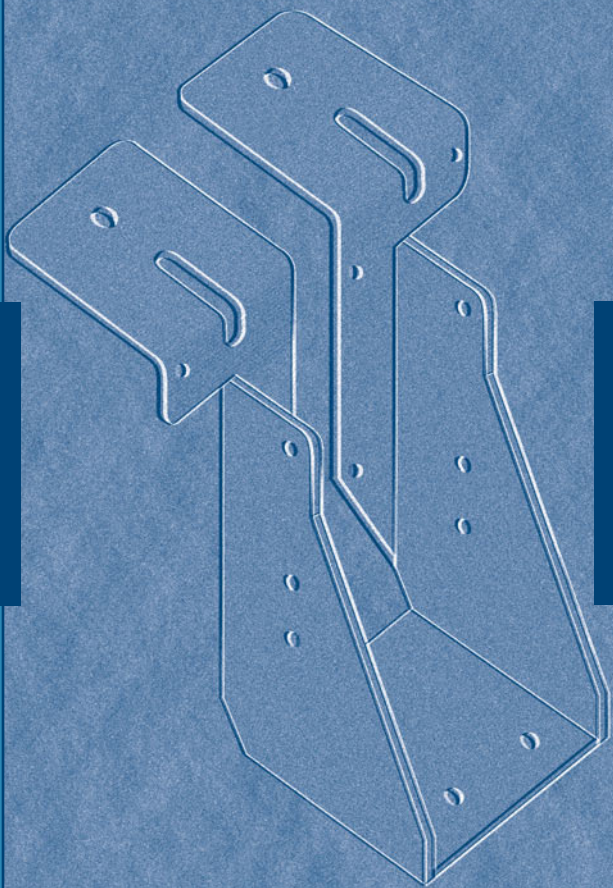
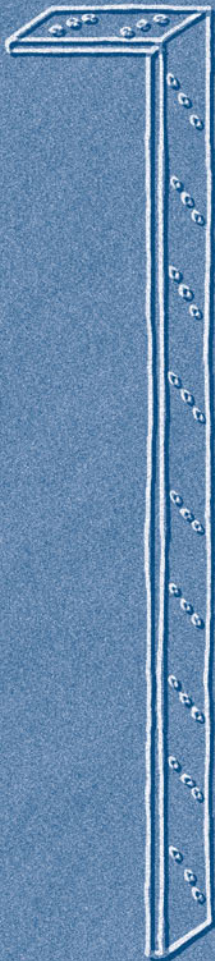


FIXING



BAT METALWORK LTD

BROCHURE



Joist Hangers

Joist Hangers on Steel Beams

Fixing Masonry Hangers

Speedy Joist Hangers

Lateral Restraint Straps

Roof Tie Down Straps

Herring Bone Joist Strut

Bat 'U' Nail Plate

Framing Anchors

Truss Clips

Timber Connectors

Angle Brackets/Frame Ties

Bat Safeplate

Splice Plate

Angle Plate

Wall Ties

Multi-Starters

Lintel Angles

TS Lintels

Double Lintels

CONTACT



BAT METALWORK LTD

Ballylanders Co. Limerick Ireland

Telephone 062 46290

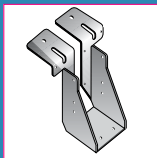
Facsimile 062 46291

Email: info@batmetalwork.com

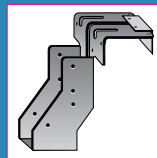
www.batmetalwork.com



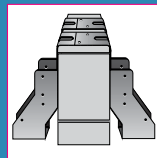
NEW HOUSE



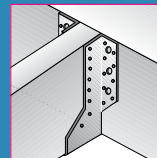
Standard Type 'S'
Joist Hanger



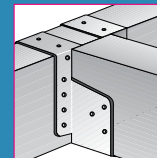
Type 'R' Joist Hanger



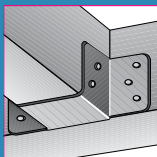
Straddle Type
Joist Hanger



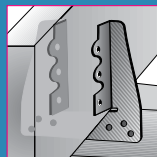
Maxi Speedy



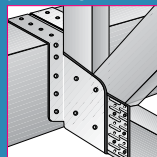
Standard Speedy



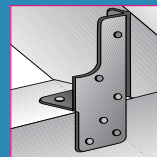
Speedy Minor



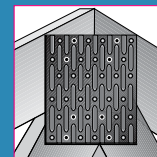
Truss Clip



Girder Truss Shoe



Framing Anchor

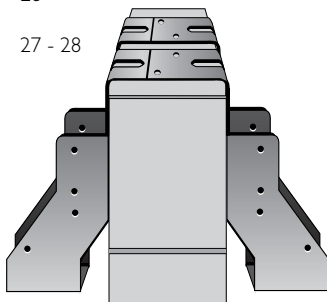


'U' Nail Plate

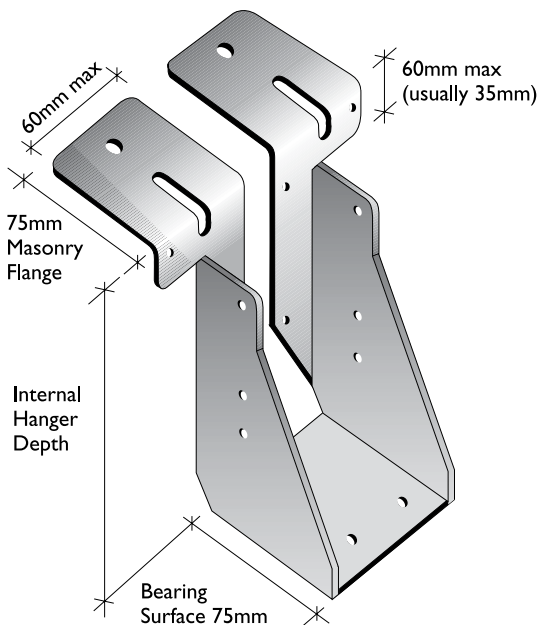
- 1 Joist Hanger (Timber to Block)
- 2 Maxi Speedy Joist Hanger (Face Fix)
- 3 Speedy Joist Hanger (Timber to Timber)
- 4 Lateral Restraint Strap (HD)
- 5 Vertical Restraint Strap (LD)
- 6 Truss Clip
- 7 Wall Tie
- 8 Framing Anchor
- 9 Angle Plate
- 10 Angle Bracket
- 11 Timber Connectors
- 12 BAT-U-Nail Plate
- 13 Splice Plate
- 14 Double Lintel
- 15 Single Lintel
- 16 Herringbone Joist Strut

PRODUCTS FOR NEW HOUSING

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O.P.H. JOIST HANGERS- one piece hangers



DESIGN FEATURES

Masonry flange has greater bearing area than 'Z' type hangers.

Material thickness, including protective coatings 2.5mm

CORROSION PROTECTION: G275 (275 gms / mm sq)

Zinc galvanising including both sides

Non-welded construction

Manufacturing from pre-galvanised mild steel

BS EN 10142: 1991, DX 51D+Z275

HOW TO ORDER / SPECIFY BAT O.P.H. JOIST HANGERS

Please state dimensions

Type 'S' (A) Joist depth (B) Joist width

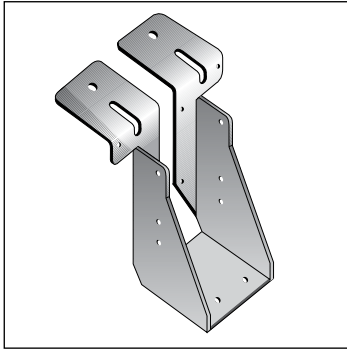
Type 'R' and 'ST' (A) Joist depth (B) Joist width

(C) Thickness of masonry in which it is to be used

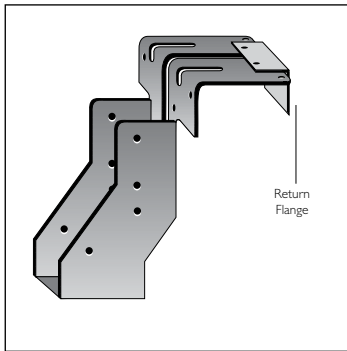
Intermediary depths are available on request for all types of O.P.H. Joist Hangers and are priced to the nearest above size.

NOTE: Unless requested, the internal Joist Hanger depth of BAT Joist Hangers 150mm or over is 10mm less than the actual joist depth to accommodate notching of the joist if required.

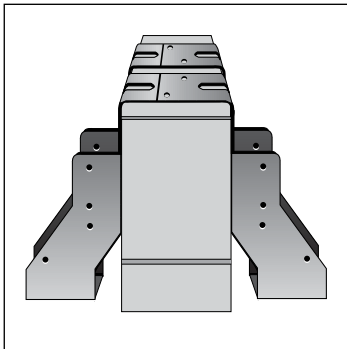
O.P.H. JOIST HANGERS



Type 'S' Hanger



Type 'R' Hanger



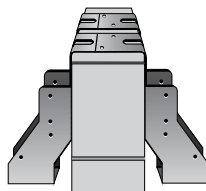
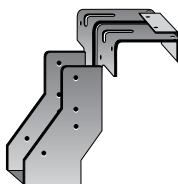
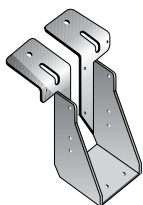
Type 'ST' Hanger

O.P.H. JOIST HANGERS

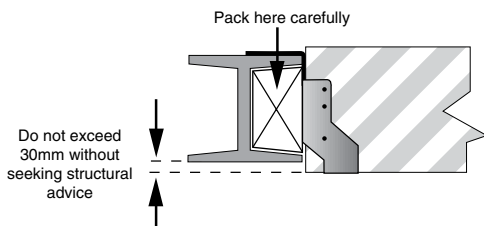
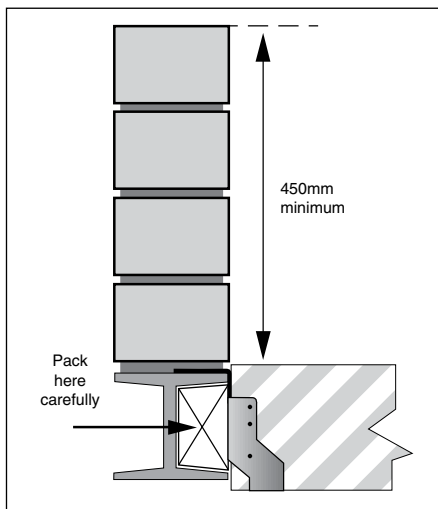
Nominal Timber Sizes	Internal Joist Hanger Depth
130mm	130mm
150mm	140mm
175mm	165mm
200mm	190mm
225mm	215mm
250mm	240mm
275mm	265mm

JOIST HANGER LOAD CARRYING CAPACITY

Joist Depth (mm)	Internal Joist Hanger depth (mm)	Joist width (mm)			
		38	44	50	75
		Capacity (kN)			
150	140	17.5	12.8	11.6	13.6
175	165	15.6	12.6	12.6	14.5
225	215	12.6	12.2	14.1	15.6



JOIST HANGERS ON STEEL BEAMS



On steel beams and masonry, use Joist Hangers to BS 6178 manufactured from low carbon steel (galvanised or sheradised) or from Austenitic stainless steel. For low carbon steel hangers the total thickness of the steel plus zinc coating should be at least 2.5mm.

At least 450mm of bonded masonry must be built on the steel beam above the hanger flange.

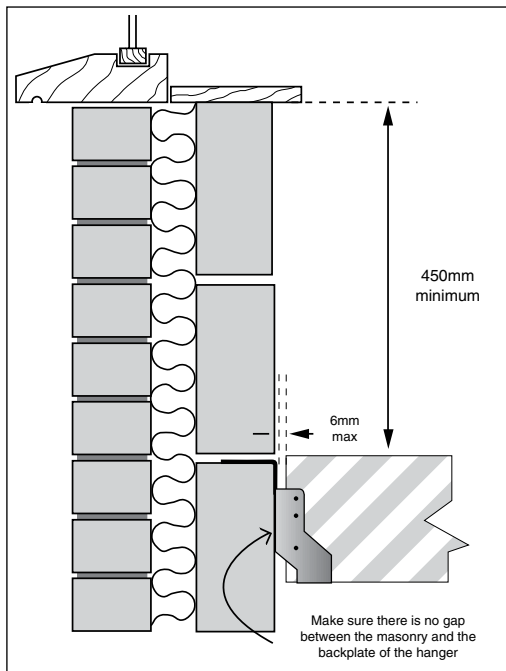
Joists can be slung below the lower flange of the beam provided they are packed carefully as shown. Packing should not become dislodged due to shrinkage. It is not recommended to use Joist Hangers on Steel beams without packing.

Timbers should be fixed through all nail holes provided using BAT 30mm long x 9swg square twisted sheradised nails.

FIXING MASONRY HANGERS

If necessary the masonry flange of the hanger shot fired nailed directly to the blockwork (not on a mortar bed) to secure the hanger in the correct position while work progresses. Make sure the hangers are vertical, and that there is no gap between the back plate and the wall. Where ever possible avoid positioning the masonry flange directly over a perpendicular joint.

Build at least 450mm of bonded masonry above the masonry flange and allow at least twenty four hours for the mortar to set.

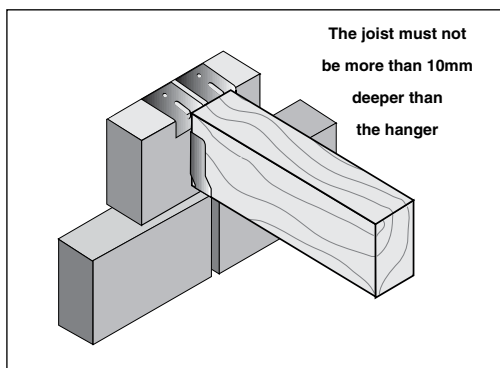
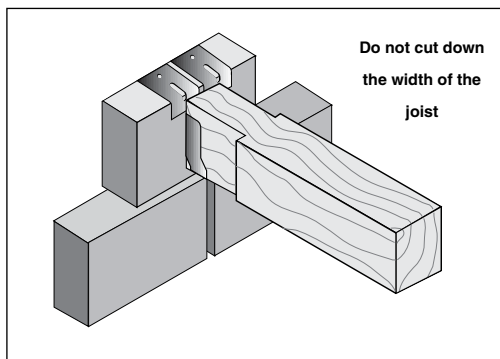


Cut each joist accurately according to length, making sure that the gap between the end of the joist and the back plate of the hanger is less than 6mm. Packing can be used for gaps up to 10mm. If necessary, the bearing surface of the hanger can be notched into joist to provide a level surface for plasterboard.

Fit the joists to the hangers and, nail through each of the holes provided in the side gussets. Unless otherwise specified, use 30mm long x 9swg square twisted sherardised nails.



FIXING MASONRY HANGERS



Before fixing, check that the hangers are the correct size for the joists.

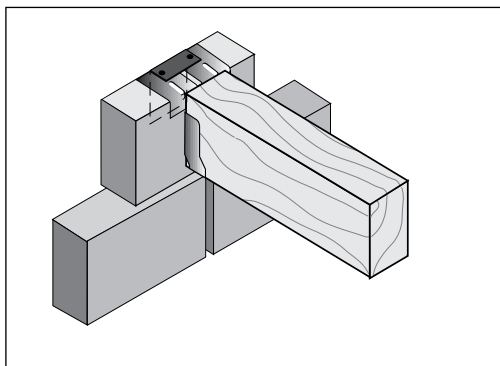
The joist width should be equal to the width of the hanger and the joist depth should not be more than 10mm deeper than the hanger.

It is not recommended to cut down the width of the joist to fit a hanger. If necessary replace either the joists or hangers with those of correct size.

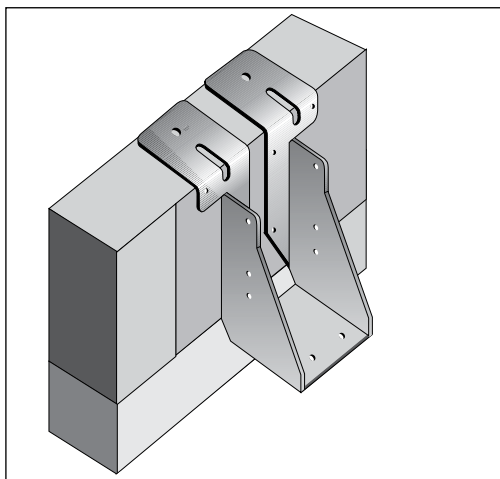
No additional holes for whatever purpose should be formed in the hanger.



FIXING MASONRY HANGERS



To provide rigidity to the construction, restraint hangers can be specified as an alternative.



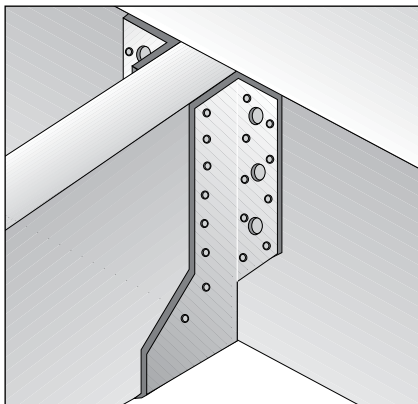
If the coursing requires adjustment to achieve the specified joist level, it is recommended to make the adjustment at the course below the one supporting the hanger. Where possible support the hanger on full blocks.

Timber should be fixed through all the nail holes provided using Bat 30mm long x 9swg square twisted nails.

SPEEDY JOIST HANGERS

Speedy Joist Hangers provide a quick and safe method of joist trimming for light, medium and heavy duty joists.

The unparalleled range of BAT trimming hangers are designed to meet every joist connecting application likely to occur.

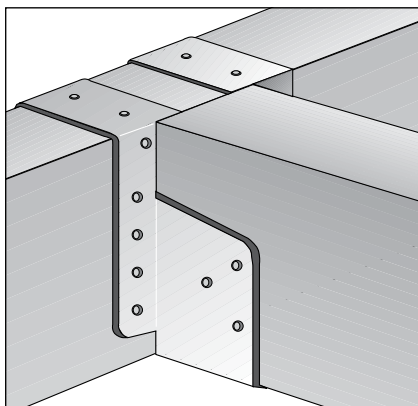


MAXI SPEEDY:

Heavy duty and timber to block connections. Load carrying capacities for various connections are available on request.

AVAILABLE IN THE FOLLOWING DEPTHS: 83mm to 291mm

AVAILABLE IN THE FOLLOWING WIDTHS: 38mm to 150mm

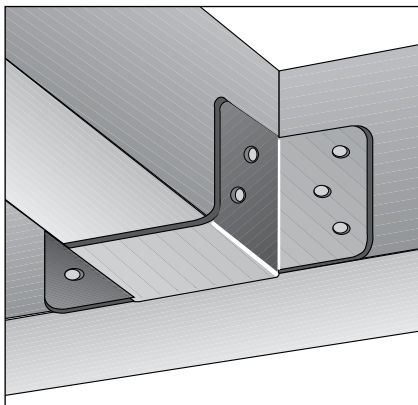


SPEEDY STANDARD:

Medium duty applications, the speedy standard can accommodate a joist depth of up to 225mm.

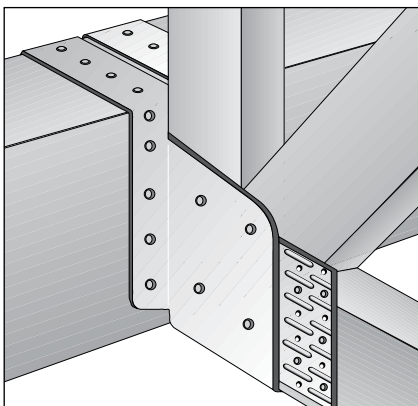
AVAILABLE IN THE FOLLOWING WIDTHS: 38mm, 44mm, 50mm, 63mm, 75mm, 88mm & 100mm

SPEEDY JOIST HANGERS



SPEEDY MINOR: Light duty applications, the speedy minor can accommodate a joist depth of up to 100mm.

AVAILABLE IN THE FOLLOWING WIDTHS: 38mm, 44mm & 50mm.



GIRDER TRUSS SHOE: Designed to offer a safe and economical method of connecting trusses to girder units. It incorporates a specifically extended bearing surface of 85mm.

AVAILABLE IN THE FOLLOWING WIDTHS: 38mm, 44mm 50mm & 75mm

BAT SPEEDY HANGERS OFFER CONSIDERABLE ON-SITE COST ADVANTAGES WHICH INCLUDE:

The narrow gauge of material allows for plasterboard and floor decking to be fitted directly to the timbers without having to notch the trimming joists. The

5 joist bearing surface compensates for normal timber shrinkage which can occur. The leg sections are adjustable to suit all joist depths.

SPEEDY JOIST HANGERS

MAXI SPEEDY

produced from 2mm hot dipped galvanised mild steel.

SPEEDY STANDARD

produced from 1mm hot dipped galvanised mild steel.

GIRDER TRUSS SHOE

produced from 1.2mm hot dipped galvanised mild steel.

LONG LEG SPEEDY

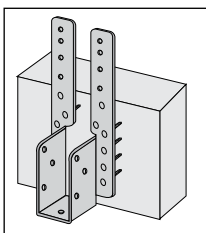
produced from 1.5mm hot dipped galvanised mild steel.

BS EN 10142: 1991 S1D+Z275

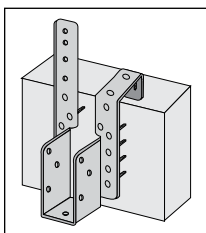
NAIL HOLE DIAMETER 4mm

BOLT HOLE DIAMETER 14mm

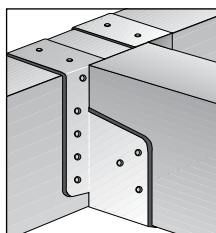
Fixing sequence for speedy standard and girder truss shoe.



Stage 1



Stage 2



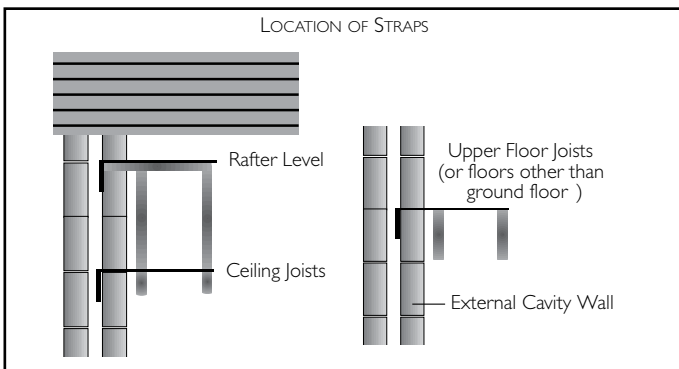
Stage 3

Timbers should be fixed through all nail holes provided using BAT 30mm long x 9smg square twisted sheradised nails.

Type	Joist Width (mm)	Leg Length (mm)	Side Gusset (mm)	SWL (kn)
Speedy Minor	38, 44, 50	64	64	1.6
Speedy Standard	38, 44, 50, 63, 75, 88, 100	281 to 262	114 to 95	4.3
Long leg Speedy	38, 50	390 to 396	113 to 107	6.7
Girder Truss	38, 44, 50, 75	271 to 252	115 to 96	7.1
Maxi Speedy	38, 44, 50, 63, 75, 88, 100, 150	70 to 235	Variable	On application

GUIDE TO SIZING LATERAL RESTRAINT STRAPS

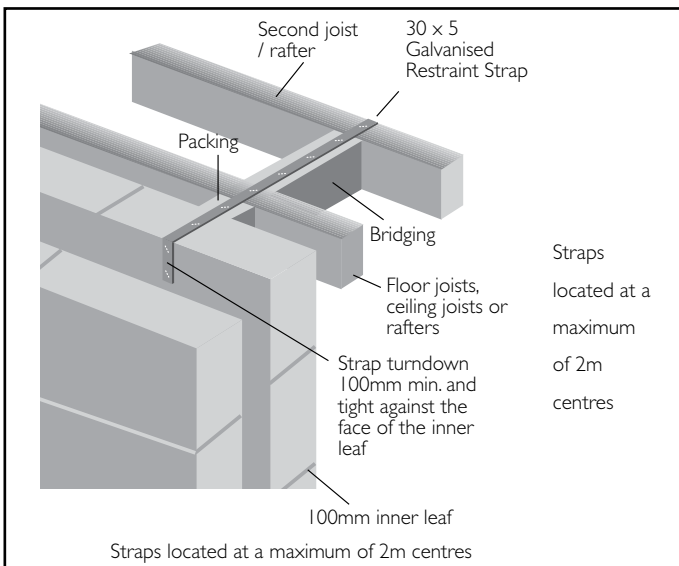
LATERAL RESTRAINT STRAPS FOR CAVITY WALLS - (WITH 100 THICK INNER LEAF)



Sizing of Restraint Straps for Cavity Walls with 100mm Thick Inner Leaf

Joist Centres	Overall Strap Length	Number of Fixing
300	700	4
400	800	4
600	1000	5

Bat recommended fixings either No. 12 x 50mm wood screws or 8swg x 75mm long nails. At least one fixing should be in the second joist or rafter.



GUIDE TO SIZING LATERAL RESTRAINT STRAPS

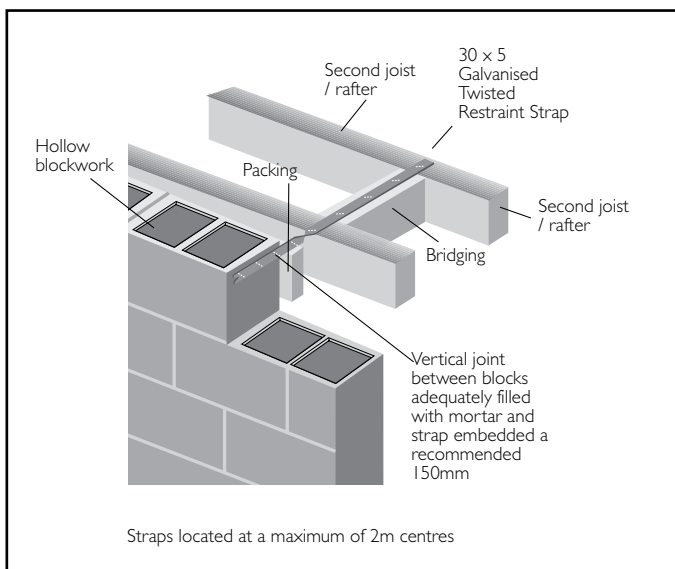
LATERAL RESTRAINT STRAPS FOR HOLLOW BLOCK WALLS - OPTION 1

Sizing of Restraint Straps for hollow Block Walls

Joist Centres	Overall Strap Length	Number of Fixing
300	600	4
400	700	4
600	900	5

Bat recommended fixings either No. 12 x 50mm wood screws or 8swg x 75mm long nails. At least one fixing should be in the second joist or rafter:

Note: When strapping to hollow block work, every care should be taken when detailing insulation to avoid potential cold bridges.



NOTES:

All dimensions stated are in millimetres.

Length of straps includes 100mm bend.

All information contained in this document was current at time of publication.

Material specification for straps: manufactured from 30 x 5mm hot dipped galvanised mild steel to BS EN 10142: 1991 DX 51D+Z275. Hole diameters are 6mm and are holed at 12.5mm centres grouped in threes, diagonally across the width of the strap. All 30 x 5mm straps are edge coated.

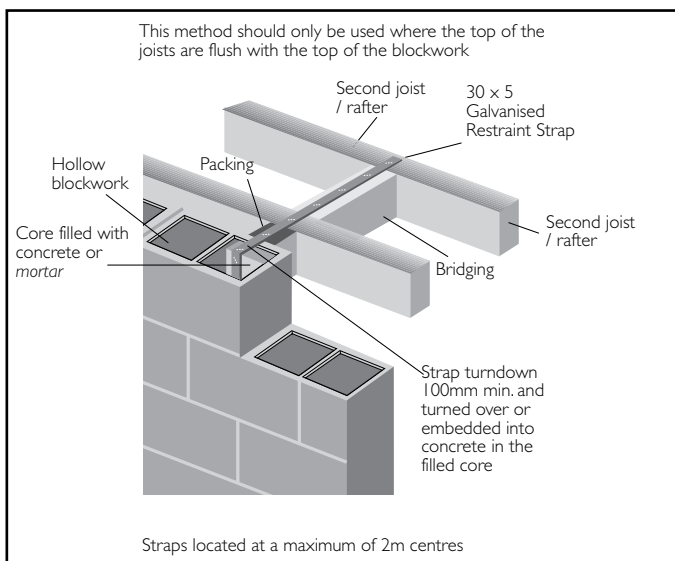
GUIDE TO SIZING LATERAL RESTRAINT STRAPS

LATERAL RESTRAINT STRAPS FOR HOLLOW BLOCK WALLS - OPTION 2

Sizing of Restraint Straps for Hollow Block Walls

Joist Centres	Overall Strap Length	Number of Fixing
300	700	4
400	800	4
600	1000	5

BAT recommended fixings either No. 12 x 50mm wood screws or 8swg x 75mm long nails. At least one fixing should be in the second joist or rafter:



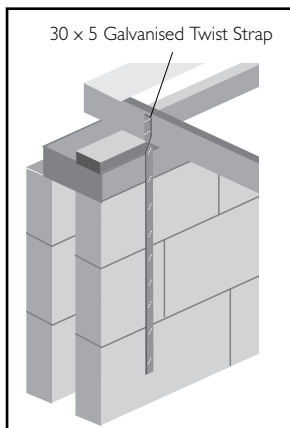
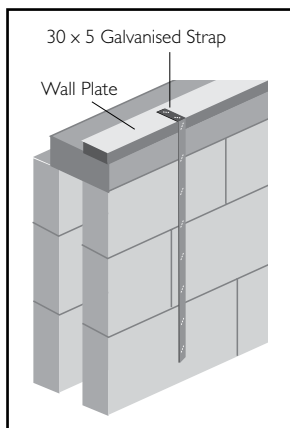
NOTE:

When strapping to hollow block work, every care should be taken when detailing insulation to avoid potential cold bridges.

All straps are available in a range of lengths starting at 300mm and increasing in 100mm increments.

ROOF TIE DOWN STRAPS

VERTICAL STRAPPING OF ROOFS TO WALLS



Wall plate and roof timber tie down strap length 1000mm min.

BAT recommend that straps be turned over and nailed or screwed to the wall plate using square twisted nails or wood screws.

Straps should be fixed to masonry by means of suitable shot firing, screws or have tail built into mortar bed joint.

If screws or shot firing are used a min. of 3 fixings is required, at least one of which is to be located within 150mm of the bottom end of the strap.

Vertical restraint straps should generally be provided at 1200 centres to resist uplift forces due to wind action.

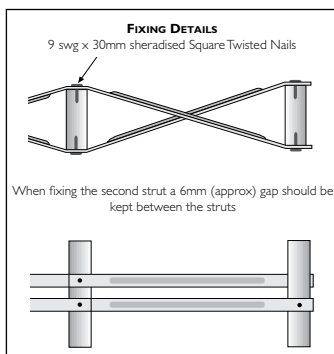
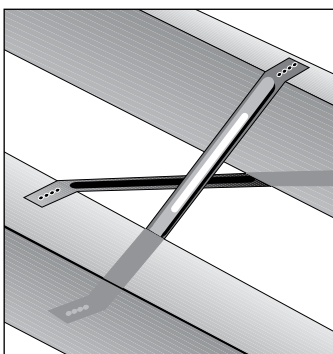
NOTE: In areas of severe exposure the guidance of the engineer should be sought.

HERRINGBONE JOIST STRUT

Joist strutting should be used to prevent sideways movement or buckling. Frequency of bridging should be as outlined below

Span (M) of Floor Joists	No / position of rows of bridging timber
Up to 2.5	None required
2.5 to 4.5	One row at mid-span
over 4.5	Two rows, one at each third-of-span position

The Bat Herringbone Joist strut represents a new concept in Herringbone strutting. It successfully combines the adjustability of timber with the strength of steel.



The simplicity of a one nail fixing in each end, together with one size for each nominal joist centre minimises the risk associated with traditional methods.

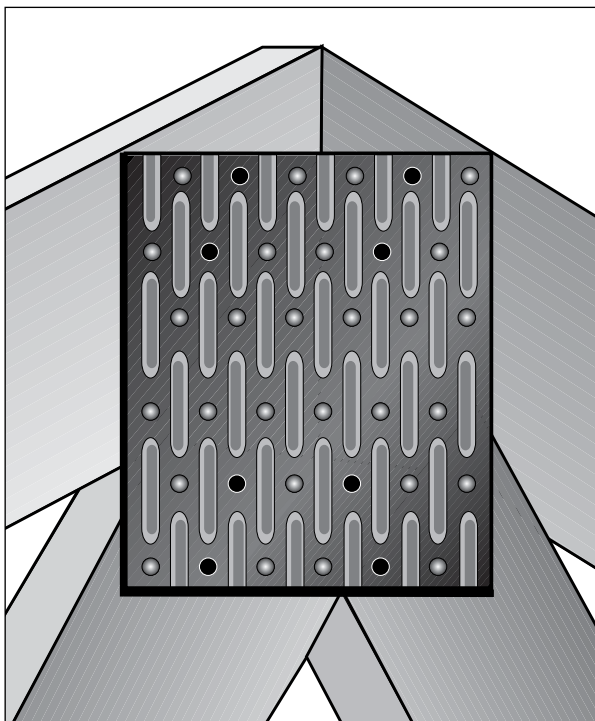
BAT Herringbone Joist Struts cope with a variety of timber widths and depths for all popular nominal joist centres, simply select the type of strut to suit your application. Test report available on request.

NORMAL JOIST CENTRE	STRUT	
	Reference	Length
400mm	400c	480
450mm	450c	523
600mm	600c	660

Herringbone strutting should only be used where the spacing of the joist does not exceed three times the joist depth.

Manufactured from galvanised mild steel to BS EN 10142: 1991, DX 51D+Z275.

BAT 'U' NAIL PLATE



BAT-U-NAIL PLATES

BAT-U-Nail is a plate system which enables trusses to be made on site or in the builders workshop, since it is nailed by hand or automatic nailing gun.

BAT-U-Nail plates are to be fixed on both sides of the truss.

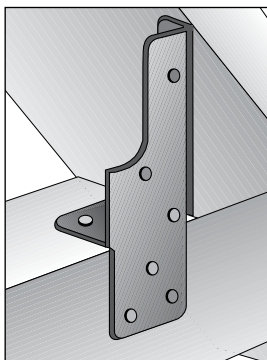
Use 30mm long x 9 gauge square twisted sheradised nails.

Manufactured from galvanised mild steel to BS EN 10142: 1991, DX 51D+Z275.

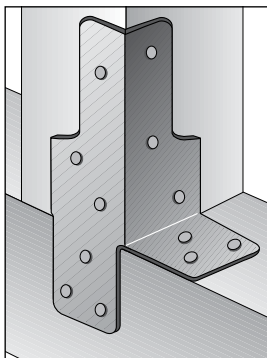
WIDTHS: 76, 114 and 152mm

LENGTHS: 51, 100, 152, 203, 254, 305 and 354mm.

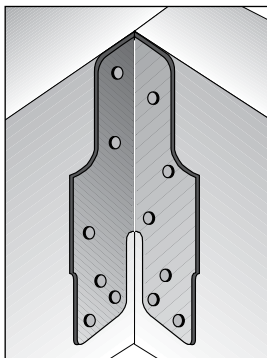
FRAMING ANCHORS



AL



BL



C

Eliminate toe, tosh and skew nailing uncertainties. BAT Multi-Grip Framing Anchors offer the most effective and economical method of providing strong, mechanical joints for framing of timbers.

FIVE TYPES ARE AVAILABLE: **AL, AR, BL, BR AND C.**

TYPES A(L) (AS ILLUSTRATED), AND A(R), for anchoring rafters and trusses to wall plate and purlin trusses.

TYPES B(L) (as illustrated), and B(R), for anchoring headers to studs, beams to posts and studs to plates.

TYPE C (as illustrated), for use right or left handed, for anchoring joints to beams, stringers to headers and hip joints.

SAFE WORKING LOADS: 2.45kn

TYPE A & B (PER ANCHOR): Longitudinal capacity 1.3kN pair: Lateral capacity 1.3kN.

TYPE C (PER ANCHOR): Longitudinal capacity 3.7kN pair:

RECOMMENDED FIXING: BAT 30mm x 9 swg square twisted nail.

NOTE: Use all available timber facing holes.

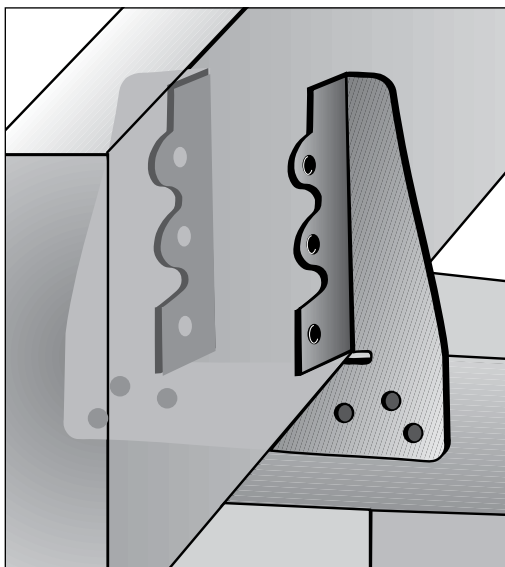
MATERIAL SPECIFICATION

1mm hot dipped galvanised mild steel to BS EN 10142: 1991, DX 51D+Z275

OVERALL HEIGHT: 126mm

WIDTH: 34mm

HOLE DIMENSION: 4mm



The BAT Truss Clip eliminates all the disadvantages of skew nailing; damaged connector plates; split rafters or wall plates. With skew nailing a satisfactory fixing cannot be guaranteed. BAT Truss Clips provide a safe positive fixing on two planes. By fixing BAT 30mm x 9 smg square twisted sheradised nails through all the holes provided in the BAT Truss Clip, it will resist an uplift on trusses up to 11m span, spaced at 600mm centres, in areas with a basic wind speed not exceeding 46m per second. In areas of greater wind speeds the truss span will be proportionately less. It is essential that the wall plate to which these trusses are fixed is itself securely strapped to the supporting masonry. Available in two sizes to suit 38mm and 50mm thick trussed rafters.

SAFE WORKING LOAD

1.3kN UPLIFT

Alternative fixing for trusses other than 38mm or 50mm, use BAT Framing Anchors, types A(L) and A(R).

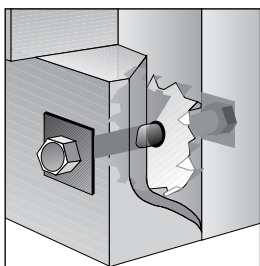
MATERIAL SPECIFICATION: Manufactured from 1mm hot dipped galvanised mild steel to BS EN 10142: 1991, DX 51D+Z275.

HOLE DIAMETERS: 4mm

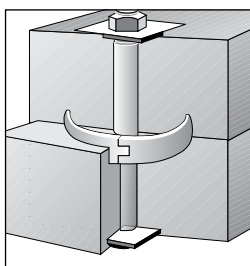
HEIGHT: 117mm

All nail holes must be filled.

TIMBER CONNECTORS



Toothplate



Split Ring

BAT Timber Connectors are made in accordance with the requirements of BS 1579 'Connectors for Timber'. They allow for the selection of a suitable size and type for a wide range of loads and situations.

SQUARE PLATE WASHERS

Manufactured in sizes: 38mm square, 50mm square and 63mm square.

TOOTH PLATE

Manufactured in sizes 38, 50, 63 and 75mm. Suitable for M12 bolt. Available in both single and double sided.

MATERIAL SPECIFICATION:

Hot dipped mild steel to BS EN 10142: 1991, DX 51D+Z275

Bolts are not supplied with timber connectors.

SPLIT RING

Manufactured in 3 sizes: 50, 63 and 100mm diameter. Designed for use with M12 and M20 bolts, Double Bevelled.

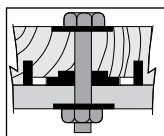
MATERIAL SPECIFICATION: HRPO mild steel to BS 1449: Part 1:1975

SHEAR PLATE

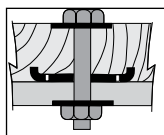
Manufactured in 2 sizes: 67 and 100mm. Designed for use with M20 bolt.

MATERIAL SPECIFICATION: 67mm HRPO mild steel to BS 1449: Part 1:1975.

100mm - Cast Forging. Safe working loads, end distances and spacings are all as set out in BS CPI 12: Part II:1971: Tables 29, 33, 34, 37 and 40 (to be superseded by BS 5268 : Part 2).

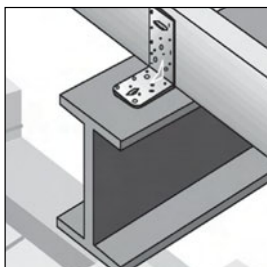


Shear Plate 101

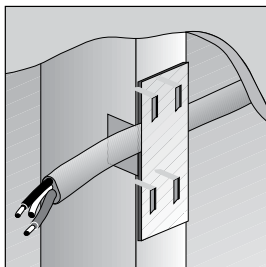


Shear Plate 67

ANGLE BRACKET



Angle Bracket



Safeplate

ANGLE BRACKET

For multi-purpose fixing applications angle brackets can be used as replacement cleats nailed or bolted. Available in two types:

	SAFE WORKING LOAD	
	UPLIFT	SHEAR
LIGHT DUTY: 60mm x 40mm x 2mm thick	0.6kN	0.9kN
HEAVY DUTY: 90mm x 90mm x 63mm ribbed	0.8kN	1.18kN
150mm x 90mm x 63mm ribbed	0.7kN	2.3kN
150mm x 150mm x 63mm ribbed		
2.5mm thick	0.7kN	2.3kN

Refer to BS 568 Part 2 Long term Loads.

BAT SAFEPLATE

For protection of plumbing and electrical wiring against random nailing into studs. Use wherever services occur within 75mm of face of plasterboard or 100mm of surface of floor deck.

STANDARD SIZE: 89 x 55mm

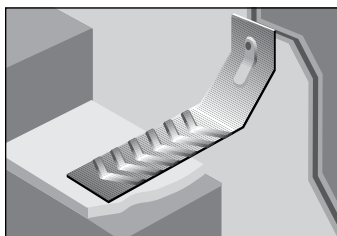
FIXING: tapped in with a hammer.

BAT FRAME TIES

The link between timber frames & brick or block veneers.

50MM CAVITY

SUITABLE FOR 4 STORY



SPLICE PLATES

Suitable for butt jointing timbers of similar cross section.

DESIGN FEATURES

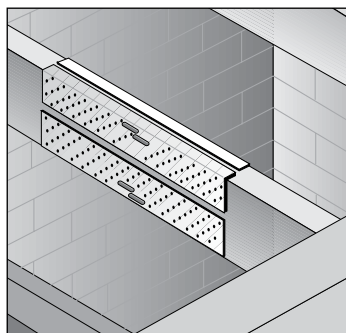
- Manufactured from 1.2mm pre-galvanised mild steel to BS EN 10142: 1991, DX 51D+Z275
- Available in 3 types:
 - L61 61 x 400mm long up to 150mm deep joist
 - L80 80 x 560mm long up to 200mm deep joist
 - L98 98 x 560mm long up to 250mm deep joist
- 8 sets of 4 per box (32 pieces) including nails

INSTALLATION REQUIREMENTS

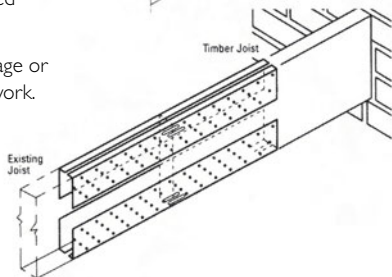
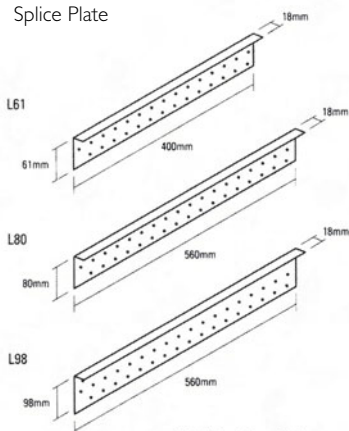
Joint consists of 4 pieces.
All nail holes must be used.
Minimum timber thickness 50mm.

Can be used for:

- Replacement of rotten and decayed floor joist ends.
- Replacement of fire damaged structural timbers.
- Making good localised damage or decay in structural timber work.



Splice Plate



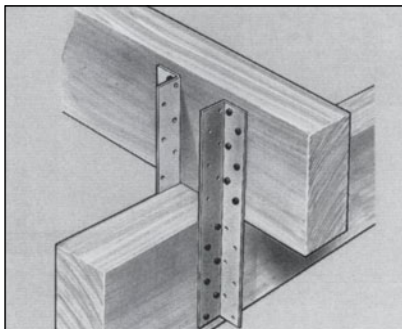
Joist Depth	Splice Plate Code	Splice Plate Size (mm)	Resistance Moment (kNm)	Shear Capacity (kN)
125 150	L61	18 x 61 x 400	1.5	13
175 200	L80	18 x 80 x 560	1.5	13
225 250	L98	18 x 98 x 560	1.5	13

ANGLE PLATES

BAT Angle Plates are used as a safe and economical method of connecting joints to purlins.

DESIGN FEATURES

- Manufactured from 2mm thick hot dipped pre-galvanised mild steel to BS EN 10142 : 1991, DX51D + Z275
- Safe working loads:
1 pair = 3.5kN
2pairs = 7.5kN



Angle Plate

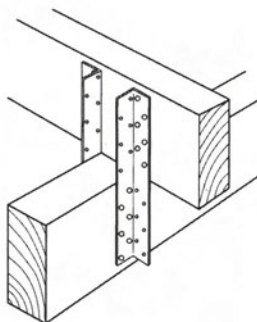
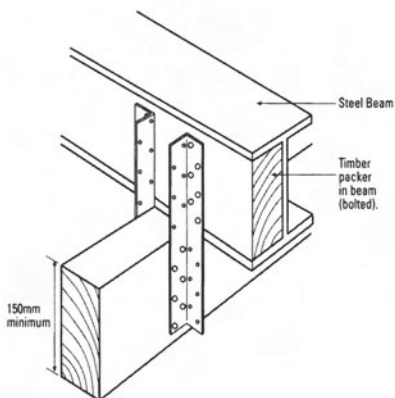
Ref: AP30030
300mm x 30mm x 30mm

INSTALLATION REQUIREMENTS

Fixing: Use BAT 3.75 x 30mm long square twisted sheradised nails.

Use all timber facing nail holes.

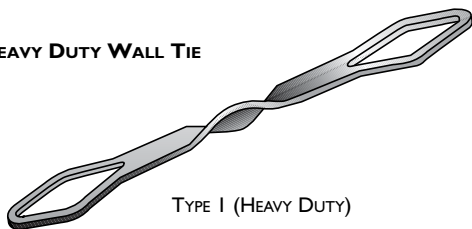
Minimum timber depth of 150mm.





STAINLESS STEEL WALL TIES

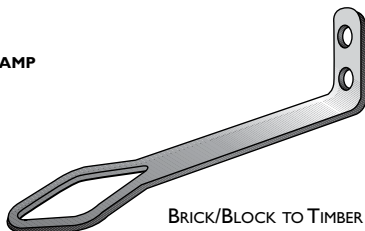
SAFETY HEAVY DUTY WALL TIE



TYPE I (HEAVY DUTY)

LENGTH		WIDTH		THICKNESS
200	x	12	x	3
225	x	12	x	3
250	x	12	x	3

FRAME CRAMP

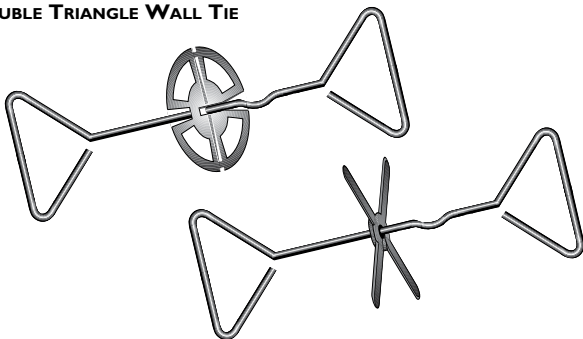


BRICK/BLOCK TO TIMBER

PROJECTION
100/125/150/175/200

UPSTAND 2 HOLE
50

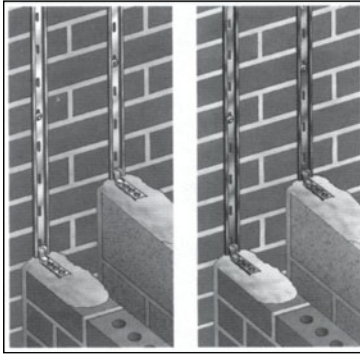
DOUBLE TRIANGLE WALL TIE



Manufactured from grade 304 S15 Austenitic stainless steel 3.75mm wide diameter.

AVAILABLE IN THE FOLLOWING LENGTHS: 200mm, 225mm, 250mm. Available in packs of 30.

MULTI STARTERS



Stainless Steel
Ref. MSSS

Plastisol Coated
Galvanised Steel
Ref. MSSS

Featuring a 'turn-n-slide' to accommodate all sizes of brick/block.
The Multi-Starter is suitable for all wall widths from 60mm-250mm

INSTALLATION

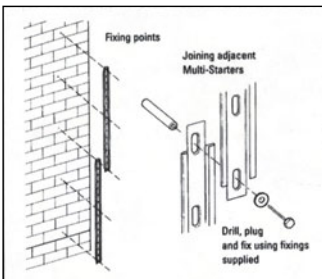
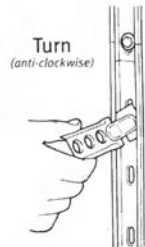
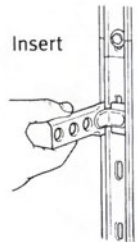
- The turn-n-slide ties enable the starter to be tied into any course the builder wishes, ideally every (225mm deep) block course or every third course of (75mm deep) bricks.
- Each pack contains two 1165mm lengths. Slots at each end allow easy connection of one length to the next.

FIXING DETAILS

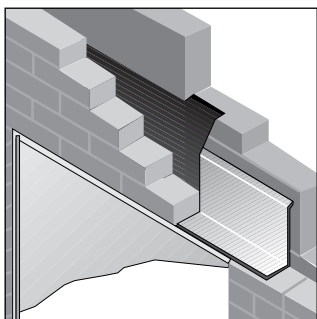
(Additional fixing packs available)

MULTI STARTER

(10 ties, 5 screws, plugs and washers)
Ref:MSGFIX Plastisol Coated Galvanised
Ref: MSFIX Stainless Steel

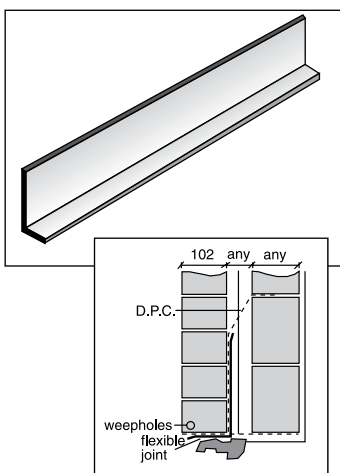


LINTEL ANGLE For Brick Cladding



APPLICATIONS: To support OUTER leaf only, with ANY cavity width.
To span 300mm to 3000mm.
The performance data for the L.A. and the L.A.ss are the same. When ordering specify lintel name and length (at least 300mm longer than the opening).

SPECIFICATION: L.A. (Mild Steel) is manufactured from hot dipped BS EN 10142: 1991, DX 51D+Z275 G600.



L.A.ss is manufactured from Stainless Steel to BS 1449 : Part 2:1975. Grade 304 S15.

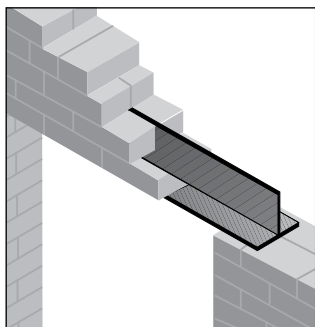
Eliminates cold bridges. Used in timber frame, traditional and refurbishment. The Lintel Angle does not need to be fixed to the inner leaf. It should be propped during construction if more than 1800mm long.

THE LINTEL ANGLE IS AVAILABLE IN TWO VERSIONS:

L.A. (Mild Steel) galvanised and painted, or L.A. stainless steel.

REFERENCE	L.A. (MILD STEEL)					L.A. (STAINLESS STEEL)				
Lintel Lengths (available in increments of 150mm)	600	1950	2550	2850	3150	600	1950	2550	2850	3150
	1800	2400	2700	3000	3300	1800	2400	2700	3000	3300
Height (H) (mm)	119	158	215	215	215	119	158	215	215	215
Allowable Safe UDL (kN)	6.0	10.3	14.2	12.6	11.4	6.0	10.3	14.2	12.6	11.4
Zx-x (cm ³)	11.1	18.8	33.3	33.3	33.3	11.1	18.8	33.3	33.3	33.3
Lx-x (cm ⁴)	93	201	462	462	462	93	201	462	462	462
Allowable Moment (kNm)										
Max. Web Buckling at Supports (kN)										
Weight per Meter (kg)	5.3	6.3	7.8	7.8	7.8	5.5	6.6	8.1	8.1	8.1

TS LINTEL



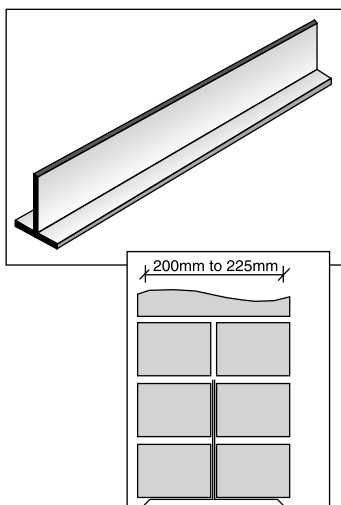
TS. SOLID WALL

APPLICATION: Four use in SOLID 225mm or 200mm construction, facing brickwork both sides. Can be supplied with plaster key if required.

TO SPAN: 300mm to 2400mm.
When ordering, specify lintel name and overall length.

SPECIFICATION: L.A. (Mild Steel) is manufactured from hot dipped BS EN 10142: 1991, DX 51D+Z275 G600.

L.A.ss is manufactured from Stainless Steel to BS 1449 : Part 2:1975. Grade 304 S15.

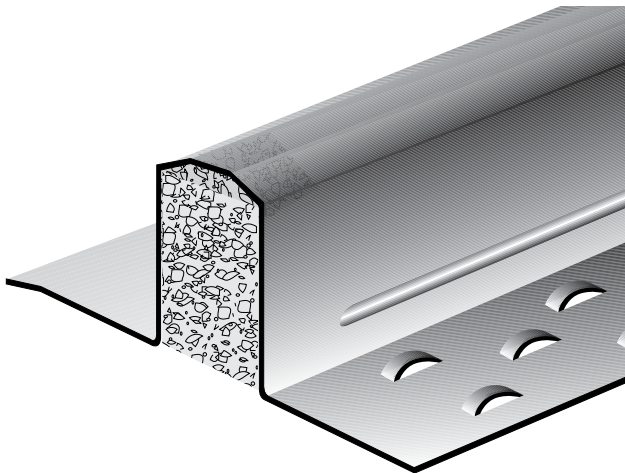


Eliminates cold bridges. Used in timber frame, traditional and refurbishment. The Lintel Angle does not need to be fixed to the inner leaf. It should be propped during construction if more than 1800mm long.

THE LINTEL ANGLE IS AVAILABLE IN TWO VERSIONS:

L.A. (Mild Steel) galvanised and painted, or L.A. stainless steel.

Reference	T.S.				
Lintel Lengths (available in increments of 150mm)	600 1800	1950 2400	2550 2700	2850 3000	3150 3300
Height (H) (mm)	119	158	215	215	215
Allowable Safe UDL (kN)	10.0	15.0	20.0	20.0	15.0
Zx-x (cm ³)	11.1	18.8	33.3	33.3	33.3
Lx-x (cm ⁴)	93	201	462	462	462
Allowable Moment (kNm)					
Max. Web Buckling at Supports (kN)					
WEIGHT PER METER (KG)	10.6	12.6	15.6	15.6	15.6



TOP HAT DESIGN:

The design allows the use of continuous masonry above the window head to help maintain thermal insulation values and ease of construction.

CORROSION PREVENTION

All external wall lintels are made from hot dipped galvanised steel to BS EN 10142:1991, with a Z600 coating ie: 45μ coating each surface. The use of flexible dpc above the lintel meets the requirements of BS 5977, Pt 2: 1983, see table 1.

All tests on cavity wall lintels were carried out at the maximum design cavity width, and in 3:1 and 19:1 ratio (inner: outerleaf) to represent both timber floor and concrete or roof loadings.

EXPLANATION OF LOAD SPAN TABLES

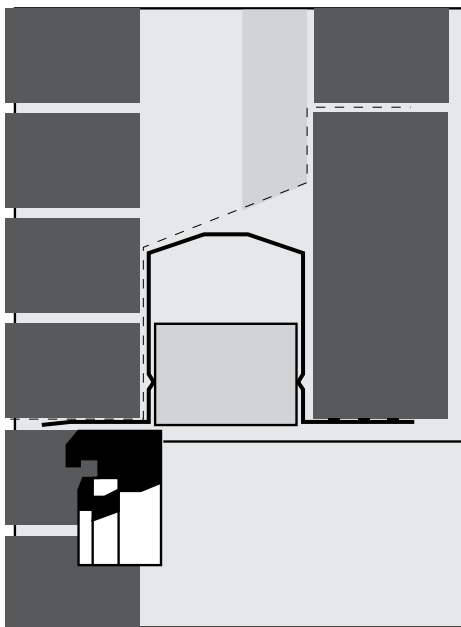
The maximum safe uniformly distributed load given in the tables for cavity wall lintels can be applied in the following ratios (inner: outer leaf).

Load 1 (Ratio 3:1)-lintels supporting masonry only or masonry on both flanges and timber floor on the inner leaf.

Load 2 (Ratio 19:1)-lintels supporting masonry on both flanges and concrete floor on the inner leaf or loading from eaves condition.

BUILDING REGULATIONS

All lintels, when correctly specified and installed, will comply with the requirements of the Building Regulations and recent amendments.



EX95S

Length/ Range mm	Height (Nominal)mm	Material Thickness mm	weight kg/m	Load 1 kN	Load 2 kN
750-1500	102	2.5	8.64	12	10
1650-1800	127	2.5	9.62	17	14
1950-2100	139	2.5	10.11	20	15
2250-2400	152	2.8	11.87	20	17
2550-3000	177	2.8	12.97	24	17
3150-3600	207	3.0	15.31	24	17
3750-4200	210	3.0	18.25	26	20
4350-4800	210	3.0	18.25	26	20



B A T M E T A L W O R K L T D

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