ACS

Technical Data Sheet

Single Leaf Lintels

Single Leaf Lintels

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Product summary

The ACS Single Leaf Lintel range is designed to carry a single leaf of masonry, typically the external leaf of a cavity wall. The lintel should be propped during construction to achieve the safe working load capacities declared in the design tables below. A separate DPC is required above the lintel. Wall ties should be installed within 300mm of the lintel at a maximum of 450mm centres to ensure that the masonry carried by the lintel is restrained and any potential overturning and deflection is minimised.

The standard lintel range is supplied in 150mm incremental lengths. Lintels of alternative lengths and load capacities outside of the details provided in the tables below can be designed and supplied to meet with project specific requirements. Lintels should be selected to ensure that a minimum of 150mm* bearing either side of the opening is always achieved.

UKCA / CE+UKNI marked

Tested by Lucideon

Tested by the Building Research Establishment

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Product highlights

BS EN 845-2 design
BS EN 846-9 testing
PD 6697 specification
Austenitic stainless steel (Grade 1.4301)
UKCA / CE+UKNI marked
Independently tested
Standard range

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Standard Duty ‘L’ Section Lintel

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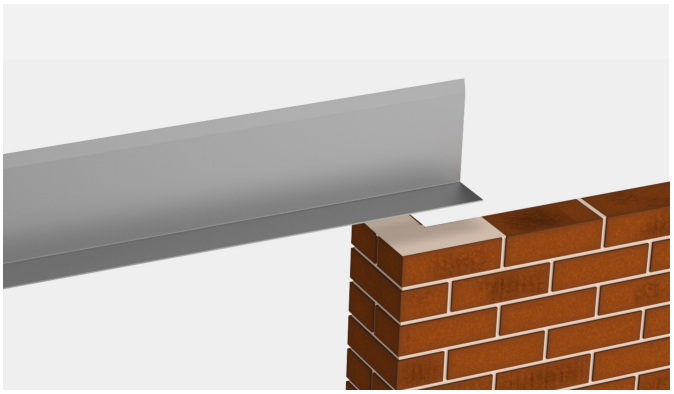
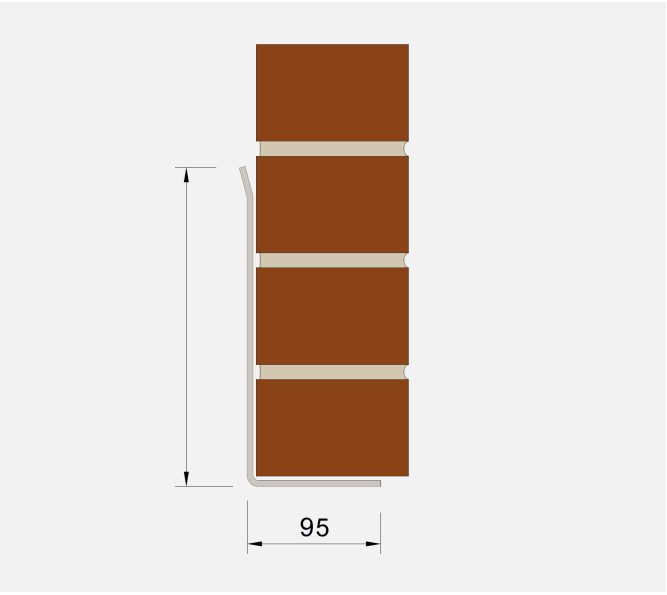
Standard Duty 'L' Section Lintel

ACS L section lintels are designed to be used in low loaded scenarios where the openings are relatively small.





L1 Section Lintels

Standard lengths (mm)	600 – 1200	1350 – 1500	1650 – 2100	2250 – 3000
Total UDL (kN)	**3.4**	**4.6**	**6.2**	**11.5**
Lintel height (mm)	88	131	167	215
Weight/Metre (kg)	2.90	3.58	4.16	4.93

Capacities shown in the table are for the lintel itself. Bearing capacity checks on the brickwork below are the responsibility of the project engineer.

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Heavy Duty 'C' Section Lintel

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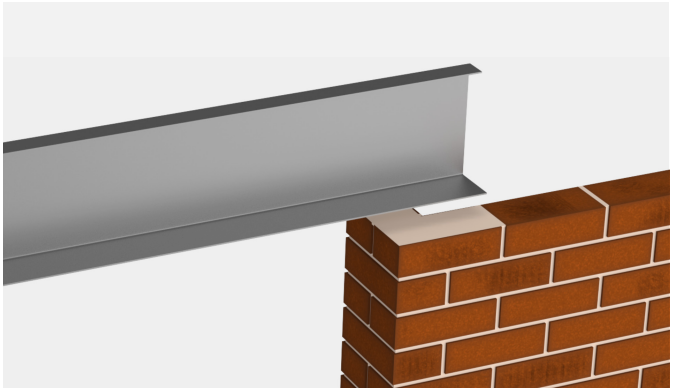
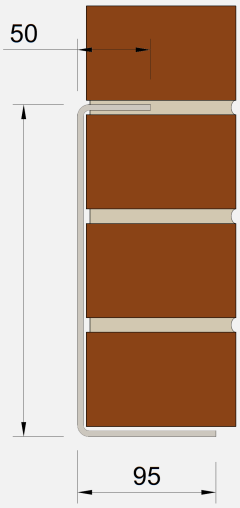
Heavy Duty 'C' Section Lintel

ACS C section lintels are designed to be used when either a larger load capacity is required for a small opening, or if larger clear openings are required.





C1 Section Lintels

Standard lengths (mm)	600 – 1200	1350 – 1500	1650 – 2100	2250 – 3000	3150 – 3900	4050 – 4500
Total UDL (kN)	**8.6**	**16.0**	**16.0**	**16.0**	**20.0**	**20.0**
Lintel height (mm)	154	229	229	229	229	229
Weight/Metre (kg)	3.59	4.28	4.86	5.63	8.38	11.10

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Extra Heavy Duty 'XHD' Lintel

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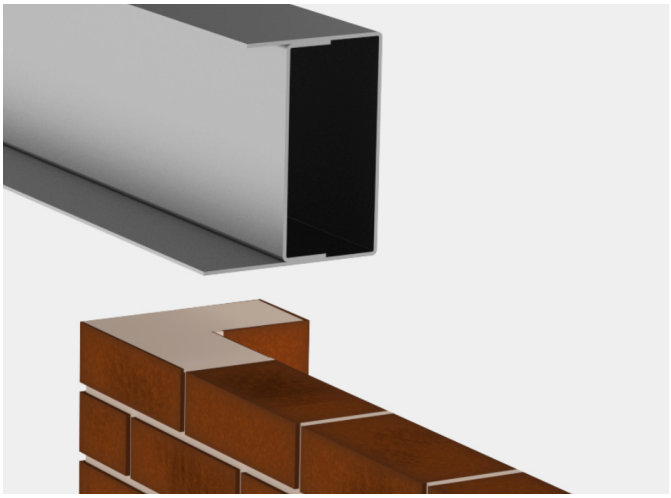
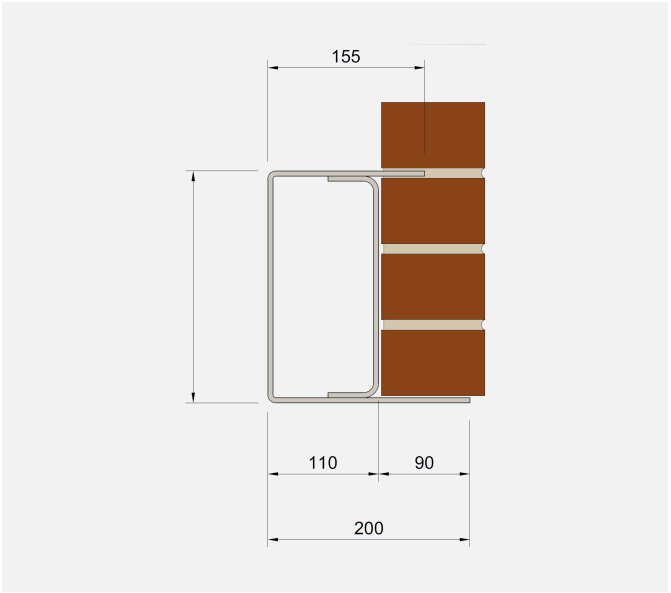
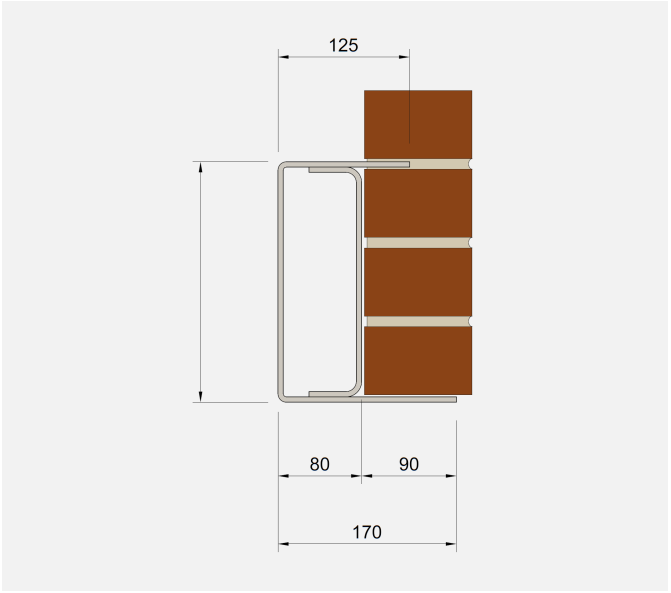
Extra Heavy Duty 'XHD' Lintel

ACS XHD lintels are designed for use in very high loading scenarios. To achieve the figures in the table, the lintel must be fully bearing across it's section. This is usually achieved by bearing onto the brickwork reveal. The lintel also requires a minimum bearing length of 200mm to achieve these loads due to the high compressive forces that will be applied onto the brickwork below.







C2 XHD Section Lintels

Lengths up to (mm)	4900	4900
Total UDL (kN)	**72.8**	**83.5**
Lintel height (mm)	229	229
Weight/Metre (kg)	23.3	25.2

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Installation

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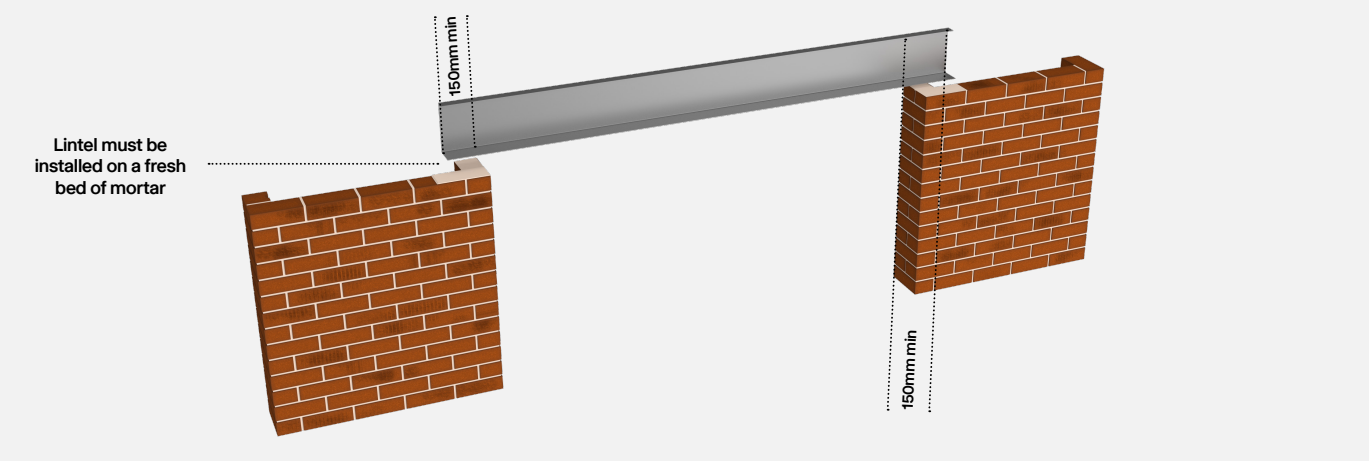
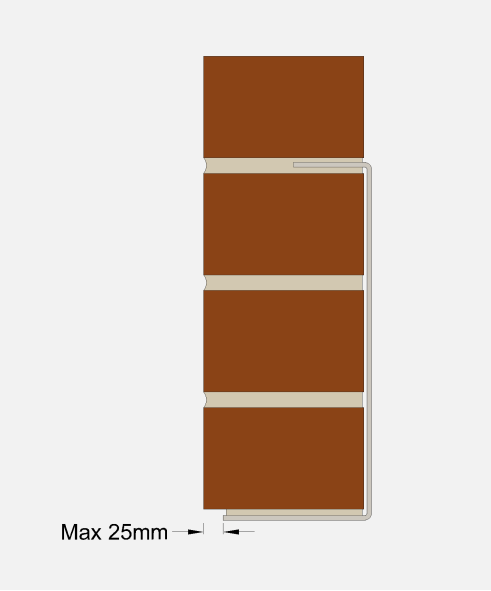


Lintel installation

Prior to installation, the lintel should be examined carefully for any defects or signs of damage. If any damage is present the lintel should not be installed and ACS should be contacted. The lintel should always be installed onto a bed of fresh mortar at the bearing ends. During the installation and bedding it is important to ensure that the lintel is levelled both along its length and across its width.

A minimum of 150mm* end bearing must be achieved at either end of the lintel unless specified otherwise by ACS. The XHD lintel will also require a minimum of 200mm bearing. A maximum masonry overhang of 25mm over the front edge of the lintel must also be maintained. The lintel must always bear onto a full brick/block below.



Lintels should always be propped during construction to achieve the safe working load capacities declared in the design tables in this data sheet. A separate DPC is required above the lintel. Wall ties should be installed within 300mm of the lintel at a maximum of 450mm centres to ensure that the masonry carried by the lintel is restrained and any potential overturning and deflection is minimised.

The standard lintel range is supplied in 150mm incremental lengths. Lintels of alternative lengths and load capacities outside of the details provided in the following load tables can be designed and supplied to meet with project specific requirements. Lintels should be selected to ensure that a minimum of 150mm bearing either side of the opening is always achieved, or 200mm in the case of the XHD lintels.

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Restrictions

1. Lintels must never be cut to length or modified in any way without prior permission from ACS.

2. No more than 1.5 metres of brickwork should be constructed upon the lintel in one day in accordance with PD6697:2019.

3. Where the method for assessing the load carried by lintels is designed in accordance with BS EN 1996-1-1 it is assumed that:

a. The masonry is constructed following the recommendations of BS EN 1996-2.

b. The height of masonry above the lintel at mid-span is not less than 0.6 times the clear span of the lintel.

c. The height of masonry above the supports is not less than 600mm.

d. The masonry is continuous within the area defined by the conditions given in b) and c).

e. Where there is a single opening spanned by the lintel, the width of masonry on either side of the opening is not less than 600mm or 0.2 times the clear span of the lintel whichever is the greater.

f. Where there is a series of openings at the level of the opening spanned by the lintel, the length of masonry between the external corner of the wall and the side of the adjacent opening is not less than 600mm or 0.2 times the longest clear span, whichever is the greater.

Safety

Although every effort is made to remove sharp edges during the manufacture of the product, appropriate personal protective equipment should always be worn when handling and installing masonry support to avoid injury.

Materials

PD 6697:2019 states that austenitic stainless steel must be used for products in contact with or embedded in an external wall for all buildings exceeding three storeys in a non-aggressive environment. In aggressive environments, such as coastal sites, products in both leaves of an external wall should always be austenitic stainless steel (molybdenum chrome nickel alloys).

ACS

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