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January 2019			

Lintel Product Selector

January 2019

Contents

Build it better with Catnic

Catnic has pioneered the steel lintel for more than four generations and designs, manufactures and supplies the construction industry with technically superior products.

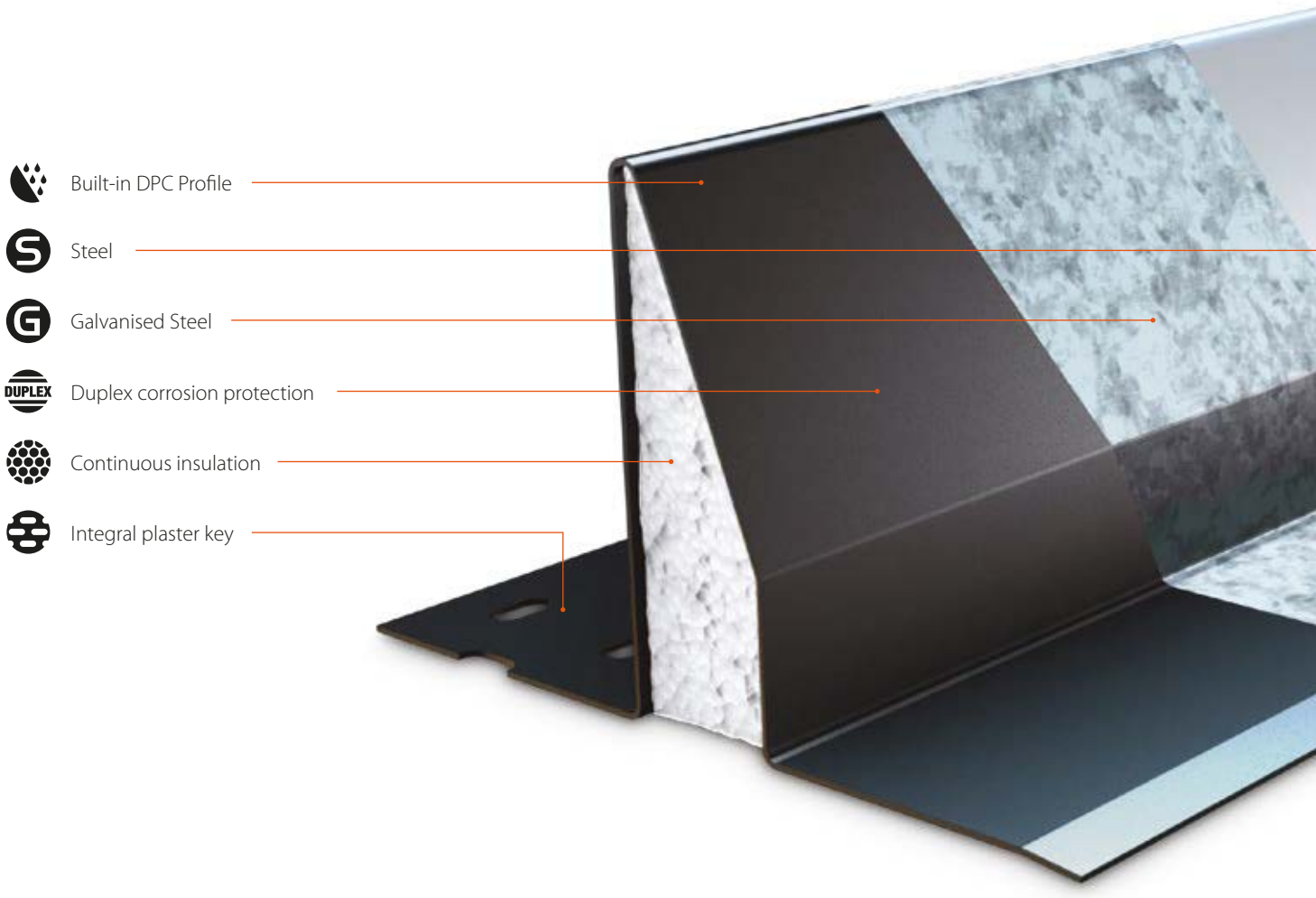
Catnic was the first:

- Lintel manufacturer to be certified to BES 6001, maximising the potential for obtaining credits under the Responsible Sourcing of Materials sections of BREEAM, the Code for Sustainable Homes and CEEQUAL
- To develop the steel lintel in the UK and the first to gain both BBA Approval and the coveted Kitemark to BS 5977
- Manufacturer to employ the revolutionary Duplex Corrosion Protection System on its lintel as a standard offering
- To incorporate a built-in damp proof course into its lintels
- To provide a built-in plaster key
- To CE mark its lintel product range

Far from just leading, over the years Catnic have worked with the BSI to establish the standards for lintels in this country and continue to develop and invest in improving on these standards with their extensive range of products and unique features.

Features of Catnic Lintels

Catnic lintels offer many benefits to specifiers and builders through a combination of their design, thermal efficiency and corrosion protection. These major features ensure that Catnic lintels are widely used and respected, throughout the building industry.



Built-in Damp Proof Course (DPC) Profile

Many Catnic lintels offer a unique profile shape that combine with the unique Duplex Corrosion Protection or stainless steel to create an effective barrier that acts as a built-in DPC, meaning any water penetrating into the cavity automatically transfers across the sloping face of the lintel and is disposed of externally.

The ease of brick laying directly onto a solid surface eliminates the risk of damage while installing, or any possibility of incorrectly installing a separate DPC membrane. The result is an aesthetically pleasing, clean-line finish above the window head that saves time and cost. In areas of sheltered to medium exposed weather conditions there is no need to install a separate DPC.

Integral Plaster Key

Many Catnic lintels come complete with an integral plaster key that avoid the hazards of working with a mesh key. In addition the unique design of the perforated base plates on CG, TS, CH, TH, CX, TX lintels minimise cold bridging without affecting the structural performance.

Continuous Insulation

Many Catnic lintels are supplied with CFC and HCFC free insulation maximising their thermal efficiency and compliance with Part L.

The insulation is accurately shaped to optimise the thermal performance extending continuously along the full length of the lintel and cannot be dislodged, leaving no potential 'cold spots'.

Duplex Corrosion Protection System

Initially, Catnic standard lintels are manufactured from hot-dipped galvanised steel to BS EN 10346: 2009 plus coating type Z275.

A coating of thermal setting polyester powder is then applied by an electrostatic process, further protecting the lintel. High temperature curing then produces a tough durable surface highly resistant to impact, abrasion and damage during rough on-site handling. This double method of protection gives Catnic lintels inherent benefits over those offered by other manufacturers using the more traditional pre- or post-galvanised steel techniques. The protection system complies fully with the chemical and physical test requirements outlined in table 2 of BS 5977: PART 2: 1983 and table C.1 of BS EN 845-2: 2003 for lintels effectively having their own built-in DPC.

Both of these processes rely on just a simple coating of zinc to provide cathodic protection. The zinc protects the steel, but is itself liable to rust with aqueous alkaline solutions leaching from the building fabric and therefore corrode. The famous black coating makes Catnic lintels instantly recognisable and provides an effective barrier against moisture or chemical attack leached from the mortar and masonry.

Thermally Broken Lintel Solution

Catnic's latest innovation is the biggest evolution in steel lintel design for a generation. An elegant, simplistic design derived from extensive research and rigorous development testing.

Offering a sophisticated, practical solution to the latest changes in Building Regulations, Catnic's patent pending TBL range is the most thermally efficient steel lintel solution on the market.

Utilising the strength of steel combined with the thermal insulating properties of a high-density, fire retardant core, it's design provides the thermal performance of separate lintels, whilst offering users the same stable installations benefits of a traditional cavity wall lintel, providing:

- Industry leading linear thermal transmittance Psi values of 0.02 to 0.05 W/mK
- Safe working loads in line with Catnic's existing Cavity wall lintels
- Manufactured from powder coated galvanised steel
- Options are available to suit cavities from 90 to 165mm, in standard, heavy and extra heavy duty performance categories

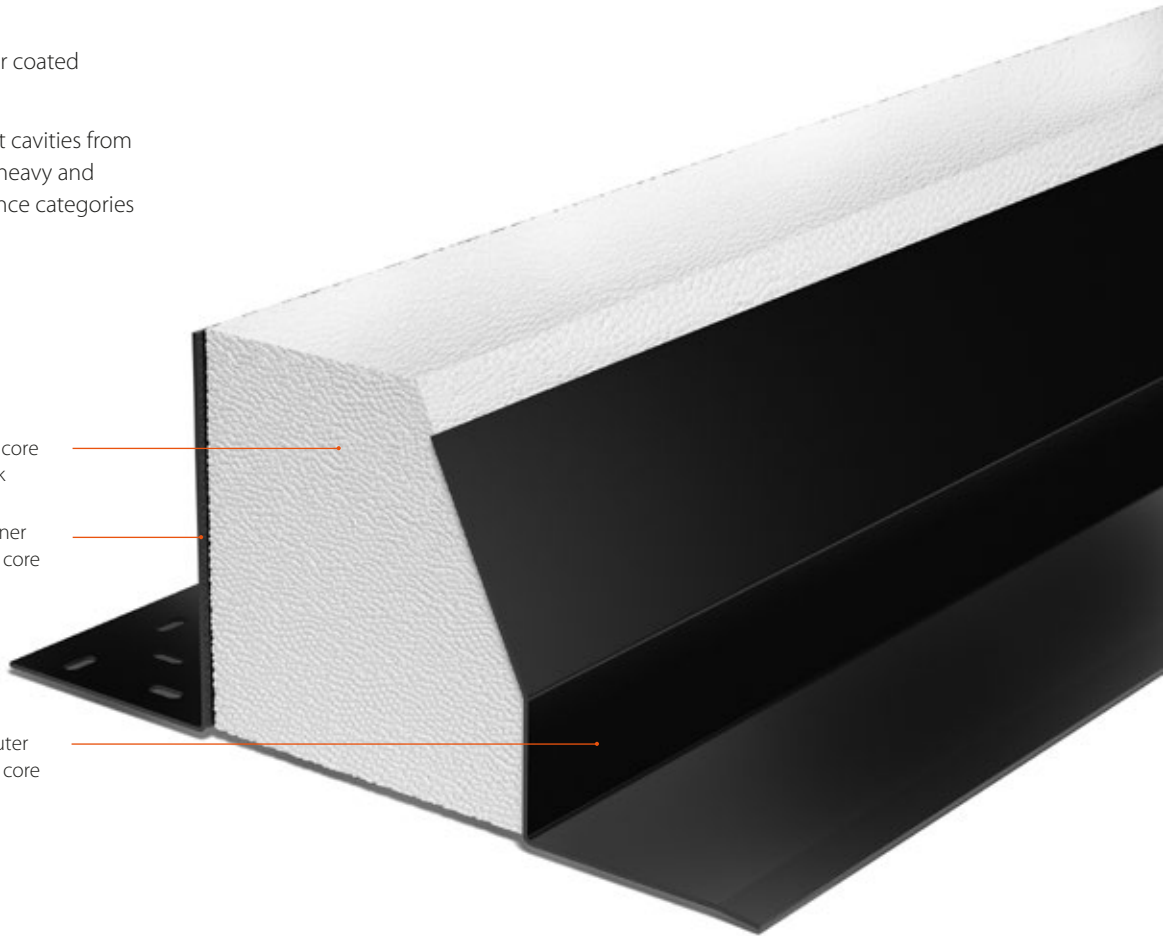
Achieving this remarkably low Psi value ensures Catnic's TBL range will always meet the performance criteria requirements of Appendix R found in SAP 2012 providing easy compliance with Part L of the Building Regulations.

To limit the risk of surface condensation or mould growth the temperature factor for a detail used in the external wall of a dwelling must be greater than 0.75. Catnic Thermally Broken Lintels a have temperature factor of at least 0.95.

This unique design enables a complete thermal break between the inner and outer leaf of the cavity wall construction, results in outstanding thermal performance values of:

Psi value 0.02 to 0.05 W/mK

Independently verified by the Building Research Establishment. See www.bre.co.uk/certifiedthermalproducts for further details and certification.



Thermally Broken Lintel

In response to changes in Building Regulations driving increasing level of thermal performance Catnic developed the Thermally Broken Lintel.

Thermal

- Lowest psi value for any lintel currently available
- Thermal performance independently verified by the BRE
- Only lintel available with a complete thermal break between the inner and outer leaf – no brackets
- Only lintel range to fully meet the requirements of Appendix R of SAP

Structural

- Independently Tested in line with EN 846-9
- Loads replicate existing safe working loads of the existing Catnic CG, CH & CX lintel ranges allowing simple conversion

Range

- Cavity widths from 90 to 165 mm
- Standard duty, heavy duty and extra heavy duty lintels
- Standard and wide inner leaf options
- Mitred corner and bay window lintel

Installation

- No propping during construction
- Lintel profile designed to allow simple interface with cavity wall insulation
- Ideal shape for lying a DPC tray over

Thermal Performance

The Fabric Energy Efficiency Standard (FEES) forms the foundations of the Building Regulations Part L 2013 and focuses on the thermal performance of a building. It takes into account heat loss through the fabric of the building itself, such as walls, roof, floor, doors and windows, and through linear thermal bridges found at junctions between different elements of the building including window heads, jambs and cills.

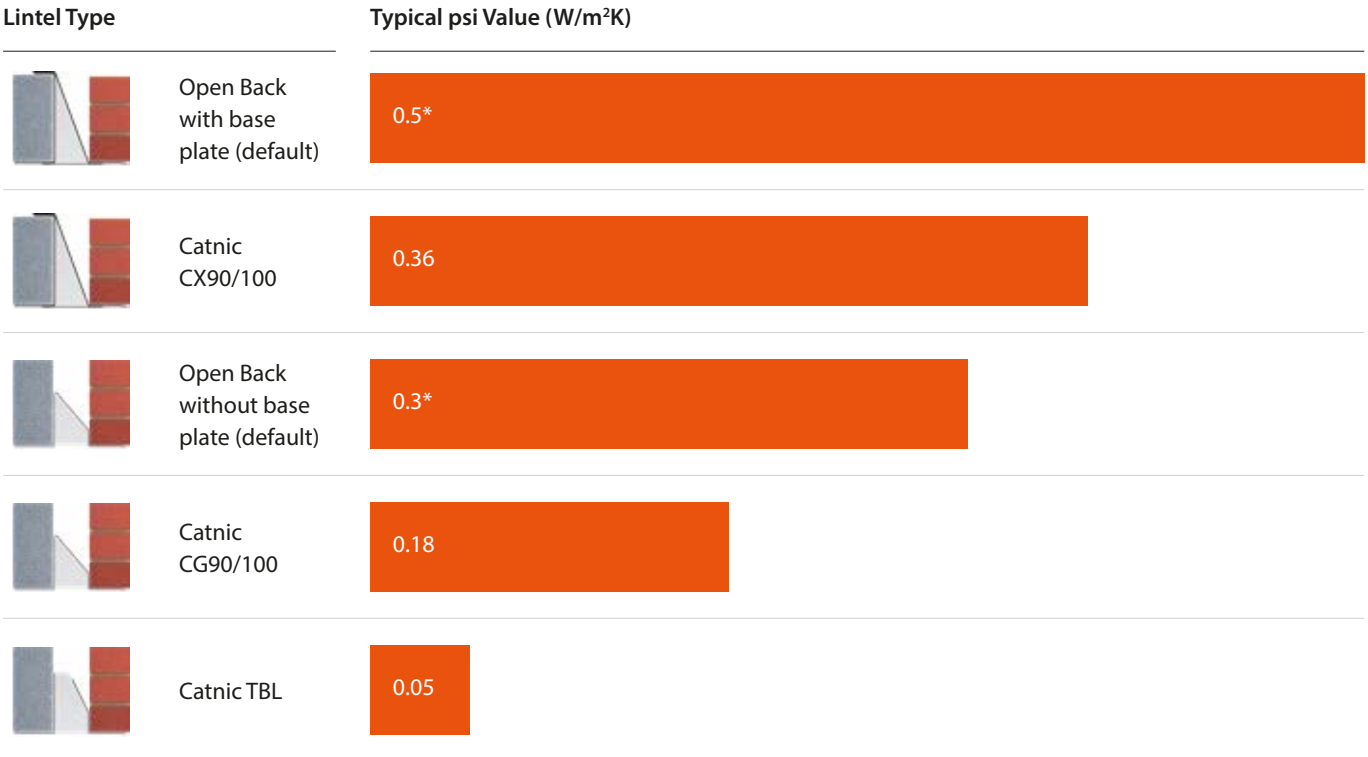
Heat loss through the building fabric is expressed as a U value and measured in W/m^{2}K, while heat loss via linear thermal bridges is expressed as a psi (ψ) value and measured in W/mK. The total fabric heat loss is the sum of the combined fabric U value multiplied by the total area, plus the product of the psi value of junctions and their total length.

Improving the thermal performance of the walls emphasises the increasing proportion of heat lost through thermal bridges in the building fabric such as lintels. Lintels can be a major thermal bridge in a building, and the lower their psi value, the better for overall performance. Default lintel psi values can be taken from the BRE document 1/06.

Improved psi values can be achieved by using:

- Lintels with perforated based plates
- Lintels without a base plate
- Thermally broken lintels

The graph below highlights the typical psi values that can be achieved by using Catnic lintels.



*default values taken from BRE IP 1/06

SAP 2012 Appendix R

Part L of the Building Regulations has got progressively more complicated. To make it easier to comply an optional "standard recipe", based on the Part L 2013 Notional dwelling, has been introduced. A summary is shown in the table opposite, full details can be found in SAP 2012 Appendix R.

If you follow the standard recipe you will achieve the CO_2 and fabric energy efficiency targets to comply with Part L. The standard recipe requires a lintel Psi value of 0.05 W/mK. All Catnic Thermally Broken Lintels will provide Psi values or 0.05 W/mK or better.

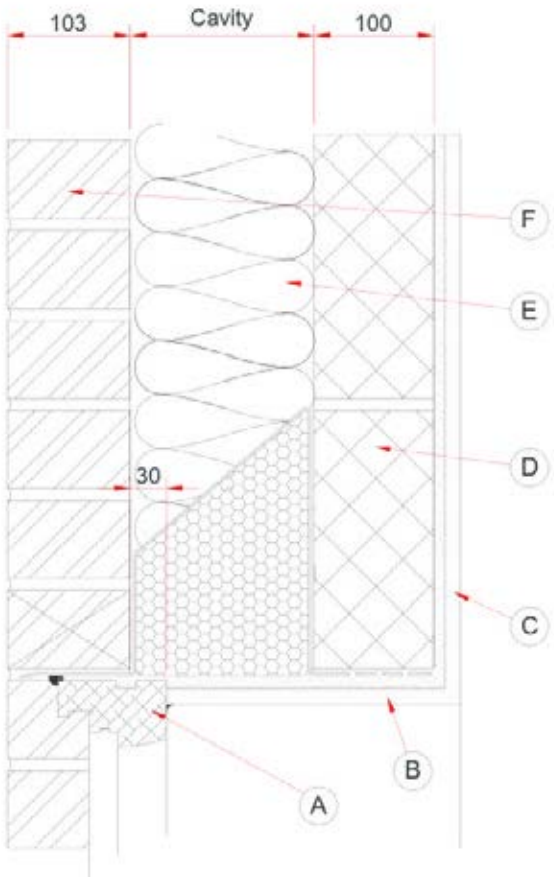
Summary of notional building requirements	
Opening Areas	**Same as actual up to 25% of floor area**
Ext. Wall (W/m^{2}K)	0.18
Party Walls (W/m^{2}K)	0
Floor (W/m^{2}K)	0.13
Roof (W/m^{2}K)	0.13
Windows (W/m^{2}K)	1.4
Air Tightness	5
Non repeating thermal bridging	Standard Psi values from Appendix R of SAP
Ventilation Type	Natural (with extracts)
Gas Boiler	89/5%

Lintel psi Values

Psi values are not just affected by the lintel itself but by wall construction, insulation type and window position. Catnic's range of cavity wall lintels are continually evolving and we now have a wide range of lintels that comply with Part L of the Building Regulations and are able to satisfy the different thermal and structural requirements of the customer.

Data Sheets

A range of standard psi value data sheets are available on the Catnic Website covering traditional cavity wall lintels and Catnic's Thermally Broken Lintel. Visit **catnic.com**



	Materials	Thickness (mm)	λ Value (W/m K)
A	Window frame	–	–
B	Plasterboard	12.5	0.19
	+ Adhesive	10.0	0.09
C	Plasterboard on	12.5	0.19
	Dabs + Air Space	10.0	0.09
D	Blockwork	100	0.11
E	Insulation	Partial Fill	0.022
		Full Fill	0.037
F	Brick	103	0.077
Lintel	Steel	–	52
	Insulation	–	0.038
Comment:	Continuous band of adhesive to soffit area		

Traditional Cavity Wall Lintel

Cavity	Lintel		psi Value (W/mK)	
(mm)	Code	Type	Partial Fill Cavity	Full Fill Cavity
100	CG90/100	Standard Duty	0.181	0.172
	CX90/100	Extra Heavy Duty	0.356	0.351
150	CG150/100	Standard Duty	0.193	0.175
	CX150/100	Extra Heavy Duty	0.416	0.396

Thermally Broken Cavity Wall Lintel

Cavity	Lintel		psi Value (W/mK)	
(mm)	Code	Type	Partial Fill Cavity	Full Fill Cavity
100	TS90/100	Standard Duty	0.042	0.043
	TX90/100	Extra Heavy Duty	0.050	0.048
150	TS150/100	Standard Duty	0.033	0.029
	TX150/100	Extra Heavy Duty	0.037	0.030

CG lintel psi values quoted take into account any additional heat loss that occurs through the discrete brackets within the lintel. CG Lintel psi values based on 1500 mm long lintel design.

To limit the risk of surface condensation or mould growth the temperature factor for a detail used in the external wall of a dwelling must be greater than 0.75. Used in the above details, the Catnic CG, CH, CX, TS, TH & TX Lintels all have temperatures factors greater than 0.75.

All calculations have been carried out following the conventions set out in BR 497.

How to select a Lintel

Once you have established these, you will be able to choose the correct lintel for your job by referring to the relevant tables in this guide.

1 Wall Construction

Cavity Wall

If the construction is a cavity wall, see section on pages 14 - 35. You will need to know the cavity wall dimensions to choose the correct lintel:

- The external leaf dimension
- The cavity dimension including insulation
- The internal leaf dimension

External Solid Wall

There are three forms of lintel for external solid walls:

- Single element lintels for a single leaf of brickwork
- Two-piece lintels shaped to carry the two separate leaves of a 215mm fair face brick wall
- Box profile lintels which have a toe for use in solid brick or block walls from 200mm – 215mm thick.
- External solid wall lintels can be found on pages 40 - 43

Timber Frame

For timber frame constructions, you need to know:

- The external leaf dimension
- Cavity dimension

Once you have these dimensions, please refer to the Timber Frame lintels section on pages 36 - 38.

Internal Partition & Load Bearing Wall

Lintels for internal partitions and load bearing walls (pages 44 - 45) come in three styles:

- Corrugated lintels for non-load bearing applications
- Channel section lintels for loadings involving blockwork and floor joists
- Box profile lintels for heavier loads including point loads and wider openings

2 Lintel Length

The length of lintel required is calculated by establishing the total width of the structural opening and adding 150mm (200mm for CXL lintels) end bearing allowance for each end. For example, an 1800mm structural opening will require a 2100mm lintel (2200mm for CXL).

3 Applied Load

All lintels are designed to carry a specific safe working load (SWL). If you are not skilled in the method of load assessment, or the load has not been supplied to you by a third party, for advice please contact Catnic Technical Services on 02920 337900.

Cavity Wall

Cavity Wall Lintels

50-65mm Cavity Wall

	100-115mm Inner Leaf	125-140mm Wide Inner Leaf	Page
Standard Duty	CG50/100	CG50/125	18
Heavy Duty	CH50/100	CH50/125	18
Extra Heavy Duty	CX50/100	CX50/125	18

70-85mm Cavity Wall

	100-115mm Inner Leaf	125-140mm Wide Inner Leaf	Page
Standard Duty	CG70/100	CG70/125	19
Heavy Duty	CH70/100	CH70/125	19
Extra Heavy Duty	CX70/100	CX70/125	19

90-105mm Cavity Wall

	100-115mm Inner Leaf	125-140mm Wide Inner Leaf	Thermally Broken 100-115mm Inner Leaf	Thermally Broken 125-140mm Wide Inner Leaf	Page
Standard Duty	CG90/100	CG90/125	TS90/100	TS90/125	20-21
Heavy Duty	CH90/100	CH90/125	TH90/100	TH90/125	20-21
Extra Heavy Duty	CX90/100	CX90/125	TX90/100	TX90/125	20-21

110-125mm Cavity Wall

	100-115mm Inner Leaf	125-140mm Wide Inner Leaf	Thermally Broken 100-115mm Inner Leaf	Thermally Broken 125-140mm Wide Inner Leaf	Page
Standard Duty	CG110/100	CG110/125	TS110/100	TS110/125	22-23
Heavy Duty	CH110/100	CH110/125	TH110/100	TH110/125	22-23
Extra Heavy Duty	CX110/100	CX110/125	TX110/100	TX110/125	22-23

130-145mm Cavity Wall

	100-115mm Inner Leaf	125-140mm Wide Inner Leaf	Thermally Broken 100-115mm Inner Leaf	Thermally Broken 125-140mm Wide Inner Leaf	Page
Standard Duty	CG130/100	CG130/125	TS130/100	TS130/125	24-25
Heavy Duty	CH130/100	CH130/125	TH130/100	TH130/125	24-25
Extra Heavy Duty	CX130/100	CX130/125	TX130/100	TX130/125	24-25

150-165mm Cavity Wall

	100-115mm Inner Leaf	125-140mm Wide Inner Leaf	Thermally Broken 100-115mm Inner Leaf	Thermally Broken 125-140mm Wide Inner Leaf	Page
Standard Duty	CG150/100	CG150/125	TS150/100	TS150/125	26-27
Heavy Duty	CH150/100	CH150/125	TH150/100	TH150/125	26-27
Extra Heavy Duty	CX150/100	CX150/125	TX150/100	TX150/125	26-27

90-165mm Cavity Wall

	140-150mm Wide Outer Leaf	Page
Heavy Duty	CH**/100T135	28
Extra Heavy Duty	CX**/100T135	28

Cavity Wall

Extreme Load Lintels

50-65mm Cavity Wall		
	100-115mm Inner Leaf	Page
Extreme Load	CXL240	30
70-85mm Cavity Wall		
	100-115mm Inner Leaf	Page
Extreme Load	CXL265	30
90-105mm Cavity Wall		
	100-115mm Inner Leaf	Page
Extreme Load	CXL290	31
110-125mm Cavity Wall		
	100-115mm Inner Leaf	Page
Extreme Load	CXL310	31
130-145mm Cavity Wall		
	100-115mm Inner Leaf	Page
Extreme Load	CXL330	31
150-165mm Cavity Wall		
	100-115mm Inner Leaf	Page
Extreme Load	CXL350	31

Closed Eaves Lintels

50-85mm Cavity Wall		
	100-115mm Inner Leaf	Page
Standard Load	CGE50/100	32
90-125mm Cavity Wall		
	100-115mm Inner Leaf	Page
Standard Load	CGE90/100	32

Thin Joint Lintels

90-105mm Cavity				
	102mm Outer Leaf	100mm Inner Leaf	140mm Inner Leaf	Page
Standard Load	CTJ90	BSD100	BSD140	35
All Cavity Widths				
	102mm Outer Leaf			Page
Standard Load	ANG			35

Timber Frame

Timber Frame Lintels

50-65mm Cavity Wall		
	102mm Outer Leaf	Page
Standard Duty	CTF5	38
70-85mm Cavity Wall		
	102mm Outer Leaf	Page
Standard Duty	CTF7	38
90-105mm Cavity Wall		
	102mm Outer Leaf	Page
Standard Duty	CTF9	38

External Solid Wall

Single Leaf Wall Lintels

102mm Exterior Wall

	Meter Box	Page
Light Duty	MBA	41

102mm Exterior Wall

	Angle Box	Page
Standard Duty	ANG	41

102mm Exterior Wall

	Channel Sections	Page
Standard Duty	CCS	41

Solid Wall Lintels

200-215mm External Solid Walls

	200mm and 215mm Exterior Solid Walls	Page
Standard Duty	CN71A	43
Standard Duty	CN81B	43
Heavy Duty	CN71C	43
Heavy Duty	CN81C	43
Extra Heavy Duty	CN99/394C	43

For two seperate leaves of a 215mm fairface brick wall

		Page
Standard Duty	CN50C	43
Standard Duty	CN51C	43

Internal Solid Wall

Internal Solid Wall Lintels

75mm Interior Solid Walls

		Page
Extra Light Duty	CN92	45
Extra Light Duty	CN102	45

100mm Interior Solid Walls

	100mm Interior Solid Walls	Page
Light Duty	CN100	45
Standard Duty	BSD100	45
Heavy Duty	BHD100	45
Extra Heavy Duty	BXD100	45

100mm Interior Solid Walls

	140mm Interior Solid Walls	Page
Standard Duty	BSD140	45
Heavy Duty	BHD140	45
Extra Heavy Duty	BXD140	45

Steelwork

Steelwork

Universal Beams

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Exceed standard loads	UB, UC, PFC	47

Special Lintels

Arches

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Standard Arches	49
Semi-Circular Arch Lintel	50
Segmental Arch Lintel	50
Apex Arch Lintel	51
Gothic Arch Lintel	51
Venetian Arch Lintel	52
Bull's-eye Lintel	52
Elliptical Arch Lintel	53
Parabolic Arch Lintel	53

Curved

	Page
Curved On-Plan Lintel	54

Corner

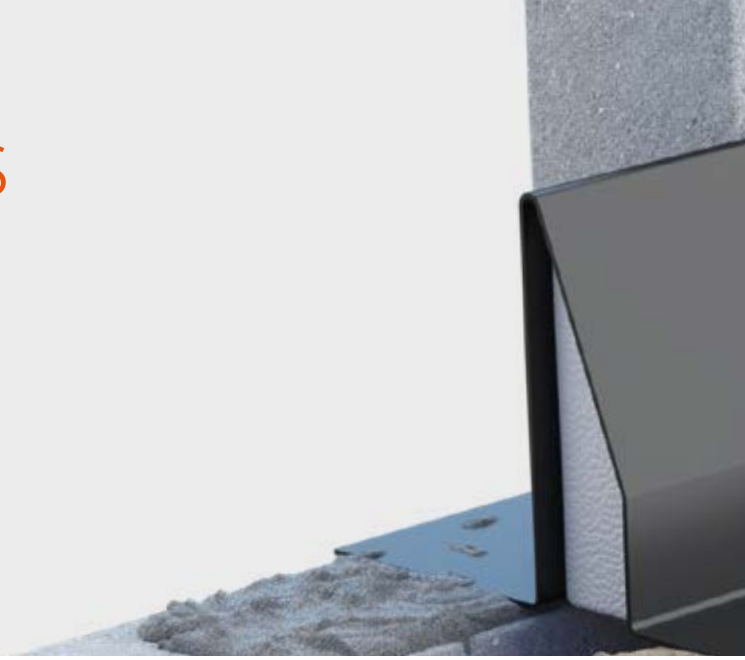
	Page
Corner Lintel	54

Bay

	Page
Square Bay Lintel	55
Splayed Bay Lintel	55
Splayed Bay Lintel with return bearings	56

Cavity Wall Lintels

Several styles are available from Catnic for use in cavity wall construction, these include our traditional standard range together with our latest innovation Thermally Broken Lintels, available to suit Standard, Heavy and Extra Heavy duty applications.



Cavity Wall Lintels

Two styles are available from Catnic for use in cavity wall construction.

Standard Duty

TS and CG

- Triangulated masonry load
- Supporting uniformly distributed masonry load
- Supporting uniformly distributed timber floor and roof loads
- Suitable for fair faced inner leaf masonry

Heavy Duty

TH and CH

CH, TH, CX, TH as CG, TS Lintels, plus:

- Supports concrete floors
- Attic truss loads
- Larger span multiple truss loads
- Triangulated masonry load
- Supporting uniformly distributed masonry load
- Supporting uniformly distributed timber floor and roof loads

Conditions of use

- Nominal 150mm end bearings
- Both leaves are raised together
- One course of block prior to installation of floor/roof
- Refer to 'Cavity Wall Lintel Installation Guide' on page 16

Extra Heavy Duty

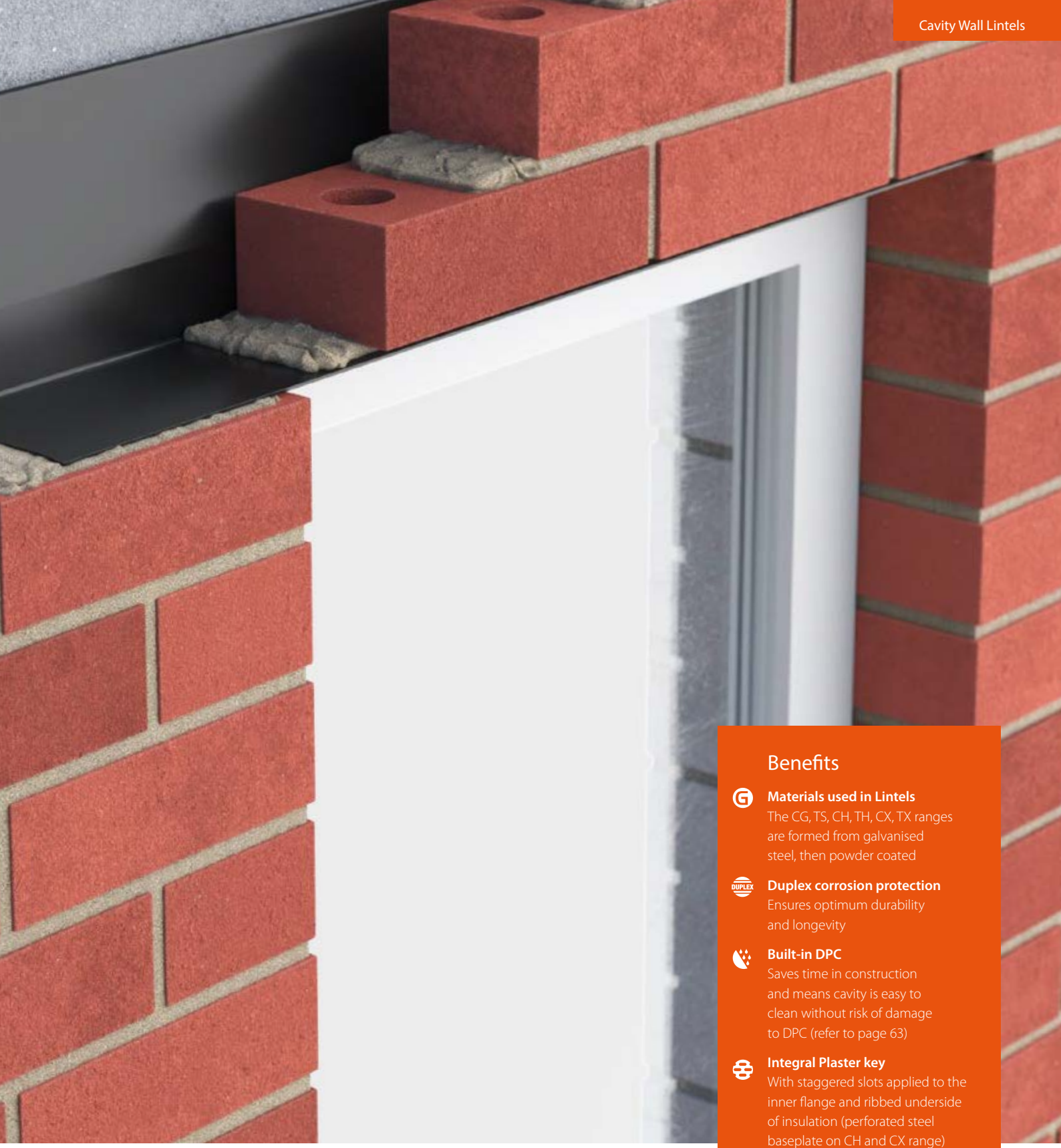
TX and CX

Notes

Concrete Floor Loads
When using the Catnic CH, TH, CX, TX open back ranges with concrete floors, always ensure that the blockwork is built tight against the inner vertical face of the lintel and that a mortar joint is added to the top of the blockwork so that the floor units have an even spread over the inner flange of the lintel. For guidance on installation refer to page 16.

Achieving Loading Figures
To achieve the 'CH, TH, CX, TX loading figures indicated, lintels must be built-in as illustrated, ensuring that the blockwork infill is well-jointed during construction and compatible with the strength of the masonry above individual consideration.

Easy-to-use open back profile
Allows masonry to be built up continuously on both outer and inner leaf.



Benefits

Materials used in Lintels
The CG, TS, CH, TH, CX, TX ranges are formed from galvanised steel, then powder coated

Duplex corrosion protection
Ensures optimum durability and longevity

Built-in DPC
Saves time in construction and means cavity is easy to clean without risk of damage to DPC (refer to page 63)

Integral Plaster key
With staggered slots applied to the inner flange and ribbed underside of insulation (perforated steel baseplate on CH and CX range)

Continuous insulation
Maximising thermal efficiency, minimising cold bridging

Application Guidance
Whilst the above information is intended to offer general guidance regarding typical applications, it should not be considered as comprehensive. Requirements not fully covered by the above should be referred to our technical services department for individual consideration.

Safe Working Load
The SWL (safe working load) is based on the total UDL (uniform distributed load) over maximum span using 150mm end bearings.

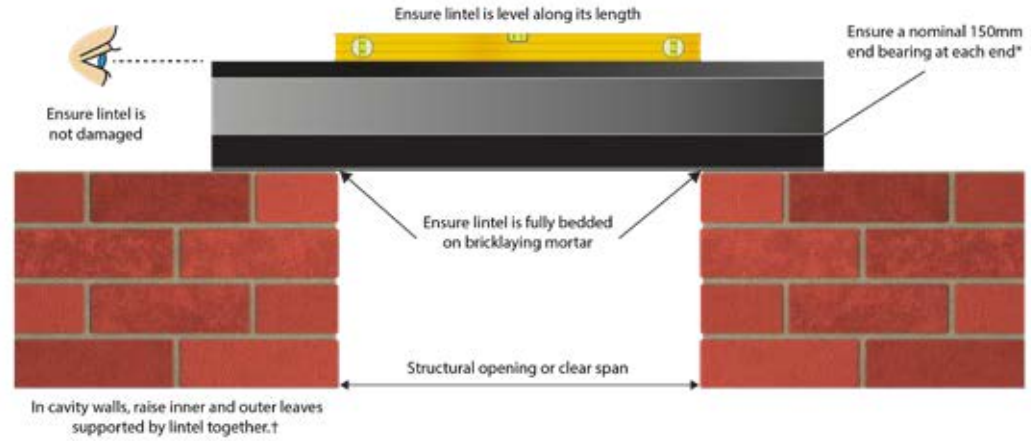
Glossary of Technical Terms
For a definition of these terms see the Glossary of Technical Terms on page 64.

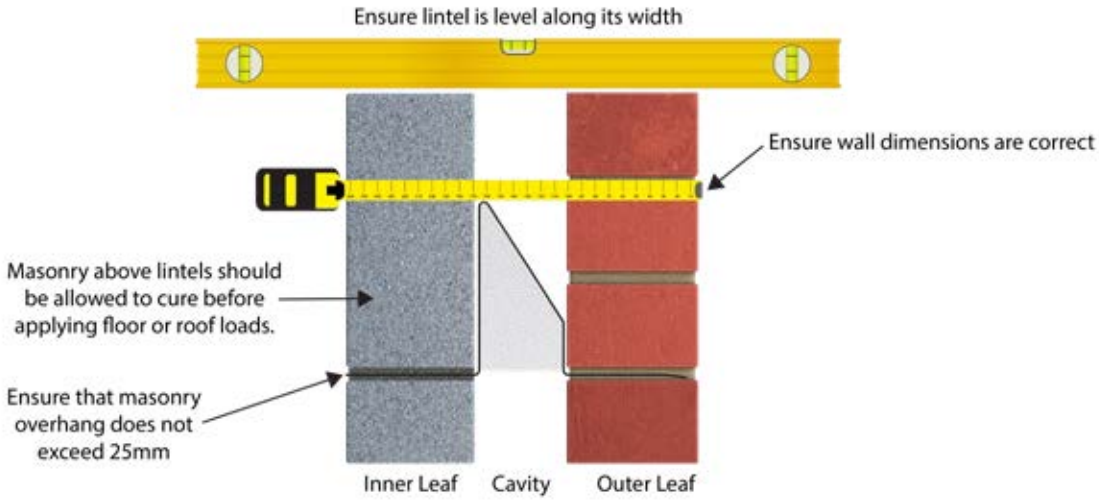
Accessories

Arch Centres, Stop Ends, Cavity Weep Vents, Soffit Cladding (refer to page 57).

Cavity Wall Lintel Installation Guide

Catnic is committed to trouble free installation.





✓ Do

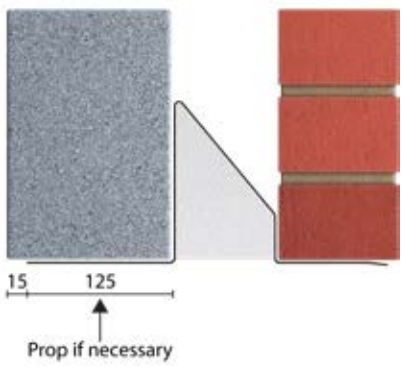
- ✓ Install a separate DPC in severe exposure conditions. A Catnic open back lintel with an additional DPC membrane installed in accordance with normal practice provides the best possible protection (page 63).
- ✓ Locate the window/door frame so that the drip on the front of the lintel projects forward of the drip on the front of the frame. It is good building practice to insert a flexible joint between the lintel and the top of the frame.
- ✓ Ensure that timber floor joists and roof trusses have a full block depth between them and the lintel flange on Catnic open back lintels.
- ✓ Refer to the Catnic 'How to Install a Lintel Supporting Concrete Floors' or the Steel Lintel Manufacturers Association guidelines (available on request) when using CH, CX, TH, TX open back lintels to support concrete floors.
- ✓ Consider the use of our soffit cladding for all coastal sites.

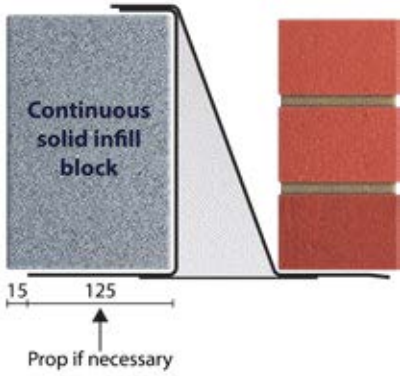
✕ Do Not

- ✕ Use damaged lintels.
- ✕ Apply point loads without prior consultation. Where the loading or a substantial part of it is applied as concentrated loads, each concentrated load must be supported over a length of lintel of not less than 200mm. In such cases, the total loading must not produce bending moments or shear forces greater than those produced by the uniformly distributed loads specified in the relevant data tables.
- ✕ Allow blockwork to overhang the lintel by more than 25mm.
- ✕ Apply concrete floor loads without ensuring that the total loads are checked by a structural engineer, or by Catnic Technical Services.
- ✕ Cut CG type lintels under any circumstances.
- ✕ Apply point loads directly onto lintel flanges.

Wide inner leaf lintels used with 140mm dense blocks

To ensure the flanges are equally loaded the Code of Practice should be strictly adhered to when building the masonry i.e. one row of blocks should be raised on the inner leaf, then three courses of brick on the outer leaf. Wall ties should then be installed and another row of blocks on the inner leaf followed by three courses of brick on the outer and so on. This process ensures that the lintel flanges are equally loaded and helps prevent rotation.





Propping

- When propping, a horizontal board should be placed along the underside of the lintel soffit, this will prevent any point loading, which could cause localised deformation of the lintel. On small openings a single prop should be placed centrally within the openings and wedged into place. The prop can be removed after the wall ties are effective. The number of props used should be increased for larger openings.
- The 140 mm dense blocks should be installed tight against the inner web of the lintel.
- Therefore, the overhang of blockwork on the lintels inner flange could be measured at 15mm.
- If after considering the above information it is not practicable to carry out the mentioned construction process on site, we are able to offer an alternative box style lintel in place of open back. These products are more robust due to the design of the box section and therefore, open to greater abuse on site during the construction stage.

Installing A Lintel Supporting Concrete Floors

In addition to the Cavity Wall Installation Guide, please read the following for installing concrete floors with Catnic steel lintels.

- Check that the correct lintel is being used according to the manufacturer's lintel schedule/design criteria.
- Bed the lintel on full blocks and allow mortar to cure before applying concrete floor loads.
- Raise both leaves of cavity wall together and allow masonry to cure sufficiently before applying heavy loads. Alternatively prop the lintel if large loads are to be applied to fresh masonry.
- When using the Catnic CH, TH, CX, TX open back range with concrete floors, always ensure that the blockwork is built tight against the inner vertical face of the lintel and that a mortar joint is added to the top of the blockwork so that the floor units have an even spread over the inner flange of the lintel.
- Avoid shock loading lintels during the installation of concrete floor units and also any sideways loading while being lifted into position.
- Precast flooring units should be laid on a mortar bearing of the full inner leaf wall width and should not be dragged over supports.
- Avoid loading newly laid floors with building materials.
- Lintels must be built-in as illustrated, ensuring that the blockwork infill is well jointed during construction and compatible with the strength of the masonry above.

Notes

* For advice on installations where end bearings can be reduced to not less than 100mm please contact our Technical Services Department on **029 2033 7900**

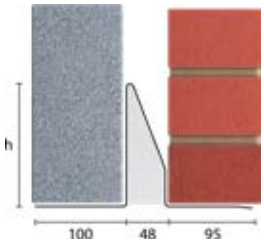
Cavity Wall Lintels

50-65mm Cavity Wall

Standard Duty

100-115mm Inner Leaf

Standard lengths are available in 300mm increments.

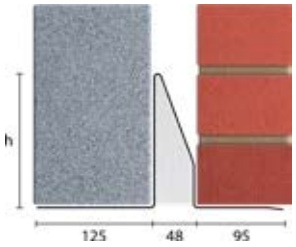


CG50/100

Standard lengths (mm)	900-1500	1800	2100	2400	2700	3000-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	5.8	7.6	8.0	8.7	10.0	12.5
Nominal height 'h' (mm)	140	140	160	180	220	220

125-140mm Wide Inner Leaf

Standard lengths are available in 300mm increments.

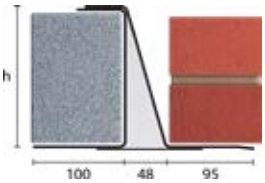


CG50/125*

Standard lengths (mm)	900-1200	1500-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	6.4	8.0	9.2	12.9
Nominal height 'h' (mm)	140	140	180	220

Heavy Duty

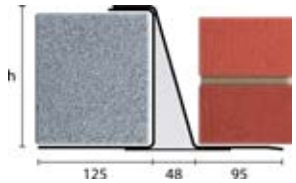
Standard lengths are available in 150mm increments.



CH50/100

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	10.5	13.1	13.1
Nominal height 'h' (mm)	157	157	157

Standard lengths are available in 150mm increments.

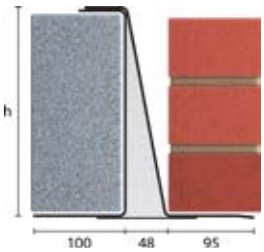


CH50/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	10.7	13.4	13.4
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty

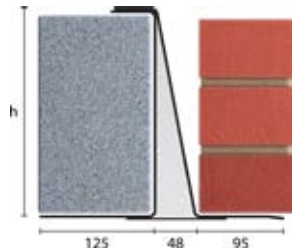
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX50/100

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	16.0	16.0	19.4	19.4
Nominal height 'h' (mm)	232	232	232	232

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX50/125*

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	16.2	16.2	19.8	19.8
Nominal height 'h' (mm)	232	232	232	232

* For CG lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16-17.

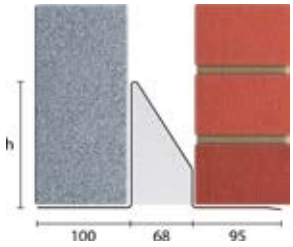
Cavity Wall Lintels

70-85mm Cavity Wall

Standard Duty

100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 1800mm, 300mm at lengths from 2100 to 3600mm.

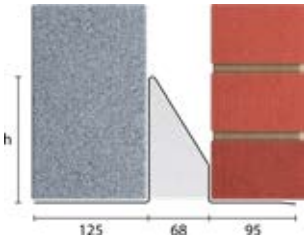


CG70/100

Standard lengths (mm)	750-1500	1650-1800	2100	2400	2700	3000-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	6.0	7.5	8.1	8.7	10.0	12.5
Nominal height 'h' (mm)	140	140	160	180	220	220

125-140mm Wide Inner Leaf

Standard lengths are available in 300mm increments.

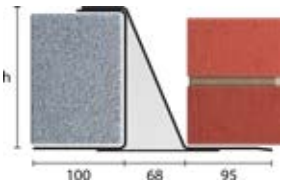


CG70/125*

Standard lengths (mm)	750-1200	1500-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	6.3	8.0	9.2	13.1
Nominal height 'h' (mm)	140	140	180	220

Heavy Duty

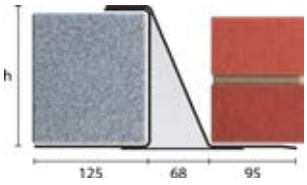
Standard lengths are available in 150mm increments.



CH70/100

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	10.9	13.6	13.6
Nominal height 'h' (mm)	157	157	157

Standard lengths are available in 150mm increments.

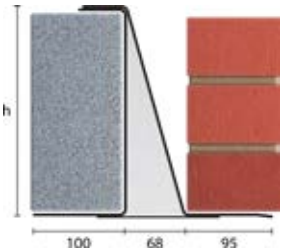


CH70/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	11.1	13.9	13.9
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty

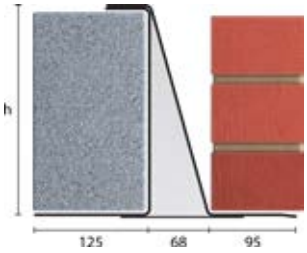
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX70/100

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	16.4	16.4	19.9	19.9
Nominal height 'h' (mm)	232	232	232	232

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX70/125*

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	16.7	16.7	20.3	20.3
Nominal height 'h' (mm)	232	232	232	232

* For CG lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16 - 17.

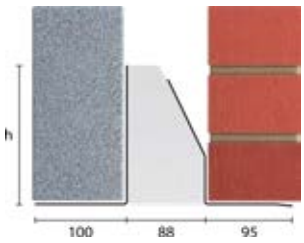
Cavity Wall Lintels

90-105mm Cavity Wall

Standard Duty

Thermally Broken 100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.

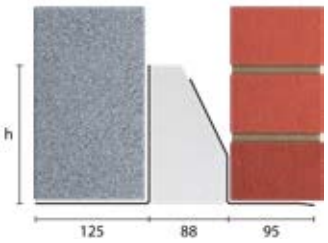


TS90/100

Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-2700	2850-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	7.9	11.8	11.8	15.7	15.7	16.7
Nominal height 'h' (mm)	153	202	202	233	233	229**

Thermally Broken 125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 1800mm, 300mm at lengths from 2100mm to 3000mm.



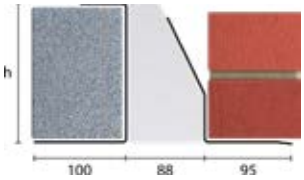
TS90/125*

Standard lengths (mm)	750-1200	1350-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	8.3	12.2	16.4	17.3
Nominal height 'h' (mm)	153	198	236	229**

Heavy Duty

Thermally Broken 100-115mm Inner Leaf

Standard lengths are available in 150mm increments.

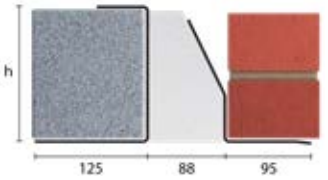


TH90/100

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.3	16.7	16.7
Nominal height 'h' (mm)	154	229	229

Thermally Broken 125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments.



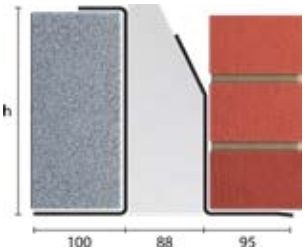
TH90/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	14.1	17.3	17.3
Nominal height 'h' (mm)	154	229	229

Extra Heavy Duty

Thermally Broken 100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).

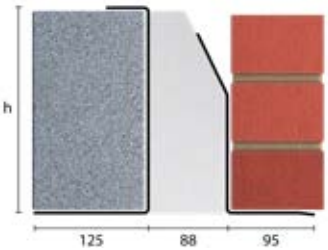


TX90/100

Standard lengths (mm)	900-2100	2250-2700	2850-3000	3300-3600	4200-4800
SWL 1:1/19:1 (kN)	60	60	55	50	32
Weight (kg/m)	16.7	21.6	21.6	21.6	21.6
Nominal height 'h' (mm)	229	229	229	229	229

Thermally Broken 125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



TX90/125*

Standard lengths (mm)	900-2100	2250-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	17.3	22.4	22.4	22.4
Nominal height 'h' (mm)	229	229	229	229

** Channel to inner leaf

Wider Cavities option available on requests. * For CG lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16 - 17.

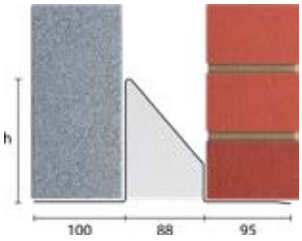
Cavity Wall Lintels

90-105mm Cavity Wall

Standard Duty

100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.

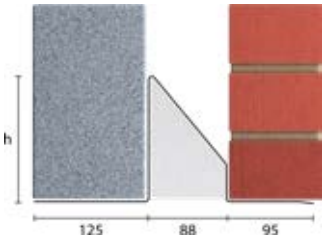


CG90/100

Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-2700	2850-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	6.1	7.6	8.3	8.9	10.2	13.0
Nominal height 'h' (mm)	140	140	160	180	220	220

125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 1800mm, 300mm at lengths from 2100mm to 3000mm.

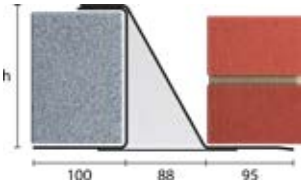


CG90/125*

Standard lengths (mm)	750-1200	1350-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	6.5	8.1	9.4	13.3
Nominal height 'h' (mm)	140	140	180	220

Heavy Duty

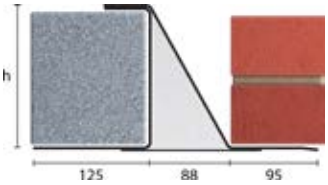
Standard lengths are available in 150mm increments.



CH90/100

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	11.2	14.0	14.0
Nominal height 'h' (mm)	157	157	157

Standard lengths are available in 150mm increments.

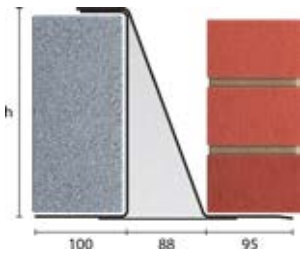


CH90/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	11.5	14.3	14.3
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty

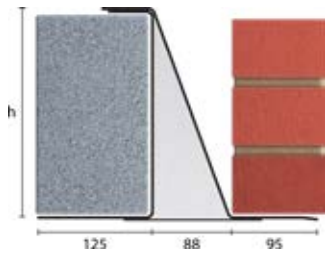
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX90/100

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	16.9	16.9	20.5	20.5
Nominal height 'h' (mm)	232	232	232	232

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX90/125*

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	17.2	17.2	20.9	20.9
Nominal height 'h' (mm)	232	232	232	232

* For lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16-17.

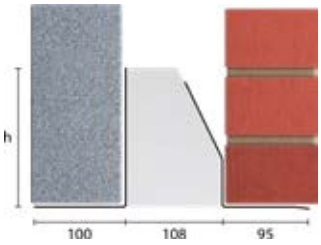
Cavity Wall Lintels

110-125mm Cavity Wall

Thermally Broken 100-115mm Inner Leaf

Standard Duty

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.

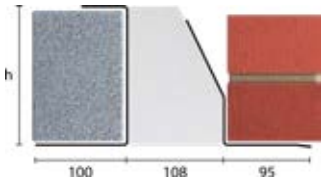


TS110/100

Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-2700	2850-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	8.0	11.9	11.9	15.8	15.8	16.9
Nominal height 'h' (mm)	153	202	202	233	233	229**

Heavy Duty

Standard lengths are available in 150mm increments.

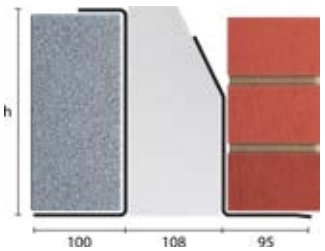


TH110/100

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.4	16.9	16.9
Nominal height 'h' (mm)	154	229	229

Extra Heavy Duty

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



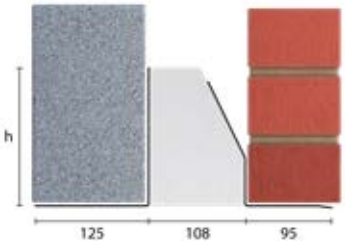
TX110/100

Standard lengths (mm)	900-2100	2250-2700	2850-3000	3300-3600	3900-4800
SWL 1:1/19:1 (kN)	60	60	55	50	32
Weight (kg/m)	16.9	21.7	21.7	21.7	21.7
Nominal height 'h' (mm)	229	229	229	229	229

** Channel to inner leaf

Thermally Broken 125-140mm Wide Inner Leaf

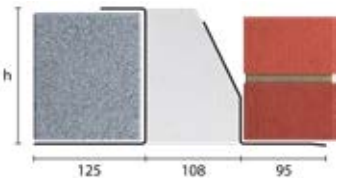
Standard lengths are available in 150mm increments up to 1800mm, 300mm at lengths from 2100mm to 3000mm.



TS110/125*

Standard lengths (mm)	750-1200	1350-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	8.4	12.3	16.5	17.4
Nominal height 'h' (mm)	153	198	236	229**

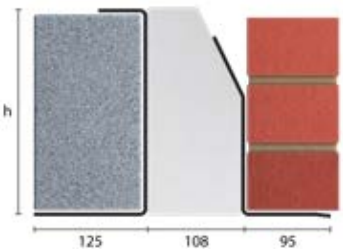
Standard lengths are available in 150mm increments.



TH110/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	14.2	17.4	17.4
Nominal height 'h' (mm)	154	229	229

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



TX110/125*

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	17.4	22.5	22.5	22.5
Nominal height 'h' (mm)	229	229	229	229

Wider Cavities option available on requests. * For lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16-17.

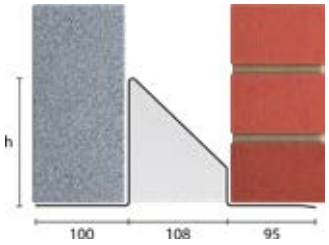
Cavity Wall Lintels

110-125mm Cavity Wall

Standard Duty

100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.

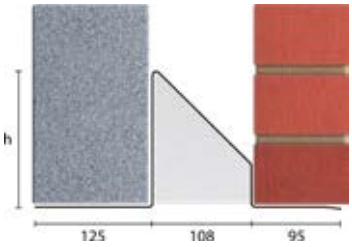


CG110/100

Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26
Weight (kg/m)	6.4	8.6	8.6	10.5	13.1
Nominal height 'h' (mm)	140	160	160	220	220

125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm.

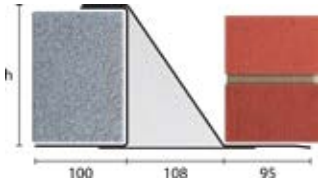


CG110/125*

Standard lengths (mm)	750-1200	1350-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	6.8	9.6	13.7	13.7
Nominal height 'h' (mm)	140	180	220	220

Heavy Duty

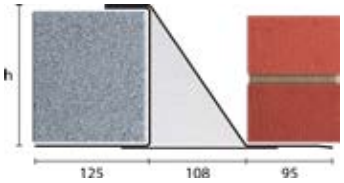
Standard lengths are available in 150mm increments.



CH110/100

Standard lengths (mm)	900-1800	1950	2250
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.1	14.6	14.6
Nominal height 'h' (mm)	157	157	157

Standard lengths are available in 150mm increments.

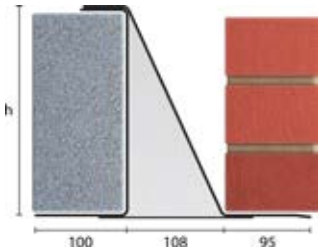


CH110/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	12.4	14.8	14.8
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty

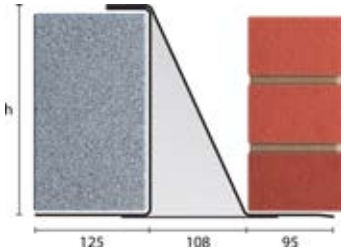
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX110/100

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	17.3	17.3	20.8	20.8
Nominal height 'h' (mm)	232	232	232	232

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX110/125*

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	17.5	17.5	21.2	21.2
Nominal height 'h' (mm)	232	232	232	232

* For lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16-17.

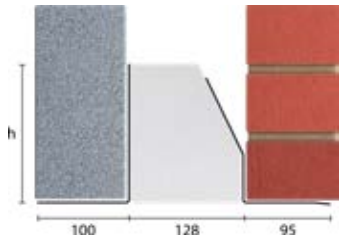
Cavity Wall Lintels

130-145mm Cavity Wall

Standard Duty

Thermally Broken 100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.

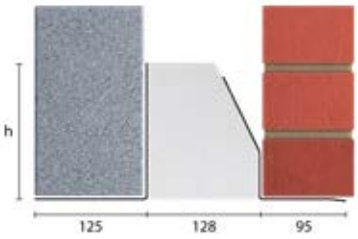


TS130/100

Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-2700	2850-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	8.1	12.0	12.0	16.0	16.0	17.0
Nominal height 'h' (mm)	153	202	202	233	233	229**

Thermally Broken 125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 1800mm, 300mm at lengths from 2100mm to 3000mm.

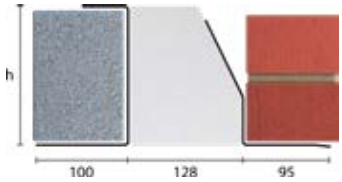


TS130/125*

Standard lengths (mm)	750-1200	1350-1800	1950-2400	2550-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	8.5	12.5	16.7	17.5
Nominal height 'h' (mm)	153	198	236	229**

Heavy Duty

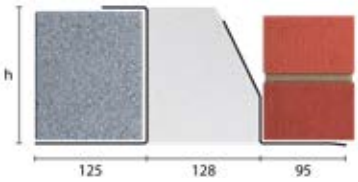
Standard lengths are available in 150mm increments.



TH130/100

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.5	17.0	17.0
Nominal height 'h' (mm)	154	229	229

Standard lengths are available in 150mm increments.

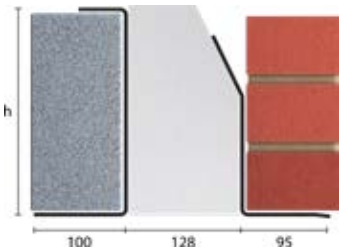


TH130/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	14.2	17.5	17.5
Nominal height 'h' (mm)	154	229	229

Extra Heavy Duty

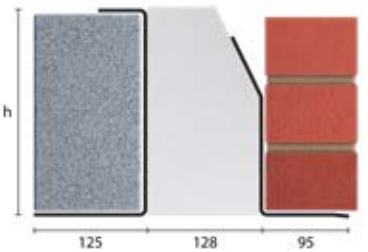
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



TX130/100

Standard lengths (mm)	900-2100	2250-2700	2850-3000	3300-3600	4200-4800
SWL 1:1/19:1 (kN)	60	60	55	50	32
Weight (kg/m)	17.0	21.9	21.9	21.9	21.9
Nominal height 'h' (mm)	229	229	229	229	229

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



TX130/125*

Standard lengths (mm)	750-2100	2250-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	60	55	50	32
Weight (kg/m)	17.5	22.6	22.6	22.6	22.6
Nominal height 'h' (mm)	229	229	229	229	229

** Channel to inner leaf

* For lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16 - 17.

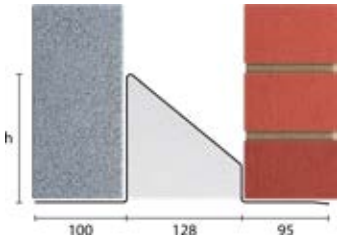
Cavity Wall Lintels

130-145mm Cavity Wall

Standard Duty

100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.

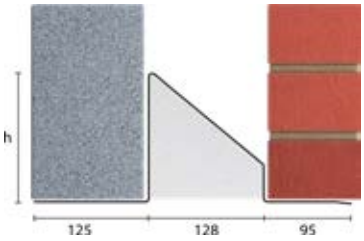


CG130/100

Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26
Weight (kg/m)	6.6	8.9	8.9	10.7	13.3
Nominal height 'h' (mm)	140	160	160	220	220

125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm.

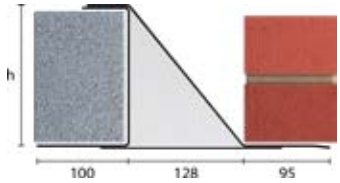


CG130/125*

Standard lengths (mm)	750-1200	1350-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	6.8	9.6	13.7	13.7
Nominal height 'h' (mm)	140	180	220	220

Heavy Duty

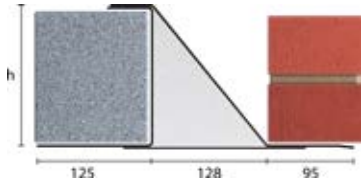
Standard lengths are available in 150mm increments.



CH130/100

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	12.6	15.1	15.1
Nominal height 'h' (mm)	157	157	157

Standard lengths are available in 150mm increments.

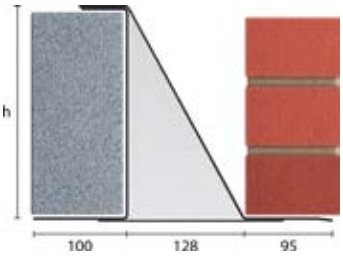


CH130/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	12.8	15.3	15.3
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty

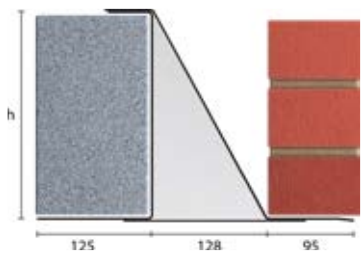
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX130/100

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	17.8	17.8	21.4	21.4
Nominal height 'h' (mm)	232	232	232	232

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX130/125*

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	18.1	18.1	21.8	21.8
Nominal height 'h' (mm)	232	232	232	232

* For lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16 - 17.

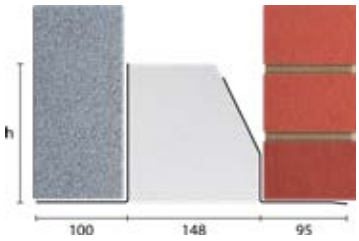
Cavity Wall Lintels

150-165mm Cavity Wall

Standard Duty

Thermally Broken 100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.

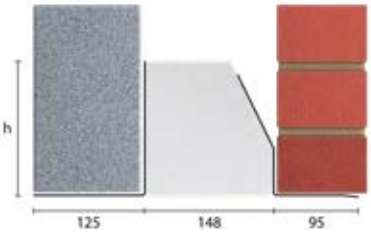


TS150/100

Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-2700	2850-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	8.1	12.0	12.0	16.0	16.0	17.0
Nominal height 'h' (mm)	153	202	202	233	233	229**

Thermally Broken 125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 1800mm, 300mm at lengths from 2100mm to 3000mm.



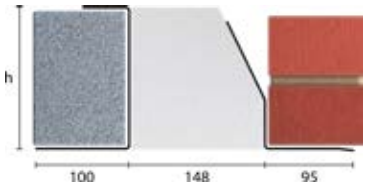
TS150/125*

Standard lengths (mm)	750-1200	1350-1800	1950-2400	2550-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	8.6	12.6	16.8	17.7
Nominal height 'h' (mm)	153	198	236	229**

Heavy Duty

Thermally Broken 100-115mm Inner Leaf

Standard lengths are available in 150mm increments.

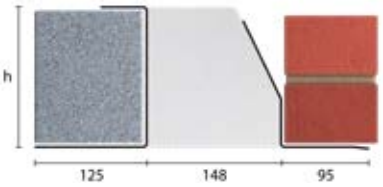


TH150/100

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.5	17.0	17.0
Nominal height 'h' (mm)	154	229	229

Thermally Broken 125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments.



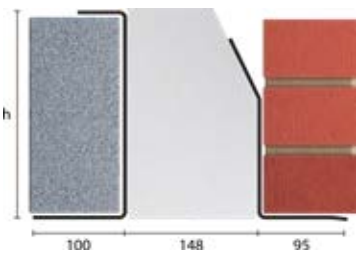
TH150/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	14.3	17.7	17.7
Nominal height 'h' (mm)	154	229	229

Extra Heavy Duty

Thermally Broken 100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).

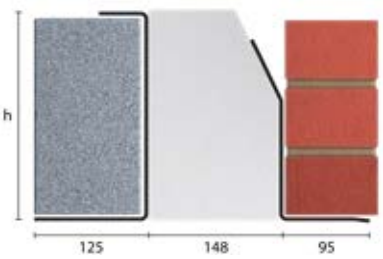


TX150/100

Standard lengths (mm)	900-2100	2250-2700	2850-3000	3300-3600	4200-4800
SWL 1:1/19:1 (kN)	60	60	55	50	32
Weight (kg/m)	17.0	21.9	21.9	21.9	21.9
Nominal height 'h' (mm)	229	229	229	229	229

Thermally Broken 125-140mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



TX150/125*

Standard lengths (mm)	750-2100	2250-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	60	55	50	32
Weight (kg/m)	17.7	22.8	22.8	22.8	22.8
Nominal height 'h' (mm)	229	229	229	229	229

** Channel to inner leaf

* For lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16 - 17.

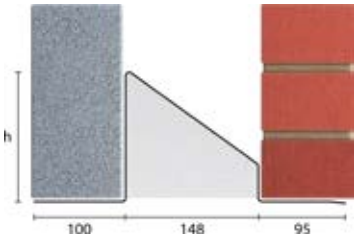
Cavity Wall Lintels

150-165mm Cavity Wall

Standard Duty

100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.

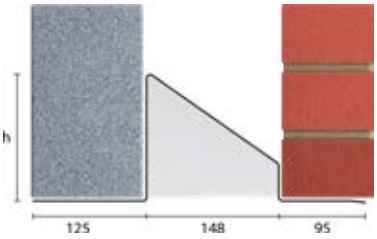


CG150/100

Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26
Weight (kg/m)	6.9	9.2	9.2	11.0	13.8
Nominal height 'h' (mm)	140	160	160	220	220

125-140*mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.



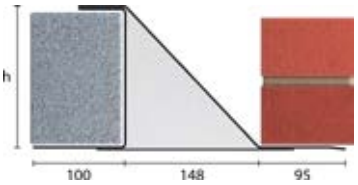
CG150/125*

Standard lengths (mm)	750-1200	1350-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	7.1	10.1	14.2	14.2
Nominal height 'h' (mm)	140	180	220	220

Heavy Duty

100-115mm Inner Leaf

Standard lengths are available in 150mm increments.

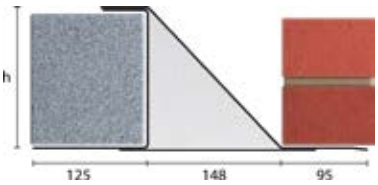


CH150/100

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.1	15.6	15.6
Nominal height 'h' (mm)	157	157	157

125-140*mm Wide Inner Leaf

Standard lengths are available in 150mm increments.



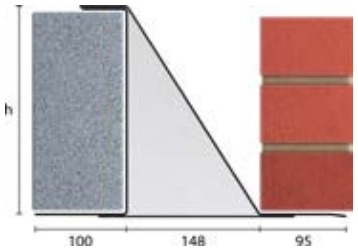
CH150/125*

Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.3	15.9	15.9
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty

100-115mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).

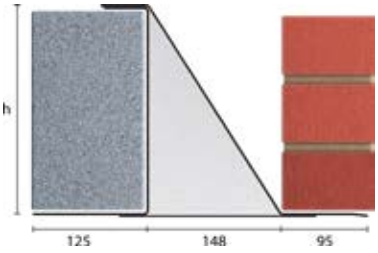


CX150/100

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	18.2	18.2	21.9	21.9
Nominal height 'h' (mm)	232	232	232	232

125-140*mm Wide Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



CX150/125*

Standard lengths (mm)	900-2700	2850-3000	3300-3900	4200-4800
SWL 1:1/19:1 (kN)	60	55	50	32
Weight (kg/m)	18.5	18.5	22.2	22.2
Nominal height 'h' (mm)	232	232	232	232

* For lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 16 - 17.

Cavity Wall Lintels

90-165mm Cavity Wall

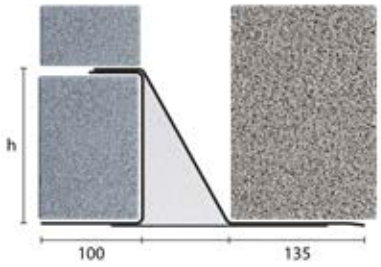
140-150mm Wide Outer Leaf

Heavy Duty

Standard lengths available in 150mm increments

CH**/100T135

Standard lengths (mm)	750-1800	1950-2100
SWL 1:1/19:1 (kN)	32	48
Nominal height 'h' (mm)	157	157
Cavity Range (mm)	CH90/100T135	90-105
	CH110/100T135	110-125
	CH130/100T135	130-145
	CH150/100T135	150-165

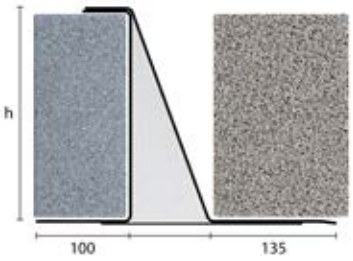


Extra Heavy Duty

Standard lengths available in 150mm increments

CX**/100T135

Standard lengths (mm)	750-2700	2850-3000	3300-3900	4200
SWL 1:1/19:1 (kN)	60	55	50	320
Nominal height 'h' (mm)	232	232	232	232
Cavity Range (mm)	CX90/100T135	90-105		
	CX110/100T135	110-125		
	CX130/100T135	130-145		
	CX150/100T135	150-165		



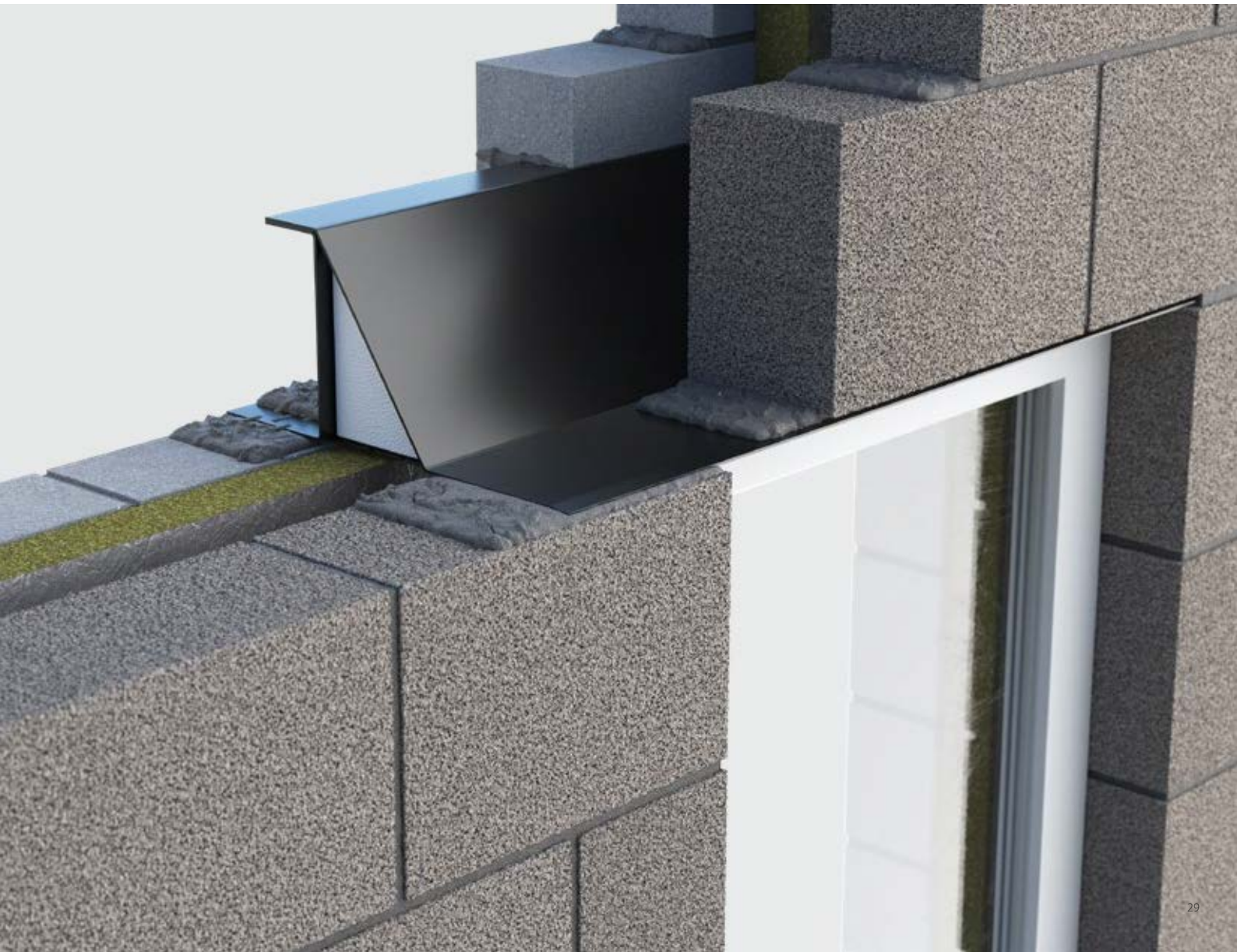
Extended Cavity Wall Lintel Range

As well as the standard range of cavity wall lintels shown Catnic have an extended range of lintels to cater for a range of different wall construction including:

- Very wide inner leafs
- Cavity widths greater than 165 mm
- Reduced outer toe to suit cant brick and chamfered stone heads
- Extended outer toes to support a range of different stone thickness

Find the perfect Lintel

Catnic offer a vast range of lintels, if you can't find what you're looking for please contact our Technical Service Department on **02920 337900** or email us at **catnic.technical@tatasteeleurope.com**



Cavity Wall Extreme Load Lintels

Designed to support extreme loads or to be used at long spans in external cavity walls.

Cavity wall 'CXL' fabricated lintels

CXL

Standard increment lengths

Overall lengths are available in 50mm increments for lengths up to 6600mm.

Optional extra

As an optional extra, CXL lintels can be supplied with expanded metal mesh secured to the base plate.

Load ratios

To achieve the loading figures shown, the lintel must be laterally restrained and have 200mm end bearing supports and inner to outer load ratios between 5:1 and 19:1.

Separate DPC

A separate flexible DPC must be installed during construction.

Benefits

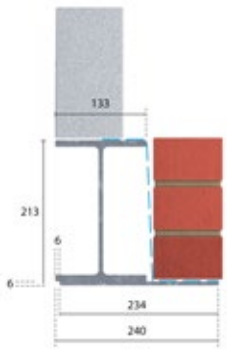
Materials used
Supplied in post galvanised finish. Lintels manufactured from a universal beam section and 6mm structural grade steel plate Grade S275 to BS EN 10025: 2004 and hot dip galvanised after manufacture to BS EN ISO1461: 1999.

100-115mm Inner Leaf

Extreme Load

50-65mm Cavity

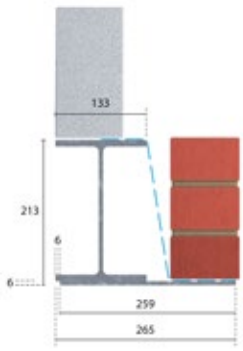
CXL240								
Standard lengths (mm)	**2100-3000**	**3300-4800**	**5100**	**5400**	**5700**	**6000**	**6300**	**6600**
SWL 5:1/19:1 (kN)	88	83	78	71	64	56	52	47
Weight (kg/m)	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1
Ixx (cm⁴)	4051	4051	4051	4051	4051	4051	4051	4051
Zxx (cm³)	303	303	303	303	303	303	303	303
Serviceability Moment (kNm)	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0



Extreme Load

70-85mm Cavity

CXL265								
Standard lengths (mm)	**2100-3000**	**3300-4800**	**5100**	**5400**	**5700**	**6000**	**6300**	**6600**
SWL 5:1/19:1 (kN)	88	83	78	71	64	56	52	47
Weight (kg/m)	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3
Ixx (cm⁴)	4139	4139	4139	4139	4139	4139	4139	4139
Zxx (cm³)	305	305	305	305	305	305	305	305
Serviceability Moment (kNm)	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3



Cavity Wall Extreme Load Lintels

90-165mm Cavity Wall

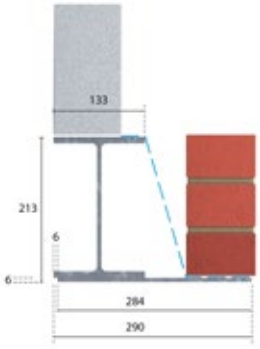
100-115mm Inner Leaf

Extreme Load

90-105mm Cavity

CXL290

Standard lengths (mm)	2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
SWL 5:1/19:1 (kN)	88	83	78	71	64	56	52	47
Weight (kg/m)	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5
Ixx (cm^4)	4222	4222	4222	4222	4222	4222	4222	4222
Zxx (cm^3)	307	307	307	307	307	307	307	307
Serviceability Moment (kNm)	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6

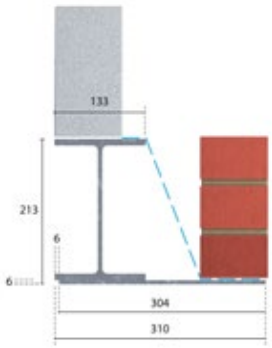


Extreme Load

110-125mm Cavity

CXL310

Standard lengths (mm)	2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
SWL 5:1/19:1 (kN)	88	83	78	71	64	56	52	47
Weight (kg/m)	44.3	44.3	44.3	44.3	44.3	44.3	44.3	44.3
Ixx (cm^4)	4285	4285	4285	4285	4285	4285	4285	4285
Zxx (cm^3)	310	310	310	310	310	310	310	310
Serviceability Moment (kNm)	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8

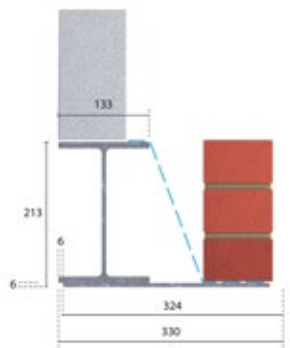


Extreme Load

130-145mm Cavity

CXL330

Standard lengths (mm)	2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
SWL 5:1/19:1 (kN)	88	83	78	71	64	56	52	47
Weight (kg/m)	45.3	45.3	45.3	45.3	45.3	45.3	45.3	45.3
Ixx (cm^4)	4346	4346	4346	4346	4346	4346	4346	4346
Zxx (cm^3)	311	311	311	311	311	311	311	311
Serviceability Moment (kNm)	51.0	51.0	51.0	51.0	51.0	51.0	51.0	51.0

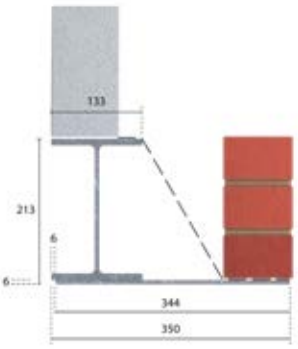


Extreme Load

150-165mm Cavity

CXL350

Standard lengths (mm)	2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
SWL 5:1/19:1 (kN)	88	83	78	71	64	56	52	47
Weight (kg/m)	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2
Ixx (cm^4)	4404	4404	4404	4404	4404	4404	4404	4404
Zxx (cm^3)	312	312	312	312	312	312	312	312
Serviceability Moment (kNm)	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1



Cavity Wall Closed Eaves Lintels

For use in cavity wall construction for closed eaves applications. Closed eaves lintels are manufactured from galvanised steel and powder coated for extra protection.

Cavity wall closed eaves lintel

Easy-to-use open back profile

Open back style lintels allow masonry to be built up continuously on inner leaf.

Benefits

Duplex corrosion protection
Ensures optimum durability and longevity

Continuous insulation
Maximising thermal efficiency, minimising cold bridging

Integral Plaster key
With staggered slots applied to the inner flange and ribbed underside of insulation

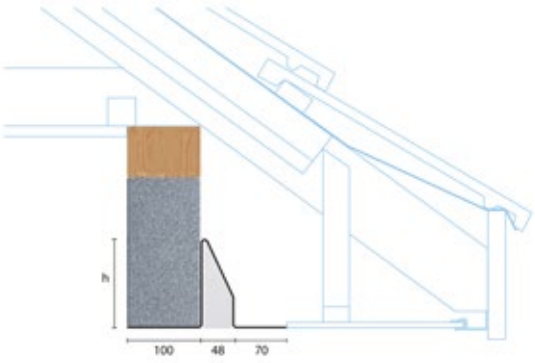
Notes

For heavy duty application or lintel in excess of 2.7m please refer to the CN71 and CN81 range of lintels on page 43.

100-115mm Inner Leaf

50-85mm Cavity

Standard lengths are available in 300mm increments.

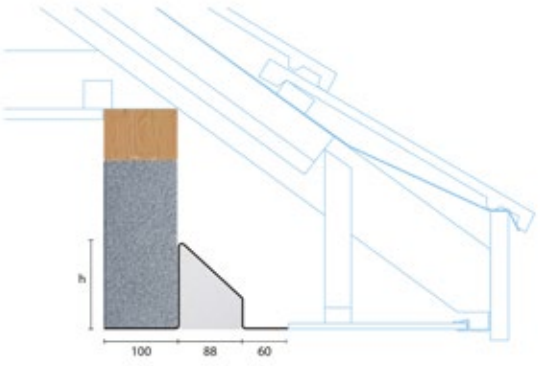


CGE50/100

Standard lengths (mm)	900-1500	1800-2100	2400-2700
SWL (kN)	25	22	20
Weight (kg/m)	7.3	8.1	10.0
Nominal height 'h' (mm)	96	119	118

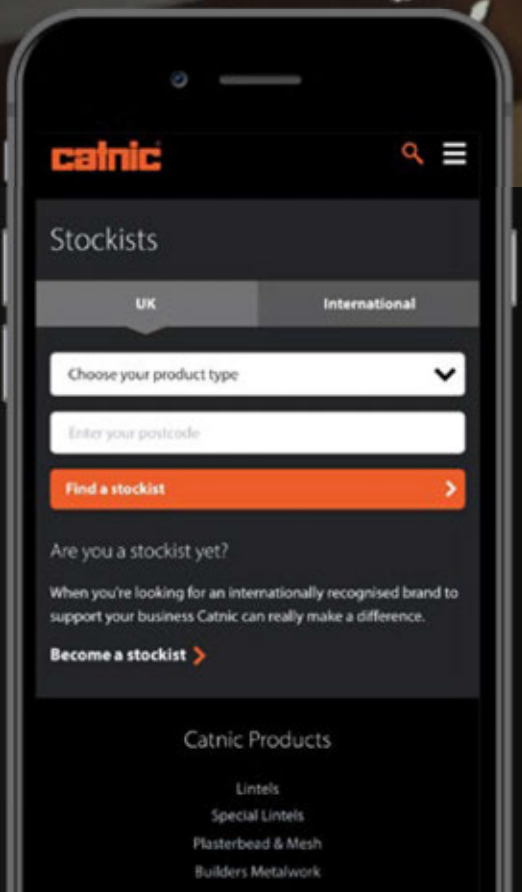
90-125mm Cavity

Standard lengths are available in 150mm increments up to 1800, 300mm increments from 1800mm to 2700.



CGE90/100

Standard lengths (mm)	900-1500	1800-2100	2400-2700
SWL (kN)	25	22	20
Weight (kg/m)	7.6	8.3	10.6
Nominal height 'h' (mm)	95	115	115



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Cavity Wall Thin Joint Lintels

Thin joint construction is used extensively across Europe, and as UK building regulations are updated, the benefits of this efficient and highly effective system are evident.

Lintels for thin joint construction

Utilising almost 50 years experience in the design and manufacture of steel lintels, Catnic has designed two thin joint solutions for the UK construction industry: 'CTJ90' and 'Box and Angle' lintels.

CTJ90

The new CTJ90 lintel is designed specifically for use with thin joint construction.

The new CTJ90 lintel has been designed to suit the requirements of 102mm outer leaf with 90mm to 105mm cavity. Inner leaf support is achieved through a standard Catnic box lintel and propping during construction is eliminated thanks to a unique plastic fixings connection.

The CTJ90 closes the cavity and removes the need for an additional cavity closer.

Material

Hot dipped galvanised sheet steel coil to BS EN10346: 2009 and Z275 (min yield stress – 250N/mm2).

Finish

Black polyester powder coating.

Box and Angle

The Catnic box and angle lintel system has been designed to accommodate the requirements of all thin joint wall construction.

This standard product provides the following benefits:

- Suitable for all possible cavity widths
- Reduced thermal bridging at window head
- Standard product

Material

Hot dipped galvanised sheet steel coil to BS EN10346: 2009 and Z275 (min yield stress – 250N/mm2).

Finish

Black polyester powder coating 0.035 +_0.005mm thick for lintels, angle lintels up to 2400mm are Z600 silver.

Benefits

Reduced build time
Within minutes the thin joint mortar is set and the next course can be laid. This permits continual laying and avoids settlement problems commonly associated with conventional mortar.

Quick weatherproofing
The CTJ & BSD ranges are formed from galvanised steel, then powder coated.

Flexible construction
Thin joint can be used on both external cavity walls and internal partition walls, as well as party wall construction.

Notes

Whilst the above information is intended to offer general guidance regarding typical applications, it should not be considered as comprehensive. Requirements not fully covered by the above should be referred to our technical services department for individual consideration.

CTJ90 Lintels

90-105mm Cavity*

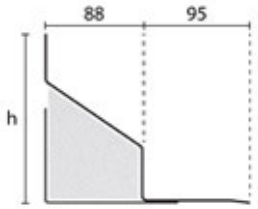
Standard Box and Angle Lintels

All Cavity Widths

Standard Duty

102mm Outer Leaf

Standard lengths are available in increments of 150mm at lengths of up to 3000mm, and 300mm at lengths from 3000mm to 3600mm.

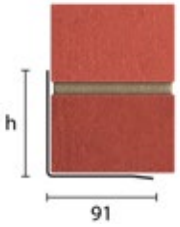


CTJ90

Standard lengths (mm)	750-1500	1650-2400	2330-2700	2850-3000	3300-3600
SWL (kN)	5	7	7	7	9
Weight (kg/m)	6.8	7.9	7.9	7.7	9.1
Nominal height 'h' (mm)	149	149	149	224	224

102mm Outer Leaf

Standard lengths are available in increments of 150mm at lengths of up to 3000mm, and 300mm at lengths from 3000mm to 3600mm.



ANG

Standard lengths (mm)	900-1200	1350-1500	1650-2100	2250-2400	2550-3000	3300-3900
SWL (kN)	4	5	7	10	15	15
Weight (kg/m)	2.7	3.4	4.0	4.7	7.3	9.4
Nominal height 'h' (mm)	88	131	167	215	215	215

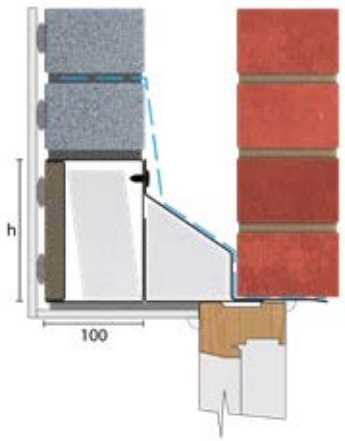
Standard Duty

100mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).

BSD100

Standard lengths (mm)	750-2100	2250-2700	2850-3600
SWL (kN)	19	20	29
Weight (kg/m)	6	7.5	12.4
Nominal height 'h' (mm)	143	143	219



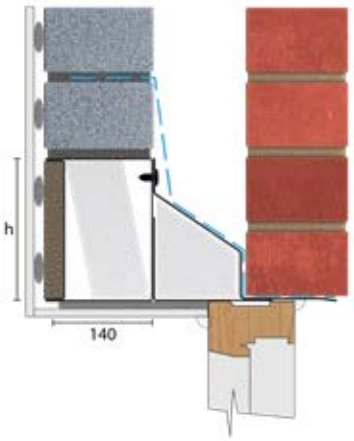
Standard Duty

140mm Inner Leaf

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).

BSD140

Standard lengths (mm)	750-2100	2250-2700	2850-3600
SWL (kN)	19	20	29
Weight (kg/m)	6.9	8.7	13.0
Nominal height 'h' (mm)	143	143	219



* CTJ lintels are available to suit other cavity widths, please contact our Technical Department on 029 2033 7900.

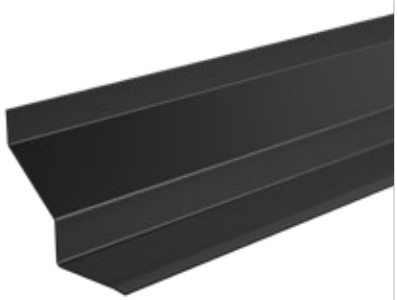
Timber Frame Lintels

For use in timber frame construction.

Timber Frame Lintels

The timber frame range consists of single elements lintels with a sloping outer face and duplex corrosion protection, which together provide a built-in DPC.

CTF



Restraint clips

Allows vertical differential movement of timber frame.

All timber frame models must be secured with restraint clips (supplied) and a batten (not supplied) to prevent lateral deflection (twist) during the building stage and to achieve the loading figures shown.

Benefits

Duplex corrosion protection
Ensures optimum durability and longevity

Built-in DPC
Saves time in construction and means cavity is easy to clean without risk of damage to DPC (refer to page 63)

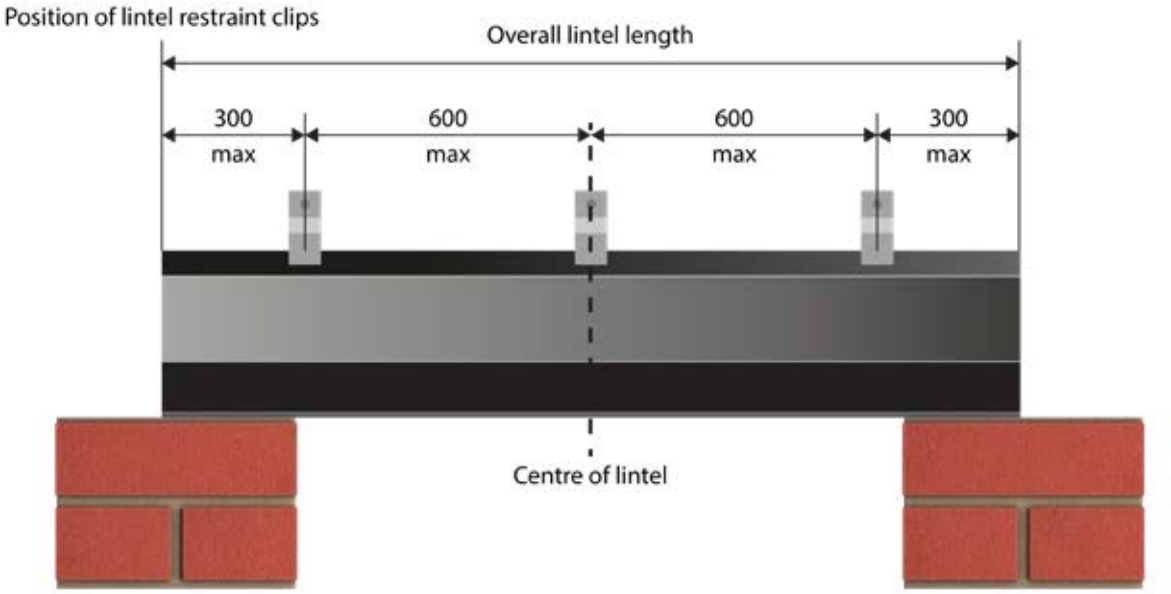
Notes

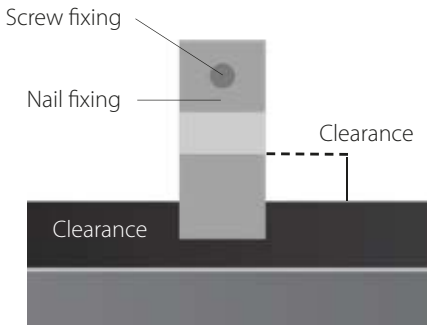
Propping
Lintels should be suitably propped during construction. Lintels for timber frame construction are supplied with lintel restraint clips (free of charge), which must be screw or nail fixed to the timber frame to allow for differential movement between the timber structure and the brick facing.

Safe Working Load
The SWL (safe working load) is based on the total UDL (uniform distributed load) over maximum span using 150mm end bearings.

Installing a Timber Frame Lintel

In addition to the cavity wall installation guide, please read the following for Catnic timber frame lintel installation.





- When propping, a horizontal board should be placed along the flat underside of the lintel soffit; this will prevent any point loading, which could cause localised deformation of the lintel flange.
- On small openings a single prop should be placed centrally within the opening and gently wedged into place.
- The number of props should be increased for larger openings. Generally props should be installed at maximum centres of 1 metre.
- The prop can be removed after the mortar has cured and the wall ties become effective.
- A timber pinch batten should be fixed at the heel of the timber frame lintel in order to minimise any rotation.
- Catnic timber frame lintels (e.g. CTF's) are intended only to support an outer skin of brickwork where it is tied to an inner skin of timber frame and must be suitably propped during construction.

Lintel Restraint Clips

Lintel length (mm)	Number of clips
Up to 1800	3
1950-3000	5
3300-4200	7
4575-4800	9

Clip Fixings

Lintel Product Code	Length (mm)	Number of clips
CTF5, CTF7 & CTF9	750-3600	50mm x 3.35mm diameter. Plain head galvanised nails.
CTF5, CTF7 & CTF9	3900-4800	38mm x No.10 RD/HD sherardised wood screws.

Timber Frame Lintels

50-105mm Cavity Wall

102mm Outer Leaf

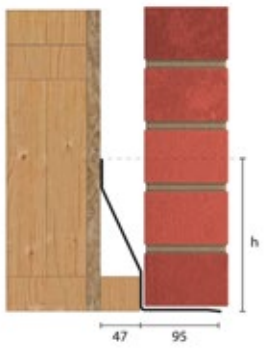
Standard Duty

50-65mm Cavity

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 4800mm (including 4575mm but excluding 4500mm).

CTF5

Standard lengths (mm)	750-1200	1350-1500	1650-2400	2550-3000	3300-3600	3900-4800
SWL (kN)	4	5	7	7	9	10
Weight (kg/m)	3.8	4.8	5.6	7.2	8.0	9.0
Nominal height 'h' (mm)	128	128	183	183	218	256



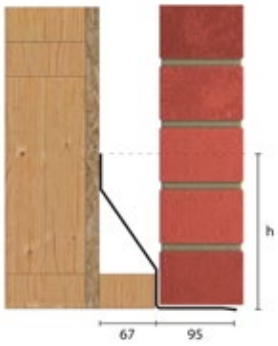
Standard Duty

70-85mm Cavity

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 4800mm (including 4575mm but excluding 4500mm).

CTF7

Standard lengths (mm)	750-1200	1350-1500	1650-2400	2550-3000	3300-3600	3900-4800
SWL (kN)	4	5	7	7	9	10
Weight (kg/m)	4.2	5.2	5.9	7.5	8.3	9.3
Nominal height 'h' (mm)	145	145	187	187	218	265



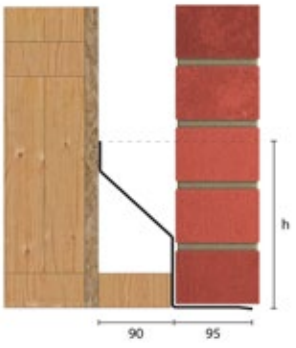
Standard Duty

90-105mm Cavity

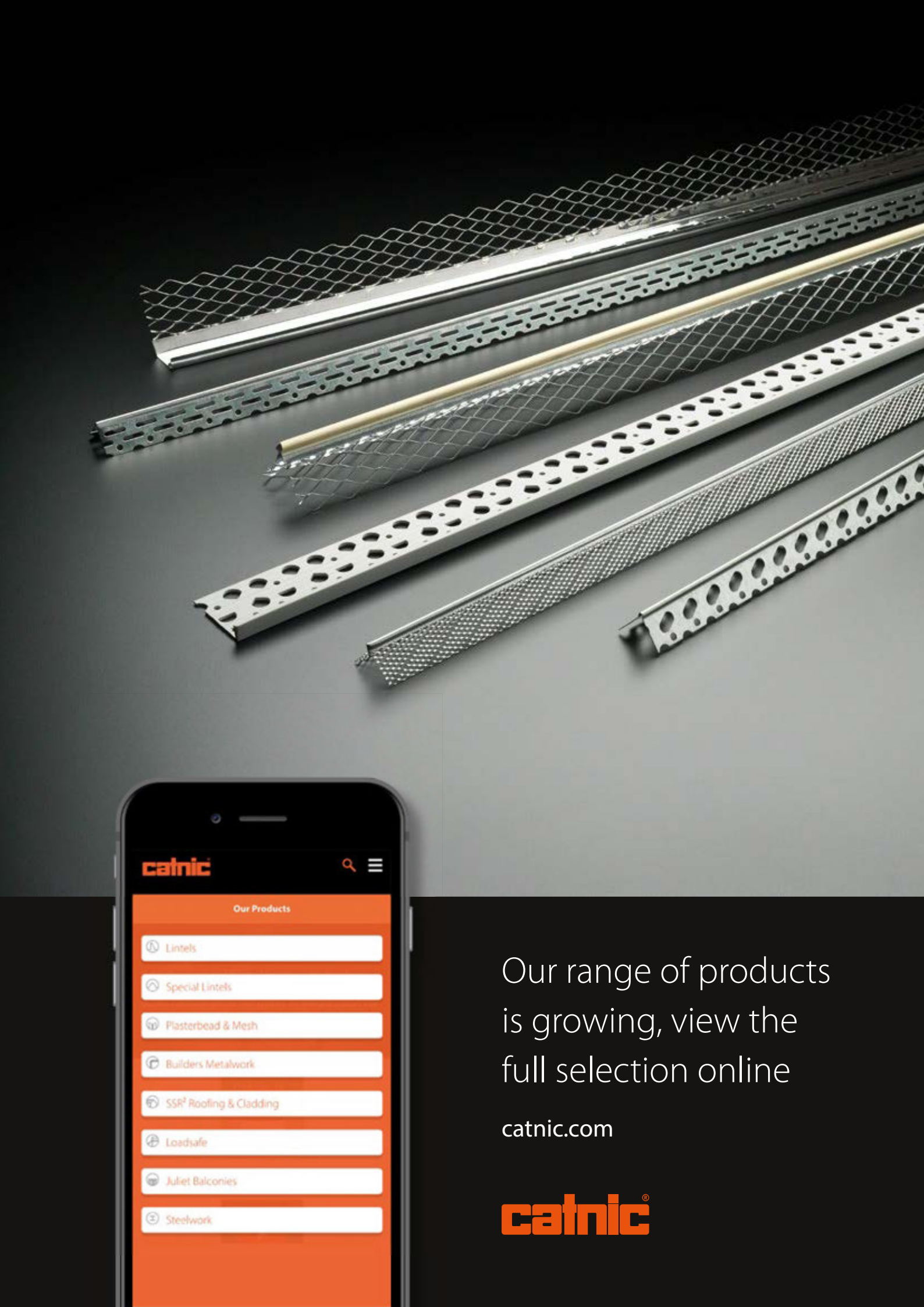
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 4800mm (including 4575mm but excluding 4500mm).

CTF9

Standard lengths (mm)	750-1500	1650-2400	2550-3000	3300-3600	3900-4800
SWL (kN)	5	7	7	9	10
Weight (kg/m)	4.7	5.9	8.1	8.4	9.6
Nominal height 'h' (mm)	146	146	200	200	271



For Heavy duty options please contact our Technical Services Department on 02920 337900



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Solid Wall Lintels

For use in brick or block walls. Available in an 'angle' and 'channel' profile to accommodate meter boxes and single leaf face brick or block walls.

Single leaf wall lintels

Angle

- MBA are suitable for meter boxes only.
- ANG suitable for Standard Duty loading applications.

Channel Section

- CCS lintels are fully built into wall construction for use with single leaf face brick or block walls.

Benefits

Duplex corrosion protection
Ensures optimum durability and longevity

* ANG available in black on request, standard in galvanised finished only - 750mm - 2400mm

Exterior Wall

Single Leaf Wall Lintels

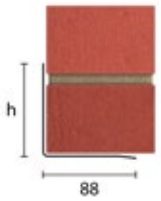
102mm Exterior Wall

Light Duty

Meter Box Lintels

MBA lintels should be suitably propped and laterally restrained during construction.

MBA		
Standard lengths (mm)	**750**	**1350**
SWL (kN)	5	3
Weight (kg/m)	2.2	2.2
Nominal height 'h' (mm)	88	88

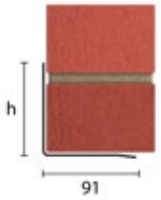


Standard Duty

Angle Lintels

ANG lintels should be suitably propped and laterally restrained during construction. Standard lengths are available in increments of 150mm at lengths up to 3000mm, 300mm at 3000mm to 3900mm.

ANG						
Standard lengths (mm)	**900-1200**	**1350-1500**	**1650-2100**	**2250-2400**	**2550-3000**	**3300-3900**
SWL (kN)	4	5	7	10	15	15
Weight (kg/m)	2.7	3.4	4.0	4.7	7.3	9.4
Nominal height 'h' (mm)	88	131	167	215	215	215

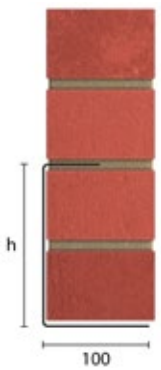


Standard Duty

Channel Sections

CCS lintels should be suitably propped and laterally restrained during construction. Standard lengths are available in increments of 150mm at lengths up to 3000mm, 300mm at 3000mm to 4800mm (including 4575mm, but excluding 4500mm).

CCS			
Standard lengths (mm)	**750-1800**	**1950-3000**	**3300-4800**
SWL (kN)	15	20	20
Weight (kg/m)	4.7	7.3	11.7
Nominal height 'h' (mm)	154	229	229



Solid Wall Lintels

For use in brick or block walls 200mm to 215mm.

External solid wall lintels

External solid wall lintels are manufactured from galvanised steel and powder coated for extra protection. Available in 'classic box' or two-piece inverted 'T' styles.

Classic Box

For use in 200mm and 215mm solid exterior walls

- Saves on brickwork and insulation
- Resists twisting during construction
- Instant full load use
- Box profile is designed to carry full load of wet masonry as soon as it is installed

Benefits

Duplex Corrosion Protection System
Ensures optimum durability and longevity

Continuous insulation
Maximising thermal efficiency, minimising cold bridging

Integral Plaster key
With staggered slots applied to the inner flange and ribbed underside of insulation

Two-piece inverted 'T'

Designed to carry two separate leaves of 215mm fairface brick wall

Benefits

Duplex corrosion protection
Ensures optimum durability and longevity

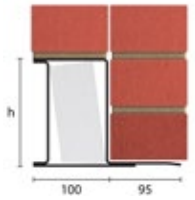
External Solid Wall Lintels

200-215mm External Solid Walls

Standard Duty

200mm and 215mm Exterior Solid Walls

Standard lengths are available in 150mm increments.



CN71A

Standard lengths (mm)	750-1500	1650-2100	2250-2700
SWL (kN)	29	27	20
Weight (kg/m)	9.3	9.3	9.3
Nominal height 'h' (mm)	143	143	143

200mm and 215mm Exterior Solid Walls

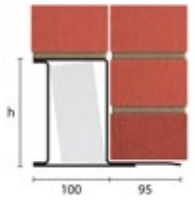
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 3600mm.

CN81B

Standard lengths (mm)	2100-3600
SWL (kN)	29
Weight (kg/m)	15.1
Nominal height 'h' (mm)	219

Heavy Duty

Standard lengths are available in 150mm increments.



CN71C

Standard lengths (mm)	900-1500	1650-1950
SWL (kN)	49	44
Weight (kg/m)	14.6	14.6
Nominal height 'h' (mm)	143	143

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).

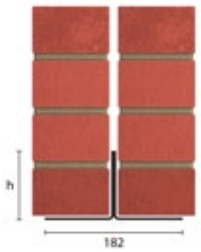
CN81C

Standard lengths (mm)	2100-2700	2850-3300	3600	3900-4575	4800
SWL (kN)	54	47	39	29	26
Weight (kg/m)	18.5	18.5	18.5	18.5	18.5
Nominal height 'h' (mm)	219	219	219	219	219

Standard Duty

For two separate leaves of a 215mm fairface brick wall

Standard lengths available



	CN50C	CN51C
Standard lengths (mm)	900 - 1800*	2100 - 2700**
SWL (kN)	10	12
Weight (kg/m)	9.0	12.7
Nominal height 'h' (mm)	91	167

Extra Heavy Duty

Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).

CN99/394C

Standard lengths (mm)	3000-3300	3600-3900	4200-4800
SWL (kN)	54	51	49
Weight (kg/m)	21.6	21.6	21.6
Nominal height 'h' (mm)	295	295	295

* CN50C is only available in the following lengths: 900mm, 1200mm, 1350mm, 1500mm and 1800mm

** CN51C is only available in the following lengths: 2100mm, 2400mm and 2700mm

Internal Wall Lintels

For use in internal partition and loadbearing walls 75mm, 100mm and 140mm.

Internal wall lintels

Catnic lintels for internal partitions and loadbearing walls are available in either 'corrugated', 'channel' or 'box section' to accommodate different loads and openings.

Corrugated

For use in brick or block walls.

CN92 and CN102

Offers a cost effective solution for extra light duty loads. Suitable for nominal domestic loading.

Benefits

Integral Plaster key
Lozenge shaped staggered holes to sides of corrugated profile

Channel

For use in brick or block walls.

CN100

Offers a cost effective solution for light duty loads, as previous plus:

- Suitable for masonry/timber floor loads.

Benefits

Duplex Corrosion Protection System
Ensures optimum durability and longevity

Integral Plaster key
Lozenge shaped staggered holes to sides of corrugated profile

Classic Box

For use in brick or block walls.

BSD, BHD and BXD

Universal application caters for all loading condition, as previous plus:

- Direct floor or roof load
- Supports concrete floor loads
- Supports point loads e.g. steel beams
- Suitable for 140mm blockwork

Benefits

Duplex Corrosion Protection System
Ensures optimum durability and longevity

Integral Plaster key
With staggered holes to three sides of box profile

Notes

Safe Working Load
The SWL (safe working load) is based on the total UDL (uniform distributed load) over maximum span using 75mm end bearings for **CN92** and **CN102**.

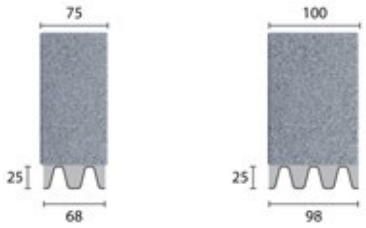
Interior Solid Walls

75mm and 100mm

Extra Light Duty

75mm and 100mm Interior Solid Walls

Standard lengths are available in increments of 150mm.

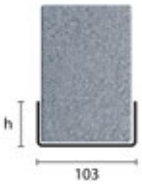


	CN92	CN102
Standard lengths (mm)	**1050-1200**	**1050-1200**
SWL (kN)	7	7
Weight (kg/m)	1.2	1.8
Nominal height 'h' (mm)	25	25

Light Duty

100mm Interior Solid Walls

Standard lengths are available in increments of 150mm.

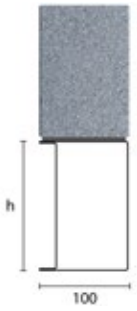


CN100	
Standard lengths (mm)	**1050-1200**
SWL 1:1/3:1 (kN)	10
Weight (kg/m)	3.7
Nominal height 'h' (mm)	50

Standard Duty

100mm Interior Solid Walls

Standard lengths are available in increments of 150mm at lengths up to 3000mm, 300mm at lengths from 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



BSD100					
Standard lengths (mm)	**750-2100**	**2250-2700**	**2850-3600**	**3900-4575**	**4800**
SWL (kN)	19	20	29	29	27
Weight (kg/m)	6.0	7.5	12.4	15.7	15.7
Nominal height 'h' (mm)	143	143	219	219	219

140mm Interior Solid Walls

Standard lengths are available in increments of 150mm at lengths up to 3000mm, 300mm at lengths from 3000mm – 4800mm (including 4575mm, but excluding 4500mm).

BSD140					
Standard lengths (mm)	**1050-2100**	**2250-2700**	**2850-3600**	**3900-4575**	**4800**
SWL (kN)	19	20	29	29	27
Weight (kg/m)	6.9	8.7	13.1	17.1	17.1
Nominal height 'h' (mm)	143	143	219	219	219

Heavy Duty

BHD100					
Standard lengths (mm)	**750-2100**	**1650-2100**	**2250-2700**	**2850-3600**	**3900-4800**
SWL (kN)	29	39	39	51	51
Weight (kg/m)	7.5	9.4	12.4	15.7	18.8
Nominal height 'h' (mm)	143	143	219	219	295

BHD140					
Standard lengths (mm)	**1050-1500**	**1650-2100**	**2250-2700**	**2850-3600**	**3900-4800**
SWL (kN)	29	39	39	51	51
Weight (kg/m)	8.7	10.9	13.8	17.1	20.5
Nominal height 'h' (mm)	143	143	219	219	295

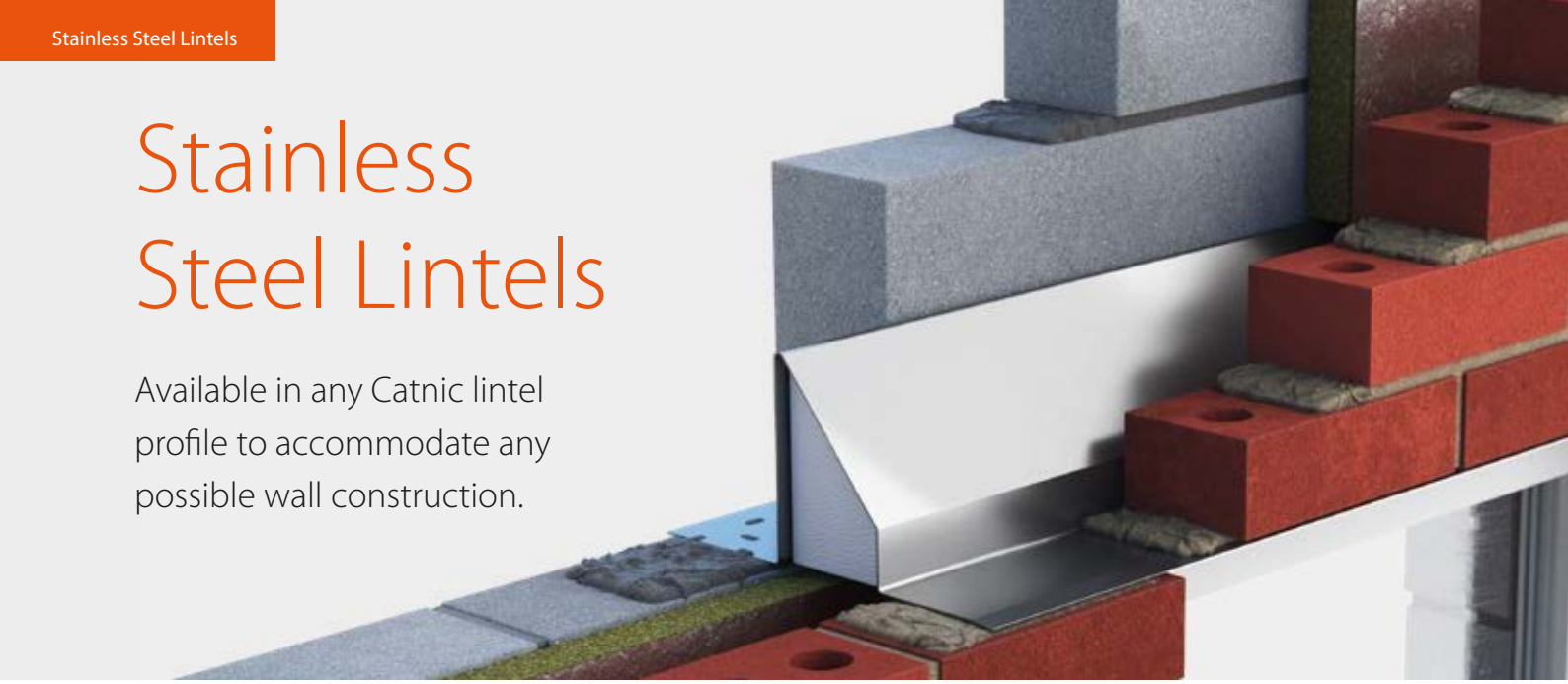
Extra Heavy Duty

BXD100		
Standard lengths (mm)	**750-1500**	**1650-2700**
SWL (kN)	47	59
Weight (kg/m)	9.4	15.7
Nominal height 'h' (mm)	143	219

BXD140		
Standard lengths (mm)	**1050-1500**	**1650-2700**
SWL (kN)	47	59
Weight (kg/m)	10.9	17.1
Nominal height 'h' (mm)	143	219

Stainless Steel Lintels

Available in any Catnic lintel profile to accommodate any possible wall construction.



Stainless Steel Lintels

The standard duplex corrosion protection system used on Catnic's range of lintels provides class leading protection against corrosion in all normal circumstances.

However there may be instances when, particularly aggressive environments or to increase the expected life of the lintel, a stainless steel lintel may be required.

Eurocode 6 – Design of masonry structures

Part 2: Design considerations, selection of materials and execution of masonry implies that the lintel material/coating specifications should be limited to austenitic stainless steel for two exposure classes – MX4 and MX5.

- MX4 – Exposure to saturated salt air or seawater (i.e. coastal areas, buildings adjacent to roads that are salted during the winter).
- MX5 – Exposure to the aggressive chemical environment (i.e. industrial areas where aggressive chemicals are airborne, harsh coastal areas where lintels are exposed to airborne chlorides seawater spray or mist). For buildings the MX5 exposure class higher than 304 grade stainless steel is recommended, due to the risk of severe pitting corrosion.

The outstanding anti-corrosion properties of stainless steel also make it suitable for specialist laboratory or medical applications, hospitals, residential care homes, schools, military buildings and prisons where the whole life expectancy and maintenance programme become key design considerations. Stainless steel is also a solution for high buildings, where lintels maintenance would be difficult.

Periodic cleaning is advisable on stainless steel, as with most building exterior materials. The frequency will depend on local conditions and the 'visibility' of the steelwork. Where cleaning and maintenance is difficult or costly, e.g. the outside of high rise buildings, then a more resistant grade may be appropriate.

Product Range

- All Catnic stainless steel lintels are manufactured from austenitic stainless steel, grade 304S15 to BS EN 10088-2 1.4301
- Other grades of stainless steel are available on request.
- All Catnic galvanised steel loading tables apply.
- All stainless steel lintel lengths are manufactured to order, price and delivery on application.
- All standard stainless steel lintels from Catnic are BBA Approved under Agrément Certificate No. 91/2638
- Special lintels in stainless steel are available manufactured to order.

Interior Solid Walls

Steelwork

When loading conditions exceed our standard range of lintels Catnic offer a selection of steelwork beams, columns and channels.

Produced from grade S275 steel plate, all steelwork sections are supplied cut to length with holes drilled as required. A primed finish is offered as standard with hot dipped post galvanised finish available on request.

In addition to the range depicted below, Catnic can also accommodate requests for composite bolted beams complete with the necessary bolts and spacers.

Universal Beams

Universal beams are available cut to size.

UB

Product Code	Serial Size (mm)	Weight (kg/m)	Depth (D) (mm)	Width (B) (mm)	Web Thk (t) (mm)	Flange Thk (T) (mm)
UB1710/19/P	178x102	19.0	177.8	101.2	4.8	7.9
UB2010/23/P	203x102	23.1	203.2	101.8	5.4	9.3
UB2013/30/P	203x133	30.0	206.8	133.9	6.4	9.6
UB2514/43/P	254x146	43.0	259.6	147.3	7.2	12.7

Universal Columns

Universal columns are available cut to size.

UC

Product Code	Serial Size (mm)	Weight (kg/m)	Depth (D) (mm)	Width (B) (mm)	Web Thk (t) (mm)	Flange Thk (T) (mm)
UC1515/23P	152x152	23.0	152.4	152.2	5.8	6.8
UC1515/30P	152x152	30.0	157.6	152.9	6.5	9.4
UC2020/46P	203x203	46.1	203.2	203.6	7.2	11.0
UC2525/73P	254x254	73.1	254.1	254.6	8.6	14.2

Channels

Channels are available cut to size.

PFC

Product Code	Serial Size (mm)	Weight (kg/m)	Depth (D) (mm)	Width (B) (mm)	Web Thk (t) (mm)	Flange Thk (T) (mm)
PFC2390/32/P	230x90	32.2	23.0	90.0	7.5	14.0

Special Lintels

Catnic is committed to delivering a range of exciting shapes for unique designs and feature brickwork to inspire today's architects and builders.

Bespoke Designs

When a building requires a more unconventional support solution, Catnic is again, one step ahead and has an experienced team of feature design engineers dedicated to providing innovative design solutions to achieve the architect's vision.

Naturally, Catnic's technical support team has the breadth of knowledge and expertise to design lintels for the most creative of openings, with in-house facilities and skill to manufacture fabricated lintels to suit countless configurations.

Various styles of bay window, gothic and apex arches, bulls-eye and corner feature lintels for domestic and commercial applications are hand welded and post galvanised for extra corrosion protection, assuring lasting quality.

Although the majority of arches are semicircular, Catnic also offer gothic arches for Victorian styled buildings and apex designs for triangular or diamond shaped openings, curved on-plan for bays, in curved walls and also elliptical, parabolic, Arabian and segmental. The list is endless and there are limitless variations which Catnic have the capacity to fabricate virtually any arch specification required.

A fast and cost-effective fabrication service from a unique and specialised fabrication facility – means that bespoke lintels can often be delivered along with standard lintels minimising delays on site. Each lintel, as always, is manufactured to a high quality standard; hot-dip galvanised after manufacture to BS EN ISO 1461: 2009.

Feature lintels

While your imagination runs wild with creative openings, why not be inventive with brickwork too?

Catnic has the expertise to design and manufacture lintels for decorative brick and stone work, for example reduced toe lintels for discrete use with cant bricks.

Notes

Working Times
All times quoted as working days, include delivery, calculated from receipt of order and approved drawing (where applicable). All products are subject to availability.

Arches

When you want to make a feature of brickwork you may need more than a standard lintel, so Catnic offers both standard and innovative bespoke designs.

Standard Arch Lintels

Catnic have a standard range of ten semi-circular arches specifically designed and manufactured for domestic housing applications with nominal loadings. These arches offer considerable flexibility for feature brickwork with clear spans ranging from 600mm to 1200mm and are available from stock.

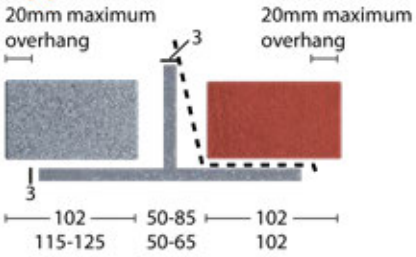
CCA

CCA		
Lintel Types	**Clear Span (mm)**	**Weight (kg)**
CCA/600	600	11.79
CCA/630	630	12.26
CCA/900	900	16.53
CCA/915	915	16.77
CCA/1200	1200	21.37

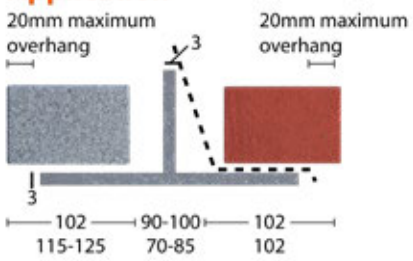
CCB		
Lintel Types	**Clear Span (mm)**	**Weight (kg)**
CCB/600	600	12.96
CCB/630	630	13.47
CCB/900	900	18.14
CCB/915	915	18.40
CCB/1200	1200	23.43

CCB

Application



Application



Special Lintels

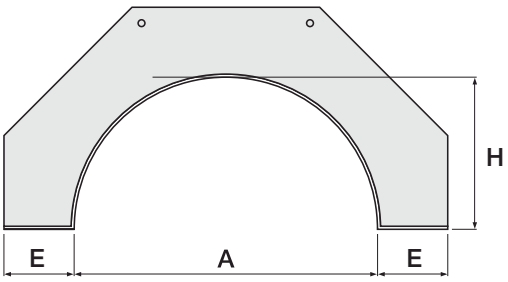
Arches

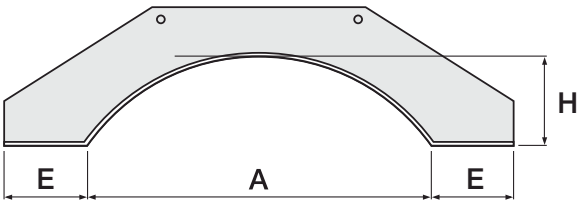
Semi-Circular Arch Lintel

The semi-circular arch lintel is the most common feature brickwork opening providing a classical design line for any window or door. Catnic have ten different size semi-circular arch lintels available from stock.

Segmental Arch Lintel

The segmental arch lintel enables the creation of an opening where the arch whose profile comprises an arc smaller than a semi-circle. The segmental arch is made up of part of a circle, the centre of which is below its springing line.





Special Lintels

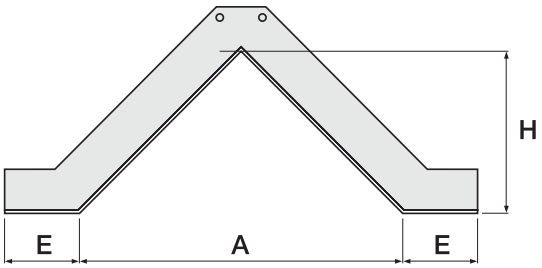
Arches

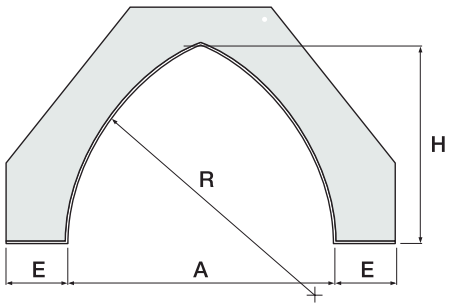
Apex Arch Lintel

The apex arch lintel enables the creation of triangular or diamond shaped openings. Commonly used with high vaulted ceilings enhancing the flood of daylight and perception of grandeur.

Gothic Arch Lintel

The gothic arch lintel enables the creation of pointed window and door openings to complement strong vertical lines, high vaulted ceilings, minimal wall space and buttressed walls often found in Victorian and gothic architecture. Gothic or pointed arches are formed from two segmental arches leaning together to form a point.





Special Lintels

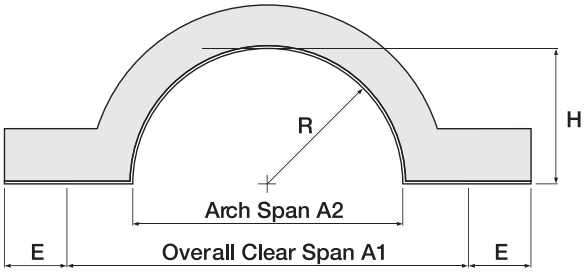
Arches

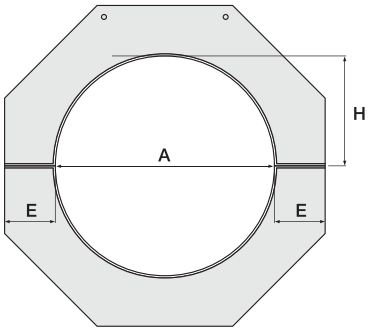
Venetian Arch Lintel

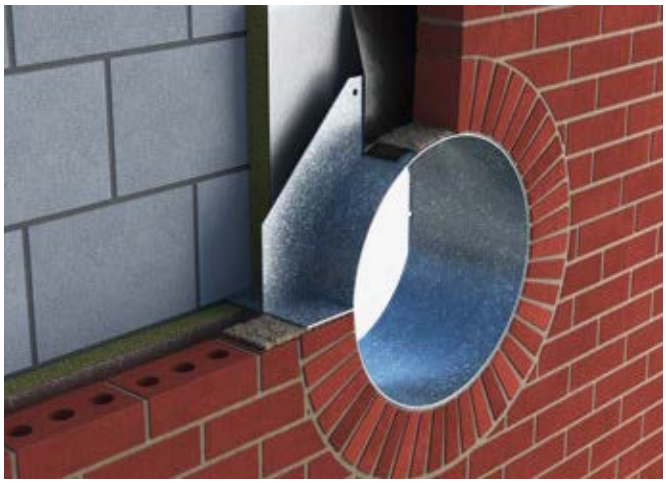
The Venetian arch lintel enables the formation of a classic design consisting of a three-part window composed of a large, arched central section flanked by two narrower, shorter sections having square tops.

Bull's-eye Lintel

The bull's-eye lintel enables the creation of circular window openings and portholes.





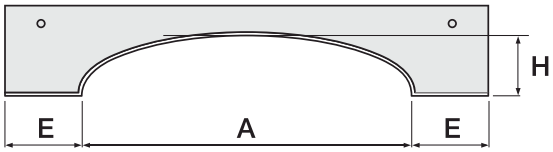


Special Lintels

Arches

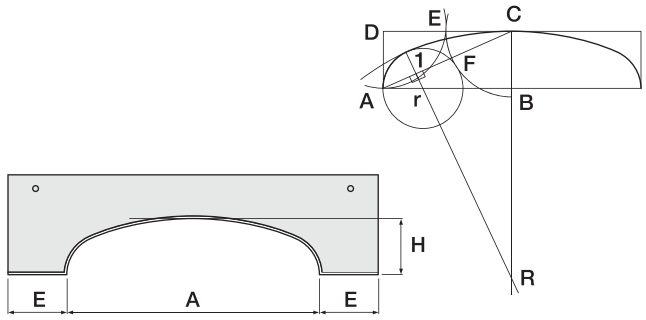
Elliptical Arch Lintel

The elliptical arch lintel enables the creation of a wider, shallower arch opening compared to that offered by the traditional steeper semicircular arch. The elliptical arch is formed by multiple arcs each of which is drawn from its own centre compared to a roman arch which is a semicircular arc drawn from a single centre point.



Parabolic Arch Lintel

The parabolic arch lintel enables the creation of openings with an artistically distinctive softer curvature than offered by a traditional, elliptical or gothic arch. The parabolic arch is formed by the creation of an arch in the form of the intersection of a cone with a plane parallel to the side of the cone, like a three-centred arch. To construct a parabolic curve please see the illustration above.



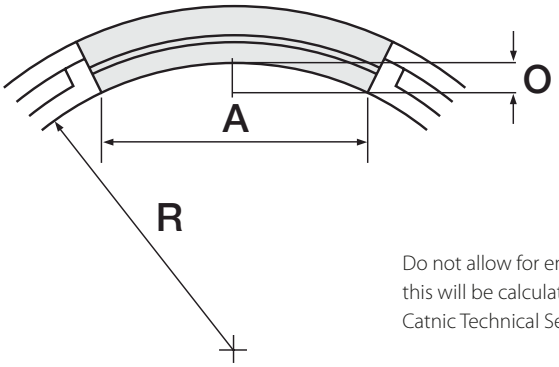
Draw rectangle ABCD. Make DE = DA. Make CF = CE. Bisect AF to make point 1. Project a right angle off AF at point 1 to find small radius r and project further to find large radius R.

Special Lintels

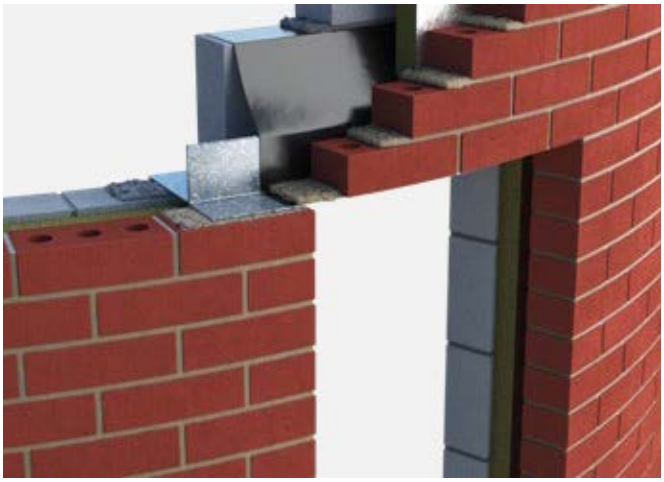
Curved

Curved On-Plan Lintel

The curved on-plan lintel (sometimes known as radius lintel or bow lintel) enables the creation of curved walls with openings. Curved lintels can be manufactured to suit customer specified radii.



Do not allow for end bearings this will be calculated by Catnic Technical Services.

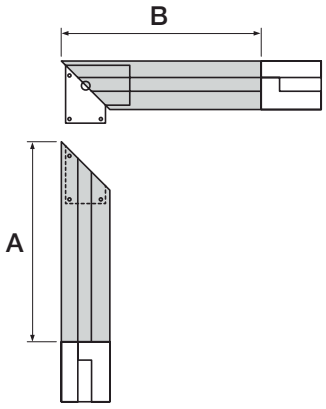


Special Lintels

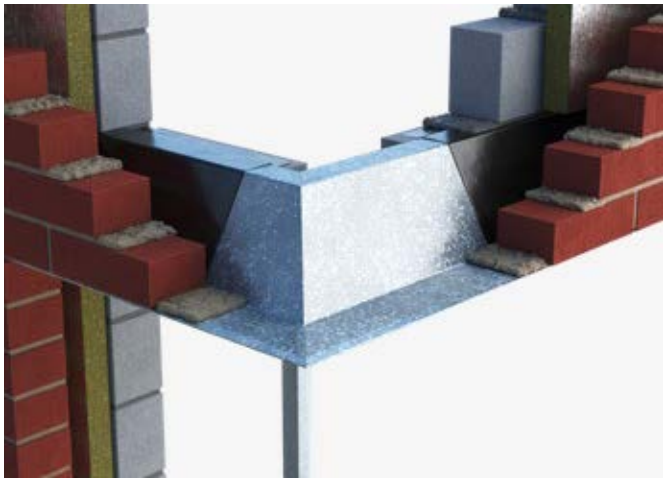
Corner

Corner Lintel

The mitred corner lintel enables the appearance of an unspoiled window openings on two perpendicular walls of a room. Corner lintels can be supplied with or without posts. When posts are required they come complete with spigots and base plates. Posts can be supplied to exact lengths or can be supplied over length, allowing them to be cut on site.



Do not allow for end bearings this will be calculated by Catnic Technical Services.

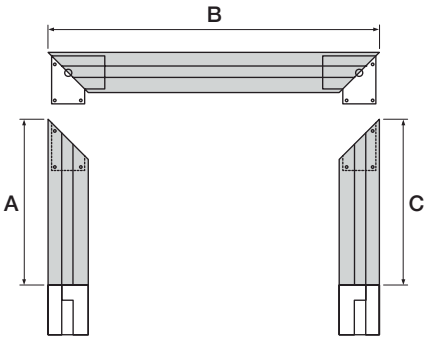


Special Lintels

Bay

Square Bay Lintel

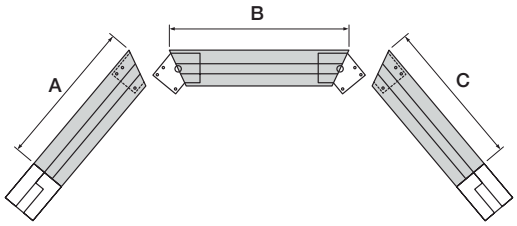
The square bay lintel uses perpendicular returns (90º angle) compared to the splayed bay lintel (greater than 90º angle) to create a window opening with three aspects. Square bay lintels can be supplied with or without posts. When posts are required they come complete with spigots and base plates. Posts can be supplied to exact lengths or can be supplied over length, allowing them to be cut on site.



Do not allow for end bearings this will be calculated by Catnic Technical Services.

Splayed Bay Lintel

The splayed bay lintel projects the wall forward from the confines of the rest of the room to create an opening that attempts to make use of every last ray of sunshine. Introduced during the Georgian period, made popular in Victorian times and carried on in Edwardian housing the bay window is a realisation by architects that windows with three aspects could improve the outlook of living rooms. Splayed bay lintels can be supplied with or without posts. When posts are required they come complete with spigots and base plates. Posts can be supplied to exact lengths or can be supplied over length, allowing them to be cut on site.



Do not allow for end bearings this will be calculated by Catnic Technical Services.

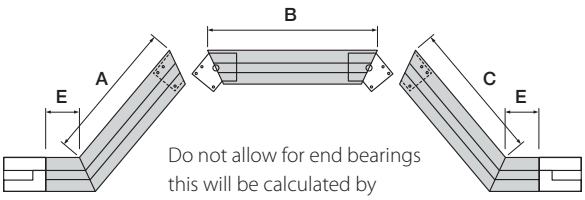
Special Lintels

Bay

Splayed Bay Lintel with return bearings

The splayed bay lintel with bearings projects the wall forward from the confines of the rest of the room to create an opening that attempts to make use of every last ray of sunshine. Introduced during the Georgian period, made popular in Victorian times and carried on in Edwardian housing the bay window is a realisation by architects that windows with three aspects could improve the outlook of living rooms.

Splayed bay lintels can be supplied with or without posts. When posts are required they come complete with spigots and base plates. Posts can be supplied to exact lengths or can be supplied over length, allowing them to be cut on site.



Do not allow for end bearings this will be calculated by Catnic Technical Services.

Accessories

Catnic is committed to offering a range of high quality accessories to enhance the performance of Catnic steel lintels and to make their application even easier.

Lintel Arch Centres – Type AC

A PVC-u arch unit for use over openings in external cavity walls – traditional and timber frame – providing permanent centring for brick arch construction.

Allows easy construction of segmental arches. Includes integral weep vent.

Material

Extruded from PVC-u for greater UV stability Catnic **Lintel Arch Centres** are designed to weather in accordance with the PVC-u windows. The design incorporates built-in weep vents for discharging the wind-driven rain that penetrates the external skin of a cavity wall.

Important note

If used with Catnic **Soffit Cladding**, the straight ends of the Arch Centre, which extend beyond the structural opening, should be removed before proceeding to stage vi. (see below)

This operation can also be carried out to avoid exposing the drip edge of the Arch Centre within the mortar joint at the bearing end. Cutting into the main body of the Arch Centre should not be carried out.

Installation Notes

i. Do not use damaged Arch Centres.

ii. Remove the Arch Centre from its protective wrapping.

iii. Check that the Arch Centre is correct for application (refer to the lintel specification).

iv. Ensure the Arch Centre and lintel mounting surfaces are clean and dry.

v. Locate the unit centrally over the opening to determine the position on the lintel. The front drip section should be trimmed off at the bearing end to allow for thin mortar joints and to enhance the appearance.

vi. Locate the unit on the lintel at position previously determined, ensuring a tight fit to the edge of lintel toe.

Arch Centres

Arch Centre Code	Arch Centre Span (mm)	Rise (mm)	Minimum Opening Sizes (mm)	Maximum Opening Sizes (mm)
ACA0475	450	75	450	500
ACA0625	600	75	600	650
ACA0675	650	75	650	700
ACA0875	850	75	850	900
ACA0925	900	75	900	950
ACA1075	1050	75	1050	1100
ACA1225	1200	75	1200	1250
ACA1375	1350	75	1350	1400
ACA1475	1450	75	1450	1500
ACA1625	1600	75	1600	1650
ACA1775	1750	75	1750	1800
ACA2125	2100	150	2100	2150
ACA2325	2300	150	2300	2350
ACA2425	2400	150	2400	2450

All lengths between 475 and 3125 mm are available in standard 50 mm increments to suit a 75 mm rise.
All lengths between 1925 and 3125 mm are available in standard 50 mm increments to suit a 150 mm rise.

Lintel Soffit Cladding – Type RC and FC

Lintel Soffit Cladding type RC and FC come in 96mm/108mm widths respectively.

For improved protection

Lintel Soffit Cladding also provides extra protection, especially in coastal regions and in situations where much of the lintel soffit is exposed.

Material

A PVC-u pre-cut unit, supplied in white (FC and RC) or brown (FC only).

For improved appearance

An optional cladding, particularly suitable for use with PVC-u windows. The cladding was originally designed to give a more aesthetically pleasing appearance to rebated combined box lintels. These advantages have now been extended to cover all flush soffit lintels.

Important Note

All external wall lintels fitted with lintel cladding must be installed with a flexible damp proof course (DPC) ensuring that the DPC projects beyond the front face of the cladding.

Lintel Stop Ends – Type CL3 and C90

For eliminating problems associated with moisture penetration. Wind-driven rain that penetrates the external skin of a cavity wall will, under normal conditions, discharge off the ends of conventional lintels.

However, with full fill cavity insulation and in areas of severe exposure, large volumes of water can be released from lintel ends into and through insulation, creating dampness at internal reveals. Catnic Stop Ends prevent this problem.

Use **CL3 Stop Ends** (see Figure 1) for lintels with a fully inclined face within the cavity (combined lintels or **CH** and **CX** lintels).

Use **C90 Stop Ends** (see Figure 2) for all lintels with a 90° brickwork/ blockwork support flange (for use with CG, TS, TH & TX lintels).

Technical requirements

NHBC Standards: Where fairfaced masonry is supported by lintels: cavity trays or combined lintels should have stop ends.

Zurich Municipal: To prevent water running into the adjacent cavity, cavity trays should have 75mm deep stop ends located to coincide with the perpend nearest to the end of the cavity tray.

Material

Durrpolyethylene 6/A for type CL3.
BS polypropylene for type C90.

Figure 1: **Lintel Stop End type CL3** for use with combined lintels or **CH** and **CX** lintels

Figure 2: **Lintel Stop End type C90** for use with **CG, TS, TH, TX** and external solid lintels

Installation Notes

i. Ensure the lintel surface is clean and dry.

ii. Remove the protective covering to the length of the anchoring strip on the bottom of the stop ends.

iii. Position to suit the perpendicular joint nearest the lintel ends, ensuring that the base and back of the stop end fit snugly into the front upstand of the lintel face.

Important Note

Cavity weep holes should be provided over all lintels fitted with stop ends. Stop ends type CL3 can be applied to lintels designed for cavity wall construction with a maximum 100mm cavity, although they will suit cavities up to 150mm wide, providing the lintel upstand rises to 225mm.

Cavity Weep Vents – Type WV

For ensuring removal of water from cavities.

DPC and cavity tray installations over openings require weeps to discharge collected water from the cavity above. Cavity Weep Vents also assist in draining interstitial condensation, which can contribute to moisture tracking across the cavity.

The design of Cavity Weep Vents type WV also provides an aesthetically pleasing solution, as the front face of the weep vent blends unobtrusively into the masonry.

Technical requirements

NHBC Standards: Where fairfaced masonry is supported by lintels: weep holes should be provided at maximum 450mm intervals. Each opening should have at least two weep holes

Zurich Municipal: In localities of moderate exposure or worse, or where full cavity fill is used, cavity trays should be adequately drained through weep holes spaced at no more than 1 metre apart, with at least two per opening.

Material

BS Polypropylene in grey, beige and terracotta to match mortar.

Cavity Weep Vent type **WV** available in terracotta, beige and grey

Important Note

Cavity weep holes should be provided over all lintels fitted with stop ends or separate DPC tray supplied by other manufacturer.

External Plaster Key - Type PKS87

Manufactured from galvanised steel to BS EN 10346:2009 of grade Z275 the external plaster key provides a secure key for a rendered finish.

Application

Suitable for use with Cougar lintels **(CG, CH, CX)** timber frame lintels **(CTF5, CTF7, CTF9, CN23)**, thermally broken lintels **(TS, TH, TX)** and External solid wall lintels **(CN71 and CN81)**.

Storage

Unless required immediate use on site the product should be stored in a clean dry environment.

Installation Notes

External plaster key simply clips into place and is secured using a full length of adhesive bead (supplied by others). The PKS87 Plaster Key MUST be fitted to the lintel before the lintel is installed.

i. Ensure plaster key mounting surface and under side of lintel is clean, dry and free from grease and dirt.

ii. Locate plaster key centrally over lintel.

iii. Apply a 6mm bead of adhesive along the full length of plaster key in accordance with adhesive manufacturers instructions.

iv. Locate the plaster key against the toe of the lintel at the position previously determined and rotate onto lintel, apply downward pressure to ensure full adhesive contact to both surfaces.

v. Pull surfaces apart to allow adhesive to dry for 10-15 minutes.

vi. Reposition the plaster key onto the lintel base (as step iv) applying uniform pressure over the lintel length.

vii. A strong initial bond is achieved whilst full bond strength results in 48-72 hours.

Technically Superior Products

Catnic is committed to innovation and constant improvement to meet the changes in building regulations.

Leaders in Technical Innovation

Our rigid adherence to quality control & compliance is your guarantee of technical superiority.

Quality

Catnic are committed to quality control and is a BSI registered company with quality management systems in accordance with BS EN ISO 9001: 2015, which provide a set of processes that ensure:

- Clarification and documentation of policies and objectives
- Reduce waste relating to customers' requirements to production with a view to achieving customer satisfaction
- Understanding how statutory and regulatory requirements impact on Catnic and our customers
- Clear responsibilities and authorities - increasing motivation and commitment
- Consistency and traceability of products and services
- High level of internal and external communications

Material Specification

Catnic's standard lintels are manufactured from high quality grade galvanised steel to BS EN 10346: 2009 Z275, with a black coloured polyester resin finish. Catnic's CXL lintels and special lintels are manufactured from structural grade steel plate of grade S275 to BS EN 10025-2: 2004 and hot-dip galvanised after manufacture to BS EN ISO1461: 2009.

Catnic's stainless steel lintels are manufactured from austenitic stainless steel (chrome nickel alloys) grade 1.4301 (304) and do not require any further corrosion protection.

Thermal Performance / Insulation

All Catnic lintels for traditional external cavity walls are supplied fully insulated. Insulation extends continuously along the full length of the lintel, leaving no potential thermal bridges and cannot be dislodged.

Structural Performance

The structural data published in the loading tables included in this technical guide, was achieved in accordance with the requirements of BSEN 845-2:2013+A1:2016 and BS EN 845-2: 2003.

Independent Testing

Extensive testing was undertaken at the following test houses:

- The University of Wales, School of Engineering
- The University of South Wales, Commercial Services Centre for Engineering, Research and Environmental Applications (CEREA)
- Ceram Building Technology, Stoke-on-Trent

Fire Testing

Catnic lintels have been independently tested in accordance with the relevant parts of BS 476, Methods of Determination of the Fire Resistance of Loadbearing Elements of Construction.

Environment and Sustainability

Catnic are committed to protecting the environment by minimising the impact of our operations and our products through the adoption of sustainable practices and through continuous improvement in environmental performance and control. Further details can be found on page 61.

Regulatory authorities approval

Catnic's excellence is internationally recognised.

Catnic lintels have gained the approval of the regulatory authorities both in the domestic and international markets. Such wide-spread comprehensive approval is an assurance to designers, specifiers and builders of the reliability and state-of-the-art quality of the Catnic range.

BSI Kitemark
Catnic steel lintels have been awarded the BSI Kitemark license number KM 07234.

BBA Certification
Catnic steel lintels are certified by the British Board of Agrément under certificate number 91/2638.

Fully Part L Compliant
Catnic steel lintels comply with Parts L1 and L2 of the Building Regulations Approved Documents. LABC in England and Wales.

BES 6001 Certification
Catnic lintels are the first of its type to have been certified as responsibly sourced from the iron ore supply to installation.

Local Authority Building Control (LABC)
Catnic steel lintels are compliant with current UK Building Regulations and therefore meet the requirements of the LABC in England and Wales.

National House Building Council (NHBC)
Catnic steel lintels meet NHBC technical requirements.

The Environment

Our products are durable, adaptable, reusable and recyclable. Through our research and development activities, we are committed to achieving continual improvement in our environmental performance and pollution prevention, and in supporting government policy for sustainable development.

The Environment

We consider care for the environment to be essential both in terms of our duty to society and to ensure the continuity of our business.

Environmental Policy

In 2010 Catnic achieved the Environmental Management Standard ISO14001 recognition of its environmental management policy.

Our products are durable, adaptable, reusable and recyclable. Through our research and development activities, we are continuing to develop products that give additional social and environmental benefits to our customers and society as a whole. However, Catnic recognise that in our day to day operations we impact upon the environment in a number of ways.

Therefore we are committed to achieving continual improvement in our environmental performance and pollution prevention and in supporting government policy for sustainable development.

In particular we will:

- Integrate environmental management into all our business activities.
- Ensure compliance with all relevant local, national and international legislation and regulations.
- Ensure all staff , including contractors, actively supports our environmental programmes.
- Communicate our environmental policy to all interested internal and external parties and respond appropriately to requests for information.

We will seek to reduce our environmental impacts and improve sustainability through improvements in :

- Energy efficiency and water consumption.
- Waste management and in particular a reduction of the amount of waste we send to landfill.
- Contract management and purchasing.

This policy will be reviewed at least annually and will form the basis of all future environmental improvements.

Global Warming Potential(GWP)

The expanded polystyrene (EPS) incorporated into our pre-insulated lintels does not use, contain or produce formaldehyde, CFC's or indeed any so called soft CFC's (i.e. HCFC's and HFA's).The manufacturer of our insulation product have quoted a GWP < 5 for the finished product.

Ozone Depletion Potential (ODP)

The product conforms to the Montreal Protocol and has an ozone depletion potential of zero. The material content and manufacture of EPS has no major negative impact on the environment.

Health and Safety Policy

Catnic actively work towards Tata Steel's own international safety rating system and have one of the highest scores amongst all Tata Steel manufacturing sites in the UK.

- We believe that all our activities can be undertaken safely and we will never compromise safety.
- We will conduct our business in a way that ensures the health and well-being of our employees, contractors and any person affected by our activities.
- Everyone in Tata Steel has responsibility for their own and others' health and safety.
- We know that continuous improvement of our health and safety performance is essential for a successful company.
- We will encourage a health and safety culture in Tata Steel. Copies of the Catnic Environmental Policy are available on request or can be downloaded at catnic.com/environmental.

Help when you need it

Fully committed to providing first class service support.

Technical Service Package

The Catnic service package includes:

- Experienced and dedicated team of lintel sales representatives
- Fully trained, professional internal customer support team for all your needs; from placing orders, to enquiring about prices or deliveries
- Comprehensive range of back-up literature
- On-line help via catnic.com
- Full range of BIM / CAD files available to download on catnic.com
- Technical enquiry forms to accompany your drawings ensuring necessary information is received and turned around in a timely manner
- On-site sales and technical support when required
- Technical hotline for all queries
- Dedicated hauliers for all your deliveries
- Consultation at every stage of your job
- Lintel scheduling and specification via CLASS
- Next day delivery available on selected items
- Extensive range of standard and bespoke lintels

Technical support

Experienced engineers qualified in construction enable Catnic to offer an advisory service to anyone engaged on building projects, regardless of size, from a private house extension, to a major housing development or commercial building.

Free scheduling service

CLASS – The Catnic Lintel Advanced Scheduling System is the most comprehensive, enviable lintel scheduling service available.

One concise document leaves no room for confusion or misunderstanding.

CLASS clearly provides:

- A description of each lintel, its location, price and delivery time
- Guaranteed structural accuracy
- A site summary

To access the benefits of CLASS visit www.catnic.com/products/lintels/request-a-free-schedule and upload your project details today or simply send your project drawings (dimensional plans, sections and elevations), floor and carcass layout, (along with a copy of the technical enquiry form in the back of this Product Selector) to our Technical team.

Design service for bespoke lintels

In addition to its standard range, Catnic design and manufacture a huge range of 'specials'. The bespoke range is designed and fabricated to satisfy features such as long spans, chamfered brickwork, reduced toe lintels for cant bricks, arched openings and other applications where non-standard construction is utilised. For further information please turn to page 48 of this guide.

Catnic is committed to providing the building industry with new and improved products, borne from investment in design and manufacturing technologies.

BES 6001

Catnic is the first lintel manufacturer to be certified to BES 6001 so you can rest assured that you are specifying/using a sustainable product and can maximise the potential for obtaining credits under the Responsible Sourcing of Materials sections of BREEAM, the Code for Sustainable Homes and CEEQUAL. Certification of all our steel construction products to BES 6001 provides independent verification of our corporate responsibility, including the way we drive sustainability considerations up the supply chain to the point of raw material extraction. It delivers a method for us to benchmark and show that we are continuously improving our sustainability credentials.

Catnic's sales and technical teams are dedicated to matching the quality of our products with the excellence of our service, from the professional voice at the end of the telephone to our on-site consultation.

Full service support for customers Catnic has been at the forefront of lintel design for over 40 years. Our reputation for exceptional quality and technical expertise has ensured customers satisfaction and loyalty in the products and services that we off er.

Catnic's team:

- Are professional and experienced
- Are extensively trained
- Have comprehensive product and industry knowledge
- Have a committed parent company - Tata Steel.

Where to use a separate DPC

To satisfy NHBC and Zurich Municipal technical requirements, Catnic lintels only require a separate DPC in severe exposure zones i.e. zones 3 and 4 of the map and as determined by BS 8104.

NHBC Amendments Oct 1992 require a separate damp proof protection for all lintels in Scotland, Northern Ireland, the Isle of Man and in areas of severe or very severe exposure to driving rain, as defined under BS EN 1996-1-2: 2010 and BD6697: 2010. The map indicates typical exposure categories. In such cases, a cavity tray/damp proof protection should provide an impervious barrier draining water outwards. It should have an overall minimum upstand of 140mm, returned to the inner leaf masonry and be so shaped that there is not less than 100mm vertical protection above a point where mortar could collect.

Where exposure conditions or local building regulations demand a separate DPC, Catnic cavity wall lintels not only provide additional protection against the elements but also act as a support and template for the DPC, making it easier to install and with less risk of damage. The DPC should project at least 25mm beyond the outer face of the cavity closer and vertical DPC.

It should provide drip protection for the door and window heads and cover the ends of the lintel to ensure moisture is shed clear of the reveals. For all coastal site applications where the soffit of the lintel is exposed, the use of a soffit cladding in conjunction with a separate DPC is highly recommended to improve appearance and extend normal maintenance periods.

Exposure Zones	Approximate wind driven rain (litres/m² per spell)
1 (sheltered)	Less than 23
2 (moderate)	33 to less than 56.5
3 (severe)	56.5 to less than 100
4 (very severe)	100 or more

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Guide to safe storage and handling

All products should be used in accordance with their specific instructions to prevent failure.

Storage

- All products should be stored in a clean and dry environment on a firm even surface, clear of the ground
- Single lintels should be stored on pallets or suitable racking and prevented from being accidentally dislodged
- Remove all metal strapping with care and discard safely and responsibly

Handing

- Gloves should be worn to avoid injury from any sharp edges
- When lifting or carrying a lintel, under take a personal risk assessment paying attention to the size and weight details found on the product label
- Processes such as welding, burning, cutting or grinding can result in vaporising the metal or generating airborne particles that may present additional hazards

Application

- Do not use damaged goods
- Refer to Installation Guides detailed on pages 16 and 17 for Cavity wall installation guidance, and page 37 for Timber frame installation guidance

Disposal

- When disposing of any Catnic products or packaging, due consideration must be given to the environmental impact of the method of disposal

Control of Substances Hazardous to Health Regulations 1994 (COSHH)

- All products are considered non-hazardous to health under normal conditions of use
- Copies of COSHH sheets are available on request

Technical Information

The Research, Development and Technology business of Tata Steel combines top class innovation and cutting edge technology to deliver 'metals solutions' in a constantly changing world.

Structural performance

The structural data published in the loading tables included in this technical guide, was achieved in accordance with the requirements of BS EN 845-2: 2013 + A1: 2016.

Extensive testing was undertaken at the following test houses:

- The University of Wales, School of Engineering
- The University of South Wales, Commercial Services Centre for Engineering, Research and Environmental Applications (CEREA)
- Ceram Building Technology, Stoke-on-Trent

Safe working loads (SWL)*,

As defined by BS 5977: Part 2: 1983 for cavity wall lintels refer to uniform distributed loads applied in the inner to outer leaf ratios:

- 1:1 for lintels supporting masonry only
- 3:1 for lintels normally carrying timber floors
- 5:1 for lintels normally carrying concrete floors

The CH, TH, CX, and TX lintel range refers to uniformly distributed loads in the ratio of 19:1 when nonstandard or unusual loading conditions occur.

A lintel should not exceed a maximum vertical deflection of 0.003 x the effective span (effective span = distance between centre of bearings) when subjected to the safe working load (SWL).

* The brochure SWL's are based on the lesser value derived from a serviceability deflection limitation of:

Fire tests

Catnic lintels have been independently tested in accordance with the relevant parts of BS 476, Methods of Determination of the Fire Resistance of Loadbearing Elements of Construction.

Details of the test results can be found in TRADA (Timber Research and Development Association) Nos. FR254, 275, 659, 863, 1662 and RF94015 and FROSI (Fire Research Organisation) No. 5001.

We use up to the minute technology to expand and improve the quality of our performance; we continually invest in and upgrade our manufacturing processes and use the latest methods in process analysis and design.

Glossary of technical terms

Lintel

A structural member spanning an opening in a wall.

Clear span or Clear opening

The clear distance between lintel supports.

Safe working load (SWL)

The total uniformly distributed load (UDL) that the lintel is designed to support, whilst providing an appropriate safety factor.

Triangulated masonry load

A load assessed in accordance with the guidelines of BS 5977 Part 1: 1981 and AMD 4796: 1985.

Uniformly Distributed Load (UDL)

A load that is uniformly spread along the entire length of the lintel.

Point load

The load applied from a single member such as a steel beam or girder truss. It should be spread over an appropriate area so that the limiting design values are not exceeded.

Moment of inertia (Ixx)

Represents the moment of inertia or second moment of area of the lintel section about a horizontal axis through the lintel centroid indicating the stiffness of a lintel under a given load and indicative of the lintel shape. The greater the Ixx level, the stiff er the lintel will be and hence the less a lintel will deflect.

Deflection (δ)

Vertical/horizontal displacement of the lintel due to bending about the vertical/ horizontal axis.

Modulus of elasticity (Zxx min)

The section Modulus of the lintel about a horizontal axis, when multiplied by the permissible working stress, the resultant value is the serviceability moment.

Serviceability reaction

The permissible load at an end support within the working load capacity of the lintel webs.

End bearing

The bearing length at lintel supports.

psi value

A psi value is the measure of additional heat loss at a linear junction in the building fabric and is measured in W/m^2K.

Material Specifications and Clauses

Steel Lintels

Cavity Walls

Provide insulated steel lintel with built-in damp proof course and integral plaster key, manufactured and designed in accordance with BS EN 845-2: 2003.

Cavity Walls			
Product Reference	**Catnic CG/TS**	**Catnic CH/TH**	**CatnicCX/TX**
Material	Z275 galvanised steel coated with Duplex Corrosion Protection system.		
Installation	Bed on mortar with a minimum 150mm bearing at each end. Raise inner and outer leaves of masonry together.		

CG, TS, CH, TH, CX and TX ranges

The lintels are manufactured from galvanised steel to BS EN 10346: 2015 (continuously hot-dip coated strip and sheet of low carbon steels and cold forming - technical delivery conditions) of grade Z275, but with a minimum yield stress of 250N/mm^2. The lintels are further protected against corrosion by a black coloured polyester resin coating applied to all external surfaces. The CG lintels are fully insulated with expanded polystyrene bead of density 18kg/m^3 giving a thermal conductivity of between 0.031W/mK and 0.036W/mK.

The CH and CX lintels are fully insulated with expanded polystyrene board manufactured in accordance with BS 3837: Part 1: 2004 (expanded polystyrene boards specification for boards manufactured from expandable beads). The material is CFC and HCFC free and has an ozone depletion potential (ODP) of zero.

Single Leaf Walls

Steel lintels manufactured and designed in accordance with BS EN 845-2: 2013 + A1: 2016.

Single Leaf Walls			
Product Reference	**Catnic ANG...**	**Catnic MBA...**	**Catnic CCS...**
Material	Z275 galvanised steel coated with Duplex Corrosion Protection system (CCS, ANG, MBA), or Z600 up to 2.4m for standard MBA and ANG. Galvanised coil is to BS EN 10346:2009.		
Installation	Bed on mortar with a minimum 150mm bearing at each end. When installing the masonry the lintels must be propped and laterally restrained during construction.		

MBA and ANG

The lintels up to 2400mm are manufactured from galvanised steel to BS EN 10346: 2015 (continuously hot-dip coated strip and sheet of structural steels – technical delivery conditions) of grade Z600. All external lintel cut edges are treated with a corrosion resistant paint. Lintels over 2400mm are further protected against corrosion by a polyester resin coating applied to all external surfaces of the lintel.

CCS range

The lintels are manufactured from galvanised steel to BS EN 10346: 2015 (continuously hot-dip coated strip and sheet of low carbon steels and cold forming – technical delivery conditions) of grade Z275, but with a minimum yield stress of 250N/mm^2. The lintels are further protected against corrosion by a polyester resin coating applied to all external surfaces of the lintel.

Other Applications

Provide insulated steel lintels with Duplex Corrosion Protection system, manufactured and designed in accordance with BS EN 845-2: 2013 + A1: 2016.

Other Applications	
Product Reference	**Catnic C...**
Material	Z275 galvanised steel, coated with Duplex Corrosion Protection system or Z600 galvanised steel.
Installation	Bed on mortar with a minimum 150mm bearing at each end. Raise inner and outer leaves of masonry together whilst propping and laterally restraining the lintel during construction.

CXL range

The lintels are manufactured from a universal beam section and 6.0mm structural grade steel plate grade S275 to BS EN 10025-2: 2004 and hot-dip galvanised after manufacture to BS EN ISO1461: 2009.

Timber Frame

Provide steel lintel with built in damp proof course, manufactured and designed in accordance with BS EN 845-2: 2013 + A1: 2016.

External Solid Wall/Internal and Timber Frame Styles	
Product Reference	**Catnic CTF...**
Material	Z275 galvanised steel coated with Duplex Corrosion Protection system.
Installation	Bed on mortar with a minimum 150mm bearing at each end. Install pinch batten and restraint clips to the timber frame as per manufacturer's instructions. Prop and laterally restrain the lintel during construction.

CN and CTF range

The lintels are manufactured from galvanised steel to BS EN 10346: 2015 (continuously hot-dip coated strip and sheet of low carbon steels and cold forming - technical delivery conditions) of grade Z275 but with a minimum yield stress of 250N/mm^2. The lintels (excluding internal lintels CN92 and CN102) are further protected against corrosion by a polyester resin coating applied to all external surfaces of the lintel. The lintels are insulated (where applicable) with expanded polystyrene board to BS 3837 Part 1: 2004 (expanded polystyrene boards – specification for boards manufactured from expandable beads).

Stainless Steel Lintels

Provide insulated stainless steel lintel with built in damp proof course and integral plaster key, manufactured and designed in accordance with BS EN 845-2: 2013 + A1: 2016.

Stainless Steel Lintels	
Product Reference	**Catnic C...**
Material	Austenitic Stainless Steel grade 304S15 to BS EN 10088-2 1.4301.
Installation	Bed on mortar with a minimum 150mm bearing at each end. Raise inner and outer leaves of masonry together.

Special Lintels

CCA and CCB range

The lintels are manufactured from 3.0mm structural grade steel plate of grade S275 to BS EN 10025-2: 2004 and hot-dip galvanised after manufacture to BS EN ISO1461: 2009.

Lintel Accessories

Lintel Accessories			
Reference	**Product**	**Description**	**Installation**
Catnic CL3 or C90	Stop ends	Provide lintel stop ends to cavity wall lintels	Insert lintel stop ends to suit lintel profiles on either end of the lintel. Position in the nearest perpend at/or beyond the end of the opening.
Catnic WV... colour...	Cavity weep vents	Provide lintel cavity weep vents to cavity wall lintels	Insert lintel cavity weep vents (ref: Catnic WV… colour…) at 450mm centres. At least two per opening to be installed.
Catnic ACA... or ACB...	Arch centres	Provide Catnic PVC-u Arch Centre	Install arch centre in accordance with manufacturer's fixing instructions.
Catnic RC... or FC...	Soffit cladding	Provide PVC-u lintel soffit cladding	Install lintel soffit cladding in accordance with manufacturer's instructions.

Catnic technical enquiry request form

Catnic endeavor to return enquiries at the soonest opportunity. If your enquiry is urgent please contact Technical Services on **029 2033 7900**.

Please ensure that the essential information (indicated in red) is provided, to enable a quick turnaround. Please return by fax on: **087 0024 1809**

* Mandatory Fields

Customer	Date
Name*	

Customer		Site	
Address*		Address	
Post Code*	Tel*	Post Code	Tel*
Email*	Fax	Email	Fax

Lintel Requirements*

	Special		Internals		Meter Boxes		Replace Steelwork

Wall Construction (Please fill in donations)

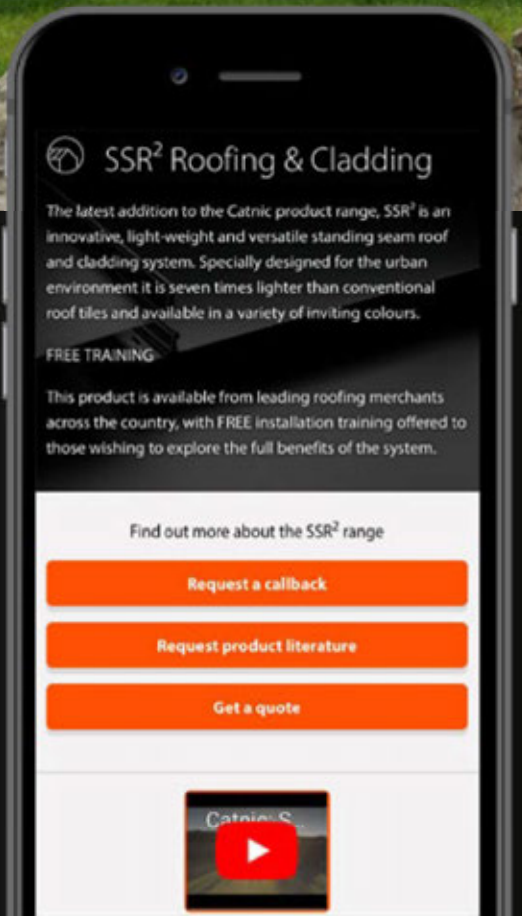
	Outer Leaf (mm)	Cavity Width Between Masonry (inc. insulation)	Inner Leaf (mm)
Brick			
Stone			
Dense block			
Lightweight block			
Medium block			
Timber frame			N/A
Steel frame		N/A	N/A

Is a separate damp proof course to be installed?		Yes		No
Please indicate whether outer leaf support is required at eaves level		Yes		No

Customer
Note

Please include the following (please tick)

	Plan/dimensions		Elevations (all)
	Sections (all)		Site plan (for summary)
	EITHER Suspended floor carcas timber		Roof carcas (for girder trusses)
	OR Suspended concrete floor span directions		Structural engineers steelwork arrangements
	Attic truss carcassing		



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