Standard Cavity Wall Lintels

Prior to installation:

- ✓ Ensure that the Lintel width matches the wall; masonry should not overhang the lintel by more than 25mm
- ✔ Check the Lintel is undamaged (has not been bent or broken) & that insulation is present (if relevant)
- ✓ Ensure that the lintel length provides adequate bearing at each end, typically 150mm, but a minimum of 100mm
- ✓ Check that it is the correct type; i.e. as specified or of the appropriate duty (refer relevant product tables)

Health & Safety

- ! These lintels are manufactured from stainless steel, the edges are sharper than those of mild steel lintels
- ! Use of gloves is recommended to handle the lintels
- ! The weight of some lintels may require the use of a crane; protect fabric strops from the sharp edges
- ! The lintels may contain CFC-free polystyrene or Rockwool® insulation, MSDS sheets are available

Preparation of bearings

- 1 The lintel should always bear onto a thin layer of bricklaying mortar, on top of full bricks or blocks.
- ✓ The bearings should ensure that the lintel will be installed level both lengthways and widthways
- ✓ Heavy duty lintels may require longer bearings or padstones; refer to our technical dept. or engineer

Installation of masonry on the lintel

- ! Ensure the Lintel is centred over the opening, or that minimum bearing lengths are maintained
- The masonry on both sides of the lintel should be raised ! together , except:
- ! CC16, CC24, CD and CI Lintels are not susceptible to twisting so the inner may be raised without the outer
- ! Cavity wall ties should be installed above the lintel to standard masonry practice
- ! Masonry should be fully built into the back of the CC type lintels, as shown right, to achieve full load
- ! Type CI Lintels do not require masonry built into the back, but it may be added if desired.

Use of props during construction

- ✓ Supported masonry should be stable and allowed to fully cure prior to adding floor or roof loads
- ✓ If this is not possible, then the lintel should be propped until the supported masonry is fully cured.
- ✔ CA12 & CA16 lintels with 125 & 190 inners should be propped under the inner for all but light loads until cured.

DPC Requirements

- ! All our Stainless Steel cavity lintels that meet the requirements of BS 8215 (damp courses in masonry) are supplied with separate stop ends. These affix to the lintel per the enclosed instructions so the lintel forms an integral cavity tray and a separate DPC is not required.
- Any lintels of height less than 150mm, or less than ! 150mm vertical dimension on the sloping portion, cannot meet the requirements of BS 8215 and require a separate DPC to be installed with the inner anchored at least 150mm higher than the outer. This is noted on the relevant lintel pages.

! Weep vents on the outer leaf should be installed in accordance with standard masonry practice

Application of point loads to the lintel

- ! Both maximum 'Evenly Distributed' and permissible point loads for each lintel are listed in the specification brochure.
- ! Point loads must not exceed that stated, or cause the lintel to exceed the allowable distributed load or bending moment
- In the case of more than one significant point load, the point loads must be spaced at least 450mm apart
- Point load limits listed refer to the inner leaf; point loads ! should not be applied to the outer without prior consultation



- ! Point loads (such as a joist) applied to the lintel without any surrounding masonry must be fastened to the lintel.
- Point loads must be flat on the lintel, bear over at least 50mm of the lintel length, and must be against the web:

Explanation of Load Ratios

- ! The final load must be distributed across the lintel so the ratio of the Outer leaf : Inner leaf loads fall within the specified ratio for the particular lintel type. Refer to the relevant lintel load tables to find the permissible ratio for a particular lintel. An example is shown below:
- These lintels are not intended to support significant lateral loads - contact our technical for assistance in this case



Lintel modifications on site

- ! Site modifications to the lintel are possible (including welding with appropriate procedure) providing the structural performance and regulatory compliance are not compromised. If in doubt, please contact us.
- Stainless steel drills and discs should be used for cutting & drilling, and should not be contaminated with mild steel.

Lintel Finish

- Stainless steel lintels do not require surface protection, but cleaning to remove contaminants is recommended.
- ! The lintels may be painted if desired; use a stainless steel etch primer prior to top coating.
- ! Avoid installing in close proximity to mild or galvanised steel products in the outer leaf, as galvanic corrosion of those products may occur in a damp situation.
- Application of a bead of silicone or similar at the junction between the window or door frame and the lintel soffit will prevent moisture penetration at this location.

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LINTELS COVERED BY THIS GUIDELINE



CA Lintels for Standard Duty Applications



CA Lintels (Wider cavity variation)



CC Lintels (Medium/Heavy Duty & higher inner leaf loads)



CC Lintels (Wider cavity variation)



CD Lintels For Heavy Duty Applications



CI Lintels For Super Heavy Duty Applications

Open Section Lintels

Prior to installation:

- ✓ Ensure the Lintel width is correct for the wall; masonry should not overhang the lintel by more than 25mm
- ✓ Check the Lintel is structurally undamaged has not been bent or broken & that insulation is present (if relevant)
- ✓ Ensure that the lintel length provides adequate bearing at each end, typically 150mm, but a minimum of 100mm
- Check that it is the correct type; i.e. as specified or of the appropriate duty (refer relevant product tables)
- Check the lintel label and paperwork for additional installation information specific to that lintel

Health & Safety

- ! Stainless steel edges are much sharper than those of mild steel lintels, so the use of gloves is recommended
- ! If using a crane, protect the strops from the sharp edges

Preparation of bearings

- ✓ The lintel should always bear onto a thin layer of bricklaying mortar, on top of full bricks or blocks.
- ✓ The bearings should ensure that the lintel will be installed level both lengthways and widthways
- ✓ Heavy duty lintels may require longer bearings or padstones; refer to our technical dept. or an engineer

Installation of masonry on the lintel

- ✓ Ensure the Lintel is centred over the opening, if this is not possible, contact our technical department for assistance
- ! In the case of double wall lintels, the masonry on both sides of the lintel should be raised at the same time
- ! Cavity wall ties or similar lateral restraint should be installed as normal in accordance with BS 5628-1.
- ! Masonry should be fully built into the back of the SC & DC type lintels, as shown right, to achieve full load
- ! Care should be taken when installing SC & DC lintels to ensure they are appropriately restrained - If fully retrained against twisting along the full length they may carry a significantly higher load than if simply supported. Never install a simply supported lintel in a situation where full restraint has been specified.
- ! An SC or DC lintel may be considered fully restrained if it sits hard against a frame behind, and the immediate supported masonry is connected to the inner with ties or similar at regular intervals per BS 5628-1.



Use of props during construction

- ! These Lintels must be propped during construction until the supported masonry is fully cured, for all but very light loads
- ! Supported masonry should be stable and allowed to fully cure prior to adding additional load such as floors or roofs,
- ! Props should support the base of the lintel to as to prevent the lintel from twisting, see below:
- ! Note: A DPC is not required for these lintels, but may be specified by the architect for other reasons.



Lintel finish

- ! Stainless steel lintels do not require surface protection, but cleaning to remove contaminants is recommended.
- ! The lintels may be painted if desired; use a stainless steel etch primer prior to top coating.
- ! Avoid installing in close proximity to mild or galvanised steel products as galvanic corrosion of those products may occur

Lintel modifications on site

- ! Site modifications may be made to the lintel providing the structural performance and regulatory compliance are not compromised. If in doubt, please contact our technical department for assistance.
- ! Stainless steel drills and discs should be used for cutting

Application of point loads to the lintel

- ! Both maximum 'Evenly Distributed' and permissible point loads for each lintel are listed in the specification brochure
- ! Point loads must not exceed that stated, or cause the lintel to exceed the allowable distributed load or bending moment
- ! In the case of more than one significant point load, the point loads must be spaced at least 450mm apart
- ! Stable point loads (such as a joist) applied to the lintel without surrounding masonry must be fastened to the lintel.
- Point loads must be flat on the lintel, bear over at least 50mm of the lintel length, and must be against the web:



THIS GUIDELINE

LINTELS COVERED BY

SL Lintels for Light Duty Applications



SC Lintels For Medium Duty Applications



DL Lintels for Standard Duty Applications



DC Lintels for Medium Duty Applications



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Box Section Lintels

Prior to installation:

- ✓ Ensure that the Lintel Width is correct; masonry should not overhang the lintel by more than 25mm
- Check the Lintel is structurally undamaged and that insulation is present (if relevant)
- ✓ Ensure that the lintel length provides adequate bearing at each end, typically 150mm, but a minimum of 100mm
- ✓ Check that it is the correct type; i.e. as specified or of the appropriate duty (refer relevant product tables))

Health & Safety

- ! These lintels are manufactured from stainless steel, the edges are much sharper than those of mild steel lintels
- ! Use of gloves is recommended to handle the lintels
- ! The weight of some lintels may require the use of a crane; protect fabric strops from the sharp edges
- ! The lintels may contain CFC-free polystyrene or Rockwool[®] insulation, MSDS sheets are available

Preparation of bearings

- ✓ The lintel should always bear onto a thin layer of bricklaying mortar, on top of full bricks or blocks
- ✓ The bearings should ensure that the lintel will be installed level both lengthways and widthways
- Heavier duty lintels may require longer bearings or padstones; refer to our technical dept. or an engineerr

Installation of masonry on the lintel

- ! Ensure the Lintel is centred over the opening, or that minimum bearing lengths are maintained
- ! Cavity wall ties should be installed above the lintel to standard masonry practice for single leaf walls
- ! For single leaf lintels we recommend allowing the bearing to cure before loading the lintel, for stability

Use of props during construction

- ! Supported masonry should be stable and allowed to fully cure prior to adding additional loads
- ! Propping is generally not required for these lintels

DPC Requirements

- ! These lintels are stainless steel and do not require a separate DPC for corrosion protection.
- ! There may be a requirement for a DPC in the wall for other reasons refer to architectural details to check

Orientation of Lintels

- ! Lintels SB2 SB7 may be installed upside down, or on their side if required without any loss of strength; particularly useful for masonry walls <100mm thick
- ! SB2 & SB3 lintels installed upside down ('C' open at the top) should be filled with mortar

Application of point loads to the lintel

- ! Both maximum 'Evenly Distributed' and permissible point loads for each lintel are listed in the brochure,
- ! Point loads must not exceed that stated, or cause the lintel to exceed the allowable load or bending moment
- ! In the case of more than one significant point load, the point loads must be spaced at least 450mm apart

! Point loads must be flat on the lintel, bear over at least 50mm of the lintel length, and must be either against the web (DB lintels) or all the way across the box section:





Lintel modifications on site

- ! Site modifications (including welding with appropriate procedure) may be made to the lintel providing the structural performance and regulatory compliance are not compromised. If in doubt, please contact our technical department for assistance
- ! Stainless steel drills and discs should be used for cutting and drilling, and should not be contaminated with mild steel

Lintel Finish

- ! Being stainless steel, these lintels do not require surface protection, but cleaning to remove contaminants after installation is recommended
- ! The lintels are normally supplied with plaster key on the underside to assist dry lining or rendering
- ! Fasteners used to attach other elements to the lintel in a damp environment should be Stainless Steel grade 316 or similar, lesser steels may corrode rapidly
- ! The lintels may be painted if desired; use a stainless steel etch primer prior to top coating
- ! Avoid installing in close proximity to mild or galvanised steel products as galvanic corrosion of those products may occur
- ! Application of a bead of silicone or similar at the junction between the window or door frame and the lintel soffit will prevent moisture penetration at this location (if applicable).

LINTELS COVERED BY THIS GUIDELINE



SB2 & SB3 Lintels for Light Duty Applications



SB5 & SB7 Lintels For Standard Duty Applications



SB14 - SB29 Lintels For Heavy Duty Applications



EB Lintels For Eaves Applications



DB Lintels For double solid wall applications

Hollow Outer Leaf Lintels

Prior to installation:

- ✓ Ensure the Lintel width is correct for the wall; masonry should not overhang the lintel by > 25mm, and the hollow part of the lintel usually fits in the cavity of a wall
- Check the Lintel is structurally undamaged has not been bent or broken & that insulation is present (if relevant)
- ✓ Ensure that the lintel length provides adequate bearing at each end, typically 150mm, but a minimum of 100mm Large OC lintels may require up to 300mm bearings
- ✔ Check that it is the correct type; i.e. as specified or of the appropriate duty (refer relevant product tables)
- Check the lintel label and paperwork for additional installation information specific to your lintel

Health & Safety

- ! Stainless steel edges are much sharper than those of mild steel lintels, so the use of gloves is recommended
- ! If using a crane, protect the strops from the sharp edges
- ! The lintels may contain CFC-free polystyrene or Rockwool[®] insulation, MSDS sheets are available

Preparation of bearings

- ✓ The lintel should always bear onto a thin layer of bricklaying mortar, on top of full bricks or blocks
- ✓ The bearings should ensure that the lintel will be installed level both lengthways and widthways
- Heavy duty lintels may require longer bearings or padstones; refer to our technical dept. or an engineer
- ! Notes that in most installations, the box part of an OC lintel will overhang into the cavity, so the lintel may require props to remain level until sufficient masonry is installed.

Installation of masonry on the lintel

- ✓ Ensure the Lintel is centred over the opening, or installed with at least the minimum specified bearing length at the end with the shortest bearing length
- ! The lintel should rest against the inner frame of the building, but should not be fastened to the inner frame
- ! Mortar under the lintel bearings should be allowed to fully cure prior to the application of load on the lintel
- ! Cavity wall ties or similar lateral restraint must be installed as normal in accordance with BS 5628-1
- ! The OC lintels may also be installed in a double wall, in which case the double wall box lintel installation instruction should be followed

Use of props during construction

- ! For short or moderate span applications these lintels do not require propping during construction, except:
- ! All lintels may require initial support to balance on the wall until held in place by the supported masonry - this is because the centre of gravity of the lintel usually lies over the cavity rather than the wall
- For longer spans (>3.0m for OLH & >4.0m for OC lintels) some minor deflection under load can be expected, and propping during construction is as follows: It is recommended that 700-1100mm of masonry be installed on the lintel and allowed to cure. The lintel should then be propped and the remainder of the load applied. This allows the lintel to 'set' and will prevent masonry cracking due to the lintel 'taking up' the load if propped at the start

Application of point loads to the lintel

- ! Both maximum 'Evenly Distributed' and permissible point loads for each lintel are listed in the specification brochure,
- ! Point loads must not exceed that stated, or cause the lintel to exceed the allowable distributed load or bending moment
- ! In the case of more than one significant point load, the point loads must be spaced at least 450mm apart
- Point loads must be flat on the lintel, bear over at least 50mm of the width, and must be against the web if applied onto the lower flange. Loads applied to the top flange must be over the web adjacent to the supported masonry:



OC23 shown, but also applies to OLH & OC22 Lintels.

Lintel modifications on site

- ! Site modifications may be made to the lintel providing the structural performance and regulatory compliance are not compromised. If in doubt, please contact us
- ! Stainless steel drills and discs should be used for cutting and drilling, and should not be contaminated with mild steel
- ! In a damp environment, fasteners used to affix other items to these lintels should be 316 stainless

Lintel Finish

- ! Stainless steel lintels do not require protection, but cleaning to remove contaminants is recommended
- ! The lintels may be painted if desired; use a stainless steel compatible etch primer prior to top coating
- ! Avoid installing incontact with mild or galvanised steel products, which may experience galvanic corrosion

DPC Requirements

- ! Most OLH lintels are supplied with stop-ends to form a built in cavity tray, so an additional DPC is not required.
- ! OC Lintels require a separate DPC over (in cavity applications) to comply with BS8215 (not for corrosion resistance)

LINTELS COVERED BY THIS GUIDELINE



OLH Lintels for Light Duty Applications



OC22 Lintels For Medium Duty Applications



OC23 Lintels for Heavy Duty Applications



OC32 Lintels Super Heavy Duty Applications

_intels for Framed Buildings

Prior to installation:

- ✓ Ensure that the Lintel width is correct for the wall; masonry should not overhang the lintel more than 25mm
- ✓ Check the Lintel is structurally undamaged that it has not been bent or broken & that insulation is present (if relevant)
- ✔ Ensure that the lintel length provides adequate bearing at each end, typically 150mm, but a minimum of 100mm
- Check that it is the correct type; i.e. as specified or of the V appropriate duty (refer relevant product tables)
- ✓ If the lintel has been specified as 'supported', check that the timber frame fixing clips are included

Health & Safety

- These lintels are manufactured from stainless steel, the edges are much sharper than those of mild steel lintels
- Use of gloves is recommended to handle the lintels !
- If lifting equipment is used, be sure to protect any fabric ! lifting strops from the sharp stainless steel edges

Preparation of bearings

- ! The lintel should always bear onto a thin layer of bricklaying mortar, on top of full bricks or blocks.
- ! The bearings should ensure that the lintel will be installed level both lengthways and widthways
- ! Heavier duty lintels may require longer bearings or padstones; refer to our technical dept. or structural engineer

Installation of masonry on the lintel

- ✔ Ensure the Lintel is centred over the opening, or that minimum bearing lengths are maintained
- ✔ If the lintel is specified as 'Supported' securely attach the fixing clips at the top edge (screws/nails) (we recommend 400mm spacings and support
- ! Cavity wall ties should be installed above the lintel to standard masonry practice.

Use of props during construction

- ! Supported masonry should be stable and allowed to fully cure prior to adding additional load such as floors or roofs,
- ! Propping is generally not required for these lintels

DPC Requirements

- ! Most OL lintels have less than 150mm fall in the cavity, and consequently require a separate DPC to comply with BS8215 when installed in external cavity walls.
- ! The lintels are stainless steel and do not require a DPC for protection from corrosion

Application of point loads to the lintel

- ! Both maximum 'Evenly Distributed' and permissible point loads for each lintel are listed in the specification brochure,
- Point loads must not exceed that stated, or cause the lintel to exceed the allowable distributed load or bending moment
- ! In the case of more than one significant point load, the point loads must be spaced at least 450mm apart
- ! Point loads must be flat on the lintel, bear over at least 50mm of the length, and must be hard against the web, see diagram above right

- ! Fastening though the base of the lintel into the point load member will provide additional support
- Point loads applied to OL Lintels should be placed hard against the web:





Lintel modifications on site

- ! Site modifications (including welding with appropriate procedure) may be made to the lintel providing the structural performance and regulatory compliance are not compromised. If in doubt, please contact our technical department for assistance
- Stainless steel drills and discs should be used for cutting and drilling, and should not be contaminated with mild steel

Lintel Finish

- ! Being stainless steel, these lintels do not require surface protection, but cleaning to remove contaminants after installation is recommended
- These lintels are not supplied with plaster key unless specifically requested
- Fasteners used to attach other elements to the lintel in a damp environment should be Stainless Steel grade 316 or similar, fastener of lesser materials may corrode rapidly
- ! The lintels may be painted if desired: use an etch primer suitable for stainless steel prior to top coating
- ! Avoid installing in close proximity to mild or galvanised steel products as galvanic corrosion of those products may occur
- Application of a bead of silicone or similar at the junction 1 between the window or door frame and the lintel soffit will prevent moisture penetration at this location (if applicable)

LINTELS COVERED BY THIS GUIDELINE



OL Lintels (unsupported) for Light Duty Applications



OL Lintels (Supported) For Standard Duty Applications

NOTE: Supported vs. Unsupported

The OL range of lintels may be installed in either configuration shown above;

The unsupported configuration is fast and easy to install, but cannot carry as much load as the supported configuration.

The lintel specifier is responsible for advising the masonry contractor if the supported installation is required.

This should normally be specified on the drawings, so the lintel is installed with the correct configuration for the application.

Shelf Lintels

Prior to installation:

- ✓ Ensure the Lintel Width is correct for the wall; masonry should not overhang the by more than 25mm, and the hollow part of the lintel usually fits in the cavity of a wall
- ✓ Check the Lintel is structurally undamaged has not been bent or broken & that insulation is present (if relevant)
- ✓ Ensure that the lintel length provides adequate bearing at each end, typically 150mm, but a minimum of 100mm.
- ✓ Check that it is the correct type; i.e. as specified or of the appropriate duty (refer relevant product tables)
- ✔ Check the lintel label and paperwork for additional installation information specific to your lintel

Health & Safety

- ! These lintels are manufactured from stainless steel, the edges are much sharper than those of mild steel lintels, so the use of gloves is recommended
- ! If using a crane, protect the strops from the sharp edges
- ! OSH Lintels usually contain CFC-free polystyrene or Rockwool[®] insulation, MSDS sheets are available

Preparation of bearings

- ! The lintel outer (on which the masonry is supported) should always bear onto a thin layer of bricklaying mortar, on top of full bricks or blocks at either end of the span
- ! The inner of the lintel should also bear onto a thin layer of bricklaying mortar, and must be fully supported across the full width of the inner leaf, as shown below
- ! The bearings should ensure that the lintel will be installed level both lengthways and widthways



- If the inner is not going to have masonry installed on top of the lintel, it is recommended that the inner be fixed to the foundation at intervals not exceeding 500mm to ensure stability of the lintel, as shown right. Holes will be required in the lintel (not provided unless specifically requested)
- In the case of a steel frame inner, suitable self drilling fasteners of at least Ø5.5mm may be used, the recommended spacing for these is 400mm

Installation of masonry on the lintel

- ✓ Ensure the Lintel is centred over the opening, or installed with at least the minimum specified bearing length at the end with the shortest bearing length
- ! Cavity wall ties or similar lateral restraint should be installed as normal in accordance with BS 5628-1
- ! The masonry on the inner should be installed and allowed to cure prior to loading the outer of the lintel
- ! If no masonry in to be installed on the inner, the inner should be fastened as shown above

Application of point loads to the lintel

- ! Both maximum 'Evenly Distributed' and permissible point loads for each lintel are listed in the specification brochure,
- ! Point loads must not exceed that stated, or cause the lintel to exceed the allowable distributed load or bending moment
- ! In the case of more than one significant point load, the point loads must be spaced at least 450mm apart
- ! Point loads must be flat on the lintel, bear over at least 50mm of the width, and be hard against the web:





Use of props during construction

- ! Propping of these lintels is not required unless the outer masonry is to be installed prior to the inner, or prior to fixing the inner to the frame
- ! If the outer masonry is to be installed first, the lintel should be propped until the inner masonry is cured or until the inner is fastened

DPC Requirements

! All OS & OSH lintels have sufficient fall to replace a DPC by BS8215. They are supplied with separate adjustable stop ends to form in integral cavity tray. The stop ends are to be fixed to the lintel per the enclosed instruction at the appropriate location for the bricks coursing

Lintel modifications on site

- ! Site modifications may be made to the lintel providing the structural performance and regulatory compliance are not compromised. If in doubt, please contact our technical department for assistance
- ! Stainless steel drills and discs should be used for cutting and drilling, and should not be contaminated with mild steel, use of slow drilling speeds and lubricants is suggested
- ! In a damp environment, fasteners used to affix other items to these lintels should be 316 stainless

Lintel Finish

- ! Being stainless steel, these lintels do not require protection, but cleaning to remove contaminants is recommended.
- ! The lintels may be painted if desired; use a stainless steel compatible etch primer prior to top coating.
- ! Avoid installing in close proximity to mild or galvanised steel products as galvanic corrosion of those products may occur
- ! For applications of aesthetic importance, it is recommended the lintel be cleaned as contaminants (particularly mild steel particles) on the lintel may otherwise result in staining over time

LINTELS COVERED BY THIS GUIDELINE



OS Lintels for StandardDuty Applications



OS Lintels

Are also available for zero cavity, as shown above, in this configuration they have increased load capacity



OSH Lintels for Heavy Duty Applications