

SOLID WALL SWFB/XH EXTRA HEAVY DUTY

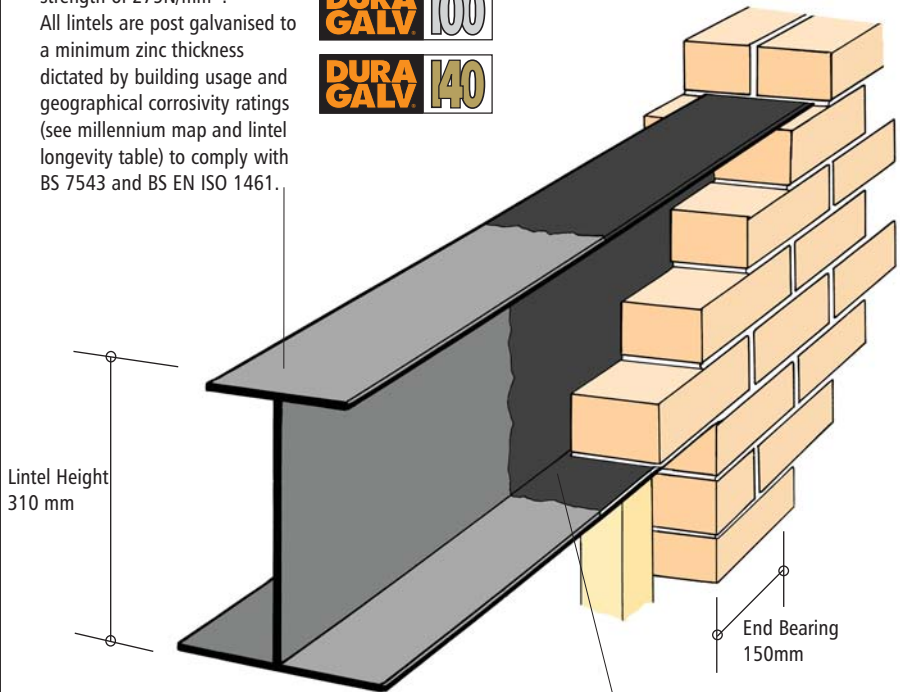
Lintels are manufactured from minimum 4mm thick structural steel plate with a minimum yield strength of 275N/mm².

All lintels are post galvanised to a minimum zinc thickness dictated by building usage and geographical corrosivity ratings (see millennium map and lintel longevity table) to comply with BS 7543 and BS EN ISO 1461.

DURA GALV 70

DURA GALV 100

DURA GALV 140



Lintel Height
310 mm

End Bearing
150mm

**DUPLEX
COATING**

Duplex paint system over post galvanised lintel, dictated by building usage and geographical corrosivity ratings (see millennium map and lintel longevity table).

PRODUCTS AND INFORMATION CAN BE AMENDED WITHOUT PRIOR CONSENT TO MAINTAIN THE COMPANY POLICY OF CONTINUED IMPROVEMENT

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SOLID WALL

SWFB/XH EXTRA HEAVY DUTY

GENERAL TECHNICAL DETAIL, COMPOSITION AND MANUFACTURE

GENERAL

Introduction. The SUPERLINTEL SWFB/XH range of lintels, for solid wall applications, have a number of outstanding features which contribute to performance and durability characteristics which exceed BSEN 845-2:2003 recommendations.

These Features include:-

- 4mm thick structural steel plate used throughout for rigidity, long life durability and dimensional consistency.
- Optimum protection against corrosion; Lintels are hot-dip galvanised after manufacture.
- End bearings of 150mm as standard for high structural stability.
Non-standard end bearings can be supplied to order.

COMPOSITION AND MANUFACTURE

Lintels are manufactured from minimum 4mm thick steel structural plate with a minimum yield strength of 275N/mm².

All lintels are Hot Dip Galvanised after manufacture, tested in compliance with BS EN ISO 1461 for zinc coatings of steel through the controlled inhouse galvanising "DURAGALV" process. Coating thicknesses vary in accordance with the requirements of BS 7543 and local corrosion categories levels.

For "DURAGALV" coatings above 70 microns, I.E: Duragalv 100 and 140, additional controlled processes are employed to ensure the heavier coatings adhere to the "minimum 4mm" specially selected steel plate required to accept these levels of heavy coatings.

To achieve protection for all five corrosion category areas, a further "DUPLEX COATING" paint system is applied to lintels, after galvanising, in the most severe areas of corrosion levels.

LOADING RATIOS, SECTIONAL DETAIL / PROPERTIES

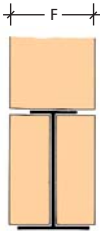
PERFORMANCE

Mechanics. Safe working loads for the SWFB/XH range of lintels are established by testing based upon the non-destructive test procedures for steel lintels recommended in BSEN 845-2:2003.

Each load is the **total** allowable equivalent uniformly distributed load (UDL) as described in BS 5977 : Pt.1

REQUIRED FOR SPECIFYING

F - Leaf width



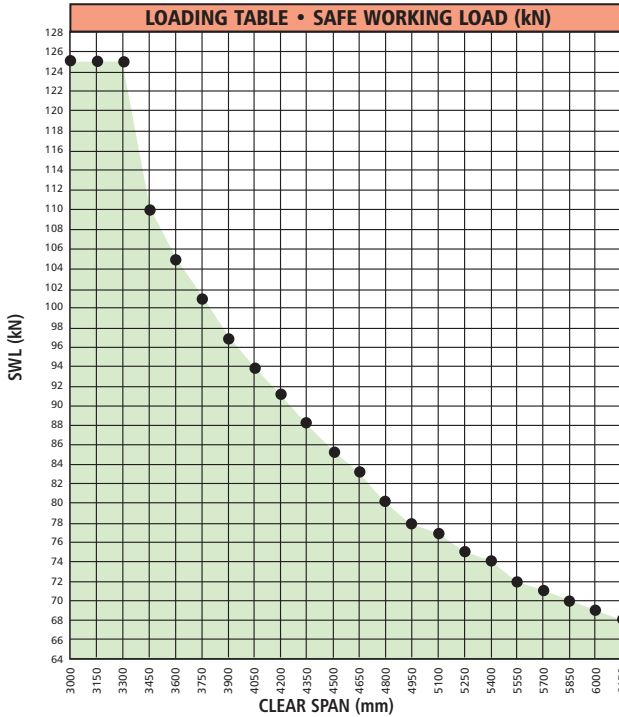
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LOADING TABLES AND SECTIONAL PROPERTIES

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SWL			
CLEAR SPAN	(min) END BEARING	OVERALL LENGTH	SWL (kN)
3000	150	3300	125
3150	150	3450	125
3300	150	3600	125
3450	150	3750	110
3600	150	3900	105
3750	150	4050	101
3900	150	4200	97
4050	150	4350	94
4200	150	4500	91
4350	150	4650	88
4500	150	4800	85
4650	150	4950	83
4800	150	5100	80
4950	150	5250	78
5100	150	5400	77
5250	150	5550	75
5400	150	5750	74
5550	150	5850	72
5700	150	6000	71
5850	150	6150	70
6000	150	6300	69
6150	150	6450	68

SECTIONAL PROPERTIES

EXAMPLE OF SECTIONAL PROPERTIES				
SECTION REFERENCE	LEAF WIDTH (F)	LINTEL WEIGHT/M kg	Ixx cm ⁴	Zxx cm ³
SWFB/XH/215	215	28.38	4590	275
SWFB/XH/215	215	36.35	6737	389
applies above 4800 length				

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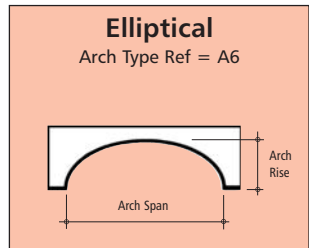
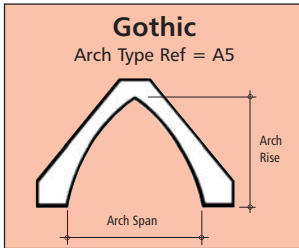
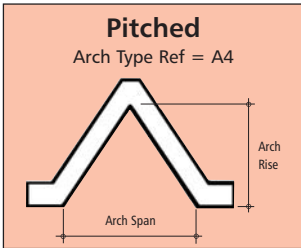
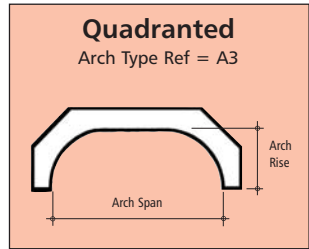
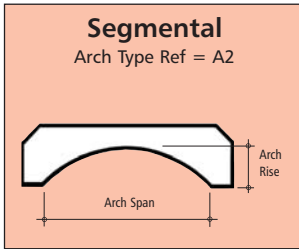
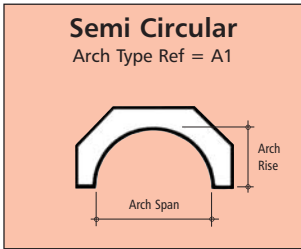
ARCHED LINTEL TYPES

Arched soffit Superlintels can be designed to suit any of the solid wall lintel sections. there are 6 standard arch profiles shown, each providing full support to masonry arch shapes as drawn.

Steel flange thicknesses to lintel soffits are allowed for within a design to ensure continuity of brick coursing to outer leaf, in particular springing points at each end of lintel spans.

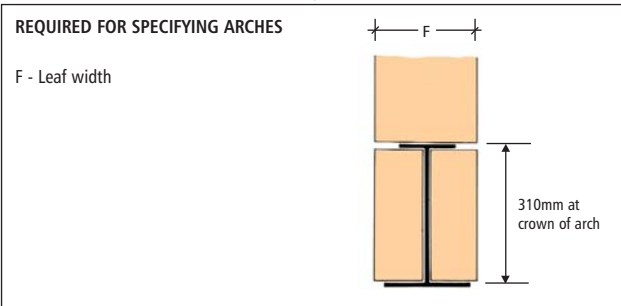
Where overall lintel height exceeds 450mm, webs are cropped to allow wall ties to be continued between both outer and inner leaf.

As with flat soffit Superlintels, the lintel section is dictated by wall construction, load and span. Arched forms may dictate minor changes to lintel section as shown.



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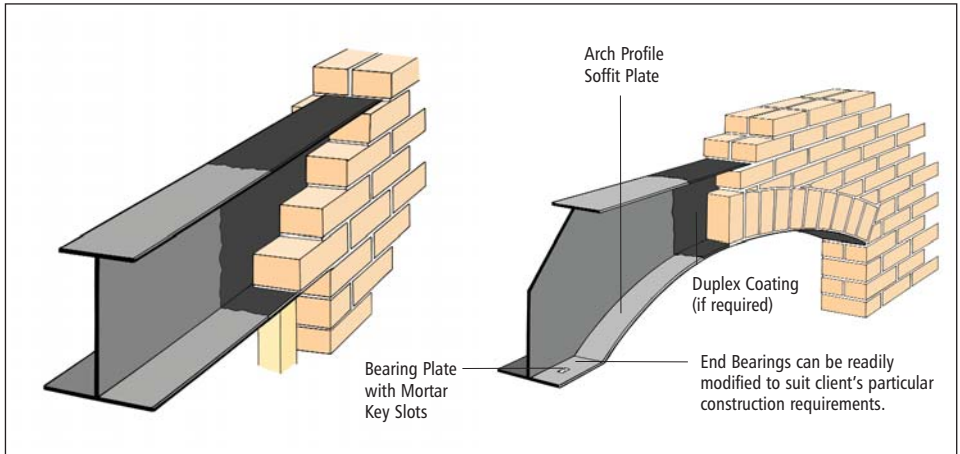
LOADING RATIOS, SECTIONAL DETAILS OF ARCHES



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TYPICAL INSTALLATION/CONSTRUCTION DETAILS



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ACCESSORY SUFFIXES

To specify add the following suffixes to the professional specification code

- COL** Corbelled Outer Leaf
- CS** Concealed Soffit detail.
- G** Stepped outer flange (20 mm step unless stated).
- JAF** Moulded arch former.
- JSF** Superarch steel arch former.
- M** Phosphate etch finish to lintel soffit.
- SFC** Steel frame connection.
- SS** Stainless steel lintel
Note: Finish coating suffix code i.e. DG140 (Duragalv 140) is not required when specifying stainless steel.
- U** Metal lathing plaster key.

COL Accessory
Corbelled Outer Leaf

F, required for specifying

Steel lintel support is essential to maintain stability through the height of a cavity wall which includes corbelling to the facework.

SFC Accessory
Steel frame connection

Illustration shows one of a large number of solutions where facework is required to pass across an inner column face without brick piers interrupting below lintel soffit (e.g. continual curtain walling). Column connections can also be used to resist overturning moments where insufficient bearing resistance can be achieved by conventional build at ends of lintel.

CS Accessory
Concealed Soffit detail

F, required for specifying

Steel lintel support can be combined with concealed soffit undercarriage to present facework to all 3 external sides of soffit.

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FINISHES

How to use the Lintel Longevity Table

1. Locate your site on the Millennium map (E.g. Leeds - West Yorkshire)
2. Match the corrosion category square colour to the key (Leeds = 3 light blue)
3. From the left hand column clarify required Construction Type / Minimum

- life (High quality Refurbishment = 60 years)
4. Read along from 60 years to category 3 (Minimum coating to be specified to comply with standards = Duragalv 100)
 5. At the end of the specifying code DG100 needs to be added.

Coating suffix specifying codes:

- Duragalv70 = DG70
 Duragalv100 = DG100
 Duragalv140 = DG140
 Duragalv140 + Duplex Coating = DG140DC

Fabricated mild steel lintel, Hot-Dip Galvanised after manufacture		= LINTEL LONGEVITY TABLE				
		Millennium Map corrosion category 1/2/3/4/5, and the minimum coatings to be specified in those areas, to comply with BS 7543 and BS EN 845-2:2003.				
See Millennium Map for your site location or visit www.hdg.org.uk/map/index.htm		1	2	3	4	5
CONSTRUCTION TYPE / MIN LIFE Retail, Industrial and General Refurb. Minimum Life to Comply With BS 7543 = 30 YEARS	DURA GALV 70	DURA GALV 70	DURA GALV 70	DURA GALV 70	DURA GALV 100	
CONSTRUCTION TYPE / MIN LIFE Health, Education, New Housing High Quality Refurb. Minimum Life to Comply With BS 7543 = 60 YEARS	DURA GALV 70	DURA GALV 70	DURA GALV 100	DURA GALV 140	DURA GALV 140 DUPLEX COATING	
CONSTRUCTION TYPE / MIN LIFE Civic and Other High Quality Buildings. Minimum Life to Comply With BS7543 = 120 YEARS	DURA GALV 70	DURA GALV 140	DURA GALV 140 DUPLEX COATING	DURA GALV 140 DUPLEX COATING	DURA GALV 140 DUPLEX COATING	

Any lintel profile can be created by our in-house design team with spans ranging from 600mm and rises to suit. Contact our advice team on techadvice@jonesofoswestry.com for online support and free design service.

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HOW TO SPECIFY

PROGRESSIONAL EXAMPLE FOR SPECIFYING								
Ref DESCRIPTION	MAIN PRODUCT CODE				THESE REQUIRED WHEN SPECIFYING ARCHES		ACCESSORY SUFFIX	FINISHED COATING
	WALL TYPE	LOADING	LEAF WIDTH (F)	SPAN	ARCH TYPE	ARCH RISE		
DETAIL	(SOLID WALL FULL BRICK)	(EXTRA HEAVY)	(215mm)	(3300mm)	(A2 = SEGMENTAL)	(450mm)	(METAL LATHING KEY)	(SEE LONGEVITY TABLE)
PRODUCT Ref	SWFB	XH	215	3300	A2	450	U	DG100
THE ABOVE EQUALS FULL SPECIFYING CODE OF = SWFB/XH/215/3300/A2/450/U/DG100								