



**Ancon**<sup>®</sup>  
**Starter Bar System**  
for the Construction Industry



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# Starter Bar System

Simplify the design and construction of concrete

The Ancon Starter Bar system is designed to increase the speed of construction at joints where continuity of reinforcement is required, or for fixing applications

using standard metric bolts or studding. Use of this Ancon system can simplify concrete design and eliminate the need to drill formwork or concrete.

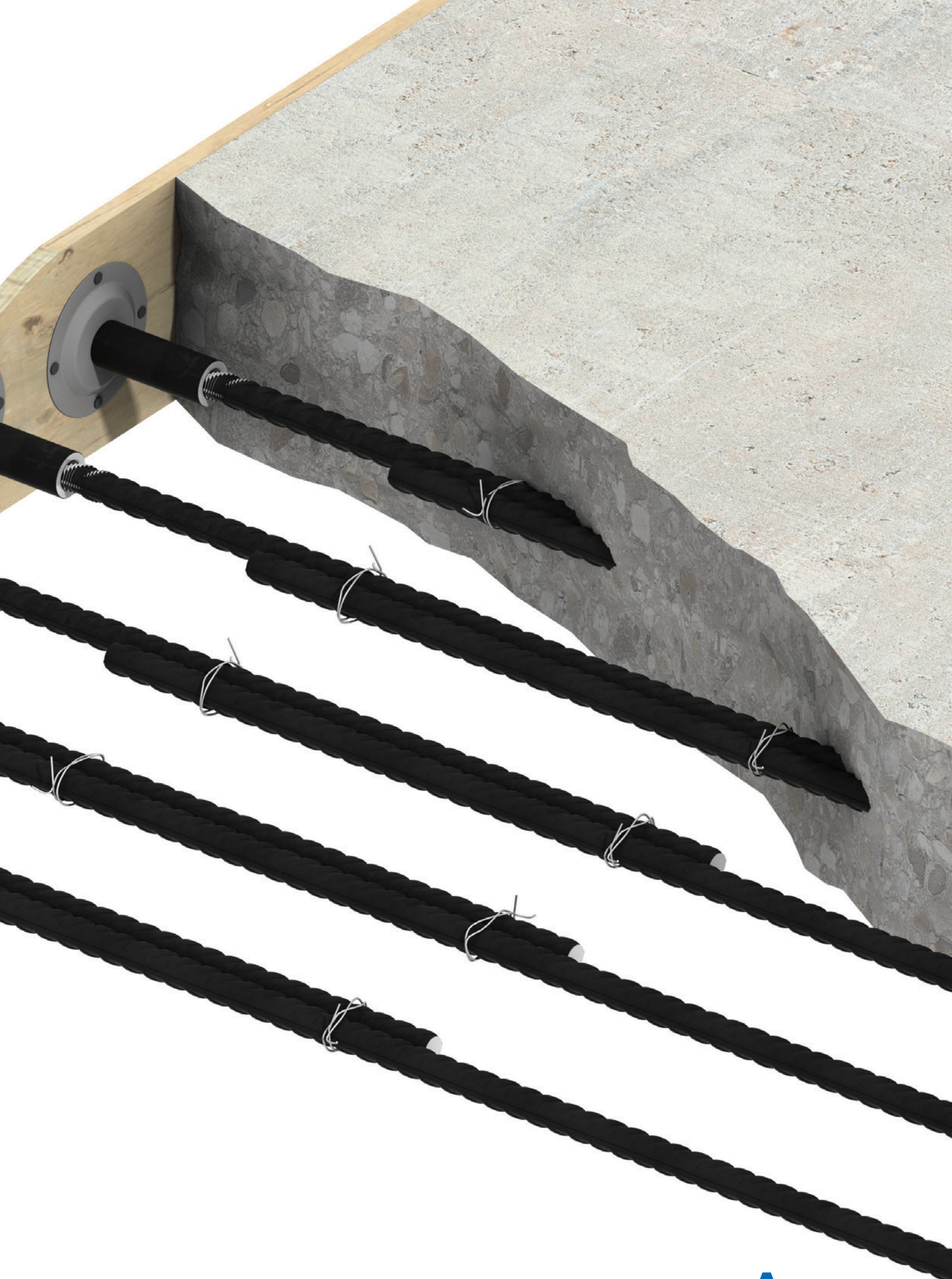


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ISO 9001, ISO 14001  
& OHSAS 18001



# Starter Bar System

The Ancon Starter Bar system is designed to increase the speed of construction at joints where continuity of reinforcement is required, or for fixing applications using standard metric bolts or studding. The system incorporates either a tapered thread coupler, approved by UK CARES, or a parallel thread adaptor.

Use of this system can simplify concrete design and eliminate the need to drill formwork or concrete.

All bars are grade 500 and are cropped and bent to BS 8666: 2005.

## CARES

Ancon tapered thread couplers are approved by UK CARES for compliance with the requirements of BS 8110. The Starter Bar System is manufactured using CARES approved reinforcing bar.



## Eazistrip Continuity System

Leviat also manufacture the Ancon Eazistrip system; an alternative means of providing reinforcement continuity at construction joints. This system features pre-bent bars that are housed within a casing and cast into concrete. After striking the formwork, the casing's cover is removed and the bars straightened, ready for joining to the main reinforcement of the adjoining pour.

## Technical/Sales Support

Leviat provides a dedicated service to the concrete sector. The 'Reinforcement' team provides technical advice, pricing information, order fulfilment and after sales support. Our product offering includes, but is not restricted to, reinforcing bar couplers, reinforcement continuity systems, punching shear reinforcement, shear load connectors and balcony connectors. Enquiries from overseas are also serviced by this team. Email [reinforcement.uk@leviat.com](mailto:reinforcement.uk@leviat.com) fax +44 (0) 114 238 1240 or call +44 (0) 114 275 5224 with your enquiry.

## System Components

### Starter Bar

The Starter Bar is the female component of the system. It consists of a bar, normally threaded at one end only, supplied fixed to an Ancon coupler. Standard configurations, stock sizes and manufacturing limitations are shown on the adjacent page.

Two types of coupler are available:

#### Ancon Tapered Thread Coupler -

to accept a tapered thread continuation bar



#### Ancon Parallel Thread Adaptor -

to accept a standard metric bolt or studding



Each coupler features a plastic end cap to help prevent the ingress of concrete during casting.

Ancon couplers exceed the tensile strength for reinforcing bars to BS 4449:1997. They are designed to meet the requirements of BS 8110 and achieve failure loads in excess of 115% of the characteristic strength of grade 500 rebar.

### Nailing Plate

A nail plate can be fixed to the end of an Ancon Tapered Thread coupler and is held in place by the plastic end cap supplied. This plate simplifies connection of the Starter Bar to the formwork.



### Continuation Bar

The continuation bar, or male section, comprises a straight bar threaded at one end to allow connection to an Ancon tapered thread coupler. Bar lengths to BS 8110 of 50 x bar diameter are held in stock for each bar size. Other lengths are available to order. Bars are grade 500.



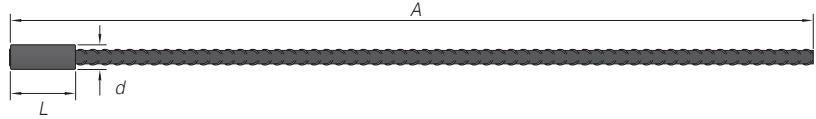
### Torque Wrench

In order to ensure correct assembly, continuation bars should be tightened using a calibrated torque wrench. Torque wrenches purchased from Ancon are supplied with a certificate of calibration.



## Technical Details

### Starter Bar with Tapered Thread Coupler Straight Bar - Shape Code 00

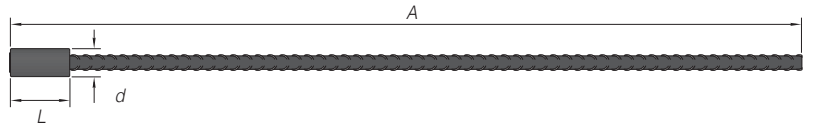


Bar Dia. (mm)	Stocked Length A (mm)	Max. Bar Length (mm)	Coupler Length L (mm)	Coupler External Dia. d (mm)	Torque (Nm)	Nailing Plate Dia. (mm)
12	660	6000	58	22	60	70
16	870	6000	70	25	110	70
20	1075	6000	74	30	165	70
25	1340	6000	90	36	265	90
32	1740	3000	112	46	285	90

Details for specifying and ordering:

TTSB/Bar Dia./F/Dim. A e.g. TTSB/16/F/1200

### Starter Bar with Parallel Thread Adaptor Straight Bar - Shape Code 00

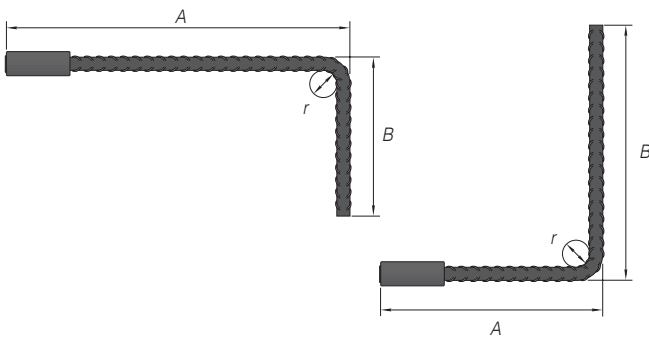


Bar Dia. (mm)	Thread dia. (mm)	Stocked Length A (mm)	Max. Bar Length (mm)	Adaptor Length L (mm)	Adaptor External Dia. d (mm)	Nominal Thread Depth (mm)
12	M16 x 2.0mm pitch	655	6000	53	25	24
16	M20 x 2.5mm pitch	870	6000	68	28	30
20	M24 x 3.0mm pitch	1080	6000	78	32	36
25	M30 x 3.5mm pitch	1345	6000	95	40	45
32	M36 x 4.0mm pitch	1715	3000	113	50	54

Details for specifying and ordering:

PTSB/Bar Dia./F/Dim. A e.g. PTSB/16/F/1200

### L-Shaped Bar - Shape Code 11



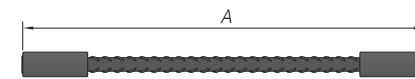
Bar Dia. (mm)	Min. Length A/B	Min. Bend Dia. r
12	165mm / 145mm	24mm
16	180mm / 155mm	32mm
20	255mm / 180mm	70mm
25	280mm / 190mm	87mm
32	330mm / 210mm	112mm

Details for specifying and ordering:

Tapered Thread TTSB/Bar Dia./F/Dims. A/B e.g. TTSB/16/F/400/600

Parallel Thread Adaptor PTSB/Bar Dia./F/Dims. A/B e.g. PTSB/16/F/400/600

### Dumbbell-Shaped Bar - Shape Code 00



Bar Dia. (mm)	Parallel Thread Adaptor x 2		Tapered Thread Coupler x 2
	Threaded Stud*	Min. Length A	Min. Length A
12	M16 x 52mm	110mm	340mm
16	M20 x 70mm	140mm	360mm
20	M24 x 86mm	160mm	364mm
25	M30 x 125mm	195mm	380mm
32	M36 x 112mm	230mm	402mm

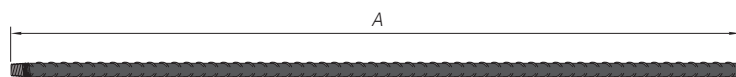
Both options are designed to accept a tapered thread continuation bar  
\*Grade 8.8 High Yield Steel

Details for specifying and ordering:

Tapered Thread TTSD/Bar Dia./F/Dim. A e.g. TTSD/16/F/600

Parallel Thread Adaptor PTSDB/Bar Dia./F/Dim. A e.g. PTSDB/16/F/600

### Continuation Bar - Tapered Thread



Bar Dia. (mm)	Stocked Length A (mm)	Max. Bar Length (mm)	Torque (Nm)
12	625	6000	60
16	830	6000	110
20	1035	6000	165
25	1290	6000	265
32	1655	3000	285

Details for specifying and ordering:

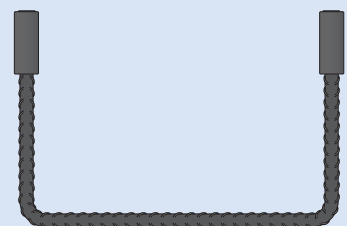
TTSB/Bar Dia./M/Dim. A e.g. TTSB/16/M/1000

### Torque Wrench

Torque (Nm)	Part No.
60-285	E879008

### Other Configurations

In addition to the standard range shown, Leviat can manufacture other configurations of Ancon Starter Bar on request. These can be specified on the order form on the following page.





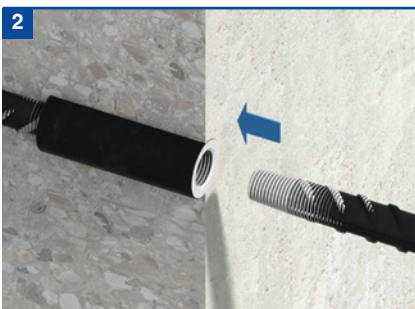


## Starter Bar Installation

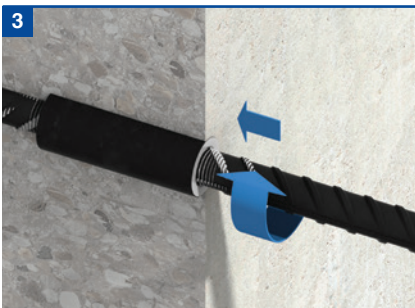
Installation is as follows when using the Tapered Thread starter bar system.



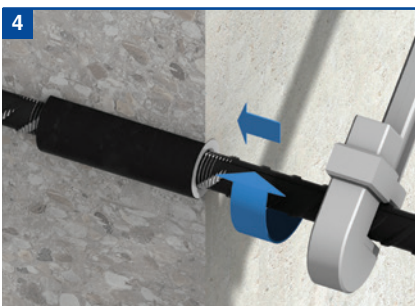
The coupler is supplied fixed to the reinforcing bar, ready to be installed and cast in concrete.



After casting the concrete and when ready to extend, remove the plastic end cap (and nailing plate where appropriate) from the coupler. Position the continuation bar in the sleeve and rotate the bar into the coupler.



Continue to screw the bar into the coupler until tight.



To ensure correct installation, tighten the joint to the specified torque using a calibrated torque wrench on the continuation bar. Tightening torques are shown in the table on page 5.

## Other Ancon 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.



### Reinforcement Continuity Systems

Ancon Eazistrip is approved by UK CARES and consists of bent bars housed in a galvanised steel casing. Once installed, the protective cover is removed and the bars are straightened, ready for joining to the slab reinforcement. Alternatively, Ancon KSN Anchors are cast into the wall and, when the formwork and thread protection are removed, Bartec Plus threaded rebars are simply screwed into the anchors.



### Insulated Balcony Connectors

Thermally insulated Ancon connectors minimise heat loss at balcony locations while maintaining structural integrity. They provide a thermal break and most also provide local insulation at the joint. As a critical structural component they transfer moment, shear, tension and compression forces. Standard solutions are available for concrete-to-concrete, steel-to-concrete and steel-to-steel applications.



### Shear Load Connectors

Ancon DSD and ESD 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 standard dowels, and can be used to eliminate double columns at structural movement joints in buildings.



### Channel and Bolt Fixings

We offer 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.



### Special Fabrications

Leviat designs and manufactures high integrity Ancon steel components for a wide range of industries including Civil Engineering, Building, Infrastructure, Water Treatment, Nuclear and Mining. Projects are supplied worldwide and range from small-scale residential developments to major infrastructure projects.





**Leviat<sup>®</sup>**  
A CRH COMPANY

Innovative engineered products and construction solutions that allow the industry to build safer, stronger and faster.



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