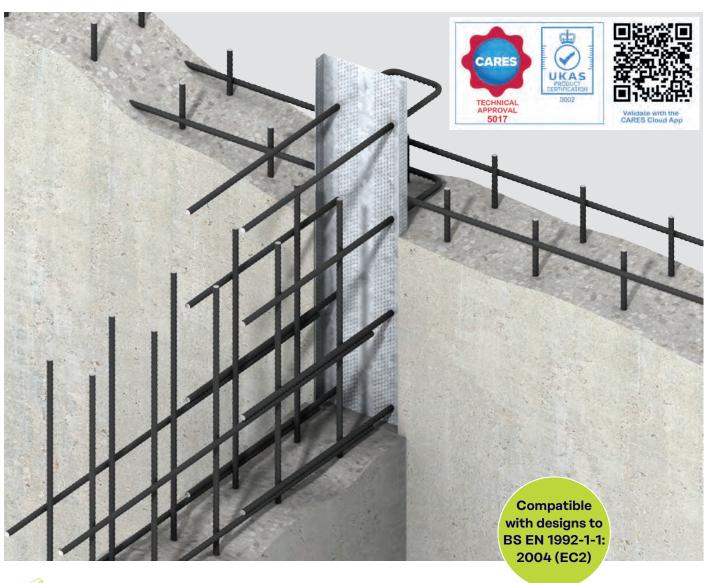


## **Ancon**<sup>®</sup>

# **Ancon Eazistrip Reinforcement Continuity System**







# 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.













#### **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.

- Insulated balcony connectors
- Reinforcing bar couplers
- Concrete Connections
- Reinforcement continuity systems
- Punching shear reinforcement
- Shear load connectors
- Floor Joint Systems
- Precast / Reinforced Columns
- Infrastructure Products
- Precast Connections
- Acoustic dowels and bearings
- Prestress

#### Other areas of expertise:



## 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.



## 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 I Aschwanden I Connolly I Halfen I Helifix I Isedio I Meadow Burke I Modersohn I Moment I Plaka I Scaldex I Thermomass

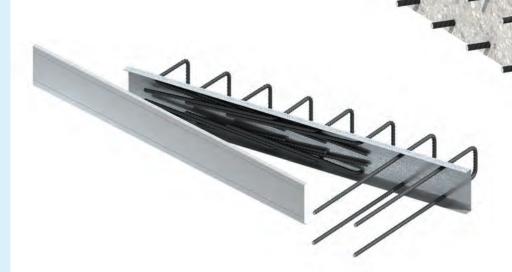
#### **Contents** Ancon Eazistrip 6 Standard Range 7 Configurations Standard Range Specifications 8-10 Installation 11-12 On-site Cutting 13 Enquiry/Order Form 14 Ancon Eazistrip Water Stop 15 Other Leviat Products 15

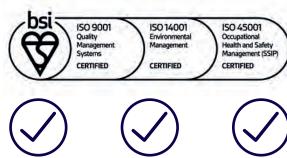
#### **Continuity of Reinforcement at Construction Joints**

The use of reinforcement continuity systems is a widely accepted means of providing continuity of reinforcement across construction joints in concrete.

The Ancon Eazistrip system comprises a galvanised steel casing which houses pre-bent bars. The unit is cast into the face of a concrete wall and the bars are straightened, ready for lapping when required.

Leviat manufactures other Ancon CARES-approved reinforcement continuity systems for use when bar diameters exceed 16mm, lap lengths do not fit within an Ancon Eazistrip box and on-site bar straightening is keen to be avoided.







Suitable for BS 8110

EC2 Indented **Construction Joint** 

No Drilling of Formwork



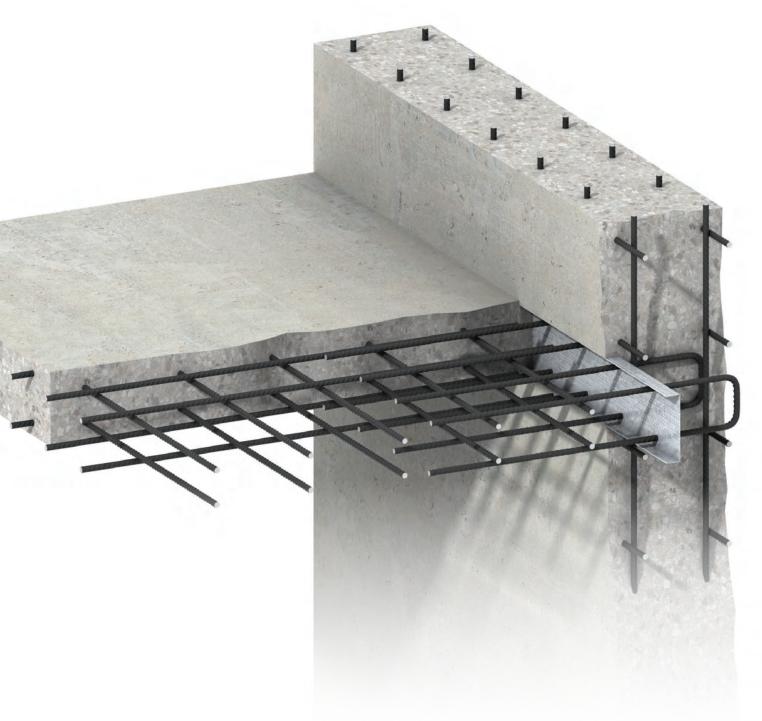




**Dimpled Surface** Provides Key

Corrosion-Resistant Galvanised Casing

CARES Technical Approval TA 5017



#### **Ancon KSN Anchors**

Ancon KSN threaded anchors are supplied fixed to a timber carrier and used in conjunction with Bartec Plus parallel threaded reinforcing bars. There is no on site bar straightening and virtually no restriction on bar length, so EC2 lap lengths are easily accommodated. Ancon KSN Anchors minimise rebar congestion in the wall and are suitable for bar diameters up to 20mm.



#### **Ancon Coupler Box**

Ancon Couplers, supplied fixed to an Eazistrip-style galvanised steel casing, are used in combination with Ancon CXL parallel threaded reinforcing bars. There is no on site bar straightening and virtually no restriction on bar length, so EC2 lap lengths are easily accommodated. U-bars join two rows of couplers to the same box, accelerating the speed of installation.



#### **Ancon Coupler Strip**

Ancon Couplers can also be supplied fixed to a steel strip to simplify rebar continuity at joints where walls are curved on plan. The flexible strip is nailed directly to the curved shuttering.

#### **Ancon Starter Bars**

This system consists of a Starter Bar supplied fixed to an Ancon coupler, normally the TT Tapered Thread Coupler, and a threaded continuation bar. The standard range suits bar diameters up to 32mm.



#### **Ancon Eazistrip Reinforcement Continuity Systems**

The Ancon Eazistrip Reinforcement Continuity System is a quick and easy-to-install method of maintaining continuity of reinforcement at construction joints in concrete. It consists of a galvanised steel casing with a dimpled surface to provide an effective concrete bond. Pre-bent bars are housed within the casing and are enclosed by a protective heavy duty plasticised cardboard cover. Each end of the unit is sealed with a polystyrene block in order to prevent the ingress of concrete.

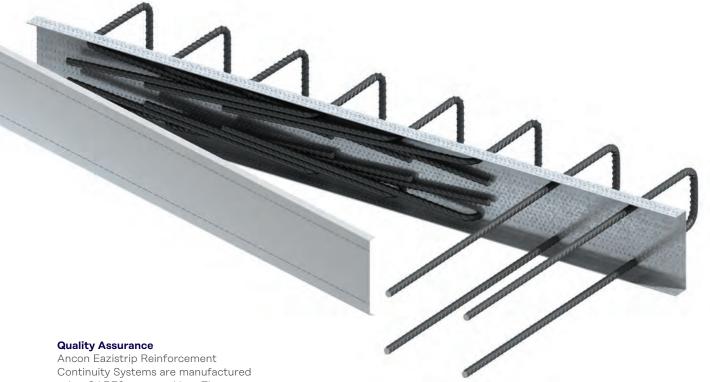
The complete unit is nailed to the formwork. Alternatively it can be wired back to the main reinforcement cage. The concrete is then cast. After striking the formwork, the cover is removed and the bars are straightened, ready for lapping onto the main reinforcement, using an Ancon Eazistrip re-bending tool.

The steel casing remains embedded in the wall and is filled with concrete when the next section is poured, the dimpled surface providing an efficient key. Use of the Ancon Eazistrip system offers many benefits over conventional joint construction, including the simplification of formwork design and removal of the need to drill shuttering.

This contributes to the acceleration of the construction process. As the bars remain enclosed within the casing until required, they are protected and the risk of injury from projecting bars is minimised. Easy to use, the system requires little on site training in order to carry out installation.

The Ancon Eazistrip system is potentially suitable for use in any construction joint in concrete, but the most commonly found applications include:

- Floor slabs
- Walls
- Stairwells
- Corbels
- Diaphragm walls
- Jumpforms
- Brick support ledges



Ancon Eazistrip Reinforcement
Continuity Systems are manufactured
using CARES approved bar. The type
of reinforcement is selected by us to
provide a suitable degree of ductility,
ensuring that it complies with the
tensile requirements of BS4449: 2005
Grade B500C after prefabrication and
re-bending on site. The bars are bent in
accordance with BS8666: 2005.

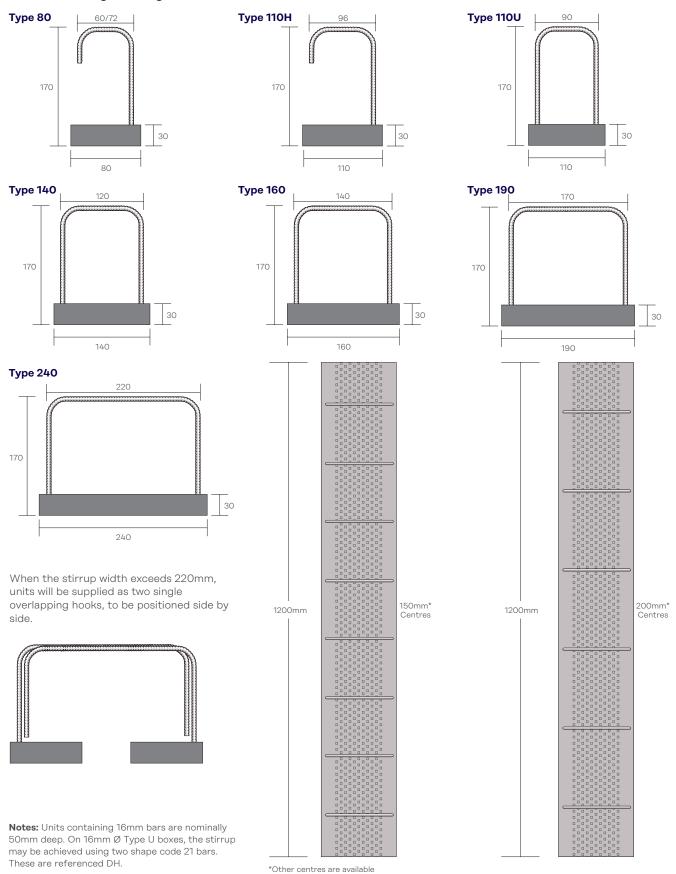
It is the designer's responsibility to ensure reinforcement is adequately designed in accordance with the code and detailed to ensure anchorages and bearing stresses are appropriate. Leviat Limited is a BS EN ISO 9001 registered company.

Ancon Eazistrip is approved by UK CARES.



Ancon Eazistrip Reinforcement Continuity Systems are suitable for use with designs undertaken in accordance with BS EN 1992-1-1: 2004 (Eurocode 2) and BS 8110-1: 1997.

#### **Standard Range Configurations**

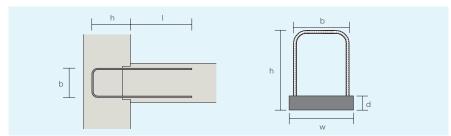




#### **Standard Range Specifications**

The following tables give details of the Ancon Eazistrip standard ranges. Many customers require purpose made units to suit their particular application. In order to meet this requirement Leviat will manufacture according to your specific bar arrangement. The most common shapes are shown on page 14. For further details please contact us.

#### **U Type Box Dimensions**



#### **UK Range Dimensions**

Part No.	Box Width mm	Box Length mm	Rebar Dia mm	Centres mm	Stirrup Height (h) mm	Stirrup Width (b) mm	Leg Length (I) mm	Bars / Box
EZ 80H 10/200	80	1200	10	200	170	60	410	6
EZ 80H 12/150	80	1200	12	150	170	80	500	8
EZ 80H 12/200	80	1200	12	200	170	80	500	6
EZ 110U 10/150	110	1200	10	150	170	90	410	8
EZ 110U 10/200	110	1200	10	200	170	90	410	6
EZ 110U 12/200	110	1200	12	200	170	90	500	6
EZ 110H 16/150	110	1200	16	150	170	96	640	8
EZ 110H 16/200	110	1200	16	200	170	96	640	6
EZ 140U 10/150	140	1200	10	150	170	120	410	8
EZ 140U 10/200	140	1200	10	200	170	120	410	6
EZ 140U 12/150	140	1200	12	150	170	120	500	8
EZ 140U 12/200	140	1200	12	200	170	120	500	6
EZ 160U 10/150	160	1200	10	150	170	140	410	8
EZ 160U 10/200	160	1200	10	200	170	140	410	6
EZ 160U 12/150	160	1200	12	150	170	140	500	8
EZ 160U 12/200	160	1200	12	200	170	140	500	6
EZ 160DH 16/150	160	1200	16	150	170	140	640	16
EZ 160DH 16/200	160	1200	16	200	170	140	640	12
EZ 190U 10/150	190	1200	10	150	170	170	410	8
EZ 190U 10/200	190	1200	10	200	170	170	410	6
EZ 190U 12/150	190	1200	12	150	170	170	500	8
EZ 190U 12/200	190	1200	12	200	170	170	500	6
EZ 190DH 16/150	190	1200	16	150	170	170	650	16
EZ 190U 16/200	190	1200	16	200	170	170	650	6
EZ 240U 10/150	240	1200	10	150	170	220	410	8
EZ 240U 10/200	240	1200	10	200	170	220	410	6
EZ 240U 12/150	240	1200	12	150	170	220	500	8
EZ 240U 12/200	240	1200	12	200	170	220	500	6
EZ 240U 16/150	240	1200	16	150	170	220	650	8
EZ 240U 16/200	240	1200	16	200	170	220	650	6

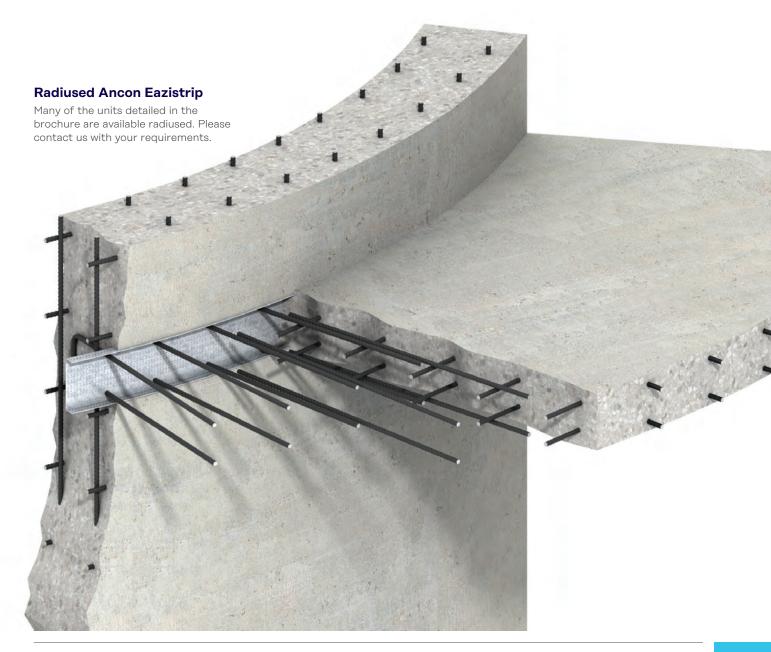
**Notes:** Those sizes shown in bold are normally available from stock. Dimensions shown in the above table are nominal. Heights and lengths may typically vary by one bar diameter. Maximum box length is 3m dependant upon weight. Boxes with a DH reference contain double hook bars rather than a single U bar.

Units containing 16mm bars are nominally 50mm deep (d).

#### **UK Range Load Capacities**

For transverse shear load capacities of the standard Ancon Eazistrip range in C32/40 grade concrete, please refer to the following table. For load capacities outside of this range please contact us.

Transverse Shear Capacity, VRd (kN/m) for Concrete Grade C32/40										
Effective Depth d (mm)		80	100	120	140	160	180	200	220	140
		EZ 80H	EZ 80H	EZ 110U/ H	EZ 140U	EZ 160U/ DH	EZ 160U/ DH	EZ 190U/ DH	EZ 240U	EZ 240U
Rebar Diameter / Spacing (mm)	10/200	48.1	56.0	67.2	78.4	89.6	95.8	95.8	95.8	95.8
	10/150	52.9	61.4	69.4	78.4	89.6	100.8	112.0	118.9	125.7
	12/200	-	63.0	71.2	78.9	89.6	100.8	112.0	118.9	125.7
	12/150	-	69.4	-	86.8	94.9	102.6	112.0	118.9	125.7
	16/200	-	-	86.2	-	104.4	112.9	121.2	126.1	130.9
	16/150	-	-	94.9	-	114.9	124.3	133.4	138.8	144.0





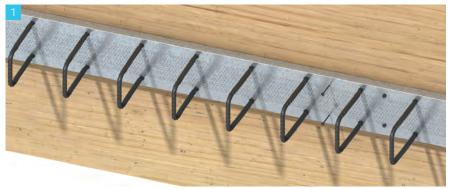
#### **Continental Range Dimensions**

Part No.	Box Width	Box Length	Rebar Dia	Centres mm	Stirrup Height (h) mm	Stirrup Width (b) mm	Leg Length (I) mm	Bars / Box
EZ 80H 10/150	80	1200	10	150	155	60	340	8
EZ 80H 10/200	80	1200	10	200	155	60	340	6
EZ 80H 12/150	80	1200	12	150	155	80	405	8
EZ 80H 12/200	80	1200	12	200	155	80	405	6
EZ 110H 16/150	110	1200	16	150	155	96	575	8
EZ 110H 16/200	110	1200	16	200	155	96	575	6
EZ 110U 10/150	110	1200	10	150	155	90	340	8
EZ 110U 10/200	110	1200	10	200	155	90	340	6
EZ 110U 12/150	110	1200	12	150	155	90	340	8
EZ 110U 12/200	110	1200	12	200	155	90	405	6
EZ 140U 10/150	140	1200	10	150	155	120	340	8
EZ 140U 10/200	140	1200	10	200	155	120	340	6
EZ 140U 12/150	140	1200	12	150	155	120	405	8
EZ 140U 12/200	140	1200	12	200	155	120	405	6
EZ 160U 10/150	160	1200	10	150	155	140	340	8
EZ 160U 10/200	160	1200	10	200	155	140	340	6
EZ 160U 12/150	160	1200	12	150	155	140	405	8
EZ 160U 12/200	160	1200	12	200	155	140	405	6
EZ 160DH 16/150	160	1200	16	150	160	140	410	16
EZ 160DH 16/200	160	1200	16	200	160	140	410	12
EZ 190U 10/150	190	1200	10	150	155	170	340	8
EZ 190U 10/200	190	1200	10	200	155	170	340	6
EZ 190U 12/150	190	1200	12	150	155	170	405	8
EZ 190U 12/200	190	1200	12	200	155	170	405	6
EZ 190DH 16/150	190	1200	16	150	160	170	575	16
EZ 190U 16/200	190	1200	16	200	160	170	650	6
EZ 240U 10/150	240	1200	10	150	155	220	340	8
EZ 240U 10/200	240	1200	10	200	155	220	340	6
EZ 240U 12/150	240	1200	12	150	155	220	500	8
EZ 240U 12/200	240	1200	12	200	155	220	500	6
EZ 240U 16/150	240	1200	16	150	160	220	650	8
EZ 240U 16/200	240	1200	16	200	160	220	650	6

**Notes:** Dimensions shown in the above table are nominal. Heights and lengths may typically vary by one bar diameter. Maximum box length is 3m dependant upon weight.

Boxes with a DH reference contain double hook bars rather than a single U bar. Units containing 16mm bars are nominally 50mm deep (d).

#### Installation



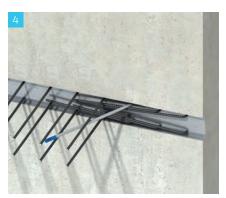
Nail the Ancon Eazistrip through the casing to the formwork or alternatively securely tie the projecting anchorage reinforcing bars back to the main reinforcement. In both cases the Ancon Eazistrip box should be securely fixed to avoid displacement during concreting. The casing should be tight against the formwork. Pour concrete.



Strike the formwork to reveal the cover.



Remove the cover to expose the pre-bent bars.



Straighten the bars using the appropriate sized Ancon Eazistrip re-bending tool for the size of bar. The bars should be straightened only once. To avoid damage to adjacent concrete, it is prudent to allow a concrete curing period of seven days. See 'Bar Straightening' for more information.



Once the bars are straightened and aligned they are ready for lapping with the concrete element reinforcement, provided by others.



Scan the code to watch an installation video.



#### **Bar Straightening**

The bars in the Ancon Eazistrip box must be straightened using the appropriate sized Ancon Eazistrip re-bending tool. This is a steel tube designed to fit over the bar, the internal diameter being slightly larger than the maximum dimension over the ribs of the bar. One end of the tube has a section cut away; this provides support to the outside of the bend during straightening of the bar and limits the point contact of the tube on the bar.



Use of the tool allows the re-bending process to be carried out in a smooth continuous action (avoiding jerky action), the tube being moved along the bar and around the bend as it is straightened. Scaffold tubes or similar must not be used to straighten bar.

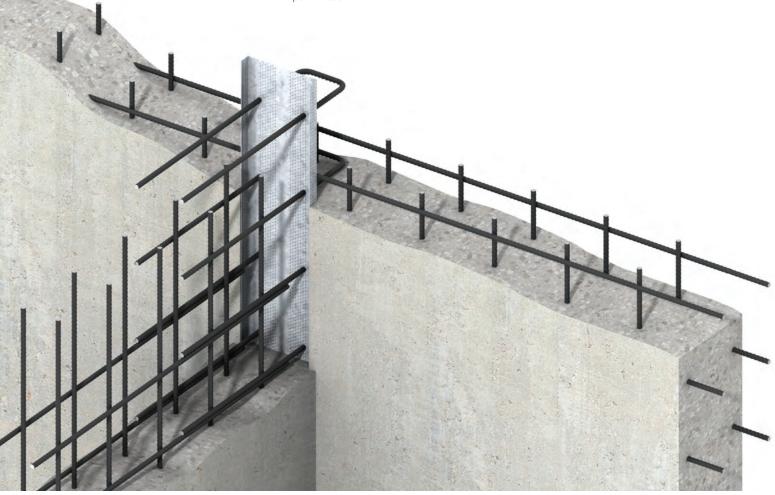
To enable the re-bending tool to be fitted onto the bar, the bar should be pulled the minimum distance from the Ancon Eazistrip steel casing to enable this. The re-bending tool should then be slid along the bar to the start of the bend radius.

The bar straightening process should be smooth and progressive with the tube allowed to move along the bend towards the metal casing as it is straightened. The tool should contact the Eazistrip steel casing at the completion of the straightening process.

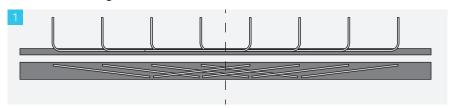
The tube is then removed and the straightened bar checked for alignment and cover with the adjoining reinforcement.

The Ancon Eazistrip reinforcing bars should not be straightened when the temperature of the steel is below 5°C. Where straightening is necessary below 5°C, indirect warming of the steel to a temperature not exceeding 100°C is permitted.

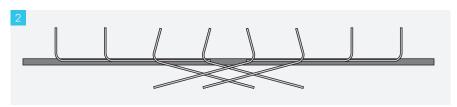
The use of scaffold tubes, or other inappropriate tools will result in excessive kinks in the region of the bar bend and result in undesirable work hardening which may damage the bar and affect the strength of the bar. Re-bending must be undertaken using only the Ancon Eazistrip re-bending tool. Bending the bar in excess of the recommendations will also result in work hardening of the rebar and should therefore be avoided.



#### **On-Site Cutting**



Identify the location of the intended cut.



Slide the protective cover from the box and remove the bars which pass over the cut location.  $\,$ 



Cut through the steel casing using a disc cutter.



Replace the bars to face the opposite direction to their original position. Cut the cover to the same lengths as the steel casing and replace to protect the bars. The ends of the boxes must be sealed, using polystyrene blocks, to prevent the ingress of concrete.

**Note:** Protective gloves should be worn when removing covers, straightening bars, cutting boxes and during general handling of Ancon Eazistrip.



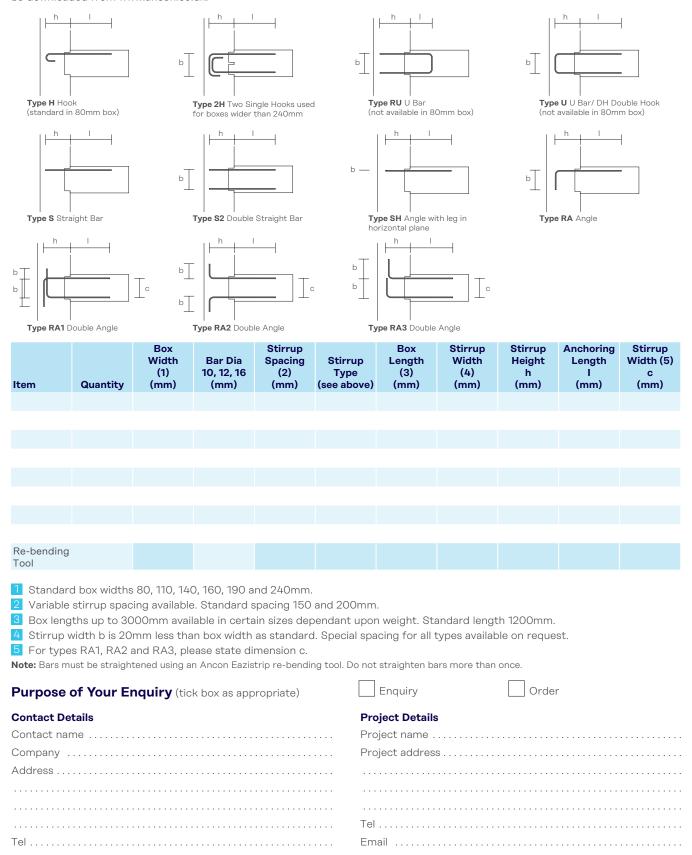


## **Design Sheet**

### Ancon Eazistrip Reinforcement Continuity Systems

#### **Enquiry/Order Form**

Please use this form to detail your enquiry/order and return to reinforcement.uk@leviat.com. Alternatively, an editable form can be downloaded from www.ancon.co.uk.



#### **Ancon Eazistrip Water Stop**

Where the potential for water ingress through the construction joint is a major concern, Ancon Eazistrip can be supplied with a Pentaflex hydrostatic seal. The seal is factory fitted inside and outside the box to provide double-sided protection against water or moisture permeation along the joint face.

As Pentaflex is a hydrostatic seal, it is not reliant on expansion, unlike hydrophilic type seals, and it provides a continuous elastic seal by means of the bond between the Pentaflex and the fresh concrete. Resistant to organic waste water, Pentaflex has been tested by the Hygiene-Institut, Geisenkirchen, Germany for use with potable water.

A protective film on the Pentaflex prevents contamination by dust or dirt during storage, handling and installation. The film must be removed prior to concreting. When installing and abutting boxes, joints are achieved by pressing together a 50mm overlap of the Pentaflex material, to ensure continuous protection against water permeation.



#### Other Leviat Products

#### **Reinforcing Bar Couplers**

The use of reinforcing bar couplers can provide significant advantages over lapped joints. Design and construction of the concrete can be simplified and the amount of reinforcement required can be reduced. The Ancon range includes parallel-threaded, tapered-threaded, mechanically bolted and grouted couplers.

#### **Shear Load Connectors**

Ancon DSD Shear Load Connectors are used to transfer shear across expansion and contraction joints in concrete. They are more effective at transferring load and allowing movement to take place than plain dowels, and can be used to eliminate double columns at structural movement joints in buildings.

#### **Channel and Bolt Fixings**

Leviat offers a wide range of Ancon channels and bolts in order to fix stainless steel masonry support, restraints and windposts to structural frames. Cast-in channels and expansion bolts are used for fixing to the edges of concrete floors and beams.

## Halfen HIT Concrete-to-Concrete Balcony Connectors

Our thermally insulated connectors minimise heat loss at balcony locations while maintaining structural integrity. They provide a thermal break and, as a critical structural component, transfer moment, shear, tension and compression forces. Standard HIT Elements fulfill the requirements for the highest fire protection classification REI 120. Offering 2 hours fire resistance.

#### **Punching Shear Reinforcement**

Ancon Shearfix is used within a slab to provide additional reinforcement from punching shear around columns. The system consists of double-headed steel studs welded to flat rails and is designed to suit the load conditions and slab depth at each column using our free calculation software.

#### **Special Stainless Steel Fabrications**

We have a wealth of experience working with different types and grades of stainless steel. Leviat's advanced manufacturing facilities enable one-off or volume orders to be fabricated to individual project requirements and to exacting quality standards. Considerable material stocks are maintained in order to meet urgent delivery deadlines.















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