



Ancon[®]
Special Fabrications
in Stainless Steel



We are one team. **We are Leviat.**

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

Under the Leviat brand, we are uniting 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.

This is an exciting change. Join us on our journey.

Read more about Leviat at [Leviat.com](https://www.leviat.com)



Our product brands include:

Ancon[®]

HALFEN

HELIFIX

ISEDIO

PLAKA



60

locations

sales in
30+
countries

3000

people worldwide

Imagine. Model. Make.

Leviat.com

Special Fabrications in Stainless Steel

Environment, Health & Safety

We have well developed EHS systems and procedures, and has accreditation under ISO 14001 and OHSAS 18001. Our Health and Safety policies and procedures are at the forefront of all our internal processes. EHS is part of our employee culture. To support this cultural approach, the company has developed a behavioural safety programme to further increase awareness and recognition of good EHS practices.



Leviat UK
Sheffield, Deeside,
Brentford, Somerton,
Houghton Regis,

Manufacturing Capabilities

Our manufacturing sites are capable of producing a high volume of standard products on very short lead times, and bespoke products specifically engineered to meet individual project requirements.

Products are manufactured from wire, coil, plate, tube and bar, to exacting quality standards. Processes include laser cutting, welding, section forming, machining and deburring. Large stocks of standard grade material are held in stock in order to meet urgent delivery deadlines.

We are certified to undertake non-fabricated work to Execution Class 4 and welded fabrication work to Execution Class 2 of

BS EN 1090-1, the European Standard governing structural steelwork, and Annex C of BS EN 1993 (Eurocode 3). This allows the company to apply the UKCA and CE. Execution Class 2 covers the vast majority of applications and is the default class when unspecified. Where a higher weld specification is required, additional procedures can be approved and a project-specific fabrication cell can be set up. Contact us with your specific requirements.



Technical Support

On a daily basis, Leviat's technical staff liaise with project teams throughout the world, advising on the most cost-effective and practical solutions.

Operational Excellence

Leviat has a strong culture of Operational Improvement and Innovation. The key objective of this strategy is to enhance customer service. We have been particularly successful at re-engineering and improving it's transactional and project management processes in recent years, in order to deliver savings in time and money. Targets are set each year for operational savings, traditionally 1% of turnover.

Contents

<u>Stainless Steel</u>	<u>3</u>
<u>Fabrication Services</u>	<u>4-5</u>
<u>Tunnelling and Infrastructure</u>	<u>6-8</u>
<u>Marine and Water Treatment</u>	<u>9</u>
<u>Building and Construction</u>	<u>10</u>
<u>Other Ancon Products</u>	<u>11</u>

Stainless Steel

Stainless steel is not a single specific material; it is the name given to a group of corrosion resistant steel alloys which contain a minimum of 10.5% chromium.

The chromium in stainless steel reacts with oxygen in the air to produce a very thin, inert, chromium-rich oxide film on the surface of the steel. It is the presence of this film which provides the corrosion resistance of stainless steel. This passive film is unlike coatings such as paint or galvanising in one very important way. If it is damaged by abrasion or mechanical means such as cutting, it re-forms and continues to protect the steel.

Stainless steel offers many advantages to the specifier:

- Excellent corrosion resistance
- Life-cycle costing benefits
- Typically 80% Recycled content
- 100% Recyclable
- High ductility and strength
- Non-magnetic (Austenitic only)
- Excellent high and low temperature properties
- Aesthetic surface finish
- Resistance to unsightly staining

Life-cycle costing is increasingly recognised as the true way to establish the cost of construction. The maintenance-free life and confirmed integrity of stainless steel mean that no costly remedial or refurbishment measures are required during the life of the structure. As the trend to higher specification and longer life continues, stainless steel will continue to provide a cost-effective, long term design solution.

Stainless steel is 100% recyclable. When a stainless steel component finally reaches the end of its long service life, it remains a valuable source of its main alloying elements - chromium, nickel and molybdenum. These can be easily recovered and returned to the production process.

In addition to end-of-life recycling, any scrap material generated during manufacture is recycled in the same way.

Austenitic Stainless Steels

Austenitic stainless steels offer excellent resistance to corrosion. These high chromium steels are ductile and strong. They are non-magnetic and can be readily formed and welded. Higher strengths can be obtained by cold working.

Duplex and Super Duplex Stainless Steels

These steels have a mixed austenitic/ferritic microstructure and are stronger than austenitic steels. They are magnetic and can be welded; their corrosion resistance is better than that of austenitic steels, particularly their resistance to stress corrosion cracking.

More information is available in the Ancon brochure, 'The Use of Stainless Steel'.

We have the capability to fabricate all Austenitic, Duplex and Super Duplex stainless steels.



Formed Sections



Special Fabrications in Stainless Steel

Fabrication Services

Leviat is a manufacturer of Ancon specialist products and has a wealth of experience in working with a range of types and grades of stainless steel, boasting an impressive project portfolio. The company has the capability to fabricate all Austenitic, Duplex and Super Duplex stainless steels in a plate thickness of up to 30mm.

All fabrication work is designed and manufactured to suit individual customer requirements and large stocks of stainless steel are maintained in order to meet urgent deliveries.

We supply both volume and one-off orders to exacting quality standards. The company is well-equipped to supply repeat orders for non-standard products.

The following services are available:

- Plasma, laser and water jet profiling
- CNC Press braking
- MIG, TIG, MMA and Spot Welding
- Machining including drilling, milling and turning
- Section rolling
- Perforating
- Wire and Strip, bending and forming
- Bar bending, threading and forming
- Tube Processing
- Coining, forming and blanking
- Pickling and passivation
- Deburring and surface finishing



Welding



Section Forming

Design Service

Technical staff will advise on the most appropriate and cost-effective solution to suit specific applications. Drawings can be submitted to your design team for approval before manufacture.

Project Management

We will dedicate the services of a project manager to ensure all fabrication work is produced and scheduled for delivery to suit site requirements.

Quality and Approvals

All our fabrications are designed and manufactured to the quality requirements of ISO 9001: 2008 and our environmental management system complies with ISO 14001: 2004.

We are certified to undertake welded fabrication work to Execution Class 2 of BS EN 1090-1, the European Standard governing structural steelwork, and Annex C of BS EN 1993 (Eurocode 3), which allows the company to apply the UKCA and CE. A fundamental requirement of product marking to BS EN 1090 is the implementation of an appropriate Welding Quality Management System (WQMS) to BS EN ISO 3834. Expert auditors from SCCS Ltd have approved the suitability of Ancon's WQMS to Part 3 of ISO 3834.

Other features of our control systems include:

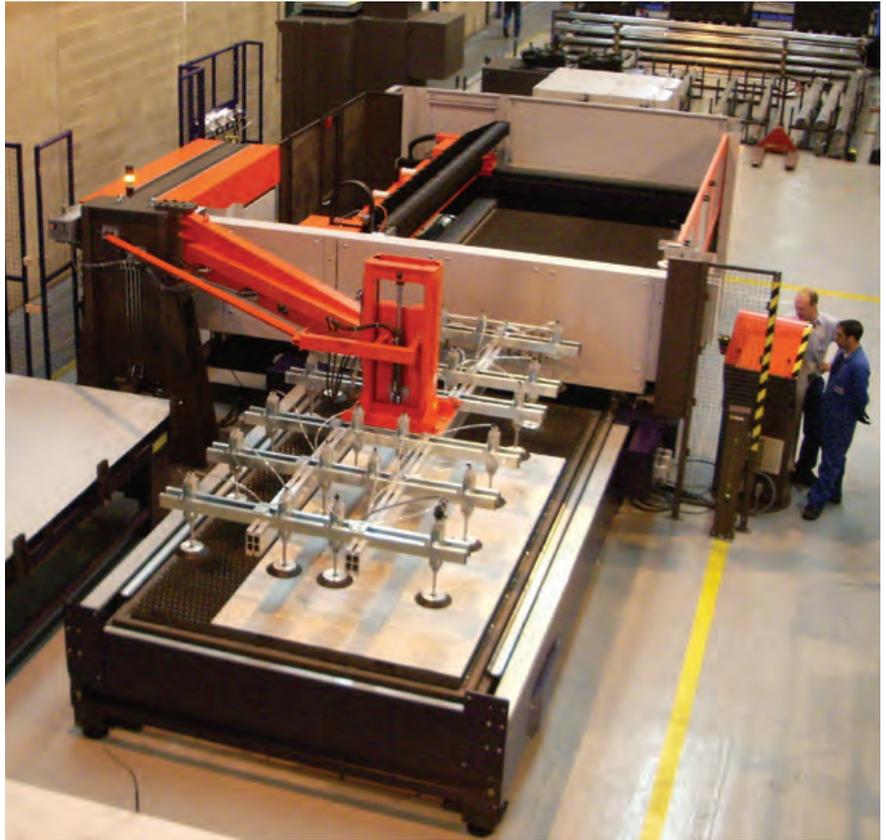
- Weld procedures qualified to ISO 15614/15613
- Welder approval to EN 9606 -1: 2013 (previously EN 287-1: 2011)
- Welder operator approval to BS EN ISO 14732: 2013 (previously EN 1418)
- Welding acceptance criteria to EN 5817 Quality Level C

A full range of destructive and non-destructive testing can be carried out to meet contract requirements. Full traceability and certification of raw materials is available as required.



ISO 9001: 2008
FM 12226

ISO 14001: 2004
EMS 505377



Laser Cutting



Surface Finish

The surface finish of stainless steel can vary from a matt descaled finish to a bright highly polished finish. Fabrications can be supplied with a specific surface finish to suit the requirements of the application. We offer the following services:

- Mechanical and Electro-polishing
- Bead and Grit Blasting
- Advice on surface finish

Unless specified all Ancon products will be manufactured in a rolled mill finish to EN 10088.



Leviat is a member of the British Stainless Steel Association, the Australian Stainless Steel Development Association and Swiss Inox. As such, we are able to draw on wider specialist technical knowledge and experience, when required, in order to deliver the most practical and cost-effective solution for any application.



Special Fabrications in Stainless Steel

Examples of our Fabrication Work Tunnelling & Infrastructure

Project References:

- Brisbane North-South Bypass, Australia
- City West Cable Tunnel, Australia
- Perth City Metro Rail Tunnel, Australia
- Clyde Tunnel, UK
- Dartford River Crossing, UK
- Channel Tunnel Rail Link, UK
- Waterloo International Terminal, UK
- Thessaloniki Metro, Greece
- Plabutsch Tunnel, Austria
- Gotthard Tunnel, Switzerland
- Horburg Tunnel, Switzerland



Decorative Bridge Cappings and Bracketry. *Project: Channel Tunnel Rail Link, UK (Contractor: Carillion)*



Tunnel Ceiling Suspension Systems



Project: Brisbane North-South Tunnel, Australia (Contractor: LBB JV, Engineer: Bilfinger Berger)

Tunnelling & Infrastructure



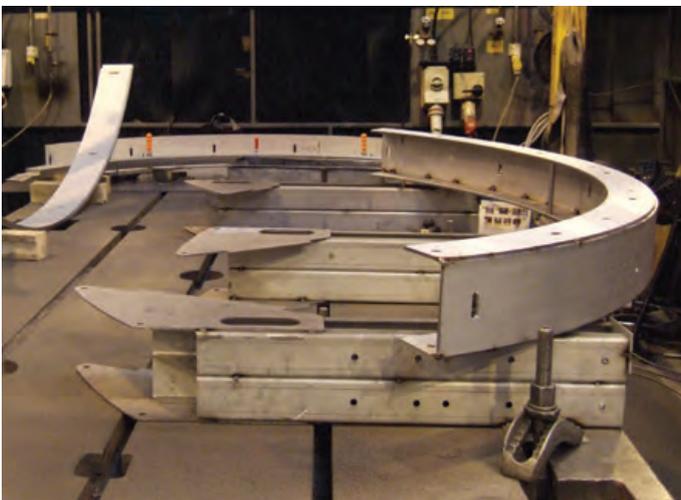
Components of Architectural, Fire-Resistant Tunnel Linings and Support Systems



Tunnel Linings. *Project: Clyde Tunnel, UK
(Contractor: Byzak, Engineer: Faber Maunsell)*



Project: City West Cable Tunnel, Australia (Client: Energy Australia, Contractor: Thiess, Engineer: Maunsell/AEcom)



Cable Support Systems



*Project: Carlton Cable Tunnel, Australia
(Client: Energy Australia, Contractor: The Abergeldie Group, Cable Support Engineering: Ancon)*

Special Fabrications in Stainless Steel

Tunnelling & Infrastructure



Project: Waterloo International Terminal, UK

Maintenance Walkways. Project: Perth Metro Rail, Australia (Contractor: Leighton Kumagai JV)



Road Deck Endplates. Project: Dartford East Tunnel, UK (Contractor: Kvaerner/Skanska)



Engineered Reinforcing Bar. Project: Cradlewell Bypass, UK (Contractor: Alfred McAlpine/Carillion)

Marine & Water Treatment



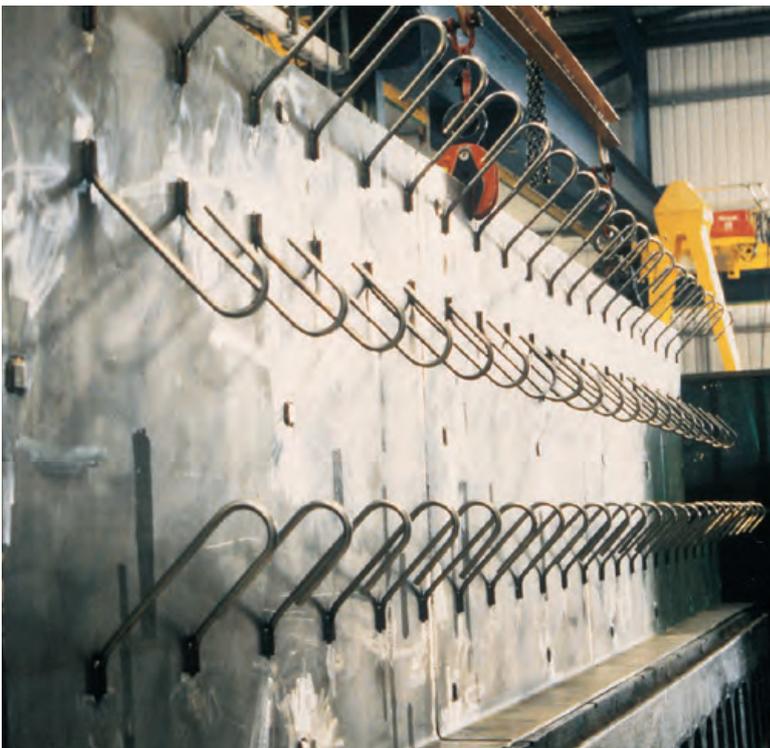
Pressure Tanks



Aesthetic Presswork



Sewage Flow Control Systems



Dock Gate Endplates. (Client: Ministry of Defence, UK)



Access Walkways and Ladders

Special Fabrications in Stainless Steel

Building & Construction



Project: One London Wall, UK (Architect: Foster and Partners)



External Cladding Support Systems



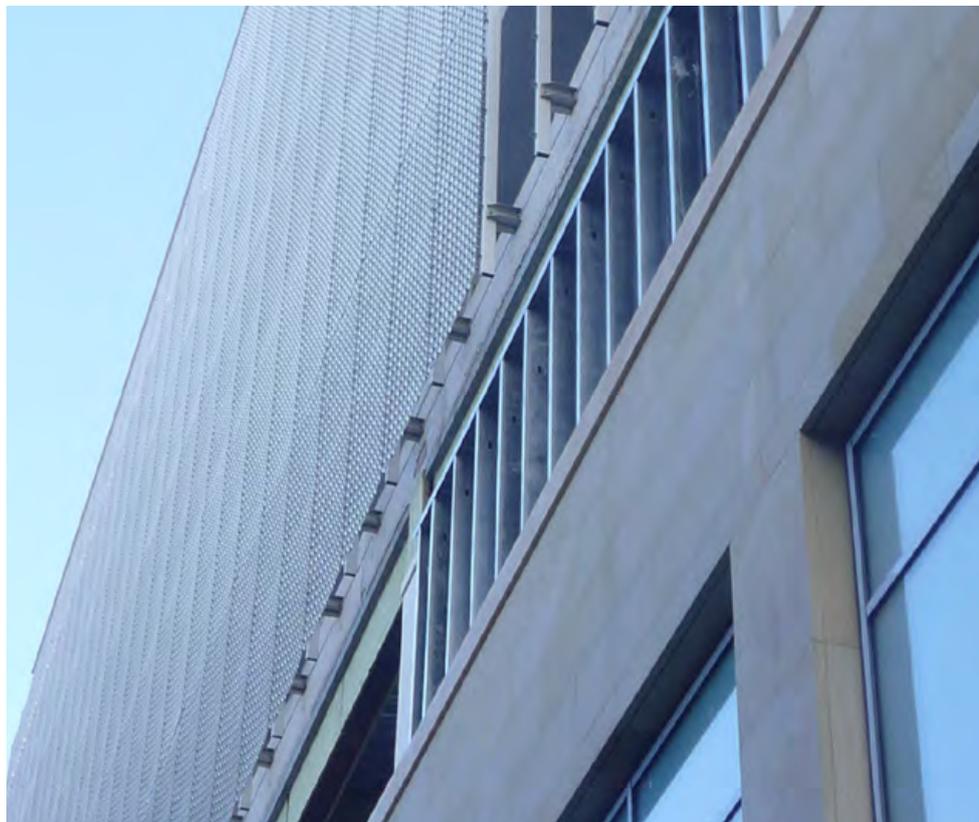
© Christopher Smallwood Architects



Exposed Architectural Features



Fixings and Bracketry for Architectural Claddings (Façade: James and Taylor)



© James and Taylor Ltd

Other Ancon Products

Masonry Support Systems

Structures with brick or stone cladding will usually necessitate the use of stainless steel support for the masonry. Ancon Support Systems form a horizontal support angle in the outer leaf. Ancon Windposts span vertically between floors to provide lateral support for large panels of brickwork or panels with openings. Ancon Masonry Reinforcement is manufactured from flattened steel wire and locates in a bed joint to strengthen masonry panels.

Channel and Bolt Fixings

Cast-in channels are available in different sizes ranging from simple self anchoring channels for restraints, to large capacity channels with integral anchors. A selection of channels can also be supplied plain-backed for surface fixing. Stainless steel expansion bolts and resin anchors complete the range.

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. The two-part construction ensures alignment, vital where movement is required. The Ancon DSDQ features a rectangular box section to allow lateral movement in addition to longitudinal movement.

Punching Shear Reinforcement

Ancon Shearfix is used within a slab to provide additional reinforcement around columns to alleviate the effects of punching shear. The system consists of double-headed studs welded to flat rails, positioned around the column head. The shear load from the slab is transferred through the studs into the column.

Reinforcement Continuity Systems

Reinforcement Continuity Systems are an increasingly popular means of maintaining continuity of reinforcement at construction joints in concrete; they eliminate the need to drill shuttering and can simplify formwork design, thereby accelerating the construction process. The Ancon Eazistrip System is CARES approved and is available in both standard units and special configurations.

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 joint can also remain unaffected by any loss of cover because the strength of a mechanical splice is independent of the concrete in which it is located. The range includes threaded and mechanically bolted couplers.

Tension Systems

Tie bars are increasingly being used in structures and buildings as an architectural as well as a structural element. Ancon Tension Systems comprise a range of components which can be supplied in carbon steel or stainless steel in a variety of sizes and finishes. A variety of assemblies can be created from simple tie bars to complex bracing systems involving several bars joined at one point.

Reinforcing Bar

We supply Ancon stainless steel plain and ribbed reinforcing bar direct from stock. Grade 1.4301 (304), grade 1.4436 (316) and lean duplex stainless steels are readily available.

Floorplate and Open Grid Flooring

Ancon's stainless steel floorplate and open grid flooring are ideal for environments where corrosion resistance, hygiene, durability and slip resistance are essential. This flooring is suitable for a wide variety of industries including chemical, marine engineering, catering and pharmaceutical. When required, floorplates can be supplied with a polished surface finish.





Leviat[®]
A CRH COMPANY

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



Worldwide contacts for Leviat:

Australia

Leviat
98 Kurrajong Avenue,
Mount Druitt Sydney, NSW 2770
Tel: +61 - 2 8808 3100
Email: info.au@leviat.com

Austria

Leviat
Leonard-Bernstein-Str. 10
Saturn Tower, 1220 Wien
Tel: +43 - 1 - 259 6770
Email: info.at@leviat.com

Belgium

Leviat
Industrielaan 2
1740 Ternat
Tel: +32 - 2 - 582 29 45
Email: info.be@leviat.com

China

Leviat
Room 601 Tower D, Vantone Centre
No. A6 Chao Yang Men Wai Street
Chaoyang District
Beijing · P.R. China 100020
Tel: +86 - 10 5907 3200
Email: info.cn@leviat.com

Czech Republic

Leviat
Business Center Šafránková
Šafránková 1238/1
155 00 Praha 5
Tel: +420 - 311 - 690 060
Email: info.cz@leviat.com

Finland

Leviat
Vädursgatan 5
412 50 Göteborg / Sweden
Tel: +358 (0)10 6338781
Email: info.fi@leviat.com

France

Leviat
6, Rue de Cabanis
FR 31240 L'Union
Toulouse
Tel: +33 - 5 - 34 25 54 82
Email: info.fr@leviat.com

Germany

Leviat
Liebigstrasse 14
40764 Langenfeld
Tel: +49 - 2173 - 970 - 0
Email: info.de@leviat.com

India

Leviat
309, 3rd Floor, Orion Business Park
Ghodbunder Road, Kapurbawdi,
Thane West, Thane,
Maharashtra 400607
Tel: +91 - 22 2589 2032
Email: info.in@leviat.com

Italy

Leviat
Via F.lli Bronzetti 28
24124 Bergamo
Tel: +39 - 035 - 0760711
Email: info.it@leviat.com

Malaysia

Leviat
28 Jalan Anggerik Mokara 31/59
Kota Kemuning, 40460 Shah Alam
Selangor
Tel: +603 - 5122 4182
Email: info.my@leviat.com

Netherlands

Leviat
Oostermaat 3
7623 CS Borne
Tel: +31 - 74 - 267 14 49
Email: info.nl@leviat.com

New Zealand

Leviat
2/19 Nuttall Drive, Hillsborough,
Christchurch 8022
Tel: +64 - 3 376 5205
Email: info.nz@leviat.com

Norway

Leviat
Vestre Svanholmen 5
4313 Sandnes
Tel: +47 - 51 82 34 00
Email: info.no@leviat.com

Philippines

Leviat
2933 Regus, Joy Nostalg,
ADB Avenue
Ortigas Center
Pasig City
Tel: +63 - 2 7957 6381
Email: info.ph@leviat.com

Poland

Leviat
Ul. Obornicka 287
60-691 Poznan
Tel: +48 - 61 - 622 14 14
Email: info.pl@leviat.com

Singapore

Leviat
14 Benoi Crescent
Singapore 629977
Tel: +65 - 6266 6802
Email: info.sg@leviat.com

Spain

Leviat
Polígono Industrial Santa Ana
c/ Ignacio Zuloaga, 20
28522 Rivas-Vaciamadrid
Tel: +34 - 91 632 18 40
Email: info.es@leviat.com

Sweden

Leviat
Vädursgatan 5
412 50 Göteborg
Tel: +46 - 31 - 98 58 00
Email: info.se@leviat.com

Switzerland

Leviat
Grenzstrasse 24
3250 Lyss
Tel: +41 - 31 750 3030
Email: info.ch@leviat.com

United Kingdom

Leviat
President Way, President Park,
Sheffield, S4 7UR
Tel: +44 - 114 275 5224
Email: info.uk@leviat.com

United States of America

Leviat
6467 S Falkenburg Rd.
Riverview, FL 33578
Tel: (800) 423-9140
Email: info.us@leviat.us

For countries not listed

Email: info@leviat.com

Leviat.com

Notes regarding this catalogue

© Protected by copyright. The construction applications and details provided in this publication are indicative only. In every case, project working details should be entrusted to appropriately qualified and experienced persons. Whilst every care has been exercised in the preparation of this publication to ensure that any advice, recommendations or information is accurate, no liability or responsibility of any kind is accepted by Leviat for inaccuracies or printing errors. Technical and design changes are reserved. With a policy of continuous product development, Leviat reserves the right to modify product design and specification at any time.



For more information on these products, contact:

Leviat

President Way
President Park
Sheffield, S4 7UR
United Kingdom

Tel: +44 (0) 114 275 5224

Fax: +44 (0) 114 276 8543

Email: info.ancon.uk@leviat.com

For sales enquiries:

Email: sales.ancon.uk@leviat.com

For technical enquiries:

Email: tech.ancon.uk@leviat.com

Ancon.co.uk

Leviat.com