96	M10	SRF05A
10.0	130	M12	SRF10A

Magnetic Recess Formers

These magnetic recess formers are used in metal formwork when drilling is not an option.

Unilift / Anchor WLL (Tonne)	Part Code	Diameter (mm)	h (mm)	Fixing Bolt Thread	d (mm)
1.3	SRFM01	60	27.5	M8	20.5
2.5	SRFM02	74	33	M12	30
5.0	SRFM05	94	42	M12	38
10.0	SRFM10	118	53	M12	48

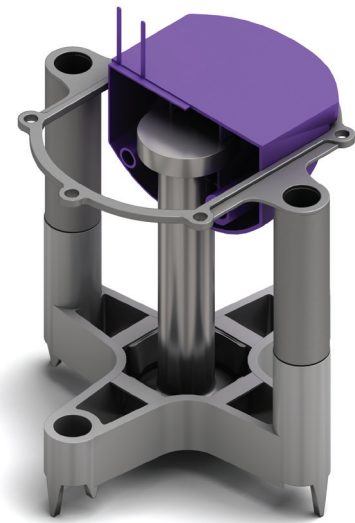


Tilt-Up Site Cast Lifting Systems

These system use the forged steel Ancon Unilift 5 tonne anchor and can be used with the remote release 5 tonne Ancon QwikTilt Klaw for maximum efficiency on site.

QwikTilt Face Lift Anchor Sets

The anchor is housed in a robust plastic chair with four stable legs and several tie-in points on the ring to prevent movement during casting. There is no requirement for a cross bar. They are available from a stock, in pre-packed cartons, to suit the most popular panel thickness i.e. 125, 150, 170, 175, 200mm. Units to suit other panel thicknesses are available on request.



Panel Thickness (mm)	Anchor Length (mm)	Embedment Depth h_{eff} (mm)	Part Code	Quantity per Box
100	75	86	FLA05100	40
125	95	106	FLA05125	40
150	120	131	FLA05150	40
170			FLA05170	30
175			FLA05175	30
200	150	161	FLA05200	25
250			FLA05250	-

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