

Specialized Factory for Steel Products
SIGMA Factory for Steel Products



EXPANDED METALS, PLASTER BEADS CATALOGUE

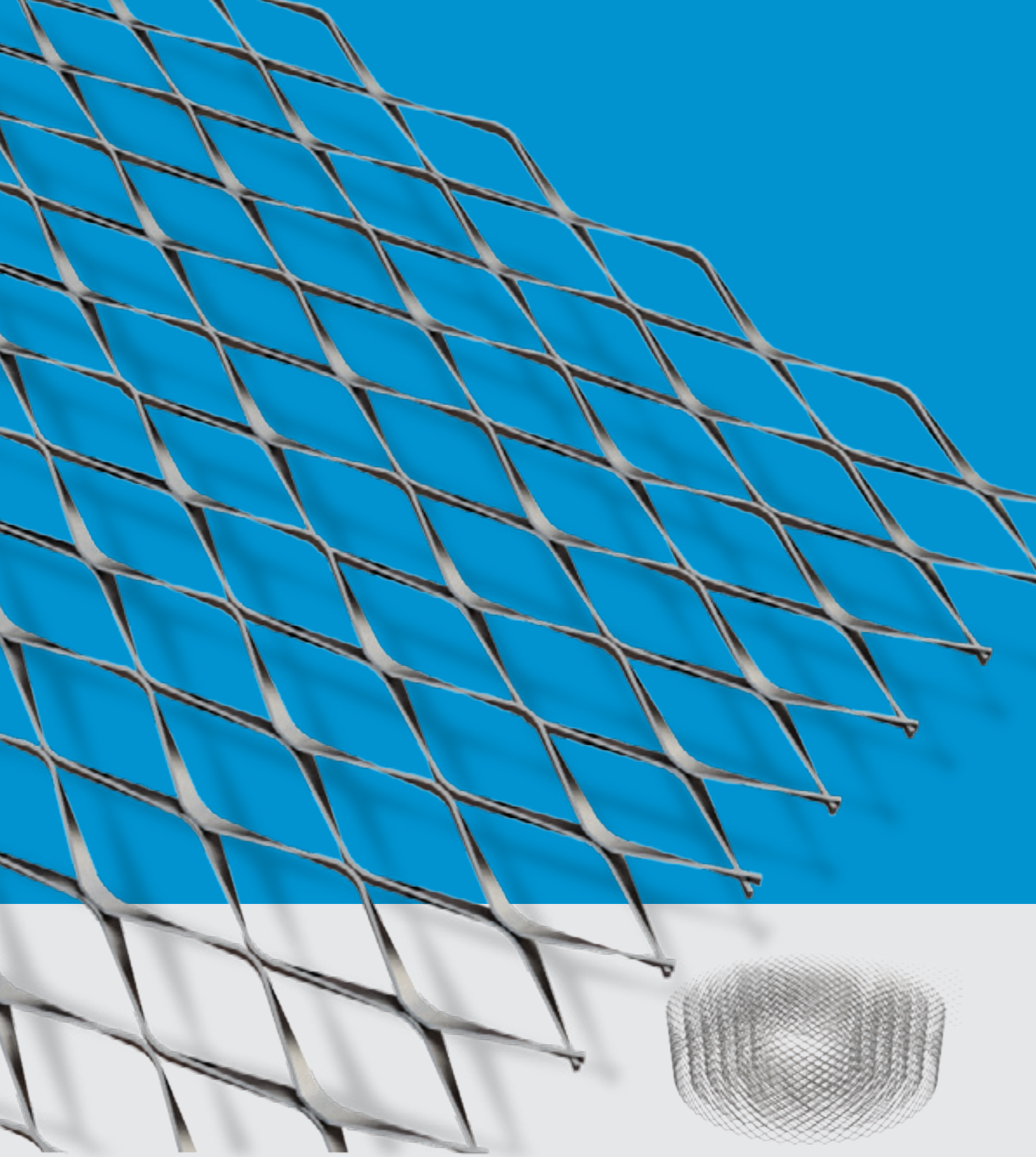


www.ikkgroup.com

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Expanded Metals, Plaster Beads Catalogue

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www.sfsp-ikk.com



ABOUT SFSP



Specialized/Sigma Factory for Steel Products (SFSP) was first established in KSA in 1989 and has been expanding ever since through a variety of products and through its geographical presence.

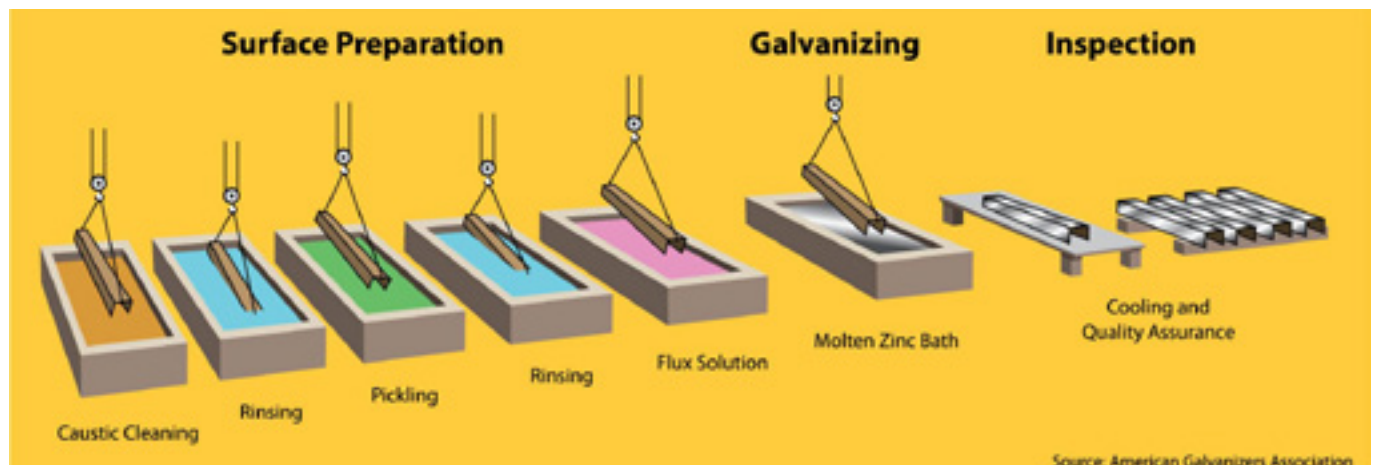
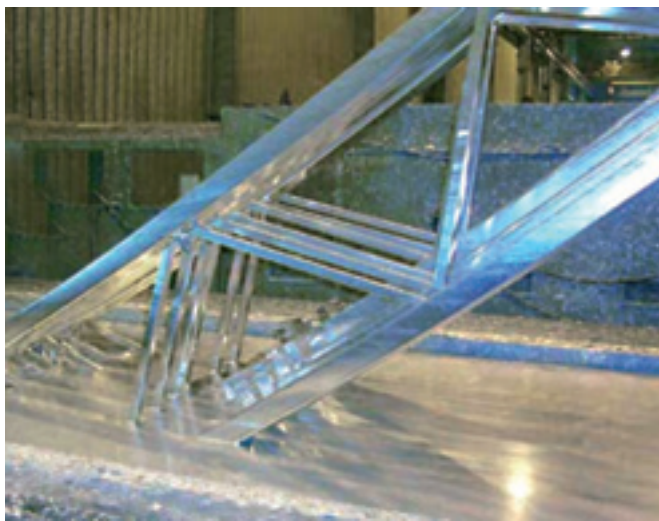
Production at the factory is observed using modern practices of manufacturing methods in the steel construction industry with a definite compliance to international standards of fabrication.

SFSP has manufacturing facilities in KSA, UAE, Egypt, and Lebanon. SFSP adapts quickly and easily to market demands and requirements. The factory is operating a top of the line production machinery, fully automated with highest technology to ensure quality and maintain speed with delicacy.

Quality at SFSP is uncompromised; the factories have been able to acquire ISO 9001: 2015 Quality Management System, ISO 14001:2015 Environmental Management certified factory, and OHSAS 18001:2007 Occupational Health and Safety Management factory.

HOT-DIP GALVANIZATION

SFSP has an in-house state of the art Hot-Dip Galvanization facility, which permits a full control of the quality of its finished products, offering better services to our clients globally.





Specialized Factory for Steel Products Co. Ltd

www.sfsp-ikk.com

Specialized Factory for Steel Products Co., Ltd, which is part of Isam Khairi Kabbani Group of companies is a leading fabricator of steel construction products serving the kingdom of Saudi Arabia since 1989.

The factory operates under TQM ISO modules, using the latest modern technology in the steel fabrication and manufacturing industry in conformity with International standards for safety and in compliance with the environmental regulations in the Kingdom.

The factory has inaugurated its new manufacturing facilities which is located in the 3rd Industrial Area of Jeddah with a total built facilities of 37,000 squared meters.



The facilities include two manufacturing areas, a hot dip galvanization advanced section, warehousing areas and administrative building. The project is an advanced environmental low emissions factory built with a definite consideration of the safety of its workers and visitors.



TECHNICAL SERVICES

A crucial factor in the job of a factory is to provide continuous technical services and consultations. That's why SFSP has invested in a professional team of researchers and specialists.

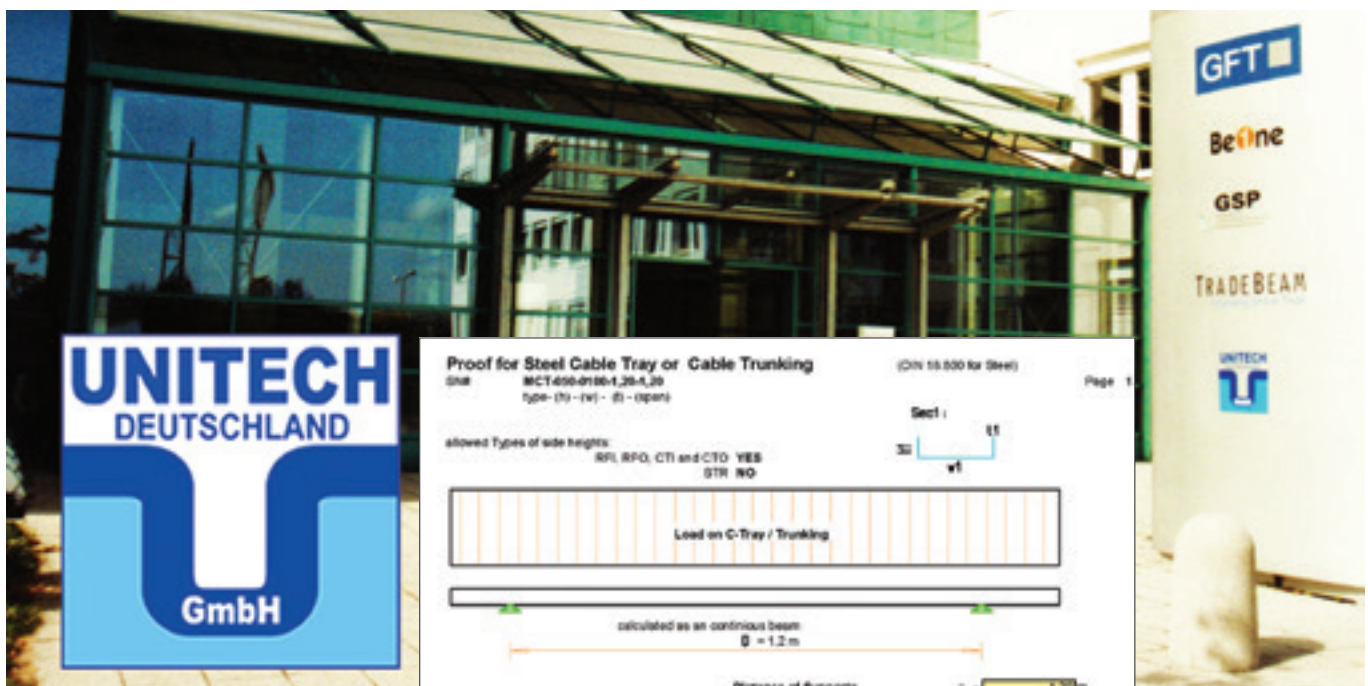
SFSP has recruited brilliant graduates and experienced engineers having the appropriate knowhow on the on latest technology changes and development in the steel building materials industry.

The product range is developed and updated according to the relevant standards of fabrication across markets, whilst the business processes are evaluated to achieve maximum efficiency.

SFSP R&D Core Objectives

- Carry out responsibilities effectively in a safe and healthy work environment.
- Develop and implement research programs relevant to the products and solutions introduced and ensure that the results are communicated clearly in-house and among the clients , concisely and accurately.

DESIGN AND ENGINEERING OFFICE - GERMANY



Unitech Deutschland GmbH is the design office of Unitech for Building and Construction Materials and is situated in Stuttgart, Germany.

Proof for Steel Cable Tray or Cable Trunking			
(CIN 15.030 for Steel)			
Page 1			
allowed Types of side heights: RFI, RPD, CTI and CTD: YES STR: NO			
Load on C-Tray / Trunking			
calculated as an continuous beam $\ell = 1.2 \text{ m}$			
Distance of Supports Load on Cable Tray			
Cable Tray Sec 5:			
*** Center Load only possible for $wf \leq 300 \text{ mm}$!!			
SN	Mechanical Properties	Equations	Figures unit
1	Type of materials used	$DIN 50102$	S 235 JR02
2	Allow. 0.2 Yield Stress up to 50°C	$F_{0.2} = F_{0.2} / 1.5$	21.82 N/mm ²
3	Allow. Shear Stress		12.60 N/mm ²
4	Allow. Deflection	$\delta / 200 =$	6.00 mm
5	Modulus of Elasticity		21 000 N/mm ²
Applied Loads			
1	Distance of Supports	$D =$	120.00 cm
2	Self Weight Cable	$W_{c} =$	1.74 N/mm
3	Self Weight Cable Tray	$W_{tr} <$	0.02 N/mm
4	Self Weight	$W_{tr} = W_{c} + W_{tr}$	1.76 N/mm
Design of Elements			
1	Cable Tray / Trunking		
1	Description	Equations	Figures unit
Structural Properties of Sec. 5			

SOCIAL RESPONSIBILITY

Being socially responsible is a part of who we are and how we do our business. We aim to provide useful products and services, to provide jobs and development opportunities for our communities, and to gain satisfaction through meaningful work.

We make a difference by acting on the values and principles of our societies and we inspire others to do so. At SFSP, we anticipate and reduce threats caused by environmental changes or natural disasters, and we are well adapted to significant social changes.

We contribute to a more sustainable society by means of value and support to our consumers, supply chains, and stakeholders. We are keen to identify ways they can improve our impacts on the people and places we work and live in, and thereby become more valuable and valued members of society.

- Organizational governance: We promote accountability and transparency at all levels, thus, promoting responsibility
- Human care: We treat individuals with respect; and make efforts to help members of vulnerable groups
- Labor practices: We provide just, safe and favorable conditions to workers
- Environment: At SFSP, we identify and improve environmental impacts of our operations, including the resource use of natural resources and waste disposal.



- Fair operating practices: Practicing accountability and fairness in dealings with other businesses

At SFSP, we are committed to continuous improvement ongoing learning, process review and innovative thinking that foster new initiatives; and better practices. Our environmental programs evolve to meet today's changing needs while; protecting resources for future generations.

HEALTH AND SAFETY

The Factory Management regard the health and safety of the employees, clients and all others that may be affected by their operations to be of a major importance.

In support of this, the management promotes health and safety throughout the Factory's operations and endeavour to engender a positive attitude in all employees towards the prevention of accidents and maintenance of healthy working arrangements.

The Factory satisfies the requirements of the Health, Safety and related legislation by setting out the responsibilities of all levels of staff and the arrangements for carrying out those responsibilities and in particular do what is reasonably practicable to:

1. Maintains safe & healthy working conditions.

2. Ensures that all facilities and equipment are safe and properly maintained.
3. Provides products that can be applied and used safely and without risk to health.
4. Provides and maintain working procedures, that are safe and without risk to health, throughout the its operations in respect of:
 - The use, handling, storage, transports and disposal of materials and substances.
 - The use of factory equipment.
 - Potential emergency situations, including first aid, fire and escape of substances.
5. Ensure the competence of employees.

The factory is an OHSAS 18001:2007 Occupational, Health and Safety Management certified Factory.



ENVIRONMENTAL AWARENESS

SFSP is committed to the following:

- Compliance with all statutory and regulatory requirements related to its activities, products and services and the environmental aspects.
- Identifying quality and environmental objectives by review and audit of the processes both in-house and on-site.
- Formally setting objectives based on the results of the process reviews and their significance in relation to their impact on the environment and the continual improvement of the quality and environmental management system.
- Implementing management programs to achieve these objectives.
- Investing in a well-trained and motivated workforce.
- Working closely with suppliers and customers to ensure mutual understanding and benefits of the environmental aspects consideration.
- Reviewing our policy and objectives as part of the Management Review Process.
- Communicating this policy to all persons working for or on behalf of the organization.
- Preventing and minimizing Pollution to the environment.



SFSP operates under environmental management system certification BS EN ISO 14001:2004 and maintain it through registration and annual review.



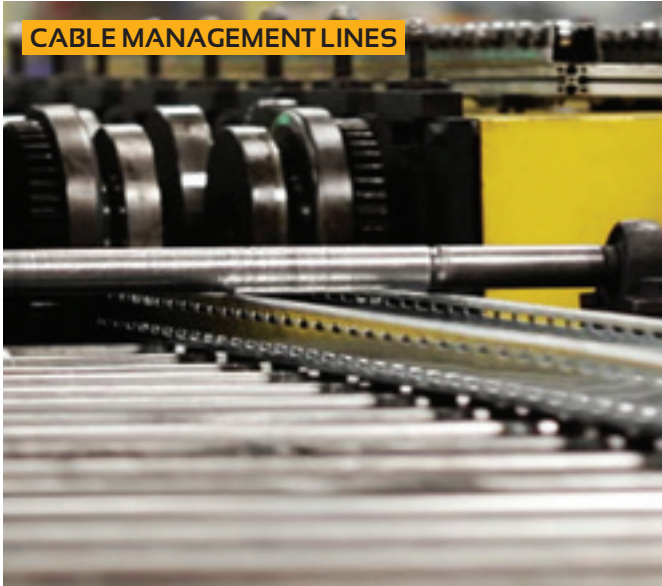
SFSP facilities are equipped with the most technologically advanced machinery amongst are Laser Cut Machines, Robot Bending Sets, Welding Robot Sets, sophisticated Cable Management Production Lines, as well as Specialized Industrial Sections for its Hot Dip Galvanization facilities.



SFSP MACHINES

SFSP latest machineries ensure a top - notch high end products delivered with accuracy and within a timely manner.

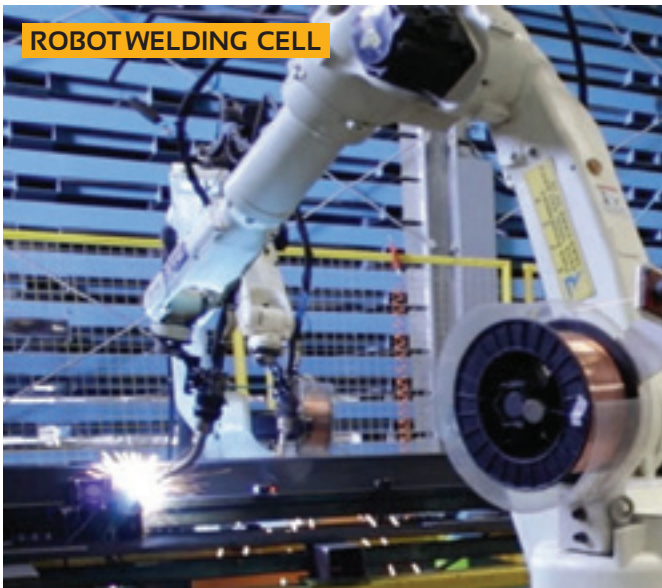
CABLE MANAGEMENT LINES



ROBOT BENDING CELL



ROBOT WELDING CELL



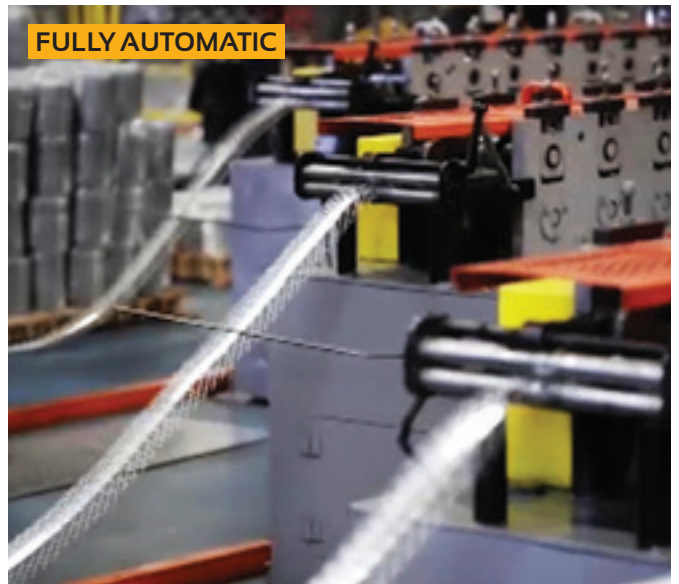
LASER CUTTING MACHINE



CUSTOM BENDING



FULLY AUTOMATIC



SFSP MACHINES

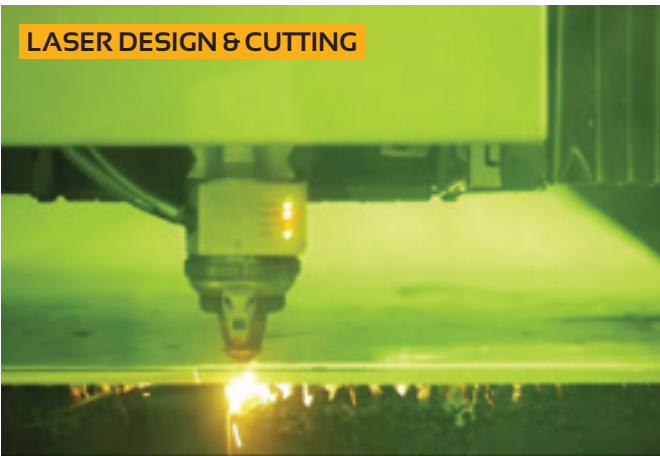
HIGH CAPACITY LIVES



HOT-DIP GALVANIZATION



LASER DESIGN & CUTTING



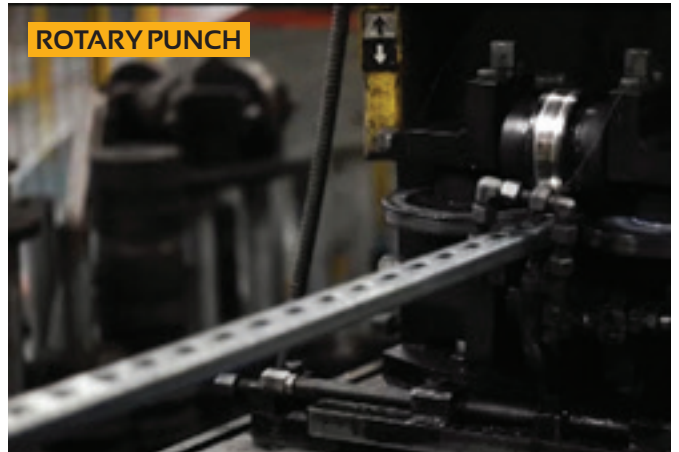
ROBOT WELDING



ROBOT BENDING



ROTARY PUNCH



WELDED WIRE MESH

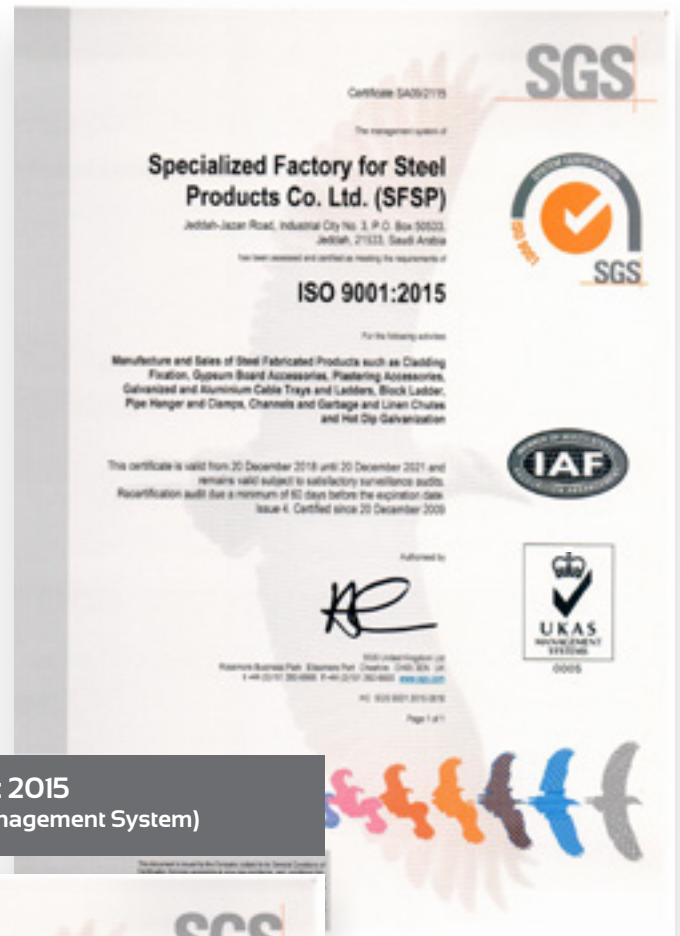


SFSP CERTIFICATIONS

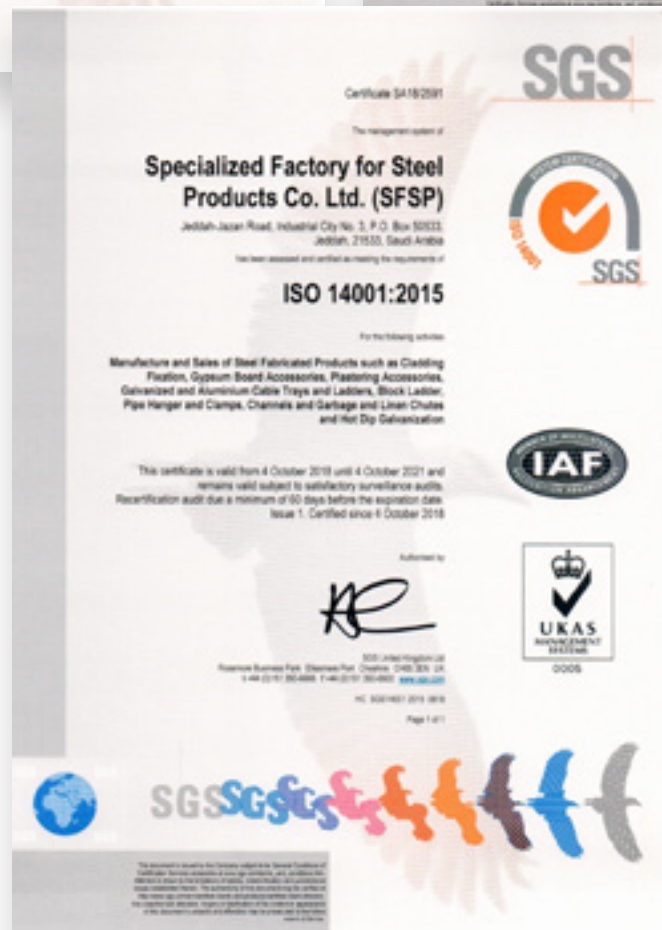
ISO 45001: 2018 (Occupational Health & Safety)



ISO 9001: 2015 (Quality Management Systems)



14001: 2015 (Environmental Management System)



SFSP CERTIFICATIONS

STD 096 (Q-Mark Certificate)



CERTIFICATE OF REGISTRATION

This is to certify that

Sigma Factory for Steel Products
P.O. Box 37991
Dubai Industrial City
Dubai
United Arab Emirates

Meets the requirements of the Exova BM TRADA Q-Mark International Fire Door Manufacture scheme to **STD 096 - Issue 3 - 01/12/2015** which only operates in Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia and The United Arab Emirates for the products on the attached schedule

Karen Prendergast

Karen Prendergast
Sector Director - Certification
Exova BM TRADA

Certificate Number
476
Date of Initial Certification
16 June 2014
Date of last Issue
13 October 2017
Date of Expiry
15 June 2020

Exova (UK) Ltd, (T/A Exova BM TRADA), Chiltern House, Stocking Lane, High Wycombe, Buckinghamshire, HP14 4SD, UK
Registered Office: Exova (UK) Ltd, Lichfield Industrial Estate, Newbridge, Walsingham DN28 9PL, United Kingdom, Reg No. SC029429
This certificate remains the property of Exova (UK) Ltd. This certificate and all copies or reproductions of the certificate shall be returned to Exova (UK) Ltd or destroyed if requested. Further certification regarding the scope of this certificate and verification of the certificate is available through Exova BM TRADA or at the above address or at www.exovabmtrada.com
The use of the UKAS accreditation mark indicates accreditation in respect of those activities covered by the accreditation certification 012
Multiple clients - The scope of certification shown above includes the participating sites shown on the registration schedule
Page 1 of 2

ISO 14001: 2015 (Environmental Management System)



CERTIFICATE OF REGISTRATION

This is to certify that

Sigma Factory for Steel Products
P.O. Box 37991
Saifi Suhailb - 3, 4 Round About
Dubai Industrial City
Dubai
United Arab Emirates

has been audited and found to meet the requirements of standard
ISO 14001:2015 Environmental Management System

Scope of certification
Trading and Manufacturing of all kinds of Steel related Construction Materials



Karen Prendergast

Karen Prendergast
Sector Director - Certification
Exova BM TRADA

Certificate number: 2524
Issue number: 2018-02
Certificate start date: 22 September 2018
Certificate expiry date: 21 September 2021
Date of Initial certification: 22 September 2015

Exova (UK) Ltd, (T/A Exova BM TRADA), Chiltern House, Stocking Lane, High Wycombe, Buckinghamshire, HP14 4SD, UK
Registered Office: Exova (UK) Ltd, Lichfield Industrial Estate, Newbridge, Walsingham DN28 9PL, United Kingdom, Reg No. SC029429
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The use of the UKAS accreditation mark indicates accreditation in respect of those activities covered by the accreditation certification 012

OHSAS 18001: 2018 (Health & Safety Management System)



CERTIFICATE OF REGISTRATION

This is to certify that

Sigma Factory for Steel Products
P.O. Box 37991
Saifi Suhailb - 3, 4 Round About
Dubai Industrial City
Dubai
United Arab Emirates

has been audited and found to meet the requirements of standard
OHSAS 18001:2007 Health & Safety Management System

Scope of certification
Trading and Manufacturing of all kinds of Steel related Construction Materials

Karen Prendergast

Karen Prendergast
Sector Director - Certification
Exova BM TRADA

Certificate number: 1006
Issue number: 2018-01
Certificate start date: 22 September 2018
Certificate expiry date: 11 March 2021
Date of Initial certification: 22 September 2015

Exova (UK) Ltd, (T/A Exova BM TRADA), Chiltern House, Stocking Lane, High Wycombe, Buckinghamshire, HP14 4SD, UK
Registered Office: Exova (UK) Ltd, Lichfield Industrial Estate, Newbridge, Walsingham DN28 9PL, United Kingdom, Reg No. SC029429
This certificate remains the property of Exova (UK) Ltd. This certificate and all copies or reproductions of the certificate shall be returned to Exova (UK) Ltd or destroyed if requested. Further certification regarding the scope of this certificate and verification of the certificate is available through Exova BM TRADA or at the above address or at www.exovabmtrada.com
The use of the UKAS accreditation mark indicates accreditation in respect of those activities covered by the accreditation certification 012

ISO 9001: 2015 (Quality Management System)



CERTIFICATE OF REGISTRATION

This is to certify that

Sigma Factory for Steel Products
P.O. Box 37991
Saifi Suhailb - 3, 4 Round About
Dubai Industrial City
Dubai
United Arab Emirates

has been audited and found to meet the requirements of standard
ISO 9001:2015 Quality Management System

Scope of certification
Trading and Manufacturing of all kinds of Steel Related Construction Materials



Karen Prendergast

Karen Prendergast
Sector Director - Certification
Exova BM TRADA

Certificate number: 5965
Issue number: 2018-02
Certificate start date: 22 February 2018
Certificate expiry date: 22 February 2021
Date of Initial certification: 23 February 2015

Exova (UK) Ltd, (T/A Exova BM TRADA), Chiltern House, Stocking Lane, High Wycombe, Buckinghamshire, HP14 4SD, UK
Registered Office: Exova (UK) Ltd, Lichfield Industrial Estate, Newbridge, Walsingham DN28 9PL, United Kingdom, Reg No. SC029429
This certificate remains the property of Exova (UK) Ltd. This certificate and all copies or reproductions of the certificate shall be returned to Exova (UK) Ltd or destroyed if requested. Further certification regarding the scope of this certificate and verification of the certificate is available through Exova BM TRADA or at the above address or at www.exovabmtrada.com
The use of the UKAS accreditation mark indicates accreditation in respect of those activities covered by the accreditation certification 012

BS EN 61537:2007
(KEMA - KEUR Certified For Cable Management Products)

CERTIFICATE

Issued to:
Applicant:
Isam Kabbani Trading Est. (Unitech)
Rashidiya
Dubai, United Arab Emirates

Manufacturer/Licensee:
Sigma Factory for Steel Products (SFSP)
Saii Shuaib 3, 4R/A, Dubai Industrial City,
Dubai, United Arab Emirates

Product : Cable management system
Trade name : SFSP
Types : IE-CT-X-10, IE-CT-X-12, IE-CT-X-15, IE-CT-X-20

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard IEC 61537:2006 and EN 61537:2007
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2156954

DEKRA hereby grants the right to use the KEMA-KEUR certification mark.

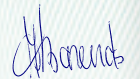
The KEMA-KEUR certification mark may be applied to the product as specified in this certificate for the duration of the KEMA-KEUR certification agreement and under the conditions of the KEMA-KEUR BS certification agreement.

This certificate is issued on: 20 January, 2014 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 2156954.01

DEKRA Certification B.V.


drs. G.J. Zoetbrood
Managing Director


H.R.M. Barends
Certification Manager

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ACCREDITED BY THE
DUTCH ACCREDITATION
COUNCIL



DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185,
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Registered

BS EN 61537:2007
(KEMA - KEUR BS Certified For Cable Management Products)

CERTIFICATE

Issued to:
Applicant:
Isam Kabbani Trading Est. (Unitech)
Rashidiya
Dubai, United Arab Emirates

Manufacturer/Licensee:
Sigma Factory for Steel Products (SFSP)
Saii Shuaib 3, 4R/A, Dubai Industrial City,
Dubai, United Arab Emirates

Product : Cable management system
Trade name : SFSP
Types : IE-CT-X-10, IE-CT-X-12, IE-CT-X-15, IE-CT-X-20

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard BS EN 61537:2007 based on IEC 61537:2006
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2156954

DEKRA hereby grants the right to use the KEMA-KEUR BS certification mark.

The KEMA-KEUR BS certification mark may be applied to the product as specified in this certificate for the duration of the KEMA-KEUR BS certification agreement and under the conditions of the KEMA-KEUR BS certification agreement.

This certificate is issued on: 3 February, 2014 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 2156954.02

DEKRA Certification B.V.


drs. G.J. Zoetbrood
Managing Director


H.R.M. Barends
Certification Manager

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ACCREDITED BY THE
DUTCH ACCREDITATION
COUNCIL



DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Registered Arnhem 09085396

UL Certification* (Cable Trays)

CERTIFICATE OF COMPLIANCE

Certificate Number 20160816-E483358
Report Reference E483358-20160816
Issue Date 2016-AUGUST-16

Issued to: Sigma Factory for Steel Products
Saii Shuaib 3, 4 R/A Dubai Industrial City
Opposite DEWA Substation
Dubai UNITED ARAB EMIRATES

This is to certify that representative samples of CABLE TRAYS
Steel Channel Cable Tray, Ventilated, Heavy Duty (HCT),
Very Heavy Duty (VCT) cable trays.

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: ANSI/NFPA 70, "National Electrical Code"
Additional Information: See the ULC Online Certifications Directory at <http://www.ul.com/certifications> for additional information

Only those products bearing the ULC Listing Mark should be considered as being covered by UL's Certification and Follow-Up Service.

The ULC Listing Mark generally includes the following elements: the word "LISTED"; a control number (may be alphanumeric); a category name (product identifier) as indicated in the appropriate UL Standard.

To confirm the status, validate the above information via the online ULC Listing Mark database at <http://www.ul.com/certifications>.
Look for the ULC Listing Mark on the product.

John Henry
John Henry, President/Manager, Office of Sales - Canada
UL Solutions/UL Laboratories of Canada Inc.

Any information and documentation involving ULC Mark services are provided on behalf of UL Solutions/UL Laboratories of Canada Inc. For questions, please contact a local ULC Customer Service Representative at <http://www.ul.com/certifications>.

Page 1 of 1

UL Certification* (Chute Type Fire Doors)

CERTIFICATE OF COMPLIANCE

Certificate Number 20170811-R38825
Report Reference R38825-20170811
Issue Date 2017-AUGUST-11

Issued to: Sigma Factory for Steel Products
Saii Shuaib 3, 4 R/A Dubai Industrial City
Opposite DEWA Substation
Dubai UNITED ARAB EMIRATES

This is to certify that representative samples of CHUTE-TYPE FIRE DOORS
Chute-type fire door and frame assembly of the insulated type, rated up to and including 2 hr, 450°F Temperature Rise Rating.

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

Standard(s) for Safety: ANSI/UL 10B, Fire Tests of Door Assemblies
Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz
Bruce Mahrenholz, Director North American Certification Program
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://www.ul.com/about/certifications>.



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SFSP PRODUCTS

SFSP produces a variety of products ranging from cable management systems; cable trays, cable ladders, basket trays, trunkings and support systems, to mechanical cladding fixations, steel lintels and block work accessories, plasterers' beads, expanded metal and block work reinforcement, strut channel systems, pipe clamps & hangers, gypsum profiles as well as garbage and linen chutes. With the introduction of new machines and the enhancement of production methods, SFSP continues to develop its production methods systematically as well as thoroughly. Its design office in Stuttgart, Germany provides a comprehensive design and calculation case studies, enabling the factory to have the safety factors required for the usage of its products.

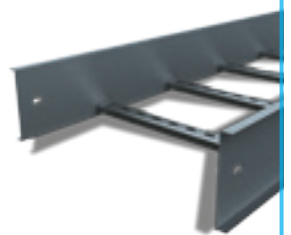
Cable Trays & Accessories

Cable Trays are designed to meet most requirements of cable and electrical wire installations and comply to local and international standards of fabrications and finishes.



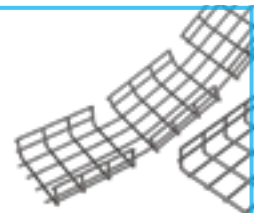
Cable Ladders (Welded & Swaged)

Cable Ladders of different side heights are available upon request.



Basket Trays & Accessories

SFSP's Basket Tray systems make connections fast and simple with limited need for tools. Its design allows for continuous airflow, and prevents heating up of cables. SFSP's Basket Tray comes in a full range of sizes and is made with high-strength welded steel wires.



Cable Trunkings

Cable Trunkings and Accessories are offered in a comprehensive range. Mill galvanized, hot-dip galvanized, and powder coated are the various finishes produced in our factories.



Underfloor Trunking

Underfloor Trunking Systems solutions incorporate a range of products for the distribution of power and data services, it is a coordinated set of containments that protect, segregate, contain, and route cables within a given environment.



Cable Management Support Systems

Cable Support Systems are well designed to provide necessary support for cable trays, cable ladders and trunkings. Cable supports are manufactured according to common standards from high quality raw materials.



C-Channel Strut Systems

SFSP's Metal Framing Systems provide an economical solution for electrical, mechanical and industrial supports with a wide variety of applications in the construction industry.

Applications: - Pipe and Conduit Supports - Tunnel Pipe Stanchions - Racks and Shelvings - Wall Framings.



Expanded Metals, Plasterers' Beads

Expanded Metals help the formation of joints, protection of corners and resistance against cracks, chips and impact damage.

Block Ladder Reinforcement

SFSP ladder and truss types are used for the reinforcement of brick and block masonry to give improved tensile strength to walls subjected to lateral loading e.g. wind and seismic. SFSP block reinforcements reduces the risk of cracking either at stress concentration around opening.

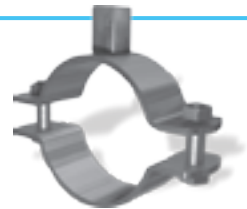
Steel Lintels & Block Work Accessories

Steel Lintels provide a combination of strength and light weight, resulting in efficient load bearing performance and increased productivity on site. They are characterized by their ease of installation in addition to time as well as money saving.



Pipe Clamps & Hangers

Pipe Clamps and Hangers from SFSP used in the support of pipes and equipments are manufactured according to the highest standards of fabrication. A diversified choice of Pipe Hangers, Pipe Clamps, EMT Straps, Omega Clamps, Beam Clamps, J and U-Bolts and Threaded Accessories.



Marble & Granite Fixings

Stangle Cladding Fixation includes design, calculation and production of several types of mechanical fixings and accessories used for cladding purposes. Stainless and galvanized steel are among the various materials used in the fabrication.



Dry Wall & Ceiling Profiles

SFSP provides a complete product range for dry wall and ceiling constructions. Studs, Runners, Furring Channels, Ceiling Channels and Wall Angles are among the range of products produced to service the dry wall installers.



Garbage & Linen Chutes

Chutes from SFSP are very convenient, simple and low cost method of controlling and disposing of refuse and linen. Chutes meet the most stringent requirements of environmental health and safety. Chutes are used as original equipment in new buildings, such as : Hotels, Hospitals, High Rises and Residential Towers.





SFSP Products are solely distributed by UNITECH for Building and Construction Materials

All Products Manufactured by SFSP are Solely Distributed by SFSP Sister Companies in the Following Countries

KSA

Isam Kabbani & Partners for Building and Construction Materials Co., Ltd.

شركة عصام قباني وشركاه لمواد الإنشاء والتعمير المحدودة

BAHRAIN

Isam Kabbani Trading Est.

مؤسسة عصام قباني التجارية

UAE

Issam Kabbani Trading Est.

مؤسسة عصام قباني للتجارة

KUWAIT

Hassan Kabbani for General Contracting Est.

مؤسسة حسان قباني للمقاولات العامة للمباني

OMAN

Isam Kabbani & Partners Trading Co.

شركة عصام قباني وشركاه للتجارة

EGYPT

UNITECH Egypt for Building Materials

شركة يونيتك مصر لمواد البناء

JORDAN

Jordan Build Co. for Building & Construction Materials

شركة بناء الأردن لمواد الإنشاء والتعمير والكهرباء

LEBANON

UNITECH ME s.a.r.l

شركة يونيتك ميدل إيست ش.م.م

SFSP CUSTOMER SERVICE CALL CENTER

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IKK Group of Companies

The IKK Group is a major business institution, serving most of the Arab World in the industrial, construction and trading fields, as well as in specialized maintenance and services.

Today, the IKK Group of Companies is a pioneer in waterproofing, weatherproofing, building material supplies, UPVC and CPVC and high density polyethylene pipes and fittings and several other products for the construction industry.

The Group is also represented in the sanitary products, steel production, kitchen manufacturing, telecommunications, food, decoration, re-insurance and real estate business domain.

Composed of 60 companies, the IKK Group operates through almost 200 divisions, branches and outlets; it is spread over 12 countries, covering all major cities in the region and employing around 13,000 employees.

Our vision is to maintain and improve our leading position as a contractor whose reputation is built on the ability to completely satisfy customers by providing high quality services. As specialists in their respective fields, our teams of professionals are dedicated to a standard of excellence for quality and performance, through continuous development, which will set standards in our industry.
We are simply providing solutions for a future of success.

Our mission is to provide our part of the Arab World with local and reliable services in a variety of sectors and products.

To create employment to thousands of personnel and in-house training for hundreds of young Arab graduates in crucial sectors to the benefit of the IKK Group, the graduates themselves and their own communities.

To set a good example of our basic business philosophy: "Hire well, train well, pay well and treat well."

UNITECH ISAM KABBANI & PARTNERS FOR BUILDING & CONSTRUCTION MATERIALS

Isam Kabbani & Partners for buildings & construction materials co. Ltd (UNITECH) which is part of the IKK group of companies is recognized and acknowledged for the quality and reliability of its products and services as well as for the commitment, professionalism and experience of its employees.

Isam Kabbani & partners for buildings & construction materials co. Ltd (UNITECH) core values are to offer value products and services to its clients, to work closely with them in a lasting business partnership that provides an outstanding performance.

A partnership based on trust, harmony, and a hard to beat services and solutions.

Our Factories have acquired, in addition to ISO 9001:2008 Quality Management System, the ISO 14001:2004 Environmental Management System.

Our care for the environment has been translated via Isam Kabbani & partners for buildings & construction materials co. Ltd (UNITECH)'s membership in the US Green Building Council as a Golden Member.

PLASTER BEADS

SFSP manufactures Plaster Beads in accordance with:

- BS EN 13658-1:2005 For Internal Plastering
- BS EN 13658-2:2005 For External Rendering

Relevant Standards

- BS EN 13914-1:2016 For External Rendering
- BS EN 13914-2:2016 For Internal Rendering
- BS 6452:Part 1:1984
- BS 5262:1991
- BS 8212:1995

Finishing

- Galvanized Steel according to BS EN 10346:2015
- Stainless Steel according to BS EN 10088-2:2014

• For interior applications:

Galvanized Steel according to BS EN 10327 superseded by BS EN 10346:2009, zinc coated on both sides.

• For exterior applications and humid environment:

Austenitic stainless steel according to BS EN 10088- Mat.No.1.4301

TECHNICAL SPECIFICATIONS

METAL BEADS

Relevant Standards:

- BS EN 13914- 2 : 2005 Design , Preparation and Application of External Rendering and Internal Plastering
- BS EN 13658-1 : 2005 Metal Lath and Beads Definitions , Requirements and Test Methods , Internal Plastering Supersedes BS 1369-1 :1987 and BS 6452-1 : 1984
- BS EN 13658 2 : 2005 Metal Lath and Beads Definitions , Requirements and Test Methods , External Plastering Supersedes BS 1369-2 :1987 and BS 6452-2 : 1984
- ASTM C841 Standard Specification for Installation of Interior Lathing and Furring
- ASTM C847 - Standard Specification for Metal Lath
- ASTM C1063 Standard Specification for Installation of Lathing and Furring for Portland Cement Based Plaster
- International Building Code , (IBC) Chapter 25
- International Residential Code , (IRC) Chapter 7

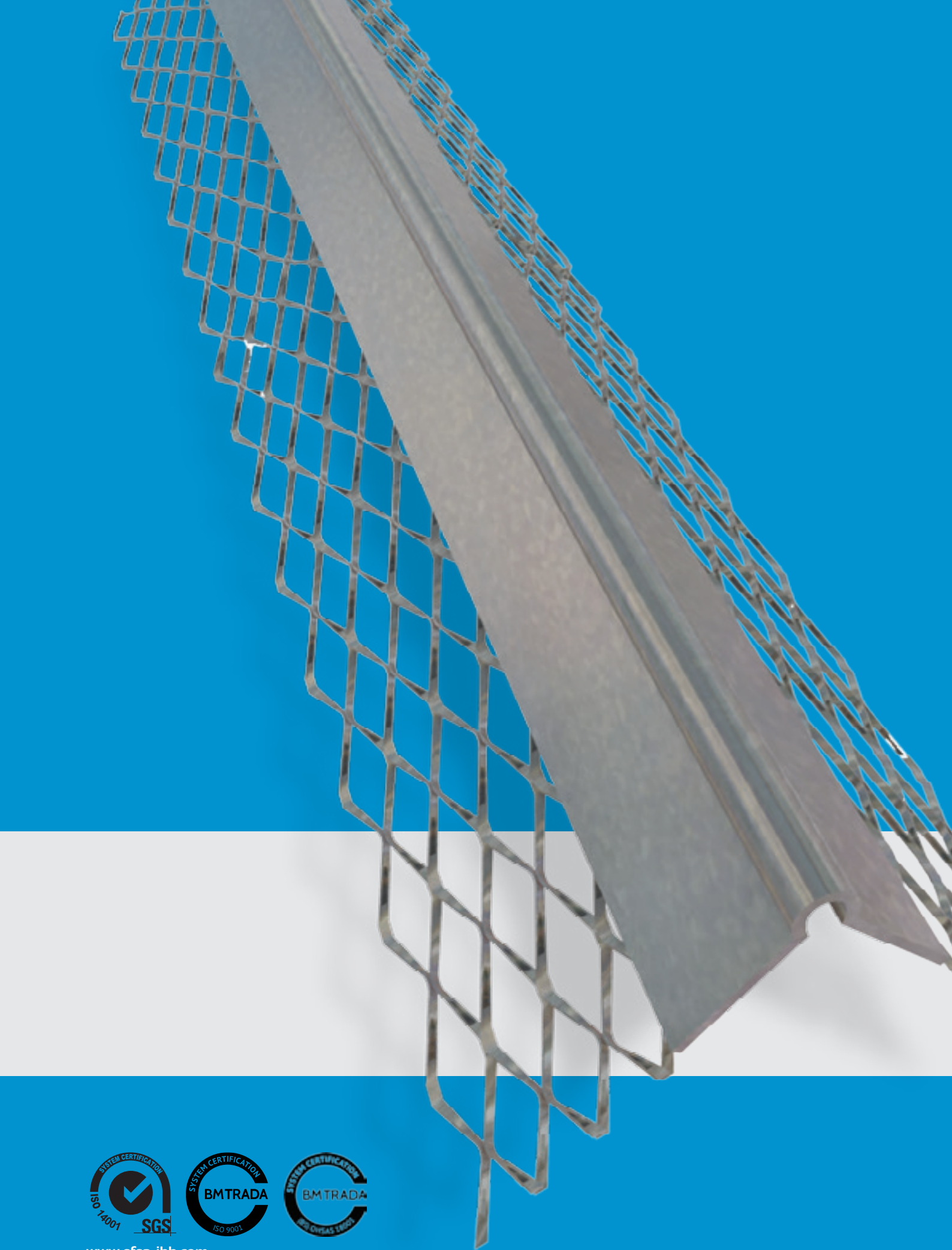
GALVANIZED STEEL:

- BS EN 10346:2009 (formerly BS EN 10142: 1991) ASTM A 653/A 653M

STAINLESS STEEL:

- BS EN 10088-2:2005 (which was directly equivalent to formerly BS 1449:Part 2:1983
- ASTM A240/A240M



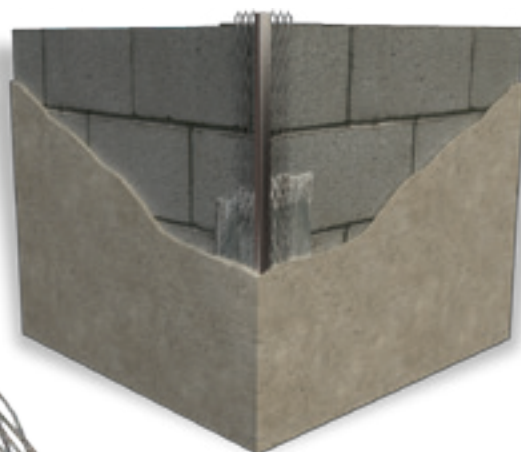
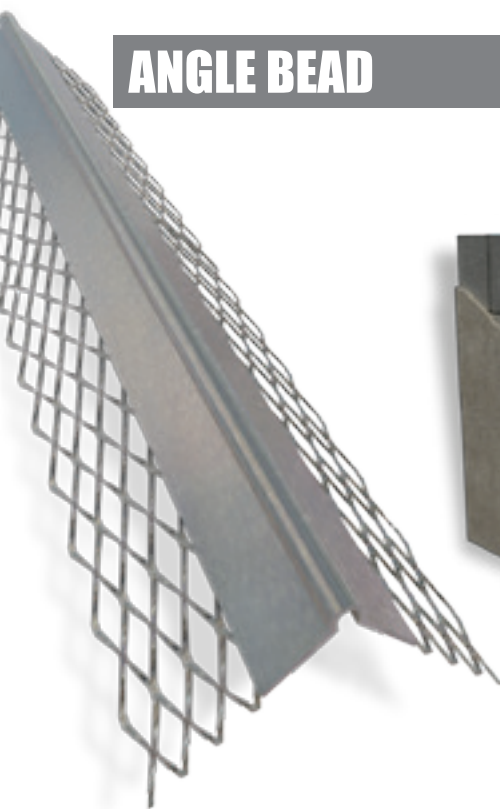


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PLASTER BEADS

ANGLE BEAD



Angle beads provide with its solid metal nose a straight corner. Expanded diamond mesh wings allow for keying the plaster right up to the nose of the bead. It is designed to protect the corners.

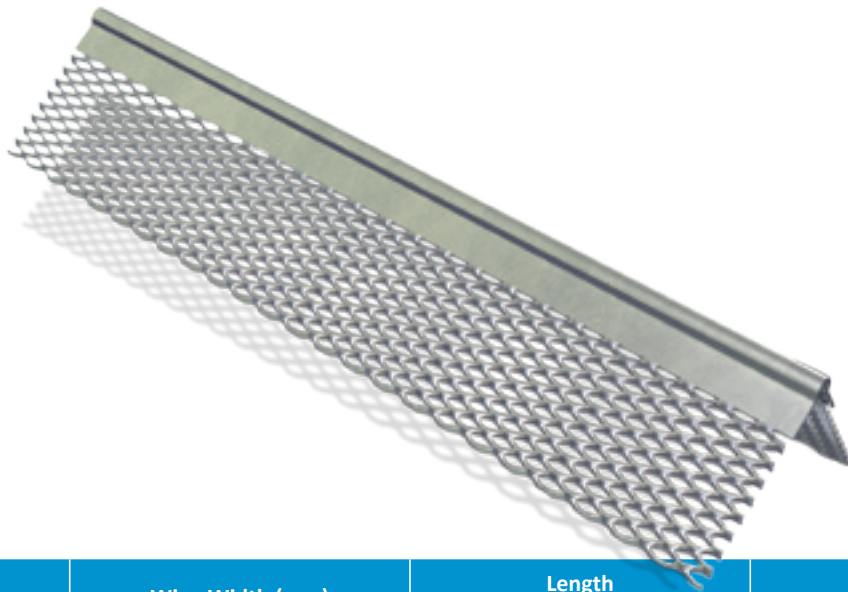
The flanges can be easily fixed over irregular, uneven surfaces. Guarantees a perfect bond and provides better effective reinforcement at corners where it is mostly needed.

Angle bead is recommended for a greater corner protection and a precise straight line. Available in galvanized finish for internal use, and in stainless steel for external use.

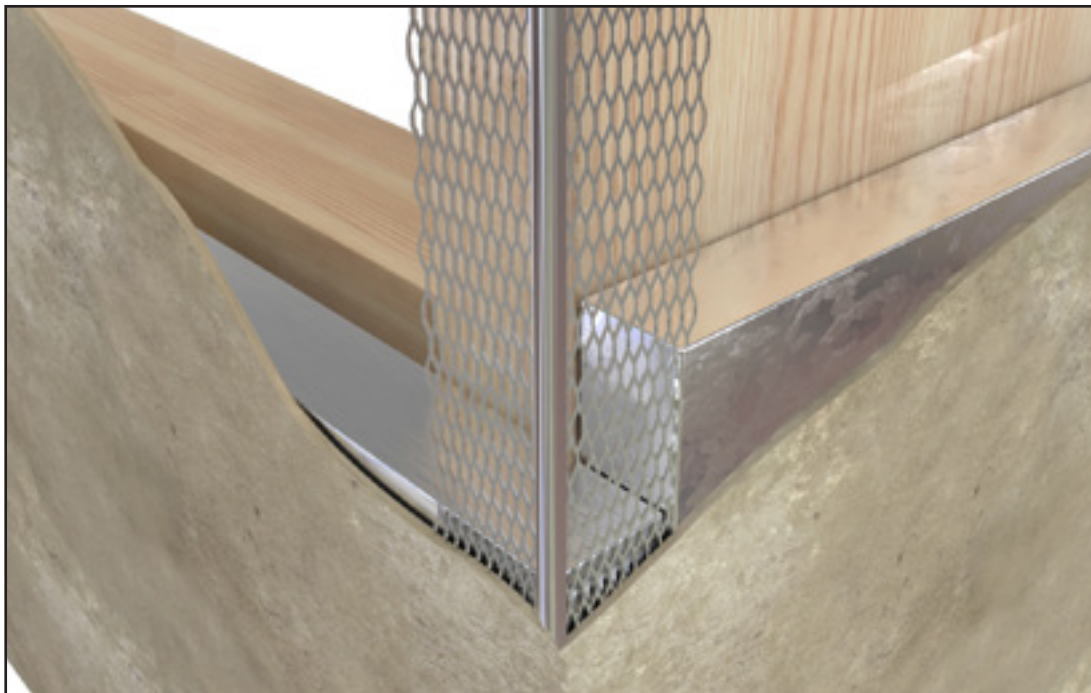
Item Number	Length of wings (mm)	Plaster Depth (mm)	Length (mm)	Material
SMAB_F_00054403	50	12 - 19	2700	GI
SMAB_F_00054405	50	12 - 19	2850	GI
SMAB_F_00054411	50	12 - 19	3000	GI
SMAB_F_00054439	65	12 - 19	2700	GI
SMAB_F_00054451	65	12 - 19	2850	GI
SMAB_F_00054437	65	19	3000	GI
SMAB_F_00054463	70	19	2700	GI
SMAB_F_00054467	70	19	2850	GI
SMAB_F_00054459	70	19	3000	GI
SMAB_F_00220409	75	19	2700	GI
SMAB_F_00136231	75	19	2850	GI
SMAB_F_00054483	75	19	3000	GI
SMAB_F_00054523	50	12 - 19	2700	SS A4
SMAB_F_00054525	50	12 - 19	2850	SS A4
SMAB_F_00057795	50	12 - 19	3000	SS A4
SMAB_F_00076979	65	12 - 19	2700	SS A4
SMAB_F_00054525	65	12 - 19	2850	SS A4
SMAB_F_00054567	65	19	3000	SS A4
SMAB_F_00081501	70	19	2700	SS A4
SMAB_F_00054569	70	19	3000	SS A4
SMAB_F_00054573	75	19	3000	SS A4

MICRO ANGLE BEAD

Micro angle beads are designed for thin coat plaster and are used at corners for protection. Micro angle beads are popular thin coat beads with fine mesh wings. Fix either by galvanized nails or using plaster dabs.



Item Number	Wing Width (mm)	Length (mm)	Material
SMMC_F_00054489	40	2000	GI
SMMC_F_00054491	40	3000	GI
SSMMC_F_00054577	40	3000	SS A4



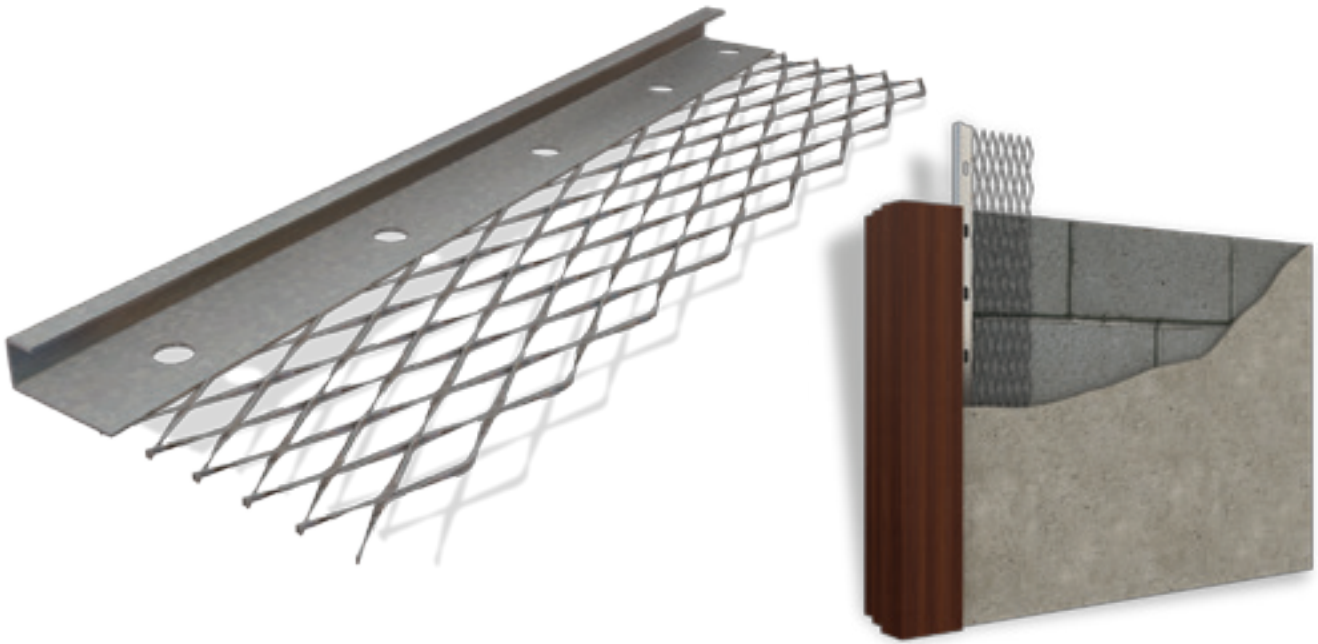
PLASTER STOP BEAD

Plaster stop bead provides a straight accurate line, it is used to reinforce the plaster or render on its edge. Plaster stop bead is designed as a universal plaster stop used at wall ends, door and window openings to make a neat, flush frame.

Plaster stop bead protects the edge from damage and helps corner shrinkage cracks. Plaster stop bead can be used for many different applications and can also be less expensive compared to other construction methods.

The beads are designed with a ridge of nail holes to provide easy installation.

Plaster stop beads can be used in all types of buildings and constructions and all types of cement plastering works Plaster stop beads help in improving the quality of the building with reference to the abutments of the wall surfaces to other dissimilar surfaces. Plaster stop beads are used between wall surfaces and abutment of doors and window frames and in places wherever the plaster ends.

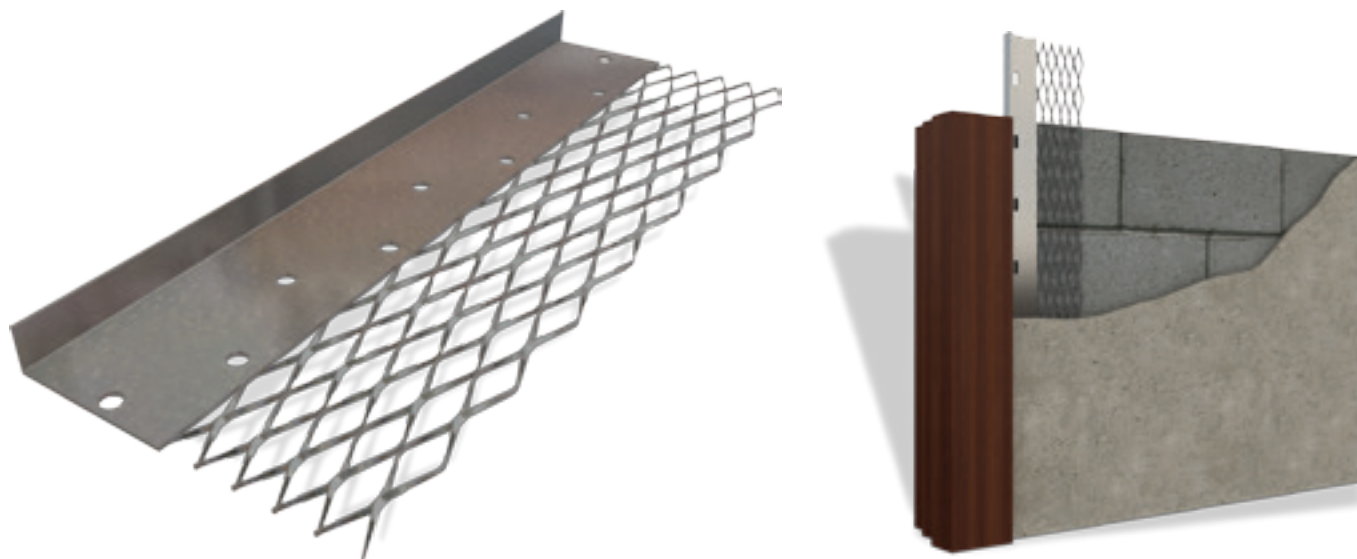


Item Number	Plaster Depth (mm)	Length (mm)	Material
SMPS_F_00182673	10	2850	GI
SMPS_F_00067475	10	3000	GI
SMPS_F_00056943	13	2700	GI
SMPS_F_00054495	13	3000	GI
SMPS_F_00074207	16	2700	GI
SMPS_F_00174499	16	3000	GI
SMPS_F_00179899	19	2850	GI
SMPS_F_00059997	19	3000	GI
SMPS_F_00101505	13	2700	SS A4
SMPS_F_00054579	13	3000	SS A4
SMPS_F_00160133	16	2850	SS A4
SMPS_F_00141547	16	3000	SS A4
SMPS_F_00065423	19	3000	SS A4

MICRO PLASTER STOP BEAD

Micro plaster stops are designed for thin coat edge protection at openings. They provide abutment of plastered areas of other wall finishes. Micro plaster stops provide efficient keying and excellent finishes.

Micro plaster stops make neat, flush frames for windows and other openings.



Item Number	Plaster Depth (mm)	Length (mm)	Material
SM-3850-C-GIPS032700	3	2700	GI
SM-3860-C-GIPS032850	3	2850	GI
SM-3870-C-GIPS032900	3	2900	GI
SM-3880-C-GIPS033000	3	3000	GI
SM-4050-C-GIPS062700	6	2700	GI
SM-4060-C-GIPS062850	6	2850	GI
SM-4070-C-GIPS062900	6	2900	GI
SM-4080-C-GIPS063000	6	3000	GI
SM-4450-C-SSPS032700	3	2700	SS A4
SM-4460-C-SSPS032850	3	2850	SS A4
SM-4470-C-SSPS032900	3	2900	SS A4
SM-4480-C-SSPS033000	3	3000	SS A4
SM-4750-C-SSPS062700	6	2700	SS A4
SM-4760-C-SSPS062850	6	2850	SS A4
SM-4770-C-SSPS062900	6	2900	SS A4
SM-4780-C-SSPS063000	6	3000	SS A4

CONTROL JOINT BEAD

Designed to minimize the plaster cracking and to allow movement in the plaster. Control Joint Bead overcomes movement tolerances in plaster Expansion / Control joints provide excellent expansion control for both walls and ceiling and offers positive locking of the stucco to the edge of the joint.

Control joint bead helps reducing stucco separation at the edge of the joint.

They provide for the basic expansion and contraction that can be expected in the stucco membrane, such as initial shrinkage during curing and minor thermal expansion and contraction.

Available in galvanized finish for internal use and in stainless steel for external use.

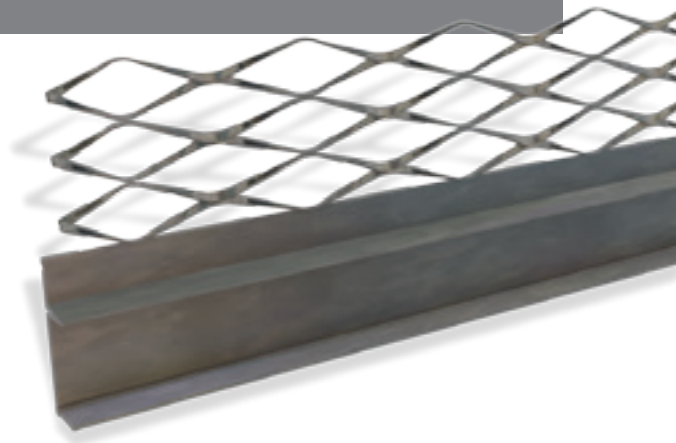


Item Number	Plaster Depth (mm)	Length (mm)	Material
SMAB_F_00098581	13	3000	GI
SMAB_F_00260665	16	3000	GI
SMAB_F_00098811	19	3000	GI
SMAB_F_00062559	13	3000	SS A4
SMAB_F_00260673	16	3000	SS A4
SMAB_F_00065455	19	3000	SS A4

ARCHITRAVE BEAD

Mainly used for decorative purposes to give a channel gap or a shadow between different walls finishes.

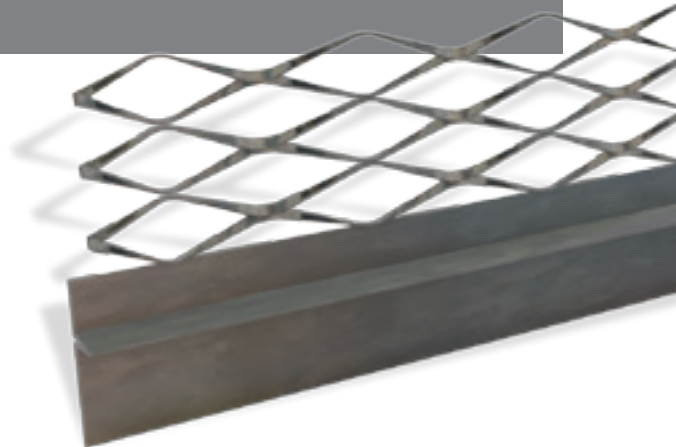
Item Number	Plaster Depth (mm)	Length (mm)	Material
SMAB_F_00223703	10	3000	GI
SMPS_F_00056943	13	3000	GI
SMPS_F_00074207	16	3000	GI
SMAB_F_00158719	19	3000	GI
SMAB_F_00223701	13	3000	SS A4
SSMPS_F_00101505	13	3000	SS A4
SSMPS_F_00059993	16	3000	SS A4
SMAB_F_00174501	19	3000	SS A4



ARCHITRAVE BEAD WITHOUT FLANGE

Mainly used for decorative purposes to give a shadow between different walls finishes.

Item Number	Plaster Depth (mm)	Length (mm)	Material
SMAB_F_00223703	10	3000	GI
SMPS_F_00056943	13	3000	GI
SMPS_F_00074207	16	3000	GI
SMAB_F_00158719	19	3000	GI
SMAB_F_00223701	13	3000	SS A4
SMAB_F_00061617	13	3000	SS A4
SSMPS_F_00059993	16	3000	SS A4
SMAB_F_00174501	19	3000	SS A4



MOVEMENT BEAD

Movement Beads are used to relieve the stress and strain in large plaster areas of wall and ceiling stucco areas and to allow for movement between adjoining surface finishes.

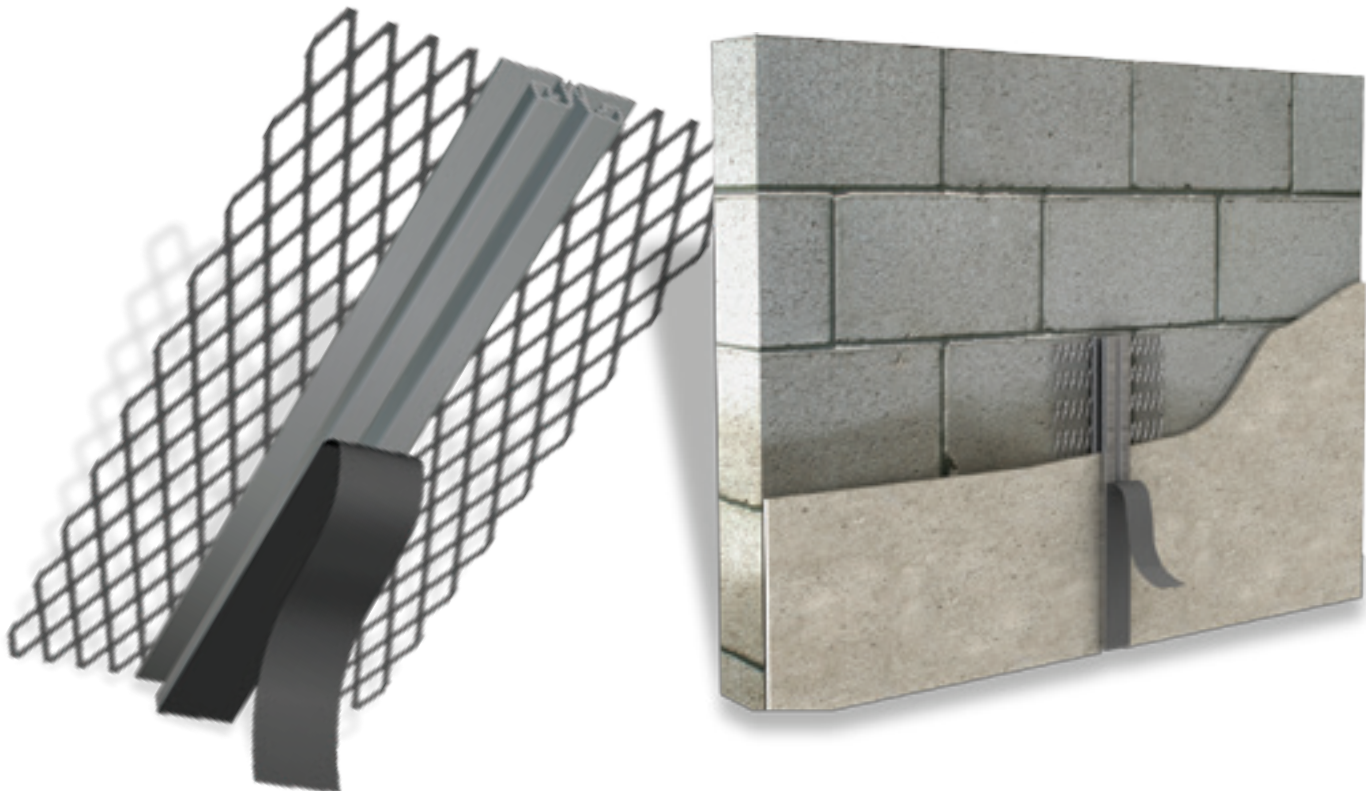
Movement Beads overcome movement tolerance in plaster and render finishes and minimize the cracking in plaster. Movement Beads act as stop barriers when a change in finish is required.

The purpose of the movement joint is to assure the proper plaster or stucco thickness also.

Movement Beads are used in all types of building construction wherever expansion joints are present, for all types and kinds of bricks and reinforced concrete.

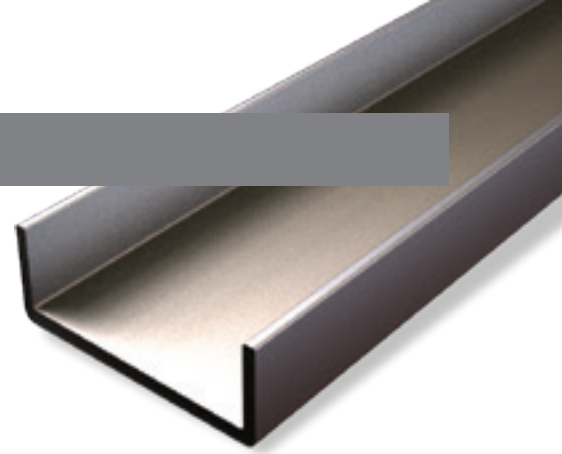
It helps in improving the quality of the building with respect to the openings that are invariably created because of the space provided for expansion.

Item Number	Plaster Depth (mm)	Length (mm)	Material
SMPS_F_00267609	10	3000	GI
SMPS_F_00267607	13	3000	GI
SMPS_F_00213239	16	3000	GI
SMPS_F_00207927	19	3000	GI
SMPS_F_00267613	10	3000	SS A4
SMPS_F_00267611	13	3000	SS A4
SMPS_F_00267615	16	3000	SS A4
SMPS_F_00098539	19	3000	SS A4



ALUMINUM CHANNEL

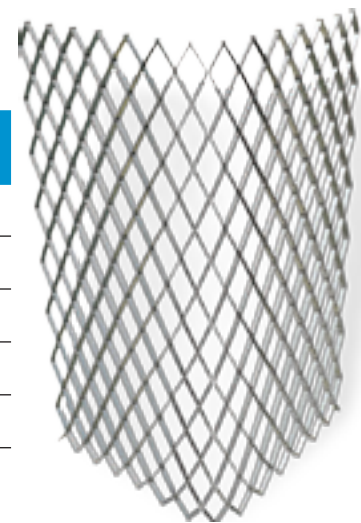
The Aluminum Channel is a versatile product, commonly used for groove making; a decorative purpose for plaster finishes.



Item Number	Size (mm)	Length (mm)	Thickness (mm)	Material
SCUC_F_00260675	8x8x8	6000	1.5	Aluminum
SSTFP_F_00142393	10x10x10	6000	1.5	Aluminum
SSTFP_F_00142411	10x20x10	6000	1.5	Aluminum
SSTFP_F_00142423	12.5x23x12.5	6000	1.5	Aluminum
SCUC_F_00260681	15x15x15	6000	1.5	Aluminum
SCUC_F_00260687	15x20x15	6000	1.5	Aluminum
SCUC_F_00260693	20x20x20	6000	1.5	Aluminum
SCUC_F_00260699	25x25x25	6000	1.5	Aluminum

CORNER MESH

Corner Mesh lathes are used to prevent cracking in the plaster of the corner, and by protecting the inner corner against various factors. Corner Mesh lathes helps the formation of proper plastering.



Item Number	Length of wings (mm)	Length (mm)	Material
SMCL_F_00058335	50	3000	GI
SMCL_F_00058513	75	3000	GI
SMCL_F_00058337	100	3000	GI
SMCL_F_00076903	50	3000	SS A4
SMCL_F_00091325	75	3000	SS A4
SMCL_F_00058339	100	3000	SS A4

STRIP MESH

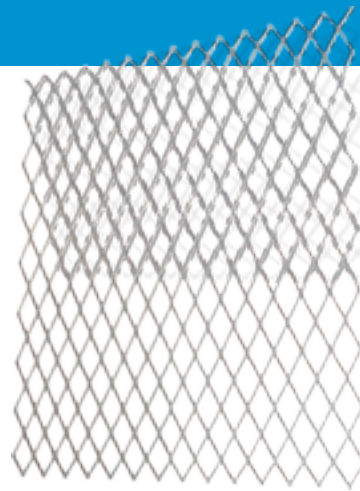
Strip Mesh Lathes are used along stress lines where cracking is likely. Strip mesh provides reinforcement to the plaster to prevent crack over joints of different materials.



Item Number	Strip Mesh Width (mm)	Length (mm)	Weight (kg/m ²)	Material
SMCL_F_00094049	152	2440	0.75	GI
SMCL_F_00083779	152	2440	0.80	GI
SMCL_F_00094047	102	2440	0.75	GI
SMCL_F_00083777	102	2440	0.80	GI
SMCL_F_00081503	102	2440	1.91	GI
SMCL_F_00101119	152	2500	1.92	GI
SMCL_F_00095555	152	3000	1.10	GI
SMCL_F_00057853	203	2440	0.79	GI
SMCL_F_00108855	203	2440	0.90	GI
SMCL_F_00065989	203	2440	1.10	GI
SMCL_F_00079613	203	2440	1.60	GI
SMCL_F_00056955	203	3000	1.10	GI

METAL SHEET LATH

Sheet lath is produced as a key for plaster when applied on suspended ceiling and walls. Sheet lath is used for encasing steel column and beams, assisting in the protection from fire. Sheet lath is used to reinforce plaster between dissimilar areas and at crack-prone areas adjacent to openings.



Item Number	Strip Mesh Width (mm)	Length (mm)	Weight (kg/m ²)	Material
SMCL_F_00083781	500	2440	0.75	GI
SMCL_F_00066147	610	2440	0.9	GI
SMCL_F_00064001	610	2440	1.22	GI
SMCL_F_00079611	610	2440	1.60	GI
SMCL_F_00094051	610	2440	1.85	GI
SMCL_F_00058517	610	2440	1.90	GI
SMCL_F_00057851	610	2440	2.84	GI
SMCL_F_00065985	150	2440	1.10	GI

COIL LATH

An easy to fix lath, provides a secure key for plaster and render applications as well as offering effective joint and crack reinforcement.



Item Number	Coil Lath Width (mm)	Length (mm)	Material
SMCL_F_00066105	102	5000	GI
SMCL_F_00055117	152	5000	GI
SMCL_F_00055119	203	5000	GI
SMCL_F_00055145	305	5000	GI
SMCL_F_00058045	102	5000	SS A4
SMCL_F_00058047	152	5000	SS A4
SMCL_F_00058049	203	5000	SS A4
SMCL_F_00058051	305	5000	SS A4

METAL RIB LATH

Rib lathes are expanded metal lathes stiffened with longitudinal ribs. The furring design of the mesh provides efficient background plaster for construction of partition, suspend ceiling and refurbishment works. Rib lath is ideal for refurbishing damaged or old masonry walls, when a key for rendering is not certain due to disintegration or softening of the wall face.

Installation:

Rib lath should be fixed with apexes of ribs against the wall, edge ribs of sheet nesting into each other should be wire-tied every 150mm and ends fixing should be used at sufficient intervals to hold the lath firmly in position.

Fixing of Rib lath sheets:

Rib lath is fixed so that the tip of the rib is placed against the supporting background. The rib of the sheet should run at right angles to any supports. Ensure that sheets are overlapped by a minimum of 50mm end to end and by 25mm width ways and that the ribs are nestled together.

Timber Support:

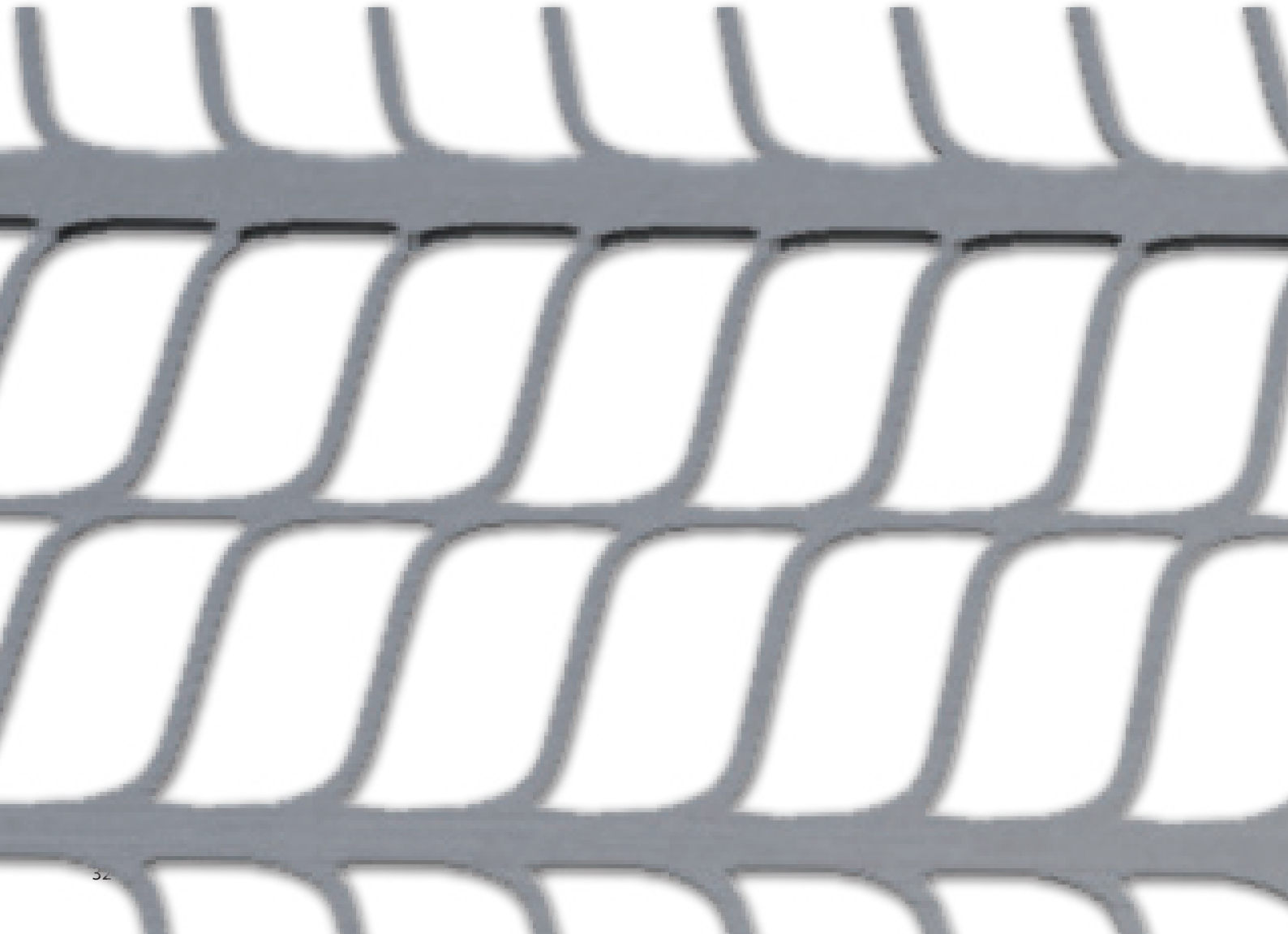
Rib lath is fixed at each rib to timber supports using Plaster nails or staples. Ensure that compatible corrosion resistant fixings are used, i.e. Do not use galvanized fixings for stainless steel.

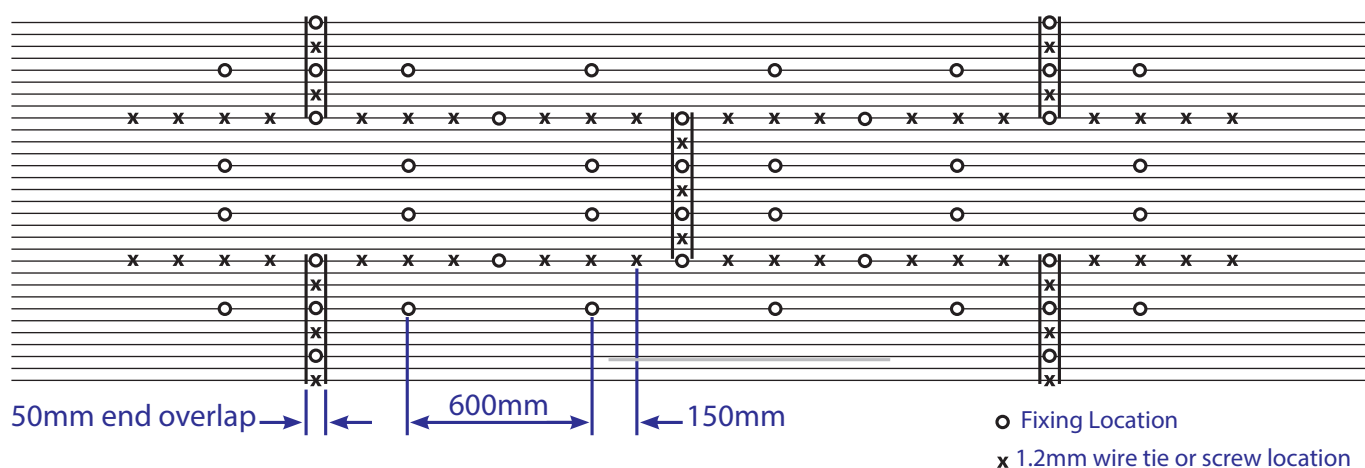
Metal support:

Rib lath is fixed at each rib to metal support using 1.63mm galvanized or stainless steel tying wire. When joining Rib lath sheets overlap the edge ribs and tie the edges with 1.22mm tying wire at 150mm centers.

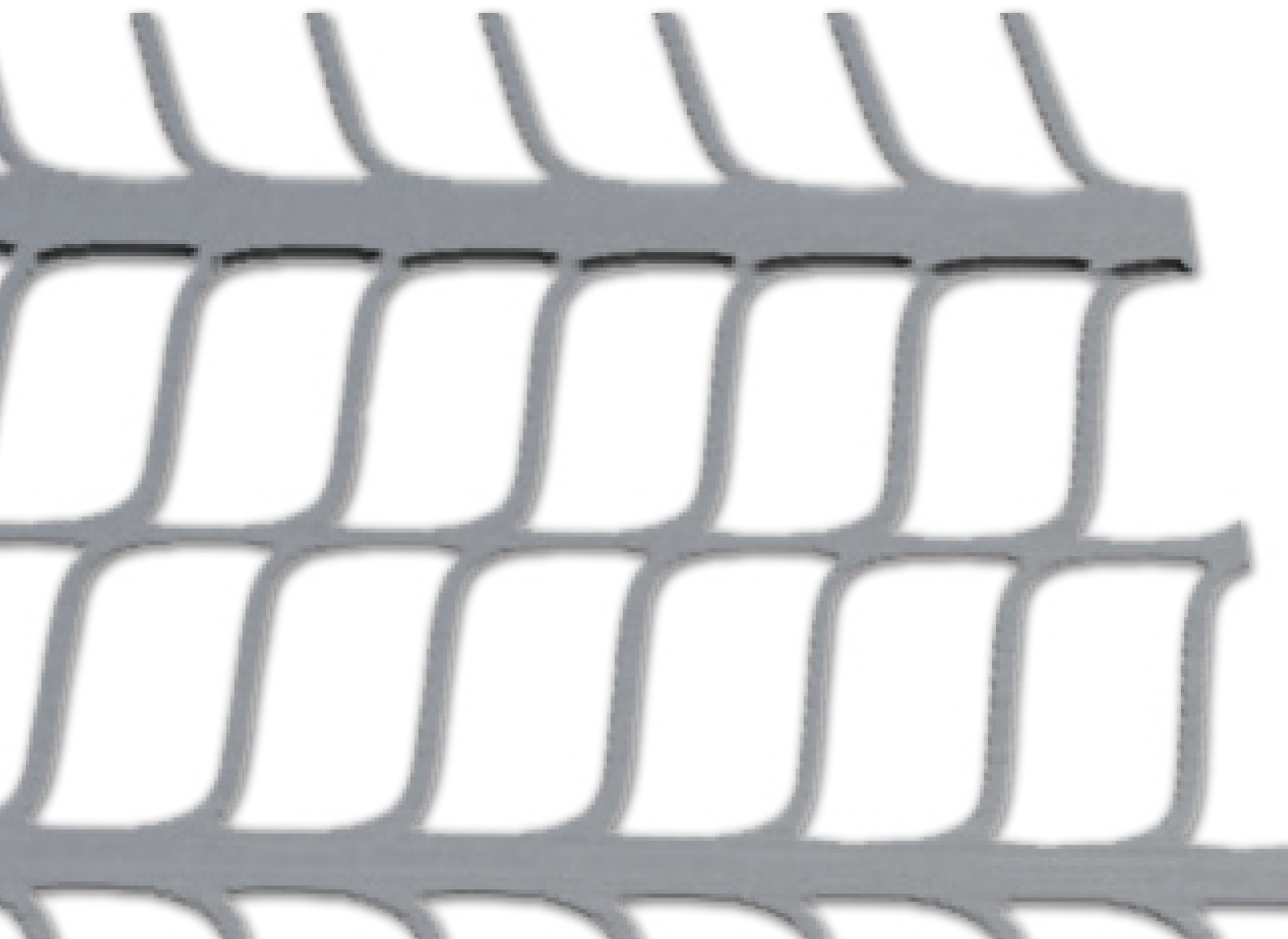
Solid Background:

Rib lath can be fixed to a solid background using a suitable fixing which holds the ribs firmly against the background. Where sheets are installed vertically, fixings should be positioned through all ribs at 600mm centers to ensure adequate stability.





Reference	Weight (kg/m ²)	Rib Height (mm)	Size (mm)	Material
RBL 148 - GS	1.48	10	2500 x 700	Galvanized
RBL 184 - GS	1.84	10	2500 x 700	Galvanized
RBL 222 - GS	2.22	10	2500 x 700	Galvanized
RBL 148 - SS	1.48	10	2500 x 700	Stainless Steel
RBL 184 - SS	1.84	10	2500 x 700	Stainless Steel
RBL 222 - SS	2.22	10	2500 x 700	Stainless Steel



HY-RIB LATH

Hy Rib lath is manufactured from Pre-galvanized steel according to BSEN 10327 as well as stainless steel to BSEN 10088-2 type 1.4301 .

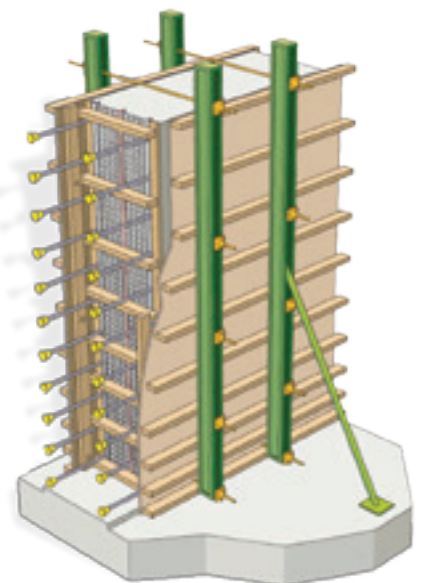
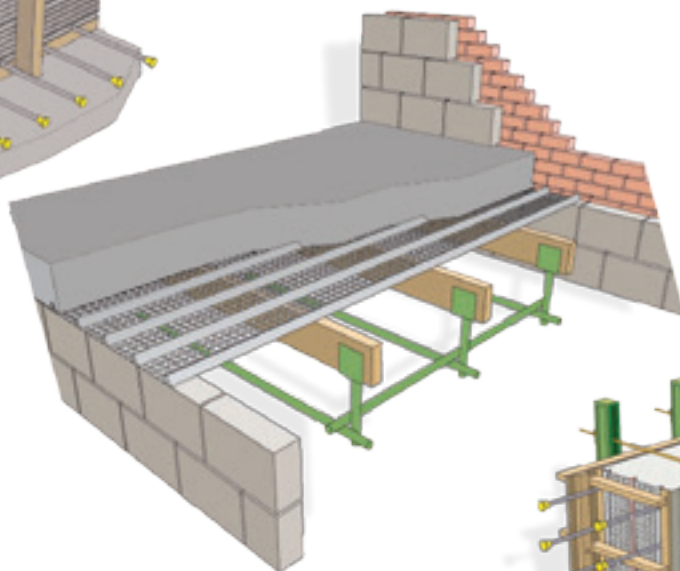
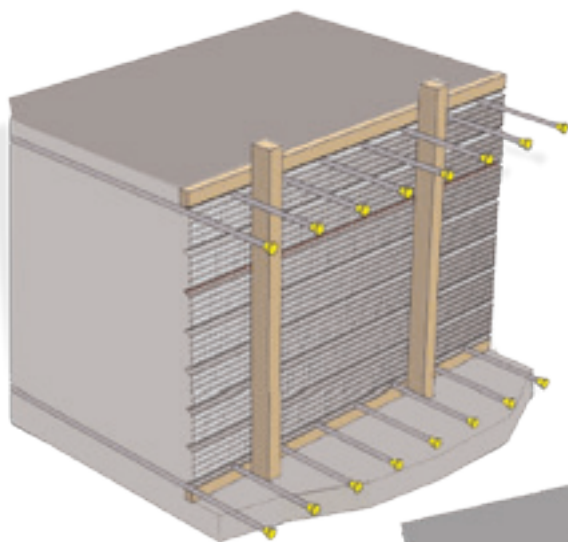
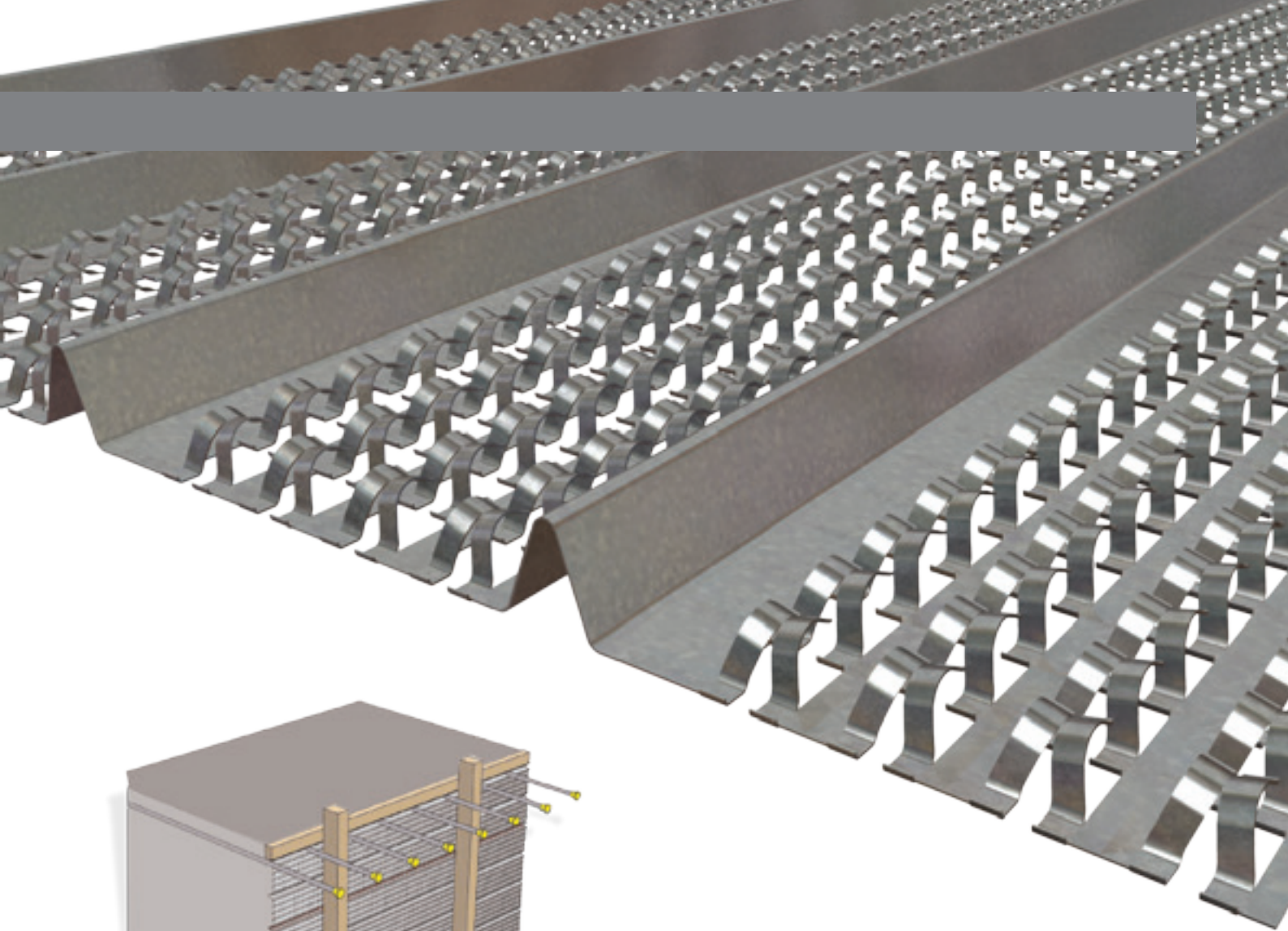
The profile of Hy Rib open mesh in combination with its ribs provide an inherently stiff sheet along its length.

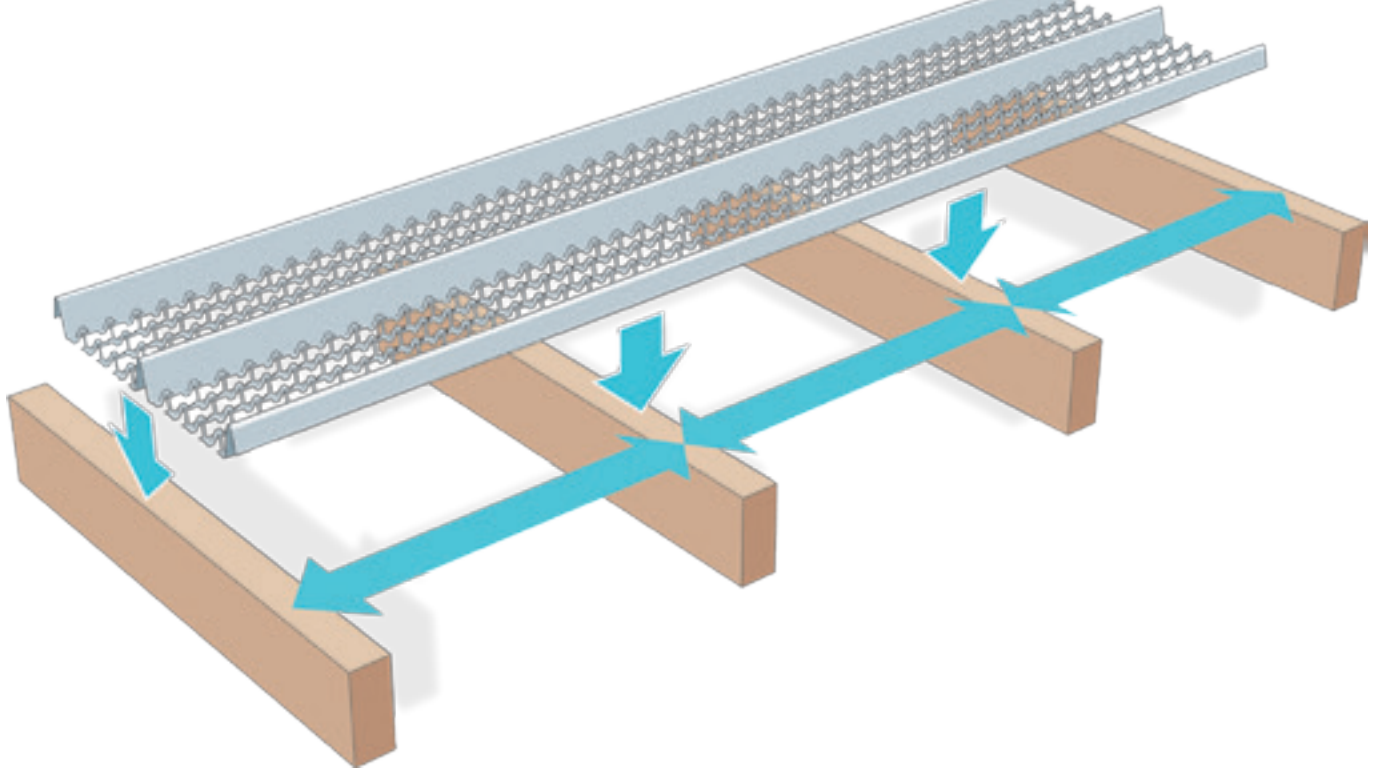
It can be used for flat and curved surfaces.

Depth of joint (D)	Concrete Pressure		Clear Distance Between Supports (A) for Hy-Rib		
	Ciria 108	Assumed for Hy-Rib	2411	2611	2811
mm	kN/m ²	kN/m ²	mm	mm	mm
250	6.25	3.2	1250	1025	950
500	12.5	6.3	900	725	675
750	18.75	9.5	725	600	550
1000	25.0	12.7	625	500	475
1250	31.25	15.8	575	450	425
1500	37.5	19.0	525	425	400
2000	50.0	25.3	450	375	350
2500	62.5	31.7	400	325	300
3000	75.0	38.0	375	300	275

Reference	Rib Height (mm)	Material	Length (mm)	Width (mm)	Thickness (mm)	Weight (kg/sqm)
HRB 16 - GS	16	Galvanized	2500	450	0.5	3.25/3.39
HRB 18 - GS	18	Galvanized	2500	450	0.5	4.00/4.86

Thickness (mm)	Width (mm)	Rib Height (mm)	Rib Distance (mm)	Length
0.25	445	13	89	According to Order
0.3	445	13	89	According to Order
0.3	445	20.5	89	According to Order
0.35	445	13	89	According to Order
0.35	445	20.5	89	According to Order
0.4	445	13	89	According to Order
0.4	445	20.5	89	According to Order
0.5	445	20.5	89	According to Order





Hy Rib: Fields Of Application and Advantage

Application in concrete construction

- For expansion joints as lost form.
- For flat spread even or moulded construction units as lost form.

Advantages in concrete construction

- Perfect bonding of the concreting sections without any further treatment of the expansion joint.
- Reduction of the concrete pressure during the concreting process.
- Minimizing of hollow spaces and visual supervision of the process possible.
- Hy Rib reduces the risk of trapped air and voids within the concrete.
- The range of narrower sheet widths improves site productivity and minimizes wastage.

Application with plastering works

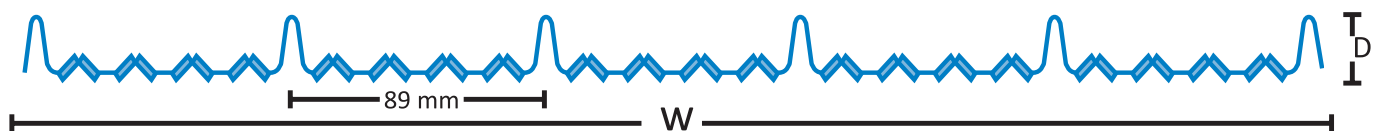
- For wire lattice construction with spans up to 1200mm.

Advantages with plastering works

- High Stability.
- Especially economical with great spans.

Hy Rib Processing Placing:

- Ribs must not be damaged or deformed when fastened.
 - The sheets are placed overlapping rib in rib.
 - With concrete works the rib back of the metal mesh always point to the first concreting section.
- The open ribs on the other side ensure reliable bonding to the second concreting section.



Reference	Weight (kg/sqm)	Rib Depth (mm)	Width (mm)	Length (m)	Material
HR 3	3.39	21	445	2 up to 5	Galvanized
HR 4	4.86	21	445	2 up to 5	Galvanized
HR 6	4.86	21	445	2 up to 5	Galvanized

The connection reinforcement (5) required is guided through the metal mesh. For this purpose Hy Rib is incised with sheet shears or RSM special cam shears. Rib cutting in should be avoided if possible.

Joint bands can be mounted is placed between two Hy Rib strips. For this purpose Hy Rib is incised with sheet shears or RSM special cam shears. The stiffening wood beams are provided with cut outs for the joint band.

Hy Rib is nailed to angular or profiled stiffening wood beams (2).

Ribs should not be damaged when they are deformed The closed ribs points towards the first concreting section, since at this point the ribs are exposed to the greater pressure. The ribs are placed cross to the stiffening wood beams.

- Hy Rib requires the same concrete covering as reinforcing steel. In order to maintain the prescribed concrete covering timber rails (3) are nailed to the upper and lower sides of the construction unit as range spacers and to the stiffening woods beams.
- The stiffening wood beams (2) themselves are nailed to the sheathing and held by wooden ledges (4), which are propped against the existing reinforcement.

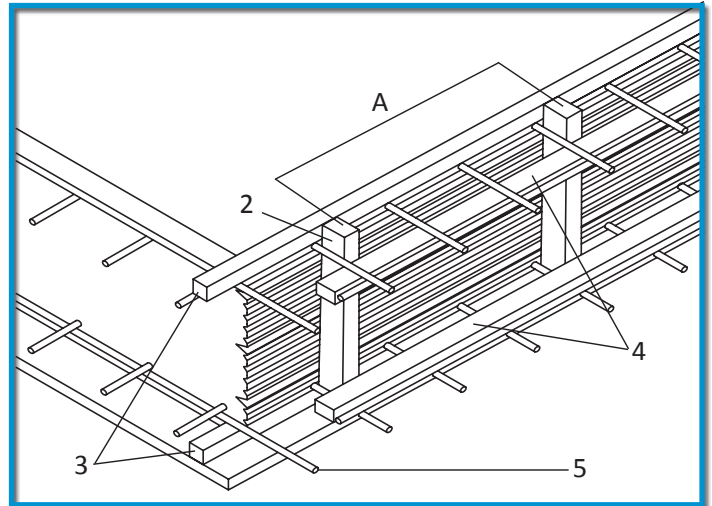


Fig 1 Straight expansion joint with Hy-Rib

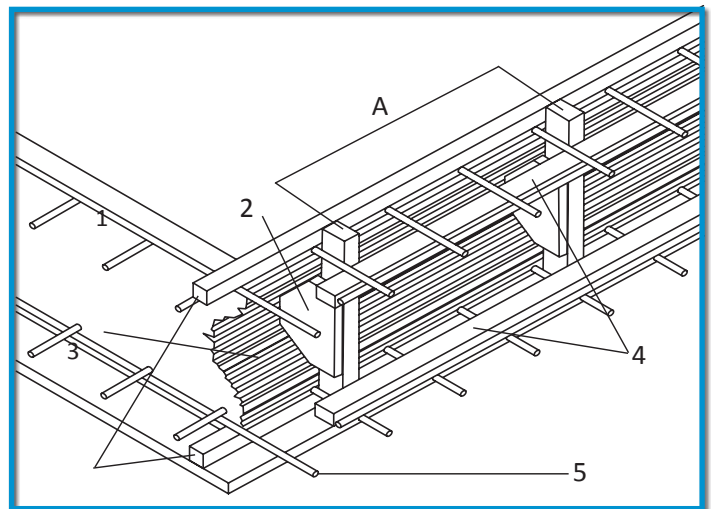


Fig 2 Profiled expansion joint with Hy-Rib

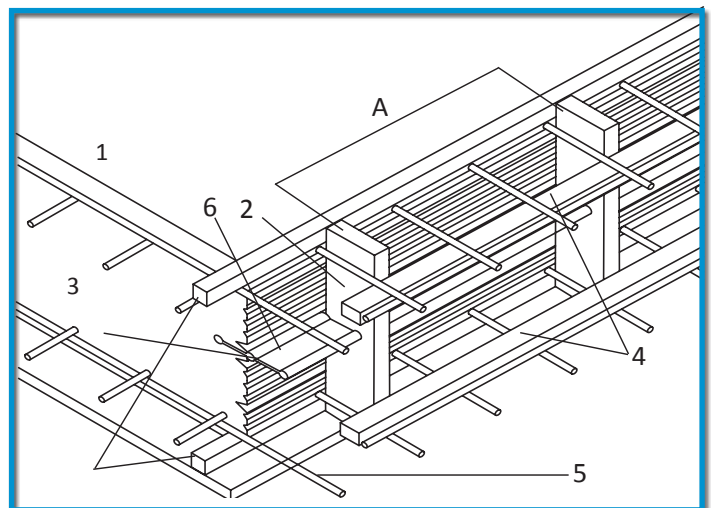
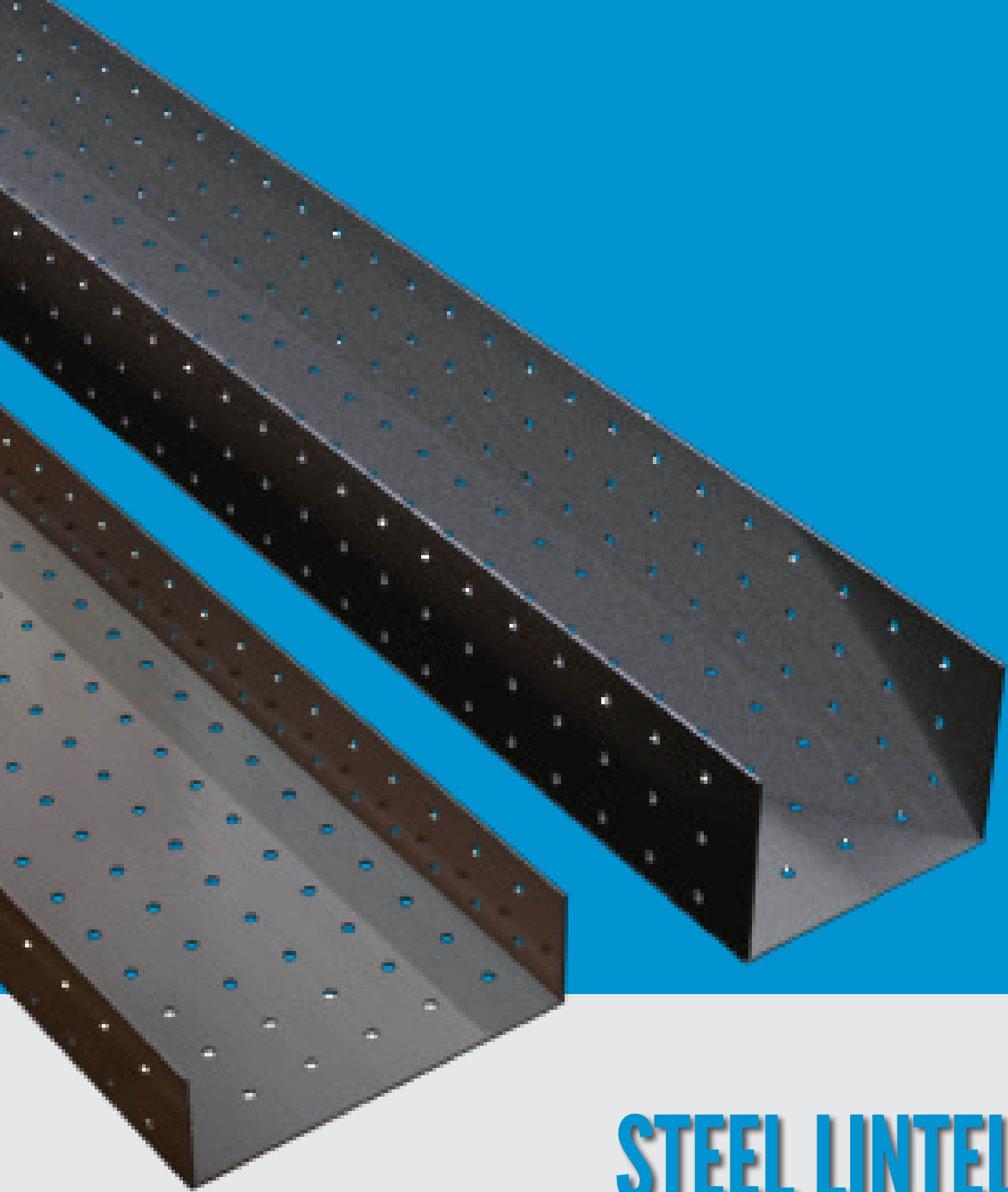


Fig 3 Expansion joint with Hy-Rib and joint band



STEEL LINTELS



www.sfsp-ikk.com

STEEL LINTELS

Steel Lintels provide a combination of strength and light weight, resulting in efficient load bearing performance and increased productivity on site. They are characterized by their ease of installation in addition to time as well as money saving.

Calculations are provided by our design office in Stuttgart, Germany.

SFSP manufactures Steel Lintel in accordance with:

- BS EN 845-2:2013+A1:2016

Relevant Standards

- BS 5977 Part 2:1983

Finishing

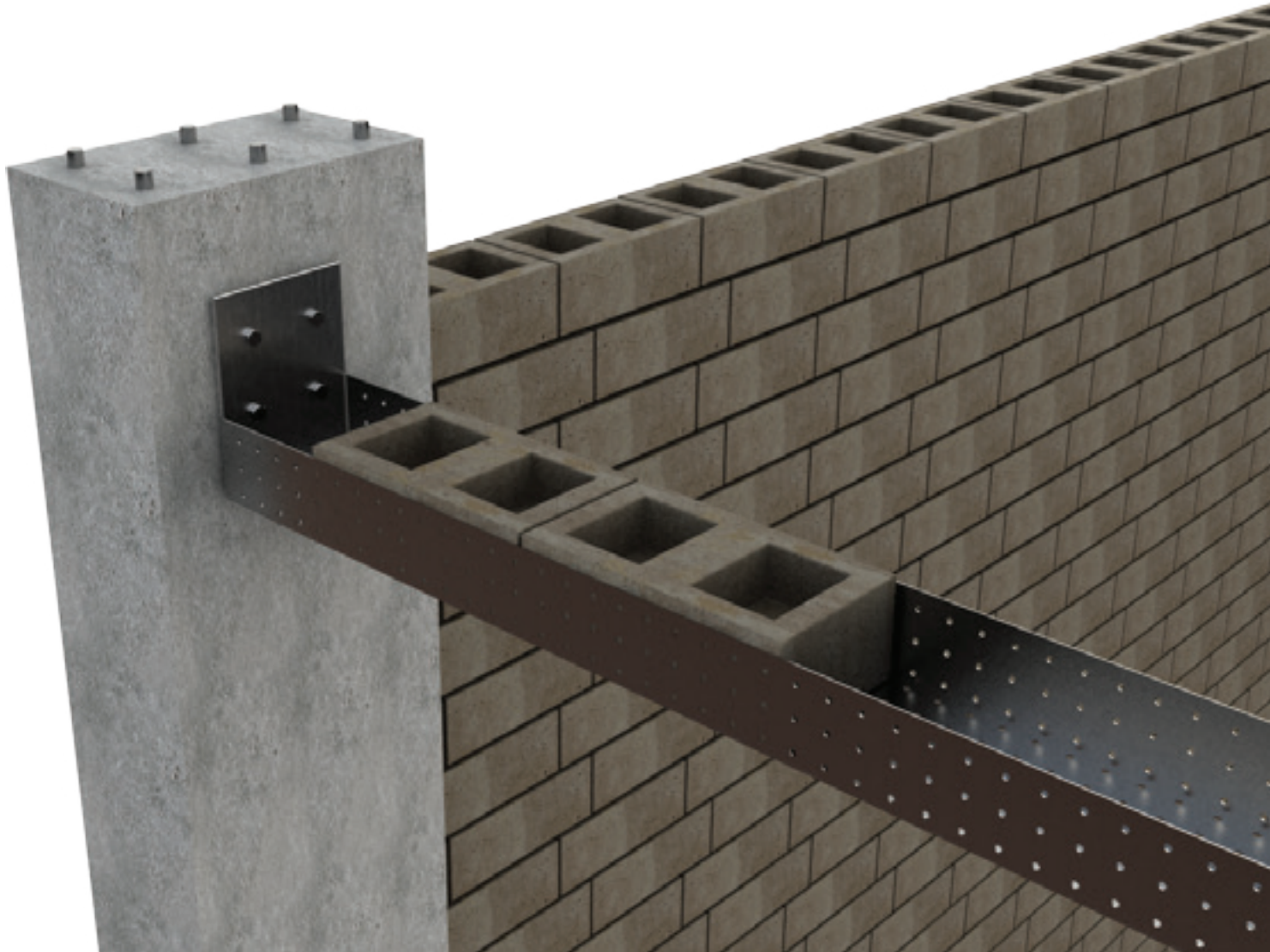
- Galvanized Steel according to BS EN 10346:2015

- Hot Dipped Galvanized according to BS EN ISO 1461:2009

- Stainless Steel according to BS EN 10088-2:2014

MATERIAL

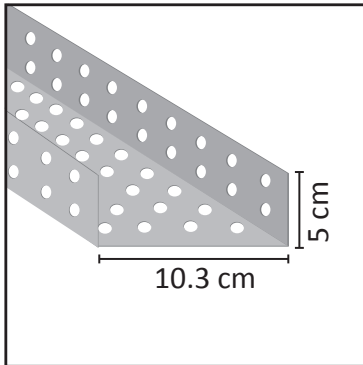
- Hot rolled steel S235JR as per EN 10025 / ASTM A-1011 CS Type B (formerly ASTM A569 or ASTM A570)
- Cold rolled steel DC01 as per EN 10130:2006 / ASTM A1008 CS Type B (formerly ASTM A-366)



CHANNEL LINTELS

UML 100/50

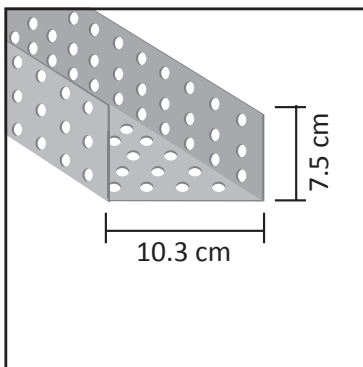
Working Load Tables



Lintel Code	UML 100/50-2	UML 100/50-3	UML 100/50-4
Sheet Thickness (mm)	2.0	3.0	4.0
Length in meters	Uniformly Distributed Loads (kN/m)		
0.90 - 1.20	0.44	1.5	2.55
1.30 - 1.50	0.29	1.0	1.70
1.60 - 1.80	0.20	0.72	1.10
1.90 - 2.10	0.14	0.52	0.68
2.20 - 2.40	0.10	0.33	0.43

UML 100/75

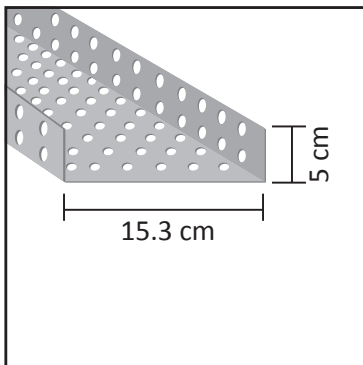
Working Load Tables



Lintel Code	UML 100/75-4
Sheet Thickness (mm)	4.0
Length in meters	Uniformly Distributed Loads (kN/m)
0.90 - 1.20	3.55
1.30 - 1.50	2.40
1.60 - 1.80	1.70
1.90 - 2.10	1.28
2.20 - 2.40	0.98

UML 150/50

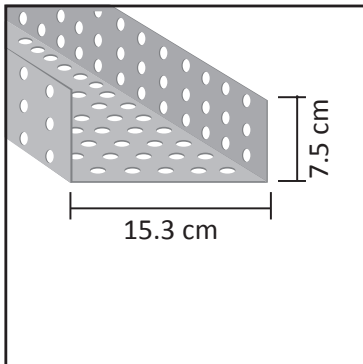
Working Load Tables



Lintel Code	UML 150/50-2	UML 150/50-3	UML 150/50-4
Sheet Thickness (mm)	2.0	3.0	4.0
Length in meters	Uniformly Distributed Loads (kN/m)		
0.90 - 1.20	0.44	1.5	2.65
1.30 - 1.50	0.28	1.0	1.76
1.60 - 1.80	0.20	0.72	1.24
1.90 - 2.10	0.14	0.55	0.74
2.20 - 2.40	0.10	0.35	0.47

UML 150/75

Working Load Tables

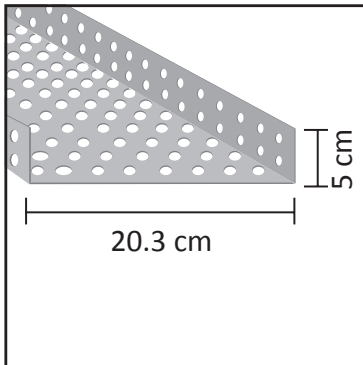


Lintel Code	UML 150/75-4
Sheet Thickness (mm)	4.0
Length in meters	Uniformly Distributed Loads (kN/m)
0.90 - 1.20	3.60
1.30 - 1.50	2.40
1.60 - 1.80	1.73
1.90 - 2.10	1.28
2.20 - 2.40	0.98

Safety Factor is at 135%

UML 200/50

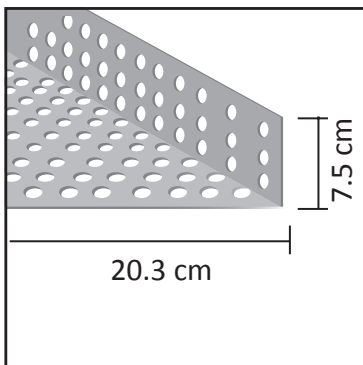
Working Load Tables



Lintel Code	UML 200/50-2	UML 200/50-3	UML 200/50-4
Sheet Thickness (mm)	2.0	3.0	4.0
Length in meters	Uniformly Distributed Loads (kN/m)		
0.90 - 1.20	0.42	1.50	2.70
1.30 - 1.50	0.28	1.0	1.80
1.60 - 1.80	0.19	0.70	1.25
1.90 - 2.10	0.13	0.52	0.78
2.20 - 2.40	0.09	0.40	0.49

UML 200/75

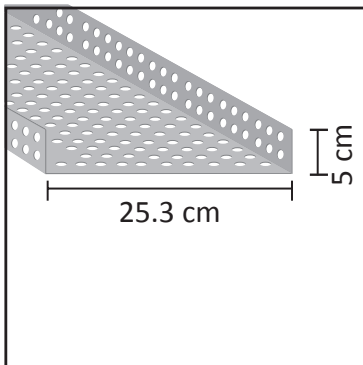
Working Load Tables



Lintel Code	UML 200/75-4
Sheet Thickness (mm)	4.0
Length in meters	Uniformly Distributed Loads (kN/m)
0.90 - 1.20	3.60
1.30 - 1.50	2.40
1.60 - 1.80	1.73
1.90 - 2.10	1.28
2.20 - 2.40	0.98

UML 250/50

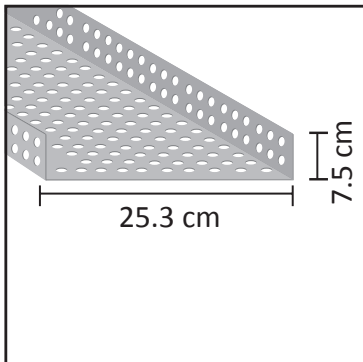
Working Load Tables



Lintel Code	UML 250/50-2	UML 250/50-3	UML 250/50-4
Sheet Thickness (mm)	2.0	3.0	4.0
Length in meters	Uniformly Distributed Loads (kN/m)		
0.90 - 1.20	0.43	1.50	2.70
1.30 - 1.50	0.26	1.0	1.80
1.60 - 1.80	0.18	0.70	1.28
1.90 - 2.10	0.13	0.52	0.80
2.20 - 2.40	0.09	0.38	0.50

UML 250/75

Working Load Tables

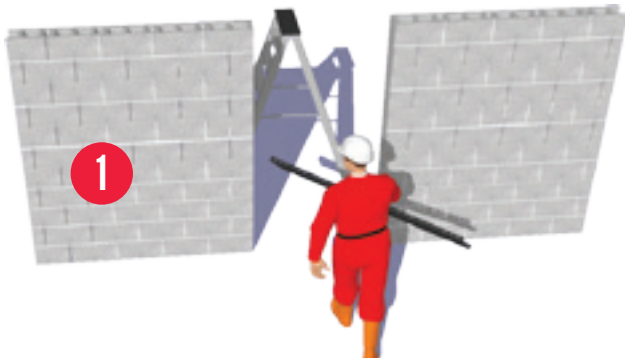


Lintel Code	UML 250/75-4
Sheet Thickness (mm)	4.0
Length in meters	Uniformly Distributed Loads (kN/m)
0.90 - 1.20	3.63
1.30 - 1.50	2.45
1.60 - 1.80	1.73
1.90 - 2.10	1.25
2.20 - 2.40	0.98

Safety Factor is at 135%

LINTELS INSTALLATION IN MINUTES

Comparison of installation times of a Uni-Metal steel lintel and a conventional concrete cast in-situ lintel.



One man can carry the lintel



Lintel is placed in position



Continuation of block work
can be carried out immediately



Before laying the blocks down on lintel, place a temporary support beneath the lintel to provide support and to prevent deflection. Temporary support can be removed after the mortar sets, (approximately in 3 to 5 hours).

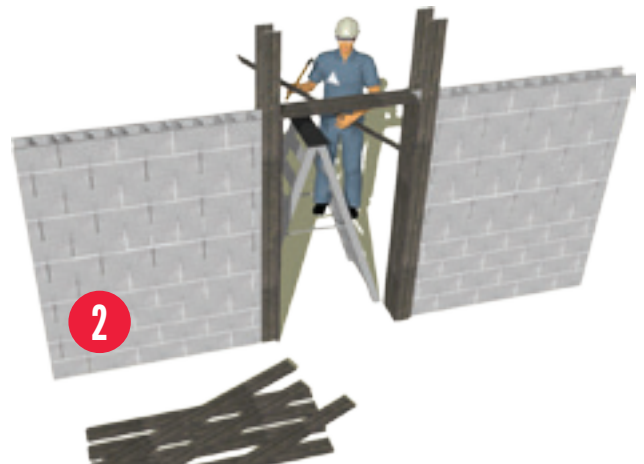


Total installation time: 6 minutes



Vertical frame work erected, end secured and horizontal level taken

Concrete Cast - On site Installation



Commencement of lintel form work



Continuation of form work



Completion of lintel after steel reinforcement and pouring of concrete

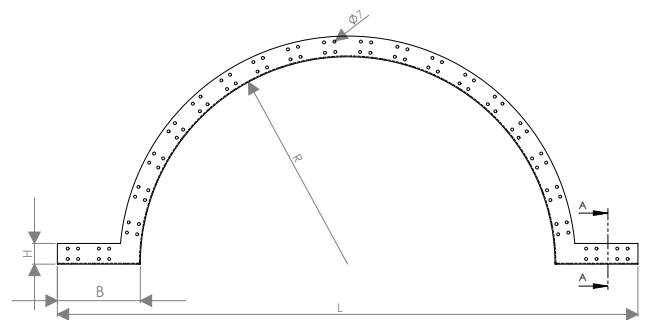
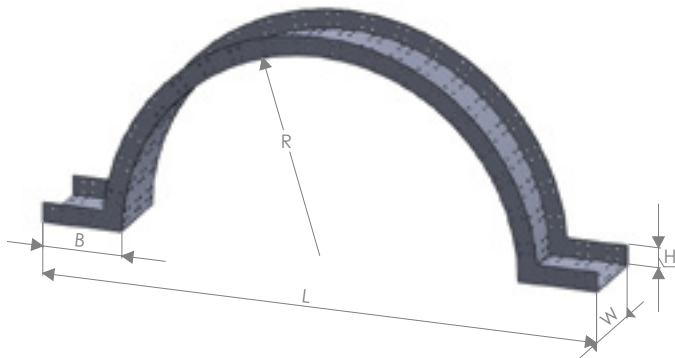


Total installation time: 48 minutes

In the time taken to install just one concrete lintel, eight Uni-Metal lintels could have been installed...

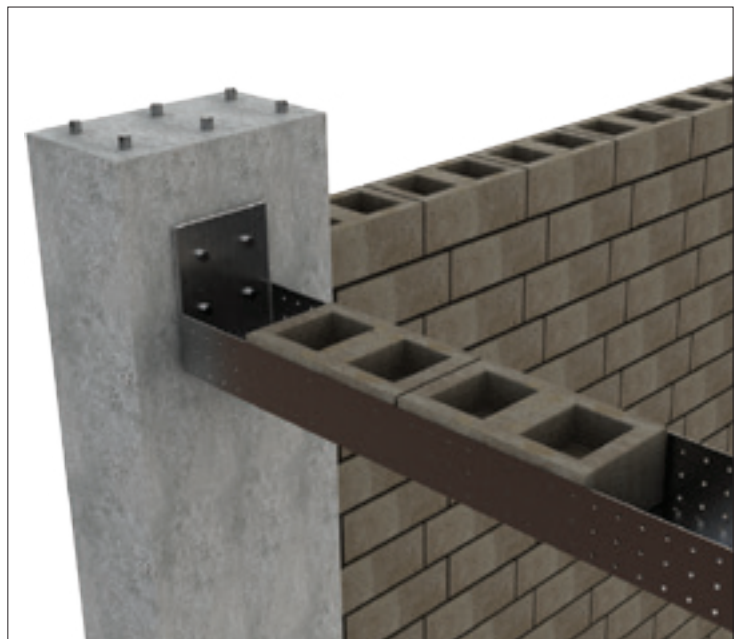
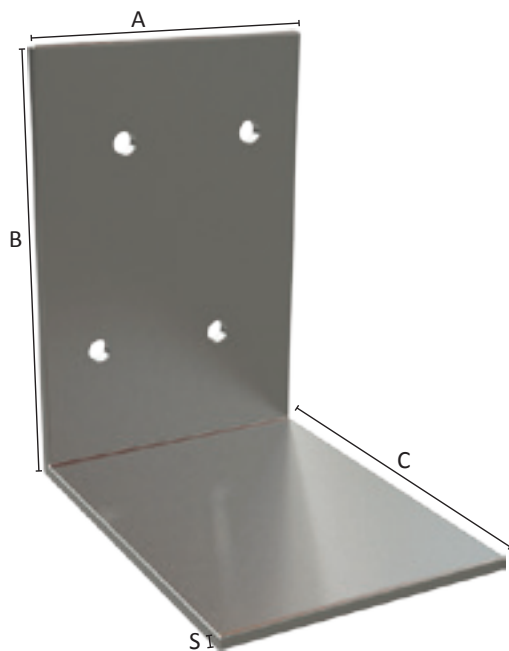
ARCH LINTELS

Item Number	Dimensions (mm)	Material
SOLI_F_00049863	320x250x75x2.00	GI
SOLI_F_00049881	420x250x75x2.00	GI
SOLI_F_00071177	520x200x75x2.00	GI
SOLI_F_00049899	520x250x75x2.00	GI
SOLI_F_00049917	620x250x75x2.00	GI
SOLI_F_00049943	920x250x75x2.00	GI
SOLI_F_00054859	200x50x3.00x2500	Hot Dip Galvanized



LINTELS BRACKETS

Brackets are supplied with fixing holes to suit metal expansion anchor sizes as specified below.



Item Number	Height (mm)	Width (mm)	Thickness (mm)	Length (mm)	Material
SOLI_F_00050293	100	100	1.80	1300	GI
SOLI_F_00039638	100	100	1.80	1400	GI
SOLI_F_00060931	100	100	1.80	1500	GI
SOLI_F_00065949	100	100	2.50	1600	GI
SOLI_F_00065929	100	100	2.50	1800	GI
SOLI_F_00081689	100	100	2.50	2000	GI
SOLI_F_00065941	100	100	2.50	2200	GI
SOLI_F_00063931	100	100	2.80	2200	GI
SOLI_F_00063707	100	100	2.80	2300	GI
SOLI_F_00063715	100	100	2.80	2400	GI
SOLI_F_00063723	100	100	2.80	2600	GI
SOLI_F_00008672	100	100	3.0	2400	GI
SOLI_F_00082195	100	100	3.0	2650	GI
SOLI_F_00097895	100	100	3.80	2400	GI
SOLI_F_00095765	100	100	4.00	2400	GI
SOLI_F_00004056	100	50	1.50	1000	GI
SOLI_F_00004448	100	50	1.50	1100	GI
SOLI_F_00004496	100	50	1.50	1200	GI
SOLI_F_00045990	100	50	1.50	1300	GI
SOLI_F_00004592	100	50	1.50	1400	GI
SOLI_F_00004784	100	50	1.50	1500	GI
SOLI_F_00059401	100	50	1.50	4010	GI
SOLI_F_00059393	100	50	1.50	4020	GI
SOLI_F_00059409	100	50	1.50	4210	GI
SOLI_F_00004088	100	50	1.80	1000	GI
SOLI_F_00050377	100	50	1.80	1050	GI
SOLI_F_00004456	100	50	1.80	1100	GI
SOLI_F_00050369	100	50	1.80	1150	GI
SOLI_F_00004504	100	50	1.80	1200	GI
SOLI_F_00104459	100	50	1.80	1240	GI
SOLI_F_00050355	100	50	1.80	1250	GI
SOLI_F_00004552	100	50	1.80	1300	GI
SOLI_F_00096105	100	50	1.80	1350	GI
SOLI_F_00004600	100	50	1.80	1400	GI
SOLI_F_00096113	100	50	1.80	1450	GI
SOLI_F_00004792	100	50	1.80	1500	GI
SOLI_F_00042310	100	50	1.80	1550	GI
SOLI_F_00004840	100	50	1.80	1600	GI
SOLI_F_00068673	100	50	1.80	1650	GI
SOLI_F_00004888	100	50	1.80	1700	GI
SOLI_F_00095565	100	50	1.80	1800	GI
SOLI_F_00004984	100	50	1.80	1900	GI
SOLI_F_00005024	100	50	1.80	2000	GI
SOLI_F_00005072	100	50	1.80	2100	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00005120	100	50	1.80	2200	GI
SOLI_F_00005168	100	50	1.80	2300	GI
SOLI_F_00005216	100	50	1.80	2400	GI
SOLI_F_00005272	100	50	1.80	2500	GI
SOLI_F_00005320	100	50	1.80	2600	GI
SOLI_F_00005368	100	50	1.80	2700	GI
SOLI_F_00005416	100	50	1.80	2800	GI
SOLI_F_00005486	100	50	1.80	2900	GI
SOLI_F_00005534	100	50	1.80	3000	GI
SOLI_F_00077201	100	50	1.80	750	GI
SOLI_F_00063907	100	50	1.80	800	GI
SOLI_F_00047540	100	50	1.80	850	GI
SOLI_F_00051229	100	50	1.80	900	GI
SOLI_F_00004072	100	50	2.00	1000	GI
SOLI_F_00004464	100	50	2.00	1100	GI
SOLI_F_00107777	100	50	2.00	1150	GI
SOLI_F_00004512	100	50	2.00	1200	GI
SOLI_F_00042476	100	50	2.00	1250	GI
SOLI_F_00004560	100	50	2.00	1300	GI
SOLI_F_00042468	100	50	2.00	1350	GI
SOLI_F_00004608	100	50	2.00	1400	GI
SOLI_F_00082179	100	50	2.00	1440	GI
SOLI_F_00073995	100	50	2.00	1450	GI
SOLI_F_00004800	100	50	2.00	1500	GI
SOLI_F_00060027	100	50	2.00	1550	GI
SOLI_F_00060257	100	50	2.00	1600	GI
SOLI_F_00042492	100	50	2.00	1650	GI
SOLI_F_00004896	100	50	2.00	1700	GI
SOLI_F_00004944	100	50	2.00	1800	GI
SOLI_F_00004992	100	50	2.00	1900	GI
SOLI_F_00005032	100	50	2.00	2000	GI
SOLI_F_00005080	100	50	2.00	2100	GI
SOLI_F_00005128	100	50	2.00	2200	GI
SOLI_F_00005176	100	50	2.00	2300	GI
SOLI_F_00005224	100	50	2.00	2400	GI
SOLI_F_00005280	100	50	2.00	2500	GI
SOLI_F_00005328	100	50	2.00	2600	GI
SOLI_F_00005376	100	50	2.00	2700	GI
SOLI_F_00005424	100	50	2.00	2800	GI
SOLI_F_00005494	100	50	2.00	2900	GI
SOLI_F_00005542	100	50	2.00	3000	GI
SOLI_F_00081649	100	50	2.00	450	GI
SOLI_F_00081665	100	50	2.00	750	GI
SOLI_F_00081681	100	50	2.00	800	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00042484	100	50	2.00	950	GI
SOLI_F_00004080	100	50	2.50	1000	GI
SOLI_F_00004472	100	50	2.50	1100	GI
SOLI_F_00004520	100	50	2.50	1200	GI
SOLI_F_00004568	100	50	2.50	1300	GI
SOLI_F_00004616	100	50	2.50	1400	GI
SOLI_F_00004808	100	50	2.50	1500	GI
SOLI_F_00004856	100	50	2.50	1600	GI
SOLI_F_00004904	100	50	2.50	1700	GI
SOLI_F_00004952	100	50	2.50	1800	GI
SOLI_F_00005000	100	50	2.50	1900	GI
SOLI_F_00005040	100	50	2.50	2000	GI
SOLI_F_00005088	100	50	2.50	2100	GI
SOLI_F_00005136	100	50	2.50	2200	GI
SOLI_F_00051757	100	50	2.50	2300	GI
SOLI_F_00005240	100	50	2.50	2400	GI
SOLI_F_00005288	100	50	2.50	2500	GI
SOLI_F_00005336	100	50	2.50	2600	GI
SOLI_F_00005384	100	50	2.50	2700	GI
SOLI_F_00005432	100	50	2.50	2800	GI
SOLI_F_00005502	100	50	2.50	2900	GI
SOLI_F_00005550	100	50	2.50	3000	GI
SOLI_F_00004272	100	50	3.00	1000	GI
SOLI_F_00004488	100	50	3.00	1100	GI
SOLI_F_00042422	100	50	3.00	1150	GI
SOLI_F_00004536	100	50	3.00	1200	GI
SOLI_F_00004584	100	50	3.00	1300	GI
SOLI_F_00004632	100	50	3.00	1400	GI
SOLI_F_00004824	100	50	3.00	1500	GI
SOLI_F_00004872	100	50	3.00	1600	GI
SOLI_F_00004912	100	50	3.00	1700	GI
SOLI_F_00004968	100	50	3.00	1800	GI
SOLI_F_00005016	100	50	3.00	1900	GI
SOLI_F_00005056	100	50	3.00	2000	GI
SOLI_F_00005096	100	50	3.00	2100	GI
SOLI_F_00005152	100	50	3.00	2200	GI
SOLI_F_00005200	100	50	3.00	2300	GI
SOLI_F_00005256	100	50	3.00	2400	GI
SOLI_F_00005304	100	50	3.00	2500	GI
SOLI_F_00005344	100	50	3.00	2600	GI
SOLI_F_00005400	100	50	3.00	2700	GI
SOLI_F_00005448	100	50	3.00	2800	GI
SOLI_F_00005518	100	50	3.00	2900	GI
SOLI_F_00005566	100	50	3.00	3000	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00058223	100	50	4.0	1200	GI
SOLI_F_00004640	100	50	4.0	1400	GI
SOLI_F_00004832	100	50	4.0	1500	GI
SOLI_F_00004880	100	50	4.0	1600	GI
SOLI_F_00004928	100	50	4.0	1700	GI
SOLI_F_00004976	100	50	4.0	1800	GI
SOLI_F_00004064	100	50	4.0	1900	GI
SOLI_F_00005064	100	50	4.0	2000	GI
SOLI_F_00005112	100	50	4.0	2100	GI
SOLI_F_00005160	100	50	4.0	2200	GI
SOLI_F_00005208	100	50	4.0	2300	GI
SOLI_F_00005264	100	50	4.0	2400	GI
SOLI_F_00005312	100	50	4.0	2500	GI
SOLI_F_00005360	100	50	4.0	2600	GI
SOLI_F_00005408	100	50	4.0	2700	GI
SOLI_F_00005456	100	50	4.0	2800	GI
SOLI_F_00005526	100	50	4.0	2900	GI
SOLI_F_00005574	100	50	4.0	3000	GI
SOLI_F_00114191	100	60	3.0	1250	GI
SOLI_F_00007236	100	75	1.80	1300	GI
SOLI_F_00007268	100	75	1.80	1400	GI
SOLI_F_00096325	100	75	1.80	1500	GI
SOLI_F_00007276	100	75	1.80	1600	GI
SOLI_F_00007292	100	75	1.80	1700	GI
SOLI_F_00007300	100	75	1.80	1800	GI
SOLI_F_00048486	100	75	2.00	1200	GI
SOLI_F_00007428	100	75	2.00	1300	GI
SOLI_F_00007372	100	75	2.00	1311	GI
SOLI_F_00007524	100	75	2.00	1400	GI
SOLI_F_00007452	100	75	2.00	1500	GI
SOLI_F_00096129	100	75	2.00	1600	GI
SOLI_F_00052545	100	75	2.00	1800	GI
SOLI_F_00082187	100	75	2.00	2000	GI
SOLI_F_00007532	100	75	2.00	2200	GI
SOLI_F_00007540	100	75	2.00	2500	GI
SOLI_F_00054661	100	75	2.00	2700	GI
SOLI_F_00007548	100	75	2.00	2800	GI
SOLI_F_00112499	100	75	2.00	3000	GI
SOLI_F_00053599	100	75	2.5	1200	GI
SOLI_F_00053587	100	75	2.5	1500	GI
SOLI_F_00007764	100	75	2.5	1700	GI
SOLI_F_00007572	100	75	2.5	1800	GI
SOLI_F_00007580	100	75	2.5	1900	GI
SOLI_F_00052537	100	75	2.5	2200	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00054669	100	75	2.50	2800	GI
SOLI_F_00058115	100	75	3.00	1280	GI
SOLI_F_00058139	100	75	3.00	1290	GI
SOLI_F_00007980	100	75	3.00	1400	GI
SOLI_F_00058131	100	75	3.00	1430	GI
SOLI_F_00081869	100	75	3.00	1450	GI
SOLI_F_00008252	100	75	3.00	1500	GI
SOLI_F_00081843	100	75	3.00	1600	GI
SOLI_F_00073987	100	75	3.00	1950	GI
SOLI_F_00007988	100	75	3.00	2000	GI
SOLI_F_00008140	100	75	3.00	2050	GI
SOLI_F_00065911	100	75	3.00	2100	GI
SOLI_F_00073979	100	75	3.00	2250	GI
SOLI_F_00007940	100	75	3.00	2400	GI
SOLI_F_00060281	100	75	3.00	2500	GI
SOLI_F_00008156	100	75	3.00	3000	GI
SOLI_F_00058123	100	75	3.00	840	GI
SOLI_F_00100309	100	75	3.70	3000	GI
SOLI_F_00096063	100	75	3.80	1300	GI
SOLI_F_00094969	100	75	3.80	1650	GI
SOLI_F_00062781	100	75	3.80	1700	GI
SOLI_F_00078403	100	80	3.80	2250	GI
SOLI_F_00093821	100	80	3.00	2250	GI
SOLI_F_00081859	100	90	3.00	1560	GI
SOLI_F_00095693	140	100	2.50	2500	GI
SOLI_F_00095669	140	50	2.00	1200	GI
SOLI_F_00095677	140	50	2.00	1500	GI
SOLI_F_00095685	140	75	2.50	2000	GI
SOLI_F_00059709	150	100	2.00	2000	GI
SOLI_F_00052573	150	100	2.50	2700	GI
SOLI_F_00096993	150	100	3.00	1200	GI
SOLI_F_00096977	150	100	3.00	1700	GI
SOLI_F_00082623	150	100	3.00	2000	GI
SOLI_F_00056587	150	100	3.00	2200	GI
SOLI_F_00072981	150	100	3.00	2400	GI
SOLI_F_00089151	150	100	4.00	2200	GI
SOLI_F_00058159	150	100	4.00	2220	GI
SOLI_F_00058439	150	100	4.00	2220	GI
SOLI_F_00082639	150	150	3.00	2400	GI
SOLI_F_00005582	150	50	1.50	1000	GI
SOLI_F_00007180	150	50	1.50	1100	GI
SOLI_F_00005638	150	50	1.50	1200	GI
SOLI_F_00005646	150	50	1.50	1300	GI
SOLI_F_00005654	150	50	1.50	1400	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00005662	150	50	1.50	1500	GI
SOLI_F_00005670	150	50	1.80	1000	GI
SOLI_F_00007188	150	50	1.80	1100	GI
SOLI_F_00006190	150	50	1.80	1200	GI
SOLI_F_00047244	150	50	1.80	1250	GI
SOLI_F_00006198	150	50	1.80	1300	GI
SOLI_F_00006206	150	50	1.80	1400	GI
SOLI_F_00006214	150	50	1.80	1500	GI
SOLI_F_00092297	150	50	1.80	1550	GI
SOLI_F_00006222	150	50	1.80	1600	GI
SOLI_F_00042322	150	50	1.80	1650	GI
SOLI_F_00006230	150	50	1.80	1700	GI
SOLI_F_00051237	150	50	1.80	1720	GI
SOLI_F_00006246	150	50	1.80	1900	GI
SOLI_F_00006254	150	50	1.80	2000	GI
SOLI_F_00006262	150	50	1.80	2100	GI
SOLI_F_00006270	150	50	1.80	2200	GI
SOLI_F_00006278	150	50	1.80	2300	GI
SOLI_F_00051245	150	50	1.80	2347	GI
SOLI_F_00006286	150	50	1.80	2400	GI
SOLI_F_00006294	150	50	1.80	2500	GI
SOLI_F_00006302	150	50	1.80	2600	GI
SOLI_F_00006310	150	50	1.80	2700	GI
SOLI_F_00006318	150	50	1.80	2800	GI
SOLI_F_00006326	150	50	1.80	2900	GI
SOLI_F_00006334	150	50	1.80	3000	GI
SOLI_F_00077209	150	50	1.80	750	GI
SOLI_F_00077217	150	50	1.80	800	GI
SOLI_F_00047252	150	50	1.80	850	GI
SOLI_F_00094705	150	50	1.80	900	GI
SOLI_F_00006342	150	50	1.80	1000	GI
SOLI_F_00006350	150	50	1.80	1100	GI
SOLI_F_00006358	150	50	2.00	1200	GI
SOLI_F_00079739	150	50	2.00	1250	GI
SOLI_F_00006366	150	50	2.00	1300	GI
SOLI_F_00006374	150	50	2.00	1400	GI
SOLI_F_00006382	150	50	2.00	1500	GI
SOLI_F_00060265	150	50	2.00	1600	GI
SOLI_F_00006398	150	50	2.00	1700	GI
SOLI_F_00006406	150	50	2.00	1800	GI
SOLI_F_00006414	150	50	2.00	1900	GI
SOLI_F_00006422	150	50	2.00	2000	GI
SOLI_F_00006430	150	50	2.00	2100	GI
SOLI_F_00006438	150	50	2.00	2200	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00006446	150	50	2.00	2300	GI
SOLI_F_00006454	150	50	2.00	2400	GI
SOLI_F_00006462	150	50	2.00	2500	GI
SOLI_F_00006470	150	50	2.00	2600	GI
SOLI_F_00006478	150	50	2.00	2700	GI
SOLI_F_00006486	150	50	2.00	2800	GI
SOLI_F_00006494	150	50	2.00	2900	GI
SOLI_F_00006502	150	50	2.00	3000	GI
SOLI_F_00094729	150	50	2.00	450	GI
SOLI_F_00094721	150	50	2.00	800	GI
SOLI_F_00077471	150	50	2.00	1800	GI
SOLI_F_00006534	150	50	2.50	1300	GI
SOLI_F_00006542	150	50	2.50	1400	GI
SOLI_F_00006550	150	50	2.50	1500	GI
SOLI_F_00006558	150	50	2.50	1600	GI
SOLI_F_00006566	150	50	2.50	1700	GI
SOLI_F_00006670	150	50	2.50	1800	GI
SOLI_F_00006574	150	50	2.50	1900	GI
SOLI_F_00006582	150	50	2.50	2000	GI
SOLI_F_00006590	150	50	2.50	2100	GI
SOLI_F_00006598	150	50	2.50	2200	GI
SOLI_F_00006606	150	50	2.50	2300	GI
SOLI_F_00006614	150	50	2.50	2400	GI
SOLI_F_00006622	150	50	2.50	2500	GI
SOLI_F_00006630	150	50	2.50	2600	GI
SOLI_F_00006638	150	50	2.50	2700	GI
SOLI_F_00006646	150	50	2.50	2800	GI
SOLI_F_00006654	150	50	2.50	299	GI
SOLI_F_00006662	150	50	2.50	3000	GI
SOLI_F_00006846	150	50	3.00	1000	GI
SOLI_F_00006854	150	50	3.00	1100	GI
SOLI_F_00006862	150	50	3.00	1200	GI
SOLI_F_00006870	150	50	3.00	1300	GI
SOLI_F_00006878	150	50	3.00	1400	GI
SOLI_F_00006886	150	50	3.00	1500	GI
SOLI_F_00006894	150	50	3.00	1600	GI
SOLI_F_00006902	150	50	3.00	1700	GI
SOLI_F_00006910	150	50	3.00	1800	GI
SOLI_F_00006918	150	50	3.00	1900	GI
SOLI_F_00006926	150	50	3.00	2000	GI
SOLI_F_00006934	150	50	3.00	2100	GI
SOLI_F_00006942	150	50	3.00	2200	GI
SOLI_F_00006950	150	50	3.00	2300	GI
SOLI_F_00006958	150	50	3.00	2400	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00006966	150	50	3.00	2500	GI
SOLI_F_00006974	150	50	3.00	2600	GI
SOLI_F_00006982	150	50	3.00	2700	GI
SOLI_F_00006996	150	50	3.00	2800	GI
SOLI_F_00007004	150	50	3.00	2900	GI
SOLI_F_00007012	150	50	3.00	3000	GI
SOLI_F_00063739	150	50	3.70	2400	GI
SOLI_F_00064825	150	50	3.80	1200	GI
SOLI_F_00070789	150	50	3.80	1400	GI
SOLI_F_00007020	150	50	4.00	1400	GI
SOLI_F_00007028	150	50	4.00	1500	GI
SOLI_F_00007036	150	50	4.00	1600	GI
SOLI_F_00007044	150	50	4.00	1700	GI
SOLI_F_00007052	150	50	4.00	1800	GI
SOLI_F_00007060	150	50	4.00	1900	GI
SOLI_F_00007076	150	50	4.00	2000	GI
SOLI_F_00007084	150	50	4.00	2100	GI
SOLI_F_00007092	150	50	4.00	2200	GI
SOLI_F_00007100	150	50	4.00	2300	GI
SOLI_F_00007108	150	50	4.00	2400	GI
SOLI_F_00007116	150	50	4.00	2500	GI
SOLI_F_00007132	150	50	4.00	2600	GI
SOLI_F_00007140	150	50	4.00	2700	GI
SOLI_F_00007148	150	50	4.00	2800	GI
SOLI_F_00007156	150	50	4.00	2900	GI
SOLI_F_00007172	150	50	4.00	3000	GI
SOLI_F_00114207	150	60	3.00	900	GI
SOLI_F_00007244	150	75	1.80	1400	GI
SOLI_F_00059947	150	75	2.00	1300	GI
SOLI_F_00007396	150	75	2.00	1400	GI
SOLI_F_00059939	150	75	2.00	1500	GI
SOLI_F_00082599	150	75	2.00	1530	GI
SOLI_F_00082607	150	75	2.00	1570	GI
SOLI_F_00082615	150	75	2.00	1600	GI
SOLI_F_00007388	150	75	2.00	1800	GI
SOLI_F_00007380	150	75	2.00	2000	GI
SOLI_F_00007716	150	75	2.50	1000	GI
SOLI_F_00052497	150	75	2.50	1500	GI
SOLI_F_00052505	150	75	2.50	1550	GI
SOLI_F_00072973	150	75	2.50	1800	GI
SOLI_F_00007700	150	75	2.50	2000	GI
SOLI_F_00007756	150	75	2.50	2600	GI
SOLI_F_00052859	150	75	2.50	3000	GI
SOLI_F_00058149	150	75	3.00	1320	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00008012	150	75	3.00	1400	GI
SOLI_F_00007932	150	75	3.00	2400	GI
SOLI_F_00039654	150	75	3.00	2500	GI
SOLI_F_00052513	150	75	3.00	2800	GI
SOLI_F_00008308	150	75	4.00	1000	GI
SOLI_F_00008316	150	75	4.00	1300	GI
SOLI_F_00008292	150	75	4.00	1500	GI
SOLI_F_00008300	150	75	4.00	1600	GI
SOLI_F_00073647	150	75	4.00	1850	GI
SOLI_F_00008324	150	75	4.00	2000	GI
SOLI_F_00008332	150	75	4.00	2200	GI
SOLI_F_00095725	190	100	2.00	2000	GI
SOLI_F_00095733	190	100	3.00	2500	GI
SOLI_F_00095701	190	50	2.00	1200	GI
SOLI_F_00095709	190	50	2.00	1500	GI
SOLI_F_00095717	190	50	2.00	1700	GI
SOLI_F_00039598	200	100	1.80	1000	GI
SOLI_F_00050261	200	100	1.80	1100	GI
SOLI_F_00039606	200	100	1.80	1200	GI
SOLI_F_00050269	200	100	1.80	1300	GI
SOLI_F_00039590	200	100	1.80	1400	GI
SOLI_F_00050277	200	100	1.80	1500	GI
SOLI_F_00039614	200	100	1.80	1600	GI
SOLI_F_00050301	200	100	1.80	1700	GI
SOLI_F_00050245	200	100	1.80	1900	GI
SOLI_F_00039622	200	100	1.80	2000	GI
SOLI_F_00050253	200	100	1.80	2200	GI
SOLI_F_00039630	200	100	1.80	2300	GI
SOLI_F_00050237	200	100	1.80	2600	GI
SOLI_F_00050285	200	100	1.80	2800	GI
SOLI_F_00008688	200	100	1.80	3000	GI
SOLI_F_00008526	200	100	2.00	1900	GI
SOLI_F_00107761	200	100	2.00	2200	GI
SOLI_F_00008558	200	100	2.00	2400	GI
SOLI_F_00008566	200	100	2.00	3000	GI
SOLI_F_00063611	200	100	2.30	1900	GI
SOLI_F_00063603	200	100	2.30	2400	GI
SOLI_F_00008614	200	100	2.50	1500	GI
SOLI_F_00008680	200	100	2.50	1600	GI
SOLI_F_00058207	200	100	2.50	1800	GI
SOLI_F_00008606	200	100	2.50	2000	GI
SOLI_F_00058199	200	100	2.50	2100	GI
SOLI_F_00008574	200	100	2.50	2200	GI
SOLI_F_00078437	200	100	2.50	2300	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00008582	200	100	2.50	2400	GI
SOLI_F_00008622	200	100	2.50	2500	GI
SOLI_F_00039672	200	100	2.50	3000	GI
SOLI_F_00063867	200	100	2.80	2100	GI
SOLI_F_00089933	200	100	3.00	1300	GI
SOLI_F_00089885	200	100	3.00	1400	GI
SOLI_F_00091729	200	100	3.00	1450	GI
SOLI_F_00089893	200	100	3.00	1500	GI
SOLI_F_00089901	200	100	3.00	1600	GI
SOLI_F_00089941	200	100	3.00	1700	GI
SOLI_F_00074575	200	100	3.00	1800	GI
SOLI_F_00089925	200	100	3.00	1900	GI
SOLI_F_00091753	200	100	3.00	1950	GI
SOLI_F_00074893	200	100	3.00	2000	GI
SOLI_F_00093871	200	100	3.00	2050	GI
SOLI_F_00107843	200	100	3.00	2200	GI
SOLI_F_00093831	200	100	3.00	2250	GI
SOLI_F_00052589	200	100	3.00	2400	GI
SOLI_F_00093839	200	100	3.00	2450	GI
SOLI_F_00042398	200	100	3.00	2500	GI
SOLI_F_00105937	200	100	3.00	2840	GI
SOLI_F_00089917	200	100	4.00	2200	GI
SOLI_F_00089909	200	100	4.00	2400	GI
SOLI_F_00097917	200	110	1.80	2100	GI
SOLI_F_00097925	200	120	1.80	2200	GI
SOLI_F_00109621	200	125	1.80	2250	GI
SOLI_F_00064455	200	125	2.00	2300	GI
SOLI_F_00105921	200	125	3.00	3000	GI
SOLI_F_00097933	200	130	1.80	2400	GI
SOLI_F_00097941	200	130	1.80	2450	GI
SOLI_F_00109589	200	150	1.80	2450	GI
SOLI_F_00109613	200	150	1.80	3000	GI
SOLI_F_00108857	200	150	2.00	2200	GI
SOLI_F_00114731	200	150	2.00	2400	GI
SOLI_F_00097949	200	150	2.50	2800	GI
SOLI_F_00097957	200	150	2.80	3000	GI
SOLI_F_00074901	200	150	3.00	2200	GI
SOLI_F_00058191	200	150	3.00	2400	GI
SOLI_F_00099973	200	150	3.00	2450	GI
SOLI_F_00041580	200	150	3.00	2800	GI
SOLI_F_00103133	200	150	3.00	4000	GI
SOLI_F_00103141	200	150	3.00	4300	GI
SOLI_F_00108521	200	150	3.00	4400	GI
SOLI_F_00052605	200	150	4.00	2800	GI

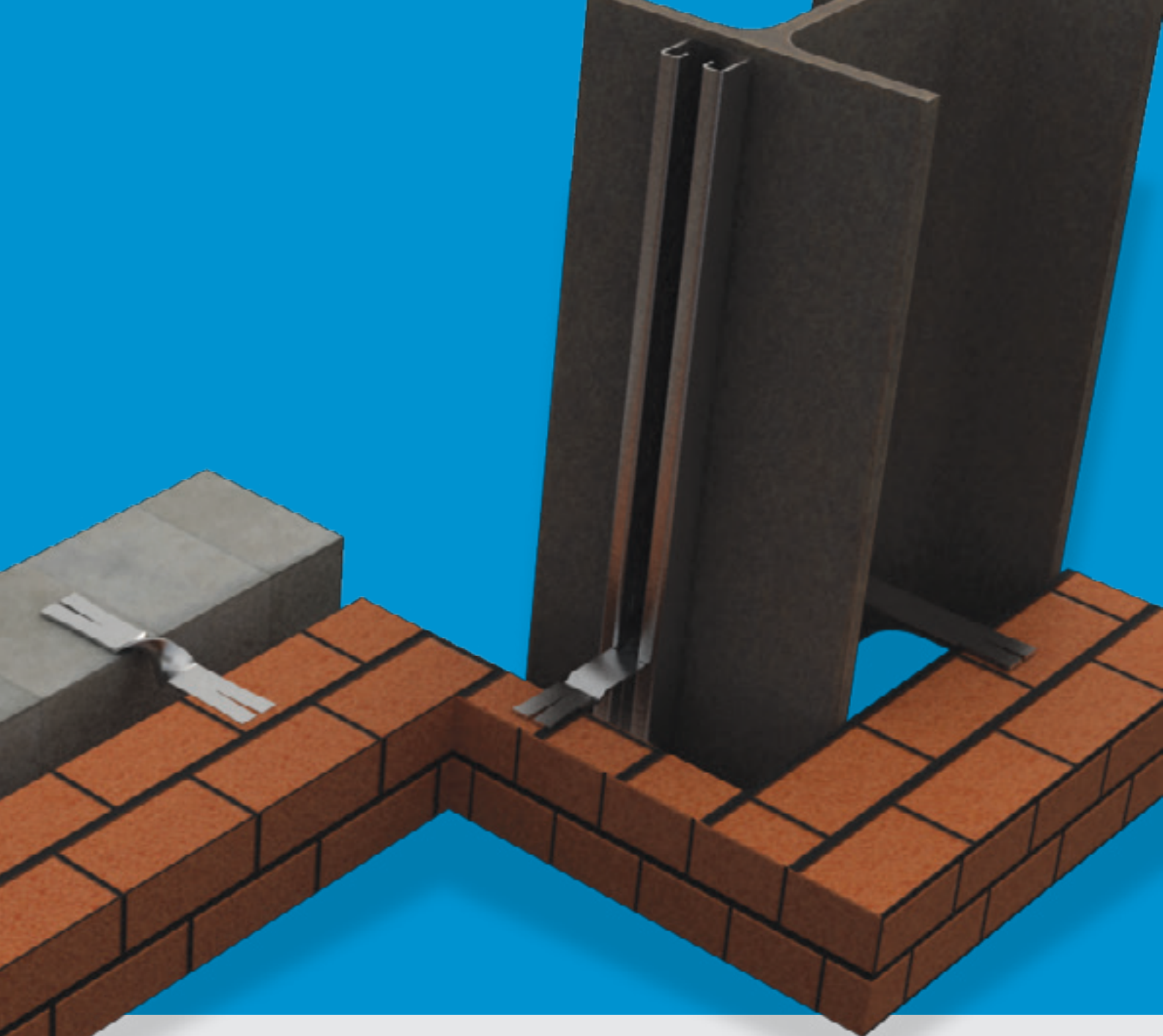
Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00005590	200	50	1.50	1000	GI
SOLI_F_00005598	200	50	1.50	1100	GI
SOLI_F_00005606	200	50	1.50	1200	GI
SOLI_F_00005614	200	50	1.50	1300	GI
SOLI_F_00005622	200	50	1.50	1400	GI
SOLI_F_00005630	200	50	1.50	1500	GI
SOLI_F_00005678	200	50	1.80	1000	GI
SOLI_F_00006030	200	50	1.80	1100	GI
SOLI_F_00065957	200	50	1.80	1150	GI
SOLI_F_00006038	200	50	1.80	1200	GI
SOLI_F_00102679	200	50	1.80	1240	GI
SOLI_F_00050339	200	50	1.80	1250	GI
SOLI_F_00006046	200	50	1.80	1300	GI
SOLI_F_00104475	200	50	1.80	1340	GI
SOLI_F_00106985	200	50	1.80	1350	GI
SOLI_F_00006054	200	50	1.80	1400	GI
SOLI_F_00067361	200	50	1.80	1450	GI
SOLI_F_00006062	200	50	1.80	1500	GI
SOLI_F_00106993	200	50	1.80	1550	GI
SOLI_F_00006070	200	50	1.80	1600	GI
SOLI_F_00006078	200	50	1.80	1700	GI
SOLI_F_00005950	200	50	2.00	2100	GI
SOLI_F_00005958	200	50	2.00	2200	GI
SOLI_F_00005966	200	50	2.00	2300	GI
SOLI_F_00005974	200	50	2.00	2400	GI
SOLI_F_00005982	200	50	2.00	2500	GI
SOLI_F_00005990	200	50	2.00	2600	GI
SOLI_F_00005998	200	50	2.00	2700	GI
SOLI_F_00006006	200	50	2.00	2800	GI
SOLI_F_00006014	200	50	2.00	2900	GI
SOLI_F_00006022	200	50	2.00	3000	GI
SOLI_F_00072989	200	50	2.00	3200	GI
SOLI_F_00077487	200	50	2.00	3600	GI
SOLI_F_00081833	200	50	2.00	4000	GI
SOLI_F_00081657	200	50	2.00	450	GI
SOLI_F_00081673	200	50	2.00	750	GI
SOLI_F_00058215	200	50	2.00	800	GI
SOLI_F_00077479	200	50	2.40	2000	GI
SOLI_F_00005694	200	50	2.50	1000	GI
SOLI_F_00005702	200	50	2.50	1100	GI
SOLI_F_00005710	200	50	2.50	1200	GI
SOLI_F_00005718	200	50	2.50	1300	GI
SOLI_F_00005726	200	50	2.50	1400	GI
SOLI_F_00005902	200	50	2.50	1500	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00005742	200	50	2.50	1600	GI
SOLI_F_00005750	200	50	2.50	1700	GI
SOLI_F_00005758	200	50	2.50	1800	GI
SOLI_F_00005766	200	50	2.50	1900	GI
SOLI_F_00005774	200	50	2.50	2000	GI
SOLI_F_00005782	200	50	2.50	2100	GI
SOLI_F_00005790	200	50	2.50	2200	GI
SOLI_F_00067709	200	50	2.50	2250	GI
SOLI_F_00005798	200	50	2.50	2300	GI
SOLI_F_00067697	200	50	2.50	2350	GI
SOLI_F_00005806	200	50	2.50	2400	GI
SOLI_F_00005814	200	50	2.50	2500	GI
SOLI_F_00005822	200	50	2.50	2600	GI
SOLI_F_00005830	200	50	2.50	2700	GI
SOLI_F_00005838	200	50	2.50	2800	GI
SOLI_F_00005854	200	50	2.50	3000	GI
SOLI_F_00004280	200	50	3.00	1000	GI
SOLI_F_00089909	200	100	4.00	2400	GI
SOLI_F_00097917	200	110	1.80	2100	GI
SOLI_F_00097925	200	120	1.80	2200	GI
SOLI_F_00109621	200	125	1.80	2250	GI
SOLI_F_00064455	200	125	2.00	2300	GI
SOLI_F_00105921	200	125	3.00	3000	GI
SOLI_F_00097933	200	130	1.80	2400	GI
SOLI_F_00097941	200	130	1.80	2450	GI
SOLI_F_00109589	200	150	1.80	2450	GI
SOLI_F_00109613	200	150	1.80	3000	GI
SOLI_F_00108857	200	150	2.00	2200	GI
SOLI_F_00114731	200	150	2.00	2400	GI
SOLI_F_00097949	200	150	2.50	2800	GI
SOLI_F_00097957	200	150	2.80	3000	GI
SOLI_F_00074901	200	150	3.00	2200	GI
SOLI_F_00058191	200	150	3.00	2400	GI
SOLI_F_00099973	200	150	3.00	2450	GI
SOLI_F_00041580	200	150	3.00	2800	GI
SOLI_F_00103133	200	150	3.00	4000	GI
SOLI_F_00103141	200	150	3.00	4300	GI
SOLI_F_00108521	200	150	3.00	4400	GI
SOLI_F_00052605	200	150	4.00	2800	GI
SOLI_F_00005590	200	50	1.50	1000	GI
SOLI_F_00005598	200	50	1.50	1100	GI
SOLI_F_00005606	200	50	1.50	1200	GI
SOLI_F_00005614	200	50	1.50	1300	GI
SOLI_F_00005622	200	50	1.50	1400	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00008012	150	75	3.00	1400	GI
SOLI_F_00007932	150	75	3.00	2400	GI
SOLI_F_00039654	150	75	3.00	2500	GI
SOLI_F_00052513	150	75	3.00	2800	GI
SOLI_F_00008308	150	75	4.00	1000	GI
SOLI_F_00008316	150	75	4.00	1300	GI
SOLI_F_00008292	150	75	4.00	1500	GI
SOLI_F_00008300	150	75	4.00	1600	GI
SOLI_F_00073647	150	75	4.00	1850	GI
SOLI_F_00008324	150	75	4.00	2000	GI
SOLI_F_00008332	150	75	4.00	2200	GI
SOLI_F_00095725	190	100	2.00	2000	GI
SOLI_F_00095733	190	100	3.00	2500	GI
SOLI_F_00095701	190	50	2.00	1200	GI
SOLI_F_00095709	190	50	2.00	1500	GI
SOLI_F_00095717	190	50	2.00	1700	GI
SOLI_F_00039598	200	100	1.80	1000	GI
SOLI_F_00050261	200	100	1.80	1100	GI
SOLI_F_00039606	200	100	1.80	1200	GI
SOLI_F_00050269	200	100	1.80	1300	GI
SOLI_F_00039590	200	100	1.80	1400	GI
SOLI_F_00050277	200	100	1.80	1500	GI
SOLI_F_00039614	200	100	1.80	1600	GI
SOLI_F_00050301	200	100	1.80	1700	GI
SOLI_F_00050245	200	100	1.80	1900	GI
SOLI_F_00039622	200	100	1.80	2000	GI
SOLI_F_00050253	200	100	1.80	2200	GI
SOLI_F_00039630	200	100	1.80	2300	GI
SOLI_F_00050237	200	100	1.80	2600	GI
SOLI_F_00050285	200	100	1.80	2800	GI
SOLI_F_00008688	200	100	1.80	3000	GI
SOLI_F_00008526	200	100	2.00	1900	GI
SOLI_F_00107761	200	100	2.00	2200	GI
SOLI_F_00008558	200	100	2.00	2400	GI
SOLI_F_00008566	200	100	2.00	3000	GI
SOLI_F_00063611	200	100	2.30	1900	GI
SOLI_F_00063603	200	100	2.30	2400	GI
SOLI_F_00008614	200	100	2.50	1500	GI
SOLI_F_00008680	200	100	2.50	1600	GI
SOLI_F_00058207	200	100	2.50	1800	GI
SOLI_F_00008606	200	100	2.50	2000	GI
SOLI_F_00058199	200	100	2.50	2100	GI
SOLI_F_00008574	200	100	2.50	2200	GI
SOLI_F_00078437	200	100	2.50	2300	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00005766	200	50	2.50	1900	GI
SOLI_F_00005774	200	50	2.50	2000	GI
SOLI_F_00005774	200	50	2.50	2000	GI
SOLI_F_00005782	200	50	2.50	2100	GI
SOLI_F_00005790	200	50	2.50	2200	GI
SOLI_F_00067709	200	50	2.50	2250	GI
SOLI_F_00005798	200	50	2.50	2300	GI
SOLI_F_00067697	200	50	2.50	2350	GI
SOLI_F_00005806	200	50	2.50	2400	GI
SOLI_F_00005814	200	50	2.50	2500	GI
SOLI_F_00005822	200	50	2.50	2600	GI
SOLI_F_00005830	200	50	2.50	2700	GI
SOLI_F_00005838	200	50	2.50	2800	GI
SOLI_F_00005854	200	50	2.50	3000	GI
SOLI_F_00004280	200	50	3.00	1000	GI
SOLI_F_00104285	250	50	1.80	1700	GI
SOLI_F_00054537	250	50	1.80	1800	GI
SOLI_F_00071499	250	50	1.80	2000	GI
SOLI_F_00115783	250	50	1.80	2100	GI
SOLI_F_00042032	250	50	1.80	2200	GI
SOLI_F_00080049	250	50	1.80	2300	GI
SOLI_F_00115791	250	50	1.80	2400	GI
SOLI_F_00107859	250	50	1.80	2600	GI
SOLI_F_00048436	250	50	1.80	3000	GI
SOLI_F_00047572	250	50	2.00	1000	GI
SOLI_F_00067401	250	50	2.00	1100	GI
SOLI_F_00042406	250	50	2.00	1200	GI
SOLI_F_00081625	250	50	2.00	1300	GI
SOLI_F_00092659	250	50	2.00	1350	GI
SOLI_F_00079629	250	50	2.00	1400	GI
SOLI_F_00081633	250	50	2.00	1500	GI
SOLI_F_00081641	250	50	2.00	1600	GI
SOLI_F_00047548	250	50	2.00	1700	GI
SOLI_F_00054807	250	50	2.00	1800	GI
SOLI_F_00062845	250	50	2.00	2000	GI
SOLI_F_00047556	250	50	2.00	2100	GI
SOLI_F_00062885	250	50	2.00	2150	GI
SOLI_F_00062861	250	50	2.00	2200	GI
SOLI_F_00062877	250	50	2.00	2300	GI
SOLI_F_00045814	250	50	2.00	2400	GI
SOLI_F_00047564	250	50	2.00	2500	GI
SOLI_F_00062869	250	50	2.00	2550	GI
SOLI_F_00079637	250	50	2.00	2600	GI
SOLI_F_00079645	250	50	2.00	2800	GI

Item Number	Height (mm)	Width (mm)	Thick\ ness (mm)	Length (mm)	Mate- rial
SOLI_F_00079637	250	50	2.00	2600	GI
SOLI_F_00079645	250	50	2.00	2800	GI
SOLI_F_00077241	250	50	2.00	3000	GI
SOLI_F_00067409	250	50	2.00	3100	GI
SOLI_F_00112767	250	50	2.80	1200	GI
SOLI_F_00086489	250	50	2.80	2000	GI
SOLI_F_00086575	250	50	2.80	2100	GI
SOLI_F_00086567	250	50	2.80	2600	GI
SOLI_F_00063181	250	50	2.80	2900	GI
SOLI_F_00064473	250	50	3.00	1000	GI
SOLI_F_00042342	250	50	3.00	1200	GI
SOLI_F_00061935	250	50	3.00	3000	GI
SOLI_F_00076963	250	50	3.00	3150	GI
SOLI_F_00076953	250	50	3.00	3750	GI
SOLI_F_00051275	250	75	1.80	1410	GI
SOLI_F_00007252	250	75	1.80	1440	GI
SOLI_F_00065233	250	75	1.80	1500	GI
SOLI_F_00051267	250	75	1.80	1800	GI
SOLI_F_00086765	250	75	1.80	1950	GI
SOLI_F_00051283	250	75	1.80	2040	GI
SOLI_F_00051291	250	75	1.80	2440	GI
SOLI_F_00007516	250	75	2.00	1400	GI
SOLI_F_00007420	250	75	2.00	1440	GI
SOLI_F_00107829	250	75	2.00	1500	GI
SOLI_F_00107811	250	75	2.00	1550	GI
SOLI_F_00007508	250	75	2.00	1600	GI
SOLI_F_00007340	250	75	2.00	1800	GI
SOLI_F_00103233	250	75	2.00	1950	GI
SOLI_F_00007500	250	75	2.00	2400	GI
SOLI_F_00007348	250	75	2.00	2440	GI
SOLI_F_00007556	250	75	2.00	3000	GI
SOLI_F_00007620	250	75	2.50	1300	GI
SOLI_F_00007652	250	75	2.50	1400	GI
SOLI_F_00007668	250	75	2.50	1450	GI
SOLI_F_00007212	250	75	2.50	1500	GI
SOLI_F_00007594	250	75	2.50	1600	GI
SOLI_F_00007204	250	75	2.50	1700	GI
SOLI_F_00007740	250	75	2.50	2000	GI
SOLI_F_00059717	250	75	2.50	2800	GI
SOLI_F_00054629	250	75	2.80	1000	GI
SOLI_F_00054597	250	75	2.80	1400	GI
SOLI_F_00054605	250	75	2.80	1600	GI
SOLI_F_00005726	200	50	2.50	1400	GI
SOLI_F_00005902	200	50	2.50	1500	GI



BLOCKWORK ACCESSORIES



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BLOCK WORK ACCESSORIES

SFSP manufactures Block Work Accessories in accordance with:

- BS EN 845-1:2013+A1:2016

Relevant Standards

- BS 1243:1978

Finishing

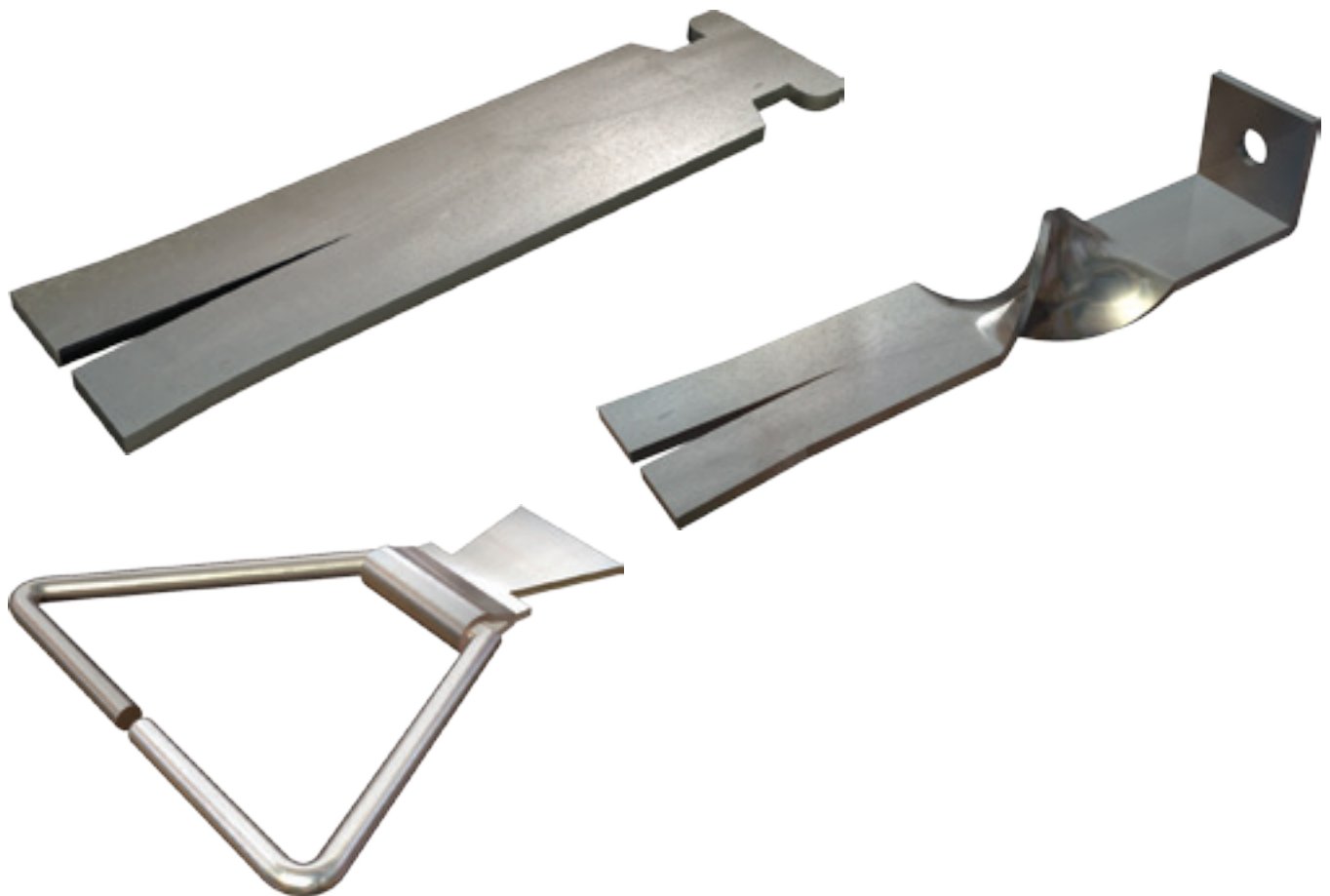
- Galvanized Steel according to BS EN 10346:2015
- Hot Dipped Galvanized according to BS EN ISO 1461:2009
- Stainless Steel according to BS EN 10088-2:2014

Materials

- **Hot rolled steel** S235JR as per EN 10025 / ASTM A-1011 CS Type B (formerly ASTM A569 or ASTM A570)
- **Cold rolled steel** DC01 as per EN 10130:2006 / ASTM A1008 CS Type B (formerly ASTM A-36) and then:

Manufacture Specifications:

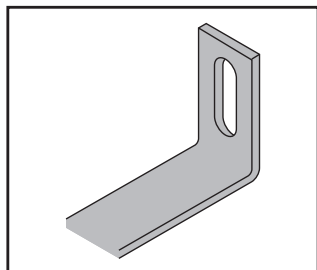
- Steel Lintels - manufactured to BS 5977: Part 2 :1983 / BS EN 845-2:2013+A1:2016.
- Wall Ties - manufactured to BS EN 845-1:2003 (Formerly BS 1234).
- Block Reinforcement Ladder and Truss - manufactured as per ASTM A82 / ASTM A951 / BS EN 845-2:2013+A1:2016.



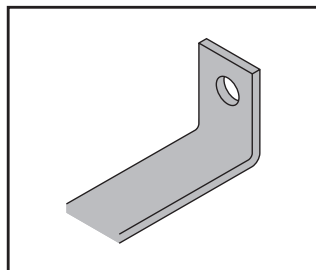
CRAMPS AND TIES

Head End Options

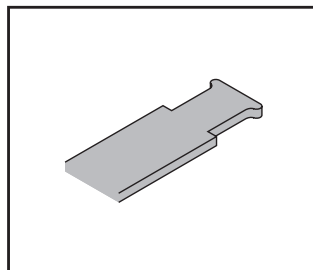
These ends have been manufactured to fit standard channel sections that is preset into concrete or surface fixed to any inner skin or structural ground



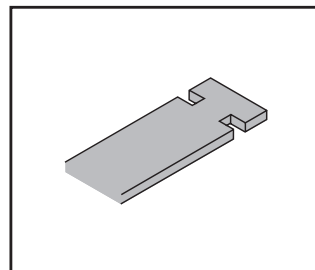
L-Angle Slotted



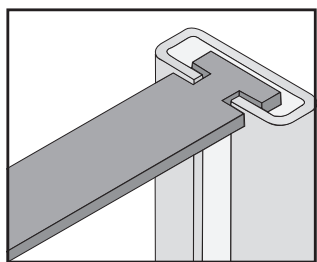
L-Angle Hole



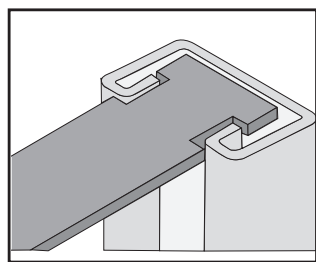
Plain



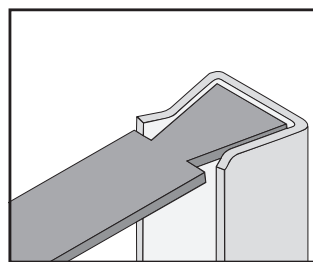
Plain



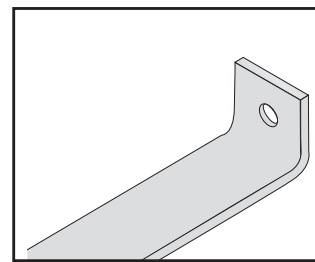
RCH / SCH Channel
REF: -/-/36



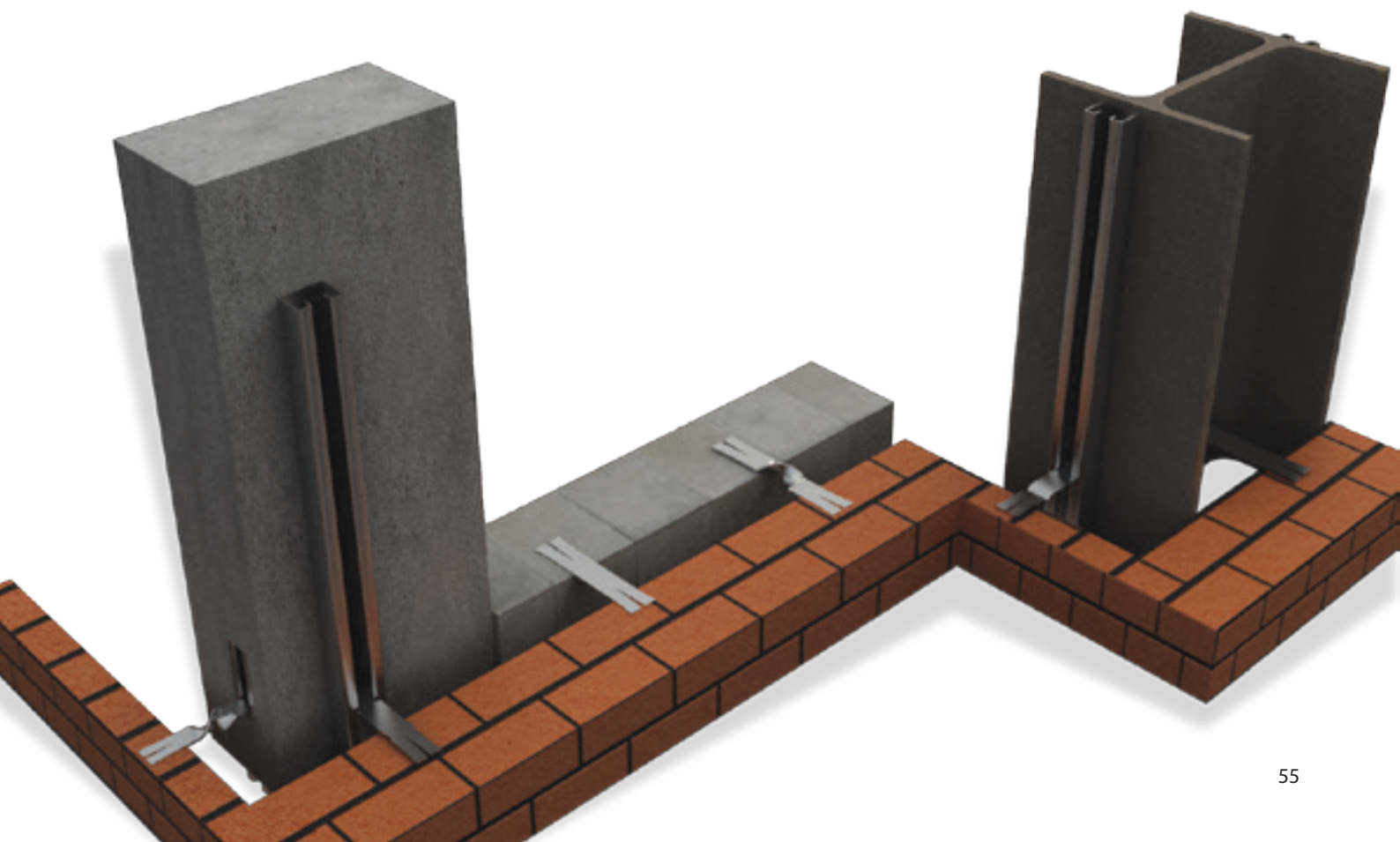
CCH Channel
REF: -/-/10



DCH Channel
REF: -/-/30



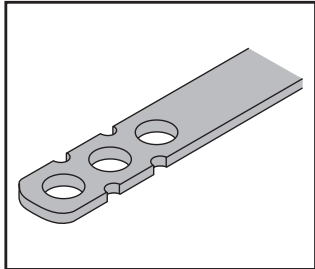
Bolt Screw Fixing
REF: -/-/50



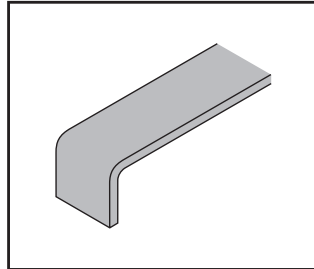
CRAMPS AND TIES

Tail End Options

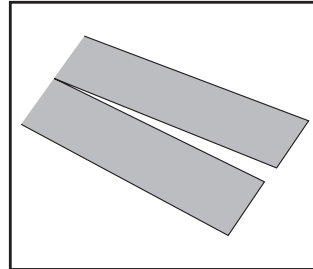
The most common method of anchoring a tie to a slab facing, is by means of a round dowel into a drilled hole, split tangs on the tie may also be used. For bonding into brickwork the "Fishtailed" end is the traditional.



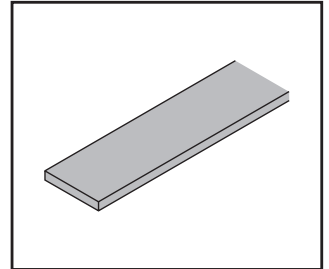
3 Holes



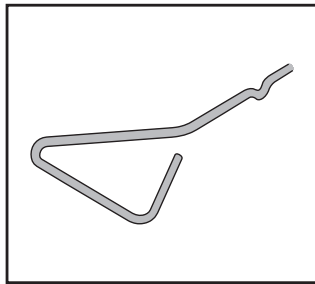
Turned Down



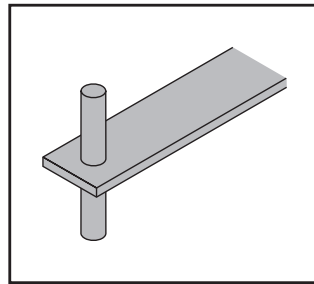
Split Tie



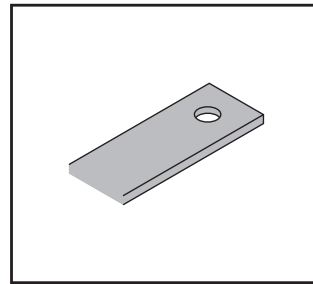
Plain



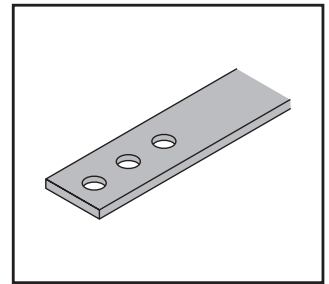
Returned Z



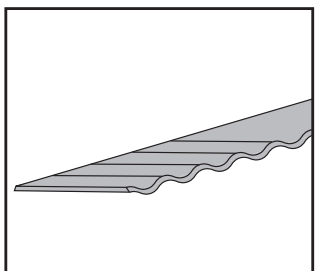
Plain with pin



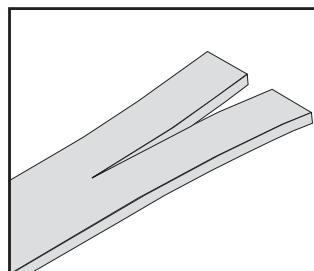
Plain 1 Hole



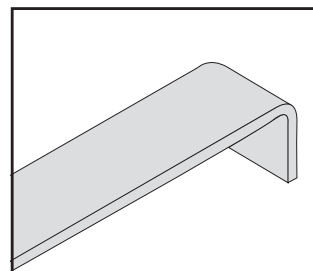
Plain 3 Holes



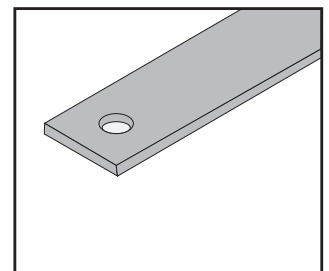
Corrugated



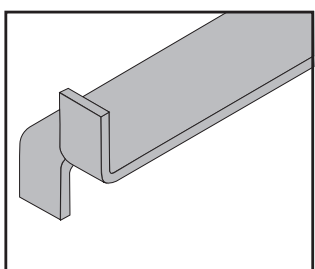
Fishtailed
REF: -/-/99



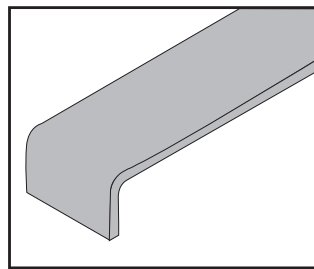
Turned Down
REF: -/-/88



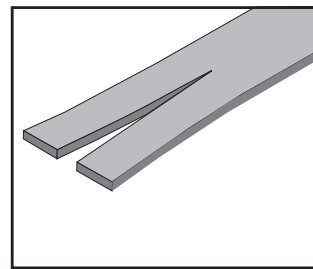
Dowel
REF: D/-/-



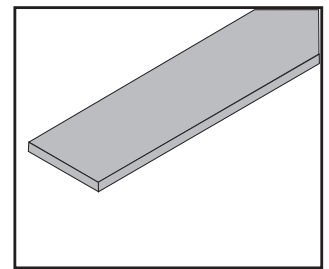
Split Tang
REF: S/-/-



Turned Down
REF: T/-/-



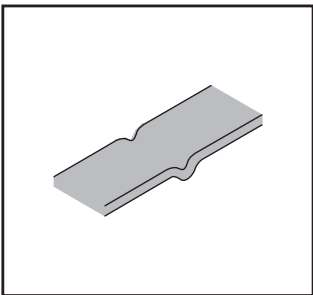
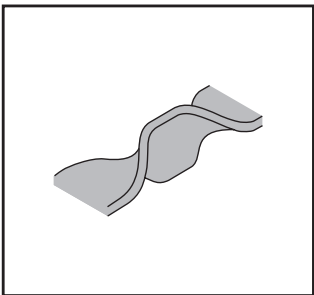
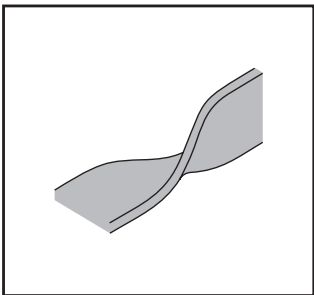
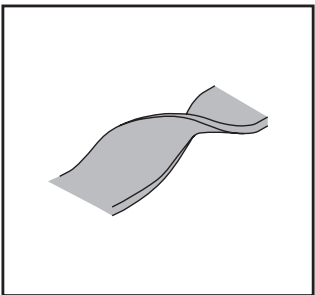
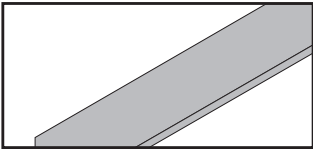
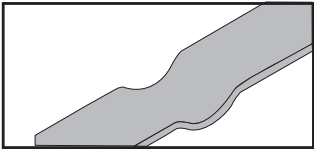
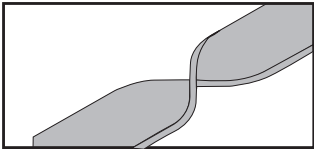
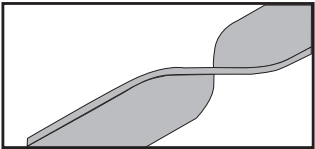
Fishtailed
REF: B/-/-

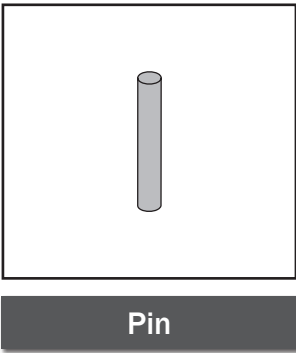
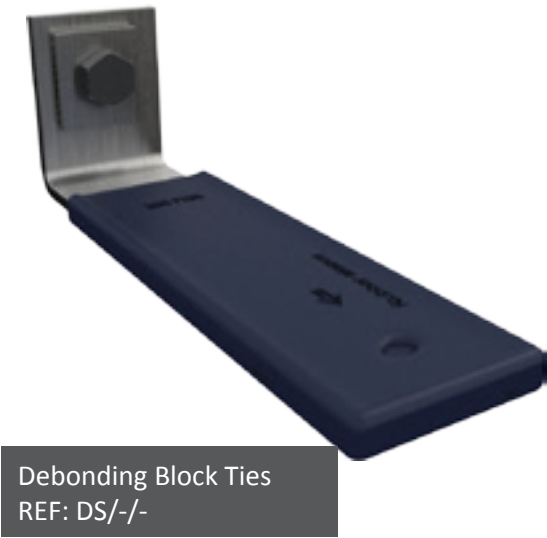


Plain
REF: P/-/-

Shank Options

Shanks may be plain or may include a drip to stop the passage of moisture across

			
Drip	Double Twist	Half Twist	Full Twist
			
Plain REF: -/P/-	Dimpled REF: -/D/-	Full Twist REF: -/F/-	Half Twist REF: -/H/-

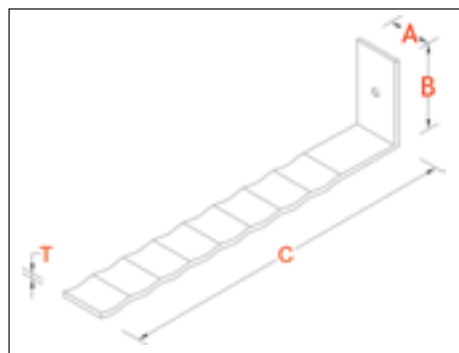


Frame Cramps and Channel Ties

Frame cramps with a single 7mm diameter hole or an 8mm x 30mm vertical slot can be fixed to concrete, steelwork or masonry. M6 Single Expansion bolts are recommended for fixing to concrete, setscrews or self-drilling screws for steelwork, and suitable plugs and screws for fixing to masonry. Poor substrates will limit the capacity of frame cramps and site treating is advisable in some cases. The performance will also be determined by the position of the fixing. Channel ties fixed to steelwork or concrete at the lowest point of slot will have a safe working load of approximately 1kN. The capacity will reduce as the fixing is moved further away from the bend and greater movement shall be expected than with other wall ties.

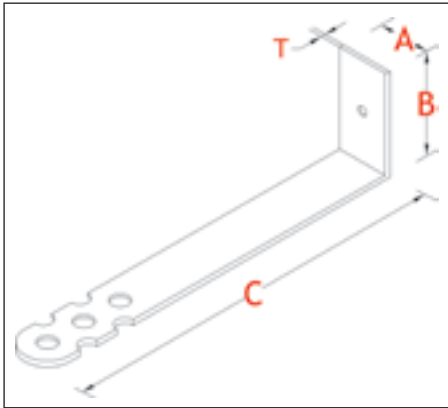
Block Ties Frame Cramps

Block Tie Corrugated with Bolt Screw Fixing



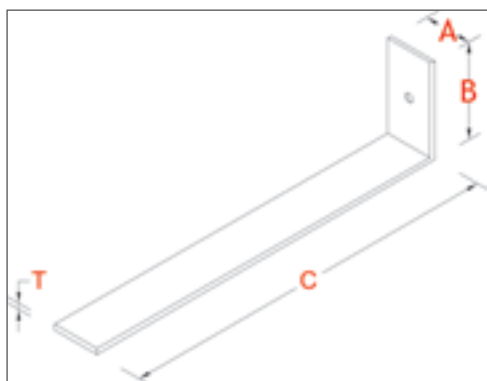
Item Number	Dimensions B x A x C x T (mm)	Material
SOBTL_F_00051209	30x50x150x1.50	MS (Mild Steel)
SOBTL_F_00055995	30x50x150x2.00	MS (Mild Steel)
SOBTL_F_00072009	30x50x200x2.00	MS (Mild Steel)
SOBTL_F_00061881	25x30x150x1.50	SS A4
SOBTL_F_00061887	25x30x150x2.00	SS A4
SOBTL_F_00051745	25x30x200x2.00	SS A4
SOBTL_F_00040664	25x40x150x2.00	SS A4
SOBTL_F_00041620	30x50x150x1.50	SS A4
SOBTL_F_00060949	30x50x150x2.00	SS A4
SOBTL_F_00058065	30x50x200x2.00	SS A4
SOBTL_F_00098679	50x50x200x2.00	SS A4
SOBTL_F_00083037	25x30x200x1.80	Galvanized
SOBTL_F_00067533	20x75x200x1.50	Galvanized
SOBTL_F_00040658	25x30x150x2.00	Galvanized
SOBTL_F_00075863	25x30x200x1.50	Galvanized
SOBTL_F_00051751	25x30x200x2.00	Galvanized
SOBTL_F_00047456	30x50x150x1.50	Galvanized
SOBTL_F_00054173	30x50x150x3.00	Galvanized
SOBTL_F_00040646	30x50x200x1.50	Galvanized
SOBTL_F_00070591	30x50x200x2.00	Galvanized
SOBTL_F_00047470	38x50x200x1.50	Galvanized
SOBTL_F_00040652	40x50x150x3.00	Galvanized

Three-Hole Block Tie



Item Number	Dimensions B x A x C x T (mm)	Material
SOBTL_F_00041440	30x50x150x1.50	Galvanized
SOBTL_F_00100265	20x30x150x3.00	Galvanized
SOBTL_F_00100277	20x30x250x3.00	Galvanized
SOBTL_F_00066019	20x30x255x3.00	Galvanized
SOBTL_F_00041352	25x30x150x1.50	Galvanized
SOBTL_F_00081473	25x30x200x1.50	Galvanized
SOBTL_F_00062449	25x30x200x1.80	Galvanized
SOBTL_F_00041382	25x30x200x2.00	Galvanized
SOBTL_F_00078877	30x40x200x1.50	Galvanized
SOBTL_F_00082981	30x40x200x2.00	Galvanized
SOBTL_F_00041418	30x40x300x2.00	Galvanized
SOBTL_F_00058771	25x30x200x2.00	SS A4
SOBTL_F_00062455	30x50x150x1.50	SS A4
SOBTL_F_00076763	30x50x200x1.50	SS A4
SOBTL_F_00108093	20x30x150x3.00	SS A6
SOBTL_F_00108099	20x30x250x3.00	SS A6
SOBTL_F_00100233	20x30x255x3.00	SS A6
SOBTL_F_00103203	25x30x200x2.00	SS A6

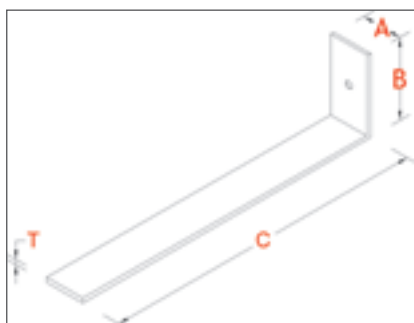
Block Tie Plain



Item Number	Dimensions A x B x C x T (mm)	Material
SOBTL_F_00054089	27x80x150x2.00	Galvanized
SOBTL_F_00066031	20x30x150x3.00	Galvanized
SOBTL_F_00087065	20x30x200x3.00	Galvanized
SOBTL_F_00100271	20x30x250x3.00	Galvanized
SOBTL_F_00066025	20x30x255x3.00	Galvanized
SOBTL_F_00063351	25x20x175x2.00	Galvanized
SOBTL_F_00092561	25x30x100x1.50	Galvanized
SOBTL_F_00074445	25x30x150x1.50	Galvanized
SOBTL_F_00083007	25x30x150x1.80	Galvanized
SOBTL_F_00055601	25x30x150x3.00	Galvanized
SOBTL_F_00075813	25x30x175x2.00	Galvanized
SOBTL_F_00040462	25x30x200x1.80	Galvanized
SOBTL_F_00060781	25x30x200x2.00	Galvanized
SOBTL_F_00056241	25x50x120x1.80	Galvanized
SOBTL_F_00060861	25x50x200x1.50	Galvanized
SOBTL_F_00094155	25x50x250x1.80	Galvanized
SOBTL_F_00071285	27x30x120x1.50	Galvanized
SOBTL_F_00079703	27x40x120x2.00	Galvanized
SOBTL_F_00048196	27x45x125x1.50	Galvanized
SOBTL_F_00076497	27x45x125x2.00	Galvanized
SOBTL_F_00082997	27x45x140x2.00	Galvanized
SOBTL_F_00091779	27x50x125x2.00	Galvanized
SOBTL_F_00040698	27x50x150x1.50	Galvanized

Item Number	Dimensions A x B x C x T (mm)	Material
SOBTL_F_00110627	27x50x150x2.00	Galvanized
SOBTL_F_00104327	27x80x150x2.00	Galvanized
SOBTL_F_00040520	30x40x150x2.00	Galvanized
SOBTL_F_00089299	30x40x200x2.00	Galvanized
SOBTL_F_00060813	30x50x190x1.50	Galvanized
SOBTL_F_00076757	30x50x200x1.50	Galvanized
SOBTL_F_00058059	30x50x80x1.20	Galvanized
SOBTL_F_00047482	25x30x150x2.00	SS A4
SOBTL_F_00055589	25x30x150x3.00	SS A4
SOBTL_F_00060975	25x30x200x2.00	SS A4
SOBTL_F_00079719	27x40x120x2.00	SS A4
SOBTL_F_00041632	27x45x125x1.50	SS A4
SOBTL_F_00054061	27x45x125x2.00	SS A4
SOBTL_F_00051355	27x50x150x1.50	SS A4
SOBTL_F_00040704	27x80x150x2.00	SS A4
SOBTL_F_00060825	30x45x150x2.00	SS A4
SOBTL_F_00051349	30x50x150x1.50	SS A4
SOBTL_F_00060819	30x50x190x1.50	SS A4
SOBTL_F_00108105	20x30x250x3.00	SS A6
SOBTL_F_00100239	20x30x255x3.00	SS A6
SOBTL_F_00100251	27x45x125x1.50	SS A6
SOBTL_F_00082755	40x40x250x3.00	SS A6

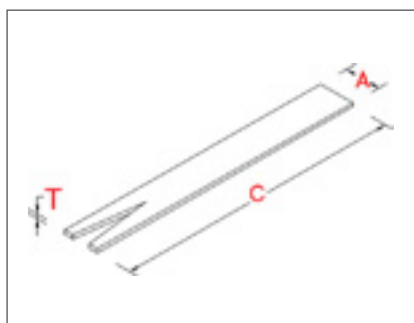
Block Tie Plain



Item Number	Dimensions A x B x C x T (mm)	Material
SOBTL_F_00054089	27x80x150x2.00	Galvanized
SOBTL_F_00066031	20x30x150x3.00	Galvanized
SOBTL_F_00087065	20x30x200x3.00	Galvanized
SOBTL_F_00100271	20x30x250x3.00	Galvanized
SOBTL_F_00066025	20x30x255x3.00	Galvanized
SOBTL_F_00063351	25x20x175x2.00	Galvanized
SOBTL_F_00092561	25x30x100x1.50	Galvanized
SOBTL_F_00074445	25x30x150x1.50	Galvanized
SOBTL_F_00083007	25x30x150x1.80	Galvanized
SOBTL_F_00055601	25x30x150x3.00	Galvanized
SOBTL_F_00075813	25x30x175x2.00	Galvanized
SOBTL_F_00040462	25x30x200x1.80	Galvanized
SOBTL_F_00060781	25x30x200x2.00	Galvanized
SOBTL_F_00056241	25x50x120x1.80	Galvanized
SOBTL_F_00060861	25x50x200x1.50	Galvanized
SOBTL_F_00094155	25x50x250x1.80	Galvanized
SOBTL_F_00071285	27x30x120x1.50	Galvanized
SOBTL_F_00079703	27x40x120x2.00	Galvanized
SOBTL_F_00048196	27x45x125x1.50	Galvanized
SOBTL_F_00076497	27x45x125x2.00	Galvanized
SOBTL_F_00082997	27x45x140x2.00	Galvanized
SOBTL_F_00091779	27x50x125x2.00	Galvanized
SOBTL_F_00040698	27x50x150x1.50	Galvanized
SOBTL_F_00110627	27x50x150x2.00	Galvanized

Item Number	Dimensions A x B x C x T (mm)	Material
SOBTL_F_00104327	27x80x150x2.00	Galvanized
SOBTL_F_00094919	27x80x150x2.00	Galvanized
SOBTL_F_00040520	30x40x150x2.00	Galvanized
SOBTL_F_00089299	30x40x200x2.00	Galvanized
SOBTL_F_00060813	30x50x190x1.50	Galvanized
SOBTL_F_00076757	30x50x200x1.50	Galvanized
SOBTL_F_00058059	30x50x80x1.20	Galvanized
SOBTL_F_00047482	25x30x150x2.00	SS A4
SOBTL_F_00055589	25x30x150x3.00	SS A4
SOBTL_F_00055589	25x30x150x3.00	SS A4
SOBTL_F_00060975	25x30x200x2.00	SS A4
SOBTL_F_00079719	27x40x120x2.00	SS A4
SOBTL_F_00041632	27x45x125x1.50	SS A4
SOBTL_F_00054061	27x45x125x2.00	SS A4
SOBTL_F_00051355	27x50x150x1.50	SS A4
SOBTL_F_00040704	27x80x150x2.00	SS A4
SOBTL_F_00040704	27x80x150x2.00	SS A4
SOBTL_F_00054083	27x80x150x2.00	SS A4
SOBTL_F_00060825	30x45x150x2.00	SS A4
SOBTL_F_00051349	30x50x150x1.50	SS A4
SOBTL_F_00060819	30x50x190x1.50	SS A4
SOBTL_F_00108105	20x30x250x3.00	SS A6
SOBTL_F_00100239	20x30x255x3.00	SS A6
SOBTL_F_00100251	27x45x125x1.50	SS A6
SOBTL_F_00082755	40x40x250x3.00	SS A6

Block Tie Fish Tailed



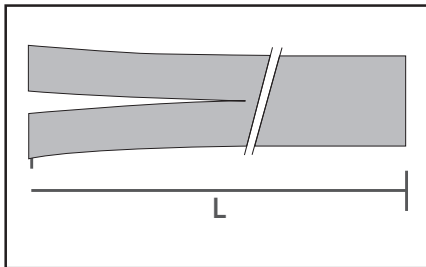
Item Number	Dimensions A x C x T (mm)	Material
SOBTS_F_00105757	25x250x2.00	Galvanized
SOBTS_F_00042500	25x200x1.50	Galvanized
SOBTS_F_00083025	25x200x1.80	Galvanized
SOBTS_F_00059167	25x200x2.00	Galvanized
SOBTS_F_00075635	25x200x3.00	Galvanized
SOBTS_F_00075647	25x200x3.00	Galvanized
SOBTS_F_00083053	25x250x2.00	Galvanized
SOBTS_F_00087297	25x300x2.00	Galvanized
SOBTS_F_00060799	30x200x1.50	Galvanized
SOBTS_F_00040670	30x200x1.80	Galvanized
SOBTS_F_00070597	30x200x2.00	Galvanized
SOBTS_F_00073211	30x220x1.50	Galvanized
SOBTS_F_00042536	30x225x2.00	Galvanized
SOBTS_F_00056073	30x300x2.00	Galvanized
SOBTS_F_00047506	35x100x1.20	Galvanized
SOBTS_F_00076545	50x200x2.00	Galvanized

Item Number	Dimensions A x C x T (mm)	Material
SOBTS_F_00076679	50x200x4.00	Galvanized
SOBTS_F_00071603	40x200x2.00	MS
SOBTL_F_00087877	50x200x3.00	SS A4
SOBTS_F_00057605	25x200x2.00	SS A4
SOBTS_F_00076779	25x200x2.50	SS A4
SOBTS_F_00075641	25x200x3.00	SS A4
SOBTS_F_00056649	25x225x2.00	SS A4
SOBTS_F_00109321	25x300x2.00	SS A4
SOBTS_F_00060793	30x200x1.50	SS A4
SOBTS_F_00058071	30x200x2.00	SS A4
SOBTS_F_00075819	30x225x2.00	SS A4
SOBTS_F_00057933	30x300x2.00	SS A4
SOBTS_F_00047494	35x100x1.20	SS A4
SOBTS_F_00105805	25x200x2.00	SS A6
SOBTS_F_00112815	30x200x2.00	SS A6
SOBTS_F_00112821	30x200x2.00	SS A6

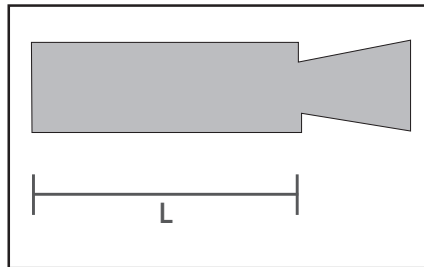
DOVE TAIL (TWA)

Reference Codes

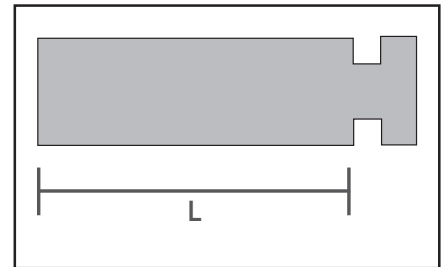
Each tie will consist of a tail element, for attachment to the facing material, a shank element, and a head element, for attachment to the structure.



Fish Tail
REF: B/-/-



DCH -/-/30



CCH -/-/10



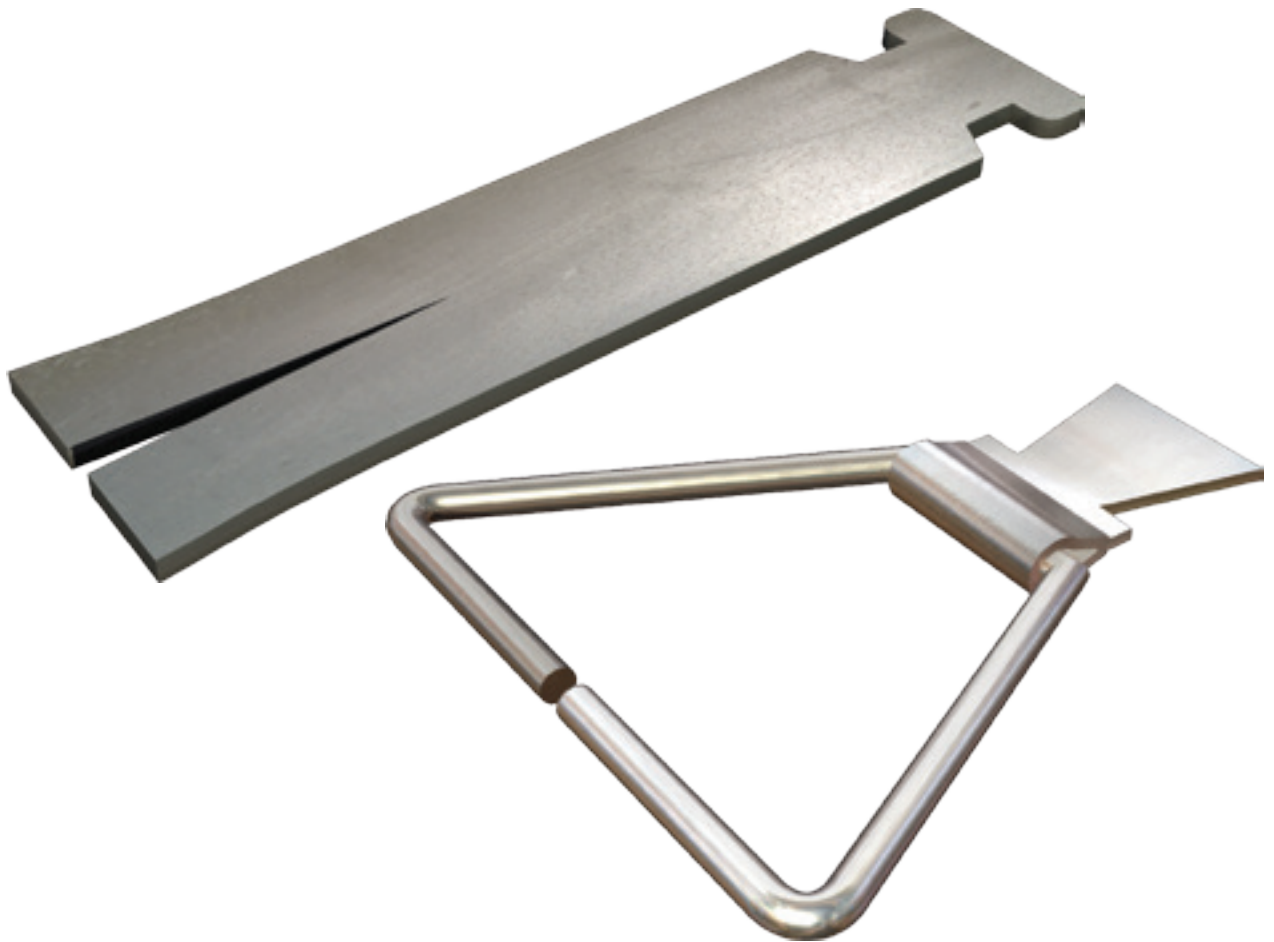
ADJUSTABLE WALL TIE (AWT)

Device for connecting a masonry leaf across a cavity to another masonry leaf or to a structural frame to resist tension and compression forces while allowing limited differential movement in the plane of the wall.

Wall ties are an important element in the stability of cavity walls. The correct selection, spacing and installation of ties is recommended to avoid damp penetration and cracking of masonry. Wall ties may only be mounted in a horizontal position and in the plane (on level) between the masonry leaves of the cavity wall once the mortar has been applied on the block work, the tie must be embedded in the mortar, cover as well is top with mortar. The tie must be extend in the mortar joints at least 90 mm in the inner leaf and at least 65 mm in the outer leaf.

Wall ties are further sub classified as asymmetrical or symmetrical.

Wall ties is for use in the external walls, suitable for flat sites where basic wind speed is up to 30 m/s.



Installation of Ties

Wall ties shall be pressed down in and surrounded by fresh mortar.

To ensure cavity wall ties are effective at tying the leaves together they should be installed as the inner leaf is constructed not simply pushed into a joint.

Ties should be installed with a slight fall to the outer leaf, never towards the inner leaf as this could provide path for moisture to cross the cavity.

The drip part of the tie should point downwards and be positioned near the Centre of the open cavity.

Installed ties should be clear of mortar droppings to allow the drip to function and prevent water from crossing to the inner leaf of masonry.

LENGTH OF TIES IN MM TO SUIT CAVITY

Tie	Reference Code	Description	Section Size (mm)	Cavity				Position of Drip (min) mm
				Length 0 - 20 (mm)	Length 15 - 45 (mm)	Length 40 - 70 (mm)	Length 65 - 70 (mm)	
	B/P/30	Brick Facing Tie	20 x 2.0 25 x 2.0	75	100	150	200	
	B/D/30	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	20
	B/F/30	Brick Facing Tie	20 x 2.0 25 x 2.0			150	200	30
	B/P/21	Brick Facing Tie	20 x 2.0 25 x 2.0	75	100	150	200	
	B/D/21	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	20
	B/F/21	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	30
	B/P/28	Brick Facing Tie	20 x 2.0 25 x 2.0	75	100	150	200	
	B/D/28	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	20
	B/F/28	Brick Facing Tie	20 x 2.0 25 x 2.0			150	200	30
	B/P/36	Brick Facing Tie	20 x 2.0 25 x 2.0	75	100	150	200	
	B/D/36	Brick Facing Tie	20 x 2.0 25 x 2.0		100	150	200	20
	B/F/36	Brick Facing Tie	20 x 2.0 25 x 2.0			150	200	30

Tie	Reference Code	Description	Section Size (mm)	Cavity				Position of Drip (min) mm
				Length 0 - 20 (mm)	Length 15 - 45 (mm)	Length 40 - 70 (mm)	Length 65 - 70 (mm)	
	B/F/36	Brick Facing Tie	20 x 2.0 25 x 2.0			150	200	30
	B/P/50	Brick Facing Tie	30 x 2.0 25 x 2.0	75	100			
	B/D/50	Brick Facing Tie	30 x 2.0 25 x 2.0		100			
	B/F/50	Brick Facing Tie	30 x 2.0 25 x 2.0					
	B/P/99	Cavity Wall Tie	30 x 2.0 25 x 2.0	150	200	250	300	
	B/D/99	Cavity Wall Tie	30 x 2.0 25 x 2.0	150	200	250	300	
	B/F/99	Cavity Wall Tie	30 x 2.0 25 x 2.0	150	200	250	300	
	C/C/30	Corrugated Strip	30 x 2.0 25 x 2.0	150	200	250	300	
	C/C/50	Corrugated Bracket	30 x 2.0 25 x 2.0	75	100	150	200	
	V/W/04	VEE Tie	ø 4,5,6	75	100	125	150	
	B/T/25	Wall Tie Anchor	30 x 2.0 25 x 2.0	75	100	125	150	
	S/S/15	Cavity Wall Tie	30 x 2.0 25 x 2.0	150	200	250	300	

CAVITY WALL TIE INFORMATION

To comply with: DIN 1053, at least 5 pieces of cavity wall ties should be used per square meter in accordance with DIN 17440, material of SS. 1.4401 or SS 1.4571. Three additional wall ties are required for the edges of building.

The distance between the ties should be maximum 500 mm vertically, and not more than 750 mm horizontally. The thickness of the wire tie depends on the height of the building and on the size of the wall cavity.

The minimum thickness is 3 mm. For walls that are higher than 12 m above ground level or where the gaps between the walls are more than 70 mm to 120 mm, a minimum of 5 wall ties with diameters of 4 mm are to be inserted.

If the gaps between the walls are more than 120 to 150 mm, a minimum of 7 wall ties with diameters of 4 mm or 5 wall ties with diameters of 5 mm are to be inserted. The length of the wall tie should be measured in such a way that the anchor is embedded 50 mm into the masonry and a further 25 mm is bent round. The thickness of the cavity and the thickness of the insulating material shall be added.

Cavity Wall Ties

Double Triangle Wall Tie, Butterfly & Three - Hole Wall Tie

Length of Tie and Embedment

Wall Ties should be of the correct length to ensure they are properly embedded in the masonry. The tie should have a minimum embedment of 50mm in each leaf but also take site tolerances into account for both cavity width and centering of the tie. For this reason, we suggest tie lengths which achieve an embedment of between 62.5mm and 75mm.

Recommended lengths to suit various cavity widths are shown for masonry-to-masonry wall ties.

Dimensional Standards

Fixed Dimensions

When Specifying ties certain set or minimum dimensions shall be followed, these are described as fixed dimensions and based on the limitations of material and the production processes.

Where a screw or bolt fixing is to be made a minimum length of 30mm is required.

Lengths

Lengths are generally measured to the extremity of the tie.

For ties fitting into channels the specified length is measured to the shoulder of the tie.

Wire Ties

A range of cavity wall ties are available manufactured in accordance with BS EN 845-1 which supersedes BS 1243. These are available in stainless steel, pre-galvanized or hot-dip galvanized steel, and to the dimensions shown.

Installation of ties

Wall ties should be pressed down in, and surrounded by, fresh mortar.

To ensure cavity wall ties are effective at tying the leaves together they should be installed as the inner leaf is constructed and not simply pushed into a joint. Ties should be installed with a slight fall to the outer leaf, never to wards the inner leaf as this could provide a path for moisture to cross the cavity. The drip part of the tie should point downwards and be positioned near the centre of the open cavity. Installed ties should be clear of mortar droppings to allow the drip to function and prevent water from crossing to the inner leaf of masonry.

BUTTERFLY TIE /TRIANGLE TIE

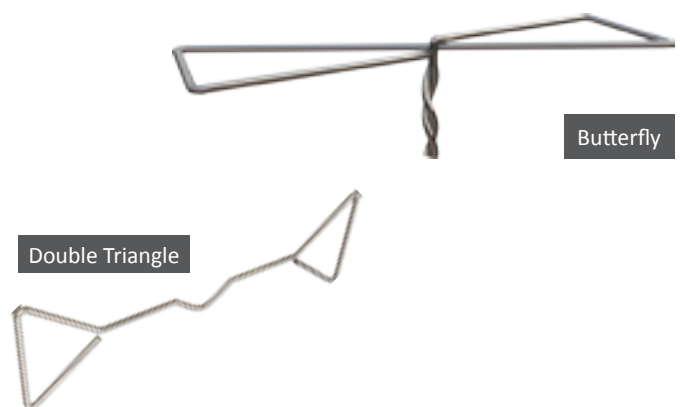
Wire Ties

A range of cavity wall ties are available manufactured in accordance with BS 123:1978. These are available in stainless steel, pre-galvanized or hot-dip galvanized steel, and to the dimensions shown.

BUTTERFLY TIE		
Item Number	Dimensions (mm)	Material
SOBTS_F_00088791	30x190x3.00	SS A4
SOBTS_F_00088797	30x190x3.00	SS A4
SOBTS_F_00209271	30x200x1.50	SS A4
SOWR_F_00053777	75x200x3.00	SS A4
SOWR_F_00083659	65x200x4.00	SS A4
SOWR_F_00186287	75x250x3.00	SS A4
SOWR_F_00186293	75x200x3.00	Galvanized
SOWR_F_00186695	65x200x4.00	Galvanized
SOWR_F_00191971	75x200x4.00	Galvanized
SOWR_F_00192599	65x390x4.00	Galvanized
SOWR_F_00193189	65x360x4.00	Galvanized
SOWR_F_00193195	65x150x4.00	Galvanized
SOWR_F_00197769	65x250x4.00	Galvanized
SOWR_F_00209821	75x300x4.00	Galvanized

TRIANGLE TIE		
Item Number	Dimensions (mm)	Material
SOWR_F_00056205	50x250x4.80	Galvanized
SOWR_F_00056211	65x250x4.80	Galvanized
SOWR_F_00056217	65x300x4.80	Galvanized
SOWR_F_00056655	50x250x4.80	Galvanized
SOWR_F_00056667	65x250x4.80	Galvanized
SOWR_F_00056679	65x300x4.80	Galvanized
SOWR_F_00057547	65x250x4.80	Galvanized
SOWR_F_00057553	65x300x4.80	Galvanized
SOWR_F_00059173	120X50X5.00	Galvanized
SOWR_F_00072175	80x250x4.80	Galvanized
SOWR_F_00081543	65x200x4.00	Galvanized
SOWR_F_00127819	75x250x4.00	Galvanized

TRIANGLE TIE		
Item Number	Dimensions (mm)	Material
SOWR_F_00127825	75x300x4.00	Galvanized
SOWR_F_00140557	65x200x3.00	Galvanized
SOWR_F_00141359	65x200x3.00	Galvanized
SOWR_F_00143965	30x200x4.00	Galvanized
SOWR_F_00144499	65x200x4.00	Galvanized
SOWR_F_00054103	65x250x5.00	SS A4
SOWR_F_00056187	65x300x4.80	SS A4
SOWR_F_00056193	65x250x4.80	SS A4
SOWR_F_00056199	50x250x4.80	SS A4
SOWR_F_00056661	50x250x4.80	SS A4
SOWR_F_00056673	65x250x4.80	SS A4
SOWR_F_00056685	65x300x4.80	SS A4
SOWR_F_00057559	65x250x4.80	SS A4
SOWR_F_00059179	120X50X5.00	SS A4
SOWR_F_00064501	65x200x4.00	SS A4
SOWR_F_00072169	80x250x5.00	SS A4
SOWR_F_00086815	65x150x4.00	SS A4
SOWR_F_00098931	65x250x4.00	SS A4
SOWR_F_00196385	65x200x3.00	SS A4



ARRANGEMENT OF ADDITIONAL TIE CRAMPS

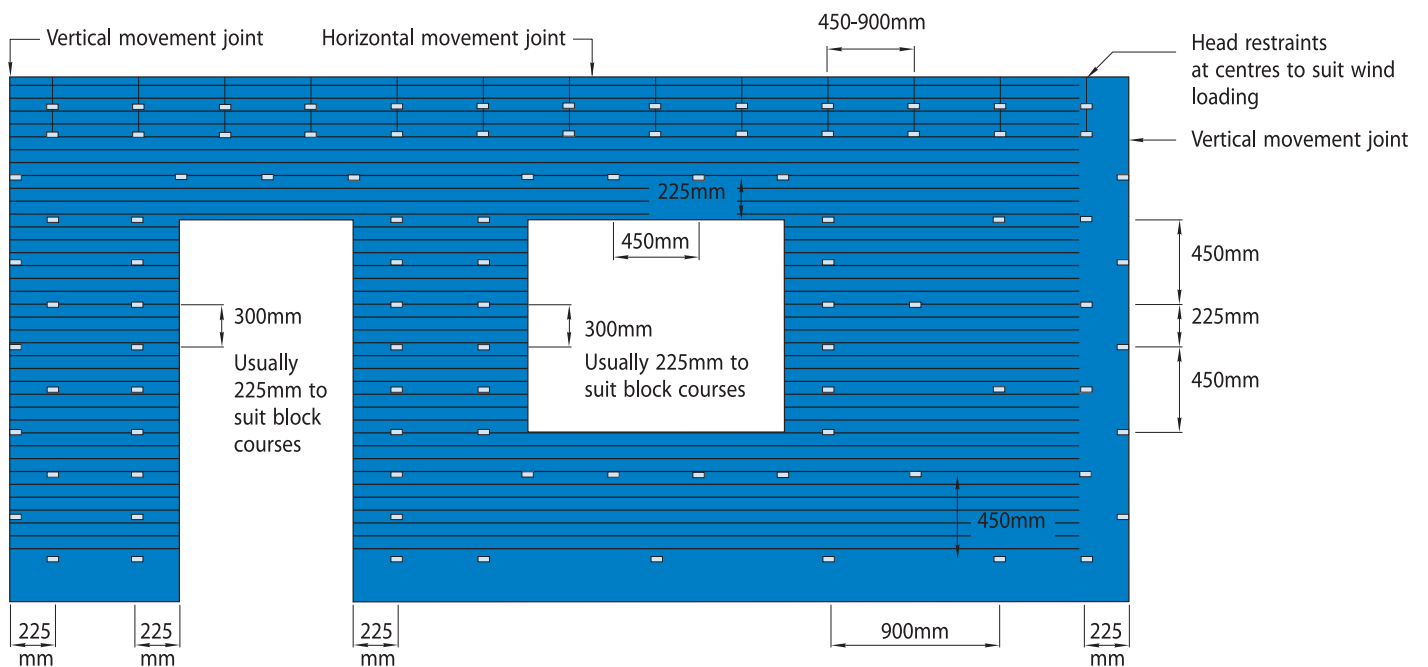
For walls in which both leaves are 90mm or thicker, ties should be used at not less than 2.5 per square meter (900mm horizontal and 450mm vertical centers). This spacing may be varied by building regulations.

Ties should be evenly distributed over the wall area, except around openings, and should be preferable staggers.

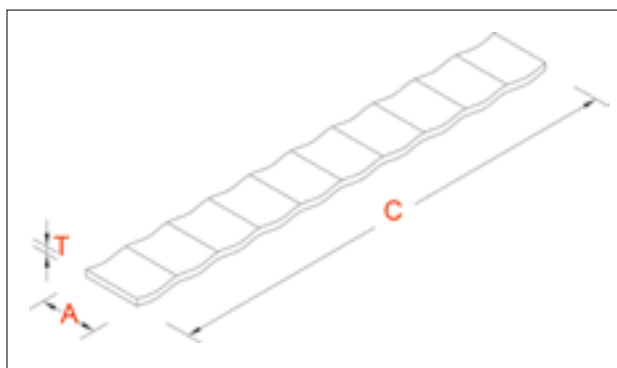
At vertical edges of an opening, unreturned or unbounded edges, and vertical expansion joints, additional ties should be used. Such ties should be located at 300 mm vertical centers, positioned not more than 225 mm from the edge.

3 pieces wall ties per meter, additional ties should be installed:

- At edge (corner)
- Along expansion joints
- At opening
- At the upper end

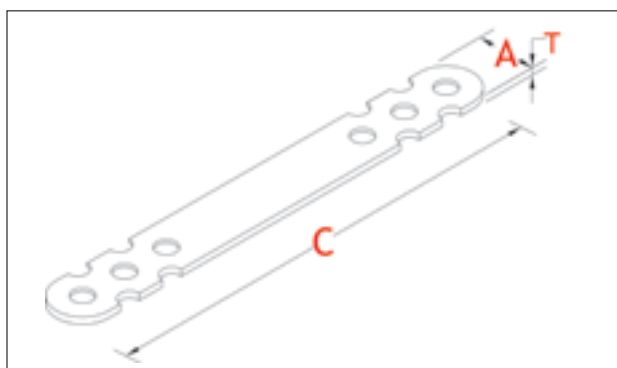


Cavity Tie Corrugated



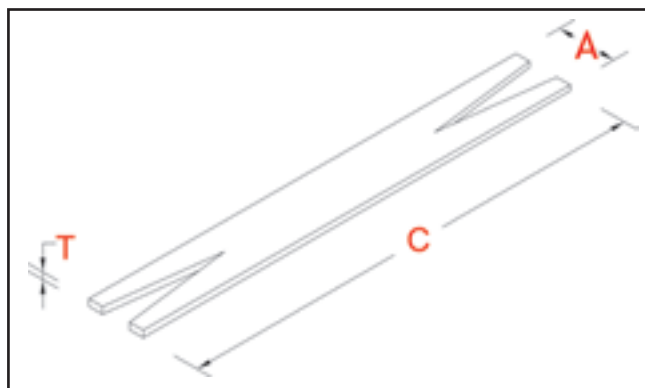
Item Number	Dimensions A x C x T (mm)	Material
SOBTS_F_00054161	25x200x2.00	Galvanized
SOBTS_F_00072153	25x200x3.00	Galvanized
SOBTS_F_00070927	30x200x1.50	Galvanized
SOBTS_F_00054167	25x200x2.00	AA S4
SOBTS_F_00047488	30x200x1.50	AA S4
SOBTS_F_00093737	30x250x2.00	AA S4
SOBTS_F_00105763	40x250x2.00	AA S4
SOBTS_F_00041650	25x200x3.00	AA S6
SOBTS_F_00041638	25x200x3.00	AA S6

Cavity Tie With 3Holes



Item Number	Dimensions A x C x T (mm)	Material
SOBTS_F_00082303	20x200x3.00	Galvanized
SOBTS_F_00082291	20x255x3.00	Galvanized
SOBTS_F_00082297	20x255x3.00	Galvanized
SOBTS_F_00078577	25x200x1.80	Galvanized
SOBTS_F_00047500	25x200x2.00	Galvanized
SOBTS_F_00095639	25x250x2.00	Galvanized
SOBTS_F_00112385	30x300x1.50	Galvanized
SOBTS_F_00077039	30x300x1.50	Mild Steel
SOBTS_F_00058777	25x200x2.00	AA S4

Cavity Tie Fish Tailed



Item Number	Dimensions A x C x T (mm)	Material
SOBTS_F_00105757	25x250x2.00	Galvanized
SOBTS_F_00042500	25x200x1.50	Galvanized
SOBTS_F_00083025	25x200x1.80	Galvanized
SOBTS_F_00059167	25x200x2.00	Galvanized
SOBTS_F_00075635	25x200x3.00	Galvanized
SOBTS_F_00075647	25x200x3.00	Galvanized
SOBTS_F_00083053	25x250x2.00	Galvanized
SOBTS_F_00087297	25x300x2.00	Galvanized
SOBTS_F_00060799	30x200x1.50	Galvanized
SOBTS_F_00040670	30x200x1.80	Galvanized
SOBTS_F_00070597	30x200x2.00	Galvanized
SOBTS_F_00073211	30x220x1.50	Galvanized
SOBTS_F_00042536	30x225x2.00	Galvanized
SOBTS_F_00056073	30x300x2.00	Galvanized
SOBTS_F_00047506	35x100x1.20	Galvanized
SOBTS_F_00076545	50x200x2.00	Galvanized
SOBTS_F_00076679	50x200x4.00	Galvanized
SOBTS_F_00071603	40x200x2.00	Mild Steel

Item Number	Dimensions A x C x T (mm)	Material
SOBTL_F_00087877	50x200x3.00	AA S4
SOBTS_F_00057605	25x200x2.00	AA S4
SOBTS_F_00076779	25x200x2.50	AA S4
SOBTS_F_00075641	25x200x3.00	AA S4
SOBTS_F_00056649	25x225x2.00	AA S4
SOBTS_F_00109321	25x300x2.00	AA S4
SOBTS_F_00060793	30x200x1.50	AA S4
SOBTS_F_00058071	30x200x2.00	AA S4
SOBTS_F_00075819	30x225x2.00	AA S4
SOBTS_F_00057933	30x300x2.00	AA S4
SOBTS_F_00047494	35x100x1.20	AA S4
SOBTS_F_00105805	25x200x2.00	AA S4
SOBTS_F_00112815	30x200x2.00	AA S4
SOBTS_F_00112821	30x200x2.00	AA S4

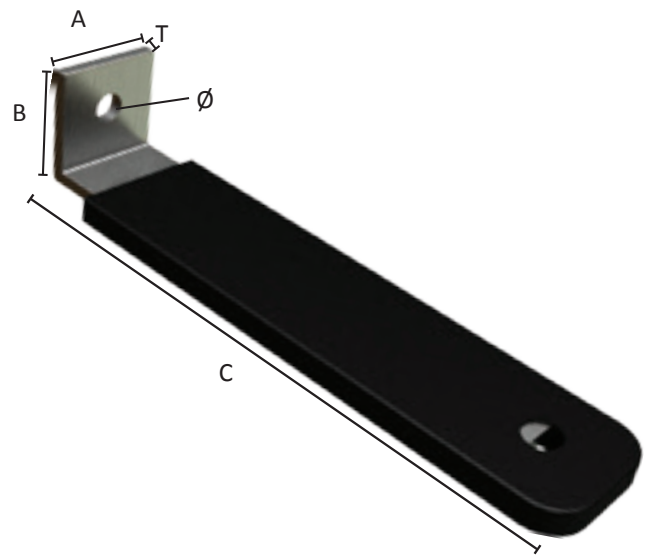
DEBONDING CAVITY BLOCK TIE

Specifications:

Unitech Debonding Block Tie are manufactured from the following:

A. Galvanized Steel Sheet: BS 2989, ASTM A 653M, Commercial Steel, Z 180 zinc coating.

B. Stainless Steel Sheet: ASTM A 666, Type 304/Type 316.



Item Number	Dimensions AxBxCxT (mm)	Material
SOBTL_F_00144677	25x30x300x1.50	Galvanized
SOBTL_F_00144689	25x30x300x3.00	Galvanized
SOBTL_F_00144701	25x30x75x1.50	Galvanized
SOBTL_F_00144713	25x30x75x3.00	Galvanized
SOBTL_F_00144733	30x40x300x1.50	Galvanized
SOBTL_F_00144769	30x40x300x3.00	Galvanized
SOBTL_F_00144903	30x40x75x1.50	Galvanized
SOBTL_F_00144915	30x40x75x3.00	Galvanized
SOBTS_F_00144933	25x150x1.50	Galvanized
SOBTS_F_00144927	25x300x1.50	Galvanized
SOBTS_F_00144945	25x300x3.00	Galvanized
SOBTL_F_00144683	25x30x300x1.50	AA S4
SOBTL_F_00144695	25x30x300x3.00	AA S4
SOBTL_F_00144707	25x30x75x1.50	AA S4
SOBTL_F_00144719	25x30x75x3.00	AA S4
SOBTL_F_00144755	30x40x300x1.50	AA S4
SOBTL_F_00144783	30x40x300x3.00	AA S4
SOBTL_F_00144909	30x40x75x1.50	AA S4
SOBTL_F_00144921	30x40x75x3.00	AA S4

DEBONDING CONTROL JOINTS FLAT TIE

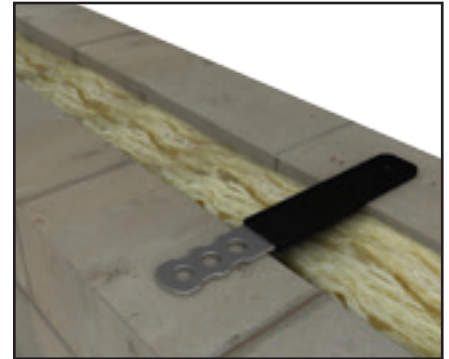
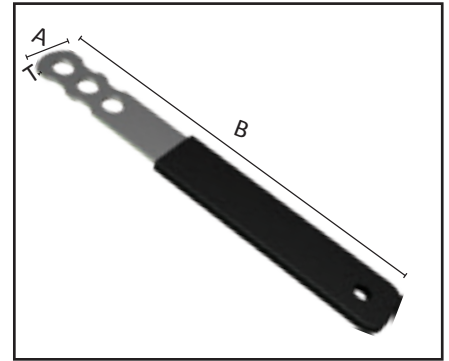
Specifications:

SFSP Debonding Control Joints Tie are manufactured from the following:

A. Galvanized Steel Sheet: BS 2989, ASTM A 653M, Commercial Steel, Z 180 zinc coating.

B. Stainless Steel Sheet: ASTM A 666, Type 304/Type 316.

Item Number	Dimensions AxBxT (mm)	Material
SOBTS_F_00144933	25x150x1.5	GI
SOBTS_F_00144927	25x300x1.5	GI
SOBTS_F_00260705	25x150x3.0	GI
SOBTS_F_00144945	25x300x3.0	GI
SOBTS_F_00207939	30x150x1.5	GI
SOBTS_F_00260711	30x300x1.5	GI
SOBTS_F_00260717	30x150x3.0	GI
SOBTS_F_00144957	25x150x1.5	SS A2/A4
SOBTS_F_00144939	25x300x1.5	SS A2/A4
SOBTS_F_00260731	25x150x3.0	SS A2/A4
SOBTS_F_00144951	25x300x3.0	SS A2/A4
SOBTS_F_00207939	30x150x1.5	SS A2/A4
SOBTS_F_00260737	30x300x1.5	SS A2/A4
SOBTS_F_00260743	30x150x3.0	SS A2/A4
SOBTS_F_00260749	30x300x3.0	SS A2/A4



HAMMER-ON SECTION

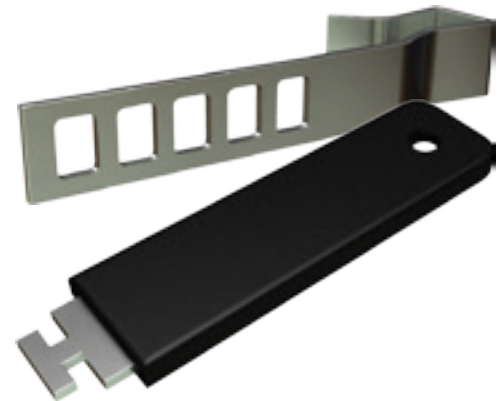
Available in five sizes to accommodate a steel thickness from 7mm to 25mm, this fixing is simply hammered onto the flange. It can be utilized either on a column with a tie or on a beam with an internal head restraint.

The Hammer-On Section resists load in one direction only and should be installed on alternate sides of the flange.

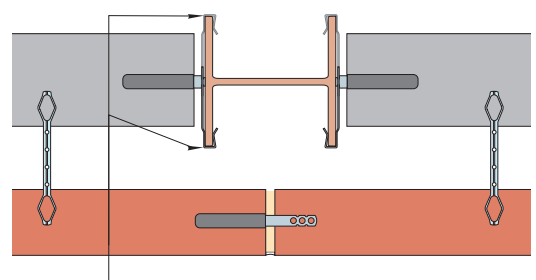
Hammer-On Ties should be installed at 225mm vertical centres and Hammer-On Head Restraints at 450mm horizontal centres. The wall tie or head restraint should be positioned central to the masonry leaf when located in one of the five fixing slots.

Hammer-On Tie (Debonded HOS-TIE, pictured above, supplied complete with Hammer-On Section)

Hammer-On Ties can resist a load of 900N. When fixed at 225mm vertical centres, staggered on alternate sides of the column flange (effective centres 450mm on each side) the service load will be 2kN per metre in either direction.



Hammer-On Ties installed to alternate sides of the column at 225mm vertical centres



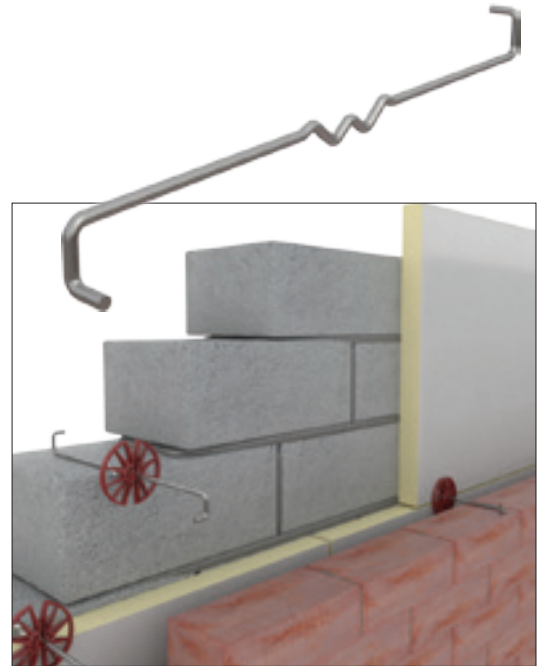
R2-TYPE WIRE TIE

Stainless steel wall tie manufactured in accordance with BS EN 845-1

- Diameter = 4mm, 5mm

Other sizes can be manufactured upon request

Item Number	Dimensions (mm)	Material
SOWR_F_00125253	65x150x5.00	GI
SOWR_F_00145343	65x200x5.00	GI
SOWR_F_00145355	65x200x4.00	GI
SOWR_F_00145361	65x250x4.00	GI
SOWR_F_00145381	65x300x4.00	GI
SOWR_F_00142105	50x200x4.00	SS A4
SOWR_F_00145337	65x150x5.00	SS A4
SOWR_F_00145349	65x200x5.00	SS A4
SOWR_F_00145375	65x250x4.0	SS A4
SOWR_F_00145387	65x300x4.00	SS A4



Z- TYPE WIRE TIE

-“Z” Wire Tie is used for tying masonry to masonry (Composite Wall Only).

-Not used in walls with air space and or insulation.

- Diameter = 4mm, 5mm

Other sizes can be manufactured upon request

Item Number	Dimensions (mm)	Material
SOWR_F_00125211	65x200x3.00	GI
SOWR_F_00125253	50x100x5.00	GI
SOWR_F_00133003	65x200x4.0	GI



CEILING TYPE

Adjustable Head Restraint (AHR)

Head Restraints

Head Restraints provide the necessary restraint to the top of masonry walls. They allow for vertical movement to accommodate shrinkage or thermal movement of the wall or structural frame, while restraining wind loads.

Internal Head Restraint

The Internal Head is used for restraining the top of internal walls or the top of the inner leaf of a cavity wall.

The opening at the front of the channel stem is sealed to prevent mortar ingress and to ensure that vertical movement can take place between the block work and the structure.

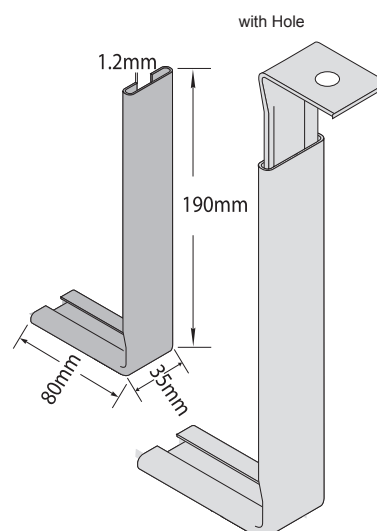
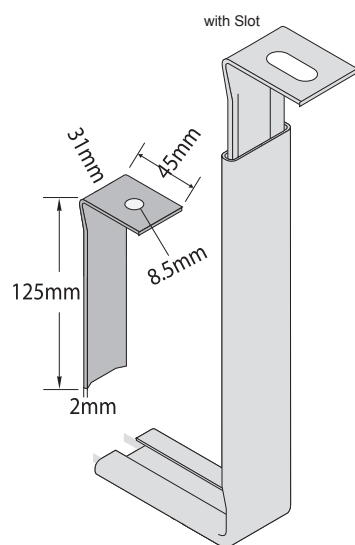
The base of the stem must be built within a bed joint with the centre of the stem no closer than 50mm from the edge of the block.

The vertical joint should be filled with mortar each side of the stem.

The maximum joint between the top of the block work and the underside of the frame is not normally greater than 25mm.

The standard of head restraint will suit a 215mm high block and can resist a load of 1.5kN*.

Where the gap at the top increases from 25mm to 50mm, the working load is reduced from 1.5kN to 1.0kN.

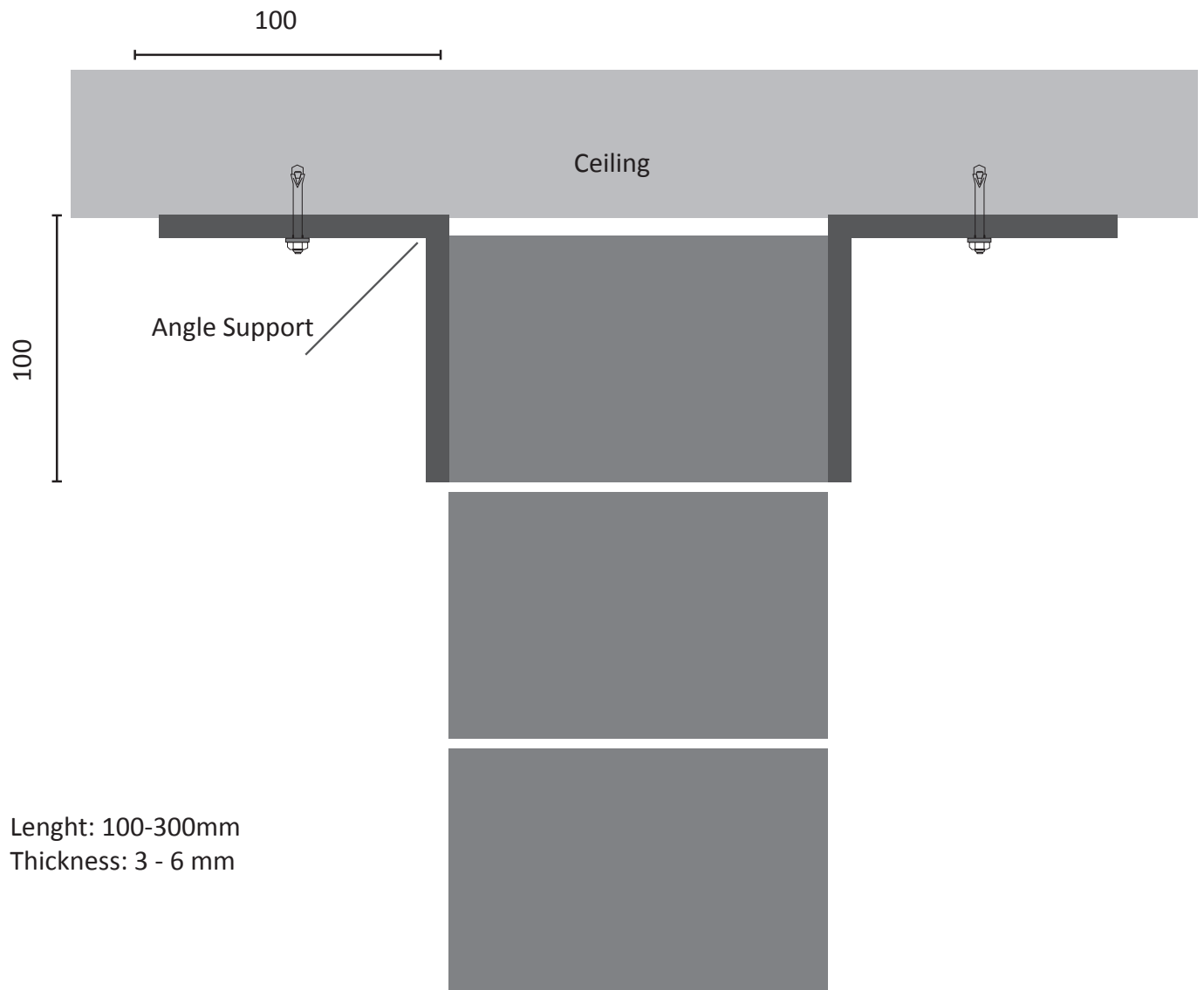


Item Number	Dimensions (mm)	Material
SOL_F_00072159	30x110x200x1.20	GI
SOL_F_00063427	30x140x200x1.20	GI
SOL_F_00100983	30x40x200x1.20	GI
SOL_F_00051377	30x80x150x1.20	GI
SOL_F_00083071	30x80x150x1.20	GI
SOL_F_00048182	30x80x190x1.20	GI
SOL_F_00094205	30x80x200x1.20	GI
SOL_F_00079697	30x90x200x1.20	GI
SOL_F_00083609	30x95x200x1.20	GI
SOL_F_00065897	30x95x200x1.50	GI
SOS_F_00092555	30x200x1.20	GI
SOL_F_00040714	30x110x200x1.20	SS A4
SOL_F_00054055	30x140x200x1.20	SS A4
SOL_F_00060839	30x80x150x1.20	SS A4
SOL_F_00041626	30x80x190x1.20	SS A4
SOL_F_00094221	30x80x200x1.20	SS A4
SOL_F_00079713	30x90x200x1.20	SS A4
SOL_F_00100245	30x80x190x1.20	SS A4
GNA_F_00066003	50X22X110X60X3.0	Hot Dip Galvanized
GNA_F_00092567	25x30x100x1.5-30x200x1.2	GI
GNA_F_00079729	27x40x120x2-30x200x90x1.2	GI
GNA_F_00053073	27x45x125x1.5-30x80x190x1.2	GI
GNA_F_00083077	27x45x125x2-30x80x150x1.2	GI
GNA_F_00072165	27x80x150x2-30x100x200x1.2	GI
GNA_F_00104333	27x80x150x2-30x140x200x1.2	GI
GNA_F_00053553	30X40X200X1.2-30X50X150X1.5	GI
GNA_F_00076503	27X45X125X2 30X80X190X1.2	GI
GNA_F_00094211	27X45X125X2 30X80X200X1.2	GI
GNA_F_00091785	27X50X125 30X80X190X1.2MM	GI
GNA_F_00079725	27x40x120x2-30x200x90x1.2	SS A4
GNA_F_00060845	30x80x150x1.2 tie 30x45x150x2.0	SS A4
GNA_F_00048206	27x45x125x1.5-30x80x190x1.2	SS A2
GNA_F_00041898	30X80X190X1.2-27X45X125X1.5	SS A2
GNA_F_00076487	27X45X125X2 - 30X80X190X1.2	SS A2
GNA_F_00095661	30X200X140X1.2-27X45X125X2.0	SS A2
GNA_F_00054095	30X200X110X1.2-27X80X150X2.0	SS A2
GNA_F_00094227	30X200X80X1.2-27X45X125X2.0	SS A2
GNA_F_00093689	30X200X110X1.2-27X80X150X2.0	GI
GNA_F_00054099	30X200X110X1.2MM-27X80X150X2.0	Hot Dip Galvanized

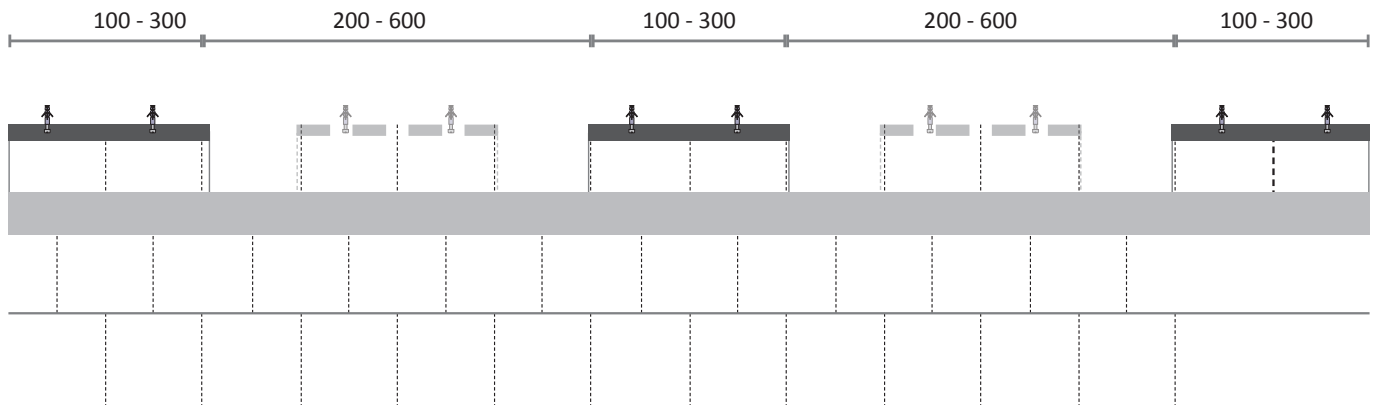
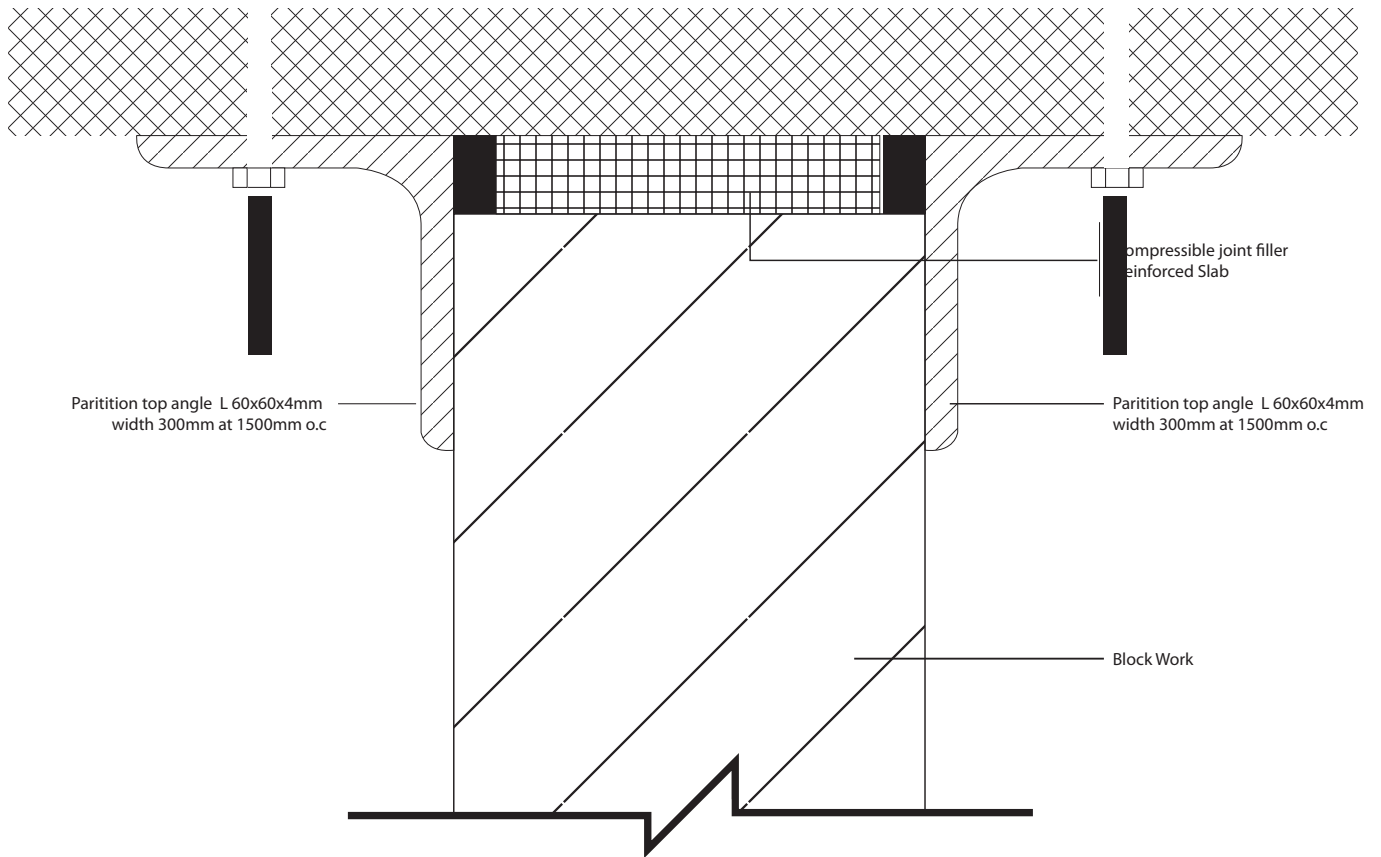
Partition Top Angle (PTA)

Angle Support

- Partition Top angle prevents a horizontal movement of the masonry wall.
- Supports the horizontal force on top of the block work due to human impact or wind pressure.
- To be fixed on both sides of the wall.
- To be fixed with 2x M6 Screw with plastic anchor.
- Provides support while preventing a solid connection between the wall and the ceiling.



Item Number	Description	Dimensions (mm)	Material
SOBTL_F_00083013	Block Tie	25x75x200x1.80	GI
SOBTL_F_00075869	Block Tie	30x75x250x2.00	GI
SOBTL_F_00047512	Block Tie	30x75x250x2.00	SS A4



PARTITION TOP ROD ANCHORS (PTRA)

Partition Top Anchors have been developed to provide lateral shear resistance at the upper limit of masonry walls. They permit vertical deflection of the slab above, without transferring compressive loads to the masonry wall below. Partition Top Anchors are suitable for construction using steel.

Partition Top Anchors Tube with expansion filler is placed over rod anchor, which has been attached to concrete or steel by any of the methods illustrated.

Materials:

ASTM A 1008 (cold- rolled)

ASTM A1011 (Hot-rolled)

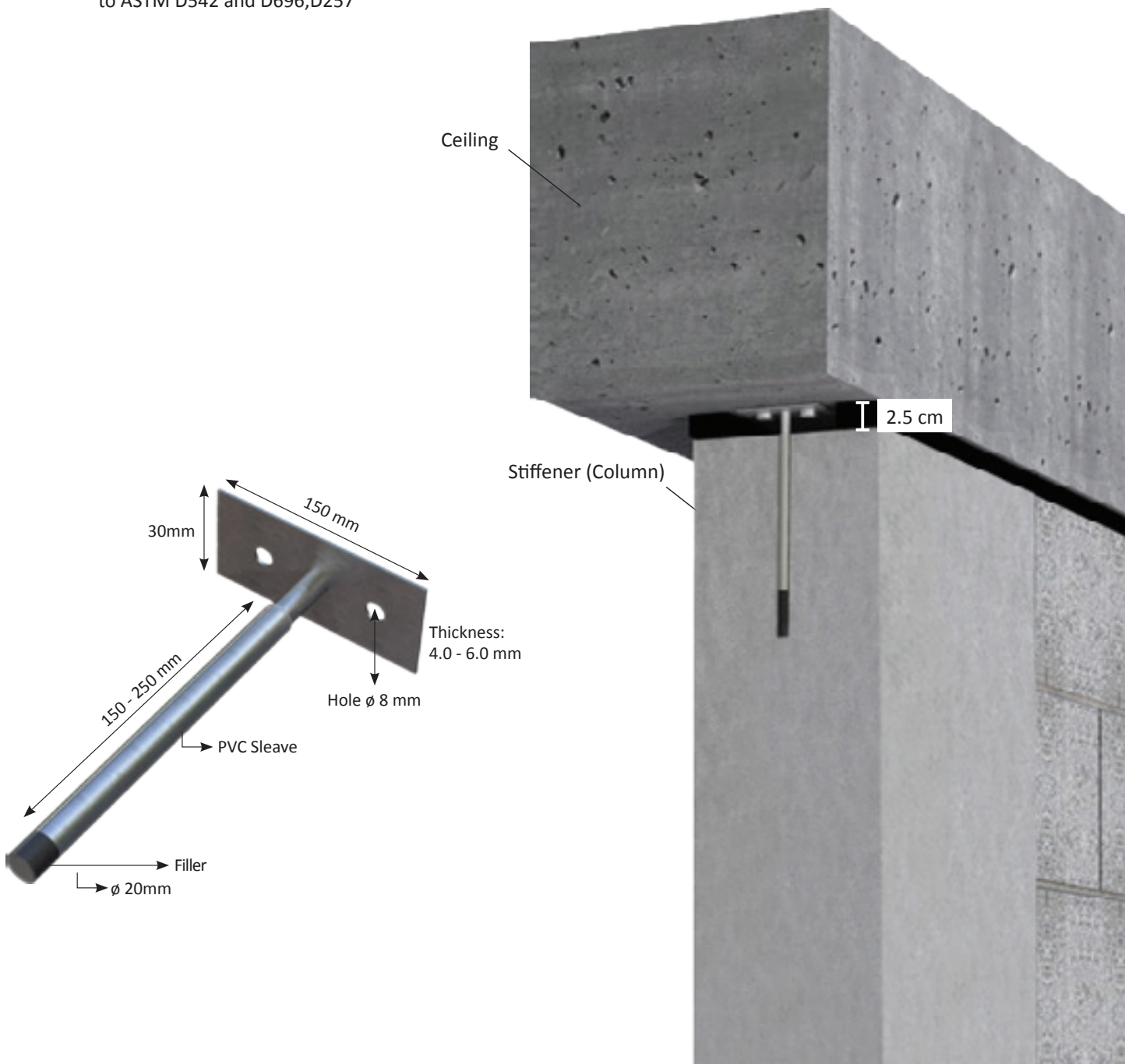
Finishes:

Hot Dip Galvanized –ASTM A153

ROD

Hot-Dip Galvanized ASTM A153

Plastic Tube : Manufactured from UPVC according to ASTM D542 and D696,D257

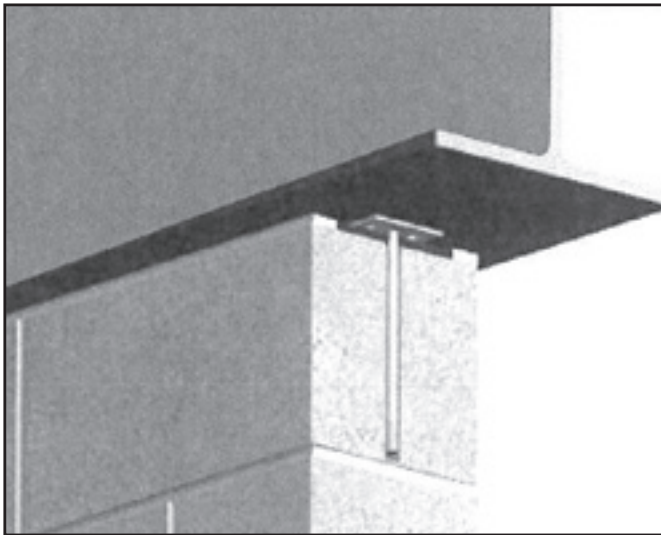
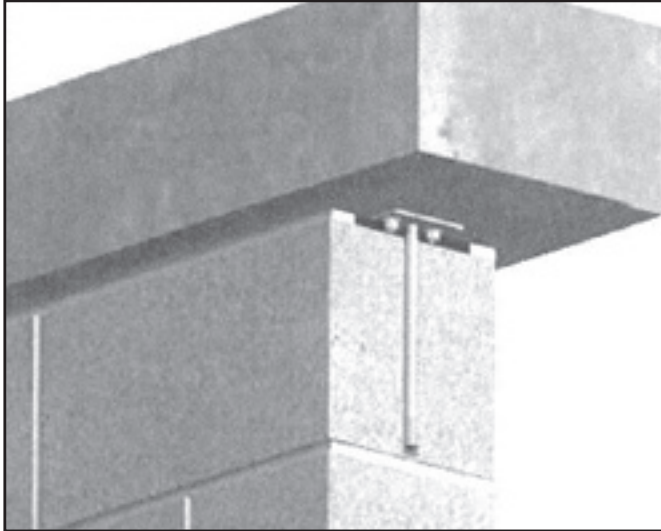


Partition Top Anchors have been developed to provide lateral shear resistance at the upper limit of masonry walls.

They permit vertical deflection of the slab above, without transferring compressive loads to the masonry wall below.

PTA are suitable for construction using steel or concrete.

PTA Tube with expansion filler is placed over rod anchor, which has been attached to concrete or steel by any of the methods illustrated.



Finishes:

Sheet Metal:

Hot-Dip Galvanized - ASTM A153/A153M-B2 class B (sheet metal ties and anchors hot-dip galvanized after fabrication)

Sheet Metal (Stainless Steel):

ASTM A167 - AISI Type 304 Stainless Steel (sheet metal ties and anchors) (type 316 available on special order)

Rod:

Hot-Dip Galvanized - ASTM A153/A153M-B2 Stainless Steel Type 304 - ASTM A582/A582MPTA Tube: Manufactured from Clear Butyrate.

Dimensions:

- Rod 9.5 mm length 150mm Other diameters and gauges available
- Plate 50 x 75mm thickness 2.5mm



SURE - TIE FOR STEEL

Sure-Tie quickly and accurately pierces insulation and/or wallboard to abut steel/studs in brick veneer applications.

- One-piece design provides superior strength.
- 12-24 Self Driller.
- Accommodates 1/2" and 5/8" wall board and various thicknesses of insulation.
- Silver-Gray Climaseal® finish resulted in 0% red rust at 1000 hours exposure to ASTM B-117 salt spray testing.



Triangle Wire Tie



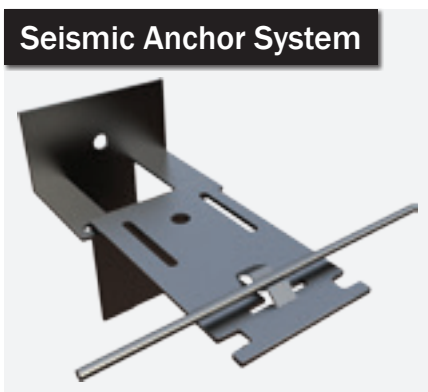
Seismic Wire Tie



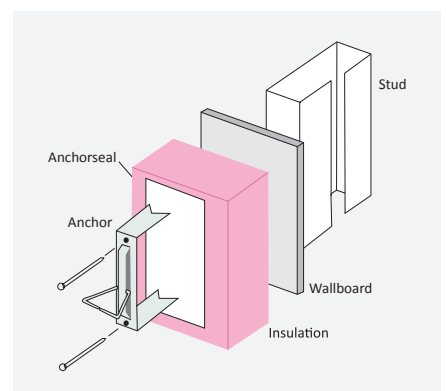
Single Wire Tie



Seismic Anchor System



Stud Anchor



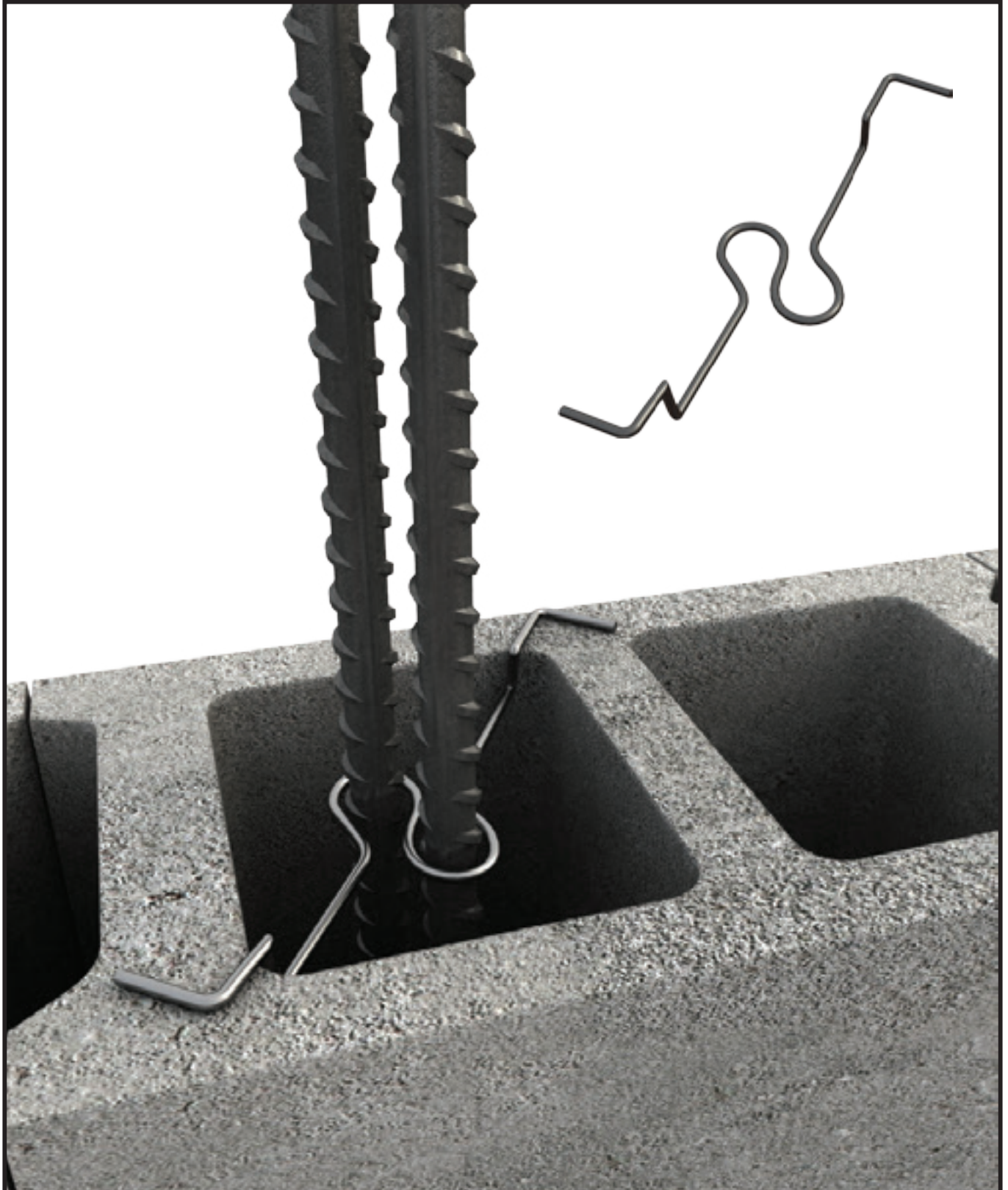
REBAR POSITIONERS

Rebar Positioners

RB Rebar Positioners are for positioning and stabilizing rebar installed into concrete block cores in reinforced masonry.

TWIN Rebar Positioners

TWIN Rebar Positioners are similar to the standard RB model but with double loops to hold 4 rebars.





BLOCK WALL REINFORCEMENT



www.sfsp-ikk.com

BLOCK LADDER REINFORCEMENT

SFSP ladder and truss types are used for the reinforcement of brick and block masonry to give improved tensile strength to walls subjected to lateral loading e.g. wind and seismic.

Uni-Metal block reinforcements reduces the risk of cracking either at stress concentration around opening. Calculations are provided by our design office in Stuttgart, Germany.

SPECIFICATIONS

Uni-Metal reinforcement truss type are manufactured by resistance welding of ASTM A82 cold drawn steel wire deformed at predetermined centers conforming to BS 4483:2005.

DIMENSIONS

- Hot-dip galvanized.
 - Main wire diameter = 4.0 mm 4.8 mm
 - Rung and diagonal wire diameter = 4.0 mm 4.8 mm
 - Rung wire centers = 400 mm
- Stainless steel AISI 304
 - Main wire diameter = 4.0 mm 4.8 mm
 - Rung and diagonal wire diameter = 4.0 mm 4.8 mm
 - Round wire centers = 400 mm

The production of cold reduced steel wires complies to BS 4483:2005 and ASTM A951 / A951M - 11 Standard Specification for Steel Wire for Masonry Joint Reinforcement

- a) Mechanical Properties
 - Specified characteristic strength: 460 N/mm² (Mpa)
 - Tensile strength min 510 N/mm² (Mpa)
- b) Chemical composition of steel
 - Carbon C max. 0,25 %, Sulphur S: max 0.06 %
 - Carbon equivalent value Ceq: max 0.4 %, $Ceq = C + Mn/6 + (Cr + V + Mo)/5 + (Cu \times Ni)/15$

SFSP Block ladder (Ladder type and Truss type) are continuous lengths of joint reinforcement that are embedded into the horizontal joints of masonry walls.

Block reinforcement offers the following benefits:

- Increases lateral flexural strength.
- Reduces cracking that can arise from thermal stresses.
- Bonds exterior and interior masonry withes together in composite or cavity walls.
- Bonds masonry at intersecting walls and corners.
- Increases performance of masonry wall under various stresses

LADDER TYPE

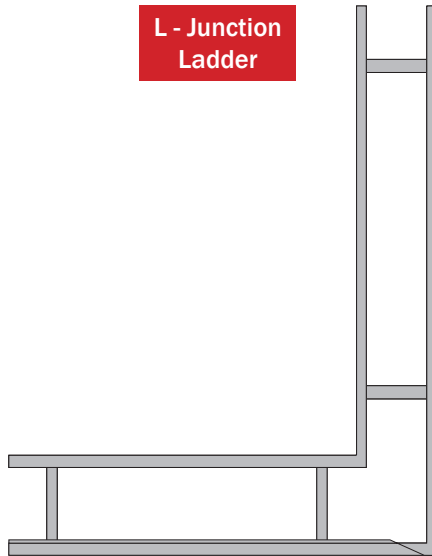
Item Number	Type	Dimensions (mm)	Length (mm)	Material
SOBLLS_F_00074797	T Shape	100x5.00/400	3000	GI
SOBLLS_F_00058459	T Shape	150x4.0/400	3000	GI
SOBLLS_F_00074801	T Shape	150x5.00/400	3000	GI
SOBLLS_F_00043736	T Shape	175x4.00/400	3000	GI
SOBLLS_F_00058463	T Shape	200x4.00/400	3000	GI
SOBLLS_F_00043764	T Shape	200x5.00/400	3000	GI
SOBLLS_F_00043744	T Shape	225x5.00/400	3000	GI
SOBLLS_F_00043748	T Shape	250x4.00/400	3000	GI
SOBLLS_F_00043768	Overlap	250x5.00/400	3000	GI
SOBLLS_F_00058451	T Shape	50x4.00/400	3000	GI
SOBLLS_F_00074793	T Shape	50x5.00/400	3000	GI
SOBLLS_F_00055973	T Shape	75x4.00/400	3000	GI
SOBLLS_F_00108923	Overlap	100x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00057001	T Shape	100x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043604	Overlap	100x5.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00074455	T Shape	100x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043528	Overlap	150x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00063347	T Shape	150x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043608	Overlap	150x5.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00074459	T Shape	150x5.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043564	Overlap	175x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00040484	T Shape	175x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043576	Overlap	200x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00065105	T Shape	200x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043612	Overlap	200x5.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00074805	T Shape	200x5.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043572	Overlap	225x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00040588	T Shape	225x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043588	Overlap	250x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00065121	T Shape	250x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043624	Overlap	250x5.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00040534	T Shape	250x5.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00040564	Overlap	50x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00056961	T Shape	50x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00043592	Overlap	50x5.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00065129	T Shape	50x5.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00040622	Overlap	75x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00022440	T Shape	75x4.00/400	3000	Hot Dip Galvanized
SOBLLS_F_00022428	T Shape	50x4.00/400	3000	Hot Dip Galvanized

Item Number	Type	Dimensions (mm)	Length (mm)	Material
SOBLLS_F_00058459	Overlap	100x4.0/400	3000	Hot Dip Galvanized
SOBLLS_F_00044082	Overlap	100x4.00/400	3000	SS A4
SOBLLS_F_00058431	Overlap	100x4.00/400	3000	SS A4
SOBLLS_F_00044088	T Shape	150x4.00/400	3000	SS A4
SOBLLS_F_00058435	T Shape	150x4.00/400	3000	SS A4
SOBLLS_F_00044094	Overlap	200x4.00/400	3000	SS A4
SOBLLS_F_00058447	T Shape	200x4.00/400	3000	SS A4
SOBLLS_F_00095665	T Shape	200x5.00/400	3000	SS A4
SOBLLS_F_00060407	T Shape	250x4.00/400	3000	SS A4
SOBLLS_F_00077079	Overlap	50x4.00/400	3000	SS A4
SOBLLS_F_00058427	T Shape	50x4.00/400	3000	SS A4
SOBLLS_F_00044042	T Shape	50x5.00/400	3000	SS A4
SOBLTS_F_00057435	T Shape	100x4.00/400	3000	SS A4
SOBLTS_F_00057487	T Shape	100x5.00/400	3000	SS A4
SOBLTS_F_00057447	T Shape	150x4.00/400	3000	SS A4
SOBLTS_F_00057459	T Shape	200x4.00/400	3000	SS A4
SOBLTS_F_00057519	T Shape	200x5.00/400	3000	SS A4
SOBLTS_F_00057471	T Shape	250x4.00/400	3000	SS A4
SOBLTS_F_00057523	T Shape	250x5.00/400	3000	SS A4
SOBLTS_F_00057423	T Shape	50x4.00/400	3000	SS A4
SOBLTS_F_00057477	T Shape	50x5.00/400	3000	SS A4
SOBLLS_F_00043972	Overlap	100x4.00/400	3000	SS A6
SOBLLS_F_00101077	T Shape	100x4.00/400	3000	SS A6
SOBLLS_F_00043978	Overlap	150x4.00/400	3000	SS A6
SOBLLS_F_00101083	T Shape	150x4.00/400	3000	SS A6
SOBLLS_F_00069993	Overlap	150x5.00/400	3000	SS A6
SOBLLS_F_00100027	Overlap	200x4.00/400	3000	SS A6
SOBLLS_F_00101099	T Shape	200x4.00/400	3000	SS A6
SOBLLS_F_00069999	Overlap	200x5.00/400	3000	SS A6
SOBLLS_F_00043960	Overlap	250x4.00/400	3000	SS A6
SOBLLS_F_00069975	Overlap	50x4.00/400	3000	SS A6
SOBLLS_F_00101071	T Shape	50x4.00/400	3000	SS A6
SOBLLS_F_00069963	Overlap	50x5.00/400	3000	SS A6



Accessories

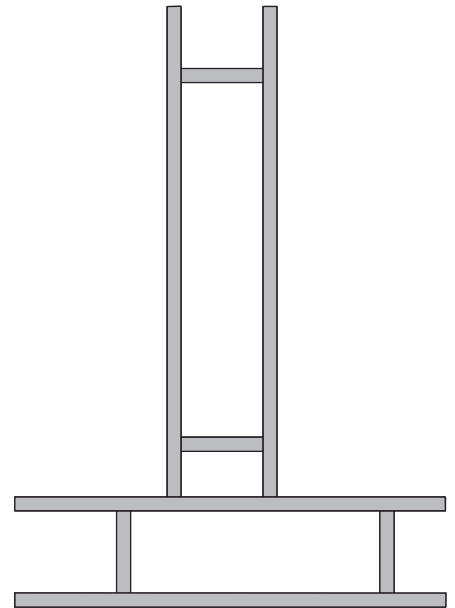
Bends, Tee-branches, and intersections can be manufactured upon request. Corner units provide continuity of reinforcement this can be cut and bent on site.



Item Number	Type	Dimensions (mm)	Material
SOBLLA_F_00007062	Overlap	100x4.00/400	GI
SOBLLA_F_00007260	Overlap	100x5.00/400	GI
SOBLLA_F_00007118	Overlap	150x400/400	GI
SOBLLA_F_00007284	Overlap	150x500/400	GI
SOBLLA_F_00007164	Overlap	200x4.00/400	GI
SOBLLA_F_00007308	Overlap	200x5.00/400	GI
SOBLLA_F_00007196	Overlap	250x4.00/400	GI
SOBLLA_F_00007588	Overlap	250x5.00/400	GI
SOBLLA_F_00007220	Overlap	50x4.00/400	GI
	Overlap	50x5.00/400	GI
SOBLLA_F_00010894	Overlap	100x4.00/400	Hot Dip Galvanized
SOBLLA_F_00082143	Overlap	100x5.00/400	Hot Dip Galvanized
SOBLLA_F_00010902	Overlap	150x400/400	Hot Dip Galvanized
SOBLLA_F_00082151	Overlap	150x500/400	Hot Dip Galvanized
SOBLLA_F_00010910	Overlap	200x4.00/400	Hot Dip Galvanized
SOBLLA_F_00082159	Overlap	200x5.00/400	Hot Dip Galvanized
SOBLLA_F_00010918	Overlap	250x4.00/400	Hot Dip Galvanized
SOBLLA_F_00082167	Overlap	250x5.00/400	Hot Dip Galvanized
SOBLLA_F_00010886	Overlap	50x4.00/400	Hot Dip Galvanized
SOBLLA_F_00082135	Overlap	50x5.00/400	Hot Dip Galvanized
SOBLLA_F_00050573	Overlap	100x4.00/400	SS A4
SOBLLA_F_00050603	Overlap	100x5.00/400	SS A4
SOBLLA_F_00050579	Overlap	150x400/400	SS A4
SOBLLA_F_00050609	Overlap	150x500/400	SS A4
SOBLLA_F_00050585	Overlap	200x4.00/400	SS A4
SOBLLA_F_00050615	Overlap	200x5.00/400	SS A4
SOBLLA_F_00050591	Overlap	250x4.00/400	SS A4
SOBLLA_F_00050621	Overlap	250x5.00/400	SS A4
SOBLLA_F_00050567	Overlap	50x4.00/400	SS A4
SOBLLA_F_00050597	Overlap	50x5.00/400	SS A4
SOBLLA_F_00050649	Overlap	100x4.00/400	SS A6
SOBLLA_F_00050679	Overlap	100x5.00/400	SS A6
SOBLLA_F_00050655	Overlap	150x400/400	SS A6
SOBLLA_F_00050685	Overlap	150x500/400	SS A6
SOBLLA_F_00050661	Overlap	200x4.00/400	SS A6
SOBLLA_F_00050691	Overlap	200x5.00/400	SS A6
SOBLLA_F_00050667	Overlap	250x4.00/400	SS A6
SOBLLA_F_00050697	Overlap	250x5.00/400	SS A6
SOBLLA_F_00050643	Overlap	50x4.00/400	SS A6
SOBLLA_F_00050673	Overlap	50x5.00/400	SS A6

Item Number	Type	Dimensions (mm)	Material
SOBLLA_F_00007968	Overlap	100x4.00/400	GI
SOBLLA_F_00008068	Overlap	100x5.00/400	GI
SOBLLA_F_00007996	Overlap	150x400/400	GI
SOBLLA_F_00008092	Overlap	150x500/400	GI
SOBLLA_F_00008020	Overlap	200x4.00/400	GI
SOBLLA_F_00008130	Overlap	200x5.00/400	GI
SOBLLA_F_00008036	Overlap	250x4.00/400	GI
SOBLLA_F_00008164	Overlap	250x5.00/400	GI
SOBLLA_F_00005464	Overlap	50x4.00/400	GI
SOBLLA_F_00008060	Overlap	50x5.00/400	GI
SOBLLA_F_00050711	Overlap	100x4.00/400	SS A4
SOBLLA_F_00050751	Overlap	100x5.00/400	SS A4
SOBLLA_F_00050719	Overlap	150x400/400	SS A4
SOBLLA_F_00050759	Overlap	150x500/400	SS A4
SOBLLA_F_00050727	Overlap	200x4.00/400	SS A4
SOBLLA_F_00050767	Overlap	200x5.00/400	SS A4
SOBLLA_F_00050735	Overlap	250x4.00/400	SS A4
SOBLLA_F_00050775	Overlap	250x5.00/400	SS A4
SOBLLA_F_00050703	Overlap	50x4.00/400	SS A4
SOBLLA_F_00050743	Overlap	50x5.00/400	SS A4
SOBLLA_F_00050791	Overlap	100x4.00/400	SS A6
SOBLLA_F_00050831	Overlap	100x5.00/400	SS A6
SOBLLA_F_00050799	Overlap	150x400/400	SS A6
SOBLLA_F_00050839	Overlap	150x500/400	SS A6
SOBLLA_F_00050807	Overlap	200x4.00/400	SS A6
SOBLLA_F_00050847	Overlap	200x5.00/400	SS A6
SOBLLA_F_00050815	Overlap	250x4.00/400	SS A6
SOBLLA_F_00050855	Overlap	250x5.00/400	SS A6
SOBLLA_F_00050783	Overlap	50x4.00/400	SS A6
SOBLLA_F_00050823	Overlap	50x5.00/400	SS A6
SOBLLA_F_00010982	Overlap	100x4.00/400	Hot Dip Galvanized
SOBLLA_F_00011022	Overlap	100x5.00/400	Hot Dip Galvanized
SOBLLA_F_00010990	Overlap	150x400/400	Hot Dip Galvanized
SOBLLA_F_00011030	Overlap	150x500/400	Hot Dip Galvanized
SOBLLA_F_00010998	Overlap	200x4.00/400	Hot Dip Galvanized
SOBLLA_F_00011038	Overlap	200x5.00/400	Hot Dip Galvanized
SOBLLA_F_00011006	Overlap	250x4.00/400	Hot Dip Galvanized
SOBLLA_F_00011046	Overlap	250x5.00/400	Hot Dip Galvanized
SOBLLA_F_00010974	Overlap	50x4.00/400	Hot Dip Galvanized
SOBLLA_F_00011014	Overlap	50x5.00/400	Hot Dip Galvanized

**T - Junction
Ladder**



TRUSS TYPE

Item Number	Type	Dimensions (mm)	Length (mm)	Material
SOBLTS_F_00075203	T-Shape	100x4.00/400	3000	GI
SOBLTS_F_00012766	T-Shape	100x5.00/400	3000	GI
SOBLTS_F_00075207	T-Shape	150x4.00/400	3000	GI
SOBLTS_F_00012770	T-Shape	150x5.00/400	3000	GI
SOBLTS_F_00082987	T-Shape	200x4.00/400	3000	GI
SOBLTS_F_00012774	T-Shape	200x5.00/400	3000	GI
SOBLTS_F_00012758	T-Shape	250x4.00/400	3000	GI
SOBLTS_F_00012778	T-Shape	250x5.00/400	3000	GI
SOBLTS_F_00075199	T-Shape	50x4.00/400	3000	GI
SOBLTS_F_00012762	T-Shape	50x5.00/400	3000	GI
SOBLTS_F_00022456	T-Shape	100x4.00/400	3000	Hot Dip Galvanized
SOBLTS_F_00022476	T-Shape	100x5.00/400	3000	Hot Dip Galvanized
SOBLTS_F_00022460	T-Shape	150x400/400	3000	Hot Dip Galvanized
SOBLTS_F_00022480	T-Shape	150x500/400	3000	Hot Dip Galvanized
SOBLTS_F_00022464	T-Shape	200x4.00/400	3000	Hot Dip Galvanized
SOBLTS_F_00022484	T-Shape	200x5.00/400	3000	Hot Dip Galvanized
SOBLTS_F_00022468	T-Shape	250x4.00/400	3000	Hot Dip Galvanized
SOBLTS_F_00022488	T-Shape	250x5.00/400	3000	Hot Dip Galvanized
SOBLTS_F_00022472	T-Shape	50x5.00/400	3000	Hot Dip Galvanized
SOBLTS_F_00080145	T-Shape	150x400/400	3000	MS Hot Dip Galvanized
SOBLTS_F_00080149	T-Shape	200x4.00/400	3000	MS Hot Dip Galvanized
SOBLTS_F_00080153	T-Shape	250x4.00/400	3000	MS Hot Dip Galvanized
SOBLTS_F_00080137	T-Shape	50x4.00/400	3000	MS Hot Dip Galvanized
SOBLTS_F_00082175	T-Shape	75x4.00/400	3000	MS Hot Dip Galvanized
SOBLTS_F_00057275	Overlap	100x4.00/400	3000	SS A6
SOBLTS_F_00057399	T-Shape	100x5.00/400	3000	SS A6
SOBLTS_F_00057383	T-Shape	150x4.00/400	3000	SS A6
SOBLTS_F_00057403	T-Shape	150x5.00/400	3000	SS A6
SOBLTS_F_00057387	T-Shape	200x4.00/400	3000	SS A6
SOBLTS_F_00057407	T-Shape	200x5.00/400	3000	SS A6
SOBLTS_F_00057391	T-Shape	250x4.00/400	3000	SS A6
SOBLTS_F_00057411	T-Shape	250x5.00/400	3000	SS A6
SOBLTS_F_00057271	T-Shape	50x400/400	3000	SS A6

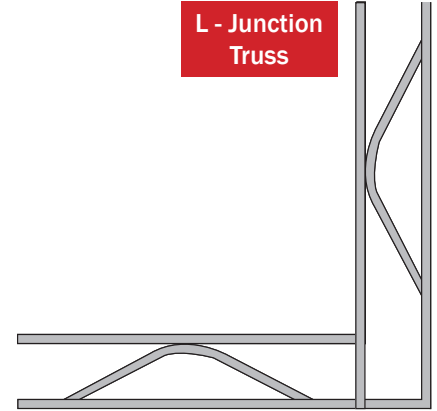
Accessories

Bends, Tee-branches, and intersections can be manufactured upon request. Corner units provide continuity of reinforcement this can be cut and bent on site.

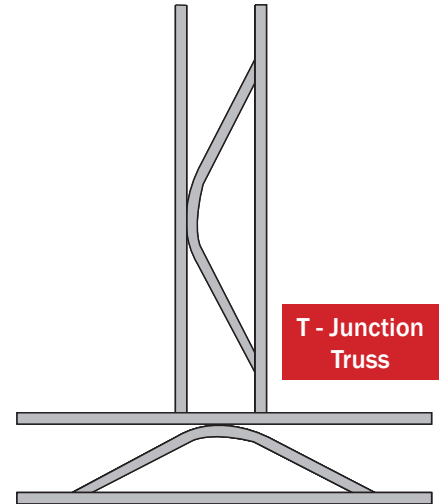
Item Number	Type	Dimensions (mm)	Material
SOBLTA_F_00075659	T-Shape	100x4.00/400	GI
SOBLTA_F_00075679	T-Shape	150x4.00/400	GI
SOBLTA_F_00075665	T-Shape	200x4.00/400	GI
SOBLTA_F_00075653	T-Shape	50x4.00/400	GI
SOBLTA_F_00085437	T-Shape	150x4.00/400	MS Hot Dip Galvanized
SOBLTA_F_00108909	T-Shape	50x4.00/400	MS Hot Dip Galvanized

Item Number	Type	Dimensions (mm)	Material
SOBLTA_F_00011222	Overlap	100x4.00/400	Hot Dip Galvanized
SOBLTA_F_00011262	Overlap	100x5.00/400	Hot Dip Galvanized
SOBLTA_F_00011230	Overlap	150x4.00/400	Hot Dip Galvanized
SOBLTA_F_00011270	Overlap	150x5.00/400	Hot Dip Galvanized
SOBLTA_F_00011238	Overlap	200x4.00/400	Hot Dip Galvanized
SOBLTA_F_00011278	Overlap	200x5.00/400	Hot Dip Galvanized
SOBLTA_F_00011246	Overlap	250x4.00/400	Hot Dip Galvanized
SOBLTA_F_00011286	Overlap	250x5.00/400	Hot Dip Galvanized
SOBLTA_F_00011214	Overlap	50x4.00/400	Hot Dip Galvanized
SOBLTA_F_00011254	Overlap	50x5.00/400	Hot Dip Galvanized
SOBLTA_F_00069481	T-Shape	100x4.00/400	GI
SOBLTA_F_00069465	T-Shape	150x4.00/400	GI
SOBLTA_F_00012686	Overlap	150x5.00/400	GI
SOBLTA_F_00069497	T-Shape	200x4.00/400	GI

L - Junction Truss



T - Junction Truss



PULLOUT BOX

The GI Pullout Box is supplied in retainer boxes made from galvanized sheet steel, for the reliable transmission of shear forces. The GI Pullout Box, designed to ensure the exact distance between rods, in which the holes are made slightly bigger than the rod diameter. Material Used: Galvanized sheet, different zinc coatings. Gi Pullout Box Length: 1.2m, 2.44m, 3m (other length can be manufactured upon request.)

Gi Pullout Box Width: 100mm – 400mm (other widths, smaller or larger can be arranged.)

Hole Diameter: 10mm – 25mm (other punching required, can be done.) Material Thickness: 0.4mm – 1.5mm as standard (other thicknesses can be manufactured upon request)

Covers: According to the requirements.



Item Number	Dimensions (mm)	Material
SCUC_F_00088339	498x34-34x0.90x1000	GI
SCUC_F_00084769	198x34-34x0.70x1000	GI
SCUC_F_00091761	198x34-34x0.80x1000	GI
SCUC_F_00102843	180x40x0.70x2400	GI
SCUC_F_00107875	220x40 x0.70x2400	GI
SCUC_F_00102829	280x40x0.70x2400	GI
SCUC_F_00102859	178x39x0.70x2400	GI
SCUC_F_00107887	218x39x0.70x2400	GI
SCUC_F_00107881	218x40x0.70x2400	GI
SCUC_F_00102849	278x39x0.70x2400	GI
GNA_F_00073505	250x35-35x0.80x1000	GI
GNA_F_00073501	250x35-35x0.80x1200	GI
GNA_F_00073497	260x35-35x0.80x1000	GI
SCUC_F_00073485	200x30-30x0.80x1200	GI
SCUC_F_00073479	200x30-30x0.80x1200	GI
SCUC_F_00073473	200x30-30x0.80x1200	GI
SCUC_F_00091265	200x35-35x0.70x1000	GI
SCUC_F_00062363	200x35-35x0.70x1200	GI
SCUC_F_00062363	200x35-35x0.70x1200	GI
SCUC_F_00093351	200x35-35x0.80x1000	GI

Item Number	Dimensions (mm)	Material
SCUC_F_00093473	200x35-35x0.80x1200	GI
SCUC_F_00065295	200x40-40x0.70x2400	GI
SCUC_F_00065289	215x40-40x0.70x2400	GI
SCUC_F_00062369	250x35-35x0.70x1200	GI
SCUC_F_00091271	250x35-35x0.80x1000	GI
SCUC_F_00093467	250x35-35x0.80x1200	GI
SCUC_F_00093345	260x35-35x0.80x1000	GI
SCUC_F_00093461	260x35-35x0.80x1200	GI
SCUC_F_00075467	280x35-35x0.70x1200	GI
SCUC_F_00110621	290x25-25x0.8x2000	GI
SCUC_F_00108479	290x35-35x0.9x1500	GI
SCUC_F_00108485	290x35-35x0.9x1600	GI
SCUC_F_00108491	290x35-35x0.9x1800	GI
SCUC_F_00108473	290x35-35x0.9x2100	GI
SCUC_F_00084717	300x35-35x0.70x1000	GI
SCUC_F_00062357	300x35-35x0.70x1200	GI
SCUC_F_00106347	300x35-35x0.80x1200	GI
SCUC_F_00084731	325x35-35x0.70x1000	GI
SCUC_F_00084737	350x35-35x0.70x1000	GI
SCUC_F_00084743	400x35-35x0.70x1000	GI
SCUC_F_00087829	450x35-35x0.70x1000	GI
SCUC_F_00088837	475x35-35x0.90x1000	GI
SCUC_F_00062351	75x35-35x0.70x2400	GI
SCUC_F_00084775	298x34-34x0.70	GI
SCUC_F_00084787	323x34-34x0.70x1000	GI
SCUC_F_00084805	348x34-34x0.70x1000	GI
SCUC_F_00084817	398x34-34x0.70x1000	GI
SCUC_F_00087835	448x34-34x0.70x1000	GI
SCUC_F_00073491	198x30-30x0.70x1200	GI
SCUC_F_00099377	198x34-34x0.70x1200	GI
SCUC_F_00108503	288x34-34x0.8x1500	GI
SCUC_F_00108509	288x34-34x0.8x1600	GI
SCUC_F_00108515	288x34-34x0.8x1800	GI
SCUC_F_00108497	288x34-34x0.8x2100	GI
SCUC_F_00088329	473x34-34x0.80x1000	GI

BR MESH (BLOCK REINFORCEMENT MESH)

Block reinforcement meshes are produced for brick and block work reinforcement. Their primary usage is to prevent cracking. Embedded in the normal thickness of a brickwork joint, brick reinforcement meshes reduce the detrimental effects of vibration and changes of temperature. Brick reinforcement meshes increase resistance to tensional stress. The brickwork reinforcement (coil mesh) assist resistance to tensile stresses where settlement occurs.

Item Number	Dimensions (mm)	Material	Item Number	Dimensions (mm)	Material
SMBR_F_00054957	50x35000	GI	SMBR_F_00074219	200x35000	GI
SMBR_F_00054931	50x45000	GI	SMBR_F_00112827	200x40000	GI
SMBR_F_00054909	50x50000	GI	SMBR_F_00054947	200x45000	GI
SMBR_F_00054959	75x35000	GI	SMBR_F_00054921	200x50000	GI
SMBR_F_00054933	75x45000	GI	SMBR_F_00077057	200x55000	GI
SMBR_F_00099609	75x50000	GI	SMBR_F_00057565	200x90000	GI
SMBR_F_00077381	100x10000	GI	SMBR_F_00054949	225x45000	GI
SMBR_F_00060013	100x12000	GI	SMBR_F_00082267	225x50000	GI
SMBR_F_00066043	100x25000	GI	SMBR_F_00054951	250x45000	GI
SMBR_F_00055981	100x30000	GI	SMBR_F_00054925	250x50000	GI
SMBR_F_00054961	100x35000	GI	SMBR_F_00054953	275x45000	GI
SMBR_F_00112831	100x40000	GI	SMBR_F_00054927	275x50000	GI
SMBR_F_00054935	100x45000	GI	SMBR_F_00054955	300x45000	GI
SMBR_F_00054913	100x50000	GI	SMBR_F_00054929	300x50000	GI
SMBR_F_00076997	100x54000	GI	SMBR_F_00074205	50x50000	S4
SMBR_F_00074227	100x90000	GI	SMBR_F_00061951	75x50000	S4
SMBR_F_00054937	125x45000	GI	SMBR_F_00061947	100x50000	S4
SMBR_F_00054915	125x50000	GI	SMBR_F_00074203	125x50000	S4
SMBR_F_00074883	150x10000	GI	SMBR_F_00076999	150x45000	S4
SMBR_F_00060015	150x12000	GI	SMBR_F_00061949	150x50000	S4
SMBR_F_00109655	150x20000	GI	SMBR_F_00076801	175x50000	S4
SMBR_F_00066045	150x25000	GI	SMBR_F_00103953	200x45000	S4
SMBR_F_00055987	150x30000	GI	SMBR_F_00061927	200x50000	S4
SMBR_F_00074223	150x35000	GI	SMBR_F_00077001	250x45000	S4
SMBR_F_00112829	150x40000	GI	SMBR_F_00061929	250x50000	S4
SMBR_F_00054939	150x45000	GI	SMBR_F_00061983	250x60000	S4
SMBR_F_00054917	150x50000	GI	SMBR_F_00061931	300x50000	S4
SMBR_F_00074225	150x90000	GI	SMBR_F_00061945	300x54000	S4
SMBR_F_00054941	175x45000	GI			
SMBR_F_00054919	175x50000	GI			
SMBR_F_00076809	200x10000	GI			
SMBR_F_00060017	200x12000	GI			
SMBR_F_00081541	200x20000	GI			
SMBR_F_00055985	200x30000	GI			



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