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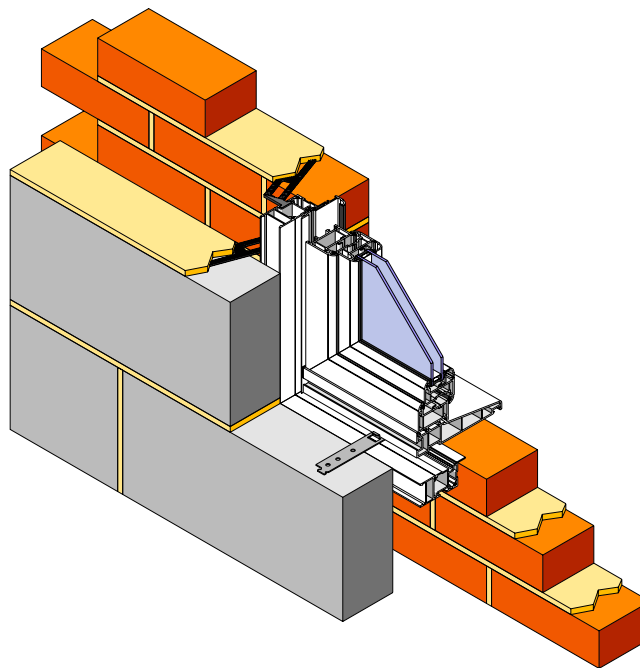
**Agrément
Certificate
No 05/4223**

Designated by Government
to issue
European Technical
Approvals

ANGLIAN INTERCEPTOR MK III CAVITY CLOSER AND FRAME ACCEPTOR

Patron/Elément de remplissage
Chablone/Hohlraumfüllelement

Product




• THIS CERTIFICATE RELATES TO THE ANGLIAN INTERCEPTOR MK III CAVITY CLOSER AND FRAME ACCEPTOR, A PVC-U CAVITY CLOSER AND WINDOW OR DOOR ACCEPTOR USED AS A TEMPLATE TO FORM AN OPENING IN MASONRY CAVITY WALLS DURING CONSTRUCTION AND CAN PROVIDE VENTILATION VIA THE HEAD VENT SECTION.

• The product closes the cavity at openings, without forming a thermal bridge, and provides a damp-proof barrier between inner and outer wall leaves at the point of closure.

Regulations

1 The Building Regulations 2000 (as amended) (England and Wales)

 The Secretary of State has agreed with the British Board of Agrément the requirements of the Building Regulations to which cavity closers can contribute in achieving compliance. In the opinion of the BBA, the Anglian Interceptor MK III Cavity Closer and Frame Acceptor, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements.

Requirement: C2(b)

Resistance to moisture

Comment:

The product prevents the passage of moisture from the outer leaf to the inner leaf of a cavity wall at window or door openings. See sections 11.1 and 11.2 of this Certificate.

Requirement: C2(c)

Resistance to moisture

Comment:

The product can contribute to meeting this Requirement. See section 10.1 of this Certificate.

Requirement: F1

Means of ventilation

Comment:

Background ventilation can be provided. See section 7.5 of this Certificate.

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continued

- The product is for use in masonry cavity walls with cavity widths in the range 50 mm to 100 mm, and with PVC-U doors and windows.
- Door frames must be fixed independently to the masonry. Proprietary fixings which may be recommended by the manufacturer for this purpose are outside the scope of this Certificate.
- It is essential that the product is installed and used in accordance with the conditions set out in the Design Data and Installation parts of this Certificate.

Requirement:	L1(a)(i)	Dwellings
Requirement:	L2(a)	Buildings other than dwellings
Comment:		When the product is used in a reveal, adequate provision will have been made to limit the thermal bridging which occurs around the opening of which it forms a part. The detail will therefore, contribute to meeting the requirement of limiting the heat loss through the fabric of the building and the risk of surface condensation on the reveal will be minimal. See section 10.1 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The product is acceptable. See section 15 of this Certificate.
		In addition to the contribution which the product can make to meeting the relevant requirements, the following comments should be noted:
Requirement:	A1	Loading
Comment:		When used in conventional masonry cavity walls, the product will not adversely affect the structural stability of the walls. Use of the product does not obviate the need for conventional wall ties between the inner and outer leaves at window and door openings. Door frames may require additional fixings using proprietary lugs or frame fixings.
Requirement:	B3(1)	Internal fire spread (structure)
Comment:		The product is acceptable. See sections 12.1 to 12.3 of this Certificate.

2 The Building (Scotland) Regulations 2004



In the opinion of the BBA, the Anglian Interceptor MK III Cavity Closer and Frame Acceptor, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and related Mandatory Standards as listed below.

Regulation:	8	Fitness and durability of materials and workmanship
Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The product can contribute to a construction satisfying this Regulation. See section 15 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards — construction
Standard:	1.1(a)(b)	Structure
Comment:		When used in conventional masonry cavity walls the product will not obviate the need for conventional wall ties between the inner and outer leaves at window and door openings. Door frames may require additional fixings using proprietary lugs or frame fixings.
Standard:	2.4	Cavities
Comment:		In conjunction with a cavity barrier, the product can satisfy this Standard, with reference to clause 2.4.1 ⁽¹⁾⁽²⁾ and Annex 2A ⁽¹⁾ . The product does not constitute a cavity barrier. See sections 12.1 to 12.3 of this Certificate.
Standard:	3.10	Precipitation
Comment:		Walls incorporating the product can satisfy this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.3 ⁽¹⁾⁽²⁾ . See sections 11.1 and 11.2 of this Certificate.
Standard:	3.14	Ventilation
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 3.14.5 ⁽¹⁾ and 3.14.3 ⁽²⁾ . See section 7.5 of this Certificate.
Standard:	3.15	Condensation
Comment:		The product can satisfy this Standard, with reference to clauses 3.15.3 ⁽¹⁾ and 3.15.4 ⁽¹⁾ . See sections 10.1 and 10.2 of this Certificate.
Standard:	6.2	Building insulation envelope
Comment:		Walls incorporating the product can satisfy this Standard, with reference to clauses 6.2.4 ⁽¹⁾⁽²⁾ and 6.2.5 ⁽¹⁾⁽²⁾ . See section 10.1 of this Certificate.
Regulation:	12	Building standards — conversions
Comment:		All comments given for this product under Regulation 9, also apply to this Regulation with reference to clause 0.12.1 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾ .

(1) Technical Handbook (Domestic).
(2) Technical Handbook (Non-Domestic).

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3 The Building Regulations (Northern Ireland) 2000



In the opinion of the BBA, the position of the Anglian Interceptor MK III Cavity Closer and Frame Acceptor, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Building Regulations listed below.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The product is acceptable. See section 1.5 of this Certificate.
Regulation:	C4	Resistance to ground moisture and weather
Comment:		Walls incorporating the product can contribute to meeting this Regulation. The former can be used where checked reveals are required. See sections 11.1 and 11.2 of this Certificate.
Regulation:	C5	Condensation
Comment:		The product can satisfy this Regulation. See section 10.2 of this Certificate.
Regulation:	D1	Stability
Comment:		When used in conventional masonry cavity walls, the product will not obviate the need for conventional wall ties between the inner and outer leaves at around window and door openings. Door frames may require additional fixings using proprietary lugs or frame fixings.
Regulation:	E4	Internal fire spread — Structure
Comment:		The product is acceptable. See sections 12.1 to 12.3 of this Certificate.
Regulation:	F2	Building fabric
Comment:		When the product is used in a reveal, adequate provision will have been made to limit the thermal bridging which occurs around the opening of which it forms a part. The detail can therefore contribute to meeting the requirements to make reasonable provisions in the fabric of the building for the conservation of fuel and power. See section 10.1 of this Certificate.
Regulation:	K2	Means of ventilation
Comment:		Trickle ventilation can be provided. See section 7.5 of this Certificate.

4 Construction (Design and Management) Regulations 1994 (as amended) Construction (Design and Management) Regulations (Northern Ireland) 1995 (as amended)

In the opinion of the BBA there is no information in this Certificate which relates to the obligations of the client, planning supervisor, designer and contractors under these Regulations.

Technical Specification

5 Description

5.1 The Anglian Interceptor MK III Cavity Closer and Frame Acceptor (see Figure 1) is a white or near-white, unplasticised, polyvinyl chloride (PVC-U) cavity closer and window or door frame acceptor, used to form an opening in masonry cavity walls during construction. It is made from extruded profiles into a U-shape template, with welded corners at the sill or threshold and a head vent profile is mechanically joined to form the head section.

5.2 For flag frames the jamb and sill sections are welded together into an L-shape and the sill member is screwed using two No 10 by 3" CSK stainless steel, wood-screws through pre-drilled holes in the door jamb into screw flutes of the profile extrusion. The head is fixed to the jamb profile using two self-tapping screws at each end. For closer frames over 1.7 m additional temporary support is provided by a diagonal timber brace (20 mm thick), fixed by self-tapping screws to two

galvanized steel corner brackets, screwed to the PVC frame with self-tapping screws.

Figure 1 Anglian Interceptor MK III Cavity Closer and Frame Acceptor

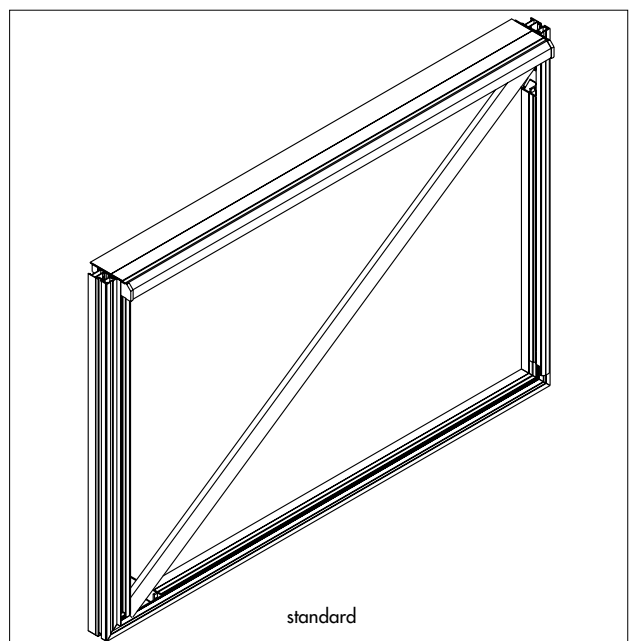
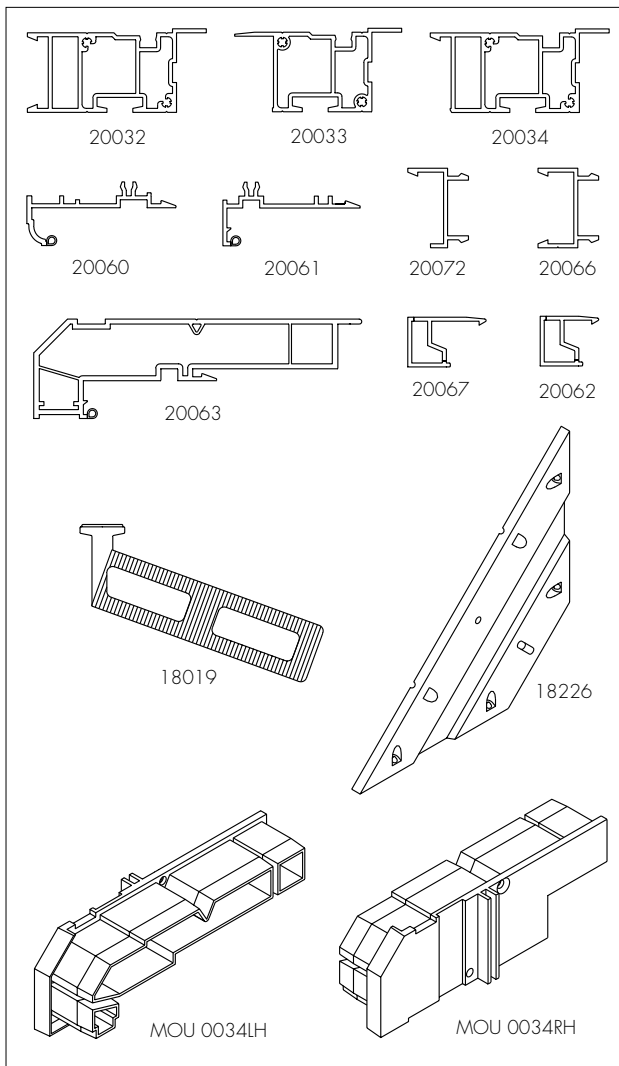


Figure 2 Components



5.3 The profiles are produced by conventional extrusion techniques from virgin (white) or reground (near white) PVC-U material. All external visible surfaces will be virgin material. The virgin material has previously been assessed by the BBA and complies with Case B (PVC-U with additional polymers) as defined in MOAT No 17 : 1990. Profiles are extruded in 6 m lengths.

5.4 Polypropylene mortar ties, manufactured by standard injection-moulding techniques, are used to build the cavity closer frame into the surrounding mortar joints (see Figure 2).

5.5 The use of the product eliminates the need for fitting a conventional, vertical or horizontal damp-proof course to the window or door opening.

5.6 The system can be used in a checked reveal construction.

5.7 Quality control includes checks on appearance, dimensions, fit and, where relevant, weld strength.

5.8 The cavity closer components and accessories are listed in Table 1 and shown in Figure 2.

5.9 For doors and windows where lug fixing to masonry is used, the maximum cavity closer aperture is 8.5 m², with a maximum height of 2950 mm.

5.10 Cavity frames are manufactured to suit the exact window size, in accordance with *Anglian Manufacturing Details Manual MDO39*. The brick aperture to frame clearance is 11 mm.

5.11 Tests are carried out to monitor the quality of the extrusions and checks to control the fabrication of the product.

Table 1 List of components

Manufacturer's designation	Components	Application
20032	standard closer check closer	jamb and sill/threshold 75–100 mm cavity size range
20033	standard closer check closer	jamb and sill/threshold 50 mm cavity size range
20034	standard closer check closer	jamb and sill/threshold 65 mm cavity size range
20060	standard reveal section	
20061	check reveal section	
20072	closer section 10 mm	
20066	closer section 20 mm	
20063	vented head section	
20067	plaster bead 70 mm	
20062	plaster bead 60 mm	
18019	mortar tie	cavity closer brickwork tie
18226	galvanized steel bracket	corner bracket
MOU 0034	end cap	head to jamb fixing
17035	carbon steel screws (4.3 mm x 23 mm)	corner bracket
56598	stainless steel screw pozi-pan screws (4.3 mm x 20 mm)	screw moulding to cavity closer reveal section to cavity closer
GP0008	frame packer	
GP00012	head spacer	

6 Delivery to site and storage

6.1 Assembled closer frames are labelled with product identification and the BBA identification mark incorporating the number of this Certificate. They are despatched along with the requisite number of mortar ties, any additional ancillary items and installation instructions.

6.2 The pre-assembled frames are stacked vertically and delivered as individual items, taking care to avoid distortion in transit. The frames should be stored under cover in a clean area, on edge, and suitably supported to avoid distortion or damage. The frames should be protected from vehicular and pedestrian traffic.

Design Data

7 General

7.1 The Anglian Interceptor MK III Cavity Closer and Frame Acceptor is suitable for use in masonry walls with cavity widths in the range 50 mm to 100 mm and with window and door frames made from PVC-U.

7.2 The product provides an effective means of closing a cavity without creating a thermal bridge; a separate vertical damp-proof course is not required, nor is it necessary to cut bricks or blocks. It can be used to form a checked reveal where required and

to fit the window after completion of the masonry, as is conventional practice in Scotland and Northern Ireland.

7.3 The product can be used to aid establishment of the cavity widths during wall construction and to form an opening around which a wall can be built.

7.4 It is recommended that internal reveals are dry lined with a minimum 10 mm thick board to the internal plaster line.



7.5 When the system is used with the head vent section and suitably-sized trickle ventilator, it can contribute to satisfying the background ventilation requirements of the various Building Regulations.

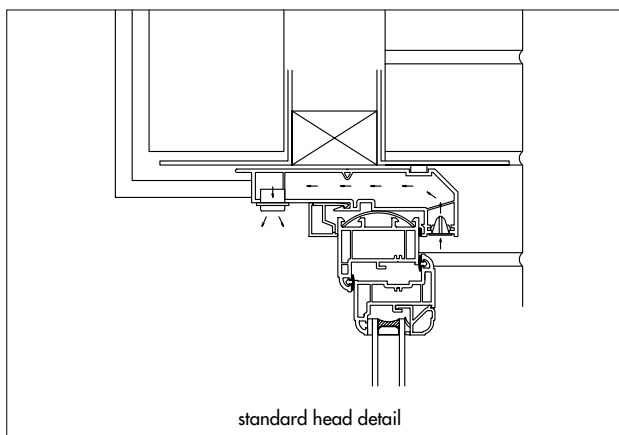
8 Practicability of installation

Installation of the product is straightforward and can be carried out by tradesmen using traditional skills.

9 Structural stability

9.1 The product must not be used to support loads from the masonry nor does it replace the need for cavity wall ties. Lintels are required above window or door openings (see Figure 3).

Figure 3 Standard head detail



9.2 The product will not have an adverse effect on the structural stability of brickwork or blockwork walls, constructed in the conventional manner in accordance with normal good practice as defined in BS 5628-3 : 2001.

9.3 A window fitted correctly into a cavity frame will satisfactorily transfer to the structure, wind loads likely to be encountered in the UK. In terms of wind loading resistance the cavity frame can be used in all areas of the UK.

10 Hygrothermal behaviour



10.1 Thermal bridging and the risk of local surface condensation around openings will be acceptable, and meet the following requirements, where the window or door frame is set back 30 mm or more over the wall cavity, and the junctions between the walls and the front and back of the window/door frame incorporate an effective sealant:

England and Wales

Approved Document L1 (2002), Paragraphs 1.30, 1.31 and 1.33 to 1.35

Approved Document L2 (2002), Paragraphs 1.9, 1.10 and 1.17 to 1.19

Scotland

Technical Handbook, clauses 6.2.4, 6.2.5 and Annex 6.D

Northern Ireland

Technical Booklet F, Paragraphs 1.33 and 1.34.



10.2 Under normal domestic conditions in Scotland and Northern Ireland, the level of interstitial condensation associated with the product will be low and the risk of any resultant damage minimal.

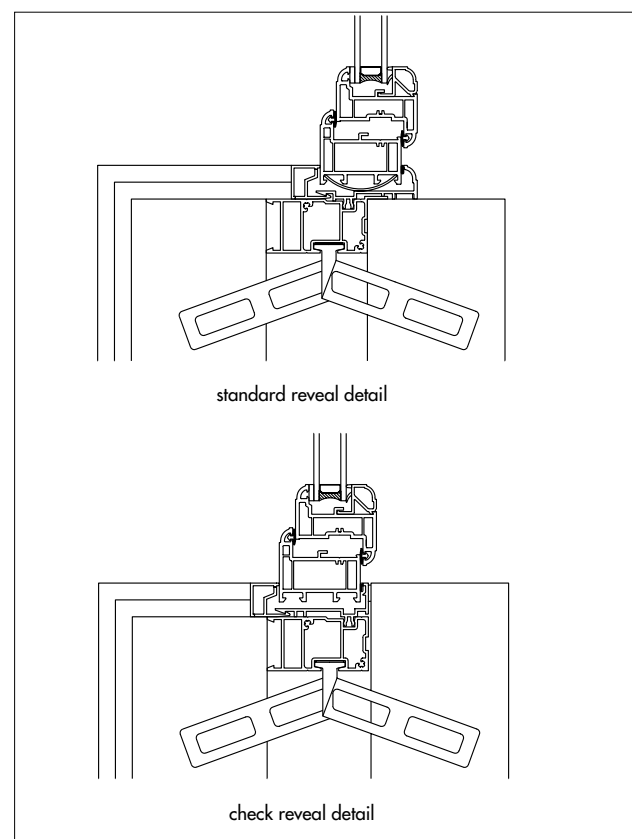
11 Weather resistance



11.1 The product is effective as a vertical damp-proof barrier at jambs of window and door openings in masonry constructions, where a brick/block closer and dpc detail would normally be used. The product is also effective as a horizontal damp-proof barrier at the sill or threshold.

11.2 The product may also be used to construct a checked reveal (see Figure 4). In this construction, in which the frame is positioned in a rebate behind the outer leaf of the jamb, the product is suitable for use in exposure categories up to and including 'very severe' as defined in Table 10 of BS 5628-3 : 2001, which covers all exposure zones in the United Kingdom.

Figure 4 Reveal details



12 Properties in relation to fire



12.1 The installed product will not contribute significantly to the growth of a fire.

12.2 The product does not constitute a cavity barrier against the penetration of smoke and flame in the context of the Building Regulations. This does not prevent its use in England and Wales and in Northern Ireland where cavity barriers are not required around openings. In Scotland, however, the system is only suitable for use in conjunction with a cavity barrier meeting the performance requirements defined in Technical Handbook, Annex 2.B (Domestic), or Annex 2.D (Non-Domestic).

12.3 The use of the product does not preclude the need to provide suitable fire protection to steel lintels where this is necessary to satisfy the Building Regulations.

13 Security against intrusion

Removal of a window from the cavity closer/frame acceptor from outside is virtually impossible as the windows are secured by internally fitted beads at the head and jambs. When correctly fitted, the beads lock the frame in position against a rebate adaptor which fits into the cavity closer/frame acceptor profile. The windows can only be fitted from the inside of the building.

14 Maintenance

During the life of the product, no additional maintenance is envisaged to maintain watertightness in normal use.

15 Durability



The product is formed from materials shown to be durable and, protected within the cavity, will not suffer significant degradation. The product will last the normal expected life of a building. Visible components will have an expected life similar to a PVC-U window.

Installation

16 General

16.1 Installation of the Anglian Interceptor MK III Cavity Closer and Frame Acceptor must be carried out in accordance with the *Anglian Interceptor MK III Cavity Closer Installation Guide*.

16.2 Reference should be made to the typical installation details shown in Figures 3, 4, 5 and 6, when reading the installation details given in section 17. The windows and doors in these figures are shown for information only and do not form part of this assessment.

16.3 At the build-in stage it must be ensured that the cavity frame remains plumb, level, square and with parallel sides.

Figure 5 Sill details

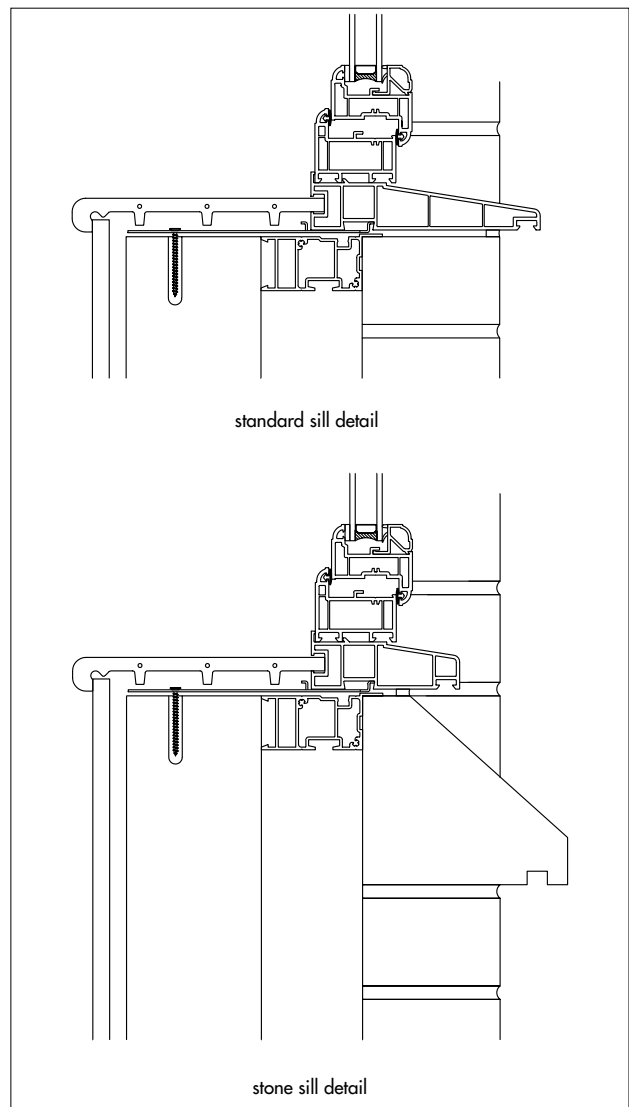
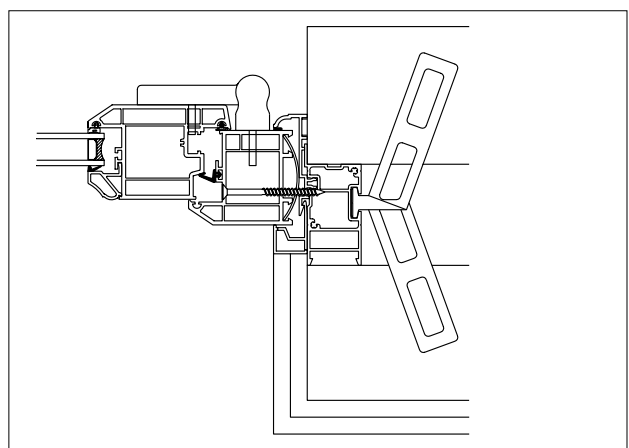


Figure 6 Door reveal detail



17 Procedure

17.1 The cavity frame is supplied to site as a complete frame with the joints between the jambs and sill sections welded together and head section screwed in place at the head, ready for building into the construction of cavity walls using traditional building methods. In flag frames, the sill is mechanically fixed to the jamb of the door frame.

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17.2 The cavity wall is built to the sill/threshold level, ensuring that the coursework is level, flat, and that all excess mortar is removed.

17.3 The cavity closer frame is positioned in the cavity and temporary timber supports are attached to the closer, if required. The closer frame is aligned with a spirit level and the timber supports are secured so that they are rigid and will keep the frame square and plumb.

17.4 The mortar ties are locked into the channel of the cavity frame jambs and built into the mortar bed joints at 450 mm centres. The ties should be inserted alternately, tying the frame into both inner and outer courses. A minimum of two ties per vertical member is required.

17.5 When the masonry reaches head level the head batten and any bracing support or corner brackets are removed and a lintel, with associated dpc, is fitted across the masonry to butt onto the top of the jamb profiles. The wall construction is continued to complete the aperture.

17.6 The head of the cavity closer is secured to the lintel with screws.

17.7 In all installations the top brick course should be arranged to ensure that, when bedded in, the lintel does not exert a load on the window or door frame.

17.8 The fitting of windows or doors to the cavity frame must be carried out in accordance with the *Anglian Interceptor MK III Cavity Closer Installation Guide*.

17.9 For internal plastering around window and door reveals, the use of dry lining is recommended.

17.10 Finishing trims are fitted after completion of the window or door installation, where required.

17.11 The window is weather-proofed, using a suitable low-modulus silicone sealant.

Technical Investigations

The following is a summary of the technical investigations carried out on the Anglian Interceptor MK III Cavity Closer and Frame Acceptor.

18 Tests

18.1 Tests were carried out to determine the following:

- *PVC-U extrusions, made from reground material*
 - shrinkage on heating
 - resistance of PVC-U sections to cracking in acetone
 - gelation by heating
 - tensile impact
- *mortar ties*
 - stress relief of polypropylene injection moulded brick tie.

18.2 Tests were carried out in accordance with the methods defined in MOAT No 1 : 1974, on a combined cavity closer frame and PVC-U window, installed in a test rig, to determine:

- air permeability
- effect of cyclic wind loads to ± 1250 Pa
- effect of temperature variation (-5°C to 55°C) on resistance to wind loading
- resistance to wind loads of 3000 Pa at a temperature of -5°C (safety test).

19 Investigations

An assessment was made of:

- durability of the components used in the construction of the product
- weathertightness of the product when installed in accordance with the manufacturer's instructions
- fire resistance and structural stability of walls incorporating the cavity closer
- hygrothermal properties of constructions incorporating the product. In making this assessment, reference was made, as appropriate, to the 'Robust Construction Details'⁽¹⁾, BRE Report BR262 : 2002 *Thermal Insulation : Avoiding risks* and BRE Information Paper IP 12/94 *Assessing condensation risk and heat loss at thermal bridges around openings*
- the manufacture and quality control of the extruded profiles and cavity closer frame production.

(1) *Limiting thermal bridging and air leakage : Robust construction details for dwellings and similar buildings.* TSO 2002.

Bibliography

BS 5628-3 : 2001 *Code of practice for use of masonry — Materials and components, design and workmanship*

MOAT No 1 : 1974 *Directive for the Assessment of Windows*

MOAT No 17 : 1990 *UEAtc Technical Guide for the Agrément of windows in PVC-U*

Conditions of Certification

20 Conditions

20.1 This Certificate:

- (a) relates only to the product that is named, described, installed, used and maintained as set out in this Certificate;
- (b) is granted only to the company, firm or person identified on the front cover — no other company, firm or person may hold or claim any entitlement to this Certificate;
- (c) is valid only within the UK;
- (d) has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective;
- (e) is copyright of the BBA;
- (f) is subject to English law.

20.2 References in this Certificate to any Act of Parliament, Regulation made thereunder, Directive or Regulation of the European Union, Statutory Instrument, Code of Practice, British Standard, manufacturers' instructions or similar publication, are references to such publication in the form in which it was current at the date of this Certificate.

20.3 This Certificate will remain valid for an unlimited period provided that the product and the manufacture and/or fabrication including all related and relevant processes thereof:

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;

(b) continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine; and

(c) are reviewed by the BBA as and when it considers appropriate.

20.4 In granting this Certificate, the BBA is not responsible for:

- (a) the presence or absence of any patent, intellectual property or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the actual works in which the product is installed, used and maintained, including the nature, design, methods and workmanship of such works.

20.5 Any recommendations relating to the use or installation of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date of this Certificate or in the future; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any present or future statutory, common law or other duty of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the installation and use of this product.



In the opinion of the British Board of Agrément, the Anglian Interceptor MK III Cavity Closer and Frame Acceptor is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 05/4223 is accordingly awarded to Anglian Windows Ltd.

On behalf of the British Board of Agrément

Date of issue: 11th July 2005

A handwritten signature in black ink, appearing to read 'G. A. Cooper', is written over a white background.

Chief Executive