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April 2014			

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Lintel Product Selector

April 2014

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CATNIC - THE NAME TO BUILD A REPUTATION ON

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:

- 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
- Was the first 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.

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: 2008, 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 ISO 1461: 1999. 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 BS 5977: Part 2: 1983 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

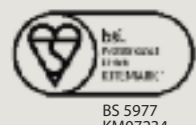
Catnic lintels have been independently tested in accordance with the relevant parts of BS 476, Methods of Determination of the Fire Resistance of Loadbearing Elements of Construction.

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 46.



Regulatory authorities approval Catnic's excellence is internationally recognised.



BSI Kitemark
Catnic steel lintels have been awarded the BSI Kitemark license number **KM07234**.



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.



Housing Association Property Mutual (HAPM)
Catnic steel lintels achieve 35+ years life to first maintenance to HAPM requirements.



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.

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.

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.

cougar Open Back Lintels

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.*

DUPLEX 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.

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 **CH/CX** lintels minimise cold bridging without affecting the structural performance.

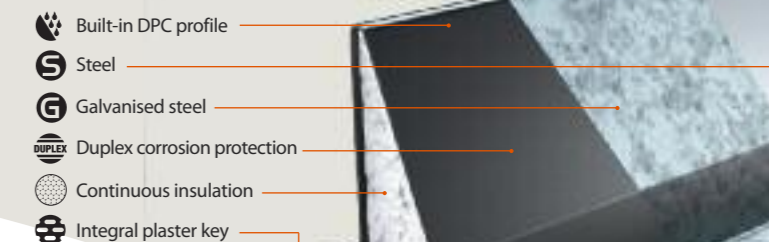
Continuous Insulation

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'.

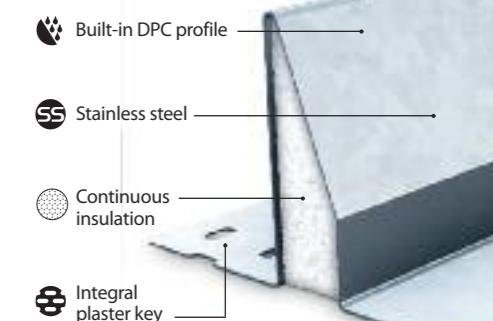
SS Stainless Steel Lintels

Catnic stainless steel lintels ensure a high degree of corrosion resistance without requiring additional protection. Manufactured from austenitic stainless steel (chrome nickel alloys) grade 1.4301 (304) to BS EN 10088-2 1.4301, they do not require any further corrosion protection and offer excellent corrosion resistance combined with high ductility and strength making it suitable for schools, hospitals and particularly aggressive environments. Stainless steel lintels incorporating our unique tray profile do not require a separate damp proof course.



PG Hot-Dipped Post Galvanised

All Catnic **CXL** lintels and fabricated lintels are fully submerged in a zinc bath after manufacture, to BS EN ISO 1461: 1999, fully protecting every surface, cut edge and weld with a metallurgically bonded zinc coating. The post-galvanisation provides protection from corrosion and eliminates the need for on-site painting or maintenance. Hot-dipped post-galvanised lintels require a separate damp proof course, regardless of profile shape.



* NHBC and Zurich Municipal technical requirements demand a separate DPC for severe exposure zones as determined by BS 8104. For further details refer to 'Where to use a Separate DPC' on page 48.

THERMAL PERFORMANCE

Open back lintel - design features:
Suitability of cavity wall lintels to meet the stipulated thermal performance requirements of Part L1 and L2 of the Building Regulations Approved Document.

Fully-insulated, reducing heat loss

Catnic cavity wall lintels are supplied fully insulated. To further minimise any thermal bridging the lintels are designed without a base plate or with a perforated base plate.

Catnic undertook its own assessment using a 'two dimensional steady state heat flow' analysis on the full standard range of cavity wall perforated lintels with the window frame overlapping the cavity by 30mm.

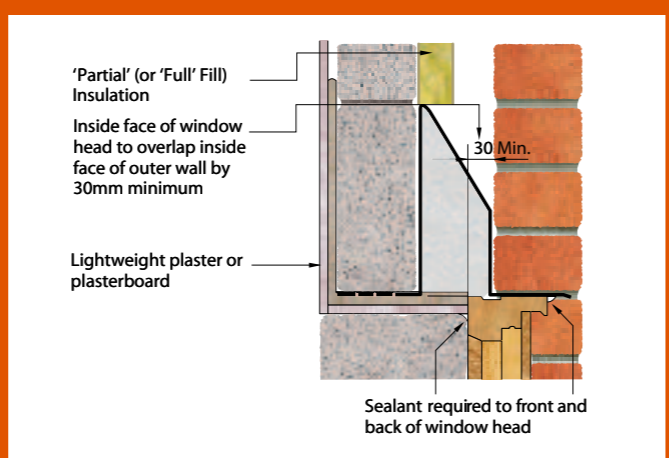
The results confirmed that the combination of a fully insulated lintel in conjunction with no base plate or perforated base plate ensures that Catnic Lintels comply with the necessary requirements of Part L of the Building Regulations 2010 where walls must have a U value of no more than 0.35 W/m²K.

For all applications a sealant should be provided at front and back of the window frame to improve air tightness. For designs incorporating lintels with unperforated base plates, suitable insulated lining is required.

Catnic's standard range of open backed lintels fall into two categories:

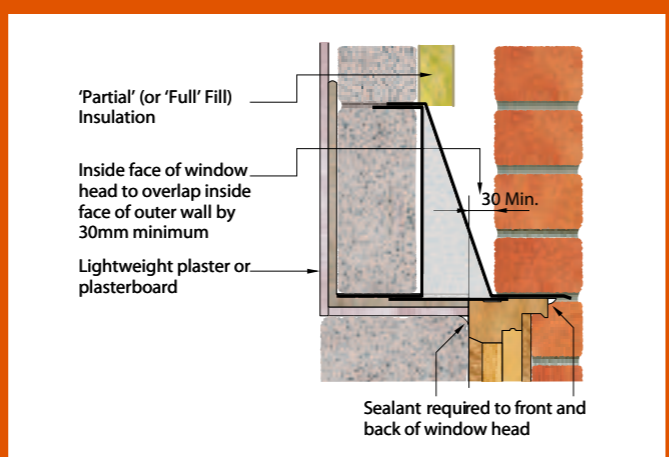
1 cougar Open back lintels without base plate
CG style lintel

Catnic **CG** lintels use unique, discrete brackets in place of a base. Depending on the wall construction, they can have a linear thermal transmittance ψ value of less than 0.21 W/mK. BRE Information Paper 1/06 states that steel lintels without a base plate, such as the **CG** lintel, can use the default linear thermal transmittance ψ value of less than 0.30 W/mK.



2 Open back lintels with a perforated base plate
CH and CX style lintel

Catnic **CH** and **CX** lintels incorporate a perforated steel base plate to help minimise cold bridging without affecting structural performance. The unique pattern of the perforated base plate provides an effective conductivity through the steel of less than 30 W/mK. BRE Information Paper 1/06 states that steel lintels with a perforated base plate, such as the **CH** and **CX** lintel, can use the default linear thermal transmittance ψ value of less than 0.50 W/mK.



LINTEL PSI VALUES

Part L1 of the Approved Building Regulations 2010 now takes into account non-repeating thermal bridging at junctions in the external wall of a dwelling and these thermal bridges need to be included in any SAP 2009 calculations through Psi values.

Catnic lintel Psi values

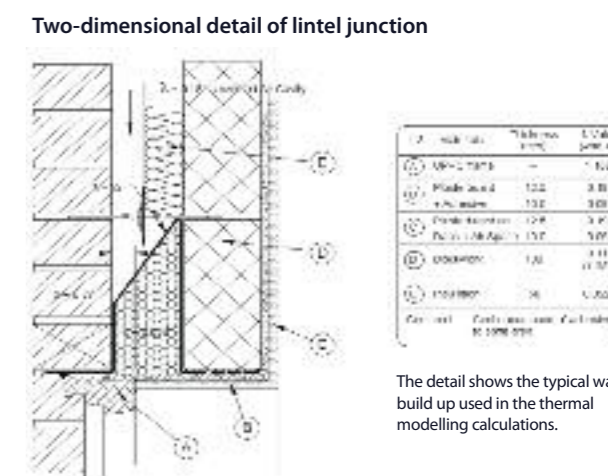
BRE IP 1/06 list the following default Psi values for cavity wall lintels covered under accredited construction details that can be used in SAP 2009 calculations.

Psi Values for cavity wall lintels (BRE IP 1/06)		
Junction detail in external wall	Default Psi value (W/m.K)	Catnic lintel style
Steel lintel with perforated base	0.5	CH, CX and Classics
Other Lintels	0.3	CG

These values are conservative to take account of the worse case scenario. However Catnic lintels have been designed to reduce thermal bridging and to illustrate this the following standard range of lintels have been independently thermally modelled: - The results, shown in the table below, highlight that the Catnic lintels perform much better than the default figures given in BRE IP 1/06.

Psi Values for cavity wall lintels			
Lintel	Lengths	Psi Value (W/m.K)	Temperature factor
CG90/100	900-1500mm	0.20	0.891
	1650-1800mm	0.21	0.879
	1950-2100mm	0.20	0.887
	2250-2400mm	0.19	0.894
	2550-2700mm	0.18	0.901
CH90/100	900-1800mm	0.327	0.792
	2100-2400mm	0.378	0.784
CX90/100	900-3000mm	0.361	0.785
	3300-4800mm	0.371	0.783

For the **CG90/100** lintel range the Psi values quoted take into account any additional heat loss that occurs through discreet brackets within the lintel.

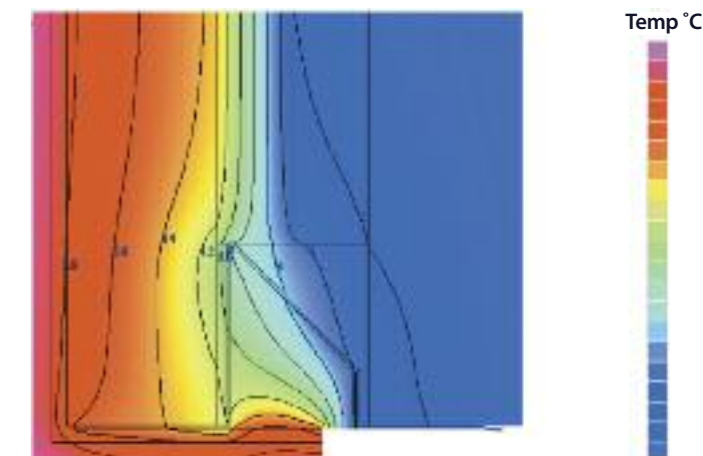


The detail shows the typical wall build up used in the thermal modelling calculations.

Using these figures in the SAP calculation will give significantly improved values for the target emission rate TER and dwelling emission rate DER compared to the default Psi values shown above or the default ψ values within SAP 2009. This will make it easier for architects to design dwellings that comply with Part L1A of the 2010 Building Regulations. These Psi values can be entered directly into SAP 2009 without any additional penalties.

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. The Catnic **CG**, **CH** and **CX** lintels all have temperature factors greater than 0.75.

Two-dimensional temperature distribution



Copies of the thermal model for each of the lintels listed are available on request.

HOW TO SELECT A LINTEL

You need to know **3** things:

1 Wall Construction



Cavity Wall

If the construction is a cavity wall, see the Open Back lintel section on pages 12 - 17. 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

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.

page 14 Cavity Wall Lintels Wide Inner Leaf

70-85mm Cavity Wall			70-85mm Cavity Wall (125-140mm WIL)		
Standard Duty CG70/100	Heavy Duty CH70/100	Extra Heavy Duty CX70/100	Standard Duty CG70/125	Heavy Duty CH70/125	Extra Heavy Duty CX70/125

page 16 Cavity Wall Lintels Wide Inner Leaf

110-125mm Cavity Wall			110-125mm Cavity Wall (125-140mm WIL)		
Standard Duty CG110/100	Heavy Duty CH110/100	Extra Heavy Duty CX110/100	Standard Duty CG110/125	Heavy Duty CH110/125	Extra Heavy Duty CX110/125

page 18 Cavity Wall Lintels Wide Inner Leaf

150-165mm Cavity Wall			150-165mm Cavity Wall (125-140mm WIL)		
Standard Duty CG150/100	Heavy Duty CH150/100	Extra Heavy Duty CX150/100	Standard Duty CG150/125	Heavy Duty CH150/125	Extra Heavy Duty CX150/125

page 20 Extreme Loading Cavity Wall Lintels

50mm Cavity	70mm Cavity	90mm Cavity	110mm Cavity	130mm Cavity	150mm Cavity
Extreme Duty CXL240	Extreme Duty CXL265	Extreme Duty CXL290	Extreme Duty CXL310	Extreme Duty CXL330	Extreme Duty CXL350

page 13 Cavity Wall Lintels Wide Inner Leaf

50-65mm Cavity Wall			50-65mm Cavity Wall (125-140mm WIL)		
Standard Duty CG50/100	Heavy Duty CH50/100	Extra Heavy Duty CX50/100	Standard Duty CG50/125	Heavy Duty CH50/125	Extra Heavy Duty CX50/125

page 15 Cavity Wall Lintels Wide Inner Leaf

90-105mm Cavity Wall			90-105mm Cavity Wall (125-140mm WIL)		
Standard Duty CG90/100	Heavy Duty CH90/100	Extra Heavy Duty CX90/100	Standard Duty CG90/125	Heavy Duty CH90/125	Extra Heavy Duty CX90/125

page 17 Cavity Wall Lintels Wide Inner Leaf

130-145mm Cavity Wall			130-145mm Cavity Wall (125-140mm WIL)		
Standard Duty CG130/100	Heavy Duty CH130/100	Extra Heavy Duty CX130/100	Standard Duty CG130/125	Heavy Duty CH130/125	Extra Heavy Duty CX130/125

page 19 Wide Outer Leaf

50mm Cavity 140-150mm WOL	75mm Cavity 140-150mm WOL	100mm Cavity 140-150mm WOL
Standard Duty CN42C	Heavy Duty CN99/124C	Extra Heavy Duty CN99/1644C

page 21 Closed Eaves Cavity Wall Lintels

50-85mm Cavity	90-125mm Cavity	50-75mm Cavity	
Standard Duty CGE50/100	Standard Duty CGE90/100	Heavy Duty CN55A	Extra Heavy Duty CN55C

Product Selector

With over 10,000 variations available to choose from, there's a design to suit any size, shape, length, breadth and depth of doorway, archway, window or aperture.

A LINTEL FOR EVERY APPLICATION

Wall Construction

page 24 Timber Frame Cavity Wall Lintels

50-65mm Cavity Wall	70-85mm Cavity Wall	90-105mm Cavity Wall
Standard Duty CTF5	Standard Duty CTF7	Standard Duty CTF9

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 24 - 26.



page 27 Single Leaf Lintels

102mm Exterior Solid Wall		
Light Duty MBA	Standard Duty ANG	Standard Duty CCS

page 28 External Solid Wall Lintels

200 and 215mm Solid Walls		215mm Fairface Brick Wall
Standard Duty CN71A	Heavy Duty CN71C	Standard Duty CN50C
Standard Duty CN81B		Standard Duty CN51C
Heavy Duty CN81C		
Heavy Duty CN99/394C		

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 27 - 29.



NEXT DAY DELIVERY available

Terms and conditions apply

page 30 Internal Solid Wall Lintels

75mm	100mm Solid Wall	100mm Solid Wall	140mm Solid Wall
Extra Light Duty CN92	Extra Light Duty CN102	Light Duty CN100	Standard Duty BSD100
Heavy Duty BHD100		Extra Heavy Duty BXD100	Standard Duty BSD140
Heavy Duty BHD140		Extra Heavy Duty BXD140	

Internal Partition & Load Bearing Wall

Lintels for internal partitions and load bearing walls (pages 30-31) 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.



page 34 Special Lintels

50-100mm Cavity Wall	Any Wall Construction		
Standard Arch Lintels	Bespoke Arch Lintels	Bay Window Lintels	Corner Lintels

page 43 Accessories

Corrosion protection	Aesthetics	Moisture Control		
Soffit Cladding	Arch Centres	External Plaster Key	Stop Ends	Weep Vents

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).

Can't find what you're looking for?

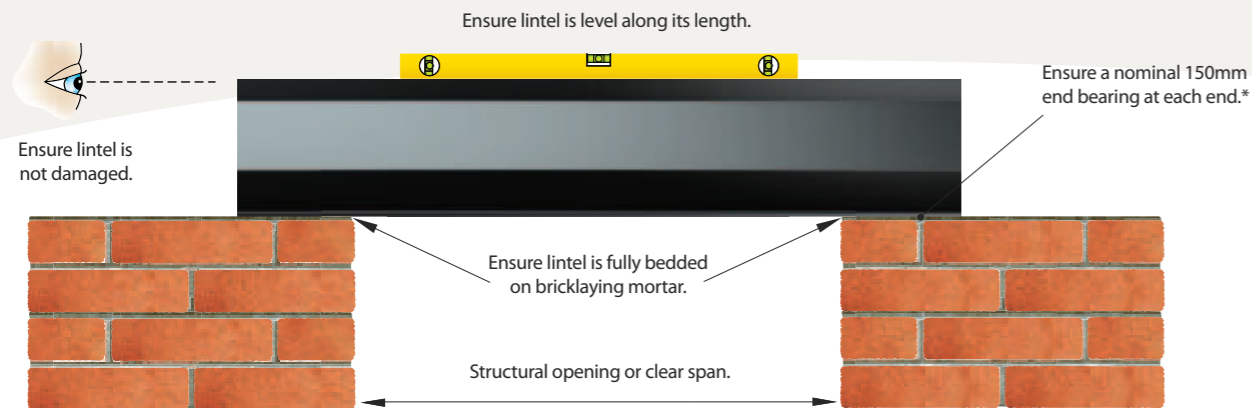
Contact Catnic
Technical Services on
029 2033 7900

3 Applied Load

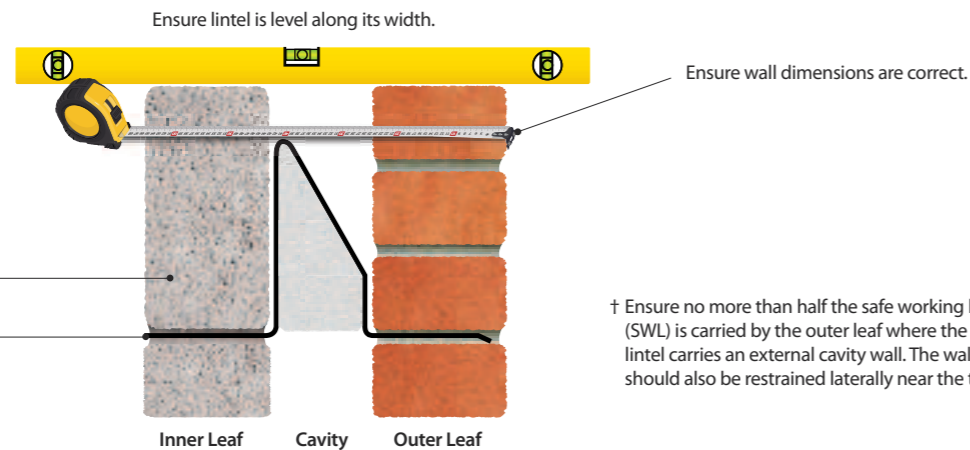
All lintels are designed to carry a specific safe working load (SWL). If you are not skilled in the method of load assessment, or the load has not been supplied to you by a third party, for advice please contact Catnic Technical Services.

CAVITY WALL LINTEL INSTALLATION GUIDE

Catnic is committed to trouble free installation.



In cavity walls, raise inner and outer leaves supported by lintel together.†



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.



* 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

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.

? DO

- Install a separate DPC in severe exposure conditions. A Catnic Cougar open back lintel with an additional DPC membrane installed in accordance with normal practice provides the best possible protection (page 48).
- 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 Cougar 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 and CX 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.
- Do not cut CG type lintels under any circumstances.
- Apply point loads directly onto lintel flanges.

- 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 and CX 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.

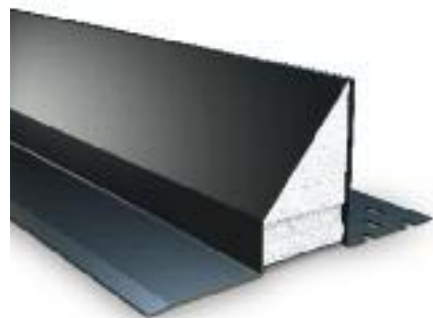
CAVITY WALL OPEN BACK LINTELS

Catnic is committed to offering brand leading steel lintels to suit any size, shape, length, breadth and depth of doorway, archway, window and aperture

Open Back Lintels

Two styles are available from Catnic for use in cavity wall construction: 'CG (Cougar)' lintels and 'CH and CX' lintels incorporate insulation, built-in plaster key and built in DPC.

1 CG cougar



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

Note: 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.

2 CH and CX



As CG lintels, plus:

- Supports concrete floors
- Attic truss loads
- Larger span multiple truss 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' (page 10).

Note: For a definition of these terms see the Glossary of Technical Terms on page 49.

Benefits

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

Materials used in Lintels
The CG, CH and CX 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 48)

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

Accessories
Arch Centres, Stop Ends, Cavity Weep Vents, Soffit Cladding (refer to page 43).



Where CH and CX lintels are required to support greater loads than the figures published please contact our Technical Services Department on

029 2033 7900

OPEN BACK LINTELS

CG, CH & CX
50-65mm
CAVITY WALL

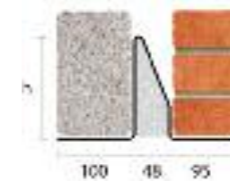
50-65mm Cavity 100-115mm Inner Leaf

All ratios are shown inner to outer

Standard Duty



Standard lengths are available in 300mm increments.

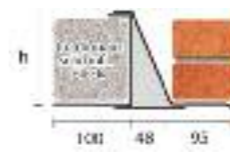


CG50/100	900-1500	1800	2100	2400	2700	3000-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	5.8	7.6	8.0	8.7	10.0	12.5
Nominal height 'h' (mm)	140	140	160	180	220	220

Heavy Duty



Standard lengths are available in 150mm increments.

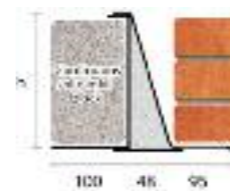


CH50/100	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	10.5	13.1	13.1
Nominal height 'h' (mm)	157	157	157

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	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

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

Concrete Floor Loads

When using the Catnic CH and CX 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 11.

Note: To achieve the CH and CX 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.

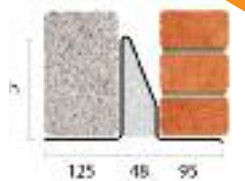
50-65mm Cavity 125-140*mm Wide Inner Leaf

* For CG lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 10-11.

Standard Duty



Standard lengths are available in 300mm increments.

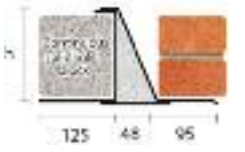


CG50/125*	900-1200	1500-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	6.4	8.0	9.2	12.9
Nominal height 'h' (mm)	140	140	180	220

Heavy Duty



Standard lengths are available in 150mm increments.

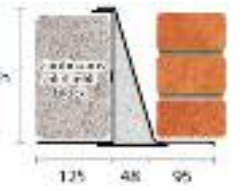


CH50/125	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	10.7	13.4	13.4
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty



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



CX50/125	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

CG, CH
& CX
70-85mm
CAVITY
WALL

OPEN BACK LINTELS

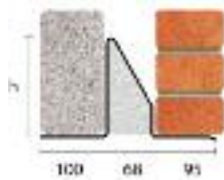
70-85mm Cavity 100-115mm Inner Leaf

All ratios are shown
inner to outer

Standard Duty



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

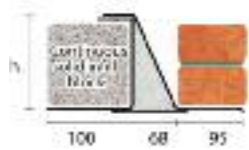


CG70/100	750-1500	1650-1800	2100	2400	2700	3000-3600
Standard lengths (mm)						
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	6.0	7.5	8.1	8.7	10.0	12.5
Nominal height 'h' (mm)	140	140	160	180	220	220

Heavy Duty



Standard lengths are available in 150mm increments.

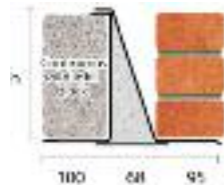


CH70/100	900-1800	1950-2100	2250-2400
Standard lengths (mm)			
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	10.9	13.6	13.6
Nominal height 'h' (mm)	157	157	157

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	900-2700	2850-3000	3300-3900	4200-4800
Standard lengths (mm)				
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

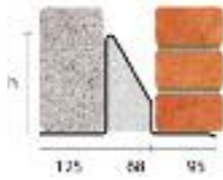
70-85mm Cavity 125-140*mm Wide Inner Leaf

* For CG lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 10-11.

Standard Duty



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

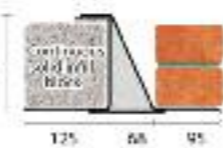


CG70/125*	750-1200	1350-1800	2100-2400	2700-3000
Standard lengths (mm)				
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	6.3	8.0	9.2	13.1
Nominal height 'h' (mm)	140	140	180	220

Heavy Duty



Standard lengths are available in 150mm increments.

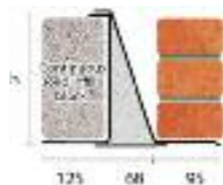


CH70/125	900-1800	1950-2100	2250-2400
Standard lengths (mm)			
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	11.1	13.9	13.9
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty



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



CX70/125	900-2700	2850-3000	3300-3900	4200-4800
Standard lengths (mm)				
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

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

Concrete Floor Loads

When using the Catnic CH and CX 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 11.

Note: To achieve the CH and CX 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.

OPEN BACK LINTELS

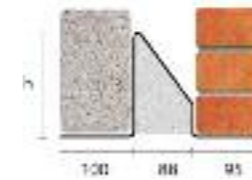
90-105mm Cavity 100-115mm Inner Leaf

All ratios are shown
inner to outer

Standard Duty



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

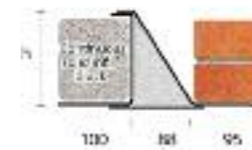


CG90/100	750-1500	1650-1800	1950-2100	2250-2400	2550-2700	2850-3600
Standard lengths (mm)						
SWL 1:1/3:1 (kN)	15	18	20	22	26	26
Weight (kg/m)	6.1	7.6	8.3	8.9	10.2	13.0
Nominal height 'h' (mm)	140	140	160	180	220	220

Heavy Duty



Standard lengths are available in 150mm increments.

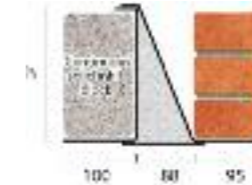


CH90/100	900-1800	1950-2100	2250-2400
Standard lengths (mm)			
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	11.2	14.0	14.0
Nominal height 'h' (mm)	157	157	157

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	900-2700	2850-3000	3300-3900	4200-4800
Standard lengths (mm)				
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



Where CH and CX lintels are required to support greater loads or different wall constructions than the figures published, please contact our Technical Services Department on

029 2033 7900

CG, CH
& CX
90-105mm
CAVITY
WALL

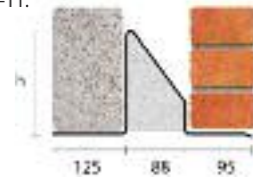
90-105mm Cavity 125-140*mm Wide Inner Leaf

* For CG lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 10-11.

Standard Duty



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

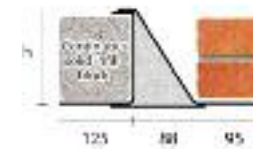


CG90/125*	750-1200	1350-1800	2100-2400	2700-3000
Standard lengths (mm)				
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	6.5	8.1	9.4	13.3
Nominal height 'h' (mm)	140	140	180	220

Heavy Duty



Standard lengths are available in 150mm increments.

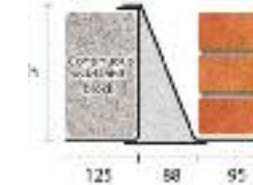


CH90/125	900-1800	1950-2100	2250-2400
Standard lengths (mm)			
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	11.5	14.3	14.3
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty



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



CX90/125	900-2700	2850-3000	3300-3900	4200-4800
Standard lengths (mm)				
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

CG, CH & CX
110-125mm
CAVITY
WALL

OPEN BACK LINTELS

CG, CH & CX
130-145mm
CAVITY
WALL

110-125mm Cavity 100-115mm Inner Leaf

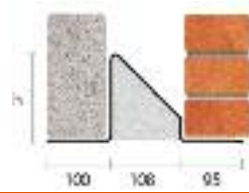
110-125mm Cavity 125-140* mm Wide Inner Leaf

* For CG lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 10-11.

Standard Duty



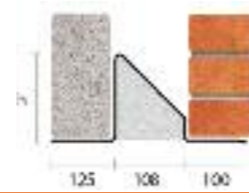
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 3600mm.



Standard Duty



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



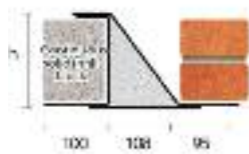
CG110/100	750-1500	1650-1800	1950-2100	2250-2400	2550-3600
Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26
Weight (kg/m)	6.4	8.6	8.6	10.5	13.1
Nominal height 'h' (mm)	140	160	160	220	220

CG110/125*	750-1200	1350-1800	2100-2400	2700-3000
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



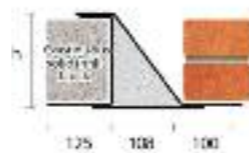
Standard lengths are available in 150mm increments.



Heavy Duty



Standard lengths are available in 150mm increments.



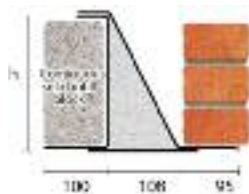
CH110/100	900-1800	2100	2400
Standard lengths (mm)	900-1800	2100	2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.1	14.6	14.6
Nominal height 'h' (mm)	157	157	157

CH110/125	900-1800	1950-2100	2250-2400
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



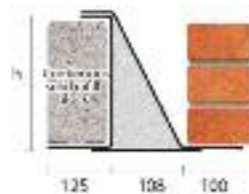
Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4800mm (including 4575mm, but excluding 4500mm).



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	900-2700	2850-3000	3300-3900	4200-4800
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

CX110/125	900-2700	2850-3000	3300-3900	4200-4800
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

OPEN BACK LINTELS

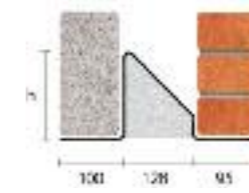
130-145mm Cavity 100-115mm Inner Leaf

All ratios are shown inner to outer

Standard Duty



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

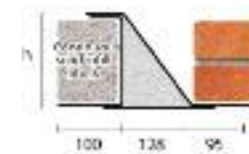


CG130/100	750-1500	1650-1800	1950-2100	2250-2400	2550-3600
Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26
Weight (kg/m)	6.6	8.9	8.9	10.7	13.3
Nominal height 'h' (mm)	140	160	160	220	220

Heavy Duty



Standard lengths are available in 150mm increments.

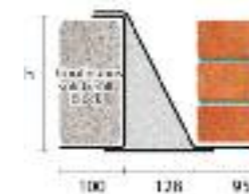


CH130/100	900-1800	1950-2100	2250-2400
Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	12.6	15.1	15.1
Nominal height 'h' (mm)	157	157	157

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	900-2700	2850-3000	3300-3900	4200-4800
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

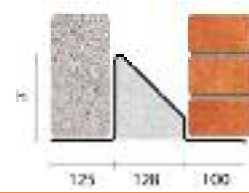
130-145mm Cavity 125-140* mm Wide Inner Leaf

* For CG lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 10-11.

Standard Duty



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

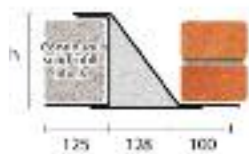


CG130/125*	750-1200	1350-1800	2100-2400	2700-3000
Standard lengths (mm)	750-1200	1350-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	6.8	9.6	13.7	13.7
Nominal height 'h' (mm)	140	180	220	220

Heavy Duty



Standard lengths are available in 150mm increments.

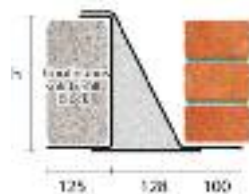


CH130/125	900-1800	1950-2100	2250-2400
Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	12.8	15.3	15.3
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty



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



CX130/125	900-2700	2850-3000	3300-3900	4200-4800
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

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

Concrete Floor Loads

When using the Catnic CH and CX 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 11.

Note: To achieve the 'CH and CX' 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.



Where CH and CX lintels are required to support greater loads or different wall constructions than the figures published, please contact our **Technical Services Department** on

029 2033 7900

CG, CH & CX
150-165mm
CAVITY
WALL

OPEN BACK LINTELS

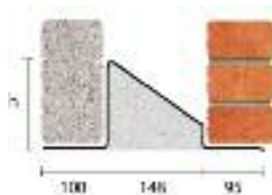
150-165mm Cavity 100-115mm Inner Leaf

All ratios are shown inner to outer

Standard Duty



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

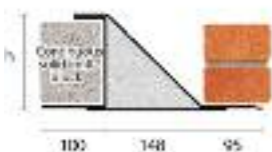


CG150/100	750-1500	1650-1800	1950-2100	2250-2400	2550-3600
Standard lengths (mm)	750-1500	1650-1800	1950-2100	2250-2400	2550-3600
SWL 1:1/3:1 (kN)	15	18	20	22	26
Weight (kg/m)	6.9	9.2	9.2	11.0	13.8
Nominal height 'h' (mm)	140	160	160	220	220

Heavy Duty



Standard lengths are available in 150mm increments.

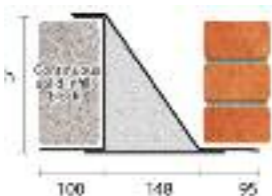


CH150/100	900-1800	1950-2100	2250-2400
Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.1	15.6	15.6
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty



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



CX150/100	900-2700	2850-3000	3300-3900	4200-4800
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

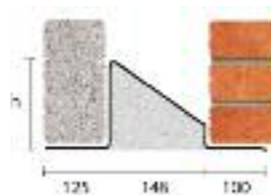
150-165mm Cavity 125-140*mm Wide Inner Leaf

* For CG lintels used with 140mm dense blocks please refer to 'Cavity Wall Lintel Installation Guide' on pages 10-11.

Standard Duty



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

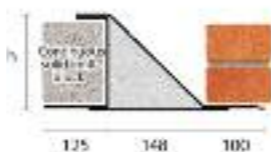


CG150/125*	750-1200	1350-1800	2100-2400	2700-3000
Standard lengths (mm)	750-1200	1350-1800	2100-2400	2700-3000
SWL 1:1/3:1 (kN)	12	17	20	26
Weight (kg/m)	7.1	10.1	14.2	14.2
Nominal height 'h' (mm)	140	180	220	220

Heavy Duty



Standard lengths are available in 150mm increments.

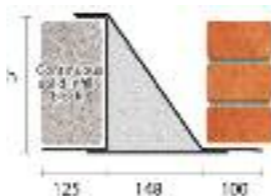


CH150/125	900-1800	1950-2100	2250-2400
Standard lengths (mm)	900-1800	1950-2100	2250-2400
SWL 1:1/19:1 (kN)	32	48	45
Weight (kg/m)	13.3	15.9	15.9
Nominal height 'h' (mm)	157	157	157

Extra Heavy Duty



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



CX150/125	900-2700	2850-3000	3300-3900	4200-4800
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

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

Concrete Floor Loads

When using the Catnic CH and CX 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 11.

Note: To achieve the 'CH and CX' 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.

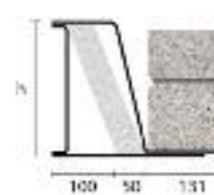
CLASSIC BOX

50-100mm Cavity 140-150mm Wide Outer Leaf

Standard Duty - 50mm Cavity



Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4200mm.

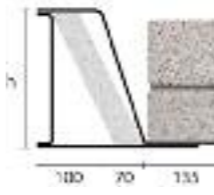


CN42C	750-4200
Standard lengths (mm)	750-4200
SWL 1:1/3:1 (kN)	29
Weight (kg/m)	20.5
Nominal height 'h' (mm)	219

Standard Duty - 75mm Cavity



Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4200mm.

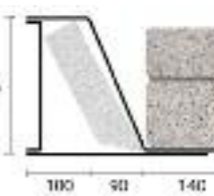


CN99/124C	750-4200
Standard lengths (mm)	750-4200
SWL 1:1/3:1 (kN)	29
Weight (kg/m)	20.6
Nominal height 'h' (mm)	219

Standard Duty - 100mm Cavity



Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths 3000mm to 4200mm.



CN99/1644C	750-4200
Standard lengths (mm)	750-4200
SWL 1:1/3:1 (kN)	29
Weight (kg/m)	21.6
Nominal height 'h' (mm)	219

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

BOX
50-100mm
CAVITY
WALL



CXL 50-165mm CAVITY WALL

CAVITY WALL EXTREME LOAD LINTELS

Designed for external cavity walls when extreme loads are imposed. Longer spans - high loads at longer spans. Varying widths - suits a variety of wall widths - with special widths on application.

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

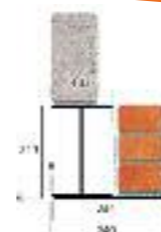
PG Material used

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 ISO 1461: 1999.

Note: Allowable reaction of 66 kN for all CXL lintels.

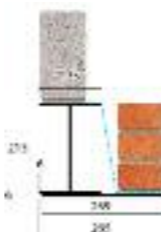
50-65mm Cavity 100-115mm Inner Leaf PG

CXL240		2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
Standard lengths (mm)									
SWL 5:1/19:1 (kN)		88	83	78	71	64	56	52	47
Weight (kg/m)	41.1	lxx (cm²) 4051	Zxx (cm³) 303	Serviceability moment (kNm) 50.0					



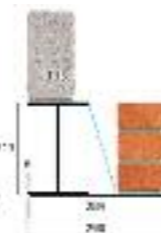
70-85mm Cavity 100-115mm Inner Leaf PG

CXL265		2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
Standard lengths (mm)									
SWL 5:1/19:1 (kN)		88	83	78	71	64	56	52	47
Weight (kg/m)	42.3	lxx (cm²) 4139	Zxx (cm³) 305	Serviceability moment (kNm) 50.3					



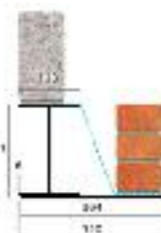
90-105mm Cavity 100-115mm Inner Leaf PG

CXL290		2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
Standard lengths (mm)									
SWL 5:1/19:1 (kN)		88	83	78	71	64	56	52	47
Weight (kg/m)	43.5	lxx (cm²) 4222	Zxx (cm³) 307	Serviceability moment (kNm) 50.6					



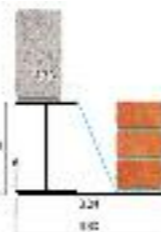
110-125mm Cavity 100-115mm Inner Leaf PG

CXL310		2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
Standard lengths (mm)									
SWL 5:1/19:1 (kN)		88	83	78	71	64	56	52	47
Weight (kg/m)	44.3	lxx (cm²) 4285	Zxx (cm³) 310	Serviceability moment (kNm) 50.8					



130-145mm Cavity 100-115mm Inner Leaf PG

CXL330		2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
Standard lengths (mm)									
SWL 5:1/19:1 (kN)		88	83	78	71	64	56	52	47
Weight (kg/m)	45.3	lxx (cm²) 4346	Zxx (cm³) 311	Serviceability moment (kNm) 51.0					



150-165mm Cavity 100-115mm Inner Leaf PG

CXL350		2100-3000	3300-4800	5100	5400	5700	6000	6300	6600
Standard lengths (mm)									
SWL 5:1/19:1 (kN)		88	83	78	71	64	56	52	47
Weight (kg/m)	46.2	lxx (cm²) 4404	Zxx (cm³) 312	Serviceability moment (kNm) 51.1					



CAVITY WALL CLOSED EAVES LINTELS

CGE 50-125mm CAVITY WALL

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 lintels

cougar Open back



Easy-to-use open back profile

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

Benefits

Duplex Corrosion Protection System

Ensures optimum durability and longevity

Continuous insulation

Maximising thermal efficiency, minimising cold bridging

Integral plaster key

With staggered slots to the inner flange and ribbed underside of insulation

i To achieve the stated safe working load (SWL), closed eaves lintels must be built in with solid blockwork and continuous timber wall-plates. Allow 150mm at each end for bearing support.



Where lintels are required to support greater loads than the figures published please contact our Technical Services Department on

029 2033 7900

50-85mm Cavity

100-115mm Inner Leaf



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

100-115mm Inner Leaf



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 1:1/19:1 (kN)	25	22	20
Weight (kg/m)	7.6	8.3	10.6
Nominal height 'h' (mm)	95	115	115



Where lintels are required to support greater loads than the figures published please contact our Technical Services Department on

029 2033 7900

Note: For heavy duty application or lintel in excess of 2.7m please refer to the CN71 and CN81 range of lintels on page 29.

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.

1 CTJ90

Standard Insulated Box Lintel



CTJ90 Lintel

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

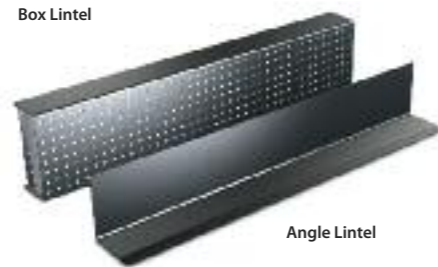
Hot dipped galvanised sheet steel coil to BS EN10346: 2009 and Z275 (min yield stress – 250N/mm²)

Finish

Black polyester powder coating 0.035 ± 0.005mm thick.

2 Box and Angle

Standard Insulated Box Lintel



Angle Lintel

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 3000mm 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 CG, CH and CX 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.

Note: 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.

THIN JOINT LINTELS

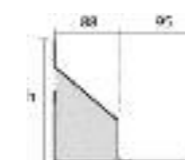
90-105mm Cavity* CTJ90 Lintels

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

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	750-1500	1650-2400	2330-2700	2850-3000	3300-3600
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	9.2	7.7	9.1
Nominal height 'h' (mm)	149	149	149	224	224

100mm Inner Leaf



Standard lengths are available in 150mm increments.

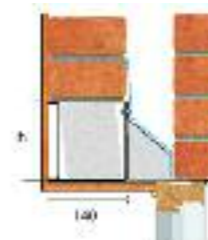


BSD100	750-2100	2250-2700	2850-3600	3900-4575	4800
Standard lengths (mm)	750-2100	2250-2700	2850-3600	3900-4575	4800
SWL (kN)	19	20	29	29	27
Weight (kg/m)	5.97	7.46	12.4	15.7	15.7
Nominal height 'h' (mm)	143	143	219	219	219

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	750-2100	2250-2700	2850-3600	3900-4575	4800
Standard lengths (mm)	750-2100	2250-2700	2850-3600	3900-4575	4800
SWL (kN)	19	20	29	29	27
Weight (kg/m)	6.92	8.65	13.05	16.18	16.18
Nominal height 'h' (mm)	143	143	219	219	219

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



Where lintels are required to support greater loads or different wall constructions than the figures published please contact our Technical Services Department on

029 2033 7900

CTJ
90-105mm
CAVITY
WALL

All Cavity Widths Standard Box and Angle Lintels

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.

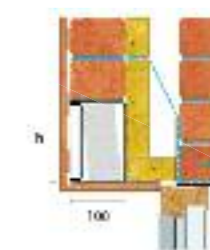


ANG	900-1200	1350-1500	1650-2100	2250-2400	2550-3000	3300-3600
Standard lengths (mm)	900-1200	1350-1500	1650-2100	2250-2400	2550-3000	3300-3600
SWL (kN)	4	5	7	10	15	15
Weight (kg/m)	2.7	3.4	4.0	4.7	7.3	9.4
Nominal height 'h' (mm)	88	131	167	215	215	215

100mm Inner Leaf



Standard lengths are available in 150mm increments.

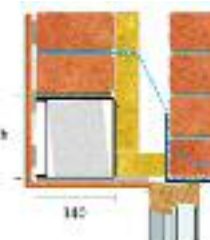


BSD100	750-2100	2250-2700	2850-3600	3900-4575	4800
Standard lengths (mm)	750-2100	2250-2700	2850-3600	3900-4575	4800
SWL (kN)	19	20	29	29	27
Weight (kg/m)	5.97	7.46	12.4	15.7	15.7
Nominal height 'h' (mm)	143	143	219	219	219

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	750-2100	2250-2700	2850-3600	3900-4575	4800
Standard lengths (mm)	750-2100	2250-2700	2850-3600	3900-4575	4800
SWL (kN)	19	20	29	29	27
Weight (kg/m)	6.92	8.65	13.05	16.18	16.18
Nominal height 'h' (mm)	143	143	219	219	219

Note: Use Catnic box lintels only for inner leaf support and ensure that the nominal height of the box is the same or higher than the outer leaf CTJ style lintel to be used. This will ensure that the plastic connectors align with the holes in the box lintel. ANG lintels must be propped during installation.

CTF
50-105mm
CAVITY
WALL

TIMBER FRAME 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.



Where lintels are required to support greater loads than the figures published please contact our Technical Services Department on

029 2033 7900

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.



Note: 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.

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

Benefits

Duplex corrosion protection
Ensures optimum durability and longevity.

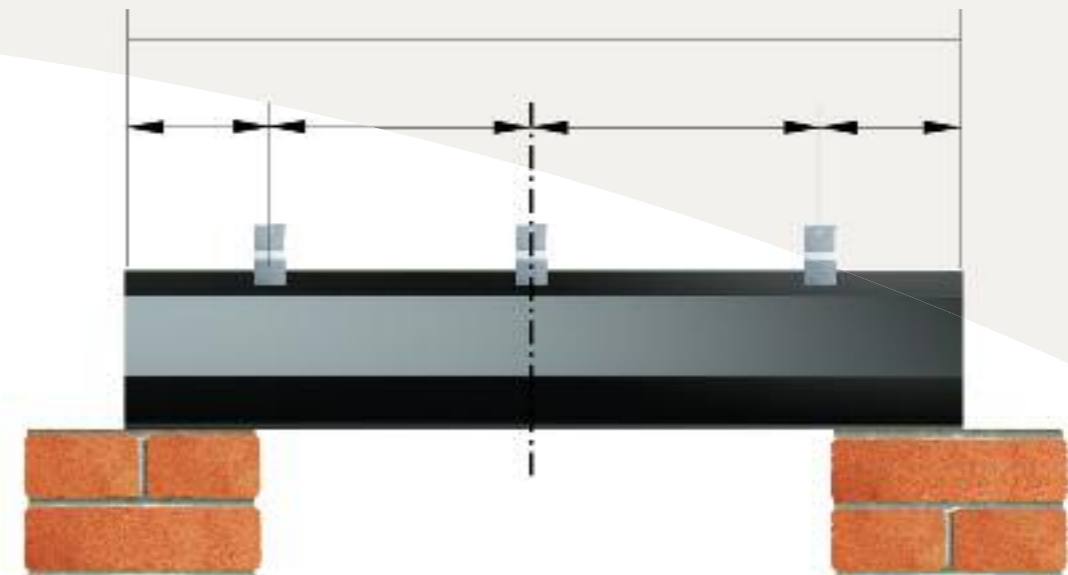
Built-in damp proof course
Sloping outer face and duplex corrosion protection together provide a built-in DPC.

INSTALLING A TIMBER FRAME LINTEL

CTF
50-105mm
CAVITY
WALL

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

Position of lintel restraint clips



- 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)	Clip Fixings
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.

CTF
50-105mm
CAVITY
WALL

TIMBER FRAME LINTELS

50-65mm Cavity 102mm Outer Leaf

Standard Duty

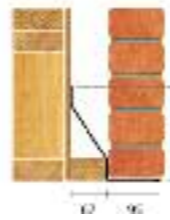


Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 4800mm (including 4575mm but excluding 4500mm).

CTF5	750-1200	1350-1500	1650-2400	2550-3000	3300-3600	3900-4800
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

70-85mm Cavity 102mm Outer Leaf

Standard Duty

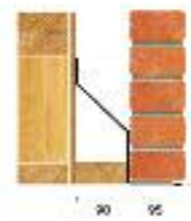


Standard lengths are available in 150mm increments up to 3000mm, 300mm at lengths from 3000mm to 4800mm (including 4575mm but excluding 4500mm).

CTF7	750-1200	1350-1500	1650-2400	2550-3000	3300-3600	3900-4800
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

90-105mm Cavity 102mm Outer Leaf

Standard Duty



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

CTF9	750-1500	1650-2400	2550-3000	3300-3600	3900-4800
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	220	271

SOLID WALLS SINGLE LEAF WALL LINTELS

**MBA,
ANG & CCS**
102mm
EXTERIOR
WALL

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



Heavy duty **ANG** and **CCS** lintels are available on request, please contact our Technical Services Department on

029 2033 7900

Single leaf wall lintels

1 Angle

For use in 102mm exterior walls



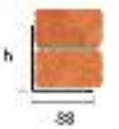
MBA are suitable for meter boxes only.
ANG suitable for Standard Duty loading applications

Meter Box Lintels

Light Duty

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

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

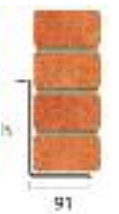


Angle Lintels

Standard Duty

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	900-1200	1350-1500	1650-2100	2250-2400	2550-3000	3300-3900
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



2 Channel Section

For use in 102mm exterior walls



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

Channel Sections

Standard Duty

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.

CCS	750-1800	1950-3000	3300-4800
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



Benefits

Duplex Corrosion Protection System
Ensures optimum durability and longevity

SOLID WALLS EXTERNAL SOLID WALL LINTELS

For use in solid 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.

1 Classic box

For use in 200mm and 215mm solid exterior walls



Box profile

- Saves on brickwork and insulation
- Resists twisting during construction

Benefits

Duplex Corrosion Protection System
Ensures optimum durability and longevity

Continuous insulation
Maximising thermal efficiency, minimising cold bridging

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

Instant full load use

Box profile is designed to carry full load of wet masonry as soon as it is installed

2 Two-piece inverted 'T'

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



Benefits

Duplex Corrosion Protection System
Ensures optimum durability and longevity

Other typical external solid wall lintel applications

CG lintel installed in solid wall construction



For solid wall construction in excess of 250mm an appropriate Cougar open back lintel can be utilised.

CN81 lintel



Box lintel profiles can be used in tile hanging applications on external solid walls.

EXTERNAL SOLID WALL

CN
200 & 215mm
EXTERIOR
WALL

200mm and 215mm Exterior Solid Walls

Standard Duty



Standard lengths are available in 150mm increments.



CN71A	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

Heavy Duty



Standard lengths are available in 150mm increments.



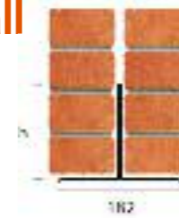
CN71C	900-1500	1650-1950
SWL (kN)	49	44
Weight (kg/m)	14.6	14.6
Nominal height 'h' (mm)	143	143

For two separate leaves of a 215mm fairface brick wall

Standard Duty



Standard lengths are available in 150mm increments.



CN50C	750-1800	CN51C	1950-2700
SWL (kN)	10	CN51C	12
Weight (kg/m)	9.0	CN51C	12.7
Nominal height 'h' (mm)	91	CN51C	167

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



Where lintels are required to support greater loads than the figures published please contact our Technical Services Department on

029 2033 7900

Note: CN71 and CN81 lintels can also be used as heavy duty wall eaves lintels for 70mm to 100mm cavities.

200mm and 215mm Exterior Solid Walls

Standard Duty



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



CN81B	2100-3600
SWL (kN)	29
Weight (kg/m)	15.1
Nominal height 'h' (mm)	219

Heavy Duty



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



CN81C	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

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	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

INTERNAL WALLS INTERNAL PARTITION AND LOADBEARING 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.

1 Corrugated

For use in solid or block walls.



**CN92
and CN102**

Offers a cost effective solution for extra light duty loads.

Suitable for nominal domestic loading.

i 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**.

Benefits

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

2 Channel

For use in solid or block walls.



CN100

Offers a cost effective solution for light duty loads.

As corrugated lintel plus:
Suitable for masonry/timber floor loads.

Benefits

Duplex Corrosion Protection System
Ensures optimum durability and longevity

Integral plaster key
With holes to all sides of channel profile

3 Classic Box

For use in solid or block walls.



**BSD, BHD
and BXD**

Offers a cost effective solution for standard duty and heavy duty loads.

Universal application caters for all loading conditions:

- Direct floor or roof load
- Supports concrete floor loads
- Supports point loads e.g. steel beams

BSD, BHD and BXD

As previous plus:
• 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

INTERNAL WALL LINTELS

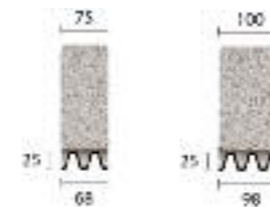
**CN
& BOX
75-140mm
INTERIOR
WALL**

75mm and 100mm Interior Solid Walls

Extra Light Duty



Standard lengths are available in increments of 150mm.



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

Note: When using **CN92** and **CN102** lintels normal building practice should be observed, in that one course of blockwork should be laid on the lintel and the mortar allowed to harden for at least 24 hours before additional loads are applied.

100mm Interior Solid Walls

Standard Duty



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	750-2100	2250-2700	2850-3600	3900-4575	4800
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

Heavy Duty



BHD100	750-1500	1650-2100	2250-2700	2850-3600	3900-4800
Standard lengths (mm)	750-1500	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

Extra Heavy Duty



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

100mm Interior Solid Walls

Light Duty



Standard lengths are available in increments of 150mm.



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

* Not suitable for floor loads

140mm Interior Solid Walls

Standard Duty



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).



BSD140	1050-2100	2250-2700	2850-3600	3900-4575	4800
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	16.2	16.2
Nominal height 'h' (mm)	143	143	219	219	219

Heavy Duty



BHD140	1050-1500	1650-2100	2250-2700	2850-3600	3900-4800
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	13.1	16.2	20.5
Nominal height 'h' (mm)	143	143	219	219	295

Extra Heavy Duty



BXD140	1050-1500	1650-2700
Standard lengths (mm)	1050-1500	1650-2700
SWL (kN)	47	59
Weight (kg/m)	10.9	16.2
Nominal height 'h' (mm)	143	219

Stainless Steel
LINTEL
PROFILES

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

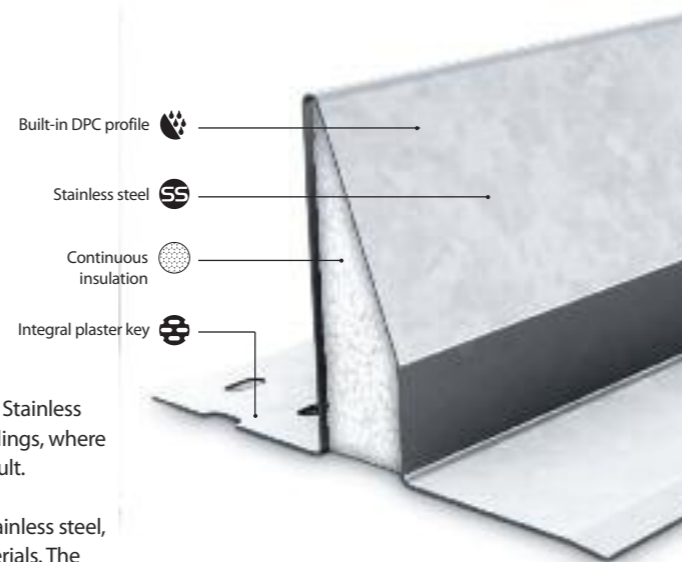
become key design considerations. Stainless steel is also a solution for high buildings, where lintels maintenance would be difficult.

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.

cougar Open back lintels



- 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.



Special lintel



Timber frame lintel



Box lintel



Single element lintel

STEELWORK

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

UB, UC & PFC
STEELWORK



Manufactured 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.



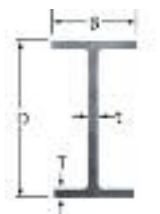
Other standard sections are available on request, please contact our Technical Services Department on

029 2033 7900

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	178 x 102	19.0	177.8	101.2	4.8	7.9
UB2010/23	203 x 102	23.1	203.2	101.8	5.4	9.3
UB2013/30	203 x 133	30.0	206.8	133.9	6.4	9.6
UB2514/43	254 x 146	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)
UC1515/23	152 x 152	23.0	152.4	152.2	5.8	6.8
UC1515/30	152 x 152	30.0	157.6	152.9	6.5	9.4
UC2020/46	203 x 203	73.1	254.1	254.6	8.6	11.0
UC2525/73	254 x 254	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)
PFC2309032	230 x 90	32.2	230.0	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... **the only constraint is your imagination.**

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 semi-circular, 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: 1999.

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.



Standard semi-circular arches available for domestic housing applications. For alternative cavity and masonry widths, please contact our Technical Services Department on

029 2033 7900

SPECIAL LINTELS

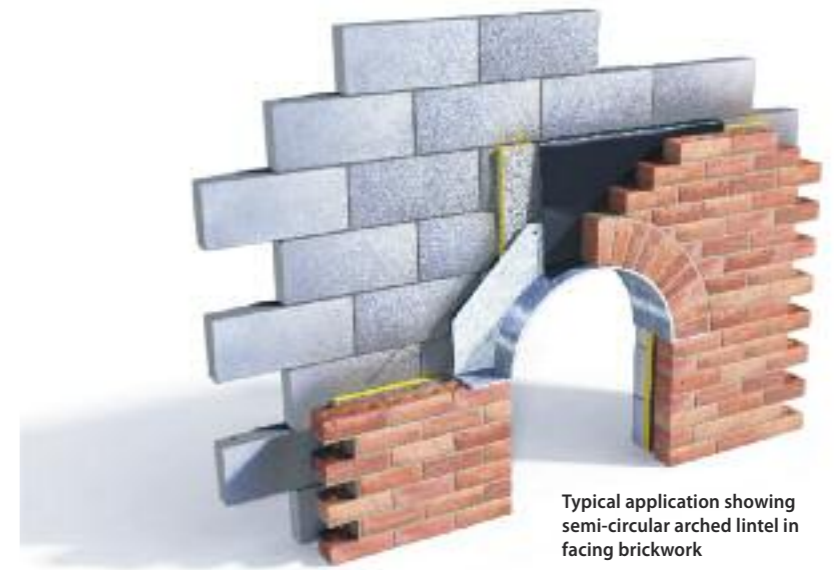
**CCA
& CCB**
SPECIAL
LINTEL

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.



Typical application showing semi-circular arched lintel in facing brickwork

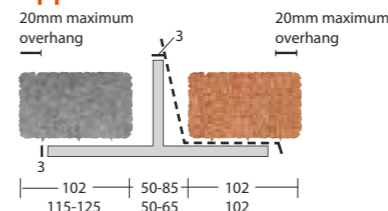


All arch lintels require a separate DPC installed over

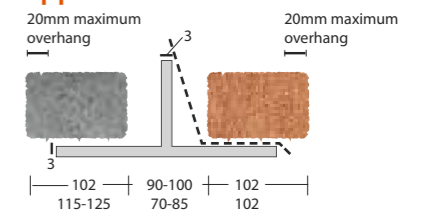
Lintel Type	Clear Span (mm)	Weight (kg)
CCA/600	600	11.79
CCA/630	630	12.26
CCA/900	900	16.53
CCA/915	915	16.77
CCA/1200	1200	21.37

Lintel Type	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

Application



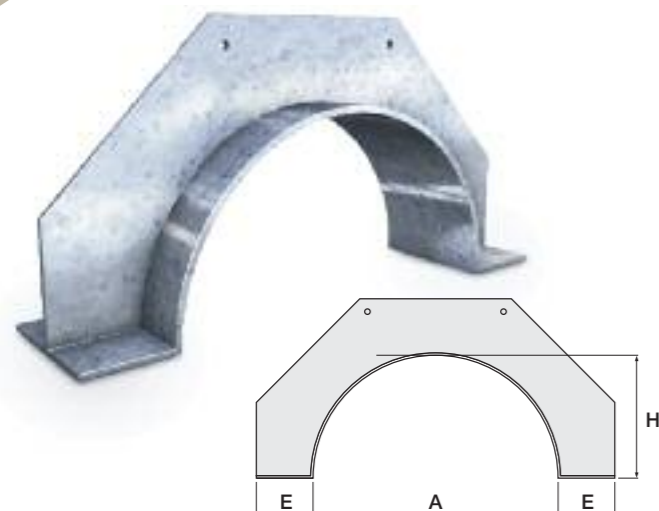
Application



Semi-Circular
ARCHES
Segmental

SPECIAL LINTELS

All Catnic special fabricated lintels are hot-dip galvanised after manufacture for complete protection from corrosion, eliminating the need for on-site painting or maintenance. Available in ten working days from receipt of order and approved drawing.



Semi-Circular Arch Lintel

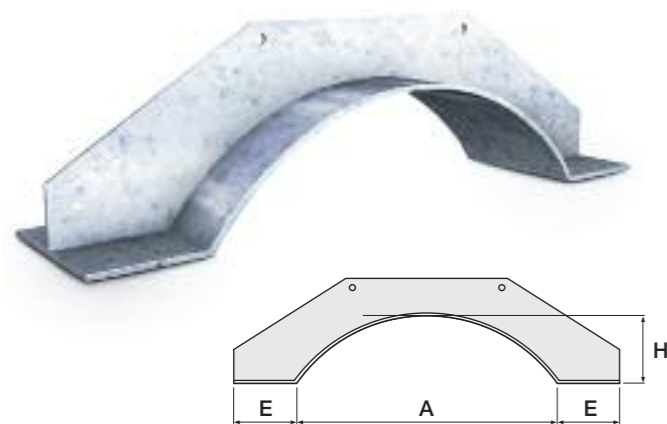
The **semi-circular arch lintel** is the most common feature brickwork opening providing a classical design line for any window or door. Catnic have ten different size semi-circular arch lintels available from stock.



For alternative cavity and masonry widths or to request a quotation please visit www.catnic.com/semi_circular_arch

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

If you require further information please contact our **Technical Services Department** on **029 2033 7900**



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.

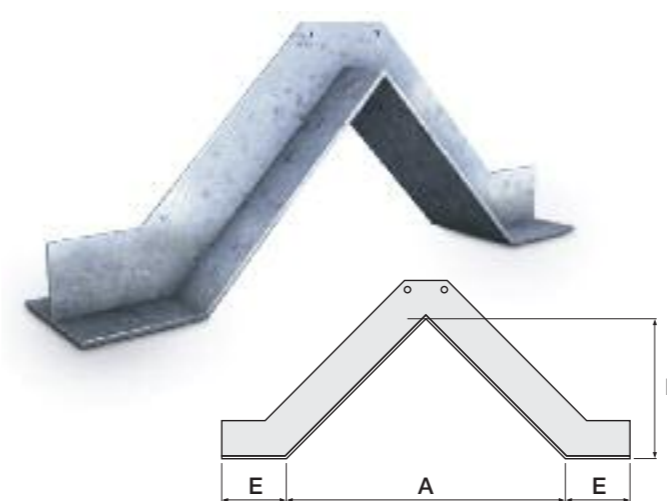


To request a quotation please visit www.catnic.com/segmental_arch

Apex
ARCHES
Gothic

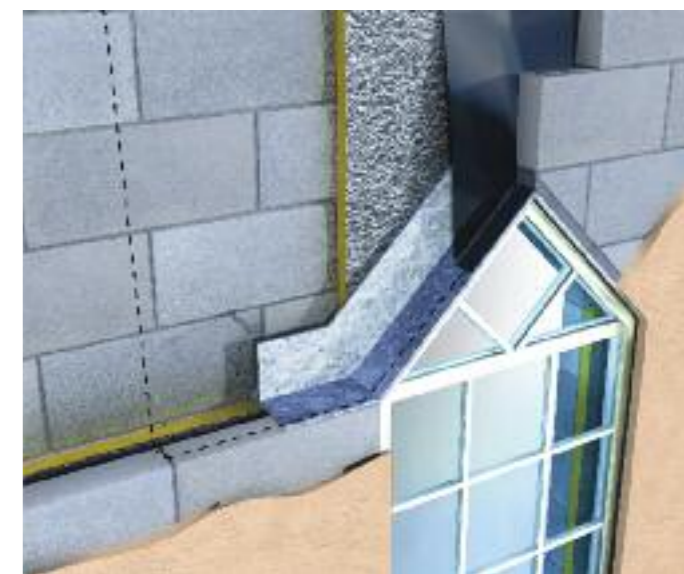
SPECIAL LINTELS

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Apex Arch Lintel

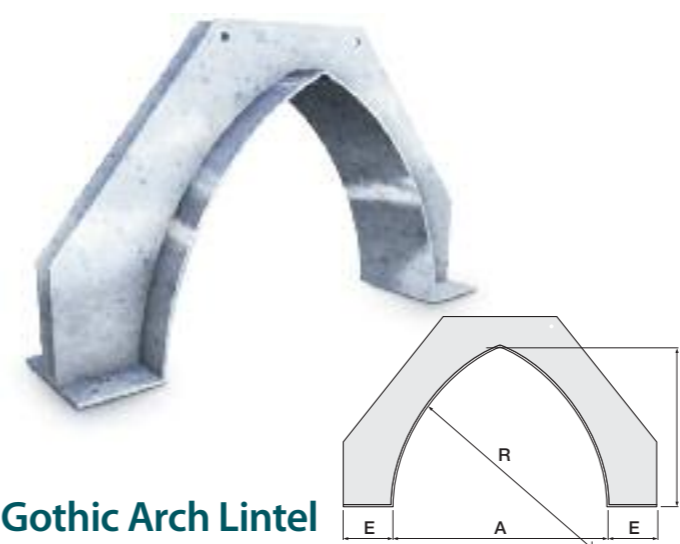
The **apex arch lintel** enables the creation of triangular or diamond shaped openings. Commonly used with high vaulted ceilings enhancing the flood of daylight and perception of grandeur.



To request a quotation please visit www.catnic.com/apex_arch

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

If you require further information please contact our **Technical Services Department** on **029 2033 7900**



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.

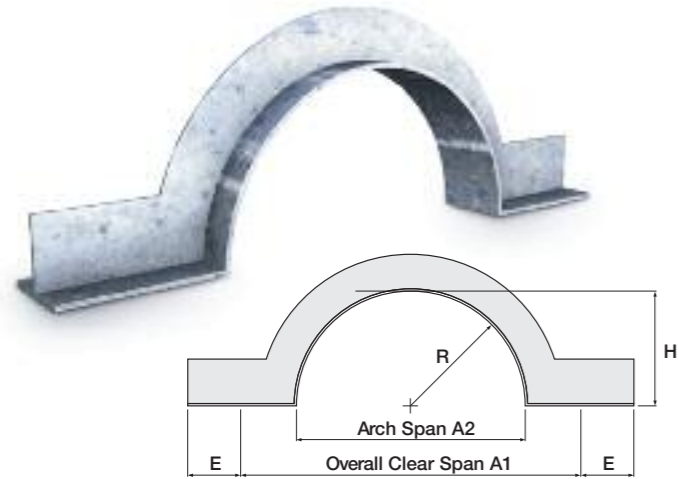


To request a quotation please visit www.catnic.com/gothic_arch

Venetian
ARCHES
Bull's-Eye

SPECIAL LINTELS

All Catnic special fabricated lintels are hot-dip galvanised after manufacture for complete protection from corrosion, eliminating the need for on-site painting or maintenance. Available in ten working days from receipt of order and approved drawing.



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.

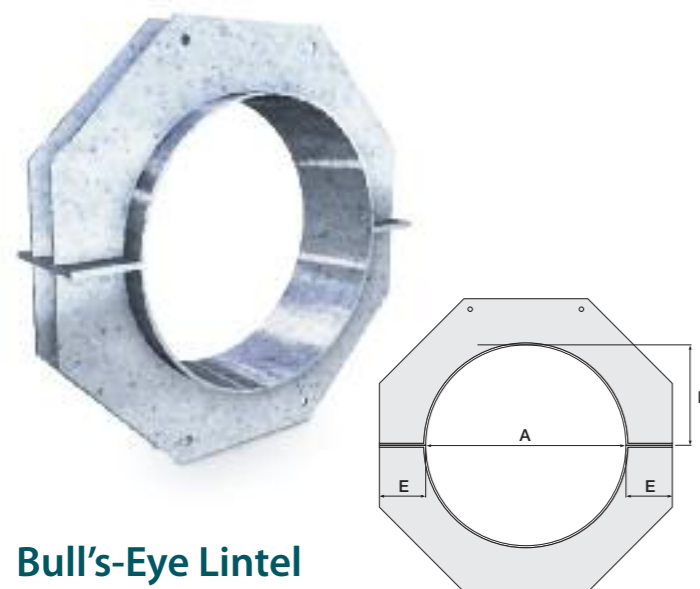


To request a quotation please visit www.catnic.com/venetian_arch

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

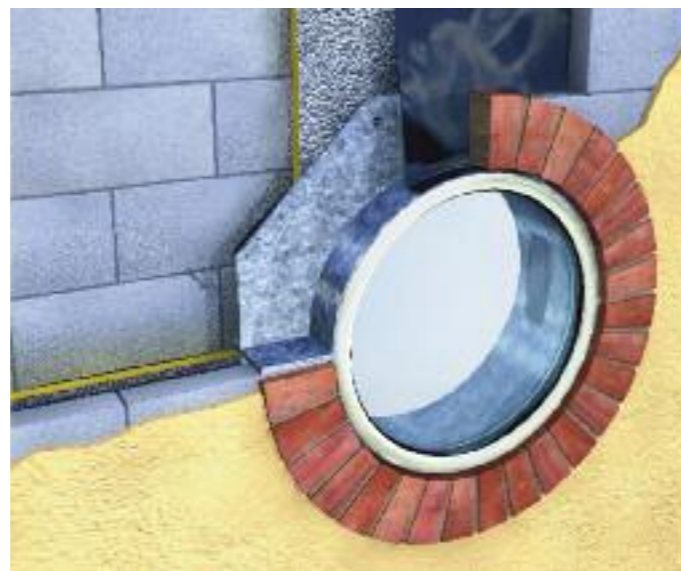


If you require further information please contact our **Technical Services Department** on **029 2033 7900**



Bull's-Eye Lintel

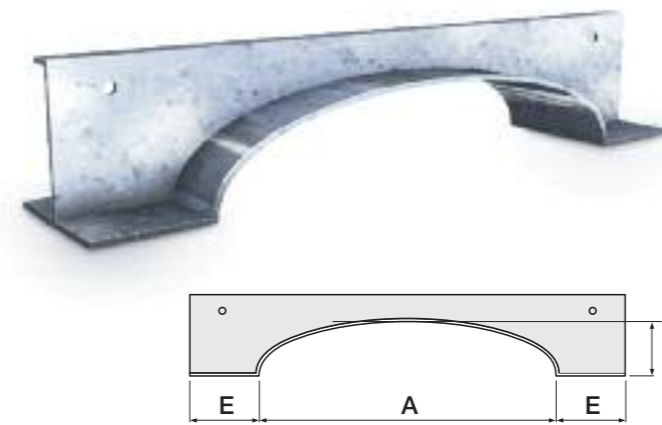
The **bull's-eye lintel** enables the creation of circular window openings and portholes.



To request a quotation please visit www.catnic.com/bulls_eye

SPECIAL LINTELS

All Catnic special fabricated lintels are hot-dip galvanised after manufacture for complete protection from corrosion, eliminating the need for on-site painting or maintenance. Available in ten working days from receipt of order and approved drawing.



Elliptical Arch Lintel

The **elliptical arch lintel** enables the creation of a wider, shallower arch opening compared to that offered by the traditional steeper semi-circular 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 semi-circular arch drawn from a single centre point.

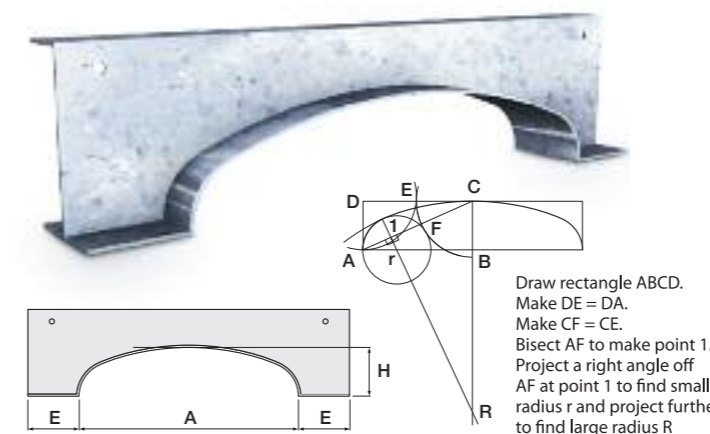


To request a quotation please visit www.catnic.com/elliptical_arch

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



If you require further information please contact our **Technical Services Department** on **029 2033 7900**



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.

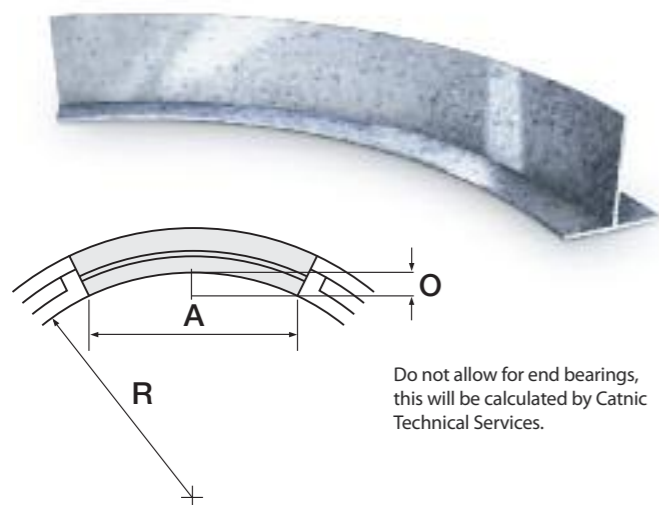


To request a quotation please visit www.catnic.com/parabolic_arch

Curved On-Plan Lintels Corner

SPECIAL LINTELS

All Catnic special fabricated lintels, spigot posts and base plates are hot-dip galvanised after manufacture for complete protection from corrosion, eliminating the need for on-site painting or maintenance. Available in ten working days from receipt of order and approved drawing.



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



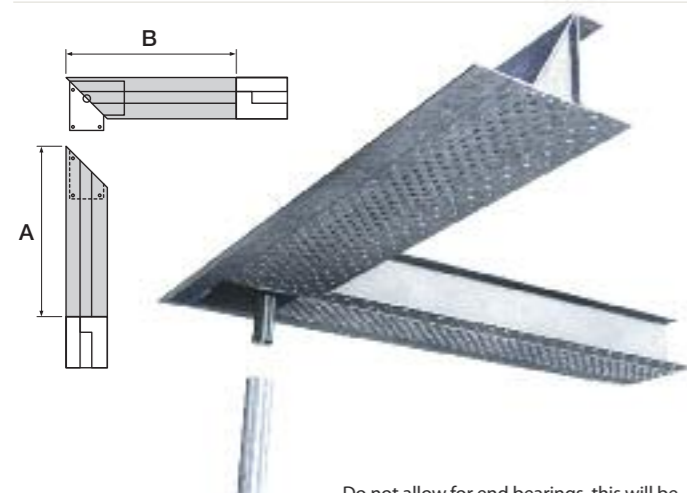
To request a quotation please visit www.catnic.com/curved_on_plan

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.

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

If you require further information please contact our **Technical Services Department** on **029 2033 7900**



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



To request a quotation please visit www.catnic.com/corner

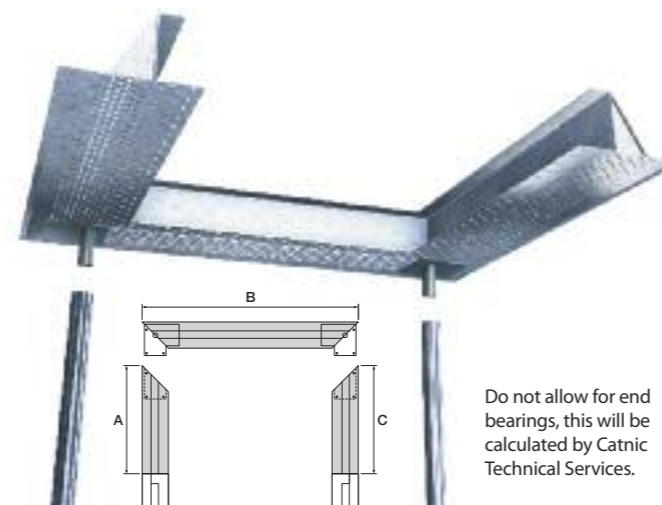
Corner Lintel

The mitred **corner lintel** enables the appearance of an unspoiled window openings on two perpendicular walls of a room. Corner lintels come complete with support posts (spigot post) and base plate. Support posts are available in standard lengths to allow for site cutting to actual requirements.

Square Bay Lintels Splayed Bay

SPECIAL LINTELS

All Catnic special fabricated lintels, spigot posts and base plates are hot-dip galvanised after manufacture for complete protection from corrosion, eliminating the need for on-site painting or maintenance. Available in ten working days from receipt of order and approved drawing.



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



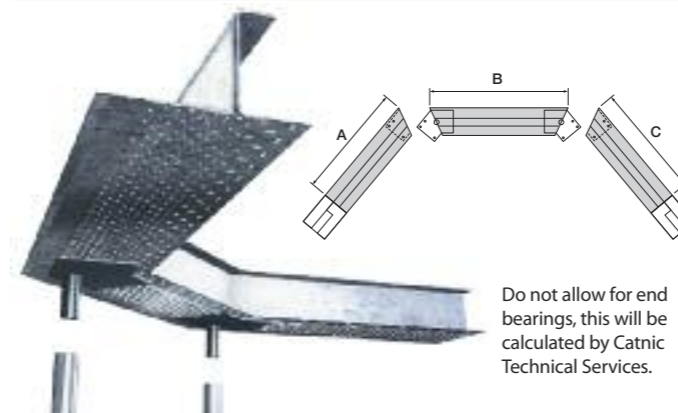
To request a quotation please visit www.catnic.com/square_bay

Square Bay Lintel

The **square bay lintel** uses perpendicular returns (90° angle) compared to the splayed bay lintel (greater than 90° angle) to create a window opening with three aspects. Square bay lintels come complete with support posts (spigot post) and base plate. Support posts are available in standard lengths to allow for site cutting to actual requirements.

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

If you require further information please contact our **Technical Services Department** on **029 2033 7900**



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



To request a quotation please visit www.catnic.com/splayed_bay

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 come complete with support posts (spigot post) and base plate. Support posts are available in standard lengths to allow for site cutting to actual requirements.

Splayed Bay with return bearings LINTELS

SPECIAL LINTELS

All Catnic special fabricated lintels, spigot posts and base plates are hot-dip galvanised after manufacture for complete protection from corrosion, eliminating the need for on-site painting or maintenance. Available in ten working days from receipt of order and approved drawing.

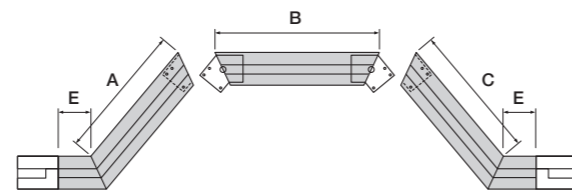


To request a quotation please visit www.catnic.com/Splayed-Bay-with-Return-Bearings

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 come complete with support posts (spigot post) and base plate. Support posts are available in standard lengths to allow for site cutting to actual requirements.



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

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



If you require further information please contact our **Technical Services Department** on **029 2033 7900**

ACCESSORIES

AC ACCESSORIES

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



Special Arch Centres available, for details please contact our **Technical Services Department** on

029 2033 7900

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.

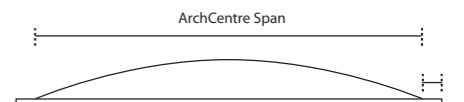
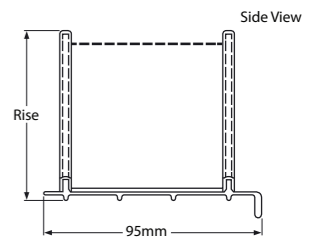
Allows easy construction of segmental arches. Includes integral weep vent.

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.

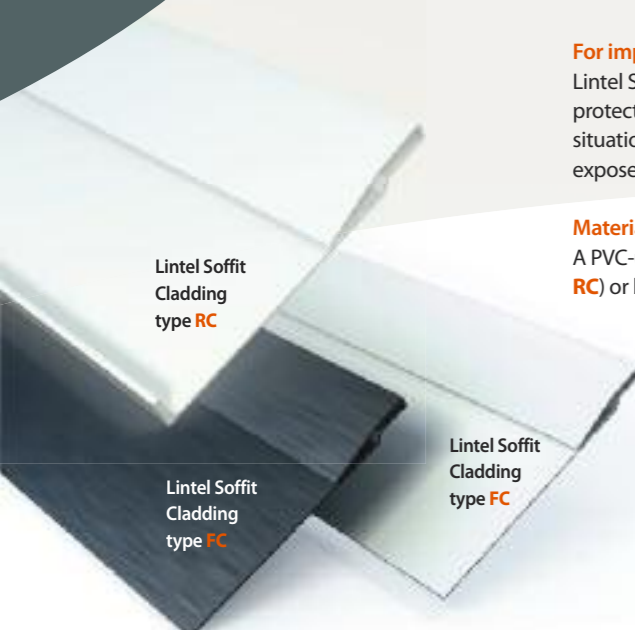
Arch Centre Code	Arch Centre Span (mm)	Rise (mm)	Opening Sizes (mm)	
			Min	Max
ACA0475	450	75	450	500
ACA0625	600	75	600	650
ACA0675	650	75	650	700
ACA0875	850	75	850	900
ACA0925	900	75	900	950
ACA1075	1050	75	1050	1100
ACA1225	1200	75	1200	1250
ACA1375	1350	75	1350	1400
ACA1475	1450	75	1450	1500
ACA1625	1600	75	1600	1650
ACA1775	1750	75	1750	1800
ACB2125	2100	150	2100	2150
ACB2325	2300	150	2300	2350
ACB2425	2400	150	2400	2450

Note: Each length of Arch Centre will cover a structural opening with a tolerance of plus or minus 25mm. All lengths between 425mm and 3175mm are available in standard 50mm increments to suit a 75mm or 150mm rise.

RC, FC
ACCESSORIES
CL3, C90

ACCESSORIES

Lintel Soffit Cladding – Type RC and FC



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

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 Cougar CG lintels)

Technical requirements

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

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.

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

Durppolyethylene 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

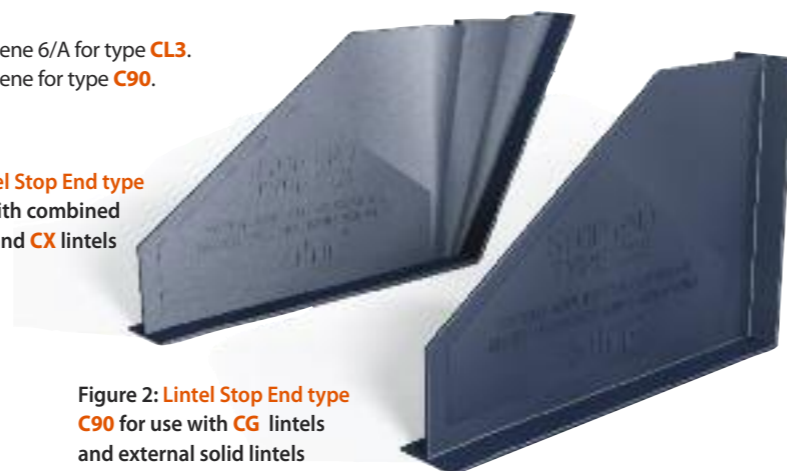


Figure 2: Lintel Stop End type **C90** for use with CG lintels and external solid lintels

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.

WV
ACCESSORIES
PKS87

ACCESSORIES

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.

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

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



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) 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.

TECHNICAL SPECIFICATIONS

Catnic is committed to providing architects, designers and builders with useful information and terminology relevant to the specification of Catnic lintels.

HELP WHEN YOU NEED IT

Fully committed to providing first class service support.

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

The Environment

Environmental Policy



ISO 14001
EMS 555046

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.

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.

- 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 www.catnic.com/environmental.

The following lintel accessories are not covered by a harmonised standard and will not be CE Marked:

- Arch centres
- Soffit cladding
- Weep vents
- Stop ends

Catnic metal building components (beads and lath) will be CE Marked to EN 13658-1 and EN 13658-2.

Galvanised drywall bead will be CE marked to EN 14353.

The following products do not currently need to be CE Marked:

- PVC-u beads
- Wall starters
- Juliet balconies
- Qwik post
- Arch formers
- Coil mesh

CE Marking



On 1st July 2013 the Construction Product Regulation came into force.

This meant that where a Harmonized European Standard exists for a construction product, there is now a legal obligation to CE Mark that product if it is to be sold in the UK or Europe. If there is no current Harmonized European Standard in existence then there is no requirement to CE Mark the product.

All Catnic products manufactured from 1st July 2013 now carry a CE Mark where applicable. The CE mark is clearly displayed on product labels that are applied directly to each product or in the case of plaster beads on the packaging.

As well as this, all CE marked products must have a declaration of performance (DoP) document that is available to download from www.catnic.com/dop. Construction products manufactured before 1st July 2013 can still be sold providing there is evidence to show the product was manufactured before this date and is perfectly acceptable under the Construction Product Directive. All Catnic products contain a date stamp on the label stating the time of manufacture. Catnic will CE Mark all UK (and European) lintels that fall under EN 845 Part 2. This will include galvanised and stainless steel lintels.

The following lintels are not covered by EN 845 Part 2 and will therefore not be CE Marked:

- Arches
- Mitred lintels, and mitred and welded lintels
- Beam and plate lintels – **CXL** and **CF99**

Catnic means:

- The strongest brand in the industry
- A partnership approach to the way we work
- Dedicated haulier - liveried lorries
- Servicing builders, architects, specifiers and merchants
- Committed to both national and independent merchants
- Investment in plant & machinery and the latest technologies
- Continuously dedicated to research and development of the industry and our product offering
- Dedicated haulier

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 offer.

Catnic's team:

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

NEXT DAY DELIVERY available

Terms and conditions apply

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 www.catnic.com
- CAD details available on-line providing instant access to lintel drawings
- 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 free of charge, 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 34 of this guide.

Contact Catnic Technical Services on

029 2033 7900

WHERE TO USE A SEPARATE DPC

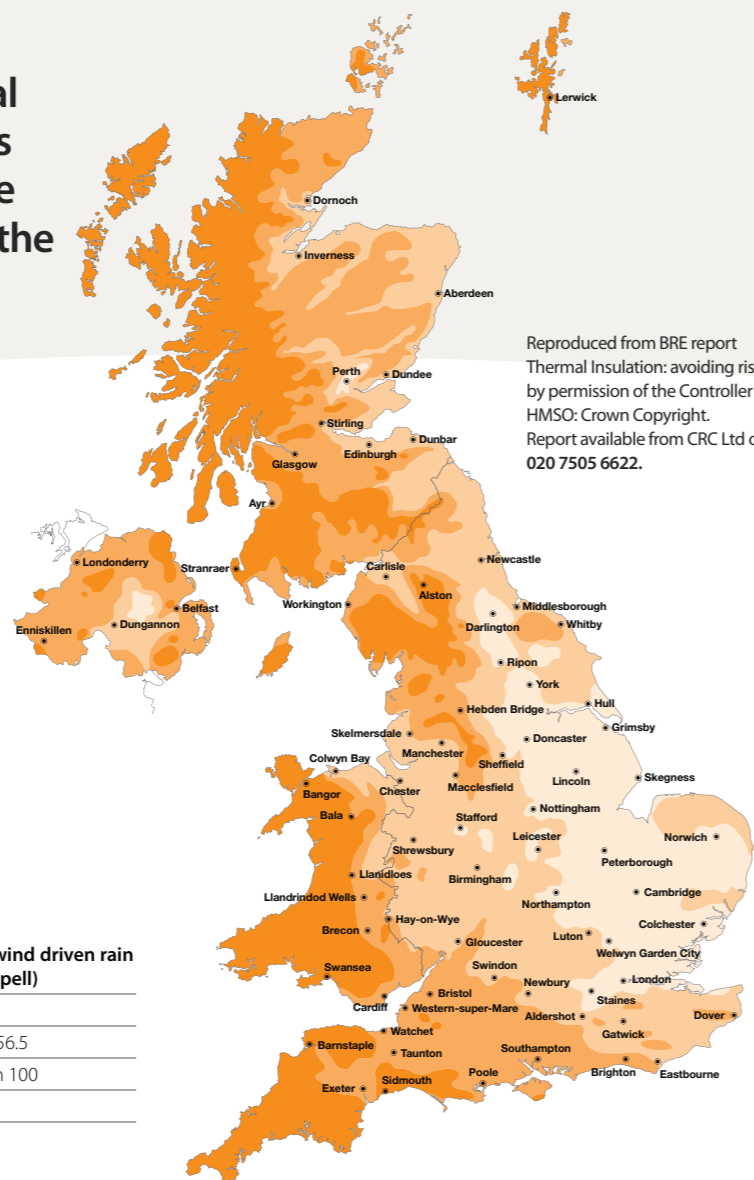
To satisfy NHBC and Zurich Municipal technical requirements, Catnic lintels only require a separate DPC in severe exposure zones i.e. zones 3 and 4 of the map and as determined by BS 8104.

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.

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.

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

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



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.

- 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 10 and 11.

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.

Handing

- Gloves should be worn to avoid injury from any sharp edges.

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 5977: Part 2: 1983 and BS EN 845-2: 2003. 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 and CX lintel range refers to uniformly distributed loads in the ratio of 19:1 when non-standard 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:

$$\left[\frac{\text{effective span}}{325} \right] \text{ or } \left[\frac{\text{ultimate failure}}{1.6 (\text{min})} \right]$$

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 (I_{xx})

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 I_{xx} level, the stiffer 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 (Z_{xx 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.

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.

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

CG, CH and CX range

The lintels are manufactured from galvanised steel to BS EN 10346: 2009 (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/mm². 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/m³ 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

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

Product Reference	Material	Installation
Catnic ANG...	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.	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.
Catnic MBA...		
Catnic CCS...		

MBA and ANG

The lintels up to 2400mm are manufactured from galvanised steel to BS EN 10346: 2009 (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: 2009 (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/mm². 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: 2003.

Product Reference	Material	Installation
Catnic C...	Z275 galvanised steel, coated with Duplex Corrosion Protection system or Z600 galvanised steel.	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: 1999.

Timber Frame

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

Product Reference	Material	Installation
Catnic CTF...	Z275 galvanised steel coated with Duplex Corrosion Protection system.	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: 2009 (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/mm². 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: 2003.

Product Reference	Material	Installation
Catnic C...	Austenitic Stainless Steel grade 304S15 to BS EN 10088-2 1.4301.	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: 1999.

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 perpendicular 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 Name*	Date
Customer Address*	Site Address
Post Code*	Tel
Email*	Fax

Lintel Requirements*

<input type="checkbox"/> Special	<input type="checkbox"/> Internals	<input type="checkbox"/> Meter Boxes	<input type="checkbox"/> Replace Steelwork
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Wall Construction (Please fill in dimensions)

	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

Special Requirements (eg. send to Site/Merchant etc.)

Please include the following (please tick)

<input type="checkbox"/> Plans/dimensions	<input type="checkbox"/> Elevations (all)
<input type="checkbox"/> Sections (all)	<input type="checkbox"/> Site plan (for summary)
<input type="checkbox"/> EITHER Suspended floor carcass timber	<input type="checkbox"/> Roof carcass (for girder trusses)
<input type="checkbox"/> OR Suspended concrete floor span directions	<input type="checkbox"/> Structural engineers steelwork arrangements
<input type="checkbox"/> Attic truss carcassing	

Please indicate any fairfaced internal areas on drawings

NOTE: FOR A QUICK TURNAROUND IT IS IMPORTANT THAT ALL BOXES ARE COMPLETED CORRECTLY BY REFERRING TO THE DRAWINGS BEFORE SENDING TO OUR TECHNICAL SERVICES DEPARTMENT

Fax this enquiry to **087 0024 1809** Technical Services **029 2033 7900**

