

How to use this catalogue

STEP 1 - KNOW YOUR WALL CONSTRUCTION

Look for you wall construction at the top of each page to ensure you're on the right page, or look in the contents to find the right page.

STEP 2 - KNOW YOUR DUTY

Lintels are generally arranged from light duty on the left of each page to heavy duty on the right. Select the appropriate duty and shape for your application.

STEP 3 - CHOOSE OPTIONS IF REQUIRED

Typical options for each lintel are shown in the columns. Feature brick and 'LINTRAY' are two of the most frequently specified. You must have a stainless lintel to specify 'LINTRAY'.

STEP 4 - CHOOSE YOUR MATERIAL

We have a range of Material and coating options available for our lintels, these are listed below:

Which Steel...?

This brochure contains products designed for manufacture in carbon steel and low strength stainless steels (A-D below). For our high strength Stainless Steel lintel range refer to our BLUE CATALOGUE or visit: www.stainless-lintels.co.uk

Specification A

Grade 304 Stainless Steel - historically the construction industry standard stainless steel, 304 is being replaced by high strength LDX2101[®] Duplex stainless steel (see below). Grade 304 still finds application where it is required to coordinate with other 304 items. Note: 304 has the lowest yield strength of all our steels (only 210N/mm²) so we recommend conservative specification regarding load. We can also manufacture in grade 316 stainless steel on request.

Specification B

Structural Steel - conforming to BS 4360, with zinc-rich paint base coat, to be top-coated by the customer or to customer specification.

'EAL6 Lintels' have an inner material spec. B with a specification D outer

Specification C

Hot dip galvanised - Steel conforming to BS 4360, hot-dip galvanised after fabrication to BS 729 with a minimum zinc coating weight of 920 g/m² including both sides.

Specification D

Mill galvanised - Lintels are fabricated from steel conforming to BS EN 10142:1999: continuous hot dip galvanised to 600 g/m² including both sides, prior to fabrication. Welds retouched with zinc rich paint.

Additional Protective Coating

Bituminous Paint - All steels are available with this additional layer of black self-etch primer and 100µm sprayed black bituminous paint. Suffix (/1) on the material grade to specify this additional coating.

High Strength Stainless Steels - refer to our Blue Catalogue

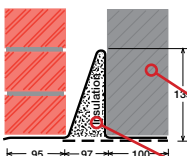
We also manufacture lintels in a high strength stainless steel called LDX2101[®]. This is a Duplex Stainless steel with better corrosion resistance than 304 and 2.3x the strength of 304. Although generally superior to 304, LDX2101[®] lintels are price competitive or cheaper than the equivalent in 304 because their high strength enables use of lighter gauge steel. Different lintel designs are used to optimise the benefits of high strength stainless steel, so we have a dedicated separate blue brochure for our high strength stainless steel lintels. We also use another high strength stainless called SS370, in place of galvanised steel for many applications. Although not as corrosion resistant as LDX2101[®], SS370 is superior to galvanising, much stronger than our other mild steels, and price competitive with galvanising. Our blue catalogue lintels are also available in SS370. We now find most of our **stainless steel lintels are specified from our Blue brochure**, and **galvanised lintels from this red brochure**.

Outer: 95mm - 115mm, Cavity: 100mm - 120mm, Inner: 100mm - 120mm

Cavity Wall Lintel 100/100/100

LIGHT/STANDARD DUTY

SC100a



Lintel Section Properties

box	369.61 cm ²
Zxx	37.83 cm ³
Weight	13.55 kg/m
Area	17.25 cm ²
Ryy	6.59 cm

Typical Optional Features

Option	Spec. Suffix
Lintray (see p6)	Prefix /L
Feature Brick (see p9)	Suffix /FB
Outer step 20mm	Suffix /ST
Flat Base (no plaster key)	Suffix /F
Cant Outer (50mm)	Suffix /C
Wide Outer (125mm)	Suffix /WO

Permissible Load Ratio 1:1 - 1:5

Lintel Load Capacity Table

Opening Span	Lintel Length	Safe Load kN
600	900	30
750	1050	30
900	1200	30
1050	1350	30
1200	1500	30
1350	1650	30
1500	1800	30
1650	1950	28
1800	2100	25
1950	2250	23
2100	2400	22
2250	2550	20
2400	2700	19
2550	2850	17
2700	3000	
2850	3150	
3000	3300	
3150	3450	
3300	3600	
3450	3750	
3600	3900	
3750	4050	
3900	4200	
4050	4350	
4200	4500	
4350	4650	
4500	4800	

HEADER BAR

Displays the wall construction for which the lintels on that page are designed; in this case a 100/100/100 cavity wall. Typically the range of thicknesses of each part of the wall is also displayed

LINTEL & DUTY BAR

Shows the standard lintel specifications (eg SC100a in this case) for each lintel suitable for that wall construction, from light duty on the left hand side of the page to heavy duty on the right hand side.

LINTEL DRAWING

A drawing of the lintel section is shown complete with basic dimensions. All the drawings are in proportion.

INSULATION

Insulation, where shown, completely fills the cavity Plaster Key is shown as a dashed line under the lintel. Where not shown it can be added as an option.

SECTION PROPERTIES

Typical engineering sections properties are given for each section, more are available on request (such as Zyy for example)

LINTEL OPTIONS

A wide range of options are available for each section, the typical options are listed here. Examples of how to specify options are typically found down the right hand side of the relevant pages, such as those shown on pages 41, 43, 45 & 47. These options allow for situations of short (Cant) or wide outers, as well as steps and specials with the plaster key omitted. For 'LINTRAY' details see page 6, and page 9 for 'FEATURE BRICK'.

LOAD RATIOS

The ratio of the total load on the Outer :Inner for cavity wall lintels must fall within the range given here. This usually only applies to cavity wall lintels. For example, this lintel may have it's load distributed anywhere between 1/2 the load on each leaf up to 1/6th the load on the outer and 5/6ths on the inner (1:1-1:5). This ratio is typical of general purpose lintels that are not intended to support great loads on the inner compared to the outer. Ratios of 1:1-1:19 are for supporting significantly greater inner loads such as concrete floor or roof loads. On request we can supply lintels designed especially designed to carry higher outer loads than inner.

SAFE WORKING LOAD (KN)

This is the total allowable (evenly distributed) safe load for the lintel, in kN (i.e. not UDL in kN/m) for the clear opening span shown. It approximately equates to the calculated failure load of the lintel divided by a safety factor of 1.6, or to a maximum deflection of 1/360th of the clear span (whichever occurs first).

LINTEL LENGTH (MM)

All the lintels listed in this brochure show a length 300mm longer than the clear span, to give 150mm bearings on each end. This is standard for typical lintels. Some lightly loaded lintels may have shorter bearings, and heavily loaded lintels will frequently require longer bearings. For 'LINTRAY' bearing lengths refer to pages 7 & 8. Always select lintels based on the load at your clear span, then order a lintel sufficiently longer to allow for your required bearings.

CLEAR SPAN (MM)

This is the distance between the solid bearings of the lintel onto masonry at either side, not onto any timber infill etc. In the event the inner span is wider than the outer, such as for box sash windows, the widest clear span should be used to select the lintel.

LENGTH INCREMENTS

Most tables show lintel lengths in increments of 150mm. This is just for convenience in presenting the tables, we can actually manufacture to any length you require with no penalty in lead time or cost.

LONG SPANS

Some of our larger lintels are suitable for large spans, in these cases the tables go in increments of 300mm, and are shown red to highlight this compared to the adjacent table which may be in 150mm increments. Intermediate lengths are still easily manufactured on request.