

# CONCRETE FRAMED CF/M MEDIUM DUTY

Lintels are manufactured from minimum 4mm thick structural steel plate with a minimum yield strength of 275N/mm<sup>2</sup>.

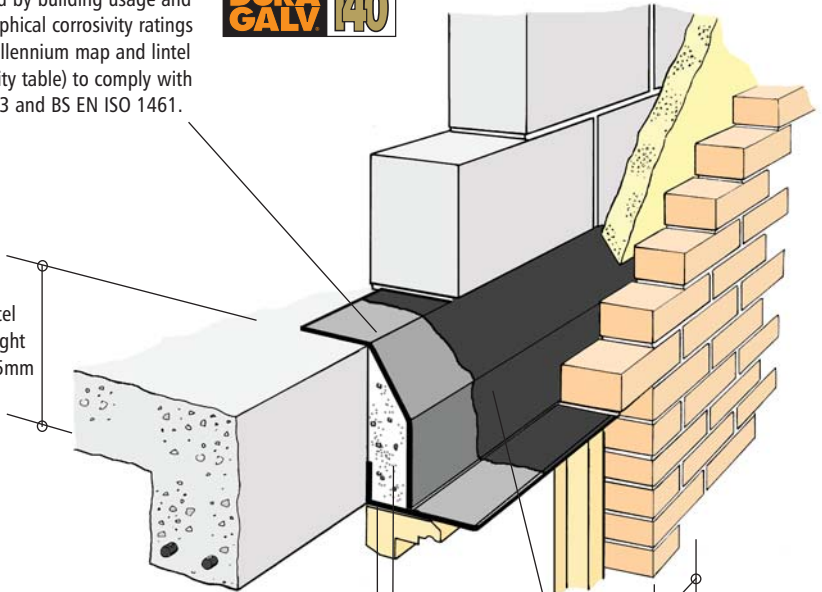
All lintels are post galvanised to a minimum zinc thickness dictated by building usage and geographical corrosivity ratings (see millennium map and lintel longevity table) to comply with BS 7543 and BS EN ISO 1461.

**DURA GALV** 70

**DURA GALV** 100

**DURA GALV** 140

Lintel Height  
235mm



Integral steel compression flange for flush finish to soffit.

End Bearing  
150mm

**DUPLEX COATING**

Factory fitted profiled polystyrene insulation. CFC Free. For Thermal performance requirements to part L1&L2 building regulations.

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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# CONCRETE FRAMED CF/M MEDIUM DUTY

## GENERAL TECHNICAL DETAIL, COMPOSITION AND MANUFACTURE

### GENERAL

**Introduction.** The SUPERLINTEL CF/M range of lintels, for concrete framed 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/mm<sup>2</sup>.

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.

## LOADINGS, SECTIONAL DETAIL / PROPERTIES

### PERFORMANCE

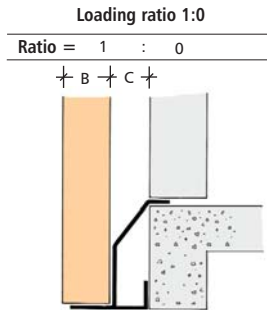
**Mechanics.** Safe working loads for the CF/M range of lintels are established by testing based upon the non-destructive test procedures for steel lintels as recommended in BSEN 845-2:2003

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

### REQUIRED FOR SPECIFYING

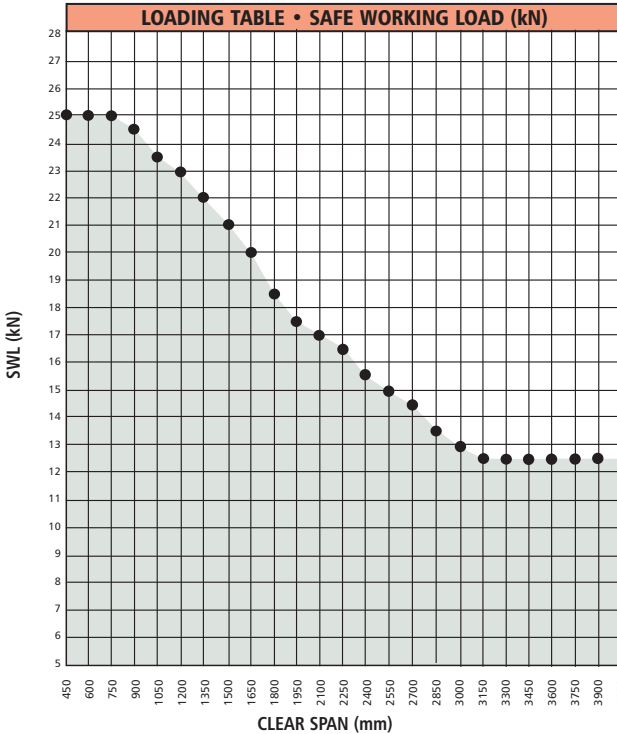
F - Facing leaf width

C - Cavity width



# CONCRETE FRAMED CF/M MEDIUM DUTY

## LOADING TABLES



SWL			
CLEAR SPAN	(min) END BEARING	OVERALL LENGTH	SWL (kN)
450	150	750	25
600	150	900	25
750	150	1050	25
900	150	1200	24.5
1050	150	1350	23.5
1200	150	1500	23
1350	150	1650	22
1500	150	1800	21
1650	150	1950	20
1800	150	2100	18.5
1950	150	2250	17.5
2100	150	2400	17
2250	150	2550	16.5
2400	150	2700	15.5
2550	150	2850	15
2700	150	3000	14.5
2850	150	3150	14
3000	150	3300	13.5
3150	150	3450	13
3300	150	3600	12.5
3450	150	3750	12.5
3600	150	3900	12.5
3750	150	4050	12.5
3900	150	4200	12.5
4050	150	4350	12.5

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## SECTIONAL PROPERTIES

EXAMPLE OF SECTIONAL PROPERTIES			
SECTION REFERENCE	FACING LEAF WIDTH (F)	CAVITY WIDTH (C)	LINTEL WEIGHT/M kg
CF/M/102/50	102	50	15.5
CF/M/102/70	102	70	16.0
CF/M/102/85	102	85	16.5
CF/M/102/100	102	100	17.0

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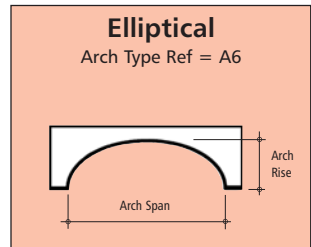
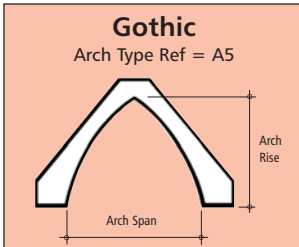
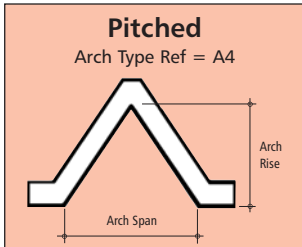
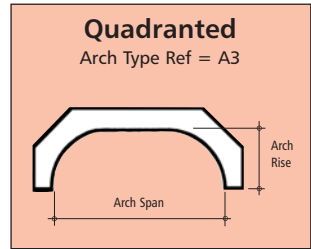
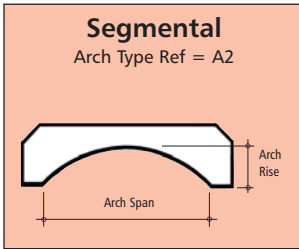
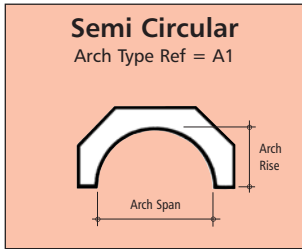
## ARCHED LINTEL TYPES

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

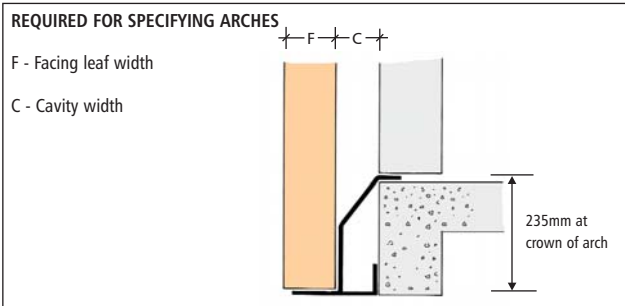
Steel flange thicknesses to lintel soffits are allowed for within a design to ensure continuity of brick coursing to outer leaf, in particular spring points at each end of lintel spans.

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.



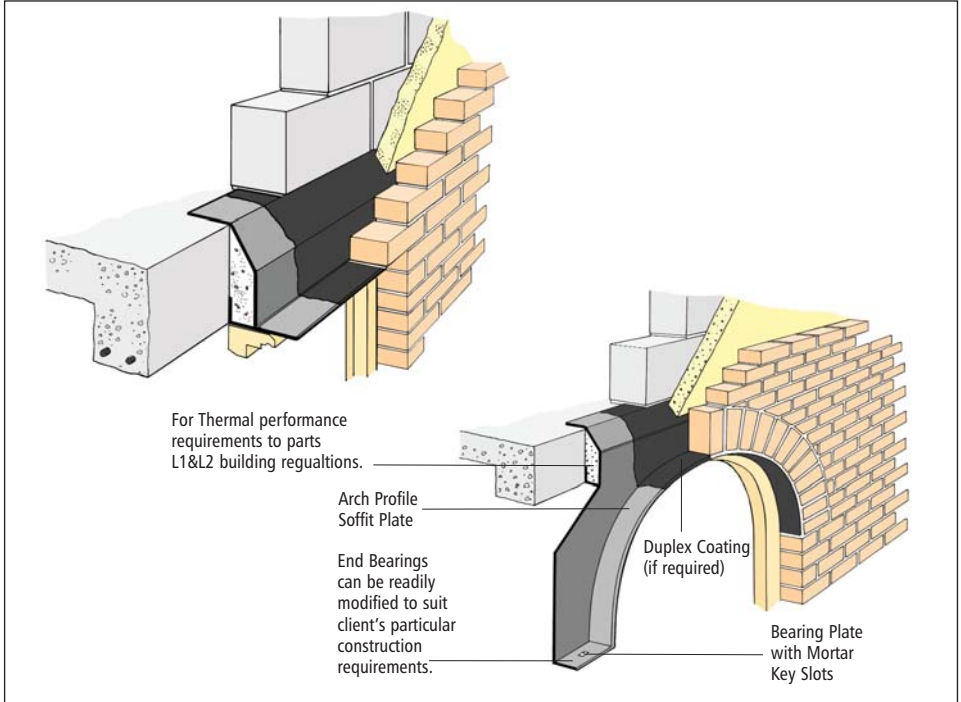
## LOADING RATIOS, SECTIONAL DETAILS OF ARCHES



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# CONCRETE FRAMED CF/M MEDIUM DUTY

## TYPICAL INSTALLATION/CONSTRUCTION DETAILS



## ACCESSORY SUFFIXES

To specify add the following suffixes to the progressional specification code

**CFC** Concrete frame connection.

**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.

**SS** Stainless steel lintel

Note: Finish coating suffix code i.e.

DG140 (Duragalv 140) is not required when specifying stainless steel.

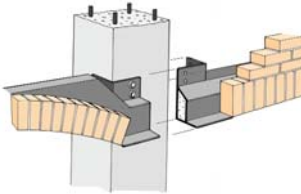
**U** Metal lathing plaster key.

### CFC Accessory

Concrete 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.



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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 <a href="http://www.hdg.org.uk/map/index.htm">www.hdg.org.uk/map/index.htm</a>		1	2	3	4	5
<b>CONSTRUCTION TYPE / MIN LIFE</b> Retail, Industrial and General Refurb. Minimum Life to Comply With BS 7543 <b>= 30 YEARS</b>	<b>DURAGALV 70</b>	<b>DURAGALV 70</b>	<b>DURAGALV 70</b>	<b>DURAGALV 70</b>	<b>DURAGALV 100</b>	<b>DURAGALV 100</b>
<b>CONSTRUCTION TYPE / MIN LIFE</b> Health, Education, New Housing High Quality Refurb. Minimum Life to Comply With BS 7543 <b>= 60 YEARS</b>	<b>DURAGALV 70</b>	<b>DURAGALV 70</b>	<b>DURAGALV 100</b>	<b>DURAGALV 140</b>	<b>DURAGALV 140</b>	<b>DUPLEX COATING</b>
<b>CONSTRUCTION TYPE / MIN LIFE</b> Civic and Other High Quality Buildings. Minimum Life to Comply With BS7543 <b>= 120 YEARS</b>	<b>DURAGALV 70</b>	<b>DURAGALV 140</b>	<b>DURAGALV 140</b>	<b>DURAGALV 140</b>	<b>DURAGALV 140</b>	<b>DUPLEX COATING</b>

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](mailto: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			
	WALL TYPE	LOADING	FACING LEAF WIDTH (F)	CAVITY WIDTH (C)	SPAN	ARCH TYPE	ARCH RISE	ACCESSORY SUFFIX	FINISHED COATING
DETAIL	(CONCRETE FRAMED)	(MEDIUM)	(102mm)	(75mm)	(2100mm)	(A2 = SEGMENTAL)	(450mm)	(METAL LATHING KEY)	(SEE LONGEVITY TABLE)
PRODUCT Ref	CF	M	102	75	2100	A2	450	U	DG100
THE ABOVE EQUALS FULL SPECIFYING CODE OF = CF/M/102/75/2100/A2/450/U/DG100/									