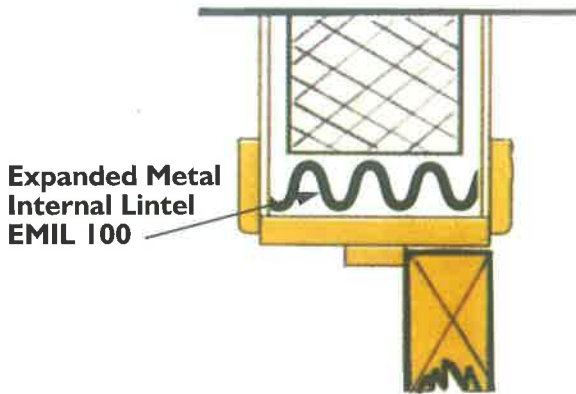




Steel Lintels

## STEEL LINTELS

Steel Lintels are used to replace conventional casting of concrete lintels across doors and windows openings. Galvanised steel is used to manufacture the lintels which conform to BS 2989 : 1982.



Internal Lintel EMIL 100/70

### PRODUCT BENEFITS:

- Lightweight yet stronger than conventional concrete lintels and can be lifted and installed by a single person.
- High quality corrosion protection system i.e. galvanised for internal lintels, U-channel lintels and lintel brackets.
- Material design for easy plastering and provides a stronger bond.
- Eliminates the need to cast concrete. Brick/Blockwork can commence immediately after installing the steel lintels.
- Safe working loads are tabulated for reference.

| Lintel Ref. No. | Overall length of Lintel (mm) | Maximum span of opening (mm) | Width of Lintel (mm) | * Safe distributed loading (tonnes) |
|-----------------|-------------------------------|------------------------------|----------------------|-------------------------------------|
| EMIL 100        | 900                           | 700                          | 70/100               | max.                                |
| EMIL 70         | 1000                          | 800                          | 70/100               | up to                               |
|                 | 1100                          | 900                          | 70/100               | 0.7mT                               |
|                 | 1200                          | 1000                         | 70/100               |                                     |

\* Highly recommended to lay 1st course of bricks and set for 1 day before continuing subsequent brick laying to minimise deflection.

#### EXPANDED METAL U-CHANNEL LINTEL DESIGN To BS 449

| Opening Width m | Maximum Uniformly Distributed Load kN/m * + # |          |           |           |           |           |
|-----------------|---|----------|-----------|-----------|-----------|-----------|
|                 | EMIL 100                                      | EMSL 103 | EMSL 103A | EMSL 103B | EMSL 103C | EMSL 103D |
| 0.70            | 1.33  |          |           |           |           |           |
| 0.80            | 0.97  | 2.87     | 6.15      | 7.65      | 9.88      | 16.91     |
| 0.90            | 0.73  | 2.37     | 5.08      | 6.32      | 8.17      | 13.98     |
| 1.00            | 0.56  | 1.99     | 4.27      | 5.31      | 6.86      | 11.74     |
| 1.10            | 0.44  | 1.70     | 3.64      | 4.53      | 5.85      | 10.01     |
| 1.20            |   | 1.43     | 3.14      | 3.90      | 5.04      | 8.63      |
| 1.30            |   | 1.16     | 2.73      | 3.40      | 4.39      | 7.52      |
| 1.40            |   | 0.96     | 2.40      | 2.99      | 3.86      | 6.61      |
| 1.50            |   | 0.80     | 2.13      | 2.65      | 3.42      | 5.85      |
| 1.60            |   | 0.67     | 1.90      | 2.36      | 3.05      | 5.22      |
| 1.70            |   | 0.57     | 1.70      | 2.12      | 2.74      | 4.68      |
| 1.80            |   | 0.49     | 1.48      | 1.84      | 2.37      | 4.23      |
| 1.90            |   | 0.42     | 1.28      | 1.59      | 2.05      | 3.83      |
| 2.00            |   |          |           |           | 1.78      | 3.49      |
| 2.10            |   |          |           |           | 1.56      | 3.20      |
| 2.20            |   |          |           |           | 1.37      | 2.94      |
| 2.30            |   |          |           |           | 1.21      | 2.64      |
| 2.40            |   |          |           |           | 1.08      | 2.35      |
| 2.50            |   |          |           |           | 0.96      | 2.10      |
| 2.60            |   |          |           |           | 0.86      | 1.88      |
| 2.70            |   |          |           |           | 0.78      | 1.69      |
| 2.80            |   |          |           |           | 0.70      | 1.53      |
| 2.90            |   |          |           |           | 0.64      | 1.39      |
| 3.00            |   |          |           |           | 0.58      | 1.26      |
| 3.10            |   |          |           |           | 0.53      | 1.15      |
| 3.20            |   |          |           |           | 0.48      | 1.05      |
| 3.30            |   |          |           |           | 0.44      | 0.96      |

#### Notes

- \* Max. UDL is based on 100 mm brick wall with 10mm plaster finish to both faces
- + Density of brick = 22.6 kN/m<sup>3</sup>
- # Density of plaster finishes = 20 kN/m<sup>3</sup>

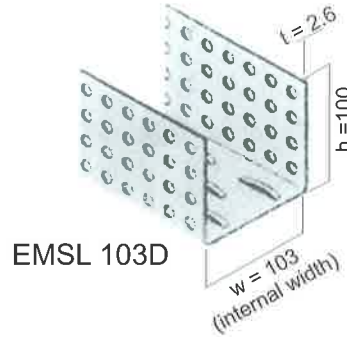
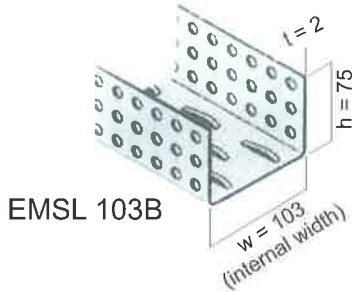
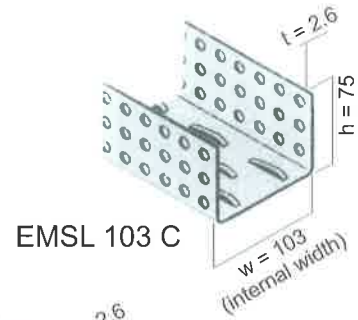
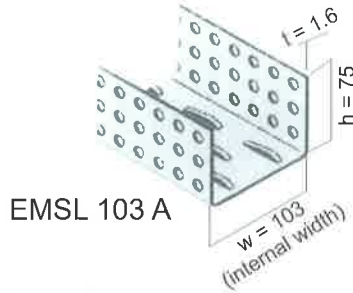
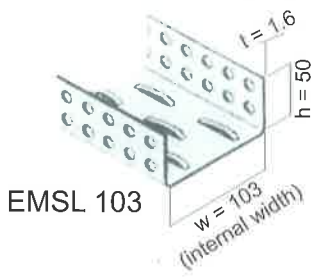
#### EXPANDED METAL U-CHANNEL LINTEL DESIGN To BS 449

| Opening Width m | Maximum Height of 100 mm thk Brickwall Above Lintel (m) |          |           |           |           |           |
|-----------------|---|----------|-----------|-----------|-----------|-----------|
|                 | EMIL 100  | EMSL 103 | EMSL 103A | EMSL 103B | EMSL 103C | EMSL 103D |
| 0.70            | 0.49  |          |           |           |           |           |
| 0.80            | 0.35  | 1.07     | 2.30      | 2.86      | 3.70      | 6.35      |
| 0.90            | 0.26  | 0.88     | 1.90      | 2.36      | 3.06      | 5.24      |
| 1.00            | 0.20  | 0.74     | 1.59      | 1.99      | 2.57      | 4.40      |
| 1.10            | 0.15  | 0.63     | 1.36      | 1.69      | 2.19      | 3.75      |
| 1.20            |   | 0.53     | 1.17      | 1.46      | 1.88      | 3.23      |
| 1.30            |   | 0.42     | 1.02      | 1.27      | 1.64      | 2.81      |
| 1.40            |   | 0.35     | 0.89      | 1.11      | 1.44      | 2.47      |
| 1.50            |   | 0.29     | 0.79      | 0.98      | 1.27      | 2.19      |
| 1.60            |   | 0.24     | 0.70      | 0.88      | 1.13      | 1.95      |
| 1.70            |   | 0.20     | 0.63      | 0.78      | 1.02      | 1.75      |
| 1.80            |   | 0.17     | 0.54      | 0.68      | 0.88      | 1.58      |
| 1.90            |   | 0.15     | 0.47      | 0.58      | 0.76      | 1.43      |
| 2.00            |   |          |           |           | 0.66      | 1.30      |
| 2.10            |   |          |           |           | 0.57      | 1.19      |
| 2.20            |   |          |           |           | 0.50      | 1.09      |
| 2.30            |   |          |           |           | 0.44      | 0.98      |
| 2.40            |   |          |           |           | 0.39      | 0.87      |
| 2.50            |   |          |           |           | 0.35      | 0.78      |
| 2.60            |   |          |           |           | 0.31      | 0.70      |
| 2.70            |   |          |           |           | 0.28      | 0.63      |
| 2.80            |   |          |           |           | 0.25      | 0.56      |
| 2.90            |   |          |           |           | 0.23      | 0.51      |
| 3.00            |   |          |           |           | 0.21      | 0.46      |
| 3.10            |   |          |           |           | 0.19      | 0.42      |
| 3.20            |   |          |           |           | 0.17      | 0.38      |
| 3.30            |   |          |           |           | 0.15      | 0.35      |

#### Note

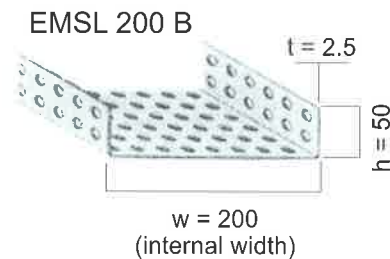
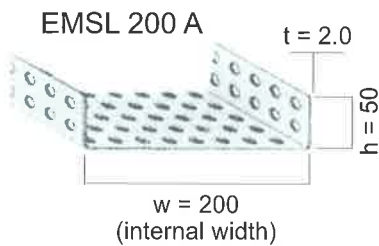
Dark bold line denotes the critical opening width under arching action

## U-Channel Lintels

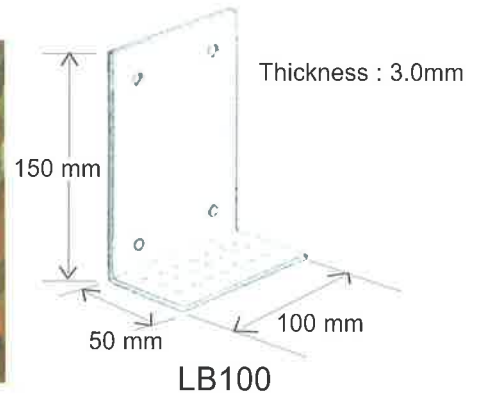


| Lintel Ref. No.             | EMSL 200A |      | EMSL 200B |      |      |
|-----------------------------|-----------|------|-----------|------|------|
|                             | 0800      | 1300 | 0800      | 1300 | 1600 |
| Manufactured Lengths        | 0800      | 1300 | 0800      | 1300 | 1600 |
| 100mm Increments            | 1200      | 1500 | 1200      | 1500 | 1800 |
| Height 'h' (mm)             | 50        | 50   | 50        | 50   | 50   |
| Material Thickness 't' (mm) | 2.0       | 2.0  | 2.5       | 2.5  | 2.5  |
| Internal Width (mm)         | 200       | 200  | 200       | 200  | 200  |
| Total UDL (tonnes)          | 0.63      | 0.50 | 0.80      | 0.60 | 0.40 |
| ±10% Weight (kg/m)          | 4.5       | 4.5  | 5.71      | 4.5  | 5.71 |

Note: • Allowable moment, yield stress 250 N/mm<sup>2</sup>  
• All dimensions in mm.



## Fixing Accessories For Lintels Recommended Loads



| Bracket Reference                               | Suitable for lintels            | Maximum Load (KN)/bracket |              |
|---|---------------------------------|---------------------------|--------------|
| EMLB 100  | EMIL 100 - EMSL 103, A, B, C, D | 4.4                       | 7.1          |
| Metal expansion anchors (quality-diameter [mm]) |                                 | 2 No. - 8/10              | 4 No. - 8/10 |



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