

Ancon[®]



**Ibstock
Kevington**

NEXUS[®]
BRICK-FACED
SUPPORT SYSTEMS
REACHING NEW HEIGHTS



Brick, the UK’s favourite cladding material, is increasingly being used to deliver visually stunning buildings, with design elements that can sometimes appear to challenge normal structural principles.

Among these, and rising in popularity, are deep reveals and soffits where the main façade extends seamlessly to large areas of exposed brickwork forming overhangs and recesses.

These aesthetically pleasing features pose complex engineering issues, as these areas of brick must be held in place but with the necessary supporting steelwork remaining unseen.

To answer this challenge, Ibstock Kevington and Ancon, two of the UK’s foremost innovators in prefabricated brickwork manufacture and support, created **NEXUS**, a range of advanced lightweight solutions that make modern brick-faced soffits and lintels achievable and easy-to-install.

And now, the range has been extended, developed further in response to the changing legislative landscape post-Grenfell.

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One of the major issues facing our industry today is fire safety, and companies such as ours, industry organisations and legislators are continually looking to develop new, innovative solutions to make the world a safer place.

At Ibstock Kevington and Ancon we want to do ‘the right thing’ - our sense of responsibility stretches not just to our customers but to all those who encounter our work.

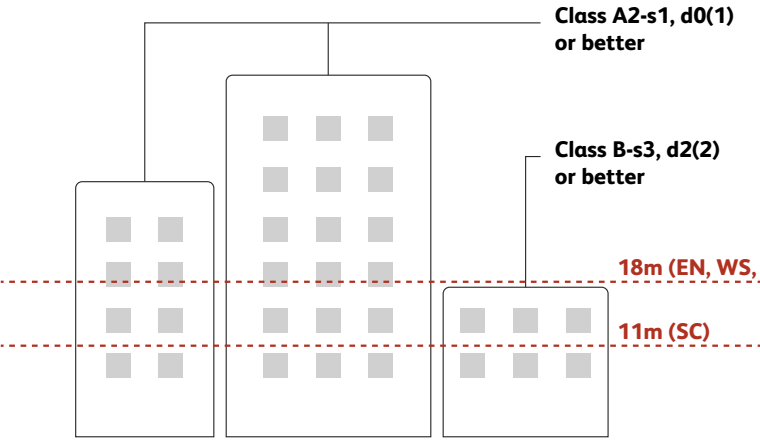
So when faced with challenges such as major changes in legislation, we see this not as an obstacle to overcome but as an opportunity to improve our product offering.

In April 2019 ‘Approved document B: Fire Safety – Volume 1 & 2’ was amended, with a direction that all materials used for cladding on residential buildings above 18 metres must be of ‘limited combustibility’. Within this guidance, allowed materials are those classed as A1 or A2 under the European Classification system.

Over time we envisage that the above regulations will become more stringent.

It was these changes that led us to develop our world leading mechanically-fixed **NEXUS** soffit and lintel solutions, this family of products now extended to include the innovative **NEXUS XI**.

Illustration of Approved Document B update



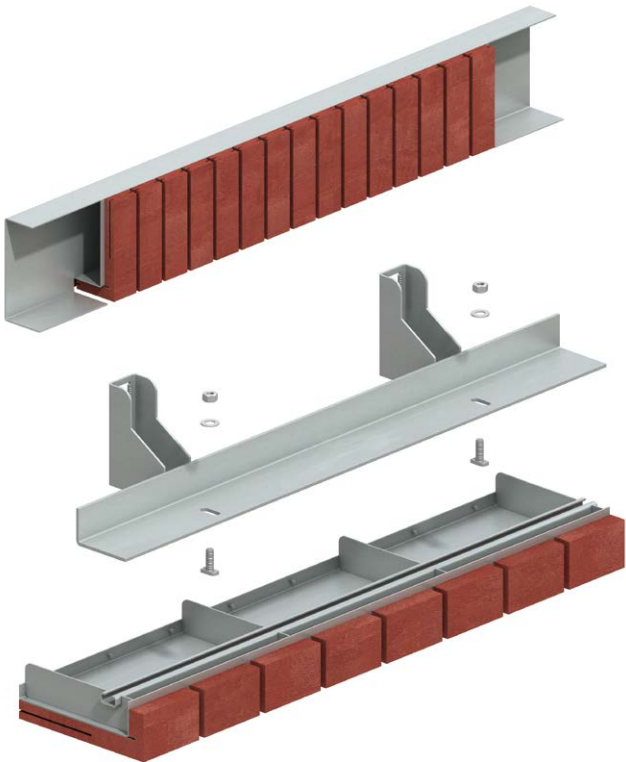
EN - England, WS - Wales, NI - Northern Ireland, SC - Scotland

NEXUS®

UNBEATABLE INNOVATION

The BBA approved family of **NEXUS** brick-faced soffit and lintel systems is a next generation solution that brings together a high integrity steel Ancon support system with engineered brick-faced units from Istock Kevington.

Its lightweight design sees weight cut by more than half when compared to traditional precast concrete alternatives, and its ease of handling ensures it can be installed without the use of specialist lifting equipment.



- ✓ BBA approved
- ✓ Prefabricated off-site, making installation quick and inexpensive
- ✓ Two-part system allows full adjustment for perfect alignment
- ✓ Precision engineered using the highest quality materials, meaning it guarantees durability and cost effectiveness
- ✓ 100 % corrosion resistant stainless steel
- ✓ Designed and prefabricated to fit any size or shape soffit
- ✓ Any brick type and bond pattern can be accommodated
- ✓ Manufactured in the UK
- ✓ Free technical advice and design service

THE NEXUS® FAMILY

FULLY COMPATIBLE RANGE OF PRODUCTS

NEXUS ORIGINAL

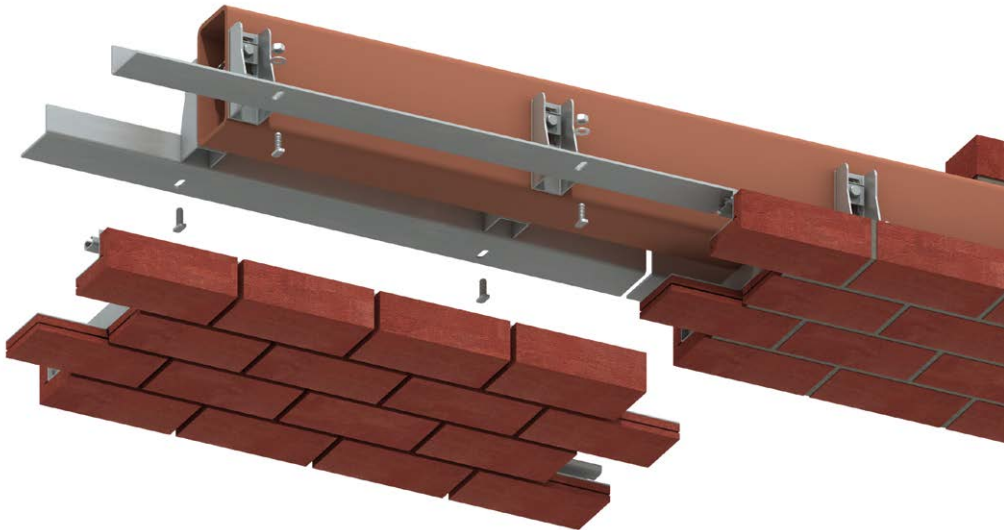
Suitable for buildings up to 18m high

- BBA approved up to 18m
- Brick slips bonded to stainless steel units using high strength adhesive
- Established, proven system

'NEW' NEXUS XI

Suitable for buildings over 18m high

- BBA Approved for all building heights
- Brick slips mechanically fixed to stainless steel unit at a minimum of three locations
- Complies with Building Regulations Approved Document B: Fire Safety 2019
- 'A' Fire Rating



WITH NEXUS® YOU GET DOUBLE



Double the expertise - combining the expertise of two of the UK's leading construction specialists



Double the knowledge - more than 150 years' experience in high integrity brickwork support and brick engineering



Double the technical support - technical experts in both fields



Double the commitment - two companies with a history of innovation, quality and excellent customer support

Ancon®

Part of Leviat, a CRH company, leading masonry support brand, Ancon, has a global reputation for innovation, quality and customer service.

The Ancon range of steel components provides strength and stability to buildings and structures around the world. Trusted for their integrity, reliability and compliance, Ancon steel fixings are precision-manufactured to perform in the most demanding concrete and masonry applications.

Istock Kevington

Part of the UK's leading manufacturer of clay and concrete building products, Istock Kevington is the foremost provider of brick special shapes and prefabricated masonry components.

Recognised for its technical expertise in designing precision manufactured prefabricated and precast elements, Istock Kevington specialises in simplified solutions for traditionally complex construction requirements.

NEW NEXUS® XI BRICK-FACED SOFFIT AND LINTEL SYSTEMS

NEXUS XI, the latest addition to the NEXUS family, provides an innovative mechanically fixed suspended brickwork soffit and lintel solution.

NEXUS XI has secured an 'A' fire safety rating from the BBA, meaning it can be specified and installed with confidence on high-rise residential buildings over 18 metres, in compliance with the recent amendment to Approved Document B of the Building Regulations.

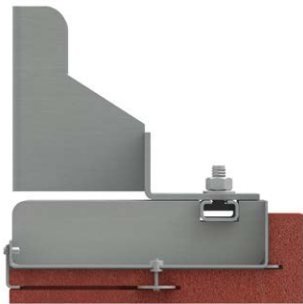
The system comprises a stainless steel soffit tray or lintel with a semi-flexible bedding agent retained in the system to reduce vibration between the stainless steel and brick slip, securing a fire rating of A2,S1,D0.

Alongside its key safety credentials, **NEXUS XI** packs a number of other primary benefits, including:

- ✓ Quicker to install - no mechanical lifting
- ✓ 70% lighter on average than precast alternatives
- ✓ Simply lift into position
- ✓ Designed and prefabricated to fit any size or shape soffit
- ✓ Any brick type and bond pattern can be accommodated



For ultimate durability, **NEXUS XI** has been engineered as a mechanical fix solution. This means that each individual brick on the suspended brickwork system is held in place at a minimum of three mechanical fix locations.

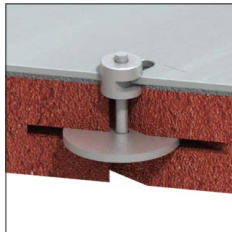


MECHANICAL FIX SOLUTION

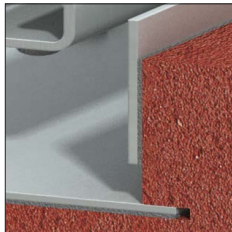
100 % stainless steel mechanical fix solution, fixes straight into stainless steel tray. Proven durability and maximum corrosion resistance.



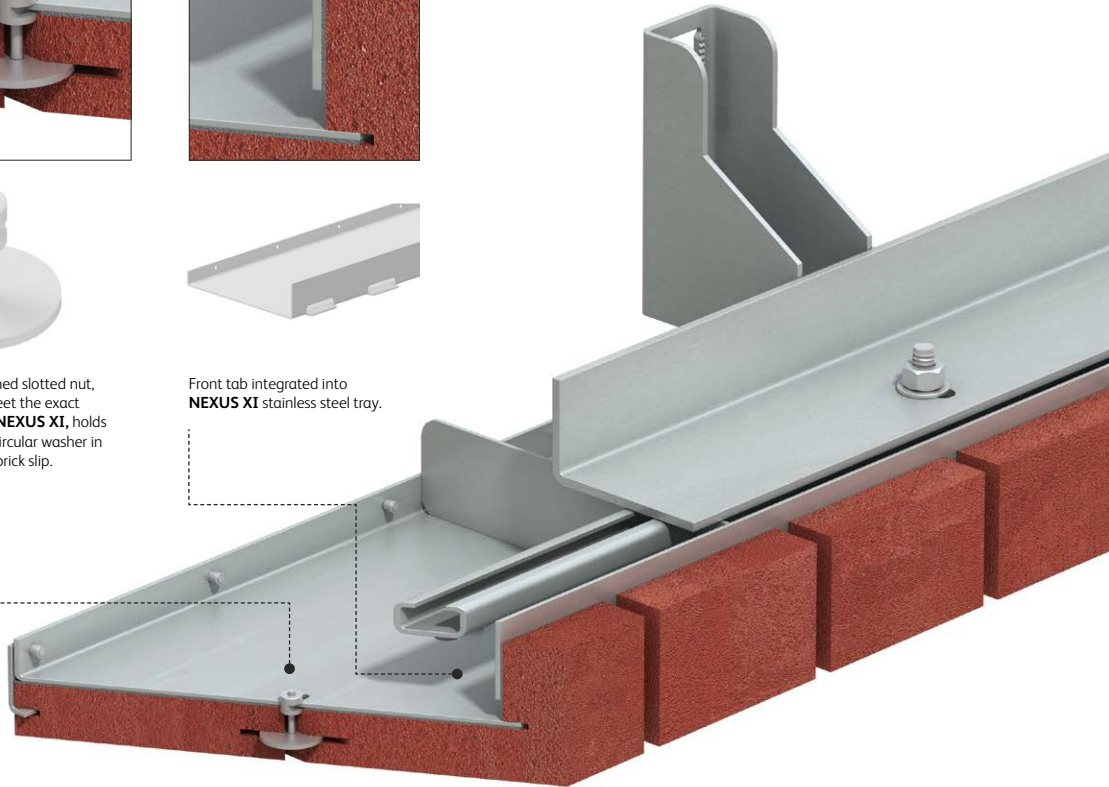
Rear clip fixes to **NEXUS XI** stainless steel tray using a Rivnut and Set Screw.



A specially designed slotted nut, engineered to meet the exact requirements of **NEXUS XI**, holds a stainless steel circular washer in place within the brick slip.

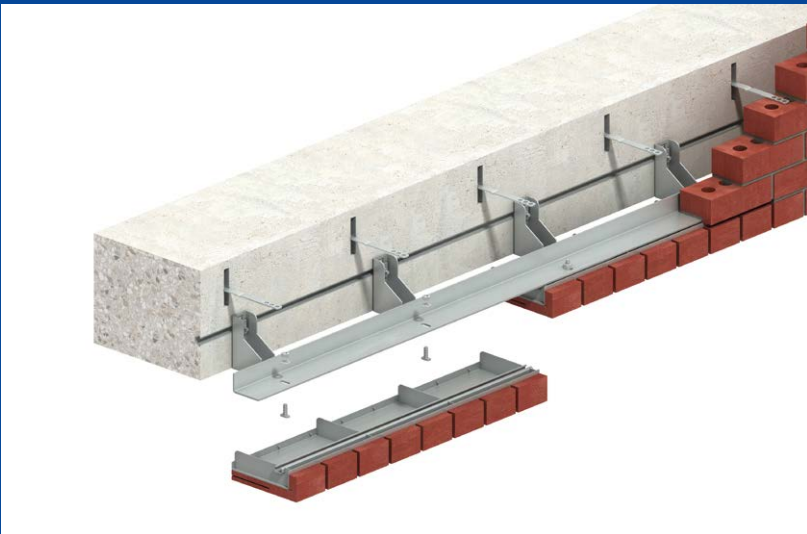


Front tab integrated into **NEXUS XI** stainless steel tray.



NEXUS® ORIGINAL AND NEXUS® XI BRICK-FACED SOFFIT SUPPORT SYSTEMS

The **NEXUS** range of brick-faced soffit systems comprises both standard and bespoke solutions to enable the creation of deep reveals and soffits. Typical solutions are shown below. Bespoke solutions including other brick arrangements can be designed to suit project requirements. Please contact us for more information.

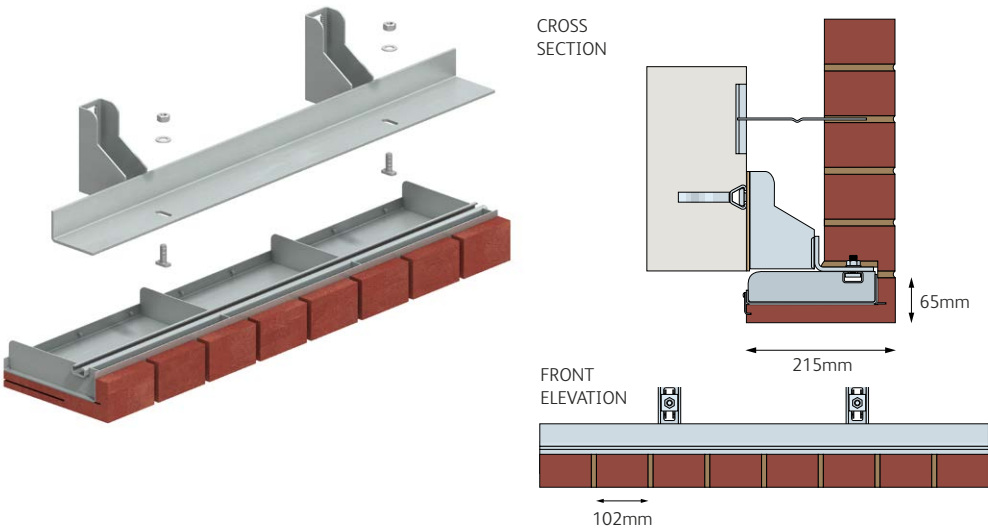


- ✓ Available in **NEXUS Original** and **NEXUS XI**
- ✓ Two-part system allows full adjustment for perfect alignment
- ✓ Lightweight design - simply bolt into position
- ✓ Designed and prefabricated to fit any size or shape soffit
- ✓ Any brick type and bond pattern can be accommodated

65 x 215mm WITH HEADER BOND

A simple, effective means of creating feature header details and reveals, with the header bond differentiating the soffit from the main façade.

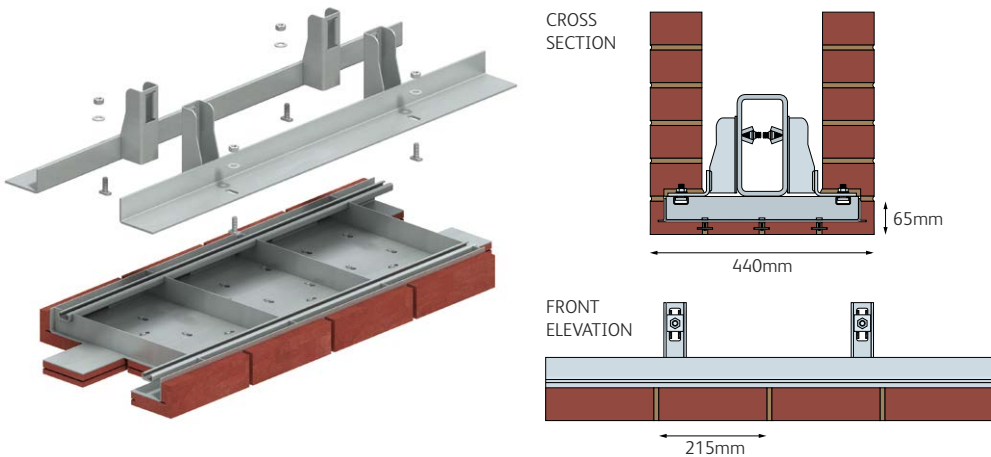
Brick slip facings can be manufactured from the same batch as the main brickwork to present a perfect colour and texture match.



65 x 440 x 65mm WITH STRETCHER BOND

Used to create double-sided soffit details providing continuity to the main brickwork façade.

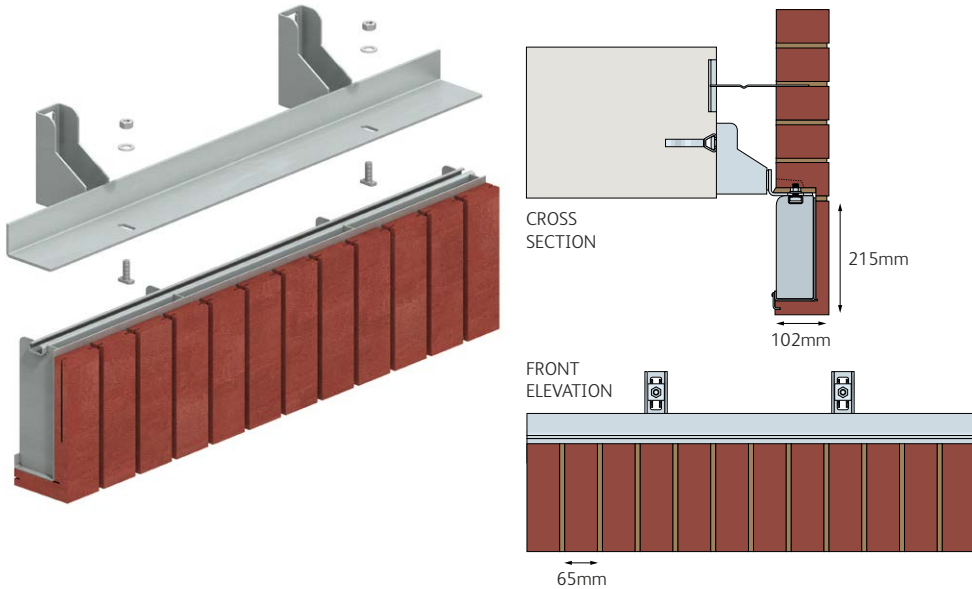
Each soffit unit is designed to interlock with the adjacent unit providing a flawless transition once the brickwork is pointed.



215 x 102mm WITH SOLDIER BOND

A simple, effective means of creating feature soldier course details above door and window openings.

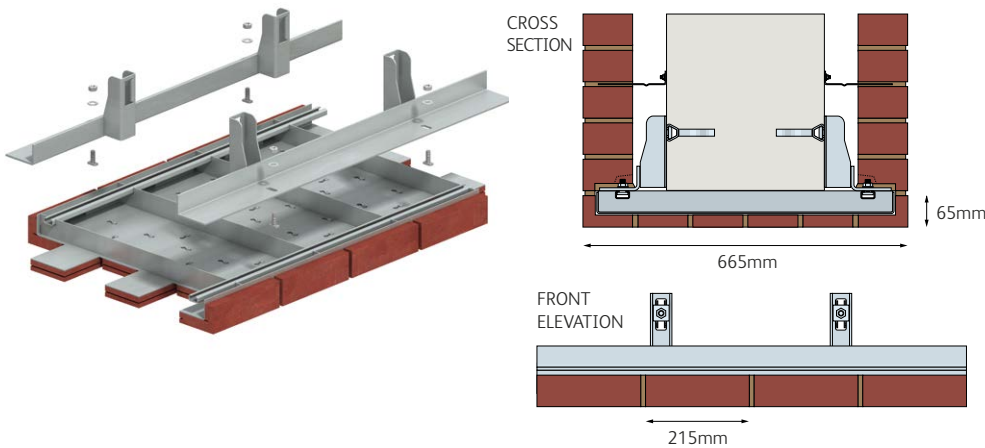
Brick slip facings can be manufactured from the same batch as the main brickwork to present a perfect colour and texture match for a flawless transition.



65 x 665 x 65mm WITH STRETCHER BOND

Used to create double-sided soffit details providing continuity to the main brickwork façade.

Each soffit unit is designed to interlock with the adjacent unit providing a flawless transition once the brickwork is pointed.

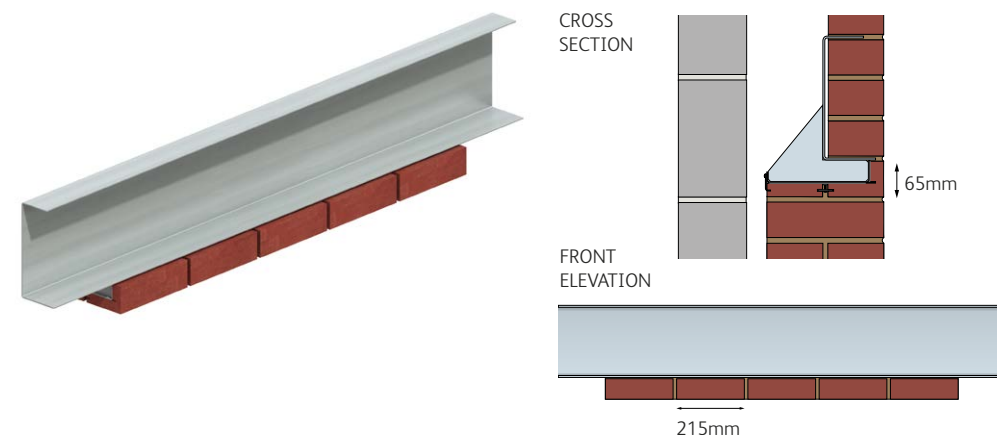




Woodside Health & Care Centre, Glasgow

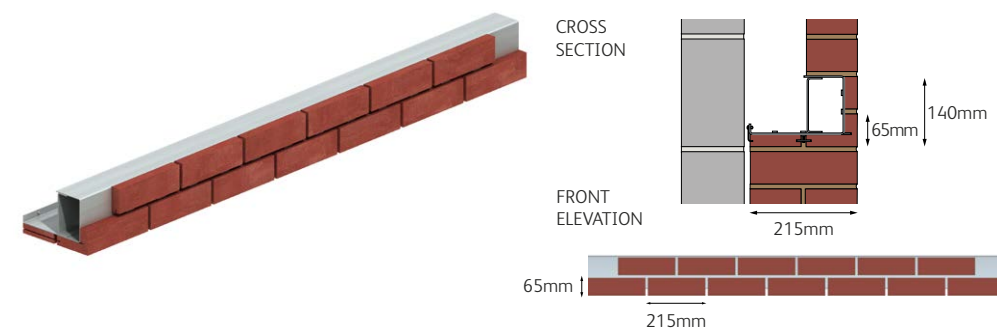
65 x 215mm WITH STRETCHER BOND

Used to create stretcher bond header details and maintain the brickwork bond over openings.



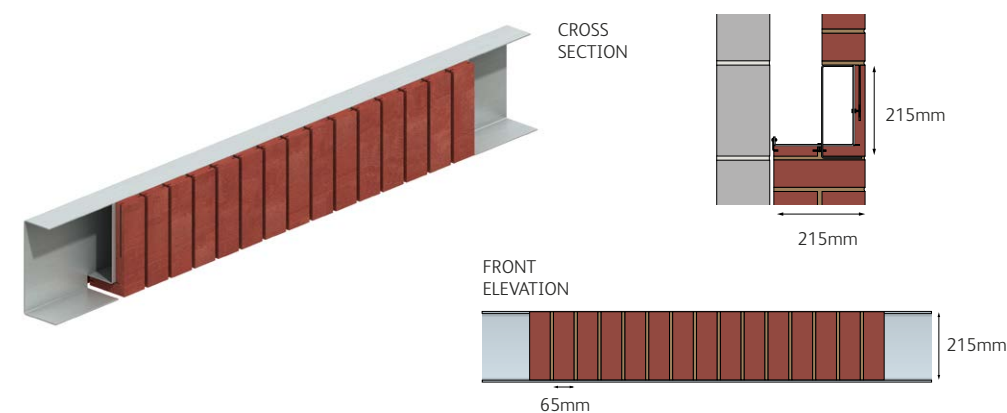
140 x 215mm WITH STRETCHER BOND

Used to create stretcher bond header details and maintain the brickwork bond over openings.



215 x 215mm WITH SOLDIER BOND

Used to create soldier course header details providing a simple, effective brickwork feature.

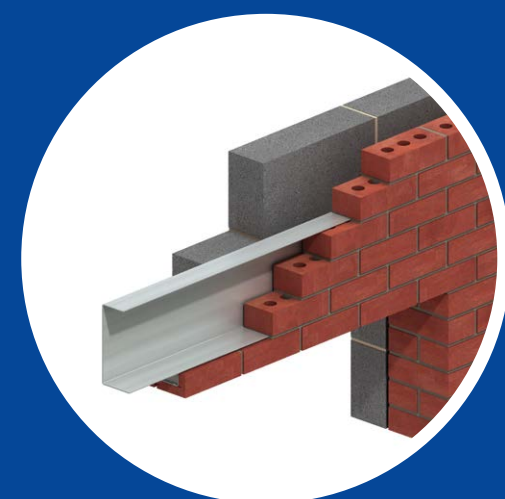


NEXUS® ORIGINAL AND NEXUS® XI BRICK-FACED LINTELS

NEXUS brick-faced lintels are designed to carry a single leaf of a cavity wall. Prefabricated from stainless steel for maximum corrosion protection, they offer a quick and simple way of creating deep soffits above window and door openings.

They are ideal where speed is important - the permanently bonded brick slips, applied off-site, are manufactured from the same batch as the main brickwork providing a seamless blend meaning no compromise on quality or appearance. The lightweight design means the lintels can be simply lifted into place by hand, with no mechanical lifting equipment required, saving time on site.

- ✓ Available in **NEXUS Original** and **NEXUS XI**
- ✓ Manufactured off-site
- ✓ Lightweight, one-piece design – simply lift into place
- ✓ Designed to suit a variety of spans and loads
- ✓ Variable face and soffit depths available



HOW TO SPECIFY NEXUS®

To discuss your **NEXUS®** requirements, simply call us on **0844 736 0350** or email **nexus@ibstock.co.uk**



Technical and Design Support



DESIGN ADVICE

An integral part of Ibstock Kevington's service is a full 3D CAD design and structural engineering service. This ensures that we can turn your design concepts into quality, cost effective, easy to build structural elements. Contact us with your requirements.



CPD SEMINARS

Delivered by Ibstock Kevington's design advisors, who have considerable experience of these systems and in answering questions from both specifiers and contractors.



NBS SPECIFICATION CLAUSES

Product information is listed within NBS Plus, part of the NBS industry standard specification software used by architects, building surveyors and other construction industry professionals. This means that technical information for our products is available to NBS subscribers, in NBS format, at the relevant point in the specification.



PROJECT MANAGEMENT

We will work closely with you to coordinate the design, manufacture and delivery of the complete system to suit site progress.



CONTRACT SUPPORT

Our technical and design staff are available to attend office and site meetings to provide assistance at any stage in the process including pre-tender and pre-contract.



Specification Clauses

ANCON MDC NEXUS ORIGINAL BRACKET ANGLE SUPPORT SYSTEM

Ancon MDC Systems are tailored to suit each project. Each system is based on the cavity size at the support and the unfactored masonry load to be carried. An economical configuration of channel, bracket and angle will be designed.

Specify MDC **NEXUS Original** / cavity / unfactored masonry load e.g. MDC **NEXUS Original** /75 / 5.6.

A standard system will be designed to suit a 75mm cavity and carry 5.6 kN/metre run of masonry (unfactored).

IBSTOCK KEVINGTON NEXUS ORIGINAL SOFFIT UNIT

Brick or masonry slips permanently bonded direct to a grade 1.4301 stainless steel unit using a high strength bedding agent. The size of the unit and bond pattern of the brick slips are tailored to suit project requirements.

IBSTOCK KEVINGTON NEXUS ORIGINAL LINTEL

Brick or masonry slips are permanently bonded direct to a grade 1.4301 stainless steel unit using a high strength bedding agent. The size of unit and bond pattern of the brick slips are tailored to suit project requirements.

ANCON MDC NEXUS XI BRACKET ANGLE SUPPORT SYSTEM

Ancon MDC Systems are tailored to suit each project. Each system is based on the cavity size at the support and the unfactored masonry load to be carried. An economical configuration of channel, bracket and angle will be designed.

Specify MDC **NEXUS XI** / cavity / unfactored masonry load e.g. MDC **NEXUS XI** /75 / 5.6.

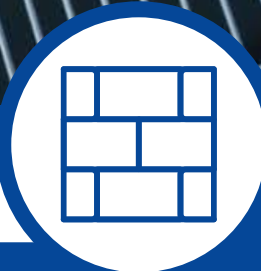
A standard system will be designed to suit a 75mm cavity and carry 5.6 kN/metre run of masonry (unfactored).

IBSTOCK KEVINGTON NEXUS XI SOFFIT UNIT

Engineered brick or masonry slips mechanically fixed to a grade 304 stainless steel unit. The size of the unit and bond pattern of the engineered brick slips are tailored to suit project requirements. Specify face and soffit dimensions and bond pattern to be included on the **NEXUS XI** unit.

IBSTOCK KEVINGTON NEXUS XI LINTEL

NEXUS XI Lintels are designed to carry a single leaf of a cavity wall. Tailored to suit each project, specification is based on the span of the opening and load to be supported. Engineered brick or masonry slips are mechanically fixed to the grade 304 stainless steel lintel. Specify opening size, face and soffit dimensions and load to be supported.



Product Specifications

STEELWORK

High grade stainless steel, manufactured in a BS EN 1090-1 approved factory and CE marked.

FIXINGS

Stainless steel grade 304 slotted nuts, set screws, circular washers and Rivnuts.

BRICK SLIPS

25mm thick and manufactured in accordance with BS 4729 and BS EN 771-1 and CE marked.

BEDDING AGENT

Brick-Fix 31 A2 Firebond. Reaction to fire classification A2-s1, d0.

NEXUS XI has been tested by Lucideon for long term durability, including resistance of cladding and metal support tests, to comply with a robust BBA certification process as well as NHBC approval.



NEXUS® BRICK-FACED SOFFIT AND LINTEL SYSTEMS INSTALLATION GUIDE

Brick-Faced Soffit Systems

NEXUS soffit units are designed to be simply lifted and bolted to pre-installed Ancon MDC brick support angles. Each soffit unit comprises a stainless steel carrier with integrated Ancon channel to simplify installation to the brick support angle.



INSTALLATION VIDEO

This video highlights the benefits of the system and demonstrates how quick and easy it is to install. Scan the QR code to watch the video or visit www.ibstockbrick.co.uk/nexus



Both **NEXUS Original** and **NEXUS XI** are installed in the same simple way.

Brick-Faced Lintels

NEXUS lintels are designed as a lightweight one-piece system which can be simply lifted into place.

STEP 1

Install MDC **NEXUS** masonry support system in line with Ancon MDC Masonry Support Systems Installation Guide to the point where the fixing bolts are fully torqued.



STEP 2

Place the **NEXUS** soffit unit's T-head bolts in the 28/15 channel to align with the slots in the angle and lift the soffit unit to the underside of the masonry support angle.

The soffit unit should continue to be supported through steps 3 and 4.



STEP 3

Add washer and nut to bolts and finger tighten onto angle. Ensure the T-head bolt is fully turned and engaged in the channel.

If the angle is correctly levelled there should be no need to add shims between the soffit unit and the angle. If however shimming is required then they should be added now. Horseshoe shims must 'surround' the bolt and extend for the full contact area between soffit unit and angle. They must NOT be placed in any other location other than around the bolt as this will lead to deformation of the angle when the bolts are torqued.

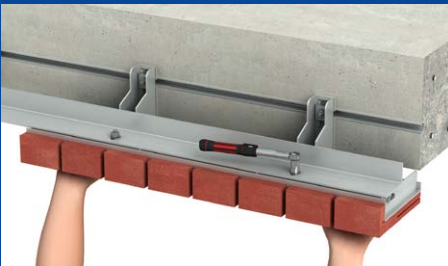
NOTE: The bolt should have a minimum of two threads visible above the nut, if shimming has reduced this clearance, longer bolts will be required.



STEP 4

Once satisfied with the line and level of the soffit unit, the bolts should be torqued to 20Nm.

The support to the soffit unit can now be removed.



STEP 5

Brickwork should then continue on the masonry support system in line with normal bricklaying practice and the Ancon MDC Masonry Support Systems Installation Guide.

NOTE: The movement joint in soffit hung details is below the soffit unit. Compressible material should be placed below the soffit unit and NOT between the angle and soffit unit.

STEP 6

Point soffit unit to match main brickwork.

STEP 1

Raise the inner and outer leaves simultaneously to avoid excessive eccentricity of loading, with a maximum height difference of 225mm. Masonry should be laid on a full mortar bed and all perpendicular joints should be fully filled.

Allow the mortar to cure before applying floor or roof loads.



STEP 2

Lintels must be suitably propped during construction at approximately 1 metre centres. On small openings, a central prop can be used. A board should be used between lintel and prop to protect the finished surface and spread the load evenly.



STEP 3

Lintels should be installed with at least 150mm end bearing and be fully bedded on bricklaying mortar.

Ensure lintel is level along the length and width.



STEP 4

The NHBC, PD6697 recommends a damp-proof course (DPC) or cavity tray is installed over all openings in external cavity walls.



STEP 5

Weep-holes should be provided in the outer leaf above the lintel to drain moisture from the cavity. A minimum of two weep-holes should be provided per lintel. For fair-faced masonry, weep-holes should be provided at centres not greater than 450mm.



STEP 6

Precautions must be taken to prevent mortar dropping through the cavity onto the lintel and obstructing the weep-holes.

STEP 7

Brick slips should be pointed using the same mortar as the rest of the brickwork, but only after the full load has been applied to the lintel.



CASE STUDY

BOW RIVER VILLAGE, LONDON

PRODUCTS

NEXUS® brick-faced soffit units and lintels used at door and window heads.



CASE STUDY

SILCHESTER ESTATE, KENSINGTON, LONDON

PRODUCTS

NEXUS® brick-faced soffit units and lintels supplied to window heads and entrance.

CASE STUDY





CASE STUDY

MUIRFIELD COMMUNITY CENTRE, SCOTLAND

PRODUCTS

235 custom-designed NEXUS® window head and colonnade soffits and lintel units.



CASE STUDY

GREAT EASTERN QUAYS, LONDON

PRODUCTS

2,300 linear metres of **NEXUS**® lightweight brick-faced soffit units.

CASE STUDY

BEAK STREET, LONDON

PRODUCTS

Bespoke glazed brick-clad soffit units.



To discuss your **NEXUS®** requirements,
simply call us on **0844 736 0350** or email
nexus@ibstock.co.uk