

Ancon[®] Unilift Lifting Systems

for the Precast Concrete Industry



We are one team. We are Leviat.

Leviat is the new name of CRH's construction accessories companies worldwide.

Under the Leviat brand, we have united the expertise, skills and resources of Ancon and its sister companies to create a world leader in fixing, connecting and anchoring technology.

The products you know and trust will remain an integral part of Leviat's comprehensive brand and product portfolio. As Leviat, we can offer you an extended range of specialist products and services, greater technical expertise, a larger and more agile supply chain and better, faster innovation.

By bringing together CRH's construction accessories family as one global organisation, we are better equipped to meet the needs of our customers, and the demands of construction projects, of any scale, anywhere in the world.

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Our product brands include:





MOMENT



60 locations

sales in **30+** countries

3000 people worldwide

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. Unilift components are available in 6 load classes with working loads reaching from 1.3t - 32t.

Ancon Unilift CA Cone Anchors and 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. Unilift components of different load groups are not interchangeable for maximum safety.

Locking Klaw Safety clutch which locks to the anchor head

Anchor

Forged anchor set below the concrete surface

Recess

Formed in the concrete by a recess former to permit attachment of the Locking Klaw to the anchor head.



- 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, 7.5, 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 meet or exceed international standards and requirements for lifting components.

Ancon Unilift Locking Klaw

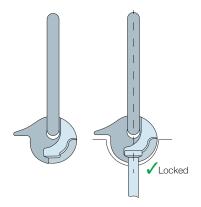
These strong, safe, lightweight clutches suit all spherical head lifting anchors. They protect against dangerous disconnection where there is a risk of fouling, which is a common problem when lowering precast drainage products into confined spaces like trenches. They also help to safely rotate civil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

The Working Load Limit (Load Class) of Unilift Locking Klaws is based on a factor of safety of 5.0.

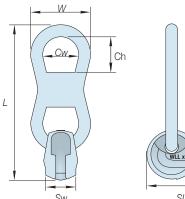


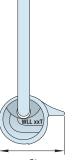


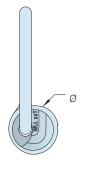




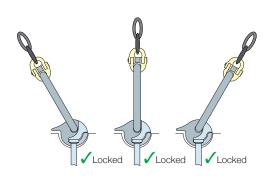
Locking Well interlocks with the Anchor Head











Unique design ensures safe engagement for all load directions

Working Load Limits

| WLL | Annual Proof Load kN | Nominal WLL Anchor | Part Code |
|------|-------------------------|-----------------------|--------------|
| 2.0 | 24 | 1.3 | 01LK |
| 3.0 | 36 | 2.5 | 02LK |
| 5.0 | 60 | 5 | 05LK |
| 10.0 | 120 | 10 | 10LK |
| 20.0 | 240 | 20 | 20LK |
| 32.0 | 384 | 32 | 32LK |

Part Codes and Nominal Dimensions

| Part | Dimensions (mm) | | | | | | | | |
|------|-----------------|-----|-----|-----|-----|------|-----|----|--|
| Code | 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 | 515 | 210 | 103 | 130 | 110 | 195 | 152 | 43 | |
| 32LK | 680 | 272 | 189 | 172 | 160 | 300 | 180 | 52 | |



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

| Product Description | Part Code |
|----------------------------|--------------|
| 5 Tonne Remote Release | 05LKRR |

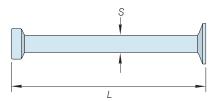


Ancon Unilift Lifting Systems

Cone Anchors

This classic spherical-headed, forged foot anchors are the first choice for most applications. They are manufactured from mill-finished, forged, high impact strength construction steel. Genuine 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. Concrete capacity generally governs the design and must be checked in accordance with the applicable codes. Contact Leviat for further assistance.







Part Codes, Dimensions and Pack Size

| Load Class | Dimensi | ons (mm) | LK Locking | Part | Quantity per |
|------------|---------|----------|------------|------------|--------------|
| (Tonnes) | L | S | Klaw | Code | Bag |
| | 35 | 10 | 01LK | CA01035 MF | 200 |
| | 40 | 10 | 01LK | CA01040 MF | 200 |
| | 45 | 10 | 01LK | CA01045 MF | 200 |
| | 50 | 10 | 01LK | CA01050 MF | 200 |
| 1.3 | 55 | 10 | 01LK | CA01055 MF | 200 |
| | 65 | 10 | 01LK | CA01065 MF | 200 |
| | 85 | 10 | 01LK | CA01085 MF | 100 |
| | 120 | 10 | 01LK | CA01120 MF | 100 |
| | 240 | 10 | 01LK | CA01240 MF | 50 |
| | 55 | 14 | 02LK | CA02055 MF | 100 |
| | 70 | 14 | 02LK | CA02070 MF | 100 |
| | 75 | 14 | 02LK | CA02075 MF | 100 |
| | 85 | 14 | 02LK | CA02085 MF | 50 |
| 2.5 | 90 | 14 | 02LK | CA02090 MF | 50 |
| | 120 | 14 | 02LK | CA02120 MF | 50 |
| | 170 | 14 | 02LK | CA02170 MF | 25 |
| | 210 | 14 | 02LK | CA02210 MF | 25 |
| | 280 | 14 | 02LK | CA02280 MF | 25 |
| | 75 | 20 | 05LK | CA05075 MF | 50 |
| | 95 | 20 | 05LK | CA05095 MF | 50 |
| | 120 | 20 | 05LK | CA05120 MF | 25 |
| 5.0 | 150 | 20 | 05LK | CA05150 MF | 25 |
| | 170 | 20 | 05LK | CA05170 MF | 25 |
| | 240 | 20 | 05LK | CA05240 MF | 20 |
| | 340 | 20 | 05LK | CA05340 MF | 10 |
| | 95 | 24 | 10LK | CA07095 MF | 50 |
| | 120 | 24 | 10LK | CA07120 MF | 25 |
| | 140 | 24 | 10LK | CA07140 MF | 25 |
| 7.5 | 165 | 24 | 10LK | CA07165 MF | 25 |
| | 300 | 24 | 10LK | CA07300 MF | 10 |
| | 540 | 24 | 10LK | CA07540 MF | 5 |
| | 120 | 28 | 10LK | CA10120 MF | 10 |
| | 135 | 28 | 10LK | CA10135 MF | 10 |
| | 150 | 28 | 10LK | CA10150 MF | 10 |
| 10.0 | 170 | 28 | 10LK | CA10170 MF | 10 |
| | 200 | 28 | 10LK | CA10200 MF | 10 |
| | 340 | 28 | 10LK | CA10340 MF | 5 |
| | 680 | 28 | 10LK | CA10680 MF | 5 |
| | 200 | 39 | 20LK | CA20200 MF | 1 |
| 20.0 | 340 | 39 | 20LK | CA20340 MF | 1 |
| - | 500 | 39 | 20LK | CA20500 MF | 1 |
| 00.0 | 500 | 50 | 32LK | CA32500 MF | 1 |
| 32.0 | 700 | 50 | 32LK | CA32700 MF | 1 |

Anchors are supplied with mild steel finish as standard. Other sizes and material finishes available on request.

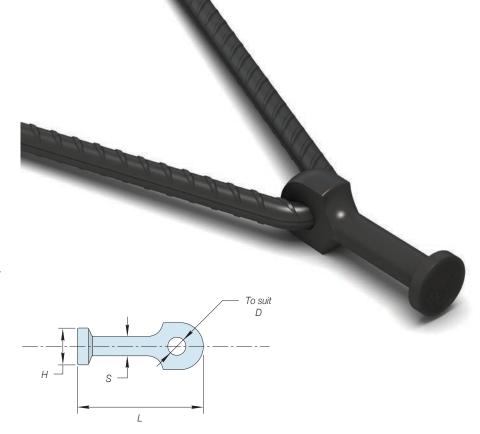
Ancon Unilift RA Reo (Eye) Anchors

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 mill-finished, forged, high impact strength construction steel, and are stamped with a Unilift 'U', the load class and length.

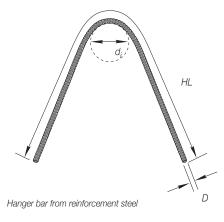
The Working Load Limit (Load Class) of Ancon Unilift RA Reo Anchors is based on a factor of safety of 3.0. Concrete capacity generally governs the design for shear loads and must be checked in accordance with the applicable codes. Contact Leviat for further assistance.

The cut lengths for the hanger bar given in the table are suitable for C16/20 grade concrete and calculated based on a FoS of 2.25.



| Load Class | | Dimension | ıs (mm) | | Bending | Part | Quantity per |
|------------|-----|-----------|---------|------|-------------------------|---------|--------------|
| (Tonnes) | L | S | D | HL | Diameter d _i | Code | Bag |
| 1.0 | 50 | 10 | R8 | 700 | 32 | RA01050 | 200 |
| 1.3 | 65 | 10 | R8 | 700 | 32 | RA01065 | 200 |
| | 65 | 14 | H10 | 870 | 40 | RA02065 | 100 |
| 2.5 | 90 | 14 | H10 | 870 | 40 | RA02090 | 100 |
| _ | 120 | 14 | H10 | 870 | 40 | RA02120 | 100 |
| 5.0 | 120 | 20 | H16 | 1180 | 64 | RA05120 | 25 |
| 10.0 | 180 | 28 | H20 | 2020 | 140 | RA10180 | 10 |
| 20.0 | 250 | 39 | H32 | 2600 | 224 | RA20250 | 1 |
| 32.0 | 300 | 50 | H40 | 3560 | 280 | RA32300 | 1 |





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.



Narrow Recess Former



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) | Diameter (mm) | Part Code |
|---------------------------------|---------------|--------------|
| 1.3 | 66 | RRF01 |
| 2.5 | 80 | RRF02 |
| 5.0 | 100 | RRF05 |
| 7.5 | 125 | RRF07 |
| 10.0 | 128 | RRF10 |
| 20.0 | 170 | RRF20 |
| 32.0 | 236 | RRF32 |

Narrow Recess Former

Narrow Recess Formers are used to form the recess in thin wall panels. Durable and resistant against oil, they are used when the load is only in one direction.

| Unilift / Anchor WLL (Tonne) | Length (mm) | Width (mm) | Part Code |
|---------------------------------|----------------|---------------|--------------|
| 1.3 | 60 | 42 | NRF01 |
| 2.5 | 77 | 52 | NRF02 |
| 5.0 | 95 | 69 | NRF05 |
| 7.5 | 118 | 85 | NRF07 |
| 10.0 | 118 | 85 | NRF10 |

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 | Ring Part Code |
|---------------------------------|---------------|---------------------|-------------------|
| 1.3 | 60 | SRF01 | RR01 |
| 2.5 | 74 | SRF02 | RR02 |
| 5.0 | 94 | SRF05 | RR05 |
| 10.0 | 130 | SRF10 | RR10 |

Articulated Steel Recess Former

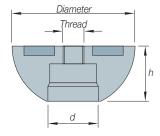
These products are similar in action to the semi-spherical rubber recess, but are manufactured from steel, offering a long service life for production precasting.

| Unilift / Anchor WLL (Tonne) | Diameter (mm) | Part Code |
|---------------------------------|---------------|--------------|
| 1.3 | 60 | SRF01A |
| 2.5 | 74 | SRF02A |
| 5.0 | 94 | SRF05A |
| 10.0 | 130 | SRF10A |

Complementary Leviat Products and Systems

HALFEN 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) | 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 |



Halfen Magnetic Recess Formers

HALFEN FRIMEDA Lifting Anchor System with Remote Release Clutch

The HALFEN FRIMEDA Transport anchor is a high quality and cost effective system for transporting all types of concrete elements. The tilt-up anchor allows lifting horizontally-cast wall elements upright when not using a tilting table. A remote release is also available; this increases efficiency and safety when lifting tall elements.



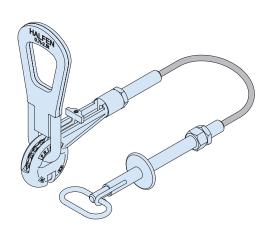
Operating principle

The remote-control is used to open the ring clutch from a safe distance of up to 10 metres. A Bowden cable connected to the locking bolt at the ring clutch serves as a release mechanism. At the opposite end, the release handle is secured to the tube with a safety catch. All TPA-F2 Clutch heads in the various load groups have the same M27 thread, i.e. the remote-control mechanism fits any clutch head. The opening and closing mechanism, comprising of the locking bolt, the shackle with indicator and the latch are parts of the clutch head.

Operation of the manual remote-control

To relase the ring clutch, disengage the handle by pressing and turning. Unintentional release is not possible. For safety and efficiency reasons, the locking bolt is closed by hand. The remote device is designed so the locking bolt cannot be closed remotely. The flexible tube can withstand reasonable tension and compression loads, so that the precast unit is easily handled.

The ring clutches of all the load groups can be used with any of the manual remote-control releases of 2.5m, 5.0m, 7.5m and 10.0m lengths.



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